
LEFT SIDE OF
PACKET

TO:

Brenda Stumbo, Supervisor, Charter Township of Ypsilanti
Karen Lovejoy Roe, Township Clerk
Larry Doe, Township Treasurer
Jean Hill Currie, Township Trustee
Stan Eldridge, Township Trustee
Mike Martin, Township Trustee
Dee Sizemore, Township Trustee

FROM:

Mark Clancy, Chair, Water Conservation Advisory Commission

RE:

Ford Lake Aeration Study/ Proposal for Aeration System

Date: April 28, 2010

The Water Conservation Advisory Commission has been asked to provide comments upon the proposed Aeration System for Ford Lake, as described in the Barr Engineering Report, dated December 4, 2009. The comments below are based on the WCAC's analysis of the Report and a follow-up discussion with Professor John Lehman of the University of Michigan, who has done extensive research on algae in Ford Lake. We have been unable to meet with Barr Engineering.

Reducing algal blooms and increasing dissolved oxygen levels in Ford Lake are important public policy goals. Algal blooms interfere with the enjoyment of the lake by all recreational users of Ford Lake Parks as well as lakeside residents to a greater or lesser extent. Algal blooms are unsightly, sometimes smelly, and foul docks, shoreline, fishing lines and boat bottoms. Data from the 2008 dam relicensing shows that there were 2,960 boat passes issued when park gatehouses were operational, and this represents only a fraction of total boat traffic. In addition, the actual headcount at the gates for Ford Lake, Loonfeather and North Bay Parks was 17,840, with a substantially higher estimated total headcount of 55,190. It would be hard to overstate the importance of Ford Lake as a focal point for recreation in the area, and as a generator of park fees.

The adverse recreational impact of algal blooms is clear, but they also negatively impact upon Ford Lake's potential as a generator of economic activity through organized fishing tournaments and rowing events. Perceptions of the Township as an excellent area in which to reside in general and maintenance of stable property values on the lakeside in particular, are affected by lake conditions. Finally, at present, there are times when the dissolved oxygen level of water discharged through the hydropower turbines and sluice gates at the dam violates state-issued water quality certification. For all these reasons, we believe that grant sources should be actively sought for the aeration project, even in these challenging economic times.

The proposed Aeration System will help reduce algal blooms on Ford Lake by increasing dissolved oxygen levels. Dr. Lehman's work has shown that algal blooms can be remediated by increasing the dissolved oxygen in the bottom waters of Ford Lake (or hypolimnion). In the words of the Barr report: "The recommended design succeeds in keeping the lake well mixed throughout the summer, thus dampening but not eliminating, the blue-green algae blooms..." (page 9). To be more precise, the Barr report estimates a 30% reduction (page 8). In discussions with the WCAC, Dr. Lehman believed this was a conservative estimate, and that aeration will disrupt the peak growth of algal blooms until late in the recreational season. That said, it should be understood that while the proposed system will have a significant positive impact, it will not entirely eliminate the algal bloom.

The production of algal blooms on the Lake is multicausal. High sediment oxygen demand, phosphorus loads originating from the Huron River upstream (estimated at two-thirds) and lake sediment (estimated at one-third), and warm water temperatures are among these causes. Recent reductions of midstream phosphorus levels documented by the Huron River Watershed Council are promising. While we hope this reduction will be sustained, and even further reduced over coming years, phosphate level is a variable that can affect Ford Lake algal blooms in either a positive or a negative direction. Changes in the water temperature and the volume of water entering and exiting the lake may also increase or decrease the intensity of algal blooms in any given year. However, insofar as we can reduce algal blooms by direct action at the Township level by this project, we should do so.

As Ford Lake is such an important Township resource, the WCAC is of the opinion that funding for the proposed aeration system should be pursued. Given the challenging state of the Township finances in the current recession we realize that internal funding is unlikely, at least in the short run. That being the case, we recommend that grant sources such as federal stimulus funds, federal earmarks, and Great Lakes initiatives be sought at this time. The Barr Report estimates (page 17) that in addition to capital costs of \$718,000, there will also be ongoing annual maintenance costs of \$33,000 (diffuser membrane replacement every 5-10 years, zebra mussel removal about every 2-3 years, electricity, and compressor maintenance). However, given the importance of Ford Lake as a signature feature of the Township, we believe these annual expenditures are warranted.

Ford Lake Aeration Study

***Conceptual Design, Engineering Cost Estimate, and
Predicted Effect of Lake Aeration***

***Prepared for
Charter Township of Ypsilanti, Michigan***

December 4, 2009



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Executive Summary

The water quality in Ford Lake is currently degraded. During mid- to late-summer, Ford Lake has experienced large blue-green algae blooms. Additionally, there have been instances where the dissolved oxygen concentration of the water released through the hydropower turbines and sluice gates at the dam has been below the limits specified in the state-issued water quality certification for the dam's hydroelectric generation facility. An ongoing study conducted by Professor John Lehman at the University of Michigan suggests that the summer algal blooms may be prevented by increasing the mixing of the surface waters with the bottom waters in Ford Lake. Aeration systems are a simple and economical method of mixing lakes, and are the method investigated in this study.

A sophisticated hydrodynamic and ecological model was first calibrated to existing water quality data from Ford Lake and then used to determine the recommended aerator design and the associated water quality improvements. The recommended aeration system provides energy to mix the lake using compressed air bubbled through a series of membrane diffusers weighted to the bottom of the lake. The bubblers would be located in the deepest portion of the lake, roughly the eastern one third of the lake. The aeration system is sized to deliver 1200 SCFM of air at 25 psig, requiring a total power 200 HP to operate the system.

The recommended system would cost roughly \$720,000 to purchase and install, and roughly \$33,000 per year to operate.

1.0 Introduction

The water quality in Ford Lake is currently degraded. During mid to late summer, the lake has experienced large swings in dissolved oxygen (DO) levels and large phytoplankton blooms which can be dominated by cyanobacteria (i.e., blue-green algae) populations that tend to float to the surface and have the potential to produce neurotoxins. Additionally, there have been instances where the dissolved oxygen concentration of the water released through the hydropower turbines and sluice gates at the dam has been below the limits specified in the state-issued water quality certification for the dam's hydroelectric generation facility.

An ongoing study conducted by Professor John Lehman at the University of Michigan suggests that the summer algal blooms may be prevented by increasing the DO in the Lake's bottom waters (or hypolimnion). Increasing the DO in the hypolimnion would also likely improve the DO of the water being released by the hydroelectric facility. The DO in the hypolimnion could be increased by either (or both) increasing the mixing of the surface waters (epilimnion) with hypolimnion or aerating (adding oxygen to) the hypolimnion. Aeration systems consisting of compressed air piped to the bottom of a lake and released in the form of bubble plumes are a simple and economical method of mixing lakes and adding oxygen to the water.

The goals of this study are to identify an aeration system that can meet two objectives: 1) maintain a dissolved oxygen concentration in the discharge from the dam of at least 5 mg/L at all times, and 2) eliminate or reduce the nuisance algae blooms in Ford Lake.

The approach used in this study was to use a sophisticated hydrodynamic and ecological model of Ford Lake to assist in the design of the aeration system. Larger aeration systems, consisting of larger air compressors and more bubble diffuser nozzles generally do a better job of mixing lakes and adding oxygen to the water. However, larger aeration systems cost more to install and have a higher operational cost, in the form of higher electricity usage. The intent of this study was to identify an optimal aerator design, large enough to achieve the project goals, but not so large as to incur unnecessary installation and operational costs. The recommended design was selected after extensive modeling efforts which involved testing different aerator locations, coverage, and air flow rates to identify the minimal aerator system size that could destratify the lake, improve dissolved oxygen levels, and reduce the magnitude of phytoplankton blooms.

The report is organized as follows: Section 2.0 briefly describes how the hydrodynamic and ecological model was used to determine the recommended aerator design and the associated water quality improvements. A more comprehensive and technical discussion of the water quality modeling process is included in Appendix A. Section 3.0 presents a discussion of the recommended aerations system, including the system components, potential locations to site the system, power requirements, permitting requirements, and estimates for cost of installation and operation. Design calculations and vendor/supplier materials are included in Appendix B and C, respectively.

2.0 Water Quality Modeling

This section briefly describes how the hydrodynamic and ecological model was used to determine the recommended aerator design and the associated water quality improvements. A more comprehensive and technical discussion of the water quality modeling process is included in Appendix A.

2.1 Model Development and Calibration

This study used a sophisticated hydrodynamic and ecological model called ELCOM/CAEDYM (University of Western Australia, Center for Water Research) to assist in the design of the aeration system and evaluate the potential benefits of the recommended design.

The water quality model was developed based on the following parameters:

- lake bathymetry
- climatological data such as wind speed, solar radiation, rainfall, and relative humidity,
- lake water quality and Huron River inflow water quality,
- water flow rates into and out of the lake
- the types of biota that reside in Ford Lake and relevant ecological properties of the species, such as growth rates and other kinetic properties
- other lake processes such as solids settling rates, sediment oxygen demand, internal phosphorus loading, carbon decay rates, and sunlight absorption (extinction) coefficients.

All of these inputs determine how a lake thermally stratifies and destratifies, how phytoplankton grow and decay in the lake, and how dissolved oxygen levels fluctuate in a lake. The model was calibrated to the 2005 season because 2005 represents a worst case year, with very low dissolved oxygen and severe phytoplankton booms.

2.2 Alternative Aeration Designs

Once the water quality model was calibrated to accurately describe the hydrodynamics and ecology of Ford Lake over the course of a complete season, the effects of an aeration system were evaluated. Aerators were added to the lake model in the form of a string or line of hundreds of small bubblers placed along the bottom of the lake. This form of aeration allows a large amount of mixing energy to be added to the lake, but yet is unobtrusive to the existing uses of the lake as compared to a few large aerators. Various configurations of an aeration system were tested in the model and the resulting

water quality impacts were evaluated. Variations of aerators tested included a range of the total air flow rate added to the lake, a range in the number of aerators in the lake, and various locations of aerators in the lake. A summary of the various aeration configurations tested and the water quality outcomes are presented in Table 1.

Table 1- Summary of aerator designs tested.

Aerator Configuration	Purpose of Model Run	Spatial Extent of Aerator Lines	Total Air Flow Rates (m ³ /s)	Outcome
Two lines, each 500 m long near the dam	Evaluate the benefit of aerating only region near the dam (smaller system = less cost)	From the dam westward 500 m	0.5	Poor destratification. Low DO on the bottom of the lake.
5 separate lines, each approximately 500 m long	To determine if greater mixing would occur by installing aerator lines with greater spatial coverage	From the dam to 500 meters east of the island.	0.5 to 2.5	Complete destratification.
4 lines each approximately 500 m long.	To determine if the placement of aerator lines in shallow upper reaches of the lake would reduce phosphorus release from shallow lake sediments	One line 500 meters southeast of the inlet, and 3 lines each 500 meters long, starting 300 meters east of the island, mid-way between the island and the dam, and at the dam and extending 500 meters west.	2.5	Complete destratification. No added benefit with shallow aerator placement
One line approximately 2800 m long.	Evaluate single aerator line placed in centerline of lake (the deepest channel)	From the dam west to the island.	0.5 to 2.5	Complete destratification directly above the aerator line, as well as at locations upstream and laterally far from the aerator line.
One line approximately 1700 m long	Evaluate single aerator line placed in the deepest channel but with a shorter length.	From the dam west about 1800 meters	0.1 to 1	Complete destratification for total air flow rates at and above 0.3 m ³ /s.

The aeration simulations were conducted for the time period April 1 through September 15, 2005. The year 2005 was chosen because of the high degree of lake stratification, low dissolved oxygen levels, and occurrence of blue-green algal blooms during the summer of 2005 (e.g., a worst case scenario). Hence, the aeration system would be able to address instances of severe dissolved oxygen depletion.

The various aeration systems tested in the water quality model were evaluated first based on the following criterion: 1) ability to destratify the entire lake over the entire summer, 2) increase in DO levels over unaerated (existing) conditions, and 3) reduction in phytoplankton levels. Aeration systems were evaluated secondly on factors related to the cost of the system, such as the length of aeration line and the total amount of air flow. Shorter lengths of aeration line would be less expensive to install. Lower total of air flows require a smaller compressor and therefore would cost less to install and to operate.

2.3 Recommended Aeration Design

The recommended design of the aeration system was identified from the water quality modeling analysis. The recommended configuration is a single aeration line extending from the dam outlet west and up-lake by 1,800 meters. Figure 1 shows the location of the aerator line for the recommended system. The recommended total air flow rate is $0.3 \text{ m}^3/\text{s}$ (at ambient pressure, i.e., at the bottom of the lake).

This design is capable of destratifying Ford Lake throughout a hot dry summer. Figure 2 is a temperature isopleth for a location near the dam outlet. The figures show lake temperature by lake depth (y-axis) and by date (x-axis). Figure 2a shows the existing (non-aerated) conditions; the lake is stratified. Notice the temperature differential from top to bottom. During late June the water surface (depth = 0 m) is at a temperature of roughly 23°C , and the lake bottom (depth = 9 m) is at a temperature of roughly 15°C . Figure 2b shows the aerated conditions; the lake shows no stratification. At every date, the temperature is nearly uniform from top to bottom.

Although this recommended design has the aeration line extending only 1,800 meters upstream from the dam, this design is capable of destratifying the entire lake, even the most western upstream portions of the lake. Figure 3 shows the modeled temperatures along the entire centerline of Ford Lake, from the west end (upstream/inlet) to the east end (downstream/outlet/dam). Figure 3 shows the modeled temperatures for a given date from the model simulation (July 6, 2005). Figure 3a shows that for the existing (unaerated) conditions the lake is stratified; notice the range of color (temperature)

throughout the lake. Figure 3b shows that for the aerated conditions, the lake is almost completely mixed; notice the homogenous color (temperature) throughout the lake, even in the shallower regions of the lake upstream of the aerators.

The recommended total air flow rate of $0.3 \text{ m}^3/\text{s}$ is also consistent with general guidelines on airflow rates required to adequately mix water bodies. According Chen and Orlob (1975) a specific airflow rate (ratio of air flow rate to surface area of water) of at least $9.2 \text{ m}^3/\text{min}/\text{km}^2$ is needed to adequately destratify a lake. The recommended total air flow rate of $0.3 \text{ m}^3/\text{s}$ corresponds to a specific airflow rate of $9.9 \text{ m}^3/\text{min}/\text{km}^2$ for Ford Lake.

The water quality improvements associated with the recommended design are summarized below in Table 2. Aeration can reduce the magnitude of phytoplankton blooms by roughly 30 percent. Under worst case conditions, aeration can improve dissolved oxygen levels by 0.6 to 1.2 mg/L. For 2005 and under worst case conditions, aeration would have been able to maintain dissolved oxygen levels somewhere between 4.6 to 5.2 milligrams per liter.

Table 2 - Summary of the effect of aeration on dissolved oxygen, phytoplankton, and phosphorus concentrations in Ford Lake near the dam outlet from April 1 through September 15, 2005.

Parameter	No Aeration - Existing conditions	Aerated Conditions - Recommended Design
Average Dissolved Oxygen (mg/L)	7.23	8.29
Minimum Dissolved Oxygen (mg/L)	4.01	6.05
Average Phytoplankton Concentration ($\mu\text{g/L}$ as chl <i>a</i>)	19.06	13.15
Maximum Phytoplankton Concentration ($\mu\text{g/L}$ as chl <i>a</i>)	95.72	60.49
Average Total Phosphorus (mg/L)	0.040	0.027
Maximum Total Phosphorus (mg/L)	0.106	0.076
Average Cyanobacteria ($\mu\text{g/L}$ as chl <i>a</i>)	16.26	10.06
Maximum Cyanobacteria ($\mu\text{g/L}$ as chl <i>a</i>)	95.32	60.02
Average Diatoms ($\mu\text{g/L}$ as chl <i>a</i>)	2.92	3.06
Maximum Diatoms ($\mu\text{g/L}$ as chl <i>a</i>)	13.03	13.02

2.4 Discussion

Ideally, the goal of an aeration system would be to increase the dissolved oxygen near the sediment-water interface significantly, thereby reducing the release of phosphorus from the sediments to the water column. Under conditions of low oxygen, phosphorus is released from the sediments when iron can no longer hold phosphorus in sediments on the lake bottom. When the sediments are oxygenated, iron binds phosphorus in sediment, thereby not allowing it to diffuse upward into the

water column. Results of this water quality modeling investigation indicate that it would not be feasible to increase the dissolved oxygen levels at the sediment-water interface of Ford Lake enough to significantly reduce the release of phosphorus with a realistically sized aerator system. This is largely due to the very high oxygen demand of the sediment, the continued presence of phytoplankton blooms and the oxygen demands of the phytoplankton when they die, and the overall warm temperatures of the reservoir water (oxygen solubility is reduced when water is warm). Therefore, the primary benefit of aeration in Ford Lake (with regards to phytoplankton levels) is a reduced rate of internal loading and a minimization of phosphorus build up in bottom waters. The recommended design succeeds in keeping the lake well-mixed throughout the summer, thus dampening, but not eliminating, the blue-green algae blooms that occur in late summer.

The installation of aerators will increase dissolved oxygen levels throughout the lake, but the effect will be somewhat limited. Under worst case conditions, aeration can improve dissolved oxygen levels by 0.6 to 1.2 milligrams per liter. For 2005 and under worst case conditions, aeration would have been able to maintain dissolved oxygen levels somewhere between 4.6 to 5.2 milligrams per liter. Two factors that limit the potential effectiveness of an aeration system are the high sediment oxygen demand in Ford Lake (approximately 2.0 milligrams per liter) and warm water temperatures. Warmer water has a lower solubility of oxygen. The capacity of aeration to increase dissolved oxygen levels diminish as the difference between oxygen solubility and the target dissolved oxygen level (5.0 mg/L) becomes smaller. During cooler years, aeration will be more effective and will produce higher dissolved oxygen levels. The high sediment oxygen demand of Ford Lake is largely due to sediment loads coming from the Huron River, and from the growth and decay of phytoplankton in the lake. It will be difficult to reduce sediment oxygen demand in Ford Lake unless the sediment and phosphorus loads from the Huron River are significantly reduced.

3.0 Conceptual Design of Recommended System

3.1 Aeration System

The aeration system will consist of a forced air system delivering compressed air to the bottom of Ford Lake through a series of HPDE air supply lines. The compressed air will be bubbled into the lake through a series of membrane diffusers attached to the air supply lines. The membrane diffusers and bubble supply lines will be weighted to the bottom of the lake with a series of concrete weights attached to the supply lines. The air supply lines and bubble diffusers would sit roughly 18 inches above the bottom of the lake, and would not interfere with recreational uses of the lake. This type of aeration system is currently installed at numerous lakes throughout the US and at several applications in Michigan.

3.1.1 Air distribution lines

HDPE air supply lines would deliver the compressed air from the air compressors located on the shore to the bubble plume generators located at the bottom of the lake. The aeration system is sized to deliver 1200 SCFM of air. The air distribution lines will need to be 4 to 6 inches in diameter to accommodate the amount of air needed. The air supply lines will extend roughly 6,000 ft along the deepest part of eastern third of Ford Lake. The air supply system could be designed to have three separate air supply zones for flexibility in operation of the system; partial operation of the aeration system may be able to adequately mix the lake during times of weak lake stratification and could reduce operating costs. The first zone will extend 2,000 feet into the lake, the second 4,000 feet and the third 6,000 feet. Figure 4 shows the location of the air supply zones. Each air supply zone is sized to deliver 400 SCFM, or a third of the total air flow. An isolation valve for each zone will be located on shore. The system is sized to have any combination of zones open or closed.

3.1.2 Bubble plume generators

The conceptual aeration design consists of a fine bubble diffuser type air delivery system. Fine bubble diffusers (aerators producing bubbles < 3 mm in diameter) are recommended over coarse bubbles diffusers, since fine bubbler systems are more efficient for lakes less than 30 feet deep because the bubbles are more spread out at the lake bottom and can entrain more of the lake volume.

Two types of bubble plume generators would be acceptable for this application: 1) membrane discs, or 2) soaker hoses. Membrane discs are roughly “Frisbee-sized” discs that are screwed (tapped) directly onto the air supply lines. Compressed air enters the bottom of the disc and diffuses through

the membrane at the top of disc. The bubbles form a concentrated circular plume and rise to the surface of the lake. Membrane discs are commonly used in wastewater treatment applications. Membrane discs are manufactured by several vendors; product information provided by Siemens is located Appendix C. For the amount of air needed for this application, roughly 260 membrane discs would be needed. Soaker hoses are a linear bubble diffuser membrane, very similar to the garden-watering soaker hose device. Soaker hoses are installed linearly along the air supply lines, with periodic taps into the air supply line to provide compressed air. The compressed air travels down the inside of the soaker hoses, and diffuses outward through the membrane creating a thin continuous bubble curtain plume in the lake. More information on soaker-hose type installation is available from Mobley Engineering (www.mobleyengineering.com).

3.1.3 Air Compressor

The aeration system was sized to deliver 1200 SCFM of air at 25 psig. Calculations on system air flow and pressure requirements are included in Appendix B. The recommended system is two (2) rotary screw oil free air compressors operating in parallel, each capable of providing 183 to 600 SCFM at 25psig. An alternative system would be one large compressor capable of providing the entire 1200 SCFM; a single large compressor would be roughly 5-10% less expensive than two smaller compressors. We recommend using oil-free compressors since minute amounts of oil in the air discharge can clog the bubble diffuser membranes and potentially create a sheen on the lake. The air compressors are driven by electric motors which are included with compressor packages available from vendors. A total power of roughly 200 HP (either one motor at 200 HP or two at 100 HP) is needed to operate the system. The systems come with variable speed drive (VSD), which allows the system to operate over a range of air flows. Due to the high cost of power to run these compressors, it would be economical to adjust the air flow rate to the minimum required to adequately mix the lake. The VSDs provide for nearly uniform power efficiencies across the entire operating ranges of the compressors. Additionally, vendors have indicated there is little difference in machine wear or maintenance between operating a large machine at partial power or a smaller unit at full power; the maintenance schedule is based on hours of operation.

The compressor systems come mounted on self-contained skids, complete with vibration dampening and a weather/sound enclosure. The self-contained unit will need to be placed on a concrete pad. The weather/sound enclosure is roughly the size of a small garden shed. The enclosure will limit the sound pressure level to 66-77db(A) measured in free field conditions at a distance of one meter from the unit. This is equivalent to vacuum cleaner sound pressure level, 70db(A), measured at the same distance. High-pressure air blowers (rather than air compressors) were considered in the design of the

aeration system, but the air pressures required were higher than the operating pressures that can be provided by blowers.

3.1.4 Constructability

The aeration system can be constructed almost entirely on land. The bubble diffusers discs or soaker hoses be connected/tapped into the HDPE air supply line. A larger diameter buoyancy line can be cabled to the air supply line, along with a series of concrete weights. With air in the buoyancy line, the bundled air supply line-buoyancy line-weights can be floated onto the lake and positioned using boats. As the buoyancy line is allowed to fill with water, the bundled line will sink into position at the lake bottom. If necessary, the buoyancy line can be refilled with air and the system can be floated back to the water surface for maintenance, etc.

3.1.5 Operation

The cost estimates provided assume the compressors would be operated locally/manually. Telemetry systems allowing the remote operation of the system could be installed if needed.

3.1.6 Maintenance

The air supply line and bubble diffusers can be left on the bottom of lake year round. The air supply lines may fill with water when not in use; the water is blown out the membranes when the system is restarted. Siemens has indicated that the FlexDisc fine bubble membrane diffuser will require minimal to no maintenance in a fresh water application; they do recommend that the diffuser membrane be replaced approximately every 10 years.

Zebra mussels in Ford Lake will likely attached themselves to the air supply lines and diffusers. Similar installations in Michigan have shown zebra mussels attached to the system components after a 2-3 years of operation, but there were no adverse effects to bubble plume generation. The zebra mussels can be removed by refloating the lines and scraping the mussels off with a shovel or paddle. The longer term effect of zebra mussels on the membranes is unknown.

The air compressors will require annual maintenance. One of the compressor vendors, Atlas Copco, has provided a list of maintenance costs for their equipment. A full explanation of compressor maintenance plans is included in Appendix C. These plans and costs are typical for air compressors from other manufacturers. Atlas Copco offers two maintenance plans: 1) the Preventative Maintenance Plan (M-Plan), which includes annual check-ups, analysis, oil/filter changes, and 24/7 access to emergency diagnosis, parts, and labor/repairs; 2) the AirXtend Plan, which is a total responsibility plan including all services under the M-Plan, plus free replacement of all compressor

parts (motor, compressor stage, etc.) during terms of the plan. The maintenance plans and costs quoted in Appendix C are based on the compressors running continuously all year (8,000 hours per year). Since the compressors at Ford Lake would only be running three months per year, the costs are considerably lower. Verbal quotes provided by Atlas Copco for 2,000 hours of operation per year (3 months) are the M-Plan at \$2,177/yr and the AirXtend Plan at \$4,923/yr. The cost of the AirXtend Plan is included in the operating cost estimate in Section 3.4.

Winterizing and storage recommendations for the compressors are included in Appendix C. An Atlas Copco service representative suggested that for winter storage the air compressor inlet and outlet should be isolated. The inlet should be protected from wind driven rain and snow by either covering or placing a gooseneck on the inlet. The compressor inlet should be fogged with a high-grade food oil to keep condensate from building up in the unit. The compressor should be hand rolled every week or couple of weeks to keep the bearings from becoming damaged.

3.2 Location of Air Compressor

At the direction of the Township, we evaluated two potential sites for locating the air compressor: 1) the hydroelectric station, and 2) the Lake Shore apartment complex. The site locations are shown on Figure 4. At the hydroelectric station, the compressor enclosure could be sited on the lawn below the parking structure (see Figure 5). The hydroelectric station location would require minimal site preparation. A concrete pad for the compressor enclosure could easily be poured on the lawn area, and the compressors could easily be delivered to the site by truck and installed on the pad. At the Lake Shore apartment complex, the compressor enclosure could be sited next to the irrigation pump house, at the base of a wooded slope near the water's edge (see Figure 6). The construction of a concrete pad for the compressors and the delivery of the compressors at the Lake Shore site would be complicated by slope of the site and by the presence of trees and brush on the slope. For a number of reasons including site preparation issues, noise considerations, ease of operation/access to compressors, security, and electrical upgrades (discussed below in Section 3.3) the recommended site for locating the compressors is at the hydroelectric station.

3.3 Electrical Power Requirements

As mentioned above in Section 3.2, there are two potential sites being considered for the location of the air compressors. The first site is at the hydroelectric station. Per the Township, there are two power source options at the hydroelectric station: 1) tap into the DTE's 13.2 KV overhead power line on the east side of Bridge Road, or 2) tap into the 4600 volt side of the station power transformer. The second site is at the Lake Shore apartment complex. Per the Township, the source of power at

the apartment complex is a DTE's 13.2 KV underground power line at the top of the hill near the irrigation pump station.

It is estimated that the compressor will be powered by a 200 HP electric motor. For the purposes of this estimate, it has been assumed that a single 200 HP compressor will be utilized.

A preliminary electrical cost estimate has been prepared for each of the three options. RS Means 2009 cost data has been used in the preparation of the estimates, as well as cost data and experience from previous projects. A detailed cost estimate of the electrical upgrades is included in Appendix B. Summary costs are included in the project cost estimate in Section 3.4. A description of the upgrades follows.

3.3.1 Hydroelectric Station - Tap 13.2 KV power line

The major tasks and components for this option are listed below:

1. Tap the DTE 13.2 KV power line and run to high side of new pad-mounted transformer. Includes necessary metering. (By DTE)
2. Install new 300 KVA 13.2 KV/480 Volt transformer and necessary transformer protection.
3. Run 480 volt power to new 350 amp circuit breaker (assume 200 feet). Circuit breaker will supply power to 200 HP compressor.
4. Run 480 volt power from 350 amp circuit breaker to compressor (assume a 25 foot run of conduit/cable).

Tapping into the DTE 13.2 KV overhead line is the major issue associated with this option, and it is difficult to estimate costs for this without actually asking DTE for costs. For a new load connection, a power company will typically require an application/permit process first. This stage will also involve preliminary engineering to assess the impact of the new load on the existing power system. If the new tap is approved, this work will be engineered and installed by the power company. For the purposes of this estimate we have assigned \$10,000 for the permitting and preliminary engineering phase and \$40,000 for the final engineering and installation of the tap by DTE. These costs are estimates based on experience on past projects.

We have also assumed that DTE will run a new 13.2 KV power cable from the new tap to the high side of the new 300 KVA transformer as part of the above costs. This estimate assumes that the new 300 KVA transformer will be installed by the owner. This may not be the case. DTE may also want control of this transformer and as part of their permitting and engineering process, they may also

require this work to fall under their umbrella. All other issues and costs associated with this option are pretty straightforward and can be estimated easily.

3.3.2 Hydroelectric Station - Tap existing 4600 V power line

The major tasks and components for this option are listed below:

1. Tap the 4600 V power line and run to high side of new pad-mounted transformer. Includes necessary metering.
2. Install new 300 KVA 4600/480 volt transformer and necessary transformer protection.
3. Run 480 volt power to new 350 amp circuit breaker (assume 200 feet). Circuit breaker will supply power to 200 HP compressor.
4. Run 480 volt power from 350 amp circuit breaker to compressor (assume a 25 foot run of conduit/cable).

For this option, tapping into the 4600 V line will be somewhat easier to estimate. We assume that the existing 4600 V power line has the capacity to power the additional load of a new 300 KVA transformer. DTE may still require an application/permit process as part of this option and I have not included this in my estimate. In some manner, DTE will need to assess the impact of the new load on the existing power system and this may or may not add cost to the project. We included \$30,000 for the final engineering and installation of the tap by the Owner. We also assumed that the Owner will run a new 4600 V power cable from the new tap to the high side of the new 300 KVA transformer as part of the above costs. All other issues and costs associated with this option match the estimate for the first option.

3.3.3 Lake Shore Apartments - Tap 13.2 KV power line

The major tasks and components for this option are listed below:

1. Tap the DTE 13.2 KV power line and run to high side of new pad-mounted transformer. Includes necessary metering. (By DTE)
2. Install new 300 KVA 13.2 KV/480 Volt transformer and necessary transformer protection.
3. Run 480 volt power to new 350 amp circuit breaker (assume 200 feet). Circuit breaker will supply power to 200 HP compressor.
4. Run 480 volt power from 350 amp circuit breaker to compressor (assume a 25 foot run of conduit/cable).

From a cost estimating standpoint, this option is virtually identical to the first scenario of tapping into the DTE 13.2 KV overhead line. All of the same issues exist and the costs should match very closely. One additional consideration here is that it is more likely that a 13.2 KV underground feeder to an apartment complex may not have the capacity for the addition of a 300 KVA transformer. If

that is the case, there would be additional costs associated with the upgrade of the underground feeder or the installation of a new feeder to the site of the new transformer. Those potential costs issues have not been included in the estimate.

3.3.4 Power Summary/Recommendation

The basic power system is the same for all three options; the only difference between the options is which line is tapped. At this point, we have no good way of estimating the cost from DTE. No matter what path is followed, DTE will need to be involved and there will most likely be some cost associated with their involvement. Even the option of tapping into the hydro plant 4600V line will need to be discussed with DTE. There will be power exchange, metering and power pricing issues to be worked out with DTE.

The tapping into the existing 4600V power line at the hydroelectric station is the lowest cost alternative, and this option is included in the cost estimate in Section 3.4, below. Additionally, the cost of power from this source is only \$0.048/kw·hr, versus \$0.11/kw·hr for power from DTE's 13.2KV lines. This savings from the cost of power can be up to \$20,000 per year. Consequently, tapping into the existing 4600V power line at the Hydroelectric station is the recommended power source alternative.

3.4 Cost Estimates

A detailed cost estimate for the purchase and installation of the aeration system is included in Appendix B. Aeration system purchase and installation/construction costs are summarized in below in Table 3.

Table 3 - Summary of Estimated Costs

Purchase and Installation Costs	
Air compressors, motors, enclosures (1200 SCFM at 25 psig)	\$151,400
air supply line, bubble plume generators, buoyancy line, weights	\$368,920
Electrical upgrades	\$110,440
Indirects, Incidentals, Contingencies	\$86,900
Total	\$717,660
Annual Operating Costs	
Compressor Maintenance (AirXtend Plan)	\$4,920 / yr
Membrane Diffuser Replacement (annualized cost of replacement every 10 years)	\$12,850 / yr
Electric Power	\$15,450 / yr
Total	\$33,220 / yr

Operating costs include annual maintenance costs and the cost of electrical power to run the compressors. Operating costs are also summarized in Table 3. The maximum cost of electric power can be computed base on a 200 HP (149 KW) compressor motor running for 90 days per year, 24 hours a day. If the power is purchased from DTE (through a tap into DTE's 13.2 KV line) at \$0.11/kw-hr is annual cost of power would be a maximum of \$35,400. If the power is taken from the power generated at the hydroelectric station before it is sold to DTE, the cost of the power be \$0.048/kw-hr (the price DTE pays for the power), or approximately \$15,450 per year.

The air compressors quoted are equipped with variable speed drives which will allow the units to be run at lower speeds if the air flow rates required to mix the lake are less than those computed under worst-case conditions. This will allow potentially significant savings on the cost for power to run the air compressors. The proposed aeration piping design contains three different zones. Each zone is capable of being isolated, again allowing potentially significant savings when a reduced total air flow rate is able to mix the lake compared to the rate required under worst-case conditions.

The operating costs also include an annualized cost of replacing the bubble membrane diffusers every 10 years. These costs include the material cost of the replacement membranes, plus the cost of the labor to float the air supply line, replace the membranes, and re-sink the air supply line.

3.5 Permitting/Agency Review

Prior to installation or construction of an aeration system, it may be necessary to consult and/or obtain a permit from several resource agencies. This sub-section summarizes the involvement of potential reviewing agencies.

3.5.1 MDEQ and USACE – Joint Permit Application

The Michigan Department of Environmental Quality (MDEQ) and the United States Army Corps of Engineers (USACE) require a Joint Permit Application (JPA) to be submitted pursuant to Part 301 (Inland Lakes and Streams) and Part 315 (Dam Safety) under the Natural Resources and Environmental Protection Act, 1994 PA 451. One copy of the application must be sent to the MDEQ Land and Water Management Division. The MDEQ will send a copy of the permit application to the USACE Detroit District Office for review at the federal level.

The JPA consists of a 7-page form (only 2-3 pages of information would applies to this project). The instructions for the application recommend sending photographs of the project site and require the following drawings: site location map, overall site plan, plan view and cross section (elevation) drawings that are adequate for detailed review. The last part of the JPA requires authorization letters

from all property owners with riparian rights to Ford Lake. Per the Township, the riparian rights of Ford Lake up to an elevation of 686 ft MSL (14" above normal pool) are owned by the Township, so authorization letters would not be required.

The JPA application process requires a 20-day public notice period during which other agencies are given an opportunity to review the application and comment on the project. Additional permitting requirements relevant to the project may be identified during this time. After the public notice period, the MDEQ (and USACE if relevant) will complete their technical review and make their final decision. The process can take anywhere from 60-90 days or longer depending on the nature of the project. This project would likely fall under the Part 301 "other" category in the fee schedule, requiring a \$500 application fee. The MDEQ will also route the JPA application to its Water Bureau to check for potential effects of the proposed aeration project on the Ford Lake Dam Hydropower's existing Section 401 water quality certification.

3.5.2 Michigan Department of Natural Resources and Natural Features Inventory

The Michigan Department of Natural Resources (MDNR) was contacted to discuss potential endangered and threatened species near the project. The MDNR did not think any wildlife issues in Ford Lake would present a problem for the project, but recommended that the Michigan Natural Features Inventory (MNFI) be contacted for further inquiry. The MNFI was contacted to determine what information was needed to conduct a database inquiry. A flora and fauna field survey was recently conducted by Northern Ecological Services in 2001-2002 (Final Floral and Wildlife Survey Report, dated January 2003) as part of the Federal Energy Regulatory Commission (FERC) license application, finding that no suitable nesting habitat for any of these endangered species existed around the lake. Consequently, an MNFI database search was not requested at this time.

3.5.3 Charter Township of Ypsilanti

The Community Development Department of the Township will require a building permit be obtained for any new building greater than 200 square feet in size. The Township also requires an Electrical Permit be obtained for any new electrical hookup. No mechanical permitting would be required for the aerator or aeration lines. The Township manages its own Soil Erosion and Sedimentation Control (SESC) program and requires a permit for any project that disturbs soils within 500 ft from a body of water.

3.5.4 Federal Energy Regulatory Commission

A general inquiry was made to the Compliance Division of the Federal Energy Regulatory Commission (FERC) to determine what requirements the FERC would have for this type of an aeration project. The FERC requires that an Application to Amend License be filed pursuant to 18 CFR 4.200 for any changes in the physical features of the project. The FERC will use information from that application to determine whether the project is a minor or major application. If the project is determined to be a minor application, no amendment to the license is necessary, and a documentation letter of decision is sent to the applicant. If the project is determined to be a major application, it will require an amendment to the license. FERC would not indicate whether they thought this project would be a major or minor application.

This issue of filing a FERC Application to Amend License should be revisited. Other major hydropower reservoirs with similar aeration systems have not filed an Application to Amend License on the basis that the aeration system is not part of the FERC project.

3.5.5 State Historic Preservation Office

The Historic Properties Management Plan (HPMP) for the Ford Lake Hydroelectric Plant was reviewed to determine what notifications or permits from the State Historic Preservation Office (SHPO) would be needed for this project. Section 2.3 of the HPMP requires the consultation with the SHPO prior to any ground-disturbing activities planned within the Ford Lake Plant Area of Potential Effects, as delineated in the HPMP. The consultation process with the SHPO is described in Section 2.4 of the HPMP. The consultation process is initiated by telephone contact, in which a description of the proposed activity and its location is provided to the SHPO. The Environmental Review Coordinator of the SHPO will then decide what further consultation, if any, will be required. Further consultation may include written documentation, a field reconnaissance survey, avoidance of adverse effects, or mitigation of project effects and/or a site visit by the SHPO, and is determined on a case-by-case basis.

Even though the project is located within the Area of Potential Effects (see Section 2.1 of the HPMP), it is not likely that the project will trigger SHPO involvement since the project will not include construction or breaking-ground in any of the historic properties currently identified in Section 1.4 of the HPMP. Additionally, the project may fall under the category of Activities Not Requiring Consultation with the SHPO, as described in Section 2.2 of the HPMP.

4.0 References

Heather Campbell (Deputy Director of Compliance), FERC – Compliance Division, (202) 502-6182, 07/28/2009

Chen C. W. and G. T. Orlob, 1975. “Ecological simulation for aquatic environments.” in Systems Analysis and Simulations in Ecology, Vol. III. Academic Press, New York, pp. 475-588.

Wendy Fitzner (Chief of Permit Consolidation Unit), MDEQ – LWMD, (517) 373-9244, 07/23/2009

Jim Frances, MDNR – Fisheries Department, (517) 373-1263, 07/23/2009

Historic Properties Management Plan - Ford Lake Hydroelectric Plant, Historica Research Unlimited, 10/25/2004.

Joe Lawson, Ypsilanti Township – Community Development, (734) 485-3943, 07/23/2009 – 08/03/2009

Gina Nathan, USACE (Detroit Office), (313) 226-2218, 07/22/2009

Final Flora and Wildlife Survey Report, Northern Ecological Services, Inc., 01/15/2003.

Suzanne Ridge (Director of Administration), MSUE – MNFI, (517) 241-5436, 07/23/2009

www.michigan.gov/deq/0,1607,7-135-3307_29692_24403---,00.html, MDEQ/USACE Joint Permit Application.

web4.msue.msu.edu/mnfi/services/inforeq.cfm, Michigan Natural Features Inventory.

www.twp.ypsilanti.mi.us/commdev/, Charter Township of Ypsilanti – Community Development.

www.mobleyengineering.com, Mobley Engineering.

Figure 1 – Location of recommended aeration system

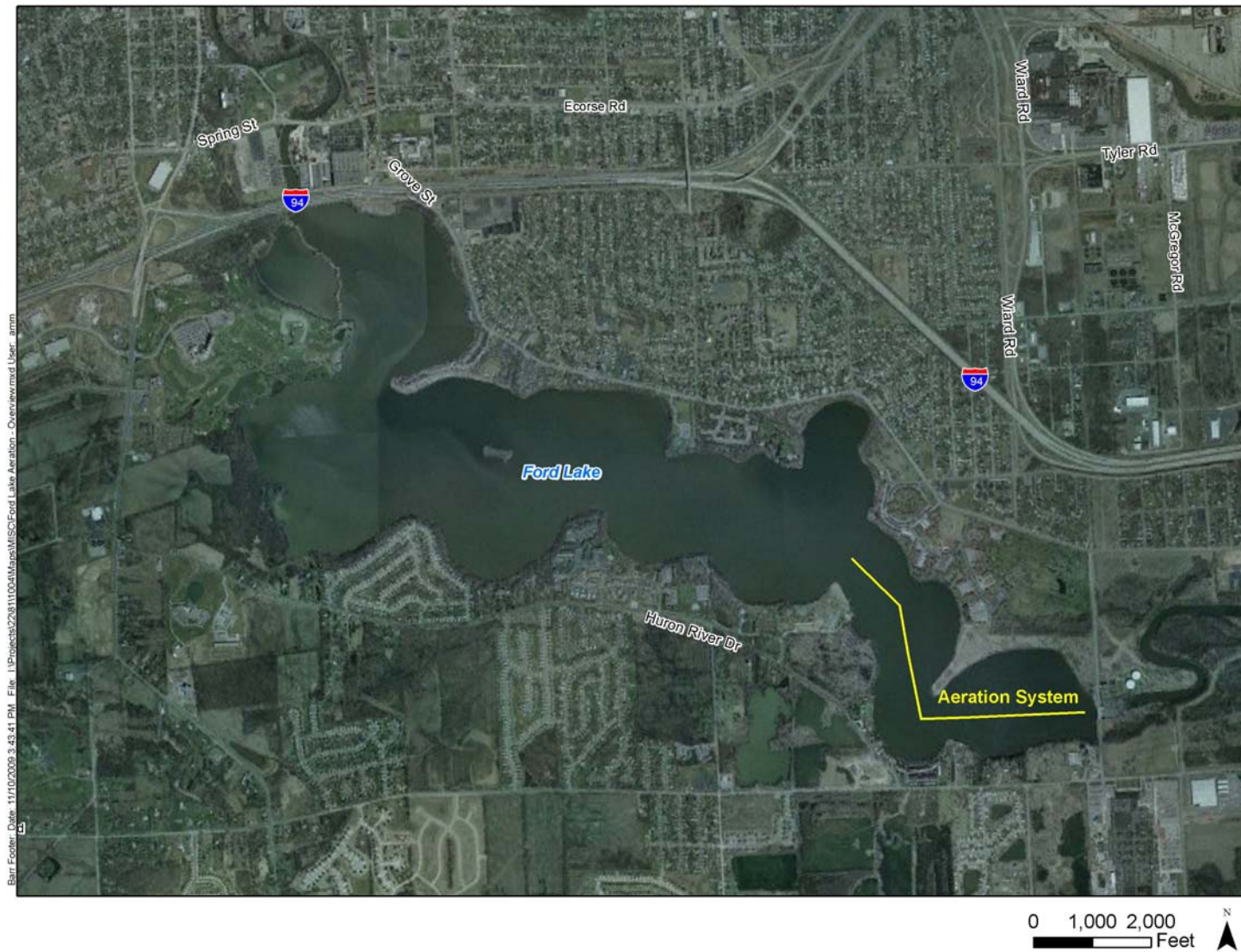


Figure 2a – Water temperature isoplots near the dam outlet, 2005, existing (non –aerated) conditions

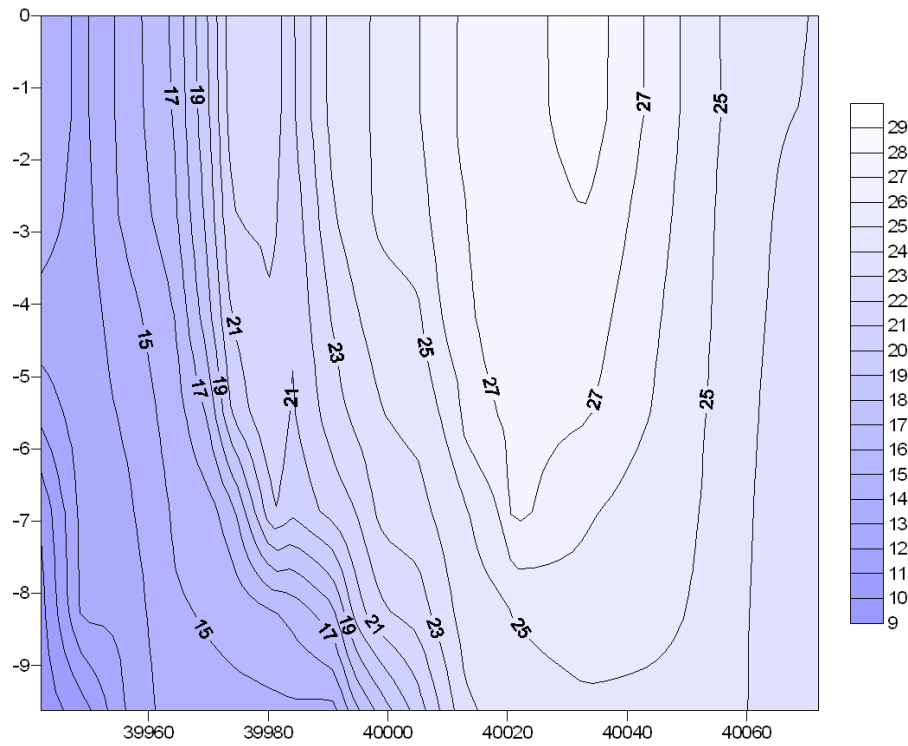


Figure 2b – Water temperature isoplots near the dam outlet, 2005, aerated conditions

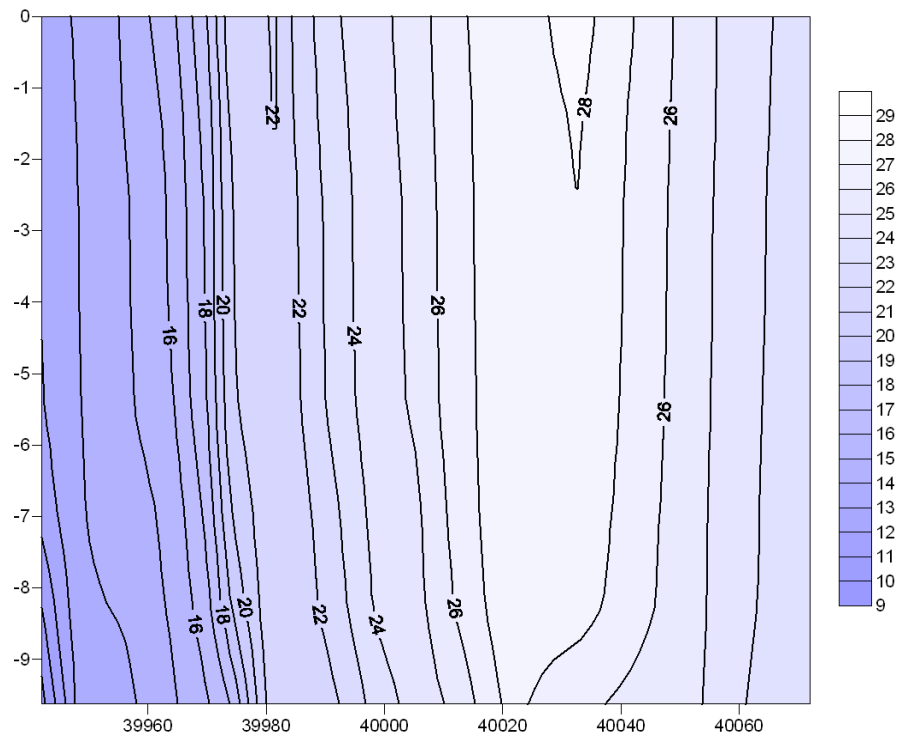


Figure 3a – Modeled water temperature (°C) along centerline of Ford Lake, July 6, 2005, existing (non-aerated) conditions

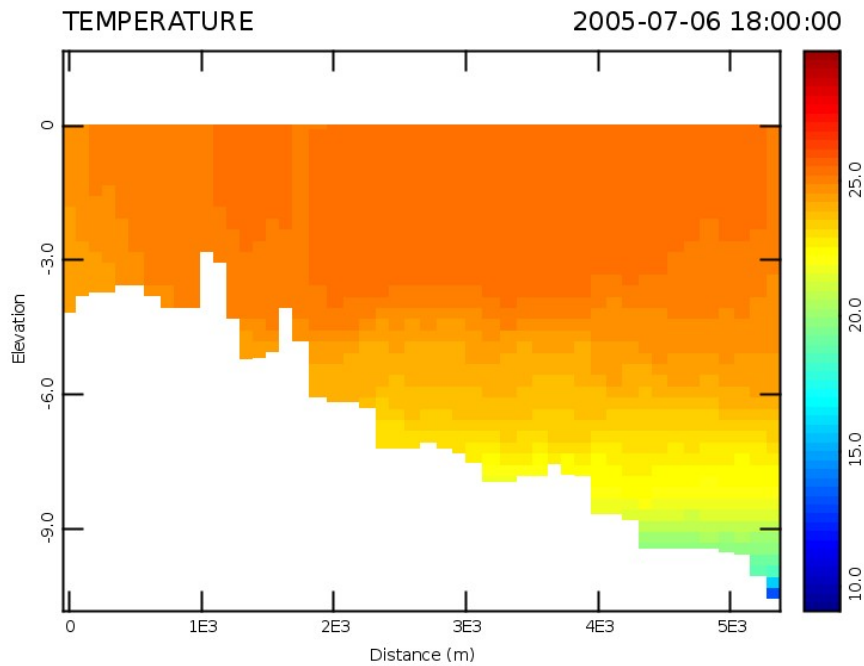


Figure 3b – Modeled water temperature (°C) along centerline of Ford Lake, July 6, 2005, aerated conditions

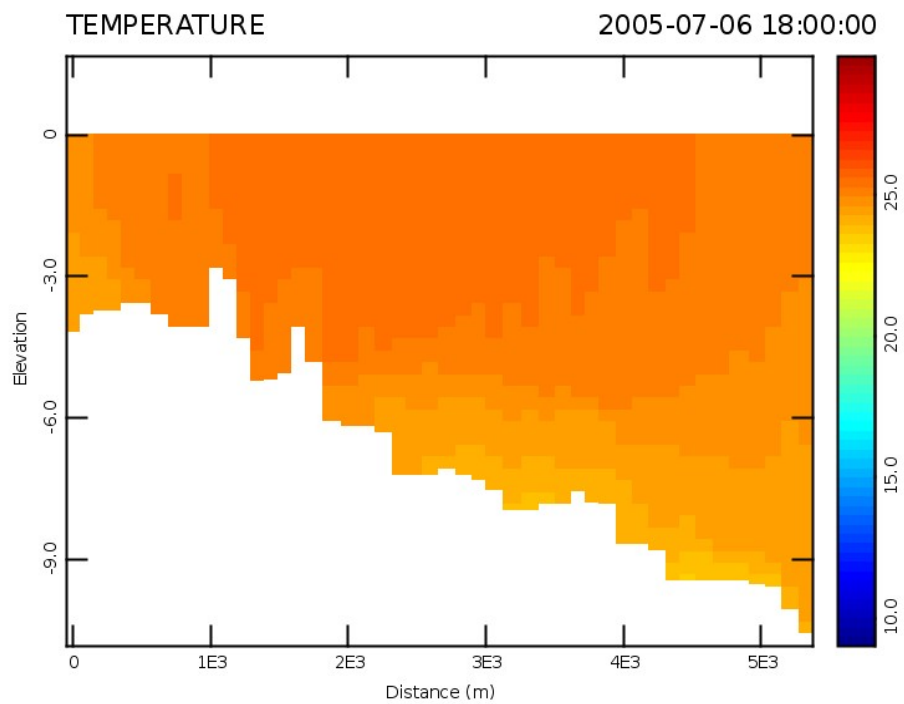


Figure 4 – Air supply zones and potential air compressor sites



Figure 5 – Potential air compressor site: lawn at hydroelectric station



Figure 6 – Potential air compressor site: near irrigation pump house at Lake Shore apartment complex



Appendix A

Water Quality Modeling Analysis

Ford Lake Aeration Water Quality Modeling Analysis

1.0 Introduction

1.1 Problem statement

Ford Lake has historically experienced large swings in dissolved oxygen levels, large phytoplankton blooms dominated by cyanobacteria (i.e., blue-green algae) populations that tend to float to the surface and have the potential to produce neurotoxins. The goal of this study is to evaluate the potential for artificial aeration to improve dissolved oxygen in the lake and to reduce the severity of nuisance phytoplankton (cyanobacteria or blue-green algae) blooms. The ecology of Ford Lake is complex, and the uncertainty regarding the capacity of aeration to achieve meaningful reductions in phytoplankton blooms and improve dissolved oxygen warranted a careful evaluation of this restoration method.

1.2 Study Approach

The approach used in this study was to use a sophisticated hydrodynamic and ecological model (called ELCOM/CAEDYM-University of Western Australia, Center For Water Research) to assist in the design of the aeration system and evaluate the potential benefits of the recommended design. The study approach was as follows:

- Choose a hydrodynamic and ecological model with the capability to accurately model Ford Lake.
- Calibrate the model using water quality data collected for Ford Lake by Dr. John Lehman of the University of Michigan.
- Identify the optimal design (minimum size and air flow rate) of an aeration system that can completely destratify the lake and improve dissolved oxygen to the maximum extent that is practical.

- Evaluate the effect of the optimal design on the magnitude of phytoplankton blooms in the lake.

1.3 Relevant Ecology of Ford Lake

The ecology of Ford Lake is significantly affected by inflows from the Huron River. With a watershed size of 807 square miles, the Huron River has an average flow of approximately 600 cubic feet per second. The volume of Ford Lake is approximately 12,600 acre feet (not including the lagoon on the north west corner of the lake). Based on the Huron River flows and the volume of Ford Lake, the residence time of the Ford Lake is only 11 days. The result is that the water quality of the lake is highly variable and water quality in the lower reaches (e.g., the deep east end) of the lake is influenced strongly by water quality in the lake near the inlet.

The Huron River also delivers inorganic and organic sediments, nutrients (phosphorus, nitrogen, and silica), dissolved organic carbon, and phytoplankton to Ford Lake. Sediment and nutrients accumulate in the lake. Lakes such as this are often described as net “sinks” for sediment and nutrients. The result is that much of what comes into Ford Lake is stored in the lake bottom sediments, and the processes that occur within the sediments on the lake bottom dictate to a large degree how Ford Lake functions.

The primary water quality concerns evaluated in this study are low dissolved oxygen concentrations (DO) and large phytoplankton blooms composed of blue-green algae. The low DO levels and large algal blooms are largely driven by four lake processes: (1) lake stratification and subsequent destratification in mid to late summer, (2) high oxygen demand of lake bottom sediments-called sediment oxygen demand (SOD), (3) phosphorus and ammonia release from lake bottom sediment and denitrification or nitrate losses to the lake bottom sediment, and (4) seasonal succession of phytoplankton species.

The low DO levels and large algal blooms are related. High sediment oxygen demands in the lake cause low DO levels near the sediments. Low DO levels cause the release of nutrients (phosphorus and ammonia) from the sediments to the water near the sediments. When the lake is stratified, large concentrations of nutrients accumulate in the water column in the hypolimnion throughout the summer. Late in the summer, the lake bottom waters begin to warm and the lake becomes less stratified and more susceptible to mixing by a storm (high wind) event. The sudden mixing of the

lake makes the nutrients that have accumulated in the hypolimnion throughout the early summer available to phytoplankton throughout the lake, causing large algal blooms.

The degree and timing of lake stratification determine the degree and timing of dissolved oxygen depletion and phytoplankton blooms. If Ford Lake does not become strongly stratified, dissolved oxygen levels do not become severely depressed in bottom and surface waters, as was the case in 2004 (see Figure A-1a). If the lake becomes strongly stratified, severe dissolved oxygen depletion can occur in bottom and surface waters, as it did in 2007 (Figure A-1b).

Large phytoplankton blooms appear to occur almost every year. Figure 2 shows a somewhat predictable cycle of phytoplankton blooms in Ford Lake. However, the occurrence of low DO levels in the surface water appears to only occur when stratification is strong enough such that the DO of the hypolimnion becomes very low. When the lake then mixes, the severely DO depleted bottom waters are mixed with the surface waters and the dissolved oxygen concentrations in the surface waters are lowered (simply a result of averaging the dissolved oxygen in bottom and surface waters). A secondary process of rapid phytoplankton (cyanobacteria or blue-green algae) growth followed by nutrient depletion and then rapid phytoplankton decline (and decay) appears to be needed in order for dissolved oxygen to be very low (around 4 mg/L) in surface waters. The phytoplankton dye-off and decay consumes oxygen. In summary, phytoplankton decay in concert with very low dissolved oxygen in bottom waters appears to lead to dissolved oxygen levels in surface waters below 5 mg/L.

2.0 Model Development and Calibration

2.1 Model Development

The model used in this analysis is the ELCOM-CAEDYM (Center for Water Research, University of Western Australia). The ELCOM-CAEDYM model is both a hydrodynamic and ecological model. ELCOM-CAEDYM can simulate the movement of water in a lake or reservoir, the physical condition of water (e.g., temperature), as well as the chemical and biological processes that occur in a lake or reservoir. The following parameters were used in the model development: bathymetry, climatological inputs, inflows and outflows, biota (e.g., phytoplankton), and chemical processes.

2.1.1 Lake Bathymetry

Bathymetry can have a significant effect on how a reservoir or lake functions. In the case of Ford Lake, it determines how the lake stratifies as well as how dissolved oxygen is depleted, the timing of phosphorus release from sediment, and mixing. Because ELCOM is a three dimensional model, bathymetry data previously collected for Ford Lake was processed and partitioned into 100 meter squares (see Figure A-3). Each square or “grid” is then assigned a given total water column depth. In the vertical direction the lake is sliced 0.25 m increments. This bathymetry is then input into the model. Inflow and outflow locations are also specified. For outflows both sluice-gate and turbine-intake flows were specified in the model.

2.2.2 Climatological Data

Climatological data used by the model includes sunlight (solar radiation), wind speed and direction, air temperature, rainfall, and relative humidity. This data is fed into the model on an hourly time step. Climatological data was derived from the National Climatic Data Center (Ann Arbor Airport) and the Michigan Automated Weather Network (solar radiation data only, for Petersburg, Michigan).

2.2.3 Inflow and Outflow

Huron River inflow rates were set equal to dam outflows plus lake evaporative losses. Most of the inflow water quality data (phosphorus, nitrogen, silica, and pH) was provided by Dr. John Lehman of the University of Michigan. Water temperature of inflows was assumed to be equal to average air temperature. Dissolved oxygen concentrations in the inflows were set at saturation, calculated from estimated water temperature and equations for saturated dissolved oxygen conditions. Dissolved inorganic carbon was estimated from other USGS gaging stations with inorganic carbon data.

Outflow rates were provided by the Ypsilanti Township. Water quality at the outlet was calculated by the model.

2.2.4 Ecological Model

The ecological model computes the concentrations of the biota that resides in Ford Lake. The model required input on the characteristics of the biota such as growth, decay, settling, and nutrient use. For Ford Lake, the phytoplankton groups modeled included diatoms and cyanobacteria (blue-green algae). Zooplankton were not included in the model because of insufficient data. Additionally, due to the high productivity of Ford Lake, the zooplankton population was not expected to materially affect phytoplankton populations (and ultimately dissolved oxygen levels). Initial values for rate constants and other biota parameters used in model were taken from values in a variety of published studies, including those by Dr. John Lehman. Final values were determined through model calibration. Examples of calibrated biota parameters include the following:

- Maximum potential phytoplankton growth rate
- Nutrient uptake rates and half saturation constants
- Settling rates-for example diatom settling set to 0.65 meters per day and cyanobacteria set as upwardly boyant at 0.8 meters day.
- Phytoplankton growth factors for temperature and sunlight availability.
- Ecological stoichiometric ratio such as carbon to chlorophyll *a* ratios, and carbon to phosphorus ratios for phytoplankton.

Several other chemical and physical parameters had to be determined in order for the ecological model to properly simulate the processes that affect phytoplankton levels and dissolved oxygen concentrations. Calibration parameters included: solids settling rates, sediment oxygen demand, phosphorus and ammonia release rates-maximum potential, half saturation constant for phosphorus and ammonia release from sediment, carbon decay rates, phosphorus and nitrogen transformation from labile to ionic forms, and sunlight absorption (extinction coefficients) by the water column.

2.2 Model Calibration

The calibration of the model generally proceeds in the following step wise manner: 1) initial model parameters estimates and initial model run, 2) temperature calibration, 3) estimation of sediment oxygen demand, 4) estimation of nutrient releases from lake bottom sediment and determination of

the relationship between dissolved oxygen and release rate, 5) calibration of several phytoplankton parameters, 6) calibration of nutrient cycling parameters, and 7) estimation of particulate and dissolved organic carbon decay.

Proper simulation of lake water temperature is the first goal of calibration (see Figure A-4 for a comparison of measured and modeled lake temperature). Temperature needs to be simulated properly at each lake depth, lake location, and throughout the modeling period in order for all other lake processes to be represented properly in the model. The next calibration step is sediment oxygen demand. This is primarily calibrated by comparing measured and modeled dissolved oxygen before high levels of phytoplankton growth (calibration period is generally April through early June—see Figure A-5). Calibration of lake sediment processes such as phosphorus, ammonia, and silica release, and denitrification follow dissolved oxygen calibration because each of these processes is dependant to some degree upon dissolved oxygen (as well as pH) levels in bottom water.

