

**DELHI CHARTER TOWNSHIP  
COMMITTEE OF THE WHOLE MEETING HELD ON MARCH 3, 2009**

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The members of the Delhi Charter Township Committee of the Whole met on Tuesday, March 3, 2009, in the Multipurpose Room at the Community Services Center, 2074 Aurelius Road, Holt, MI. Supervisor Goodrich called the meeting to order at 6:30 p.m.

Members Present: Supervisor Stuart Goodrich, Clerk Evan Hope, Treasurer Harry Ammon, Trustees Derek Bajema, John Hayhoe, Jerry Ketchum, Roy Sweet

Others Present: John Elsinga, Township Manager  
Rick Royston, Fire Chief  
Sandra Diorka, Director of Public Services  
Wendy Thielen, Assistant Township Manager of Human Resources  
Sandy Gleason, Records Coordinator

**BUSINESS**

**PROPOSAL FOR LIFT STATION D AND McCUE ROAD CORRIDOR INFRASTRUCTURE IMPROVEMENTS**

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The Board reviewed a memorandum dated February 26, 2009 from Twp. Mgr. Elsinga (ATTACHMENT I).

Bob Farrier, C2AE, stated that at the February 17, 2009 Committee of the Whole meeting a presentation was given highlighting several projects that would be included in the State Revolving Fund (SRF) plan. The highest priority in the plan is the Lift Station D project because 80% of the sanitary sewer that is serviced at the POTW is affected by this project. The current lift station is twenty years old and was designed for the capacity use at that time. The capacity of the lift station has been met. The project overview is to increase the capacity, operation and maintenance of the sewer discharge, to improve vehicular and pedestrian access and safety and to optimize the storm water treatment and discharge that is affected in the area.

C2AE will head the project. The team that has been put together (C2AE; OHM; Hubbell, Roth and Clark (HRC); and SME) includes specialties of different phases of the project. An intense work timeline will be followed to meet any potential funding. The Ingham County Drain Commissioner's Office and the Ingham County Road Commission will also be included to help with meeting this timeline.

Trustee Bajema asked if it is typical to use several engineering firms. Mr. Farrier stated that it is common to use several firms allowing for a more economical and efficient outcome. This project was not put out to bid due to the lack of time to meet the timeline and due to the current relationship with C2AE and HRC and their knowledge of the Township's treatment plant and sanitary sewer system. It was stated that the Federal Stimulus Economic Funding Program will run in two phases. It is not intended that this project will be ready for the first round of funding.

The scope of the project was presented to the Board members.

Trustee Ketchum expressed his concern about spending 1.7 million dollars on the design of this project and possibly not receiving the stimulus funding. Twp. Mgr. Elsinga explained that with

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the lift station approaching capacity, the Township will have to go ahead with the project within 4-5 years whether the stimulus funding is received or not. There is a bonding capacity to do this project around the year 2013. In addition, the drain enclosure and improvements can be a component of the overall project that could be considered to be special assessed against the entire drainage district. Regardless of the stimulus funding, this project needs to be accomplished. The plans and specifications will be ready so that when projects come into the community for development, an approximate timeline will be able to be presented to the Michigan Department of Environmental Quality for the enhancement of Lift Station D.

Carla Clos, Ingham County Deputy Drain Commissioner, stated that her office is supportive of the project and will be ready to go if this plan is approved. Bob Peterson, Ingham County Road Commission Engineer, stated that he will be the go-to person from his office for this project.

**DEPARTMENT OF PUBLIC SERVICES – FEBRUARY MONTHLY REPORT**

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The Board reviewed the February Department of Public Services Monthly Report (ATTACHMENT II).

**TOWNSHIP MANAGER’S REPORT**

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Due to the lack of time, the Township Manager’s Report will be given at the March 3, 2009 Board of Trustees meeting.

**ADJOURNMENT**

Meeting adjourned at 7:30 p.m.

Date: \_\_\_\_\_

\_\_\_\_\_  
Evan Hope, Township Clerk

Date: \_\_\_\_\_

\_\_\_\_\_  
Stuart Goodrich, Supervisor

/af

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON MARCH 3, 2009**

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The Delhi Charter Township Board of Trustees met in a regular meeting on Tuesday, March 3, 2009 in the Multipurpose Room at the Community Services Center, 2074 Aurelius Road, Holt, Michigan. Supervisor Goodrich called the meeting to order at 7:30 p.m.

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

Members Present: Supervisor Stuart Goodrich, Treasurer Harry Ammon, Clerk Evan Hope, Trustees Derek Bajema, John Hayhoe, Jerry Ketchum, Roy Sweet

Members Absent: None

Others Present: John Elsinga, Township Manager  
Rick Royston, Fire Chief  
Lt. Brian Ball, Firefighter/Paramedic  
Chris Baldwin, Firefighter/Paramedic  
Matt Wooten, Firefighter/Paramedic  
Mike Yanz, Firefighter/Paramedic  
Sandra Diorka, Director of Public Services  
Wendy Thielen, Assistant Township Manager of Human Resources  
Sandy Gleason, Records Coordinator

**COMMENTS FROM THE PUBLIC** - None

**SET/ADJUST AGENDA**

**HOPE MOVED TO ADD LATE AGENDA ITEM NO. 16 – TOWNSHIP MANGER’S REPORT.**

A Roll Call Vote was recorded as follows:

Ayes: Ketchum, Sweet, Ammon, Bajema, Goodrich, Hayhoe, Hope

**MOTION CARRIED**

**2008 – ANNUAL REPORT – FIRE DEPARTMENT**

Rick Royston, Fire Chief, gave the 2008 Annual Fire Department Report to the Township Board (ATTACHMENT I).

**CONSENT AGENDA**

- A. Approval of Minutes – Committee of the Whole Meeting of February 17, 2009
- B. Approval of Minutes – Regular Meeting of February 17, 2009

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- C. Approval of Claims – February 24, 2009 (ATTACHMENT II)
- D. Approval of Payroll – February 19, 2009 (ATTACHMENT III)

**AMMON MOVED TO APPROVE THE CONSENT AGENDA AS PRESENTED.**

A Roll Call Vote was recorded as follows:

Ayes: Goodrich, Hayhoe, Hope, Ketchum, Sweet, Ammon, Bajema

**MOTION CARRIED**

**NEW BUSINESS**

**PROPOSAL FOR LIFT STATION D AND McCUE ROAD CORRIDOR INFRASTRUCTURE IMPROVEMENTS**

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The Board reviewed a memorandum dated February 26, 2009 from Twp. Mgr. Elsinga (ATTACHMENT IV).

**AMMON MOVED TO APPROVE THE PROPOSAL FROM C2AE FOR LIFT STATION D AND McCUE ROAD CORRIDOR INFRASTRUCTURE IMPROVEMENTS IN THE AMOUNT OF \$429,000 FOR PRELIMINARY DESIGN ENGINEERING, WETLAND DELINEATION AND SOIL BORINGS.**

Trustee Bajema questioned how this proposed improvement fits in with the \$107,500 that was approved at the February 17, 2009 Board of Trustees meeting. Twp. Mgr. Elsinga stated that the Board approved the State Revolving Fund (SRF) Project Planning Model that incorporates any projects that may be included at the treatment plant or collection system over the minimum of five years. The proposed Lift Station D and McCue Road Corridor Infrastructure Improvements is just one of the projects.

Trustee Bajema commented on the stimulus package and stated that he does not think that a project should have design plans done if the project could not be completed in the very near future.

Trustee Hayhoe stated that this project needs to be completed whether or not the Township receives any stimulus money. Treasurer Ammon stated that Lift Station D is at its capacity which limits industrial and commercial business from possibly locating in the Township. Trustee Bajema questioned the future capacity of the lift station in regards to the population of the Township. Twp. Mgr. Elsinga stated that the industrial corridors, which were vacant when the lift station was built, do not represent the population of the Township. In order for the Township to get on the SRF list, which the State of Michigan uses as a funding stream, it has to develop a project plan which was approved at the February 17, 2009 Board of Trustee meeting. Trustee Bajema stated that he does not doubt the project; however, he does not feel that it is a project that may be done in the near future and feels that it could be revisited at a later time.

Trustee Ketchum stated that he is in favor of this project but cautioned not to count on the stimulus money.

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Clerk Hope stated that he feels that the Township should move ahead with this project regardless of the stimulus money. Supervisor Goodrich stated that he is concerned with the unsafe condition of McCue Road.

A Roll Call Vote was recorded as follows:

Ayes: Hayhoe, Hope, Ketchum, Sweet, Ammon, Goodrich

Nay: Bajema

**MOTION CARRIED**

**PROPOSED DELHI TOWNSHIP ORDINANCE NO. 84.6 – PAYMENT OF WATER CONNECTION FEES ON AN INSTALLMENT BASIS, SECOND CONSIDERATION**

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The Board reviewed a memorandum dated February 11, 2009 from Twp. Mgr. Elsinga (ATTACHMENT V).

**SWEET MOVED UPON SECOND CONSIDERATION TO AMEND TOWNSHIP ORDINANCE NO. 84 REGARDING THE STIPULATIONS ASSOCIATED WITH THE PAYMENT OF WATER CONNECTION FEES ON AN INSTALLMENT BASIS (TOWNSHIP ORDINANCE NO. 84.6).**

A Roll Call Vote was recorded as follows:

Ayes: Hope, Ketchum, Sweet, Ammon, Bajema, Goodrich, Hayhoe

**MOTION CARRIED**

**AGREEMENT BETWEEN DELHI CHARTER TOWNSHIP AND INLAND WATERS POLLUTION CONTROL FOR THE SANITARY SEWER TRENCHLESS REHABILITATION PROGRAM**

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The Board reviewed a memorandum dated February 18, 2009 from Twp. Mgr. Elsinga (ATTACHMENT VI).

**HAYHOE MOVED TO APPROVE THE AGREEMENT BETWEEN DELHI CHARTER TOWNSHIP AND INLAND WATERS POLLUTION CONTROL FOR THE SANITARY SEWER TRENCHLESS REHABILITATION PROGRAM IN THE AMOUNT OF \$318,352.**

Sandra Diorka, Director of Public Services, stated that this sanitary sewer and manhole relining project was first presented to the Board in 2008. Ms. Diorka further stated that Inland Waters Pollution Control submitted the lowest bid.

A Roll Call Vote was recorded as follows:

Ayes: Ketchum, Sweet, Ammon, Bajema, Goodrich, Hayhoe, Hope

**MOTION CARRIED**

**RESCHEDULE JUNE 15<sup>TH</sup> BOARD GOALS AND OBJECTIVES MEETING**

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The Board reviewed a memorandum dated February 20, 2009 from Evan Hope, Clerk (ATTACHMENT VII).

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**DELHI CHARTER TOWNSHIP  
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**HOPE MOVED TO RESCHEDULE THE JUNE 15, 2009 BOARD GOALS AND OBJECTIVES MEETING TO TUESDAY, JUNE 9, 2009 AT 6:00 P.M.**

A Roll Call Vote was recorded as follows:

Ayes: Sweet, Ammon, Bajema, Goodrich, Hayhoe, Hope, Ketchum

**MOTION CARRIED**

**DELHI CHARTER TOWNSHIP IDENTITY THEFT PREVENTION PROGRAM**

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The Board reviewed a memorandum dated February 26, 2009 from Harry Ammon, Treasurer (ATTACHMENT VIII).

**AMMON MOVED TO ADOPT THE DELHI CHARTER TOWNSHIP IDENTITY THEFT PREVENTION PROGRAM EFFECTIVE MARCH 3, 2009 IN COMPLIANCE WITH THE FEDERAL TRADE COMMISSION'S RED FLAGS RULE AND THE FAIR AND ACCURATE CREDIT TRANSACTIONS ACT OF 2003.**

Treasurer Ammon stated that the Identity Theft Prevention Program is intended to protect social security numbers and direct debit bank accounts as well as other pertinent information so as to protect against identity theft.

A Roll Call Vote was recorded as follows:

Ayes: Ammon, Bajema, Goodrich, Hayhoe, Hope, Ketchum, Sweet

**MOTION CARRIED**

**2008 AGREEMENT FOR LOCAL ROAD IMPROVEMENTS**

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The Board reviewed a memorandum dated February 25, 2009 from Twp. Mgr. Elsinga (ATTACHMENT IX).

**HAYHOE MOVED TO APPROVE THE ADDITIONAL EXPENDITURE OF \$26,103.93 TO THE INGHAM COUNTY ROAD COMMISSION FOR 2008 LOCAL ROAD IMPROVEMENTS.**

Twp. Mgr. Elsinga stated that when the local road improvements are received from the Ingham County Road Commission, the Board approves the estimated cost of the Township's share of the improvements. Bids were received approximately 10% higher and the actual price came in approximately \$20,000 higher. The Road Commission maximized their betterment contribution and eliminated their 7% contracted administrative observation charges and is asking the Township to make up the difference. The expenditure will come out of the 2009 Budget.

A Roll Call Vote was recorded as follows:

Ayes: Bajema, Goodrich, Hayhoe, Hope, Ketchum, Sweet, Ammon

**MOTION CARRIED**

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**REPORTS**

**SUPERVISOR**

**JOINT MEETINGS**

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Supervisor Goodrich stated that a joint Board of Trustees / Planning Commission meeting will be held on April 7<sup>th</sup> at 6:00 p.m. and a joint Board of Trustees / DDA Board meeting will be held on June 2<sup>nd</sup> in the Multipurpose Room.

**INGHAM COUNTY LAW ENFORCEMENT COMMITTEE**

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Supervisor Goodrich stated that last week he attended a meeting with the Ingham County Law Enforcement Committee. Discussion was held on their budget and the reduction in the amount of money they will be receiving for out-county patrol. Sheriff Wriggelsworth was present at the meeting and asked that a County-wide millage not be proposed. Supervisor Goodrich stated that the Delhi Township Board of Trustees would be in favor of a County-wide safety millage.

**HOLT EDUCATION FOUNDATION**

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Supervisor Goodrich stated that the Holt Education Foundation will be recognizing John Hayhoe as Outstanding Community Member and Roy Sweet as Outstanding Alumnus on March 31, 2009.

**TREASURER**

**STATE REVENUE SHARING**

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Treasurer Ammon stated that the Township received \$259,597 for its constitutional revenue sharing and \$44,701 for its statutory revenue sharing; this is an approximate \$6,000 shortfall.

**TOWNSHIP MANAGER REPORT**

Twp. Mgr. Elsinga stated that assessment notices were re-sent because of a wrong multiplier listed on the notice. Twp. Mgr. Elsinga stated that the Michigan Townships Association, the Michigan Municipal League and others are soliciting communities with significant electric bills to encourage them to contribute to a lawsuit against Consumers Energy asking them to change rates back to municipal from commercial. Twp. Mgr. Elsinga stated that he attended a Capital Area District Library (CADL) Board meeting where the Board requested information from the districts that participate in CADL on what the Board could do to serve them better. Twp. Mgr. Elsinga stated that he would be recommending operational millages in 2010 and asked that CADL not put a capital building plan on the ballot in 2010 (an operating millage will be looked at in 2009 by CADL).

**LIMITED PUBLIC COMMENTS** - None

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MINUTES OF REGULAR MEETING HELD ON MARCH 3, 2009**

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**ADJOURNMENT**

Meeting adjourned at 8:47 p.m.

**FYI**

1. Letter dated February 22, 2009 from Lynn R. Harvey re: the Michigan Award of Financial Planning that was received by the Township.

Date: \_\_\_\_\_

\_\_\_\_\_  
Evan Hope, Township Clerk

Date: \_\_\_\_\_

\_\_\_\_\_  
Stuart Goodrich, Supervisor

/af

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** February 26, 2009

**RE:** Lift Station D and McCue Road Corridor Infrastructure Improvements

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Enclosed for your review and approval is a proposal for engineering services provided by C2AE for Lift Station D and McCue Road Corridor Infrastructure Improvements in the amount of \$429,100 (\$324,000 for Preliminary Design Engineering, \$8,000 for Wetland Delineation Sub-consultant and \$97,100 for Geotechnical Sub-consultant – Soil Borings).

As you know, Lift Station D was installed in 1991 replacing two old pump stations from the 1960's and 70's and installed deep enough to serve most of the eastern one-third of the Township. Since then, our Township has grown significantly in that area and the time has come where we need to plan for and construct the final build out capacity of this lift station. This would include the installation of additional pumps along with a new force main from the pump station at Aurelius Road to Eifert Road. Then we would need to install a new gravity sewer within the McCue Road right-of-way (to receive the discharge from both the old 16" and new proposed 16" force mains) from Eifert Road to the POTW.

The scope of the project creates the opportunity for us to rebuild McCue Road with its hazardous ditch into a safe urban roadway with an enclosed ditch receiving stormwater treatment at the end on POTW property. The size and scope of this project would require funding from several sources which could include the current economic stimulus package just approved by Congress. In preparation of those funds, I am recommending the Board authorize the expenditure up to \$429,000 for preliminary engineering in order to determine the most cost effective alternative for this project that provides the best outcome for the sanitary sewer, storm sewer and roadway for our residents.

C2AE's proposal includes the costs of two other engineering team members for this project, OHM and Hubbell, Roth & Clark, Inc. All three firms are very experienced with projects of this scope and magnitude, therefore, I recommend approval. Funds are available in the Sewer Fund Capital Improvement budget.

**Recommended Motion:**

**To approve the proposal from C2AE for Lift Station D and McCue Road Corridor Infrastructure Improvements in the amount of \$429,000 for preliminary design engineering, wetland delineation and soil borings.**

Proposal for Engineering Services  
Lift Station D and McCue Road Corridor  
Infrastructure Improvements

Presented to:  
Delhi Charter Township, Michigan

February 11, 2009





Lansing • Gaylord • Grand Rapids

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Lansing, MI 48906

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info@c2ae.com  
www.c2ae.com

February 11, 2009

Mr. John B. Elsinga, Township Manager  
Delhi Charter Township  
2074 North Aurelius Road  
Holt, MI 48842

Re: Proposal for Engineering Services  
Lift Station D and McCue Road Corridor Infrastructure Improvements

Dear Mr. Elsinga:

Pursuant to your request, we are pleased to submit this proposal for design, bidding and construction engineering services for the comprehensive Lift Station D and McCue Road Corridor Infrastructure Improvement program.

We understand the Township is hopeful the federal economic stimulus package will fund some or all the construction costs. As such, current draft legislation suggests that to be eligible, projects must be “shovel ready” within 180 days of the legislation being put into law. Our proposed project team, approach and schedule were developed to meet this requirement.

- C2AE will lead team partners OHM, Hubbell, Roth & Clark, Inc. (HRC) and Soil & Materials Engineers (SME), each having a respective portion of the design and analysis. Teaming provides more resources to readily complete parallel design and permitting efforts within the required timeframe, all coordinated through our vast knowledge of the Township’s collection system and staff requirements.
- Considering the strong working relationship each team partner has with the jurisdictional agencies associated with their portion of the work, the overall program should receive more comprehensive regulatory support earlier in the project. This is important to increasing the Township’s potential to receive stimulus funding.
- Should stimulus funding not be granted, our approach of parallel analysis and design efforts by various team partners capitalizes on the potential of tapping into each firm’s network of alternate funding programs. We will investigate early the potential to separate and phase projects to best meet eligibility requirements of alternative funding sources. This provides a greater opportunity to implement these much needed improvements in a cost structure most advantageous to the Township.

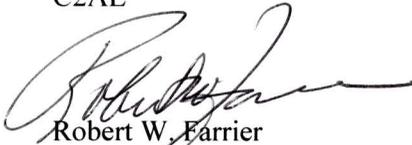
We have provided a detailed project description, scope of services and the anticipated fee for the work enclosed with this proposal. Our standard contract provisions are also attached and considered a part of this proposal.

Mr. John B. Elsinga  
Page 2  
February 11, 2009

We appreciate the opportunity to submit this proposal for your consideration and are looking forward to working with you on this project. If the terms, as stated in this proposal, are acceptable, please sign both copies, as required, and return one copy to our office. If you have any questions, please contact us. Thank you.

Sincerely,

C2AE



Robert W. Farrier  
Business Unit Leader

SAD/09-0127

ACCEPTED: DELHI CHARTER  
TOWNSHIP, MICHIGAN

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



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IT'S THE PEOPLE

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Hubbell, Roth and Clark Proposal

Soil and Materials Engineers Proposal

## **Need for the Project**

Steady population growth and increased operation and maintenance needs have challenged the Delhi Charter Township sanitary sewer collection system, particularly within the last 5 to 10 years. While many improvements have been made throughout the system, the Township has identified several significant needs at the most downstream end of its system, from Lift Station D downstream to the headworks of the wastewater treatment facility (WWTF).

These needs limit cost-effective system conveyance and treatment capacity, and present hurdles for future economic growth with the Township. The recent promise of federal stimulus funds to address just such infrastructure needs that could promote economic growth has led the Township to pursue a combined program of sanitary sewer, storm water/storm drain and roadway improvements along the McCue Road corridor from Lift Station D to, and including, the WWTF. The Township intends to complete the program design within 180 days of stimulus funding enactment in hopes that construction can be fully or partially funded with federal money.

## **Program Overview**

The overriding goals of the Lift Station D Improvement Program are threefold:

- Increase the capacity and operation/maintenance flexibility of sanitary sewer discharge to the WWTF
- Improve vehicular and pedestrian access and safety to and around the WWTF site
- Optimize the quality of storm water treatment and discharge from the area's watershed storm water runoff

These goals will be accomplished through the design of the following elements.

### **Sewage Lift Station D Rehabilitation**

- *New bar screen chamber* – The proposed screening chamber will consist of a cast-in-place concrete structure constructed in-line within the wet well.
- *Wet well access improvements* – Sewage Lift Station D provides service to a significant portion of the collection system and has experienced excessive buildup of grease in the wet well causing maintenance problems. The existing roof-slab will be replaced to incorporate and provide safe access for cleaning by Township maintenance crews. Permanent vector piping will be extended from the lower wet well level to grade level.
- *Pumping system improvements* – Pumping capacity will be increased through the installation of additional pumps in the north wet well, while also rectifying problems with existing pumps in the south wet well. Various pumping options will be explored with Township staff.
- *Flow metering and pump control improvements* – More current and sophisticated technology will be integrated to accommodate flow and process control.

- *Odor & Corrosion Control* – System upgrades will be incorporated to mitigate working conditions and environmental impacts.

#### New Lift Station D Discharge Force Main and Appurtenances

- *Second force main*– An additional force main is proposed to be constructed from Lift Station D paralleling the route of the existing 16-inch force main. It will extend to the existing force main discharge point at the McCue Road/Eifert Road intersection, a distance of approximately one mile. The second force main offers additional capacity for future growth as well as advantages for operation and maintenance.
- *Cross-connection valves* – Cross-connection valving between the two force mains will be provided at Lift Station D that will allow for either pipe to be utilized during maintenance of the other. Detailed hydraulic analysis of the various pumping conditions will be performed and the results discussed with Township staff to determine desired operation characteristics.
- *Clean-out access stations* – Access points for maintenance will be provided along the cross-country portion of the route of both force mains. Appropriate route, access-point locations and site provisions will be discussed with the Township and incorporated into the design.

#### Replacement of the Existing 21-inch Gravity Sewer to the WWTF

- *New gravity sewer* – Inflow from Hurricane Ike in September confirmed that the existing 21-inch gravity sewer to the WWTF is at capacity. The existing parallel 36-inch sewer is planned to be relined under a separate project, and thus will provide additional capacity to its dedicated service area including provision for future growth. Therefore, replacing the 21-inch sewer with a newly sized gravity line rather than extending the new force main the full distance to the WWTF will allow for future capacity to accommodate its own service area and provide flow control options during maintenance and repairs. Poor soils are known to exist in two locations along the route. These will be investigated for suitable design and construction provisions.

#### Rerouting of the Grovenburg Sewer

- *Modifications of Grovenburg Sewer entrance to the WWTF* – The current entrance had minimal repairs completed during the recent project since a future relocation of the plant head works was planned. Rerouting the Grovenburg Sewer entrance at this point in time is appropriate. Temporary flow diversions can be left in place for the current plant head works.

#### McCue Road Reconstruction and Drain Enclosure

- *Grovenburg and Menger Drain Enclosure* – The combination of the drain proximity to the road surface, poor soils, standing water and related groundwater table limit the ability of sanitary sewer construction. The cost to maintain the existing drain during this construction is cost-prohibitive. Enclosing the drain with accompanying drain/wetland mitigation provided downstream will facilitate construction while also addressing a history of accidents and fatalities.



- *McCue Road Reconstruction* – The extent of sanitary sewer work along the McCue Road corridor will require complete, full-depth reconstruction. The benefits of enclosing the adjacent drain will also allow for the proper relocation and cross-section design of the new McCue Road. The addition of a multi-use path adjacent to the new roadway surface will help to meet mutual Township goals for non-motorized transportation.

#### Storm Water Management and Drain/Wetland Mitigation

- *New storm water management and treatment facility* – A new storm water management facility will be provided at the eastern end of the WWTF site. The facility will manage both the quantity and quality of water discharged from the new drain enclosure. A well-designed pond will meet many objectives: helping to meet USEPA linear wetland mitigation requirements from the drain enclosure; possible sizing to provide future wetland mitigation banking credits; meet NPDES Phase II storm water permit requirements with the provision of interpretative signage, pedestrian pathways, overlooks and water quality sampling points; provide an amenity as a passive park setting.

#### Project Coordination

The Township has preliminarily estimated the construction cost of the Lift Station D Improvement Program to equal approximately \$10,000,000. The complexity of the interrelated design elements combined with the various jurisdictional authorities and the accelerated design schedule to meet possible stimulus funding goals dictated the Township to work with a diverse team of project consultants. Based on the overriding nature of this project as a sanitary sewer collection system improvement program, the Township proposes to contract with C2AE as the primary designer and manager of specialty services provided by each of OHM, Hubbell, Roth & Clark, Inc. (HRC), and Soil & Materials Engineers (SME). Each firm is to provide the following services:

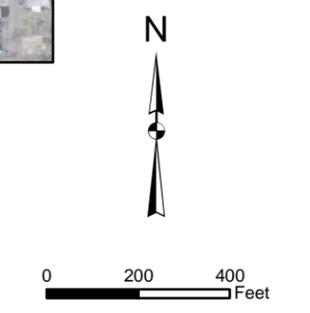
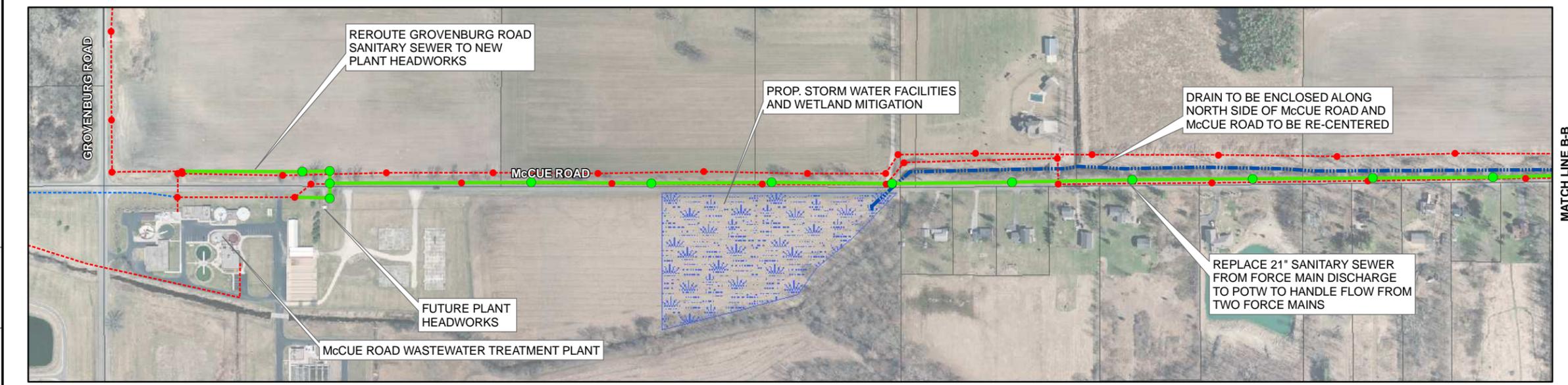
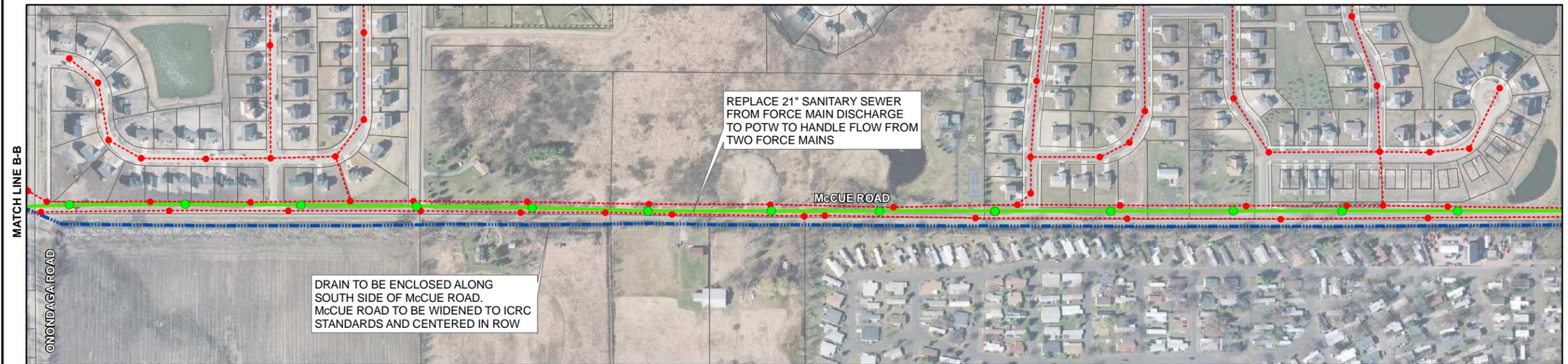
#### Team Roles and Responsibilities

- *C2AE*
  - Program Manager to lead and coordinate sub-consultant design and analysis services
  - Topographic Survey for entire project area/corridor
  - Design, environmental permitting and Resident Project Representative Construction Services for:
    - Sewage Lift Station D Rehabilitation
    - New Lift Station D Discharge Force Main and Appurtenances
    - Replacement of the Existing 21-inch Gravity Sewer to the WWTF
    - Rerouting of the Grovenburg Sewer
  - Resident Project Representative Construction services for the storm water facilities
  - Overall Construction Administration for all program elements
  - Construction staking survey services for sanitary sewer improvements and the storm water facilities
- *OHM*
  - Design, as well as environmental permitting and construction support for:
    - McCue Road Reconstruction and Drain Enclosure
  - Coordination of environmental sub-consultant Niswander Environmental, Inc.

- *HRC*
  - Design, as well as environmental permitting and construction support for:
    - Storm Water Management and Drain/Wetland Mitigation
- *SME*
  - Sub-surface geotechnical investigation and recommendations
  - Construction density and materials testing services

#### Coordinated Phased Approach

- *Team Approach* – The team approach was setup to take advantage of the expertise of each company to expedite project completion.
- *Overlapping permitting and agency interaction* – The number of agencies having regulatory and permitting jurisdiction over the various program elements require C2AE to administer the team partners and sub-consultants work for:
  - Wetland delineation in areas of force main, sanitary sewer, drain enclosure and storm water facility construction
  - Wetland mitigation
  - Meetings and submittals to the Office of the Ingham County Drain Commissioner (ICDC), MDEQ and USPEA
  - Design, construction and traffic routing considerations for McCue Road improvements coordinated with the Ingham County Road Commission (ICRC)
- *Public Relations* – As proven in the Delhi NE and Depot Streets Infrastructure Improvements Project, attention to public relations and coordination with the impacted stakeholders during the implementation of disruptive infrastructure projects is critical to project success. Public meetings, web site postings, mailings, press releases and personal contact with our Resident Project Representatives are all planned.
- *Funding* – The primary intent for funding this project is from the pending federal economic stimulus package. Part of the preliminary design phase effort is to identify the actual funding program(s) and possible alternatives. A detailed preliminary cost opinion will be developed for all project components along with possible break-out for various sources and a prioritized, phased implementation schedule, if appropriate.



**LEGEND**

- - - Ex. Sanitary Sewer
- - - Ex. Force Main
- Ex. Sanitary Manholes
- Ex. Lift Stations
- Prop. Sanitary Sewer
- Prop. Force Main
- Prop. Sanitary Manholes
- - - Prop. Drain to be Enclosed
- Prop. Storm Water Detention

DESIGNED BY: SAA  
 CHECKED BY: SAD

APPROVED BY: RWF  
 DWG'S MOD BY:



**DELHI CHARTER TOWNSHIP  
 LIFT STATION D & McCUE ROAD CORRIDOR  
 INFRASTRUCTURE IMPROVEMENTS**  
 INGHAM COUNTY, MI

**FIGURE 1  
 GENERAL PROJECT LAYOUT**

C2AE proposes to provide the following design, bidding and construction engineering services for Lift Station D and McCue Road Corridor Infrastructure Improvements project:

#### **A. Project Coordination**

The following coordination and management tasks will be provided throughout the course of the entire project:

1. Consultant Team Coordination: Coordinate with HRC, OHM, SME and wetland sub-consultants to provide seamless delivery of engineering services throughout the length of the project.
2. Interim Progress Meetings: Progress meetings will be scheduled with the consultant team and the Township to provide regular updates of the project status and provide a forum for feedback and interaction. Options will be presented and critical elements of the project will be discussed to ensure client involvement with decision making. Meeting minutes will be transcribed and delivered to participants for documentation of decisions and timeline commitments as well as clarification of action items.
3. Progress Reports: C2AE will prepare and distribute written project progress reports to the design team and client by fax, mail or e-mail. Progress reports are typically prepared on a monthly basis and can be timed to be issued immediately prior to municipal staff or Council meetings so that Township staff can report or distribute, as appropriate. Key elements in the report include:
  - Work accomplished in the last reporting period and pending within the next reporting period
  - Estimate of percentage of design/permitting process complete
  - Client's input, directions and/or directives
  - Information needed from client to enable us to meet our obligations
  - Documented communication with the Township regarding key issues

#### **B. Preliminary Design Phase**

1. Client Interview: Meet with the consultant team and the Township to obtain stakeholder input and identify desired outcomes and methods for documentation and tracking throughout the project.
2. Kick-Off Meeting: Meet with the consultant team and Township staff to review the project requirements, scope of services and anticipated schedule for the project. The meeting will also include detailed discussion of desired outcomes and concerns raised during Client Interview. A Project Management Plan will be developed and distributed at the kick-off meeting.
3. Investigation of Existing Information: Site investigations will be performed and existing drawings, data, and background information available from the Township and ICDC will be gathered and reviewed to assist for use in preliminary design.
4. Site Survey: Topographical surveys will be performed at the following locations:
  - a. Lift Station D and Township Maintenance Facility site.
  - b. The cross-country route of the proposed force main to McCue Road.
  - c. The full width of the McCue Road corridor including drain ditch cross sections.

- d. The location of the storm water management facility and the drain through the existing WWTF site.
5. Geotechnical Analysis: Direct our sub-consultant to perform a geotechnical analysis of the site for the proposed lift station improvements, force main, gravity sewers, drain enclosure, road reconstruction, shared use path route. A report containing recommendations for site dewatering and construction recommendations will be provided.
6. Wetlands Delineation: Coordinate with wetlands sub-consultant to delineate wetlands that may be impacted by the project.
7. Utility Coordination: Obtain utility information along the entire route of the proposed project.
8. Drain Office and MDEQ Coordination: Ongoing meetings and communication with the Ingham County Drain Commissioner's office and the MDEQ will be necessary for the work performed by the consultant team.
9. Preliminary Design (Lift Station D): Review previous studies and evaluations of the facility. Review the service district to determine projected wastewater flows. Perform detailed hydraulic analysis and investigate potential pumping system options. Meet with Township staff to discuss options and provide recommendations for pumps and station modifications. Design proposed lift station modifications based on maintenance and operation concerns identified by the Township. Develop preliminary layout of the proposed lift station with the features desired based on input from the Township. A preliminary opinion of probable construction cost will be prepared and submitted to the Township.
10. Preliminary Design (New Force Main): Review the plan for construction of a new force main. Discuss with the Township alternatives related to the hydraulic analysis and operational desires identified in the lift station preliminary design. Prepare plan and profile design of approximately 5,500 feet of force main connecting the lift station with the discharge outlet located at the intersection of McCue Road with Eifert Road.
11. Preliminary Design (Sanitary Sewers): Evaluate alternatives and meet with the Township to discuss recommendations. Prepare plan and profile design of approximately 10,000 feet of gravity sewer connecting to replace the existing 21-inch gravity sewer on McCue and reroute the Grovenburg Road Interceptor sewer to the location of the future WWTF head works. Provisions can be made to divert flows to the existing plant head works until the new plant head works are operational.
12. Preliminary Opinion of Probable Construction Cost: Estimate project quantities and prepare Preliminary Engineer's Opinion of Probable Construction Cost.
13. Road Commission: Meet with Ingham County Road Commission to coordinate project construction, traffic control, and permit requirements.
14. Owner Review: Review the preliminary design with the Township to obtain concurrence before proceeding with final design.

### **C. Final Design Phase**

1. Final Design: Incorporate the Township's comments from the preliminary design review, develop specifications for the proposed work and finalize the plans.
2. Easements: Prepare legal descriptions and drawings for use by the Township Attorney in assembling easement documents required for the project.
3. Michigan Department of Environmental Quality (MDEQ) Wastewater System Construction Permits: Submit basis of design, final plans, specifications, and Permit Application for sanitary system construction to the MDEQ, for review, approval, and permit issuance.
4. Soil Erosion and Sedimentation Control (SESC) Permit: Submit plans and application for the SESC permit through Delhi Charter Township.
5. ICDC Permits: Coordinate with consultant team to submit plans and permit applications for the drain enclosure and utility crossings.
6. ICRC Permit: Coordinate with consultant team to submit plans and permit application for the traffic detour routing and construction within the road right-of-way.
7. MDEQ Joint Permit (Floodplain/Wetlands/Utility Crossing): Coordinate with the consultant team to submit plans and Permit Application for the drain enclosure, utility crossings, work within the floodplain and wetland mitigations along the route of the project.
8. QA/QC: Coordinate with consultant team to provide overall QA/QC of the entire project and ensure seamless delivery of the Contract Documents.
9. Opinion of Probable Construction Cost: Finalize project quantities and prepare Engineer's Opinion of Probable Construction Cost.

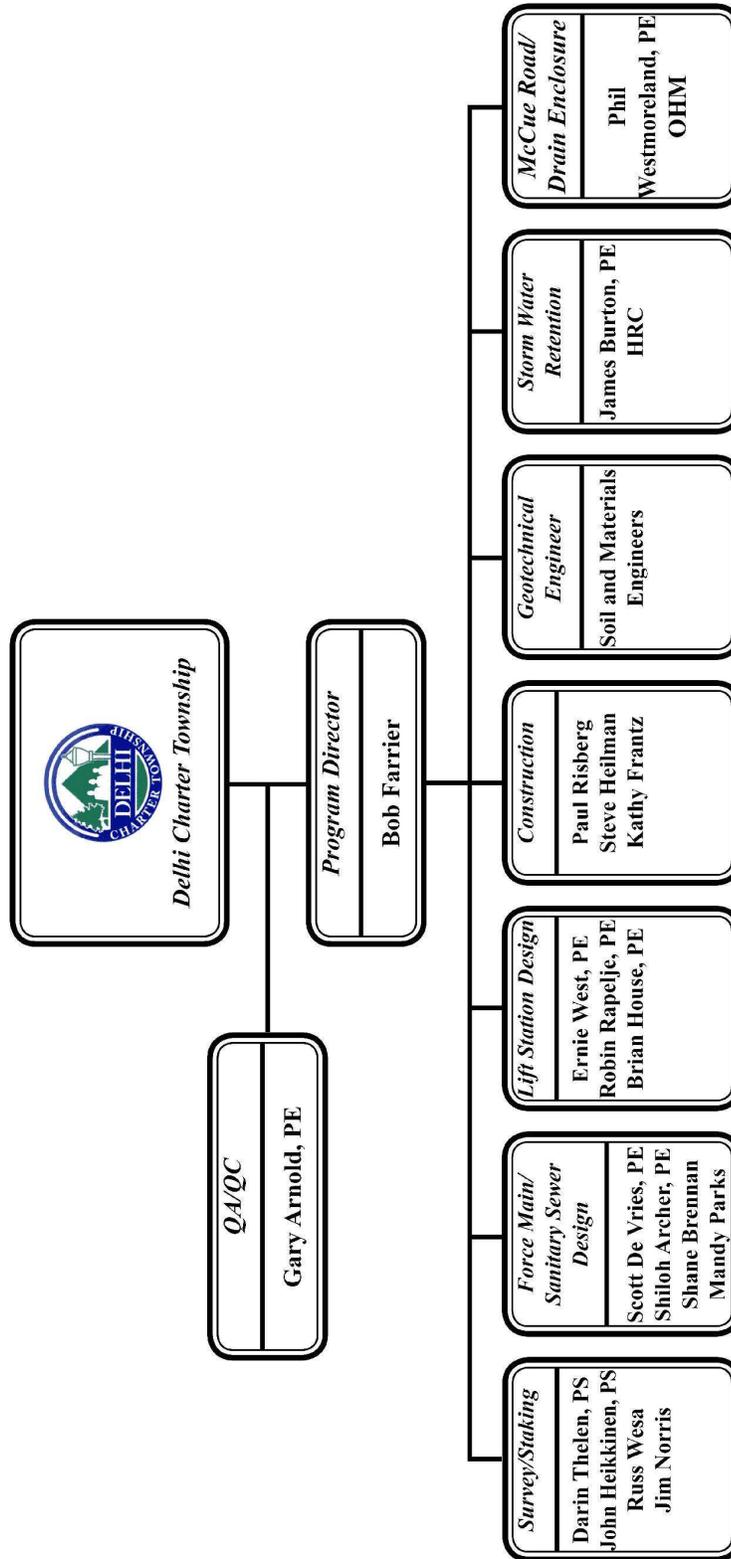
### **D. Bidding Assistance**

1. Advertisement for Bidding: Develop and place an advertisement for bidding of the project in the Michigan Contractor & Builder's construction trade journal.
2. Questions and Clarifications: Coordinate with consultant team to answer questions on the bidding documents from prospective bidders and issue clarifying addendums as needed.
3. Pre-bid Meeting: Schedule and conduct a pre-bid meeting with plan holders to review specific project requirements and answer questions.
4. Bid Opening: Attend and assist the Township in the bid opening. We will prepare a bid tabulation of the bids received at the opening.
5. Recommendation of Award: Prepare a recommendation of contract award for the Township's consideration based on the bids received.

## **E. Construction Engineering**

1. Pre-Construction Meeting: Conduct a preconstruction meeting with the Contractor, Township and other interested parties.
2. Shop Drawing Review: Coordinate with consultant team to review shop drawings of the proposed equipment and materials from the Contractor in accordance with the submittal requirements defined in the project specifications.
3. On-Site Observation: Assign resident observers to the project to monitor Contractor activities. During underground utility and any cast-in-place concrete work, full-time observers will be provided. For above grade piping and structural work associated with the pump station, on-site observation may be reduced to a part-time effort. Sufficient observation will be provided to document compliance with the contract requirements. Daily reports will be prepared giving general observations of the work and indicating quantities completed to date. C2AE will provide resident observation of the work at the lift station, force main, sanitary sewer and storm water management facility. HRC will provide limited resident observation support to C2AE for the storm water management facility. OHM will provide resident observation during construction of the drain enclosure, shared use pathway, and McCue Road reconstruction.
4. Progress Meetings: Conduct progress meetings with the consultant team, Contractor, Township and other interested parties on an as needed basis as the project is progressing.
5. Construction Staking: Provide baseline staking for the proposed improvements for the Contractor's use in construction.
6. Materials Testing: Coordinate subcontractor density testing of bedding and backfill of the underground work as well concrete testing for all structures and pavement testing.
7. Office Engineering/Contract Administration: Provide office assistance for compliance with the contract documents, shop drawing review, review of estimated progress for payment, and recommendation of progress payments. Maintain such records as are required to document the work. Change orders, requests for information, and bulletins will be processed and prepared as required. C2AE will provide overall Construction Administration with support from HRC and OHM related to their corresponding projects roles.
8. Punch List: Perform pre-final inspection and prepare punch list for the project.
9. Final Inspection: Perform final inspection of the completed project.
10. Startup Assistance: Provide assistance to the Township's personnel for the startup of the new equipment in the lift station.
11. O&M Manual: Develop general operations and maintenance manual for overall operation of the Pine Tree Lift Station. Equipment specific O&M information provided by the Contractor will be incorporated in an electronic version of the O&M Manual.

