

**AGENDA
CITY OF CHARLEVOIX CITY COUNCIL MEETING**

Monday, July 20, 2015 - 7:00 p.m.

210 State Street, City Hall, Second Floor City Council Chambers, Charlevoix, Michigan

- I. Invocation or Pledge of Allegiance**
- II. Roll Call of Members Present**
- III. Inquiry Regarding Possible Conflicts of Interest**
- IV. Consent Agenda**
 - A. City Council Meeting Minutes - July 6, 2015 Regular Meeting **PG 1-11**
 - B. Accounts Payable Check Registers & Payroll Check Registers **PG 12-22**
- V. Public Hearings**
- VI. Reports**
- VII. Requests, Petitions and Communications and Actions Thereon**
 - A. Biennial Review and Approval of the Energy Optimization Plan **PG 23-76**
 - B. Consideration to Approve RS&H Engineering Contract for 2015 Airport Projects **PG 77-122**
 - C. Appointment for Committee to Decide on Job Description/Responsibilities for DDA/Main Street Director **PG 123**
 - D. Consideration of Job Descriptions **PG 124**
 - 1. Firefighter **PG 125-127**
 - 2. Lifeguard **PG 128-129**
 - E. MML Worker's Compensation Fund **PG130-134**
 - F. Discussion on Skydiving Operations at Charlevoix Municipal Airport **PG 135-183**
- VIII. Introduction and Initial Actions Relating to Ordinances or to Resolutions That Require Publication or Hearings Prior to Final or Further Action**
- IX. Resolutions**
- X. Ordinances**
- XI. Miscellaneous Business**
- XII. Audience – Non-Agenda Input (written requests take precedent)**
- XIII. Adjourn**

The City of Charlevoix will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon one weeks notice to the City of Charlevoix. Individuals with disabilities requiring auxiliary aids or services should contact the City of Charlevoix Clerk's Office in writing or calling the following: City Clerk, 210 State Street, Charlevoix, MI 49720 (231) 547-3250

Posted July 16, 2015 4:00 p.m.

CITY OF CHARLEVOIX
REGULAR CITY COUNCIL MEETING MINUTES
Monday, July 6, 2015 – 7:00 p.m.
210 State Street, City Hall, Council Chambers, Charlevoix, MI

The meeting was called to order at 7:00 p.m. by Mayor Gabe Campbell.

I. Pledge of Allegiance

II. Roll Call of Members Present

Mayor: Gabe Campbell
Interim City Manager: Mike Spencer
City Clerk: Joyce Golding
City Attorney: Scott Howard
Members Present: Councilmembers Shane Cole, Shirley Gibson, Luther Kurtz, Leon Perron, Jeff Porter, Bill Supernaw
Absent: None

III. Inquiry Regarding Possible Conflicts of Interest

Councilmember Kurtz stated that he would recuse himself from agenda item D: Airport Manager Qualifications and Documentation of Changes Implemented at the Charlevoix Municipal Airport.

Councilmember Supernaw questioned the origins of the need for agenda item III: Inquiry Regarding Possible Conflicts of Interest. City Attorney Howard stated this item was likely added by a previous Council and was quite typical of most municipalities. Having this agenda item allows for any possible recusals in advance of regular agenda topics. City Attorney Howard noted that if there is a disagreement to whether there is a possible conflict of interest, the appropriate course of action is for Council to discuss and try to come to an agreement. If there is not a consensus, then Council should vote on the matter with a majority required.

IV. Consent Agenda

The following items were approved and filed:

- A. Approval of Minutes – June 15, 2015 Regular Meeting Minutes
- B. Special Accounts Payable Check Register – June 11, 2015
- C. Special Accounts Payable Check Register – June 12, 2015
- D. Special Accounts Payable Check Register – June 22, 2015
- E. Special Accounts Payable Check Register – July 1, 2015
- F. Regular Accounts Payable Check Register – July 7, 2015
- G. ACH Payments – June 15, 2015 – July 6, 2015
- H. Payroll Check Register – June 19, 2015
- I. Payroll Transmittal – June 19, 2015
- J. Payroll Check Register – July 2, 2015
- K. Payroll Transmittal – July 2, 2015

V. Public Hearings

None.

VI. Reports

Interim City Manager Spencer stated that the Lake to Lake Trail is officially open to the public after a twenty year process. Seventy percent of the \$580,000 raised for the trail was obtained through grant funding. Additional donations will be used toward landscaping, benches and future trail work and can be made through the Charlevoix County Community Foundation: "Charlevoix Lake to Lake Multi-use Trail Fund".

Interim City Manager Spencer indicated that the State Street project paving is scheduled to begin on July 17 creating at least a two week delay. He will contact the contractor and report back to Council the reason for the delay. It was noted that the original completion date was July 1 and there is a penalty clause for late completion.

Interim City Manager Spencer referred to the Proposed Street Improvement map that was created by DPW Superintendent Elliott and the engineers regarding a proactive approach to alleviating water main breaks within the City. Interim City Manager Spencer will address this topic in more detail at the July 20th Council meeting.

One locust tree will be removed in front of the County building which is causing the sidewalk to heave creating a safety concern.

VII. Requests, Petitions and Communications and Actions Thereon

A. Charlevoix Venetian Festival

1. Consideration of Venetian Festival Funding Contract

Dan Barron, President of Charlevoix Venetian Festival, reviewed the 2015 Venetian Festival planned activities and submitted a proposed contract for Council's consideration asking for a \$15,000 donation.

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Motion by Councilmember Supernaw, second by Councilmember Gibson, to authorize the Mayor to sign the 2015 Funding Contract for the Venetian Festival.

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

2. Venetian Festival Fireworks Permit

The Venetian Committee is requesting permission for a fireworks display on July 24th and July 25th. Chief Doan reviewed the permits and there are no changes from 2014 in the setup and size of the display for either night. The proposed fireworks display by Colonial Fireworks meets all NFPA requirements and exceeds the NFPA standard for minimum setbacks for both shows. Chief Doan recommended that the permit be authorized noting that the Police Department will take an aggressive stance to stop the display if drifting debris or other unforeseen issues arise that may compromise safety.

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Motion by Councilmember Perron, second by Councilmember Kurtz, to authorize the City Clerk to issue the fireworks permit for the 2015 Venetian Festival fireworks displays.

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

Motion by Councilmember Cole, second by Councilmember Supernaw, to authorize the Mayor to sign the Hold Harmless agreement with Colonial Fireworks Company.

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

3. Consideration of Charlevoix Venetian Festival's Tiki Tent

The Charlevoix Venetian Festival wishes to erect a Tiki Tent with all proceeds benefitting the Venetian Festival. The tent will be located at the north end of East Park and will be open Tuesday through Saturday 6pm-11pm offering beverages and entertainment.

The City of Charlevoix City Code, Title III, Chapter 31, Section 3.14 states:

It shall be unlawful for any person to consume alcoholic beverages in any part of any park which lies within one thousand (1,000) feet of US Highway 31, except that such restriction does not extend to privately owned vessels moored in the yacht basin nor does it extend to any specific function authorized by the city manager...

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Motion by Councilmember Cole, second by Councilmember Kurtz, to authorize the Interim City Manager to waive the alcohol restrictions as outlined in the City of Charlevoix City Code, Title III, Chapter 31, Section 3.14 for the Venetian Festival Tiki Tent.

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

B. Request by Charlevoix Yacht Club for Free Parking – Nuore Triangle and Red Fox Regatta

The Charlevoix Yacht Club would like City Council to consider waiving parking fees at Ferry Beach Boat Launch for the Nuore Triangle on September 4, 2015 and the Red Fox Regatta on September 5-6, 2015.

Per the City Code, Title X, Chapter 148, Section 10.84:

The city council, by resolution, may revise or waive fees for special or public events. The term "special or public events" shall mean a tournament, festival or other type of event, whether or not open to public participation or observation, the occurrence of which will, in the judgment of the city council, benefit the city economically or by virtue of the publicity surrounding the event.

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Action by Resolution.

C. Consideration of Approval for Jefferson Beach Yacht Sales Rendezvous July 31 – August 2, 2015

Jefferson Beach Yacht Sales (JBYS), a downtown Charlevoix business, wishes to host a boat rendezvous at the Charlevoix City Marina July 31 – August 2, 2015 for approximately 25 boats. JBYS is proposing a tent in Bridge Park for meals and is requesting to serve alcohol during their evening activities. Executive Assistant Weller indicated that this private event with a cash bar is permitted in Bridge Park and insurance was reviewed by the City Treasurer.

The City of Charlevoix City Code, Title III, Chapter 31, Section 3.14 states:

It shall be unlawful for any person to consume alcoholic beverages in any part of any park which lies within one thousand (1,000) feet of US Highway 31, except that such restriction does not extend to privately owned vessels moored in the yacht basin nor does it extend to any specific function authorized by the city manager...

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Motion by Councilmember Gibson, second by Councilmember Perron, to authorize the Interim City Manager to waive the alcohol restrictions as outlined in the City of Charlevoix City Code, Title III, Chapter 31, Section 3.14 for the Jefferson Beach Yacht Sales Rendezvous.

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw

Nays: None

Absent: None

D. Airport Manager Qualifications and Documentation of Changes Implemented at the Charlevoix Municipal Airport

Mr. Luther Kurtz spoke regarding his Skydive Harbor Springs business at the Charlevoix Municipal Airport. He stated that his comprehensive general liability insurance policy specifically excludes parachute jumpers once they have left the airport which is the national standard for every skydiving company in the country.

Mr. Kurtz shared a brief history of when and why he brought his skydiving business to Charlevoix. He commented that he has a passion for skydiving and loves the Charlevoix community and agreed to run his business with eighteen employees if he was allowed to land at the airport similar to most other skydiving companies around the country. Mr. Kurtz worked with former Airport Manager Scott Woody to create an operational plan for his business in 2014 and it was his understanding that there were no issues with Skydive Harbor Springs last year. In 2015, Airport Manager Myer required Mr. Kurtz to fill out a license application and pay a \$2,500 license fee. He was required to show proof of insurance and include the City of Charlevoix in his release of liability waiver. He is in favor of Airport Manager Myer's diligence in requiring specific documentation for his business. For the record, Mr. Kurtz objects to the \$2,500 fee as this is not the norm for other sky dive operations in Michigan and would like to request that Council consider reducing this fee.

Mr. Kurtz stated that he has received nothing but positive comments from Staff, residents and customers up until a few weeks ago. He was surprised at the email sent by Island Airways regarding his business and stated that it felt like a personal attack. Mayor Campbell believed that it was not a personal attack and Island Airways had a legitimate concern.

Mayor Campbell recalled in detail the fireworks incident which happened eighteen years ago including the fact that the City was not covered by insurance and expressed his concern that the sky dive operation is putting the City at risk.

Councilmember Supernaw felt that the email from Island Airways was "hyperbole". Angela LeFevre-Welke, President of Island Airways, indicated that the email was necessary to bring the issue to the City's attention.

Airport Manager Myer stated that last year there was no issue with Mr. Kurtz's operation, even though Mr. Woody did not require a license or proof of insurance. She was puzzled why Mr. Kurtz's operation was being questioned this year with all the documentation in place. Airport Manager Myer noted that neither Island Airways nor the pilot involved contacted herself or Airport Operations Supervisor Wyman on Thursday when a sky diving incident occurred. She also noted that no issues or complaints were received during the more than 300 operations over the weekend. Airport Manager Myer stated that this situation "smells really bad". She plans to move the sky dive landing zone back to its original location once airport construction is complete.

Councilmember Porter stated that the issue is an uninsured parachutist getting involved with an aircraft. He felt that the City did not have the means to pay for attorneys to defend the City. Mr. Kurtz recommended that Councilmember Porter contact the City's insurance carrier for details regarding his business insurance.

Mr. Kurtz discussed an email sent to Interim City Manager Spencer by a fellow council member regarding nine items that purportedly were wrong with his business and stated that he takes his business very seriously.

Mr. Kurtz explained how the FAA guides and regulates the sky dive industry. The FAA states that most parachute operations take place on airports including landings and explained the landing safely zone. He referenced a letter of support from Mr. Randy Allison, Regional Director and Vice President of the United States Parachute Association. Mr. Kurtz also noted each of the recommended insurance policies that Skydive Harbor Springs retains.

Interim City Manager Spencer suggested holding a special meeting regarding the sky dive operation after a full review by the City Attorney. Council agreed.

The Mayor opened the floor to public comments regarding Mr. Kurtz and Skydive Harbor Springs.

Don Seelye, is a pilot and promoter of the airport. He is in favor of the sky dive operation, but landings should be off airport for safety.

Sandra Bennett, 1st Ward, felt that the community perceives that this situation is a political attack on Mr. Kurtz as retaliation for a comment made by Mr. Kurtz at the June 15th Council meeting.