Phytoplankton species included in the model were diatoms and cyanobacteria. Although there are several different diatom species (Ferris and Lehman, 2007) and two dominant cyanobacteria (*Aphanizomenon* and *Microcystis*), total phytoplankton populations were modeled as these two generalized groups—diatoms and cyanobacteria. Several calibrated parameters, including those for phytoplankton, are provided in Table A-1. Figure A-6 shows the phytoplankton calibration results for the F3 monitoring point in Ford Lake. Once calibrated, the model was able to capture the timing of the rapid growth and die-off of phytoplankton as well as the magnitude of the events. The model was not able to capture the magnitude of the early July phytoplankton bloom. This may have been the result of lower actual in-lake dissolved oxygen in late June that lead to more phosphorus release than was estimated in the model (see Figure A-7 for the total phosphorus calibration). Several model runs were conducted to capture this early July phytoplankton bloom, and it could be captured by increasing sediment oxygen demand. However, this lead to slightly exaggerated phytoplankton blooms later in the season. A compromise was made because the overall modeling goal was to evaluate the capacity of aeration to reduce large phytoplankton blooms and improve dissolved oxygen during the late summer when dissolved oxygen depression was severe. It is also notable that the model was able to capture the timing of phytoplankton succession from diatoms to cyanobacteria (Figure A-8).

Table A-1. Phytoplankton and other relevant modeling parameters.

Parameter	Description	Units	Phytoplankton Group	Value
Pmax	Maximum Potential Growth Rate	1/day	Diatoms	1.2
			Cyanobacteria	0.8
Ycc	Carbon to Chl a Ratio	mg C/mg chl a	Diatoms	40
			Cyanobacteria	180
IK	Sunlight availability parameter	microE/m ² /s	Diatoms	60
			Cyanobacteria	130
ISt	Light saturation for maximum production	microE ^{-2s^-1}	Diatoms	70
			Cyanobacteria	1300
Kp	Half saturation constant for phosphorus	mg/L	Diatoms	0.005
			Cyanobacteria	0.005
Kn	Half saturation constant for nitrogen	mg/L	Diatoms	0.075
			Cyanobacteria	0.075
Ksi	Half saturation constant for silica	mg/L	Diatoms	0.42
			Cyanobacteria	--
UPmax	Maximum rate of phosphorus uptake	mg P/mg chl a/day	Diatoms	0.10
			Cyanobacteria	0.10
kr	Respiration (mortality) rate coefficient	1/day	Diatoms	0.08
			Cyanobacteria	0.12
ws	Settling velocity ⁽²⁾	m/s	Diatoms	-0.76*10 ⁻⁵
			Cyanobacteria	0.1*10 ⁻⁴
SmpPO ₄	Maximum potential phosphorus release rate	g/m ² /day	not applicable	0.012
KDOS-PO ₄	Half saturation type constant for oxygen and phosphorus release	mg/L-Oxygen	not applicable	2.0
SmpNO ₃	Maximum potential ammonia release rate	g/m ² /day	not applicable	0.05
KDOS-NO ₃	Half saturation type constant for oxygen and ammonia release	mg/L-Oxygen	not applicable	4.0
rSOs	Static sediment exchange rate	g/m ² /day	not applicable	2.0
Extinction coefficient-baseline ⁽¹⁾		1/m	not applicable	0.65

(1) Extinction coefficient changes with phytoplankton, dissolved organic carbon, and suspended solids levels.

(2) Negative settling velocity is downward settling and positive is upward buoyancy.

2.3 Ecology of Ford Lake and Implications for Aerator Design

The ecology of Ford Lake has been well characterized by Dr. John Lehman of the University of Michigan and much of the modeling work conducted in this study confirms his observations. A succinct discussion is provided below as it relates to the aerator design.

The ecology of Ford Lake is highly influenced by large watershed inflows with relatively high phosphorus and sediment concentrations. Because Ford Lake is shallow and small (975 acres) relative to its watershed, the residence time of the lake is fairly short (i.e., rapid flushing of the lake). Although this makes the lake somewhat unstable, the lake stratifies enough such that severe dissolved oxygen depletion occurs in the bottom waters and triggers rapid accumulation of nutrients (phosphorus and ammonia) in bottom waters. Phosphorus and ammonia accumulate in the bottom waters due to the low oxygen conditions (phosphorus and ammonia come out of the lake bottom sediments when oxygen is low). Because the lake is unstable, it periodically mixes and all of the nutrient-rich bottom waters mix throughout the lake water column—the result being large phytoplankton blooms. The phytoplankton (algae) rapidly deplete the newly provided nutrients and die rapidly. The consequence of the phytoplankton die-off is severely low oxygen throughout the lake water column.

From the modeling work conducted, it appears that cyanobacteria dominate, in part, because inflows often plunge downward to the reservoir bottom. Since cyanobacteria float, they are able to receive needed sunlight by rising to the surface. This advantage appears to crowd out other phytoplankton species. The model could not be calibrated without upwardly buoyant phytoplankton. Even with aeration, plunging inflows remain, forcing phytoplankton towards the bottom of the reservoir. However, cyanobacteria are still able to maintain their position in the top 5 meters of the reservoir water column and appear to be largely undisturbed by aeration induced water movements.

The best possible outcome of artificially aerating Ford Lake is the disruption of the ecological cycle described above: nutrient accumulation in bottom waters followed by mixing, large phytoplankton blooms and die off leading to severely depleted dissolved oxygen. Aeration will do this to the degree identified in this report, however, it can not completely disrupt the dominant ecological cycles of Ford Lake.

In addition to the aeration benefits identified in this study, aeration can also force mixing of bottom waters with the entire lake to achieve a more gradual delivery of bottom nutrients to the entire lake column (throughout the summer). This is expected to reduce the size of nuisance algal blooms and

hopefully disrupt to the co-occurrence of phytoplankton die-off of severe bottom water oxygen depletion.

3.0 Aerator Design

3.1 Alternative Aerator Designs

Once the water quality model was calibrated to accurately describe the hydrodynamics and ecology of Ford Lake over the course of a complete season, the effects of an aeration system were evaluated. Aerators were added to the lake model in the form of a string or line of hundreds of small bubblers placed along the bottom of the lake. This form of aeration allows a large amount of mixing energy to be added to the lake, but yet is unobtrusive to the existing uses of the lake as compared to a few large aerators.

It should be noted that the ELCOM model does not have function for direct oxygen transfer from air bubbles to the water column. Oxygen transfer was modeled by placing an oxygen saturated water stream just above each bubbler line so that the oxygen would be distributed with the transported water bubbles. The mass of oxygen introduced was based upon several factors, including: (1) aeration rate, (2) oxygen concentrations in the water column with aeration, (3) oxygen solubility, (4) and the air transfer efficiency for air diffusing from the air bubble to the water column. The model was run through several iterations to account for reduced air transfer efficiency with an increase in dissolved oxygen in the water column.

3.2 Alternative Aerator Designs

Various configurations of an aeration system were tested in the model and the resulting water quality impacts were evaluated. Variations of aerators tested included a range of the total air flow rate added to the lake, a range in the number of aerators in the lake, and various locations of aerators in the lake. A summary of the various aeration configurations tested and the water quality outcomes are presented in TableA-2.

The aeration simulations were conducted for the time period April 1 through September 15, 2005. This year was chosen because of the high degree of lake stratification, low dissolved oxygen levels, and occurrence of blue-green algal blooms during the summer of 2005 (e.g., a worst case scenario).

The various aeration systems tested in the water quality model were evaluated first based on the following criterion: 1) ability to destratify the entire lake over the entire summer, 2) increase in DO levels over unaerated (existing) conditions, and 3) reduction in phytoplankton levels. Aeration systems were evaluated secondly on the length of aeration line, since a shorter line would be less

expensive to install, and on the total amount of air flow needed, since less air would require a smaller compressor and therefore would cost less to install and to operate.

Table A-2. Summary of aerator designs tested.

Aerator Configuration	Purpose of Model Run	Spatial Extent of Aerator Lines	Total Air Flow Rates (m ³ /s)	Outcome
Two lines, each 500 m long near the dam	Evaluate the benefit of aerating only region near the dam (smaller system = less cost)	From the dam westward 500 m	0.5	Poor destratification. Low DO on the bottom of the lake.
5 separate lines, each approximately 500 m long	To determine if greater mixing would occur by installing aerator lines with greater spatial coverage	From the dam to 500 meters east of the island.	0.5 to 2.5	Complete destratification.
4 lines each approximately 500 m long.	To determine if the placement of aerator lines in shallow upper reaches of the lake would reduce phosphorus release from shallow lake sediments	One line 500 meters southeast of the inlet, and 3 lines each 500 meters long, starting 300 meters east of the island, mid-way between the island and the dam, and at the dam and extending 500 meters west.	2.5	Complete destratification. No added benefit with shallow aerator placement
One line approximately 2800 m long.	Evaluate single aerator line placed in centerline of lake (the deepest channel)	From the dam west to the island.	0.5 to 2.5	Complete destratification directly above the aerator line and at locations upstream and laterally far from the aerator line
One line approximately 1700 m long	Evaluate single aerator line placed in the deepest channel but with a shorter length.	From the dam west about 1800 meters	0.1 to 1	Complete destratification for total air flow rates at and above 0.3 m ³ /s.

3.3 Recommended Aerator Design

The recommended design of the aeration system was identified from the water quality modeling analysis. The recommended configuration is a single aeration line extending from the dam outlet west and up-lake by 1,800 meters. The recommended total air flow rate is 0.3 m³/s (at ambient pressure, i.e., at the bottom of the lake).

The recommended total air flow rate of $0.3 \text{ m}^3/\text{s}$ is consistent with general guidelines on airflow rates required to adequately mix water bodies. According to Chen and Orlob (1975) a specific airflow rate (ratio of air flow rate to surface area of water) of at least $9.2 \text{ m}^3/\text{min}/\text{km}^2$ to adequately destratify a lake. The recommended total air flow rate of $0.3 \text{ m}^3/\text{s}$ corresponds to a specific airflow rate of $9.9 \text{ m}^3/\text{min}/\text{km}^2$ for Ford Lake.

3.4 Effects of Recommended Aerator Design

The recommended aerator design has been shown to have positive impacts on the dissolved oxygen concentrations, total phosphorus concentrations, phytoplankton concentrations, and concentrations of cyanobacteria as compared to diatoms. The water quality improvements associated with the recommended design are summarized in the Table A-3, below.

3.4.1 Lake Stratification

The recommended design is capable of destratifying Ford Lake throughout a hot dry summer. Figure ___ is a temperature isopleth for a location near the dam outlet. The figures show lake temperature by lake depth (y-axis) and by date (x-axis). Figure ___a shows the existing (non-aerated) conditions; the lake is stratified. Notice the temperature differential from top to bottom. During late June the water surface (depth = 0 m) is at a temperature of roughly 23°C , and the lake bottom (depth = 9 m) is at a temperature of roughly 15°C . Figure ___b shows the aerated conditions; the lake shows no stratification. At every date, the temperature is nearly uniform from top to bottom. Although the recommended design has the aeration line extending only 1,800 meters upstream from the dam, this design is capable of destratifying the entire lake. Figure ___ shows the modeled temperatures in a section view through the lake on for a given date from the model simulation (July 6, 2005). Figure ___a shows that in the existing (unaerated) conditions the lake is stratified; notice the range of color (temperature) throughout the lake. Figure ___b shows that for the aerated conditions, the lake is almost completely mixed; notice the homogenous color (temperature) throughout the lake, even in the shallower regions of the lake upstream of the aerators.

Placement of aerator lines more upstream in the reservoir or at depths of 6 meters or less did not improve destratification. Aeration at shallower depth does not improve destratification because air bubbles released at shallow depth do not have the opportunity to entrain and move water upward. Air bubbles expand and capture more water as they move upward through the water column. Deeper aeration line placement in Ford Lake provides more opportunity for the air bubbles to expand, entrain water, and push the water upward.

Table A-3. Summary of the effect of aeration on water quality in Ford Lake near the dam outlet (monitoring point F3), May 1 through September 15, 2005.

Average

Parameter	No Aeration	w/ Aeration (Air Flow Rate of 0.3 m ³ /s)
Dissolved Oxygen (milligrams per liter)	7.23	8.29
Phytoplankton Concentration (micrograms per liter as chl <i>a</i>)	19.06	13.15
Total Phosphorus (milligrams per liter)	0.040	0.027
Cyanobacteria (micrograms per liter as chl <i>a</i>)	16.26	10.06
Diatoms (micrograms per liter as chl <i>a</i>)	2.92	3.06

Maximum

Parameter	No Aeration	w/ Aeration (Air Flow Rate of 0.3 m ³ /s)
Dissolved Oxygen (milligrams per liter)	13.93	13.77
Phytoplankton Concentration (micrograms per liter as chl <i>a</i>)	95.72	60.49
Total Phosphorus (milligrams per liter)	0.106	0.076
Cyanobacteria (micrograms per liter as chl <i>a</i>)	95.32	60.02
Diatoms (micrograms per liter as chl <i>a</i>)	13.03	13.02

Minimum

Parameter	No Aeration	w/ Aeration (Air Flow Rate of 0.3 m ³ /s)
Dissolved Oxygen (milligrams per liter)	4.01	6.05
Phytoplankton Concentration (micrograms per liter as chl <i>a</i>)	2.21	2.82
Total Phosphorus (milligrams per liter)	0.013	0.012
Cyanobacteria (micrograms per liter as chl <i>a</i>)	0.0001	0.0001
Diatoms (micrograms per liter as chl <i>a</i>)	0.0009	0.0016

It should be noted that although the recommended system is capable of destratifying Ford Lake, there are frequent periods that range from hours to a day or two when the lake will weakly stratify. When there is intense solar radiation or when the air is very warm and wind is low, the surface will warm very quickly and then the lake will stratify weakly. Because the reservoir is shallow, under these circumstances it is difficult for the aeration system to completely mix the lake.

3.4.2 Dissolved Oxygen

The effect of the recommended aeration system on dissolved oxygen levels in Ford Lake near the dam outlet can be seen in Figure A-9. This figure shows the expected total water column dissolved oxygen levels without aeration and with aeration from plume bubbles. Total water column dissolved oxygen is presented because very low dissolved oxygen events occur when the lake mixes and dissolved oxygen is uniform in the water column. Presentation of the total water column dissolved oxygen allows for better visualization of these events as well as the sources and sinks of oxygen.

It appears that reservoir mixing and destratification (by aeration) will increase dissolved oxygen levels, however, aeration may not be able to consistently hold dissolved oxygen levels above 5.0 milligrams per liter. For example, on August 5, 2005, the lowest dissolved oxygen concentration was recorded (actual field data) for 2005. On this day dissolved oxygen was 4.0 milligrams per liter for the entire lake water column near the lake outlet. With aeration, it is estimated that the dissolved oxygen concentration would increase by 0.6 milligrams per liter to a final concentration of 4.6 milligrams per liter. With the added effect of oxygen diffusion from the air bubbles, dissolved oxygen levels may have approached 5.2 milligrams per liter on August 5. However, the effect of oxygen diffusion from air bubbles should be considered an estimate—on August 5 dissolved oxygen may have been elevated to somewhere between 4.6 to 5.2 milligrams per liter with aeration.

Figure A-10 shows the effect of the aeration system (with and without dissolved oxygen diffusion) on dissolved oxygen levels in the lake directly north of the end of the aerator line (modeling output point P8, see Figure A-3). This figure demonstrates that dissolved oxygen depletion is most severe near the dam outlet (Figure A-9) and maintenance of dissolved oxygen above 5.0 milligrams per liter near the dam outlet will be more difficult to achieve compared to upstream areas of the lake (Figure A-10). This figure also shows a diminishing benefit of oxygen diffusion from air bubbles with greater distance from the aerator line.

3.4.3 Phosphorus

The effect of aeration on phosphorus levels (for the entire water column) in Ford Lake near the dam outlet can be seen in Figure A-11. Because the data presented in Figure A-11 are for the entire water column (depth averaged), it shows the effect of phosphorus release from sediments and phosphorus inputs from the Huron River. It appears that aeration will be able to reduce average and peak total phosphorus levels by approximately 20 to 25 percent. Reduced phosphorus levels in Figure 9 for the aerated condition are the result of reduced phosphorus release from the lake bottom sediments. Phosphorus release is inhibited by increased dissolved oxygen concentrations in bottom waters.

3.4.4 Phytoplankton

The effect of aeration on phytoplankton levels (for the top meter—however, phytoplankton are largely well mixed and uniform for the top 2 to 3 meters) in Ford Lake near the dam outlet can be seen in Figure A-12. Aeration may be expected to reduce peak phytoplankton (primarily cyanobacteria, also called blue-green algae) levels by just over 30 percent (according to the 2005 modeling results, peak phytoplankton levels were reduced by 35 micrograms per liter chlorophyll *a* with aeration). Significantly more aeration would be needed to achieve further reductions in phytoplankton levels (Figure A-13).

It should also be noted that phosphorus is the primary limiting nutrient, changes in phytoplankton levels are largely a function of changes in phosphorus levels. However, ammonia release from sediments is an important source of nitrogen for phytoplankton and aeration is capable of disrupting ammonia release. The result is that phosphorus and nitrogen can in some instances “co-limit” phytoplankton growth. Reduction of phosphorus and ammonia release from sediments have the effect of reducing phytoplankton growth.

4.0 Conclusions

The installation of aerators will increase dissolved oxygen levels throughout the lake and reduce the magnitude of phytoplankton blooms. Under worst case conditions, aeration can improve dissolved oxygen levels by 0.6 to 1.2 milligrams per liter. For 2005 and under worst case conditions, aeration would have been able to maintain dissolved oxygen levels somewhere between 4.6 to 5.2 milligrams per liter. The magnitude of phytoplankton blooms will be reduced by approximately 30 to 35 percent.

Two factors will limit the overall effectiveness of an aeration system that is installed in Ford Lake: (1) the high sediment oxygen demand in Ford Lake (approximately 2.0 milligrams per liter) and (2) warm water temperatures. When water is warmed, the solubility of oxygen declines. As the difference declines between the maximum potential oxygen solubility of water (saturated conditions) and targeted dissolved oxygen levels (e.g., 5.0 milligrams per liter), the capacity of aeration to increase dissolved oxygen levels begins to diminish. Water temperature is warmest in late July and August, and this is also when internal phosphorus release is greatest. High sediment oxygen demand is largely due to sediment loads coming from the Huron River and growth and decay of phytoplankton in the lake. It will be difficult to reduce sediment oxygen demand in Ford Lake unless the sediment and phosphorus loads from the Huron River are reduced significantly.

References

Ferris, A. F., and Lehman, J.T. Interannual variation in diatom bloom dynamics: Roles of hydrology, nutrient limitation, sinking, and whole lake manipulation. *Water Research*, 41. 2551-2562.

Figure A-1. Comparison of dissolved oxygen levels in Ford Lake near the outlet for (a) 2004 - a year where there was rapid phytoplankton decline but surface dissolved oxygen did not decline because of a lack of simultaneous mixing, and (b) 2007- a year where lake mixing combined with rapid decline in phytoplankton led to low dissolved oxygen in surface waters

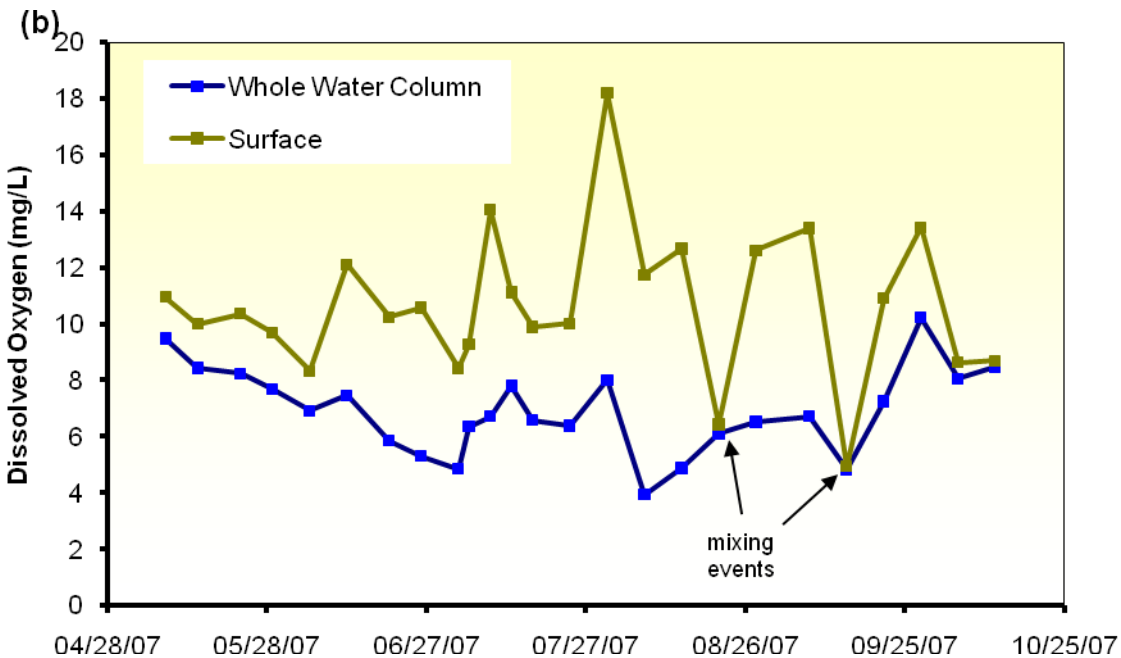
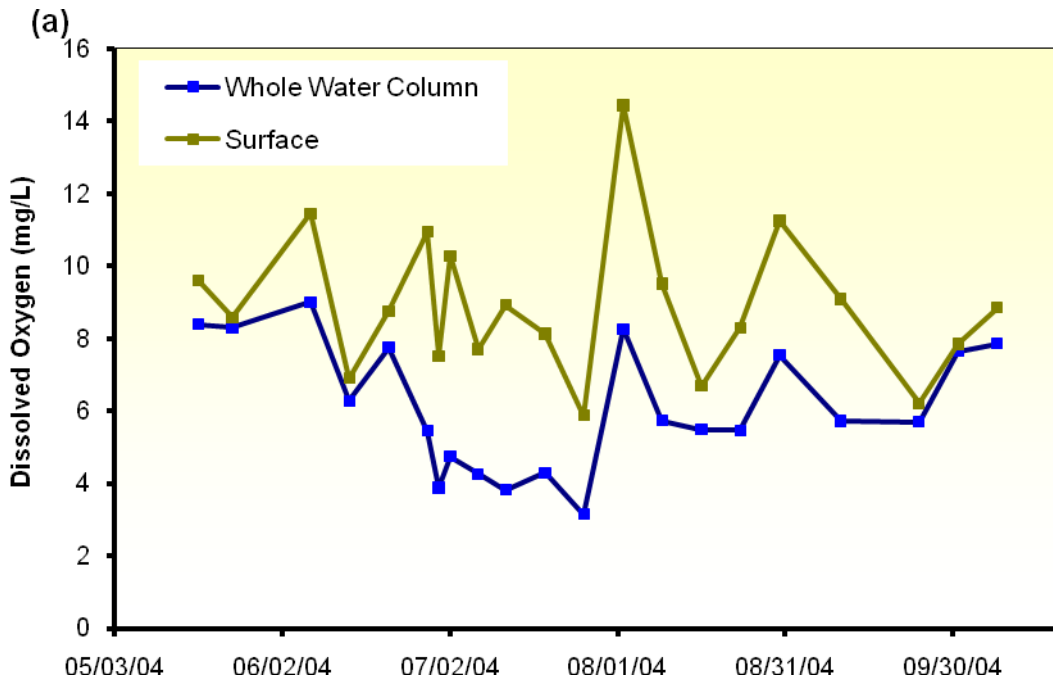


Figure A-2. Annual pattern of phytoplankton growth and decline in Ford Lake at monitoring point F3.

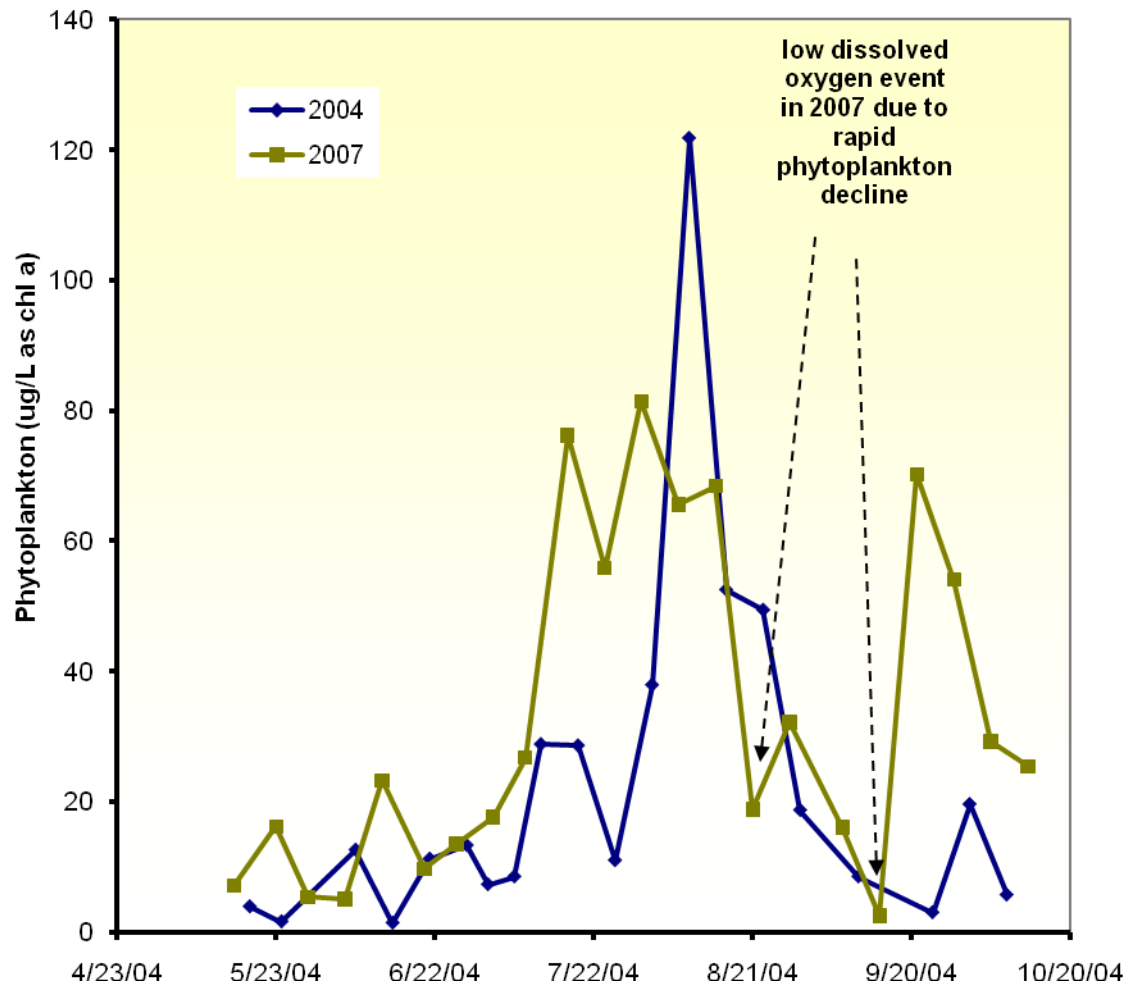


Figure A-3. Ford Lake bathymetry used for the lake model, model data output locations (P1 through P10), and lake monitoring locations (F1, F2, and F3). Lake depths shown in meters. The red bar shows the location the recommended placement for aerator line installation.

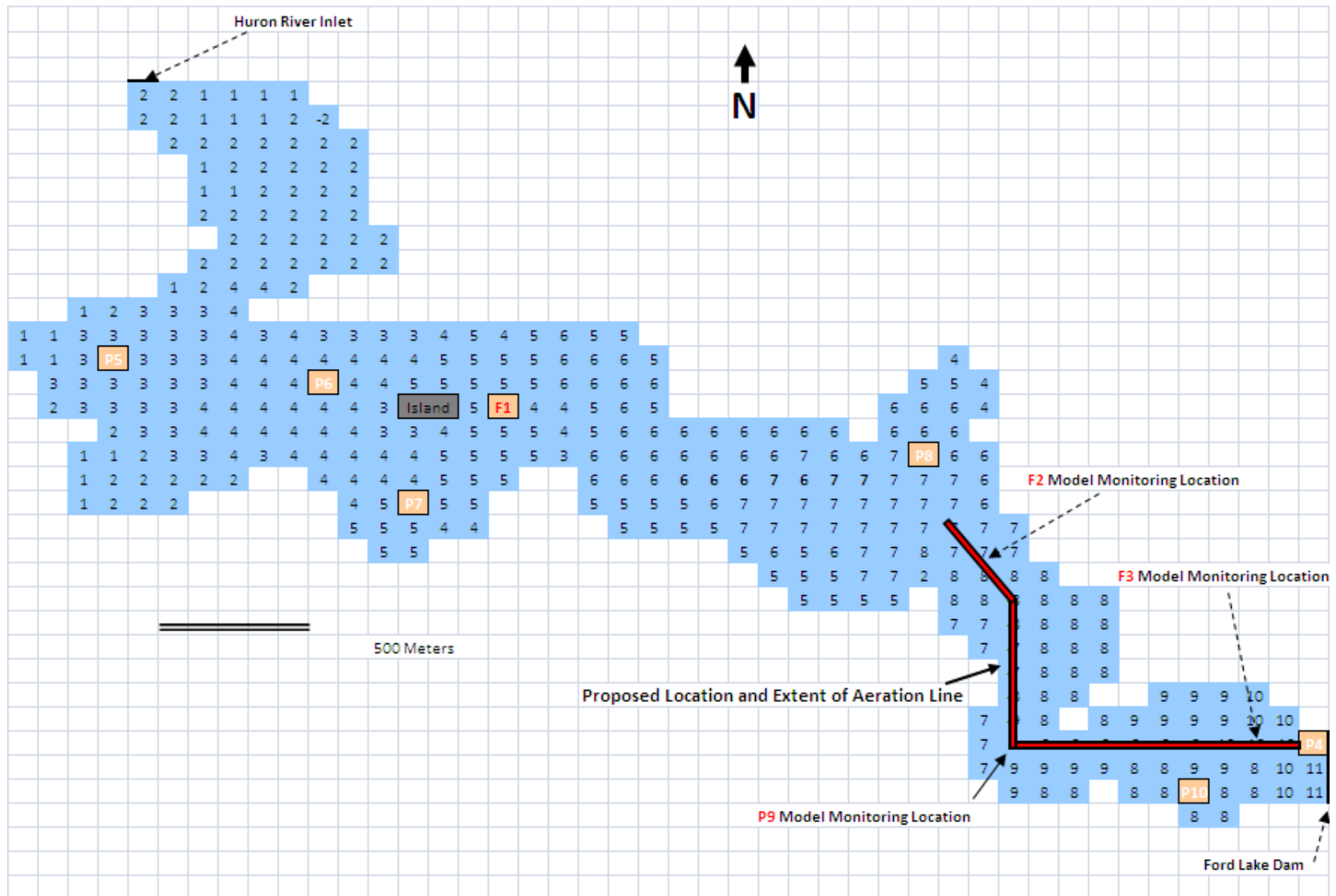


Figure A-4. Model calibration showing a comparison of modeled and measured temperature at the F3 monitoring point near the Ford Lake outlet.

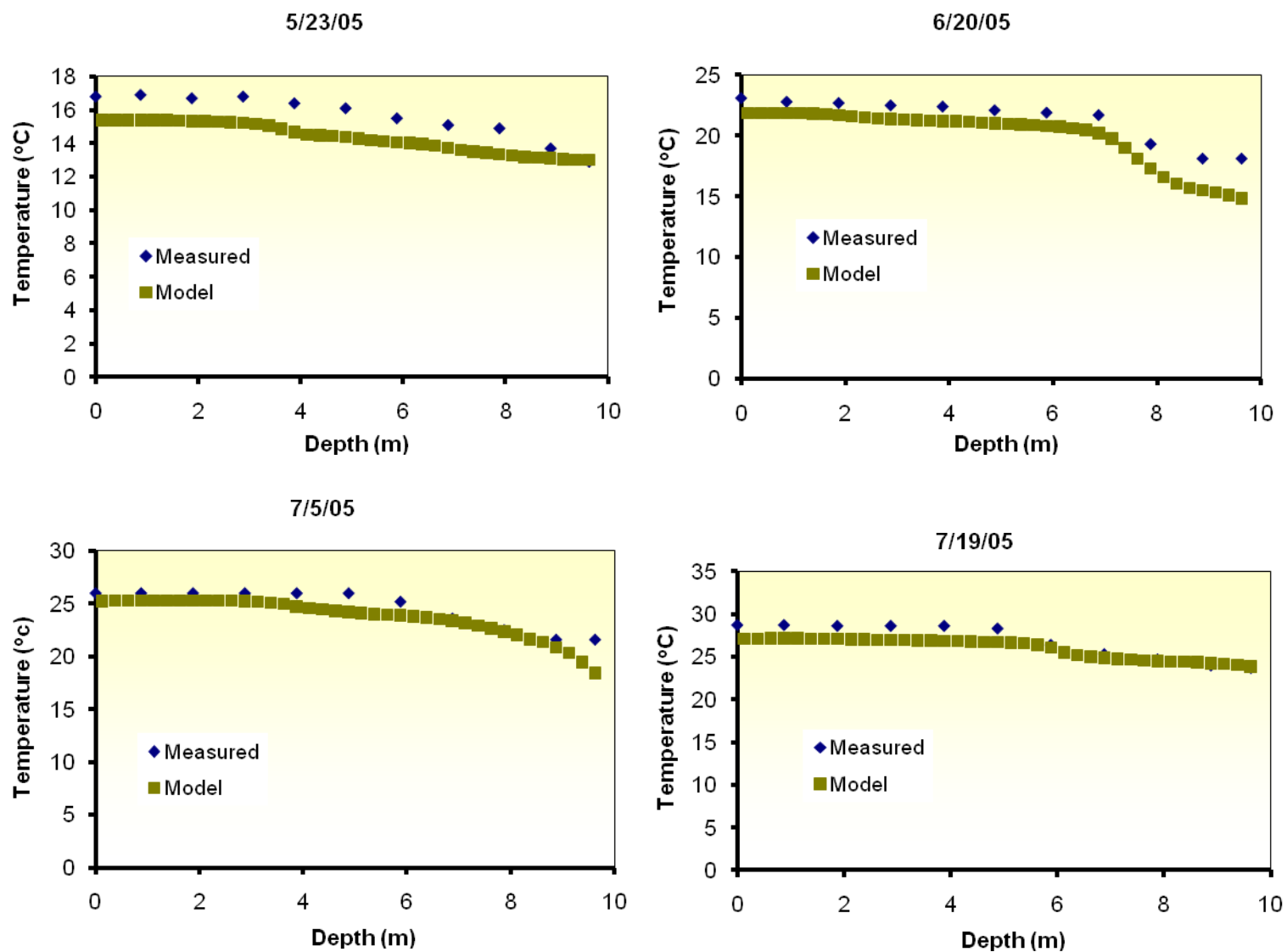


Figure A-4. (Continued)

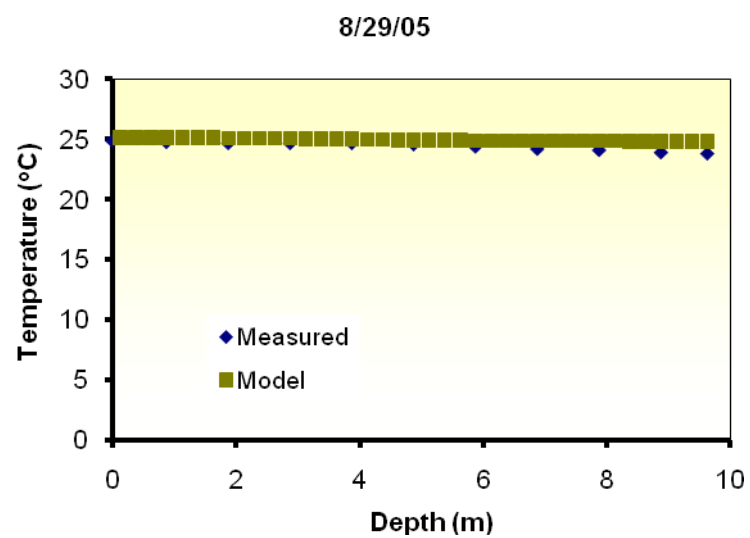
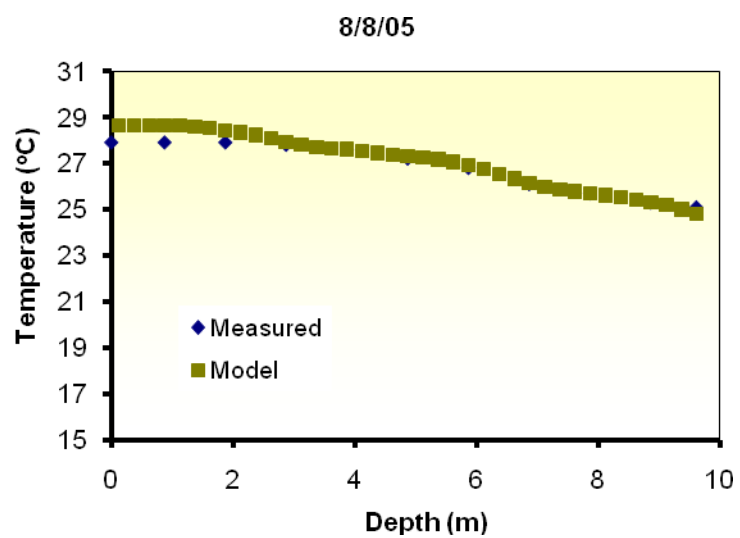


Figure A-5. Model calibration results showing a comparison of modeled and measured dissolved oxygen for the entire water column at the F3 monitoring point near the Ford Lake outlet.

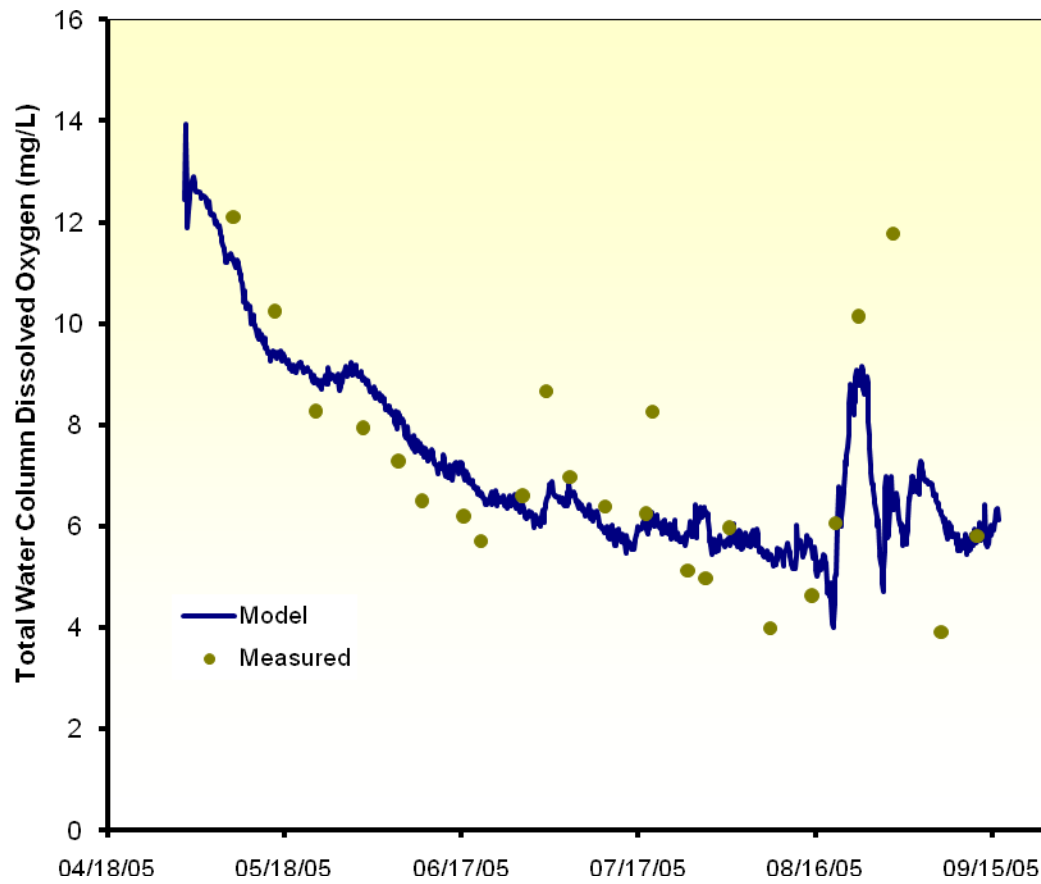


Figure A-6. Model calibration results showing a comparison of modeled and measured phytoplankton for the F3 monitoring point near the Ford Lake outlet.

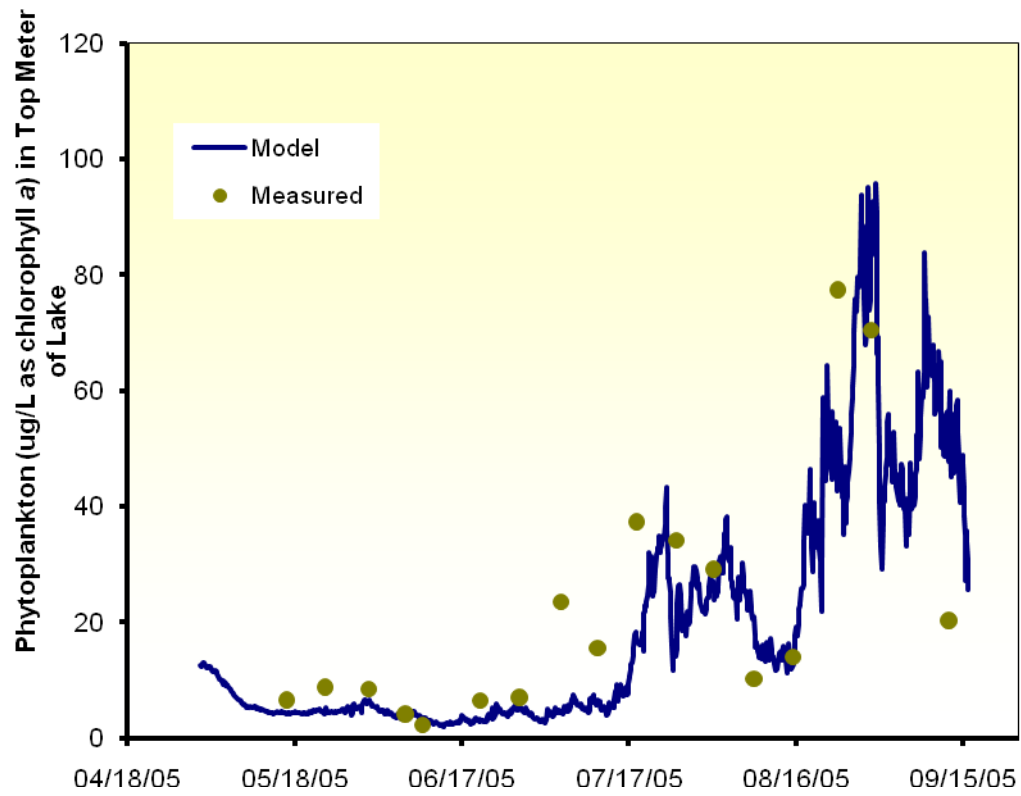


Figure A-7. Model calibration results showing a comparison of modeled and measured total phosphorus for the F3 monitoring point near the Ford Lake outlet.

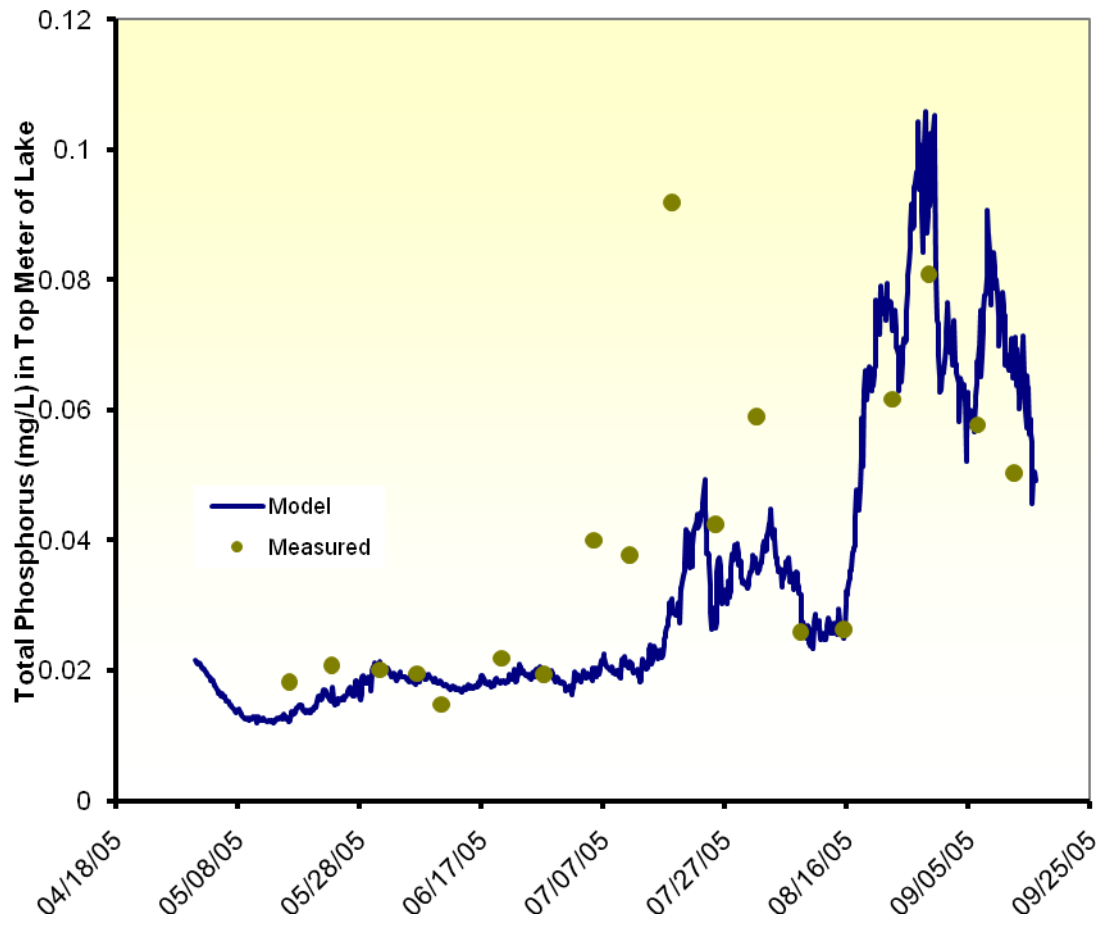


Figure A-8. Comparison of model predicted cyanobacteria concentrations with monitored phycocyanin levels (a), and model predicted change in phytoplankton species in Ford Lake near the lake outlet (b).

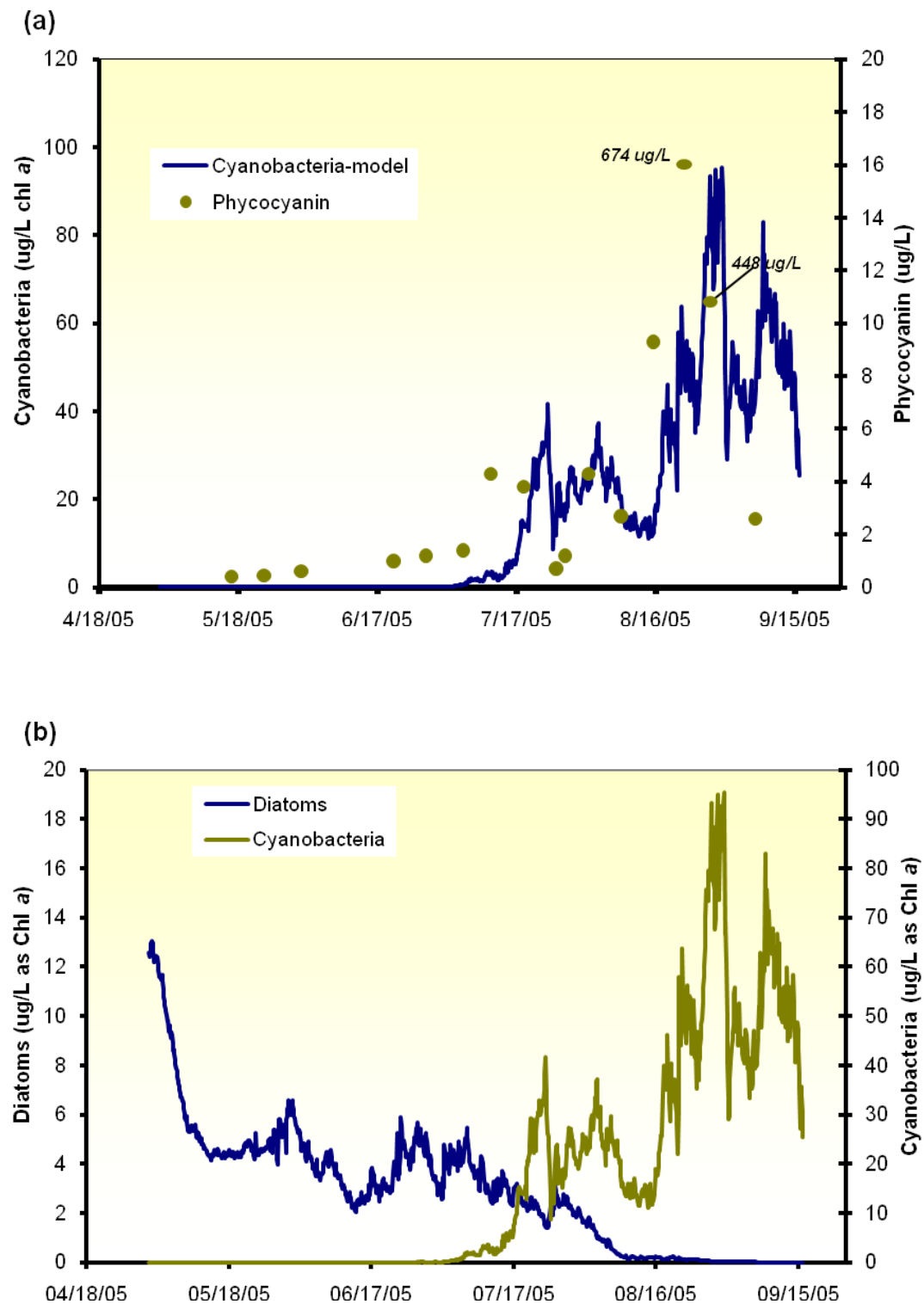


Figure A-9. Model predicted effect of aeration near the Ford Lake outlet with and without the effect of dissolved oxygen transfer from the air bubbles to the water column.

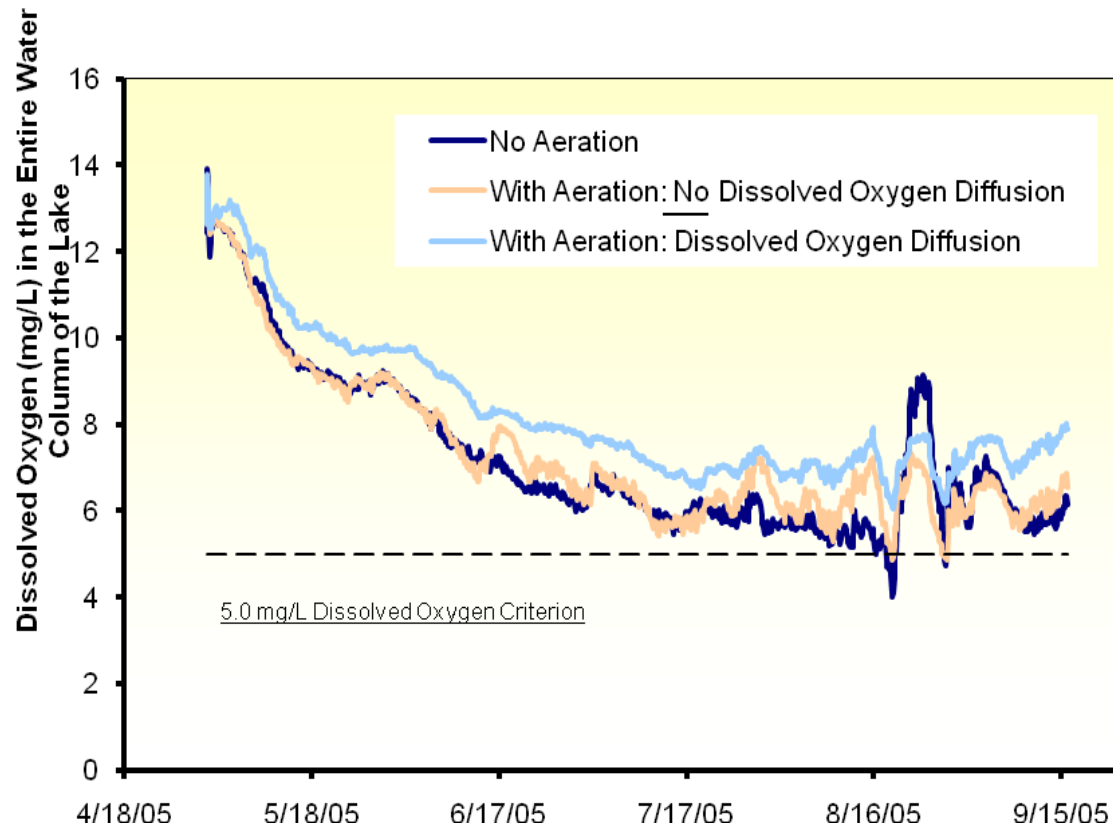


Figure A-10. Model predicted dissolved oxygen concentration in Ford Lake approximately 300 meters north of the end on the aerator line (model point P8).

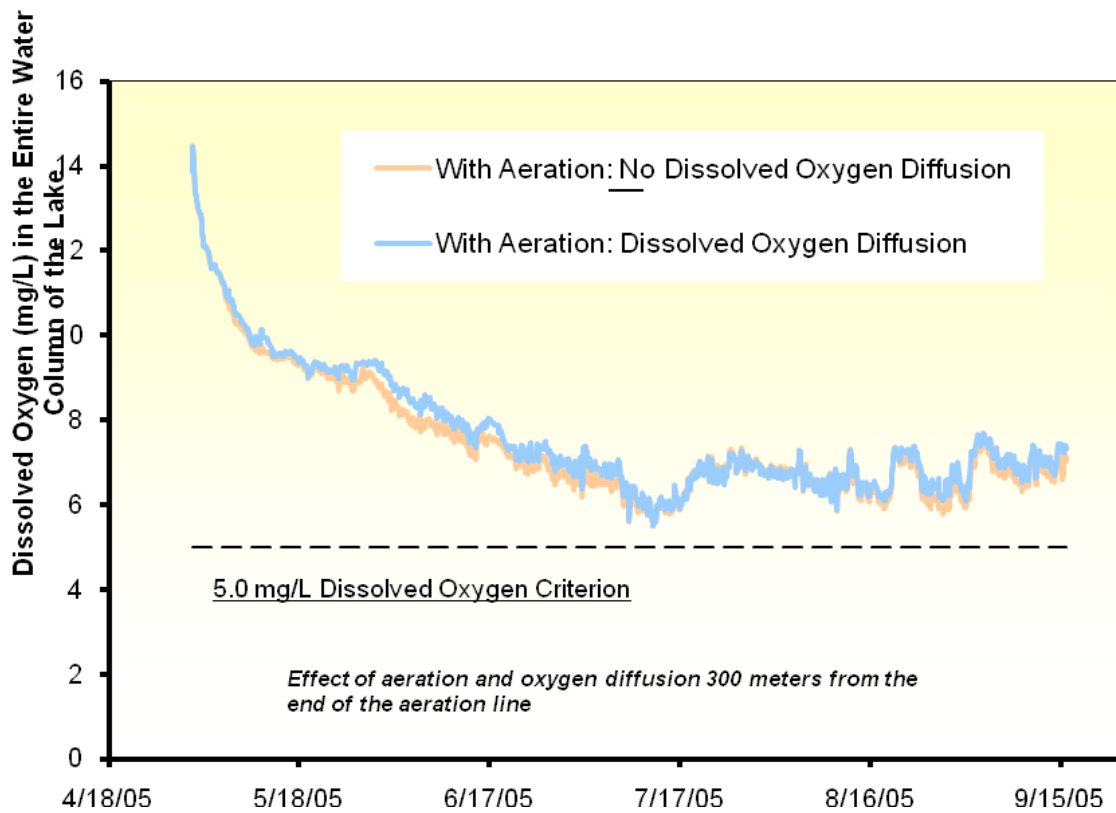


Figure A-11. Model estimated effect of aeration at a flow rate of 0.3 meters cubed per second on average phosphorus concentrations for the entire water column near the Ford Lake outlet.

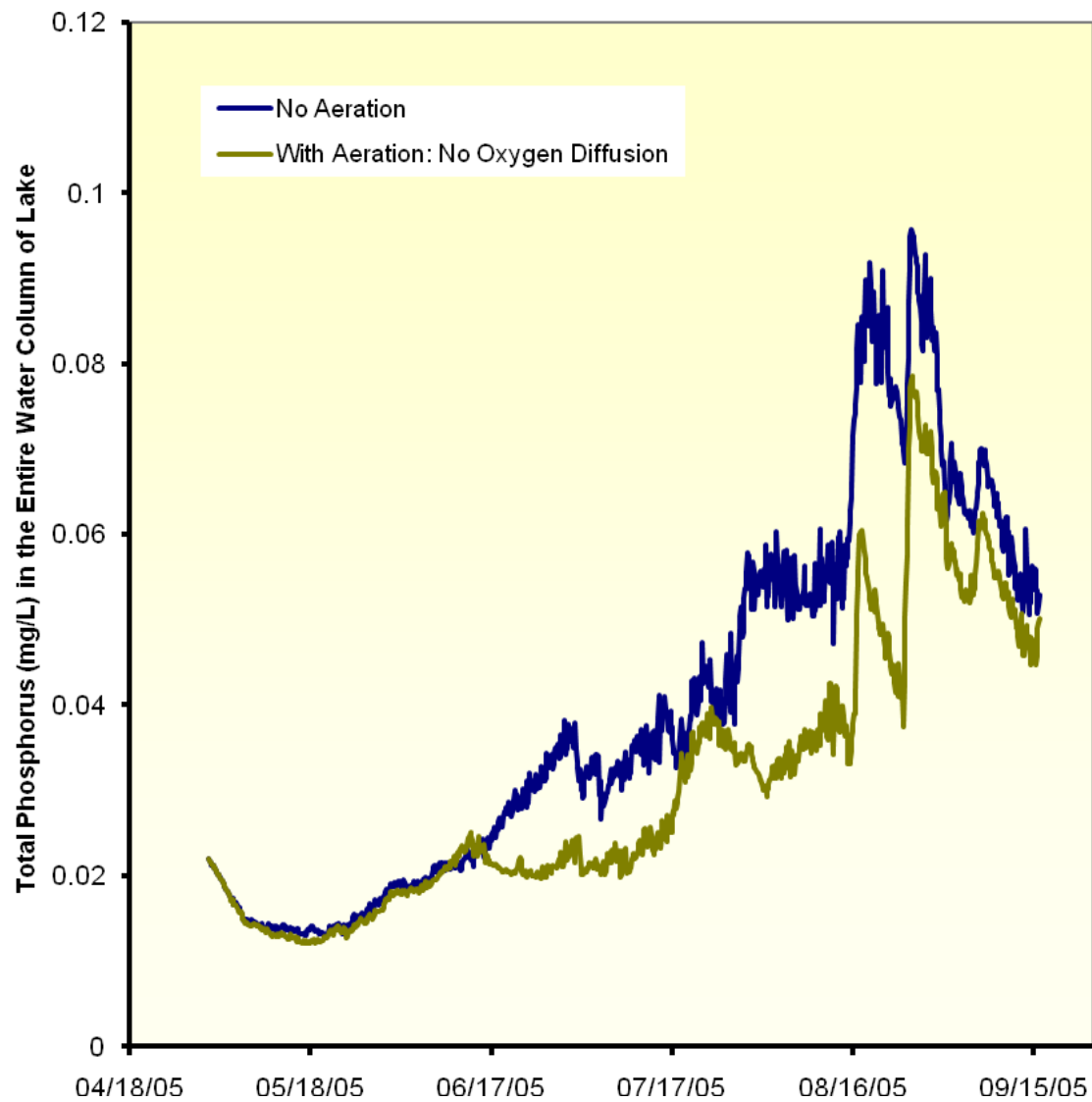


Figure A-12. Model estimated affect of aeration on phytoplankton levels in Ford Lake (near the dam outlet) with the installation of aerators. Phytoplankton results displayed as a five-day running averages for improved visual display of results.