12. Drawings Conforming to Construction Records: Prepare drawings conforming to construction records at the conclusion of the project for the Township's files.
13. GIS Information: GPS coordinate information of the newly installed facilities will be provided to update the Township's GIS system.



We anticipate the following schedule for the project:

<u>Item</u>	<u>Complete by Date</u>
Project Start/Authorization	March 2, 2009
Preliminary Design	May 30, 2009
Final Design	August 8, 2009
MDEQ Permits Obtained	September 2009
Advertise for Bids	August 2009
Bids Received	September 2009
Start Construction	October 2009
Storm Water Management Facility	May 2010
Anticipated Lift Station Modifications Startup	June 2010
Sanitary Sewer Construction	June 2010
Drain Enclosure Construction	August 2010
McCue Road & Pathway Construction	October 2010
Finish Construction	November 2010

We propose to provide the services, as outlined herein, in accordance with the following:

<u>Service</u>	<u>Fee Basis</u>	<u>Fee/Budget</u>
Preliminary Design Engineering	Lump Sum	\$ 324,000
Final Design Engineering	Lump Sum	276,600
Bidding Assistance	Lump Sum	16,400
Construction Engineering	Time & Material	<u>943,900</u>
Subtotal		\$1,560,900*
Permit Fee Allowance	Time & Material, Est.	\$ 15,000
Wetland Delineation Sub-consultant	Time & Material, Est.	\$ 8,000
Geotechnical Sub-consultant (Soil Borings)	Time & Material, Est.	\$97,100
Geotechnical Sub-consultant (Const. Testing)	Time & Material, Est.	<u>\$30,000</u>
Total Budget		\$1,711,000

\*Total budget includes Sub-consultant fees of \$98,000 for HRC and \$269,500 for OHM with a nominal two percent fee for coordination

Invoices for services will be forwarded on a monthly basis, reflecting the level of work completed and are due upon receipt.

The Permit Allowance is based on anticipated permit fees for river crossing/floodplain/wetlands permitting.

**Confidential**

<u>Classification</u>	<u>Hourly Billing Rate</u>
Engineer/Architect IX	\$165.00 - \$193.00
Engineer/Architect VIII	\$149.00 - \$193.00
Engineer/Architect VII	\$125.00 - \$183.00
Engineer/Architect VI	\$107.00 - \$163.00
Engineer/Architect/Landscape Architect V	\$94.00 - \$143.00
Engineer/Architect/Landscape Architect IV, Technician VIII	\$84.00 - \$118.00
Engineer/Architect/Landscape Architect III, Technician VII	\$73.00 - \$104.00
Engineer/Architect/Landscape Architect I & II, Technician VI	\$64.00 - \$91.00
Technician V, Administrative V	\$58.00 - \$82.00
Technician IV, Administrative IV	\$49.00 - \$72.00
Technician III, Administrative III/Clerical III	\$43.00 - \$62.00
Technician II, Administrative II/Clerical II	\$37.00 - \$53.00
Technician I, Administrative I/Clerical I	\$33.00 - \$47.00
Engineer/Clerical Aide	\$33.00 - \$47.00
Two-Person Survey Crew	\$176.00 - \$205.00
One-Person Survey Crew	\$89.00 - \$103.00
Information Technology Manager	\$108.00 - \$163.00
Information Technology Staff, Web Developer	\$85.00 - \$118.00
Interior Designer	\$73.00 - \$98.00

- (1) The foregoing rates include employee fringe benefits, computer time, overhead, other indirect costs and profit. Legal proceedings, including but not limited to case preparation, depositions, interrogatories, court appearances, will be billed at the above hourly rates plus ten percent.
- (2) Rates are effective through December 31, 2009.
- (3) Expenses will be invoiced at cost plus a ten (10) percent administrative fee. Mileage will be billed at the IRS allowable rate; the current rate is \$0.55 per mile for project related mileage.
- (4) All invoices are due upon receipt.
- (5) The information contained herein is confidential and is not to be duplicated, used or disclosed in whole or in part, for any purpose other than for which it has been submitted. Duplication, use or disclosure will be permitted only by authorization of one of the firm's principals.

The parties to this agreement, C2AE, Lansing, Gaylord, and Grand Rapids, Michigan, hereinafter called the A|E CONSULTANT and Delhi Charter Township, Holt, Michigan, hereinafter called the OWNER, hereby agree to the following conditions:

- A. Limit of Scope: The services provided by the A|E CONSULTANT shall be limited to those described in the Scope of Services.
- B. Changed Conditions: If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the A|E CONSULTANT are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks or other material terms of this Agreement, the A|E CONSULTANT may call for renegotiation of appropriate portions of this Agreement. The A|E CONSULTANT shall notify the OWNER of the changed conditions necessitating renegotiation, and the A|E CONSULTANT and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement.
- C. Additional Services: Additional services not specifically identified in the Scope of Services shall be paid for by the OWNER in addition to the fees previously stated, provided the OWNER authorizes such services in writing. Additional services will be billed monthly as work progresses and invoices are due upon receipt.
- D. Standard of Care: In providing services under this Agreement, the A|E CONSULTANT will endeavor to perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Upon notice to the A|E CONSULTANT and by mutual agreement between the parties, the A|E CONSULTANT will without additional compensation, correct those services not meeting such a standard.
- E. ADA Compliance: The Americans with Disabilities Act (ADA) provides that alterations to a facility must be made in such a manner that, to the maximum extent feasible, the altered portions of the facility are readily accessible to persons with disabilities. The OWNER acknowledges that the requirement of the ADA will be subject to various and possibly contradictory interpretations. The A|E CONSULTANT, therefore, will use its reasonable professional efforts and judgment to interpret applicable ADA requirements and other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project. The A|E CONSULTANT, however, cannot and does not warrant or guarantee that the OWNER's project will comply with all interpretations of the ADA requirements and/or the requirements of other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project.
- F. Code Compliance: The A|E CONSULTANT shall put forth reasonable professional efforts to comply with applicable laws, codes and regulations in effect as of the date of submission to building authorities. Design changes made necessary by newly enacted laws, codes and regulations after this date shall entitle the A|E CONSULTANT to a reasonable adjustment in the schedule and additional compensation in accordance with the Additional Services provision of this Agreement.
- G. Permits and Approvals: The A|E CONSULTANT shall assist the OWNER in applying for those permits and approvals normally required by law for projects similar to the one for which the A|E CONSULTANT's services are being engaged. This assistance shall consist of completing and submitting forms to the appropriate regulatory agencies having jurisdiction over the construction

documents, and other services normally provided by the A|E CONSULTANT and included in the scope of Basic Services of this Agreement.

- H. Opinions of Probable Construction Cost: In providing opinions of probable construction cost, the OWNER understands that the A|E CONSULTANT has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the A|E CONSULTANT's opinions of probable construction costs are made on the basis of the A|E CONSULTANT's professional judgment and experience. The A|E CONSULTANT makes no warranty, express or implied, that the bids or the negotiated cost of the work will not vary from the A|E CONSULTANT's opinion of probable construction cost.
- I. Schedule for Rendering Services: The A|E CONSULTANT shall prepare and submit for OWNER approval a schedule for the performance of the A|E CONSULTANT's services. This schedule shall include reasonable allowances for review and approval times required by the OWNER, performance of services by the OWNER's consultants, and review and approval times required by public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope, character or size of the project requested by the OWNER, or for delays or other causes beyond the A|E CONSULTANT's reasonable control.
- J. Ownership of Reports, Drawings and Other Materials: The OWNER agrees that all reports, drawings, letters, work sheets, plans, preliminary material tables, supportive data, documents and other materials produced by the A|E CONSULTANT in the course of and for the purpose of meeting this contract are the property of the A|E CONSULTANT, and shall remain in the possession of the A|E CONSULTANT. The OWNER shall have access to the above named material during normal business hours of the A|E CONSULTANT during and after completion of this contract. The OWNER may obtain copies of any of the above named material. Copies of electronic media may be obtained by the OWNER. (See Alteration and Reuse of CAD Information provision of this Agreement.)
- K. Alteration and Reuse of CAD Information: Because computer aided design/drafting (CAD) information stored in electronic form can be modified by other parties, intentionally or otherwise, without notice or indication of said modifications, the A|E CONSULTANT reserves the right to remove all indications of its ownership and/or involvement in the material from each electronic medium not held in its possession. The OWNER may retain copies of the work performed by the A|E CONSULTANT in CAD form. Copies shall be for information and used by the OWNER for the specific purpose for which the A|E CONSULTANT was engaged. Said material shall not be used by the OWNER, or transferred to any other party, for use in other projects, additions to the current project, or any other purpose for which the material was not strictly intended without the A|E CONSULTANT's express written permission. Any unauthorized modification or reuse of the materials shall be at the OWNER's sole risk, and the OWNER agrees to defend, indemnify, and hold the A|E CONSULTANT harmless, from all claims, injuries, damages, losses, expenses, and attorneys fees arising out of the unauthorized modification of these materials.
- L. Record Documents: Upon completion of the work, the A|E CONSULTANT shall compile for and deliver to the OWNER a reproducible set of Record Documents based upon the marked-up record drawings, addenda, change orders and other data furnished by the Contractor. These Record Documents will show significant changes made during construction. Because these Record Documents are based on unverified information provided by other parties, which the A|E

CONSULTANT shall assume will be reliable, the A|E CONSULTANT cannot and does not warrant their accuracy.

- M. Payment Terms: Invoices will be submitted by the A|E CONSULTANT monthly, are due upon receipt and shall be considered past due if not paid within thirty (30) calendar days of the due date.
- N. Disputed Invoices: If the OWNER objects to any portion of an invoice, the OWNER shall so notify the A|E CONSULTANT in writing within ten (10) calendar days of receipt of the invoice. The OWNER shall identify in writing the specific cause of the disagreement and the amount in dispute and shall pay that portion of the invoice not in dispute in accordance with other payment terms of this Agreement. Any dispute over invoiced amounts due which cannot be resolved within ten (10) calendar days after receipt of invoice by direct negotiation between the parties shall be resolved within thirty (30) calendar days in accordance with the Dispute Resolution provision of this Agreement. Interest at one-and-one-half (1.5) percent (or the maximum rate allowable by law, whichever is less) shall be paid by the OWNER on all disputed invoice amounts that are subsequently resolved in the A|E CONSULTANT's favor and shall be calculated on the unpaid balance from the due date of the invoice.
- O. Abandonment of Work: If any work is abandoned or suspended, the A|E CONSULTANT shall be paid for services performed prior to receipt of written notice from the OWNER of abandonment or suspension.
- P. Errors and Omissions Insurance: The A|E CONSULTANT maintains an errors and omissions insurance policy as part of normal business practice. The OWNER agrees to limit the A|E CONSULTANT's liability to the OWNER and to all Construction Contractors and Subcontractors on the project due to the A|E CONSULTANT's negligent acts, errors, or omissions, such that the total aggregate liability of the A|E CONSULTANT to all those named shall not exceed C2AE limits of insurance coverage.
- Q. Betterment: If, due to the A|E CONSULTANT's negligence, a required item or component of the project is omitted from the A|E CONSULTANT's construction documents, the A|E CONSULTANT shall not be responsible for paying the cost required to add such item or component to the extent that such item or component would have been required and included in the original construction documents. In no event will the A|E CONSULTANT be responsible for any cost or expense that provides betterment or upgrades or enhances the value of the project.
- R. Indemnification: The A|E CONSULTANT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the OWNER, its officers, directors and employees (collectively, OWNER) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the A|E CONSULTANT's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the A|E CONSULTANT is legally liable.

The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the A|E CONSULTANT, its officers, directors, employees and subconsultants (collectively, A|E CONSULTANT) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the OWNER's negligent acts in connection with the project and the acts of its contractors, subcontractors or consultants or anyone for whom the OWNER is legally liable.

Neither the OWNER nor the A|E CONSULTANT shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

- S. Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the A|E CONSULTANT, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both the OWNER and the A|E CONSULTANT shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.
- T. Full-Time Construction Observation: The A|E CONSULTANT will provide full-time project representation in order to observe the progress and quality of the work completed by the Contractor. Such observation is not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather is to allow the A|E CONSULTANT, as an experienced professional, to become generally familiar with the work in progress and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

The A|E CONSULTANT shall keep the OWNER informed about the progress of the work and shall endeavor to guard the OWNER against deficiencies in the work.

The A|E CONSULTANT shall not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor in accordance with the Contract Documents.

The A|E CONSULTANT shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the work, or any agents or employees of any of them. The A|E CONSULTANT does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

- U. Part-Time Construction Observation: The A|E CONSULTANT shall visit the site at intervals appropriate to the stage of construction, or as otherwise agreed to in writing by the OWNER and the A|E CONSULTANT, in order to observe the progress and quality of the work completed by the Contractor. Such visits and observation are not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather are to allow the A|E CONSULTANT, as an experienced professional, to become generally familiar with the work in progress and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

Based on this general observation, the A|E CONSULTANT shall keep the OWNER informed about the progress of the work and shall endeavor to guard the OWNER against deficiencies in the work.

The A|E CONSULTANT shall not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor in accordance with the Contract Documents.

The A|E CONSULTANT shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the work, or any agents or employees of any of them. The A|E CONSULTANT does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

- V. Jobsite Safety: Neither the professional activities of the A|E CONSULTANT, nor the presence of the A|E CONSULTANT or its employees and subconsultants at a construction/project site, shall relieve the General Contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the work in accordance with the Contract Documents and any health or safety precautions required by any regulatory agencies. The A|E CONSULTANT and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The OWNER agrees that the General Contractor shall be solely responsible for jobsite safety, and warrants that this intent shall be carried out in the OWNER's contract with the General Contractor. The OWNER also agrees that the OWNER, the A|E CONSULTANT and the A|E CONSULTANT's subconsultants shall be indemnified by the General Contractor and shall be made additional insureds under the General Contractor's policies of general liability insurance.
- W. Hazardous Materials: As used in this Agreement, the term *hazardous materials* shall mean any substances, including but not limited to asbestos, toxic or hazardous waste, PCBs, combustible gases and materials, petroleum or radioactive materials (as each of these is defined in applicable federal statutes) or any other substances under any conditions and in such quantities as would pose a substantial danger to persons or property exposed to such substances at or near the project site.

Both parties acknowledge that the A|E CONSULTANT's Scope of Services does not include any services related to the presence of any hazardous or toxic materials. In the event the A|E CONSULTANT or any other party encounters any hazardous or toxic materials, or should it become known to the A|E CONSULTANT that such materials may be present on or about the jobsite or any adjacent areas that may affect the performance of the A|E CONSULTANT's services, the A|E CONSULTANT may, at its option and without liability for consequential or any other damages, suspend performance of its services under this Agreement until the OWNER retains appropriate consultants or contractors to identify and abate or remove the hazardous or toxic materials and warrants that the jobsite is in full compliance with all applicable laws and regulations.

The OWNER agrees, notwithstanding any other provision of this Agreement, to the fullest extent permitted by law, to indemnify and hold harmless the A|E CONSULTANT, its officers, partners, employees and consultants (collectively, A|E CONSULTANT) from and against any and all claims, suits, demands, liabilities, losses, damages or costs, including reasonable attorneys' fees and defense costs arising out of or in any way connected with the detection, presence, handling, removal, abatement, or disposal of any asbestos or hazardous or toxic substances, products or materials that exist on, about or adjacent to the project site, whether liability arises under breach of

contract or warranty, tort, including negligence, strict liability or statutory liability or any other cause of action, except for the sole negligence or willful misconduct of the A|E CONSULTANT.

- X. Change Orders/Stop Work Orders: The A|E CONSULTANT and the OWNER agree that any construction contract change orders or stop work orders must be approved in writing by the OWNER.
- Y. Agreement Not to Claim for Cost of Certain Change Orders: The OWNER recognizes and expects that certain Change Orders may be required to be issued as the result in whole or part of imprecision, incompleteness, errors, omissions, ambiguities, or inconsistencies in the Drawings, Specifications and other design documentation furnished by the A|E CONSULTANT or in the other professional services performed or furnished by the A|E CONSULTANT under this Agreement whether caused by professional negligence or by imperfections that are within professional standards (“Covered Change Orders”). Accordingly, the OWNER agrees not to sue and otherwise to make no claim directly or indirectly against the A|E CONSULTANT on the basis of professional negligence, breach of contract or otherwise with respect to the costs of approved Covered Change Orders unless the costs of such approved Covered Change Orders exceed 5% of Construction Cost, and then only for an amount in excess of such percentage. Any responsibility of the A|E CONSULTANT for the costs of Covered Change Orders in excess of such percentage will be determined on the basis of applicable contractual obligations and professional liability standards. For purposes of this paragraph, the cost of Covered Change Orders will not include any costs that the OWNER would have incurred if the Covered Change Order work had been included originally in the Contract Documents without any imprecision, incompleteness, error, omission, ambiguity, or inconsistency in the Drawings, Specifications and other design documents furnished by the A|E CONSULTANT or in the A|E CONSULTANT’s other professional services related thereto. Nothing in this provision creates a presumption that, or changes the professional liability standard for determining if, the A|E CONSULTANT is liable for the cost of Covered Change Orders in excess of the percentage of Construction Cost stated above or for any other Change Order.
- Z. Dispute Resolution: The OWNER agrees that all claims, disputes, and other matters in question between the parties arising out of or relating to this Agreement or breach thereof first shall be submitted for nonbinding mediation to any one of the following, as agreed to by the parties: American Arbitration Association, American Intermediation Service, Americord, Dispute Resolution, Inc., Endispute, or Judicate. Any party hereto may initiate mediation within the time allowed for filing for arbitration as set forth below and the parties hereto agree to fully cooperate and participate in good faith to resolve the dispute(s). The cost of mediation shall be shared equally by the parties hereto. Any time expended in mediation shall not be included in calculating the time for filing arbitration.

If mediation fails to resolve the claim or dispute, the matter shall be submitted to arbitration with the American Arbitration Association under the Construction Industry rules, unless the parties agree otherwise or unless a plaintiff not a party hereto institutes litigation in a court of competent jurisdiction and said court takes personal jurisdiction over one of the parties hereto regarding the same subject matter as in dispute between the parties hereto.

No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder, or in any other manner, any additional person not a party to this Agreement except by written consent of the parties and such consent to arbitration involving an additional person(s) shall not constitute consent to arbitration of any dispute not described therein. This Agreement to arbitrate

and any agreement to arbitrate with an additional person(s) shall be specifically enforceable under the prevailing arbitration law.

The demand for arbitration shall be made within one (1) year of the date the claimant knew or should have known of the existence of the claim, dispute, or other matter. If the demand for arbitration is not effectuated within one (1) year, the claim, dispute, or other matter shall be forever barred and not mandatory.

The decision rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. In the event either party makes a claim or brings action against the other party for any act arising out of the performance of the services hereunder, and the claimant fails to prove such claim or action, then the claimant shall pay all legal and other costs (including attorneys' fees) incurred by the other party in defense of such claim or action.



**HUBBELL, ROTH & CLARK, INC**  
**Consulting Engineers**

**Principals**  
George E. Hubbell  
Thomas E. Biehl  
Walter H. Alix  
Peter T. Roth  
Michael D. Waring  
Keith D. McCormack  
Curt A. Christeson  
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Daniel W. Mitchell  
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Robert F. DeFrain  
Marshall J. Grazioli  
Thomas D. LaCross

February 10, 2009

C2AE  
725 Prudden Street  
Lansing, Michigan 48906

Attn: Mr. Robert W. Farrier, Director

Re: Proposal for Professional Engineering and Environmental Services      HRC Job No. 20090091  
McCue Road Storm Water Management Plan

Dear Mr. Farrier

Hubbell, Roth & Clark, Inc. (HRC) thanks you for the opportunity to present C2AE and the Charter Township of Delhi with this proposal to provide engineering and environmental services for the above referenced project. In this proposal, we have identified anticipated work tasks, along with ideas and strategies (Ideas for Consideration) that will provide the C2AE and the Township with an understanding of HRC's action plan for implementing the project successfully.

HRC is looking forward to working with C2AE and OHM to provide a team approach to solving the unique set of issues associated with the McCue Road and Lift Station D improvements. Innovative efforts to complete the scope of this assignment will be needed. It is our understanding that all Lift Station D, utility, road way, and drain enclosure engineering tasks will be performed by either C2AE or OHM. HRC's role consists of designing storm water management facilities to offset volume, habitat, and water quality losses associated with the drain enclosure. These facilities will be located on the POTW-WWTP site. We have identified the following design conditions for this task:

- The design will need to meet the requirements of the Ingham County Drain Commissioner, the Michigan Department of Environmental Quality, and the Environmental Protection Agency Region V.
- The proposed facility must fit within the property limits without impacting future plant expansion areas.
- Flows, floodplain elevations, and the stability of the water course through the property must remain similar to existing to avoid impacts to the existing and future facilities.
- Ownership, easements, and maintenance responsibilities for the facility must be negotiated to protect the long term interests and viability of the site for its intended use.
- Reoccurring or frequent maintenance costs need to be minimal.
- Maintenance needs should be easily addressed using current Township staff and equipment.
- To meet regulatory requirements, stream (drain) restoration, constructed wetland area(s), or a combination of both may be necessary to achieve the requisite amount of mitigation for the drain enclosure impacts.

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801 Broadway NW, Suite 215  
Grand Rapids, Michigan 49504  
**Telephone** 616 454 4286 **Fax** 616 454 4278  
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**Engineering. Environment. Excellence.**

## **IDEAS FOR CONSIDERATION**

HRC has carefully considered this project and offer these ideas as possible areas for economy or enhancement of the desired project outcomes.

- Once the minimum area needed to mitigate for the drain enclosure is known and a storm water management facility layout determined, it may be advantageous to maximize the area for use as mitigation credits on future Township projects that impact streams, drains, or wetlands i.e. local mitigation banking.
- A limited amount of grant monies may be available for the design and construction of the proposed storm water system. HRC will evaluate possible opportunities for your consideration.
- This site may also help the Township fulfill their Phase II Stormwater permit requirements if public education or participation aspects are added into the design such as interpretive signage, pedestrian facilities, overlook areas, water quality sampling stations, etc.
- The proper design of this facility could result in a passive park setting/amenity.

## **HRC EXPERIENCE**

HRC's Environmental Engineering Department (EED) located in our Bloomfield Hills office will manage this project with input and assistance from our Grand Rapids Office staff that are currently working on several assignments at the WWTP. The multi disciplined EED staff has decades of experience collectively and has recently completed several similar projects such as the Abbott Road Reconstruction wetland and stream mitigation basins in East Lansing, the Sylvan Glen golf course stream bank stabilization and drain improvements in Troy, the Sashabaw Drain Regional Stormwater Detention and Wetland Mitigation Bank in Independence Township, and the Randolph Street Intercounty Drain improvements in Novi and Northville.

HRC is also currently assisting the Township in the Cedar Lake alleged pollution matter. During this assignment we have increased our knowledge of the Ingham County Drain Commissioners requirements and believe that we have a good working relationship with their office and consultants that should assist in gathering available information, designing a suitable facility, and permitting the Township project.

The primary contact for this assignment will be Mr. James Burton, P.E. LEED AP, and Manager of our Environmental Engineering Department. Mr. Tom Grant, P.E. will assist with any coordination with the WWTP work and site improvement.

Thomas M. Doran, P.E., Vice President and Principal, will conduct HRC's Client Interview Process where the Township's desired outcomes will be identified, tracked, and measured, and will provide quality review of the work products.

## **CONSTRAINTS**

In the scope of services section below, we provide descriptions for a detailed set of tasks to complete this project. However, there are several issues that could significantly alter the direction of this project and thus the necessary scope of services and engineering costs.

First, it is our understanding that OHM will be designing the roadway and drain enclosure aspects of this project. Their design will influence pipe diameter, velocity, outlet depth, volume of storage mitigation

needed, peak flows, etc. This could alter the size, layout, configuration, etc. of the proposed downstream facility. This will need to be addressed early in the process. To overcome this constraint, we propose to stay involved with the preliminary hydraulic modeling and road design so we are aware of the design issues early. We will also work with OHM and C2AE on setting up a pre application meeting with ICDC and MDEQ to go over all requirements. Finally, HRC will wait to begin final design until these issues are resolved.

Second, EPA has issued stream mitigation requirements for projects such as this where long stretches of drains, creeks, or streams are proposed to be enclosed. However, MDEQ has issued no guidance in this regard. Therefore, we will need to work with both parties to determine a reasonable and acceptable amount of mitigation necessary to offset the drain enclosure. Again, HRC will participate in all local agency meetings, work with the other consultants to attempt to quantify impacts in advance of final design, and will not commit unnecessary resources to complete the design of this until a clear understanding is known.

Third, as mentioned above, the proposed storm water management facility and improvements must fit within the confines of future on site improvements to the WWTP. Since the Township is positioning itself for federal stimulus package monies or at least SRF funding of various infrastructure improvements at the WWTP, the storm water management facility will need to be coordinated with this work to avoid overlap, conflicts, or sequencing issues should funds become available and the Township implements the proposed work. The various HRC teams working on these projects will work together to mesh these projects together.

## **SCOPE OF SERVICES**

Our anticipated scope of services for this project includes the following based on our current understanding of the project.

### *Investigation Phase*

1. Before any work commences, HRC will deploy its Client Interview Process to first identify, and then document, track, and measure the outcomes the Township desires for this project. We consider this an essential element to obtain stakeholder input and to get the project right. C2AE and OHM will also be invited to attend and participate.
2. HRC will meet with the Township and the consultant team to review the scope of services and introduce the project team members. A key element of this project start meeting will be a discussion of the Ideas for Consideration that we have identified, with the first priority of confirming those ideas that merit further investigation.
3. We will review existing information available from the WWTP and Drain office. We will perform site investigations and data/drawing reviews that are necessary to determine the scope and price of options that will be examined.
4. HRC will coordinate with the other consultants to set up a meeting with MDEQ and the ICDC offices to discuss the project, visit the site, and determine necessary parameters.
5. Possible grant funding will explored and reported to the Township for thier consideration.

6. HRC staff will participate in up to four meetings not including the client interview meeting; 1) MDEQ and ICDC, 2) project kickoff with the consultant team, 3) design coordination meeting, and 4) progress meeting with the Township and consultant team at the end of the Investigation Phase.
7. Survey and soil boring needs will be identified and sent to C2AE/OHM for inclusion in your scope of work. Preliminary needs have already been provided to them.
8. We anticipate the following deliverables for the *Investigation Phase*:
  - Client Interview Process documentation
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings including MDEQ and ICDC requirements

#### *Preliminary Design Phase*

1. HRC will work with C2AE and OHM to develop your hydraulic model and gather preliminary design data and create a basis of design for the storm water management facilities.
2. Once the drain enclosure and road plans are developed, at least to first owner review phase, HRC will prepare plans and specification suitable for permitting purposes only and make all necessary applications not covered by either C2AE or OHM. At minimum we will provide input on the permit applications and provide the necessary documentation.
3. HRC will present concept plans and renderings showing the proposed facilities for Township review, input, and approval.
4. HRC staff will participate in up to three meetings including; 1) design coordination meeting, 2) presentation to the Township showing the proposed concept plans, and 3) progress meeting with the Township and consultant team at the end of the Preliminary Design Phase.
9. We anticipate the following deliverables for the *Preliminary Review Phase*
  - Preliminary Basis of Design Report
  - Permit applications or input into permit applications
  - Concept drawings
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

#### *Final Design Phase*

1. HRC will meet with the Township to review and confirm, and modify as necessary, the Basis of Design.
2. HRC will prepare the necessary final plan sheets and specifications to include in the contract documents for the project created by C2AE or OHM.
3. HRC will prepare drawings and information in suitable detail to convey the project to the Township Board or the general public at two (2) informational meetings.
4. HRC will provide the Township and the consultant team with an official record set of the drawings along with a mylar of the cover sheet and/or electronic copies of all plans and specifications to be

included in the documents for distribution to potential bidders and suppliers. HRC will not be reproducing the contractor books.

5. HRC will respond to Contractors' questions and provide information for the Township to issue addenda as required during the bid phase. HRC will review the bids received, participate in any interviews of the three low bidders and assist in preparing a letter recommendation for contract award.
6. HRC staff will participate in up to four meetings including; 1) design coordination meeting, 2) presentation to the Township showing the proposed plans, 3) a general public informational meeting, and 4) progress meeting with the Township and consultant team at the end of the Final Design Phase.
7. We anticipate the following deliverables for the *Final Design Phase*
  - Final Basis of Design Report
  - Contract Drawings and Specifications
  - Minutes from any public informational meetings
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

#### *Construction Phase*

1. It is assumed that C2AE or OHM will be providing full time inspection for this project.
2. HRC will review shop drawings and contractor submittals as necessary for items under our scope of work.
3. Provide field engineering as needed or at mutually agreed frequency. For purposes of this proposal we have based this effort on a four month construction period, at 16 hours per month
4. Review contractor pay requests, change orders, and field changes.
5. Prepare a punch list near construction completion and monitor the contractor's efforts to complete the work.
8. Prepare conforming to construction drawings based on as-built surveys performed by C2Ae or OHM, contractor records, and inspection reports from C2AE or OHM.
9. HRC staff will participate in up to four meetings including; 1) preconstruction conference, 12) monthly progress meetings, and 1) progress meeting with the Township and consultant team at the end of the Construction Phase in addition to field engineering time and punch list inspection
10. We anticipate the following deliverables for the *Construction Phase*
  - Final punch lists and certification of construction
  - Record Drawings and Specifications
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

## BUDGET

The level of uniqueness and complexity of this project, and the absence of a completed hydraulic model defining the flows, velocity, volumes, etc, makes it difficult to accurately calculate the level of effort and corresponding fee. Based on our understanding of the necessary effort, the Township's expectations, we offer the following hours and estimated budget for the HRC portions of this assignment as defined above:

Investigation Phase:	120 Hours	\$ 12,000
Preliminary Design Phase:	380 Hours	\$ 37,000
Final Design Phase:	320 Hours	\$ 31,000
<u>Construction Phase:</u>	<u>200 Hours</u>	<u>\$ 18,000</u>
<b>TOTAL ESTIMATED BUDGET:</b>		<b>\$ 98,000</b>

At each phase of the project, HRC will document hours and costs to date, changes in the scope of services, revisions to the estimate of construction and total project costs, and engineering fees.

## WORK NOT PRESENTLY INCLUDED IN OUR SCOPE OF SERVICES OR BUDGET

1. Drafting grant applications
2. Any extended MDEQ monitoring needed for permit compliance
3. Preliminary survey, construction layout, and as-built survey
4. Geotechnical investigation of the site
5. Hydrologic or Hydraulic Modeling
6. Full time construction inspection (see level of effort in Scope of Services)
7. Preparation of contract books other than the technical specifications for our items of work

We look forward to the opportunity to partner with C2AE and OHM and be of continued service to the Township and hope that you agree that the ideas and strategies we have shared in this proposal reflect the serious thought that we have applied to this project and our sincere interest in the work.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Thomas M. Doran, P.E.  
Principal/Vice President



James F. Burton, P.E. LEED AP  
Project Manager

TMD/  
Attachment  
pc: HRC; File



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February 9, 2009

Mr. Bob Farrier, PE  
C2AE  
725 Prudden Street  
Lansing, Michigan 48906

Via electronic mail: bob.farrier@C2AE.com

RE: Proposal for Geotechnical Evaluation Services  
Proposed McCue Road Infrastructure Improvements  
Between Eifert Road and Grovenberg Road  
Delhi Township, Michigan  
SME Proposal No. L09-0026

Dear Mr. Farrier:

Soil and Materials Engineers, Inc. (SME) would be pleased to assist you and your project team with geotechnical evaluation services for the proposed McCue Road infrastructure improvements in Holt, Michigan. This proposal is submitted in response to your Request for Proposal (RFP) during a telephone conversation with Ms. Megan S. Jacobs, EIT of SME on February 5, 2009.

For input to this proposal, SME reviewed undated, untitled drawings provided by C2AE on February 5, 2009, that included a layout of the existing site features and proposed infrastructure improvements. SME also discussed boring requirements with Mr. Philip Westmoreland, PE with OHM and reviewed the Natural Resources Conservation Service (NRCS) Soil Survey available on-line.

## PROJECT DESCRIPTION

We understand this project consists of multiple infrastructure improvements in Delhi Township, Michigan. For purposes of this proposal, description of the infrastructure improvements is divided into three phases as indicated below:

1. Phase I – McCue Road Improvements
2. Phase II – New Cross-Country Sanitary Sewer and Lift Station D
3. Phase III – New Detention Basin

Plymouth  
Bay City  
Grand Rapids  
Kalamazoo  
Lansing  
Shelby Township  
Toledo  
Traverse City

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consultants in the geosciences, materials, and the environment

Phase I will include roadway, storm sewer and sanitary sewer improvements. Roadway improvements will consist of complete reconstruction of McCue Road (from Eifert Road to approximately 0.5 miles east of Grovenburg Road), and pulverizing and overlaying McCue Road (from Grovenburg Road to 0.5 miles east of Grovenburg Road). Storm water improvements will consist of replacing the open storm drain located along McCue Road with a closed drain system. We understand 5 to 7-foot diameter pipes with invert levels near that of the existing open drain will be used to transport storm water to a new detention basin (Phase III). Sanitary sewer improvements will include constructing new 16 to 20- inch diameter sanitary sewer force mains. We assume the proposed grading within McCue Road will be within about 1 to 2 feet of the existing ground surface elevation and new sanitary sewer force mains will be located at or above the existing open channel.

Phase II will include constructing a new cross-country, 16 to 20-inch diameter, sanitary sewer force main and lift station. The cross-country sanitary sewer will extend from near the intersection of McCue and Eifert Roads approximately 1.1 miles east of Eifert Road to a new lift station 'D' facility. The force main is expected to extend about 10 feet below existing grades. The new lift station will extend about 30 feet or less below existing grade.

Phase III will include constructing new detention ponds in existing fields located to the east of the Delhi Township Waste Water Treatment Plant (located at the southeast corner of the intersection of McCue Road and Grovenburg Road). The detention ponds are anticipated to extend about 10 feet below existing grades.

The NRCS soil survey depicts Adrian and Palms muck deposits along the alignment of the McCue Road improvements, Adrian, Palms and Houghton muck deposits along the cross-country sewer alignment, and Palms muck deposits at the new detention basin sites. The Adrian and Palms Muck deposits along the alignment of the McCue Road improvements are depicted to the north and south of McCue Road and the Adrian Muck deposit appears to cross McCue Road approximately 1/2 mile west of the intersection of McCue Road and Eifert Road.

## SCOPE OF SERVICES

### **Phase I Evaluation – McCue Road**

Based on our understanding of the project, our geotechnical evaluation for **Phase I** will include the following:

1. Drill 50 borings to a depth of up to 25 feet each for a total of 1,250 linear feet. The borings will be performed within the existing McCue Road alignment at approximately 200-foot intervals extending from Eifert Road about 1-1/2 miles to the west and then at approximately 300-foot intervals for the remaining approximate 1/2 mile.



2. Record, to the nearest one-half inch, the thickness of asphalt concrete pavement and aggregate base, if present, as observed at the borings performed along McCue Road. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 20 feet, and at 5-foot intervals below a depth of 20 feet. If organic soils are encountered deeper than about 20 feet below the existing ground surface, the borings would be extended until inorganic soils are encountered
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings and asphalt cold patch will be placed at the surface of borings performed within paved areas. Therefore, long-term groundwater levels will not be obtained for this evaluation.
4. Perform U.S. Army Corps of Engineers (USACE) Dynamic Cone Penetrometer (DCP) tests at select boring locations to evaluate the consistency of the upper subgrade soils and estimate the California Bearing Ratio (CBR) of the subgrade. The presence of frost can significantly affect the results of USACE DCP test. These tests can be deleted from our scope of services if the presence of frost is believed to adversely affect the DCP test results.

#### **Phase I Evaluation (Optional) – McCue Road**

Due to the presence of muck deposits along the alignment of the McCue Road improvements, the spacing of the borings may need to be decreased to approximately 100-foot intervals from Eifert Road extending about 1-1/2 miles west. If the spacing is reduced, SME would perform up to 39 more borings each to a depth of 25 feet for a total of up to 89 borings and 2,225 linear feet of drilling. USACE DCP test would be performed at each of the additional borings.

#### **Phase II Evaluation – Cross Country Sanitary Sewer and Lift Station**

Based on our understanding of the project, our geotechnical evaluation for **Phase II** will include the following:

1. Drill 15 borings totaling 275 linear feet of drilling. Thirteen borings will be performed at approximately 450-foot intervals throughout the proposed force main alignment and each boring will extend about 15 feet below the existing ground surface. The remaining two borings will be performed for the new lift station 'D' and each boring will extend about 40 feet below the existing ground surface.
2. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 10 feet, and at 5-foot intervals below a depth of 10 feet.
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings. Therefore, long-term groundwater levels will not be obtained for this evaluation.



4. Perform laboratory tests including visual soil classification on recovered samples along with moisture content and strength properties of recovered cohesive samples.

### **Phase III Evaluation – Detention Ponds**

Based on our understanding of the project, our geotechnical evaluation for **Phase III** will include the following:

1. Drill eight borings to a depth of up to 20 feet each for a total of 160 linear feet.
2. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 15 feet, and at 5-foot intervals below a depth of 15 feet.
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings. Therefore, long-term groundwater levels will not be obtained for this evaluation.
4. Perform laboratory tests including visual soil classification on recovered samples along with moisture content and strength properties of recovered cohesive samples.

### **Engineering and Report**

SME will analyze the soil and groundwater conditions, perform engineering calculations, and discuss subsurface conditions and recommendations with appropriate project team members and then complete an Geotechnical Evaluation Report that will include:

1. a description of the site conditions and project;
2. a description of the field and laboratory testing programs and an interpretive analysis of the results;
3. a description of soil and groundwater conditions encountered in the borings;
4. recommendations for enclosed storm sewers including suitability of site soils to support utility pipes and manholes and discussion of trench stability and construction dewatering considerations;
5. recommendations for sanitary force mains including suitability of site soils to support utility pipes and discussion of trench stability and construction dewatering considerations;



6. recommendations for detention ponds including estimated percolation rates (and/or coefficient of permeability) based on visual descriptions of the soil samples, trench stability and construction dewatering considerations;
7. recommendations for sanitary sewer lift station D including suitability of site soils to support shallow-type foundations with allowable soil bearing pressures, , estimated settlement, and depth to suitable bearing soil and lateral earth pressures, backfill, compaction, and drainage/water-proofing requirements for below-grade walls;
8. recommendations for road reconstruction including subgrade preparation and earthwork considerations and (if approved) design sections for flexible pavements.
9. engineered fill recommendations including an evaluation of the suitability of on-site soils for use as engineered fill, compaction requirements and weather considerations;
10. discussion of potential construction issues related to proposed improvements (such as weather, groundwater control, and other conditions that may affect construction) based on the soil and groundwater conditions encountered;
11. boring location diagrams;
12. logs prepared for each boring that will include a description of the soils encountered and the results of the field and laboratory tests; and
13. USACE DCP data converted to CBR.

### **Assumptions and Limitations**

The following assumptions were made in preparing our scope of services and professional services fee:

1. Client will provide or obtain right-of-entry for SME to conduct the evaluation. Client will also provide topographical information.
2. C2AE will retain a surveyor to stake the boring locations and determine the ground surface elevation at the boring locations.
3. C2AE will provide SME electronic files with boring location diagrams.
4. SME will contact the Miss Dig system to clear and mark the location of public underground utilities at the site prior to performing the field exploration. Client will locate any known private underground utilities at the site prior to performing the field exploration. SME is not responsible for damage to utilities not cleared, located and marked at the site.



5. Field exploration (drilling) will be performed Monday through Friday during normal business hours. Additional fees will be required for field services required by the Client during off-hours or weekends.
6. Care will be exercised to mitigate damage to lawn, landscape, pavement, soft ground and other areas that may be disturbed during the field exploration. Due to the weight of the drilling equipment, rutting of exposed subgrade, or cracking of existing pavements (i.e. roads, sidewalks, etc.) could occur in those areas traversed by the drilling equipment especially when the subgrade is wet. Our fee does not include time or expenses associated with the repair of ruts or damage.
7. The borings located on McCue Road will be accessed with a truck mounted drill rig and the remaining borings will be accessed with a drill rig mounted to an all-terrain vehicle (ATV).
8. Use of a dozer to assist with access is not included in our scope or fee. We assume trees, brush and snow (if present on the site) will not require clearing to access the boring locations.
9. Fees to obtain drilling permits (time and expenses) are not included in this proposal since drilling is outside the roadway right-of-way.
10. Traffic cones, signs, a lighted arrow board and one traffic regulator will provide traffic control for the borings performed within McCue Road. Traffic control will not be required for the remaining borings.
11. We have not budgeted for significant delays (e.g., waiting for site access or contact personnel, time for meetings, etc.) once the drill rig arrives at the site.
12. Due to soil transport regulations and environmental implications, excess soil cuttings generated from drilling activities will not be removed from the site by SME. The boreholes will be backfilled with auger cuttings. Asphalt coldpatch will be placed in paved areas. If bentonite seals or grout are required, additional fees will be assessed. Excess soil cuttings will be left on site and placed in greenbelt areas, unless directed otherwise.
13. Client will inform us of any known environmental site conditions which could affect the health and safety of our drill crew. We will report unusual odors and colorations of the soil or groundwater observed in the borings. Environmental sampling and analytical testing would be required to evaluate the presence or absence of contamination, but is beyond the proposed scope of services. SME would be pleased to assist with environmental services, should you desire.



Although SME offers other services for the project, our proposed scope of services for the geotechnical evaluation does not include detailed recommendations for construction dewatering, excavation sheeting, allowable temporary slopes or erosion control; pavement design; cost or quantity estimates; preparation or review of plans and/or specifications; construction materials services; time for meetings; or a significant amount of consulting time after transmittal of our report.

### PROFESSIONAL SERVICES FEE

Services will be provided on a unit fee basis using the current fee schedules. Based on the scope of services outlined in this proposal, our proposed fees are as follows:

Phase I Evaluation	\$44,500
Phase I (Optional) Evaluation	32,800
Phase II Evaluation	7,800
Phase III Evaluation	4,300
Pavement Design (Optional)	1,500
Engineering and Report	<u>6,200</u>
<b>Estimated Total Investment</b>	<b>\$97,100</b>

If further services are required for this project that go beyond the scope of services outlined in this proposal, additional fees will be required and we will contact you. Additional fees will be invoiced according to the current fee schedules.

### SCHEDULE

We anticipate we can commence the field exploration within about one to two weeks after receiving authorization to proceed. The field exploration should take about 18 days to complete. Once the field exploration is finished, the laboratory testing and the written report can normally be completed within about 15 business days.

### AUTHORIZATION

The SME General Conditions attached to this proposal will govern our services. Please sign and provide the appropriate information on the attached General Conditions sheet and return this proposal to SME. A copy of this proposal is enclosed for your records.



We look forward to teaming with you on this project. If you have questions concerning our scope of services or our fee, please contact us.