Trevor Matthew, Manager at Skydive Harbor Springs and the Charlevoix Cinema, expressed his firm support for Mr. Kurtz. Mr. Matthew suggested that energy would be better spent worrying about how the delays encountered with the State Street project are crippling businesses in the City. He thanked Mr. and Mrs. Kurtz for all that they have done for the City.

Bob Ludwig, Charlevoix property owner, stated that three airports in the Cincinnati area have successful sky dive operations. He recommended that Council be pro local business to help support the City.

Dave Gudritz, 204 Alice Street, is in favor of Mr. Kurtz's operation and would like the 3rd Ward council members to vote in Mr. Kurtz's favor.

Public comment was closed.

Airport Manager Myer discussed her extensive background, qualifications and experience as an airport manager. She noted that she has been a State of Michigan Licensed Assistant Manager or Airport Manager since 1984 and was an airport owner and fixed based operator that provided flight training, aircraft fueling and full service aircraft maintenance. Airport Manager Myer holds the ratings of A&P Mechanic, IA Mechanic and Private Pilot. When accepting the position of Airport Manager with the City, her goal was to take ownership of the airport and run it like a business. Airport Manager Myer submitted a 26 item list of discrepancies that were uncovered in her seven month tenure which have since been remedied resulting in over \$50,000 savings to the City. In addition, she secured FAA Federal Funding for 2015 in the amount of \$1,000,000.

Airport Manager Myer expected that City Council would support their airport and airport manager, but was doubtful after the events that transpired at the June 15th Council meeting. She recalled that at the May 27th Airport Advisory Committee meeting, it was the general consensus to recommend to Council that Dave Guanci fill the open User Member committee seat and noted that the June 15th agenda item for the Council appointment reflected Mr. Guanci as the recommendation. However, at the Council meeting a motion to appoint Scott Woody to the vacant seat by Councilmember Gibson was approved.

Airport Manager Myer felt that Mr. Woody should not fill seat as he was not an Airport User except as an occasional passenger. She was puzzled how the former City Airport Manager who quit his position could be considered a "good candidate" for the Airport Advisory Committee. Airport Manager Myer stated that she had voiced her objections over Mr. Woody's previous appointment to the committee in December 2014 to the City Manager, Mayor and Council. The appointment was subsequently rescinded.

Airport Manager Myer again noted her objections with Mr. Woody at the May 27th Airport Advisory Committee meeting. She indicated that Councilmember Gibson ignored both the recommendation of the committee and the objection of Airport Manager Myer. Airport Manager Myer felt that the last minute nomination of Mr. Woody without the committee's knowledge was unethical. She wondered why there was an Airport Advisory Committee established when recommendations are being disregarded.

After being questioned by Councilmember Gibson, Airport Manager Myer explained that the 2,000 gallons (approximately \$10,000) of unaccounted fuel inventory for 2013-2014 caused her to implement a reconciliation and tracking system to avoid this issue going forward.

Airport Manager Myer and Airport Operations Supervisor Wyman clarified the snow removal expense in 2014.

Councilmember Supernaw read from the draft May 27th Airport Advisory Meeting Minutes:

With respect to filling the vacant Advisory seat, Member Seelye asked Mr. David Guanci if he was interested in filling the vacant seat on the Advisory Committee. Mr. Guanci said he would be happy to serve on the committee. Mr. Guanci did mention that he would only be able to attend the meetings for 5-6 months if meetings were held once a month. Member Gibson said that the agenda could be emailed to him. Interim City Manager Mike Spencer added, the committee could meet and just conference Mr. Guanci in via speaker phone. After public comment Member Seelye came back to the vacancy on the committee and wanted to nominate either Mr. Guanci or Mr. Scott Woody. Due to personal conflict between herself and Mr. Scott Woody, Liz Myer would vote for Mr. Guanci and not for Mr. Woody. It was then the general consensus of the committee that Mr. Guanci be appointed to fill the vacant seat.

Councilmember Supernaw stated that he spoke to Mr. Woody shortly after his election to Council, and Mr. Woody shared his issues with both previous City Manager Straebel and Airport Manager Myer. After listening to Mr. Woody's comments, Councilmember Supernaw wondered why Mr. Woody would want to be on the committee.

Airport Manager Myer stated that "as the committee stands now, it would be a cold day in Charlevoix" before she would convene an Airport Advisory Committee meeting. She felt that meetings would not be very productive.

Councilmember Supernaw recalled the events at the June 15th meeting, stating that a motion was made and seconded to appoint Mr. Woody to the committee and that the Mayor immediately called for the vote. He reminded Council that Councilmember Kurtz and he asked why Mr. Guanci was not being appointed.

Airport Manager Myer clarified that Mr. Woody's statement that he and Airport Manager Myer were friends for 25 years was inaccurate and that Mr. Woody was only Airport Manager Myer's tenant, not a friend.

Mr. Dave Guanci stated that he was willing to serve on the committee, but was only available to attend meetings in person for six months of the year.

Councilmember Kurtz stated that he holds a great deal of respect for Mr. Seeyle.

E. Mandated FOIA Changes

Beginning July 1, 2015, significant new regulations took effect governing how public bodies administer and respond to requests under the Freedom of Information Act (FOIA), PA 442 of 1976. The changes impact nearly every area of FOIA, including local policies required for FOIA administration, fees categories and methods of calculation, good-faith deposits and fee waivers, records available on the public body's website, and the appeal process, including significant new penalties.

The most significant change made by the amendment is that public bodies are required to establish specific written procedures and guidelines to implement FOIA, including a standard fee itemization form, and separate written public summary which must be posted on the City's website. Another significant area of change is the categories and manner in which fees may be charged.

The Clerk's Office has published the mandatory Procedures and Guidelines and subsequent Summary which have been approved by the City Attorney. The Clerk's Office has also published the required forms, thus adhering to the new legislation. The 2015/2016 budgeted labor FOIA fee should be amended to reflect the new fifteen minute increment.

Mayor Campbell opened the item to public comment. There was no comment, and the item was closed.

Action by Resolution

VII. Introduction and Initial Actions Relating to Ordinances or to Resolutions That Require Publication or Hearings Prior to Final or Further Action

None.

IX. Resolutions

A. Request by Charlevoix Yacht Club for Free Parking

Motion by Councilmember Supernaw, second by Councilmember Cole, to adopt Resolution 2015-07-01 Waive Parking Fees for Charlevoix Yacht Club, as follows:

**CITY OF CHARLEVOIX
RESOLUTION NO. 2015-07-01
WAIVE PARKING FEES FOR CHARLEVOIX YACHT CLUB**

WHEREAS, the Charlevoix Yacht Club is hosting the Nucore Triangle Race on September 4th and the Red Fox Regatta on September 5th and 6th, 2015; and

WHEREAS, the Charlevoix Yacht Club is requesting that parking fees be waived for the races; and

WHEREAS, the City Code permits the City Council to waive parking fees for special or public events.

NOW THEREFORE BE IT RESOLVED, that the City Council of the City of Charlevoix, hereby waives parking fees for the Nucore Triangle Race on September 4th and the Red Fox Regatta on September 5th and 6th, 2015.

RESOLVED, this 6th day of July, 2015, A.D.

Resolution adopted by the following yeas and nays vote:

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

B. Mandated FOIA Changes

Motion by Councilmember Kurtz, second by Councilmember Cole, to adopt Resolution 2015-07-02 Mandated FOIA Regulations per PA 563 of 2014, as follows:

**CITY OF CHARLEVOIX
RESOLUTION NO. 2015-07-02
MANDATED FOIA REGULATIONS PER PA 563 OF 2014**

WHEREAS, significant new regulations took effect on July 1, 2015 governing how public bodies administer and respond to requests under the Freedom of Information Act (FOIA), PA 442 of 1976; and

WHEREAS, the changes are the result of HB 4001, which was signed into law by the governor on January 11, 2015 as PA 563 of 2014; and

WHEREAS, the changes impact nearly every area of FOIA, including local policies required for FOIA administration, fees categories and methods of calculation, good-faith deposits and fee waivers, records available on the public body's website, and the appeal process; and

WHEREAS, that public bodies are required to establish specific written Procedures and Guidelines to implement FOIA, including a standard fee itemization form and separate written public summary and post these on the City's website; and

WHEREAS, the City of Charlevoix City Council approved the 2015/2016 budget for the FOIA labor fees charging for the cost of labor exceeding 30 minutes; and

WHEREAS, the City Clerk has published and made available, the mandated FOIA policies, procedures, documents, fee categories and forms.

NOW THEREFORE BE IT RESOLVED that the City of Charlevoix adopts the mandated FOIA policies, procedures, documents, fee categories and forms published by the City Clerk in compliance with PA 563 of 2014; and

BE IT FURTHER RESOLVED that the City of Charlevoix City Council amend the FOIA labor fee charging for the cost of labor exceeding 15 minutes.

RESOLVED, this 6th day of July, 2015 A.D.

Resolution adopted by the following yeas and nays votes:

Yeas: Porter, Kurtz, Perron, Gibson, Cole, Supernaw
Nays: None
Absent: None

X. Ordinances
None.

XI. Miscellaneous Business

Councilmember Gibson brought up the topic of food trucks after receiving a complaint from a downtown business owner. Discussion ensued. Mr. Dan Barron stated that downtown restaurants cannot support the amount of customer traffic during Venetian Festival. Interim City Manager Spencer suggested that a food truck discussion should be held in the fall and Council generally agreed.

Councilmember Porter noted a discrepancy with the updated sidewalk ordinance verbiage. City Clerk Golding suggested that this may be a clerical error and she would look into the issue.

Councilmember Supernaw requested confirmation from Lonnie Allen, Charlevoix Courier editor, that a particular email did not originate from Councilmember Supernaw. Mr. Allen responded that he did not have to address private business with Council. Councilmember Supernaw read portions of the email which noted a flood of complaints on numerous issues over the last week. The email recommended that differences should be resolved in a non-threatening, transparent, more positive manner. Councilmember Supernaw suggested that

in light of the recent issues, people "are laughing at us". Mayor Campbell stated that no one on Council is anti-business. Councilmember Supernaw and Cole look exception to the mayor's statement. Mayor Campbell stated that if people have a legitimate complaint regarding a business, then it should be heard by the City without accusations of harassment by the business.

Interim City Manager Spencer stated businesses are being treated equally with regards to ordinance complaints, but this is not accurately reflected in the press. He indicated that three newspaper articles regarding one business were published the last week, while there was no mention of the long awaited Lake to Lake Trail opening. Interim City Manager Spencer stated for the record that the City needs "better and fair press coverage and reporting all of the things: not just the negative things, but all the positive things that this community has to offer". He felt that everyone, including the press, needs to do a better job promoting the community and not just focus on the negative.

Councilmember Cole extended kudos to Rich Bergmann of the Round Lake Group. He also stated that Councilmember Kurtz has bent over backwards with regards to his sky diving operation and has done a fantastic job. Councilmember Cole agreed that the City Attorney should review Skydive Harbor Springs operation details and insurance coverage.

XII. Audience - Non-agenda Input (written requests take precedent)

Kirk Ikens, 108 W. Hurlbut, requested that the cement curb be replaced in front of his home rather than the scheduled rolled asphalt curb. He understands budget constraints, but felt that his property value will suffer with the asphalt curb as well as affecting the street aesthetics. Future street improvements were discussed. Interim City Manager Spencer cautioned that Council would be setting precedence by approving this request. It was generally agreed to spend up to \$10,000 of reserve money to install curb and gutter, laying asphalt on the entire street. Interim City Manager Spencer will communicate with Council if the estimate exceeds \$10,000.

Derek Chowen, Lake Charlevoix Brewing Company, thanked everyone for participating in the Council meeting and extended his appreciation to Councilmember Supernaw for clarifying facts in the newspaper. Mr. Chowen stated that the Round Lake Group is doing their best to make a good business and rectify any mistakes. The Round Lake Group wants to be a part of the community and work together.

Don Seeyle, discussed airport history, Mr. Woody's aviation experience, and commended Mr. Woody's efforts while in the position of Airport Manager. He felt that Mr. Woody's membership on the Airport Advisory Committee would be a huge benefit to the airport. Interim City Manager Spencer clarified that his previous reluctance to meet with ex-employee Mr. Woody was due to the fact that Mr. Seeyle should have been meeting with the current Airport Manager, not the former. Councilmember Supernaw asked Mr. Seeyle why the committee unanimously recommended Mr. Guanci for membership. Mr. Seeyle replied that Mr. Guanci showed interest in the position.

Bob Timms, was concerned that Council was not aware of the revised plans for the Antrim Street – State Street intersection. He felt that the City would be losing four parking spaces. Interim City Manager Spencer will research the issue and email Council with his findings.

It was generally agreed to recess at 9:58 p.m. Council reconvened at 10:04 p.m.