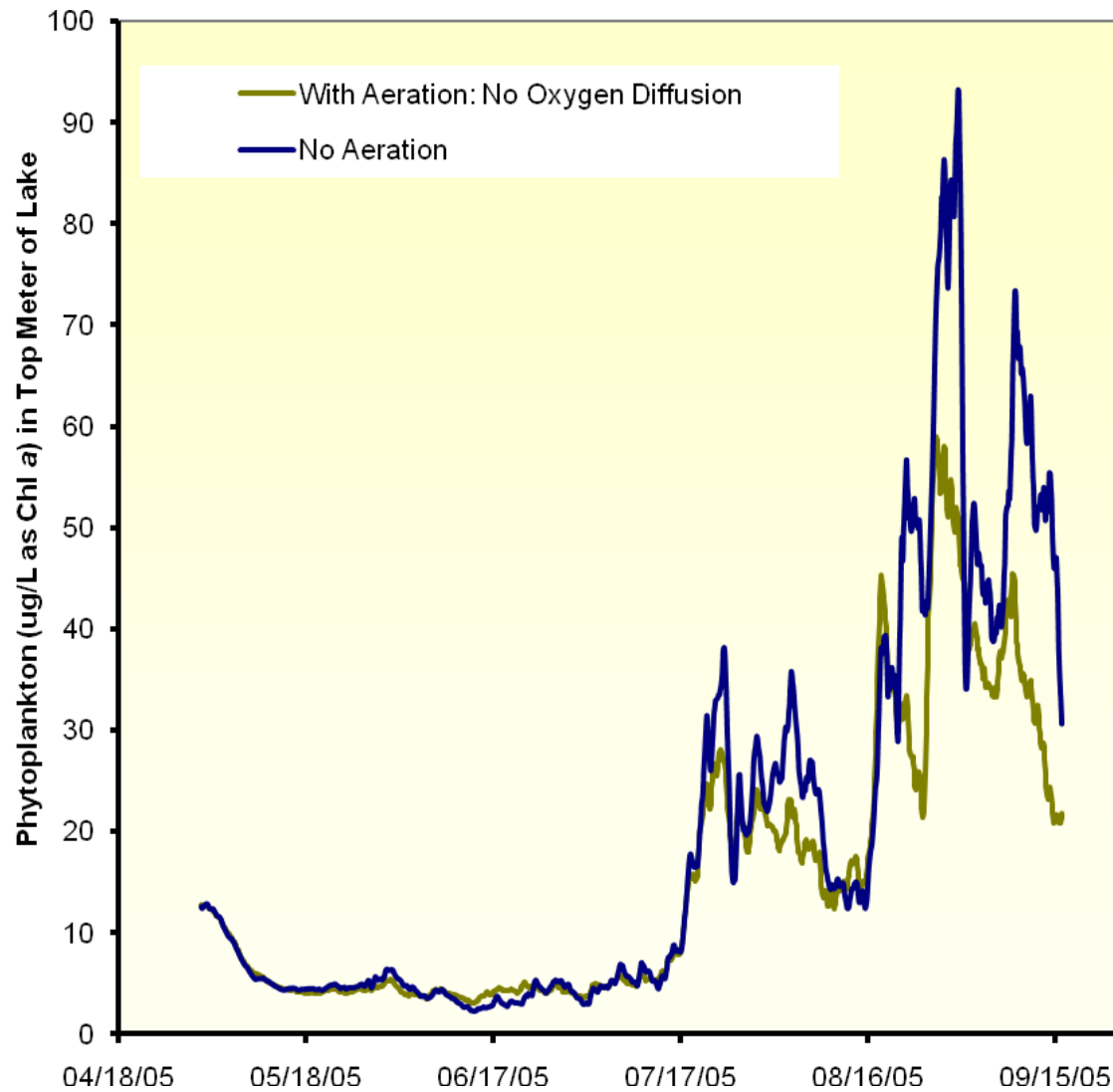
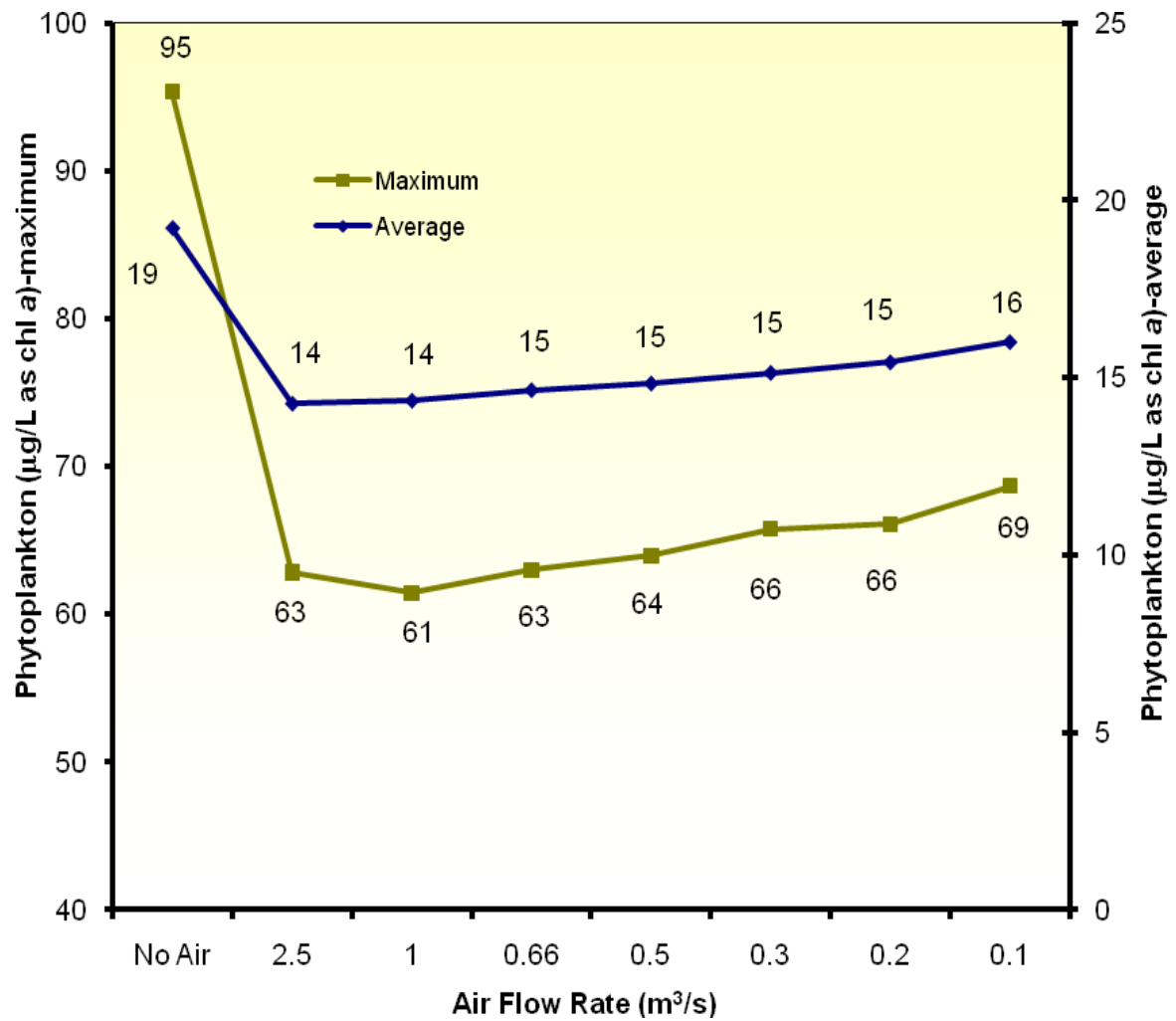



Figure A-13. Model estimated effect of a range of bubbler flow rates on phytoplankton concentrations near the Ford Lake outlet.



Appendix B

Calculations

**Aerator Design Computations
Detailed Aeration System Cost Estimate
Detailed Electrical Upgrade Cost Estimates**

			Calc# 001	Sheet No. 1 of 6
Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
Date: 09/10/2009	Date: 10/29/2009	Date:	Subject: Air Bubbler Pipe Size and Pressure Drop Calculation	

1.0 Purpose:

Determine the required pipe diameter, piping pressure loss, and required delivery pressure from a blower or compressor to deliver air to an aeration system.

2.0 Reference:


1. Standard for Pipe Sizing and Friction Loss
2. Mechanical Engineering Reference Manual for PE Exam, Eleventh Edition, Pgs. A-34, A-14, 17-12, 17-13, 20-2
3. Pressure Drop Equation Spreadsheet (attached)

3.0 Assumptions:

1. Assumed constant temperature at 100°F and therefore constant density and kinematic viscosity
2. Assumed 6000ft of aeration piping along lake bottom.
3. Assumed an air volumetric flow rate of 640ACFM (0.3Cu. Meters/sec)
4. Assumed piping material to be HDPE.
5. Average water temperature is 64F
6. Assumed maximum velocity in header of 3000ft/min

4.0 Conclusion:

- Size compressor for 1250 SCFM at 25psi.
- Pipe Size: 6" SDR32.5 HDPE Piping or piping having a minimum ID of 6.25inches

			Calc# 001	Sheet No. 2 of 6
Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
Date: 09/10/2009	Date: 10/29/2009	Date:	Subject: Air Bubbler Pipe Size and Pressure Drop Calculation	

5.0 Calculation:

5.1 Equations and Definitions

To convert SCFM (standard cubic feet per minute) to velocity in a pipe, the following equations are used:

$$ACFM = SCFM \cdot (\rho_{act} / \rho_{std})$$

$$V = ACFM / A / (60 \text{ sec/min})$$

Where:

ACFM = actual cubic feet per minute

SCFM = standard cubic feet per minute

ρ_{std} = density at standard conditions of 70°F and 14.7 psia (lbm/ft³)

ρ_{act} = actual density (lbm/ft³)

V = air velocity (ft/s)

A = cross-sectional area of flow (ft²)

Friction Factor is determined by matching the Reynolds number with the relative roughness in a table (Ref. 3, pg. A-34).

$$Re = VD/\nu$$

$$\text{Relative roughness} = \epsilon/D$$

Where:

Re = Reynolds number

V = air velocity (ft/s)

D = pipe diameter (ft)


ν = kinematic viscosity of air, assumed constant at 0.000273 ft²/s

ϵ = specific roughness = 0.00007ft for new HDPE piping

The Darcy equation will be used to determine the head loss due to friction for turbulent flow in the pipes. See the attached spreadsheet for calculation. The Darcy equation is:

$$h_f = fLV^2/(2Dg)$$

Where:

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Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
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h_f = head loss (ft)

f = friction factor (dimensionless)

L = length of pipe, or equivalent length of pipe fittings or devices (ft)

V = air velocity (ft/s)

D = Pipe Diameter (ft)

g = Gravitational constant

This method can be used for estimating losses in enclosed piping systems that have noncondensing compressible fluids with velocities significantly below sonic (less than Mach 0.3), where the total pressure drop through the system is less than 10% of the starting pressure.

The head loss is used to find pressure drop:

$$\Delta p = \rho g h_f$$

Where:

Δp = pressure drop (lbm/ft·s²)

ρ = density of air (lbm/ft³)

g = Gravitational constant (ft/s²)

h_f = head loss (ft)

5.2 Air Header Requirements

Calculations have been completed which determined that an air flow of 640ACFM is required for the aeration system. This is the total air flow that is required to be delivered evenly over the 6000ft of piping. This flow rate will drop by 2.5 SCFM as the flow passes each diffuser inlet. For the purposes of this calculation the airflow will be divided in half at halfway point, 3000ft, of the piping header. This will result in a conservative pressure drop. The following table shows the SCFM flow rates in the system and their resulting ACFM flow rates:


SCFM	1231	616
ACFM	640	320

The header size is determined using the following equation:

$$Q = A \times V$$

Where Q = Volumetric Flow Rate

A = Internal Area of Piping

			Calc# 001	Sheet No. 4 of 6
Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
Date: 09/10/2009	Date: 10/29/2009	Date:	Subject: Air Bubbler Pipe Size and Pressure Drop Calculation	

V = Velocity in Piping
Solve for A:

$$A = Q/V = 640 \text{ cu.ft/min} / 3000 \text{ ft/min}$$

$$A = 0.21 \text{ sqft}$$

The diameter can be calculated using the following equation:

$$A = \frac{\pi \times (\text{diameter})^2}{4}$$

Where A = 0.21 sqft

Solving the above equation for d and inserting the area results in a diameter of 0.52ft or 6.25 inches.

5.3 Pressure Drop Calculation

The attached spreadsheet will be used for the pressure drop calculation. The constant values below will be entered into the spreadsheet.

$$g = 32.2 \text{ ft/s}^2$$


$$\nu = \text{constant at } 0.000088 \text{ ft}^2/\text{s} \text{ (} \nu = \mu/\rho \text{), (} \mu = 0.000000397 \text{ lbf-sec/sqft at } 100\text{F)}$$

$$\rho = \text{constant at } 0.1447 \text{ lbm/ft}^3 \text{ (Ref. 2, pg. A-14, and Assumption 1)}$$

$$\epsilon = 0.00007 \text{ ft for new commercial plastic piping (Ref. 1)}$$

The above equations and definitions were used such that an input of flow rate at a certain point in the system (SCFM) and pipe inside diameter (ID on the spreadsheet, converted from nominal diameter) will yield a velocity, which in turn will yield a Reynolds number. The friction factor can be determined by inputting Reynolds number and relative roughness into a friction factor table or plot. This equation was solved using a Darcy friction factor table (Ref. 3, pg. A-34). All information needed to solve head loss equation and pressure drop has now been obtained.

Pipe fittings, such as elbows, valves, and tees, have an equivalent length or an L/D ratio (multiply by diameter to obtain equivalent length) corresponding to its dimensions that must be found in a table. This value is used for length L in the head loss equation. Equivalent lengths and L/D ratios in this equation were found using tables in Ref. 1.

			Calc# 001	Sheet No. 5 of 6
Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
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Pressure drop across each component of the pipe system is calculated one by one on the following spreadsheet as described in this report and in the order of the flow from the compressor/blower to the piping header. The pressure drop through the bubbler membrane was provided by a vendor and is 0.5psi.

	L (eq) (ft)	ID (ft)	IA (ft ²)	V (ft/s)	e/D	Re	f	h _L	ΔP	ΔP (psi)	Qty of Fittings	Total ΔP (psi)
exiting blower: 5" sch40	6070.000	0.518	0.211	50.615	0.000135	2.98E+05	0.014	6526.190	30407.740	6.55792	1	6.557915013
6" L.R. 90 deg. Std. elbow	7.252	0.518	0.211	50.615	0.000135	2.98E+05	0.014	7.797	36.329	0.00783	9	0.070514332
6" gate valve	7.000	0.518	0.211	50.615	0.000135	2.98E+05	0.014	7.526	35.067	0.00756	1	0.00756267
Bubbler membrane										0.5	1	0.5
											total P drop	7.135992015

5.3 Static Pressure Calculation

The aeration piping will be located on the bottom of Ford Lake which is approximately 30ft deep. The compressor will need to be sized to overcome the static pressure from the water.

The static pressure is calculated using the following formula:

$$\text{Pressure_Water} = \frac{\text{Head in ft} \times \text{S.G.}}{2.31}$$

Where S.G. = Specific Gravity of Water at 64F = 1.0
Head in ft = 30ft


$$\text{Pressure_Water} = (30\text{ft} \times 1.0) / 2.31 = 12.98\text{psi}$$

5.4 Total Pressure Calculation

The total pressure drop calculated above is added to the static pressure to determine the overall system pressure or total pressure.

$$\text{TP} = \text{SP} + \text{VP} = 12.98 + 7.14 = 20.12\text{psi}$$

Margin 5psi

			Calc# 001	Sheet No. 6 of 6
Computed	Checked	Submitted	Project Name: Ford Lake	
By: WJM	By: DEH	By:	Project Number: 22/81-1004	
Date: 09/10/2009	Date: 10/29/2009	Date:	Subject: Air Bubbler Pipe Size and Pressure Drop Calculation	

TP = 25psi

The compressor will need to deliver 1231 SCFM of air at 25psi.

	Estimate					
	MATERIAL					
	UNIT	QTY	UNIT COST	EXTENDED COST	EXTRAS	TOTAL/Incl. Tax
AIR COMPRESSOR	EA	2	\$70,000	\$140,000		\$148,400
AERATION PIPING - 6" HDPE	LF	12000	\$4	\$44,400		\$47,064
FLOAT PIPING	LF	12000	\$6	\$75,000		\$79,500
BUBBLER MEMBRANE	EA	260	\$20	\$5,200	150	\$5,512
PIPE ANCHORAGE/WEIGHTS	EA	600	\$10	\$6,000		\$6,360
BALL VALVES - 6"	EA	3	\$1,000	\$3,000		\$3,180
MISC INSRTUMENTATION AND TUBING	LOT			\$5,000		\$5,300
COLUMN TOTAL						\$295,316

	Estimate						
	LABOR						
	Unit	Daily Output	RATE/ CRAFT	SUB-TOTAL	SUB - CONTRACTOR TOTAL	SUB- CONTRACTOR MARK-UP	TOTAL
AIR COMPRESSOR				\$3,000			\$3,000
AERATION PIPING - 6" HDPE	12000	200	800	\$48,000			\$48,000
FLOAT PIPING	12000	200	800	\$48,000			\$48,000
PIPING - BOAT/WATER INSTALL	12000	500	5000	\$120,000			\$120,000
BUBBLER MEMBRANE	260	26	300	\$3,000			\$3,000
PIPE ANCHORAGE/WEIGHTS	600	100	300	\$1,800			\$1,800
BALL VALVES - 6"	Lot	1	125	\$1,200			\$1,200
COLUMN TOTAL							\$225,000
						SubTotal	\$520,316
						Indirects =	\$78,047
						Small Tools	\$8,859
					TOTAL INSTALLED COST		\$607,223

FORD LAKE											
AERATOR COMPRESSOR INSTALLATION ELECTRICAL ESTIMATE											
1 EACH 200 HP COMPRESSOR											
DATE: 11/3/09											
MEANS LABOR ADJUSTMENT FACTOR								2.00			
TAP 13.2 KV OVERHEAD POWER LINE AT HYDRO STATION											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
	Application / Permitting		1							\$10,000.00	\$10,000.00
	Installation Including 13.2KV To New Xfmr		1			\$20,000.00				\$20,000.00	\$40,000.00
NEW EQUIPMENT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 12 19.10.0200	300 KVA 13.2/480 KV Transformer	300 KVA	1	Means	\$12,000.00	\$12,000.00	44.444	88.888	\$75.00	\$6,666.60	\$18,666.60
03 30 53.40.3590	Transformer Pad	10' x 10'	1	Means	\$655.00	\$655.00	9.600	19.200	\$75.00	\$1,440.00	\$2,095.00
26 28 16.10.0700	350 Amp Circuit Breaker / NEMA 3R Encl.	350A	1	Means	\$3,000.00	\$3,000.00	10.000	20.000	\$75.00	\$1,500.00	\$4,500.00
	Grounding		1		\$1,000.00	\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200.00
CABLE											
MEANS ID	DESCRIPTION	# OF FT	CLF	Source	\$ PER CLF	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.90.2600	#350 kcmil wire	225	7.425	Means	\$850.00	\$6,311.25	4.444	8.888	\$75.00	\$4,949.51	\$11,260.76
26 05 26.80.0600	#2 Ground Wire (Feed)	225	2.475	Means	\$167.00	\$413.33	1.600	3.200	\$75.00	\$594.00	\$1,007.33
26 05 23.20.2568	#2 Ground Wire (Transformer Pad)	100	1.1	Means	\$167.00	\$183.70	1.600	3.200	\$75.00	\$264.00	\$447.70
CABLE TERMINATIONS											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.35.2200	#2 Terminations	#2	24	Means	\$6.45	\$154.80	0.333	0.666	\$75.00	\$1,198.80	\$1,354
26 05 19.35.3500	#350 MCM Terminations	#350	12	Means	\$15.30	\$183.60	1.000	2.000	\$75.00	\$1,800.00	\$1,984
	Misc Parts & Install		1			\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200
CONDUIT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 33.05.9190	4" PVC Conduit	4"	225	Means	\$13.20	\$2,970.00	0.178	0.356	\$75.00	\$6,007.50	\$8,978
	Misc Parts & Install		1		\$500.00	\$500.00	6.000	12.000	\$75.00	\$900.00	\$1,400
31 23 16.14.2150	Trench & Backfill	6" X 24"	210		\$1,000.00	\$1,000.00	0.040	0.080	\$75.00	\$1,260.00	\$2,260
						\$49,371.68				\$58,980.41	\$108,352.08
										25% CONTINGENCY	\$27,088
										TOTAL ESTIMATE	\$135,440

FORD LAKE											
AERATOR COMPRESSOR INSTALLATION ELECTRICAL ESTIMATE											
1 EACH 200 HP COMPRESSOR											
DATE: 11/3/09											
MEANS LABOR ADJUSTMENT FACTOR								2.00			
TAP 4600 V POWER LINE AT HYDRO STATION											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
	Application / Permitting		1							\$0.00	\$0.00
	Installation Including 13.2KV To New Xfmr		1			\$15,000.00				\$15,000.00	\$30,000.00
NEW EQUIPMENT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 12 19.10.0200	300 KVA 4.6/ 480 KV Transformer	300 KVA	1	Means	\$12,000.00	\$12,000.00	44.444	88.888	\$75.00	\$6,666.60	\$18,666.60
03 30 53.40.3590	Transformer Pad	10' x 10'	1	Means	\$655.00	\$655.00	9.600	19.200	\$75.00	\$1,440.00	\$2,095.00
26 28 16.10.0700	350 Amp Circuit Breaker / NEMA 3R Encl.	350A	1	Means	\$3,000.00	\$3,000.00	10.000	20.000	\$75.00	\$1,500.00	\$4,500.00
	Grounding		1		\$1,000.00	\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200.00
CABLE											
MEANS ID	DESCRIPTION	# OF FT	CLF	Source	\$ PER CLF	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.90.2600	#350 kcmil wire	225	7.425	Means	\$850.00	\$6,311.25	4.444	8.888	\$75.00	\$4,949.51	\$11,260.76
26 05 26.80.0600	#2 Ground Wire (Feed)	225	2.475	Means	\$167.00	\$413.33	1.600	3.200	\$75.00	\$594.00	\$1,007.33
26 05 23.20.2568	#2 Ground Wire (Transformer Pad)	100	1.1	Means	\$167.00	\$183.70	1.600	3.200	\$75.00	\$264.00	\$447.70
CABLE TERMINATIONS											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.35.2200	#2 Terminations	#2	24	Means	\$6.45	\$154.80	0.333	0.666	\$75.00	\$1,198.80	\$1,354
26 05 19.35.3500	#350 MCM Terminations	#350	12	Means	\$15.30	\$183.60	1.000	2.000	\$75.00	\$1,800.00	\$1,984
	Misc Parts & Install		1			\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200
CONDUIT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 33.05.9190	4" PVC Conduit	4"	225	Means	\$13.20	\$2,970.00	0.178	0.356	\$75.00	\$6,007.50	\$8,978
	Misc Parts & Install		1		\$500.00	\$500.00	6.000	12.000	\$75.00	\$900.00	\$1,400
31 23 16.14.2150	Trench & Backfill	6" X 24"	210		\$1,000.00	\$1,000.00	0.040	0.080	\$75.00	\$1,260.00	\$2,260
						\$44,371.68				\$43,980.41	\$88,352.08
										25% CONTINGENCY	\$22,088
										TOTAL ESTIMATE	\$110,440

FORD LAKE											
AERATOR COMPRESSOR INSTALLATION ELECTRICAL ESTIMATE											
1 EACH 200 HP COMPRESSOR											
DATE: 11/3/09											
MEANS LABOR ADJUSTMENT FACTOR								2.00			
TAP 13.2 KV UNDERGROUND POWER LINE AT APARTMENT COMPLEX											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
	Application / Permitting		1							\$10,000.00	\$10,000.00
	Installation Including 13.2KV To New Xfmr		1			\$20,000.00				\$20,000.00	\$40,000.00
NEW EQUIPMENT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 12 19.10.0200	300 KVA 13.2/480 KV Transformer	300 KVA	1	Means	\$12,000.00	\$12,000.00	44.444	88.888	\$75.00	\$6,666.60	\$18,666.60
03 30 53.40.3590	Transformer Pad	10' x 10'	1	Means	\$655.00	\$655.00	9.600	19.200	\$75.00	\$1,440.00	\$2,095.00
26 28 16.10.0700	350 Amp Circuit Breaker / NEMA 3R Encl.	350A	1	Means	\$3,000.00	\$3,000.00	10.000	20.000	\$75.00	\$1,500.00	\$4,500.00
	Grounding		1		\$1,000.00	\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200.00
CABLE											
MEANS ID	DESCRIPTION	# OF FT	CLF	Source	\$ PER CLF	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.90.2600	#350 kcmil wire	225	7.425	Means	\$850.00	\$6,311.25	4.444	8.888	\$75.00	\$4,949.51	\$11,260.76
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26 05 23.20.2568	#2 Ground Wire (Transformer Pad)	100	1.1	Means	\$167.00	\$183.70	1.600	3.200	\$75.00	\$264.00	\$447.70
CABLE TERMINATIONS											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 19.35.2200	#2 Terminations	#2	24	Means	\$6.45	\$154.80	0.333	0.666	\$75.00	\$1,198.80	\$1,354
26 05 19.35.3500	#350 MCM Terminations	#350	12	Means	\$15.30	\$183.60	1.000	2.000	\$75.00	\$1,800.00	\$1,984
	Misc Parts & Install		1			\$1,000.00	8.000	16.000	\$75.00	\$1,200.00	\$2,200
CONDUIT											
MEANS ID	DESCRIPTION	SIZE	#		\$/EA.	MAT. TOT.	LABOR HRS	ADJ LABOR HRS	RATE	LABOR TOT.	TOTAL COST
26 05 33.05.9190	4" PVC Conduit	4"	225	Means	\$13.20	\$2,970.00	0.178	0.356	\$75.00	\$6,007.50	\$8,978
	Misc Parts & Install		1		\$500.00	\$500.00	6.000	12.000	\$75.00	\$900.00	\$1,400
31 23 16.14.2150	Trench & Backfill	6" X 24"	210		\$1,000.00	\$1,000.00	0.040	0.080	\$75.00	\$1,260.00	\$2,260
						\$49,371.68				\$58,980.41	\$108,352.08
										25% CONTINGENCY	\$27,088
										TOTAL ESTIMATE	\$135,440

Appendix C

Vendor Information

**Siemens membrane disks
HDPE piping
Air Compressor**

From: Gail Stanek - 3135 FARGO [gail.stanek@ferguson.com]

Sent: Wednesday, October 07, 2009 10:33 AM

To: William J. Mullinix

Subject: Email Bid# B211448

Price Quotation # B211448

FERGUSON (MANDAN #3135)

2817 37TH ST NW
MANDAN, ND 58554

Phone : 701-663-2446

Fax : 701-663-2554

Bid No.....: B211448

Bid Date...: 10/07/09

Quoted By: GMS

Customer.: BARR ENGINEERING
MALL
BISMARCK, ND 58501

Cust Phone:

Terms.....: CASH ON DELIVERY

Ship To.....: BARR ENGINEERING
MALL
BISMARCK, ND 58501

Cust PO#..:

Job Name.: POLY PIPE

Item	Description	Quantity	Net Price	UM	Total
PEI17AU50	6X50 IPS SDR17 HDPE PIPE	9000	367.450	C	33070.50
PEI17AX50	8X50 IPS SDR17 HDPE PIPE	9000	621.890	C	55970.10
	PLEASE NOTE THIS IS JUST				
	BUDGET PRICING				

Net Total: 89040.60
Tax: 5342.44
Total: 94383.04

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at http://wolseleyna.com/terms_conditionsSale.html. Govt Buyers: All items quoted are open market unless noted otherwise.

David Hibbs

From: Fracaro, Laurel A (WT) [laurel.fracaro@siemens.com]
Sent: Friday, October 09, 2009 11:55 AM
To: William J. Mullinix
Cc: Ratzlow, Lawrence B (WT)
Subject: FW: QT_Q1000082_CUST_WAU
Attachments: Flex Disc.pdf; Diffuser Head Loss Curve.pdf; QT_Q1000082_CUST_WAU.doc

W <<QT_Q1000082_CUST_WAU.doc>> illiam,

Quotation as requested.

I copied Bruce on the email if you have any questions on the application.

Laurel

Laurel Fracaro
Aftermarket Sales Support Specialist
Siemens Water Technologies
1901 S. Prairie Avenue
Waukesha, WI 53189
Phone: 262-521-8498
Fax: 262-521-8249
E-mail:Laurel.Fracaro@siemens.com
www.water.siemens.com

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-----Original Message-----

From: WT usfwauswdsreports
Sent: Friday, October 09, 2009 10:51 AM
To: FRACARLA (laurel.fracaro@siemens.com)
Subject: QT_Q1000082_CUST_WAU

Water Technologies

FlexDisc™ Fine Bubble Membrane Diffuser

SIEMENS



For New Installations and Retrofit, the Choice is Clear

The FlexDisc™ diffuser is your best choice for new diffusion aeration installations utilizing fine bubble membrane technology. Its innovative design is undoubtedly the most efficient and cost effective diffuser of its kind...a real advancement in membrane diffuser engineering. In addition, FlexDisc™ assembly has been designed for quick and easy retrofitting of existing diffused aeration installations to increase performance and decrease utility costs. Siemens also offers full technical assistance and complete piping systems for new or retrofit installations.

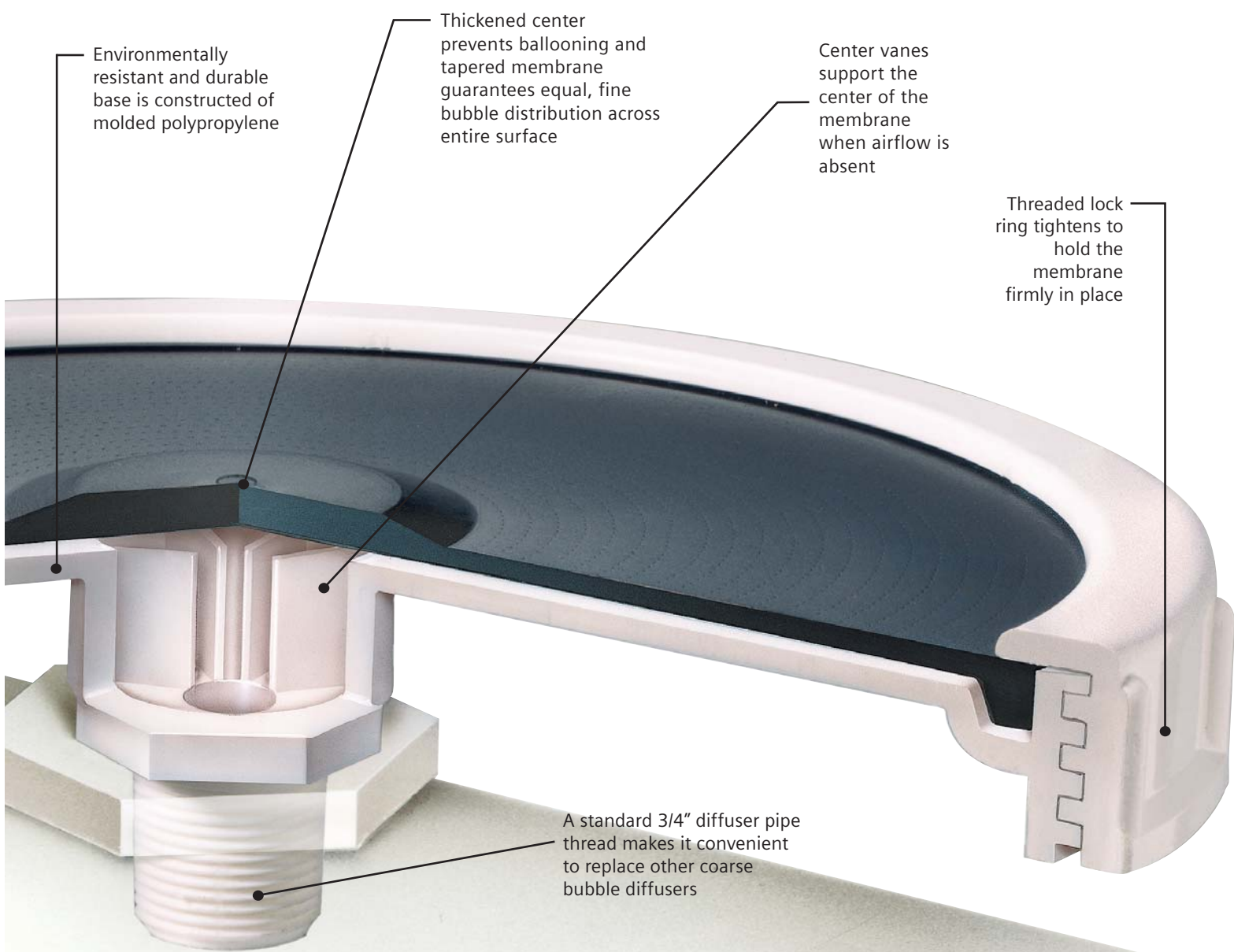
Heavy-duty membrane is a specially formulated and molded, EPDM compound. It has 100% rebound memory, and will last 5 to 10 years, even at low airflow rates

Precision perforated "I" slits resist tearing and stay cleaner, longer... open when airflow is present, close when airflow is stopped

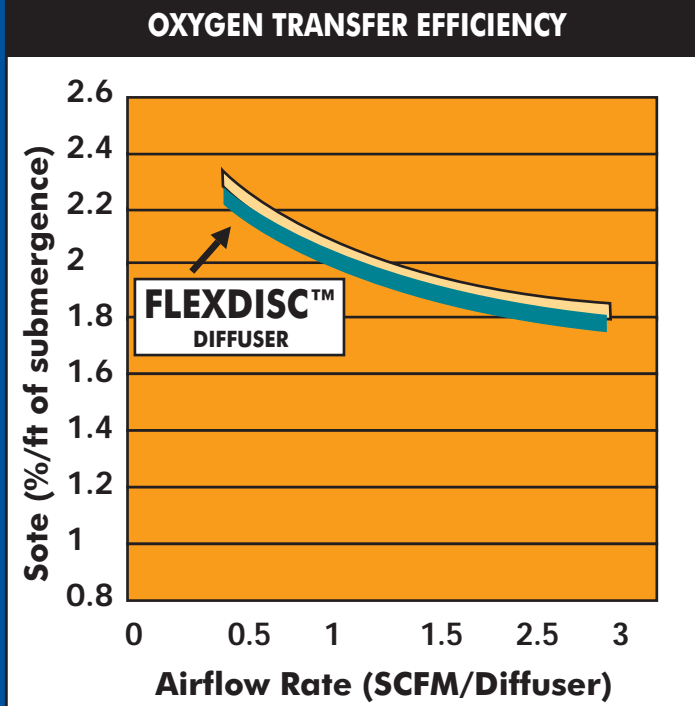




Typical FlexDisc™ installation.



FlexDisc™, the Affordable, Efficient Membrane Technology



This chart demonstrates the superior oxygen transfer efficiency provided by FlexDisc™ fine bubble diffusers.

IMPROVED PERFORMANCE, LOWER OPERATING COSTS

When compared to coarse bubble systems, the highly efficient FlexDisc™ system will cut your electric utility costs in half. The higher oxygen transfer efficiencies will also permit greater process flows and improved effluent quality. The FlexDisc™ membrane's unique sealing action when the airflow is stopped, eliminates plugging common with many coarse bubble diffusers. With the FlexDisc's threaded nipple, retrofitting of coarse bubble diffusers is often simply a matter of replacement.

OUTPERFORMS CERAMIC DIFFUSERS

FlexDisc™ systems offer dramatically decreased maintenance and downtime as compared to ceramic fine bubble diffuser systems. Ceramic diffusers, with their rough surfaces and non-uniform air distribution, encourage biogrowth which results in reduced oxygen transfer efficiency and plugging, making it necessary to regularly drain the tanks, hose and spray with dangerous acids or use gases for cleaning. FlexDisc™ diffuser with its smooth outer surface, uniform bubble

distribution and continuous flexing of the rubber membrane eliminates build up of any type, thereby assuring a lifetime of efficient, maintenance free performance.

BEST QUALITY, BEST SUPPORT

Our air diffusers are unsurpassed for efficiency, low cost and performance. We also offer full technical support to assist you with everything from air diffuser selection to complete aeration piping systems design for both new installations and retrofit.

Your One Source For Air Diffusers

Siemens offers the most complete line of fine and coarse bubble, plastic, stainless steel and membrane/ceramic air diffusers of any company in the industry, guaranteeing you'll find the right diffuser for your application. We also offer full technical support to assist you with everything from air diffuser selection to complete aeration piping systems design. For new installations, retrofit, or replacement, we're your one source.

Coarse Bubble Diffusers	Fine Bubble Diffusers
	
SED™ Diffuser	FlexDisc™ Diffuser (Threaded connection)
	
VariAir™ Diffuser	FlexDome™ Diffuser (Ceramic Dome Replacement)
	
Snap-Cap™ Diffuser	DualAir™ Membrane & Ceramic Diffuser
	
AirSeal™ Diffuser	
	
WideBand™ Stainless Steel Diffuser	
	
AirBand™ WideBand Plastic Diffuser	FlexLine™ Tubular Diffuser

For further information
please contact:

Siemens
Water Technologies
1901 S. Prairie Ave.
Waukesha, WI 53189
tel: 262.547.0141
fax: 262.547.4120
www.siemens.com/water

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of the contract.

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EN-FL2000dr-BR-0407
Subject to change without prior notice.

Mr. William Mullinix/Barr Engineering
450 S Wagner Road
Ann Arbor, MI 48103
734-922-4423
Cell: 734-678-5044

John Ruprecht/Atlas Copco Compressors
15 North Mallard Road
North Oaks, MN 55127
O: 651-484-5793, F: 651-490-3450, C: 612-940-9946
Email: john.ruprecht@us.atlascopco.com

ZE4 VSD and ZE2 VSD Oil Free Rotary Screw Air Compressor Proposal

We are pleased to offer the ZE4/ZE2 VSD *variable speed drive*, single stage, air cooled, oil free rotary screw air compressor.

THE STANDARD COMPRESSOR PACKAGE INCLUDES:

- Air intake filter/silencer with replaceable element
- Pneumatically actuated inlet throttle valve for Full-Load / No-Load capacity control
- Machine mounted and integrated high efficiency *Siemens Pulse Width Modulated (PMW)* frequency converter featuring:
 - Semi-conductor technology
 - Integrated main isolation/ disconnect switch with fuses for incoming power
 - Control power transformer
- One rotary screw compressor element flange mounted to gear box
- High precision gears according to AGMA Q13/ DIN Class 5
- Safety valves for low and high pressure circuits
- Discharge check valve
- Pressure lubrication system with:
 - Gear type pump driven by main drive shaft
 - Oil filter / spin-on type
 - Oil level gauge
 - Integral oil sump to gearbox
 - Air cooled oil cooler
- Patented gearbox breathing system
- *High efficiency TEFC* D-flanged main drive motor
- Flexible rubber element drive coupling
- Integral baseframe for compressor and drive assembly
- Full acoustical sound attenuating enclosure



- Regulating system open/close intake valve for load/no load control
- CSA/UL control cubicle with control power transformer
- Advanced Elektronikon® MkIV control and monitoring system
(see Elektronikon® Control Module description)

Mr. William Mullinix/Barr Engineering
450 S Wagner Road
Ann Arbor, MI 48103
734-922-4423
Cell: 734-678-5044

John Ruprecht/Atlas Copco Compressors
15 North Mallard Road
North Oaks, MN 55127
O: 651-484-5793, F: 651-490-3450, C: 612-940-9946
Email: john.ruprecht@us.atlascopco.com

ZE VSD Oil Free Rotary Screw Air Compressor Proposal

ELEKTRONIKON® MKIV CONTROL MODULE:

The regulating system includes the Elektronikon® MkIV control module which automatically controls and protects all compressor operations and monitors components subject to service. Together with the Variable Frequency Converter, the Elektronikon® control module provides extremely efficient operation by automatically controlling the compressor output to match fluctuating air demands.



A partial description for the module's capabilities include:

Compressor Status indication:

- Voltage On
- Automatic operation
- Compressor loaded & unloaded
- Compressor maximum working pressure
- Motor speed
- Local, remote or LAN compressor control

Temperature, numerical readouts

- Element outlet
- Compressor outlet (w/aftercooler)
- Oil

Hours Meter

- Total running hours
- Total accumulated volume

Pressure numeric readouts

- Delivery air
- Air filter pressure differential
- Oil

Compressor controls:

- Start/Stop
- Pressure regulation
- Emergency stop
- Reset /Test

Service Requirements

- Oil filter
- Air filter

- Oil lifetime
- Re-greasing of motor
- Sensor error

Compressor safety - Warning indications

- High element outlet temperature
- High oil temperature
- Low oil pressure
- High outlet pressure (w/regulator)

Compressor safety - Shutdown indications

- High element outlet temperature
- High oil temperature
- Low oil pressure
- Drive motor overload
- Emergency stop
- High outlet pressure (w/regulator)

Remote Control/ Monitoring

Digital input commands:

- Remote start/ stop
- Remote load/ unload
- Remote/ local pressure sensing
- Remote emergency stop

Digital output compressor status:

- Compressor running
- Compressor loaded
- Automatic operation
- General warning
- General shutdown

*More detailed information is available upon request

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Ann Arbor, MI 48103
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Cell: 734-678-5044

John Ruprecht/Atlas Copco Compressors
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O: 651-484-5793, F: 651-490-3450, C: 612-940-9946
Email: john.ruprecht@us.atlascopco.com

ZE4 VSD Oil Free Rotary Screw Air Compressor Proposal

COMPRESSOR MODEL: ZE4VSD-3.5

TECHNICAL INFORMATION:

INLET CONDITIONS

Barometric pressure	14.5	Psia
Ambient temperature	80	°F
Relative humidity	60	%
Cooling water inlet temp.	85	°F

COMPRESSOR PERFORMANCE DATA

Discharge pressure	25	Psig
Capacity delivered @ min. rpm ¹	500	Cfm
Capacity delivered @ max. rpm ¹	1785	Cfm
Shaft power input @ min. rpm	53	Bhp
Shaft power input @ max. rpm	216	Bhp
Shaft power input, unloaded	25	Bhp
Sound level ²	66-77	db(A)

COOLING DATA

Discharge air temperature	399-421	°F
Aftercooler approach temp.	N/A	°F

ELECTRICAL DATA (main drive motor)

Motor	315	kW
Motor Type	Induction, Inverter duty	
Enclosure	TEFC	
Volts/Ph/HZ	460/3/60	
Service factor	1.05	
Efficiency	95.1	
Speed	1000-3000	RPM
Insulation	F w/B rise	
Bearing	Anti-friction	
Manufacturer	Siemens or	equal

CONVERTER DATA

Manufacturer	Siemens or equal
Model	6SE7033-7EG60

PHYSICAL DATA

Length	109.0	inches
Width	68.9	inches
Height	78.3	inches
Air inlet	24 x 55	inches
Air discharge	4"-150#	flange
Condensate drain	1/2"	NPT
Shipping weight	8,000	lbs.
Oil sump capacity	9.2	gal.

Notes:

1. ZE/ZA units are tested to PNEUROP/CAGI PN2CPTC2 and guaranteed to be within $\pm 4\%$ in capacity, $\pm 5\%$ in specific power.
2. Operating Sound Level: Operating sound levels for machines equipped with recommended standard motors and enclosures are guaranteed ± 3 db(A) when measured in free field conditions at a distance of 1 meter according to CAGI PNEUROP Test Code.



Corrected

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Mr. William Mullinix/Barr Engineering
450 S Wagner Road
Ann Arbor, MI 48103
734-922-4423
Cell: 734-678-5044

John Ruprecht/Atlas Copco Compressors
15 North Mallard Road
North Oaks, MN 55127
O: 651-484-5793, F: 651-490-3450, C: 612-940-9946
Email: john.ruprecht@us.atlascopco.com

Pricing Summary

EQUIPMENT

Atlas Copco ZE4-3.5 VSD single stage oil free rotary screw compressor 500 to 1785 CFM @ 25 psig, requiring 216 BHP at max RPM, capable of 50 psig. 315 KW VSD drive complete with air cooled oil cooler, 460 Volt TEFC VSD premium drive motor, inverter, RFI line filter mounted and wired. Hot pipe no aftercooler.

NET EACH

QTY

TOTAL

\$125,100.00

2

\$125,100.00

Atlas Copco ZE2-3.5 VSD single stage oil free rotary screw compressor 183 to 583 CFM @ 25 psig, capable of 50 psig. 75 KW VSD drive complete with air cooled oil cooler, 460 Volt TEFC VSD premium drive motor, inverter, RFI line filter mounted and wired. Hot pipe no aftercooler.

\$65,000.00

2

\$130,000.00

Drawings

Drawings will be submitted 2 weeks after receipt and acceptance of purchase order by Atlas Copco Compressors, Inc.

Shipment

Shipments will be made 12 weeks after receipt and acceptance of purchase order by Atlas Copco Compressors, Inc. and receipt of drawing approval if required.

F.C.A.: Rockhill, SC

Payment Terms: Progress payments

Document Revision: 0



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Email: john.ruprecht@us.atlascopco.com

Prices quoted in this proposal are firm for 30 days.

This proposal is subject to Atlas Copco Compressors, Inc. Standard Conditions of Sale attached to this proposal.

Proposal submitted by:

Standard Conditions of Sale

GENERAL – Unless otherwise expressly agreed in writing by a duly authorized representative of Atlas Copco these terms and conditions supersede all other communications and agreements and notwithstanding any conflicting or different terms and conditions in any order or acceptance of Purchaser, all sales and shipments shall exclusively be governed by these terms and conditions. When used herein "affiliates" shall mean Atlas Copco AB and its wholly-owned subsidiaries. Section headings are for purposes of convenience only. "Products" as used herein shall include products, parts and accessories furnished by Atlas Copco. Orders shall be subject to acceptance at Atlas Copco's principal corporate offices in Holyoke, Massachusetts.

DELIVERY – Unless otherwise agreed in writing, Products manufactured, assembled or warehoused in the continental United States are delivered F.O.B. shipping point, and Products shipped from outside the continental United States are delivered F.O.B. point of entry. Where the scheduled delivery of Products is delayed by Purchaser or by reason of any of the contingencies referred to in Section 5. Atlas Copco may deliver such Products by moving it to storage for the account of and at the risk of Purchaser. Shipping dates are approximate and are based upon prompt receipt of all necessary information and approvals from Purchaser. Atlas Copco reserves the right to make delivery installments.

SECURITY AND RISK OF LOSS – Upon request from Atlas Copco, Purchaser agrees to execute a security agreement covering the Products sold or other assets and to perform all acts which may be necessary to perfect and assure a security position of Atlas Copco. Notwithstanding any agreement with respect to delivery terms or payment of transportation charges, the risk of loss or damage shall pass to Purchaser and delivery shall be deemed to be complete upon delivery to a private or common carrier or upon moving into storage, whichever occurs first, at the point of shipment for Products assembled, manufactured or warehoused in the continental United States or at the point of entry for Products shipped from outside the continental United States.

PAYMENT – If Purchaser fails to pay any invoice when due, Atlas Copco may defer deliveries under this or any other contract with Purchaser, except upon receipt of satisfactory security for or cash in payment of any such invoice.

A service charge of the lesser of 1% per month or the highest rate permitted by applicable law shall be charged on all overdue accounts. Failure on the part of Purchaser to pay invoices when due shall, at the option of Atlas Copco, constitute a default in addition to all other remedies Atlas Copco may have under these conditions of sale or applicable law. If, in the judgment of Atlas Copco, the financial condition of Purchaser at any time prior to delivery does not justify the terms of payment specified. Atlas Copco may require payment in advance or cancel any outstanding order, whereupon Atlas Copco shall be entitled to receive reasonable cancellation charges. If delivery is delayed by Purchaser, payment shall become due on the date Atlas Copco is prepared to make delivery. Should manufacture be delayed by Purchaser, pro rata payments shall become due if and to the extent required at Atlas Copco by its contracts with the manufacturer. All installment deliveries shall be separately invoiced and paid for without regard to subsequent deliveries. Delays in delivery or non-conformities in any installment shall not relieve Purchaser of its obligations to accept any pay for remaining installments.

FORCE MAJEURE – Atlas Copco shall not be liable for loss, damage, detention, or delay, nor be deemed to be in default from causes beyond its reasonable control or from fire, strike or other concerted action of workmen, act or omission of any governmental authority or of Purchaser, compliance with import or export regulations, insurrection or riot, embargo, delays or shortages in transportation, or inability to obtain necessary engineering talent, labor, materials, or manufacturing facilities from usual sources. In the event of delay due to any such cause, the date of delivery will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

NEW PRODUCT WARRANTY – Atlas Copco warrants to the Purchaser that all stationary compressors, portable compressors, compressed air dryers, Atlas Copco-designed compressor parts and other Products manufactured by Atlas Copco and affiliates shall be free of defects in design, material and workmanship for a period of fifteen (15) months from date of shipment to Purchaser, or twelve (12) months from date of initial start-up, whichever occurs first, except as set forth below or in the New Products Warranty attached hereto.

Should any failure to conform with this warranty appear prior to or after shipment of the Product to Purchaser during the specified periods under normal and proper use and provided the Product has been properly stored, installed, handled and maintained by the Purchaser, Atlas Copco shall, if given prompt notice by Purchaser, repair or replace, the non-conforming Product or authorize repair or replacement by the Purchaser at Atlas Copco's expense.

Replaced Products become the property of Atlas Copco.

Atlas Copco warrants Products or parts thereof repaired or replaced pursuant to the above warranty under normal and proper use, storage, handling, installation, and maintenance, against defects in design, workmanship and material for a period of thirty (30) days from date of start-up of such repaired or replaced Products or parts thereof or the expiration of the original Product warranty, whichever is longer.

When the nature of the defect is such that it is appropriate in the judgment of Atlas Copco to do so, repairs will be made at the site of the Product. Repair or replacement under applicable warranty shall be made at no charge for replacement parts, F.O.B. Atlas Copco Warehouse, warranty labor, serviceman transportation and living costs, when work is performed during normal working hours (8 a.m. to 4:30 p.m. Monday through Friday, exclusive of holidays). Labor performed at other times will be billed at the overtime rate then prevailing for services of Atlas Copco personnel.

The Atlas Copco warranty does not extend to Products not manufactured by Atlas Copco or affiliates. As to such Products, Purchaser shall be entitled to proceed only upon the terms of that particular manufacturer's warranty. The Atlas Copco warranty does not apply to defects in material provided by Purchaser or to design stipulated by Purchaser.

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Email: john.ruprecht@us.atlascopco.com

Used Products, Products not manufactured by Atlas Copco or affiliates and Products excluded from the above warranties are sold AS IS with no representation or warranty, and ALL WARRANTIES OF QUALITY, WRITTEN, ORAL, OR IMPLIED, other than may be expressly agreed to by Atlas Copco in writing, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE HEREBY DISCLAIMED.

Any services performed by Atlas Copco in connection with the sale, installation, servicing or repair of a Product are warranted to be performed in a workmanlike manner. If any nonconformity with this warranty appears within 45 days after the services are performed, the exclusive obligation of Atlas Copco shall be to re-perform the services the services in a conforming manner.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY, WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS ARE HEREBY DISCLAIMED. Correction of nonconformities as provided above shall be Purchaser's exclusive remedy and shall constitute fulfillment of all liabilities of Atlas Copco (including any liability for direct, indirect, special, incidental or consequential damage) whether in warranty, strict liability, contract, tort, negligence, or otherwise with respect to the quality of or any defect in Products or associated services delivered or performed hereunder.

LIMITATION OF LIABILITY – IN NO EVENT SHALL ATLAS COPCO BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, however arising, whether in warranty, strict liability, contract, tort, negligence or otherwise, including but not limited to loss of profits or revenue, loss of total or partial use of the Products or facilities or services, downtime cost, or claims of the Purchaser for such or other damages whether on account of Products furnished hereunder or delays in delivery thereof or services performed upon or with respect to such Products. Atlas Copco's liability on any claim whether in warranty, strict liability, contract, tort, negligence or otherwise for any loss or damage arising out of, connected with, or resulting from this contract or the performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, servicing, operation or use of any Product covered by or furnished under this contract shall in no case (except as provided in the section entitled "Patent Indemnity") exceed the purchase price allocable to the Product or Part thereof which gives rise to the claim.

All causes of action against Atlas Copco arising out of or relating to this contract or the performance hereof shall expire unless brought within one year of time of accrual thereof.

PRICES – Prices to the Purchaser shall be the Atlas Copco list price in effect at time of order. Atlas Copco may, upon thirty (30) days prior written notice to Purchaser, change prices, or other terms of sale affecting the Products, by issuing new price schedules, bulletins or other notices.

This contract applies to new Products only. Purchases of used equipment shall be on terms to be agreed upon at time of sale to Purchaser.

This price does not include any Federal, state or local property, license, privilege, sales, service use, excise, value added, gross receipts, or other like taxes which may now or hereafter be applicable to, measured by or imposed upon or with respect to this transaction, the property, its purchase, sale, replacement, value, or use, or any services performed in connection therewith. Purchaser agrees to pay or reimburse Atlas Copco, its subcontractors or suppliers any such taxes, which Atlas Copco, its subcontractors or suppliers are required to pay or collect or which are required to be withheld by Purchaser.

The price shall also be subject to adjustment in accordance with the published Price Adjustment Clauses, which price adjustment information shall supersede the terms of this Section 8, where inconsistent herewith.

INFORMATION FURNISHED PURCHASER – Any design, manufacturing drawings or other information or materials submitted to the Purchaser and not intended for dissemination by Purchaser remain the exclusive property of Atlas Copco and may not, without its consent, be copied or communicated to a third party.

PATENT INDEMNITY – For purposes only of this Section 10, where used, the designation "Atlas Copco" shall be deemed to mean Atlas Copco North America Inc. and its subsidiaries.

Atlas Copco shall at its own expense defend any suits or proceedings brought against purchaser insofar as based on an allegation that Products furnished hereunder constitute an infringement of any claim of any patent of the United States of America, other than a claim covering a process performed by said Products or a product produced by said Product, provided that such Products are manufactured by Atlas Copco, are not supplied according to Purchaser's detailed design, are used as sold by Atlas Copco. Purchaser shall have made all payments then due hereunder, and Atlas Copco is notified promptly in writing and given authority, information and assistance for the defense of said suit or proceeding; and Atlas Copco shall pay all damages and costs awarded in any suit or proceeding so defended, provided that his indemnity shall not extend to any infringement based upon the combination of said Products or any portion thereof with other Products or things not furnished hereunder unless Atlas Copco is a contributory infringer. Atlas Copco shall not be responsible for any settlement of such suit or proceeding made without its written consent. If in any suit or proceeding defended hereunder any Product is held to constitute infringement, and its use is enjoined, Atlas Copco shall, at its option and its own expense, either replace said Products with non-infringing Products; or modify them so that they become non-infringing; or remove them and refund the purchase price and the transportation costs thereof. THE FOREGOING STATES THE ENTIRE LIABILITY OF ATLAS COPCO AND AFFILIATES WITH RESPECT TO PATENT INFRINGEMENT.

To the extent that said Products or any portion thereof are supplied according to Purchaser's detailed design or instructions, or modified by Purchaser, or combined by Purchaser with equipment or things not furnished hereunder, except to the extent that Atlas Copco is a contributory infringer, or are used by Purchaser to perform a process, or produce a product, and by reason of said design, instructions, modification, combination, performance or production, a suit or proceeding is brought against Atlas Copco, Purchaser agrees to indemnify Atlas Copco in the manner and to the extent Atlas Copco indemnities Purchaser in this Section 10 insofar as the terms hereof are appropriate.

ASSIGNMENT – Any assignment of this contract or any rights hereunder, without prior written consent of Atlas Copco by a duly authorized representative thereof shall be void.

TERMINATION – Any order or contract may be cancelled by Purchaser only upon payment of reasonable charges (including an allowance for profit) based upon costs and expenses incurred, and commitments made by Atlas Copco.

PARTIAL INVALIDITY – If any provision herein or portion thereof shall for any reason be held invalid or unenforceable, such invalidity or enforceability shall not affect any other provision or portion thereof, but these conditions shall be construed as if such invalid or unenforceable provision or portion thereof had never been contained therein.



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Email: john.ruprecht@us.atlascopco.com

REMEDIES – The remedies expressly provided for in these conditions shall be in addition to any other remedies, which Atlas Copco may have under the Uniform Commercial Code or other applicable law.

NOTE: Sale of the equipment or services described or referred to herein at the price indicated is expressly conditioned upon the terms and conditions set forth on the front and back of this page. Any confirmatory action by the Purchaser hereunder, or any acceptance of such equipment or services, shall constitute assent to said terms and conditions. Any additional or different terms or conditions set forth in the Purchaser's order or other communications are objected to by Seller and shall not be effective or binding unless assented to in writing by an authorized representative of Seller.

PAYMENT TERMS

For orders under \$100,000 the payment terms shall be **Net 30 days** from date of shipment.

For orders over \$100,000 or with lead times greater than six months the following terms shall apply:

1. Domestic Shipments

- A. 10% of order value 30 Days from date of customer's purchase order or upon drawing approval.
- B. 30% of order value after passage of 1/3 of the time from date of customer's order to the originally scheduled shipment date.
- C. 30% of order value after passage of 2/3 of the time from date of customer's order to the originally scheduled shipment date.
- D. 30% of order value, net 30 days from date of shipment.

In those cases where progress payments are required, all work on the order will cease if payment is not received in accordance with the payment schedule.

2. Export Shipments

All export shipments are subject to purchaser arranging for an irrevocable letter of credit in favor of Atlas Copco Industrial Compressors Inc., from a recognized American bank.

Should the order fall in a category that requires progress payments, the letter of credit shall be arranged to release payment in accordance with the agreed payment schedule.

3. Payment Retention

Payment retention will not be allowed. An irrevocable bank letter of credit will be furnished at Atlas Copco's expense in lieu of retention.

4. Credit Approval

All terms are subject to credit approval by Atlas Copco Compressors Inc.

CANCELLATION SCHEDULE

Orders for Engineered Equipment

- A) Prior to release for manufacturing:
*10% of optional equipment or purchased materials will be charged (including special components including, but not limited to, motors, controls, etc.)
- B) After production has started:
*40% of optional equipment or purchased materials will be charged (including special components including, but not limited to, motors, controls, etc.)
*10% of base compressor price
- C) After production has been completed:
100% of optional equipment or purchased materials will be charged (including special components including, but not limited to, motors, controls, etc.)
*20% of compressor base price

Orders for Standard Equipment

- A) After production has started:
*10% of base compressor price



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- B) After production has been completed:
*20% of compressor price

PREVENTIVE MAINTENANCE PLAN

A Preventive Maintenance Plan's coverage includes: preventive maintenance labor and required parts and oil, spare parts available 24/7 from the Atlas Copco Service Center, access to a 24/7 emergency contact system, diagnostics – SPM (shock pulse monitoring) and temperature and data analysis, oil analysis and more. The yearly fixed cost a preventive maintenance plan provides your company, makes forecasting maintenance cost easier.



AirXtend

Coverage supplied through an AirXtend Service Plan includes: planned maintenance — all required parts and oil; breakdowns — access to a 24/7 emergency contact system; diagnostics – SPM (shock pulse monitoring) and temperature and data analysis; spare parts available 24/7 from the Atlas Copco Service Center; major overhauls; electric motors; preventive maintenance labor and parts; and much more. It is a complete maintenance system with fixed annual costs for an agreed number of years making it easy for customers to forecast maintenance costs.



CUSTOMER DETAILS

John Ruprecht	Quotation No.	JE000612
	Date	11/6/2009
	Ref. no.	
	Sales Contact:	Joe Everding
Tel :	Phone:	314 565 8773
Fax:	E-Mail	joe.everding@us.atlascopco.com
E-Mail :	Fax	

Service	Services Included
Service Plan	M Plan and Air Xtend Plan
Energy Audit	
Air Leakage Audit	
Air Connect	
Point of Use Air Management	
Air Optimizer	

Agreement Terms: The provision of services by Atlas Copco under this Agreement will be on the terms set out herewith.

Price : The annual price will be fixed (exclusive of tax) every 12 months. All prices will be adjusted no more than 5% per year.

Payment : Invoicing will be carried out prior to the first maintenance visit. Payment can be made in quarterly, semi-annual, or annual installments. Payment terms are net 30.

Termination: This agreement may be terminated before the expiration of the term by mutual agreement of the parties, and in writing with 30 days notice.

[illegible]

Unbalanced Notes/Special Requirements

Item	Activities	ZE2VSD ZE4VSD A visit 4000hrs	ZE2VSD ZE4VSD B visit 8000hrs	ZE2VSD ZE4VSD C visit 16000hrs
1	Take full set of S.P.M. readings	x	x	x
2	Check for air- water- & oil leakage	x	x	x
3	Check sensitive bolt/cpling connections	x	x	x
4	Check safety valve+switches	x	x	x
5	Check for presence of water in lube oil	x	x	x
6	Change compressor oil (ZR/ZT: 2y)			x
7	Change compressor oil filter	x	x	x
8	Check condition of air intake chamber	x	x	x
9	Check air filter element(s)			
10	Change air filter element(s)	x	x	x
11	Check filter elmt of gear case breather			
12	Replace filter elmt:gear case breather	x	x	x
13	Check cycle of air intake throttle valve	x	x	x
14	Replace diaphragm of air throttle valve	x	x	x
15	Replace bearing block(air intake valve)		x	x
16	Overhaul air intake valve			x
17	Replace blow-off silencer			x
18	Check functioning of check valve		x	
19	Overhaul check valve			x
20	Check condition:balance piston diaphragm	x		
21	Change balance piston diaphragm		x	x
22	Check/clean condensate drain(s)	x	x	x
23	Grease main drive motor bearings	x	x	x
24	Clean fan cowl of electric motor	x	x	x
25	Inspect fan of oil/aftercooler (ZE)	x	x	x
26	Overhaul fan motor:oil/aftercooler(ZE)			
27	Clean oil/aftercooler ext,as needed (ZE)	x	x	x
28	Check rubber inserts,drive coupl.(arr E)	x	x	
29	Replace inserts, drive coupling (arr E)			x
30	Check motor (coupling) alignment, arr.1	x	x	x
31	Check condition of drive gear teeth		x	x
32				

PROPOSAL FOR A PREVENTIVE MAINTENANCE PLAN

1. The Responsibilities and rights of the parties

- 1.1. The customer will ensure that:
 - 1.1.1. The routine maintenance of the equipment is carried out in accordance with Atlas Copco's instruction book;
 - 1.1.2. The equipment log book is filled in daily;
 - 1.1.3. At all times the equipment is kept in the environmental conditions recommended by Atlas Copco and the instructions relating to the operation of the equipment as advised by Atlas Copco from time to time are followed.
- 1.2. The Customer will confirm to Atlas Copco that the instruction manual for the equipment is in his possession.
- 1.3. Atlas Copco will contact the customer before the planned time for the visit. The customer will then ensure the equipment is available for inspection.
- 1.4. Maintenance and Inspection will be carried out during normal working hours, 8.00 am - 5.00 pm, Monday to Friday. If this is not practical, any extra cost incurred by Atlas Copco in carrying out maintenance or inspection outside normal working hours will be borne by the customer and invoiced separately.
- 1.5. If any major changes occur in the operating or site conditions of the equipment, this agreement shall become null and void. Major changes would normally involve re-location of the unit, change of coolant or power.
- 1.6. The customer shall inform Atlas Copco immediately in the event of: malfunctions such as abnormal noise, leakage or any other phenomenon that may result in premature failure of the equipment; malfunctions of the hour meter; a planned transfer of the equipment or changes in its environmental conditions.
- 1.7. The customer will give necessary assistance to Atlas Copco in the performance of its obligations under this agreement by providing lifting facilities, lighting and unrestricted access to the equipment at the agreed time. Any costs and/or expenses incurred by Atlas Copco as a result of access to the equipment or facilities being delayed from the agreed time will be borne by the customer and invoiced separately by Atlas Copco.