Very truly yours,

**SOIL AND MATERIALS ENGINEERS, INC.**



Megan S. Jacobs, EIT  
Senior Engineer



Michael J. Thelen, PE  
Senior Consultant

Attachments: General Notes (1/09)  
General Conditions (1/09)  
Important Information About Your Proposal  
SME Fact Sheet

Enclosure: One copy

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## GENERAL NOTES

1. SME representatives may provide observation and field-testing. The scope of services does not include job or site safety, supervision, or direction of the actual work of the contractor. The presence of SME on the job site should not be construed to relieve the contractor in any way of his obligations and responsibilities under the construction contract.
2. SME General Conditions govern all the work performed.
3. The Owner grants right of entry from time to time to SME, its agents, staff, and contractors or subcontractors, for the purpose of performing and with the right to perform all acts, studies, and research including without limitation the making of tests and evaluations, pursuant to the agreed services. Client represents that he possesses all necessary permits and licenses required for activities at the site. While SME will take reasonable precautions to reduce the likelihood of damage to the property, it is understood by Client and Owner that some damage may occur in the normal course of our work. The fee for correction of this damage is not part of this agreement unless specifically noted.
4. While working SME will take reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client and Owner agree to hold SME harmless for any damages to subterranean structures, which are not called to SME's attention and/or not correctly shown on the plans furnished.
5. Client agrees to provide SME with accurate legal description and property survey.
6. The accuracy and proximity of provided survey control will affect the accuracy of in-situ test location and elevation determinations. Unless otherwise noted, the accuracy of test locations and elevations will be commensurate only with pacing and approximate measurements or estimates. The client will furnish SME with a diagram indicating the location of the site. Boring and test locations may also be indicated on the diagram. SME reserves the right to deviate a reasonable distance from the boring and test locations unless this right is specifically revoked by the client in writing at the time the diagram is supplied. SME reserves the right to modify this contract if conditions preventing drilling at the specified locations are encountered which were not made known to SME prior to the date of this contract.
7. Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by SME and that the data, interpretations and recommendations of SME are based solely on the information available to SME. SME will not be responsible for the data, interpretation and recommendations by others of the information developed.
8. Certain types of hazardous materials including subsurface contaminants and biological pollutants (molds, spores, bacteria, fungi and other byproducts of biological organisms) may exist at a site where there is no reason to believe they could or should be present. SME and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating renegotiation of the scope of work and fees. SME and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for SME to take immediate measures to protect human health and safety, and/or the environment. SME agrees to notify Client as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered. Client encourages SME to take any and all measures that in SME's professional opinion are justified to preserve and protect the health and safety of SME's personnel and the public, and/or environment, and Client agrees to compensate SME for the additional cost of such work. In addition, Client and Owner waive any claim against SME and agree to indemnify, defend and hold SME harmless from any claim or liability for injury or loss arising from or caused by the presence of, or exposure of SME, Client, or any third party to unanticipated hazardous materials or suspected hazardous materials, except to the extent caused by SME's sole negligence. Client agrees to compensate SME for time spent and expenses incurred by SME in defense of any such claim. Compensation to be based upon SME's prevailing fee schedule and expense reimbursement policy.



## GENERAL NOTES (Continued)

9. Generally, test samples or specimens are consumed or substantially altered during the conduct of tests and SME, at our sole discretion, will dispose of these samples or specimens upon completion of tests, subject to the following:

Non-Hazardous Samples: At Client's written request, we will maintain preservable test samples and specimens or the residue therefrom for 30 days after submission of our report free of storage charges. After the initial 30 days and upon written request, we will retain test specimens or samples for a mutually acceptable storage charge and period of time. Client agrees that it will not hold us responsible or liable for any loss of test specimens or samples retained in storage.

Hazardous or Potentially Hazardous Samples: In the event samples contain substances or constituents hazardous or detrimental to health, safety, or the environment as defined by federal, state or local statutes, regulations, or ordinances, we will, after completion of testing and at Client's expense, (i) return such samples to Client, or (ii) using a manifest signed by Client as generator, we will have such samples transported to a location selected by Client for final disposal. Client agrees to pay all costs associated with the storage, transport, and disposal of samples. Client recognizes and agrees that we are acting as a bailee and at no time assume title of said waste.

10. All laboratory and field equipment contaminated in performing our services and which cannot be reasonably decontaminated shall become the property and responsibility of Client. All such equipment shall be delivered to Client or disposed of in a manner similar to that indicated for hazardous samples. Client agrees to pay the fair market value of any such equipment, which cannot reasonably be decontaminated.
11. Client agrees to advise us upon execution of this Agreement of any hazardous substances including subsurface contaminants and biological pollutants (mold, spores, bacteria, fungi and other byproducts of biological organisms), environmental violations, or any condition existing in, on or near the site presenting a potential danger to human health, the environment, or equipment. Client agrees to provide continuing information as it becomes available to the attention of Client in the future. By virtue of entering into this Agreement or of providing services hereunder, we do not assume control of or responsibility for reporting to any federal, state, or local public agencies any conditions at the site that may present a potential danger to health, safety, or the environment. Client agrees to notify the appropriate federal, state or local public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to health, safety, or the environment.

In connection with hazardous waste, Client/Owner agrees to the maximum extent permitted by law to defend, hold harmless and indemnify SME from and against any and all claims and liabilities resulting from: Client's/Owner's violation of any federal, state or local statute, regulation or ordinance relating to the disposal of hazardous substances or constituents; Client's/Owner's undertaking of or arrangement for the handling, removal, treatment, storage, transportation or disposal of hazardous substances or constituents found or identified at the site; changed conditions or hazardous substances or constituents introduced at the site by Client/Owner or third persons before or after the completion of services herein; allegations that SME is a handler, generator, operator, treater or storer, transporter, or disposer under the Resource Conservation and Recovery Act of 1976 as amended or any other similar federal, state, or local regulation or law.

12. Client recognizes that it is impossible for SME to know the exact composition of a site's subsurface even after employing a comprehensive exploratory program. As a result, there is a risk that sampling may result in contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous materials off-site. Because such sampling is a necessary aspect of the work which SME will perform for Client's/Owner's benefit, Client/Owner waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claim or liability for injury or loss which may arise as a result of cross-contamination caused by sampling, except to the extent caused by SME's sole negligence.



## GENERAL NOTES (Continued)

13. Client recognizes that it is Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials. Client also recognizes that any such discovery may result in a significant reduction of the property's value, and this may spur the property's owner to institute action against SME. Accordingly, in such situations, Client waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claim or liability for injury or loss of any type arising from SME's discovery of unanticipated hazardous materials or suspected hazardous materials on a site not owned by Client.
14. It is possible this assessment may fail to reveal the presence of contaminants (including subsurface contaminants, hazardous materials and biological pollutants [mold, spores, bacteria, fungi and other byproducts of biological organisms] and all other types of environmental contamination collectively referred to as "Contaminants") at sites where contaminants are assumed, or expected to exist or contaminants are inaccessible or unobservable. Client understands that SME's failure to discover contaminants does not guarantee that contaminants do not exist at the site. Similarly, a site which in fact is unaffected by contaminants at the time of SME's study, may later, due to natural phenomena or human intervention, become contaminated. Client agrees that it would be unfair to hold SME liable for failing to discover contaminants whose exact location is impossible to foretell due to the site or building conditions, or for failing to discover contaminants, which, in fact, did not exist at specific sampling locations at the time such samples were taken. Accordingly, Client waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claims or liability for injury or loss arising from SME's failure to detect the presence of contaminants through techniques commonly employed for the purpose, except to the extent caused by SME's sole negligence.
15. If during the performance of services, unforeseen hazardous substances or constituents, biological pollutants or other unforeseen conditions or occurrences are encountered which, in our sole judgment significantly affect or may affect the services, the risk involved in providing the services, or the recommended scope of services, we will notify Client thereof. Subsequent to the notification, SME may: if practicable, in our sole judgment, complete the original scope of services in accordance with the procedures originally intended in the proposal; agree with Client to modify the Scope of Services and the estimate of charges to include study of the previously unforeseen conditions or occurrences, such revision to be in writing and signed by the parties and incorporated herein; or terminate the services effective on the date specified by SME in writing.
16. Client also agrees to compensate SME for any time spent and expenses incurred by SME in defense of any claims (related to Items 8, 11, 12, 13 and 14 above), with such compensation to be based upon SME's prevailing fee schedule and expense reimbursement policy.



## SME GENERAL CONDITIONS

1. In this Agreement, the party agreeing to have the services performed is the "Client." The Client's client shall be referred to as the "Owner." Unless expressly stated otherwise, Soil and Materials Engineers, Inc., its employees, agents, subconsultants and subcontractors, are collectively referred to as "SME."
2. SME will submit invoices to Client monthly and a final bill upon completion of services. Payment is due upon presentation of invoice to the Client and is past due 30 days from date of the invoice. Client agrees to pay a service charge of 1-1/2% per month, or the maximum rate allowed by law, whichever is greater, on past due accounts.
3. All reports, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by SME in connection with this Project shall be considered instruments of service, and shall remain the property of SME. SME grants Client and Owner a limited license to use such instruments of service for the purpose of designing, constructing, maintaining or repairing work that is part of this Project. Any reuse of SME's instruments of service for any purpose other than the limited license granted herein is prohibited and SME shall have no responsibility to Client, Owner or third parties for unauthorized use of its instruments of services.
4. SME will retain pertinent records relating to the services performed for Client for a period of time consistent with SME's File Management Plan, a copy of which will be provided to Client upon request. During that period, the records will be made available to the Client at reasonable times. At the end of the retention period indicated in SME's File Management Plan, SME may, in its sole discretion, dispose of all such records.
5. **SME MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH REGARDS TO ITS SERVICES.**
6. Either party may terminate this Agreement upon at least 7 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination will not be effective if that substantial failure is remedied before expiration of the period specified in the written notice. This Agreement shall also be automatically terminated upon a suspension of the project for more than 3 months. In the event of termination, Client will pay SME for services performed to the termination notice date plus reasonable termination expenses. In the event of termination, or suspension, prior to completion of all reports contemplated by this Agreement, SME may complete such analyses and records as are necessary to complete the files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension include all direct costs of completing such analyses, records, and reports.
7. If any dispute arising out of or relating to this Agreement, or its breach, is not settled through direct discussions, the parties agree that as a condition precedent to litigation, they will endeavor for 30 days following written notice by one party to the other of a dispute or breach, to settle the dispute by mediation with the assistance of a neutral mediator. In any litigation or arbitration, if applicable, the parties agree that the prevailing party is entitled to recover all reasonable costs incurred in defense or prosecution of the claim, including its staff time, court costs, attorney's fees, and other claim-related expenses. Notwithstanding, SME has no obligation to mediate with Client prior to litigation when collecting fees legally owed by Client.
8. If Client gives SME other-than-written authorization to proceed with services after receiving SME's written proposal, Client agrees to accept the proposal, including these General Conditions, as the Agreement governing SME's services and the relationship between the parties. Such acceptance based on other-than-written authorization is effective except for those provisions that Client objects to in writing within 7 days following the other-than-written authorization.
9. SME and its staff are protected by worker's compensation insurance and SME has coverage under General Liability and Professional Liability insurance policies. SME will provide Client with evidence of such policies upon written request. SME is not responsible for any loss, damage or liability arising from acts of Client, its agents, staff, and other consultants employed by Client.
10. **In consideration for SME's undertaking to perform services at the rates set forth on the Fee Schedule attached to SME's proposal or the lump sum fee provided, Client agrees to limit all potential liability of SME to Client, its employees, agents, successors and assigns, for any and all claims, losses, breaches, damages or expenses arising from, or relating to SME's performance of services on this Project, such that SME's total aggregate liability to Client, its employees, agents, successors and assigns shall not exceed \$50,000 or SME's total fee for the services rendered on the project, whichever is greater. The Client understands that it may negotiate a higher limit of liability in exchange for an appropriate increase in SME's fee.**
  - a) Client further agrees that it will require all of its contractors and consultants on this project and their respective subcontractors and subconsultants, be bound by an identical limitation of SME's aggregate liability in their agreements for work on this project.
  - b) Client further agrees that it will require all of its contractors and subcontractors defend and indemnify Client and SME from any and all loss or damage, including bodily injury or death, arising from contractor or subcontractors performance of work on this project, regardless of whether or not such claim, damage, loss or expense is caused in part by SME provided however, that this obligation shall not apply to claims, damage, loss or expense caused by the sole negligence or fault of SME.
11. To the fullest extent permitted by law, Client shall defend and indemnify SME from and against all claims, damages, losses and expense, including reasonable attorney fees, arising out of the performance of SME's services or the materials of others in connection with the project regardless of whether or not such claim, damage, loss or expense is caused in part by SME; provided however, that this obligation shall not apply to claims, damage, loss or expense caused by the sole negligence of SME.
12. Notwithstanding any period of limitations that might otherwise apply, the parties agree that no action, claim or proceeding of any kind, whether in tort, contract or equity arising out of SME's services may be brought against SME more than two years after the first to occur of the following events: (i) the date of Client's acceptance, use or occupancy of the Project that is the subject of this engagement, or (ii) the date of SME's last service in connection with this Project.
13. If SME provides services at the request of Client, in addition to those described in the scope of work contained in SME's proposal, Client agrees that these general conditions including the general notes on the fee schedules shall apply to all such additional services.
14. In the event any provision of this Agreement is held invalid or unenforceable, the other provisions will remain in full force and effect, and binding upon the parties. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between Client and SME will survive the completion of the services and the termination of this Agreement. This Agreement cannot be assigned by either party without the written consent of the other party. This Agreement includes SME's Fee Schedule(s), and any notes thereon, these General Conditions and other documents incorporated herein. This Agreement constitutes the entire Agreement between the parties and cannot be changed except by a written instrument signed by both parties. All preprinted Terms and Conditions on Client's Purchase Order(s) or acknowledgement forms are inapplicable to this Agreement. The parties agree that this Agreement shall be governed in all respects by the laws of the State of Michigan.

### PROPOSAL ACCEPTED BY:

### BILLING ADDRESS

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Printed Name Title

\_\_\_\_\_  
Company

\_\_\_\_\_  
Street

\_\_\_\_\_  
City / State

\_\_\_\_\_  
Zip Code



# Important Information About This Geotechnical Engineering Proposal

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*While you cannot eliminate all such risks, you can manage them. The following information is provided to help.*

## **Participate in Development of the Subsurface Exploration Plan**

Geotechnical engineering begins with the creation of an effective subsurface exploration plan. This proposal starts the process by presenting an initial plan. While that plan may consider the unique physical attributes of the site and the improvements you have in mind, it probably does not consider your unique goals, objectives, and risk management preferences. Subsurface exploration plans that are finalized without considering such factors presuppose that clients' needs are unimportant, or that all clients have the same needs. *Avoid the problems that can stem from such assumptions* by finalizing the plan and other scope elements directly with the geotechnical engineer you feel is best qualified for the project, along with the other project professionals whose plans are affected by the geotechnical engineer's findings and recommendations. If you have been told that this step is unnecessary; that client preferences do not influence the scope of geotechnical engineering service or that someone else can articulate your needs as well as you, you have been told wrong. No one else can discuss your geotechnical options better than an experienced geotechnical engineer, and no one else can provide the input you can. Thus, while you certainly are at liberty to accept a proposed scope "as is," recognize that it could be a unilateral scope developed without direct client/engineer discussion; that authorizing a unilateral scope will force the geotechnical engineer to accept all assumptions it contains; that assumptions create risk. *Manage your risk. Get involved.*

## **Expect the Unexpected**

The nature of geotechnical engineering is such that planning needs to *anticipate the unexpected*. During the design phase of a project, more or deeper borings may be required, additional tests may become necessary, or someone associated with your organization may request a service that was not included in the final scope. During the construction phase, additional services may be needed to respond quickly to unanticipated conditions. In the past, geotechnical engineers commonly did

whatever was required to oblige their clients' representatives and safeguard their clients' interests, taking it on faith that their clients wanted them to do so. But some, evidently, did not, and refused to pay for legitimate extras on the ground that the engineer proceeded without proper authorization, or failed to submit notice in a timely manner, or failed to provide proper documentation. *What are your preferences? Who is permitted to authorize additional geotechnical services on your project? What type of documentation do you require? To whom should it be sent? When? How?* By addressing these and similar issues sooner rather than later, you and your geotechnical engineer will be prepared for the unexpected, to help prevent molehills from growing into mountains.

## **Have Realistic Expectations; Apply Appropriate Preventives**

The recommendations included in a geotechnical engineering report are *not final*, because they are based on opinions that can be verified only during construction. For that reason, most geotechnical engineering proposals offer the construction observation services that permit the geotechnical engineer of record to confirm that subsurface conditions are what they were expected to be, or to modify recommendations when actual conditions were not anticipated. *An offer to provide construction observation is an offer to better manage your risk.* Clients who do not take advantage of such an offer; clients who retain a second firm to observe construction, can create a high-risk "Catch-22" situation for themselves. *The geotechnical engineer of record cannot assume responsibility or liability for a report's recommendations when another firm performs the services needed to evaluate the recommendations' adequacy.* The second firm is also likely to disavow liability for the recommendations, because of the substantial and possibly uninsurable risk of assuming responsibility for services it did not perform. Recognize, too, that no firm other than the geotechnical engineer of record can possibly have as intimate an understanding of your project's geotechnical issues. As such, reliance on a second firm to perform construction observation can elevate risk still more, because its personnel may not

have the wherewithal to recognize subtle, but sometimes critically important unanticipated conditions, or to respond to them in a manner consistent with your goals, objectives, and risk management preferences.

### **Realize That Geoenvironmental Issues Have Not Been Covered**

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. *Geoenvironmental services are not being offered in this proposal. The report that results will not relate any geoenvironmental findings, conclusions, or recommendations.* Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may be addressed as part of the geotechnical engineering study described in this proposal, the geotechnical engineer who would lead this project **is not a mold prevention consultant; none of the services being offered have been designed or proposed for the purpose of mold prevention.**

### **Have the Geotechnical Engineer Work with Other Design Professionals and Constructors**

Other design team members' misinterpretation of a geotechnical engineering report has resulted in costly problems. Manage that risk by hav-

ing your geotechnical engineer confer with appropriate members of the design team before finalizing the scope of geotechnical service (as suggested above), and, again, after submitting the report. *Also retain your geotechnical engineer to review pertinent elements of the design team members' plans and specifications.*

Reduce the risk of unanticipated conditions claims that can occur when constructors misinterpret or misunderstand the purposes of a geotechnical engineering report. Use appropriate language in your contract documents. Retain your geotechnical engineer to participate in prebid and preconstruction conferences, and to perform construction observation.

### **Read Responsibility Provisions Closely**

Clients, design professionals, and constructors who do not recognize that geotechnical engineering is far less exact than other engineering disciplines can develop unrealistic expectations. Unrealistic expectations can lead to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their proposals. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks, thus to encourage more effective scopes of service. *Read this proposal's provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance**

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit to everyone involved with a construction project. Confer with an ASFE member geotechnical engineer for more information. Confirm a firm's membership in ASFE by contacting ASFE directly or at its website.



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Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: info@asfe.org www.asfe.org

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# Soil and Materials Engineers, Inc.

## offices



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Michael S. Meddock, PE

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J. William Coberly, CET

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Fax: (586) 731-3582  
Chuck A. Gemayel, PE

### TRAVERSE CITY

733 East Eighth Street, Ste. 102  
Traverse City, MI 49686-2665  
Phone: (231) 941-5200  
Fax: (231) 941-5259  
Larry W. Shook, PE

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## website

[www.sme-usa.com](http://www.sme-usa.com)

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## founder

Kenneth W. Kramer, PE, Chairman Emeritus

---

## principals

**PRESIDENT** Mark K. Kramer, PE

Timothy H. Bedenis, PE  
Gerald M. Belian, PE  
Chuck A. Gemayel, PE  
Frank A. Henderson, PG  
Larry P. Jedele, PE  
Starr D. Kohn, PhD, PE

Edward S. Lindow, PE  
Gerard P. Madej, PE  
Timothy J. Mitchell, PE  
Robert C. Rabeler, PE  
Daniel O. Roeser, PG

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## team members

220

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## projects completed

55,000

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## professional staff

Geotechnical Engineers  
Hydrogeologists  
Materials Consultants  
Civil Engineers  
Environmental Engineers  
Forensic Engineers

Pavement Engineers  
Roofing Consultants  
Metals Consultants  
Geologists/Geological Engineers  
Certified Industrial Hygienist  
Facility Engineers

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## technical staff

Restoration Specialists  
Qualified Concrete Technicians  
Certified Bituminous Plant Inspectors  
Certified Aggregate Inspectors  
Certified Welding Inspectors

Coating Specialists  
Certified Masonry Inspectors  
NICET Engineering Technicians  
Roofing and Pavement Specialists  
Asbestos Specialists

### Engineering evaluation and design for soil, rock and groundwater conditions.

**Caissons/Piles:** Design, wave equation analysis, load and integrity tests, and construction observation.

**Corrosion:** Perform and evaluate field and laboratory tests for corrosivity of buried metallic structures, and design of corrosion prevention systems.

**Dewatering:** Observe and model groundwater flow, field pump tests, and design temporary and permanent dewatering systems.

**Drilling:** Soil borings, specialized sampling, in-situ testing (pressuremeter, Dutch cone, dilatometer, vane shear), observation wells, and Geoprobos.

**Earth Retention Systems:** Design of temporary and permanent earth retention systems including reinforced earth/geogrid walls, tiebacks, shoring and bracing.

**Foundation Engineering:** Design including foundation type, bearing elevation, bearing pressure, estimated settlement, and underpinning design.

**Geodynamics/Vibrations:** Measure ambient vibrations, seismic, crosshole, downhole, attenuation, refraction surveys, evaluate existing foundations and design new foundations.

**Geophysical Surveys:** Including electrical resistivity, seismic, borehole logging, EM, gravity, and ground penetrating radar.

**Geosynthetics:** Design of geosynthetic-based systems, such as reinforced earth walls, and slopes and erosion protection for landfills, pavements, and special applications.

**Ground Modification:** Design of special techniques to improve soil, including wick drains, surcharging, vibroflotation, deep dynamic compaction, grouting, and surface compaction.

**Instrumentation:** Installation and monitoring (manual and remote) for in-situ determination of soil and rock properties and performance during construction.

**Slope Stability:** Design for stabilization of existing and proposed slopes, and design repair of failed slopes.

### Engineering evaluation of material properties, failure analyses, and design using life-cycle costs.

**Coatings:** Evaluation, selection, construction monitoring, and failure analysis for steel, concrete and wood construction.

**Concrete:** Construction monitoring, strength evaluation using destructive and nondestructive testing, flat floor measurements, corrosion, and durability evaluations.

**Construction Materials Services:** Monitor construction procedures and material properties for conformance to specifications, and total quality control/quality assurance plans.

**Facility Asset Management:** Evaluation of building components/systems and design of maintenance management programs.

**Forensic Engineering:** Expert witnesses who develop alternative dispute resolution strategies by researching facts, explaining complex technical issues, and conveying expert opinions involving issues in the built environment.

**Masonry/Stone:** Construction monitoring, material evaluation, and full scale testing.

**Metals:** Failure analysis, material characterization, and welding and jointing design.

**Pavements:** Evaluation of existing pavements and subgrade conditions, including use of falling weight deflectometer (FWD) and other specialized equipment. Pavement design, plans and specifications, construction monitoring, and maintenance management programs.

**Restoration:** Condition assessment, and development of building and infrastructure improvements.

**Roofs:** Evaluation of existing roofs including use of infrared technology, design of rehabilitation systems, new roof design, construction monitoring, and roof maintenance management programs.

**Sealants/Waterproofing:** Design and evaluation of moisture management systems for new construction and building restoration.

**Structural Steel:** Shop and site monitoring including bolted and welded connections, coatings, shear studs, use of ultrasonic, radiographic magnetic particle, and nondestructive testing.

### Environmental assessment, contamination evaluation, remediation, and regulatory compliance.

**Air Quality:** Emission inventories, source sampling, screening models and permits.

**Asbestos/Lead-Based Paint:** Assessment of hazardous materials, abatement specifications, and project monitoring.

**BEA/Due Care:** Perform Baseline Environmental Assessments, prepare Due Care plans, observe construction, and monitor Due Care implementation.

**Brownfield Development:** Environmental/geotechnical evaluations for redevelopment, prepare workplans and assist with funding alternatives. Provide construction observation, testing, and Due Care implementation.

**Environmental Site Assessments:** Phase I/II ESAs for all types of property transactions, including multi-site and large industrial projects.

**Hydrogeologic Studies:** Evaluation of geologic conditions, aquifer flow characterization, groundwater quality, and well field studies.

**Industrial Hygiene/Mold/Indoor Air Quality:** Exposure assessments, and health and safety programs.

**Landfills:** Site evaluation, monitoring programs, leachate containment, stabilization of excavations and construction slopes, and remediation systems.

**Regulatory Compliance:** Compliance auditing, ISO 14001 implementation, pollution prevention, TRI reporting, spill planning and permits.

**Remediation:** Assess type/extent of contamination, evaluate remedial alternatives, remediation design, monitor remediation system installation, and provide operation and maintenance for treatment systems.

**Risk Assessment:** Identify hazards, assess exposure, characterize risk and evaluate site cleanup levels.

**Storm Water Management:** Conceptual plans, sampling programs, permits, and certified operator monitoring at construction and industrial sites.

**USTs:** Manage removal of USTs, closure of UST systems, and implementation of Risk-Based Corrective Action (RBCA).



**DEPARTMENT OF PUBLIC SERVICES**

# **Monthly Report**

**February 2009**

**Presented to the Delhi Charter Township Board of  
Trustees**

**On  
March 3, 2009**

**By  
Sandra Diorka, Director of Public Services**

## **Building and Grounds (CSC and Fire Stations 1 & 2)**

- Cummins Bridgeway Power performed annual generator and load bank testing of all township generators
- RS Technical Services repaired the sewage injector pump control in the mechanical room in the basement of CSC
- Placed roof salt over the entrances at CSC to help with ice build up over the entrances
- Repaired several pot holes at the CSC parking lot using cold patch
- Removed trees at Veterans Park for the installation of a new emergency alert siren

## **Cemetery**

- There were three (3) funerals at Maple Ridge Cemetery

## **Downtown Development Authority (DDA) / Ingham County Sheriff Dept (ICSD)**

- Serviced and repaired all decorative streetlights as needed

## **GIS/ GPS**

- Continued to refine manholes and sewers in the GIS system
- Started entering data for mapping watersheds in the township area
- Continuing to enter energy consumption data into the Energy Star program
- Continued to add additional layers to the GIS system, including
  - building leads
  - building sewers
  - storm sewer mains
  - storm sewer leads
  - building storm sewers

## **Stormwater Phase II**

- Attended the Groundwater Management Board and Technical Advisory Committee meetings held at the Ingham County Health Dept
- Completed a site visit to the Holt Public Schools bus garage
- Attended a Grand River Water Shed subcommittee meeting of the Greater Lansing Regional Committee for Storm Water Management
- Attended the Senate Natural Resources & Environmental Affairs Committee hearing in support of Senate Bill 256, defining the provisions for establishing a storm water utility.
- Attended the Regional Recycling Coordinating Committee meeting
- Attended the Greater Lansing Regional Committee for Storm Water Management Executive Committee meeting

## **Community Outreach**

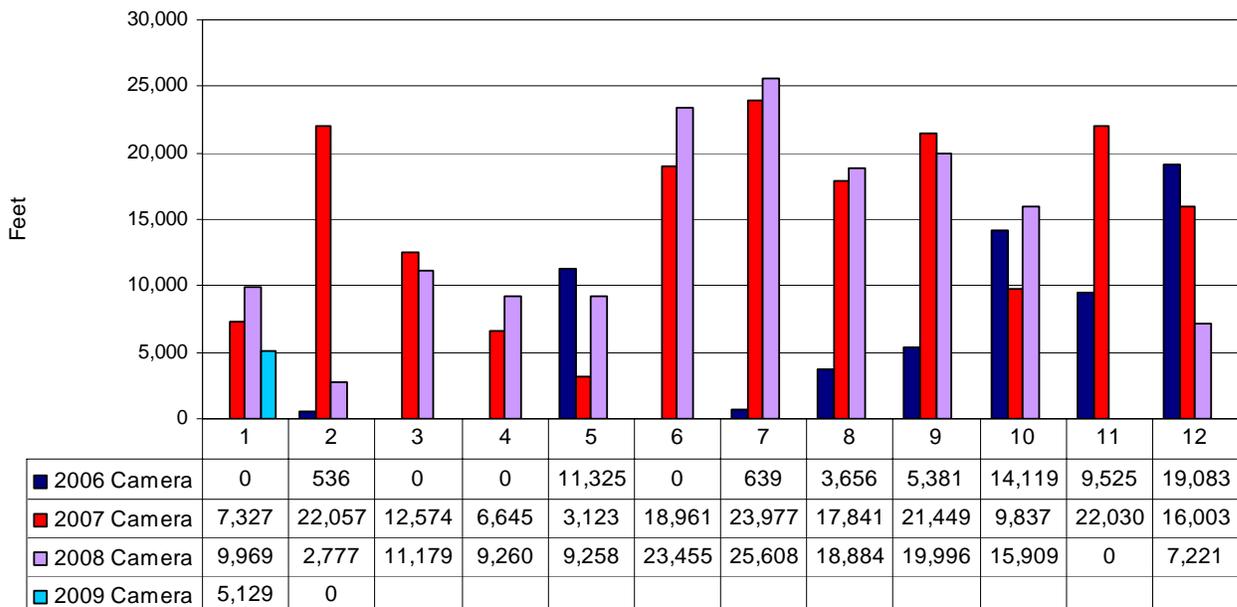
Township personnel spent two (2) days chipping Christmas trees from the tree drop off that took place in January. We received 207 trees.







## Sanitary Sewer Televising (Camera Truck Work)



## Maintenance

There were 17 corrective, five (5) preventive and three (3) emergency work orders. Major maintenance projects performed by DPS personnel in February 2009 include:

### Maintenance/POTW/Collections/Lift Stations

- Replaced all electrical outlets in the bisulfite building
- Removed and cleaned the wasting pump
- Cleaned drain line to the grit auger in the grit building
- Removed snow from the north and south gates at POTW
- Checked the roof to the south digester over the roots blower for leaks
- Raised the gate at Eifert lift station
- Cleaned and rearranged the RBC garage area
- Pulled and checked the supernate pump and cleaned out the wet well
- Repaired and replaced the louver vanes in the aeration building
- Repositioned and retightened the fernco to the drain line in the south digester basement
- Repaired loose electrical connections at LS-D, St. Lawrence and Eifert Road lift stations that were detected by Bisbee Infrared
- Adjusted the south entry gate at the POTW
- Replaced burned out lights on the outside of the maintenance building and barn
- Replaced burned out fluorescent lights in the Administration building at POTW
- Performed hydrogen sulfide testing at Eifert, Pinetree, Dell and Waverly pump stations
- Performed calcium nitrate transfers from bulk storage
- Performed weekly dissolved oxygen probe cleaning and calibration
- Completed weekly plant preventive maintenance consisting of 27 tasks
- Performed the monthly grease haul

#### Building and Grounds (CSC and Fire Station #2)

- Moved the library book drop to the east side of the entrance at CSC
- Installed dead bolts at 4240 Woodworth for Community Development
- Used spot remover machine to clean up coffee spill in the Accounting Department
- Removed urinal and cleaned trap in men's restroom at CSC
- Set up board room for library staff meeting
- Repaired and painted a wall in the Treasurer's office
- Cleaned walls in the Manager's office
- Cleaned wall in the Boardroom
- Delivered pallet of copy paper to CSC and placed in the basement storage area

#### DDA and Sheriff's Departments

- Installed new locking system on gate in the DDA office
- Removed boxes of old prints and took to the Recycle Center
- Removed snow and salted all DDA areas

#### Vehicles/Equipment

- The 2003 Chevrolet Van, Unit #4 was serviced
- Checked the fuses to the blower on the plow truck
- Replaced the cutting edges on the V-plow
- Repaired the overhead lights and replaced the tarp on the dump truck
- Repaired the Ford Ranger, Unit #6 at Central Ford per the recall notice

## Industrial Pretreatment Program

February IPP Activities	Date	Description
<b>Site Plan Review</b>		
		No agenda items
<b>Review/Approval</b>		
	2/9/09	1785 S Cedar - American Legion Post 238 (bldg plan)
	2/18/09	2495 Cedar - New Life Fitness Center (bldg plan)
<b>Inspections - Grease Traps</b>		
	2/24/09	1997 Aurelius - 7-11 - Compliant
	2/24/09	2006 Cedar - Biggby Coffee - Compliant
	2/24/09	2040 Aurelius - Buddies Grill - Compliant
	2/24/09	2005 Eifert - Big Ten - Non-Compliant
	2/24/09	2464 Cedar - Burger King - Compliant
	2/24/09	2520 E. Jolly - Burger King - Compliant
	2/24/09	2440 N. Cedar - Champions - Compliant
	2/24/09	2395 Washington - Chisholm Hills - Compliant
	2/24/09	6201 Bishop - Coaches - Compliant
	2/24/09	1995 Cedar St. - Cottage Inn Pizza - Compliant
	2/24/09	4625 Willoughby 1-A - Delhi Café - Compliant
	2/24/09	2040 Aurelius Ste. 2 - Fat Boys Pizza - Compliant
	2/24/09	1111 N. Cedar - Fraternal Order of Eagles - Compliant
	2/24/09	2454 S. Cedar - IngCredible - Compliant
	2/24/09	1979 Aurelius - Jade Garden -Non-Compliant
	2/24/09	2495 N. Cedar - Kroger - Compliant
	2/24/09	2221 N. Cedar - Little Caesar's Pizza - Non-Compliant
	2/24/09	2775 Eaton Rapids Road - McDonald's - Compliant
	2/24/09	2530 E. Jolly - McDonald's - Compliant
	2/24/09	1957 Cedar – Sammy’s II - Compliant
	2/24/09	2765 Eaton Rapids Road - Subway - Compliant
	2/24/09	1850 Cedar - Tacos E Mas - Compliant
	2/24/09	2450 E. Jolly - Tim Horton's - Compliant
	2/24/09	2350 Cedar - Tim Horton's - Compliant
	2/24/09	2727 Eaton Rapids Road - Wendy's - Compliant





## Digester Improvement Project

The monthly progress meeting took place on January 29, 2009. One of the new Penn Valley pumps has been installed. The operators are now monitoring the new flow meter readings for the new digester. Rod Parks with RS Technical has been programming the SCADA system, alarms and one of the pumps to the new digester.



Looking at the outside of the new digesters with the above ground piping



Thermophilic Digester



Installing electrical



Heat Exchanger, Piping, Pumps & Valves





**Penn Valley Pumps & Piping**



**Generators & Piping**



**Canon Mixer Inside Mesophilic Digester**



**Batch Tank**

## Subdivision Sewer Construction Update

Job #	Job Name	Utility Agreement	Const. Plan Review	Submit for Act 451 Permit	Received Permit	Preconst. Meeting	Observation of Construction	Air Test	TV Tape w/Narrative	Manhole Vacuum Test	Mandrel Test	Record Drawings	Easement	Twp. Walk Through	Final Recommendation	Next Step												
	Aspen Lakes Apt. Phase III		X	X	X											permit received												
05-0094	Berry Farms	X	X	X	X	X	X	X	X				N/A	X		Under construction												
05-0095	Centennial Estates No. 2		X	X	X								N/A			permit received 2-15-06												
05-0096	Country Crossroads 2		X	X	X											waiting for developer to begin const.												
08-0043	Dunckel Road Sewers	X	X	X	X	X	X	X	X	X	X	X		X	X	waiting for easement												
05-0070-A	Genesis-Patient Care Dr	X	X	X	X	X	X	X	X	X	X	X		X	X	waiting for easement												
05-0021	Grewel Condo		X													reviewed construction plans May												
04-0063-A	Section 25 Sewer Int.	N/A	X													redesign												
04-0045-A	Washington Woods		X	X	X											status unknown - DEQ waiting for additional info												
03-0111-A	Westridge/Dalby Condo		X													contingent on section 25 sewer												
	<table border="0"> <tr> <td style="background-color: red; width: 20px;"></td> <td>Project Under Construction</td> </tr> <tr> <td style="background-color: yellow; width: 20px;"></td> <td>Contractor to Complete Punchlist</td> </tr> <tr> <td style="background-color: orange; width: 20px;"></td> <td>Permit Application Submitted</td> </tr> <tr> <td style="background-color: lightgreen; width: 20px;"></td> <td>Permit Received / Waiting for Precon</td> </tr> <tr> <td style="background-color: gray; width: 20px;"></td> <td>On Hold / Status Unknown</td> </tr> <tr> <td style="background-color: lightblue; width: 20px;"></td> <td>Review / Design Phase</td> </tr> </table>																	Project Under Construction		Contractor to Complete Punchlist		Permit Application Submitted		Permit Received / Waiting for Precon		On Hold / Status Unknown		Review / Design Phase
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	Review / Design Phase																											

# Delhi Township Fire Department



Annual  
Report  
For  
2008

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Delhi Township Fire Department  
Personnel Roster  
December 31, 2008

Richard J. Royston, Chief

Patrick Brown, Assistant Chief

Deputy Chiefs

Michael Grant

Michael Malone

James Porcello

Lieutenants

Brian Britten

Brian Ball

Jeffrey Young

Anthony Alvord

Brenda Coscarelli, Secretary

Stan Morrison, Fire Inspector

Melissa Rowland, Billing Clerk

Michael Adams, FF  
Patrick Alleman, FF  
Kevin Allen, Cadet  
Christopher Baldwin, FF/PM  
Matthew Bennett, FF  
Jason Briggs, FF  
Johnathan Colbeck, Cadet  
Tony Costello, FF/EMT  
Dustin Dickerson, FF/PM  
Corey Drolett, FF  
Dustin Farhat, FF/PM  
Greg Francis, FF  
Ross Hagfors, Cadet  
Andrew Harmon, FF  
Ashley Hatch, FF  
Brett Justice, FF/PM  
Justin King, FF/EMT  
Daniel Kreft, Cadet  
Jeremy Landfair, FF/EMT

Mitchel Lankton, Cadet  
Michel Kueppers, FF/PM  
Philip McGill, FF/EMT  
William Oberst, FF  
Matthew Price, FF/EMT  
Bradley Reedy, FF/EMT  
Steven Schroeder, FF/PM  
Matthew Sterling, FF/PM  
Bobby Stimbert, FF/EMT  
Reginald Townsend, FF  
Lukasz Wackowski, Cadet  
Matthew Wardwell, FF  
Patrick Watz, FF  
Brandon Whipple, FF/EMT  
Mitchell Woodruff, Cadet  
Matthew Wooten, FF/PM  
Michael Yanz, FF/PM  
Kurt Zolnier, Cadet

Michael Keith, Photographer

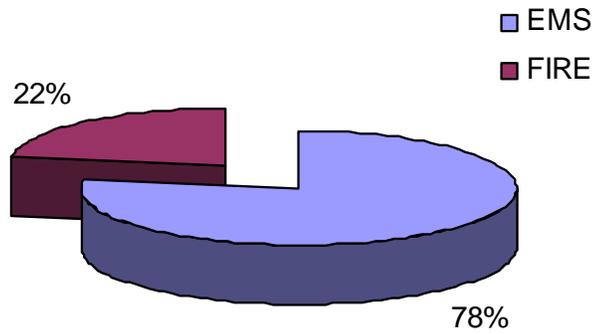
Robert Carpenter, Chaplain

Fred Froman, Chaplain

## Delhi Township Fire Department Summary of Activity for 2008

	Delhi	Alaiedon	Total
<b>Medical Calls:</b>	1,775	-----	1,775
<b>Fire / Rescue Calls:</b>	418	94	512
<b>Total :</b>	2,193	94	2,287

**Total Calls in 2008**



Delhi Township Fire Department  
Detailed Summary of Activity for 2008

Mutual Aid Assistance

Mutual Aid Granted: 137  
Mutual Aid Requested: 72

Burning Permits Issued

Delhi Township Burn Permits Issued: 269  
Recreational Campfire Permits Issued: 63  
Total Active Campfire Permits on File: 1,019

Inspection Activity

Inspection Activities: 1,128  
Inspection Staff Hours: 202.0

Training Activity

Fire Training Hours: 2,098.00  
EMS Training Hours: 3,164.25  
Miscellaneous Hours: 2,550.00  
Total Training Hours: 7,812.25

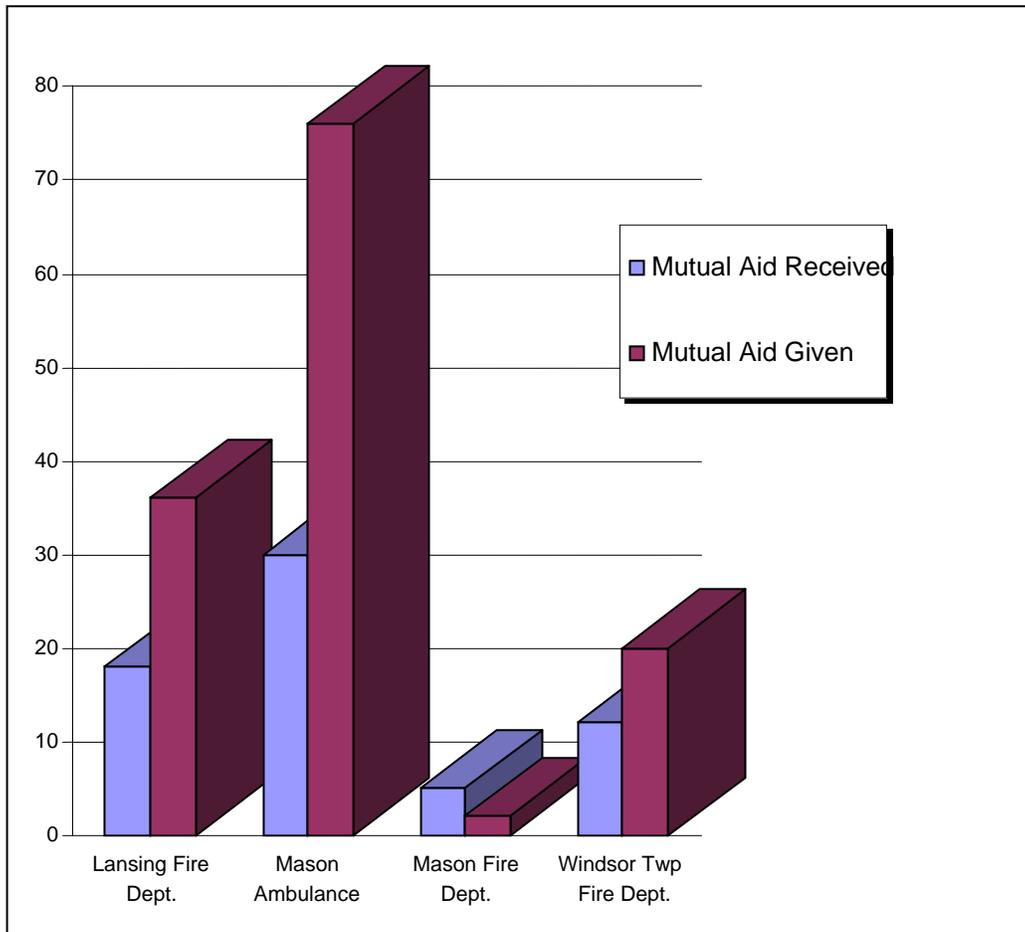
Multiple Calls

Overlapping Calls 521  
Days with 10 Calls or More: 31  
Days with No Calls: 1  
Most Calls in One Day: (2/6/08) 19

*(23% of the time in 2008, there were two calls going at the same time. Overlapping Calls increased 24% in 2008)*

## Delhi Township Fire Department Mutual Aid Activity for 2008

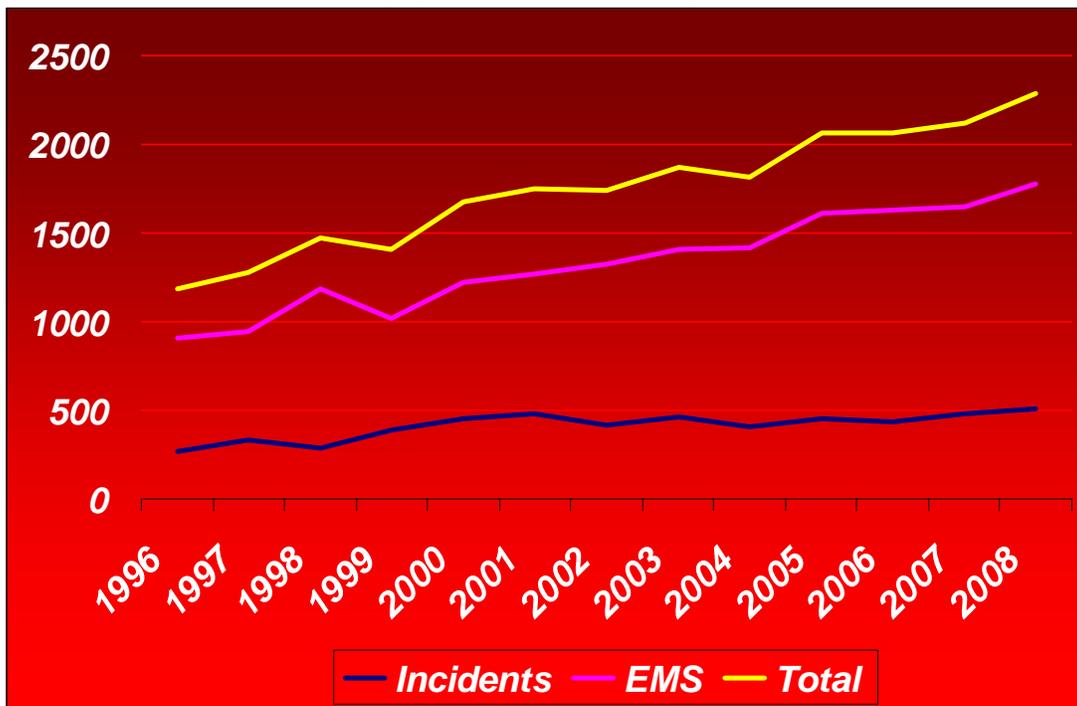
Department	Aid Given	Aid Received
Dansville	0	2
Eaton Rapids Twp.	2	0
Leslie Ambulance Service	0	1
Lansing Fire Dept.	36	18
Mason Ambulance	76	30
Mason Fire Dept.	2	5
Meridian Twp Fire Dept..	0	6
Onondaga Twp Fire Dept.	0	0
Windsor Twp Fire Dept.	20	12
Total	136	74