XIII. Closed Session

A. City Attorney Consultation – Section 15.268 (8)(h)
Motion by Councilmember Kurtz, second by Councilmember Cole, to go into Closed Session for a consultation with the City Attorney, citing Section 15.268(8)(h) of the Open Meetings Act.

Ayes: Porter, Kurtz, Gibson, Cole
Nays: None
Absent: Perron, Supernaw

Council moved into closed session at 10:04 p.m. Council resumed open session at 10:24 p.m.

XIV. Adjourn

The Mayor stated if there were no objections, the meeting would adjourn. There were no objections.
Meeting adjourned at 10:24 p.m.

Joyce Golding City Clerk Gabe Campbell Mayor

	Special Accounts Payable – 06/11/2015		
BRIAN DIXON PAINTING	920.00		
THUNDER BAY RESORT	1,300.00	TOTAL	2,220.00

	Special Accounts Payable – 06/12/2015		
LARSON, KATHERINE	7,500.00	TOTAL	7,500.00

	Special Accounts Payable – 06/22/2015		
AT&T	1,917.11	METLIFE SMALL BUSINESS CENTER	744.45
AT&T MOBILITY	72.61	PRIORITY HEALTH	45,958.41
CHARLEVOIX STATE BANK	4,288.35	VERIZON WIRELESS	56.72
DELTA DENTAL	4,771.88	VISION SERVICE PLAN	554.69
DTE ENERGY	6,052.69		
GREAT LAKES ENERGY	203.01	TOTAL	64,619.92

	Special Accounts Payable – 07/01/2015		
MICHIGAN JAZZ TRAIL BIG BAND	1,000.00	TOTAL	1,000.00

	Regular Accounts Payable – 07/07/2015		
AIRGAS USA LLC	1,280.15	FISHER SCIENTIFIC	952.05
ALL-PHASE ELECTRIC SUPPLY CO.	595.63	FORRESTER, KATHERINE	37.10
AMSTUTZ, LINDA	289.66	FUHRMAN, DANIEL	33.71
ANYBATTERY INC.	112.05	GALLAGHER, ART	83.56
ARROW UNIFORM-TAYLOR L.L.C.	1,036.30	GALLIMORE, SARAH	43.00
AT&T LONG DISTANCE	43.96	GALLOUP	1,075.68
AVFUEL CORPORATION	53,119.02	GALLS AN ARAMARK COMPANY	275.36
B & L SOUND INC	471.81	GERBER HOMEMADE SWEETS	45.00
BAILLARGEON, JOSEPH	31.20	GOLDING, JOYCE	41.00
BIOTECH AGRONOMICS INC	12,526.16	GORDON FOOD SERVICE	39.97
BLACK PEARL PLATINUM BRAND	25.00	GRAINGER	148.88
BOB MATHERS FORD	172.91	GRAPHIC CONTROLS LLC	427.32
BOSS, LINDA K.	825.00	GREAT LAKES ELEVATOR LLC	319.50
BUDAY'S SOUND ADVICE	3,836.06	GREAT LAKES PIPE & SUPPLY	623.37
CALDWELL, THOMAS	82.14	GREAT LAKES PIPE & SUPPLY	111.22
CCI SOUTH LLC	693.50	GRP ENGINEERING INC.	7,354.96
CENTRAL DRUG STORE	6.59	GSK ENTERPRISES LLC	450.00
CHARLEVOIX AGENCY	749.70	GUNTZVILLER, RHONDA	143.00
CHARLEVOIX SCREENMASTERS INC.	4,560.50	HAGGARD'S INC	1,763.00
CHARLEVOIX TOWNSHIP	15.00	HANKINS, SCOTT	41.00
CHARTER COMMUNICATIONS	999.20	HARRELL'S	4,730.12
CHEMICAL SYSTEMS INC.	167.00	HARWOOD GOLD	249.00
CHESAPEAKE GROUP INC.	5,500.00	HEID, THOMAS J.	41.00
COOK FAMILY FARMS	277.00	HI-LINE	125.88
COVEYOU FARMS LLC	84.00	HOLIDAY COMPANIES	7,254.04
CSI EMERGENCY APPARATUS LLC	11.27	HYDE SERVICES LLC	388.81
CUMMINS BRIDGEWAY LLC	2,502.49	IDEXX DISTRIBUTION INC.	1,234.37
DAMOUR, DAVID	26.00	INDEPENDENT DRAFTING SERVICES	1,260.00
DCASSESSING SERVICES	4,371.08	INDUSTRIAL MARKETING	2,248.73
DeROSIA, PATTY	41.00	J & B MEDICAL SUPPLY INC.	19.90
DHASELEER, CARL	102.00	JACK DOHENY SUPPLIES INC	469.94
DISTRICT 21 SOFTBALL	100.00	JOHN E. GREEN COMPANY	799.27
DITCH WITCH SALES OF MICHIGAN	1,351.14	JOHNNY MAC'S SPORTING GOODS	140.58
DOAN, GERARD	41.00	KELLERVILLE	300.00
DOYLE, ANNIE	391.00	KERBY, MICHELLE	70.00
DTE ENERGY	55.18	KIRINOVIC, THOMAS	41.00
EJ USA INC.	513.05	KLOOSTER, ALIDA K.	41.00
ELLIOTT, PATRICK M.	41.00	KORTHASE FLINN	11.25
ELMER'S CRANE & DOZER INC.	59,260.00	KSS ENTERPRISES	2,246.93
EMERGENCY MEDICAL PRODUCTS INC	112.70	LAKESHORE TIRE & AUTO SERVICE	14.95
ETNA SUPPLY	1,960.00	LERMA INC.	75.00
EVANS, HAL	41.00	LEVINE, STUART	53.41
FARMER WHITE'S	160.00	LOTTIE'S BAGELS	109.00
FASTENAL COMPANY	59.63	LYONS, SHELIA	59.13
FERGUSON & CHAMBERLAIN	2,876.00	MARSCHNER, JOHN	2,322.23

MATTER, DAWSON	390.00	RICK-BIDDICK, MICHELLE	1,021.14
MCCARDEL CULLIGAN-PETOSKEY	250.00	RTI LABORATORIES INC.	31.00
McGINN, KELLY	72.49	RUSTIC BAKER	45.00
MDC CONTRACTING LLC	630.00	S & S WORLDWIDE	1,338.77
METTLER CONCEPTS & DESIN	325.87	SCHWAGER, EDWARD J.	41.00
MICHIGAN APPRAISAL CO INC	1,200.00	SEARS COMMERCIAL ONE	650.23
MICHIGAN BOATING INDUSTRIES ASSOC	295.00	SECURITY SANITATION INC.	380.00
MICHIGAN MUNICIPAL LEAGUE	5,040.49	SEELEY'S PRINTING SERVICE	825.00
MICHIGAN MUSHROOM MARKET LLC	20.00	SMOKE ON THE WATER	20.00
MICHIGAN POLICE EQUIPMENT	969.65	SPARTAN DISTRIBUTORS INC	2,064.22
MID STATES BOLT & SCREW CO	51.04	SPEEDWRENCH INC.	355.34
MYER, ELIZABETH A.	41.00	SPENCER, MICHAEL	41.00
NORTH COUNTRY POWER GENERATION	235.00	STATE OF MICHIGAN	126,155.21
NORTHERN CREDIT BUREAU	290.51	STATE OF MICHIGAN	50.00
NORTHERN MICHIGAN DUST CONTROL	288.00	STEIN, DONNA	10.40
NORTHERN MICHIGAN JANITORIAL	87.35	SUPERNAW, BILL	20.70
NORTHERN SAFETY CO INC	773.25	SURE SOURCE	217.09
NORTHWEST DESIGN GROUP	3,974.25	SWEM, DONALD L.	41.00
NYE UNIFORM CO	104.45	T & R SERVICE INC	3,856.00
OLSON BZDOK & HOWARD	2,836.50	TERMINAL SUPPLY CO	470.59
OMS COMPLIANCE SERVICES INC	78.75	TEUNIS, STEVEN	242.25
ORIENTAL TRADING COMPANY INC	1,364.35	THREE OAKS WOODWORKING	451.12
OUDBIER INSTRUMENT CO	551.00	TRAEGER, JASON	142.00
PARASTAR INC.	1,058.46	UMJULIS, MATTHEW	299.40
PERFORMANCE ENGINEERS INC	19,109.25	UP NORTH PROPERTY SERVICES LLC	5,811.00
PETOSKEY PUBLIC SCHOOLS	1,000.00	USA BLUE BOOK	173.87
POLLARD WATER	69.48	VILLAGE GRAPHICS INC.	254.45
POND HILL FARM LLC	200.00	WALTERS SHARPENING SVC. INC.	72.00
POWER LINE SUPPLY	957.47	WELLER, LINDA	41.00
PREFERRED WASTE 2 LLC	120.00	WHITLEY, ANDREW	14.00
PREIN & NEWHOF	51,009.76	WHOLLY GRANOLY LLC	9.00
PRESTON FEATHER	268.65	WOJAN WINDOW & DOOR CORP.	18.50
PROVIDENCE FARM LLC	98.00	WOOD SHOP, THE	500.00
QUICK CARE MEDICAL CENTER	144.00	WORK & PLAY SHOP	187.63
QUILL CORP	246.90	WURST, RANDALL W.	362.12
REHMANN-ROBSON & CO	3,900.00	WYMAN, MATTHEW A.	170.95
RESIDEX LLC	978.24	TOTAL	446,946.44

ACH Payments - 06/15/2015 - 07/06/2015

MI PUBLIC POWER AGENCY	9,578.88	MI PUBLIC POWER AGENCY	15,833.59
IRS (PAYROLL TAX DEPOSIT)	39,178.88	IRS (PAYROLL TAX DEPOSIT)	39,936.48
ALERUS FINANCIAL (HCSP)	370.00	ALERUS FINANCIAL (HCSP)	370.00
STATE OF MI (WITHHOLDING TAX)	5,753.13	STATE OF MI (WIHOLDING TAX)	5,690.63
VANTAGEPOINT (457 ICMA PLAN)	13,609.13	VANTAGEPOINT (457 ICMA PLAN)	13,784.46
MERS (DEFINED BENEFIT PLAN)	26,670.84	MI PUBLIC POWER AGENCY	9,908.01
MI PUBLIC POWER AGENCY	13,374.77		
MI PUBLIC POWER AGENCY	258,415.64	TOTAL	452,454.44

PAYROLL: NET PAY

Pay Period Ending 06/13/2015 - Paid 06/19/2015

WELLER, LINDA JO	1,620.71	HANKINS, SCOTT A.	1,489.79
GOLDING, JOYCE M.	1,059.15	ORBAN, BARBARA K.	1,340.84
DEROSIA, PATRICIA E.	971.47	TRAEGER, JASON A.	1,318.50
DOYLE, ANNE E.	1,385.05	WARNER, JANINE M.	851.52
LOY, EVELYN R.	1,017.73	EVANS JR, HALBERT K.	1,442.49
KLOOSTER, ALIDA K.	1,447.08	GODDARD, RYAN D.	551.33
GOLOVICH, KAREN J.	704.07	BINGHAM, LARRY E.	1,046.00
SPENCER, MICHAEL D.	2,238.33	VANLOO, JORDAN C.	619.18
SPENCLEY, PATRICIA L.	1,561.31	TELGENHOF, WILL G.	261.11
PANOFF, ZACHARY R.	631.71	GREYERBIEHL, KELLY M.	465.22
MILLER, FAITH G.	34.41	SCHWARTZFISHER, JOSEPH L.	1,617.74
LEESE, MERRI C.	284.05	ROLOFF, ROBERT P.	3,816.73
MCGINN, KELLY A.	1,585.98	BRODIN, WILLIAM C.	1,459.74
DOAN, GERARD P.	1,644.23	RILEY, DENISE M.	408.40
SHRIFT, PETER R.	1,284.22	TEUNIS, STEVEN L.	1,681.68
SCHLAPPI, JAMES L.	1,095.23	WURST, RANDALL W.	1,657.02
UMJULIS, MATTHEW T.	1,364.08	MAYER, SHELLEY L.	1,557.82