2. Services

- 2.1. The annual price includes travel, labor, and specified consumable parts to perform preventive maintenance except where under the terms of this agreement Atlas Copco is entitled to make an extra charge for these.
- 2.2. Any additional work arising as a result of the maintenance visit is not included under the contract.
- 2.3. Atlas Copco will provide the number of service visits indicated in the "Equipment Covered by the Agreement" section of the contract. Atlas Copco will inspect and maintain the equipment in accordance with Atlas Copco Maintenance Standards. After each visit a report on the condition of the equipment will be submitted to the customer by Atlas Copco.

3. Limitation and Termination

- 3.1. Atlas Copco shall not be obliged to inspect any equipment in the event of:
 - 3.1.1. Negligence by the customer of daily maintenance according to Clause 1.1;
 - 3.1.2. Any failure of the equipment caused by unforeseen circumstances including, but not limited to failure, interruption or out of specification provision of services to the equipment such as quality and/or quantity of cooling water, air, electrical power etc. accidental or willful damage to the equipment by the customer or a third party.
- 3.2. This agreement may be terminated before the expiry of the term by mutual agreement in writing of the parties.
- 3.3. Atlas Copco shall be entitled to terminate this agreement forthwith by notice in writing to the customer:
 - 3.3.1. In the circumstances referred to in Clauses 1.5 and 3.1;
 - 3.3.2. If the customer commits any continuing or material breach of any term of this agreement and in the case of such breach which is capable of remedy, fails to remedy the same within 30 days after receipt of a written notice to do so from Atlas Copco;
 - 3.3.3. If the customer goes into liquidation or makes any voluntary arrangement with its creditors or becomes subject to an administration order or an encumbrance takes possession of or a receiver is appointed over any of the property or assets of the customer;
 - 3.3.4. If the customer ceases or threatens to cease to carry on business.
- 3.4. Neither party shall be liable to the other party for any indirect, consequential, incidental, special, punitive or exemplary damages or loss, of any kind, including, without limitation, any loss of business, lost profits or interruption of services (even if such party has been advised of the possibility of such damages or such damages could have been reasonably foreseen by such party). The total liability of the parties under this Agreement after Customer's payment of the purchase price for the product(s)/service(s) shall be limited to the amount of such purchase price as the exclusive remedy of the non-breaching party.
- 3.5. Temporary hire of equipment is not included to cover equipment outages unless otherwise agreed in writing by Atlas Copco.

4. Force Majeure

- 4.1. The performance of any obligation under this contract shall be postponed during the period if any of the following reasons prevents totally or partially, the due performance of such obligation:
 - 4.1.1. Act of God, restriction in the use of power, storm, lock out, strike, fire, civil commotion or civil unrest, act of war, compliance with the regulation or order of any governmental authority or any other such reason beyond the control of the parties.

5. Guarantee

- 5.1. Atlas Copco's standard equipment warranty applies.

6. Breakdown Cover

- 6.1. Access to Atlas Copco call out system is provided as part of this agreement. Atlas Copco will respond to the customer call within 24 hours of the call reporting the breakdown. Call-out charges are not included in the agreement and will be charged on a labor, mileage, and materials basis.

7. Environmental Damages

- 7.1. The Environmental Management at any site on which Atlas Copco equipment is used is the responsibility of the Customer. In this regard Atlas Copco disclaims any responsibility for any infringement which occurs related to Acts, Rules or Regulations pertaining to environmental pollution aspects such as noise, atmospheric, water, sewer, dangerous goods, waste disposal etc.

8. Price Adjustments

- 8.1. The price in this contract is subject to renegotiation in the event of any change to the machine operational conditions as specified in the "Equipment Covered by the Agreement" schedule.
- 8.2. The price per 12 month period is based on an "Equipment Covered by the Agreement" schedule and is subject to adjustment by Atlas Copco on completion of each 12 months from the commencement date. The price may be adjusted annually for the following year. The price increase will not exceed 5%.

9. General

- 9.1. If any term of this agreement is held by any court or other competent authority to be void or unenforceable in whole or in part the other terms of this agreement and the remainder of the affected term shall continue to be valid.
- 9.2. Any notice to be given by either party to the other under this agreement may be delivered by hand or sent by first class post to the other party at the address for that party shown in this agreement. Any notice delivered by hand shall be deemed to have been served on delivery and any notice sent by post shall be deemed to have been served within 48 hours after posting.
- 9.3. Any waiver by Atlas Copco of a breach of any terms of this agreement by the customer shall not be considered as a waiver of any subsequent breach of the same term or any other term.

PROPOSAL FOR AirXtend

10. The Responsibilities and rights of the parties

- 10.1. The customer will ensure that:
 - 10.1.1. The routine maintenance of the equipment is carried out in accordance with Atlas Copco's instruction book;
 - 10.1.2. The equipment log book is filled in daily;
 - 10.1.3. At all times the equipment is kept in the environmental conditions recommended by Atlas Copco and the instructions relating to the operation of the equipment as advised by Atlas Copco from time to time are followed.
- 10.2. The Customer will confirm to Atlas Copco that the instruction manual for the equipment is in his possession.
- 10.3. Atlas Copco will contact the customer before the planned time for the visit. The customer will then ensure the equipment is available for inspection.
- 10.4. Maintenance and Inspection will be carried out during normal working hours, 8.00 am - 5.00 pm, Monday to Friday. If this is not practical, any extra cost incurred by Atlas Copco in carrying out maintenance or inspection outside normal working hours will be borne by the customer and invoiced separately.
- 10.5. If any major changes occur in the operating or site conditions of the equipment, this agreement shall become null and void. Major changes would normally involve re-location of the unit, change of coolant or power.
- 10.6. The customer shall inform Atlas Copco immediately in the event of: malfunctions such as abnormal noise, leakage or any other phenomenon that may result in premature failure of the equipment; malfunctions of the hour meter; a planned transfer of the equipment or changes in its environmental conditions.
- 10.7. The customer will give necessary assistance to Atlas Copco in the performance of its obligations under this agreement by providing lifting facilities, lighting and unrestricted access to the equipment at the agreed time. Any costs and/or expenses incurred by Atlas Copco as a result of access to the equipment or facilities being delayed from the agreed time will be borne by the customer and invoiced separately by Atlas Copco.

11. Services

- 11.1. Atlas Copco will provide all spare parts, consumables, labor, and travel deemed applicable to the items and services described in the "Activities" schedule for each service visit except where under the terms of this agreement Atlas Copco is entitled to make an extra charge for these.
- 11.2. Routine maintenance of the equipment as necessary, repair of any defect or malfunction of the equipment discovered during routine maintenance checks or reported by the customer to Atlas Copco.
- 11.3. Atlas Copco will provide the number of service visits indicated in the "Equipment Covered by the Agreement" section of the contract. Atlas Copco will inspect and maintain the equipment in accordance with Atlas Copco Maintenance Standards. After each visit a report on the condition of the equipment will be submitted to the customer by Atlas Copco.

12. Limitation and Termination

- 12.1. Atlas Copco shall not be obliged to inspect any equipment in the event of:
 - 12.1.1. Negligence by the customer of daily maintenance according to Clause 1.1;
 - 12.1.2. Any failure of the equipment caused by unforeseen circumstances including, but not limited to failure, interruption or out of specification provision of services to the equipment such as quality and/or quantity of cooling water, air, electrical power etc. accidental or willful damage to the equipment by the customer or a third party.
- 12.2. This agreement may be terminated before the expiry of the term by mutual agreement in writing of the parties.
- 12.3. Atlas Copco shall be entitled to terminate this agreement forthwith by notice in writing to the customer:
 - 12.3.1. In the circumstances referred to in Clauses 1.5 and 3.1;
 - 12.3.2. If the customer commits any continuing or material breach of any term of this agreement and in the case of such breach which is capable of remedy, fails to remedy the same within 30 days after receipt of a written notice to do so from Atlas Copco;
 - 12.3.3. If the customer goes into liquidation or makes any voluntary arrangement with its creditors or becomes subject to an administration order or an emburcance takes possession of or a receiver is appointed over any of the property or assets of the customer;
 - 12.3.4. If the customer ceases or threatens to cease to carry on business.
- 12.4. Neither party shall be liable to the other party for any indirect, consequential, incidental, special, punitive or exemplary damages or loss, of any kind, including, without limitation, any loss of business, lost profits or interruption of services (even if such party has been advised of the possibility of such damages or such damages could have been reasonably foreseen by such party). The total liability of the parties under this Agreement after Customer's payment of the purchase price for the product(s)/service(s) shall be limited to the amount of such purchase price as the exclusive remedy of the non-breaching party.
- 12.5. Temporary hire of equipment is not included to cover equipment outages unless otherwise agreed in writing by Atlas Copco.
- 12.6. AirXtend is only available on new equipment and it provides coverage during the equipment's first five years. AirXtend contracts cannot be renewed. When the AirXtend contract expires a preventive maintenance or total responsibility service contract may be available.

13. Force Majeure

- 13.1. The performance of any obligation under this contract shall be postponed during the period if any of the following reasons prevents totally or partially, the due performance of such obligation:
 - 13.1.1. Act of God, restriction in the use of power, storm, lock out, strike, fire, civil commotion or civil unrest, act of war, compliance with the regulation or order of any governmental authority or any other such reason beyond the control of the parties.

14. Guarantee

- 14.1. Atlas Copco's standard equipment warranty applies.

15. Breakdown Cover

- 15.1. The repair of unexpected failures influencing the function of the equipment are within the services supplied under this agreement at no extra charge for the costs of labor and the spare parts required to restore the function of the machine. In the event of such unexpected failures Atlas Copco (or its appointed agents) will begin service or diagnosis of the fault within 24 hrs of the breakdown being reported to the appropriate Atlas Copco Service Department. This commitment includes Saturdays, Sundays and all Public Holidays.

16. Environmental Damages

- 16.1. The Environmental Management at any site on which Atlas Copco equipment is used is the responsibility of the Customer. In this regard Atlas Copco disclaims any responsibility for any infringement which occurs related to Acts, Rules or Regulations pertaining to environmental pollution aspects such as noise, atmospheric, water, sewer, dangerous goods, waste disposal etc.

17. Price Adjustments

- 17.1. The price in this contract is subject to renegotiation in the event of any change to the machine operational conditions as specified in the "Equipment Covered by the Agreement" schedule.
- 17.2. The price per 12 month period is based on an "Equipment Covered by the Agreement" schedule and is subject to adjustment by Atlas Copco on completion of each 12 months from the commencement date. The price may be adjusted annually for the following year. The price increase will not exceed 5%.

18. General

- 18.1. If any term of this agreement is held by any court or other competent authority to be void or unenforceable in whole or in part the other terms of this agreement and the remainder of the affected term shall continue to be valid.



- 18.2. Any notice to be given by either party to the other under this agreement may be delivered by hand or sent by first class post to the other party at the address for that party shown in this agreement. Any notice delivered by hand shall be deemed to have been served on delivery and any notice sent by post shall be deemed to have been served within 48 hours after posting.
- 18.3. Any waiver by Atlas Copco of a breach of any terms of this agreement by the customer shall not be considered as a waiver of any subsequent breach of the same term or any other term.

Signed for and on behalf of Atlas Copco:

Signed for and on behalf of the customer:

Quote Number: JE000612

Quote Amount:

Signature:

Signature:

Name: John Ruprecht

Name: Joe Everding

Position:

Position:

Date: 11/6/2009

Date: 11/6/2009

Rubber Stamp:

Rubber Stamp:

PO Number:





STORAGE AND SHIPPING INSTRUCTIONS FOR Z-COMPRESSORS, STAGES & ELEMENTS

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1 INTRODUCTION

This service bulletin explains how to take care of equipment in storage and/or in transit. These instructions apply during the entire period of storage, up to the point of delivery to the end user. The present information relates to the Z-range of Oil-free compressors. It also relates to the relevant compressor elements or stages delivered as spare parts.

2 SHIPPING PRECAUTIONS, EX FACTORY

Special procedures are followed in Airpower when packaging equipment. Their aim is to prevent corrosion during shipment. These procedures apply to all compressor units and compressor stages.

2.1 COMPRESSOR UNITS

All compressor units are test-run with Roto-Z oil, a film of which remains behind on shafts, gears and bearings.

Five silica gel bags, tied together, are placed inside the housing of the intercooler water separator of ZR compressors. The purpose of this is to absorb any traces of moisture. These compartments are closed off airtight using the original flange of the machine.

Note: one of the strings of the bags is made to stick out of the flange and a sticker is glued to the flange in order to draw your attention to the presence of the silica gel bags.

The cast-iron cooling jackets of water-cooled units and stages are chemically flushed and dried.

All drainplugs are removed from cooler and elements and collected in a bag. This bag is delivered together with the unit.

The vent holes are closed off with moisture repellent adhesive tape.

Unpainted surfaces are covered with a layer of highly adhesive grease.

Gauges, switches and other instruments, not built into a cubicle or cabinet, are covered externally with a protective layer of wax.

Panel doors (except for the cubicle door) are secured with a locking plate on one of the hinges and a clamp on the bottom frame.

The complete compressor unit is enclosed in a plastic cover and placed on a pallet or in a crate. Lifting marks are painted on the crates.



2.2 STAGES

ZR compressor stages are test-run using Roto-Z oil. A protective oil film remains behind on the drive components.

The timing gears of the stages are covered with a layer of highly adhesive grease.

The internal cooling jackets of the water-cooled stages are chemically flushed and dried.

Air inlet chambers are provided with pleated VCI-paper (Volatile Corrosion Inhibitor) or silica gel bags and closed-off with moisture repellent adhesive tape.

All oil inlet- and vent orifices and the cooling medium in- and outlets are closed off with a plastic plug, a cap, or water repellent adhesive tape.

Drain plugs are removed and delivered loose with the element to avoid freezing of the element jackets.

The drive shaft and the outer surface of the bearings at the drive side are covered with highly adhesive grease and wrapped with moisture repellent paper held in place with adhesive tape.

A protective coating of grease is applied to all threaded holes.

The flange which mates the compressor gear case is covered with adhesive masking tape.

Compressor stages are placed in containers fitted with special supports designed to keep the contents in place.

Once implemented, these precautions will protect the compressor stage for a period of at least one year. The precautions remain valid providing there has been no rough handling during transport, and that the equipment has not been subjected to unfavourable ambient conditions (excessive humidity, heat or cold).

It is imperative to inspect each compressor, stage, or element immediately upon arrival. Check the shipping documents to determine how long the unit has been underway since leaving Atlas Copco Airpower.

3 INSPECTION AFTER SHIPMENT

Always inspect the equipment immediately after shipment. Verify the mode of transport as well as the length of time that the equipment has been underway. The purpose of such an interim inspection is to ensure that the equipment will reach its final destination in perfect condition.

Never forward a compressor unit or stage to a customer without first having inspected it properly.

A brief inspection entails checking the crate or container for damage. Check that no moisture has penetrated the packaging material and that the contents have not moved inside the box or container.

If you encounter transport damage, submit a damage claim immediately - directly with the carrier. Also send a copy of the damage claim report to Atlas Copco Airpower, Supply Department. Do this without delay.

3.1 INSPECTING COMPRESSOR UNITS

1. Dismount the top part and the sides of the crate. Take the plastic cover off the unit.
2. Loosen the clamps securing the doors to the frame. Open the doors and check the equipment inside:
 - Check that the air inlet opening in the roof is still covered up.
 - Check that loose components, e.g. air outlet and drain valves, are still properly wrapped and secured to the bottom of the motor compartment.
 - Check that all vent holes are still plugged with plastic caps or closed-off with adhesive tape.
 - Check that any unpainted surfaces are still covered with a layer of highly adhesive grease.
 - Check that the moisture repellent adhesive tape is still covering the air compartments containing the silica gel bags. If the tape has become undone, even partially, the silica gel bags are to be replaced. Re-order the silica gel bags using part number 1619 2625 00. Insert new silica gel bags and close off the compartment(s) with new moisture repellent adhesive tape.
 - Note the location of the silica gel bags and adhesive tape: in the intercooler moisture drain compartment in ZR units.
3. Turn the drive shaft, dummy bush or pinion, several turns by hand.
4. Rectify any possible fault conditions that you may find and proceed as per section 4.1 or section 4.2.

3.2 GENERAL COMMENTS

- Procedure for touching up body work: First sand the spot slightly, next apply "Levis" cement paint. Spray the paint from a minimum distance of 40 cm. Contact your local Levis supplier to source matching paint and colour.
- Regenerating silica gel bags: This can be done quite easily. Silica gel bags that have not been stored airtight must be regenerated before use. Dry them out in an oven at a

temperature of approx. 100°C (212°F) for 1 hour. Spread the bags out on an open grating. Do not stack the bags or let them touch. During the drying process be sure that the moisture being released is also vented from the oven. Silica gel bags retrieved from ZR units after transport may also be regenerated and subsequently re-used.

4 PRECAUTIONS BEFORE STORAGE

4.1 COMPRESSOR UNITS EX FACTORY

1. Important: carry out storage maintenance on any equipment that has been in shipment for close to a year, and which is due for further storage (or transport).

➤ **Renewing the silica gel bags**

- Remove the plate and take the silica gel bags out of the relevant air compartments. Note down the number of bags fitted.
- Location of the silica gel bags: intercooler moisture drain compartment of ZR units.

➤ **Renewing the preservative oil-film**

- ZR units are normally delivered ex factory with Roto-Z oil as first fill. This oil also has preservative qualities. The duration of the protective period is 6 months. Using Roto-Z precludes the need for separate oil circulation procedures. On units, filled with Roto-Z oil ex factory, turn the main drive coupling by hand during a few minutes in order to re-distribute the oil film on bearings balls, rollers and drive gears. Repeat this procedure once every six months.
- When the unit does not contain oil, the following instructions apply:
- Set up an oil circulation pump with a capacity of approx. 15 l/min. (4 US gallons) and an effective working pressure of 1.5 to 2.5 bar (20 to 36 psi). Connect the pump to the compressor lubricating system, as shown in Fig. 1.
- Fill up the compressor sump with 80 l (21 US gallons) of Roto-Z oil.
- Circulate the oil throughout the compressor for approximately 15 minutes. Meanwhile, turn the compressor coupling over hand, once every two or three minutes.



4.2 COMPRESSOR UNITS STORED AFTER OPERATION

If the unit will not be started again for a period of:

Several hours to several days

Several months to 6 months

► Several hours to several days

- Open or purge manual drains of intercooler and aftercooler drain receivers or EWDs, LOADED just before stopping.
- Check if drain pipes are free from water. Close the valves after the condensate is drained.
- If frost can be expected, drain the cooling system carefully.

► Several months to 6 months

- Proceed as under 4.2.1
- Close off compressor air intake and compressor element ventholes.
- Close air outlet valve.
- Place 5 Silaca gel bags in the intercooler and aftercooler moisture drain compartment. It is best to immobilise the bags, e.g. by tying them together and then tying one string to a flange hole. Note: Use care to close off the opening really airtight, using moisture repellent adhesive tape. Moisture present in the intercooler/aftercooler compartment during storage will be detrimental to the condition of the compressor stages.
- Drain the condensate which may have collected in the bleed off cooler (if present).
- Put the correct number of VCI-plates (Volatile Corrosion Inhibitor) in the canopy and 1 plate in the cubicle. (1 VCI plate/1000L volume, part number VCI-plate 1614 8905 00)
- Close the doors of the unit. Cover the roof with plastic sheeting to reach down just over the doors.
- ZR and ZT units are normally delivered ex factory with Roto-Z oil as first fill. This oil also has preservative qualities. The duration of the protective period is 6 months. Using Roto-Z precludes the need for separate oil circulation procedures. On units, filled with Roto-Z oil turn the drive coupling a few turns by hand in correct rotation direction at least once a week, to change the position of balls and rollers in the bearings and redistribute the oil-film.
- Store the unit in a clean, dry, well ventilated warehouse. Stand the unit upright in its crate or on the pallet. Be sure there is no source of vibrations nearby e.g: vibrations



coming up through the floor can have a detrimental effect on the bearings long-term.

- Put a warning label on the start cubicle, indicating to remove Silica gel bags, open compressor air intake and compressor element ventholes.
- The compressor unit is now ready for storage for maximum 6 months. The storage period remains valid provided that the ambient conditions remain normal (meaning no excesses of heat, cold or high humidity). If the unit is to be stored for a period longer than 6 months then repeat the storage maintenance procedures once every subsequent 6 months.
- Follow installation checklist before starting.

Remark: if the unit is stored for more than one year a service plan type C should be carried out before starting the machine again.

4.3 COMPRESSOR STAGES

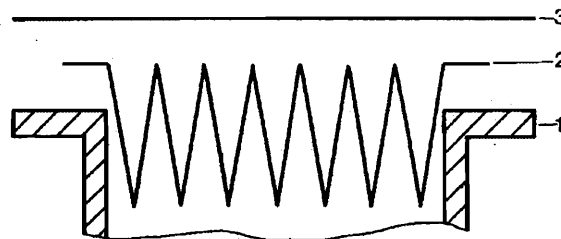
Compressor stages are occasionally held in transit for periods of up to one year or more. In such cases, carry out the following storage maintenance before putting the equipment into (further) storage:

Renew the pleated VCI-paper (Volatile Corrosion Inhibitor) in the air inlet chamber. Renew the oil film on the bearings and timing gears and the protective grease on the drive shaft.

The requisite procedures for this storage maintenance are as follows:

1. Remove the tape from the in- and outlet flanges. The VCI-paper should still be attached to the tape when it is being pulled off. If the paper has come loose remove it separately taking care that no pieces stay behind in the rotor chamber.
2. Position the shaft of the stage with the oil injection orifice on top. The orifice is located next to the flange of the timing gear cover. Take the plastic plug out of the orifice and insert a suitable funnel.
3. Rotate the drive shaft while pouring a nominated quantity of Roto Z oil into the oil inlet connection of the element (note: do not - ever pour oil into the compressor chambers):
 - Nominated quantities of oil:
 - ZR stages 3 to 6: 1 litre (0.26 US gal).
 - Perform this operation at an ambient temperature of minimum 20°C (68°F).
4. Having poured in the oil, continue to rotate the drive shaft for another 3 minutes.

5. Position the stage, or element, with the lubricating drain orifice facing the bottom. Place a sufficiently large container under the drain orifice.
6. Take the plastic plug or cap out of the drain orifice and rotate the drive shaft. Let the excess oil drain into the container.
7. When all excess oil has been drained clean the lubricating inlet- and drain orifices with a degreasing solvent. Close off both orifices with a plastic plug or cap.
8. Position the stage or element with the drive end pointing upwards. Spray an ample supply of Roto-Z oil into each of the ball bearings. Use a spray can. Let the oil seep downwards onto the roller bearings underneath. Rotate the drive shaft at regular intervals.
9. Cover the drive shaft and bearings with a layer of highly adhesive grease. Cover up these parts with grease-proof paper. Secure the wrapping using adhesive tape.
10. Close-off the air outlet orifice thoroughly using water repellent adhesive tape.
11. Fold a strip of VCI-paper (Volatile Corrosion Inhibitor) in pleats. Insert it in the air inlet chamber with its edges folded halfway over the flange, see Fig. 2.
12. Cover the air inlet flange, and the edges of the VCI-paper, with water repellent adhesive tape.



1. Air inlet flange
2. VCI-paper (Volatile corrosion inhibitor)
3. Airtight, water repellent adhesive tape

Fig. 2. Corrosion protection at air inlet flange

13. Check that the adhesive tape - covering the flange to be fitted to the gear case - is still firmly in place. Replace the tape if necessary.
14. Apply a layer of protective grease to all threaded holes.
15. Place the stage or element in its original container. Close the lid of the container using nails or screws. If the container is to be stored for an undetermined period of time, cover the element or stage in plastic sheeting, including a strip of VCI-paper (Volatile corrosion inhibitor) attached to the element or stage with adhesive tape.



16. Store the container in a dry, well ventilated warehouse. This preservative storage maintenance is valid for a period of maximum 18 months (36 months if wrapped in VCI-paper). At the end of this period re-inspect and renew the preservative storage maintenance procedures.

5 INSTRUCTIONS FOR EQUIPMENT IN TRANSIT

5.1 COMPRESSOR UNITS

The following instructions apply to equipment which has been inspected upon arrival, and which is due for further transport to the end-user site. The purpose of these procedures is to ensure continued protection against corrosion or other damage.

These instructions also apply to units which (in exceptional cases) are to be returned to Atlas Copco Airpower.

- Verify that the cooling system has been properly drained and blown dry.
- Inspect the unit as per section 3.1 above. Dismount the blind flange, cover with moisture trap, or elbow as indicated under item 2 of section 2.1.
- Place the dismounted part in a safe place inside the unit. Wherever it may prove useful, e.g. in the case of the moisture trap, wrap the part in VCI-paper (Volatile Corrosion Inhibitor) secured with adhesive tape.
- Carry out the storage instructions as per section 3.1 and, where applicable, refit the gratings to the coupling housing.
- Secure the doors to the base frame using the clamps provided.
- Place the original plastic cover over the unit, or cover it up with plastic sheeting secured with adhesive tape. Be sure that the roof and all side panels are fully covered.
- Place the unit in its original crate. Failing this, construct a wooden crate strong and safe enough to withstand routine handling by fork lift or slings and crane.
- Apply the shipping data to the crate, using indelible ink. Apply the markings on both sides. If the original crate is used delete the old markings.
- Where applicable be sure to include the requisite customs- and transport documents, for shipment with the unit.



5.2 STAGES

The following instructions apply to stages which have been inspected upon arrival (as per section 2.2) and have been prepared for storage (as per section 3.2 or 3.3).

As soon as the top cover of the container (or crate) has been nailed or screwed down, the stage is ready for shipment.

Instructions for storage maintenance are also to be implemented for all stages and elements being returned to Atlas Copco Airpower. Important: The water jacket of a stage must always be fully drained and blown dry, before plugging the in- and outlet orifices.

Stages originating from break-downs should not be treated with oil or grease as this would obstruct the subsequent investigations to be carried out by the AIF Service Department in Airpower. The water jackets however must be blown dry and all orifices plugged or closed off with adhesive tape. The stage or element is to be wrapped in V.C.I.-paper and packed airtight in its container. If anti-corrosive V.C.I.-paper is not available then include several bags of dry silica gel with the stage or element and pack these airtight using plastic sheeting or similar.

David Hibbs

From: Kaczmarek, Jeffrey [Jeff_Kaczmarek@irco.com]
Sent: Saturday, September 26, 2009 8:36 PM
To: William J. Mullinix
Subject: Ingersoll Rand Proposal
Attachments: Barr Engineering Hibbon Blowers Proposal 9.28.09.doc; Barr Engineering Oil Free Sytsem (1-51L9PO).doc

Follow Up Flag: Follow up
Flag Status: Flagged

Dear William:

Here are the proposals that you have requested. I have included rotary screw compressors option and a rotary screw blowers for you review

If you have any questions or concerns. Please call me at 586-383-0188

Regards,

Jeff Kaczmarek
System Engineer
Detroit Customer Center
Ingersoll Rand Industrial Technologies
13551 Merriman Road
Livonia, MI, 48150

Office 734-525-6030
Mobile 586-383-0188
Fax 734-525-6036
Email: jeff_kaczmarek@irco.com
Website: www.ingersollrand.com



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DEPARTMENTAL REPORTS

				BUILDING DEPARTMENT MONTHLY REPORT - APRIL, 2010								
Permit Type	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Building	60	35	76	86								
	\$ 9,412	\$ 8,480	\$ 11,744	\$12,686								
Electrical	19	19	35	28								
	\$ 1,440	\$ 1,680	\$ 2,355	\$ 2,610								
Mechanical	43	41	50	45								
	\$ 2,775	\$ 2,665	\$ 3,090	\$ 2,866								
Plumbing	34	41	43	32								
	\$ 1,875	\$ 2,745	\$ 2,595	\$ 2,430								
ZONING	0	0	7	21								
	\$ -	\$ -	\$ 315	\$ 990								
Sub Totals	156	136	211	212								
	\$15,502	\$15,570	\$ 20,099	\$21,582								
TOTAL YTD 2009				\$72,753								
PERMIT TYPE	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Building	25	48	68	78								
	\$15,046	\$16,548	\$ 14,999	\$10,672								
Electrical	17	30	36	23								
	\$1,485	\$ 2,490	\$ 2,580	\$1,710								
Mechanical	29	41	56	43								
	\$1,835	\$ 2,960	\$ 4,020	\$2,720								
Plumbing	25	25	34	14								
	\$2,010	\$ 1,440	\$ 2,700	\$1,125								
ZONING	1	0	9	13								
	\$ 45	\$ -	\$ 405	\$585								
Sub Totals	100	144	203	171								
	\$20,736	\$23,438	\$ 24,704	\$16,812								
TOTAL YTD				\$85,690								
INSPECTIONS	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Total 2010	292	220	361	366								
Total 2009	323	315	340	337								
Total 2008	460	352	326	432								
Total 2007	419	363	395	511								
Total 2006	595	449	638	628								
RENTAL INSPS	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Total 2010	214	170	139	216								
Total 2009	(Began tracking separate rental inspection totals Oct, 2009)											

DOMESTIC VIOLENCE PROSECUTION REPORT
APRIL 2010

To: Township of Ypsilanti Board of Trustees

From: McLain & Winters, Attorneys for the Charter Township of Ypsilanti

Date: May 11, 2010

Dear Board Members:

The following represents the Township Prosecuting Attorney's report regarding domestic violence activity for the month of April 2010:

	April 2010	Year to Date (2010)	Statistics for 2009	Statistics Since 10/1999
Cases Submitted	20	78	222	2749
Cases Authorized	7	26	58	1148
Cases Denied	13	50	143	604
Cases Furthered	0	1	16	179
Cases Sent to the County	1	2	5	59
Defendant FTA-BW Requested	4	10	32	176
Pre-Trials Held	7	32	82	1482
Motions	0	1	9	24
Convictions-Total	3	9	31	783
Convictions-By Plea	2	8	22	---
Convictions-By Trial	1	4	9	---
Acquittals	0	0	5	68
All Dismissals	1	15	40	395
Cases Reauthorized	0	3	7	160
Cases Not Reauthorized	1	12	34	182
Deferrals Considered	0	7	27	383
Conviction Rate*	100%	100%	86%	92%

* Based upon all cases taken to a conclusion

Respectfully Submitted,

McLain & Winters

YPSILANTI TOWNSHIP FIRE DEPARTMENT

MONTHLY REPORT

APRIL 2010

Fire Department staffing levels are as follows:

1 Fire Chief	1 Fire Marshal	3 Shift Captains
3 Shift Lieutenants	27 Fire Fighters	1 Clerk III/Staff Support

All fire department response personnel are licensed as emergency medical technicians by the State of Michigan Public Health. One (1) fire fighter was placed on active duty with the United States Navy in January 2009 and is still on leave without pay.

During the month of April, the fire department responded to 322 requests for assistance. Of those requests, 212 were medical emergency service calls with the remaining 110 incidents classified as non-medical and or fire related.

Departmental Activities for the month of April 2010:

1. The Public Education Department held the following events:
 - a. Kaiser Elementary truck demonstration
 - b. Holmes Elementary truck demonstration
 - c. Ypsilanti Township Recreation Center daycare fire education
2. Infant car seat fitting open to public
3. Fire fighters attended four (4) neighborhood watch meetings
4. Fire fighters received training in the following areas:
 - a. TRT training
 - b. Washtenaw County Hazmat training
 - c. Total Fitness Strength Testing & training

There were no injuries and no deaths reported this month for civilians.

There was one (1) injury and no deaths reported this month for fire fighters.

1. On April 14, 2010, we responded to a structure fire at 2155 Midvale. A fire fighter fell on scene and injured his right wrist. He is currently on disability leave.

This month the total fire loss including vehicle fires is estimated at ***\$133,100***. All occurred at the following locations:

DATE OF LOSS	ADDRESS	ESTIMATED LOSS
1) 4/2/10	254 S. Wallace	\$15,000
2) 4/3/10	5635 Big Pine	\$500
3) 4/4/10	6988 McKean Rd #27	\$600
4) 4/14/10	2155 Midvale	\$100,000
5) 4/14/10	2125 Midvale	\$5,000 (exposure)

Monthly Fire Report – April 2010
Page 2

6)	4/14/10	2155 Midvale	\$8,000 (vehicle exposure)
7)	4/17/10	1183 Fall River	\$4,000 (vehicle fire)
8)	4/18/10	271 Stevens	\$0
9)	4/21/10	2930 Washtenaw	\$0
10)	4/25/10	1471 Blossom	\$0
11)	4/30/10	Eastbound I-94	\$0 (vehicle fire)

Respectfully submitted by,

Cheryl Lynn-Bruestle, Clerk
Charter Township of Ypsilanti Fire Department

Attachment: Fire House Incident Type Report (Summary) 4/1/10 to 4/30/10

Ypsilanti Township Fire Department

Incident Type Report (Summary)

Alarm Date Between {04/01/10} And {04/30/10}

Incident Type	Count	Pct of Incidents	Total Est Loss	Pct of Losses
1 Fire				
111 Building fire	8	2.48%	\$120,600	90.60%
113 Cooking fire, confined to container	2	0.62%	\$500	0.37%
131 Passenger vehicle fire	3	0.93%	\$12,000	9.01%
132 Road freight or transport vehicle fire	1	0.31%	\$0	0.00%
141 Forest, woods or wildland fire	1	0.31%	\$0	0.00%
143 Grass fire	2	0.62%	\$0	0.00%
150 Outside rubbish fire, Other	2	0.62%	\$0	0.00%
151 Outside rubbish, trash or waste fire	1	0.31%	\$0	0.00%
154 Dumpster or other outside trash receptacle fire	2	0.62%	\$0	0.00%
	22	6.83%	\$133,100	100.00%
3 Rescue & Emergency Medical Service Incident				
300 Rescue, EMS incident, other	5	1.55%	\$0	0.00%
311 Medical assist, assist EMS crew	20	6.21%	\$0	0.00%
321 EMS call, excluding vehicle accident with injury	68	52.17%	\$0	0.00%
322 Motor vehicle accident with injuries	6	1.86%	\$0	0.00%
323 Motor vehicle/pedestrian accident (MV Ped)	2	0.62%	\$0	0.00%
324 Motor Vehicle Accident with no injuries	3	0.93%	\$0	0.00%
352 Extrication of victim(s) from vehicle	2	0.62%	\$0	0.00%
381 Rescue or EMS standby	6	1.86%	\$0	0.00%
	212	65.84%	\$0	0.00%
4 Hazardous Condition (No Fire)				
400 Hazardous condition, Other	1	0.31%	\$0	0.00%
412 Gas leak (natural gas or LPG)	2	0.62%	\$0	0.00%
421 Chemical hazard (no spill or leak)	1	0.31%	\$0	0.00%
422 Chemical spill or leak	3	0.93%	\$0	0.00%
440 Electrical wiring/equipment problem, Other	1	0.31%	\$0	0.00%
443 Breakdown of light ballast	2	0.62%	\$0	0.00%
444 Power line down	2	0.62%	\$0	0.00%
445 Arcing, shorted electrical equipment	2	0.62%	\$0	0.00%
	14	4.35%	\$0	0.00%
5 Service Call				
510 Person in distress, Other	1	0.31%	\$0	0.00%
531 Smoke or odor removal	4	1.24%	\$0	0.00%
550 Public service assistance, Other	1	0.31%	\$0	0.00%
553 Public service	1	0.31%	\$0	0.00%
561 Unauthorized burning	6	1.86%	\$0	0.00%

Ypsilanti Township Fire Department

Incident Type Report (Summary)

Alarm Date Between {04/01/10} And {04/30/10}

Incident Type	Count	Pct of Incidents	Total Est Loss	Pct of Losses
	13	4.04%	\$0	0.00%
6 Good Intent Call				
600 Good intent call, Other	3	0.93%	\$0	0.00%
611 Dispatched & cancelled en route	26	8.07%	\$0	0.00%
621 Wrong location	1	0.31%	\$0	0.00%
622 No Incident found on arrival at dispatch address	8	2.48%	\$0	0.00%
631 Authorized controlled burning	1	0.31%	\$0	0.00%
	39	12.11%	\$0	0.00%
7 False Alarm & False Call				
700 False alarm or false call, Other	6	1.86%	\$0	0.00%
710 Malicious, mischievous false call, Other	1	0.31%	\$0	0.00%
714 Central station, malicious false alarm	1	0.31%	\$0	0.00%
730 System malfunction, Other	1	0.31%	\$0	0.00%
733 Smoke detector activation due to malfunction	1	0.31%	\$0	0.00%
735 Alarm system sounded due to malfunction	1	0.31%	\$0	0.00%
736 CO detector activation due to malfunction	2	0.62%	\$0	0.00%
743 Smoke detector activation, no fire - unintentional	5	1.55%	\$0	0.00%
744 Detector activation, no fire - unintentional	1	0.31%	\$0	0.00%
745 Alarm system activation, no fire - unintentional	2	0.62%	\$0	0.00%
	21	6.52%	\$0	0.00%
9 Special Incident Type				
911 Citizen complaint	1	0.31%	\$0	0.00%
	1	0.31%	\$0	0.00%

Total Incident Count: 322

Total Est Loss:

\$133,100

CHARTER TOWNSHIP OF YPSILANTI

GREEN OAKS GOLF COURSE

MAINTENANCE DEPARTMENT

REPORT FOR THE MONTH OF APRIL, 2010

The month of April started with the weather gradually warming and the grass starting to green up.

We have held off hiring the bulk of the employees until the end of April. Bob Edwards and I have been able to do all of the early season set up and cleaning of the course.

We placed fairway and tee markers back on the course.

**We have mowed all the fairways, tees, greens and most of the rough.
We have cleaned the leaves and debris from the clubhouse area.**

THE REPAIRS WERE AS FOLLOWS:

**Greens mower/ repaired pedal
Rough mower/ repaired the deck
Grounds master/replaced belt
Tee mower/replaced hydraulic hose**

The pump house and irrigation system were all turned back on with no broken lines.

We had several heads plugged up that needed to be replaced and cleaned.

**Thank you
Tim Smith
Superintendent**

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE



**Office of Community
Standards**

7200 S. Huron River
Drive
Ypsilanti, MI 48197
www.ytown.org

TO: The Charter Township of Ypsilanti Board Members

FROM: Mark Giffin – Ordinance Administrator

RE: Monthly Report for April 2010

ACTIVITIES:	#	YTD	09 TD
NEW COMPLAINTS	212	544	828
INSPECTIONS	395	1167	1583
NOTICE OF VIOLATIONS ISSUED	099	259	263
COMPLAINTS CLOSED	153	457	623
VEHICLES TAGGED 48 HOURS	07	36	101
MUNICIPAL CIVIL INFRACTION TICKETS ISSUED	14	37	104
PEDDLER PERMITS ISSUED	1	3	2

ADDITIONAL STATISTICAL INFORMATION:

HOURS OF COMPLAINT INVESTIGATION..... 189.42

HOURS OF OFFICE FOLLOW-UP 116.92

HOURS OF COURT, TRAINING/MEETINGS ... 14.66

TOTAL OF HOURS WORKED 321.00

TOTAL OF MILES DRIVEN 1452

DAYS WORKED

Mark Giffin 15

Bill Elling 21



WASHTENAW COUNTY OFFICE OF THE SHERIFF



JERRY L. CLAYTON
SHERIFF

2201 Hogback Road ♦ Ann Arbor, Michigan 48105-9732 ♦ OFFICE (734) 971-8400 ♦ FAX (734) 973-4624 ♦ EMAIL sheriff@ewashtenaw.org

MARK A. PTASZEK
UNDERSHERIFF

May 6, 2010

Clerk Karen Lovejoy-Roe
Charter Township of Ypsilanti
7200 Huron River Drive
Ypsilanti, MI 48197

Dear Ms. Lovejoy-Roy

Attached you will find the April 2010 Ypsilanti Township Police Services Report. Please accept this at your board meeting scheduled for Tuesday, May 18, 2010. Please contact me with any questions or concerns.

If you require additional information please contact me and I will provide you with the necessary information.

Sincerely,

Jim Anuszkiewicz
Lieutenant



Washtenaw County Sheriff's Activity Log

Activity Log Area Summary Report

05/05/2010

3:15:17PM

Area: 20 - Ypsilanti Twp.

Date Range: 4/1/2010 - 4/30/2010

CSO/ACO/Support Staff Log

Total Administrative Duty:	62	for a total of	3240	minutes
Total Court (Regular Time):	1	for a total of	90	minutes
Total Follow-Up:	23	for a total of	515	minutes
Total Proactive Patrol:	35	for a total of	1365	minutes
Total Self-Initiated Activity:	4	for a total of	125	minutes
Total Service Requests:	69	for a total of	2945	minutes

Total Records, Minutes and equivalent Hours:	194	8,280	=	138	hours	0	minutes
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Deputy Log

Total Traffic Stop:	493	for a total of	8615	minutes
Total Administrative Duty:	679	for a total of	20840	minutes
Total Briefing:	539	for a total of	20731	minutes
Total Court (Regular Time):	27	for a total of	3190	minutes
Total Court (Overtime):	27	for a total of	3300	minutes
Total Community Relations:	87	for a total of	2395	minutes
Total Follow-Up:	607	for a total of	31235	minutes
Total Out of Service:	107	for a total of	125	minutes
Total Proactive Patrol:	1184	for a total of	23932	minutes
Total Special Detail:	63	for a total of	2605	minutes
Total Selective Enforcement:	728	for a total of	16144	minutes
Total Self-Initiated Activity:	126	for a total of	7345	minutes
Total Service Requests:	1973	for a total of	79291	minutes
Total Training:	7	for a total of	1015	minutes
Total Other:	6	for a total of	255	minutes
Total Service Request Assist:	457	for a total of	13422	minutes
Total Property Check:	164	for a total of	3415	minutes
Total Court Off-Duty:	17	for a total of	2205	minutes

Total Records, Minutes and equivalent Hours:	7,797	248,895	=	4148	hours	15	minutes
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Detective Log

Total Administrative Duty:	4	for a total of	630	minutes
Total Briefing:	1	for a total of	20	minutes
Total Court (Regular Time):	23	for a total of	5820	minutes
Total Court (Overtime):	5	for a total of	750	minutes
Total Follow-Up:	229	for a total of	32240	minutes
Total Proactive Patrol:	5	for a total of	100	minutes
Total Selective Enforcement:	2	for a total of	510	minutes
Total Self-Initiated Activity:	1	for a total of	450	minutes
Total Service Requests:	9	for a total of	2330	minutes
Total Other:	5	for a total of	250	minutes
Total Service Request Assist:	3	for a total of	75	minutes

Total Records, Minutes and equivalent Hours:	290	43,265	=	721 hours	5 minutes
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General Fund Patrol

Total Traffic Stop:	4	for a total of	70 minutes
Total Administrative Duty:	12	for a total of	290 minutes
Total Court (Regular Time):	1	for a total of	85 minutes
Total Community Relations:	4	for a total of	120 minutes
Total Follow-Up:	14	for a total of	310 minutes
Total Proactive Patrol:	41	for a total of	1250 minutes
Total Special Detail:	1	for a total of	30 minutes
Total Selective Enforcement:	15	for a total of	350 minutes
Total Self-Initiated Activity:	8	for a total of	340 minutes
Total Service Requests:	5	for a total of	260 minutes
Total Service Request Assist:	7	for a total of	500 minutes
Total Court Off-Duty:	1	for a total of	120 minutes

Total Records, Minutes and equivalent Hours:	120	3,815	=	63 hours	35 minutes
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Secondary Road Patrol Log

Total Traffic Stop:	12	for a total of	145 minutes
Total Administrative Duty:	3	for a total of	335 minutes
Total Court (Regular Time):	4	for a total of	255 minutes
Total Community Relations:	1	for a total of	10 minutes
Total Follow-Up:	36	for a total of	5960 minutes
Total Proactive Patrol:	8	for a total of	185 minutes
Total Selective Enforcement:	14	for a total of	170 minutes
Total Service Requests:	7	for a total of	1350 minutes
Total Service Request Assist:	3	for a total of	125 minutes

Total Records, Minutes and equivalent Hours:	88	8,535	=	142 hours	15 minutes
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Supervisor Log

Total Traffic Stop:	24	for a total of	420 minutes
Total Administrative Duty:	505	for a total of	23175 minutes
Total Briefing:	66	for a total of	1355 minutes
Total Court (Regular Time):	1	for a total of	40 minutes
Total Court (Overtime):	1	for a total of	120 minutes
Total Community Relations:	34	for a total of	525 minutes
Total Follow-Up:	28	for a total of	1300 minutes
Total Out of Service:	18	for a total of	20 minutes
Total Proactive Patrol:	235	for a total of	7185 minutes
Total Special Detail:	6	for a total of	630 minutes
Total Selective Enforcement:	106	for a total of	1920 minutes
Total Self-Initiated Activity:	52	for a total of	1095 minutes
Total Service Requests:	63	for a total of	2145 minutes
Total Service Request Assist:	109	for a total of	4020 minutes
Total Property Check:	3	for a total of	75 minutes
Total Court Off-Duty:	2	for a total of	180 minutes

Total Records, Minutes and equivalent Hours:	1,302	45,645	=	760 hours	45 minutes
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Washtenaw County Sheriff's Activity Log

05/05/2010

3:18:01PM

Activity Log Area Summary - Deputy Join Report

Area: 20 - Ypsilanti Twp.

Date Range: 4/1/2010 - 4/30/2010

* * * **DRAFT** * * *

Deputy Log

143 Logs

Total Traffic Stop:	157	for a total of	2455 minutes
Total Administrative Duty:	171	for a total of	3125 minutes
Total Briefing:	104	for a total of	2110 minutes
Total Court (Overtime):	1	for a total of	90 minutes
Total Community Relations:	25	for a total of	415 minutes
Total Follow-Up:	158	for a total of	5275 minutes
Total Out of Service:	38	for a total of	50 minutes
Total Proactive Patrol:	403	for a total of	8162 minutes
Total Special Detail:	25	for a total of	725 minutes
Total Selective Enforcement:	209	for a total of	4035 minutes
Total Self-Initiated Activity:	39	for a total of	1095 minutes
Total Service Requests:	454	for a total of	14155 minutes
Total Training:	1	for a total of	20 minutes
Total Other:	1	for a total of	15 minutes
Total Service Request Assist:	101	for a total of	2573 minutes
Total Property Check:	74	for a total of	1915 minutes
Total Court Off-Duty:	1	for a total of	150 minutes

Total Records, Minutes and equivalent Hours:	2,231	48,250	=	804 hours	10 minutes
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General Fund Patrol

3 Logs

Total Traffic Stop:	1	for a total of	10 minutes
Total Proactive Patrol:	6	for a total of	90 minutes
Total Self-Initiated Activity:	4	for a total of	225 minutes

Total Records, Minutes and equivalent Hours:	14	325	=	5 hours	25 minutes
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Supervisor Log

1 Logs

Total Traffic Stop:	9	for a total of	120 minutes
Total Administrative Duty:	2	for a total of	60 minutes
Total Briefing:	1	for a total of	15 minutes
Total Special Detail:	2	for a total of	45 minutes
Total Selective Enforcement:	1	for a total of	30 minutes
Total Service Request Assist:	1	for a total of	30 minutes

Total Records, Minutes and equivalent Hours:	17	300	=	5 hours	0 minutes
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Combined Total Records, Minutes and equivalent Hours:	2,262	48,875	=	814 hours	35 minutes
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147 Total Logs

Incident Summary Report

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
210	CSC I - PENETRATION - P/V - FORCE	2
225	CSC II - FONDLING - FORCE	1
226	CSC IV - FONDLING - FORCE	1
310	ROBBERY WITH FIREARM	1
318	ROBBERY WITH OTHER WEAPON	2
320	ROBBERY - STRONG-ARM	2
410	ASSAULT WITH A FIREARM	5
430	ASSAULT - OTHER WEAPON	10
440	ASSAULT WITH HANDS - FISTS - FEET	3
450	ASSAULT AND BATTERY	47
460	INTIMIDATION / THREAT	22
499	ASSAULT (ALL OTHER)	1
510	BURGLARY - HOME INVASION - 1ST DEGREE	28
512	BURGLARY - FORCE - NON-RESIDENTIAL	3
521	BURGLARY - NO FORCE - RESIDENTIAL	2
522	BURGLARY - NO FORCE - NON-RESIDENTIAL	2
633	RETAIL FRAUD I - SHOPLIFTING OVER \$1000 - FELONY	5
634	RETAIL FRAUD II - SHOPLIFTING UNDER \$1000 - MISDEM	6
636	RETAIL FRAUD III MISD	3
643	LARCENY FROM VEHICLE - B&E (INCLUDES W/DAMAGE - 750.356 A-B)	14
653	OF VEHICLE PARTS / ACCESSORIES - B&E	1
670	IN A BUILDING	2
680	FROM COIN MACHINE	1
699	LARCENY - ALL OTHER	30
710	AUTOMOBILE (CAR) THEFT	6
1040	COUNTERFEITING - ALL	1
1112	BAD CHECKS	1
1115	FRAUD - CREDIT CARD / AUTO TELLER MACHINE- (ATM) / FINANCIAL TRANS. DEVICE USE	2
1165	IDENTITY THEFT	1
1199	ALL OTHER	12
1330	STOLEN PROPERTY - RECEIVING / CONCEALING / POSSESSING	1
1350	STOLEN PROPERTY - CHOP SHOP - OWN / OPERATE / CONDUCT	1
1410	MDOP - MALICIOUS DESTRUCTION OF PROPERTY	28
1610	PROSTITUTION AND VICE	1
1821	MARIJUANA - USE / POSSESS	2
1834	HEROIN - USE / POSSESS	1
1853	OTHER NARCOTIC - USE / POSSESS	8
1875	NARCOTIC EQUIPMENT / DEVICE VIOLATIONS	1
2022	CRUELTY / NEGLECT - OTHER	1
2115	OUI LIQUOR - includes per se	5
2216	UNDERAGE (17-20 YEARS) POSSESS / TRANSPORT IN MOTOR VEHICLE	1
2315	CONTEMPT OF COURT - BENCH WARRANT - FTCJ	1
2395	ESCAPE / FLIGHT - OTHER	2

Incident Summary Report

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
2399	OBSTRUCT POLICE - OTHER	3
2405	DISORDERLY CONDUCT	108
2410	DISTURB THE PEACE	1
2440	PUBLIC NUISANCE	82
2441	PUBLIC DRUNKENNESS	3
2443	OBSCENE TELEPHONE CALLS	15
2456	LOITERING - 17 YEARS AND OLDER	6
2499	DISORDERLY - ALL OTHER	18
2551	FALSE FIRE ALARM	1
2560	TRESPASS	6
2612	DRUGS - ADULTERATED (TAMPERED WITH)	1
2689	ANIMALS AT LARGE	50
2690	SOLICITATION TO COMMIT A CRIMINAL OFFENSE	5
2691	CONSERVATION LAWS	3
2693	HEALTH/SAFETY VIOLATIONS	2
2694	CIVIL RIGHTS VIOLATIONS	1
2697	ANIMAL CRUELTY 4 YR FEL	1
2736	LOCAL ORDINANCES - OPEN FOR ANY	1
2780	LOCAL ORDINANCES - OPEN FOR ANY	11
2795	LOCAL ORDINANCES - OPEN FOR ANY	1
2796	LOCAL ORDINANCES - OPEN FOR ANY	1
2820	RUNAWAY	7
2822	LOST / MISSING JUVENILE	1
2825	INCORRIGIBILITY	1
2840	MALICIOUS MISCHIEF	3
2899	ALL OTHER	50
2931	OPS LICENSE SUSPENDED / REVOKED	8
2933	VEHICLE REGISTRATION - IMPROPER / EXPIRED	1
2935	DWLS 2ND	3
2937	NO OPS ON PERSON	1
3010	FELONY	4
3020	MISDEMEANOR	22
3040	FELONY - O/JURIS	10
3050	MISDEMEANOR - O/JURIS	15
3104	ACC, ANGLE	2
3105	ACC, REAR END	1
3108	ACC, SIDESWIPE-SAME	1
3113	ACC, INJURY TYPE B	2
3114	ACC, INJURY TYPE C	6
3145	TRAFFIC CRASHES - PROPERTY DAMAGE	33
3148	MOTOR VEHICLE - ANIMAL	1
3150	PROPERTY DAMAGE - H & R	11
3155	PERSONAL INJURY	1

Incident Summary Report

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3170	PRIVATE PROPERTY	5
3175	PRIVATE PROPERTY - H & R	5
3208	DEATH INVESTIGATION - CAUSE UNKNOWN	3
3217	ATTEMPT SUICIDE - ADULT	1
3225	OVERDOSE - DRUGS	1
3250	MENTAL	16
3299	WELFARE CHECK	3
3310	FAMILY TROUBLE	71
3312	NEIGHBORHOOD TROUBLE	12
3313	CONFISCATED PROPERTY	1
3314	MISSING PERSONS	5
3316	LOST PROPERTY	6
3318	FOUND PROPERTY	7
3324	SUSPICIOUS CIRCUMSTANCES	240
3326	SUSPICIOUS VEHICLES	13
3328	SUSPICIOUS PERSONS	55
3330	ASSIST OTHER LAW ENFORCEMENT AGENCY	25
3331	ASSIST MEDICAL	51
3332	ASSIST FIRE DEPT	1
3333	ASSIST MOTORIST	21
3336	ASSIST CITIZEN	72
3345	ACCIDENTAL PROPERTY DAMAGE	2
3351	CIVIL - LANDLORD / TENANT	28
3354	CIVIL - FAIL TO RETURN BORROWED VEHICLE	2
3355	CIVIL MATTER - OTHER	47
3499	ALL OTHER COMPLAINTS	1
3501	OPEN GENERIC	37
3505	OPEN GENERIC	6
3509	OPEN GENERIC	50
3511	OPEN GENERIC	4
3520	OPEN GENERIC	1
3523	OPEN GENERIC	56
3524	OPEN GENERIC	5
3525	OPEN GENERIC	1
3529	OPEN GENERIC	4
3599	OPEN GENERIC	6
3702	ROAD HAZARD	18
3704	ABANDONED AUTO	20
3706	VEHICLE IMPOUND	6
3708	PRIVATE IMPOUND	31
3714	ATV COMPLAINT	1
3728	PARKING COMPLAINT	7
3730	TRAFFIC MISCELLANEOUS A COMPLAINT	3

Incident Summary Report

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3732	TRAFFIC MISCELLANEOUS B COMPLAINT	20
3762	COMMERCIAL VEHICLE IMPOUND	2
3799	TRAFFIC MISC	4
3803	ANIMAL - BARKING DOG	9
3804	ANIMAL COMPLAINT	27
3808	ANIMAL BITE / SCRATCH	2
3812	ANIMAL PICK-UP - ALIVE	8
3902	BURGLARY ALARM	109
3904	OPEN	14
3906	ROBBERY	2
3907	PANIC ALARM	10
3999	ALARMS ALL OTHER	1
4054	FAIL TO STOP FOR SCHOOL BUS	6
5170	FALSE CALL I / I / C / F	9
6012	TRAFFIC CONTROL	1
6018	VEHICLE INSPECTIONS	2
6199	OTHER	41
6310	K-9 TRACKING	8
6501	INSPECTION	4
Grand Total:		2,003

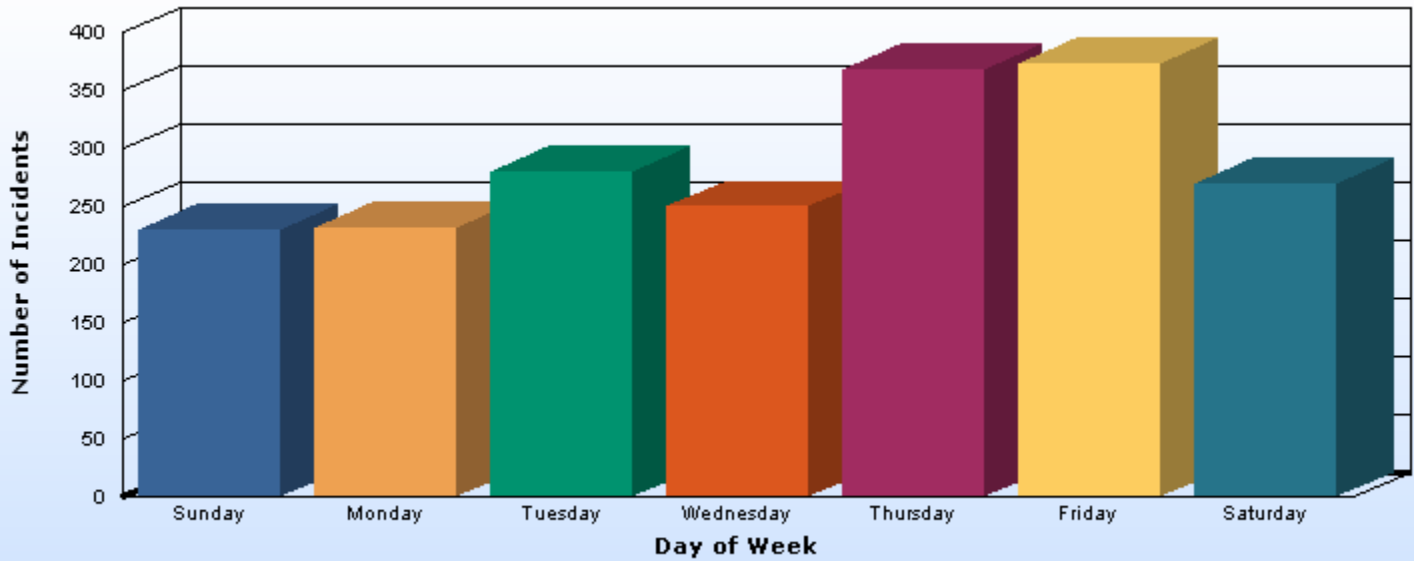
Number of Incidents by Day

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



■ Sunday
 ■ Monday
 ■ Tuesday
 ■ Wednesday
 ■ Thursday
 ■ Friday
 ■ Saturday

Day of Week	Count
Sunday	230
Monday	232
Tuesday	280
Wednesday	250
Thursday	368
Friday	373
Saturday	270

Total 2,003

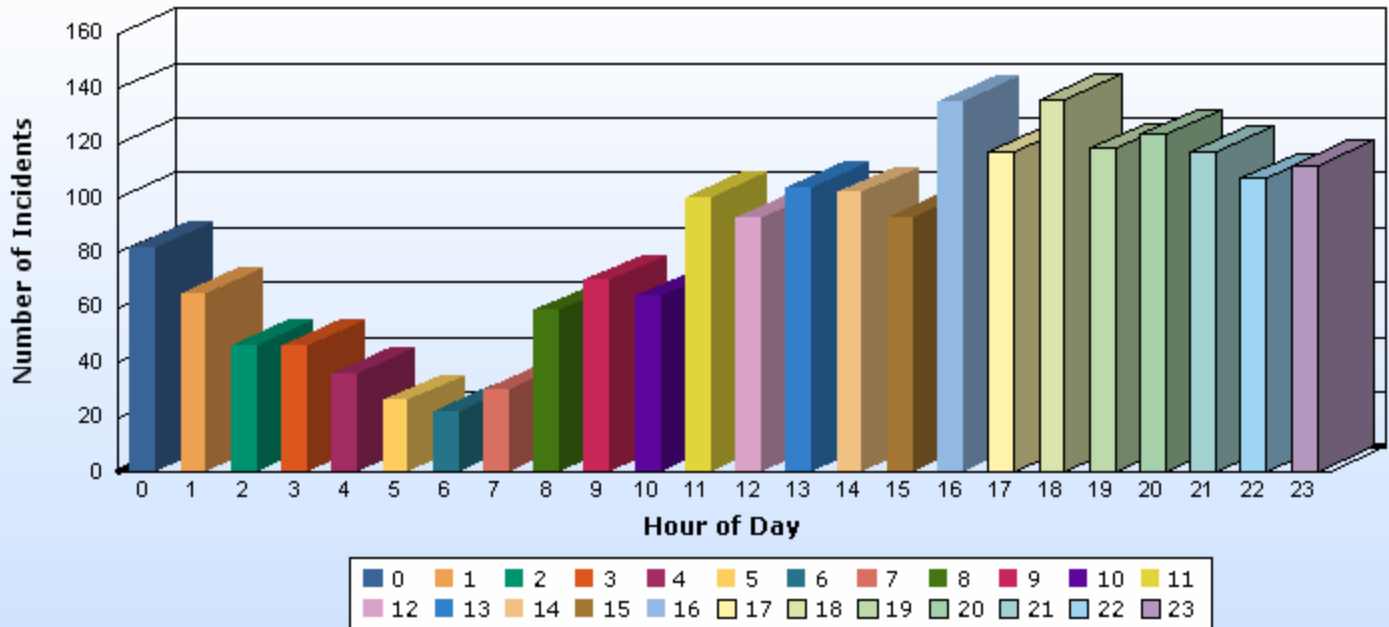
Number of Incidents by Time

Report Description

Timeframe : From 2010-04-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



Hour of Day	Count
0:00	82
1:00	65
2:00	46
3:00	46
4:00	36
5:00	26
6:00	22
7:00	30
8:00	59
9:00	70
10:00	64
11:00	100
12:00	93
13:00	104
14:00	102
15:00	93
16:00	135
17:00	117
18:00	136
19:00	118
20:00	123
21:00	117
22:00	107
23:00	112
Total	2,003