Delhi Township Fire Department  
History of Calls  
1996 – 2008

<u>Year</u>	<u>Incidents</u>	<u>Ambulance</u>	<u>Total</u>
1996	269	912	1,181
1997	336	943	1,279
1998	290	1,184	1,474
1999	390	1,018	1,408
2000	450	1,226	1,676
2001	482	1,268	1,750
2002	418	1,324	1,742
2003	460	1,406	1,866
2004	403	1,415	1,818
2005	452	1,611	2,063
2006	433	1,632	2,065
2007	478	1,644	2,122
2008	512	1,775	2,287

*History of Calls – 1996 through 2008*



## Delhi Township Fire Department

### EMS Activity for 2008

Total Ambulance Responses:      1,775  
 Total Patients:                              2,252

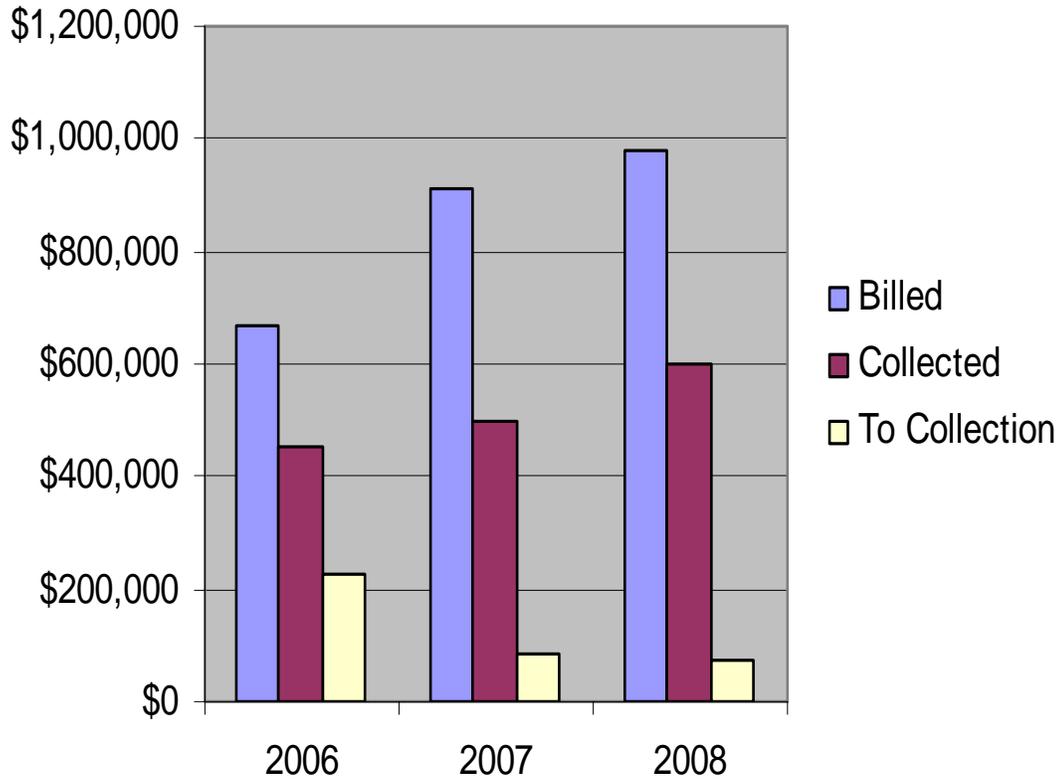
#### *Patient Analysis*

<b>Type of Call</b>	<b>Total</b>
Abdominal Pain	128
Altered State of Consciousness	106
Attempt Suicide	25
Cardiac Arrest	37
Chest Pain	192
Diabetic	67
Lift Assist – No transport	127
Miscellaneous Medical	410
Miscellaneous Trauma	135
Musculoskeletal Injuries	289
Overdose / Poisoning	8
Refusal of Service	291
Respiratory Distress	224
Seizure	83
Soft Tissue Injuries / Burns	99
Stroke	31
Cancelled Enroute	15

## Delhi Township Fire Department EMS / Fire Call Revenue

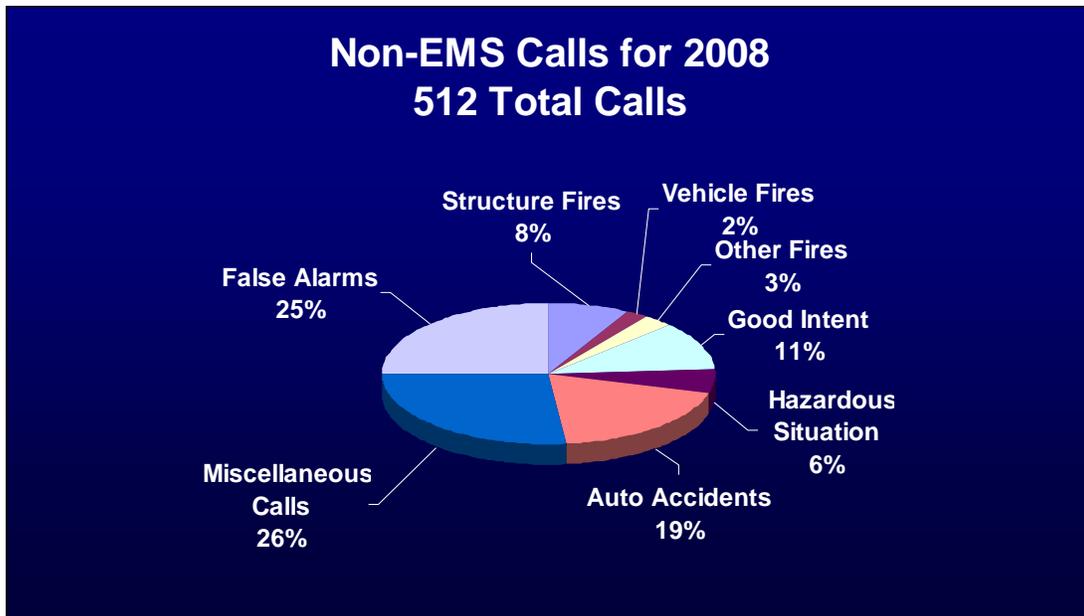
	2006		2007		2008	
	EMS	FIRE	EMS	FIRE	EMS	FIRE
BILLED	\$658,357	\$6,993	\$892,761	\$17,947	\$964,045	\$16,527
COLLECTED	\$451,750	\$2,393	\$485,728	\$13,917	\$590,502	\$10,621
COLLECTION	\$218,791	\$8,879	\$82,018	\$2,911	\$71,748	\$2,161

*Revenues 2006 - 2008*



## Delhi Township Fire Department Fire/Rescue Activity for 2008

Type of Call	Delhi	Alaiedon	Total
Structure Fires	33	6	39
Vehicle Fires	9	12	21
Grass Fires	5	1	6
Trash Fires	1	0	1
Miscellaneous Fires	5	1	6
Good Intent / Smoke	47	21	68
Wires Down / Arcing Wires	13	2	15
Auto Accidents / Extrication	79	21	100
Gas Leak / Hazardous Situation	10	2	12
False Alarms	105	28	133
Miscellaneous Calls	111	0	111
<b>Total Calls</b>	418	94	512



Delhi Township Fire Department  
Structure Fire Call Analysis for 2008

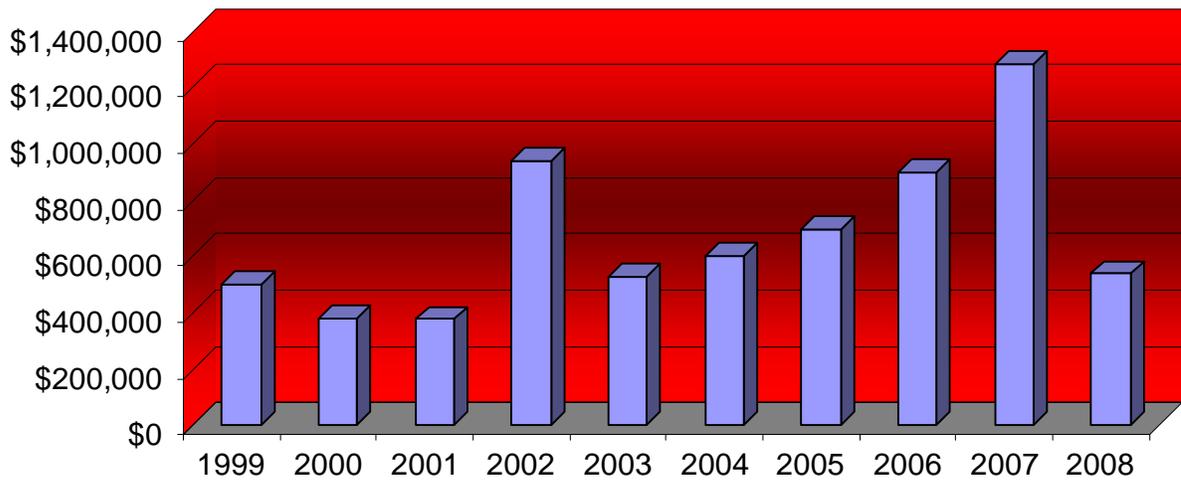
<b>Date</b>	<b>Address</b>	<b>Type Structure</b>	<b>Loss</b>
1/14/08	3193 Hulett Road *	Dwelling	250
2/6/08	2455 Aurelius Road	Apartment	25,000
3/29/08	4404 Willoughby Road	Dwelling	129,000
4/3/08	2700 Eaton Rapids Road	Mobile Home	5,000
4/27/08	815 Hagadorn Road *	Storage Shed	1,000
5/5/08	1908 Aurelius Road	Dwelling	100
5/17/08	1932 Every Road *	Barn Fire	15,000
5/20/08	1470 Flanders Street	Mobile Home	1,000
6/8/08	1643 Gunn Road	Dwelling	150
6/25/08	2102 Aurelius Road	Commercial Building	100
6/30/08	4378 Keller Road	Dwelling	60,000
7/6/08	4200 Bond Avenue	Storage Building	250
8/6/08	4521 Grove Street	Dwelling	5,000
10/31/08	4075 Holt Road	Mobile Home	1,000
11/14/08	4573 Willoughby Road	Commercial Building	250
12/5/08	2226 Cedar Street	Apartment	2,000
12/12/08	3240 Hulett Road *	Dwelling	10,000
12/24/08	1875 Holloway Drive	Factory/Warehouse	500
12/30/08	3933 Moonlight Lane	Dwelling	15,000
12/31/08	5088 Windmill Blvd.	Mobile Home	1,000
12/31/08	658 Wolverine Road *	Pole Barn	35,000
		<b>Total Loss</b>	<b>\$444,875</b>

\* Denotes Alaiedon Township Fire Call

**Delhi Township Fire Department**  
**Total Fire Loss – All Fires**  
**1999– 2008**

1999	\$503,650
2000	\$377,450
2001	\$376,600
2002	\$940,265
2003	\$526,020
2004	\$603,750
2005	\$694,650
2006	\$901,930
2007	\$1,280,450
2008	\$538,025

**Total Fire Loss - 1999 through 2008**

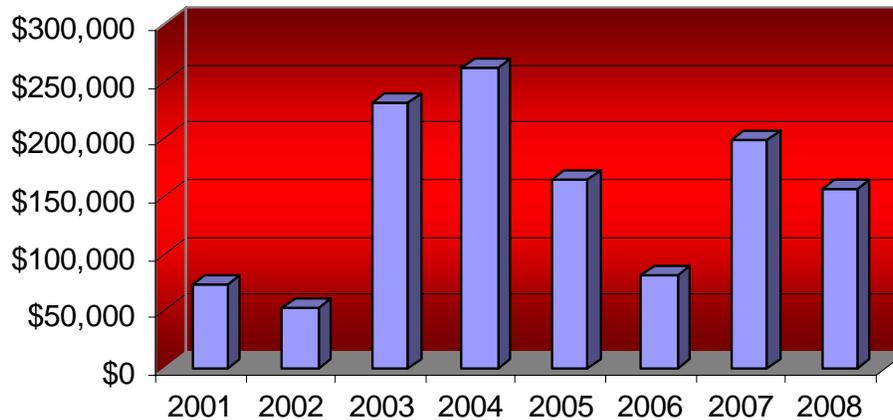


**Delhi Township Fire Department**  
**Alaiedon Township Activity**  
**2001 - 2008**

	2001	2002	2003	2004	2005	2006	2007	2008
Structure Fires	2	3	6	3	3	1	3	6
Vehicle Fires	15	12	11	16	6	6	9	12
Grass Fires	2	2	3	3	7	1	1	1
Misc. Fires	7	1	1	0	5	3	6	1
Good Intent / Smoke	26	18	17	25	17	18	14	21
Wires Down/Arcing	3	2	2	3	5	1	5	2
Auto Accidents	16	13	15	17	22	13	19	21
Gas Leaks/Hazards	6	5	8	2	1	5	3	2
False Alarms	20	13	21	15	13	17	8	28
Miscellaneous Calls	3	4	2	0	6	7	6	0
<b>Total</b>	100	73	86	84	85	70	74	94

<u>Year</u>	<u>Fire Loss</u>
2001	\$72,100
2002	\$52,350
2003	\$231,000
2004	\$261,800
2005	\$164,500
2006	\$81,500
2007	\$199,000
2008	\$156,650

**Alaiedon Twp Fire Loss History**



## Delhi Township Fire Department Membership Status 2008

The membership of the Delhi Township Fire Department on December 31, 2008 is at a total of 46 uniformed personnel, plus the 3 civilian positions of fire inspector, secretary, and billing clerk. This is an increase of 4 paid, on-call positions since 12/31/07.

Recruitment and retention continued to be a major goal during 2008. During the year, a total of 14 personnel were hired as new members of the organization. Included in this new membership were 3 paid, on-call personnel who were previously trained to the required minimum of our department. These personnel include Reginald Townsend, Jeremy Landfair and Patrick Alleman.

Six personnel were hired as untrained members of the department and will be enrolled in the Ingham County firefighter training class to receive training. These new cadets are Kevin Allen, Kurt Zolnierrek, Daniel Kreft, Mitchel Lankton, Lukasa Wackowski and Mitchell Woodruff.

Additionally, in the spring of 2008 a new job classification was added to our roster to permit outside paramedic students the ability to learn, while at the same time providing our department with added personnel on weekends. During 2008, five personnel from the outside took advantage of this program. They are Tony Costello, Bobby Stimbert, William Murphy, Brandon Whipple and Justin King.

Two openings in the full time ranks, resulted in hiring of one paid, on-call member, Corey Drolett, and one new member, Matthew Wooten to fill those positions.

And, as can always be expected with a department such as ours, personnel will leave the department on a fairly regular basis, and 2008 was no exception. The following 8 personnel left the department:

Timothy Baker	Todd Dalling	Patrick Greathouse
Lindsey Howley	Benjamin Logue	Michael Reamer
	Trent Tollstam	

The breakdown of EMS training levels on 12/31/07 consists of 16 paramedics and 14 basic EMTs.

A continued emphasis will be placed on recruitment and retention in 2009 in an effort to maintain our current level of personnel.

# Delhi Township Fire Department

## Fire Marshal Report

### 2008

Despite significant progress in the past 30 years, the United States still has one of the worst fire loss records in the industrialized world. Fire loss includes the social, environmental and economic impacts, not just the fire death and injuries. There are time-tested ways to prevent or survive a fire. It's not a matter of luck; it's a matter of planning ahead. Programs advocating "planning ahead" and "being prepared" completed in 2008 included but not limited to:

- With the acquisition of a Fire Act Grant from Homeland Security, 50 AED'S (automatic external defibrillators) were purchased to be distributed within facilities located in Delhi Township. Schools, churches, businesses, nursing facilities, and Delhi Township buildings received these life saving devices. Training in their use as well as CPR will be provided in this an ongoing program.
- Additional grant funds allowed for the purchase of the Sparky's Hazard House. This interactive, table-top house set-up was used during Fire Prevention Week and Open House. The Hazard House Safety Program was well received by all K-3<sup>rd</sup> grade children in Delhi Township.
- Annual fire prevention and safety programs conducted at our senior citizen housing communities. Gatherings at Tamarack, Stratford Place, Lutheran Heritage Village, Great Lakes Christian and the weekly Wednesday senior luncheons all emphasized slip, trips, and fall prevention for seniors along with other things of mutual interest.
- Promotion of emergency preparedness in the workplace was accomplished with programs using portable fire extinguishers, conducting fire drills as well as CPR/AED and first aid.
- We again started our smoke detector program, visiting area homes to assure there were working smoke detectors. This program will reconvene in 2009.
- Participation in numerous area events including Kids Day, providing free CPR during Homefest, Two-Men-and-a Truck, Safety Day at Kroger, and Special Olympics Swim Meet to name a few.
- As in the past, station tours, school visits, and on-site fire truck and ambulance demonstrations were always a popular request.
- For the ninth consecutive year, our successful commercial building fire safety inspection program was completed for Delhi and Alaedon Township. Many requests for additional safety training have spawned from this program.

These programs are successful because we have the ideas, the firefighter dedication to promote Fire Prevention and Safety, total management support and an audience willing to learn. Our theme for 2008 - *Any Job, Any Place, Any Time*, was received by all.

Respectively Submitted,

*Pat Brown*

Pat Brown, Assistant Chief/Fire Marshal

## Delhi Township Fire Department Equipment and Apparatus Status 2008

In June of 2008, the fire department sent the 2002 Ford / Lifeline ambulance to the manufacturer for updating. This update included a complete re-chassis of the 2002 EMS body onto a 2008 Ford F-350 chassis. Although the fire department has historically replaced the complete ambulance at the desired time, the body of this ambulance was in such good shape, it was decided to try this re-chassis program. The fire department has had excellent experience with Lifeline, Incorporated, and we are confident that this is a good alternative. Compared to the cost of a new ambulance, this re-chassis project saved Delhi Township about \$34,000.

In 2008, Delhi Township Fire Department finally received the new pumper/rescue vehicle that was long overdue. This vehicle was originally ordered in May of 2007, but after failure of that company to build the truck, new specifications were drafted and a new Pierce pumper/rescue was delivered in October of 2008. Final purchase cost of the unit was approximately \$565,000 for this unit which replaced two previous units.

In May of 2008, notification was received from the Federal Emergency Management Agency that Delhi Township had received a grant in the amount of \$63,000 for purchase and placement of 43 Automated External Defibrillators (AEDs) in buildings and vehicles throughout Delhi Township. This grant, plus the required \$7,000 of local matching funds, is currently being finalized and persons are being trained in area churches, schools and other public buildings in an effort to take a proactive approach to death from sudden cardiac arrest.

Additionally, in 2008, the following capital purchases were made:

- Four sets of new fire bunker gear were replaced during 2008 at a cost of approximately \$1,800 per set.
- Rescue 42 vehicle extrication stabilizing kit at a cost of \$2,900
- 2 new patient cots for ambulances at a cost of \$4,179 each

All fire department apparatus and equipment is continually evaluated, inspected, and repaired to maintain a continuous state of readiness. Annual inspections such as pump testing, hose testing, department of transportation inspections and ladder testing is the norm. This continuous monitoring insures compliance with state and federal statute, in addition to providing personnel with a safe work environment.

## Delhi Township Fire Department Vehicle Responses for 2008

Vehicle	Number of Responses
2002 Ambulance	306
2003 Ambulance	948
2006 Ambulance	533
2008 Ambulance	68 (new in 2008)
2002 Tahoe	181
2004 Durango- Cmd	126
2004 Durango -FM	125
2000 Ford Pickup	42
1995 Ford Pickup	57
2006 Expedition	101
1997 Tanker	36
1993 Pumper	189
2003 Ladder/Quint	157
1985 Pierce Loaner	17
2008 Rescue/Pumper	34 (new in 2008)

### Fire Station Maintenance and Needs

Parking lot repairs at the main fire station were needed. The asphalt parking lot, drive on the east side of the station was completely removed and replaced with a concrete apron. The remainder of the parking area and drive were removed and milled, but due to winter weather setting in prematurely, this asphalt was not replaced in 2008. It is scheduled to be put back in the spring of 2009.

As mentioned in past reports, the main fire station is now moving into its 14<sup>th</sup> year. With this age and the increase in call volume, comes the need for more rooms for department activities. This includes a larger training room, offices for the department leadership and more area for fire personnel to work. Storage has always been lacking and continues to be in short supply. Given these shortcomings, it seems that it is not too early to begin planning for future fire department facilities.

## Delhi Township Fire Department Training Report for 2008

One of the Missions of the Delhi Twp. Department (DTFD) is to continue to deliver quality fire and emergency services. To accomplish this, DTFD strives to improve the skills of our firefighters and ensure their safety and the safety of the citizens of Delhi Twp during an emergency. The DTFD firefighters are provided training that meets and or exceeds current emergency services standards, in all areas of emergency services, which include firefighting, rescue, vehicle extrication, hazardous materials response and emergency medicine. 2008 was again a successful and busy year; there was a total of approximately 8,000 training hours.

A live fire training burn trailer was brought on site which allowed Delhi Twp. firefighters to be exposed to and experience actual heat and fire in a controlled environment that would be encountered during rescue and suppression activities during an actual fire. The fire training trailer also allowed for the hands on training of fire suppression techniques, forcible entry, standpipe and sprinkler operations, special rescue operations using specialized equipment, and ventilation operations.

An Office of Fire Fighter Training (OFFT) certified Emergency Driver Training program was completed by Delhi Fire Dept. Probationary members. This program includes 8 hours of classroom, 8 hours driving in non-emergency conditions. The luxury of DTFD having OFFT certified instructors on staff allowed this training for both courses to be held in-house. An In-house Defensive Driving Recertification program was completed by all members (recognized program by the OFFT.) To compliment this classroom training an operator driving competency course was set up for both new and seasoned firefighters to master and sharpen their driving skills relating to fire apparatus.

As always, new designs and types of automobiles necessitated updated training in Vehicle Extrication. A nine (9) hour, hands-on Advanced Vehicle Extrication course was attended by all members, new and improved vehicle extrication techniques were demonstrated. This training was delivered by Rescue Resources, who is an authorized representative for Genesis Rescue Tools

A Live fire training evolution was completed using an acquired structure. Fire fighters were able to experience actual hands-on training and experience in areas of Fire Suppression, Forcible Entry, Salvage / Overhaul and Water Supply (hydrants and tanker operations.)

Delhi Senior fighters attended and successfully completed the OFFT, Company Officer (CO) I, II & III pre-requisite Advance Training courses in: Firefighting Strategies and Tactics, Incident Safety Officer, Educational Methodology, Managing Company Tactical Operations: Preparation, Managing Company Tactical Operations: Decision Making, Strategy and Tactics for Initial Company Operations and NIMS - ICS for the Fire Service.

Delhi Senior Fire Fighters who had previously completed their CO I, II & III pre-requisite Advance Training courses continued their education and successfully completed the OFFT, Company Officer (CO) I, II & III courses and achieved CO I, II & III certifications. The objectives of these courses are to educate senior members in areas of Advanced Fire Fighting Management, Supervisory Skills, and Incident Safety, Budget Issues, etc. to prepare them for future DTFD Fire Officers. Again the luxury of DTFD having OFFT certified instructors on staff allowed this training to be held in-house. Monthly squad training sessions were conducted in areas such as pre-planning, hose streams, vehicle extrication, SCBA air management, pumping, water supply, ground ladders, RIT, search & rescue, ICS, salvage and overhaul, etc. Annual SCBA and CPR re-certification was completed by all members.

Target Safety on-line training for officers and members continues on a monthly basis. Mandated training in areas such as Bloodborne Pathogens and Hazardous Materials and Department policies, etc. is met. For 2008 the Custom Activities Manager was added to the Target Safety training, this allows Delhi Twp Fire Department to develop custom training activities in a blended learning environment specific to the equipment and needs of Delhi. Also again for 2008, EMS continuing education continuing education credits have been approved by the State and are currently in place using Target Safety on-line training for classroom requirements.

Respectfully Submitted,  
James R. Porcello  
Deputy Chief / Training

## Summary

The Delhi Township Fire Department call volume increased by over 7% to a total of 2,287 calls for 2008. On an average day, there are over 6 calls, which may take anywhere from two to three hours. Add this to the daily tasks that employees are expected to complete and there is not a lot of extra time around the fire station. Additionally, in 2008, when one unit was out of the station, the second unit was also gone nearly a quarter of the time. With a small force as Delhi Township Fire Department uses, resources are taxed quickly.

Delhi Township Fire Department continues to do things that make me proud. In 2008, the Michigan Fire Service Instructors presented our Deputy Chief of Training, James Porcello the Michigan Fire Service Instructor of the Year Award. Delhi Township is fortunate to have a person of Jim's caliber training our fire personnel. Additionally, during 2008, four personnel were promoted from firefighter to lieutenant. Career personnel Brian Ball, Brian Britten and Jeff Young were all promoted along with Tony Alvord from the paid, on-call ranks. These personnel are to be commended for their hard work in attaining these positions. D/C Mike Malone and FF/EMT Phil McGill both reach the pinnacle of 25 years of service with the fire department in 2008. Their continued participation is appreciated.

As we move into our 6<sup>th</sup> year of being a true combination fire department composed of both full time and part time personnel, maintaining the number of personnel within the paid, on-call ranks of the department continues to be a struggle. The majority of personnel who wish to become paid, on-call members of fire departments do so with the hope of entering the fire service as a career. This personal goal ultimately results in the paid, on-call staff member leaving for a full time job elsewhere. It is obvious that retention of the paid, on-call workforce will be a major goal for many years to come.

As time passes, our employees are becoming more acclimated to being a part of the community. Our members are to be congratulated for another great year. Thanks to our career members for continuing to be a part of their community. Thank you to those paid, on-call personnel who leave their warm homes at night to help out in their community. Last, and certainly not least, A/C Pat Brown and clerical staff, Brenda Coscarrelli, and Melissa Rowland are certainly responsible for the Delhi Township Fire Department running smoothly on a 24 hour basis. The Delhi Township organization is unlike any other with which I am familiar. From the Maintenance Department to the Assessor's Office and from the Treasurer's Office to the POTW, everyone works together. One department's concerns become a group effort in solving. We sometimes agonize together in problems but we also celebrate together in victories. Delhi Township truly is a special place, and the fire department is proud to be a part. Through the group efforts of all involved, and with the continued support of the Township Board and Township Manager Elsinga, we continue to ***"minimize the impact of community emergencies through education, prevention and service."***

Respectfully submitted,

*Richard J. Royston*

Richard J. Royston

Chief

Recommended Motion:

To approve the Consent Agenda as presented.

**DELHI CHARTER TOWNSHIP  
COMMITTEE OF THE WHOLE MEETING HELD ON FEBRUARY 17, 2009**

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The members of the Delhi Charter Township Committee of the Whole met on Tuesday, February 17, 2009, in the Multipurpose Room at the Community Services Center, 2074 Aurelius Road, Holt, MI. Supervisor Goodrich called the meeting to order at 6:03 p.m.

Members Present: Supervisor Stuart Goodrich, Clerk Evan Hope, Treasurer Harry Ammon, Trustees Derek Bajema, John Hayhoe, Jerry Ketchum, Roy Sweet

Others Present: John Elsinga, Township Manager  
Al McFadyen, DDA Executive Director  
Lt. Mike DeBruin, Delhi Division, Ingham County Sheriff's Office  
Marian Frane, Director of Accounting  
Rick Royston, Fire Chief  
Sandra Diorka, Director of Public Services  
Tracy Carney-Miller, Director of Community Development  
Tricia Vander Ploeg, Administrative Assistant/Deputy Supervisor  
Amy Finch, Assistant Township Clerk/Deputy Clerk

**BUSINESS**

**PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES – STATE REVOLVING FUND (SRF) PROJECT PLAN PREPARATION – HUBBELL, ROTH & CLARK, INC. AND LIFT STATION D & McCUE ROAD CORRIDOR INFRASTRUCTURE IMPROVEMENTS – INTRODUCTION & PRESENTATION BY C2AE**

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The Board reviewed a memorandum dated February 12, 2009 from Twp. Mgr. Elsinga and an Engineering Services Proposal from C2AE dated February 11, 2009 (ATTACHMENT I).

Sandra Diorka, Director of Public Services, stated that Governor Granholm indicated that money to be distributed through the Federal Economic Stimulus Package will go through the agency that normally handles those types funding. The Department of Environmental Quality (DEQ) is the agency that distributes funds for wastewater projects through the State Revolving Fund (SRF). In order to get funding from the SRF you have to have a project plan.

Tom Doran, Hubbell, Roth & Clark, Inc., along with Phil Westmoreland, OHM and Bob Farrier C2AE gave a PowerPoint presentation to the Board regarding the State Revolving Fund/Strategic Water Quality Initiatives Fund Project Plan (SWQIF).

There is a July 1, 2009 deadline to submit a complete plan to the DEQ to be considered for the stimulus funding. The DEQ allows, under one plan, more than one source of funding. This plan will include the removal of Infiltration/Inflow on private property which would be funded under the SWQIF. Lift Stations and wastewater plant plans would fall under the SRF.

POTW projects include:

- A new sludge drying process and facilities to dry the Class A bio-solids soon to be produced to potential use as a renewable energy source.
- New headwords relocated to the south of Grovenburg Drain.

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
COMMITTEE OF THE WHOLE MEETING HELD ON FEBRUARY 17, 2009**

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SUBJECT TO APPROVAL

- New primary treatment facilities relocated south of the Grovenburg Drain, including a new scum handling facility.
- A second nitrification tower.
- Improvements at the lagoon site, including a new disinfection system, combining three equipment sheds into a single building and permanently locating an existing township portable generator for emergency power supply.
- New aeration basin and secondary clarifier.

Sewage System projects include:

- Improvements to and increasing the capacity of Lift Station D, including consideration of an additional force main to convey sewage from the lift station to the POTW.
- Conversion of the existing open ditch located along McCue Road between Eifert Road and the POTW to an enclosed structure.
- Stormwater management associated with the open ditch conversion.
- Removal of the Delhi Commerce Road Lift Station.
- Relocation of the Pine Tree Lift Station and discharge force main.
- Improvements to the Dell Road Lift Station and discharge force main.
- Removal of Infiltration/Inflow (I&I) from the Fay, Tolland and Holt Road lift station area, specifically from customer sewer leads and other inflow connections.

It was stated that the Lift Station D project is essential if there is to be any further growth in the area. The Ingham County Drain Commissioner and Ingham County Road Commission both agree that the McCue Road and Grovenburg Drain projects are needed; however, neither entity has the funds to complete this project on their own without high assessments to the residents.

This proposal will be on the February 17, 2009 Board agenda for consideration. It was asked how long the project plan would be good for if it could not be completed at this time due to funding. It was stated that the design is a twenty year plan. The only item that would have to be reevaluated would be the sizing. It could be set for five years based on what the growth conditions currently are.

Even without the stimulus money, the Township would have the possibility to get low interest money from the SRF program in the future.

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**COMMUNITY DEVELOPMENT DEPARTMENT – JANUARY ACTIVITY REPORT**

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Tracy Miller, Director of Community Development, reported on the highlights of the January 2009 Community Development Department Activity Report (ATTACHMENT II).

Ms. Miller stated that the home located at 4240 Woodworth which was purchased by the Township purchased from State of Michigan Housing and Urban Development (HUD) for \$28.33. With the exception of the water heater and the furnace, the property appears to be in good shape.

The Holt Lions Club has looked at the property and will be in contact with the Township on their level of continued interest in the property.

**DELHI CHARTER TOWNSHIP  
COMMITTEE OF THE WHOLE MEETING HELD ON FEBRUARY 17, 2009**

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**FIRE DEPARTMENT – JANUARY ACTIVITY REPORT**

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Lt. Brian Britten reported on the highlights of the January 2009 Fire Department Activity Report (ATTACHMENT III).

**INGHAM COUNTY SHERIFF’S OFFICE/DELHI DIVISION – JANUARY ACTIVITY REPORT**

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Lt. Michael DeBruin, Ingham County Sheriff’s Office/Delhi Division, reported on the highlights of the January 2009 Ingham County Sheriff’s Office/Delhi Division Activity Report (ATTACHMENT IV).

**TOWNSHIP MANAGER’S REPORT**

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Twp. Mgr. Elsinga stated that he wrote an article titled “Where Do My Tax Dollars Go?” and “Why Are My Property Taxes Going Up When My Property Value Is Going Down” that will be included in the upcoming Delhi Neighbor Newsletter. The articles will also be placed on the Township website.

Twp. Mgr. Elsinga stated that he received a report from the Assessing Department stating that the overall state equalized value would be going down 6.5% along with the taxable value going down 2.5%. These amounts will be reflected in the summer property taxes.

Twp. Mgr. Elsinga reported on the City Manager’s Conference that he attended.

**ADJOURNMENT**

Meeting adjourned at 7:17 p.m.

Date: \_\_\_\_\_

\_\_\_\_\_  
Evan Hope, Township Clerk

Date: \_\_\_\_\_

\_\_\_\_\_  
Stuart Goodrich, Supervisor

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SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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The Delhi Charter Township Board of Trustees met in a regular meeting on Tuesday, February 17, 2009 in the Multipurpose Room at the Community Services Center, 2074 Aurelius Road, Holt, Michigan. Supervisor Goodrich called the meeting to order at 7:30 p.m.

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

Members Present: Supervisor Stuart Goodrich, Treasurer Harry Ammon, Clerk Evan Hope, Trustees Derek Bajema, John Hayhoe, Jerry Ketchum, Roy Sweet

Members Absent: None

Others Present: John Elsinga, Township Manager  
Marian Frane, Director of Accounting  
Sandra Diorka, Director of Public Services  
Tracy Carney-Miller, Director of Community Development  
Tricia Vander Ploeg, Administrative Assistant/Deputy Supervisor  
Amy Finch, Assistant Township Clerk/Deputy Clerk

**COMMENTS FROM THE PUBLIC**

Eric Schertzing, Ingham County Treasurer, gave an update on tax foreclosures in Ingham County. Mr. Schertzing also stated that the Ingham County Land Bank, which was created to return tax reverted properties to productive use, has purchased twenty-two homes, two of which are located in Delhi Township.

The American Legion Browne/Cavender Post 148 presented the Township with an award for "Gil" who was voted the best unit unaffiliated with a Mason Area Chamber of Commerce member in the 2008 Mason Holiday Light Parade.

Evan Hope, Township Clerk, presented Marian Frane, Director of Accounting, with an award for Certificate of Achievement for Excellence in Financial Reporting for the Township's Comprehensive Annual Financial Report for the fiscal year ending December 31, 2007. The certificate is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports achieve the highest standards in government accounting and financial reporting. Ms. Frane stated that the Township has received several awards for its budget; however, this is the first year that the Township has received this award for its comprehensive annual financial report. Delhi Township is the only township in the State of Michigan that has received this award for both documents.

Evan Hope, Township Clerk, presented Amy Finch, Assistant Township Clerk, with a Certificate of Recognition for completion of the International Institute of Municipal Clerk's Certified Municipal Clerk program and the Michigan Townships Association's Township Governance Academy program.

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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**2008 ANNUAL REPORT – CLERK’S OFFICE**

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Clerk Evan Hope gave his 2008 Annual Clerk’s Office Report to the Township Board (ATTACHMENT I).

**CONSENT AGENDA**

- A. Approval of Minutes – Committee Meeting of January 20, 2009
- B. Approval of Minutes – Regular Meeting of January 20, 2009
- C. Approval of Claims – January 27, 2009 (ATTACHMENT II)
- D. Approval of Claims – February 10, 2009 (ATTACHMENT III)
- E. Approval of Payroll – January 22, 2009 (ATTACHMENT IV)
- F. Approval of Payroll – February 5, 2009 (ATTACHMENT V)

**SWEET MOVED TO APPROVE THE CONSENT AGENDA ITEMS AS PRESENTED.**

A Roll Call Vote was recorded as follows:

Ayes: Goodrich, Hayhoe, Hope, Ketchum, Sweet, Ammon, Bajema

**MOTION CARRIED**

**NEW BUSINESS**

**PROPOSED DELHI TOWNSHIP ORDINANCE NO. 84.6 – PAYMENT OF WATER CONNECTION FEES ON AN INSTALLMENT BASIS, FIRST CONSIDERATION**

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The Board reviewed a memorandum dated February 11, 2009 from Twp. Mgr. Elsinga (ATTACHMENT VI).

**HAYHOE MOVED UPON FIRST CONSIDERATION, TO AMEND TOWNSHIP ORDINANCE NO. 84 REGARDING THE STIPULATIONS ASSOCIATED WITH THE PAYMENT OF WATER CONNECTION FEES ON AN INSTALLMENT BASIS (PROPOSED TOWNSHIP ORDINANCE NO. 84.6).**

Twp. Mgr. Elsinga stated that this amendment would change the payment plan of water connections fees by reducing the interest rate from 8% to 5% with equal annual installments to be paid over a 15 year period.

A Roll Call Vote was recorded as follows:

Ayes: Hayhoe, Hope, Ketchum, Sweet, Ammon, Bajema, Goodrich

**MOTION CARRIED**

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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**PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES – STATE REVOLVING FUND (SRF) PROJECT PLAN PREPARATION – HUBBELL, ROTH & CLARK, INC.**

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The Board reviewed a memorandum dated February 12, 2009 from Twp. Mgr. Elsinga (ATTACHMENT VII).

**BAJEMA MOVED TO APPROVE THE PROPOSAL FROM HUBBELL, ROTH & CLARK, INC. (HRC) IN THE AMOUNT OF \$107,500 TO PROVIDE A NEW PROJECT PLAN FOR THE STATE OF MICHIGAN'S STATE REVOLVING FUND (SRF) PROGRAM.**

A Roll Call Vote was recorded as follows:

Ayes: Hope, Ketchum, Sweet, Ammon, Bajema, Goodrich, Hayhoe

**MOTION CARRIED**

**REFUND OF 2006 NON-PRIMARY RESIDENCE EXEMPTION TO JAMES MINOR – 1925 HOLLOWBROOK DRIVE**

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The Board reviewed a memorandum dated February 11, 2009 from Treasurer Harry Ammon (ATTACHMENT VIII).

**AMMON MOVED TO REFUND PAYMENT FOR 2006 NON-PRIMARY RESIDENCE EXEMPTION IN THE AMOUNT OF \$1,981.99 TO JAMES MINOR AT 1925 HOLLOWBROOK DRIVE DUE TO A CLERICAL ERROR.**

Treasurer Ammon stated that the required primary residence exemption documents were completed by the title company and received by the Township; however, due to a clerical error, the property was not logged as such.

A Roll Call Vote was recorded as follows:

Ayes: Ketchum, Sweet, Ammon, Bajema, Goodrich, Hayhoe, Hope

**MOTION CARRIED**

**RESOLUTION NO. 2009-002 – POSTPONE CONSTRUCTION OF A REQUIRED SIDEWALK – 4371 GARDEN GATE DRIVE**

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The Board reviewed memorandums dated February 4, 2009 from Twp. Mgr. Elsinga and Tracy Miller, Director of Community Development (ATTACHMENT IX).

**KETCHUM MOVED TO ADOPT RESOLUTION NO. 2009-002 WHICH POSTPONES THE CONSTRUCTION OF A REQUIRED SIDEWALK ALONG PROPERTY LOCATED AT 4371 GARDEN GATE DRIVE AND REQUIRES THE PROPERTY OWNER TO EXECUTE A SIDEWALK AGREEMENT STATING THE SAME.**

Tracy Miller, Director of Community Development, stated that the house located at 4371 Garden Gate Drive is the last house in the existing plat and has frontage both on Garden Gate Drive and the proposed Deer Cross Lane which will be completed when the next phase of Centennial Estates is constructed. If this next phase were in place, the property owner would be required to

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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install sidewalk on both streets. Because the phase has not occurred it would not make any sense to have the sidewalk installed for various reasons. It was suggested that the property owner be allowed to postpone the construction of this sidewalk. The agreement will be recorded with the Ingham County Register of Deeds and placed as a lien on the property.

A Roll Call Vote was recorded as follows:

Ayes: Sweet, Ammon, Bajema, Goodrich, Hayhoe, Hope, Ketchum

**MOTION CARRIED**

**RESOLUTION NO. 2009-003 – SET PUBLIC HEARING – AMEND STREETLIGHT SPECIAL ASSESSMENT DISTRICT – MEADOW RIDGE SUBDIVISION**

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The Board reviewed a memorandum dated February 11, 2009 from Twp. Mgr. Elsinga (ATTACHMENT X).

**SWEET MOVED TO ADOPT RESOLUTION NO. 2009-003, WHICH IS THE FIRST OF TWO RESOLUTIONS TO AMEND STREETLIGHT SPECIAL ASSESSMENT DISTRICT SL045, MEADOW RIDGE SUBDIVISION, AND THE SPECIAL ASSESSMENT ROLL AND SETS A PUBLIC HEARING FOR MARCH 17 AT 8:00 P.M. TO HEAR COMMENTS TO THE SAME.**

Tracy Miller, Director of Community Development, stated that there are currently eight streetlights that exist along the street; however, there are not any platted lots around this portion of the street. The road was installed as a requirement for egress and when the developer petitioned the Township to establish a streetlight district in that area, he petitioned for the last phase of Meadow Ridge Subdivision; however, when the Board mapped out the location of the lights they were placed on every street. Recently, when all of the phases of Meadow Ridge Subdivision were merged into one district, the unplatted part was assigned a number of benefits based on how many lots would occur in the future phase. The entire amount was assessed to a single property owner. The property owner contacted the Township and upon review the error was discovered. To correct this, 21 benefits will be removed as well as the eight lights which will slightly increase the individual assessments of those that are in the district. The cost for the eight lights will be removed from this district and will become an at-large expense until the next phase is platted.

A Roll Call Vote was recorded as follows:

Ayes: Ammon, Bajema, Goodrich, Hayhoe, Hope, Ketchum, Sweet

**MOTION CARRIED**

**ZONING AND DEVELOPMENT**

**PRELIMINARY PLAT – “DDA SUBDIVISION”**

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The Board reviewed a memorandum dated February 11, 2009 from Tracy Miller, Director of Community Development (ATTACHMENT XI).

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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**HOPE MOVED TO APPROVE THE PRELIMINARY PLAT FOR THE “DDA SUBDIVISION”, A PART OF THE NORTHEAST ¼ OF SECTION 24, T3N, R2W, DELHI TOWNSHIP.**

Tracy Miller, Director of Community Development, stated that the DDA purchased just under 13 acres of property from the bank. The piece runs between Holloway Drive and College Road. A lift station owned by the Township is located on this property. When the property was purchased from the bank, they were not able to purchase land division rights. In order to create a smaller lot that could be sold for future development, the DDA has to plat the property. A utility outlet will be created because the lift station is not located on an easement. The property consists of a 3.35 acre developable lot and a 1.65 acre sewer lot which is not developable. The remainder of the property is a remainder of the parent parcel which was not included in this plat. If any additional divisions are to be made in the future, either 10 years will have had to transpire or an additional plat phase will have to be implemented.

A Roll Call Vote was recorded as follows:

Ayes: Bajema, Goodrich, Hayhoe, Hope, Ketchum, Sweet, Ammon

**MOTION CARRIED**

**REPORTS**

**SUPERVISOR**

**JOINT SCHOOL BOARD MEETING – MARCH 2<sup>ND</sup> AT 6:30 P.M. AT DELHI TOWNSHIP**

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Supervisor Goodrich stated that there will be a joint School Board meeting held on March 2<sup>nd</sup> at 6:30 p.m. in the Multipurpose Room of the Community Services Center.