HILLING, NICHOLAS A.	1,092.80	MYER, ELIZABETH A.	1,622.72
MEIER II, CHARLES A.	1,256.45	VANLOO, JOSEPH G.	796.97
ZACHARIAS, STEVEN B.	1,327.51	WYMAN, MATTHEW A.	955.66
NISWANDER, JOSEPH F.	1,382.44	DRAVES, MICHAEL J.	384.68
EATON, BRAD A.	1,896.70	SCHRADER, LOU ANN	622.65
WILSON, TIMOTHY J.	1,926.77	SCHWAGER, EDWARD J.	778.54
LAVOIE, RICHARD L.	2,240.24	BOSS, RYDER S.	225.34
STEVENS, BRANDON C.	1,925.57	FUNKEY, KRAIG R.	124.67
DRAVES, MARTIN J.	1,581.93	RILEY, TIMOTHY C.	52.86
BROWN, STEPHANIE C.	1,023.66	RAMSEY, KYLE J.	3.21
ELLIOTT, PATRICK M.	1,762.40	RILEY, CASEY W.	472.04
WELLS JR., DONALD E.	1,194.66	THORMAN, MIKAYLA R.	228.47
BRADLEY, KELLY R.	1,667.57	JONES, LARRY M.	968.83
WILSON, RICHARD J.	1,194.33	LOPER II, GARY D.	702.32
HART II, DELBERT W.	828.72	WILLSON, BRENDA R.	281.92
JONES, ROBERT F.	1,370.66	OCHS, THOMAS F	41.56
DORAN, JUSTIN J.	1,173.48	TRAVERS, MANUEL	1,089.31
MANKER JR, DAVID W.	493.95	RILEY, DANIEL A	1,327.43
MANKER SR, DAVID W.	717.35	KLOOSTER, PATRICK H.	382.94
NEUMANN, DANA L.	536.31	JOHNSON, KYLE W.	434.53
BECKER, MICHAEL S.	554.09	LABELLE, DAVID B.	333.02
SHEPARD, ZACHARY N.	502.73	KLINGER, LUCAS D.	580.41
BUTLER, SEAN C.	650.90	GREENE, GLORIA C.	478.39
HAWKINS, JAMES S.	438.25	KLINGER, BRADLEY W.	208.00
MCGHEE, ROBERT R.	943.00	DAVIS, LEAH R.	314.22
STANTS, JACOB W.	494.36	SMITH, DONALD L.	1,808.24
BLOOMER, GABRIELLE J.	505.36	WRENCH, ANDREW	1,342.77
KIRINOVIC, THOMAS F.	620.18	MORFESS, KEVIN P.	868.50
STEBE, LAURA A.	109.14	HODGE, MICHAEL J.	1,270.61
FORRESTER, KATHERINE A.	544.88	JOHNSON, STEVEN P.	1,264.89
AMSTUTZ, LINDA J.	493.82	BISHAW, JAMES	632.13
DUTCHER, ROBERT G.	365.11	HERRIMAN, COBY	408.47
SABSOOK, SARA E.	117.05	MACGILLIVRAY, RAYMOND L.	79.13
BROSIO, VALERIE L.	114.28	HALL, CHASE D.	114.59
WEBB, MICHAEL B.	205.42	PERKINS, MEGAN M.	134.99
PARKER-DROST, HERO	74.89	HOLM, FETHUR R.	540.51
HOLECHECK, JENNACA R.	121.70	CURTIS, DENNIS E.	781.01
ROCKAFELLOW, SARAH C.	84.38	GILL, DAVID B.	1,008.90
HEID, THOMAS J	1,252.44	TODD, RICHARD D.	501.10
STEIN, DONNA E.	252.28	STEVENS, JEFFREY W.	602.49
BOOTHE, STEVEN A.	268.24	ROLOFF, AUDREY M.	2,950.91
GRUNCH, RONALD J.	294.20	WALTER, DAWSON K.	1,901.58
RYPSTRA III, BART	226.57	SCOTT JR., WINFIELD	26.42
DAVIS, RONALD L.	263.22	KITELEY, FISHER L.	26.42
MACLEOD, SAMUEL R.	371.61	BERGMANN, DOUGLAS M.	13.21
DAKROUB, JOSEPH E.	146.03		
MASSON, DONALD J.	135.41		
		TOTAL	107,900.75

4FRONT CREDIT UNION
 AMERICAN FAMILY LIFE
 AMERICAN FAMILY LIFE
 CHAR EM UNITED WAY
 CHARLEVOIX STATE BANK

PAYROLL: TRANSMITTAL - 06/19/2015

218.46	CHEMICAL BANK	150.00
145.20	COMMUNICATION WORKERS OF AMER	496.16
271.20	MI STATE DISBURSEMENT UNIT	502.40
32.00	PRIORITY HEALTH	1,809.98
1,021.16	TOTAL	4,646.56

PAYROLL: NET PAY

Pay Period Ending 06/27/2015 - Paid 07/02/2015

CAMPBELL, GABRIEL M.	932.73	GOLOVICH, KAREN J.	891.61
GIBSON, SHIRLEY J.	689.53	SPENCER, MICHAEL D.	2,457.72
PORTER, JEFFREY L.	544.01	SPENCLEY, PATRICIA L.	1,561.31
PERRON, LEON R.	449.96	PANOFF, ZACHARY R.	626.91
KURTZ, LUTHER J.	443.28	LEESE, MERRI C.	262.02
SUPERNAW, WILLIAM J.	674.15	MCGINN, KELLY A.	1,585.98
WELLER, LINDA JO	1,620.71	DOAN, GERARD P.	1,720.06
GOLDING, JOYCE M.	1,059.15	SHRIFT, PETER R.	1,136.19
DEROSIA, PATRICIA E.	938.33	SCHLAPPI, JAMES L.	1,040.63
DOYLE, ANNE E.	1,385.05	UMULIS, MATTHEW T.	1,172.31
LOY, EVELYN R.	1,017.73	HANKINS, SCOTT A.	1,489.79
KLOOSTER, ALIDA K.	1,675.15	ORBAN, BARBARA K.	1,169.15

TRAEGER, JASON A.	1,295.40	SABSOOK, SARA E.	437.61
WARNER, JANINE M.	1,079.60	BROSIO, VALERIE L.	634.09
EVANS JR, HALBERT K.	1,442.49	RUDOLPH, TRISTAN M.	59.16
GODDARD, RYAN D.	944.45	WEBB, MICHAEL B.	242.43
JOHNSON, KYLE W.	662.59	PARKER-DROST, HERO	461.28
BINGHAM, LARRY E.	820.38	HOLECHECK, JENNACA R.	537.42
VANLOO, JORDAN C.	630.43	ROCKAFELLOW, SARAH C.	567.03
TELGENHOF, WILL G.	528.09	HEID, THOMAS J	1,252.44
GREYERBIEHL, KELLY M.	557.33	STEIN, DONNA E.	204.23
ROLOFF, ROBERT P.	2,269.96	BOOTHE, STEVEN A.	269.95
BRODIN, WILLIAM C.	3,417.70	GRUNCH, RONALD J.	396.82
RILEY, DENISE M.	467.76	RYPSTRA III, BART	281.58
TEUNIS, STEVEN L.	1,681.68	DAVIS, RONALD L.	220.22
WURST, RANDALL W.	1,343.62	MACLEOD, SAMUEL R.	416.38
MAYER, SHELLEY L.	1,475.12	DAKROUB, JOSEPH E.	162.88
HILLING, NICHOLAS A.	1,471.64	MASSON, DONALD J.	176.91
MEIER III, CHARLES A.	1,981.84	MYER, ELIZABETH A.	1,850.80
ZACHARIAS, STEVEN B.	1,288.83	VANLOO, JOSEPH G.	952.92
NISWANDER, JOSEPH F.	1,283.76	WYMAN, MATTHEW A.	1,011.83
EATON, BRAD A.	1,979.58	SCHRADER, BOI ANN	680.27
WILSON, TIMOTHY J.	2,154.83	SCHWAGER, EDWARD J.	503.44
LAVOIE, RICHARD L.	1,924.67	BOSS, RYDER S.	503.65
STEVENS, BRANDON C.	1,650.68	JONES, LARRY M.	87.14
DRAVES, MARTIN J.	1,547.85	TRAVERS, MANUEL J.	138.52
BROWN, STEPHANIE C.	1,023.65	RILEY, DANIEL A.	132.14
ELLIOTT, PATRICK M.	1,762.40	COLE, SHANE	604.89
SCHWARTZFISHER, JOSEPH L.	1,065.82	KLOOSTER, PATRICK H.	682.84
WELLS JR., DONALD E.	1,587.00	LABELLE, DAVID B.	165.12
BRADLEY, KELLY R.	1,370.91	KLINGER, LUCAS D.	514.61
WILSON, RICHARD J.	1,177.64	GREENE, GLORIA C.	528.09
HART II, DELBERT W.	821.40	KLINGER, BRADLEY W.	208.00
JONES, ROBERT F.	1,327.31	DAVIS, LEAH R.	528.09
DORAN, JUSTIN J.	1,838.33	SWEM, DONALD L.	1,808.24
MANKER JR, DAVID W.	493.95	WHITLEY, ANDREW T.	1,483.38
MANKER SR, DAVID W.	717.35	MORRISON, KEVIN P.	1,137.33
NEUMANN, DANA L.	542.71	HODGE, MICHAEL J.	1,270.61
BECKER, MICHAEL S.	609.65	JOHNSON, STEVEN P.	997.86
SHEPARD, ZACHARY N.	551.87	BISHAW, JAMES H.	737.86
BUTLER, SEAN C.	645.43	HERRIMAN, COBY M.	521.87
HAWKINS, JAMES S.	507.33	HINDLE, LYDIA R.	468.92
MCGHEE, ROBERT R.	1,074.06	MACGILLIVRAY, RAYMOND L.	652.72
STANTS, JACOB W.	531.94	HALL, CHASE D.	676.84
BLOOMER, GABRIELLE J.	570.97	PETERS, MEGAN M.	586.57
MCCLANATHAN, BRANDON R.	52.28	CURTIS, DENNIS E.	1,307.86
STEBE, LAURA A.	105.38	GILL, DAVID R.	1,484.51
FORRESTER, KATHERINE A.	425.27	TODD, RICHARD D.	517.36
AMSTUTZ, LINDA J.	991.91	STEVENS, JEFFREY W.	138.52
DUTCHER, ROBERT G.	273.10	TOTAL	109,905.80

PAYROLL: TRANSMITTAL - 07/02/2015			
4FRONT CREDIT UNION	218.46	COMMUNICATION WORKERS OF AMER	497.30
AMERICAN FAMILY LIFE	145.20	MI STATE DISBURSEMENT UNIT	401.83
AMERICAN FAMILY LIFE	271.20	POLICE OFFICERS LABOR COUNCIL	294.00
CHAR EM UNITED WAY	32.00	PRIORITY HEALTH	1,656.80
CHARLEVOIX STATE BANK	1,021.16		
CHEMICAL BANK	150.00	TOTAL	4,687.95

Check Number	Payee	Amount
07/02/2015		
113750	DEVERE CONSTRUCTION COMPANY	984,131.82
Total 07/02/2015:		984,131.82
Grand Totals:		984,131.82

Summary of Check Registers & ACH Payments

FIRSTMERIT BANK - CHECKS ISSUED

07/02/15 Special Accounts Payable Run	\$	984,131.82
07/14/15 Special Accounts Payable Run	\$	4,457.95
07/17/15 Payroll	\$	129,147.88
07/17/15 Payroll Transmittal Checks	\$	4,275.95
07/21/15 Regular Accounts Payable	\$	414,661.18
Checks Sub-Total:		\$ 1,536,674.78

FIRSTMERIT BANK - ACH PAYMENTS

07/06/15 Payment Service Network	\$	224.90
07/09/15 State of MI (Sales Tax)	\$	19,526.83
07/13/15 MI Public Power Agency	\$	13,748.78
07/17/15 IRS (Payroll Tax Deposit)	\$	49,533.67
07/17/15 Alerus Financial (HCSP)	\$	370.00
07/17/15 State of MI (Withholding Tax)	\$	7,019.72
07/17/15 Vantagepoint (457 ICMA Plan)	\$	14,093.31

ACH Sub-Total: \$ 104,517.21

First Merit Bank Total: \$ 1,641,191.99

CHARLEVOIX STATE BANK - CHECKS ISSUED

(PROPERTY TAX DISBURSEMENT TO VARIOUS TAXING AUTHORITIES)

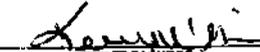
07/21/15 Tax Disbursement	\$	110.00
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Charlevoix State Bank Total: \$ 110.00

Grand Total: \$ 1,641,301.99

APPROVED:


INTERIM CITY MANAGER


CITY TREASURER


CITY CLERK

Check Number	Payee	Amount
07/14/2015		
113786	MDS OF MICHIGAN INC	4,457.95
Total 07/14/2015:		4,457.95
Grand Totals:		4,457.95