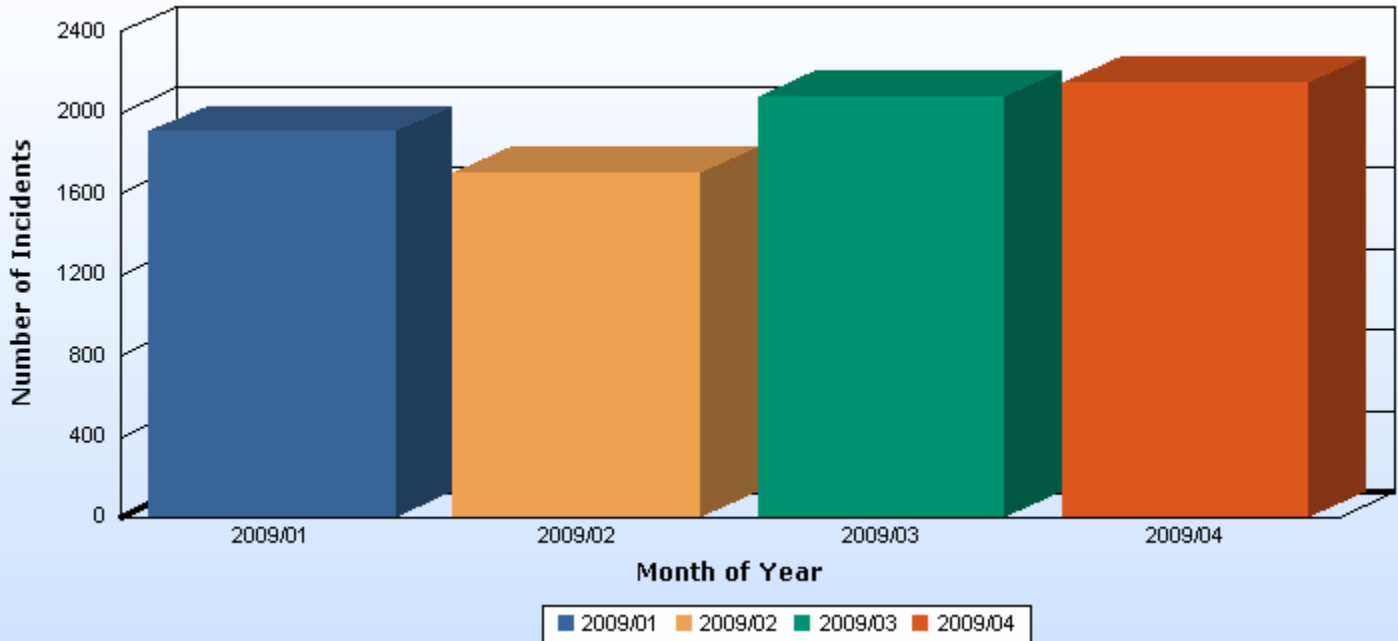
Number of Incidents by Month

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



Month of Year	Count
January, 2009	1,905
February, 2009	1,701
March, 2009	2,077
April, 2009	2,146
Total	7,829

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
210	CSC I - PENETRATION - P/V - FORCE	8
215	CSC I - SODOMY - O/A - FORCE	2
225	CSC II - FONDLING - FORCE	2
226	CSC IV - FONDLING - FORCE	4
310	ROBBERY WITH FIREARM	11
318	ROBBERY WITH OTHER WEAPON	1
320	ROBBERY - STRONG-ARM	10
399	ROBBERY / CAR-JACKING - OTHER	1
410	ASSAULT WITH A FIREARM	8
430	ASSAULT - OTHER WEAPON	43
440	ASSAULT WITH HANDS - FISTS - FEET	5
450	ASSAULT AND BATTERY	180
460	INTIMIDATION / THREAT	66
463	AGGRAVATED STALKING - MISDEMEANOR	1
499	ASSAULT (ALL OTHER)	15
510	BURGLARY - HOME INVASION - 1ST DEGREE	134
512	BURGLARY - FORCE - NON-RESIDENTIAL	18
521	BURGLARY - NO FORCE - RESIDENTIAL	19
522	BURGLARY - NO FORCE - NON-RESIDENTIAL	3
610	PICKPOCKET	1
620	PURSE SNATCHING	1
633	RETAIL FRAUD I - SHOPLIFTING OVER \$1000 - FELONY	5
634	RETAIL FRAUD II - SHOPLIFTING UNDER \$1000 - MISDEM	43
636	RETAIL FRAUD III MISD	17
643	LARCENY FROM VEHICLE - B&E (INCLUDES W/DAMAGE - 750.356 A-B)	69
653	OF VEHICLE PARTS / ACCESSORIES - B&E	13
670	IN A BUILDING	20
699	LARCENY - ALL OTHER	93
710	AUTOMOBILE (CAR) THEFT	47
799	ALL OTHER VEHICLE	4
810	ARSON	5
912	KIDNAPPING	1
1020	FORGERY - CHECKS (alter / copy / imitate & pass as genuine)	1
1040	COUNTERFEITING - ALL	12
1112	BAD CHECKS	4
1115	FRAUD - CREDIT CARD / AUTO TELLER MACHINE- (ATM) / FINANCIAL TRANS. DEVICE USE	13
1120	CONFIDENCE GAMES	1
1122	LARCENY BY CONVERSION	1
1132	GOODS AND SERVICES (INCLUDES FULL GAS SERVICE)	1
1155	FALSE STATEMENTS (FINANCIAL CONDITION)	1
1165	IDENTITY THEFT	4
1177	RETAIL FRAUD III (MISRP PRICE)	1
1181	RETAIL FRUAD III (REFUND)	1

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
1199	ALL OTHER	53
1210	EMBEZZLEMENT	6
1330	STOLEN PROPERTY - RECEIVING / CONCEALING / POSSESSING	10
1340	STOLEN AUTO - REPORTED BY OTHER JURIS	8
1410	MDOP - MALICIOUS DESTRUCTION OF PROPERTY	103
1506	CONCEALED WEAPONS - ALL OTHER	4
1610	PROSTITUTION AND VICE	24
1699	COMMERCIAL SEX - OTHER	9
1718	PEEPING TOM	1
1740	GROSS INDECENCY	1
1775	PORNOGRAPHY - OBSCENE MATERIAL	1
1813	CRACK COCAINE - SALE / MANUFACTURE	1
1816	COCAINE - USE / POSSESS	5
1820	MARIJUANA - SALE / MANUFACTURE	6
1821	MARIJUANA - USE / POSSESS	9
1834	HEROIN - USE / POSSESS	2
1835	ECSTASY - DELIVER	2
1853	OTHER NARCOTIC - USE / POSSESS	19
1872	FRAUDULENT PROCUREMENT / PRESCRIPTION - NARCOTIC	6
1875	NARCOTIC EQUIPMENT / DEVICE VIOLATIONS	8
2020	NEGLECT OF CHILD	5
2022	CRUELTY / NEGLECT - OTHER	3
2099	OTHER NON-VIOLENT OFFENSES	3
2115	OUI LIQUOR - includes per se	17
2116	SECOND OFFENSE	2
2188	OPERATING WHILE IN THE PRESENCE OF DRUGS (OWPD)	1
2205	ADULT - POSSESS / TRANSPORT OPEN CONTAINER / OPEN INTOX IN MOTOR VEH	5
2216	UNDERAGE (17-20 YEARS) POSSESS / TRANSPORT IN MOTOR VEHICLE	1
2223	JUVENILE (16 & UNDER) USE / CONSUME / POSSESS ON ANY PROPERTY	1
2228	OPEN HOUSE / PARTY ORDINANCE VIOLATION	2
2305	FLEEING/ELUDING FELONY	2
2311	FILE FALSE POLICE REPORT	2
2315	CONTEMPT OF COURT - BENCH WARRANT - FTCJ	12
2319	SEX OFFENDER REGISTRATION VIOLATION	1
2321	SOR FAIL TO COMPLY	3
2395	ESCAPE / FLIGHT - OTHER	1
2397	OBSTRUCT JUSTICE - OTHER	8
2399	OBSTRUCT POLICE - OTHER	10
2405	DISORDERLY CONDUCT	320
2440	PUBLIC NUISANCE	226
2441	PUBLIC DRUNKENNESS	5
2443	OBSCENE TELEPHONE CALLS	38
2454	CURFEW VIOLATION	2

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
2456	LOITERING - 17 YEARS AND OLDER	13
2499	DISORDERLY - ALL OTHER	27
2535	UNLAWFUL ENTRY - NO INTENT	2
2545	FIRECRACKERS / FIREWORKS - ILLEGAL POSSESSION / USE / SALE / FURNISH	3
2560	TRESPASS	14
2614	INVASION OF PRIVACY - OTHER	1
2688	DOG LAW VIOLATIONS	1
2689	ANIMALS AT LARGE	232
2690	SOLICITATION TO COMMIT A CRIMINAL OFFENSE	11
2691	CONSERVATION LAWS	24
2693	HEALTH/SAFETY VIOLATIONS	7
2694	CIVIL RIGHTS VIOLATIONS	1
2697	ANIMAL CRUELTY 4 YR FEL	13
2710	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	1
2780	LOCAL ORDINANCES - OPEN FOR ANY	7
2784	LOCAL ORDINANCES - OPEN FOR ANY	1
2820	RUNAWAY	34
2821	RECOVERED RUNAWAY	6
2822	LOST / MISSING JUVENILE	2
2825	INCORRIGIBILITY	5
2840	MALICIOUS MISCHIEF	6
2899	ALL OTHER	128
2922	FAIL TO STOP AND I.D. ACCIDENT	3
2923	FAIL TO REPORT ACCIDENT	2
2925	RECKLESS DRIVING	1
2930	LICENSE / TITLE / REGISTRATION	1
2931	OPS LICENSE SUSPENDED / REVOKED	71
2932	OPS - VIOLATE RESTRICTED LICENSE	1
2933	VEHICLE REGISTRATION - IMPROPER / EXPIRED	1
2934	VEHICLE INSURANCE - NONE / EXPIRED	1
2935	DWLS 2ND	22
2936	OPS - NEVER ACQUIRED	2
2999	ALL OTHER	10
3010	FELONY	23
3020	MISDEMEANOR	133
3040	FELONY - O/JURIS	21
3050	MISDEMEANOR - O/JURIS	56
3060	TRAFFIC - O/JURIS	1
3070	CIVIL / FRIEND OF THE COURT	2
3101	ACC, SINGLE MOTOR VEH	1
3104	ACC, ANGLE	1
3105	ACC, REAR END	2
3106	ACC, REAR END-LEFT TURN	1

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3111	ACC, INJURY TYPE K	1
3113	ACC, INJURY TYPE B	3
3114	ACC, INJURY TYPE C	9
3145	TRAFFIC CRASHES - PROPERTY DAMAGE	287
3148	MOTOR VEHICLE - ANIMAL	1
3150	PROPERTY DAMAGE - H & R	73
3155	PERSONAL INJURY	1
3157	PEDESTRIAN - NO INJURY	1
3158	PEDESTRIAN - PERSONAL INJURY	1
3160	PERSONAL INJURY - H & R	1
3165	FATAL	1
3170	PRIVATE PROPERTY	15
3173	PRIVATE PROPERTY - OPEN	3
3175	PRIVATE PROPERTY - H & R	19
3199	ACCIDENTS (ALL OTHER)	3
3205	SUDDEN DEATH - NATURAL	2
3208	DEATH INVESTIGATION - CAUSE UNKNOWN	11
3217	ATTEMPT SUICIDE - ADULT	5
3218	IN CUSTODY-ATTEMPT SUICIDE ADULT	1
3221	ATTEMPT SUICIDE - JUVENILE	1
3225	OVERDOSE - DRUGS	1
3250	MENTAL	63
3299	WELFARE CHECK	2
3309	LIQUOR INSPECTION	2
3310	FAMILY TROUBLE	318
3312	NEIGHBORHOOD TROUBLE	44
3314	MISSING PERSONS	20
3316	LOST PROPERTY	21
3318	FOUND PROPERTY	18
3319	FOUND BICYCLE	3
3320	OPEN BUILDINGS	1
3324	SUSPICIOUS CIRCUMSTANCES	1,159
3326	SUSPICIOUS VEHICLES	28
3328	SUSPICIOUS PERSONS	71
3330	ASSIST OTHER LAW ENFORCEMENT AGENCY	70
3331	ASSIST MEDICAL	201
3332	ASSIST FIRE DEPT	2
3333	ASSIST MOTORIST	68
3334	ASSIST OTHER GOVT AGENCY	6
3336	ASSIST CITIZEN	274
3338	ARREST ASSIST - OTHER AGENCY	5
3339	ARREST - OTHER AGENCY - NO WARRANT	1
3342	RECOVERED STOLEN PROPERTY - OTHER JURISDICTION	1

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3344	RECOVERED STOLEN VEHICLE - OTHER JURISDICTION	5
3345	ACCIDENTAL PROPERTY DAMAGE	6
3351	CIVIL - LANDLORD / TENANT	121
3352	CIVIL - VEHICLE TAKEN WITHOUT PERMISSION	3
3354	CIVIL - FAIL TO RETURN BORROWED VEHICLE	2
3355	CIVIL MATTER - OTHER	126
3371	ABSCONDING BOND	2
3381	SOF REGISTRATION	6
3399	ALL OTHER	1
3480	SCUBA EQUIPMENT MAINTENANCE	1
3501	OPEN GENERIC	215
3505	OPEN GENERIC	21
3509	OPEN GENERIC	106
3511	OPEN GENERIC	3
3523	OPEN GENERIC	306
3524	OPEN GENERIC	13
3525	OPEN GENERIC	3
3599	OPEN GENERIC	39
3702	ROAD HAZARD	53
3704	ABANDONED AUTO	109
3706	VEHICLE IMPOUND	17
3708	PRIVATE IMPOUND	196
3714	ATV COMPLAINT	1
3720	MOTORCYCLE COMPLAINT	1
3728	PARKING COMPLAINT	4
3730	TRAFFIC MISCELLANEOUS A COMPLAINT	1
3732	TRAFFIC MISCELLANEOUS B COMPLAINT	71
3762	COMMERCIAL VEHICLE IMPOUND	1
3799	TRAFFIC MISC	3
3803	ANIMAL - BARKING DOG	14
3804	ANIMAL COMPLAINT	95
3808	ANIMAL BITE / SCRATCH	5
3812	ANIMAL PICK-UP - ALIVE	32
3902	BURGLARY ALARM	462
3904	OPEN	13
3906	ROBBERY	10
3907	PANIC ALARM	22
3999	ALARMS ALL OTHER	2
4035	HIT AND RUN	2
4036	FAIL TO STOP AND ID	1
4105	EQUIPMENT	1
4205	HANDICAPPED	2
4211	FIRE LANE	1

Incident Summary Report

Report Description

Timeframe : From 2009-01-01 00:00:00 To 2009-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
4222	ABANDONED MOTOR VEHICLE	1
4307	DROVE WITH EXPIRED OPERATORS LICENSE	2
4599	MISCELLANEOUS - UUUU	1
5170	FALSE CALL I / I / C / F	25
6012	TRAFFIC CONTROL	4
6018	VEHICLE INSPECTIONS	4
6199	OTHER	107
6310	K-9 TRACKING	12
6501	INSPECTION	24
Grand Total:		7,829

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
210	CSC I - PENETRATION - P/V - FORCE	8
215	CSC I - SODOMY - O/A - FORCE	1
225	CSC II - FONDLING - FORCE	2
226	CSC IV - FONDLING - FORCE	4
310	ROBBERY WITH FIREARM	10
318	ROBBERY WITH OTHER WEAPON	3
320	ROBBERY - STRONG-ARM	6
399	ROBBERY / CAR-JACKING - OTHER	1
410	ASSAULT WITH A FIREARM	8
430	ASSAULT - OTHER WEAPON	32
440	ASSAULT WITH HANDS - FISTS - FEET	9
450	ASSAULT AND BATTERY	152
460	INTIMIDATION / THREAT	64
462	AGGRAVATED STALKING - FELONY	1
463	AGGRAVATED STALKING - MISDEMEANOR	1
499	ASSAULT (ALL OTHER)	11
510	BURGLARY - HOME INVASION - 1ST DEGREE	109
512	BURGLARY - FORCE - NON-RESIDENTIAL	11
521	BURGLARY - NO FORCE - RESIDENTIAL	16
522	BURGLARY - NO FORCE - NON-RESIDENTIAL	6
633	RETAIL FRAUD I - SHOPLIFTING OVER \$1000 - FELONY	6
634	RETAIL FRAUD II - SHOPLIFTING UNDER \$1000 - MISDEM	24
635	LARCENY OF GAS - SELF-SERVE	1
636	RETAIL FRAUD III MISD	6
643	LARCENY FROM VEHICLE - B&E (INCLUDES W/DAMAGE - 750.356 A-B)	59
653	OF VEHICLE PARTS / ACCESSORIES - B&E	6
670	IN A BUILDING	12
680	FROM COIN MACHINE	1
699	LARCENY - ALL OTHER	92
710	AUTOMOBILE (CAR) THEFT	39
810	ARSON	1
914	PARENTAL KIDNAPPING	1
916	ABDUCT NO RANSOM OR ASSAULT	1
1020	FORGERY - CHECKS (alter / copy / imitate & pass as genuine)	3
1040	COUNTERFEITING - ALL	3
1112	BAD CHECKS	1
1115	FRAUD - CREDIT CARD / AUTO TELLER MACHINE- (ATM) / FINANCIAL TRANS. DEVICE USE	7
1120	CONFIDENCE GAMES	1
1122	LARCENY BY CONVERSION	1
1134	DEFRAUD HOTEL/RESTAURANT	1
1155	FALSE STATEMENTS (FINANCIAL CONDITION)	3
1165	IDENTITY THEFT	1
1170	MVT - FAIL TO RETURN BORROWED VEHICLE	1

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
1176	RETAIL FRAUD II - MISREPRESENT PRICE	5
1199	ALL OTHER	38
1210	EMBEZZLEMENT	3
1330	STOLEN PROPERTY - RECEIVING / CONCEALING / POSSESSING	4
1340	STOLEN AUTO - REPORTED BY OTHER JURIS	4
1350	STOLEN PROPERTY - CHOP SHOP - OWN / OPERATE / CONDUCT	1
1410	MDOP - MALICIOUS DESTRUCTION OF PROPERTY	113
1503	CCW PROHIBITED ZONE	1
1506	CONCEALED WEAPONS - ALL OTHER	1
1610	PROSTITUTION AND VICE	5
1720	INDECENT EXPOSURE	1
1799	CSC - NON-FORCIBLE SEXUAL - OTHER	2
1814	CRACK COCAINE - USE / POSSESS	1
1816	COCAINE - USE / POSSESS	2
1820	MARIJUANA - SALE / MANUFACTURE	1
1821	MARIJUANA - USE / POSSESS	8
1834	HEROIN - USE / POSSESS	2
1853	OTHER NARCOTIC - USE / POSSESS	31
1875	NARCOTIC EQUIPMENT / DEVICE VIOLATIONS	4
2015	CRUELTY TOWARD CHILD / NON-VIOLENT	2
2020	NEGLECT OF CHILD	4
2022	CRUELTY / NEGLECT - OTHER	5
2099	OTHER NON-VIOLENT OFFENSES	59
2115	OUI LIQUOR - includes per se	9
2116	SECOND OFFENSE	1
2205	ADULT - POSSESS / TRANSPORT OPEN CONTAINER / OPEN INTOX IN MOTOR VEH	1
2216	UNDERAGE (17-20 YEARS) POSSESS / TRANSPORT IN MOTOR VEHICLE	1
2223	JUVENILE (16 & UNDER) USE / CONSUME / POSSESS ON ANY PROPERTY	1
2311	FILE FALSE POLICE REPORT	2
2315	CONTEMPT OF COURT - BENCH WARRANT - FTCJ	4
2316	PROBATION VIOLATION	2
2318	PAROLE VIOLATION	1
2319	SEX OFFENDER REGISTRATION VIOLATION	7
2321	SOR FAIL TO COMPLY	8
2395	ESCAPE / FLIGHT - OTHER	5
2397	OBSTRUCT JUSTICE - OTHER	3
2399	OBSTRUCT POLICE - OTHER	11
2405	DISORDERLY CONDUCT	320
2410	DISTURB THE PEACE	1
2440	PUBLIC NUISANCE	224
2441	PUBLIC DRUNKENNESS	4
2443	OBSCENE TELEPHONE CALLS	50
2454	CURFEW VIOLATION	4

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
2456	LOITERING - 17 YEARS AND OLDER	26
2499	DISORDERLY - ALL OTHER	48
2535	UNLAWFUL ENTRY - NO INTENT	1
2551	FALSE FIRE ALARM	1
2560	TRESPASS	18
2568	PURCHASE CIGARETTES	1
2599	ALL OTHER	1
2612	DRUGS - ADULTERATED (TAMPERED WITH)	1
2689	ANIMALS AT LARGE	186
2690	SOLICITATION TO COMMIT A CRIMINAL OFFENSE	19
2691	CONSERVATION LAWS	17
2693	HEALTH/SAFETY VIOLATIONS	3
2694	CIVIL RIGHTS VIOLATIONS	5
2697	ANIMAL CRUELTY 4 YR FEL	7
2701	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	4
2702	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	2
2706	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	1
2735	LOCAL ORDINANCES - OPEN FOR ANY	1
2736	LOCAL ORDINANCES - OPEN FOR ANY	2
2756	LOCAL ORDINANCES - SOLICITOR / PEDDLERS ORDINANCES	1
2780	LOCAL ORDINANCES - OPEN FOR ANY	22
2795	LOCAL ORDINANCES - OPEN FOR ANY	1
2796	LOCAL ORDINANCES - OPEN FOR ANY	1
2820	RUNAWAY	40
2821	RECOVERED RUNAWAY	1
2822	LOST / MISSING JUVENILE	3
2825	INCORRIGIBILITY	2
2840	MALICIOUS MISCHIEF	12
2855	JUVENILE TRANSPORT	1
2899	ALL OTHER	147
2925	RECKLESS DRIVING	1
2931	OPS LICENSE SUSPENDED / REVOKED	49
2933	VEHICLE REGISTRATION - IMPROPER / EXPIRED	4
2934	VEHICLE INSURANCE - NONE / EXPIRED	2
2935	DWLS 2ND	12
2936	OPS - NEVER ACQUIRED	6
2937	NO OPS ON PERSON	2
2999	ALL OTHER	4
3010	FELONY	31
3020	MISDEMEANOR	101
3040	FELONY - O/JURIS	25
3050	MISDEMEANOR - O/JURIS	51
3070	CIVIL / FRIEND OF THE COURT	4

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3101	ACC, SINGLE MOTOR VEH	2
3102	ACC, HEAD ON	3
3104	ACC, ANGLE	5
3105	ACC, REAR END	3
3108	ACC, SIDESWIPE-SAME	1
3110	ACC, OTHER/KNOWN	1
3113	ACC, INJURY TYPE B	8
3114	ACC, INJURY TYPE C	16
3145	TRAFFIC CRASHES - PROPERTY DAMAGE	199
3146	PROPERTY DAMAGE - HBD	1
3148	MOTOR VEHICLE - ANIMAL	2
3150	PROPERTY DAMAGE - H & R	53
3155	PERSONAL INJURY	6
3160	PERSONAL INJURY - H & R	3
3170	PRIVATE PROPERTY	13
3171	PRIVATE PROPERTY - PERSONAL INJURY	1
3175	PRIVATE PROPERTY - H & R	18
3199	ACCIDENTS (ALL OTHER)	3
3205	SUDDEN DEATH - NATURAL	2
3207	SUDDEN DEATH - ACCIDENT	1
3208	DEATH INVESTIGATION - CAUSE UNKNOWN	10
3212	PERSON THROUGH ICE	1
3217	ATTEMPT SUICIDE - ADULT	4
3225	OVERDOSE - DRUGS	1
3250	MENTAL	74
3299	WELFARE CHECK	12
3309	LIQUOR INSPECTION	1
3310	FAMILY TROUBLE	237
3312	NEIGHBORHOOD TROUBLE	41
3313	CONFISCATED PROPERTY	1
3314	MISSING PERSONS	20
3316	LOST PROPERTY	22
3318	FOUND PROPERTY	17
3319	FOUND BICYCLE	1
3324	SUSPICIOUS CIRCUMSTANCES	856
3326	SUSPICIOUS VEHICLES	55
3328	SUSPICIOUS PERSONS	186
3330	ASSIST OTHER LAW ENFORCEMENT AGENCY	96
3331	ASSIST MEDICAL	175
3332	ASSIST FIRE DEPT	4
3333	ASSIST MOTORIST	69
3334	ASSIST OTHER GOVT AGENCY	9
3336	ASSIST CITIZEN	281

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3338	ARREST ASSIST - OTHER AGENCY	3
3344	RECOVERED STOLEN VEHICLE - OTHER JURISDICTION	2
3345	ACCIDENTAL PROPERTY DAMAGE	6
3351	CIVIL - LANDLORD / TENANT	96
3354	CIVIL - FAIL TO RETURN BORROWED VEHICLE	3
3355	CIVIL MATTER - OTHER	160
3360	DISCHARGE OF WEAPON BY OFFICER	2
3480	SCUBA EQUIPMENT MAINTENANCE	1
3499	ALL OTHER COMPLAINTS	1
3501	OPEN GENERIC	109
3505	OPEN GENERIC	12
3509	OPEN GENERIC	122
3511	OPEN GENERIC	8
3520	OPEN GENERIC	1
3523	OPEN GENERIC	279
3524	OPEN GENERIC	18
3525	OPEN GENERIC	4
3527	OPEN GENERIC	1
3529	OPEN GENERIC	5
3532	OPEN GENERIC	1
3538	OPEN GENERIC	1
3599	OPEN GENERIC	27
3702	ROAD HAZARD	46
3704	ABANDONED AUTO	90
3706	VEHICLE IMPOUND	14
3708	PRIVATE IMPOUND	182
3710	VEHICLE OFF ROADWAY - CID	2
3728	PARKING COMPLAINT	14
3730	TRAFFIC MISCELLANEOUS A COMPLAINT	4
3732	TRAFFIC MISCELLANEOUS B COMPLAINT	37
3740	PROPERTY DAMAGE ACCIDENT - NO UD10	1
3742	ACCIDENT - MUNICIPAL VEHICLE	1
3762	COMMERCIAL VEHICLE IMPOUND	2
3799	TRAFFIC MISC	10
3803	ANIMAL - BARKING DOG	32
3804	ANIMAL COMPLAINT	81
3808	ANIMAL BITE / SCRATCH	17
3812	ANIMAL PICK-UP - ALIVE	29
3902	BURGLARY ALARM	470
3904	OPEN	36
3906	ROBBERY	13
3907	PANIC ALARM	36
3910	VEHICLE	2

Incident Summary Report

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A

Offense Class Code	Offense Class Description	Count
3999	ALARMS ALL OTHER	3
4035	HIT AND RUN	2
4036	FAIL TO STOP AND ID	1
4041	SPEEDING	1
4054	FAIL TO STOP FOR SCHOOL BUS	9
4222	ABANDONED MOTOR VEHICLE	3
4311	OPS LICENSE SUSPENDED / REVOKED	1
4312	NO OPS ON PERSON	1
4925	COMMERCIAL VEHICLE - WARNING	1
5170	FALSE CALL I / I / C / F	36
6012	TRAFFIC CONTROL	3
6018	VEHICLE INSPECTIONS	16
6199	OTHER	126
6310	K-9 TRACKING	16
6501	INSPECTION	23
6507	PATROL	5
6605	SERVE WARRANT / SUBPOENA	1
Grand Total:		7,292

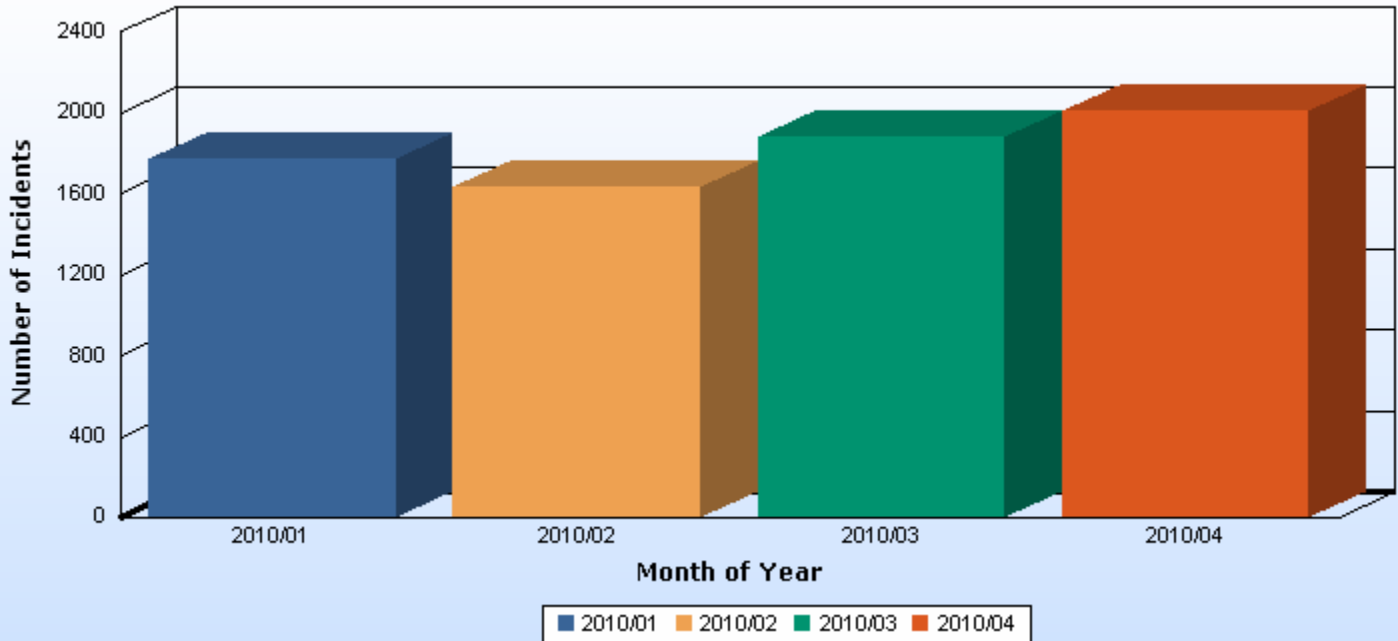
Number of Incidents by Month

Report Description

Timeframe : From 2010-01-01 00:00:00 To 2010-04-30 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



Month of Year	Count
January, 2010	1,774
February, 2010	1,633
March, 2010	1,877
April, 2010	2,008
Total	7,292



WASHTENAW COUNTY OFFICE OF THE SHERIFF



JERRY L. CLAYTON
SHERIFF

2201 Hogback Road ♦ Ann Arbor, Michigan 48105-9732 ♦ OFFICE (734) 971-8400 ♦ FAX (734) 973-4624 ♦ EMAIL sheriff@ewashtenaw.org

MARK A. PTASZEK
UNDERSHERIFF

April 19, 2010

Clerk Karen Lovejoy-Roe
Charter Township of Ypsilanti
7200 Huron River Drive
Ypsilanti, MI 48197

Dear Ms. Lovejoy-Roy

Attached you will find the March 2010 Ypsilanti Township Police Services Report. Please accept this at your board meeting scheduled for Tuesday, April 20, 2010. Please contact me with any questions or concerns.

If you require additional information please contact me and I will provide you with the necessary information.

Sincerely,

Jim Anuszkiewicz
Lieutenant



Washtenaw County Sheriff's Activity Log

Activity Log Area Summary Report

04/19/2010

2:28:11PM

Area: 20 - Ypsilanti Twp.

Date Range: 3/1/2010 - 3/31/2010

CSO/ACO/Support Staff Log

Total Administrative Duty:	61	for a total of	3645 minutes
Total Follow-Up:	34	for a total of	885 minutes
Total Proactive Patrol:	21	for a total of	765 minutes
Total Special Detail:	1	for a total of	135 minutes
Total Self-Initiated Activity:	3	for a total of	80 minutes
Total Service Requests:	72	for a total of	3420 minutes
Total Service Request Assist:	2	for a total of	185 minutes

Total Records, Minutes and equivalent Hours:	196	9,175	=	152 hours	55 minutes
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Deputy Log

Total Traffic Stop:	816	for a total of	11775 minutes
Total Administrative Duty:	812	for a total of	21670 minutes
Total Briefing:	576	for a total of	11526 minutes
Total Court (Regular Time):	24	for a total of	2375 minutes
Total Court (Overtime):	37	for a total of	4505 minutes
Total Community Relations:	112	for a total of	2725 minutes
Total Follow-Up:	660	for a total of	29685 minutes
Total Out of Service:	122	for a total of	35 minutes
Total Proactive Patrol:	1792	for a total of	35882 minutes
Total Special Detail:	56	for a total of	2330 minutes
Total Selective Enforcement:	1116	for a total of	22582 minutes
Total Self-Initiated Activity:	166	for a total of	12020 minutes
Total Service Requests:	1772	for a total of	73904 minutes
Total Training:	15	for a total of	3490 minutes
Total Other:	8	for a total of	170 minutes
Total Service Request Assist:	472	for a total of	14201 minutes
Total Property Check:	176	for a total of	2725 minutes
Total Court Off-Duty:	35	for a total of	4590 minutes

Total Records, Minutes and equivalent Hours:	9,283	265,815	=	4430 hours	15 minutes
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Detective Log

Total Court (Regular Time):	11	for a total of	1680 minutes
Total Court (Overtime):	1	for a total of	180 minutes
Total Follow-Up:	250	for a total of	38605 minutes
Total Service Requests:	7	for a total of	2490 minutes
Total Other:	23	for a total of	1055 minutes

Total Records, Minutes and equivalent Hours:	293	44,040	=	734 hours	0 minutes
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General Fund Patrol

Total Traffic Stop:	13	for a total of	225 minutes
Total Administrative Duty:	28	for a total of	1245 minutes
Total Community Relations:	9	for a total of	470 minutes

Total Follow-Up:	7	for a total of	290 minutes
Total Proactive Patrol:	51	for a total of	1090 minutes
Total Special Detail:	1	for a total of	150 minutes
Total Selective Enforcement:	24	for a total of	585 minutes
Total Self-Initiated Activity:	5	for a total of	215 minutes
Total Service Requests:	10	for a total of	665 minutes
Total Service Request Assist:	17	for a total of	880 minutes
Total Property Check:	4	for a total of	95 minutes

Total Records, Minutes and equivalent Hours:	169		5,910	=	98 hours 30 minutes
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Secondary Road Patrol Log

Total Traffic Stop:	4	for a total of	60 minutes
Total Administrative Duty:	2	for a total of	45 minutes
Total Court (Regular Time):	9	for a total of	985 minutes
Total Community Relations:	3	for a total of	75 minutes
Total Follow-Up:	20	for a total of	880 minutes
Total Proactive Patrol:	2	for a total of	45 minutes
Total Special Detail:	2	for a total of	405 minutes
Total Selective Enforcement:	18	for a total of	230 minutes
Total Service Requests:	9	for a total of	690 minutes
Total Service Request Assist:	4	for a total of	75 minutes

Total Records, Minutes and equivalent Hours:	75		3,550	=	59 hours 10 minutes
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Superior/Ypsi Collaboration

Total Court Off-Duty:	1	for a total of	120 minutes
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Total Records, Minutes and equivalent Hours:	1		120	=	2 hours 0 minutes
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Supervisor Log

Total Traffic Stop:	15	for a total of	240 minutes
Total Administrative Duty:	448	for a total of	23076 minutes
Total Briefing:	36	for a total of	775 minutes
Total Court (Regular Time):	2	for a total of	210 minutes
Total Court (Overtime):	1	for a total of	120 minutes
Total Community Relations:	31	for a total of	675 minutes
Total Follow-Up:	30	for a total of	2040 minutes
Total Proactive Patrol:	223	for a total of	6630 minutes
Total Special Detail:	3	for a total of	350 minutes
Total Selective Enforcement:	57	for a total of	1079 minutes
Total Self-Initiated Activity:	40	for a total of	740 minutes
Total Service Requests:	25	for a total of	765 minutes
Total Training:	1	for a total of	105 minutes
Total Other:	1	for a total of	265 minutes
Total Service Request Assist:	86	for a total of	4690 minutes
Total Property Check:	9	for a total of	160 minutes

Total Records, Minutes and equivalent Hours:	1,062		43,125	=	718 hours 45 minutes
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Combined Total Records, Minutes and equivalent Hours:	11,079		371,735	=	6195 hours 35 minutes
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Washtenaw County Sheriff's Activity Log

04/19/2010

2:32:07PM

Activity Log Area Summary - Deputy Join Report

* * * DRAFT * * *

Area: 20 - Ypsilanti Twp.

Date Range: 3/1/2010 - 3/31/2010

Deputy Log

114 Logs

Total Traffic Stop:	150	for a total of	2055 minutes
Total Administrative Duty:	123	for a total of	2165 minutes
Total Briefing:	100	for a total of	2300 minutes
Total Community Relations:	20	for a total of	150 minutes
Total Follow-Up:	142	for a total of	4440 minutes
Total Proactive Patrol:	501	for a total of	9670 minutes
Total Special Detail:	23	for a total of	590 minutes
Total Selective Enforcement:	320	for a total of	6210 minutes
Total Self-Initiated Activity:	32	for a total of	885 minutes
Total Service Requests:	295	for a total of	8320 minutes
Total Training:	3	for a total of	135 minutes
Total Service Request Assist:	63	for a total of	1915 minutes
Total Property Check:	44	for a total of	530 minutes
Total Court Off-Duty:	4	for a total of	480 minutes

Total Records, Minutes and equivalent Hours:	2,099	41,625	=	693 hours	45 minutes
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General Fund Patrol

4 Logs

Total Traffic Stop:	1	for a total of	25 minutes
Total Administrative Duty:	1	for a total of	5 minutes
Total Proactive Patrol:	12	for a total of	160 minutes
Total Special Detail:	1	for a total of	150 minutes
Total Self-Initiated Activity:	2	for a total of	60 minutes
Total Service Request Assist:	2	for a total of	25 minutes

Total Records, Minutes and equivalent Hours:	19	425	=	7 hours	5 minutes
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Supervisor Log

1 Logs

Total Administrative Duty:	5	for a total of	320 minutes
Total Briefing:	2	for a total of	50 minutes
Total Proactive Patrol:	2	for a total of	60 minutes
Total Selective Enforcement:	2	for a total of	20 minutes

Total Records, Minutes and equivalent Hours:	15	480	=	8 hours	0 minutes
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Combined Total Records, Minutes and equivalent Hours:	2,133	42,530	=	708 hours	50 minutes
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119 Total Logs

Incident Summary Report

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments :

Offense Class Code	Offense Class Description	Count
210	CSC I - PENETRATION - P/V - FORCE	7
215	CSC I - SODOMY - O/A - FORCE	1
226	CSC IV - FONDLING - FORCE	1
310	ROBBERY WITH FIREARM	3
318	ROBBERY WITH OTHER WEAPON	2
320	ROBBERY - STRONG-ARM	2
430	ASSAULT - OTHER WEAPON	8
440	ASSAULT WITH HANDS - FISTS - FEET	3
450	ASSAULT AND BATTERY	33
460	INTIMIDATION / THREAT	17
463	AGGRAVATED STALKING - MISDEMEANOR	1
499	ASSAULT (ALL OTHER)	4
510	BURGLARY - HOME INVASION - 1ST DEGREE	27
512	BURGLARY - FORCE - NON-RESIDENTIAL	3
521	BURGLARY - NO FORCE - RESIDENTIAL	5
634	RETAIL FRAUD II - SHOPLIFTING UNDER \$1000 - MISDEM	2
636	RETAIL FRAUD III MISD	1
643	LARCENY FROM VEHICLE - B&E (INCLUDES W/DAMAGE - 750.356 A-B)	27
653	OF VEHICLE PARTS / ACCESSORIES - B&E	4
670	IN A BUILDING	1
699	LARCENY - ALL OTHER	20
710	AUTOMOBILE (CAR) THEFT	11
810	ARSON	1
1020	FORGERY - CHECKS (alter / copy / imitate & pass as genuine)	1
1115	FRAUD - CREDIT CARD / AUTO TELLER MACHINE- (ATM) / FINANCIAL TRANS. DEVICE USE	1
1122	LARCENY BY CONVERSION	1
1155	FALSE STATEMENTS (FINANCIAL CONDITION)	2
1170	MVT - FAIL TO RETURN BORROWED VEHICLE	1
1176	RETAIL FRAUD II - MISREPRESENT PRICE	4
1199	ALL OTHER	11
1210	EMBEZZLEMENT	2
1330	STOLEN PROPERTY - RECEIVING / CONCEALING / POSSESSING	1
1340	STOLEN AUTO - REPORTED BY OTHER JURIS	2
1410	MDOP - MALICIOUS DESTRUCTION OF PROPERTY	32
1503	CCW PROHIBITED ZONE	1
1610	PROSTITUTION AND VICE	3
1799	CSC - NON-FORCIBLE SEXUAL - OTHER	1
1814	CRACK COCAINE - USE / POSSESS	1
1816	COCAINE - USE / POSSESS	2
1821	MARIJUANA - USE / POSSESS	5
1853	OTHER NARCOTIC - USE / POSSESS	2
1875	NARCOTIC EQUIPMENT / DEVICE VIOLATIONS	1
2015	CRUELTY TOWARD CHILD / NON-VIOLENT	1

Incident Summary Report

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments :

Offense Class Code	Offense Class Description	Count
2020	NEGLECT OF CHILD	3
2022	CRUELTY / NEGLECT - OTHER	2
2099	OTHER NON-VIOLENT OFFENSES	19
2115	OUI LIQUOR - includes per se	3
2116	SECOND OFFENSE	1
2315	CONTEMPT OF COURT - BENCH WARRANT - FTCJ	1
2319	SEX OFFENDER REGISTRATION VIOLATION	1
2321	SOR FAIL TO COMPLY	1
2395	ESCAPE / FLIGHT - OTHER	1
2397	OBSTRUCT JUSTICE - OTHER	1
2399	OBSTRUCT POLICE - OTHER	2
2405	DISORDERLY CONDUCT	76
2440	PUBLIC NUISANCE	51
2443	OBSCENE TELEPHONE CALLS	19
2454	CURFEW VIOLATION	3
2456	LOITERING - 17 YEARS AND OLDER	9
2499	DISORDERLY - ALL OTHER	14
2535	UNLAWFUL ENTRY - NO INTENT	1
2560	TRESPASS	6
2568	PURCHASE CIGARETTES	1
2599	ALL OTHER	1
2689	ANIMALS AT LARGE	54
2690	SOLICITATION TO COMMIT A CRIMINAL OFFENSE	7
2691	CONSERVATION LAWS	6
2694	CIVIL RIGHTS VIOLATIONS	2
2697	ANIMAL CRUELTY 4 YR FEL	1
2701	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	2
2702	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	2
2706	LOCAL ORDINANCES - ANIMAL CONTROL ORDINANCES	1
2780	LOCAL ORDINANCES - OPEN FOR ANY	6
2820	RUNAWAY	15
2822	LOST / MISSING JUVENILE	1
2840	MALICIOUS MISCHIEF	3
2899	ALL OTHER	44
2925	RECKLESS DRIVING	1
2931	OPS LICENSE SUSPENDED / REVOKED	15
2933	VEHICLE REGISTRATION - IMPROPER / EXPIRED	1
2934	VEHICLE INSURANCE - NONE / EXPIRED	1
2935	DWLS 2ND	2
2936	OPS - NEVER ACQUIRED	3
2999	ALL OTHER	3
3010	FELONY	11
3020	MISDEMEANOR	26

Incident Summary Report

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments :

Offense Class Code	Offense Class Description	Count
3040	FELONY - O/JURIS	7
3050	MISDEMEANOR - O/JURIS	12
3070	CIVIL / FRIEND OF THE COURT	4
3101	ACC, SINGLE MOTOR VEH	1
3113	ACC, INJURY TYPE B	1
3114	ACC, INJURY TYPE C	3
3145	TRAFFIC CRASHES - PROPERTY DAMAGE	52
3148	MOTOR VEHICLE - ANIMAL	1
3150	PROPERTY DAMAGE - H & R	11
3155	PERSONAL INJURY	1
3170	PRIVATE PROPERTY	3
3175	PRIVATE PROPERTY - H & R	4
3208	DEATH INVESTIGATION - CAUSE UNKNOWN	3
3217	ATTEMPT SUICIDE - ADULT	1
3250	MENTAL	22
3299	WELFARE CHECK	3
3309	LIQUOR INSPECTION	1
3310	FAMILY TROUBLE	54
3312	NEIGHBORHOOD TROUBLE	13
3314	MISSING PERSONS	4
3316	LOST PROPERTY	5
3318	FOUND PROPERTY	4
3324	SUSPICIOUS CIRCUMSTANCES	228
3326	SUSPICIOUS VEHICLES	13
3328	SUSPICIOUS PERSONS	68
3330	ASSIST OTHER LAW ENFORCEMENT AGENCY	22
3331	ASSIST MEDICAL	42
3332	ASSIST FIRE DEPT	2
3333	ASSIST MOTORIST	17
3334	ASSIST OTHER GOVT AGENCY	5
3336	ASSIST CITIZEN	65
3338	ARREST ASSIST - OTHER AGENCY	1
3344	RECOVERED STOLEN VEHICLE - OTHER JURISDICTION	1
3345	ACCIDENTAL PROPERTY DAMAGE	2
3351	CIVIL - LANDLORD / TENANT	21
3352	CIVIL - VEHICLE TAKEN WITHOUT PERMISSION	1
3354	CIVIL - FAIL TO RETURN BORROWED VEHICLE	1
3355	CIVIL MATTER - OTHER	44
3360	DISCHARGE OF WEAPON BY OFFICER	1
3501	OPEN GENERIC	23
3509	OPEN GENERIC	34
3511	OPEN GENERIC	3
3523	OPEN GENERIC	64

Incident Summary Report

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments :

Offense Class Code	Offense Class Description	Count
3524	OPEN GENERIC	7
3527	OPEN GENERIC	1
3599	OPEN GENERIC	10
3702	ROAD HAZARD	13
3704	ABANDONED AUTO	23
3706	VEHICLE IMPOUND	2
3708	PRIVATE IMPOUND	55
3728	PARKING COMPLAINT	1
3732	TRAFFIC MISCELLANEOUS B COMPLAINT	8
3799	TRAFFIC MISC	2
3803	ANIMAL - BARKING DOG	7
3804	ANIMAL COMPLAINT	36
3808	ANIMAL BITE / SCRATCH	11
3812	ANIMAL PICK-UP - ALIVE	13
3902	BURGLARY ALARM	111
3904	OPEN	9
3906	ROBBERY	5
3907	PANIC ALARM	8
4054	FAIL TO STOP FOR SCHOOL BUS	1
4222	ABANDONED MOTOR VEHICLE	2
5170	FALSE CALL I / I / C / F	6
6018	VEHICLE INSPECTIONS	7
6199	OTHER	42
6310	K-9 TRACKING	2
6501	INSPECTION	8
6507	PATROL	5

Grand Total: 1,945

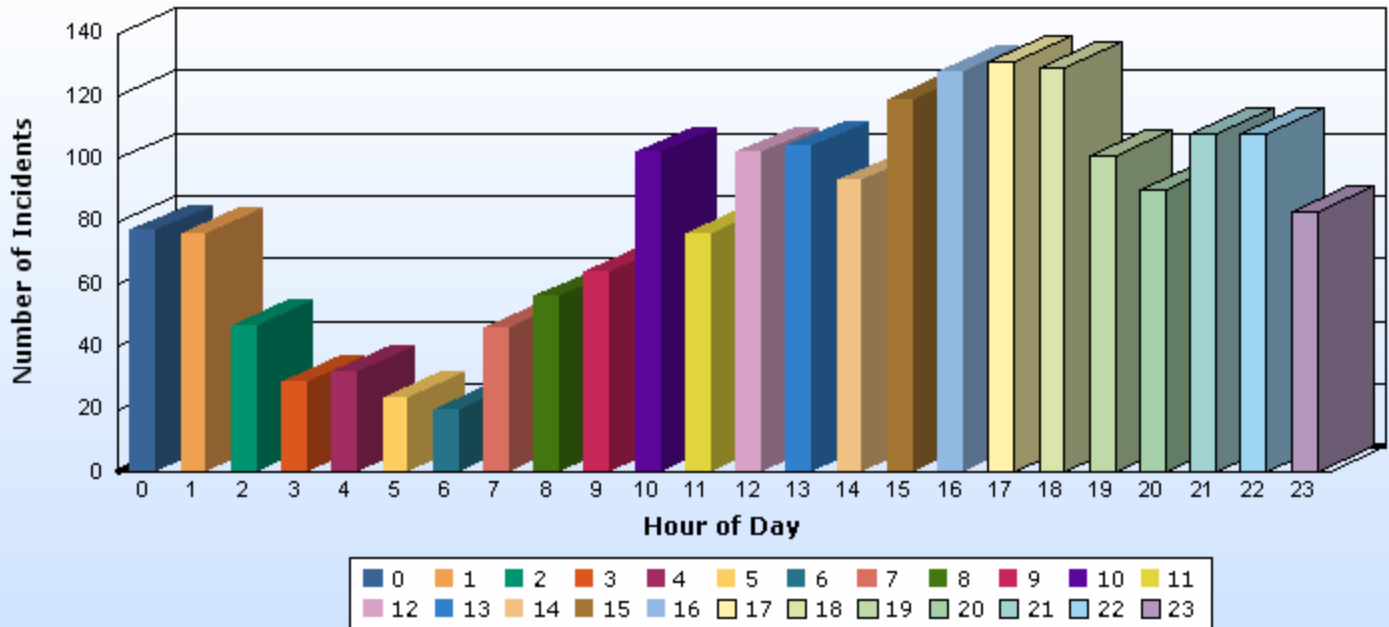
Number of Incidents by Time

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



Hour of Day	Count
0:00	77
1:00	76
2:00	47
3:00	29
4:00	32
5:00	24
6:00	20
7:00	46
8:00	56
9:00	64
10:00	102
11:00	76
12:00	102
13:00	104
14:00	93
15:00	119
16:00	128
17:00	131
18:00	129
19:00	101
20:00	90
21:00	108
22:00	108
23:00	83
Total	1,945

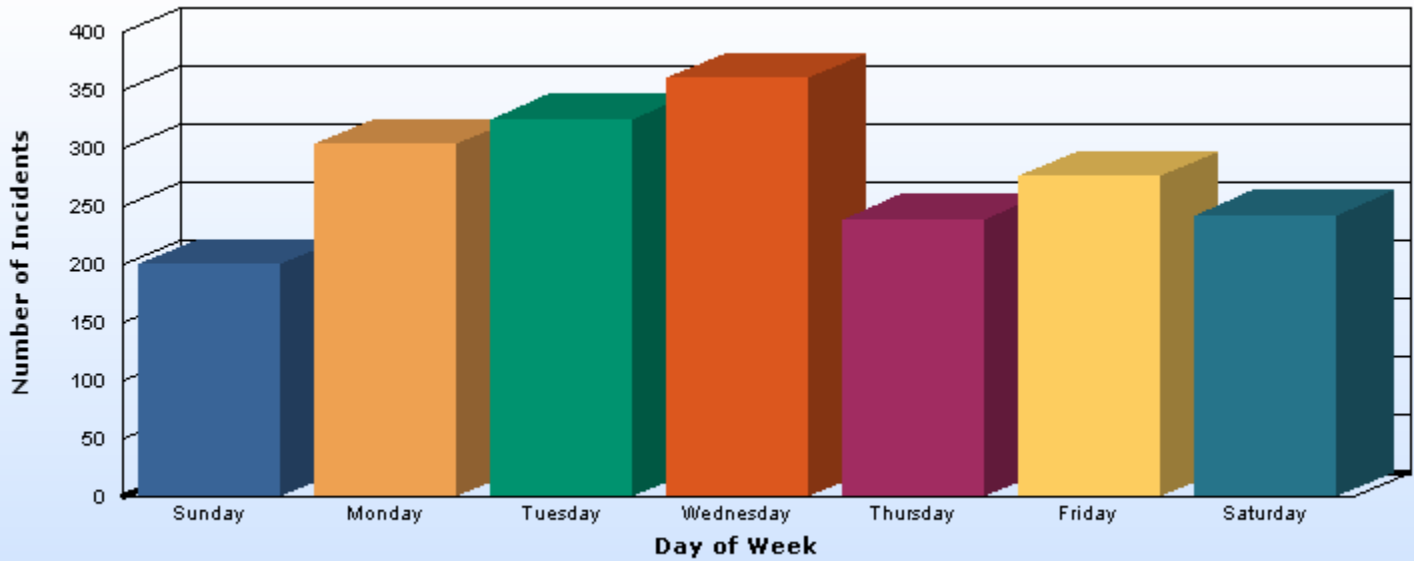
Number of Incidents by Day

Report Description

Timeframe : From 2010-03-01 00:00:00 To 2010-03-31 23:59:00

Location : MunicipalArea | YPSILANTI TOWNSHIP

User Comments : N/A



■ Sunday ■ Monday ■ Tuesday ■ Wednesday ■ Thursday ■ Friday ■ Saturday

Day of Week	Count
Sunday	200
Monday	303
Tuesday	325
Wednesday	360
Thursday	239
Friday	276
Saturday	242

Total 1,945

Charter Township of Ypsilanti Recreation Department

2010 Monthly Reports – March & April

“Creating Community through People, Parks and Programs”

As we enter into the spring season, staff at the recreation department continues to step up to the challenge of doing more with less staff. We have made several adjustments to streamline operations in light of the reduction of hours to clerical and custodial staff. There have been bumps in the road; however, we believe we have been able to maintain the majority of services our community has gotten used to. We are dedicated to providing high quality recreational programs and services.

March and April were very busy months for the Recreation Department. Registrations in just about all areas were strong with many classes filling and very few classes being cancelled due to low enrollment. In addition to program participation, we have been receiving a high number of requests to rent out rooms at the community center and have been receiving more requests for park rentals. We believe that the large amount of calls we get daily and the high amount of traffic we get at the community center each day is a strong indicator that our community values and needs our services. We are an essential part of their lives. We continue to provide high quality programs and services at affordable rates. In many instances, we are either the sole provider or the primary provider for many recreational programs offered to our community. We are making a positive impact on the mental and physical health and well being of those we serve.

Behind the scenes, staff worked hard planning for the upcoming summer and fall seasons. A lot of time was placed towards finding new and exciting programs to offer. We continue to work on finding ways to improve our long standing programs. In some instances, we have eliminated programs that no longer have the popularity they once had.

As always, this report highlights many of the programs and services that were offered during the months of March and April. As always, this report will highlight some of the **“Benefits & Outcomes”** that our programs and services provided to our community rather than simply listing the programs and services. In other words, the importance of what we do is better understood by measuring the “benefits & outcomes” as a result of what we do. This report also highlights some of the hard work staff has been doing behind the scenes to bring in new programs and services while reducing costs and increasing revenues.

1. Partnerships & Sponsorships:

- Our Partnership with the National Kidney Foundation continues with our Monday-Wednesday-Friday Enhanced Fitness Class. We have been averaging over 30 participants per class.
- The Catholic Social Services continued to provide tax preparation free to our seniors in March and April. Seniors were able to come to our center and have both Federal and state forms completed at no cost to them. We added additional day this year due to the response and need for this service. Over 200 seniors had their taxes prepared at no cost to them. This service would normally cost between \$50 and several hundred dollars.
- The Lunch program through the Washtenaw Nutrition Program is growing by leaps and bounds. In the month of March we served 1,123 meals and 937 for April. We are still the largest site for Washtenaw County almost double any other nutrition site. We are very proud of our volunteers that help with this program. They are organized and the program runs smooth because of this.
- **EMU GRANT PROGRAM** – The agreement with EMU to provided instructors for their after school enrichment program was a great success bringing in \$3,375.00. We are now planning the summer program with them.
- Our Ypsilanti Township Softball teams are registered with the Michigan Amateur Softball Association (MASA).
- The Recreation Department offers the National Alliance for Youth Sports (NAYS) Start Smart programs. Parent-child groups participate in Start Smart programs together. The program helps parents and children by promoting a positive sports message and provides an alternative sports program for children under 7. We are registering for the next sessions of Start Smart Baseball and Golf this summer.

2. Marketing and Promotion:

- Staff completed work on developing the Spring/Summer edition of “Discover Ypsilanti Township” in March and it was mailed to our community in April. This edition featured advertisements from local businesses. Our commission for the sale of advertisements was \$1,822.88.
- Our “Facebook” page for the recreation department is growing in popularity. This is becoming a strong marketing tool for us as it allows

greater interaction with staff and our community. The popularity of “Social Networking” is surpassing printed media and even email. We promote many of our programs on our Facebook page. The community can post comments and photos’s on the site and share their experiences with everyone. We are working hard to build our “Fan” base on the site. Our Building attendants have stepped up to keep our Facebook site current.

- Once again the beautiful summer brochure is turning out to be a great marketing tool. We have taken many calls about our programs from people that read the brochure and have signed up several new families on WebTrac.
- We have started to work on this year’s bazaar scheduled for the first weekend in October. This year we have formed a special bazaar committee. Each group and club will be asked to take on a specific duty for the bazaar. In May we will send letters to the crafters from last year and offer them a table before we open it to the public in June. We see the bazaar not only as a fundraiser for the senior program but also a wonderful marketing and promotion tool for the community center and the township.
- We are incorporating many cross marketing techniques here at the community center. We are letting parents know about kid, adult and senior programs. We tell the seniors about kid programs. We understand the power of the family unit. We have seen an increase of members in the senior program that register because a family member or friend told them about us. It works both ways because we have seniors whose grandchildren or great grandchildren are enrolled in one or more of our programs.
- We hold clinics for new participants to help introduce them to our programs. Our upcoming programs are promoted in the gym. We reach new participants with our “bring-a-friend” practice programs. Our families invite friends, classmates and neighbors to join our programs and we keep in touch by phone and email. Our parents are very supportive of their kids and they also bring additional family members and friends to games to cheer the players on.

3. Reference and Referral

- The importance of offering reference and referral through our senior program is evident by the large number of seniors who either walk in or call to ask for help. Here is an example that shows the confidence our members have in us: One of our members approached the

coordinator, Debbie, and asked her to agree to help her family when she or her husband pass on. This member said that her children are aware of what they want as far as the service goes but she wants us to help the children with the get together afterwards. She said that we knew all of her friends and she really wanted to have the gathering here at the center. She said this place is home to her. This just shows the trust level our members have in us.

- We get very busy and find it difficult to write down every time we help a member but rest assured that it is on a daily basis in one way or another. From calling referral agencies for them to just being there to listen our members know that we care and that we are here for them.

4. Community Collaboration and Outreach:

- On the first Thursday of every month we continue to host the Focus Hope food distribution. Seniors come to the community center and register with Focus Hope and receive several boxes of staple foods. Sadly we have seen the number of seniors needing this service grow over the past several months. Again we are one of the largest sites for our county. Our numbers are averaging 180 families a month.
- We love to throw a good party, but really our goal is to reach out to our members and other residents to provide an opportunity to socialize and have a little fun. We like to think of our events as the seniors “Facebook”. In March we celebrated St. Patrick’s Day and in April it was Easter, Volunteer appreciation, Earth Day, and our annual Shower for the center.
- In March we continued to see an increase in participation in our daily activities. Our biggest growth was in the classes that we offer; we had over 1,800 seniors take a class in the month of March. Other areas that had an increase include “socializing” with 652 participants that indicated they were here to socialize. 343 members said they came to listen to the county music, 565 members came to walk, 457 were here to play table games, and 1,123 came to eat lunch.
- Between our classes, special events, organized games, volunteer opportunities, trips, club meetings, lunch, health activities, pot luck, bingo and other activities over 5,500 members passed through our doors in March. That doesn’t include our monthly newsletter that is mailed to over 850 households and is available at various local businesses, the Civic Center and local library.

- **Earth Day Celebration:** We invited a local breeder of tree frogs to bring some of his collection. He spent 30 minutes in our senior room talking to the members about tree frogs and then he visited the children in Kids Korner. Everyone was amazed at the display. The seniors Styrofoam cups were replaced with paper or ceramic mugs for the day.
- **SHOWER** for the center: The seniors brought in items that we use every day. Each table took turns opening the gifts. We collected many items that will save the center hundreds of dollars over the next several months.
- Our Community Collaboration with Willow Run Community Schools and Ypsilanti Public Schools continued with the schools providing gym space for our youth basketball and soccer programs. We provided these programs at Ford, Holmes, Kaiser, Chapelle, Erickson and Cheney elementary schools and West and Willow Run middle schools.
- Many teams and organizations continue to call our fields and courts home. The Ypsilanti Lincoln Soccer Club practices and plays their home games at Ford Heritage Park. National Little League baseball and softball play at the Harris Road Park and hold player registration at the Community Center. Several AAU and community basketball teams hold practices at the Community Center Gym.

5. Collaboration with other Departments:

- Our township firefighters provide blood pressure screening every month for our members. As we all know high blood pressure is known as the silent killer. We had one senior that was told to go to their doctor for a follow up due to the blood pressure reading the firefighter found. This is a life saving service.
- We continue to collaborate with the other branches of the Residential Services Department on a multitude of projects each month. Some of the projects include repairs, sports field development and creating better ways to run the physical aspects of our programs. This positive working relationship has allowed us to grow by having high quality facilities.
- During March and April we coordinated game and practice field preparations with Parks and Grounds maintenance staff. We had several meetings with the park maintenance staff to plan for the soccer, softball and baseball practices in April. Our fields are ready to host over a hundred games a week during May.