**L.E.A.P. MEETING**

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Supervisor Goodrich stated that he and Twp. Mgr. Elsinga recently attended a L.E.A.P. meeting where reports were given on economic development and a new IBM venture to be housed in the old MSU Credit Union building. The venture will create approximately 200 jobs.

**TREASURER**

**TAX COLLECTION**

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Treasurer Harry Ammon stated that his office has collected 97.8% of the summer property taxes and 94.2% of the winter property taxes.

**TRUSTEES**

**TRUSTEE BAJEMA**

Trustee Bajema commented on the L.E.A.P. report that Supervisor Goodrich reported on.

SUBJECT TO APPROVAL

**DELHI CHARTER TOWNSHIP  
MINUTES OF REGULAR MEETING HELD ON FEBRUARY 17, 2009**

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**TRUSTEE HAYHOE**

Trustee Hayhoe thanked the Township employees that volunteered at the Holt-Diamondale School Business Alliance's Las Vegas Casino Night fundraiser to benefit Holt High School Scholarships.

**LIMITED PUBLIC COMMENTS** - None

**ADJOURNMENT**

Meeting adjourned at 8:46 p.m.

Date: \_\_\_\_\_

\_\_\_\_\_  
Evan Hope, Township Clerk

Date: \_\_\_\_\_

\_\_\_\_\_  
Stuart Goodrich, Supervisor

/af

SUBJECT TO APPROVAL

# ACCOUNTS PAYABLE APPROVAL

February 24, 2009

**I. Certification of Authorized Signatures:** The attached Check Register and Invoice Distribution Report encompass checks dated February 24, 2009, numbered 74052 through 74159 & ACH#1095. Every invoice has a payment authorizing signature(s).

Dated: February 24, 2009

\_\_\_\_\_  
Lora Behnke, Accounting Clerk

## II. Certification of Fund Totals:

The attached Invoice Distribution Report and Check Register for checks dated February 24, 2009 show payments made from the following funds:

General Fund	\$	250,247.16	
Parks & Recreation		5,626.20	
Fire Equipment Fund		3,838.70	
Brownfield Redevelopment Fund		199.50	
Downtown Development Authority		245,119.44	
Community Development Fund		4,911.05	
Trust & Agency Fund		1,546.53	
Current Tax Fund		3,308.51	
Subtotal Common Savings*	\$	514,797.09	
Sewer Fund Receiving**	\$	54,056.36	
Grand Total	\$	568,853.45	

**Includes the following to be reimbursed from separate bank accounts:**

Current Tax Fund	\$	3,308.51
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Dated: February 24, 2009

\_\_\_\_\_  
Marian Frane, Director of Accounting

**III. Approval for Distribution:** I have reviewed the above checks and invoices and all of them should be distributed. All invoices over \$10,000.00 have been approved by general policy or previous motions of the board. (None ).

Dated: February 24, 2009

\_\_\_\_\_  
John B. Elsinga, Township Manager

\_\_\_\_\_  
Evan Hope, Township Clerk

\_\_\_\_\_  
Harry R. Ammon, Treasurer

**IV. Board Audit and Approval:** At a regular meeting of the Township Board held on March 3, 2009, a motion was made by \_\_\_\_\_ and passed by \_\_\_\_\_ yes votes and \_\_\_\_\_ no votes ( \_\_\_\_\_ absent) that the list of claims dated February 24, 2009, was reviewed, audited and approved.

\_\_\_\_\_  
Evan Hope, Township Clerk

INVOICE DISTRIBUTION REPORT FOR DELHI CHARTER TOWNSHIP  
 INVOICES TO BE PAID 02/11/2009 - 02/24/2009  
 Paid Invoices Only

Vendor	Invoice Description	Amount
Fund 101 GENERAL FUND		
Dept 000.00		
HARRY R AMMON	CREDIT & MILEAGE	(60.00)
SBAM	HEALTH INSURANCE MARCH	182.18
Total for Dept 000.00 :		122.18
Dept 101.00 GENERAL GOVERNMENT		
STUART D GOODRICH	MILEAGE 1/27-1/30/09	126.50
Total for Dept 101.00 GENERAL GOVERNMENT:		126.50
Dept 171.00 SUPERVISOR/MANAGER		
SBAM	HEALTH INSURANCE MARCH	689.76
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	283.76
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	137.46
IPMA-HR MICHIGAN CHAPTER	7/1/08-6/30/09 MEMBERSHIP/THIELEN	15.00
MICHIGAN LOCAL GOVERNMENT	2009 MEMBERSHIP/ELSINGA	110.00
Total for Dept 171.00 SUPERVISOR/MANAGER:		1,235.98
Dept 191.00 ACCOUNTING		
SBAM	HEALTH INSURANCE MARCH	306.56
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	257.40
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	71.80
Total for Dept 191.00 ACCOUNTING:		635.76
Dept 215.00 CLERK		
SBAM	HEALTH INSURANCE MARCH	2,207.25
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	361.29
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	117.12
MUZZALL GRAPHICS	4,000 A/P CHECKS & SHIPPING	500.00
MUZZALL GRAPHICS	4,000 A/P CHECKS & SHIPPING	21.70
CERTIFIED DOCUMENT DESTRUCT	4,838 LBS OF DOC DESTRUCTION	241.90
Total for Dept 215.00 CLERK:		3,449.26

Dept 228.00 COMPUTER		
SBAM	HEALTH INSURANCE MARCH	689.76
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	77.53
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	42.75
MICROTECH SERVICES, INC.	KVM SWITCH FOR NEW SERVERS	<u>90.00</u>

Total for Dept 228.00 COMPUTER: 900.04

Dept 253.00 TREASURERS		
SBAM	HEALTH INSURANCE MARCH	1,517.49
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	334.93
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	103.01
HARRY R AMMON	CREDIT & MILEAGE	102.30
JAMES T. MINOR	REFUND NON PRE 1925 HOLLOWBR	<u>1,981.99</u>

Total for Dept 253.00 TREASURERS: 4,039.72

Dept 257.00 ASSESSING		
SBAM	HEALTH INSURANCE MARCH	613.12
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	160.25
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	79.94
INNOVATIVE COMPUTER SERVICES	POSTAGE FOR 2009 ASSESSMENT	3,850.00
360 SERVICES, INC.	2009 PERSONAL PROP STATEMENTS	357.19
JAMES MUNSON	MEALS	<u>73.39</u>

Total for Dept 257.00 ASSESSING: 5,133.89

Dept 262.00 ELECTIONS		
PRINTING SYSTEMS, INC.	5,000 QVF VOTER ID CARDS	213.70
PAPER IMAGE PRINTING	4,750 CANCEL CARDS & ENVELOPES	<u>1,112.20</u>

Total for Dept 262.00 ELECTIONS: 1,325.90

Dept 265.00 BUILDING & GROUNDS		
SBAM	HEALTH INSURANCE MARCH	946.54
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	167.33
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	54.88
MICHIGAN COMPANY	107 CS CENTER PULL TOWELS	1,050.00
MAID BRIGADE OF LANSING	CLEANING SERVICES/CSC	975.00
BOARD OF WATER & LIGHT	WATER	394.92
DELHI TOWNSHIP TREASURER	SEWER	310.50
SAFETY SYSTEMS, INC	SERVICE CALL & TRIP CHARGE	100.00
USA BLUE BOOK	8 FLOAT SWITCHES & FREIGHT	212.00
RS TECHNICAL SERVICES, INC.	SERV LIFT STATION CONTROL PANEL	<u>994.18</u>

Total for Dept 265.00 BUILDING & GROUNDS: 5,205.35

Dept 276.00 CEMETERY		
SBAM	HEALTH INSURANCE MARCH	508.90
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	89.97
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	29.51
BRADY LAWN EQUIPMENT	SERVICE & LABOR	84.50

Total for Dept 276.00 CEMETERY: 712.88

Dept 301.00 POLICE		
ROBERT J. ROBINSON, ATTN	JAN MOTOR VEH ORD	1,725.00
INGHAM COUNTY TREASURER	FEBRUARY POLICE CONTRACT	200,631.17

Total for Dept 301.00 POLICE: 202,356.17

Dept 336.00 FIRE DEPARTMENT		
SBAM	HEALTH INSURANCE MARCH	6,299.88
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	1,211.59
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	425.51
BARYAMES CLEANERS	UNIFORM CLEANING	191.79
HASSELBRING-CLARK	COPIER MAINTENANCE	504.00
PAPER IMAGE PRINTING	AMBULANCE FORMS	239.60
WADDELL PRINTING CO.	MEDICAL BILLING STATEMENTS	410.00
WADDELL PRINTING CO.	MEDICAL BILLING STATEMENTS	26.48
NYE UNIFORM COMPANY	3 PANTS & FREIGHT/ROYSTON	149.22
LIFEGAS LLC	CYLINDER RENTAL	170.43
WESTERN MI ASSOC. OF FIRE CHIEF	2009 DUES/ROYSTON	40.00
BIO-CARE, INC.	MASK FIT TEST/KING	25.00
BIO-CARE, INC.	MASK FIT TEST/ALLEMAN	25.00
COMMUNICATIONS SERVICES	REPAIR 2 RADIOS	175.00
CITY OF LESLIE	25 TWO-WAY BATTERIES	1,375.00
FULTON RADIO SUPPLY CO	2 PENDANT SPEAKERS/2 HOOK	172.00
BOARD OF WATER & LIGHT	WATER	22.70
DELHI TOWNSHIP TREASURER	SEWER	30.00
SAFETY SERVICES, INC	C BATTERIES & UPS	60.64
HALT FIRE, INC.	CAFS SYSTEM MAINTENANCE/#698	5,090.45
ROGER'S CLINE TIRE	TIRE REPAIR/#491	57.50
ACE HARDWARE	BATTERIES/2 EYE BOLTS	15.97
ZEP SALES & SERVICE	STOCK OF CUSTODIAL SUPPLIES	101.12
LUMBERTOWN OF HOLT	PAINT/BRUSH/ROLLER COVERS	48.11
ACE HARDWARE	HOSE/CLAMP	9.27

Total for Dept 336.00 FIRE DEPARTMENT: 16,876.26

Dept 850.00 OTHER FUNCTIONS		
SBAM	HEALTH INSURANCE MARCH	4,132.30
DSS CORPORATION	LASERFICHE/SCANNER CONTRACT	3,944.00
LOWE'S CREDIT SERVICES	COMBO LOCKS/4240 WOODWORTH	50.97

Total for Dept 850.00 OTHER FUNCTIONS: 8,127.27

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Total for Fund 101 GENERAL FUND: 250,247.16

Fund 208 PARKS & RECREATION FUND

Dept 752.00 ADMINISTRATION

SBAM	HEALTH INSURANCE MARCH	613.12
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	82.72
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	67.23
HOLT PUBLIC SCHOOLS	FLYERS	58.75
PAPER IMAGE PRINTING	BUS CARDS-N TOBIAS/ALBERT/PARK	106.10

Total for Dept 752.00 ADMINISTRATION: 927.92

Dept 771.00 PARKS

SBAM	HEALTH INSURANCE MARCH	2,483.19
ACE HARDWARE	SCREWS/BOLTS	2.78
ACE HARDWARE	CHAIN/PINS	13.10
ACE HARDWARE	2 PINS	9.98
ACE HARDWARE	8 SPRAY PAINT/DIESEL FUEL CAN	46.02
ACE HARDWARE	TAPE/PAINT/HOOKS	21.96
LANSING SANITARY SUPPLY INC	CLEANING SUPPLIES	522.93
ALLIED WASTE SERVICES #249	DUMPSTER/VALHALLA	100.00
MODEL COVERALL SERVICE	UNIFORM PANTS	19.32
AMERICAN RENTAL	PORTABLE TOILET	70.00
MODEL COVERALL SERVICE	UNIFORM PANTS	19.32
MODEL COVERALL SERVICE	UNIFORM PANTS	19.32
BOARD OF WATER & LIGHT	WATER	8.72
BOARD OF WATER & LIGHT	WATER	20.53
BOARD OF WATER & LIGHT	WATER	11.12
DELHI TOWNSHIP TREASURER	SEWER	12.00
DELHI TOWNSHIP TREASURER	SEWER	33.95
DELHI TOWNSHIP TREASURER	SEWER	30.00
ACE HARDWARE	5 SPRAY PAINT	22.65
ACE HARDWARE	TAPE/PAINT/HOOKS	19.18
ACE HARDWARE	3 PAINT	12.87
CARQUEST THE PARTS PLACE	2 CABLE LUGS/7 SPOOLS OF WIRE	2.04
DEER CREEK SALES, INC	FILTERS/SIDE COVERS/SPRINGS/	244.27
KROMER CO. LLC	IGNITION SWITCH/SHIPPING	37.68

Total for Dept 771.00 PARKS: 3,782.93

Dept 774.00 RECREATION

SBAM	HEALTH INSURANCE MARCH	689.76
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	77.53
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	32.16
JOHNNY MAC'S	2 BASKETBALLS	75.90
MICHIGAN RECREATION	PUNT, PASS & KICK REGISTRATION	40.00

Total for Dept 774.00 RECREATION: 915.35

Total for Fund 208 PARKS & RECREATION FUND: 5,626.20

Fund 211 FIRE EQUIP. & APPARATUS FUND

Dept 339.00 EQUIPMENT & APPARATUS

FIRE SERVICE MANAGEMENT LLC	TURNOUT GEAR CLEANING	325.75
COMMUNICATIONS SERVICES	5 APOLLO PAGERS	1,875.00

RESCUE RESOURCES LLC	YEARLY MAINTENANCE	663.00
COLDWATER PROF FIREFIGHTERS	SEMINAR-YOUNG/BRITTEN/MCGILL	200.00
MICHIGAN ASSOC OF FIRE CHIEFS	WINTER WORKSHOP/ROYSTON	170.00
MICH STATE FIREMEN'S ASSOC.	3/7 DRIVER TRAINING COURSE/	80.00
COMMUNICATIONS SERVICES	1 VHF RADIO/1 POWER SUPPLY	<u>524.95</u>

Total for Dept 339.00 EQUIPMENT & APPARATUS: 3,838.70

Total for Fund 211 FIRE EQUIP. & APPARATUS FUND: 3,838.70

Fund 243 BROWNFIELD REDEVELOPMENT AUTH

Dept 733.00 BROWNFIELD ADMINISTRATION

FOSTER, SWIFT, COLLINS	LEGAL FEES JANUARY	<u>199.50</u>
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Total for Dept 733.00 BROWNFIELD ADMINISTRATION: 199.50

Total for Fund 243 BROWNFIELD REDEVELOPMENT AUTH: 199.50

Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY

Dept 728.00 DDA ADMINISTRATION

DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	77.53
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	54.29
FOSTER, SWIFT, COLLINS	LEGAL FEES JANUARY	1,165.40
GANNETT MICHIGAN NEWSPAPERS	JANUARY PUBLISHING	333.10
ACE HARDWARE	2 MAGNETIC CATCH	5.98
ACE HARDWARE	FLOURESCENT BULB	11.99
MICHIGAN COMPANY	107 CS CENTER PULL TOWELS	<u>630.00</u>

Total for Dept 728.00 DDA ADMINISTRATION: 2,278.29

Dept 729.00 DDA MARKETING & PROMOTION

STEPPIN IN IT	8/10/08 CONCERT	800.00
BLOHM CREATIVE PARTNERS	FIRE DEPT PSA	975.00
CHARLES GRINNELL	11 HOURS @ \$20	220.00
BLOHM CREATIVE PARTNERS	JANUARY WEB MAINTENANCE	35.00
CRAIG'S AUTO BODY SHOP, LLC	REIMBURSE FOR CONSTRUCTION	<u>1,675.00</u>

Total for Dept 729.00 DDA MARKETING & PROMOTION: 3,705.00

Dept 730.00 COMM REHABILITATION REBATE PGM

MEM LEASING, INC.	PAINT & ASPHALT 2046 DEPOT	2,885.00
NEUMANN LAW, PC	SIGN 2040 AURELIUS	450.00
Z PROPERTIES, INC.	SIGN	<u>741.20</u>

Total for Dept 730.00 COMM REHABILITATION REBATE PGM: 4,076.20

Dept 850.00 OTHER FUNCTIONS

SBAM	HEALTH INSURANCE MARCH	549.61
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	97.16
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	31.87

MAID BRIGADE OF LANSING	CLEANING SERVICES/DDA	480.00
BOARD OF WATER & LIGHT	WATER	3.89
BOARD OF WATER & LIGHT	WATER	8.72
BOARD OF WATER & LIGHT	WATER	76.84
BOARD OF WATER & LIGHT	WATER	14.62
BOARD OF WATER & LIGHT	WATER	8.72
DELHI TOWNSHIP TREASURER	SEWER	12.00
DELHI TOWNSHIP TREASURER	SEWER	48.00
DELHI TOWNSHIP TREASURER	SEWER	12.00
DELHI TOWNSHIP TREASURER	SEWER	27.80
DELHI TOWNSHIP TREASURER	SEWER	23.85
DELHI TOWNSHIP TREASURER	SEWER	22.83
DELHI TOWNSHIP TREASURER	SEWER	12.00
DELHI TOWNSHIP TREASURER	SEWER	12.00
DELHI TOWNSHIP TREASURER	SEWER	4,084.45
CONSUMERS ENERGY	GAS 2028 1/2 CEDAR	<u>136.76</u>

Total for Dept 850.00 OTHER FUNCTIONS: 5,663.12

Dept 903.10 2008 CONSTRUCTION PROJECTS-DDA

KEYSTONE DESIGN GROUP	JANUARY PROFESSIONAL SERVICES	3,983.50
WIELAND - DAVCO CORPORATION	SENIOR CITIZENS CENTER CONST	200,374.38
ELLIOTT FOOD EQUIPMENT, LLC	KITCHEN EQUIP/SENIOR CITIZEN	<u>22,505.35</u>

Total for Dept 903.10 2008 CONSTRUCTION PROJECTS-DDA: 226,863.23

Dept 905.00 DEBT SERVICE

ROBERT HOLMES	3/09 P & I PYMT-AMOCO CORNER	552.72
ROBERT W BAIRD & CO., INC.	3/09 P & I PYMT-AMOCO CORNER	552.72
WILLIAM THORBURN	3/09 P & I PYMT-AMOCO CORNER	1,105.46
ROBERT HOLMES	3/09 P & I PYMT-AMOCO CORNER	80.68
ROBERT W BAIRD & CO., INC.	3/09 P & I PYMT-AMOCO CORNER	80.68
WILLIAM THORBURN	3/09 P & I PYMT-AMOCO CORNER	<u>161.34</u>

Total for Dept 905.00 DEBT SERVICE: 2,533.60

Total for Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY: 245,119.44

Fund 542 COMMUNITY DEVELOPMENT FUND

Dept 721.00 PLANNING/COMMUNITY DEVELOPMENT

SBAM	HEALTH INSURANCE MARCH	3,479.51
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	592.33
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	210.11
PAPER IMAGE PRINTING	BUS CARDS-N TOBIAS/ALBERT/PARK	106.10
FRANKIE D'S AUTO & TRUCK	PARTS & LABOR/99 BUICK	201.00
BANC OF AMERICA LEASING	FEBRUARY KONICA LEASE	271.00
KONICA MINOLTA - ALBIN	JANUARY METER CHARGE	26.00
SAGINAW VALLEY ST UNIVERSITY	3/20 SEMINAR/T. MILLER	<u>25.00</u>

Total for Dept 721.00 PLANNING/COMMUNITY DEVELOPMENT: 4,911.05

Total for Fund 542 COMMUNITY DEVELOPMENT FUND: 4,911.05

Fund 590 SEWAGE DISPOSAL SYSTEM

Dept 000.00

GATEWAY TO HOMES	REF SEWER 2545 AYRSHIRE LANSING	55.40
J B EQUIPMENT INC	REFUND SEWER 4160 KELLER	13.93
WHITCOMB REALTY	REF SEWER 4671 MILES HOLT	51.60
HERZER, AMANDA	REFUND SEWER 2310 PINE TREE	9.79
DAVENPORT, LETTIE	REFUND SEWER 4727 SYCAMORE	11.00
SBAM	HEALTH INSURANCE MARCH	401.40
WOLVERINE ENGINEERS	GENESIS DEVEL. PHASE 2	<u>5,259.04</u>

Total for Dept 000.00 : 5,802.16

Dept 548.00 ADMINISTRATION & OVERHEAD

SBAM	HEALTH INSURANCE MARCH	2,385.22
HOLT POSTMASTER	MARCH SEWER BILLS	<u>2,450.00</u>

Total for Dept 548.00 ADMINISTRATION & OVERHEAD: 4,835.22

Dept 558.00 DEPT OF PUBLIC SERVICE

SBAM	HEALTH INSURANCE MARCH	8,172.85
DELTA DENTAL PLAN OF	DENTAL INSURANCE JANUARY	1,444.84
UNUM LIFE INSURANCE COMPANY	DISABILITY INSURANCE MARCH	473.89
DBI BUSINESS INTERIORS	EXP.FILE/6 TIER TRAY	64.55
DBI BUSINESS INTERIORS	CREDIT	(59.22)
MODEL COVERALL SERVICE	STAFF UNIFORMS	68.77
MODEL COVERALL SERVICE	STAFF UNIFORMS	67.22
BARYAMES CLEANERS	UNIFORM DRY CLEANING	35.60
ACE HARDWARE	10 SNAP BOLTS	32.90
AIRGAS GREAT LAKES	CYLINDER RENTAL	71.02
MOHRE SOFT WATER	90) 80# SOFTNER SALT	814.50
KEMIRA WATER SOLUTIONS, INC	FERRIC CHLORIDE	5,168.68
UNITED PARCEL SERVICE	SHIPPING CHARGES	34.57
COMCAST	HIGH SPEED INTERNET	63.95
USA MOBILITY WIRELESS, INC.	DECEMBER PAGERS	98.50
ACE HARDWARE	CELL PHONE HOLDER/RANES	19.49
BOARD OF WATER & LIGHT	WATER	161.21
BOARD OF WATER & LIGHT	WATER	55.00
BOARD OF WATER & LIGHT	WATER	113.09
BOARD OF WATER & LIGHT	WATER	12.21
DELHI TOWNSHIP TREASURER	SEWER	214.50
BOARD OF WATER & LIGHT	WATER	192.14
BOARD OF WATER & LIGHT	WATER	121.40
ACE HARDWARE	CHAIN	22.74
ACE HARDWARE	CREDIT	(14.75)
ZEP SALES & SERVICE	STOCK OF CUSTODIAL SUPPLIES	114.40
ZEP SALES & SERVICE	STOCKING OF CUSTODIAL SUPPLIES	51.50
ZEP SALES & SERVICE	STOCKING OF CUSTODIAL SUPPLIES	36.00
ZEP SALES & SERVICE	STOCKING OF CUSTODIAL SUPPLIES	49.07
BOBCAT OF LANSING	BOSS SNOW PLOW SPARE PARTS	668.04
BOBCAT OF LANSING	BOSS SNOW PLOW SPARE PARTS	668.04
BOBCAT OF LANSING	BOSS SNOW PLOW SPARE PARTS	82.26
MICHIGAN COMPANY	107 CS CENTER PULL TOWELS	576.25
ACE HARDWARE	TOLIET TISSUE HOLDER	6.99
ACE HARDWARE	HARDWARE	4.79

USA BLUE BOOK	8 FLOAT SWITCHES & FREIGHT	386.93
CARQUEST THE PARTS PLACE	3 OIL FILTERS/4 FUEL FILTERS	50.28
CARQUEST THE PARTS PLACE	3 FUEL FILTERS/20 GAL OIL	240.15
BRADY LAWN EQUIPMENT	2 BELTS/LABOR	43.10
GRAINGER	6 ELECTRONIC PARTS CLEANERS	39.66
USA BLUE BOOK	WALCHEM REPAIR KIT & FREIGHT	897.25
ARGUS-HAZCO	2) MULTIPRO SENSORS/SHIPPING	262.00
ARGUS-HAZCO	2) MULTIPRO SENSORS/SHIPPING	7.72
JACK DOHENY SUPPLIES, INC	PIPE ASSY/6 PINS/SHIPPING	426.22
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	162.60
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	2,480.80
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	109.07
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	1,677.87
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	66.22
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	231.02
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	6.23
JWC ENVIRONMENTAL	MUFFIN MONSTER REPAIR	45.12
SIEMENS BUILDING TECHNOLOGIES	SERVICE AGREEMENT 2/1-4/30/09	4,875.00
MAID BRIGADE OF LANSING	CLEANING SERVICES/MAINTENANCE	260.00
MAID BRIGADE OF LANSING	CLEANING SERVICES/POTW	260.00
SIEMENS BUILDING TECHNOLOGIES	NEW MOTOR & LABOR	5,891.97
BISBEE INFRARED SERVICES	INFRARED ELECTRICAL INSPECTION	950.00
RS TECHNICAL SERVICES, INC.	EMERGENCY SERVICE CALL 1/25/09	226.80
H & H WELDING & REPAIR LLC	100 CUTTERS & 100 SPACERS	2,900.00
QUALITY AWNING INC	3 NITRIFICATION TOWER BLOWER	264.15
FRANKIE D'S AUTO & TRUCK	LOF/3 WIPER BLADES/#21	58.00
FRANKIE D'S AUTO & TRUCK	LOF/WIPER BLADES/WATER PUMP/	499.00
ABSOPURE WATER COMPANY	DRINKING WATER	25.50

Total for Dept 558.00 DEPT OF PUBLIC SERVICE: 43,049.65

Dept 578.01 CAPITAL IMPR-TREATMENT PLANT		
C2AE	GILBERT/W TOWN DRAIN	369.33

Total for Dept 578.01 CAPITAL IMPR-TREATMENT PLANT: 369.33

Total for Fund 590 SEWAGE DISPOSAL SYSTEM: 54,056.36

Fund 701 TRUST & AGENCY FUND

Dept 000.00		
AFLAC	EMPLOYEE DEDUCTIONS	557.68
AFLAC	EMPLOYEE DEDUCTIONS	7.38
AFLAC	EMPLOYEE DEDUCTIONS	386.44
AFLAC	EMPLOYEE DEDUCTIONS	102.00
AFLAC	EMPLOYEE DEDUCTIONS	339.72
SBAM	HEALTH INSURANCE MARCH	153.31

Total for Dept 000.00 : 1,546.53

Total for Fund 701 TRUST & AGENCY FUND: 1,546.53

Fund 703 CURRENT TAX ACCOUNT

Dept 000.00

MAYBERRY HOMES	WINTER TAX OVRPMT #05-25-402-099	42.72
FOSTER, DANIEL	WINTER TAX OVRPMT #05-15-716-014	63.00
MACKENZIE RECYCLING CORP	WINTER TAX OVRPMT #05-11-328-034	3,185.33
CEDAR PARK PLAZA	SUMMER TAX OVRPMT05-90-905-032	17.46

Total for Dept 000.00 : 3,308.51

Total for Fund 703 CURRENT TAX ACCOUNT: 3,308.51

Total - All Funds 568,853.45

**DELHI CHARTER TOWNSHIP  
FUND TRANSFERS AND PAYROLL APPROVAL  
For Payroll Dated February 19, 2009**

**I. Certification of Preparation and Distribution**

The attached check and payroll registers encompass check numbers: 71746 through 71813 & direct deposits numbers: DD7216 through DD7274. The payroll was prepared in accordance with established payroll rates and procedures.

\_\_\_\_\_  
Lora Behnke, Accounting Clerk

The Treasurer's and Clerk's signatures were affixed to the payroll checks using the check signing machine.

\_\_\_\_\_  
Joyce Goulet, Accounts Payable Coordinator

The attached Check and Payroll Registers were reviewed. The payroll checks were distributed in accordance with established procedures.

Dated: February 19, 2009

\_\_\_\_\_  
Marian Frane, CPA, Director of Accounting

**II. Payroll Report**

The February 19, 2009 payroll encompasses the following funds and expenditures:

	<b>Gross Payroll</b>	<b>Payroll Deductions</b>	<b>Net Pay</b>
General Fund	\$81,443.86	\$24,613.72	\$56,830.14
Parks & Recreation Fund	12,166.02	3,258.52	\$8,907.50
DDA	5,807.71	2,581.20	\$3,226.51
Comm. Development Fund	15,321.46	4,361.23	\$10,960.23
Subtotal-Common Savings	114,739.05	34,814.67	<b>79,924.38</b>
Sewer Fund/Receiving	36,738.45	11,014.79	\$25,723.66
Total Payroll	\$151,477.50	\$45,829.46	\$105,648.04
	<b>Township FICA</b>	<b>Township Pension Plan</b>	<b>Total Deductions &amp; TWP Liabilities</b>
General Fund	\$5,878.40	\$6,301.87	\$36,793.99
Parks & Recreation Fund	913.45	603.55	4,775.52
DDA	371.24	486.61	3,439.05
Comm. Development Fund	1,137.45	1,275.98	6,774.66
Sewer Fund/Receiving	2,702.93	3,152.87	16,870.59
Total Payroll	\$11,003.47	\$11,820.88	\$68,653.81

\_\_\_\_\_  
Marian Frane, CPA, Director of Accounting

**III. FUND TRANSFERS**

Transfers covering the foregoing payroll were made on February 19, 2009 and identified as follows:

2/19 Net Pay Disbursement in Common Savings (\$79,924.38) 2/19 Net Pay Disbursement in Sewer Receiving (\$25,723.66)

2/19 Pay Deducts from Sewer Receiving to Common Savings (\$16,870.59)

\_\_\_\_\_  
Harry R. Ammon, Treasurer

**IV. Board Audit and Approval:**

At a regular meeting of the Township Board held on March 3, 2009, a motion was made by \_\_\_\_\_ and passed by \_\_\_\_\_ yes votes and \_\_\_\_\_ no votes(\_\_\_\_\_ absent) that the payroll dated February 19, 2009 was reviewed, audited, and approved.

Attachment to Payroll Register

cc: Ammon(1)Vander Ploeg(1)

\_\_\_\_\_  
Evan Hope, Clerk

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members  
**FROM:** John B. Elsinga, Township Manager  
**DATE:** February 26, 2009  
**RE:** Lift Station D and McCue Road Corridor Infrastructure Improvements

---

Enclosed for your review and approval is a proposal for engineering services provided by C2AE for Lift Station D and McCue Road Corridor Infrastructure Improvements in the amount of \$429,100 (\$324,000 for Preliminary Design Engineering, \$8,000 for Wetland Delineation Sub-consultant and \$97,100 for Geotechnical Sub-consultant – Soil Borings).

As you know, Lift Station D was installed in 1991 replacing two old pump stations from the 1960's and 70's and installed deep enough to serve most of the eastern one-third of the Township. Since then, our Township has grown significantly in that area and the time has come where we need to plan for and construct the final build out capacity of this lift station. This would include the installation of additional pumps along with a new force main from the pump station at Aurelius Road to Eifert Road. Then we would need to install a new gravity sewer within the McCue Road right-of-way (to receive the discharge from both the old 16" and new proposed 16" force mains) from Eifert Road to the POTW.

The scope of the project creates the opportunity for us to rebuild McCue Road with its hazardous ditch into a safe urban roadway with an enclosed ditch receiving stormwater treatment at the end on POTW property. The size and scope of this project would require funding from several sources which could include the current economic stimulus package just approved by Congress. In preparation of those funds, I am recommending the Board authorize the expenditure up to \$429,000 for preliminary engineering in order to determine the most cost effective alternative for this project that provides the best outcome for the sanitary sewer, storm sewer and roadway for our residents.

C2AE's proposal includes the costs of two other engineering team members for this project, OHM and Hubbell, Roth & Clark, Inc. All three firms are very experienced with projects of this scope and magnitude, therefore, I recommend approval. Funds are available in the Sewer Fund Capital Improvement budget.

**Recommended Motion:**

**To approve the proposal from C2AE for Lift Station D and McCue Road Corridor Infrastructure Improvements in the amount of \$429,000 for preliminary design engineering, wetland delineation and soil borings.**

Proposal for Engineering Services  
Lift Station D and McCue Road Corridor  
Infrastructure Improvements

Presented to:  
Delhi Charter Township, Michigan

February 11, 2009





Lansing • Gaylord • Grand Rapids

725 Prudden Street  
Lansing, MI 48906

P: 517.371.1200  
F: 517.371.2013

info@c2ae.com  
www.c2ae.com

February 11, 2009

Mr. John B. Elsinga, Township Manager  
Delhi Charter Township  
2074 North Aurelius Road  
Holt, MI 48842

Re: Proposal for Engineering Services  
Lift Station D and McCue Road Corridor Infrastructure Improvements

Dear Mr. Elsinga:

Pursuant to your request, we are pleased to submit this proposal for design, bidding and construction engineering services for the comprehensive Lift Station D and McCue Road Corridor Infrastructure Improvement program.

We understand the Township is hopeful the federal economic stimulus package will fund some or all the construction costs. As such, current draft legislation suggests that to be eligible, projects must be "shovel ready" within 180 days of the legislation being put into law. Our proposed project team, approach and schedule were developed to meet this requirement.

- C2AE will lead team partners OHM, Hubbell, Roth & Clark, Inc. (HRC) and Soil & Materials Engineers (SME), each having a respective portion of the design and analysis. Teaming provides more resources to readily complete parallel design and permitting efforts within the required timeframe, all coordinated through our vast knowledge of the Township's collection system and staff requirements.
- Considering the strong working relationship each team partner has with the jurisdictional agencies associated with their portion of the work, the overall program should receive more comprehensive regulatory support earlier in the project. This is important to increasing the Township's potential to receive stimulus funding.
- Should stimulus funding not be granted, our approach of parallel analysis and design efforts by various team partners capitalizes on the potential of tapping into each firm's network of alternate funding programs. We will investigate early the potential to separate and phase projects to best meet eligibility requirements of alternative funding sources. This provides a greater opportunity to implement these much needed improvements in a cost structure most advantageous to the Township.

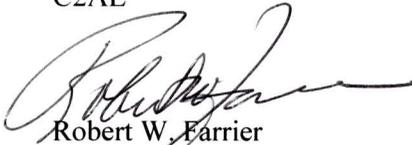
We have provided a detailed project description, scope of services and the anticipated fee for the work enclosed with this proposal. Our standard contract provisions are also attached and considered a part of this proposal.

Mr. John B. Elsinga  
Page 2  
February 11, 2009

We appreciate the opportunity to submit this proposal for your consideration and are looking forward to working with you on this project. If the terms, as stated in this proposal, are acceptable, please sign both copies, as required, and return one copy to our office. If you have any questions, please contact us. Thank you.

Sincerely,

C2AE



Robert W. Farrier  
Business Unit Leader

SAD/09-0127

ACCEPTED: DELHI CHARTER  
TOWNSHIP, MICHIGAN

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



*Lift Station D and McCue Road Corridor Infrastructure Improvements*

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Soil and Materials Engineers Proposal

## **Need for the Project**

Steady population growth and increased operation and maintenance needs have challenged the Delhi Charter Township sanitary sewer collection system, particularly within the last 5 to 10 years. While many improvements have been made throughout the system, the Township has identified several significant needs at the most downstream end of its system, from Lift Station D downstream to the headworks of the wastewater treatment facility (WWTF).

These needs limit cost-effective system conveyance and treatment capacity, and present hurdles for future economic growth with the Township. The recent promise of federal stimulus funds to address just such infrastructure needs that could promote economic growth has led the Township to pursue a combined program of sanitary sewer, storm water/storm drain and roadway improvements along the McCue Road corridor from Lift Station D to, and including, the WWTF. The Township intends to complete the program design within 180 days of stimulus funding enactment in hopes that construction can be fully or partially funded with federal money.

## **Program Overview**

The overriding goals of the Lift Station D Improvement Program are threefold:

- Increase the capacity and operation/maintenance flexibility of sanitary sewer discharge to the WWTF
- Improve vehicular and pedestrian access and safety to and around the WWTF site
- Optimize the quality of storm water treatment and discharge from the area's watershed storm water runoff

These goals will be accomplished through the design of the following elements.

### **Sewage Lift Station D Rehabilitation**

- *New bar screen chamber* – The proposed screening chamber will consist of a cast-in-place concrete structure constructed in-line within the wet well.
- *Wet well access improvements* – Sewage Lift Station D provides service to a significant portion of the collection system and has experienced excessive buildup of grease in the wet well causing maintenance problems. The existing roof-slab will be replaced to incorporate and provide safe access for cleaning by Township maintenance crews. Permanent vector piping will be extended from the lower wet well level to grade level.
- *Pumping system improvements* – Pumping capacity will be increased through the installation of additional pumps in the north wet well, while also rectifying problems with existing pumps in the south wet well. Various pumping options will be explored with Township staff.
- *Flow metering and pump control improvements* – More current and sophisticated technology will be integrated to accommodate flow and process control.

- *Odor & Corrosion Control* – System upgrades will be incorporated to mitigate working conditions and environmental impacts.

#### New Lift Station D Discharge Force Main and Appurtenances

- *Second force main*– An additional force main is proposed to be constructed from Lift Station D paralleling the route of the existing 16-inch force main. It will extend to the existing force main discharge point at the McCue Road/Eifert Road intersection, a distance of approximately one mile. The second force main offers additional capacity for future growth as well as advantages for operation and maintenance.
- *Cross-connection valves* – Cross-connection valving between the two force mains will be provided at Lift Station D that will allow for either pipe to be utilized during maintenance of the other. Detailed hydraulic analysis of the various pumping conditions will be performed and the results discussed with Township staff to determine desired operation characteristics.
- *Clean-out access stations* – Access points for maintenance will be provided along the cross-country portion of the route of both force mains. Appropriate route, access-point locations and site provisions will be discussed with the Township and incorporated into the design.

#### Replacement of the Existing 21-inch Gravity Sewer to the WWTF

- *New gravity sewer* – Inflow from Hurricane Ike in September confirmed that the existing 21-inch gravity sewer to the WWTF is at capacity. The existing parallel 36-inch sewer is planned to be relined under a separate project, and thus will provide additional capacity to its dedicated service area including provision for future growth. Therefore, replacing the 21-inch sewer with a newly sized gravity line rather than extending the new force main the full distance to the WWTF will allow for future capacity to accommodate its own service area and provide flow control options during maintenance and repairs. Poor soils are known to exist in two locations along the route. These will be investigated for suitable design and construction provisions.

#### Rerouting of the Grovenburg Sewer

- *Modifications of Grovenburg Sewer entrance to the WWTF* – The current entrance had minimal repairs completed during the recent project since a future relocation of the plant head works was planned. Rerouting the Grovenburg Sewer entrance at this point in time is appropriate. Temporary flow diversions can be left in place for the current plant head works.

#### McCue Road Reconstruction and Drain Enclosure

- *Grovenburg and Menger Drain Enclosure* – The combination of the drain proximity to the road surface, poor soils, standing water and related groundwater table limit the ability of sanitary sewer construction. The cost to maintain the existing drain during this construction is cost-prohibitive. Enclosing the drain with accompanying drain/wetland mitigation provided downstream will facilitate construction while also addressing a history of accidents and fatalities.

- *McCue Road Reconstruction* – The extent of sanitary sewer work along the McCue Road corridor will require complete, full-depth reconstruction. The benefits of enclosing the adjacent drain will also allow for the proper relocation and cross-section design of the new McCue Road. The addition of a multi-use path adjacent to the new roadway surface will help to meet mutual Township goals for non-motorized transportation.

#### Storm Water Management and Drain/Wetland Mitigation

- *New storm water management and treatment facility* – A new storm water management facility will be provided at the eastern end of the WWTF site. The facility will manage both the quantity and quality of water discharged from the new drain enclosure. A well-designed pond will meet many objectives: helping to meet USEPA linear wetland mitigation requirements from the drain enclosure; possible sizing to provide future wetland mitigation banking credits; meet NPDES Phase II storm water permit requirements with the provision of interpretative signage, pedestrian pathways, overlooks and water quality sampling points; provide an amenity as a passive park setting.

#### Project Coordination

The Township has preliminarily estimated the construction cost of the Lift Station D Improvement Program to equal approximately \$10,000,000. The complexity of the interrelated design elements combined with the various jurisdictional authorities and the accelerated design schedule to meet possible stimulus funding goals dictated the Township to work with a diverse team of project consultants. Based on the overriding nature of this project as a sanitary sewer collection system improvement program, the Township proposes to contract with C2AE as the primary designer and manager of specialty services provided by each of OHM, Hubbell, Roth & Clark, Inc. (HRC), and Soil & Materials Engineers (SME). Each firm is to provide the following services:

#### Team Roles and Responsibilities

- *C2AE*
  - Program Manager to lead and coordinate sub-consultant design and analysis services
  - Topographic Survey for entire project area/corridor
  - Design, environmental permitting and Resident Project Representative Construction Services for:
    - Sewage Lift Station D Rehabilitation
    - New Lift Station D Discharge Force Main and Appurtenances
    - Replacement of the Existing 21-inch Gravity Sewer to the WWTF
    - Rerouting of the Grovenburg Sewer
  - Resident Project Representative Construction services for the storm water facilities
  - Overall Construction Administration for all program elements
  - Construction staking survey services for sanitary sewer improvements and the storm water facilities
- *OHM*
  - Design, as well as environmental permitting and construction support for:
    - McCue Road Reconstruction and Drain Enclosure
  - Coordination of environmental sub-consultant Niswander Environmental, Inc.

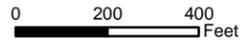
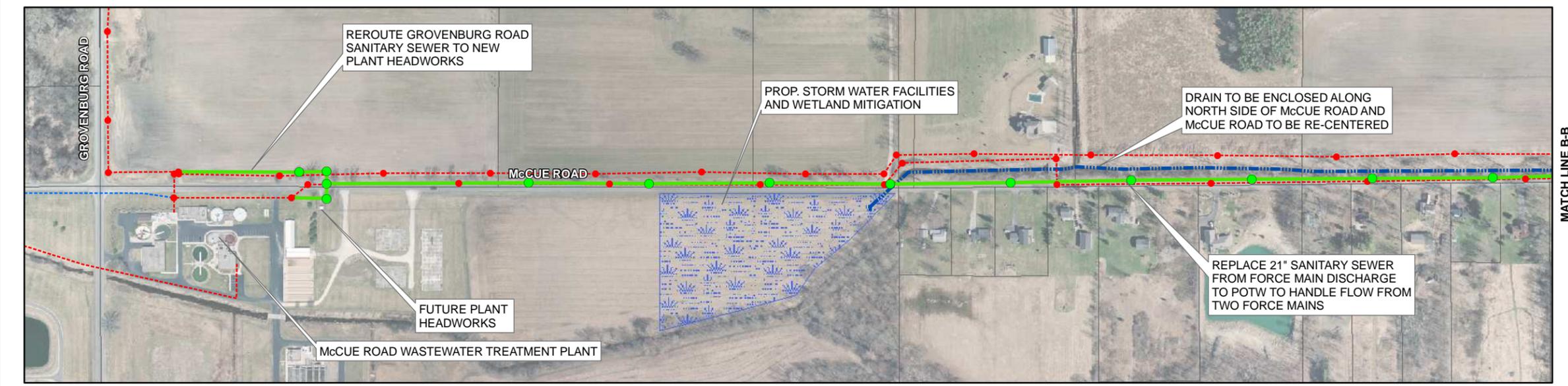
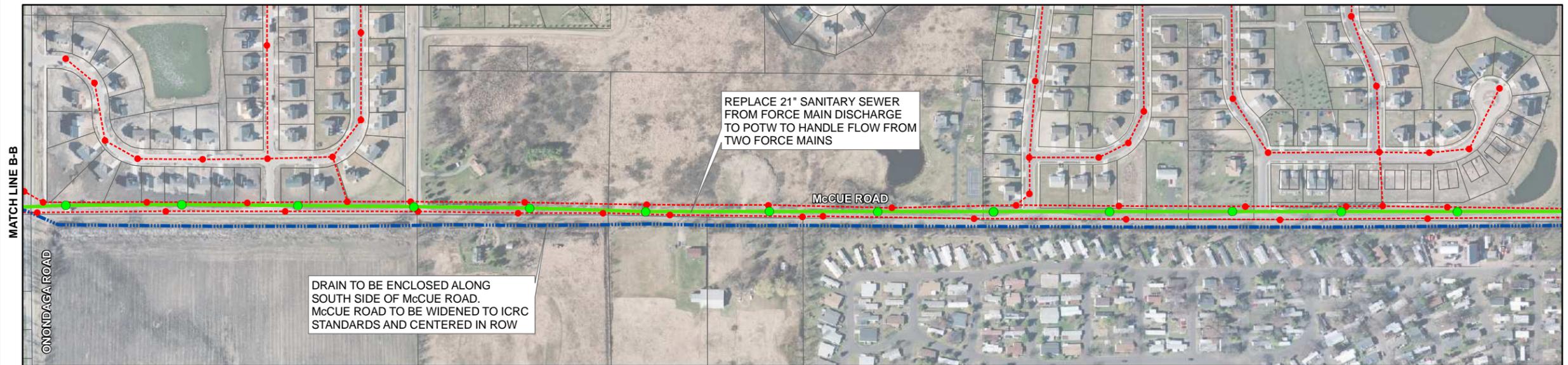
- *HRC*
  - Design, as well as environmental permitting and construction support for:
    - Storm Water Management and Drain/Wetland Mitigation
- *SME*
  - Sub-surface geotechnical investigation and recommendations
  - Construction density and materials testing services

#### Coordinated Phased Approach

- *Team Approach* – The team approach was setup to take advantage of the expertise of each company to expedite project completion.
- *Overlapping permitting and agency interaction* – The number of agencies having regulatory and permitting jurisdiction over the various program elements require C2AE to administer the team partners and sub-consultants work for:
  - Wetland delineation in areas of force main, sanitary sewer, drain enclosure and storm water facility construction
  - Wetland mitigation
  - Meetings and submittals to the Office of the Ingham County Drain Commissioner (ICDC), MDEQ and USPEA
  - Design, construction and traffic routing considerations for McCue Road improvements coordinated with the Ingham County Road Commission (ICRC)
- *Public Relations* – As proven in the Delhi NE and Depot Streets Infrastructure Improvements Project, attention to public relations and coordination with the impacted stakeholders during the implementation of disruptive infrastructure projects is critical to project success. Public meetings, web site postings, mailings, press releases and personal contact with our Resident Project Representatives are all planned.
- *Funding* – The primary intent for funding this project is from the pending federal economic stimulus package. Part of the preliminary design phase effort is to identify the actual funding program(s) and possible alternatives. A detailed preliminary cost opinion will be developed for all project components along with possible break-out for various sources and a prioritized, phased implementation schedule, if appropriate.