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
07/11/2015	PC	07/17/2015	19673	WELLER, LINDA JO	101		1,620.71
07/11/2015	PC	07/17/2015	19674	GOLDING, JOYCE M.	106		1,059.15
07/11/2015	PC	07/17/2015	19675	DEROSIA, PATRICIA E.	107		1,145.44
07/11/2015	PC	07/17/2015	19676	DOYLE, ANNE E.	108		1,385.05
07/11/2015	PC	07/17/2015	19677	LOY, EVELYN R.	117		1,017.73
07/11/2015	PC	07/17/2015	19678	KLOOSTER, ALIDA K.	121		1,447.08
07/11/2015	PC	07/17/2015	19679	GOLOVICH, KAREN J.	122		883.21
07/11/2015	PC	07/17/2015	19680	SPENCER, MICHAEL D.	132		2,238.33
07/11/2015	PC	07/17/2015	19681	SPENCLEY, PATRICIA L.	136		1,498.51
07/11/2015	PC	07/17/2015	19682	PANOFF, ZACHARY R.	141		626.91
07/11/2015	PC	07/17/2015	19683	LEESE, MERRI C.	145		262.02
07/11/2015	PC	07/17/2015	19684	MCGINN, KELLY A.	146		1,585.98
07/11/2015	PC	07/17/2015	19685	DOAN, GERARD P.	201		1,883.38
07/11/2015	PC	07/17/2015	19686	SHRIFT, PETER R.	203		1,319.36
07/11/2015	PC	07/17/2015	19687	SCHLAPPI, JAMES L.	204		1,259.16
07/11/2015	PC	07/17/2015	19688	UMULIS, MATTHEW T.	205		1,345.90
07/11/2015	PC	07/17/2015	19689	HANKINS, SCOTT A.	208		1,503.29
07/11/2015	PC	07/17/2015	19690	ORBAN, BARBARA K.	209		1,393.34
07/11/2015	PC	07/17/2015	19691	TRAEGER, JASON A.	210		1,671.39
07/11/2015	PC	07/17/2015	19692	WARNER, JANINE M.	213		851.52
07/11/2015	PC	07/17/2015	19693	EVANS JR, HALBERT K.	214		1,442.49
07/11/2015	PC	07/17/2015	19694	GODDARD, RYAN D.	221		884.99
07/11/2015	PC	07/17/2015	19695	JOHNSON, KYLE W.	223		732.77
07/11/2015	PC	07/17/2015	19696	BINGHAM, LARRY E.	224		820.38
07/11/2015	PC	07/17/2015	19697	VANLOO, JORDAN C.	239		570.48
07/11/2015	PC	07/17/2015	19698	TELGENHOF, WILL G.	246		521.87
07/11/2015	PC	07/17/2015	19699	GREYERBIEHL, KELLY M.	260		557.33
07/11/2015	PC	07/17/2015	19700	ROLOFF, ROBERT P.	304		4,724.12
07/11/2015	PC	07/17/2015	19701	RILEY, DENISE M.	306		465.78
07/11/2015	PC	07/17/2015	19702	TEUNIS, STEVEN L.	402		1,681.68
07/11/2015	PC	07/17/2015	19703	WURST, RANDALL W.	411		1,474.39
07/11/2015	PC	07/17/2015	19704	MAYER, SHELLEY L.	412		2,333.15
07/11/2015	PC	07/17/2015	19705	HILLING, NICHOLAS A.	413		1,092.80
07/11/2015	PC	07/17/2015	19706	MEIER III, CHARLES A.	421		1,651.86
07/11/2015	PC	07/17/2015	19707	ZACHARIAS, STEVEN B.	422		2,223.89
07/11/2015	PC	07/17/2015	19708	NISWANDER, JOSEPH F.	504		1,283.76
07/11/2015	PC	07/17/2015	19709	EATON, BRAD A.	515		1,826.24
07/11/2015	PC	07/17/2015	19710	WILSON, TIMOTHY J.	516		1,944.37
07/11/2015	PC	07/17/2015	19711	LAVOIE, RICHARD L.	519		1,838.62
07/11/2015	PC	07/17/2015	19712	STEVENS, BRANDON C.	521		1,599.42
07/11/2015	PC	07/17/2015	19713	DRAVES, MARTIN J.	523		1,684.15
07/11/2015	PC	07/17/2015	19714	BROWN, STEPHANIE C.	524		1,023.65
07/11/2015	PC	07/17/2015	19715	ELLIOTT, PATRICK M.	600		1,762.40
07/11/2015	PC	07/17/2015	19716	SCHWARTZFISHER, JOS	603		1,319.30
07/11/2015	PC	07/17/2015	19717	WELLS JR., DONALD E.	609		1,217.43
07/11/2015	PC	07/17/2015	19718	BRADLEY, KELLY R.	614		1,330.83
07/11/2015	PC	07/17/2015	19719	WILSON, RICHARD J.	615		8,912.05
07/11/2015	PC	07/17/2015	19720	HART II, DELBERT W.	616		716.45
07/11/2015	PC	07/17/2015	19721	JONES, ROBERT F.	618		1,352.00
07/11/2015	PC	07/17/2015	19722	DORAN, JUSTIN J.	621		1,312.38
07/11/2015	PC	07/17/2015	19723	MANKER JR, DAVID W.	638		493.95
07/11/2015	PC	07/17/2015	19724	MANKER SR, DAVID W.	639		653.30
07/11/2015	PC	07/17/2015	19725	NEUMANN, DANA L.	640		507.53
07/11/2015	PC	07/17/2015	19726	BECKER, MICHAEL S.	641		604.43
07/11/2015	PC	07/17/2015	19727	SHEPARD, ZACHARY N.	656		502.73
07/11/2015	PC	07/17/2015	19728	BUTLER, SEAN C.	660		586.95
07/11/2015	PC	07/17/2015	19729	HAWKINS, JAMES S.	662		500.75

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
07/11/2015	PC	07/17/2015	19730	MCGHEE, ROBERT R.	663		1,047.25
07/11/2015	PC	07/17/2015	19731	STANTS, JACOB W.	664		555.86
07/11/2015	PC	07/17/2015	19732	BLOOMER, GABRIELLE J.	665		505.36
07/11/2015	PC	07/17/2015	19733	MCCLANATHAN, BRAND	666		459.96
07/11/2015	PC	07/17/2015	19734	KIRINOVIC, THOMAS F.	700		635.68
07/11/2015	PC	07/17/2015	19735	STEBE, LAURA A.	703		150.53
07/11/2015	PC	07/17/2015	19736	FORRESTER, KATHERIN	704		549.31
07/11/2015	PC	07/17/2015	19737	AMSTUTZ, LINDA J.	706		991.91
07/11/2015	PC	07/17/2015	19738	DUTCHER, ROBERT G.	710		237.86
07/11/2015	PC	07/17/2015	19739	SABSOOK, SARA E.	721		479.33
07/11/2015	PC	07/17/2015	19740	BRQSIO, VALERIE L.	722		584.74
07/11/2015	PC	07/17/2015	19741	RUDOLPH, TRISTAN M.	757		528.92
07/11/2015	PC	07/17/2015	19742	GOLOVICH, SAWYER P.	759		469.34
07/11/2015	PC	07/17/2015	19743	ECKHARDT, LOGAN R.	761		509.64
07/11/2015	PC	07/17/2015	19744	WEBB, MICHAEL B.	773		330.30
07/11/2015	PC	07/17/2015	19745	PARKER-DROST, HERO	775		514.12
07/11/2015	PC	07/17/2015	19746	HOLECHECK, JENNACA	777		537.42
07/11/2015	PC	07/17/2015	19747	WELLS, IVY L.	781		537.04
07/11/2015	PC	07/17/2015	19748	ROCKAFELLOW, SARAH	782		549.94
07/11/2015	PC	07/17/2015	19749	HEID, THOMAS J	802		1,252.44
07/11/2015	PC	07/17/2015	19750	STEIN, DONNA E.	830		204.23
07/11/2015	PC	07/17/2015	19751	BOOTHE, STEVEN A.	832		280.20
07/11/2015	PC	07/17/2015	19752	GRUNCH, RONALD J.	844		414.68
07/11/2015	PC	07/17/2015	19753	RYPSTRA III, BART	852		299.27
07/11/2015	PC	07/17/2015	19754	DAVIS, RONALD L.	853		117.29
07/11/2015	PC	07/17/2015	19755	MACLEOD, SAMUEL R.	857		422.78
07/11/2015	PC	07/17/2015	19756	DAKROUB, JOSEPH E.	860		220.90
07/11/2015	PC	07/17/2015	19757	MASSON, DONALD J.	861		169.42
07/11/2015	PC	07/17/2015	19758	MYER, ELIZABETH A.	900		1,732.35
07/11/2015	PC	07/17/2015	19759	VANLOO, JOSEPH G.	902		873.38
07/11/2015	PC	07/17/2015	19760	WYMAN, MATTHEW A.	927		955.66
07/11/2015	PC	07/17/2015	19761	SCHRADER, LOU ANN	929		687.60
07/11/2015	PC	07/17/2015	19762	SCHWAGER, EDWARD J.	930		461.43
07/11/2015	PC	07/17/2015	19763	BOSS, RYDER S.	932		896.56
07/11/2015	PC	07/17/2015	19764	FUNKEY, KRAIG R.	1034		124.67
07/11/2015	PC	07/17/2015	19765	RILEY, TIMOTHY C.	1045		13.21
07/11/2015	PC	07/17/2015	19766	RILEY, CASEY W.	1052		562.46
07/11/2015	PC	07/17/2015	19767	THORMAN, MIKAYLA R.	1055		296.42
07/11/2015	PC	07/17/2015	19768	JONES, LARRY M.	1057		1,493.69
07/11/2015	PC	07/17/2015	19769	LOPER II, GARY D.	1058		435.65
07/11/2015	PC	07/17/2015	19770	WILLSON, BRENDA R.	1059		755.83
07/11/2015	PC	07/17/2015	19771	OCHS, THOMAS F	1068		103.89
07/11/2015	PC	07/17/2015	19772	TRAVERS, MANUEL J.	1071		1,147.65
07/11/2015	PC	07/17/2015	19773	RILEY, DANIEL A.	1079		2,205.73
07/11/2015	PC	07/17/2015	113752	KLOOSTER, PATRICK H.	216		682.84
07/11/2015	PC	07/17/2015	113753	LABELLE, DAVIS B.	234		521.15
07/11/2015	PC	07/17/2015	113754	KLINGER, LUCAS D.	235		580.41
07/11/2015	PC	07/17/2015	113755	SPEGELE, GREYSON H.	237		586.95
07/11/2015	PC	07/17/2015	113756	GREENE, GLORIA C.	243		528.09
07/11/2015	PC	07/17/2015	113757	KLINGER, BRADLEY W.	244		274.39
07/11/2015	PC	07/17/2015	113758	DAVIS, LEAH R.	245		528.09
07/11/2015	PC	07/17/2015	113759	SWEM, DONALD L.	512		1,808.24
07/11/2015	PC	07/17/2015	113760	WHITLEY, ANDREW T.	522		1,600.85
07/11/2015	PC	07/17/2015	113761	MORRISON, KEVIN P.	601		1,050.91
07/11/2015	PC	07/17/2015	113762	HODGE, MICHAEL J.	606		1,270.61
07/11/2015	PC	07/17/2015	113763	JOHNSON, STEVEN P.	617		1,535.69
07/11/2015	PC	07/17/2015	113764	BISHAW, JAMES H.	633		526.42

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
07/11/2015	PC	07/17/2015	113765	HERRIMAN, COBY M.	654		441.11
07/11/2015	PC	07/17/2015	113766	HINDLE, LYDIA R.	667		459.24
07/11/2015	PC	07/17/2015	113767	MACGILLIVRAY, RAYMO	720		545.82
07/11/2015	PC	07/17/2015	113768	HALL, CHASE D.	726		572.69
07/11/2015	PC	07/17/2015	113769	PETERS, MEGAN M.	738		579.62
07/11/2015	PC	07/17/2015	113770	CURTIS, DENNIS E.	831		1,098.72
07/11/2015	PC	07/17/2015	113771	GILL, DAVID R.	856		1,200.78
07/11/2015	PC	07/17/2015	113772	TODD, RICHARD D.	859		297.87
07/11/2015	PC	07/17/2015	113773	STEVENS, JEFFREY W.	1028		777.81
07/11/2015	PC	07/17/2015	113774	ROLOFF, AUDREY M.	1037		2,738.93
07/11/2015	PC	07/17/2015	113775	MATTER, DAWSON K.	1038		2,358.47
07/11/2015	PC	07/17/2015	113776	SCOTT JR., WINFIELD	1072		99.11
07/11/2015	PC	07/17/2015	113777	KITELEY, FISHER L.	1074		33.04
Grand Totals:			<u>127</u>				<u>129,147.88</u>

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Report Criteria:

Computed checks included
 Manual checks included
 Supplemental checks included
 Termination checks included
 Void checks included