6. Health & Wellness:

- We continue to offer many fitness classes including Yoga, Zumba, exercise classes, line dancing, and Tai Chi. These classes are free to our member and provide a healthy outlet for physical activity. The program is paid for by grant money through the college. This partnership saves our staff time and money on instructors. These types of classes are also what the younger senior is looking for. Our enrollment in these classes has more than doubled in the past 6 months.
- Thursday afternoon has become Wii Fit day for the “50 & Beyond” members. Our staff takes the members through a workout routine using the Wii. They can either exercise, hula hoop, bowl, tennis or other options that come with the Wii fit game counsel.
- The members can now enjoy a professional 25 minute massage every Thursday. Massage is not for just feeling good. It truly can benefit the aging body. Our certified therapist is trained to work on all types of physical problems.
- Our weekly **Pickleball** sessions continue to gain popularity. Even some of our racquetball league players have given it a try. We started off offering it once a week, then it was twice a week and now we have several playing four times a week. This is a great form of exercise that combines badminton, tennis and ping pong. The seniors love it. If we had the space we would start a league.
- Our youth sports programs not only offer the opportunity for our children to develop social skills but are also an excellent way to promote physical fitness and combat obesity.

7. Provide Recreational Experiences:

A. “50 & Beyond”

- To date our 2010 membership stands at 897 and growing everyday. We believe this great number of new members is due to several things; great programs, friendly environment, wonderful staff, and effective marketing. The members from 2009 that have not renewed their membership for 2010 were recently sent a friendly reminder letter. Many of them had simply forgot. We did get a very nice letter back from one member, she wrote: *“I will not be able to renew my membership at this time, maybe next year. My husband passed away in March of 2010. We enjoyed traveling with the Ypsi Township*

seniors as well as other activities and I congratulate you on running a great program.”

- Our “50 & Beyond” members continue to enjoy a multitude of active and passive programs offered daily. For many we have become their “Home Away from Home.” Many involved with our program arrive as early as a half hour or more prior to our opening. We have become their livelihood.

B. “Enrichment & Special Events”

- **Summer Camps** – All of the work is done for the summer camp program. Many long hours have gone into the preparation for this program. The parent handbooks are complete and we have started taking registrations. All summer camp staff is hired and will go through an all day training June 12th. Several staff are returning from last year.
- **The Kids Korner & Summer Camp Open House** was a great success. We had a steady flow of parents all day. The parents we talked to liked the changes we have put into place. As a matter of fact one parent came to open house to sign all three of her children up. This is the same parent that wanted only a 3 day camp last year and quickly found that her two children enrolled wanted to come all 5 days and not stay at home. She has such wonderful things to say about what her children experienced. Her trust in our program is strong enough that she has enrolled her 5 year old diabetic son for this summer. She knows that our staff can be trusted to keep her son safe and happy.
- Our annual **Dance Recital** took place on May 1st at the Willow Run Theatre. This year we had two show’s with over 500 in attendance at each show. In addition to all of our youth dancers, the “50 & Beyond” program entered three routines into the show. They tapped and Hula danced to rousing applause. Over all the show was a complete success due to the hard work & dedication to our dance instructors.
- **Kids Korner** is now taking registration for the fall season. The big news with this program is the availability for the parent to reserve their space for the entire school year. (Sept.-May). Parents love this option and it makes sense educationally. We believe that when our parents are happy they will consider other programs we offer. They will also tell their friends and family about us. The fall sessions for 2010 are almost full.

- **Special Events** – We have organized 2 different special events for kids this summer. Barbie’s Tea Party and Superhero Extravaganza. These are inexpensive activities that we hope the kids will attend. We will keep you posted.
- **Spring Break Camp** – The camp went off without one problem. We had 22 kids participate. The theme was “Under the Big Top” and we ended the week with Cirque Amoungus. The kids put on a real circus performance for their parents. Everyone had a blast! We had one young boy that is Autistic. His mom and dad were in tears during the performance watching him participate. They told our staff that he has never finished a week at any other camp and that the staff usually ended up sending him home after just a couple days. Needless to say those parents will be singing our praises for a long time to come.

C. “Sports & Fitness”

- Youth Soccer practices and games began in April. All games are played at Ford Heritage Park. Teams also practice at Ford Heritage Park as well as, Ford Lake Park, Burns Park and Wendell Holmes Park.
- Youth baseball practices began in April, teams open their seasons beginning May 17. Games and practices are held at Ford Heritage Park. Teams also practice at Appleridge Park, Wendell Holmes Park, Nancy Park, Lakeview Park, Community Center and Ford Lake Park.
- During March children participated in our micro basketball, youth basketball, gymnastics, Karate, soccer and tennis programs.
- During April children participated in our youth baseball, gymnastics, Karate, soccer and tennis programs.
- Our **FUTSAL** Winter Soccer training met at the West Middle School Gym through March. Players enjoyed playing inside during the winter months while they worked on technical skills and footwork.
- **Okinawan Karate** students learned defense tactics that help build a strong mind and body. Okinawan Karate trains adults and children in defensive tactics and proper self defense methods. The class emphasized physical and mental growth along with socially responsible behavior. Some of the many traits developed through martial arts are self-confidence, respect and discipline.
- **Little Ninjas** introduced children to Karate and basic self defense techniques. Children learned safety tips such as how to get out of the

grasp of a predator and when to use a shin kick. They had fun with games, various exercises and improved coordination with basic kicks and jabs.

- Our **indoor tennis training program** uses foam tennis balls and a portable tennis net allowing students to train indoors during the winter. The players trained in ball control and hand-eye coordination exercises. Games and drills were essential parts of the class in order to instruct the students in the forehand, backhand, approach, volleys, overheads, lobs and serves.
- Our **gymnastics** is a foundation for all sports and a life time of physical fitness. Our Gymnasts participated in developmentally sound and safe basic gymnastics skills. They enjoyed training for all of the men's and women's Olympic events including vaulting, balance beam, uneven bars, low horizontal bar, still rings, parallel bars, pommel horse and floor exercise.
- **Jump-A-Rama Gymnastics** teaches basic gymnastic techniques focusing on body awareness, self-confidence, hand-eye coordination, inverted orientation and lateral awareness. Children will experience skills such as rolls, hand stands, bridges, and cartwheels. Each week an obstacle course will be set up based on a theme, which will include: forward, backwards, sideways, and bean bags.
- During March and April adults participated in our Body Blast Boot Camp and Softball Programs.
- **Body Blast Boot Campers** feel better about themselves, this super-slimming, body-sculpting class helped them lose weight and BLAST calories. They enjoyed this low-impact fat burning aerobic and strength training style class, which shapes the whole body using resistance bands, lightweights, exercise balls, and cardio.
- Our **Ypsilanti Township Softball program** managers meetings and umpire clinics were held in April. MASA Men's, Women's and Coed leagues began in April.
- Our **racquetball leagues** ended in April. They remain a popular component of our department. We had five leagues with a total of 35 participants.

8. Staff/Volunteer/Participant Development:

- The Recreation Director has been meeting more frequently with the support staff (a couple of times a week). These meetings allow for input by the support team and collectively we are evaluating the procedures of our

front line functions. The Clerical Staff are very talented and offer valuable information on how we can improve service. Their ideas are well thought out and most of them are incorporated into our procedures.

- Our Youth Soccer, Youth Baseball and Adult Softball programs are officiated by a staff of over 30 sports officials. Meetings and clinics for our soccer and baseball officials were held at the Community Center, West Middle School and at Ford Heritage Park in March and April. These sessions help our part-time staff and volunteers continue their education in the sport they are participating in. They learn about developing skills to provide positive support for our players in our Youth Soccer, Pre-School Soccer, Youth Baseball, Coach Pitch and T-Ball programs.
- Our Start Smart programs train parents & coaches for our youth sports programs. They also & develop future participants for our organized sports programs.
- Training and educating youth sports coaches is just the first step in ensuring that our children in sports league enjoy a positive, safe and rewarding experience. Once the season begins and teams take the field for that first practice, our job as a youth sports administrators is only just beginning. We make it a habit to visit practices and engage in friendly chat with assistants and parents, as well as observe the interaction of coaches and players. We also make it a habit to watch the games and monitor sideline behavior, as well as sit in the crowd and listen. We also have an excellent relationship with our referees and get feedback after every game from them.
- During our sports seasons players make new friends and families spend time getting to know each other. Our recreation programs help promote social bonds by uniting families. Our seasons end with team celebrations providing family and community bonds that last a lifetime.
- Parents enroll their children in our programs to receive certain benefits as a result of the time spent in the program. Every aspect of play taught/coached at any one age is reinforced at the next age. We strive to help each player reach his or her full potential and be prepared to move to the next stage of development. We help develop their child's appreciation of the game. Our coaches are sensitive to each child's development needs. The players learn the technical, tactical, physical and psychological demands of the game for their level. We implement rules and equipment modification according to the player's age group. All players experience all positions, have fun

and receive positive feedback. Practices are conducted in the spirit of enjoyment and learning. The appropriate number of practices and games are provided according to the player's stage of development. Our youth sports programs are building confidence and self-esteem, and making sports fun. They provide opportunities for our players to live, grow, and develop into contributing members of society.

9. Park Operations:

- Plans are well underway for the 2010 park season. We have our staff hired, many of which are returning from last year. Staff training & orientation will take place on May 14th & 15th. Live training will take place the weekend of May 21st-23rd and the parks will be staffed seven days a week beginning Memorial Day weekend.
- We are working on a collaboration with EMU and WCPARC to build a boathouse and other park amenities in Lakeside Park. We have applied for a grant through the MDNRE Trust Fund.

10. Events & Programs:

Upcoming "50 & Beyond Trips" and Programs:

Ceramics	Red Hat Trip
Red Hat	Casino Windsor Trip
Yoga	Eastern Market trip
Bingo	Landscapes with pastels & chalk art
Country music	Movie Day
Senior surfer's computer class	Home Scams-Speaker
Lively Singers	Pickleball
Lifetime fitness exercise class	Lively Singers Spring Concert
TOPS	Massage by Lauren
Recycled card crafts	Laughter Yoga
Tap dance class	Mother's Day Brunch
Hawaiian dance class	Enhanced Fitness
Line dance class	Scrabble Club
Watercolor & Ink art class	German Club
Tai chi	Birthday celebration Tuesday
Domino club	Foot Nurse Visit
Bridge club	Quilters club
Senior band	

Upcoming Enrichment Events & Programs:

Summer camps	Jump-A-Rama Cheer
Jump-A-Rama Gymnastics	Pre-School Art classes
Ukulele Stars – Lessons	Little Crumbs Cooking Classes
Junior Chef Academy	Summer Dance Classes
Amazing Mom/Son Race	Superhero Extravaganza
Barbie fashion Tea Party	Wonderful World of Color art classes
Craft Sessions	Adult Travel
Basic Massage	Therapeutic Massage
Moms in Motion	Tap Dance for Adults

Upcoming Health, Sports Events & Programs:

Start Smart Baseball	T-Ball
Coach Pitch Baseball	Youth Baseball
Aquafina Pitch, Hit & Run	Start Smart Golf
Junior Golf Clinics	Junior Golf Lessons
Track & Field	Willow Run Swim Club
Basketball Camp	Start Smart Basketball
Tennis Lessons	Little Ninja's
Okinawan Karate	Youth Soccer Camp
Pre-School Soccer	Soccer Leagues
Zumba	Body Blast Boot Camp
Yoga	Adult Softball

Respectfully Submitted,

Art Serafinski, CPRP, CPSI, Recreation Director

WORK SESSION AGENDA
CHARTER TOWNSHIP OF YPSILANTI
TUESDAY, MAY 18, 2010

**** PLEASE NOTE START TIME ****

6:00 P.M.

**CIVIC CENTER
BOARD ROOM
7200 S. HURON RIVER DRIVE**

1. DISCUSS EXTENSION OF CONTRACT WITH GOVERNMENTAL CONSULTANT SERVICES, INC.
2. REVIEW AGENDA

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE



Supervisor's Office

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 481-0617
Fax: (734) 484-0002
www.ytown.org

TO: Township Board

FROM: Brenda L. Stumbo, Supervisor

A handwritten signature in black ink, appearing to read 'Brenda', is written over the printed name 'Brenda L. Stumbo'.

DATE: April 28, 2010

RE: GCSI Contract

Per our budget meeting last fall, the 2010 GCSI contract is for only a six month period, which is what was budgeted. The contract will expire at the end of June 2010.

Now is the time to decide if we wish to continue utilizing this professional service. If the Board chooses to continue, we will need to do a budget amendment to accommodate an extension. Otherwise, we will have to notify them that we will cease using their services.

I am requesting that this item be placed on the next Board meeting agenda for consideration.

If you have any questions, please contact me.

tk

REVIEW AGENDA

- A. SUPERVISOR STUMBO WILL REVIEW BOARD
MEETING AGENDA

OTHER DISCUSSION

- A. BOARD MEMBERS HAVE THE OPPORTUNITY TO DISCUSS ANY OTHER PERTINENT ISSUES

**CHARTER TOWNSHIP OF YPSILANTI
REGULAR MEETING
TUESDAY, MAY 18, 2010**

**BRENDA L. STUMBO, SUPERVISOR
KAREN LOVEJOY ROE, CLERK
LARRY J. DOE, TREASURER**

**TRUSTEES:
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE**

AGENDA

TIME AND PLACE	7:00 P.M.	YPSILANTI TOWNSHIP CIVIC CENTER BOARD ROOM 7200 S. HURON RIVER DRIVE
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1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE AND INVOCATION
3. PUBLIC HEARING
 - A. 7:00 P.M – REQUEST OF FORD MOTOR COMPANY (RAWSONVILLE PLANT), LOCATED AT 10300 TEXTILE ROAD IN YPSILANTI TOWNSHIP, FOR EXEMPTION OF NEW PERSONAL PROPERTY, RESOLUTION NO. 2010-8
4. PUBLIC COMMENTS
5. MINUTES
 - A. APRIL 20, 2010 WORK SESSION, REGULAR MEETING AND EXECUTIVE SESSION
 - B. MAY 5, 2020 SPECIAL MEETING
6. SUPERVISOR REPORT
7. CLERK REPORT
8. TREASURER REPORT
 - A. APRIL 2010
9. TRUSTEE REPORT
10. ATTORNEY REPORT
 - A. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE FOR THE PROPERTY LOCATED AT 1122 LAUREL
 - B. GENERAL LEGAL UPDATE

OLD BUSINESS

1. 2ND READING RESOLUTION NO. 2010-05, ORDINANCE NO. 2010-404 – AMENDING THE TOWNSHIP'S ZONING CODE, ORDINANCE 74, ARTICLE II, SECTION 201 (DEFINITIONS) AND ARTICLE XII LIGHT INDUSTRIAL DEFINE MEDICAL MARIHUANA DISPENSARIES, MEDICAL MARIHUANA NURSERIES, AND REGULATE THEIR LOCATION (1ST READING AT THE MAY 5, 2010 SPECIAL MEETING)
2. 2ND READING RESOLUTION NO. 2010-07, PROPOSED ORDINANCE NO. 2010-405, AMENDING CHAPTER 42, ARTICLE VII, DIVISION 1, SECTION 324, ENTITLED "CURFEW FOR MINORS AND PARENTAL RESPONSIBILITY" OF THE CHARTER TOWNSHIP OF YPSILANTI CODE OF ORDINANCES (1ST READING AT THE MAY 5, 2010 SPECIAL MEETING)

NEW BUSINESS

1. BUDGET AMENDMENT #6
2. WASHTENAW COUNTY ROAD COMMISSION 2ND AGREEMENT
3. RESOLUTION NO. 2010-9 AUTHORIZING RECEIVING BOARD FOR ELECTIONS
4. RESOLUTION NO. 2010-10 CHANGE IN BOARD MEETING DATES
5. REQUEST TO APPOINT DOUG LAMPE AS ALTERNATE ON THE WATER CONSERVATION ADVISORY COMMISSION
6. AUTHORIZATION TO PURCHASE FOUR PARCELS ON GLENWOOD AVE FOR POSSIBLE PARK LAND OR NATURAL PRESERVATION AREA FROM WASHTENAW COUNTY FOR \$59,245 OR TO PROCEED TO PURCHASE AT PUBLIC AUCTION.
7. SET PUBLIC HEARING DATE:
 - A. TUESDAY, JUNE 15, 2010 AT APPROXIMATELY 7:00 P.M. – REQUEST OF INTEGRATED SENSING SYSTEMS, INC. FOR AN INDUSTRIAL FACILITIES TAX EXEMPTION CERTIFICATE
 - B. TUESDAY, JUNE 15, 2010 AT APPROXIMATELY 7:15 P.M. – PRESENT THE MOBILE HOME RENTAL INSPECTION ORDINANCE AS REQUIRED BY THE STATE OF MICHIGAN

OTHER BUSINESS

STATEMENTS AND CHECKS

RESOLUTION NO. 2010-8

New Personal Property Tax Exemption, PA 328 of 1998, as amended

WHEREAS, the Charter Township of Ypsilanti meets the definition of an "Eligible Local Assessing District" under PA 328 of 1998, Section 7(g), by virtue of containing an eligible distressed area as defined by Section 7(f)(ii), in accordance with PA 24 of 1995, Section 9; and

WHEREAS, the Board of Trustees of the Charter Township of Ypsilanti established an Industrial Development District on October 4, 1977, as required under PA 328 of 1998 after a public hearing held on October 4, 1977; and

WHEREAS, the applicant, Ford Motor Company (Rawsonville Plant) meets the definition of an "Eligible Business" as defined by PA 328 of 1998 and is engaged primarily in automotive components assembly facility at the location of 10300 Textile Road, Ypsilanti, MI 48197; and

WHEREAS, the new personal property was not placed in the facility within the qualified district prior to approval of the exemption by the Board of Trustees of the Charter Township of Ypsilanti; and

WHEREAS, the taxable value of the property proposed to be exempt under PA 328 of 1998 considered together with the aggregate total taxable value of property previously exempt and currently in force under PA 328 of 1998, shall not have the effect of substantially impeding the operation of the Charter Township of Ypsilanti or impairing the financial soundness of an affected taxing unit; and

WHEREAS, the applicant, Ford Motor Company (Rawsonville Plant) is not delinquent on any taxes related to the facility, including taxes owed on existing personal property; and

WHEREAS, the exemption of new personal property for Ford Motor Company (Rawsonville Plant) shall have the effect of retaining forty (40) jobs for the Charter Township of Ypsilanti.

NOW, THEREFORE, BE IT RESOLVED by the Charter Township of Ypsilanti Board of Trustees that the applicant, Ford Motor Company, Rawsonville Plant be and hereby granted a New Personal Property Exemption for personal property, placed in the facility after this resolution, located in the Industrial Development District at 10300 Textile Road, Ypsilanti, MI 48197 for a period of six (6) years, beginning December 31, 2010 and ending December 30, 2016, pursuant to the provisions of PA 328 of 1998, as amended.



Ford Motor Company
Office of Tax Counsel
(313) 337-3413 Telephone
(313) 323-7493 Fax

Chris Hall
1 American Road
Room 617-A3
Dearborn, MI 48126
Chall58@ford.com

VIA HAND DELIVERY

April 23, 2010

Karen Lovejoy Roe
Township Clerk
Ypsilanti Township
7200 S. Huron River Dr.
Ypsilanti, MI 48197

**RE: Ford Motor Company – Rawsonville Plant
Application for Exemption of New Personal Property**

Dear Ms. Roe:

Enclosed are three copies of the Application for Exemption of New Personal Property submitted by Ford Motor Company ("Ford"). Ford respectfully requests the Township Council of Ypsilanti approve the Application for Exemption of New Personal Property for a period of six years, beginning on December 31, 2010 and ending December 30, 2016.

Enclosed is a check for \$1,000.00 which covers the filing fee for the Application for Exemption of New Personal Property.

If you have any questions or concerns regarding the applications, please call James White at (313) 322-4931. Thank you for your consideration of this matter.

Very truly yours,

A handwritten signature in cursive script that reads "Chris Hall".

Chris Hall
Manager - Indirect Taxes

Application for Exemption of New Personal Property

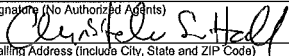
Issued under P.A. 328 of 1998. An exemption will not be effective until approved by the State Tax Commission.

INSTRUCTIONS: Read instructions on page 2 of this form before completing this application. File the original and two copies of this form and the required attachments (resolution approving, copy of legal description and a detailed description of the business operations) with the clerk of the local government unit. The State Tax Commission requires two complete sets.

PART 1: APPLICANT INFORMATION

1a. Applicant/Company Name (Applicant must be an ELIGIBLE BUSINESS) Ford Motor Company		2. County Washtenaw	
1b. Company Mailing Address (No. and Street, P.O. Box, City, State, ZIP Code) 1 American Road, Room 714, Dearborn MI 48126		3. City/Township/Village (Indicate which) Ypsilanti Township	
1c. Location of Eligible Business (No. and Street, City, State, ZIP Code) 10300 Textile Road, Ypsilanti MI 48197		4a. Local School District Lincoln	4b. School Code 81070
5. Check below the type of business in which you are engaged and provide a detailed description of the business operation on a separate sheet <input checked="" type="checkbox"/> Manufacturing <input type="checkbox"/> Research & Development <input type="checkbox"/> Office Operations <input type="checkbox"/> Mining <input type="checkbox"/> Wholesale Trade			
6a. Identify type of ELIGIBLE DISTRICT where Eligible Business and New Personal Property will be located Industrial Development District		6b. Governing Unit that Established ELIGIBLE DISTRICT Ypsilanti Township	
6c. Date ELIGIBLE DISTRICT was Established 10/4/1977			
7. Name of Person in the Eligible Business to Contact for Further Information Brenda Beck		8. Telephone Number (313) 206-4344	
9. Mailing Address 1 American Road, Room 714, Dearborn MI 48126			

The undersigned, authorized officer of the company making this application certifies that, to the best of his/her knowledge, no information contained herein or in the attachments hereto is false in any way and that all of the information is truly descriptive of the property for which application is being made. The undersigned, authorized officer further certifies that the applicant is an Eligible Business as defined in P.A. 328 of 1998.

11. Name of Company Official Christopher Hall		12. Title Manager - Indirect Taxes	
13. Signature (No Authorized Agents) 		14. Date 04/19/10	
15. Mailing Address (Include City, State and ZIP Code) 1 American Road, Room 714, Dearborn, MI 48126-2701			
16. Email Address chall58@ford.com		17. Telephone Number (313) 337-3413	
		18. Fax Number (313) 323-7493	

PART 2: LOCAL GOVERNMENT UNIT CLERK VERIFICATION

19. Name of Local Governmental Unit Which Passed Resolution for Exemption of New Personal Property		20. Date of Resolution (Attach Copy)		21. Expiration Date of Exemption	
22. Name of Clerk		23. Date application was received by Local Unit			
24. Clerk's Signature		25. Clerk's Mailing Address			
26. Telephone Number		27. Fax Number		28. Email Address	
29. LUCI Code		30. School Code		31. Date District was Established	

STATE TAX COMMISSION USE			
Application No.	Date Received	LUCI Code	School Code

ATTACHMENT #1

FORD MOTOR COMPANY
STATEMENT ATTACHED TO AND MADE PART OF
FORM 3427

APPLICATION FOR EXEMPTION OF NEW PERSONAL PROPERTY

RAWSONVILLE COMPONENTS PLANT

LEGAL DESCRIPTION OF REAL PROPERTY

Ford Motor Company
Rawsonville Components Plant
Legal description 10300 Textile Road

Parcel K-11-25-200-001

YP#25: BEG AT CENT OF SEC, TH W 1587.02 FT IN E & W 1/4 LINE; TH N 2584.55 FT; TH E 1553 FT PARALLEL TO & 50 FT S OF N LINE OF SEC; TH S 2588.31 FT IN N&S 1/4 LINE TO PL OF BEG. BEING PART OF NW 1/4 SEC 25, T3S-R7E 94.52 AC. (SURVEY)

ATTACHMENT #2

FORD MOTOR COMPANY
STATEMENT ATTACHED TO AND MADE PART OF
FORM 3427

APPLICATION FOR EXEMPTION OF NEW PERSONAL PROPERTY

RAWSONVILLE COMPONENTS PLANT

DETAIL DESCRIPTION OF THE BUSINESS OPERATIONS



Rawsonville Components Plant

Detailed Description of the Business Operations

The Rawsonville Components Plant (RCP), located at 10300 Textile Road is a 1,700,000 square foot facility. RCP is a components assembly facility that began its operations in 1956. RCP currently assembles starters, carbon canisters, and other automotive components for Ford Motor Company.

Ford Motor Company announced in January 2010 that it would assemble electric vehicles at the Ford Michigan Assembly Plant located in Wayne, Michigan. The electric vehicles require battery packs, and currently the battery packs for its hybrid vehicles are assembled in Mexico. Ford has made a decision to transfer its battery pack assembly operations to Michigan. One of the facilities Ford is considering for its battery pack assembly operations is the Rawsonville Components Plant.

Rawsonville will be responsible for the final assembly of the Battery Pack. This assembly involves acquiring components from our key suppliers and assembling them together and performing any testing required. The battery packs then would be shipped to the various assembly plants that manufacture electric or hybrid vehicles. The battery assembly operations would require about a nine million dollar investment into the Rawsonville Plant for equipment facilities and tooling. Some of the equipment needed for the assembly operations consists of conveyors, power tools, testing & charging equipment, and shipping racks. Installation of the equipment and tooling would start in 2011 with completion in early 2012. The first finished production of battery packs is projected to commence in June 2012. It is estimated that the assemble operations would employ 40 people.

PUBLIC COMMENTS

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE APRIL 20, 2010 WORK SESSION**

PROPOSED

Supervisor Brenda L. Stumbo called the meeting to order at approximately 6:00 p.m. in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township.

Members Present: Supervisor Brenda L. Stumbo, Clerk Karen Lovejoy Roe, Treasurer Larry Doe, Trustees Jean Hall Currie, Stan Eldridge, Mike Martin and Dee Sizemore

Members Absent: None

Legal Counsel: John Hancock and Wm. Douglas Winters

Supervisor Stumbo explained the Demattia Group would arrive at approximately 5:15 p.m. and the Executive Session would begin after their agenda item. She reviewed the agenda with further discussion on the following items:

REVIEW AGENDA

3. REQUEST TO ALLOW THREE FULL-TIME OFFICIALS, UPON THE RECOMMENDATION OF THE OFFICE OF COMMUNITY STANDARDS, TO AUTHORIZE LEGAL ACTION IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCES WHICH PRESENT AN IMMEDIATE HEALTH, SAFETY OR WELFARE DANGER

Supervisor Stumbo explained the request was similar to what the Board approved for the open basements. She said this would allow the Township to proceed more quickly when it came to health, safety and welfare. She reminded them it would be brought back to the Board for a formal vote.

Trustee Eldridge stated he would have to think about it but that he also understood the immediate need.

Supervisor Stumbo said it would eliminate the need to call a special meeting, which Trustee Martin did not like. She stressed these types of issues needed to be addressed as quickly as possible.

Treasurer Doe said it was important to move quickly because all properties eligible for NSP funds had to be identified and through the court process by the end of September. He stated anything that delayed the process could cause the Township to lose funding.

Trustee Eldridge said he understood but felt he was abdicating what he was suppose to do.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 WORK SESSION MINUTES
PAGE 2**

Clerk Lovejoy Roe stated the NSP funds were approximately \$200,000. She stressed this would allow them to get to court faster and that could not be done without authorization. Clerk Lovejoy Roe said it would save weeks of time and eliminate the need for a special meeting

4. REQUEST TO ALLOW THREE FULL-TIME OFFICIALS TO AUTHORIZE PROCEEDING WITH RFPS ON DEMOLITION OF PROPERTIES THAT QUALIFY FOR NEIGHBORHOOD STABILIZATION PROJECT (NSP) FUNDS WHICH MUST FOLLOW SPECIFIC HUD AND COUNTY BIDDING PROCESS

Clerk Lovejoy Roe stated HUD's bidding process was extensive and the Township was required to use their qualified bid list. A lot of time would be lost if they had to come to the Board before the County could start the HUD process. She explained there were several required steps before going to bid. Clerk Lovejoy Roe said this would allow the Township to move ahead but the award of the bid would be brought back to the Board.

Trustee Eldridge stated he needed to think about it.

Supervisor Stumbo stated the two agenda items were distinctly different and she explained the differences.

Trustee Currie asked if the Supervisor realized it took time to go through the process. She felt they did not need a Board if the three full-time officials were going to take over.

Supervisor Stumbo and Clerk Lovejoy Roe tried to explain awarding of the bid would come before the Board for approval.

Supervisor Stumbo stated it was a Board decision and a special meeting could be called when necessary. She said this was just a way to expedite the public nuisances.

6. WHITTAKER ROAD BIKE PATH EASEMENT AGREEMENTS

Supervisor Stumbo explained there were three parcels but the Township did not have approval on one of the parcels. She stated the owner closest to the library did not want to give the easement.

Trustee Eldridge questioned if the Township would want to go ahead without getting approval from the owner of the third parcel.

Supervisor Stumbo said yes because they would have all but one and she hoped he would reconsider.

1. DISCUSS RETAINING THE DEMATTIA GROUP TO BROKER AND MARKET TOWNSHIP OWNED PROPERTY

Supervisor Stumbo stated they had met with Demattia approximately three weeks earlier regarding the possibility of marketing and brokering the Township property

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 WORK SESSION MINUTES
PAGE 3**

adjacent to their development. The request was to authorize Attorney Winters to enter into negotiations and prepare an agreement with Demattia.

Gary Roberts, Demattia Group said his goal at this meeting was to introduce a concept to the Board. He explained Demattia Group owned Washtenaw Business Park and the Township property was immediately adjacent to their property. Mr. Roberts clarified that they were not brokers but had listings with brokers. He stated they had a marketing machine that marketed the Washtenaw Business Park and it would be very nominal to incorporate the Township property into their concept. Mr. Roberts explained how their marketing would include providing a site plan and budgeting. Their concept was to make the Township property (Seaver Farm), part of the Washtenaw Business Park, not legally but from a marketing standpoint. He said this would allow Demattia to rebrand the property, remove brush, add signage and list with a broker. The cost would include commission to the broker and some type of performance based fee for Demattia. Mr. Roberts stated the Township property had front footage on Huron street that would appeal to commercial users. He stated if the Board was interested in their marketing concept, they would like to draft a proposal to be presented at a later date.

Supervisor Stumbo stated that because the Township did not have a broker, the Township did not automatically show up on the availability list.

Mr. Roberts assured the Board that their broker would list the Township property on all the appropriate lists available. Discussion followed.

The Board agreed to authorize the attorney to work with Demattia to prepare an agreement that would be brought back to the Board for consideration.

A motion by Clerk Lovejoy Roe, supported by Treasurer Doe to go into Executive Session to discuss Firefighter Negotiations specifically related to Gabriel Roeder Smith & Company Supplemental Actuarial Report. The motion carried as follows:

Martin:	Yes	Eldridge:	Yes	Currie:	Yes	Sizemore:	Yes
Roe:	Yes	Doe:	Yes	Stumbo:	Yes		

The Board went into Executive Session at approximately 5:33 P.M.

ADJOURNMENT

The meeting adjourned at approximately 6:56 p.m.

Respectfully submitted,

Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE APRIL 20, 2010 REGULAR MEETING**

PROPOSED

The meeting was called to order by Supervisor Brenda L. Stumbo at approximately 7:00 p.m. in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township. The Pledge of Allegiance was recited and a moment of silent prayer was observed.

Members Present: Supervisor Brenda L. Stumbo, Clerk Karen Lovejoy Roe, Treasurer Larry Doe, Trustees Jean Hall Currie, Stan Eldridge, Dee Sizemore and Mike Martin

Members Absent: None

Legal Counsel: Wm. Douglas Winters and Dennis McLain

PUBLIC COMMENTS

Robert Hambricht, Township Resident stated for over a year, he had been renting a building on Michigan Avenue for use by their private club. He stated they were notified by the Office of Community Standards that they were in the wrong zoning and they were requesting a special use permit.

Joe Lawson, Planning and Development Coordinator explained the private club was in a light industrial district and it was not a permitted use in that district. He said the club was informed that they would need to relocate and he had offered to help find a new suitable location. Mr. Lawson said they had requested a variance but State law did not allow use variances.

Larry Buckner, Township Resident stated they were trying to establish something for the teenagers because they had no place to go.

Supervisor Stumbo said although she supported the club, the challenge was having it in the right zoning. She stated all clubs were treated the same and encouraged them to look for a new location with the correct zoning.

Jason Braske, Township Resident stated the problem with the zoning on Michigan Avenue was the 50 ft. setback and asked if there were other similar establishments in the area.

Mr. Lawson provided the American Legion as an example because they were a private club that had property on Michigan Avenue that met the setback requirements.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
PAGE 2**

MINUTES OF THE MARCH 29, 2010 SPECIAL MEETING

A motion was made by Treasurer Doe, supported by Trustee Currie to approve the minutes of the March 29, 2010 Special Meeting. The motion carried unanimously.

SUPERVISOR REPORT

Supervisor Stumbo stated the Assessing Department was in the process of canvassing all the residential property to insure the pictures matched the sketch plan. She explained that pictures were taken several years ago but they were not compared to the sketch plans on file. Supervisor Stumbo stated if the Township failed the State's 14-point review, the State would complete the audit at a cost of \$300,000 to \$500,000 to the Township. She also provided an overview of meetings attended by the three full-time officials and Township staff.

CLERK REPORT

Clerk Lovejoy Roe stated Lincoln School District had a proposal on the May 4, 2010 ballot and the Clerk's office would be open for absentee voting from 9:00 a.m. to 2:00 p.m. on Saturday, May 1, 2010. She also stated she and her deputy attended a demonstration on the Electronic Poll Book that would be utilized in the August and November elections.

TREASURER REPORT

A. March 2010

Treasurer Doe gave the report for March 2010. The beginning balance was \$36,918,736.18 and the ending balance was \$33,598,821.18.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to receive and file the March 2010 Treasurer's report (see attached). The motion carried unanimously.

TRUSTEE REPORT

Trustee Martin provided an update on the Water Conservation Advisory Commission. He said the Commission was exploring the funding and the validity of the aeration project. Trustee Martin also provided an update on the SEMCOG meeting and stated the Paint Creek Watershed Clean-up project would coincide with Ypsilanti Pride Day.

Trustee Eldridge reported that he, Attorney Winters, Treasurer Doe and Mike Radzik, OCS Director met with the City of Ypsilanti on three occasions to discuss alternatives to police servicing. He felt the meetings were productive but were still in the very early stages of discussion.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
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ATTORNEY REPORT

Attorney Winters provided an update on the Aerotropolis meeting. He said he believed Aerotropolis was an opportunity that would allow Southeastern Michigan to compete for major employers that could take advantage of the airports and other skilled labor in the area.

Attorney McLain provided a brief overview of the public nuisances cases at 1353 Rolling Court, 7343 Spyglass, 8636 Shawn Drive and 771 Clubhouse.

NEW BUSINESS

**1. PROCLAMATIONS HONORING MULTIPLE CHEMICAL SENSITIVITY
AWARENESS WEEK AND CHEMICAL AWARENESS WEEK**

A motion was made by Clerk Lovejoy Roe, Clerk supported by Trustee Sizemore to approve the Proclamations Honoring Multiple Chemical Sensitivity Awareness Week and Chemical Awareness Week. The motion carried unanimously.

2. PUBLIC NUISANCE ABATEMENT REQUESTS

- A. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE FOR THE PROPERTY LOCATED AT 1314 RUE WILLETTE BLVD**
- B. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE FOR THE PROPERTY LOCATED AT 534 OAKLAWN STREET**
- C. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE FOR THE PROPERTY LOCATED AT 1854 CADILLAC STREET**
- D. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE FOR THE PROPERTY LOCATED AT 1450 BLOSSOM STREET**
- E. REQUEST AUTHORIZATION TO INITIATE LEGAL ACTION IF NECESSARY, IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCE REGARDING THE OPERATION OF ILLEGAL JUNK YARD LOCATED ON DAYTONA AVENUE, PROPERTY # K-11-21-404-006**

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to authorize legal action if necessary, in Washtenaw County Circuit Court to abate public nuisance for the properties located at 1314 Rue Willette Blvd, 534 Oaklawn Street, 1854 Cadillac Street, 1450 Blossom Street and the illegal junk yard located on Daytona Avenue Property # K-11-21-404-006. The motion carried unanimously.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
PAGE 4**

Mike Radzik, Office of Community Standards provided an overview as well as, displayed photos on the monitors of the deplorable condition of each of the properties.

George Madison Jr., Township Resident stated he owned the Daytona Street property which was listed as Cooley, LLC. He told the Board that Judge Collins had visited the site and told him if he put up a fence, he would be fine.

Attorney Winters stated the Township had no records from Judge Collins or any indication of what he had done. He said he did not know how any court could grandfather or allow a junk yard in an area zoned residential. Attorney Winters told Mr. Madison to forward any documentation he had to Mr. Radzik, for the Township's review.

3. REQUEST TO ALLOW THE THREE FULL-TIME OFFICIALS, UPON THE RECOMMENDATION OF THE OFFICE OF COMMUNITY STANDARDS, TO AUTHORIZE LEGAL ACTION IN WASHTENAW COUNTY CIRCUIT COURT TO ABATE PUBLIC NUISANCES WHICH PRESENT AN IMMEDIATE HEALTH, SAFETY OR WELFARE DANGER

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to allow the three full-time officials, upon the recommendation of the Office of Community Standards, to authorize legal action in Washtenaw County Circuit Court to abate public nuisances which present an immediate health, safety or welfare danger.

Supervisor Stumbo explained this item was placed on the agenda to allow the Township to work more swiftly in cases where there is an immediate danger and formal approval of the Board would occur at the next meeting. She said the number one issue raised at the Community Forum meeting was foreclosed homes, blight and the amount of time it took the Township to respond.

Trustee Martin felt in order for the Board to do their due diligence, the full Board should maintain control, but once the decision was made the Board should acquiesce to number four (next agenda item) and allow the officials to begin the process as soon as possible. He said that would be his recommendation. Trustee Martin requested a roll call vote.

The motion carried as follows:

Doe:	Yes	Roe:	Yes	Stumbo:	Yes	Sizemore:	Yes
Currie:	No	Eldridge:	No	Martin:	No		

4. REQUEST TO ALLOW THE THREE FULL-TIME OFFICIALS TO AUTHORIZE PROCEEDING WITH RFPS ON DEMOLITION OF PROPERTIES THAT QUALIFY FOR NEIGHBORHOOD STABILIZATION PROJECT (NSP) FUNDS WHICH MUST FOLLOW SPECIFIC HUD AND COUNTY BIDDING PROCESS

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
PAGE 5**

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to allow the three full-time officials to authorize proceeding with RFPS on demolition of properties that qualify for Neighborhood Stabilization Project (NSP) funds. The motion carried unanimously.

5. HURON RIVER WATERSHED COUNCIL BIORESERVE PROJECT

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to approve the request of the Huron River Watershed Council BioReserve project. The motion carried unanimously.

6. WHITTAKER ROAD BIKE PATH EASEMENT AGREEMENT

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to allow Trustee Sizemore to abstain from voting. The motion carried as follows:

Doe:	Yes	Roe:	Yes	Stumbo:	Yes
Currie:	Yes	Eldridge:	Yes	Martin:	Yes

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to approve the Whittaker Road Bike Path Easement Agreements.

Trustee Martin stated he didn't believe it made sense to agree to two easements when all three could not be obtained.

Supervisor Stumbo explained authorization would allow the Township to continue seeking the third agreement. She said there were several areas in the Township where a homeowner had not signed an easement agreement and the path stopped at their property line and continued on the other side.

Trustee Martin said he would like the bike path to be done simultaneously and he requested a roll call vote.

The motion failed as follows:

Doe:	Yes	Roe:	Yes	Stumbo:	Yes	Sizemore:	Abstain
Currie:	No	Eldridge:	No	Martin:	No		

7. SEARCH AND RESCUE EMERGENCY RESPONSE VEHICLE INTERLOCAL AGREEMENT

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to approve the Search and Rescue Emergency Response Vehicle Interlocal Agreement and to authorize signing of the agreement (see attached). The motion carried unanimously

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APRIL 20, 2010 REGULAR MEETING MINUTES
PAGE 6**

**8. 1st READING RESOLUTION NO. 2010-05, ORDINANCE NO. 2010-404 –
MEDICAL MARIJUANA DISPENSARIES**

A motion was made by Clerk Lovejoy Roe, supported by Trustee Currie to approve the 1st reading Resolution No. 2010-05, Ordinance No. 2010-404- Medical Marijuana Dispensaries.

Angela King, Township Attorney provided an overview of the proposed ordinance. She explained the ordinance was exclusively directed toward marijuana dispensaries. The ordinance proposed dispensaries could not be located within 1,000 feet of churches, schools, daycares, libraries and residential areas. Attorney King stated the Planning Commission recommended the dispensaries be located in B-3 zoning.

Joe Lawson, Planning and Development Coordinator said his recommendation would be to locate the dispensaries in either an I-1 or I-2 District, similar to Pinter's Greenhouse. Discussion followed.

Supervisor Stumbo stated it was important to address it from a zoning standpoint and properly zoning dispensaries would help avert problems down the road. She asked if the Board wanted to accept the recommendation of the Planning Commission.

Trustee Martin stated that he felt there should be friendly amendment to incorporate Mr. Lawson's recommendation.

Supervisor Stumbo stated that she felt the issue should be tabled to get more information and to talk with the Planning Commission.

A motion was made by Trustee Eldridge, supported by Trustee Currie to table the reading Resolution No. 2010-05, Ordinance No. 2010-404-Medical Marijuana Dispensaries. The motion carried as follows:

Martin: Yes	Eldridge: Yes	Currie: Yes	Sizemore: Yes
Stumbo: Yes	Roe: Yes	Doe: Yes	

**9. REQUEST FROM S.E. MICHIGAN LAND HOLDING (LOMBARDO HOMES) FOR
A THIRD AMENDMENT TO THE RECORDED MASTER DEED ASSOCIATED
WITH CREEKSIDE VILLAGE SOUTH SITE CONDOMINIUMS**

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to approve the request from S.E. Michigan Land Holding (Lombardo Homes) for a third amendment to the recorded master deed associated with Creekside Village South Site Condominiums contingent upon entering into a development agreement.

Greg Windingland, Lombardo Homes stated that making the approval contingent upon a development agreement would delay them further and potentially hurt sales. He asked the Board to consider that they were trying to bring new homes to the community and all the benefits that would bring.

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APRIL 20, 2010 REGULAR MEETING MINUTES
PAGE 7**

Supervisor Stumbo apologized and said she recognized his position and stated that the agreement should have been signed by the previous owners.

Douglas Winters, Township Attorney said he believed Lombardo was proceeding in good faith and had made a commitment that would allow the attorneys would work on drafting the development agreement.

Supervisor Stumbo stated the Township had dealt with many developers and it was much easier if an agreement was nailed down. She explained the agreement would include streetlights, trees and maintenance of parks and open space. Supervisor Stumbo asked Attorney Winters if approval could be tied to building permits. She suggested that a building permit not be issued until the development agreement was signed.

Mr. Windingland asked if the board would consider allowing him to pull five building permits. He stressed it would still allow him to continue with sales and provide the advantage of 3% financing but at the same time, it would give them the sense of urgency to compete the agreement.

Supervisor Stumbo stated the 2009 Winter taxes had not been paid on Creekside Village South and she asked that payment be added to the motion. Discussion followed.

Clerk Lovejoy Roe withdrew her original motion and this was accepted by Trustee Eldridge.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to approve the request of S.E. Michigan Land Holding (Lombardo Homes) for a third amendment to the recorded master deed associated with Creekside Village South Site Condominiums contingent upon a development agreement entered into and the taxes being paid, but allowing them to move forward to pull five building permits until a development agreement was in place. The motion carried unanimously.

Mr. Windingland agreed with the conditions set forth in the motion.

10. RESOLUTION NO. 2010-6 – AUTHORIZING DIVISION OF PLATTED LOTS IN CREEKSIDE VILLAGE EAST

A motion was made by Clerk Lovejoy Roe, supported by Trustee Currie to approve Resolution No. 2010-06 – Authorizing Division of Platted Lots in Creekside Village East (see attached).

A friendly amendment was made by Clerk Lovejoy Roe to make approval contingent upon receiving funds for streetlights but allowing them to move forward to pull five building permits until a development agreement was in place. The friendly amendment was accepted. The motion carried unanimously.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
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Clerk Lovejoy Roe explained that once the funds for the streetlights were received the land combinations could move forward and they would be allowed to pull five building permits until a development agreement was in place.

Mr. Lawson explained the streetlights estimate was four years old and there may be additional costs.

Mr. Windeland stated Lombardo Homes would agree to pay the current cost for the streetlights.

11. BUDGET AMENDMENT #4

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to approve Budget Amendment #4 (see attached). The motion carried unanimously

12. DTE AGREEMENT FOR DESIGN OF HOLMES ROAD PHASE 3 LIGHTING PLAN AND INSTALLATION, AT AN ESTIMATED COST OF \$95,209.00, TO BE BUDGETED IN 2011 BUDGET.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to approve the DTE Agreement for design of Holmes Road Phase 3 Lighting Plan and installation, at an estimated cost of \$95,209.00, to be budgeted in 2011 budget (see attached). The motion carried unanimously.

13. AMENDMENT #1 AND #2 TO SERVICE CONTRACT BETWEEN WASHTENAW COUNTY AND THE CHARTER TOWNSHIP OF YPSILANTI FOR NEIGHBORHOOD STABILIZATION PROJECT FUNDS

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to authorize Amendment #1 and #2 to service contract between Washtenaw County and the Charter Township of Ypsilanti for Neighborhood Stabilization Project funds and to authorize signing of the agreements (see attached). The motion carried unanimously.

14. SET PUBLIC HEARING DATE:

A. TUESDAY, MAY 18, 2010 AT APPROXIMATELY 7:00 P.M. – FORD MOTOR COMPANY, RAWSONVILLE PLANT LOCATED AT 10300 TEXTILE ROAD IN YPSILANTI TOWNSHIP, FOR A 328 INDUSTRIAL FACILITIES EXEMPTION CERTIFICATE

A motion was made by Trustee Eldridge, supported by Treasurer Doe to set the public hearing date for Tuesday, May 18, 2010 at approximately 7:00 p.m. – Ford Motor Company, Rawsonville Plant located at 10300 Textile Road in Ypsilanti Township, for a 328 New Personal Property Exemption Certificate. The motion carried unanimously.

**CHARTER TOWNSHIP OF YPSILANTI
APRIL 20, 2010 REGULAR MEETING MINUTES
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OTHER BUSINESS

The Board agreed to add this item under Other Business.

**1. ACCEPT RESIGNATION OF TOM BAGWELL FROM YPSILANTI TOWNSHIP
PARK COMMISSION**

A motion was made by Trustee Currie, supported by Trustee Eldridge to accept the resignation of Tom Bagwell from the Park Commission, effective immediately. The motion carried unanimously.

STATEMENT AND CHECKS

- A. April 6, 2010
- B. April 20, 2010

A motion was made by Treasurer Doe, supported by Trustee Eldridge to approve Statements and Checks for April 6, 2010 in the amount of \$1,008,023.48 and April 20, 2010 in the amount of \$755,386.10. The motion carried unanimously.

ADJOURNMENT

A motion was made by Treasurer Doe, supported by Trustee Eldridge to adjourn the meeting. The motion carried unanimously.

The meeting adjourned at approximately 9.25 p.m.

Respectfully submitted,

Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti

EXECUTIVE SESSION MINUTES

1. The minutes of the April 20, 2010 Regular Meeting will be distributed at the Work Session

EXECUTIVE SESSION MINUTES

1. The minutes of the April 20, 2010 Regular Meeting will be distributed at the Work Session

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 5, 2010 SPECIAL MEETING**

The meeting was called to order by Supervisor Brenda L. Stumbo at approximately 8:30 a.m. in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township.

Members Present: Supervisor Brenda L. Stumbo, Clerk Karen Lovejoy Roe, Treasurer Larry Doe, Trustees Jean Hall Currie, Stan Eldridge, Mike Martin and Dee Sizemore

Members Absent: None

Legal Counsel: Wm. Douglas Winters, Angela King and John Hancock

1. CONSIDER REQUEST OF FIREFIGHTER NEGOTIATION TEAM TO APPROVE EARLY RETIREMENTS AND REDUCE MINIMUM STAFFING LEVEL FROM EIGHT TO SIX

A motion was made by Trustee Currie, supported by Trustee Sizemore to approve firefighter early retirements and reduction of minimum staffing level from eight to six at the request of the Firefighter Negotiation Team.

Chief Copeland provided a very detailed presentation of the proposed firefighter early retirement proposal. A copy of the presentation was distributed to Board Members and displayed on the monitors.

Trustee Martin asked if he understood that the Chief had proposed using taxpayer dollars to support a change in the defined benefit plan, if the Township had other contracts with defined pension benefit plans and was the pension fund sustainable with the proposed reductions. He stated the perpetual saving would only be realized if no additional firefighters were hired.

John Hancock, Township Labor Attorney stated there was a defined benefit plan with all the Township unions and the increased contribution to the pension fund would pick up the increased liability.

Trustee Martin asked where was the return on the investment to the Township through negotiated reductions. He also inquired if the six person minimum staffing guaranteed there would be no layoffs.

Attorney Hancock stated the proposal to reduce staffing came from the firefighter's bargaining team and there was not a final contract, so negotiations would continue. The agenda item before the Board would go into effect immediately because it was an immediate reduction in cost. He stated layoffs had not been discussed and the agreement committed to a six-person staffing.

**CHARTER TOWNSHIP OF YPSILANTI
MAY 5, 2010 SPECIAL MEETING MINUTES
PAGE 2**

Trustee Eldridge asked Chief Copeland if the desired negotiated settlement was not obtained, was there a no layoff guarantee; would the reduction in personal effect the ISO rating and had there been any other considerations for funding the fire department operations.

Chief Copeland responded there had been no guarantee made to the firefighters that layoffs would not occur, the reduction in staff could possibly affect the ISO rating and the negotiating team has looked at grants and other collaborative ways of sharing resources as a way of funding the department.

Supervisor Stumbo stated that an ISO review had not been done in twenty-five (25) years. She explained that if the proposal had not been brought forward, it would have been necessary to layoff in order to stay within the Township's current revenues.

Clerk Lovejoy Roe stated the Ypsilanti Township Board has always been extremely, fiscally conservative and for that reason, the Township had received a bond rating increase. She stressed it was a big decision but it would save \$8 million dollars of taxpayer money. Clerk Lovejoy Roe said the employees had done a great job; especially, the employees on thirty-two hours.

Trustee Martin said he understood future collective bargaining was still necessary to balance the budget. He asked a union representative if they were committed to negotiating and if they aware that the early retirements did not preclude possible, future layoffs.

Trustee Eldridge asked Firefighter James to explain how the union could continuously ask for additional firefighters and a millage increase and arrive at this decision. He also asked about the NFPA, two-in and two-out standard.

Firefighter James said the union was told there would be layoffs if something wasn't worked out. He said cutting staffing was a management issue and the union could not dictate the number of employees the Township retains.

Lieutenant Gakle said the two-in and two-out was a MIOSHA law and the NFPA standards were far more restrictive and not adopted by most townships. He explained the law but said there were times they would enter a building based on a judgment call.

Chief Copeland stated that under MIOSHA, there was an exception that they may enter the building on a confirmed rescue.

Trustee Eldridge questioned why they were not exploring the option of a millage increase to provide the needed funding. He thought the taxpayers should decide rather than take taxpayer money to increase and improve defined pensions without their input.

Chief Copeland stated that he wanted to explore every means possible to operate inside his current revenues and a millage increase would be the last alternative.

CHARTER TOWNSHIP OF YPSILANTI
MAY 5, 2010 SPECIAL MEETING MINUTES
PAGE 3

Trustee Eldridge said this was a big decision that involved a lot of money and he felt the millage option should be explored.

Chief Copeland explained that the union presented the early retirement proposal and this was their attempt to assist the Township in arriving at the necessary target. He said the proposal was the product of collaboration and cooperation and he appreciated the effort made by his firefighters.

Treasurer Doe stated if the proposal passed and the Board eventually had to seek a millage, it would only be necessary to ask for .3 mills rather than .8 or .9 mills. He thought that would be much more acceptable to the residents. Treasurer Doe thought it was important for the Board to keep the millage rate down as had been promised to the taxpayers. He felt a millage increase would be the last resort.

Clerk Lovejoy Roe said she was confident that the firefighters would come to the table with some creative ideas to help the Chief manage the budget and still keep the residents safe.

Trustee Currie said she was for saving money and she was 100% for saving the Township money. She stressed that she did not realize how much money would be saved with the early retirements and she would support it.

Trustee Eldridge asked if using the Township's fund balance to assist the firefighters had ever been discussed. He said his concern was using taxpayer money to enhance a defined retirement pension.

Supervisor Stumbo asked if he would rather layoff firefighters.

Trustee Eldridge said he had a problem using taxpayer money to enhance a retirement pension when other option had not been reviewed, including the Township's fund balance.

Trustee Martin asked Chief Copeland if the six-man staffing was adequate and was the drive behind the proposal to avoid layoffs if an agreement could not be reached.

Chief Copeland stated in structural firefighting, it would be considered understaffed but when there's more than the room and contents involved, a mutual-aid response was triggered. He said the six-man minimum was the most effective way to keep stations open and have trucks rolling out of every station based on the current Ypsilanti Township operational standard.

Trustee Martin stated the jobs in the Township that could become life threatening in a moment were police officers and firefighters. He said he was very reluctant to put them in a position where they were short staffed or normally had to violate MIOSHA law. He wondered how much money that was worth.

Attorney Hancock stated the entire debate was driven by money. The union realized that and he thanked them for their cooperation. He said the statement made at the

CHARTER TOWNSHIP OF YPSILANTI
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beginning of negotiations still held true. The revenue generated by the fire millage was only enough to pay for twenty-one (21) firefighters at current cost. Attorney Hancock stressed that neither side liked the six-man minimum but that was all the revenue could provide and revenue continued to decrease.

Trustee Eldridge questioned if the Township has a reserve fund and had assisted other departments in the past, was it appropriate or legal to assist the fire department with the funds they needed. He said he was aware that it would not solve the long-term problem but it would give additional time to come up with other options.

Supervisor Stumbo said as a new Supervisor under these conditions, it had been a challenge for the Township and the residents. She said historically, direction had always been given to live within the millage and it was the philosophy to not use fund balance for operations. Supervisor Stumbo explained that millage money was separate and normally, general fund money was not given to other millages. She stated things were beginning to look up and that businesses were growing, home values had stabilized, and new building permits for homes had been issued. Supervisor Stumbo stated the Township employees would not be on a 32-hour schedule, if it wasn't necessary. The other employees would not have taken a 3% reduction and the Board would not have taken the reduction if it wasn't necessary. She stated she would support the proposal.

Trustee Martin asked the feasibility of using the Township fund balance. He felt they were buying a pig in a poke because although there were initial savings, they had no way of knowing the real savings until the collective bargaining process was complete.

Clerk Lovejoy Roe said the Township fund balance was preferred by the auditors and there was nothing that indicated it was only temporary. She said right now it was in the box and she felt there would be more savings than projected. Clerk Lovejoy Roe stated that AFSCME took a huge, huge hit and to now say the Board was going to use fund balance to finance the firefighters would be unthinkable. She stressed it would be against everything she believed in, both personally and professionally. To take money out of fund balance to give to another union would crush the employees. Fund balance should be used only for a one-time expense and not for operations. She reminded the Board that the Township received a great bond rating because of being fiscally conservative.

Trustee Martin thought to say the Township was worried about a bond rating and to say there was money in reserve when cutting core services and putting people at risk was short-sighted.

Trustee Eldridge agreed with Trustee Martin. He said he would hate for a resident or firefighter to be injured or worse because of too few firefighters. He said that was his big concern.

Supervisor Stumbo stated that Chief Copeland said he could do it safely and she would take him at his word.

**CHARTER TOWNSHIP OF YPSILANTI
MAY 5, 2010 SPECIAL MEETING MINUTES
PAGE 5**

The motion carried as follows:

Doe:	Yes	Roe:	Yes	Stumbo:	Yes	Sizemore:	Yes
Currie:	Yes	Eldridge:	No	Martin:	No		

2. EXTENSION OF CONTRACT WITH GOVERNMENTAL CONSULTANT SERVICES, INC. FOR UP TO 90 DAYS TO CONTINUE WORK ON BOATHOUSE GRANT, WITH BUDGET AMENDMENT OF \$9,000 TO FOLLOW AT THE NEXT MEETING

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to approve extending the contract with Governmental Consultant Services, Inc. (GCSI) for up to 90 days to continue work on Boathouse Grant and other issues, with budget amendment of \$9,000 to follow at the next meeting. The motion carried unanimously.

Supervisor Stumbo provided a brief explanation of their involvement in the grant and other Township issues.

3. WHITTAKER ROAD BIKE PATH EASEMENT AGREEMENTS

Supervisor Stumbo explained this item had previously failed with a tie of three to three. She said the concern of Board Members was the third parcel where the owner would not agree to the easement. The full-time officials learned from the Road Commission that an eight foot bike path could be installed without the owner signing an easement agreement once the roundabout was finished. She stressed it was a solution for the third connection and that was why it was placed back on the agenda.

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to allow Trustee Sizemore to abstain from voting due to a financial gain if approved.

Doe:	Yes	Roe:	Yes	Stumbo:	Yes
Currie:	Yes	Eldridge:	Yes	Martin:	Yes

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to approve the Whittaker Road Bike Path Easement Agreements and authorized the Township to pull a permit to construct the bike path, if the third property owner did not agree to the easement.

Sandy Andresen, Park Commissioner stated she had been working on the non-motorized pathway system within Ypsilanti Township for over a year. She felt it was the moral responsibility of elected officials to provide hiking, biking and walking trails for the residents. Ms. Andresen provided an extensive explanation of why she supported the bike path.

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Trustee Martin asked if Mr. Evans would receive a payment if the Road Commission easement was utilized and if not, why wouldn't the county easement be used for the entire length of the project to save the Township money.

Treasurer Doe explained that using the county easement was a last resort. The bike path along the third parcel would run alongside the road curbing and it would only be eight foot instead of ten foot. Discussion followed.

The motion carried unanimously.

Doe:	Yes	Roe:	Yes	Stumbo:	Yes
Currie:	Yes	Eldridge:	Yes	Martin:	Yes

4. BUDGET AMENDMENT #5

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to approve Budget Amendment #5. The motion carried unanimously.

Trustee Eldridge asked why the Board would approve a budget amendment prior to discussing the item that generated the amendment.

Supervisor Stumbo explained a budget amendment needed to be in place before the item could be voted on. She said if the agenda item was not approved the budget amendment would not be made.

Mike Radzik, Office of Community Standards Director provided a brief summary of the proposal to authorize police overtime in the amount of \$67,000 and to contract with the Washtenaw County Sheriff's Department for the Lincoln School Liaison in the amount of \$33,000. He also explained how the overtime would be evaluated.

Trustee Eldridge raised concerns about the cost of the contracting for the liaison. He felt the amount was excessive and wanted to insure the Township was not paying for more than ten weeks of service and receiving only ten weeks of service.

Mr. Radzik explained how the amount was calculated. He also stated the county guaranteed there would be no more than two weeks vacation or ten benefit days used during the ten weeks. Mr. Radzik said the intent was to have high visibility on the street to address quality of life issues and strict enforcement of curfew, youth loitering and any other identified issues. Discussion followed.

Supervisor Stumbo stated the contact would come back to the Board for approval.

Trustee Martin questioned where the funds for the budget amendment of \$208,500 was coming from.

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Clerk Lovejoy Roe stated the detailed information showed the cost as a pass-through. She explained the Township would receive CDBG funds to do local roads in the designated areas.

5. AGREEMENT WITH WASHTENAW COUNTY ROAD COMMISSION FOR 2010 PROPOSED CDBG FUNDED PROJECTS

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to approve the agreement with Washtenaw County Road Commission for 2010 proposed CDBG funded projects and to authorize signing of the agreement. The motion carried unanimously.

6. 1ST READING RESOLUTION NO. 2010-05, PROPOSED ORDINANCE NO. 2010-404 – AMENDING THE TOWNSHIP’S ZONING CODE, ORDINANCE 74, ARTICLE II, SECTION 201 (DEFINITIONS) AND ARTICLE XII LIGHT INDUSTRIAL - DEFINE MEDICAL MARIHUANA DISPENSARIES, MEDICAL MARIHUANA NURSERIES, AND REGULATE THEIR LOCATION (TABLED AT THE APRIL 20, 2010 REGULAR MEETING)

A motion was made by Clerk Lovejoy Roe, supported by Trustee Currie to remove the agenda item from the table. The motion carried as follows:

Doe: Yes	Roe: Yes	Stumbo: Yes	Sizemore: Yes
Currie: Yes	Eldridge: Yes	Martin: Yes	

A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to 1st Reading Resolution No. 2010-05, Proposed Ordinance No. 2010-404 – amending the Township’s Zoning Code, Ordinance 74, Article II, Section 201 (Definitions) and Article XII Light Industrial - define medical marihuana dispensaries, medical marihuana nurseries, and regulate their location. The motion carried as follows:

Doe: Yes	Roe: Yes	Stumbo: Yes	Sizemore: Yes
Currie: Yes	Eldridge: Yes	Martin: Yes	

Angela King, Township Attorney provided an overview of the ordinance. She explained that definitions were created for both the dispensaries and the medical marihuana nurseries.

Supervisor Stumbo stressed that without this ordinance, dispensaries could be located in residential neighborhoods each with seventy-two (72) plants.