WE RECYCLE



**LEGEND**

- - - Ex. Sanitary Sewer
- - - Ex. Force Main
- Ex. Sanitary Manholes
- Ex. Lift Stations
- Prop. Sanitary Sewer
- Prop. Force Main
- Prop. Sanitary Manholes
- - - Prop. Drain to be Enclosed
- Prop. Storm Water Detention

DESIGNED BY: SAA  
CHECKED BY: SAD

APPROVED BY: RWF  
DWG'S MOD BY:



DELHI CHARTER TOWNSHIP  
LIFT STATION D & McCUE ROAD CORRIDOR  
INFRASTRUCTURE IMPROVEMENTS  
INGHAM COUNTY, MI

FIGURE 1  
GENERAL PROJECT LAYOUT

C2AE proposes to provide the following design, bidding and construction engineering services for Lift Station D and McCue Road Corridor Infrastructure Improvements project:

#### **A. Project Coordination**

The following coordination and management tasks will be provided throughout the course of the entire project:

1. Consultant Team Coordination: Coordinate with HRC, OHM, SME and wetland sub-consultants to provide seamless delivery of engineering services throughout the length of the project.
2. Interim Progress Meetings: Progress meetings will be scheduled with the consultant team and the Township to provide regular updates of the project status and provide a forum for feedback and interaction. Options will be presented and critical elements of the project will be discussed to ensure client involvement with decision making. Meeting minutes will be transcribed and delivered to participants for documentation of decisions and timeline commitments as well as clarification of action items.
3. Progress Reports: C2AE will prepare and distribute written project progress reports to the design team and client by fax, mail or e-mail. Progress reports are typically prepared on a monthly basis and can be timed to be issued immediately prior to municipal staff or Council meetings so that Township staff can report or distribute, as appropriate. Key elements in the report include:
  - Work accomplished in the last reporting period and pending within the next reporting period
  - Estimate of percentage of design/permitting process complete
  - Client's input, directions and/or directives
  - Information needed from client to enable us to meet our obligations
  - Documented communication with the Township regarding key issues

#### **B. Preliminary Design Phase**

1. Client Interview: Meet with the consultant team and the Township to obtain stakeholder input and identify desired outcomes and methods for documentation and tracking throughout the project.
2. Kick-Off Meeting: Meet with the consultant team and Township staff to review the project requirements, scope of services and anticipated schedule for the project. The meeting will also include detailed discussion of desired outcomes and concerns raised during Client Interview. A Project Management Plan will be developed and distributed at the kick-off meeting.
3. Investigation of Existing Information: Site investigations will be performed and existing drawings, data, and background information available from the Township and ICDC will be gathered and reviewed to assist for use in preliminary design.
4. Site Survey: Topographical surveys will be performed at the following locations:
  - a. Lift Station D and Township Maintenance Facility site.
  - b. The cross-country route of the proposed force main to McCue Road.
  - c. The full width of the McCue Road corridor including drain ditch cross sections.

- d. The location of the storm water management facility and the drain through the existing WWTF site.
5. Geotechnical Analysis: Direct our sub-consultant to perform a geotechnical analysis of the site for the proposed lift station improvements, force main, gravity sewers, drain enclosure, road reconstruction, shared use path route. A report containing recommendations for site dewatering and construction recommendations will be provided.
6. Wetlands Delineation: Coordinate with wetlands sub-consultant to delineate wetlands that may be impacted by the project.
7. Utility Coordination: Obtain utility information along the entire route of the proposed project.
8. Drain Office and MDEQ Coordination: Ongoing meetings and communication with the Ingham County Drain Commissioner's office and the MDEQ will be necessary for the work performed by the consultant team.
9. Preliminary Design (Lift Station D): Review previous studies and evaluations of the facility. Review the service district to determine projected wastewater flows. Perform detailed hydraulic analysis and investigate potential pumping system options. Meet with Township staff to discuss options and provide recommendations for pumps and station modifications. Design proposed lift station modifications based on maintenance and operation concerns identified by the Township. Develop preliminary layout of the proposed lift station with the features desired based on input from the Township. A preliminary opinion of probable construction cost will be prepared and submitted to the Township.
10. Preliminary Design (New Force Main): Review the plan for construction of a new force main. Discuss with the Township alternatives related to the hydraulic analysis and operational desires identified in the lift station preliminary design. Prepare plan and profile design of approximately 5,500 feet of force main connecting the lift station with the discharge outlet located at the intersection of McCue Road with Eifert Road.
11. Preliminary Design (Sanitary Sewers): Evaluate alternatives and meet with the Township to discuss recommendations. Prepare plan and profile design of approximately 10,000 feet of gravity sewer connecting to replace the existing 21-inch gravity sewer on McCue and reroute the Grovenburg Road Interceptor sewer to the location of the future WWTF head works. Provisions can be made to divert flows to the existing plant head works until the new plant head works are operational.
12. Preliminary Opinion of Probable Construction Cost: Estimate project quantities and prepare Preliminary Engineer's Opinion of Probable Construction Cost.
13. Road Commission: Meet with Ingham County Road Commission to coordinate project construction, traffic control, and permit requirements.
14. Owner Review: Review the preliminary design with the Township to obtain concurrence before proceeding with final design.

### **C. Final Design Phase**

1. Final Design: Incorporate the Township's comments from the preliminary design review, develop specifications for the proposed work and finalize the plans.
2. Easements: Prepare legal descriptions and drawings for use by the Township Attorney in assembling easement documents required for the project.
3. Michigan Department of Environmental Quality (MDEQ) Wastewater System Construction Permits: Submit basis of design, final plans, specifications, and Permit Application for sanitary system construction to the MDEQ, for review, approval, and permit issuance.
4. Soil Erosion and Sedimentation Control (SESC) Permit: Submit plans and application for the SESC permit through Delhi Charter Township.
5. ICDC Permits: Coordinate with consultant team to submit plans and permit applications for the drain enclosure and utility crossings.
6. ICRC Permit: Coordinate with consultant team to submit plans and permit application for the traffic detour routing and construction within the road right-of-way.
7. MDEQ Joint Permit (Floodplain/Wetlands/Utility Crossing): Coordinate with the consultant team to submit plans and Permit Application for the drain enclosure, utility crossings, work within the floodplain and wetland mitigations along the route of the project.
8. QA/QC: Coordinate with consultant team to provide overall QA/QC of the entire project and ensure seamless delivery of the Contract Documents.
9. Opinion of Probable Construction Cost: Finalize project quantities and prepare Engineer's Opinion of Probable Construction Cost.

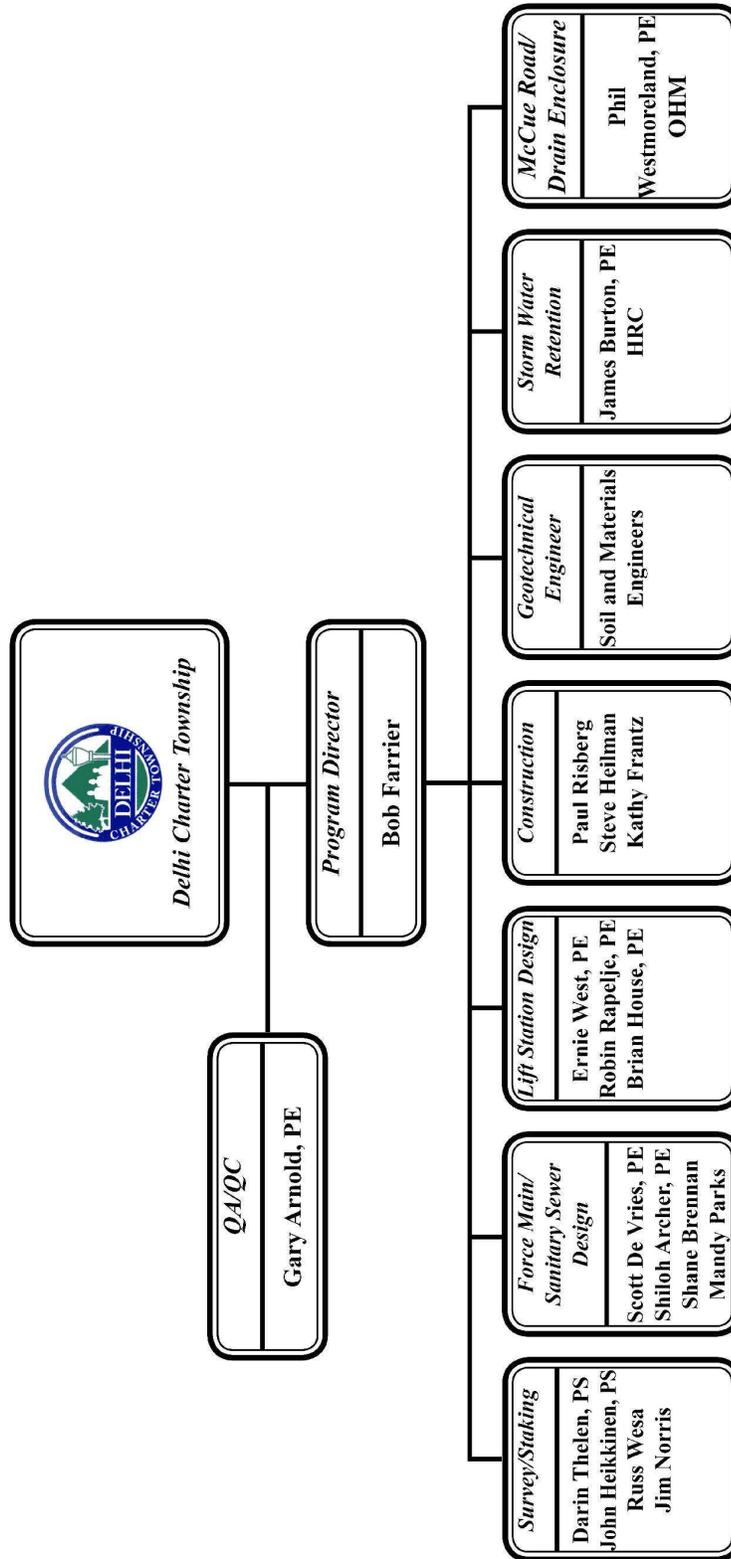
### **D. Bidding Assistance**

1. Advertisement for Bidding: Develop and place an advertisement for bidding of the project in the Michigan Contractor & Builder's construction trade journal.
2. Questions and Clarifications: Coordinate with consultant team to answer questions on the bidding documents from prospective bidders and issue clarifying addendums as needed.
3. Pre-bid Meeting: Schedule and conduct a pre-bid meeting with plan holders to review specific project requirements and answer questions.
4. Bid Opening: Attend and assist the Township in the bid opening. We will prepare a bid tabulation of the bids received at the opening.
5. Recommendation of Award: Prepare a recommendation of contract award for the Township's consideration based on the bids received.

## **E. Construction Engineering**

1. Pre-Construction Meeting: Conduct a preconstruction meeting with the Contractor, Township and other interested parties.
2. Shop Drawing Review: Coordinate with consultant team to review shop drawings of the proposed equipment and materials from the Contractor in accordance with the submittal requirements defined in the project specifications.
3. On-Site Observation: Assign resident observers to the project to monitor Contractor activities. During underground utility and any cast-in-place concrete work, full-time observers will be provided. For above grade piping and structural work associated with the pump station, on-site observation may be reduced to a part-time effort. Sufficient observation will be provided to document compliance with the contract requirements. Daily reports will be prepared giving general observations of the work and indicating quantities completed to date. C2AE will provide resident observation of the work at the lift station, force main, sanitary sewer and storm water management facility. HRC will provide limited resident observation support to C2AE for the storm water management facility. OHM will provide resident observation during construction of the drain enclosure, shared use pathway, and McCue Road reconstruction.
4. Progress Meetings: Conduct progress meetings with the consultant team, Contractor, Township and other interested parties on an as needed basis as the project is progressing.
5. Construction Staking: Provide baseline staking for the proposed improvements for the Contractor's use in construction.
6. Materials Testing: Coordinate subcontractor density testing of bedding and backfill of the underground work as well concrete testing for all structures and pavement testing.
7. Office Engineering/Contract Administration: Provide office assistance for compliance with the contract documents, shop drawing review, review of estimated progress for payment, and recommendation of progress payments. Maintain such records as are required to document the work. Change orders, requests for information, and bulletins will be processed and prepared as required. C2AE will provide overall Construction Administration with support from HRC and OHM related to their corresponding projects roles.
8. Punch List: Perform pre-final inspection and prepare punch list for the project.
9. Final Inspection: Perform final inspection of the completed project.
10. Startup Assistance: Provide assistance to the Township's personnel for the startup of the new equipment in the lift station.
11. O&M Manual: Develop general operations and maintenance manual for overall operation of the Pine Tree Lift Station. Equipment specific O&M information provided by the Contractor will be incorporated in an electronic version of the O&M Manual.

12. Drawings Conforming to Construction Records: Prepare drawings conforming to construction records at the conclusion of the project for the Township's files.
13. GIS Information: GPS coordinate information of the newly installed facilities will be provided to update the Township's GIS system.



We anticipate the following schedule for the project:

<u>Item</u>	<u>Complete by Date</u>
Project Start/Authorization	March 2, 2009
Preliminary Design	May 30, 2009
Final Design	August 8, 2009
MDEQ Permits Obtained	September 2009
Advertise for Bids	August 2009
Bids Received	September 2009
Start Construction	October 2009
Storm Water Management Facility	May 2010
Anticipated Lift Station Modifications Startup	June 2010
Sanitary Sewer Construction	June 2010
Drain Enclosure Construction	August 2010
McCue Road & Pathway Construction	October 2010
Finish Construction	November 2010

We propose to provide the services, as outlined herein, in accordance with the following:

<u>Service</u>	<u>Fee Basis</u>	<u>Fee/Budget</u>
Preliminary Design Engineering	Lump Sum	\$ 324,000
Final Design Engineering	Lump Sum	276,600
Bidding Assistance	Lump Sum	16,400
Construction Engineering	Time & Material	<u>943,900</u>
Subtotal		\$1,560,900*
Permit Fee Allowance	Time & Material, Est.	\$ 15,000
Wetland Delineation Sub-consultant	Time & Material, Est.	\$ 8,000
Geotechnical Sub-consultant (Soil Borings)	Time & Material, Est.	\$97,100
Geotechnical Sub-consultant (Const. Testing)	Time & Material, Est.	<u>\$30,000</u>
Total Budget		\$1,711,000

\*Total budget includes Sub-consultant fees of \$98,000 for HRC and \$269,500 for OHM with a nominal two percent fee for coordination

Invoices for services will be forwarded on a monthly basis, reflecting the level of work completed and are due upon receipt.

The Permit Allowance is based on anticipated permit fees for river crossing/floodplain/wetlands permitting.

**Confidential**

<u>Classification</u>	<u>Hourly Billing Rate</u>
Engineer/Architect IX	\$165.00 - \$193.00
Engineer/Architect VIII	\$149.00 - \$193.00
Engineer/Architect VII	\$125.00 - \$183.00
Engineer/Architect VI	\$107.00 - \$163.00
Engineer/Architect/Landscape Architect V	\$94.00 - \$143.00
Engineer/Architect/Landscape Architect IV, Technician VIII	\$84.00 - \$118.00
Engineer/Architect/Landscape Architect III, Technician VII	\$73.00 - \$104.00
Engineer/Architect/Landscape Architect I & II, Technician VI	\$64.00 - \$91.00
Technician V, Administrative V	\$58.00 - \$82.00
Technician IV, Administrative IV	\$49.00 - \$72.00
Technician III, Administrative III/Clerical III	\$43.00 - \$62.00
Technician II, Administrative II/Clerical II	\$37.00 - \$53.00
Technician I, Administrative I/Clerical I	\$33.00 - \$47.00
Engineer/Clerical Aide	\$33.00 - \$47.00
Two-Person Survey Crew	\$176.00 - \$205.00
One-Person Survey Crew	\$89.00 - \$103.00
Information Technology Manager	\$108.00 - \$163.00
Information Technology Staff, Web Developer	\$85.00 - \$118.00
Interior Designer	\$73.00 - \$98.00

- (1) The foregoing rates include employee fringe benefits, computer time, overhead, other indirect costs and profit. Legal proceedings, including but not limited to case preparation, depositions, interrogatories, court appearances, will be billed at the above hourly rates plus ten percent.
- (2) Rates are effective through December 31, 2009.
- (3) Expenses will be invoiced at cost plus a ten (10) percent administrative fee. Mileage will be billed at the IRS allowable rate; the current rate is \$0.55 per mile for project related mileage.
- (4) All invoices are due upon receipt.
- (5) The information contained herein is confidential and is not to be duplicated, used or disclosed in whole or in part, for any purpose other than for which it has been submitted. Duplication, use or disclosure will be permitted only by authorization of one of the firm's principals.

The parties to this agreement, C2AE, Lansing, Gaylord, and Grand Rapids, Michigan, hereinafter called the A|E CONSULTANT and Delhi Charter Township, Holt, Michigan, hereinafter called the OWNER, hereby agree to the following conditions:

- A. Limit of Scope: The services provided by the A|E CONSULTANT shall be limited to those described in the Scope of Services.
- B. Changed Conditions: If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the A|E CONSULTANT are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks or other material terms of this Agreement, the A|E CONSULTANT may call for renegotiation of appropriate portions of this Agreement. The A|E CONSULTANT shall notify the OWNER of the changed conditions necessitating renegotiation, and the A|E CONSULTANT and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement.
- C. Additional Services: Additional services not specifically identified in the Scope of Services shall be paid for by the OWNER in addition to the fees previously stated, provided the OWNER authorizes such services in writing. Additional services will be billed monthly as work progresses and invoices are due upon receipt.
- D. Standard of Care: In providing services under this Agreement, the A|E CONSULTANT will endeavor to perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Upon notice to the A|E CONSULTANT and by mutual agreement between the parties, the A|E CONSULTANT will without additional compensation, correct those services not meeting such a standard.
- E. ADA Compliance: The Americans with Disabilities Act (ADA) provides that alterations to a facility must be made in such a manner that, to the maximum extent feasible, the altered portions of the facility are readily accessible to persons with disabilities. The OWNER acknowledges that the requirement of the ADA will be subject to various and possibly contradictory interpretations. The A|E CONSULTANT, therefore, will use its reasonable professional efforts and judgment to interpret applicable ADA requirements and other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project. The A|E CONSULTANT, however, cannot and does not warrant or guarantee that the OWNER's project will comply with all interpretations of the ADA requirements and/or the requirements of other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project.
- F. Code Compliance: The A|E CONSULTANT shall put forth reasonable professional efforts to comply with applicable laws, codes and regulations in effect as of the date of submission to building authorities. Design changes made necessary by newly enacted laws, codes and regulations after this date shall entitle the A|E CONSULTANT to a reasonable adjustment in the schedule and additional compensation in accordance with the Additional Services provision of this Agreement.
- G. Permits and Approvals: The A|E CONSULTANT shall assist the OWNER in applying for those permits and approvals normally required by law for projects similar to the one for which the A|E CONSULTANT's services are being engaged. This assistance shall consist of completing and submitting forms to the appropriate regulatory agencies having jurisdiction over the construction

documents, and other services normally provided by the A|E CONSULTANT and included in the scope of Basic Services of this Agreement.

- H. Opinions of Probable Construction Cost: In providing opinions of probable construction cost, the OWNER understands that the A|E CONSULTANT has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the A|E CONSULTANT's opinions of probable construction costs are made on the basis of the A|E CONSULTANT's professional judgment and experience. The A|E CONSULTANT makes no warranty, express or implied, that the bids or the negotiated cost of the work will not vary from the A|E CONSULTANT's opinion of probable construction cost.
- I. Schedule for Rendering Services: The A|E CONSULTANT shall prepare and submit for OWNER approval a schedule for the performance of the A|E CONSULTANT's services. This schedule shall include reasonable allowances for review and approval times required by the OWNER, performance of services by the OWNER's consultants, and review and approval times required by public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope, character or size of the project requested by the OWNER, or for delays or other causes beyond the A|E CONSULTANT's reasonable control.
- J. Ownership of Reports, Drawings and Other Materials: The OWNER agrees that all reports, drawings, letters, work sheets, plans, preliminary material tables, supportive data, documents and other materials produced by the A|E CONSULTANT in the course of and for the purpose of meeting this contract are the property of the A|E CONSULTANT, and shall remain in the possession of the A|E CONSULTANT. The OWNER shall have access to the above named material during normal business hours of the A|E CONSULTANT during and after completion of this contract. The OWNER may obtain copies of any of the above named material. Copies of electronic media may be obtained by the OWNER. (See Alteration and Reuse of CAD Information provision of this Agreement.)
- K. Alteration and Reuse of CAD Information: Because computer aided design/drafting (CAD) information stored in electronic form can be modified by other parties, intentionally or otherwise, without notice or indication of said modifications, the A|E CONSULTANT reserves the right to remove all indications of its ownership and/or involvement in the material from each electronic medium not held in its possession. The OWNER may retain copies of the work performed by the A|E CONSULTANT in CAD form. Copies shall be for information and used by the OWNER for the specific purpose for which the A|E CONSULTANT was engaged. Said material shall not be used by the OWNER, or transferred to any other party, for use in other projects, additions to the current project, or any other purpose for which the material was not strictly intended without the A|E CONSULTANT's express written permission. Any unauthorized modification or reuse of the materials shall be at the OWNER's sole risk, and the OWNER agrees to defend, indemnify, and hold the A|E CONSULTANT harmless, from all claims, injuries, damages, losses, expenses, and attorneys fees arising out of the unauthorized modification of these materials.
- L. Record Documents: Upon completion of the work, the A|E CONSULTANT shall compile for and deliver to the OWNER a reproducible set of Record Documents based upon the marked-up record drawings, addenda, change orders and other data furnished by the Contractor. These Record Documents will show significant changes made during construction. Because these Record Documents are based on unverified information provided by other parties, which the A|E

CONSULTANT shall assume will be reliable, the A|E CONSULTANT cannot and does not warrant their accuracy.

- M. Payment Terms: Invoices will be submitted by the A|E CONSULTANT monthly, are due upon receipt and shall be considered past due if not paid within thirty (30) calendar days of the due date.
- N. Disputed Invoices: If the OWNER objects to any portion of an invoice, the OWNER shall so notify the A|E CONSULTANT in writing within ten (10) calendar days of receipt of the invoice. The OWNER shall identify in writing the specific cause of the disagreement and the amount in dispute and shall pay that portion of the invoice not in dispute in accordance with other payment terms of this Agreement. Any dispute over invoiced amounts due which cannot be resolved within ten (10) calendar days after receipt of invoice by direct negotiation between the parties shall be resolved within thirty (30) calendar days in accordance with the Dispute Resolution provision of this Agreement. Interest at one-and-one-half (1.5) percent (or the maximum rate allowable by law, whichever is less) shall be paid by the OWNER on all disputed invoice amounts that are subsequently resolved in the A|E CONSULTANT's favor and shall be calculated on the unpaid balance from the due date of the invoice.
- O. Abandonment of Work: If any work is abandoned or suspended, the A|E CONSULTANT shall be paid for services performed prior to receipt of written notice from the OWNER of abandonment or suspension.
- P. Errors and Omissions Insurance: The A|E CONSULTANT maintains an errors and omissions insurance policy as part of normal business practice. The OWNER agrees to limit the A|E CONSULTANT's liability to the OWNER and to all Construction Contractors and Subcontractors on the project due to the A|E CONSULTANT's negligent acts, errors, or omissions, such that the total aggregate liability of the A|E CONSULTANT to all those named shall not exceed C2AE limits of insurance coverage.
- Q. Betterment: If, due to the A|E CONSULTANT's negligence, a required item or component of the project is omitted from the A|E CONSULTANT's construction documents, the A|E CONSULTANT shall not be responsible for paying the cost required to add such item or component to the extent that such item or component would have been required and included in the original construction documents. In no event will the A|E CONSULTANT be responsible for any cost or expense that provides betterment or upgrades or enhances the value of the project.
- R. Indemnification: The A|E CONSULTANT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the OWNER, its officers, directors and employees (collectively, OWNER) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the A|E CONSULTANT's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the A|E CONSULTANT is legally liable.

The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the A|E CONSULTANT, its officers, directors, employees and subconsultants (collectively, A|E CONSULTANT) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the OWNER's negligent acts in connection with the project and the acts of its contractors, subcontractors or consultants or anyone for whom the OWNER is legally liable.

Neither the OWNER nor the A|E CONSULTANT shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

- S. Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the A|E CONSULTANT, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both the OWNER and the A|E CONSULTANT shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.
- T. Full-Time Construction Observation: The A|E CONSULTANT will provide full-time project representation in order to observe the progress and quality of the work completed by the Contractor. Such observation is not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather is to allow the A|E CONSULTANT, as an experienced professional, to become generally familiar with the work in progress and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

The A|E CONSULTANT shall keep the OWNER informed about the progress of the work and shall endeavor to guard the OWNER against deficiencies in the work.

The A|E CONSULTANT shall not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor in accordance with the Contract Documents.

The A|E CONSULTANT shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the work, or any agents or employees of any of them. The A|E CONSULTANT does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

- U. Part-Time Construction Observation: The A|E CONSULTANT shall visit the site at intervals appropriate to the stage of construction, or as otherwise agreed to in writing by the OWNER and the A|E CONSULTANT, in order to observe the progress and quality of the work completed by the Contractor. Such visits and observation are not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather are to allow the A|E CONSULTANT, as an experienced professional, to become generally familiar with the work in progress and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

Based on this general observation, the A|E CONSULTANT shall keep the OWNER informed about the progress of the work and shall endeavor to guard the OWNER against deficiencies in the work.

The A|E CONSULTANT shall not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor in accordance with the Contract Documents.

The A|E CONSULTANT shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the work, or any agents or employees of any of them. The A|E CONSULTANT does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

- V. Jobsite Safety: Neither the professional activities of the A|E CONSULTANT, nor the presence of the A|E CONSULTANT or its employees and subconsultants at a construction/project site, shall relieve the General Contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the work in accordance with the Contract Documents and any health or safety precautions required by any regulatory agencies. The A|E CONSULTANT and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The OWNER agrees that the General Contractor shall be solely responsible for jobsite safety, and warrants that this intent shall be carried out in the OWNER's contract with the General Contractor. The OWNER also agrees that the OWNER, the A|E CONSULTANT and the A|E CONSULTANT's subconsultants shall be indemnified by the General Contractor and shall be made additional insureds under the General Contractor's policies of general liability insurance.
- W. Hazardous Materials: As used in this Agreement, the term *hazardous materials* shall mean any substances, including but not limited to asbestos, toxic or hazardous waste, PCBs, combustible gases and materials, petroleum or radioactive materials (as each of these is defined in applicable federal statutes) or any other substances under any conditions and in such quantities as would pose a substantial danger to persons or property exposed to such substances at or near the project site.

Both parties acknowledge that the A|E CONSULTANT's Scope of Services does not include any services related to the presence of any hazardous or toxic materials. In the event the A|E CONSULTANT or any other party encounters any hazardous or toxic materials, or should it become known to the A|E CONSULTANT that such materials may be present on or about the jobsite or any adjacent areas that may affect the performance of the A|E CONSULTANT's services, the A|E CONSULTANT may, at its option and without liability for consequential or any other damages, suspend performance of its services under this Agreement until the OWNER retains appropriate consultants or contractors to identify and abate or remove the hazardous or toxic materials and warrants that the jobsite is in full compliance with all applicable laws and regulations.

The OWNER agrees, notwithstanding any other provision of this Agreement, to the fullest extent permitted by law, to indemnify and hold harmless the A|E CONSULTANT, its officers, partners, employees and consultants (collectively, A|E CONSULTANT) from and against any and all claims, suits, demands, liabilities, losses, damages or costs, including reasonable attorneys' fees and defense costs arising out of or in any way connected with the detection, presence, handling, removal, abatement, or disposal of any asbestos or hazardous or toxic substances, products or materials that exist on, about or adjacent to the project site, whether liability arises under breach of

contract or warranty, tort, including negligence, strict liability or statutory liability or any other cause of action, except for the sole negligence or willful misconduct of the A|E CONSULTANT.

- X. Change Orders/Stop Work Orders: The A|E CONSULTANT and the OWNER agree that any construction contract change orders or stop work orders must be approved in writing by the OWNER.
- Y. Agreement Not to Claim for Cost of Certain Change Orders: The OWNER recognizes and expects that certain Change Orders may be required to be issued as the result in whole or part of imprecision, incompleteness, errors, omissions, ambiguities, or inconsistencies in the Drawings, Specifications and other design documentation furnished by the A|E CONSULTANT or in the other professional services performed or furnished by the A|E CONSULTANT under this Agreement whether caused by professional negligence or by imperfections that are within professional standards (“Covered Change Orders”). Accordingly, the OWNER agrees not to sue and otherwise to make no claim directly or indirectly against the A|E CONSULTANT on the basis of professional negligence, breach of contract or otherwise with respect to the costs of approved Covered Change Orders unless the costs of such approved Covered Change Orders exceed 5% of Construction Cost, and then only for an amount in excess of such percentage. Any responsibility of the A|E CONSULTANT for the costs of Covered Change Orders in excess of such percentage will be determined on the basis of applicable contractual obligations and professional liability standards. For purposes of this paragraph, the cost of Covered Change Orders will not include any costs that the OWNER would have incurred if the Covered Change Order work had been included originally in the Contract Documents without any imprecision, incompleteness, error, omission, ambiguity, or inconsistency in the Drawings, Specifications and other design documents furnished by the A|E CONSULTANT or in the A|E CONSULTANT’s other professional services related thereto. Nothing in this provision creates a presumption that, or changes the professional liability standard for determining if, the A|E CONSULTANT is liable for the cost of Covered Change Orders in excess of the percentage of Construction Cost stated above or for any other Change Order.
- Z. Dispute Resolution: The OWNER agrees that all claims, disputes, and other matters in question between the parties arising out of or relating to this Agreement or breach thereof first shall be submitted for nonbinding mediation to any one of the following, as agreed to by the parties: American Arbitration Association, American Intermediation Service, Americord, Dispute Resolution, Inc., Endispute, or Judicate. Any party hereto may initiate mediation within the time allowed for filing for arbitration as set forth below and the parties hereto agree to fully cooperate and participate in good faith to resolve the dispute(s). The cost of mediation shall be shared equally by the parties hereto. Any time expended in mediation shall not be included in calculating the time for filing arbitration.

If mediation fails to resolve the claim or dispute, the matter shall be submitted to arbitration with the American Arbitration Association under the Construction Industry rules, unless the parties agree otherwise or unless a plaintiff not a party hereto institutes litigation in a court of competent jurisdiction and said court takes personal jurisdiction over one of the parties hereto regarding the same subject matter as in dispute between the parties hereto.

No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder, or in any other manner, any additional person not a party to this Agreement except by written consent of the parties and such consent to arbitration involving an additional person(s) shall not constitute consent to arbitration of any dispute not described therein. This Agreement to arbitrate

and any agreement to arbitrate with an additional person(s) shall be specifically enforceable under the prevailing arbitration law.

The demand for arbitration shall be made within one (1) year of the date the claimant knew or should have known of the existence of the claim, dispute, or other matter. If the demand for arbitration is not effectuated within one (1) year, the claim, dispute, or other matter shall be forever barred and not mandatory.

The decision rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. In the event either party makes a claim or brings action against the other party for any act arising out of the performance of the services hereunder, and the claimant fails to prove such claim or action, then the claimant shall pay all legal and other costs (including attorneys' fees) incurred by the other party in defense of such claim or action.



**HUBBELL, ROTH & CLARK, INC**  
**Consulting Engineers**

**Principals**  
George E. Hubbell  
Thomas E. Biehl  
Walter H. Alix  
Peter T. Roth  
Michael D. Waring  
Keith D. McCormack  
Curt A. Christeson  
Thomas M. Doran

**Senior Associates**  
Frederick C. Navarre  
Gary J. Tressel  
Lawrence R. Ancypa  
Kenneth A. Melchior  
Dennis M. Monsere  
Randal L. Ford  
David P. Wilcox  
Timothy H. Sullivan

**Chief Financial Officer**  
J. Bruce McFarland

**Associates**  
Thomas G. Maxwell  
Nancy M.D. Faught  
Jonathan E. Booth  
Michael C. MacDonald  
Marvin A. Olane  
James C. Hanson  
Richard F. Beaubien  
William R. Davis  
James J. Aiello  
Daniel W. Mitchell  
Jesse B. VanDeCreek  
Robert F. DeFrain  
Marshall J. Grazioli  
Thomas D. LaCross

February 10, 2009

C2AE  
725 Prudden Street  
Lansing, Michigan 48906

Attn: Mr. Robert W. Farrier, Director

Re: Proposal for Professional Engineering and Environmental Services      HRC Job No. 20090091  
McCue Road Storm Water Management Plan

Dear Mr. Farrier

Hubbell, Roth & Clark, Inc. (HRC) thanks you for the opportunity to present C2AE and the Charter Township of Delhi with this proposal to provide engineering and environmental services for the above referenced project. In this proposal, we have identified anticipated work tasks, along with ideas and strategies (Ideas for Consideration) that will provide the C2AE and the Township with an understanding of HRC's action plan for implementing the project successfully.

HRC is looking forward to working with C2AE and OHM to provide a team approach to solving the unique set of issues associated with the McCue Road and Lift Station D improvements. Innovative efforts to complete the scope of this assignment will be needed. It is our understanding that all Lift Station D, utility, road way, and drain enclosure engineering tasks will be performed by either C2AE or OHM. HRC's role consists of designing storm water management facilities to offset volume, habitat, and water quality losses associated with the drain enclosure. These facilities will be located on the POTW-WWTP site. We have identified the following design conditions for this task:

- The design will need to meet the requirements of the Ingham County Drain Commissioner, the Michigan Department of Environmental Quality, and the Environmental Protection Agency Region V.
- The proposed facility must fit within the property limits without impacting future plant expansion areas.
- Flows, floodplain elevations, and the stability of the water course through the property must remain similar to existing to avoid impacts to the existing and future facilities.
- Ownership, easements, and maintenance responsibilities for the facility must be negotiated to protect the long term interests and viability of the site for its intended use.
- Reoccurring or frequent maintenance costs need to be minimal.
- Maintenance needs should be easily addressed using current Township staff and equipment.
- To meet regulatory requirements, stream (drain) restoration, constructed wetland area(s), or a combination of both may be necessary to achieve the requisite amount of mitigation for the drain enclosure impacts.

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801 Broadway NW, Suite 215  
Grand Rapids, Michigan 49504  
**Telephone** 616 454 4286 **Fax** 616 454 4278  
www.hrc-engr.com

**Engineering. Environment. Excellence.**

## **IDEAS FOR CONSIDERATION**

HRC has carefully considered this project and offer these ideas as possible areas for economy or enhancement of the desired project outcomes.

- Once the minimum area needed to mitigate for the drain enclosure is known and a storm water management facility layout determined, it may be advantageous to maximize the area for use as mitigation credits on future Township projects that impact streams, drains, or wetlands i.e. local mitigation banking.
- A limited amount of grant monies may be available for the design and construction of the proposed storm water system. HRC will evaluate possible opportunities for your consideration.
- This site may also help the Township fulfill their Phase II Stormwater permit requirements if public education or participation aspects are added into the design such as interpretive signage, pedestrian facilities, overlook areas, water quality sampling stations, etc.
- The proper design of this facility could result in a passive park setting/amenity.

## **HRC EXPERIENCE**

HRC's Environmental Engineering Department (EED) located in our Bloomfield Hills office will manage this project with input and assistance from our Grand Rapids Office staff that are currently working on several assignments at the WWTP. The multi disciplined EED staff has decades of experience collectively and has recently completed several similar projects such as the Abbott Road Reconstruction wetland and stream mitigation basins in East Lansing, the Sylvan Glen golf course stream bank stabilization and drain improvements in Troy, the Sashabaw Drain Regional Stormwater Detention and Wetland Mitigation Bank in Independence Township, and the Randolph Street Intercounty Drain improvements in Novi and Northville.

HRC is also currently assisting the Township in the Cedar Lake alleged pollution matter. During this assignment we have increased our knowledge of the Ingham County Drain Commissioners requirements and believe that we have a good working relationship with their office and consultants that should assist in gathering available information, designing a suitable facility, and permitting the Township project.

The primary contact for this assignment will be Mr. James Burton, P.E. LEED AP, and Manager of our Environmental Engineering Department. Mr. Tom Grant, P.E. will assist with any coordination with the WWTP work and site improvement.

Thomas M. Doran, P.E., Vice President and Principal, will conduct HRC's Client Interview Process where the Township's desired outcomes will be identified, tracked, and measured, and will provide quality review of the work products.

## **CONSTRAINTS**

In the scope of services section below, we provide descriptions for a detailed set of tasks to complete this project. However, there are several issues that could significantly alter the direction of this project and thus the necessary scope of services and engineering costs.

First, it is our understanding that OHM will be designing the roadway and drain enclosure aspects of this project. Their design will influence pipe diameter, velocity, outlet depth, volume of storage mitigation

needed, peak flows, etc. This could alter the size, layout, configuration, etc. of the proposed downstream facility. This will need to be addressed early in the process. To overcome this constraint, we propose to stay involved with the preliminary hydraulic modeling and road design so we are aware of the design issues early. We will also work with OHM and C2AE on setting up a pre application meeting with ICDC and MDEQ to go over all requirements. Finally, HRC will wait to begin final design until these issues are resolved.

Second, EPA has issued stream mitigation requirements for projects such as this where long stretches of drains, creeks, or streams are proposed to be enclosed. However, MDEQ has issued no guidance in this regard. Therefore, we will need to work with both parties to determine a reasonable and acceptable amount of mitigation necessary to offset the drain enclosure. Again, HRC will participate in all local agency meetings, work with the other consultants to attempt to quantify impacts in advance of final design, and will not commit unnecessary resources to complete the design of this until a clear understanding is known.

Third, as mentioned above, the proposed storm water management facility and improvements must fit within the confines of future on site improvements to the WWTP. Since the Township is positioning itself for federal stimulus package monies or at least SRF funding of various infrastructure improvements at the WWTP, the storm water management facility will need to be coordinated with this work to avoid overlap, conflicts, or sequencing issues should funds become available and the Township implements the proposed work. The various HRC teams working on these projects will work together to mesh these projects together.

## **SCOPE OF SERVICES**

Our anticipated scope of services for this project includes the following based on our current understanding of the project.

### *Investigation Phase*

1. Before any work commences, HRC will deploy its Client Interview Process to first identify, and then document, track, and measure the outcomes the Township desires for this project. We consider this an essential element to obtain stakeholder input and to get the project right. C2AE and OHM will also be invited to attend and participate.
2. HRC will meet with the Township and the consultant team to review the scope of services and introduce the project team members. A key element of this project start meeting will be a discussion of the Ideas for Consideration that we have identified, with the first priority of confirming those ideas that merit further investigation.
3. We will review existing information available from the WWTP and Drain office. We will perform site investigations and data/drawing reviews that are necessary to determine the scope and price of options that will be examined.
4. HRC will coordinate with the other consultants to set up a meeting with MDEQ and the ICDC offices to discuss the project, visit the site, and determine necessary parameters.
5. Possible grant funding will explored and reported to the Township for thier consideration.

6. HRC staff will participate in up to four meetings not including the client interview meeting; 1) MDEQ and ICDC, 2) project kickoff with the consultant team, 3) design coordination meeting, and 4) progress meeting with the Township and consultant team at the end of the Investigation Phase.
7. Survey and soil boring needs will be identified and sent to C2AE/OHM for inclusion in your scope of work. Preliminary needs have already been provided to them.
8. We anticipate the following deliverables for the *Investigation Phase*:
  - Client Interview Process documentation
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings including MDEQ and ICDC requirements

#### *Preliminary Design Phase*

1. HRC will work with C2AE and OHM to develop your hydraulic model and gather preliminary design data and create a basis of design for the storm water management facilities.
2. Once the drain enclosure and road plans are developed, at least to first owner review phase, HRC will prepare plans and specification suitable for permitting purposes only and make all necessary applications not covered by either C2AE or OHM. At minimum we will provide input on the permit applications and provide the necessary documentation.
3. HRC will present concept plans and renderings showing the proposed facilities for Township review, input, and approval.
4. HRC staff will participate in up to three meetings including; 1) design coordination meeting, 2) presentation to the Township showing the proposed concept plans, and 3) progress meeting with the Township and consultant team at the end of the Preliminary Design Phase.
9. We anticipate the following deliverables for the *Preliminary Review Phase*
  - Preliminary Basis of Design Report
  - Permit applications or input into permit applications
  - Concept drawings
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

#### *Final Design Phase*

1. HRC will meet with the Township to review and confirm, and modify as necessary, the Basis of Design.
2. HRC will prepare the necessary final plan sheets and specifications to include in the contract documents for the project created by C2AE or OHM.
3. HRC will prepare drawings and information in suitable detail to convey the project to the Township Board or the general public at two (2) informational meetings.
4. HRC will provide the Township and the consultant team with an official record set of the drawings along with a mylar of the cover sheet and/or electronic copies of all plans and specifications to be

included in the documents for distribution to potential bidders and suppliers. HRC will not be reproducing the contractor books.