Pay Period Date	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
07/11/2015	07/17/2015	113778	4FRONT CREDIT UNION	9024	HSA-EMPLOYEE CONTRIB-4FR	218.46
07/11/2015	07/17/2015	113779	AMERICAN FAMILY LIFE	9011	AMERICAN FAMILY LIFE-POST	145.20
07/11/2015	07/17/2015	113779	AMERICAN FAMILY LIFE	9011	AMERICAN FAMILY LIFE-PRETA	271.20
07/11/2015	07/17/2015	113780	CHAR EM UNITED WAY	9009	UNITED WAY Pay Period: 7/11/2	32.00
07/11/2015	07/17/2015	113781	CHARLEVOIX STATE BA	9017	HSA - EMPLOYEE CONTRIB - C	1,021.16
07/11/2015	07/17/2015	113782	CHEMICAL BANK	9018	HSA - EMPLOYEE CONTRIB - C	150.00
07/11/2015	07/17/2015	113783	COMMUNICATION WORK	9004	CWA UNION DUES Pay Period:	477.94
07/11/2015	07/17/2015	113784	MI STATE DISBURSEME	9012	FRIEND OF THE COURT Pay P	401.83
07/11/2015	07/17/2015	113785	PRIORITY HEALTH	392358	PRIORITY HEALTH Pay Period:	1,558.16
Grand Totals:						9
						4,275.95

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Check Number	Payee	Amount
07/21/2015		
113787	ACE HARDWARE	5,039.42
113788	ALL-PHASE ELECTRIC SUPPLY CO.	1,850.96
113789	AMERICAN LEGION AUXILLARY	273.66
113790	AMERICAN WASTE INC.	93.52
113791	AMSTUTZ, LINDA	63.91
113792	APX INC.	51.89
113793	ARROW UNIFORM-TAYLOR L.L.C.	1,375.58
113794	AT&T	2,007.49
113795	AUTO VALUE	731.83
113796	AVFUEL CORPORATION	61,232.40
113797	BC/BS OF MI REFUNDS	280.86
113798	BLACK PEARL PLATINUM BRAND	46.00
113799	BLARNEY CASTLE OIL CO	862.06
113800	BRADFORD'S	71.50
113801	BULBS.COM	48.80
113802	CARQUEST OF CHARLEVOIX	1,035.62
113803	CENTRAL DRUG STORE	131.78
113804	CHARLEVOIX AREA COMMUNITY PO	475.00
113805	CHARLEVOIX COUNTY NEWS	35.00
113806	CHARLEVOIX SCREEN MASTERS INC	1,026.25
113807	CHARLEVOIX VENETIAN FESTIVAL	15,000.00
113808	CINTAS CORPORATION	174.62
113809	CIRCLE K SERVICE	1,893.30
113810	CITY OF CHARLEVOIX - UTILITIES	55,158.95
113811	CLEAR WATER PLUMBING & HEATIN	5,813.88
113812	CONKLIN, CLIFF	28.75
113813	COOK FAMILY FARMS	163.00
113814	COVEYOU FARMS LLC	79.00
113815	DHASELEER, CARL	31.00
113816	DITCH WITCH SALES OF MICHIGAN	206.54
113817	DORNBOS SIGN INC.	134.10
113818	ELLSWORTH FARMER'S EXCHANGE	132.28
113819	EMERGENCY MEDICAL PRODUCTS I	202.20
113820	EMMET BRICK & BLOCK	485.91
113821	EMSHWILLER, ERIC	10.00
113822	ETNA SUPPLY	2,012.82
113823	FAMILY FARM & HOME	641.27
113824	FARMER WHITE'S	73.00
113825	FISHER SCIENTIFIC	555.71
113826	FREEDOM MAILING SERVICES INC.	2,276.30
113827	GELDERBLOM, PAUL	25.00
113828	GERBER HOMEMADE SWEETS	76.00
113829	GINOP SALES INC	292.84
113830	GORDON FOOD SERVICE	476.96
113831	GOSLING CZUBAK	2,837.25
113832	GRAINGER	152.14
113833	GRIFFIN BEVERAGE CO	40.00
113834	GRULER'S FARM SUPPLY INC	79.90

Check Number	Payee	Amount
113835	GUNTZVILLER, RHONDA	291.00
113836	HACH COMPANY	516.60
113837	HAGGARD'S INC	1,549.71
113838	HARWOOD GOLD	97.00
113839	HEID, THOMAS J.	66.64
113840	HEYDLAUFF, MARK L	2,500.00
113841	HOLIDAY COMPANIES	6,538.63
113842	HYDE SERVICES LLC	141.50
113843	HYDRO CORP	515.00
113844	JOHN CROSS FISHERIES	122.00
113845	JOHN DEERE LANDSCAPES LLC	603.53
113846	JTHOMAS PARTS	307.76
113847	KIWANIS CLUB OF CHARLEVOIX	39.00
113848	KMart	421.88
113849	KORTHASE FLINN	135.00
113850	KSS ENTERPRISES	1,080.91
113851	LAKESHORE TIRE & AUTO SERVICE	16.00
113852	LAVANWAY, PHILLIP	46.00
113853	LEESE, M. CHRIS	31.25
113854	LOTTIE'S BAGELS	122.00
113855	MACKINAW ART & SIGN	266.80
113856	MDC CONTRACTING LLC	146,595.51
113857	METTLER TOLEDO INC	813.39
113858	MICHIGAN MUSHROOM MARKET LLC	75.00
113859	MICHIGAN OFFICEWAYS INC	3,200.00
113860	MICHIGAN RURAL WATER ASSN	620.00
113861	MID STATES BOLT & SCREW CO	58.90
113862	MITCHELL GRAPHICS INC.	866.00
113863	NORTHERN CREDIT BUREAU	643.94
113864	NORTHERN FIRE & SAFETY INC.	165.00
113865	NORTHERN LIGHTS FAMILY	999.00
113866	NORTHERN MICHIGAN DUST CONTR	624.00
113867	NOVOTNY, SANDRA	65.00
113868	NYE UNIFORM CO	95.53
113869	OLD DOMINION BRUSH	343.56
113870	OLSTROM EXCAVATING AND PAVING	27,711.00
113871	ORIENTAL TRADING COMPANY INC	234.01
113872	OSTLUND PEST CONTROL LLC	580.00
113873	OTEC	1,295.00
113874	P.K. CONTRACTING	11,312.10
113875	PATTERSON, TONY	160.00
113876	PERFORMANCE ENGINEERS INC	21,765.25
113877	POND HILL FARM LLC	212.00
113878	POWER LINE SUPPLY	4,709.12
113879	PURITY CYLINDER GASES INC	312.52
113880	RIEHL, CAROLINE	30.00
113881	RILEY, DENISE	19.67
113882	ROAD WEASEL ENTERPRISES LLC	54.00
113883	ROCKY TOP FARMS	30.00

Check Number	Payee	Amount
113884	RUSTIC BAKER	88.00
113885	SIEGRIST, DAVID	108.00
113886	SIMPSON ELECTRIC INC.	766.23
113887	SITE PLANNING DEVELOPMENT INC	1,100.00
113888	SOS ANALYTICAL	353.00
113889	SPARTAN DISTRIBUTORS INC	506.48
113890	STATE OF MICHIGAN	225.00
113891	STEVENS, JEFF	599.00
113892	UP NORTH PROPERTY SERVICES LL	4,284.00
113893	UPPER CASE PRINTING INK.	1,094.24
113894	VILLAGE GRAPHICS INC.	50.10
113895	WASHBURNE, BRENDA	74.00
113896	WATERTRONICS LLC	545.70
113897	WHITLEY, MARIA	29.83
113898	WHOLLY GRANOLY LLC	31.00
113899	WITTHOEFT, CHARLES	25.00
113900	WORK & PLAY SHOP	17.64
Total 07/21/2015:		414,661.18
Grand Totals:		414,661.18

Check Number	Payee	Amount
07/06/2015		
70615002	PAYMENT SERVICE NETWORK INC.	224.90
Total 07/06/2015:		224.90
Grand Totals:		224.90

Check Number	Payee	Amount
07/09/2015		
70915001	STATE OF MICHIGAN	19,526.83
Total 07/09/2015:		19,526.83
Grand Totals:		19,526.83

Check Number	Payee	Amount
07/13/2015		
71315001	MICHIGAN PUBLIC POWER AGENCY	13,748.78
Total 07/13/2015:		13,748.78
Grand Totals:		13,748.78

Check Issue Date	Check Number	Payee	Amount
71715001			
07/17/2015	71715001	**EFTPS* Payroll Taxes	11,705.60
07/17/2015	71715001	**EFTPS* Payroll Taxes	11,705.60
07/17/2015	71715001	**EFTPS* Payroll Taxes	2,737.60
07/17/2015	71715001	**EFTPS* Payroll Taxes	2,737.60
07/17/2015	71715001	**EFTPS* Payroll Taxes	20,647.27
Total 71715001:			
	5		49,533.67
71715002			
07/17/2015	71715002	Alerus Financial	370.00
Total 71715002:			
	1		370.00
71715003			
07/17/2015	71715003	STATE OF MICHIGAN	7,019.72
Total 71715003:			
	1		7,019.72
71715004			
07/17/2015	71715004	Vantagepoint - 457 Plan 300959	5,573.58
07/17/2015	71715004	Vantagepoint - 457 Plan 300959	244.03
07/17/2015	71715004	Vantagepoint - 457 Plan 300959	1,769.42
07/17/2015	71715004	Vantagepoint - 457 Plan 300959	6,506.28
Total 71715004:			
	4		14,093.31
Grand Totals:			
	11		71,016.70

Check Number	Payee	Amount
07/21/2015		
2541	ERBER, THOMAS	60.00
2542	HEID, RALPH	50.00
Total 07/21/2015:		110.00
Grand Totals:		110.00

CHECKS DRAWN ON CHARLEVOIX STATE BANK ACCOUNT

CHARLEVOIX CITY COUNCIL

AGENDA ITEM

AGENDA ITEM TITLE: Biennial Review and Approval of the Energy Optimization Plan

DATE: July 20, 2015

PRESENTED BY: Don Swem

ATTACHMENTS: Updated Energy Optimization Plan; EO and REP Annual Reports;
Summary Letter

BACKGROUND INFORMATION:

The City has an Energy Optimization Plan that Council originally approved in May of 2009. Every two years the Plan must be updated and then reviewed by the Michigan Public Service Commission (MPSC). Attached is the updated plan for the years 2015 through 2018.

The intent of the state law and our Energy Optimization Plan is to entice customers through various incentive programs to implement energy efficiency measures that will lower the customer's electrical usage, and therefore delay or cancel the construction of large new generating plants in the state.

Overall the new updated Plan is very similar to the last cycle's Plan. The various energy saving programs that are offered have been very popular in recent years allowing us to exceed our goals for the most part. It is expected that this will continue at least for the short term.

It is required that public comments be solicited for this updated Energy Optimization Plan. Any public comments are to be forwarded to the Michigan Public Service Commission.

Also attached for your information are the annual reports for both the Energy Optimization Plan and the Renewable Energy Plan and the Summary Letter that is being sent out to all residential customers.

RECOMMENDATION:

It is recommended that a motion be made to approve the attached Energy Optimization Plan.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
the CITY OF CHARLEVOIX to fully comply with)
Public Act 295 of 2008)
_____)

Case No. U-16601

SUBMITTAL OF RENEWABLE ENERGY ANNUAL REPORT

In accordance with the Michigan Public Service Commission's Order issued January 27, 2015, the City of Charlevoix hereby submits the attached Renewable Energy Annual Report for 2014.

Respectfully submitted,

DICKINSON WRIGHT PLLC
Attorneys for the City of Charlevoix

By: Nolan J. Moody Digitally signed by Nolan J. Moody
DN: CN=Nolan J. Moody, O=Dickinson
Wright PLLC, OU=OJLE=nmooddy@dickinson
wright.com, C=US
Date: 2015.06.29 16:14:21 -04:00
Peter H. Ellsworth (P23657)
Nolan J. Moody (P77959)
Business Address:
215 S. Washington Square, Suite 200
Lansing, MI 48933-1816
Telephone: (517) 371-1730

Dated: June 29, 2015

LANSING 33092-11 504544v1

Renewable Energy Annual Report

Revised March 2014

Electric Provider: **City of Charlevoix**

Reporting Period: Calendar Year 2014

- Section 51(1) of 2008 PA 295 requires the filing of this document with the Michigan Public Service Commission.
- Many of the requested figures are available from MIRECS reports; names of which are noted within this template. If your figures agree with those within MIRECS, you may submit the MIRECS report as an attachment to this annual report. If your figures differ from those within MIRECS, please explain any discrepancies. Staff from the MPSC and MIRECS Administrator, APX, Inc., are available to help reconcile.

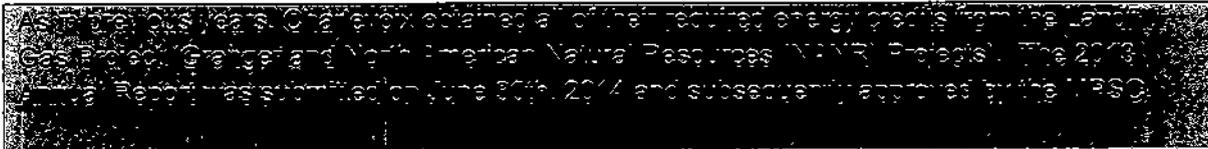
Section 51(1).