7. 1ST READING RESOLUTION NO. 2010-07, PROPOSED ORDINANCE NO. 2010-405, AMENDING CHAPTER 42, ARTICLE VII, DIVISION 1, SECTION 324, ENTITLED “CURFEW FOR MINORS AND PARENTAL RESPONSIBILITY” OF THE CHARTER TOWNSHIP OF YPSILANTI CODE OF ORDINANCES

**CHARTER TOWNSHIP OF YPSILANTI
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A motion was made by Clerk Lovejoy Roe, supported by Trustee Sizemore to approve 1st Reading Resolution No. 2010-07, Proposed Ordinance No. 2010-405, amending Chapter 42, Article VII, Division 1, Section 324, entitled “Curfew for Minors and Parental Responsibility” of the Charter Township of Ypsilanti Code of Ordinances. The motion carried as follows:

Martin:	Yes	Eldridge:	Yes	Currie:	Yes	Sizemore:	Yes
Roe:	Yes	Doe:	Yes	Stumbo:	Yes		

Attorney King provided an overview of the ordinance. She explained the exception in the ordinance was approved by the federal courts as consistent with the constitutional principles, including the first amendment principles.

Trustee Eldridge inquired if the 90-day penalty was for the parent of the child who violated the ordinance or for the violator.

Attorney King stated the minor could be seventeen and in that case, it would apply to them. She said that she had not seen the Judge send anyone to jail for a curfew violation.

Trustee Martin said he understood this was a primary concern but he thought it was a knee-jerk reaction and the ordinance was a little bit Orwellian. He said if the intent of a minor was to break into homes, he didn't believe they were concerned if they did it before ten o'clock at night. Trustee Martin felt there were a lot of loopholes in the ordinance.

Mr. Radzik said the curfew law had been in effect for ten or fifteen years with an 11 p.m. deadline and it was adopted as a response to the gang problem. He was it was a very effective tool for law enforcement and it would mainly address minors hanging out on the street.

8. AUTHORIZATION FOR POLICE OVERTIME IN THE AMOUNT OF \$67,000 AND TO CONTRACT WITH THE WASHTENAW COUNTY SHERIFF'S DEPARTMENT FOR THE LINCOLN SCHOOL LIAISON IN THE AMOUNT OF \$33,000

A motion was made by Clerk Lovejoy Roe, supported by Trustee Currie to authorize police overtime in the amount of \$67,000 and to contract with the Washtenaw County Sheriff's Department for the Lincoln School Liaison in the amount of \$33,000. The motion carried unanimously.

9. AUTHORIZATION TO ACCEPT BID FROM PETERS BUILDING IN THE AMOUNT OF \$39,253 TO DEMOLISH 2403 E. MICHIGAN AVENUE

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to award bid to Peters Building in the amount of \$39,253 for demolition of 2403 E. Michigan Avenue. The motion carried unanimously.

**CHARTER TOWNSHIP OF YPSILANTI
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Trustee Eldridge questions if Peters Building had a background in demolition. He also asked about the phrasing of "most qualified, low bidder".

Ron Fulton, Building Director stated that the company did have a background in demolition and the phrasing "most qualified, low bidder" had been in every recommendation brought before the Board. He said that phrasing insured the most qualified bidder is awarded the job in the event that the lowest bidder was not qualified.

10. STATEMENTS & CHECKS

A motion was made by Treasurer Doe, supported by Trustee Sizemore to approve statements and checks in the amount of \$1,355,188.64. The motion carried unanimously.

Meeting was adjourned at approximately 9:40 p.m.

Respectfully submitted,

Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti

SUPERVISOR REPORT

- A. SUPERVISOR STUMBO WILL REPORT ON
MEETINGS ATTENDED BY OFFICIALS AND STAFF

CLERK REPORT

THERE IS NO WRITTEN CLERK REPORT

**OFFICE OF THE TREASURER
LARRY J. DOE**



**MONTHLY TREASURER'S REPORT
APRIL 1, 2010 THROUGH APRIL 30, 2010**

Account Name	Beginning Balance	Cash Receipts	Cash Disbursements	Ending Balance
ABN AMRO Series "B" Debt Red. Cap.Int.	141,805.46	2.40	15,632.05	126,175.81
Bicycle Path	332,863.58	30,295.46	210,715.67	152,443.37
Bonds & Escrow/GreenTop	812,920.88	614.94	61,735.98	751,799.84
Building Department Fund	228,548.83	18,267.24	14,406.87	232,409.20
Capital Improvement 2006 Bond Fund	350,478.69	143.73	920.32	349,702.10
Comerica Series B Bond	2,339.59	0.28	25.00	2,314.87
Compost Site	951,854.71	11,980.33	8,904.39	954,930.65
Current Tax Collections	16,931,238.03	1,704.34	4,145,568.63	12,787,373.74
Economic Development	66,824.98	27.46	0.00	66,852.44
Environmental Clean-up	441,981.97	181.64	0.00	442,163.61
Environmental Services	3,118,518.99	1,001,990.83	177,060.36	3,943,449.46
Fire Department	2,734,476.23	1,019,662.21	235,389.12	3,518,749.32
Fire Withholding Bonds	166,798.14	11,685.59	16,112.18	162,371.55
General Fund	3,744,301.39	1,170,801.22	803,682.61	4,111,420.00
General Obligation	499,879.60	172.74	28,650.00	471,402.34
General Tax Collection	147,234.29	21,331.81	75,411.39	93,154.71
Green Oaks Golf Course	96,486.94	89,838.46	38,777.06	147,548.34
Hydro Station Fund	502,332.37	22,600.81	56,244.90	468,688.28
Law Enforcement Fund	1,033,506.90	1,001,645.27	437,688.16	1,597,464.01
LDFA 2006 Bonds	96,092.45	155,602.29	107,982.50	143,712.24
LDFA Tax	294.31	145,578.04	145,568.63	303.72
Motor Pool	361,038.86	4,317.46	1,291.87	364,064.45
Neighborhood Stabilization	21,054.32	8.34	950.00	20,112.66
Nuisance Abatement Fund	43,262.47	834.57	1,563.92	42,533.12
Parks Fund	27,372.24	11.25	0.00	27,383.49
Payroll	97,581.38	678,394.81	694,280.03	81,696.16
Public Improvement	420,210.34	172.69	0.00	420,383.03
Recreation	50,294.75	42,461.04	48,894.40	43,861.39
Rental Inspections	4,021.62	1,081.11	4,656.83	445.90
Series "A" Bond Payments	8,609.86	3.53	0.00	8,613.39
Series "B" Cap. Cost of Funds	5,451.33	38,653.01	20,476.59	23,627.75
State Grants	18,287.11	7.51	0.00	18,294.62
Willow Run Escrow	140,858.57	19.10	0.00	140,877.67
GRAND TOTAL	33,598,821.18	5,470,091.51	7,352,589.46	\$ 31,716,323.23

TRUSTEE REPORT

THERE IS NO WRITTEN TRUSTEE REPORT

McLAIN & WINTERS

ATTORNEYS AND COUNSELORS AT LAW

61 N. HURON
YPSILANTI, MICHIGAN 48197
(734) 481-1120

DENNIS O. McLAIN
WM. DOUGLAS WINTERS
ANGELA B. KING

FAX (734) 481-8909
[E-MAIL: mcwinlaw@gmail.com](mailto:mcwinlaw@gmail.com)

May 13, 2010

Brenda Stumbo, Supervisor
Karen Lovejoy Roe, Clerk
Larry Doe, Treasurer
Charter Township of Ypsilanti
7200 South Huron River Drive
Ypsilanti, MI 48197

**Re: *Request for Authorization to Proceed to Circuit Court*
*1122 Laurel Avenue, Ypsilanti Township, Michigan***

Dear Township Officials:

On **July 24, 2009**, and then again on **August 26, 2009**, Township Planning Coordinator Joseph Lawson sent notices to the property owner of 1122 Laurel regarding complaints received that an illegal barbecue grill manufacturing and sales operation was being conducted at this location. Not only is this a violation of the Township zoning regarding home occupations, but it turns out that the actual manufacturing operation is being conducted on property behind this address which is owned by the Charter Township of Ypsilanti.

Mr. Lawson indicated he, at one point, received a phone call from Michael Walden, Erma Walden's husband, regarding the matter. (Erma Walden is shown on title work to be the sole owner of 1122 Laurel.) Mr. Walden stated he was more than willing to cooperate with the Township in whatever was required.

Unfortunately, that cooperation has never been forthcoming and Mr. Walden is now completely ignoring the Township with respect to this matter.

Mr. Walden has erected a large shed on the Township property close to the Ford Boulevard roadway and is actually selling the grills he is manufacturing to passersby on Ford Boulevard through a gate in the fence at this location. This activity, aside from being illegal in the first place and a trespass on Township property, also creates a nuisance to passersby on Ford Boulevard.

Township Board
Re: 1122 Laurel
May 13, 2010
Page 2 of 2

Attached you will find two GIS overhead aerial photographs of the area clearly depicting the existence of the shed and the illegal manufacturing operation well onto Township property. In light of Mr. Walden's refusal to cooperate with the Township's request to remove the shed and material from Township property, the only sensible recourse is to proceed to Circuit Court and request a Judge order Mr. Walden to immediately remove himself and his property from the Township land. If he refuses to do so, the order would then provide the Township the authority to remove these items as well as remove an existing perimeter fence. A title search conducted at the request to Township legal counsel has confirmed that the Township become owner of this property back in 1954 in a purchase from the United States government. Subsequently, the property in this area was sold to developers, with the exception of portions, including behind 1122 Laurel, that were retained by the Township as its property.

Given the flagrant refusal of Michael Walden to obey the law, Township legal counsel recommends that the Township Board authorize it to proceed to Circuit Court for the purpose of obtaining the appropriate order requiring Mr. Walden to remove the shed and all other items owned by him from Township property. The order also will provide that if he fails to do so on his own within a specified number of days, the Township may do so and bill him for the expense. Finally, the order will further provide that he shall not attempt to conduct his operations from within the boundaries of 1122 Laurel.

Please place this item on the agenda for the next regular scheduled Township Board meeting, Tuesday, **May 18, 2010**.

Sincerely,

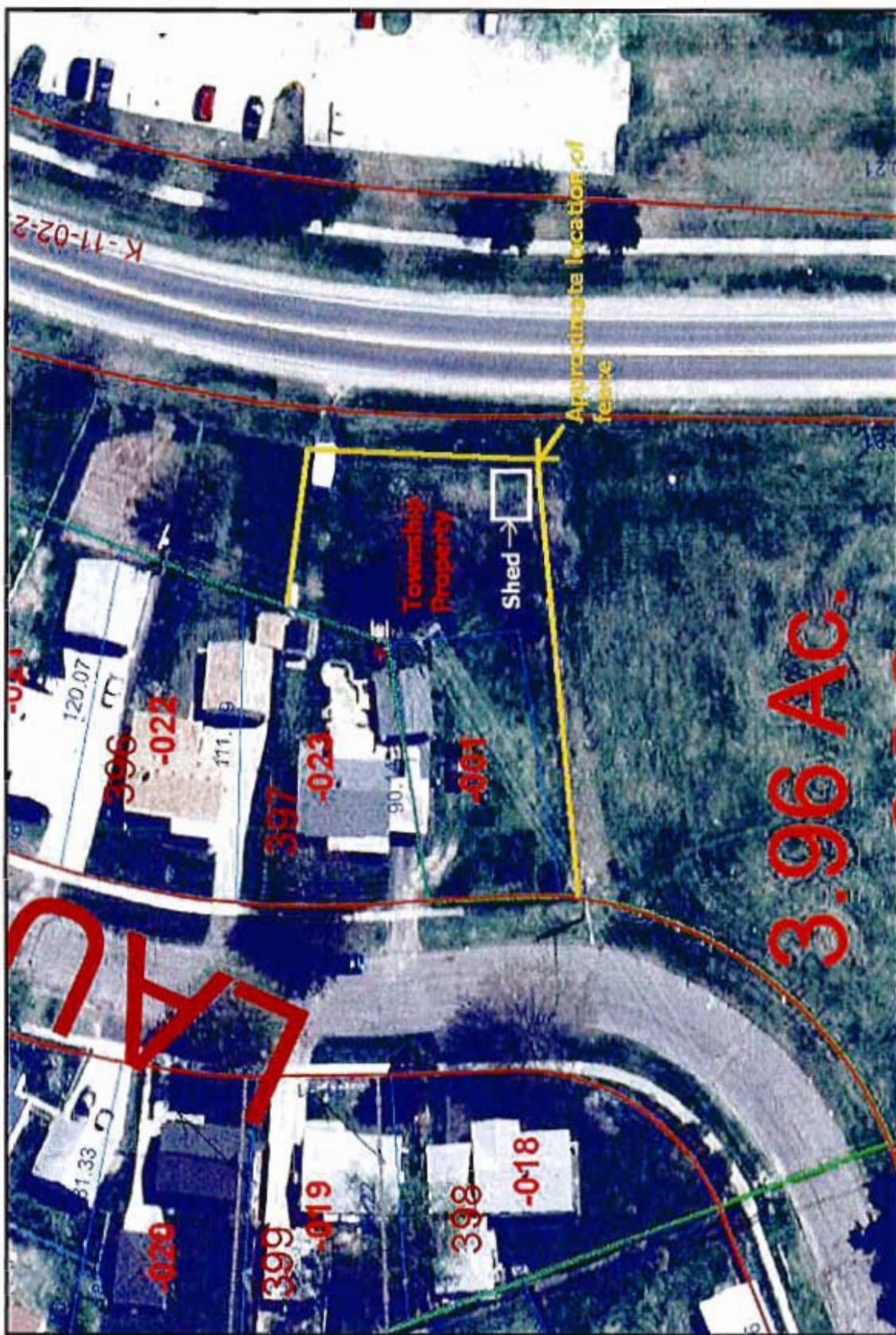


Dennis O. McLain

/js

Enclosures

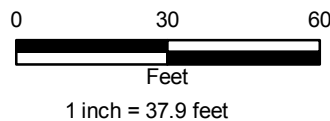
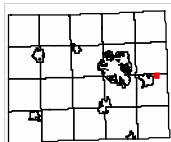
cc: Trustees Currie/Eldridge/Martin/Sizemore
Dan Dzierbicki
Bill Elling
Ron Fulton
Joe Lawson
Mike Radzik





GIS Map Print

Location Map



The information contained in this cadastral map is used to locate, identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey description". The information is provided with the understanding that the conclusions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.

NOTE: PARCELS MAY NOT BE TO SCALE

THIS MAP REPRESENTS PARCELS AT THE TIME OF PRINTING. THE OFFICIAL PARCEL TAX MAPS ARE MAINTAINED SOLELY BY THE WASHTENAW COUNTY EQUALIZATION DEPARTMENT AND CAN BE OBTAINED BY CONTACTING THAT OFFICE AT 734-222-6662.

Date Printed: 05/14/2010

ATTORNEY REPORT

GENERAL LEGAL UPDATE

RESOLUTION 2010-05

Whereas, in 2008, Michigan adopted the Medical Marihuana Act (“Act”) which permits the use of marihuana to treat or alleviate certain diseases and medical conditions; and

Whereas, the Act permits persons who are certified by a medical doctors as patients with certain medical conditions or diseases to be treated with medical marihuana; and

Whereas, the Act permits marihuana providers who have been issued registry identification cards by the State of Michigan to grow medical marihuana and to provide medical marihuana to patients; and

Whereas, the Act provides that persons who provide medical marihuana to patients are referred to in the Act as primary caregivers; and

Whereas, primary medical marihuana caregivers may receive compensation to serving as a marihuana provider; and

Whereas, under the Act, primary medical marihuana caregivers may serve up to five medical marihuana patients and cultivate up to sixty marihuana plants as a caregiver and an additional 12 marihuana plants as a qualifying medical marihuana patient in an enclosed, locked facility; and

Whereas, the Act does not regulate the location of structures that are used to grow, dispense or sell medical marihuana to qualified patients; and

Whereas, the location of medical marihuana nurseries which grow more than twelve marihuana plants is compatible with the uses permitted in I-1 Light Industrial Districts established by the Zoning Code; and

Whereas, the location of medical marihuana dispensaries which are used by medical marihuana caregivers to dispense marihuana to qualifying patients is compatible with the uses permitted in I-1 Light Industrial; and

Whereas, Ordinance No. 2010-404 provides definitions of the terms: child care organizations; debilitating medical condition; drug paraphernalia; enclosed locked facility; marihuana; medical marihuana dispensary; medical marihuana nursery; medical use; physician; primary caregiver; qualifying patient; registry identification card; visiting qualifying patient; written certification; and

Whereas, Ordinance No. 2010-404 permits medical marihuana dispensaries and nurseries within I-1 Light Industrial Districts subject to conditions and standards; and

Whereas, the conditions and standards for medical marihuana dispensaries and nurseries located in an I-1 district include that they shall not be located within 1000 feet of other dispensaries, nurseries, religious places, educational institutions, child care organizations, libraries, or residential districts; and

Whereas, additional conditions and standards include that the marihuana be grown and dispensed indoors; that the marihuana cannot be

consumed at the dispensary or nursery and that nurseries can grow a maximum of 72 plants.

Now therefore, be it resolved, that the Charter Township of Ypsilanti Board of Trustees hereby adopts and incorporates by reference, Ordinance #2010-404 as attached in its entirety, which Ordinance amends the Zoning Code, Ordinance 74, adopted May 18, 1994, Article II, Section 201 (Definitions), Article IV, Section 401.6(c) listing prohibited home occupations uses, and Article XIV listing permitted uses in I-1 districts.

PROPOSED
ORDINANCE NO. 2010-404

An Ordinance amending the Township's Zoning Code, Ordinance 74 adopted May 18, 1994, Article II, Section 201 (Definitions) and Article XIV Light Industrial define medical marihuana dispensaries, medical marihuana nurseries, and regulate their location.

The Charter Township of Ypsilanti hereby ordains that Ordinance No. 74 adopted May 18, 1994, known as the Township Zoning Ordinance shall be amended as follows:

I. Amend Article II, Section 201 (Definitions) by adding the following definitions:

- 1) "Child care organization" means a governmental or non-governmental organization having as its principal function receiving minor children for care, maintenance, training, and supervision. Child care organizations include organizations commonly described as child care institutions, child placing agencies, children's camps, children's campsites, children's therapeutic group homes, child care centers, day care centers, nursery schools, parent cooperative preschools, foster homes, group homes or child care homes as defined in 1973 PA 116, MCL 722.111 as amended.
- 2) "Debilitating medical condition" means one or more of the following:
 - a) Cancer, glaucoma, positive status for human immunodeficiency virus, acquired immune deficiency syndrome, hepatitis C, amyotrophic lateral sclerosis, Crohn's disease, agitation of Alzheimer's disease, nail-patella syndrome (NPS), or the treatment of these conditions.

- b) A chronic or debilitating disease or medical condition that produces one or more of the following: cachexia or wasting syndrome; severe and chronic pain; severe nausea; seizures, including but not limited to those characteristic of epilepsy; or severe and persistent muscle spasm, including but not limited to those characteristic of multiple sclerosis.
 - c) Any other medical condition or its treatment approved by the department, as provided for in MCL 333.26425.
- 3) “Drug paraphernalia” means all equipment, products and materials of any kind, which is used, intended for use, or designed for use in planting, propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, producing, processing, preparing, testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting, ingesting, inhaling, or otherwise introducing into the human body a controlled substance as defined in Section 7104 of the Michigan Public Health Code (Act No. 368 of the MI Public Acts of 1978 as amended) in violation of the laws of the State of Michigan.
 - 4) “Marihuana” means that term as defined in section 7106 of the public health code, 1978 PA 368, MCL 333.7106.
 - 5) “Medical marihuana dispensary” means any structure used for dispensing marihuana by a primary caregiver or caregivers to one or more qualifying patient(s). A medical marihuana dispensary does not include a qualifying patient’s residence if the marihuana transferred is exclusively for the qualifying patient’s use.
 - 6) “Medical marihuana nursery” means any structure which is used, intended for use, or designed for use in planting, propagating, cultivating, growing, harvesting, manufacturing, producing, processing, preparing, packaging, repackaging, or storing medical marihuana for one or more qualifying patients. A medical marihuana nursery does not include a qualifying patient’s residence if the marihuana is exclusively for the qualifying patient’s use.
 - 7) “Physician” means an individual licensed as a physician under Part 170 of the public health code, 1978 PA 368, MCL 333.17001 to 333.17084, or an osteopathic physician under Part 175 of the public health code, 1978 PA 368, MCL 333.17501 to 333.17556.

- 8) “Primary caregiver” means a person who has agreed to assist with a patient’s medical use of marihuana and has a valid registry identification card issued by the Michigan Department of Community Health.
- 9) “Qualifying patient” means a person who has been diagnosed by a physician as having a debilitating medical condition and has a valid registry identification card issued by the Michigan Department of Community Health.
- 10) “Registry identification card: means a document issued by the Michigan Department of Community Health that identifies a person as a registered qualifying patient or registered primary caregiver.
- 11) “Usable marihuana” means the dried leaves and flowers of the marihuana plant, and any mixture or preparation thereof, but does not include the seeds, stalks, and roots of the plant.
- 12) “Visiting qualifying patient” means a patient who is not a resident of this state or who has been a resident of this state for less than 30 days.
- 13) “Written certification” means a document signed by a physician, stating the patient’s debilitating medical condition and stating that, in the physician’s professional opinion, the patient is likely to receive therapeutic or palliative benefit from the medical use of marihuana to treat or alleviate the patient’s debilitating medical condition or symptoms associated with the debilitating medical condition.

II. Amend Article IV, Section 401.6(c) [listing uses prohibited as home occupations] by adding the following:

- (7) medical marihuana dispensaries.
- (8) medical marihuana nurseries.

III. Add the following new sub-section to Article XIV Light Industrial, Section 1402 Uses permitted subject to special conditions:

Medical marihuana dispensaries and medical marihuana nurseries
subject to the conditions and standards:

- 1) No Medical Marihuana Dispensary or Medical Marihuana Nursery shall be located within 1,000 feet of any other Medical Marihuana Dispensary or Medical Marihuana Nursery nor within 1,000 feet of any of the following uses:
 - a) Any church, synagogue, mosque or any house of worship.
 - b) Any school, public or private, having a curriculum including kindergarten or any one or more of the grades one through twelve.
 - c) Any child care organization.
 - d) Any public library.
 - e) Any residentially zoned district or residential use.
 - f) Any community college, university or professional school.
- 2) All activity related to a Medical Marihuana Dispensary or Medical Marihuana Nursery including, but not limited to growing, shall be done indoors in a locked structure.
- 3) Medical Marihuana Dispensary and Medical Marihuana Nurseries shall be operated in compliance with the provisions of the Michigan Department of Community Health and the Medical Marihuana Act MCL 333.26421 et seq.
- 4) Smoking, inhalation, or consumption of medical marihuana shall not be allowed on the site of the Medical Marihuana Dispensary or Medical Marihuana Nursery.
- 5) No qualifying patients under the age of 18 (eighteen) shall be permitted in the Medical Marihuana Dispensary or Medical Marihuana Nursery at any time except in the presence of qualifying patient's parent or legal guardian or their primary caregiver.
- 6) No retail sales of drug paraphernalia are permitted at the Medical Marihuana Dispensary or Medical Marihuana Nursery, except to qualifying patients or their primary caregivers.

- 7) Each Medical Marihuana Dispensary or Medical Marihuana Nursery shall display in a manner legible and visible to its clientele:
 - a) Notice that qualifying Patients under the age of eighteen (18) are not allowed in the Medical Marihuana Dispensary or Medical Marihuana Nursery except in the presence of his/her parent or legal guardian;
 - b) No consumption, inhalation or consumption of medical marihuana shall occur within the vicinity of the Medical Marihuana Dispensary or Medical Marihuana Nursery.
- 8) Only operators and their employees, qualifying patients, parents or guardians of qualifying patients under 18 years of age, and their primary caregiver may be permitted to enter a Medical Marihuana Dispensary or Medical Marihuana Nursery for the purpose of obtaining medical marihuana or other goods or products associated with its use.
- 9) Medical Marihuana Nurseries can grow a maximum of 72 marihuana plants.

Severability

Should any section, subdivision, sentence, clause or phrase of this Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof other than the part as invalidated.

Publication

This Ordinance shall be published in a newspaper of general circulation as required by law.

Effective date

This Ordinance shall become effective upon publication in a newspaper of general circulation as required by law.

RESOLUTION 2010-07

Whereas, evidence suggests that juvenile curfew ordinance are effective tools in reducing both violent crimes and property crimes committed by juveniles and perpetrated against juveniles under the age of 18; and

Whereas, township residents at recent neighborhood watch meetings have expressed support for reducing the nighttime curfew from 11:00 p.m. to 10:00 p.m.; and

Whereas, Ordinance 2010-405, defines curfew hours as between 10:00 p.m. until 5:30 a.m. on any day of the week (Monday through Sunday inclusive); and

Whereas, Ordinance 2010-405 contains definitions of emergency, guardian, minor, parent, outdoor public place, remain, and serious bodily injury; and

Whereas, Ordinance 2010-405 provides that minors who violate curfew are guilty of a misdemeanor; and parents and guardians who allow their minor children to violate curfew are guilty of a misdemeanor; and

Whereas, Ordinance 2010-405 provides for defenses to prosecution, including minors with their parent or guardian, on errands at the direction of parents or guardians, in motor vehicles; engaged in employment activity; involved in an emergency; on a sidewalk at their residence; attending school, religious or recreational events supervised by adults; exercising First Amendment rights; or are married or emancipated under State law; and

Whereas, Ordinance 2010-405 provides that the penalty for curfew violations is \$100 and/or 90 days in jail; and

Whereas, Ordinance 2010-405 will be effective 30 days after publication in a newspaper of general circulation.

Now therefore, be it resolved that Ordinance 2010-405 is adopted by reference.

Ordinance No. 2010-405

An Ordinance amending Chapter 42, Article VII, Division 1, Section 324, entitled "Curfew for Minors and Parental Responsibility" of the Charter Township of Ypsilanti Code of Ordinances.

The Charter Township of Ypsilanti **ordains:**

Ordinance No. 107 adopted **June 5, 1984**, amended on **April 18, 1995**, Chapter 42, Article VII, Division 1, Section 324, of the Charter Township of Ypsilanti Code of Ordinances is **Deleted** in its entirety.

Add the following new Section 324 to Chapter 42, Article VII, Division 1 of the Township Code of Ordinances to read as follows:

1. Definitions – The following words, terms and phrases when used in this section shall have the following meanings:

Curfew Hours means 10:00 p.m. to 5:30 a.m. on any day of the week (Monday through Sunday inclusive)

Emergency means an unforeseen combination of circumstances or the resulting state that calls for immediate action. The term includes, but is not limited to, a fire, a natural disaster, an automobile accident, or any situation requiring immediate action to prevent serious bodily injury or loss of life.

Guardian means:

A. a person who, under court order, is the guardian of a minor; or

B. a public or private agency with whom a minor has been placed by a court.

Minor means any person under 18 years of age.

Parent means a person who is:

- A.** a natural parent, adoptive parent, or step-parent of a minor; or
- B.** at least 18 years of age and authorized by a parent or guardian to have the care and custody of a minor.

Outdoor Public Place means any place to which the public or a substantial group of the public has access and includes, but is not limited to streets, sidewalks, alleys, parks, playgrounds, vacant lots or other outdoor areas open to the public.

Remain means to:

- A.** linger or stay; or
- B.** fail to leave premises when requested to do so by a law enforcement officer or the owner, operator or other person in control of the premises.

Serious Bodily Injury means bodily injury that creates a substantial risk of death or that causes death, serious permanent disfigurement, or protracted loss or impairment of the function of any bodily member or organ.

2. Curfew and Parental Responsibility

A. A minor commits an offense remaining in any outdoor public place within the township during curfew hours.

B. A parent or guardian of a minor commits an offense by knowingly permitting or by insufficient control allowing a minor to remain in any outdoor public place within the township during curfew hours.

3. Defenses:

A. It is a defense to prosecution under Subsection (2) that the minor was:

- a.** accompanied by the minor's parent or guardian;
- b.** on an errand at the direction of the minor's parent or guardian, without any detour or stop;
- c.** in a motor vehicle travelling on a public or private street or highway;

- d. engaged in an employment activity, or going to or returning home from an employment activity, without any detour or stop;
- e. involved in an emergency;
- f. on the sidewalk abutting the minor's residence or abutting the residence of a next-door neighbor if the neighbor did not complain to law enforcement about the minor's presence;
- g. attending an official school, religious, or other recreational activity supervised by adults, sponsored by the township, a civic organization, or another similar entity that takes responsibility for the minor; or going to or returning home from, without any detour or stop, an official school, religious, or other recreational activity supervised by adults, sponsored by the township, a civic organization, or another similar entity that takes responsibility for the minor;
- h. exercising First Amendment rights protected by the United States Constitution, such as the free exercise of religion, freedom of speech, and the right of assembly; or
- i. married or had been married or emancipated in accordance with State law.

4. *Enforcement:*

Before taking any enforcement action under this section, a law enforcement officer shall ask the apparent offender's age and reason for being in the outdoor public place. The officer shall not issue a citation or make an arrest under this section unless the officer reasonably believes that an offense has occurred and that, based on any response and other circumstances, no defense in Subsection (3) is present.

5. *Penalties:*

A person who violates a provision of this ordinance is guilty of a misdemeanor punishable by a fine not to exceed \$100 and/or 90 days in jail.

6. *Severability.*

Should any section, subdivision, sentence, clause or phrase of this Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof other than the part as invalidated.

7. *Publication Clause.*

This ordinance shall be published in a newspaper of general circulation as required by law.

8. *Effective Date.*

This ordinance shall be effective 30 days after publication in a newspaper of general circulation as required by law.

CHARTER TOWNSHIP OF YPSILANTI

2010 BUDGET AMENDMENT #6

MAY 18, 2010

101 - GENERAL FUND

Total Increase

Increase the Township Board budget for professional services with the extension of contract with Governmental Consultant Services, Inc. for 90 days to continue work on boat house grant and other consulting services. This was approved at the May 5, 2010 special Board Meeting. Currently, the 2010 budget has \$96,081.00 more budgeted in revenues than expenditures allowing for net income of \$96,081. These professional services will be funded by reducing the 2010 excess net revenue budget by \$9,000.00, to \$87,081.00.

Revenues:	Excess 2010 Revenues over 2010 Expenditures	\$9,000.00
	Net Revenues	<u>\$9,000.00</u>
Expenditures:	Township Board-Professional Services 101.101.000.801.000	\$9,000.00
	Net Expenditures	<u>\$9,000.00</u>

211 - BIKE, SIDEWALK AND RECREATION FUND

Total Increase

Increase the Capital Outlay-Land budget in the amount of \$59,245 for the purchase of property on Glenwood Avenue from Washtenaw County as a tax foreclosure. The land will be used as park land or as natural preservation land. This will be funded by an appropriation of Prior Year Fund Balance

Revenues:	Prior Year Fund Balance 211.000.000.699.000	\$59,245.00
	Net Revenues	<u>\$59,245.00</u>
Expenditures:	Capital Outlay-Land Purchase 211.970.000.971.011	\$59,245.00
	Net Expenditures	<u>\$59,245.00</u>

212 - BIKE, SIDEWALK, RECREATION, ROAD AND GENERAL OPERATIONS FUND

Total Increase

Increase the Highways and Streets Road Construction budget by \$260,000, as estimated based on the agreement with the Washtenaw County Road Commission. This will be funded by an appropriation of Prior Year Fund Balance,

Revenues:	Prior Year Fund Balance 212.000.000.699.000	\$260,000.00
	Net Revenues	<u>\$260,000.00</u>
Expenditures:	Highway & Street-Road Construction 212.970.000.818.022	\$260,000.00
	Net Expenditures	<u>\$260,000.00</u>

Motion to Amend the 2010 Budget (#6):

Move to increase the General Fund budget by \$9,000.00 to \$8,131,938.00 and approve the department line item changes as outlined,

Move to increase the Bike Path, Sidewalk and Recreation (BSR 211) Fund budget by \$59,245.00 to \$104,855.75 and approve the department line item changes as outlined,

Move to increase the Bike Path, Sidewalk, Recreation, Road and General Operations (BSRII 212) Fund budget by \$260,000.00 to \$1,971,470.14 and approve the department line item changes as outlined.

CHARTER TOWNSHIP OF YPSILANTI
2010 BUDGET AMENDMENT #6
MAY 18, 2010

\$9,000.00

\$59,245.00

\$260,000.00

2010 YPSILANTI TOWNSHIP SECOND AGREEMENT

THIS AGREEMENT, made and entered into this ____ day of _____, 2010, by and between the Township Board of Ypsilanti Township, Washtenaw County, parties of the first part and the Board of Washtenaw County Road Commissioners, parties of the second part.

WHEREAS, the parties of the first part desire that certain improvements be made upon the local roads in the Township of Ypsilanti, and

WHEREAS, proper authority is provided to the parties of the agreement under the provisions in Act 51 of Public Acts of 1951 as amended,

IT IS NOW THEREFORE AGREED, the parties of the second part will accomplish the improvements as specified herein, all in accordance with the standards of the parties of the second part.

1. Dust Control (497-11-108):

Placement of three (3) solid applications of contract brine on all certified, local gravel/limestone roads within the township. Estimated 68,880 gallons at \$0.188 per gallon.

Estimated Project Cost of 3 applications: \$ 12,949.44

2. Street Sweeping Services:

Work to include one additional street sweeping in Ypsilanti Township on local roads if deemed necessary by the Township.

Estimated Project Cost: \$ 14,241.04

3. Oakland Estates Subdivision:

Work to include crack sealing. Roads to include Huntington Avenue, Huntington Court, Meadowview Street, Ramblewood Street, Ramblewood Court, Raintree, West Raintree, East Raintree. Final cost to be determined by competitive bid.

Estimated Project Cost: \$ 16,000.00

4. Big Pine Subdivision:

Work to include crack sealing. Roads to include Shawn Drive, Big Pine Court, Big Pine Drive, Oak Crest, New Meadow Drive, Grayfield Circle. Final cost to be determined by competitive bid.

Estimated Project Cost: \$ 15,500.00

5. Signet Hills Subdivision:

Work to include milling the existing surface, structure adjustments and the placement of a 3" bituminous overlay. Roads to include: Rosedale, Kewanee, Berkley, Stratford. Final cost to be determined by competitive bid.
Estimated Project Cost:

\$ 97,300.00

6. Canyon Subdivision:

Work to include milling the existing surface and the placement of a 3" bituminous overlay. Roads to include: Canyon Drive, Mesa Drive, Skyway Drive, Arroyo Drive, Cascade Lane. Final cost to be determined by competitive bid.
Estimated Project Cost:

\$ 124,000.00

7. Township Wide Ditching:

Work to include ditching on various local roads within the Township. Locations to be determined by the District Foreman and Township Supervisor (or her designee).
Project Cost "Not To Exceed":

\$ 11,848.00

PRIMARY ROAD IMPROVEMENTS

8. Whittaker Road, Stony Creek to Textile:

Work include milling the existing surface, the placement of a 2" bituminous overlay including paved shoulders. Final cost to be determined by competitive bid.
Estimated Project Cost:

\$ 55,500.00

9. Textile Road, Bridge Road westerly 0.60 mile:

Work include milling the existing surface and the placement of a 2" bituminous overlay. Final cost to be determined by competitive bid.
Estimated Project Cost:

\$ 56,200.00

10. Grove Road, Rawsonville to Snow Road:

Work include milling the existing surface and the placement of a 2" bituminous overlay. Final cost to be determined by competitive bid.
Estimated Project Cost:

\$ 56,200.00

It is further understood that the Charter Township of Ypsilanti will be a named insured on the Washtenaw County Road Commission's coverages for liability for the contracted activities described above. The Road Commission will submit a certificate of insurance evidencing such coverages to the Township Clerk prior to implementation of services

under the contract. Each party to this contract shall be responsible for the acts and omissions of its employees and agents.

AGREEMENT SUMMARY

2010 LOCAL ROAD PROGRAM	
Local Road Dust Control	\$ 12,949.44
Street Sweeping	14,241.04
Oakland Estates	16,000.00
Big Pine Subdivision	15,500.00
Signet Hills Subdivision	97,300.00
Canyon Subdivision	124,000.00
Township Wide Ditching	11,848.00
Total Local Road Program	\$ 291,838.48
PRIMARY ROAD IMPROVEMENTS	
Whittaker Road	\$ 55,500.00
Textile Road	56,200.00
Rawsonville Road	56,200.00
Total Primary Road Program	\$ 167,900.00
Less WCRC Conventional Match	\$ 106,556.00
Less WCRC Primary Match	55,966.66
Less WCRC Drainage Match	5,924.00

ESTIMATED AMOUNT TO BE PAID BY YPSILANTI
TOWNSHIP UNDER THIS AGREEMENT DURING 2010: \$ 291,291.82

FOR YPSILANTI TOWNSHIP:

Brenda L. Stumbo, Supervisor

Witness

Karen Lovejoy Roe, Clerk

Witness

FOR WASHTENAW COUNTY ROAD COMMISSION:

David E. Rutledge, Chair

Witness

Steven M. Puuri, Managing Director

Witness

Charter Township of Ypsilanti Resolution No. 2010-9

Resolution to Appoint a Receiving Board

WHEREAS, Section 679a of Public Act 116 of 1954 (MCL 168.679a), as amended, states that a township board, may, by resolution, provide that one or more additional boards of election inspectors shall be appointed by the township election commission to serve as receiving boards at an election at which the ballots are counted and certified at one or more township precinct;

NOW, THEREFORE, BE IT RESOLVED that the Charter Township of Ypsilanti Board of Trustees authorizes and requires the establishment and appointment of a Receiving Board to be appointed, prior to each election, by the Charter Township of Ypsilanti Election Commission under the terms of, and with the responsibilities dictated by, Michigan Election Law. This requirement shall remain in effect unless or until the Township Board adopts a Resolution determining otherwise.

CHARTER TOWNSHIP OF YPSILANTI

**Resolution No. 2010-10
Amending Resolution No. 2009 - 43**

**ADOPTION OF WORK SESSION AND REGULAR BOARD MEETING
DATES FOR THE 2010 CALENDAR YEAR**

NOW THEREFORE, BE IT RESOLVED that the attached schedule of dates and times, adding a second board meeting for the month of June, July, August, September and November be adopted for the Charter Township of Ypsilanti for the 2010 calendar year.

**CHARTER TOWNSHIP OF YPSILANTI
BOARD OF TRUSTEES**

SCHEDULE OF MEETINGS FOR 2010

**• DENOTES RETURN TO TWO BOARD MEETING FOR
JUNE, JULY, AUGUST, SEPTEMBER AND NOVEMBER**

Work Session
6:00 p.m.

Civic Center Board Room

Regular Meeting
7:00 p.m.

Civic Center Board Room

(When necessary, the Work Session will be moved to 5:00 p.m.)

Tuesday, January 19, 2010

Tuesday, February 2, 2010

Tuesday, February 16, 2010

Tuesday, March 2, 2010

Tuesday, March 16, 2010

Tuesday, April 6, 2010

Tuesday, April 20, 2010

Tuesday, May 18, 2010

• **Wednesday, June 2, 2010**

Tuesday, June 15, 2010

• **Tuesday, July 6, 2010**

Tuesday, July 20, 2010

• **Monday, August 9, 2010**

Tuesday, August 17, 2010

• **Tuesday, September 7, 2010**

Tuesday, September 21, 2010

Tuesday, October 5, 2010

Tuesday, October 19, 2010

• **Monday, November 8, 2010**

Tuesday, November 16, 2010

Tuesday, December 7, 2010

Tuesday, December 21, 2010

All meetings are held at the Ypsilanti Township Civic Center Building, 7200 S. Huron River Drive, Ypsilanti Township

SPECIAL MEETINGS MAY BE CALLED WITH 24-HOUR NOTIFICATION.

Pre-approval of Statements and Checks is authorized when no Board Meeting is held, with formal approval at the next regularly scheduled meeting, contingent on Board Members review and no objection.


Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE



Supervisor's Office

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 481-0617
Fax: (734) 484-0002
www.ytown.org

TO: Karen Lovejoy Roe, Clerk

FROM: Brenda L. Stumbo, Supervisor 

DATE: May 13, 2010

RE: Appointment of Alternate to Water Conservation Advisory Commission

Per the recommendation of Mark Clancy, I am requesting the Board to consider appointing Doug Lampe as an alternate on the Water Conservation Advisory Commission.

Mr. Lampe is an attorney and a Township resident who lives on Ford Lake. He has already been attending the meetings and has been very helpful.

Please place this item on the May 18, 2010 agenda for the Board's consideration.

tk

Doug Lampe
1680 Grove Road
Ypsilanti, MI 48198
doug.lampe@gmail.com

Ypsilanti Township Board of Trustees

Re: Position on WCAC

Please consider this request for a position on the WCAC.

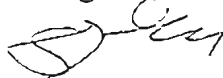
I have lived and boated on Ford Lake since 1994 and have previously volunteered for a position on the WCAC given my long-term interest in water quality. I would like to work with the community to improve the water quality, particularly regarding the seasonal algae blooms. I believe that my work experience would be beneficial to the WCAC because there are regulatory and administrative challenges associated with minimizing the algae blooms.

Since 1994, I have been employed as an attorney for Ford Motor Company in its Dearborn headquarters. In this capacity, I have represented the Company in administrative and regulatory challenges before local, state and federal organizations. During the course of this representation, I have presented to federal regulators, negotiated resolutions with state Attorneys General, and given Congressional testimony. In addition, I represent Ford in lawsuits brought against the Company nationally.

If our community is to end the nuisance algae blooms, I believe that regulatory negotiations will be required. It is also possible that we will need to make a regulatory challenge. My experience will give the WCAC a broader perspective on its options.

Please let me know if I can answer any questions.

Regards,

A handwritten signature in black ink, appearing to read 'Doug Lampe', written over a horizontal line.

Doug Lampe

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE



Clerk's Office

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 484-4700
Fax: (734) 484-5156
www.twp.ypsilanti.mi.us

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Karen Lovejoy Roe, Clerk

Date: May 10, 2010

Subject: Opportunity To Purchase Eight (8) Acres Of Land Under The Rights Of First Refusal From Washtenaw County Treasurer Due To Tax Foreclosure-Parcels: K-11-10-407-043, K-11-10-407-044, K-11-10-407-045 and K-11-10-407-046

Ypsilanti Township was contacted by Catherine McClary, County Treasurer inquiring about our interest in purchasing the above parcels for a minimum bid price of \$59,245.00.

The foreclosed, open space parcels are located between S. Harris Road and Glenwood Avenue. Ypsilanti Township has the right of first refusal on this property before they proceed to auction, which is scheduled for July 20, 2010.

If the Board is interested in purchasing these parcels, notification must be made to the Washtenaw County Treasurer's office, no later than May 31, 2010. Treasurer McClary indicated she will accept payment until July but she must have a commitment by the end of May.

This item has been place on the Tuesday, May 18, 2010 board agenda for consideration by the Board.

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
JEAN HALL CURRIE
STAN ELDRIDGE
MIKE MARTIN
DEE SIZEMORE



**Recreation Department
Community Center**

2025 E. Clark Road
Ypsilanti, MI 48198
Phone: (734) 544-3800
Fax: (734) 544-3888
50 & Beyond: (734) 544-3838

www.ytown.org

TO: Ypsilanti Township Board of Trustees

CC. Ypsilanti Township Park Commission

FROM: Art Serafinski, CPRP, CPSI, Director

DATE: May 14, 2010

**RE: 5 acre parcel of land located between S. Harris Rd. and Glenwood Ave. north of
Ecourse Rd.**

The above referenced parcel of land was first brought to the attention of the Residential Services Department and the Park Commission in July of 2009. At that time it was first believed that the owner was interested in donating the property to the Township. After further investigation it was found that the owner was interested in selling the property. This information was brought to the attention of the Park Commission at their August 10, 2009 meeting. The minutes of this meeting reflect that the commission was in favor of looking into this piece of property for possible park acquisition.

At the May 10, 2010 Park Commission meeting the Commissioner were informed that this parcel was currently in foreclosure and a map of the parcel was shared with them. There was discussion regarding a resident inquiring about the possibility of the parcel being converted into a dog park but there wasn't any further discussion about the property.

With this being said, the above referenced parcel is a beautiful "natural" piece of property with access from both Harris Rd. and Glenwood Ave. It is located in a dense residential area that does not have much open space or parkland in the immediate area. The property is highly suitable to become a park. It has all of the characteristics to provide many opportunities to those who reside in the area.

The current Parks and Recreation Plan outline's several goals and objectives to enhance our parks & recreation system. One of the goals is to "explore and evaluate the availability of properties to be acquired and developed as parks in the areas not currently served or underserved..." This parcel definitely meets this goal as its location is in an area that is deficient in park land and open space.

The possible purchase of this property is a great opportunity worth looking into. The evaluation process needs to look at the value of the property and the selling price. It also needs to look at maintenance costs (labor & supplies to take care of the property), planning costs (to potentially develop the property into an active park) and costs to develop the park. The need for a park in this area of the Township meets the criteria listed in our Parks & Recreation Master Plan.

Should you have any questions or need additional information please let me know.

>>> On 5/13/2010 at 11:44 PM, in message
<860229.55278.qm@web82805.mail.mud.yahoo.com>, Sandy Andresen
<sandyandresen@sbcglobal.net> wrote:

> Art,

> That piece of land , north of Ecorse and off of Harris, has been mentioned
> twice during Park Commission meetings. The first time was when it was
> thought that the land might potentially be donated to the township. This
> occurred at the August 10, 2009 meeting. There was a flurry of e-mails
> between you, the Supervisor, Clerk, and Ron Fulton. These e-mails started
> with a message from Ron Fulton on July 13, 2009 and the last message I have
> record of was from the Clerk dated August 4, 2009. At the August 10 Park
> Commission meeting "Potential Faith Assembly Church Land Donation" was added
> to the agenda. The Commissioners were given a copy of the e-mails, Ypsilanti
> Township Parcel Map, two color ariels showing plot lines and buildings, and
> four parcel number sheets for K-11-10-407-043 - 046.
> The August 10, 2009 minutes state, "Serafinski made contact with the church
> and they want to sell the property not donate it. The commission is in favor
> of looking into this piece of property for possible park acquisition."
> The only other time this piece of land was mentioned in a Park Commission
> meeting was at the most recent meeting of May 10, 2010. The land parcel was
> mentioned by me when I gave information in my report about the resident that
> the Supervisor requested that I call back concerning a potential dog park. I
> returned the residents call. We had a lengthy conversation about a number of
> concerns, starting with her idea of turning the parcel of property north of
> Ecorse off of Harris into a dog park. You pulled out one of the ariel maps
> to share with the Commissioners to refresh their minds about which piece of
> land was being discussed. There was no additional information shared about
> this land parcel at this meeting other than it was in foreclosure.
> As for your question of, were there any decisions made by the Park
> Commission regarding this piece of land, I refer back to the August 10, 2009
> minutes. "... The commission is in favor of looking into this piece of
> property for possible park acquisition."
> Hope this information helps. Please let me know if there is any additional
> information I can provide.

> Sandy

> "A child who does not play is not a child, but the man who does not play has
> lost forever the child in him." – Pablo Neruda, Chilean poet, 1904–1973

RUTH ANN JAMNICK
SUPERVISOR
BRENDA L. STUMBO
CLERK
LARRY J. DOE
TREASURER

Y Charter Township *of* **PSILANTI**

"Placing Residents First"

ASSESSING DEPARTMENT

Phone: (734) 487-4927

Fax: (734) 484-5159

TRUSTEES:
JEAN HALL CURRIE
STAN ELDRIDGE
DAVID OSTROWSKI
DEE SIZEMORE

7200 S. Huron River Drive
Ypsilanti, MI 48197

www.twp.ypsilanti.mi.us

TO: Cheryl Benham, CED Department Secretary
FROM: Dawn Scheitz, Appraiser III
SUBJECT: Parcel Number Change
DATE: November 30, 2005

A final division/combine has been approved and the owners have been notified. For your records the following parcel number(s) have been changed:

Original Parcel Number

New Parcel Number

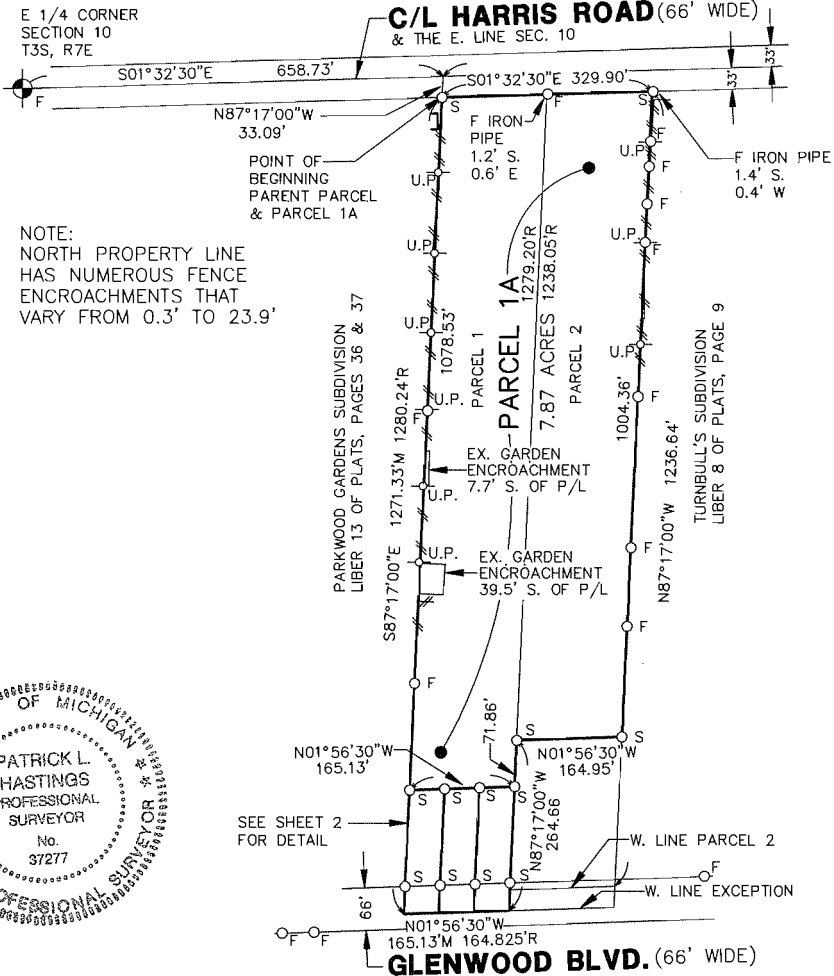
K-11-10-407-020
K-11-10-407-042

K-11-10-407-043
K-11-10-407-044
K-11-10-407-045
K-11-10-407-046


LEGEND

BASIS OF BEARINGS:
BEARINGS BASED ON
PARKWOOD GARDENS SUBDIVISION
LIBER 13 OF PLATS, PAGES 36 & 37
WASHTENAW COUNTY RECORDS


- U.P. EXIST. UTILITY POLE
- C/L CENTERLINE
- M FENCE
- R MEASURED
- S RECORDED
- F SET IRON ROD
- F FOUND IRON ROD
- SECTION CORNER



LAND DIVISION OF A 8.59 PARCEL OF LAND
LOCATED IN THE SE 1/4 OF SECTION 10, T3S, R7E,
YPSILANTI TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

CLIENT: HOMETOWNE	DATE: 11/03/05	 Patrick L. Hastings PROFESSIONAL LAND SURVEYOR NO. 37277
JOB NO.: 05296	SHEET 1 OF 5	
SECTION: 10 TOWN: 3S RANGE: 7E	SCALE: 1 in. = 200 ft.	
CHARTER TOWNSHIP OF YPSILANTI	BOOK: 371	
WASHTENAW COUNTY, MICHIGAN	BY: KMW	

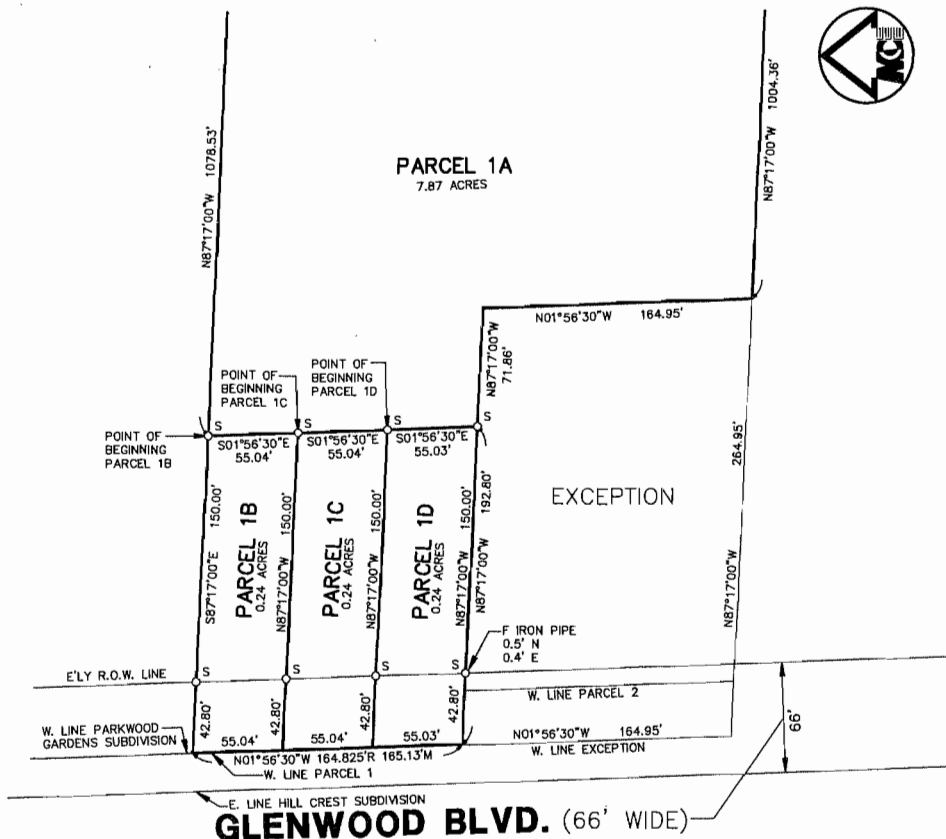
MIDWESTERN CONSULTING



Civil, Environmental and
Transportation Engineers
Planners, Surveyors
Landscape Architects

3815 Plaza Drive
Ann Arbor, Michigan 48108
Phone: 734.995.0200
Fax 734.995.0599

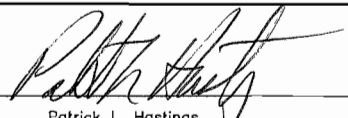
I HEREBY CERTIFY THAT I HAVE SURVEYED AND
MAPPED THE LAND ABOVE PLATTED AND/OR
DESCRIBED ON NOVEMBER 3, 2005
AND THAT THE RATIO OF CLOSURE ON THE
UNADJUSTED FIELD OBSERVATIONS OF SUCH
SURVEY WAS 1/5000 AND THAT
ALL OF THE REQUIREMENTS OF P.A. 132 1970,
AS AMENDED, HAVE BEEN COMPLIED WITH.




GLENWOOD BLVD. (66' WIDE)

DETAIL



CLIENT: HOMETOWNE	DATE: 11/03/05	 Patrick L. Hastings PROFESSIONAL LAND SURVEYOR NO. 37277
JOB NO.: 05296	SHEET 2 OF 5	
SECTION: 10 TOWN: 3S RANGE: 7E	SCALE: 1 in. = 60 ft.	
CHARTER TOWNSHIP OF YPSILANTI	BOOK: 371	
WASHTENAW COUNTY, MICHIGAN	BY: KMW	

MIDWESTERN CONSULTING



Civil, Environmental and
Transportation Engineers
Planners, Surveyors
Landscape Architects

3815 Plaza Drive
Ann Arbor, Michigan 48108
Phone: 734.995.0200
Fax 734.995.0599

I HEREBY CERTIFY THAT I HAVE SURVEYED AND
MAPPED THE LAND ABOVE PLATTED AND/OR
DESCRIBED ON NOVEMBER 3, 2005
AND THAT THE RATIO OF CLOSURE ON THE
UNADJUSTED FIELD OBSERVATIONS OF SUCH
SURVEY WAS 1/5000 AND THAT
ALL OF THE REQUIREMENTS OF P.A. 132 1970,
AS AMENDED, HAVE BEEN COMPLIED WITH.

LEGAL DESCRIPTION
PARENT PARCEL

The land is situated in the Township of Ypsilanti, County of Washtenaw, State of Michigan, is described as follows:

PARCEL 1:

Beginning at a point in the East section line of Section 10, T3S, R7E, which point is 658.86 feet Southerly from the E 1/4 post of Section 10; thence Northwesterly 85°44' W 33.09 feet which is the Place of Beginning of the land herein described; thence N 85°44' W 1280.24 feet to the East line of Hill Crest Subdivision; thence Southeasterly on the East line of Hill Crest Subdivision 164.825 feet; thence S 85°44' E 1279.20 feet; thence Northerly 164.72 feet to the Point of Beginning of the land herein described, intending hereby to convey Lot 10 in the unrecorded plat of Homeland Farms and a strip 41.15 feet in width directly West of Lot 10, all in Ypsilanti Township, Washtenaw County, Michigan.

PARCEL 2:


Commencing at a point on the section line 823.58 feet South of the NE corner of the E 1/2 of the SE 1/4 of Section 10, T3S, R7E; thence N 84°39'30" W 33 feet to the Place of Beginning; thence South parallel with the section line 164.71 feet; thence N 84°39'30" W 1236.64 feet; thence N 0°25'30" E 164.85 feet; thence S 84°39'30" E 1238.05 feet to the Place of Beginning. Excepting therefrom land conveyed in Warranty Deed recorded in Liber 1268, Page 353, Washtenaw County Records.
(Taken from TitleAmerica Title Commitment No. 111932, dated April 28, 2004)

Being more particularly described as:

Commencing at the E 1/4 corner of Section 10, T3S, R7E, Ypsilanti Township, Washtenaw County, Michigan, thence S 01°32'30" E 658.73 feet along the East line of said Section 10; thence N 87°17'00" W 33.09 feet to the POINT OF BEGINNING,

thence S 01°32'30" E 329.90 feet along the Westerly line of Harris Road (66 feet wide);
thence N 87°17'00" W 1004.36 feet along the North line of Turnbull's Subdivision as recorded in Liber 8 of Plats, Page 9, Washtenaw County Records;
thence N 01°56'30" W 164.95 feet;
thence N 87°17'00" W 264.66 feet;
thence N 01°56'30" W 165.13 feet;
thence S 87°17'00" E 1271.33 feet along the South line of Parkwood Gardens Subdivision, as recorded in Liber 13 of Plats, Pages 36 & 37 Washtenaw County Records to the POINT OF BEGINNING. Being a part of the SE 1/4 of said Section 10 and containing 8.59 acres of land more or less. Being subject to the rights of the public over that portion of land as occupied by Glenwood Boulevard (66 feet wide). Being subject to easements and restrictions of record, if any.




CLIENT: HOMETOWNE	DATE: 11/03/05
JOB NO.: 05296	SHEET 3 OF 5
SECTION: 10 TOWN: 3S RANGE: 7E	SCALE: 1in.=  ft.
CHARTER TOWNSHIP OF YPSILANTI	BOOK: 371
WASHTENAW COUNTY, MICHIGAN	BY: KMW

MIDWESTERN CONSULTING



Civil, Environmental and
Transportation Engineers
Planners, Surveyors
Landscape Architects

3815 Plaza Drive
Ann Arbor, Michigan 48108
Phone: 734.995.0200
Fax 734.995.0599


Patrick L. Hastings
PROFESSIONAL LAND SURVEYOR
NO. 37277
I HEREBY CERTIFY THAT I HAVE SURVEYED AND
MAPPED THE LAND ABOVE PLATTED AND/OR
DESCRIBED ON NOVEMBER 3, 2005
AND THAT THE RATIO OF CLOSURE ON THE
UNADJUSTED FIELD OBSERVATIONS OF SUCH
SURVEY WAS 1/5000 AND THAT
ALL OF THE REQUIREMENTS OF P.A. 132 1970,
AS AMENDED, HAVE BEEN COMPLIED WITH.

PARCEL 1A:

Commencing at the E 1/4 corner of Section 10, T3S, R7E, Ypsilanti Township, Washtenaw County, Michigan, thence S 01°32'30" E 658.73 feet along the East line of said Section 10; thence N 87°17'00" W 33.09 feet to the POINT OF BEGINNING,


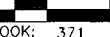
thence S 01°32'30" E 329.90 feet along the Westerly line of Harris Road (66 feet wide);
thence N 87°17'00" W 1004.36 feet along the North line of Turnbull's Subdivision as recorded in Liber 8 of Plats, Page 9, Washtenaw County Records;
thence N 01°56'30" W 164.95 feet;
thence N 87°17'00" W 71.86 feet;
thence N 01°56'30" W 165.13 feet;
thence S 87°17'00" E 1078.53 feet along the South line of Parkwood Gardens Subdivision, as recorded in Liber 13 of Plats, Pages 36 & 37, Washtenaw County Records to the POINT OF BEGINNING. Being a part of the SE 1/4 of said Section 10 and containing 7.87 acres of land, more or less. Being subject to easements and restrictions of record, if any.

PARCEL 1B:


Commencing at the E 1/4 corner of Section 10, T3S, R7E, Ypsilanti Township, Washtenaw County, Michigan, thence S 01°32'30" E 658.73 feet along the East line of said Section 10, thence N 87°17'00" W 1111.62 feet along the South line of Parkwood Gardens Subdivision, as recorded in Liber 13 of Plats, Pages 36 and 37, Washtenaw County Records, to the POINT OF BEGINNING,

thence S 01°56'30" E 55.04 feet;
thence N 87°17'00" W 192.80 feet;
thence N 01°56'30" W 55.04 feet;
thence S 87°17'00" E 192.80 feet along said South line of Parkwood Gardens Subdivision to the POINT OF BEGINNING. Being a part of the SE 1/4 of said Section 10 and containing 0.24 acres of land, more or less. Being subject to the rights of the public over that portion of land as occupied by Glenwood Boulevard (66 feet wide). Being subject to easements and restrictions of record, if any.