5. HRC will respond to Contractors' questions and provide information for the Township to issue addenda as required during the bid phase. HRC will review the bids received, participate in any interviews of the three low bidders and assist in preparing a letter recommendation for contract award.
6. HRC staff will participate in up to four meetings including; 1) design coordination meeting, 2) presentation to the Township showing the proposed plans, 3) a general public informational meeting, and 4) progress meeting with the Township and consultant team at the end of the Final Design Phase.
7. We anticipate the following deliverables for the *Final Design Phase*
  - Final Basis of Design Report
  - Contract Drawings and Specifications
  - Minutes from any public informational meetings
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

#### *Construction Phase*

1. It is assumed that C2AE or OHM will be providing full time inspection for this project.
2. HRC will review shop drawings and contractor submittals as necessary for items under our scope of work.
3. Provide field engineering as needed or at mutually agreed frequency. For purposes of this proposal we have based this effort on a four month construction period, at 16 hours per month
4. Review contractor pay requests, change orders, and field changes.
5. Prepare a punch list near construction completion and monitor the contractor's efforts to complete the work.
8. Prepare conforming to construction drawings based on as-built surveys performed by C2Ae or OHM, contractor records, and inspection reports from C2AE or OHM.
9. HRC staff will participate in up to four meetings including; 1) preconstruction conference, 12) monthly progress meetings, and 1) progress meeting with the Township and consultant team at the end of the Construction Phase in addition to field engineering time and punch list inspection
10. We anticipate the following deliverables for the *Construction Phase*
  - Final punch lists and certification of construction
  - Record Drawings and Specifications
  - Updated project scopes, construction and engineering budgets, and identified issues
  - Documentation from all meetings

## BUDGET

The level of uniqueness and complexity of this project, and the absence of a completed hydraulic model defining the flows, velocity, volumes, etc, makes it difficult to accurately calculate the level of effort and corresponding fee. Based on our understanding of the necessary effort, the Township's expectations, we offer the following hours and estimated budget for the HRC portions of this assignment as defined above:

Investigation Phase:	120 Hours	\$ 12,000
Preliminary Design Phase:	380 Hours	\$ 37,000
Final Design Phase:	320 Hours	\$ 31,000
<u>Construction Phase:</u>	<u>200 Hours</u>	<u>\$ 18,000</u>
<b>TOTAL ESTIMATED BUDGET:</b>		<b>\$ 98,000</b>

At each phase of the project, HRC will document hours and costs to date, changes in the scope of services, revisions to the estimate of construction and total project costs, and engineering fees.

## WORK NOT PRESENTLY INCLUDED IN OUR SCOPE OF SERVICES OR BUDGET

1. Drafting grant applications
2. Any extended MDEQ monitoring needed for permit compliance
3. Preliminary survey, construction layout, and as-built survey
4. Geotechnical investigation of the site
5. Hydrologic or Hydraulic Modeling
6. Full time construction inspection (see level of effort in Scope of Services)
7. Preparation of contract books other than the technical specifications for our items of work

We look forward to the opportunity to partner with C2AE and OHM and be of continued service to the Township and hope that you agree that the ideas and strategies we have shared in this proposal reflect the serious thought that we have applied to this project and our sincere interest in the work.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Thomas M. Doran, P.E.  
Principal/Vice President



James F. Burton, P.E. LEED AP  
Project Manager

TMD/  
Attachment  
pc: HRC; File



**Soil and Materials Engineers, Inc.**  
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Chairman Emeritus

Mark K. Kramer, PE  
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Starr D. Kohn, PhD, PE  
Edward S. Lindow, PE  
Gerard P. Madej, PE  
Timothy J. Mitchell, PE  
Robert C. Rabeler, PE  
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Mark L. Michener, CDT  
Larry W. Shook, PE  
Thomas H. Skotzke  
Michael J. Thelen, PE  
John C. Zarzecki, CWI, CDT

February 9, 2009

Mr. Bob Farrier, PE  
C2AE  
725 Prudden Street  
Lansing, Michigan 48906

Via electronic mail: bob.farrier@C2AE.com

RE: Proposal for Geotechnical Evaluation Services  
Proposed McCue Road Infrastructure Improvements  
Between Eifert Road and Grovenberg Road  
Delhi Township, Michigan  
SME Proposal No. L09-0026

Dear Mr. Farrier:

Soil and Materials Engineers, Inc. (SME) would be pleased to assist you and your project team with geotechnical evaluation services for the proposed McCue Road infrastructure improvements in Holt, Michigan. This proposal is submitted in response to your Request for Proposal (RFP) during a telephone conversation with Ms. Megan S. Jacobs, EIT of SME on February 5, 2009.

For input to this proposal, SME reviewed undated, untitled drawings provided by C2AE on February 5, 2009, that included a layout of the existing site features and proposed infrastructure improvements. SME also discussed boring requirements with Mr. Philip Westmoreland, PE with OHM and reviewed the Natural Resources Conservation Service (NRCS) Soil Survey available on-line.

## PROJECT DESCRIPTION

We understand this project consists of multiple infrastructure improvements in Delhi Township, Michigan. For purposes of this proposal, description of the infrastructure improvements is divided into three phases as indicated below:

1. Phase I – McCue Road Improvements
2. Phase II – New Cross-Country Sanitary Sewer and Lift Station D
3. Phase III – New Detention Basin

Plymouth  
Bay City  
Grand Rapids  
Kalamazoo  
Lansing  
Shelby Township  
Toledo  
Traverse City

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consultants in the geosciences, materials, and the environment

Phase I will include roadway, storm sewer and sanitary sewer improvements. Roadway improvements will consist of complete reconstruction of McCue Road (from Eifert Road to approximately 0.5 miles east of Grovenburg Road), and pulverizing and overlaying McCue Road (from Grovenburg Road to 0.5 miles east of Grovenburg Road). Storm water improvements will consist of replacing the open storm drain located along McCue Road with a closed drain system. We understand 5 to 7-foot diameter pipes with invert levels near that of the existing open drain will be used to transport storm water to a new detention basin (Phase III). Sanitary sewer improvements will include constructing new 16 to 20- inch diameter sanitary sewer force mains. We assume the proposed grading within McCue Road will be within about 1 to 2 feet of the existing ground surface elevation and new sanitary sewer force mains will be located at or above the existing open channel.

Phase II will include constructing a new cross-country, 16 to 20-inch diameter, sanitary sewer force main and lift station. The cross-country sanitary sewer will extend from near the intersection of McCue and Eifert Roads approximately 1.1 miles east of Eifert Road to a new lift station 'D' facility. The force main is expected to extend about 10 feet below existing grades. The new lift station will extend about 30 feet or less below existing grade.

Phase III will include constructing new detention ponds in existing fields located to the east of the Delhi Township Waste Water Treatment Plant (located at the southeast corner of the intersection of McCue Road and Grovenburg Road). The detention ponds are anticipated to extend about 10 feet below existing grades.

The NRCS soil survey depicts Adrian and Palms muck deposits along the alignment of the McCue Road improvements, Adrian, Palms and Houghton muck deposits along the cross-country sewer alignment, and Palms muck deposits at the new detention basin sites. The Adrian and Palms Muck deposits along the alignment of the McCue Road improvements are depicted to the north and south of McCue Road and the Adrian Muck deposit appears to cross McCue Road approximately 1/2 mile west of the intersection of McCue Road and Eifert Road.

## SCOPE OF SERVICES

### **Phase I Evaluation – McCue Road**

Based on our understanding of the project, our geotechnical evaluation for **Phase I** will include the following:

1. Drill 50 borings to a depth of up to 25 feet each for a total of 1,250 linear feet. The borings will be performed within the existing McCue Road alignment at approximately 200-foot intervals extending from Eifert Road about 1-1/2 miles to the west and then at approximately 300-foot intervals for the remaining approximate 1/2 mile.



2. Record, to the nearest one-half inch, the thickness of asphalt concrete pavement and aggregate base, if present, as observed at the borings performed along McCue Road. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 20 feet, and at 5-foot intervals below a depth of 20 feet. If organic soils are encountered deeper than about 20 feet below the existing ground surface, the borings would be extended until inorganic soils are encountered
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings and asphalt cold patch will be placed at the surface of borings performed within paved areas. Therefore, long-term groundwater levels will not be obtained for this evaluation.
4. Perform U.S. Army Corps of Engineers (USACE) Dynamic Cone Penetrometer (DCP) tests at select boring locations to evaluate the consistency of the upper subgrade soils and estimate the California Bearing Ratio (CBR) of the subgrade. The presence of frost can significantly affect the results of USACE DCP test. These tests can be deleted from our scope of services if the presence of frost is believed to adversely affect the DCP test results.

#### **Phase I Evaluation (Optional) – McCue Road**

Due to the presence of muck deposits along the alignment of the McCue Road improvements, the spacing of the borings may need to be decreased to approximately 100-foot intervals from Eifert Road extending about 1-1/2 miles west. If the spacing is reduced, SME would perform up to 39 more borings each to a depth of 25 feet for a total of up to 89 borings and 2,225 linear feet of drilling. USACE DCP test would be performed at each of the additional borings.

#### **Phase II Evaluation – Cross Country Sanitary Sewer and Lift Station**

Based on our understanding of the project, our geotechnical evaluation for **Phase II** will include the following:

1. Drill 15 borings totaling 275 linear feet of drilling. Thirteen borings will be performed at approximately 450-foot intervals throughout the proposed force main alignment and each boring will extend about 15 feet below the existing ground surface. The remaining two borings will be performed for the new lift station 'D' and each boring will extend about 40 feet below the existing ground surface.
2. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 10 feet, and at 5-foot intervals below a depth of 10 feet.
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings. Therefore, long-term groundwater levels will not be obtained for this evaluation.



4. Perform laboratory tests including visual soil classification on recovered samples along with moisture content and strength properties of recovered cohesive samples.

### **Phase III Evaluation – Detention Ponds**

Based on our understanding of the project, our geotechnical evaluation for **Phase III** will include the following:

1. Drill eight borings to a depth of up to 20 feet each for a total of 160 linear feet.
2. Obtain split-spoon soil samples in each boring at about 2.5-foot intervals in the upper 15 feet, and at 5-foot intervals below a depth of 15 feet.
3. Record groundwater levels in the borings during and immediately after drilling. After completion of drilling, the borings will be backfilled with auger cuttings. Therefore, long-term groundwater levels will not be obtained for this evaluation.
4. Perform laboratory tests including visual soil classification on recovered samples along with moisture content and strength properties of recovered cohesive samples.

### **Engineering and Report**

SME will analyze the soil and groundwater conditions, perform engineering calculations, and discuss subsurface conditions and recommendations with appropriate project team members and then complete an Geotechnical Evaluation Report that will include:

1. a description of the site conditions and project;
2. a description of the field and laboratory testing programs and an interpretive analysis of the results;
3. a description of soil and groundwater conditions encountered in the borings;
4. recommendations for enclosed storm sewers including suitability of site soils to support utility pipes and manholes and discussion of trench stability and construction dewatering considerations;
5. recommendations for sanitary force mains including suitability of site soils to support utility pipes and discussion of trench stability and construction dewatering considerations;



6. recommendations for detention ponds including estimated percolation rates (and/or coefficient of permeability) based on visual descriptions of the soil samples, trench stability and construction dewatering considerations;
7. recommendations for sanitary sewer lift station D including suitability of site soils to support shallow-type foundations with allowable soil bearing pressures, , estimated settlement, and depth to suitable bearing soil and lateral earth pressures, backfill, compaction, and drainage/water-proofing requirements for below-grade walls;
8. recommendations for road reconstruction including subgrade preparation and earthwork considerations and (if approved) design sections for flexible pavements.
9. engineered fill recommendations including an evaluation of the suitability of on-site soils for use as engineered fill, compaction requirements and weather considerations;
10. discussion of potential construction issues related to proposed improvements (such as weather, groundwater control, and other conditions that may affect construction) based on the soil and groundwater conditions encountered;
11. boring location diagrams;
12. logs prepared for each boring that will include a description of the soils encountered and the results of the field and laboratory tests; and
13. USACE DCP data converted to CBR.

### **Assumptions and Limitations**

The following assumptions were made in preparing our scope of services and professional services fee:

1. Client will provide or obtain right-of-entry for SME to conduct the evaluation. Client will also provide topographical information.
2. C2AE will retain a surveyor to stake the boring locations and determine the ground surface elevation at the boring locations.
3. C2AE will provide SME electronic files with boring location diagrams.
4. SME will contact the Miss Dig system to clear and mark the location of public underground utilities at the site prior to performing the field exploration. Client will locate any known private underground utilities at the site prior to performing the field exploration. SME is not responsible for damage to utilities not cleared, located and marked at the site.



5. Field exploration (drilling) will be performed Monday through Friday during normal business hours. Additional fees will be required for field services required by the Client during off-hours or weekends.
6. Care will be exercised to mitigate damage to lawn, landscape, pavement, soft ground and other areas that may be disturbed during the field exploration. Due to the weight of the drilling equipment, rutting of exposed subgrade, or cracking of existing pavements (i.e. roads, sidewalks, etc.) could occur in those areas traversed by the drilling equipment especially when the subgrade is wet. Our fee does not include time or expenses associated with the repair of ruts or damage.
7. The borings located on McCue Road will be accessed with a truck mounted drill rig and the remaining borings will be accessed with a drill rig mounted to an all-terrain vehicle (ATV).
8. Use of a dozer to assist with access is not included in our scope or fee. We assume trees, brush and snow (if present on the site) will not require clearing to access the boring locations.
9. Fees to obtain drilling permits (time and expenses) are not included in this proposal since drilling is outside the roadway right-of-way.
10. Traffic cones, signs, a lighted arrow board and one traffic regulator will provide traffic control for the borings performed within McCue Road. Traffic control will not be required for the remaining borings.
11. We have not budgeted for significant delays (e.g., waiting for site access or contact personnel, time for meetings, etc.) once the drill rig arrives at the site.
12. Due to soil transport regulations and environmental implications, excess soil cuttings generated from drilling activities will not be removed from the site by SME. The boreholes will be backfilled with auger cuttings. Asphalt coldpatch will be placed in paved areas. If bentonite seals or grout are required, additional fees will be assessed. Excess soil cuttings will be left on site and placed in greenbelt areas, unless directed otherwise.
13. Client will inform us of any known environmental site conditions which could affect the health and safety of our drill crew. We will report unusual odors and colorations of the soil or groundwater observed in the borings. Environmental sampling and analytical testing would be required to evaluate the presence or absence of contamination, but is beyond the proposed scope of services. SME would be pleased to assist with environmental services, should you desire.



Although SME offers other services for the project, our proposed scope of services for the geotechnical evaluation does not include detailed recommendations for construction dewatering, excavation sheeting, allowable temporary slopes or erosion control; pavement design; cost or quantity estimates; preparation or review of plans and/or specifications; construction materials services; time for meetings; or a significant amount of consulting time after transmittal of our report.

### PROFESSIONAL SERVICES FEE

Services will be provided on a unit fee basis using the current fee schedules. Based on the scope of services outlined in this proposal, our proposed fees are as follows:

Phase I Evaluation	\$44,500
Phase I (Optional) Evaluation	32,800
Phase II Evaluation	7,800
Phase III Evaluation	4,300
Pavement Design (Optional)	1,500
Engineering and Report	<u>6,200</u>
<b>Estimated Total Investment</b>	<b>\$97,100</b>

If further services are required for this project that go beyond the scope of services outlined in this proposal, additional fees will be required and we will contact you. Additional fees will be invoiced according to the current fee schedules.

### SCHEDULE

We anticipate we can commence the field exploration within about one to two weeks after receiving authorization to proceed. The field exploration should take about 18 days to complete. Once the field exploration is finished, the laboratory testing and the written report can normally be completed within about 15 business days.

### AUTHORIZATION

The SME General Conditions attached to this proposal will govern our services. Please sign and provide the appropriate information on the attached General Conditions sheet and return this proposal to SME. A copy of this proposal is enclosed for your records.



We look forward to teaming with you on this project. If you have questions concerning our scope of services or our fee, please contact us.

Very truly yours,

**SOIL AND MATERIALS ENGINEERS, INC.**



Megan S. Jacobs, EIT  
Senior Engineer



Michael J. Thelen, PE  
Senior Consultant

Attachments: General Notes (1/09)  
General Conditions (1/09)  
Important Information About Your Proposal  
SME Fact Sheet

Enclosure: One copy

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## GENERAL NOTES

1. SME representatives may provide observation and field-testing. The scope of services does not include job or site safety, supervision, or direction of the actual work of the contractor. The presence of SME on the job site should not be construed to relieve the contractor in any way of his obligations and responsibilities under the construction contract.
2. SME General Conditions govern all the work performed.
3. The Owner grants right of entry from time to time to SME, its agents, staff, and contractors or subcontractors, for the purpose of performing and with the right to perform all acts, studies, and research including without limitation the making of tests and evaluations, pursuant to the agreed services. Client represents that he possesses all necessary permits and licenses required for activities at the site. While SME will take reasonable precautions to reduce the likelihood of damage to the property, it is understood by Client and Owner that some damage may occur in the normal course of our work. The fee for correction of this damage is not part of this agreement unless specifically noted.
4. While working SME will take reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client and Owner agree to hold SME harmless for any damages to subterranean structures, which are not called to SME's attention and/or not correctly shown on the plans furnished.
5. Client agrees to provide SME with accurate legal description and property survey.
6. The accuracy and proximity of provided survey control will affect the accuracy of in-situ test location and elevation determinations. Unless otherwise noted, the accuracy of test locations and elevations will be commensurate only with pacing and approximate measurements or estimates. The client will furnish SME with a diagram indicating the location of the site. Boring and test locations may also be indicated on the diagram. SME reserves the right to deviate a reasonable distance from the boring and test locations unless this right is specifically revoked by the client in writing at the time the diagram is supplied. SME reserves the right to modify this contract if conditions preventing drilling at the specified locations are encountered which were not made known to SME prior to the date of this contract.
7. Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by SME and that the data, interpretations and recommendations of SME are based solely on the information available to SME. SME will not be responsible for the data, interpretation and recommendations by others of the information developed.
8. Certain types of hazardous materials including subsurface contaminants and biological pollutants (molds, spores, bacteria, fungi and other byproducts of biological organisms) may exist at a site where there is no reason to believe they could or should be present. SME and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating renegotiation of the scope of work and fees. SME and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for SME to take immediate measures to protect human health and safety, and/or the environment. SME agrees to notify Client as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered. Client encourages SME to take any and all measures that in SME's professional opinion are justified to preserve and protect the health and safety of SME's personnel and the public, and/or environment, and Client agrees to compensate SME for the additional cost of such work. In addition, Client and Owner waive any claim against SME and agree to indemnify, defend and hold SME harmless from any claim or liability for injury or loss arising from or caused by the presence of, or exposure of SME, Client, or any third party to unanticipated hazardous materials or suspected hazardous materials, except to the extent caused by SME's sole negligence. Client agrees to compensate SME for time spent and expenses incurred by SME in defense of any such claim. Compensation to be based upon SME's prevailing fee schedule and expense reimbursement policy.



## GENERAL NOTES (Continued)

9. Generally, test samples or specimens are consumed or substantially altered during the conduct of tests and SME, at our sole discretion, will dispose of these samples or specimens upon completion of tests, subject to the following:

Non-Hazardous Samples: At Client's written request, we will maintain preservable test samples and specimens or the residue therefrom for 30 days after submission of our report free of storage charges. After the initial 30 days and upon written request, we will retain test specimens or samples for a mutually acceptable storage charge and period of time. Client agrees that it will not hold us responsible or liable for any loss of test specimens or samples retained in storage.

Hazardous or Potentially Hazardous Samples: In the event samples contain substances or constituents hazardous or detrimental to health, safety, or the environment as defined by federal, state or local statutes, regulations, or ordinances, we will, after completion of testing and at Client's expense, (i) return such samples to Client, or (ii) using a manifest signed by Client as generator, we will have such samples transported to a location selected by Client for final disposal. Client agrees to pay all costs associated with the storage, transport, and disposal of samples. Client recognizes and agrees that we are acting as a bailee and at no time assume title of said waste.

10. All laboratory and field equipment contaminated in performing our services and which cannot be reasonably decontaminated shall become the property and responsibility of Client. All such equipment shall be delivered to Client or disposed of in a manner similar to that indicated for hazardous samples. Client agrees to pay the fair market value of any such equipment, which cannot reasonably be decontaminated.
11. Client agrees to advise us upon execution of this Agreement of any hazardous substances including subsurface contaminants and biological pollutants (mold, spores, bacteria, fungi and other byproducts of biological organisms), environmental violations, or any condition existing in, on or near the site presenting a potential danger to human health, the environment, or equipment. Client agrees to provide continuing information as it becomes available to the attention of Client in the future. By virtue of entering into this Agreement or of providing services hereunder, we do not assume control of or responsibility for reporting to any federal, state, or local public agencies any conditions at the site that may present a potential danger to health, safety, or the environment. Client agrees to notify the appropriate federal, state or local public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to health, safety, or the environment.

In connection with hazardous waste, Client/Owner agrees to the maximum extent permitted by law to defend, hold harmless and indemnify SME from and against any and all claims and liabilities resulting from: Client's/Owner's violation of any federal, state or local statute, regulation or ordinance relating to the disposal of hazardous substances or constituents; Client's/Owner's undertaking of or arrangement for the handling, removal, treatment, storage, transportation or disposal of hazardous substances or constituents found or identified at the site; changed conditions or hazardous substances or constituents introduced at the site by Client/Owner or third persons before or after the completion of services herein; allegations that SME is a handler, generator, operator, treater or storer, transporter, or disposer under the Resource Conservation and Recovery Act of 1976 as amended or any other similar federal, state, or local regulation or law.

12. Client recognizes that it is impossible for SME to know the exact composition of a site's subsurface even after employing a comprehensive exploratory program. As a result, there is a risk that sampling may result in contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous materials off-site. Because such sampling is a necessary aspect of the work which SME will perform for Client's/Owner's benefit, Client/Owner waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claim or liability for injury or loss which may arise as a result of cross-contamination caused by sampling, except to the extent caused by SME's sole negligence.



## GENERAL NOTES (Continued)

13. Client recognizes that it is Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials. Client also recognizes that any such discovery may result in a significant reduction of the property's value, and this may spur the property's owner to institute action against SME. Accordingly, in such situations, Client waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claim or liability for injury or loss of any type arising from SME's discovery of unanticipated hazardous materials or suspected hazardous materials on a site not owned by Client.
14. It is possible this assessment may fail to reveal the presence of contaminants (including subsurface contaminants, hazardous materials and biological pollutants [mold, spores, bacteria, fungi and other byproducts of biological organisms] and all other types of environmental contamination collectively referred to as "Contaminants") at sites where contaminants are assumed, or expected to exist or contaminants are inaccessible or unobservable. Client understands that SME's failure to discover contaminants does not guarantee that contaminants do not exist at the site. Similarly, a site which in fact is unaffected by contaminants at the time of SME's study, may later, due to natural phenomena or human intervention, become contaminated. Client agrees that it would be unfair to hold SME liable for failing to discover contaminants whose exact location is impossible to foretell due to the site or building conditions, or for failing to discover contaminants, which, in fact, did not exist at specific sampling locations at the time such samples were taken. Accordingly, Client waives any claim against SME, and agrees to defend, indemnify and save SME harmless from any claims or liability for injury or loss arising from SME's failure to detect the presence of contaminants through techniques commonly employed for the purpose, except to the extent caused by SME's sole negligence.
15. If during the performance of services, unforeseen hazardous substances or constituents, biological pollutants or other unforeseen conditions or occurrences are encountered which, in our sole judgment significantly affect or may affect the services, the risk involved in providing the services, or the recommended scope of services, we will notify Client thereof. Subsequent to the notification, SME may: if practicable, in our sole judgment, complete the original scope of services in accordance with the procedures originally intended in the proposal; agree with Client to modify the Scope of Services and the estimate of charges to include study of the previously unforeseen conditions or occurrences, such revision to be in writing and signed by the parties and incorporated herein; or terminate the services effective on the date specified by SME in writing.
16. Client also agrees to compensate SME for any time spent and expenses incurred by SME in defense of any claims (related to Items 8, 11, 12, 13 and 14 above), with such compensation to be based upon SME's prevailing fee schedule and expense reimbursement policy.



## SME GENERAL CONDITIONS

1. In this Agreement, the party agreeing to have the services performed is the "Client." The Client's client shall be referred to as the "Owner." Unless expressly stated otherwise, Soil and Materials Engineers, Inc., its employees, agents, subconsultants and subcontractors, are collectively referred to as "SME."
2. SME will submit invoices to Client monthly and a final bill upon completion of services. Payment is due upon presentation of invoice to the Client and is past due 30 days from date of the invoice. Client agrees to pay a service charge of 1-1/2% per month, or the maximum rate allowed by law, whichever is greater, on past due accounts.
3. All reports, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by SME in connection with this Project shall be considered instruments of service, and shall remain the property of SME. SME grants Client and Owner a limited license to use such instruments of service for the purpose of designing, constructing, maintaining or repairing work that is part of this Project. Any reuse of SME's instruments of service for any purpose other than the limited license granted herein is prohibited and SME shall have no responsibility to Client, Owner or third parties for unauthorized use of its instruments of services.
4. SME will retain pertinent records relating to the services performed for Client for a period of time consistent with SME's File Management Plan, a copy of which will be provided to Client upon request. During that period, the records will be made available to the Client at reasonable times. At the end of the retention period indicated in SME's File Management Plan, SME may, in its sole discretion, dispose of all such records.
5. **SME MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH REGARDS TO ITS SERVICES.**
6. Either party may terminate this Agreement upon at least 7 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination will not be effective if that substantial failure is remedied before expiration of the period specified in the written notice. This Agreement shall also be automatically terminated upon a suspension of the project for more than 3 months. In the event of termination, Client will pay SME for services performed to the termination notice date plus reasonable termination expenses. In the event of termination, or suspension, prior to completion of all reports contemplated by this Agreement, SME may complete such analyses and records as are necessary to complete the files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension include all direct costs of completing such analyses, records, and reports.
7. If any dispute arising out of or relating to this Agreement, or its breach, is not settled through direct discussions, the parties agree that as a condition precedent to litigation, they will endeavor for 30 days following written notice by one party to the other of a dispute or breach, to settle the dispute by mediation with the assistance of a neutral mediator. In any litigation or arbitration, if applicable, the parties agree that the prevailing party is entitled to recover all reasonable costs incurred in defense or prosecution of the claim, including its staff time, court costs, attorney's fees, and other claim-related expenses. Notwithstanding, SME has no obligation to mediate with Client prior to litigation when collecting fees legally owed by Client.
8. If Client gives SME other-than-written authorization to proceed with services after receiving SME's written proposal, Client agrees to accept the proposal, including these General Conditions, as the Agreement governing SME's services and the relationship between the parties. Such acceptance based on other-than-written authorization is effective except for those provisions that Client objects to in writing within 7 days following the other-than-written authorization.
9. SME and its staff are protected by worker's compensation insurance and SME has coverage under General Liability and Professional Liability insurance policies. SME will provide Client with evidence of such policies upon written request. SME is not responsible for any loss, damage or liability arising from acts of Client, its agents, staff, and other consultants employed by Client.
10. **In consideration for SME's undertaking to perform services at the rates set forth on the Fee Schedule attached to SME's proposal or the lump sum fee provided, Client agrees to limit all potential liability of SME to Client, its employees, agents, successors and assigns, for any and all claims, losses, breaches, damages or expenses arising from, or relating to SME's performance of services on this Project, such that SME's total aggregate liability to Client, its employees, agents, successors and assigns shall not exceed \$50,000 or SME's total fee for the services rendered on the project, whichever is greater. The Client understands that it may negotiate a higher limit of liability in exchange for an appropriate increase in SME's fee.**
  - a) Client further agrees that it will require all of its contractors and consultants on this project and their respective subcontractors and subconsultants, be bound by an identical limitation of SME's aggregate liability in their agreements for work on this project.
  - b) Client further agrees that it will require all of its contractors and subcontractors defend and indemnify Client and SME from any and all loss or damage, including bodily injury or death, arising from contractor or subcontractors performance of work on this project, regardless of whether or not such claim, damage, loss or expense is caused in part by SME provided however, that this obligation shall not apply to claims, damage, loss or expense caused by the sole negligence or fault of SME.
11. To the fullest extent permitted by law, Client shall defend and indemnify SME from and against all claims, damages, losses and expense, including reasonable attorney fees, arising out of the performance of SME's services or the materials of others in connection with the project regardless of whether or not such claim, damage, loss or expense is caused in part by SME; provided however, that this obligation shall not apply to claims, damage, loss or expense caused by the sole negligence of SME.
12. Notwithstanding any period of limitations that might otherwise apply, the parties agree that no action, claim or proceeding of any kind, whether in tort, contract or equity arising out of SME's services may be brought against SME more than two years after the first to occur of the following events: (i) the date of Client's acceptance, use or occupancy of the Project that is the subject of this engagement, or (ii) the date of SME's last service in connection with this Project.
13. If SME provides services at the request of Client, in addition to those described in the scope of work contained in SME's proposal, Client agrees that these general conditions including the general notes on the fee schedules shall apply to all such additional services.
14. In the event any provision of this Agreement is held invalid or unenforceable, the other provisions will remain in full force and effect, and binding upon the parties. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between Client and SME will survive the completion of the services and the termination of this Agreement. This Agreement cannot be assigned by either party without the written consent of the other party. This Agreement includes SME's Fee Schedule(s), and any notes thereon, these General Conditions and other documents incorporated herein. This Agreement constitutes the entire Agreement between the parties and cannot be changed except by a written instrument signed by both parties. All preprinted Terms and Conditions on Client's Purchase Order(s) or acknowledgement forms are inapplicable to this Agreement. The parties agree that this Agreement shall be governed in all respects by the laws of the State of Michigan.

PROPOSAL ACCEPTED BY:	BILLING ADDRESS
<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 45%;">Signature</span> <span style="width: 45%;">Date</span> </div> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 45%;">Printed Name</span> <span style="width: 45%;">Title</span> </div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 100%;">Company</span> </div>	<div style="border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 100%;">Street</span> </div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 100%;">City / State</span> </div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"> <span style="width: 100%;">Zip Code</span> </div>



# Important Information About This Geotechnical Engineering Proposal

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*While you cannot eliminate all such risks, you can manage them. The following information is provided to help.*

## **Participate in Development of the Subsurface Exploration Plan**

Geotechnical engineering begins with the creation of an effective subsurface exploration plan. This proposal starts the process by presenting an initial plan. While that plan may consider the unique physical attributes of the site and the improvements you have in mind, it probably does not consider your unique goals, objectives, and risk management preferences. Subsurface exploration plans that are finalized without considering such factors presuppose that clients' needs are unimportant, or that all clients have the same needs. *Avoid the problems that can stem from such assumptions* by finalizing the plan and other scope elements directly with the geotechnical engineer you feel is best qualified for the project, along with the other project professionals whose plans are affected by the geotechnical engineer's findings and recommendations. If you have been told that this step is unnecessary; that client preferences do not influence the scope of geotechnical engineering service or that someone else can articulate your needs as well as you, you have been told wrong. No one else can discuss your geotechnical options better than an experienced geotechnical engineer, and no one else can provide the input you can. Thus, while you certainly are at liberty to accept a proposed scope "as is," recognize that it could be a unilateral scope developed without direct client/engineer discussion; that authorizing a unilateral scope will force the geotechnical engineer to accept all assumptions it contains; that assumptions create risk. *Manage your risk. Get involved.*

## **Expect the Unexpected**

The nature of geotechnical engineering is such that planning needs to *anticipate the unexpected*. During the design phase of a project, more or deeper borings may be required, additional tests may become necessary, or someone associated with your organization may request a service that was not included in the final scope. During the construction phase, additional services may be needed to respond quickly to unanticipated conditions. In the past, geotechnical engineers commonly did

whatever was required to oblige their clients' representatives and safeguard their clients' interests, taking it on faith that their clients wanted them to do so. But some, evidently, did not, and refused to pay for legitimate extras on the ground that the engineer proceeded without proper authorization, or failed to submit notice in a timely manner, or failed to provide proper documentation. *What are your preferences? Who is permitted to authorize additional geotechnical services on your project? What type of documentation do you require? To whom should it be sent? When? How?* By addressing these and similar issues sooner rather than later, you and your geotechnical engineer will be prepared for the unexpected, to help prevent molehills from growing into mountains.

## **Have Realistic Expectations; Apply Appropriate Preventives**

The recommendations included in a geotechnical engineering report are *not final*, because they are based on opinions that can be verified only during construction. For that reason, most geotechnical engineering proposals offer the construction observation services that permit the geotechnical engineer of record to confirm that subsurface conditions are what they were expected to be, or to modify recommendations when actual conditions were not anticipated. *An offer to provide construction observation is an offer to better manage your risk.* Clients who do not take advantage of such an offer; clients who retain a second firm to observe construction, can create a high-risk "Catch-22" situation for themselves. *The geotechnical engineer of record cannot assume responsibility or liability for a report's recommendations when another firm performs the services needed to evaluate the recommendations' adequacy.* The second firm is also likely to disavow liability for the recommendations, because of the substantial and possibly uninsurable risk of assuming responsibility for services it did not perform. Recognize, too, that no firm other than the geotechnical engineer of record can possibly have as intimate an understanding of your project's geotechnical issues. As such, reliance on a second firm to perform construction observation can elevate risk still more, because its personnel may not

have the wherewithal to recognize subtle, but sometimes critically important unanticipated conditions, or to respond to them in a manner consistent with your goals, objectives, and risk management preferences.

### **Realize That Geoenvironmental Issues Have Not Been Covered**

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. *Geoenvironmental services are not being offered in this proposal. The report that results will not relate any geoenvironmental findings, conclusions, or recommendations.* Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may be addressed as part of the geotechnical engineering study described in this proposal, the geotechnical engineer who would lead this project **is not a mold prevention consultant; none of the services being offered have been designed or proposed for the purpose of mold prevention.**

### **Have the Geotechnical Engineer Work with Other Design Professionals and Constructors**

Other design team members' misinterpretation of a geotechnical engineering report has resulted in costly problems. Manage that risk by hav-

ing your geotechnical engineer confer with appropriate members of the design team before finalizing the scope of geotechnical service (as suggested above), and, again, after submitting the report. *Also retain your geotechnical engineer to review pertinent elements of the design team members' plans and specifications.*

Reduce the risk of unanticipated conditions claims that can occur when constructors misinterpret or misunderstand the purposes of a geotechnical engineering report. Use appropriate language in your contract documents. Retain your geotechnical engineer to participate in prebid and preconstruction conferences, and to perform construction observation.

### **Read Responsibility Provisions Closely**

Clients, design professionals, and constructors who do not recognize that geotechnical engineering is far less exact than other engineering disciplines can develop unrealistic expectations. Unrealistic expectations can lead to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their proposals. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks, thus to encourage more effective scopes of service. *Read this proposal's provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance**

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit to everyone involved with a construction project. Confer with an ASFE member geotechnical engineer for more information. Confirm a firm's membership in ASFE by contacting ASFE directly or at its website.



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## website

[www.sme-usa.com](http://www.sme-usa.com)

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## founder

Kenneth W. Kramer, PE, Chairman Emeritus

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## principals

**PRESIDENT** Mark K. Kramer, PE

Timothy H. Bedenis, PE  
Gerald M. Belian, PE  
Chuck A. Gemayel, PE  
Frank A. Henderson, PG  
Larry P. Jedele, PE  
Starr D. Kohn, PhD, PE

Edward S. Lindow, PE  
Gerard P. Madej, PE  
Timothy J. Mitchell, PE  
Robert C. Rabeler, PE  
Daniel O. Roeser, PG

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## team members

220

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## projects completed

55,000

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## professional staff

Geotechnical Engineers  
Hydrogeologists  
Materials Consultants  
Civil Engineers  
Environmental Engineers  
Forensic Engineers

Pavement Engineers  
Roofing Consultants  
Metals Consultants  
Geologists/Geological Engineers  
Certified Industrial Hygienist  
Facility Engineers

---

## technical staff

Restoration Specialists  
Qualified Concrete Technicians  
Certified Bituminous Plant Inspectors  
Certified Aggregate Inspectors  
Certified Welding Inspectors

Coating Specialists  
Certified Masonry Inspectors  
NICET Engineering Technicians  
Roofing and Pavement Specialists  
Asbestos Specialists

### Engineering evaluation and design for soil, rock and groundwater conditions.

**Caissons/Piles:** Design, wave equation analysis, load and integrity tests, and construction observation.

**Corrosion:** Perform and evaluate field and laboratory tests for corrosivity of buried metallic structures, and design of corrosion prevention systems.

**Dewatering:** Observe and model groundwater flow, field pump tests, and design temporary and permanent dewatering systems.

**Drilling:** Soil borings, specialized sampling, in-situ testing (pressuremeter, Dutch cone, dilatometer, vane shear), observation wells, and Geoprobos.

**Earth Retention Systems:** Design of temporary and permanent earth retention systems including reinforced earth/geogrid walls, tiebacks, shoring and bracing.

**Foundation Engineering:** Design including foundation type, bearing elevation, bearing pressure, estimated settlement, and underpinning design.

**Geodynamics/Vibrations:** Measure ambient vibrations, seismic, crosshole, downhole, attenuation, refraction surveys, evaluate existing foundations and design new foundations.

**Geophysical Surveys:** Including electrical resistivity, seismic, borehole logging, EM, gravity, and ground penetrating radar.

**Geosynthetics:** Design of geosynthetic-based systems, such as reinforced earth walls, and slopes and erosion protection for landfills, pavements, and special applications.

**Ground Modification:** Design of special techniques to improve soil, including wick drains, surcharging, vibroflotation, deep dynamic compaction, grouting, and surface compaction.

**Instrumentation:** Installation and monitoring (manual and remote) for in-situ determination of soil and rock properties and performance during construction.

**Slope Stability:** Design for stabilization of existing and proposed slopes, and design repair of failed slopes.

### Engineering evaluation of material properties, failure analyses, and design using life-cycle costs.

**Coatings:** Evaluation, selection, construction monitoring, and failure analysis for steel, concrete and wood construction.

**Concrete:** Construction monitoring, strength evaluation using destructive and nondestructive testing, flat floor measurements, corrosion, and durability evaluations.

**Construction Materials Services:** Monitor construction procedures and material properties for conformance to specifications, and total quality control/quality assurance plans.

**Facility Asset Management:** Evaluation of building components/systems and design of maintenance management programs.

**Forensic Engineering:** Expert witnesses who develop alternative dispute resolution strategies by researching facts, explaining complex technical issues, and conveying expert opinions involving issues in the built environment.

**Masonry/Stone:** Construction monitoring, material evaluation, and full scale testing.

**Metals:** Failure analysis, material characterization, and welding and jointing design.

**Pavements:** Evaluation of existing pavements and subgrade conditions, including use of falling weight deflectometer (FWD) and other specialized equipment. Pavement design, plans and specifications, construction monitoring, and maintenance management programs.

**Restoration:** Condition assessment, and development of building and infrastructure improvements.

**Roofs:** Evaluation of existing roofs including use of infrared technology, design of rehabilitation systems, new roof design, construction monitoring, and roof maintenance management programs.

**Sealants/Waterproofing:** Design and evaluation of moisture management systems for new construction and building restoration.

**Structural Steel:** Shop and site monitoring including bolted and welded connections, coatings, shear studs, use of ultrasonic, radiographic magnetic particle, and nondestructive testing.

### Environmental assessment, contamination evaluation, remediation, and regulatory compliance.

**Air Quality:** Emission inventories, source sampling, screening models and permits.

**Asbestos/Lead-Based Paint:** Assessment of hazardous materials, abatement specifications, and project monitoring.

**BEA/Due Care:** Perform Baseline Environmental Assessments, prepare Due Care plans, observe construction, and monitor Due Care implementation.

**Brownfield Development:** Environmental/geotechnical evaluations for redevelopment, prepare workplans and assist with funding alternatives. Provide construction observation, testing, and Due Care implementation.

**Environmental Site Assessments:** Phase I/II ESAs for all types of property transactions, including multi-site and large industrial projects.

**Hydrogeologic Studies:** Evaluation of geologic conditions, aquifer flow characterization, groundwater quality, and well field studies.

**Industrial Hygiene/Mold/Indoor Air Quality:** Exposure assessments, and health and safety programs.

**Landfills:** Site evaluation, monitoring programs, leachate containment, stabilization of excavations and construction slopes, and remediation systems.

**Regulatory Compliance:** Compliance auditing, ISO 14001 implementation, pollution prevention, TRI reporting, spill planning and permits.

**Remediation:** Assess type/extent of contamination, evaluate remedial alternatives, remediation design, monitor remediation system installation, and provide operation and maintenance for treatment systems.

**Risk Assessment:** Identify hazards, assess exposure, characterize risk and evaluate site cleanup levels.

**Storm Water Management:** Conceptual plans, sampling programs, permits, and certified operator monitoring at construction and industrial sites.

**USTs:** Manage removal of USTs, closure of UST systems, and implementation of Risk-Based Corrective Action (RBCA).

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** February 11, 2009

**RE:** Amendment to Township Ordinance No. 84 – Payment of Water Connection Fees on an Installment Basis

---

Enclosed for your review and consideration is an amendment to Township Ordinance No. 84 which would amend the stipulations associated with the payment of water connection fees on an installment basis.

As discussed at the January 20, 2009 Committee of the Whole meeting, the Township currently provides for installment payments in the amount of \$1,000 or more per year until paid in full at an interest rate of 8%. Proposed Township Ordinance No. 84.6 would provide for the payment of water connection fees on an installment basis in equal annual installments (billed as part of the winter tax bill) over a maximum of 15 years at an interest rate of 5% per annum.

Therefore, I recommend the Township Board amend Township Ordinance No. 84.

**Recommended Motion:**

**Upon second consideration, to amend Township Ordinance No. 84 regarding the stipulations associated with the payment of water connection fees on an installment basis (Township Ordinance No. 84.6).**

DELHI CHARTER TOWNSHIP  
INGHAM COUNTY, MICHIGAN  
PROPOSED ORDINANCE NO. 84.6

**PREAMBLE**

AN ORDINANCE TO AMEND ORDINANCE NO. 84, AS AMENDED, TO AMEND SUBSECTION (2) TO SECTION 9 THEREOF (DELHI CHARTER TOWNSHIP CODE SECTION 18-59) TO AMEND PAYMENT OF CONNECTION FEES ON AN INSTALLMENT BASIS AND CONDITIONS RELATED THERETO; AND TO PROVIDE AN EFFECTIVE DATE HEREOF.

The Charter Township of Delhi, Ingham County, Michigan, ordains:

**SECTION I. AMENDMENT OF SECTION 9, ORDINANCE NO. 84, AS AMENDED (CODE SECTION 18-59).** Section 9 of Ordinance No. 84 of Delhi Charter Township shall be and is hereby amended to provide as follows:

(2) **INSTALLMENT PAYMENT OPTION.** All connection fees and charges shall be paid in full upon submission of an application for connection permit, except that Applicant may elect to pay connection fees on an installment basis subject to the following terms and conditions:

(a) The sum of Five Hundred and no/100 Dollars (\$500.00) plus an administration fee of Three Hundred and no/100 Dollars (\$300.00) shall be paid upon submission of the application for connection permit. Upon payment, \$500.00 shall be credited against any balance remaining on the applicable connection fee.

(b) The unpaid balance shall be paid in **equal** annual installments **(billed as part of the annual winter tax bill) over a maximum period of fifteen (15) years. in the amount of One Thousand and no/00 Dollars (\$1,000.00) or more until paid in full. All payments shall be applied first to interest and then to the principal balance owed.**

(c) The unpaid balance shall bear interest at a rate of **five eight** percent **(8%) (5%)** per annum **and shall begin accruing interest thirty (30) days after the completion of said connection.**

(d) As a condition of the election of the installment payment plan, the property owner(s) or any lienholder(s) shall consent to the establishment and recording of a lien in favor of the Township, which shall be enforceable against said owner and the property involved by such remedies as are permitted by law, including foreclosure.

Upon payment in full, a Discharge of Lien shall be recorded with the Ingham County Register of Deeds.

**SECTION II. EFFECTIVE DATE.** This Ordinance shall become effective immediately upon its adoption and publication as provided by law.

Ayes:  
Nays:  
Absent:

Adopted by the Delhi Charter Township Board of Trustees at a regular meeting held on the \_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
Stuart Goodrich, Supervisor

\_\_\_\_\_  
Evan Hope, Clerk

First Reading:  
First Publication:  
Second Reading:  
Second Publication:  
Effective Date:

I, Evan Hope, Clerk of the Charter Township of Delhi, hereby certify that the foregoing constitutes a true and complete copy of Ordinance No. 84.6, duly adopted by the Board of Trustees of the Charter Township of Delhi, Ingham County, Michigan, on the \_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
Evan Hope, Clerk

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** February 18, 2009

**RE:** Agreement between Delhi Charter Township and Inland Waters Pollution Control for the Sanitary Sewer Trenchless Rehabilitation Program

---

On January 20, 2009, the Township Board approved the bid of \$319,352 from Inland Waters Pollution Control for the Sanitary Sewer Trenchless Rehabilitation Program.

Enclosed for your review and consideration is the Agreement document for the same. This Agreement has been reviewed by Township Attorney, J. Richard Robinson, and found to be acceptable. I, therefore, recommend the Board approve the Agreement.