Within this section, list and describe actions taken by the electric provider to comply with the renewable energy standards.

a. Filings to the Commission (case numbers)



b. Summary of actions taken during reporting period



Section 51(2)(a).

Within this section, list the number of energy credits obtained and, if bundled credits, the MWh of electricity generated or otherwise acquired during the reporting period. This data may be found in MIRECS reports titled: My Generation Report and My Credit Transfers.

Credits From	Renewable Energy Credits	Incentive Credits	MWh Electricity Generated/Acquired
Generated (My Generation Report)			
Purchased (My Credit Transfers)	2013 – 2,329 2014 – 3,184	2013 – 317 2014 – 369	2013 – 2,329 2014 – 3,184
Total Credits	5,513	686	5,513

Explain any differences between the data provided and MIRECS reports.

Within this section, list the type of and number of energy credits sold, traded or otherwise transferred during the reporting period.

	Renewable Energy Credits	Incentive Credits
Sold, Traded or Otherwise Transferred	2,829	277
Expired (not in compliance sub-account)	0	0

This data may be found in MIRECS reports titled: My Sub-Accounts (filtered by Michigan eligibility and its end date) and My Credit Transfers.

Section 51(2)(b).

Within this section, list the number of advanced cleaner energy credits obtained and, if bundled, the MWh of advanced cleaner energy generated or otherwise acquired during this reporting period. This data may be found in MIRECS reports titled: My Generation Report and My Credit Transfers.

	Advanced Cleaner Energy Credits	MWh Electricity Generated/Acquired
Generated (My Generation Report)	0	0
Purchased (My Credit Transfers)	0	0
Total Credits Acquired	0	0

Did the percentage limits in Section 27(7) affect development of advanced cleaner energy by the electric provider? How so?

Generation does not receive advanced cleaner energy credits.

Section 51(2)(c).

Within this section, list each renewable energy system (RES) and advanced cleaner energy system (ACES) owned, operated or controlled by the electric provider. List the capacity of each system, the amount of electricity generated by each system and the percentage of electricity which was generated from renewable energy (RE) or advanced cleaner energy (ACE).

System Name ¹	System Type (RES or ACES)	Nameplate Capacity (MW)	Electricity Generated (MWh)	% of Electricity generated by RE/ACE
-	-	-	-	-
-	-	-	-	-

¹System name should agree with the project name listed within MIRECS.
This data may be found in the Project Management module within MIRECS.

Within this section, list the renewable energy system (RES) and advanced cleaner energy systems (ACES) the electric provider is purchasing energy credits from. These include purchase power agreements. However, unbundled (credit only) purchases do not need to be listed here. Projects (generators) serving multijurisdictional electric providers should be listed here.

System Name	System Type (RES or ACES)	Electricity Purchased (MWh)	Energy Credits Purchased ¹	Allocation Factor and Method
Landfill Gas Project - Nanter	RES	509 MWh	509 RECs 47 iRECs	Percentage – 4.07%

Differences between MWh and Energy Credit values due to credit rounding.

¹Distinguish between different types of credits (REC or ACEC).

Allocation Factor and Method: For use if 100% of system output is not purchased. For instance, a system selling to multiple parties: list how the energy and credits are allocated – if by percentage, list the percentage as well.

Allocation Factor and Method: If used by multijurisdictional electric providers please include which percentage of energy and credits are to be distributed to Michigan (list allocation method as well, for example: system load).

Section 51(2)(d).

Within this section, list whether, during the reporting period, the electric provider entered into a contract for, began construction on, continued construction of, acquired, or placed into operation a renewable energy (RE) system or advanced cleaner energy (ACE) system.

System Name ¹	Resource (technology, RE/ACE)	Nameplate Capacity (MW)	Construction start date or acquisition date	Commercial operation date	Owned by electric provider?
-	-	-	-	-	-

¹System name should agree with the project name listed within MIRECS.

Dates may be forecast.

Section 51(2)(e).

Within this section, list the expenditures incurred during the reporting period to comply with the renewable energy standards or the forecasted expenditures for the remaining plan period. Also, electric providers with an approved or planned renewable energy surcharge (as per Section 45), list the incremental cost of compliance (ICC) incurred during the reporting period.

Total Costs to Comply with Renewable Energy Standard in 2014
\$424,343

Forecast of total expenditures for the remaining plan period of 2015-2029
\$20,297,503

Total Expenditures: ICC + Transfer Cost

Total Transfer Cost for 2014 (if any)
\$815,733

Transfer Cost: The component of renewable energy and capacity revenue recovered from PSCR clause.

Total ICC for 2014 (if had an approved or planned renewable energy surcharge in 2014)
\$80,677

Forecast of the ICC for the remaining plan period (2015-2029)	Monthly residential surcharge (\$3 or less)
\$2,753,332	

Capital Expenditures for 2014 (if any)
-

Capital Expenditure: An investment in a renewable energy capital asset.

Section 51(2)(f).

Within this section, list the method and the retail sales in MWh for the reporting period.

List the Method: either average of 2011-2013 retail sales or the 2013 weather normalized retail sales.

Average of 2011, 2012, 2013 retail sales.

The method chosen should be consistent with the method approved in the initial plan case from 2009. All sales are retail (net of wholesale).

(A) List the sales in MWh based on the method selected above. Please show the calculation of this figure (including listing the sales of each year if the three year average method is used).

$59,582 + 59,000 + 59,000 / 3 = 59,194$

(B) Compliance: List the energy credits used for compliance for the 2014 compliance year. This number should agree with the compliance requirement listed in the 2014 compliance subaccount in MIRECS. Take into account any energy optimization or advanced cleaner energy credit substitutions and limits on their use.

2,994

Calculate the compliance percentage. Energy credits above divided by sales in MWh above (B divided by A).

3%

Does the "energy credits used for compliance for the 2014 compliance year" figure above include any credits representing energy generated within 120 days after the start of the next calendar year? Yes/No.

No

If yes, how many credits from 2015 generation are included?

0

To be used for 2015 Compliance Year

Similar to (A) from Section 51(2)(f) above.

List the sales in MWh based upon the same method selected above. Sales should either be the average of 2012-2014 retail sales or the 2014 weather normalized retail sales. Please show the calculation of this figure (including listing the sales of each year if the three year average method is used).

$59,582 + 59,000 + 59,000 / 3 = 59,194$

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and/or approvals necessary for)
the CITY OF CHARLEVOIX to fully comply with)
Public Act 295 of 2008)
_____)

Case No. U-17383

SUBMITTAL OF ENERGY OPTIMIZATION PLAN ANNUAL REPORT

In accordance with the Commission's Order issued February 12, 2015, the City of Charlevoix hereby submits its energy optimization plan annual report for 2014. A copy of that annual report, including any and all exhibits, is attached hereto.

Respectfully submitted,

DICKINSON WRIGHT PLLC
Attorneys for the City of Charlevoix

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Date: 2015.06.01 14:44:02 -04:00

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Dated: June 1, 2015

LANSING 33092-11 503523v1

Energy Optimization 2014 Annual Report for Michigan Electric Municipal Utilities

Introduction

Pursuant to 2008 Public Act 295 (PA 295), the municipal utilities are filing this annual energy optimization (EO) report with the Michigan Public Service Commission (MPSC). This EO annual report consists of two sections:

- Section 1 will address the requirements under PA 295 Section 97, Subsections 1-3 and Section 71, Subsection 3 (i).
- Section 2 will summarize the EO programs implemented in 2014.

SECTION 1: PA 295 SECTION 97 AND SECTION 71 REQUIREMENTS

Section 97 (1) Each provider shall submit to the commission an annual report that provides information relating to the actions taken by the provider to comply with the energy optimization standards.

Each municipal electric provider has continued to offer Energy Optimization programs to all customer classes. Attachment A provides a list of EO programs offered by each provider and the implementation contractors if applicable.

Section 97 (2) Annual reports under subsection (1) shall include the following: (a) The number of energy optimization credits that the provider generated during the reporting period. (b) Expenditures made in the past year and anticipated future expenditures to comply with this subpart. (c) Any other information that the commission determines necessary.

The number of energy optimization credits (in megawatt hours) generated for 2014 and the targets for 2015 are shown in Attachment B for the municipal utilities. The expenditures for 2014 for the Low Income, Residential, Commercial/Industrial programs and Administration/EM&V can be found in Attachment C. The EO Residential surcharge for each municipal in cost per kilowatt hour (or cost per meter) along with the responsible party for administration of programs is listed in Attachment D.

Section 97 (3) Concurrent with the submission of each report under subsection (1), a municipally-owned electric utility shall submit a summary of the report to its customers in their bills with a bill insert, to its governing body, at its office and on its website.

Each municipal electric utility will submit a copy of this annual report to its governing body; make it available at its office; on its website and a summary to its customers.

Section 71 (3)(i) Include a process for obtaining an independent expert evaluation of the actual energy optimization programs to verify the incremental energy savings from each energy optimization program for purposes of section 77.

The verification of the incremental gross energy savings for each municipal electric utility was performed where funding allowed.

SECTION 2: SUMMARY OF EO PROGRAMS IMPLEMENTED IN 2014

Residential Low Income Services

All the municipal electric utilities continued to offer low income programs to their customers in 2014.

Residential Solutions

All the municipal electric utilities offered programs to their residential customers, examples of the types of programs are listed below.

- *Efficient Lighting Program*
- *Appliance Turn-In and Recycling Program*
- *Residential Education Services*
- *Residential HVAC and Appliances*
- *Audit and Weatherization*
- *Farm Services*
- *Residential Home Energy*
- *New Construction*
- *Residential Multi-Family In-Unit Efficiency*
- *Electric Water Heater Savings Kits*
- *Pilot/Emerging Technology Program*

Business Solutions

All the municipal electric utilities offered programs to their commercial and industrial customers, examples of the types of programs are listed below.

- *Commercial and Industrial Prescriptive Incentive Program*
- *Commercial and Industrial Custom Incentive Program*
- *Multi-Family Common Area Program*
- *Small Business Direct Install*
- *New Construction & Remodeling*
- *Business Education Services*
- *Pilot/Emerging Technology Program*

ENERGY OPTIMIZATION PROGRAMS AND CONTRACTORS					
INDEPENDENTLY ADMINISTERING					
Utility	Sector		Program Type	Year Imp.	Implementation Contractors
Village of Clinton	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Residential Education Services	2009	Internally
		4	Residential Appliances & HVAC	2009	Internally
	C & I	1	Business Services	2009	Internally
		2	Education Services	2009	Internally
		Eval	Evaluation & Verification	2009	Local Police Officer
Coldwater Board of Public Utilities	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Appliance Recycling	2009	JACO
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2009	Internally
	C & I	7	Residential Pilot Programs	2009	Internally
		1	Prescriptive Incentive	2009	Internally
		2	Custom Incentive	2009	Internally
		3	Education Services	2009	Internally
		4	Pilot Programs	2009	Internally
Eval	Evaluation & Verification	2010	E3M Solutions		
Lansing Board of Water & Light	Residential	1	Residential Low Income	2009	MEO & Internally
		2	Efficient Lighting Program	2009	MEO/WECC
		3	Refrigerator/Freezer Turn-In	2009	MEO/WECC
		4	Residential Appliances & HVAC	2010	MEO/WECC
		5	Residential Multi-Family In-Unit Efficiency	2010	MEO/WECC
		6	Residential Education Services	2009	Internally
		7	Residential Pilot Programs	2011	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
		5	Pilot Programs	2010	Internally
		Eval	Evaluation & Verification	2009	DNV-GL
City of Marshall	Residential	1	Residential Low Income	2009	Internally
		2	Residential Services	2009	Internally
		3	Residential Education Services	2009	Internally
	C & I	1	Prescriptive Incentive	2009	Internally
		2	Custom Incentive	2009	Internally
		3	Education Services	2009	Internally
		Eval	Evaluation & Verification	2010	Internally
Sebewaing	Residential	1	Residential Low Income	2009	Internally
		2	Residential Services	2009	Internally
		3	Residential Education Services	2009	Internally
		4	Residential Pilot	2010	Internally
		5	Residential Appliances & HVAC	2010	Internally
	C & I	1	Prescriptive Incentive	2009	Internally
		2	Custom Incentive	2009	Internally
		3	Education Services	2009	Internally
		4	Pilot Programs	2010	Internally
		Eval	Evaluation & Verification	2009	DNV-GL
Union City Electric Department	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Residential Education Services	2009	Internally
	C&I	1	Prescriptive Incentive Program	2009	Internally
		2	Education Services	2009	Internally
		Eval	Evaluation & Verification	2009	DNV-GL