CLIENT: HOMETOWNE	DATE: 11/03/05	 Patrick L. Hastings PROFESSIONAL LAND SURVEYOR NO. 37277
JOB NO.: 05296	SHEET 4 OF 5	
SECTION: 10 TOWN: 3S RANGE: 7E	SCALE: 1in. =  ft.	
CHARTER TOWNSHIP OF YPSILANTI	BOOK: 371	
WASHTENAW COUNTY, MICHIGAN	BY: KMW	

MIDWESTERN CONSULTING



Civil, Environmental and
Transportation Engineers
Planners, Surveyors
Landscape Architects

3815 Plaza Drive
Ann Arbor, Michigan 48108
Phone: 734.995.0200
Fax 734.995.0599

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON NOVEMBER 3, 2005 AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/ 5000 AND THAT ALL OF THE REQUIREMENTS OF P.A. 132 1970, AS AMENDED, HAVE BEEN COMPLIED WITH.

PARCEL 1C:

Commencing at the E 1/4 corner of Section 10, T3S, R7E, Ypsilanti Township, Washtenaw County, Michigan, thence S 01°32'30" E 658.73 feet along the East line of said Section 10; thence N 87°17'00" W 1111.62 feet along the South line of Parkwood Gardens Subdivision, as recorded in Liber 13 of the Plats, Pages 36 and 37, Washtenaw County Records; thence S 01°56'30" E 55.04 feet to the POINT OF BEGINNING;

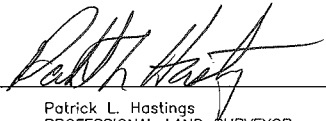

thence continuing S 01°56'30" E 55.04 feet;
thence N 87°17'00" W 192.80 feet;
thence N 01°56'30" W 55.04 feet;
thence S 87°17'00" E 192.80 feet to the POINT OF BEGINNING. Being a part of the SE 1/4 of said Section 10 and containing 0.24 acres of land, more or less. Being subject to the rights of the public over that portion of land, as occupied by Glenwood Boulevard (66 feet wide). Being subject to easements and restrictions of record, if any.


PARCEL 1D:

Commencing at the E 1/4 corner of Section 10, T3S, R7E, Ypsilanti Township, Washtenaw County, Michigan, thence S 01°32'30" E 658.73 feet along the East line of said Section 10, thence N 87°17'00" W 1111.62 feet along the South line of Parkwood Gardens Subdivision as recorded in Liber 13 of Plats, Pages 26 and 37, Washtenaw County Records, thence S 01°56'30" E 110.08 feet to the POINT OF BEGINNING.

thence continuing S 01°56'30" E 55.03 feet;
thence N 87°17'00" W 192.80 feet;
thence N 01°56'30" W 55.03 feet;
thence S 87°17'00" E 192.80 feet to the POINT OF BEGINNING Being a part of SE 1/4 of said Section 10 and containing 0.24 acres of land, more or less. Being subject to the rights of the public over that portion of land, as occupied by Glenwood Boulevard (66 feet wide). Being subject to easements and restrictions of record, if any.



CLIENT: HOMETOWNE	DATE: 11/03/05	 Patrick L. Hastings PROFESSIONAL LAND SURVEYOR NO. 37277
JOB NO.: 05296	SHEET 5 OF 5	
SECTION: 10 TOWN: 3S RANGE: 7E	SCALE: 1 in. =  ft.	
CHARTER TOWNSHIP OF YPSILANTI	BOOK: 371	
WASHTENAW COUNTY, MICHIGAN	BY: KMW	

MIDWESTERN CONSULTING


Civil, Environmental and Transportation Engineers
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3815 Plaza Drive
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I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON NOVEMBER 3, 2005 AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/ 5000 AND THAT ALL OF THE REQUIREMENTS OF P.A. 132 1970, AS AMENDED, HAVE BEEN COMPLIED WITH.



OFFICIAL SEAL

09/22/2004
L-4426 P-630Washtenaw Co., MI
Peggy M. Haines
CLERK
REGISTERPage: 1 of 1
09/22/2004 02:28P
L-4426 P-630

Peggy M Haines, Washtenaw LCRFF 5992803

MEMORANDUM OF LAND CONTRACT

THIS MEMORANDUM OF LAND CONTRACT entered into September 7, 2004 by and between Faith Assembly Church of Ypsilanti, Inc., a Michigan Ecclesiastical corporation whose address is 366 Dakota Street, Ypsilanti, MI 48198, hereinafter referred to as "Seller(s)" and Hometowne Building Company LLC, a Michigan limited liability company whose address is 37000 Twelve Mile Road, Farmington Hills, MI 48331 hereinafter referred to as "Purchaser(s) ":

WITNESSETH

WHEREAS, the Purchaser and Seller have entered into a Land Contract of even date herewith, and,
WHEREAS, the parties desire to enter into this Memorandum of Land Contract to give record notice of existence of said Land Contract.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the Seller acknowledges and agrees that the property described below was sold to the Purchaser on the Land Contract of even date:

Land in the Township of Ypsilanti, County of Washtenaw and State of Michigan, to wit:

Parcel 1: Beginning at a point in the East section line of Section 10, T3S, R7E, which point is 658.86 feet Southerly from the East 1/4 post of Section 10; thence Northwesterly 85 degrees 44 minutes West 33.09 feet which is the Place of Beginning of the land herein described; thence North 85 degrees 44 minutes West 1280.24 feet to the East line of Hill Crest Subdivision; thence Southeasterly on the East line of Hill Crest Subdivision, 164.825 feet; thence South 85 degrees 44 minutes East 1279.20 feet; thence Northerly 164.72 feet to the Point of Beginning of the land herein described, intending hereby to convey Lot 10 in the unrecorded plat of Homeland Farms and a strip 41.15 feet in width directly West of Lot 10, all in Ypsilanti Township, Washtenaw County, Michigan.

Parcel 2: Commencing at a point on the section line 823.58 feet South of the NE corner of the East 1/2 of the SE 1/4 of Section 10, T3S, R7E; thence North 84 degrees 39 minutes 30 seconds West 33 feet to the place of beginning; thence South parallel with the section line 164.71 feet; thence North 84 degrees 39 minutes 30 seconds West 1236.64 feet; thence North 0 degrees 25 minutes 30 seconds East 164.85 feet; thence South 84 degrees 39 minutes 30 seconds East 1238.05 feet to the place of beginning. Excepting therefrom land conveyed in Warranty Deed recorded in Liber 1268, page 353, Washtenaw County Records.

Tax id nos. K-11-10-407-020 and K-11-10-407-042

IN WITNESS WHEREOF, the parties have executed this Memorandum of Land Contract the day and year first above written.
Signed By

Faith Assembly Church of Ypsilanti, Inc.,
a Michigan Ecclesiastical corporation

Hometowne Building Company LLC,
a Michigan limited liability company

by Leland H. Jordan, Authorized Signatory

by Patrick O'Leary

by Timothy Rickard, Authorized Signatory

STATE OF MICHIGAN

} S.S.

COUNTY OF LIVINGSTON

On September 7, 2004, before me, a notary public in and for said County, personally appeared Leland H. Jordan and Timothy Rickard, Authorized Signatories of Faith Assembly Church of Ypsilanti, Inc., a Michigan Ecclesiastical corporation as Seller(s), and Patrick O'Leary, CEO of Hometowne Building Company LLC, a Michigan limited liability company, as Purchaser(s), to me known to be the same person(s) described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

My commission expires:

MARY C. O'NEILL
Notary Public, Livingston Co., MI
My Comm. Expires Aug. 14, 2005

, Notary Public
County, Michigan
Acting in Livingston County, Michigan

After recording return to:
Patrick O'Leary, CEO
Hometowne Building Company
37000 Twelve Mile Road
Farmington Hills, MI 48331
FILE NO: 111932

Drafted By:
Nancy Bohlen
130 W. Grand River Avenue
Brighton, MI 48116

Provided By

TitleAmerica

CHARTER TOWNSHIP OF YPSILANTI
ASSESSOR'S OFFICE

APPRAISAL REPORT

OF A RESIDENTIAL PROPERTY

**LOCATED AT: GLENWOOD-VACANT
SECTION 10, YPSILANTI TOWNSHIP
YPSILANTI, MICHIGAN 48198**

OWNED BY: FAITH ASSEMBLY CHURCH

AS OF MAY 12, 2010

FOR WASHTENAW COUNTY TAX SALE

**CHARTER TOWNSHIP OF YPSILANTI
7200 SOUTH HURON RIVER DRIVE
YPSILANTI, MICHIGAN 48197-7099**

BY: BRIAN MCCLEERY, CMAE III

**APPRAISER III
7200 SOUTH HURON RIVER DRIVE
YPSILANTI, MICHIGAN 48197-7099**

**CHARTER TOWNSHIP OF YPSILANTI
ASSESSING DEPARTMENT**

7200 South Huron River Drive
Ypsilanti, Michigan 48197-7099

Telephone (734)487-4927
Fax (734)484-5159

May 12, 2010

Karen Lovejoy Roe
Ypsilanti Township Clerk
7200 S Huron River Dr
Ypsilanti, Michigan 48197

Regarding: Valuation Report
Ypsilanti, Michigan 48197

Dear Ms. Roc

Enclosed please find the Residential Vacant Land Appraisal Report for the property identified above. Pursuant to your request, I have conducted the required investigation, gathered the necessary data and have made the analysis that has allowed me to form an opinion of value for the vacant lots, on Glenwood Ave, that are offered in the Washtenaw County Tax Sale.

This report is a detailed presentation of my research which concludes the Market Valuation be based upon the four existing parcels being developed into a residential subdivision with a configuration to allow a minimum of 30 residential, R5 zoned, lots.

The opinion of value that has been arrived at, subject to the limited conditions set forth in this report, is a minimum:

\$96,000

MARKET VALUE or **TRUE CASH VALUE** is defined by General Property Tax Act 211.27, as the usual selling price at the place where the property to which the term is applied is at the time of assessment, being the price that could be obtained for the property at private sale, and not at auction sale, except as otherwise provided in this section, or forced sale.

Respectfully Submitted,

Brian McCleery, CMAE III
Appraiser III

CHARTER TOWNSHIP OF YPSILANTI

EXECUTIVE SUMMARY

Property Location:	Vacant Parcels Glenwood Ave/ S Harris Rd
Purpose of Appraisal:	Estimate Market Value
Function of Appraisal:	Valuation for purchase from Washtenaw County Tax Sale
Property Rights Appraised:	Fee Simple
Property Type:	Vacant Developmental
Assessor's Tax Id:	K-11-10-407-043 / K-11-10-407-044 K-11-10-407-045 / K-11-10-407-046
Land Data:	Three .19 acre and One 7.87 Acre lots Total: 8.44 Acres
Highest and Best Use:	Developmental land used for building approximately 30 residentially zoned R-5 subdivision lots
Property Assessments:	None- Exempt Church owned
Special Assessments:	None Known
School District:	Ypsilanti
Ownership History:	According to public records Faith Assembly Church sold the property on Land Contract to Hometowne Building Company LLC in 2004 for \$435,000. On 3/12/08 Faith Assembly foreclosed on the property and regained ownership.
Final Conclusion of Value:	Minimum of \$96,000
Effective Date of Appraisal:	May 12, 2010

ZONING & DEVELOPMENT HISTORY

In order to develop a highest and best use analysis for the subject property, it was necessary to consult with Mr. Joe Lawson, Planning Coordinator for the Office of Community Standards for Ypsilanti Township. Mr. Lawson advised that the subject properties are contained within a R-5 residential zoned neighborhood. The R-5 Zoning allows for a 5400 Square Foot minimum lot size required for residential home construction. Given those standards the required density would allow a maximum of 8 residential lots per acre or 67 total lots for the development.

Mr. Lawson further advised that while the Zoning Density allows more lots, the shape of the subject property and requirements for an adequate Detention Basin would limit the amount of lots that could be actually created. Mr. Lawson provided copies of a "Concept Plan" submitted by Hometowne Building Company LLC that would have created 39 residential lots. In discussing the Plan with Mr. Lawson, he stated that he felt that the plan would not have gotten approval due to the size of the "Detention Basin" and that Hometowne Builders would have to acquire land from an adjacent property, on Glenwood Ave, in order to make the "Proposed Maplewood Dr" match up with the existing Maplewood Dr at Glenwood Ave.

Although he felt the existing "Concept Plan" would not be approved, Mr. Lawson felt that the project could support 30 to 35 residential lots using other configurations that would address the above deficiencies.

HIGHEST AND BEST USE

Given the above discussion, the Highest and Best Use is as Developmental Land that would support the development of 30 residential lots zoned as R-5.

SALES COMPARISON DISCUSSION

Due to the decline in the market, there is an absence of reliable Developmental Land Sales within Ypsilanti Township for the past two years. Land that has sold in the developmental class during the two year market period has been under distress and the owners have sold at a loss.

When reviewing the market, there appears to be an abundance of vacant land listed for sale, but actual sales are not taking place. It appears that properties are listed for sale and will remain listed until the Market for Developmental land improves. What we are finding is that the owners are not willing to lower the price that they are willing to sell for and they will wait out the market until the values improve.

The subject property has been listed for sale for the past 240 days at a price of \$148,000. The enclosed computer printout shows the listing. Although a listing does not offer the same weight as a verified sale, it is an indication of potential market value for the subject. Given the above discussion about the vacant land listings, the \$148,000 listing price would be considered to be the highest possible price given an active market for vacant land.

ESTIMATING LAND VALUE: EXTRACTION METHOD

Based upon the lack of reliable market data for valuation of the subject property as is, it is possible to determine the valuation of the subject by extracting the raw land value out of sales of improved properties.

Based upon the market for homes in the surrounding area, if the subject property was developed into a subdivision of 30 homes, the homes that would be built would sell in the price range of \$80,000 to \$90,000 based upon the current market for new homes.

Thru extraction, it is possible to determine that of the home's sale price above, an estimated 20% of the value would be attribute to the value of the lot as improved. The improved lot would be the raw land and improvements such as roads, sewer, water and other subdivision improvements. Therefore the improved land value estimate would range from \$16,000 to \$18,000. This sales range is consistent with sales of vacant lots that have taken place within the township over the past two years.

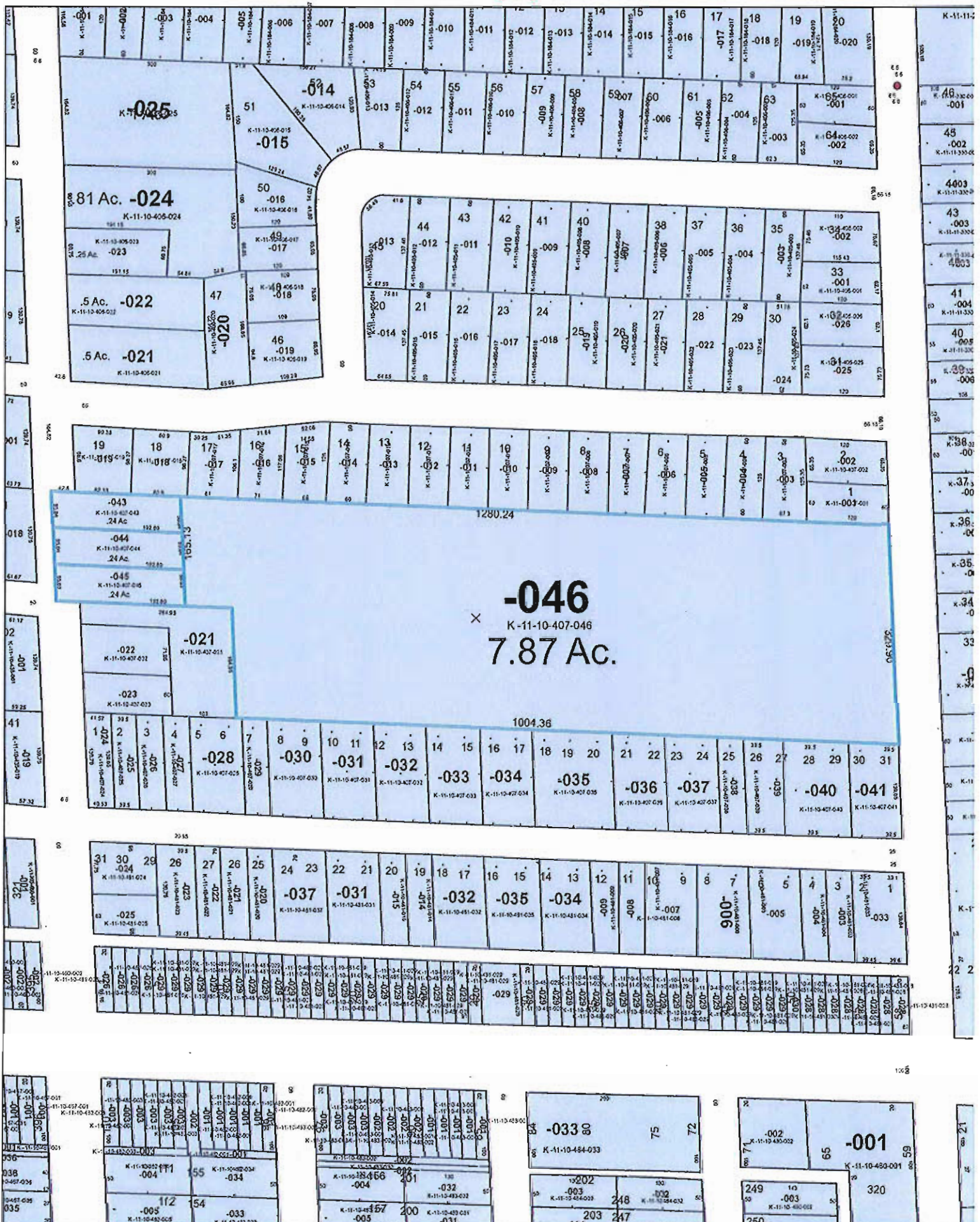
It is also possible that once we have estimated the value of the improved subdivision lot, to extract out the Subdivision Development Costs in order to arrive at the estimates of the raw land value per lot. Due to the minimal amounts of lots (density) and the improvements required, using an 80/20 ration to estimate the development cost is reasonable. This ratio represents 80% for cost of subdivision improvements and 20% for land. Based on this analysis, this would result in a raw lot value of \$3,200 to \$3,600. When applied to the 30 potential lots, the resulting market value for the land is \$96,000 to \$108,000.

CONCLUSION OF VALUE

MINIMUM VALUE: \$96,000

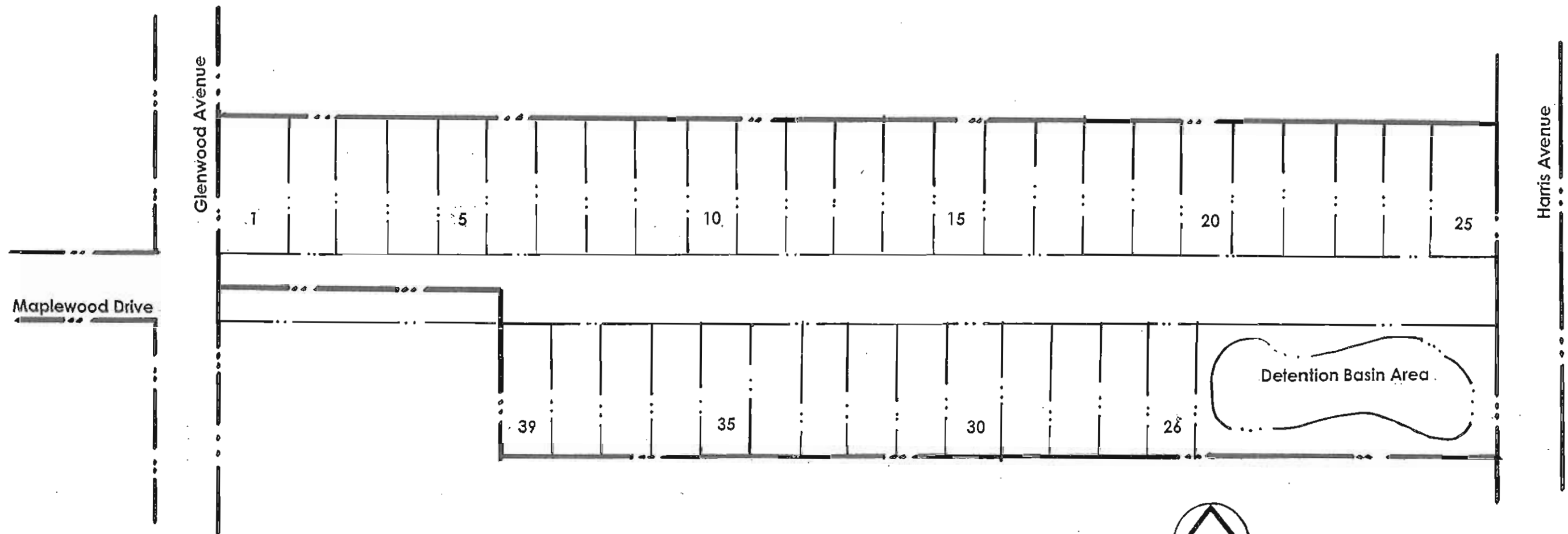
Glenwood Property up for Tax Foreclosure Sale

Parcels are highlighted



MAPLEWOOD FIELD

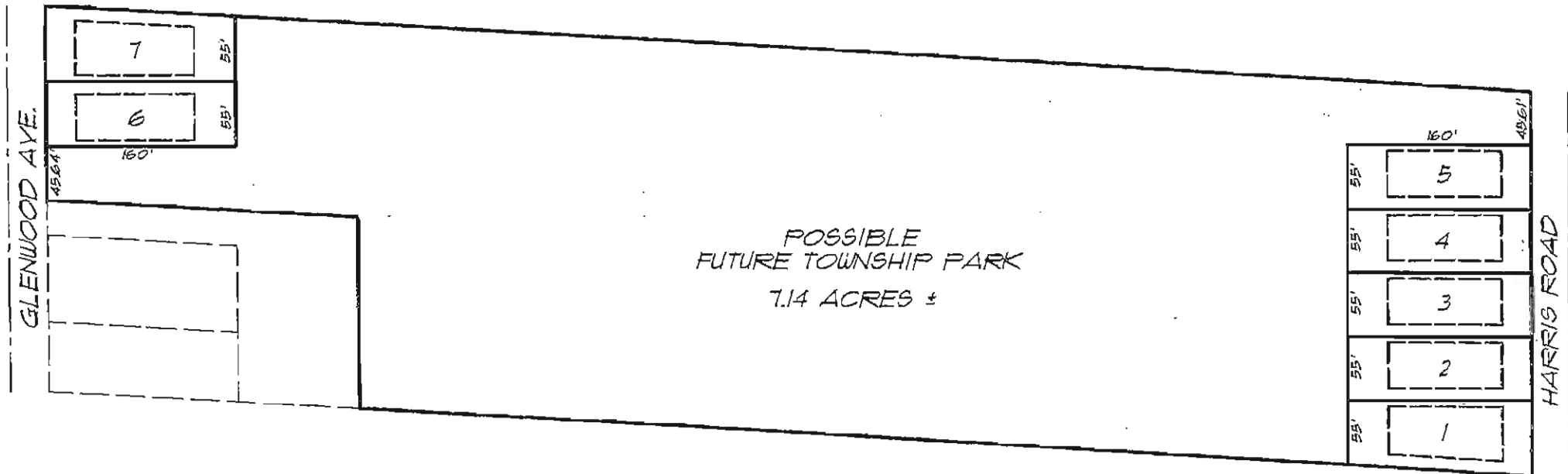
Concept A 39 Lots No Open Space



0 50 100 200
October 4, 2004 MCLLC

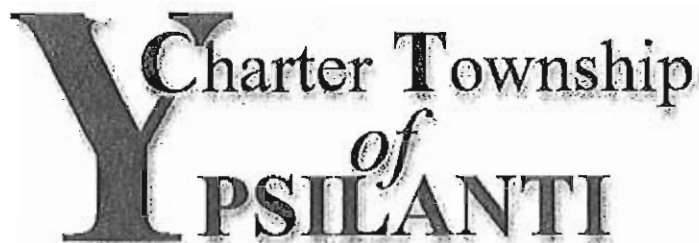
concept
plan
9-29-04

ATTENTION: PATRICK
FROM: DAN BELL



MAPLEWOOD FIELDS
YPSILANTI TOWNSHIP

RUTH ANN JAMNICK
SUPERVISOR
BRENDA L. STUMBO
CLERK
LARRY J. DOE
TREASURER



"Placing Residents First"

TRUSTEES:
JEAN HALL CURRIE
STAN ELDRIDGE
DAVID OSTROWSKI
DEE SIZEMORE

7200 S. Huron River Drive
Ypsilanti, MI 48197

www.twp.ypsilanti.mi.us

ASSESSING DEPARTMENT

Phone: (734) 487-4927

Fax: (734) 484-5159

November 29, 2005

Hometowne Building Co.
Attn: Janay Mallett
37000 Twelve Mile Rd Ste. 110
Farmington, Hills, MI 48331

Please be advised that the land division application for a division that you submitted on:

November 4, 2005

has been approved as per P.A. 288 of 1996 (MCL 560.101 et. seq.) as of:

November 29, 2005

It has also been reviewed and approved by the Community and Economic Development Department per the Ypsilanti Township Land Division Ordinance Appendix C Section 300(b)2. The approval is subject to any and all of the conditions or restrictions that may be attached to this approval letter, which are considered to be part of the records of this Township.

Approval of a division is not a determination that the resulting parcels comply with other ordinances or regulations.

Listed below are the new parcel identification number(s) that will appear on the tax roll in 2006. Pro-ration of 2005 taxes is the responsibility of the owner(s). **Please note that the 2005 taxes must be paid and not delinquent on February 24, 2006!**

Parcel #:

Property Address:

K-11-10-407-043
K-11-10-407-044
K-11-10-407-045
K-11-10-407-046

Glenwood Ave – vac
Glenwood Ave – vac
Glenwood Ave – vac
432 S. Harris Rd.

If you have any further questions, please contact our office.

Sincerely,

Dawn Scheitz
Appraiser/Division Coordinator

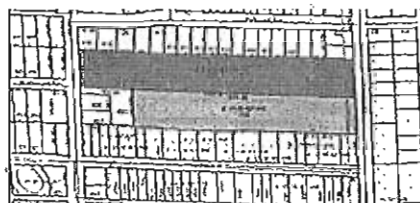
Attachment

Attachment also contains any conditions or restrictions if land division is dependent on such.

Map

US Michigan Washtenaw City

Views: 3



1. 432 S Harris Rd, Ypsilanti, MI

2. 432 S Harris Rd, Ypsilanti, MI

1 of 2

[Larger](#)**432 S Harris Rd****For Sale: \$148,000**

Check your 2010 Credit Score

Property type:	Vacant Land
Bedrooms:	--
Bathrooms:	--
Sqft:	--
Lot size:	382,892 sq ft / 8.79 acres
Year built:	--
Parking type:	--
Cooling system:	--
Heating system:	--
Fireplace:	--
Days on Zillow:	240
Last sold:	--
MLS number:	29120370

Description

ACREAGE, WOODED AND SHRUBERY TOO. IDEALLY LOCATED, SEWER AT THE STREET. DEVELOPMENT PROPERTY.

[More facts](#)

Save

Save as favorite

Notes (private & optional)

Share

E-mail to a friend

Share on Facebook

Alerts

Get price/status updates

Get home value report

Get new listings

Edit

Edit listing info

[Map](#)**Charts and Data**

	Value	Range	30-day change	Last updated
Zestimate®	None	--	--	--

Show

☐ Zestimate (\$)

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber & Page	Verified by	Prct Trans
HOMETOWNE BUILDING COMPANY	FAITH ASSEMBLY CHURCH		03/12/2008	AF	FORCLOSURE			0.0

Property Address GLENWOOD AVE		Class: EXEMPT VACANT		Zoning: R5 SIN		L Building Permit(s)		Date	Number	Status																											
Owner's Name/Address FAITH ASSEMBLY CHURCH OF YPSILANTI 337 S HARRIS ST YPSILANTI MI 48198		School: YPSILANTI SCHOOL DISTRICT																																			
		P.R.E. 0%																																			
		MAP #:																																			
		2011 Est TCV																																			
Description COMMENCING AT THE E 1/4 CORNER OF SEC 10, T3S, R7E, YPSILANTI TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, TH S 01-32-30 E 658.73 FT ALONG THE E/L OF SAID SEC 10, TH N 87-17-00 W 1111.62 FT ALONG THE S/L OF PARKWOOD GARDENS SUBDIVISION, AS RECORDED IN LIBER 13 OF PLATS, PAGES 36 AND 37, WASHTENAW COUNTY RECORDS TO THE POB, TH S 01-56-30 E 55.04 FT; TH N 87-17-00 W 192.80 FT; TH N 01-56-30 W 55.04 FT; TH S 87-17-00 E 192.80 FT ALONG SAID S/L OF PARKWOOD GARDENS SUBDIVISIONS TO THE POB. BEING A PART OF THE SE 1/4 OF SEC 10 AND CONT .24 ACRES OF LAND +/- BEING SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THAT PORTION OF LAND AS OCCUPIED BY GLEWOOD BOULEVARD (66 FEET WIDE) BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY		Improved	X	Vacant	Land Value Estimates for Land Table 00068.PRKWD GRDS,TURNBULL,HILLCREST,LEVTS * Factors *																																
		Public Improvements		<table border="1"> <thead> <tr> <th>Description</th> <th>Frontage</th> <th>Depth</th> <th>Front</th> <th>Depth</th> <th>Rate</th> <th>%Adj.</th> <th>Reason</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>FRONT FOOT</td> <td>55.04</td> <td>150.00</td> <td>1.0262</td> <td>1.0229</td> <td>450</td> <td>100</td> <td></td> <td>26,000</td> </tr> <tr> <td colspan="8">55 Actual Front Feet, 0.19 Total Acres</td> <td>26,000</td> </tr> </tbody> </table>							Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value	FRONT FOOT	55.04	150.00	1.0262	1.0229	450	100		26,000	55 Actual Front Feet, 0.19 Total Acres								26,000
Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value																													
FRONT FOOT	55.04	150.00	1.0262	1.0229	450	100		26,000																													
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		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.																																			
		Topography of Site																																			
		Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain																																			
Comments/Influences Split/Comb. on 11/29/2005 completed 11/29/2005 DSCHEIT ; Parent Parcel(s): K -11-10-407-020, K -11-10-407-042; Child Parcel(s): K -11-10-407-043, K -11-10-407-044, K -11-10-407-045, K -11-10-407-046;		Who		When	What	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value																									
						2011	EXEMPT	EXEMPT	EXEMPT			EXEMPT																									
						2010	EXEMPT	EXEMPT	EXEMPT			EXEMPT																									
						2009																															
						2008	14,400		14,400			6,312C																									

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans				
HOMETOWNE BUILDING COMPANY	FAITH ASSEMBLY CHURCH		03/12/2008	AF	FORCLOSURE			0.0				
Property Address		Class: EXEMPT VACANT		Zoning: R5 SIN		L Building Permit(s)		Date	Number	Status		
GLENWOOD AVE		School: YPSILANTI SCHOOL DISTRICT										
Owner's Name/Address		P.R.E. 0%										
FAITH ASSEMBLY CHURCH OF YPSILANTI		MAP #:										
337 S HARRIS ST YPSILANTI MI 48196		2011 Est TCV										
Description		Improved	X	Vacant	Land Value Estimates for Land Table 00068.PRKWD GRDS,TURNBULL,HILLCREST,LEVTS							
COMMENCING AT THE E 1/4 CORNER OF SECTION 10, T3S, R7E, YPSILANTI TOWNSHIP WASHTENAW COUTNY, MICHIGAN, TH S 01-32-30 E 658.73 FT ALONG THE E/L OF SAID SECTION 10; TH N 87-17-00 W 1111.62 FT ALONG THE S/L OF PARKWOOD GARDENS SUBDIVISION, AS RECORDED IN LIBER 13 OF PLATS, PAGES 36 & 37, WASHTENAW COUNTY RECORDS; TH S 01-56-30 E 55.04 FEET TO THE POB		Public Improvements			* Factors *							
TH CONT S 01-56-30 E 55.04 FEET; TH N 87-17-00 W 192.80 FEET; TH N 01-56-30 W 55.04 FEET; TH S 87-17-00 E 192.80 FEET TO THE POB. BEING A PART OF THE SE 1/4 OF SAID SECTION 10 AND CONT .24 ACRES OF LAND +/- BEING SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THAT PORTION OF LAND, AS OCCUPIED BY GLENWOOD BOULEVARD (66 FEET WIDE). BEING SUBJECT TO EASMENTS AND RESTRICTIONS OF RECORD, IF ANY.		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.			Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
					FRONT FOOT	55.04	150.00	1.0262	1.0229	450	100	26,000
					55 Actual Front Feet, 0.19 Total Acres						Total Est. Land Value =	26,000

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber & Page	Verified by	Prcnt Trans		
HOMETOWNE BUILDING COMPANY	FAITH ASSEMBLY CHURCH		03/12/2008	AF	FORCLOSURE			0.0		
Property Address GLENWOOD AVE		Class: EXEMPT VACANT		Zoning: R5 SIN L Building Permit(s)		Date	Number	Status		
Owner's Name/Address FAITH ASSEMBLY CHURCH OF YPSILANTI 337 S HARRIS ST YPSILANTI MI 48198		School: YPSILANTI SCHOOL DISTRICT								
		P.R.E. 0%								
		MAP #:								
		2011 Est TCV								
Description COMMENCING AT THE E 1/4 CORNER OF SECTION 10, T3S, R7E, YPSILANTI TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, TH S 01-32-30 E 658.73 FEET ALONG THE E/L OF SAID SECTION 10, TH N 87-17-00 W 1111.62 FEET ALONG THE S/L OF PARKWOOD GARDENS SUBDIVISION AS RECORDED IN LIBER 13 OF PLATS, PAGES 26 AND 37, WASHTENAW COUNTY RECORDS, TH S 01-56-30 E 110.08 FEET TO THE POB. TH CONT S 01-56-30 E 55.03 FEET; TH N 87-17-00 W 192.80 FEET; TH N 01-56-30 W 55.03 FEET; TH S 87-17-00 E 192.80 FEET TO THE POB BEING A PART OF SE 1/4 OF SAID SECTION 10 AND CONTAINING .24 ACRES OF LAND +/- BEING SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THAT PORTION OF LAND, AS OCCUPIED BY GLENWOOD BOULEVARD (66 FEET WIDE). BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD IF ANY.		Improved	X	Vacant	Land Value Estimates for Land Table 00068.PRKWD GRDS,TURNBULL,HILLCREST,LEVTS					
		Public Improvements		* Factors * Description Frontage Depth Front Depth Rate %Adj. Reason Value FRONT FOOT 55.03 150.00 1.0263 1.0229 450 100 25,997 55 Actual Front Feet, 0.19 Total Acres Total Est. Land Value = 25,997						
		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.								
		Topography of Site								
Comments/Influences Split/Comb. on 11/29/2005 completed 11/29/2005 DSCHEIT ; Parent Parcel(s): K -11-10-407-020, K -11-10-407-042; Child Parcel(s): K -11-10-407-043, K -11-10-407-044, K -11-10-407-045, K -11-10-407-046;		Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
				2011	EXEMPT	EXEMPT	EXEMPT			EXEMPT
				2010	EXEMPT	EXEMPT	EXEMPT			EXEMPT
				2009						
				2008	14,400		14,400			6,312C
The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Ypsilanti Township, Washtenaw County		Who	When	What						

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber & Page	Verified by	Prct Trans
HOMETOWNE BUILDING COMPANY	FAITH ASSEMBLY CHURCH		03/12/2008	AF	FORCLOSURE			0.0

Property Address GLENWOOD AVE		Class: EXEMPT VACANT		Zoning: R5 SIN		L Building Permit(s)		Date	Number	Status
Owner's Name/Address FAITH ASSEMBLY CHURCH OF YPSILANTI 337 S HARRIS ST YPSILANTI MI 48198		School: YPSILANTI SCHOOL DISTRICT								
		P.R.E. 0%								
		MAP #:								
		2011 Est TCV								

Description COM AT E 1/4 CORNER OF SEC 10, T3S, R7E, YPSILANTI TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, TH S 01-32-30 E 658.73 FT ALG THE E/L OF SAID SEC 10; TH N 87-17-00 W 33.09 FT TO THE POB, TH S 01-32-30 E 329.90 FT ALG THE WLY LINE OF HARRIS RD (66 FEET WIDE); TH N 87-17-00 W 1004.36 FT ALG THE N/L OF TURNBULL'S SUBDIVISION AS RECORDED IN LIBER 8 OF PLATS, PAGE 9, WASH COUNTY RECORDS; TH N 0-56-30 W 164.95 FT; TH N 87-17-00 W 71.86 FT; TH N 01-56-30 W 165.13 FT; TH S 87-17-00 E 1078.53 FT ALONG THE S/L OF PARKWOOD GARDENS SUBDIVISION, AS RECORDED IN LIBER 13 OF PLATS, PAGES 36 & 37 WASHTENAW COUNTY RECORDS TO THE POB. BEING A PART OF THE SE 1/4 OF SAID SECTION 10 AND CONTAINING 7.87 ACRES OF LAND +/-.	Improved	X	Vacant	Land Value Estimates for Land Table 00009.DEVELOPMENTAL CLASS SEC 1-36						
	Public Improvements			* Factors * Description Frontage Depth Front Depth Rate %Adj. Reason Value DEVELOPMEN R1 - R4 7.87 Acres 23679! 125 ZONED R5 232,941 ! Rates have been adjusted due to the large size of the parcel. 7.87 Total Acres Total Est. Land Value = 232,941						
	Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.									
	Topography of Site									

Comments/Influences Split/Comb. on 11/29/2005 completed 11/29/2005 DSCHEIT ; Parent Parcel(s): K -11-10-407-020, K -11-10-407-042; Child Parcel(s): K -11-10-407-043, K -11-10-407-044, K -11-10-407-045, K -11-10-407-046; The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Ypsilanti Township, Washtenaw County	Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
		2011	EXEMPT	EXEMPT	EXEMPT			EXEMPT
		2010	EXEMPT	EXEMPT	EXEMPT			EXEMPT
		2009						
		2008	186,400		186,400			186,400S



OFFICIAL SEAL
09/22/2004
L-4426 P-630

Washtenaw Co., MI
Peggy M. Haines
CLERK
REGISTER



Page: 1 of 1
09/22/2004 02:28P
L-4426 P-630

Peggy M Haines, Washtenaw LCAFF 5592883

MEMORANDUM OF LAND CONTRACT

THIS MEMORANDUM OF LAND CONTRACT entered into September 7, 2004 by and between Faith Assembly Church of Ypsilanti, Inc., a Michigan Ecclesiastical corporation whose address is 366 Dakota Street, Ypsilanti, MI 48198, hereinafter referred to as "Seller(s)" and Hometowne Building Company LLC, a Michigan limited liability company whose address is 37000 Twelve Mile Road, Farmington Hills, MI 48331 hereinafter referred to as "Purchaser(s)";

WITNESSETH

WHEREAS, the Purchaser and Seller have entered into a Land Contract of even date herewith; and,
WHEREAS, the parties desire to enter into this Memorandum of Land Contract to give record notice of existence of said Land Contract.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the Seller acknowledges and agrees that the property described below was sold to the Purchaser on the Land Contract of even date:

Land in the Township of Ypsilanti, County of Washtenaw and State of Michigan, to wit:

Parcel 1: Beginning at a point in the East section line of Section 10, T3S, R7E, which point is 658.86 feet Southerly from the East 1/4 post of Section 10; thence Northwesterly 85 degrees 44 minutes West 33.09 feet which is the Place of Beginning of the land herein described; thence North 85 degrees 44 minutes West 1280.24 feet to the East line of Hill Crest Subdivision; thence Southeasterly on the East line of Hill Crest Subdivision, 164.825 feet; thence South 85 degrees 44 minutes East 1279.20 feet; thence Northerly 164.72 feet to the Point of Beginning of the land herein described, intending hereby to convey Lot 10 in the unrecorded plat of Homeland Farms and a strip 41.15 feet in width directly West of Lot 10, all in Ypsilanti Township, Washtenaw County, Michigan.

Parcel 2: Commencing at a point on the section line 823.58 feet South of the NE corner of the East 1/2 of the SE 1/4 of Section 10, T3S, R7E; thence North 84 degrees 39 minutes 30 seconds West 33 feet to the place of beginning; thence South parallel with the section line 164.71 feet; thence North 84 degrees 39 minutes 30 seconds West 1236.64 feet; thence North 0 degrees 25 minutes 30 seconds East 164.85 feet; thence South 84 degrees 39 minutes 30 seconds East 1238.05 feet to the place of beginning. Excepting therefrom land conveyed in Warranty Deed recorded in Liber 1268, page 353, Washtenaw County Records.

Tax id nos. K-11-10-407-020 and K-11-10-407-042

IN WITNESS WHEREOF, the parties have executed this Memorandum of Land Contract the day and year first above written.
Signed By

Faith Assembly Church of Ypsilanti, Inc.,
a Michigan Ecclesiastical corporation

by Leland H. Jordan, Authorized Signatory

by Timothy Rickard, Authorized Signatory

Hometowne Building Company LLC,
a Michigan limited liability company

by Patrick O'Leary

STATE OF MICHIGAN

} S.S.

COUNTY OF LIVINGSTON

On September 7, 2004, before me, a notary public in and for said County, personally appeared Leland H. Jordan and Timothy Rickard, Authorized Signatories of Faith Assembly Church of Ypsilanti, Inc., a Michigan Ecclesiastical corporation as Seller(s), and Patrick O'Leary, CEO of Hometowne Building Company LLC, a Michigan limited liability company, as Purchaser(s), to me known to be the same person(s) described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

, Notary Public

County, Michigan

My commission expires:

MARY C. QUALLS
Notary Public, Livingston Co., MI
My Comm. Expires 10/14/2005

Acting in Livingston County, Michigan

After recording return to:
Patrick O'Leary, CEO
Hometowne Building Company
37000 Twelve Mile Road
Farmington Hills, MI 48331
FILE NO: 111932

Drafted By:
Nancy Bohlen
130 W. Grand River Avenue
Brighton, MI 48116

Provided By

TitleAmerica

SET PUBLIC HEARING DATE

- A. TUESDAY, JUNE 15, 2010 AT APPROXIMATELY 7:00 P.M. – REQUEST OF INTEGRATED SENSING SYSTEMS, INC. FOR AN INDUSTRIAL FACILITIES TAX EXEMPTION CERTIFICATE

SET PUBLIC HEARING DATE

- B. TUESDAY, JUNE 15, 2010 AT APPROXIMATELY 7:15 P.M. – PRESENT THE MOBILE HOME RENTAL INSPECTION ORDINANCE AS REQUIRED BY THE STATE OF MICHIGAN

OTHER BUSINESS

CHECK REGISTER REPORT

Date: 05/10/2010

Time: 3:33pm

Page: 1

Charter Township of Ypsilanti

BANK: HAND CHECKS

Check Number	Check Date	Status	Vendor Number	Vendor Name	Check Description	Amount
150710	04/27/2010	Printed	5049	BLUE CROSS BLUE SHIELD OF MI	HEALTH INSURANCE - MAY 2010	167,175.54
150711	04/27/2010	Printed	0119	JTE ENERGY**	STREETLIGHTS - MARCH 2010	68,841.57
150712	04/27/2010	Printed	6263	STANDARD INSURANCE COMPANY	LIFE & DISABILITY - MAY 2010	3,813.98
150713	04/29/2010	Printed	15555	J. SEBASTIAN TRUCKING	7200 AND 7207 BUNTON ROAD	1,396.98
150714	04/29/2010	Printed	6821	AT & T	ACCT. #734 484-3773 758 5	53.60
150715	04/29/2010	Printed	6821	AT & T	ACCT. #734 484-7336 868 3	45.86
150716	04/29/2010	Printed	6821	AT & T	ACCT. #734 434-2020 090 1	32.02
150717	04/29/2010	Printed	6821	AT & T	ACCT. #734 483-0777 627 6	258.97
150718	04/29/2010	Printed	6821	AT & T	ACCT. #734 484-7323 055 2	60.81
150719	04/29/2010	Printed	2002	DELTA DENTAL PLAN OF MICHIGAN	DENTAL INSURANCE - MAY 2010	4,827.14
					Total Checks: 10	Bank Total: 246,506.47
					Total Checks: 10	Grand Total: 246,506.47

Accounts Payable Checks 740,493.69

Hand Checks + 246,506.47

GRAND TOTAL 987,000.16

CHECK REGISTER REPORT

Date: 05/10/2010

Time: 3:32pm

Page: 1

Charter Township of Ypsilanti

BANK:

Check Number	Check Date	Status	Vendor Number	Vendor Name	Check Description	Amount
150720	05/10/2010	Printed	0235	ABSPURE WATER COMPANY	5 GALLON SPRING	41.40
150721	05/10/2010	Printed	0560	ALLGRAPHICS CORPORATION	T-SHIRTS FOR YOUTH SOCCER AND	3,586.75
150722	05/10/2010	Printed	6769	AMERICAN MESSAGING	ACCT. #21-264640	116.94
150723	05/10/2010	Printed	15740	AMERICAN PROM	ITEMS FOR 50 AND BEYOND PROM &	229.83
150724	05/10/2010	Printed	15871	VANDEALINE ANDERSON	REFUND - YOGA	30.00
150725	05/10/2010	Printed	5416	ANN ARBOR HANDS ON MUSEUM	SUMMER CAMP FIELD TRIP DEPOSIT	110.00
150726	05/10/2010	Printed	4921	FREDERICK ANSTEAD	EDUCATION & TRAINING	1,573.81
150727	05/10/2010	Printed	6784	ARC ROOFING GROUP, LLC	REPAIRS - CIVIC CENTER	1,012.00
150728	05/10/2010	Printed	0909	AT & T*	ACCT, #053 294-5218 001	32.43
150729	05/10/2010	Printed	1387	ATLAS PEN AND PENCIL CORP.	PRO SHOP RESALE - GOLF TEES	532.49
150730	05/10/2010	Printed	0215	AUTO VALUE YPSILANTI	SUPPLIES	217.49
150731	05/10/2010	Printed	6885	BACK TO NATURE LAWN CARE	LOCATION: 8869 TEXTILE	47.50
150732	05/10/2010	Printed	3997	LISA BAIN	MASA UMPIRE	184.00
150733	05/10/2010	Printed	0777	BANDIT INDUSTRIES	PARTS	1,555.41
150734	05/10/2010	Printed	0195	BEST BUY CO., INC.	SUPPLIES FOR PROBATION PRINTER	100.36
150735	05/10/2010	Printed	15847	CHRISTOPHER BLINSTRUB	FIFA REFEREE	75.00
150736	05/10/2010	Printed	15875	DIANNE BOYLAN	REFUND - ROOM RENTAL	100.00
150737	05/10/2010	Printed	6959	BUTZEL LONG	PROFESSIONAL SERVICES	7,987.26
150738	05/10/2010	Printed	2930	CITIMORTGAGE, INC.	GOLF CART LEASE - JUNE 2010	6,038.46
150739	05/10/2010	Printed	15848	DAISY CLARK	REFUND - DOG LICENSE	6.00
150740	05/10/2010	Printed	15452	COLD CUT KRUISE	PRO SHOP RESALE	18.00
150741	05/10/2010	Printed	15849	BRENNON COLE	SOCCER REFEREE	40.00
150742	05/10/2010	Printed	15850	TYLOR COLE	SOCCER REFEREE	40.00
150743	05/10/2010	Printed	0102	COLMAN-WOLF SANITARY SUPPLY CO	SUPPLIES	252.00
150744	05/10/2010	Printed	6341	COM SOURCE	CHARGER	180.00
150745	05/10/2010	Printed	0363	COMCAST CABLE	ACCT. #0958 344688-01-4	200.00
150746	05/10/2010	Printed	0363	COMCAST CABLE	ACCT. #09588 290692-01-0	79.95
150747	05/10/2010	Printed	0390	COMMERCIAL BUILDING MATERIALS	CEILING TILES FOR PRO SHOP	563.20
150748	05/10/2010	Printed	1312	COMPLETE BATTERY SOURCE	SUPPLIES	349.60
150749	05/10/2010	Printed	6974	TERRY CONDIT	MASA UMPIRE	184.00
150750	05/10/2010	Printed	0582	CONGDON'S	SUPPLIES	85.29
150751	05/10/2010	Printed	15874	ALYSSA DARLING	REFUND - ROOM RENTAL	100.00
150752	05/10/2010	Printed	6557	DEB'S CATERING	MOTHER'S DAY BRUNCH	255.00
150753	05/10/2010	Printed	15851	RUTHANNE DOLINGER	SOCCER REFEREE	22.00
150754	05/10/2010	Printed	5554	DOMINO'S PETTING FARM	PRE-SCHOOL SUMMER CAMP	80.00
150755	05/10/2010	Printed	15013	EDWARDS PLUMBING & HEATING	BACK-FLOW PREVENTION CERTIFICA	398.00
150756	05/10/2010	Printed	2913	EMERGENCY VEHICLE SERVICES	REPLACE KUSSMAL 1200 AUTO CHAR	769.85
150757	05/10/2010	Printed	15852	ARRON ENGEL	SOCCER REFEREE	66.00
150758	05/10/2010	Printed	15761	FASTENAL	REPLACES NUT & BOLT BIN, COMMO	283.21
150759	05/10/2010	Printed	0470	FOOTJOY	PRO SHOP RESALE	410.94

CHECK REGISTER REPORT

Date: 05/10/2010

Time: 3:32pm

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Charter Township of Ypsilanti

BANK:

Check Number	Check Date	Status	Vendor Number	Vendor Name	Check Description	Amount
150760	05/10/2010	Printed	0135	FORMS TRAC, ENTERPRISES	REPLENISH SUPPLY OF FORMS AND	827.71
150761	05/10/2010	Printed	15853	ERIC FULLER	FIFA REFEREE	24.00
150762	05/10/2010	Printed	0073	GENE BUTMAN FORD	REPAIRS	45.76
150763	05/10/2010	Printed	15854	GLO GOLF	SUMMER CAMP FIELD TRIP	180.00
150764	05/10/2010	Printed	6537	GOLDEN REFRIGERANT	PROCESSING REFRIGERANT RECLAIM	170.50
150765	05/10/2010	Printed	15855	MADELINE GOODSON	FIFA REFEREE	26.00
150766	05/10/2010	Printed	1233	GORDON FOOD SERVICE INC.	SUPPLIES	108.21
150767	05/10/2010	Printed	6161	GOVERNMENTAL CONSULTANT	PROFESSIONAL SERVICES	3,000.00
150768	05/10/2010	Printed	6169	GOVERNOR BUSINESS SOLUTIONS	SUPPLIES	210.48
150769	05/10/2010	Printed	0107	GRAINGER	SUPPLIES	511.86
150770	05/10/2010	Printed	15856	CONOR GRAY	SOCCER REFEREE	40.00
150771	05/10/2010	Printed	0070	GREAT LAKES TELECOM, INC.	TELEPHONE	85.08
150772	05/10/2010	Printed	0426	GUARDIAN ALARM	BILLING: GREEN OAKS GOLF	408.93
150773	05/10/2010	Printed	6204	GUARDIAN AUTO GLASS	EQUIPMENT MAINTENANCE	183.04
150774	05/10/2010	Printed	0158	MARK HAMILTON	ATTY FEES - MAY 2010	1,500.00
150775	05/10/2010	Printed	15857	ALEXANDER HENRY	FIFA REFEREE	25.00
150776	05/10/2010	Printed	15858	THOMAS HENRY	FIFA REFEREE	38.00
150777	05/10/2010	Printed	6547	HERITAGE NEWSPAPERS	PUBLISHING	51.20
150778	05/10/2010	Printed	0503	HOME DEPOT	SUPPLIES	201.79
150779	05/10/2010	Printed	6147	HP DIRECT	NETWORK SWITCH	374.00
150780	05/10/2010	Printed	6055	IIMC	MEMBERSHIP	165.00
150781	05/10/2010	Printed	15496	J.F. MOORE & ASSOCIATES, LLC	SMALL CLAIMS SERVER FEES	351.00
150782	05/10/2010	Printed	4467	JOHN DEERE LANDSCAPES	BLANKET	239.12
150783	05/10/2010	Printed	6604	JOHNSTON LITHOGRAPH, INC.	TWO ISSUES 2010 REC. MAGAZINE-	9,173.60
150784	05/10/2010	Printed	6294	JP LANN GOLF	PRO SHOP RESALE	145.13
150785	05/10/2010	Printed	6110	KEB INC.	PRINTING OF MONTHLY SR. NEWSLE	261.96
150786	05/10/2010	Printed	3998	LARRY KENYON	MASA UMPIRE	184.00
150787	05/10/2010	Printed	0341	LAWSON PRODUCTS, INC.	REPLENISH GARAGE SUPPLIES - FL	213.89
150788	05/10/2010	Printed	9719	LIBERTY TITLE AGENCY	CASH BOND - 6852 SWAN LAKE CT	6,000.00
150789	05/10/2010	Printed	6467	LOWES	SUPPLIES	452.77
150790	05/10/2010	Printed	15859	ALEXANDER MARANVILLE	SOCCER REFEREE	44.00
150791	05/10/2010	Printed	2935	MARKETING SOLUTION	REPLENISH SUPPLIES FOR ELEMENT	316.55
150792	05/10/2010	Printed	6476	MASA	ADULT SOFTBALL PROGRAM	525.00
150793	05/10/2010	Printed	15860	JULIE MAYER	SOCCER REFEREE	20.00
150794	05/10/2010	Printed	0253	MCLAIN AND WINTERS	LEGAL SERVICES - APRIL 2010	89,979.62
150795	05/10/2010	Printed	0264	MICHIGAN ASSESSORS ASSOC	MEMBERSHIP RENEWAL	300.00
150796	05/10/2010	Printed	15861	MICHIGAN SUPREME COURT FINANCE	COMPUTER NETWORK SUPPORT	14,417.00
150797	05/10/2010	Printed	6517	MICHIGAN TOURNAMENT FLEET, INC	KEYS	42.00
150798	05/10/2010	Printed	6517	MICHIGAN TOURNAMENT FLEET, INC	MAINTENANCE CONTRACT - JUNE	825.00
150799	05/10/2010	Printed	4414	ED MICHOWSKI	MASA UMPIRE	92.00

CHECK REGISTER REPORT

Date: 05/10/2010

Time: 3:32pm

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Charter Township of Ypsilanti

BANK:

Check Number	Check Date	Status	Vendor Number	Vendor Name	Check Description	Amount
150800	05/10/2010	Printed	15862	STEVEN MICHOWSKI	MASA UMPIRE	46.00
150801	05/10/2010	Printed	15402	MIDWEST MEDICAL CENTER	HOSPITALY PHYSICALS	565.00
150802	05/10/2010	Printed	15863	MUSEUM OF NATURAL HISTORY	PRE-SCHOOL FIELD TRIP	60.00
150803	05/10/2010	Printed	2986	NAPA AUTO PARTS*	SUPPLIES	50.24
150804	05/10/2010	Printed	15195	MARK NELSON	MAGISTRATE FEES - MAY 2010	1,875.00
150805	05/10/2010	Printed	8041	DON NEWSTED	MASA UMPIRE	92.00
150806	05/10/2010	Printed	6660	NIKE USA, INC.	PRO SHOP RESALE	181.60
150807	05/10/2010	Printed	2997	OFFICE EXPRESS	SUPPLIES	533.71
150808	05/10/2010	Printed	6893	OFFICE MAX* #434705	SUPPLIES	482.94
150809	05/10/2010	Printed	15876	CHRIS PILON	REFUND - MEN'S SOFTBALL	895.00
150810	05/10/2010	Printed	1668	PING	PRO SHOP RESALE - SET OF IRONS	591.90
150811	05/10/2010	Printed	15864	JAMES PIPE	SOCCER REFEREE	22.00
150812	05/10/2010	Printed	2814	PLYMOUTH TRADING POST	SUPPLIES	85.02
150813	05/10/2010	Printed	15870	PROBE ENVIRONMENTAL, INC.	LOCATION: 2421 E. MICH AVE.	495.00
150814	05/10/2010	Printed	4540	PULTE HOMES OF MICHIGAN	8961 RINGNECK & 8975 RINGNECK	6,000.00
150815	05/10/2010	Printed	6045	QPS PRINTING	REPLENISH SUPPLY OF WINDOW ENV	309.14
150816	05/10/2010	Printed	15552	BRIAN ROBERTS	MASA UMPIRE	92.00
150817	05/10/2010	Printed	3059	RUBBER STAMPS UNLIMITED INC	SUPPLIES	5.51
150818	05/10/2010	Printed	0371	SAFEGUARD BUSINESS SYSTEMS	BOND RECEIPTS	539.98
150819	05/10/2010	Printed	0634	SAM'S CLUB DIRECT	SUPPLIES	104.03
150820	05/10/2010	Printed	6288	SIGNS BY TOMORROW	SIGNS	480.00
150821	05/10/2010	Printed	8166	DAN SMITH	FIFA REFEREE	18.00
150822	05/10/2010	Printed	15865	JAMES SMITH	FIFA REFEREE	38.00
150823	05/10/2010	Printed	2990	SOUTHEASTERN EQUIPMENT	BATTERIES AND COIL FOR 850K CA	666.96
150824	05/10/2010	Printed	1507	SPARTAN DISTRIBUTORS	REPAIR PARTS	2,647.93
150825	05/10/2010	Printed	0399	SPEARS FIRE & SAFETY SERVICE	FIRE & SAFETY SERVICES	406.20
150826	05/10/2010	Printed	15866	ALAN STOUT	FIFA REFEREE	46.00
150827	05/10/2010	Printed	15867	MATTHEW STUDER	FIFA REFEREE	38.00
150828	05/10/2010	Printed	1235	SURE-FIT LAUNDRY COMPANY	LAUNDRY - 14B COURT	1,509.49
150829	05/10/2010	Printed	15868	BOONE SYLVESTER	SOCCER REFEREE	26.00
150830	05/10/2010	Printed	0449	SYSCO FOOD SERVICES OF DETROIT	PRO SHOP RESALE	370.52
150831	05/10/2010	Printed	4402	TDS METROCOM	ACCT. #825 609 0021	883.24
150832	05/10/2010	Printed	0468	TITLEIST	PRO SHOP RESALE	1,020.50
150833	05/10/2010	Printed	3969	TRI TURF	FERTILIZER FOR BALL FIELDS AT	490.00
150834	05/10/2010	Printed	1637	TURF GRASS INC.	FERTILIZER	708.00
150835	05/10/2010	Printed	7045	VAN BUREN SCHOOL DISTRICT	PYMT OF DELINQ. PERSONAL PROP	161.59
150836	05/10/2010	Printed	0497	VAN BUREN STEEL & FABRICATING	EQUIPMENT MAINTENANCE	40.00
150837	05/10/2010	Printed	1475	VERIZON WIRELESS	ACCT. #585505481-00001	266.91
150838	05/10/2010	Printed	15873	BETH VERMETT	REFUND - SOCCER LEAGUE	55.00
150839	05/10/2010	Printed	6627	VICTORY LANE	FULL SERVICE OIL CHANGE	102.56

CHECK REGISTER REPORT

Date: 05/10/2010

Time: 3:32pm

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Charter Township of Ypsilanti

BANK:

Check Number	Check Date	Status	Vendor Number	Vendor Name	Check Description	Amount
150840	05/10/2010	Printed	15872	TABATHA WASHINGTON	REFUND - ROOM RENTAL	80.00
150841	05/10/2010	Printed	7035	WASHTENAW COMMUNITY COLLEGE#	PYMT OF DELINQ. PERSONAL PROP	889.08
150842	05/10/2010	Printed	6100	WASHTENAW COUNTY CONSERVATION	NEW TREE TRANSPLANTS	114.00
150843	05/10/2010	Printed	7005	WASHTENAW COUNTY TREASURER	TRAILER FEES	2,957.50
150844	05/10/2010	Printed	0444	WASHTENAW COUNTY TREASURER#	PYMT OF DELINQ. PERSONAL PROP	3,154.85
150845	05/10/2010	Printed	0444	WASHTENAW COUNTY TREASURER#	SHERIFF PATROL	17,641.50
150846	05/10/2010	Printed	0444	WASHTENAW COUNTY TREASURER#	SHERIFF PATROL	371,057.69
150847	05/10/2010	Printed	7042	WASHTENAW INTERMEDIATE	PYMT OF DELINQ. PERSONAL PROP	892.91
150848	05/10/2010	Printed	0631	WASTE MANAGEMENT	ACCT. #389-0080745-1389-9	3,807.95
150849	05/10/2010	Printed	6039	WASTE MANAGEMENT*	RECYCE CONTRACT	148,334.51
150850	05/10/2010	Printed	7044	WAYNE ISD	PYMT OF DELINQ. PERSONAL PROP	55.37
150851	05/10/2010	Printed	3011	WEST PAYMENT CENTER	SUBSCRIPTION	33.24
150852	05/10/2010	Printed	7036	WILLOW RUN SCHOOL DISTRICT	PYMT OF DELINQ. PERSONAL PROP	622.71
150853	05/10/2010	Printed	4263	WOLVERINE FREIGHTLINER	MAINTENANCE	475.69
150854	05/10/2010	Printed	1583	WOLVERINE RETAIL SYSTEMS	MAINTENANCE	100.00
150855	05/10/2010	Printed	15869	NATHANIEL YANKEY	FIFA REFEREE	40.00
150856	05/10/2010	Printed	0480	YPSILANTI COMMUNITY	FUEL CHARGES - MAR 2010	1,908.16
150857	05/10/2010	Printed	7034	YPSILANTI DISTRICT LIBRARY	PYMT OF DELINQ. PERSONAL PROP	980.73
150858	05/10/2010	Printed	7039	YPSILANTI SCHOOL DISTRICT	PYMT OF DELINQ. PERSONAL PROP	3,647.16
150859	05/10/2010	Printed	6417	YPSILANTI TWP PETTY CASH	REIMBURSE PETTY CASH	330.18
150860	05/10/2010	Printed	0494	ZEE MEDICAL SERVICE COMPANY	SUPPLIES	82.55
150861	05/10/2010	Printed	0729	ZEP MANUFACTURING COMPANY	SUPPLIES	573.57
Total Checks: 142						Bank Total: 740,493.69
Total Checks: 142						Grand Total: 740,493.69