**Recommended Motion:**

**To approve the Agreement between Delhi Charter Township and Inland Waters Pollution Control for the Sanitary Sewer Trenchless Rehabilitation Program in the amount of \$319,352.**

## AGREEMENT

THIS AGREEMENT is by and between Delhi Charter Township, Michigan ("Owner") and Inland Waters Pollution Control, Inc. ("Contractor"). Owner and Contractor hereby agree as follows:

### ARTICLE 1 - WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

- 810 Feet Cured-In-Place Pipe Liner, 30 inch
- 350 Feet Cured-In-Place Pipe Liner, 36 inch
- 11 Each Cured-In-Place Manhole Liner

### ARTICLE 2 - THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

#### 2008 SANITARY SEWER TRENCHLESS REHABILITATION

### ARTICLE 3 - ENGINEER

3.01 The Project has been designed by C2AE, 725 Prudden Street, Lansing, MI 48906 (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

### ARTICLE 4 - CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Substantial Completion and Final Payment*

A. Bidder agrees that the Work will be substantially complete within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 150 calendar days after the date when the Contract Times commence to run.

B. Substantial Completion shall be defined as all of the CIP pipe and manhole lining completed and ready for its intended use. Final completion shall include delivery of all CCTV, PACP, and test results as well as final acceptance by the Engineer and the Owner.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$1000.00 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time

or any proper extension thereof granted by Owner, Contractor shall pay Owner \$1000.00 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

**ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A below:

5.02 A.

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Prices</u>	<u>Total</u>
1	Mobilization, Max. \$15,000.00	1	LS	<u>\$10,000.00</u>	<u>\$10,000.00</u>
2	Clean and Televis, 30 inch	810	Ft	<u>\$4.00</u>	<u>\$3,240.00</u>
3	Clean and Televis, 36 inch	350	Ft	<u>\$5.00</u>	<u>\$1,750.00</u>
4	Cured-In-Place Pipe Liner, 30 inch	810	Ft	<u>\$140.00</u>	<u>\$113,400.00</u>
5	Cured-In-Place Pipe Liner, 36 inch	350	Ft	<u>\$165.00</u>	<u>\$57,750.00</u>
6	Cured-In-Place Manhole Liner, MH ID: 1932	1	LS	<u>\$16,126.00</u>	<u>\$16,126.00</u>
7	Cured-In-Place Manhole Liner, MH ID: 1933	1	LS	<u>\$16,000.00</u>	<u>\$16,000.00</u>
8	Cured-In-Place Manhole Liner, MH ID: 1934	1	LS	<u>\$12,375.00</u>	<u>\$12,375.00</u>
9	Cured-In-Place Manhole Liner, MH ID: 1935	1	LS	<u>\$16,065.00</u>	<u>\$16,065.00</u>
10	Cured-In-Place Manhole Liner, MH ID: 1936	1	LS	<u>\$12,600.00</u>	<u>\$12,600.00</u>
11	Cured-In-Place Manhole Liner, MH ID: 1878	1	LS	<u>\$10,625.00</u>	<u>\$10,625.00</u>
12	Cured-In-Place Manhole Liner, MH ID: 1894	1	LS	<u>\$10,937.50</u>	<u>\$10,937.50</u>
13	Cured-In-Place Manhole Liner, MH ID: 1895	1	LS	<u>\$11,875.00</u>	<u>\$11,875.00</u>
14	Cured-In-Place Manhole Liner, MH ID: 1896	1	LS	<u>\$11,562.50</u>	<u>\$11,562.50</u>
15	Cured-In-Place Manhole Liner, MHID: 279	1	LS	<u>\$5,398.00</u>	<u>\$5,398.00</u>
16	Cured-In-Place Manhole Liner, MHID: 482	1	LS	<u>\$8,148.00</u>	<u>\$8,148.00</u>
17	Maintenance of Traffic	1	LS	<u>\$1,500.00</u>	<u>\$1,500.00</u>
<b>TOTAL BID AMOUNT (Add Items 1 through 17)</b>					<u><b>\$319,352.00</b></u>

## **ARTICLE 6 – PAYMENT PROCEDURES**

### **6.01 *Submittal and Processing of Payments***

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

### **6.02 *Progress Payments; Retainage***

- A. The retainage on payments due the Contractor shall be in accordance with applicable provisions of Michigan Act No. 524, Public Acts of 1980 and amendments thereto. The retainage shall be an amount equal to 10% of said estimate until 50% of the work has been completed. At 50% completion, further partial payments shall be made in full to the Contractor and no additional amounts may be retained unless Engineer certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the Contractor. At 50% completion or any time thereafter when the progress of the work is not satisfactory, additional amounts may be retained but in no event shall the total retainage be more than 10% of the value of the work completed.
- B. Upon substantial completion of the work, any amount retained may be paid to the Contractor, said amounts to be paid upon receipt of consent from the Contractor's surety, complete with power of attorney as required, to release retainage to the Contractor. When the work which cannot be completed because of weather conditions, lack of materials or other reasons which in the judgement of the Owner are valid reasons for noncompletion, the Owner may make additional payments, retaining at all time an amount sufficient to secure the completion of the work.

### **6.03 *Final Payment***

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

## **ARTICLE 7 – INTEREST**

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of 5 percent per annum.

## **ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

- 8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
  - A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
  - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have

been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."

- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **ARTICLE 9 – CONTRACT DOCUMENTS**

### **9.01 Contents**

- A. The Contract Documents consist of the following:
  - 1. This Agreement (pages 1 to 7, inclusive).
  - 2. Performance bond (pages 1 to 2, inclusive).
  - 3. Payment bond (pages 1 to 2, inclusive).
  - 4. General Conditions (pages 1 to 48, inclusive).
  - 5. Supplementary Conditions (pages 1 to 11, inclusive).
  - 6. Specifications as listed in the table of contents of the Project Manual.
  - 7. Drawings consisting of 5 sheets with each sheet bearing the following general title: 2008 Sanitary Sewer Trenchless Rehabilitation and a DVD of CCTV inspections in the project area.
  - 8. Addenda (numbers 1 to 3, inclusive).
  - 9. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid (pages BF-1 to BF-5, inclusive).

- b. Documentation submitted by Contractor prior to Notice of Award (pages BI-1 and SI-1, inclusive).
  - c. Notice to Proceed (page 1, inclusive).
10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
- a. Work Change Directives.
  - b. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

## **ARTICLE 10 – MISCELLANEOUS**

### **10.01 Terms**

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

### **10.02 Assignment of Contract**

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

### **10.03 Successors and Assigns**

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

### **10.04 Severability**

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

### **10.05 Contractor's Certifications**

Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Agreement).

OWNER:

Delhi Charter Township, Michigan

By: \_\_\_\_\_

Title: Township Manager

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Name: Sandra Diorka

Title: Director of Public Services

Address: 1492 Aurelius Road, Holt, MI 48842

Phone: 517-699-3874

Fax: 517-699-3864

CONTRACTOR:

Inland Waters Pollution Control, Inc.

By: Allan Jedneak

Allan Jedneak

Title: Vice President

(If Contractor is a corporation or a partnership  
attach evidence of authority to sign.)

Attest: Alanna Hanson

Title: Executive Assistant

Address for giving notices:

4086 Michigan Ave  
Detroit, MI 48210

Designated Representative:

Name: Allan Jedneak

Title: Vice President

Address: 4086 Michigan Ave., Detroit, MI 48226

Phone: 313-899-3014

Fax: 313-899-3011

License No.: \_\_\_\_\_

# Notice to Proceed

Date: \_\_\_\_\_

Project: 2008 Sanitary Sewer Trenchless Rehabilitation

Owner: Delhi Charter Township

Owner's Contract No.: 08120

Contract: 2008 Sanitary Sewer Trenchless Rehab

Engineer's Project No.: 08120

Contractor: Inland Waters Pollution Control, Inc.

Contractor's Address: *[send Certified Mail, Return Receipt Requested]*

4086 Michigan Avenue

Detroit, MI 48226

You are notified that the Contract Times under the above Contract will commence to run on \_\_\_\_\_ . On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is \_\_\_\_\_ , and the date of readiness for final payment is \_\_\_\_\_ .

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:

\_\_\_\_\_ *[add other requirements].*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner

Given by:

Authorized Signature

Title

Date

Copy to Engineer

AIA Document A312

# Performance Bond

Conforms with the American Institute of Architects, AIA Document A312.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):  
**Inland Waters Pollution Control, Inc.**  
24354 King Rd.  
Brownstown, MI 48174

SURETY (Name and Principal Place of Business):  
**Arch Insurance Company**  
3 Parkway  
Philadelphia, PA 19102

OWNER (Name and Address):  
**Delhi Charter Township**  
2074 Aurelius Road  
Holt, MI 48842

CONSTRUCTION CONTRACT

Date:  
Amount: \$ 319,352.00

Description (Name and Location): **2008 Sanitary Sewer Trenchless Rehabilitation  
Delhi Township, Michigan**

BOND

Date (Not earlier than Construction Contract Date):  
Amount: \$319,352.00

Modifications to this Bond:

None  See Page 2

CONTRACTOR AS PRINCIPAL  
Company: **Inland Waters Pollution Control, Inc.** (Corporate Seal)

SURETY  
Company: **Arch Insurance Company**

Signature: *Allan Jedrak*  
Name and Title: **Allan Jedrak - Vice President**  
(Any additional signatures appear on page 2.)  
(FOR INFORMATION ONLY - Name, Address and Telephone)  
AGENT or BROKER: **RFF Associates, Inc**

Signature: *Joann Dombrowski*  
Name and Title: **Joann Dombrowski**  
**Attorney-in-Fact**

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

**195 Farmington Avenue  
Farmington, CT 06032 860-269-2153**

**1** The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

**2** If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

**3** If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

**3.1** The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to

perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

**3.2** The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

**3.3** The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

**4** When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

**4.1** Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

**4.2** Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

**4.3** Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

**4.4** Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1** After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or
- .2** Deny liability in whole or in part and notify the Owner citing reasons therefor.

**5** If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

**6** After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

- 6.1** The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- 6.2** Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
- 6.3** Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

**7** The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

**8** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**9** Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**10** Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

**11** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

**12 DEFINITIONS**

**12.1** Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

**12.2** Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

**12.3** Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

**12.4** Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

**MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:**

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

**CONTRACTOR AS PRINCIPAL**

Company:

Company:

(Corporate Seal)

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title:

Name and Title:

Address:

Address:

## POWER OF ATTORNEY

Know All Men By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal office in Kansas City, Missouri (hereinafter referred to as the "Company") does hereby appoint

Russell M. Canterbury, Joann Dombrowski and Marion R. Vail of Farmington, CT (EACH)

its true and lawful Attorney(s)-in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds and undertakings

EXCEPTION: NO AUTHORITY is granted to make, execute, seal and deliver bonds or undertakings that guarantee the payment or collection of any promissory note, check, draft or letter of credit.

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The Company may revoke this appointment at any time.

The execution of such bonds and undertakings in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal office in Kansas City, Missouri.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on March 3, 2003, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or any Vice President, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings, obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on March 3, 2003:

VOTED, That the signature of the Chairman of the Board, the President, or any Vice President, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on March 3, 2003, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 1st day of May, 20 08.

Arch Insurance Company

Attested and Certified

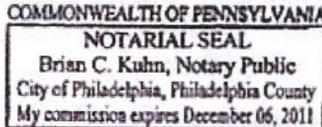


*Martin J. Nilsen*  
Martin J. Nilsen, Secretary

*J. Michael Pete*  
J. Michael Pete, Vice President

STATE OF PENNSYLVANIA SS  
COUNTY OF PHILADELPHIA SS

I, Brian C. Kuhn, a Notary Public, do hereby certify that Martin J. Nilsen and J. Michael Pete personally known to me to be the same persons whose names are respectively as Secretary and Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.



*Brian C. Kuhn*  
Brian C. Kuhn, Notary Public  
My commission expires 12-06-2011

CERTIFICATION

I, Martin J. Nilsen, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated May 1, 2008 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said J. Michael Pete, who executed the Power of Attorney as Vice President, was on the date of execution of the attached Power of Attorney the duly elected Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this \_\_\_\_\_ day of \_\_\_\_\_, 20 09.

*Martin J. Nilsen*  
Martin J. Nilsen, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Surety  
3 Parkway, Ste. 1500  
Philadelphia, PA 19102



# PAYMENT BOND

Conforms with The American Institute of Architects

AIA Document A312

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):  
**Inland Waters Pollution Control, Inc.**  
24354 King Rd.  
Brownstown, MI 48174

SURETY:  
**Arch Insurance Company**  
3 Parkway  
Philadelphia, PA 19102

OWNER (Name and Address):  
**Delhi Charter Township**  
2074 Aurelius Road  
Holt, MI 48842

CONSTRUCTION CONTRACT

Date:

Amount: \$319,352.00

Description (Name and Location): **2008 Sanitary Sewer Trenchless Rehabilitation  
Delhi Township, Michigan**

BOND

Date (Not earlier than Construction Contract Date):

Amount: \$319,352.00

Modifications to this Bond:

None

See Page 3

CONTRACTOR AS PRINCIPAL

Company: **Inland Waters Pollution Control, Inc.**

SURETY

**Arch Insurance Company**

Signature: *Allan Jednek*  
Name and Title: **Allan Jednek - Vice President**

Signature: *Joann Dombrowski*  
Name and Title: **Joann Dombrowski  
Attorney-in-Fact**

(FOR INFORMATION ONLY-Name, Address and Telephone)

AGENT or BROKER: **RFF Associates, Inc.**

**195 Farmington Avenue**

**Farmington, CT 06032 860-269-2153**

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

**1** The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

**2** With respect to the Owner, this obligation shall be null and void if the Contractor:

**2.1** Promptly makes payment, directly or indirectly, for all sums due Claimants, and

**2.2** Defends, indemnifies and holds harmless the Owner

from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

**3** With respect to Claimants, this obligation shall be null

and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

**4** The Surety shall have no obligation to Claimants under this Bond until:

**4.1** Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

**4.2** Claimants who do not have a direct contract with the Contractor:

- .1** Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- .2** Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
- .3** Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

**5** If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

**6** When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

**6.1** Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

**6.2** Pay or arrange for payment of any undisputed amounts.

**7** The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

**8** Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

**9** The Surety shall not be liable to the Owner, Claimants or others for obligations of the contractor that are unrelated to the Construction

Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

**10** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**11** No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**12** Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

**13** When this bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

**14** Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

## **15 DEFINITIONS**

**15.1 Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

**15.2 Construction Contract:** The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

**15.3 Owner Default:** Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

**MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:**

Sub paragraph 4.3 is added as follows:

**4.3** Claimant has furnished to Surety proof of claim duly sworn to by Claimant, along with adequate supporting documentation which proves amount claimed is due and payable.

Paragraph 5 is amended as follows:

**5** If a notice required by paragraph 4 is given by Owner to the Contractor and to the Surety, that is sufficient compliance.

Paragraph 6 is deleted in its entirety and the following is substituted in its place:

**6** When the Claimant has satisfied the conditions of Paragraph 4, and has submitted all supporting documentation and any proof of claim requested by the Surety, the Surety shall, within a reasonable period of time, notify the Claimant of the amounts that are undisputed and the basis for challenging any amounts that are disputed, including, but not limited to, the lack of substantiating documentation to support the claim as to entitlement or amount, and the Surety shall, within a reasonable period of time, pay or make arrangements for payment of any undisputed amount; provided, however, that the failure of the Surety to timely discharge its obligations under this paragraph or to dispute or identify any specific defense to all or any part of a claim shall not be deemed to be an admission of liability by the Surety as to such claim or otherwise constitute a waiver of the Contractor's or Surety defenses to, or right to dispute such claim. Rather, the Claimant shall have the immediate right, without further notice, to bring suit against the Surety to enforce any remedy available to it under this Bond.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL (Corporate Seal) SURETY

Company: Company:

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title:

Name and Title:

Address:

Address:

**MAINTENANCE AND GUARANTEE BOND**

KNOW ALL MEN BY THESE PRESENT, that Inland Waters Pollution Control, Inc. (Contractor), hereinafter called the "Principal", and Arch Insurance Company hereinafter called the "Surety", are held and firmly bound unto Delhi Charter Township, hereinafter called the "Owner," in the sum of Three Hundred Nineteen Thousand Three Hundred Fifty-two & 00/100 Dollars (\$319,352.00) to be paid to said Owner, its legal representative and assigns, for which payment will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns and each and every one of them jointly and firmly by these present.

Sealed with our seals and dated the \_\_\_\_\_ day of \_\_\_\_\_, 2009.

WHEREAS, the above named Principal has entered into a certain written contract with Delhi Charter Township, dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, wherein the Principal agreed as follows:

**2008 Sanitary Sewr Trenchless Rehabilitation**

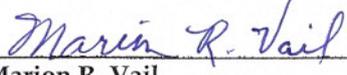
NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that by and under said contract, the above named Principal has agreed with the said Owner for a period of two (2) years from the date of the payment of the final estimate, to keep in good order and repair any defect in all the work done under said contract either by the Principal or his subcontractors, or his material suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements, and any other work affected in making good such imperfections, shall also be made good, all without expense to the Owner, excepting only such part or parts of said work as may have been disturbed without the consent or approval of the Principal after the final acceptance of the work and that whenever directed so to do by the Owner, by notice served in writing, either personally or by mail, on the Principal at \_\_\_\_\_

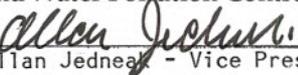
\_\_\_\_\_ or \_\_\_\_\_, legal representative, or successors, or on the Surety at 3 Parkway, Philadelphia, PA 19102, he will proceed at once to make such repairs as directed by said Owner; and in case of failure so to do within one (1) week from the date of service of such notice, or within reasonable time, not less than one (1) week, as shall be fixed in said notice, then the said owner shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose and to undertake to do and make such repairs and charge the expense thereof to and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the said Owner may take immediate steps to repair or barricade such defects without notice to the Contractor. In such accounting the Owner shall not be held to obtain the lowest figure for doing of the work or any part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this connection, the judgment of the Owner is final and conclusive. If the said Principal for a period of two (2) years from the date of the final estimate payment shall keep such work so constructed under the contract in good order and repair, excepting only such part or parts of such work as may have been disturbed without the consent or approval of said Principal after the final acceptance of the same as shall, whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed or shall reimburse said Owner for any expense incurred by making such repairs, should the Principal or Surety fail to do as hereinbefore specified and shall fully indemnify, defend and save harmless the said Owner from all suits and actions for damages of every name and description brought or claimed against it for or on account of any injury to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of said Principal, servants or employees, in the prosecution of the work included in said contract and from any and all claims arising under the Workman's Compensation Act, so-called, of the State of Michigan, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this \_\_\_\_\_ day of \_\_\_\_\_, 20 09.

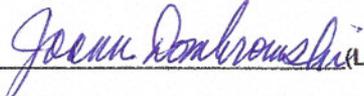
Signed, Sealed and Delivered  
in the presence of.

  
\_\_\_\_\_  
Alexia Chascsa

  
\_\_\_\_\_  
Marion R. Vail

Inland Water Pollution Control, Inc.  
By:  (L.S.)  
Allan Jedney - Vice President

Arch Insurance Company (L.S.)

By:  (L.S.)  
Joann Dombrowski, Attorney-in-Fact



CONTRACTOR'S AFFIDAVIT

The CONTRACTOR'S AFFIDAVIT must be completed and submitted prior to FINAL PAYMENT being issued:

STATE OF MICHIGAN )
) ss
County of \_\_\_\_\_ )

The Undersigned, \_\_\_\_\_ hereby represents that on \_\_\_\_\_ he (it) was awarded a Contract by \_\_\_\_\_ hereinafter called the Owner, to \_\_\_\_\_ in accordance with the terms and conditions of Contract No. \_\_\_\_\_; and the undersigned further represents that the subject work has now been accomplished and the said Contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness arising by reason of the said Contract has been fully or satisfactorily secured, and that all claims from subcontractors and others for labor and material used in accomplishing the said project, as well as all other claims arising from the performance of the said Contract, have been fully paid or satisfactorily secured. The Undersigned further agrees that if any such claim should hereafter arise, he (it) shall assume responsibility for the same immediately upon request to do so by the Owner.

The Undersigned, for a valuable consideration, the receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims of right of lien which the Undersigned now has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

\_\_\_\_\_  
(Contractor)

Subscribed and sworn to before me, a Notary Public in and for \_\_\_\_\_, County, Michigan, on this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

By: \_\_\_\_\_  
Title: \_\_\_\_\_

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_  
Acting in the County of \_\_\_\_\_.

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members

**FROM:** Evan Hope, Township Clerk

**DATE:** February 20, 2009

**RE:** Reschedule June 15, 2009 Board Goals and Objectives Meeting

---

At the November 5, 2008 Board meeting, the Board adopted the 2009 Board Meeting Schedule which included the June 15, 2009 Goals and Objectives Meeting facilitated by Lynn Harvey.

Mr. Harvey has informed us that he is not available on June 15<sup>th</sup> but would be able to meet with the Township Board on June 9, 2009. Therefore, I recommend we reschedule the June 15, 2009 Board Goals and Objectives meeting to Tuesday, June 9, 2009 at 6:00 p.m.

**Recommended Motion:**

**To reschedule the June 15, 2009 Board Goals and Objectives meeting to Tuesday, June 9, 2009 at 6:00 p.m.**

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•  
•  
•  
•

Delhi Charter Township  
Harry R. Ammon, Treasurer  
2074 Aurelius Road  
Holt, MI 48842  
517-694-0333 X3014

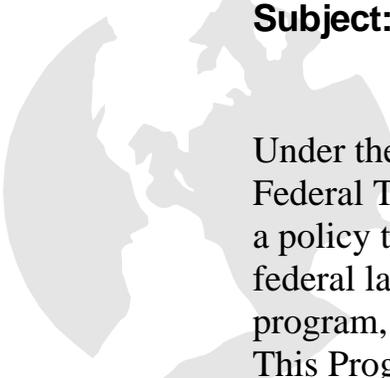
# Delhi Charter Township

**February 26, 2009**

**To: Delhi Charter Township Board of Trustees**

**From: Harry R. Ammon, Treasurer**

**Subject: Identity Theft Prevention Program**



Under the Fair and Accurate Credit Transactions Act of 2003 and the Federal Trade Commission's Red Flag Rule it is necessary to institute as a policy the Identity Theft Prevention Program to be in compliance with federal laws. To that end, Attorney Robinson has prepared the attached program, which meets these requirements, for your review and approval. This Program must be in place by May 1, 2009.

If you have any questions please contact me.

**Recommended Motion:**

**To adopt the Delhi Charter Township Identity Theft Prevention Program effective March 3, 2009 in compliance with the Federal Trade Commission's Red Flags Rule and the Fair and Accurate Credit Transactions Act of 2003.**

**DELHI CHARTER TOWNSHIP  
IDENTITY THEFT PREVENTION PROGRAM**

I. **Purpose.** To establish an Identity Theft Prevention Program designed to detect, prevent and mitigate identity theft in connection with the opening of a covered account or an existing covered account and to provide for continued administration of the Program in compliance with the Federal Trade Commission’s Red Flags Rule (Part 681 of Title 16 of the Code of Federal Regulations), implementing Sections 114 and 315 of the Fair and Accurate Credit Transactions Act (FACTA) of 2003.

Under the Red Flag Rule, every financial institution and creditor is required to establish an “Identity Theft Prevention Program” tailored to its size, complexity and the nature of its operation. Each program must contain reasonable policies and procedures to:

- A. Identify relevant Red Flags for new and existing covered accounts and incorporate those Red Flags into the program;
- B. Detect Red Flags that have been incorporated into the Program;
- C. Respond appropriate to *any* Red Flags that are detected to prevent and mitigate Identity Theft; and
- D. Ensure the Program is updated periodically, to reflect changes in risks to customers or to the safety and soundness of the creditor from Identity Theft.

II. **Definitions.**

*Identifying Information* means any name or number that may be used, alone or in conjunction with any other information, to identify a specific person, including: name, address, telephone number, social security number, date of birth, government issued driver’s license or identification number, alien registration number, government passport number, employer or

taxpayer identification number, unique electronic identification number, computer's Internet Protocol address, or routing code.

*Identity Theft* means fraud committed or attempted using the identifying information of another person without authority.

*A covered account* means:

A. An account that a financial institution or creditor offers or maintains, primarily for personal, family or household purposes that involves or is designed to permit multiple payments or transactions. Covered accounts include credit card accounts, mortgage loans, automobile loans, margin accounts, cell phone accounts, utility accounts, checking accounts and savings accounts; and

B. Any other account that the financial institution or creditor offers or maintains for which there is a reasonably foreseeable risk to customers or to the safety and soundness of the financial institution or creditor from identity theft, including financial, operational, compliance, reputation or litigation risks.

*A Red Flag* means a pattern, practice or specific activity that indicates the possible existence of identity theft.

### III. **Policy.**

A. **Identification of Red Flags.** The Township identifies the following red flags, in each of the listed categories:

#### 1. **Suspicious Documents.**

i. Identification document or card that appears to be forged, altered or unauthentic;

- ii. Identification document or card on which a person's photograph or physical description is not consistent with the person presenting the document;
- iii. Other document with information that is not consistent with existing customer information (such as, if a person's signature on a check appears forged); and
- iv. Application for service that appears to have been altered or forged.

**2. Suspicious Personal Identifying Information.**

- i. Identifying information presented that is inconsistent with other information the customer provides (example, inconsistent birth dates);
- ii. Identifying information presented that is inconsistent with other sources of information (for instance, an address not matching an address on a credit report);
- iii. Identifying information presented that is the same as information shown on other applications that were found to be fraudulent;
- iv. Identifying information presented that is consistent with fraudulent activity (such as an invalid phone number or fictitious billing address);
- v. Social security number presented that is the same as one given by another customer;
- vi. An address or telephone number presented that is the same as that of another person;
- vii. A person fails to provide complete personal identifying information on an application when reminded to do so (however, by law, social security numbers must not be required); and

viii. A person's identifying information is not consistent with the information that is on file for the customer.

**3. Suspicious Account Activity or Unusual Use of Account.**

i. Change of address for an account followed by a request to change the account holder's name;

ii. Payments stop on an otherwise consistently up-to-date account;

iii. Account used in a way that is not consistent with prior use (example, very high activity);

iv. Mail sent to the account holder is repeatedly returned as undeliverable;

v. Notice to the Township that a customer is not receiving mail sent by the Township;

vi. Notice to the Township that an account has unauthorized activity;

vii. Breach in the Township's computer system security;

viii. Unauthorized access to or use of customer account information.

**B. Detecting Red Flags.**

1. **New Accounts.** In order to detect any of the Red Flags identified above associated with the opening of a new account, township personnel will take the following steps to obtain and verify the identity of the person opening the account:

i. Require certain identifying information, such as, name, date of birth, residential or business address, principal place of business for an entity, driver's license or other identification;

ii. Verify the customer's identity (for instance, review a driver's license or other identification card);

iii. Review documentation showing the existence of a business entity;  
and/or

iv. Independently contact the customer.

2. **Existing Accounts.** In order to detect any of the Red Flags identified above for an existing account, Township personnel will take the following steps to monitor transactions with an account:

i. Verify the identification of customers if they request information (in person, via telephone, via facsimile, via email);

ii. Verify the validity of requests to change billing addresses; and

iii. Verify changes in banking information given for billing and payment purposes.

C. **Preventing and Mitigating Identity Theft.** In the event Township personnel detect any identified Red Flags, such personnel shall take one or more of the following steps, depending on the degree of risk posed by the Red Flag:

1. **Prevent and Mitigate.**

i. Continue to monitor an account for evidence of Identity Theft;

ii. Contact the customer;

iii. Change any passwords or other security devices that permit access to accounts;

iv. Not open a new account;

v. Close an existing account;

- vi. Re-open an account with a new number;
- vii. Notify the Township Manager for determination of the appropriate step(s) to take;
- viii. Notify law enforcement; and/or
- ix. Determine that no response is warranted under the particular circumstances.

**2. Protect Customer Identifying Information.**

In order to further prevent the likelihood of identity theft occurring with respect to Township accounts, the Township will take the following steps with respect to its internal operating procedures to protect customer identifying information:

- i. Ensure that its website is secure or provide clear notice that the website is not secure;
- ii. Ensure complete and secure destruction of paper documents and computer files containing customer information;
- iii. Ensure that office computers are password protected and that computer screens lock after a set period of time;
- iv. Keep offices clear of papers containing customer information;
- v. Request only the last 4 digits of social security numbers (if any);
- vi. Ensure computer virus protection is up to date; and
- vii. Require and keep only the kinds of customer information that are necessary for utility purposes.

**D. Program Updates.** This Program will be periodically reviewed and updated to reflect changes in risks to customers and the soundness of the Township from Identity Theft.

The Township Manager will consider the Township's experiences with Identity Theft situations, changes in Identity Theft methods, changes in Identity Theft detection and prevention methods, changes in types of accounts the Township maintains and changes in the Township's business arrangements with other entities. After considering these factors, the Township Manager will determine whether changes to the Program, including the listing of Red Flags, are warranted. If warranted, the Township Manager will present the Township Board with his/her recommended changes and the Board will make a determination of whether to accept, modify or reject those changes to the Program.

**E. Program Administration.**

1. **Oversight.** Responsibility for developing, implementing, and updating this Program lies with the Township Manager's Office. The Township Manager will be responsible for the Program administration, for ensuring appropriate training of Township staff on the Program, for reviewing any staff reports regarding the detection of Red Flags and the steps for preventing and mitigating Identity Theft, determining which steps of prevention and mitigation should be taken in particular circumstances, and considering periodic changes to the Program.

2. **Staff Training and Reports.** Township staff responsible for implementing the Program shall be trained or under the direction of the Township Manager in the detection of Red Flags and the responsive steps to be taken when a Red Flag is detected. Township staff is required to provide reports to the Township Manager regarding incidents of Identity Theft, the Township's compliance with the Program, and the effectiveness of the Program.

3. **Specific Program Elements and Confidentiality.** For the effectiveness of Identity Theft Prevention Programs, the Red Flag Rule envisions a degree of confidentiality regarding the Township's specific practices relating to Identity Theft detection, prevention and mitigation. Therefore, under this Program, knowledge of such specific practices is to be limited to the Township Manager and those employees who need to know them for the purposes of preventing Identity Theft. Because this Program is to be adopted by a public body and thus publicly available, it would be counterproductive to list these special practices here. Therefore, only the Program's general Red Flag detection, implementation and prevention practices are listed in this document.

IV. **Authority and Revision.**

This policy is enacted immediately upon approval of the Township Board as reflected in the regular meeting minutes dated \_\_\_\_\_. Revisions to this policy shall only be enacted when approved by the Township Board and reflected in the applicable meeting minutes. This policy shall be reviewed at least biennially by the Township Manager and updated as appropriate.

## DELHI CHARTER TOWNSHIP

### MEMORANDUM

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** February 25, 2009

**RE:** 2008 Agreement for Local Road Improvements

---

Last year the Township established special assessment districts for four subdivisions (Phillips, Pine Dell, Hearthside Acres and Gilbert Glens) for local road improvements within each subdivision. Each special assessment district was established based on the Ingham County Road Commission's estimated cost of road improvements as the Road Commission doesn't go out for formal bids until a municipality commits to the road improvements. In the spring of 2008, during the public hearings for each subdivision, we represented to the citizens that the estimated road improvement costs would become the basis for determining their special assessment.

When the contracts were awarded in the summer, the bids were higher than estimated and both the Township and County absorbed the difference through a modified Agreement where the total project costs changed from \$302,472 to \$328,325.87. Now, after completion, the Ingham County Road Commission has determined final costs amounting to \$354,429.80 of which the Township's share is \$26,103.93.

The bid prices were higher than estimated primarily due to higher oil prices. The final overall cost was higher than the bid amounts due to the change in road conditions (worse than expected) along with an attempt to provide the best road improvement possible.

In so far as the Road Commission has provided this project the maximum match money allowed, along with their absorption of in kind costs for engineering services (7%), I would recommend the Township pay the final difference of \$26,103.93 from our FY 2009 Street Improvement budget (101-446.00-969.000).

#### **Recommended Motion:**

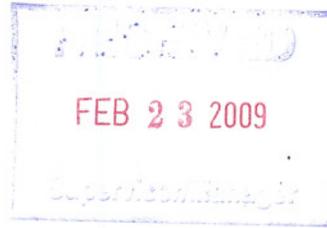
**To approve the additional expenditure of \$26,103.93 to the Ingham County Road Commission for 2008 local road improvements.**

# INGHAM COUNTY ROAD COMMISSION

AUSTIN E. CAVANAUGH ADMINISTRATION BUILDING  
301 Bush Street, P.O. Box 38, Mason MI 48854-0038

Joseph A. Guenther, Chair  
Shirley M. Rodgers, Vice Chair  
Thomas M. Mitchell, Member  
James Dravenstatt-Mocerri, Member  
Norman L. Gear, Member

William M. Conklin, P.E.  
Managing Director



## INVOICE

Name	Customer Delhi Charter Township Attn: Evan Hope, Clerk				
Address	2074 Aurelius Road				
City	Holt	State	MI	ZIP	48842

Invoice No.	7916
Date	01/30/09

Description	Total
-------------	-------

Final Costs of Street Repairs:

Performing one or more of the following:

- Cold Milling surfaces
- Adjusting manholes
- Removal and Replacement of deteriorated curbs and gutters
- Asphalt Resurfacing

on roads within the following subdivisions:

Phillips Subdivision:	\$71,216.77
Pine Dell Subdivision:	\$102,202.60
Hearthside Acres Subdivision:	\$90,524.80
Gilbert Glens Subdivision:	\$90,485.63

Final cost of projects:	\$354,429.80
Ingham County Road Commission share:	(\$160,975.21)
Paid by Township:	(\$167,350.66)
<b>Total Amount due from Delhi Township</b>	<b>\$26,103.93</b>

See attached spread sheet comparing original estimate, bid tabulation & final quantities at bid prices for explanation of cost increases.

In general bid prices were significantly up on this and all projects in 2008 due to the spike in petroleum costs affecting both asphalt prices and contractor's equipment operating costs.

Pine Dell's final cost was also increased due to the need for additional asphalt found necessary when existing road edges cleaned off and found much more deteriorated than anticipated and thus increased asphalt thickness to make up for this.

Hearthside Acres final cost was increased due the need for more milling & replacement of deteriorated existing pavement than originally estimated, plus the need for additional curb and catch basin repairs.

CR: 201-000-000-00000 583.004

Telephone: (517) 676-9722 1-800-968-9733 Fax: (517) 676-2085 TDD: (517) 676-7798  
E-Mail: [roads@inghamcrc.org](mailto:roads@inghamcrc.org) Web Site: <http://www.inghamcrc.org>  
An Equal Opportunity Employer

SUPPLEMENTAL FINAL COST INFORMATION - ROAD COMMISSION LABOR

	<u>Contractor</u>	<u>ICRC</u>	<u>Total</u>
Phillips Subdivision	\$70,550.76	\$666.01	\$71,216.77
Pine Dell Subdivision	\$97,610.07	\$4,592.53	\$102,202.60
Hearthside Acres Subdivision	\$90,524.80		\$90,524.80
Gilbert Glens Subdivision	\$90,485.63		\$90,485.63
	<hr/>		
	\$349,171.26	\$5,258.54 **	\$354,429.80

\*\* Road Commission supplied labor, materials & equipment to replace a culvert under a street in Pine Dell, scrape back sod to permit paving, restored topsoil with seed after paving and placed gravel at existing gravel driveways.

**2008 DELHI PAVING**

**Phillips Sub.**

<b>ESTIMATE</b>				
		Quantity	Unit Price	Total
Adj. Manhole	Each	15	\$300.00	\$4,500.00
Bit. Mix 13A	Ton	1299	\$45.00	\$58,455.00
Advance Notice	Each	1	\$216.00	216
<b>TOTAL</b>				<b>\$63,171.00</b>

<b>BID</b>			
	Quantity	Unit Price	Total
	15	\$255.58	\$3,833.70
	1299	\$59.41	\$77,173.59
	1	\$216.00	\$216.00
			<b>\$81,223.29</b>

<b>FINAL</b>			
	Quantity	Unit Price	Total
	14	\$255.58	\$3,578.12
	1123.66	\$59.41	\$66,756.64
	1	\$216.00	\$216.00
			<b>\$70,550.76</b>

**Pine Dell Sub.**

<b>ESTIMATE</b>				
		Quantity	Unit Price	Total
Adj. Manhole	Each	9	\$300.00	\$2,700.00
Bit. Mix 13A	Ton	1197	\$45.00	\$53,865.00
Bit. Restoration	SYD	231	\$20.00	\$4,620.00
<b>TOTAL</b>				<b>\$61,185.00</b>

<b>BID</b>			
	Quantity	Unit Price	Total
	9	\$255.58	\$2,300.22
	1197	\$59.41	\$71,113.77
	231	\$26.93	\$6,220.83
			<b>\$79,634.82</b>

<b>FINAL</b>			
	Quantity	Unit Price	Total
	10	\$255.58	\$2,555.80
	1395.99	\$59.41	\$82,935.77
	450	\$26.93	\$12,118.50
			<b>\$97,610.07</b>

**Gilbert Glens**

<b>ESTIMATE</b>				
		Quantity	Unit Price	Total
Adj. Manhole	Each	20	\$300.00	\$6,000.00
Bit. Mix 13A	Ton	990	\$45.00	\$44,550.00
Curb and Gutter	LFT	850	\$25.00	\$21,250.00
Cold Milling	SYD	4201	\$2.50	\$10,502.50
Restoration	LFT	850	\$5.00	\$4,250.00
<b>TOTAL</b>				<b>\$86,552.50</b>

<b>BID</b>			
	Quantity	Unit Price	Total
	20	\$255.58	\$5,111.60
	990	\$59.41	\$58,815.90
	850	\$19.68	\$16,728.00
	4201	\$1.19	\$4,999.19
	850	\$4.56	\$3,876.00
			<b>\$89,530.69</b>

<b>FINAL</b>			
	Quantity	Unit Price	Total
	25	\$255.58	\$6,389.50
	1074.82	\$59.41	\$63,855.06
	601	\$19.68	\$11,827.68
	4800	\$1.19	\$5,712.00
	601	\$4.56	\$2,740.56
			<b>\$90,524.80</b>

**Hearthside Acres Sub.**

<b>ESTIMATE</b>				
		Quantity	Unit Price	Total
Adj. Manhole	Each	17	\$300.00	\$5,100.00
Bit. Mix 13A	Ton	981	\$45.00	\$44,145.00
Curb and Gutter	LFT	450	\$25.00	\$11,250.00
Cold Milling	SYD	3700	\$2.50	\$9,250.00
Restoration	LFT	450	\$5.00	\$2,250.00
<b>TOTAL</b>				<b>\$71,995.00</b>

<b>BID</b>			
	Quantity	Unit Price	Total
	17	\$255.58	\$4,344.86
	981	\$59.41	\$58,281.21
	450	\$19.68	\$8,856.00
	3700	\$1.19	\$4,403.00
	450	\$4.56	\$2,052.00
			<b>\$77,937.07</b>

<b>FINAL</b>			
	Quantity	Unit Price	Total
	25	\$255.58	\$6,389.50
	1088.61	\$59.41	\$64,674.32
	600	\$19.68	\$11,808.00
	4099	\$1.19	\$4,877.81
	600	\$4.56	\$2,736.00
			<b>\$90,485.63</b>

**PROJECT TOTAL: \$282,903.50**

**\$328,325.87**

**\$349,171.25**

## DELHI CHARTER TOWNSHIP

### MEMORANDUM

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** July 11, 2008

**RE:** Revised Agreement for Local Road Improvements between the Board of Ingham County Road Commissioners and Delhi Charter Township for Various Roads in FY 2008

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Enclosed for your review and approval is a revised Agreement for Local Road Improvements for Gilbert Glens Subdivision, Pine Dell Subdivision, Phillips Subdivision and Hearthside Subdivision.

This version is based upon actual bids and contract awarded by the Ingham County Road Commission for their FY 2008 road improvements. The difference in cost is reflected in item number 2 on the last page of the Agreement. The estimated cost was \$302,472 while the actual contract cost will be \$328,325.87. Due to this increase the Ingham County Road Commission has agreed to drop their 7% contract administration fee. They also agreed to increase their contribution from \$151,236 to \$160,975.21 which reflects their total allocation budgeted for Delhi Township. That leaves the Township's share at \$167,350.66 of which the benefiting property owners will pay \$151,074.11 through their special assessments.

During the public hearing process with the various neighborhoods we represented our intentions to limit their individual assessment to the amount in the adopted assessment roll. Therefore, I recommend the Township pay the remaining \$16,276.55 from the General Fund and approve this revised Agreement.

#### **Recommended Motion:**

**To approve the revised Agreement for Local Road Improvement between the Board of Ingham County Road Commissioners and Delhi Charter Township for Gilbert Glens Subdivision, Pine Dell Subdivision, Phillips Subdivision and Hearthside Subdivision at a cost of \$328,325.87 (Township's share being \$167,350.66 utilizing \$16,276.55 from the General Fund).**

**DELHI CHARTER TOWNSHIP**

**MEMORANDUM**

**TO:** Delhi Township Board Members

**FROM:** John B. Elsinga, Township Manager

**DATE:** June 10, 2008

**RE:** Agreement for Local Road Improvement between the Board of Ingham County Road Commissioners and Delhi Charter Township for Gilbert Glens Subdivision, Pine Dell Subdivision, Phillips Subdivision and Hearthside Subdivision

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At the June 17, 2008 meeting, the Board will hold a public hearing to hear comments on the Special Assessment District/Roll for Road Improvements within Hearthside Subdivision. Subsequent to the Board's approval of Resolution No. 2008-042 adopting the SAD for Hearthside Subdivision, enclosed for your review and consideration is the Agreement for Local Road Improvement between the Board of Ingham County Road Commissioners and Delhi Charter Township for Gilbert Glens Subdivision, Pine Dell Subdivision, Phillips Subdivision and Hearthside Subdivision.

In January 2008 the Township began the road improvement process by soliciting estimated costs for road improvements within these subdivisions. The Ingham County Road Commission estimated the total cost of these projects to be approximately \$302,472. Based on the preliminary cost estimate for each subdivision, the Township prepared and adopted special assessment districts/rolls to assess the affected property owners within each subdivision 50% of the cost estimate for their particular road improvement project. This process must be completed before the Road Commission solicits bids for the paving season so that the Road Commission can prepare the bid documents according to what road improvements the Township is committed to.

The Road Commission agrees to contribute 50% of the total project cost up to \$160,975.21 (\$66,000 for 2008 and \$94,975.21 carryover from 2006 and 2007), provided the Township agrees to contribute the remaining amount. Based on the Road Commission's project estimate of \$302,472, the Road Commission would contribute \$151,236 while the Township would contribute the remaining \$151,236 through special assessments already adopted by the Board.

Therefore, I recommend the Board approve this Agreement.

**RECOMMENDED MOTION:**

**To approve the Agreement for Local Road Improvement between the Board of Ingham County Road Commissioners and Delhi Charter Township for Gilbert Glens Subdivision, Pine Dell Subdivision, Phillips Subdivision and Hearthside Subdivision at an estimated cost of \$302,472.00 (Township's share being \$151,236).**

**Lynn R. Harvey, Ph.D.**  
**Consultant – Local Government**  
**2704 Dellridge Dr.**  
**Holt, MI 48842**



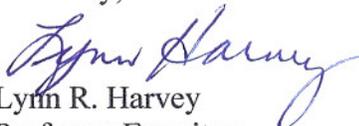
February 22, 2009

Ms. Marian Frane  
Director of Accounting  
Delhi Charter Township  
2074 Aurelius Rd.  
Holt, MI 48842

Dear Marian:

Congratulations on being named the recipient of the *Michigan Award for Financial Planning*, a most deserving award and recognizes your success in budgeting and financial planning. The recognition of your efforts while a source of personal accomplishment and pride, also reflects the dedication and support of the Delhi Township Board, administration and township employees working as a team. As a resident of the township I'm proud of not only your accomplishments but the recognition it brings to the township. I have often used Delhi Township as an example of what can be accomplished through engagement and involvement of employees in the budgeting process, but it takes strong leadership, the type that you possess. Well done!

Sincerely,

  
Lynn R. Harvey  
Professor Emeritus  
Michigan State University

cc. **Stuart Goodrich, Supervisor** and John Elsinga, Township Manager