MECA COLLABORATIVE					
Utility	Sector		Program Type	Year Imp.	Implementation Contractors
Escanaba Electric Department	Residential	1	Residential Low Income	2010	WECC
		2	Energy Star Products	2010	WECC
		3	Appliance Recycling	2010	WECC
		4	Efficient HVAC	2010	WECC
		5	Audit & Weatherization / New Construction	2010	WECC
		6	Education Services	2010	WECC
		7	Pilot Programs	2010	WECC
	C & I	1	General Business Services	2010	WECC
		2	Education Services	2010	WECC
		3	Pilot Programs	2010	WECC
	Eval	Evaluation & Verification	2009	DNV-GL	
Marquette Board of Light & Power	Residential	1	Residential Low Income	2010	WECC
		2	Energy Star Products	2010	WECC
		3	Appliance Recycling	2010	WECC
		4	Efficient HVAC	2010	WECC
		5	Audit & Weatherization / New Construction	2010	WECC
		6	Education Services	2010	WECC
		7	Pilot Programs	2010	WECC
	C&I	1	General Business Services	2010	WECC
		2	Education Services	2010	WECC
		3	Pilot Programs	2010	WECC
	Eval	Evaluation & Verification	2009	DNV-GL	
Newberry Water & Light Board	Residential	1	Residential Low Income	2010	WECC
		2	Energy Star Products	2010	WECC
		3	Appliance Recycling	2010	WECC
		4	Efficient HVAC	2010	WECC
		5	Audit & Weatherization / New Construction	2010	WECC
		6	Farm Services	2012	WECC
		7	Education Services	2010	WECC
	8	Pilot Programs	2010	WECC	
	C&I	1	General Business Services	2010	WECC
		2	Education Services	2010	WECC
3		Pilot Programs	2010	WECC	
	Eval	Evaluation & Verification	2009	DNV-GL	
City of Stephenson	Residential	1	Residential Low Income	2010	WECC
		2	Energy Star Products	2010	WECC
		3	Appliance Recycling	2010	WECC
		4	Efficient HVAC	2010	WECC
		5	Audit & Weatherization / New Construction	2010	WECC
		6	Education Services	2010	WECC
		7	Pilot Programs	2010	WECC
	C & I	1	General Business Services	2010	WECC
		2	Education Services	2010	WECC
		3	Pilot Programs	2010	WECC
	Eval	Evaluation & Verification	2009	DNV-GL	

MPPA Collaborative						
Utility	Sector		Program Type	Year Imp.	Implementation Contractors	
Bay City Electric Light & Power	Residential	1	Residential Low Income	2009	Internally	
		2	Efficient Lighting Program	2009	Internally	
		3	Refrigerator/Freezer Turn-In	2009	Internally	
		4	Residential Education Services	2009	Internally	
		5	Residential Appliances & HVAC	2010	Internally	
		6	Residential Home Energy Programs	2010	Internally	
		7	Electric Water Heater Saving Kits	2010	Internally	
		8	Residential Pilot Programs	2010	Internally	
	C & I	1	Prescriptive Incentive	2009	Franklin Energy	
		2	Custom Incentive	2009	Franklin Energy	
		3	Small Business Direct Install	2011	Franklin Energy	
		4	Education Services	2009	Internally	
		5	Pilot Programs	2010	Internally	
	Eval	Evaluation & Verification		2009	DNV-GL	
City of Charlevoix	Residential	1	Residential Low Income	2009	MCAA	
		2	Efficient Lighting Program	2009	Franklin Energy	
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy	
		4	Residential Education Services	2009	Internally	
		5	Residential Appliances & HVAC	2010	Franklin Energy	
	C & I	1	Prescriptive Incentive	2009	Franklin Energy	
		2	Custom Incentive	2009	Franklin Energy	
		3	Small Business Direct Install	2011	Franklin Energy	
		4	Education Services	2009	Internally	
		5	Pilot Programs	2009	Internally	
		Eval	Evaluation & Verification		2009	DNV-GL
	Chelsea Electric Department	Residential	1	Residential Low Income	2009	Internally
			2	Efficient Lighting Program	2009	Franklin Energy
3			Refrigerator/Freezer Turn-In	2009	Franklin Energy	
4			Residential Education Services	2009	Internally	
5			Residential Multi-Family In-Unit Efficiency	2010	Franklin Energy	
6			Residential Appliances & HVAC	2010	Franklin Energy	
7			Residential Pilot Programs	2010	Internally	
C & I		1	Prescriptive Incentive	2009	Franklin Energy	
		2	Custom Incentive	2009	Franklin Energy	
		3	Small Business Direct Install	2011	Franklin Energy	
		4	Education Services	2009	Internally	
		5	Pilot Programs	2010	Internally	
		Eval	Evaluation & Verification		2009	DNV-GL
Crosswell Light & Power	Residential	1	Residential Low Income	2009	Internally	
		2	Efficient Lighting	2009	Internally	
		3	Refrigerator/Freezer Turn-In & Recycling	2009	Franklin Energy	
		4	Efficient Appliances & HVAC	2009	Franklin Energy	
		5	Residential Pilot Programs	2009	Internally	
		6	Educational Services	2009	Internally	
	C & I	1	Prescriptive Incentive	2009	Franklin Energy	
		2	Custom Incentive	2009	Franklin Energy	
		3	Small Business Direct Install	2011	Franklin Energy	
		4	Education Services	2009	Internally	
		Eval	Evaluation & Verification		2009	DNV-GL
	City of Eaton Rapids	Residential	1	Residential Low Income	2009	Capital Area Community Services Inc.
			2	Efficient Lighting Program	2009	Franklin Energy
3			Refrigerator/Freezer Turn-In	2009	Franklin Energy	
4			Residential Education Services	2009	Internally	
5			Residential Pilot Programs	2010	Internally	
6			Residential Appliances & HVAC	2010	Franklin Energy	
7			Residential Home Energy Program	2012	Internal	
C & I		1	Prescriptive Incentive	2009	Franklin Energy	
		2	Custom Incentive	2009	Franklin Energy	
		3	Small Business Direct Install	2011	Franklin Energy	
		4	Education Services	2009	Internally	
		5	Pilot Programs	2010	Internally	
		Eval	Evaluation & Verification		2009	DNV-GL

Utility	Sector		Program Type	Year Imp.	Implementation Contractors
MPPA Collaborative (continued)					
Grand Haven Board of Light & Power	Residential	1	Residential Low Income	2009	MCAAA
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Home Energy Program	2012	Internal
		6	Residential Appliances & HVAC	2010	Franklin Energy
		7	Residential Multi-Family In-Unit Efficiency	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
5		Pilot Programs	2010	Internally	
Eval	Evaluation & Verification	2009	DNV-GL		
City of Hart Hydro Electric	Residential	1	Residential Low Income	2010	Internally
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
		Eval	Evaluation & Verification	2009	DNV-GL
Holland Board of Public Works	Residential	1	Residential Low Income	2009	MCAAA, Lakeshore Habitat for Humanity
		2	Efficient Lighting Program	2009	Internally
		3	Refrigerator/Freezer Turn-In	2009	JACO Environmental
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2009	Internally & Franklin Energy
		8	Residential Multi-Family In-Unit Efficiency	2009	Franklin Energy
	C & I	9	Residential Pilot Programs	2009	Internally, Ottawa Co. Com. Action Agency
		1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally, Sustainable Research Group
5	Pilot Programs	2009	Internally		
Eval	Evaluation & Verification	2009	DNV-GL		
Lowell Light and Power	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
		6	Residential Pilot Programs	2009	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
5	Pilot Programs	2009	Internally		
Eval	Evaluation & Verification	2009	DNV-GL		
Niles Utilities Department	Residential	1	Residential Low Income	2010	MCAAA
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2009	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
	Eval	Evaluation & Verification	2009	DNV-GL	

MPPA Collaborative (continued)					
Utility	Sector		Program Type	Year Imp.	Implementation Contractors
Village of Paw Paw	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Multi-Family In-Unit Efficiency	2009	Franklin Energy
		5	Residential Education Services	2009	Internally
		6	Residential Appliances & HVAC	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
	Eval.	Evaluation & Verification	2009	DNV-GL	
City of Petoskey	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
		6	Pilot Programs	2010	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
	5	Pilot Programs	2010	Internally	
	Eval.	Evaluation & Verification	2009	DNV-GL	
Portland Light and Power Board	Residential	1	Residential Low Income	2009	MCAA
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
		Eval.	Evaluation & Verification	2009	DNV-GL
City of St. Louis	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
		6	Residential Pilot Programs	2010	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
	5	Pilot Programs	2010	Internally	
	Eval.	Evaluation & Verification	2009	DNV-GL	
City of Sturgis	Residential	1	Residential Low Income	2009	MCAA
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Residential Home Energy Program	2012	Internally
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Pilot Programs	2010	Internally
		5	Education Services	2009	Internally
	Eval.	Evaluation & Verification	2009	DNV-GL	

MPPA Collaborative (continued)					
Utility	Sector		Program Type	Year Imp.	Implementation Contractors
Traverse City Light and Power	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Refrigerator/Freezer Turn-In	2009	Internally
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2009	Franklin Energy, Internally
		6	Residential Pilot Programs	2009	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
5		Pilot Programs	2009	Internally	
		Eval:	Evaluation & Verification	2009	DNV-GL
Wyandotte Municipal Services	Residential	1	Residential Low Income	2009	Internally
		2	Efficient Lighting Program	2009	Internally
		3	Refrigerator/Freezer Turn-In	2009	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Pilot Programs	2009	Internally
		6	Residential Appliances & HVAC	2010	Franklin Energy
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Pilot Programs	2009	Internally
		4	Education Services	2009	Internally
		Eval:	Evaluation & Verification	2009	DNV-GL
Zeeland Board of Public Works	Residential	1	Residential Low Income	2009	MCAAA
		2	Efficient Lighting Program	2009	Franklin Energy
		3	Refrigerator/Freezer Turn-In	2010	Franklin Energy
		4	Residential Education Services	2009	Internally
		5	Residential Appliances & HVAC	2010	Franklin Energy
		6	Residential Pilot Programs	2009	Internally
	C & I	1	Prescriptive Incentive	2009	Franklin Energy
		2	Custom Incentive	2009	Franklin Energy
		3	Small Business Direct Install	2011	Franklin Energy
		4	Education Services	2009	Internally
		Eval:	Evaluation & Verification	2010	DNV-GL

MWh Data

Electric Municipals	1.00%			1.00%
	2014 Target	2014 Actual	% Achieved	2015 Target
Bay City Electric Light & Power	3,374	4,012	119%	2,647
City of Charlevoix	324	550	170%	584
Chelsea Electric Department	591	768	130%	945
Village of Clinton	202	208	103%	210
Coldwater Board of Public Utilities	2,887	3,317	115%	2,858
Croswell Light & Power Department	288	307	107%	298
City of Eaton Rapids	267	905	339%	473
Escanaba Electric Department	1,266	1,294	102%	1,419
Grand Haven Board of Light and Power	1,712	2,298	134%	2,735
City of Hart Hydro Electric	309	461	149%	408
Holland Board of Public Works	10,399	10,861	104%	10,845
Lansing Board of Water & Light	18,011	23,094	128%	20,521
Lowell Light and Power	688	697	101%	548
Marquette Board of Light and Power	2,403	2,861	119%	3,070
City of Marshall Electric Department	746	756	101%	1,039
Newberry Water & Light Board	129	141	109%	199
Niles Utilities Department	1,328	1,401	105%	1,305
Village of Paw Paw	344	1,747	508%	489
City of Petoskey	1,907	1,870	98%	1,084
Portland Light and Power Board	298	318	107%	362
Sebewaing Light & Water Dept.	223	676	303%	223
City of St. Louis	411	397	97%	335
City of Stephenson	34	37	109%	59
City of Sturgis	1,595	2,189	137%	2,263
Traverse City Light & Power	2,826	3,437	122%	2,815
Union City	172	173	101%	149
City of Wakefield			#DIV/0!	
Wyandotte Municipal Services	1,503	1,295	86%	1,984
Zeeland Board of Public Works	2,132	2,790	131%	2,982

ATTACHMENT C

Actual 2014 Expenditures

Electric Municipals	Total 2014	Residential W/O Low Income	Residential W/Low Income	C&I	Low Income	Admin & Eval
Bay City Electric Light & Power	\$578,296	\$209,367	\$313,949	\$221,748	\$104,582	\$42,599
City of Charlevoix	\$63,353	\$30,592	\$30,592	\$25,574	\$0	\$7,187
Chelsea Electric Department	\$108,690	\$11,932	\$11,932	\$87,590	\$0	\$9,168
Village of Clinton	\$9,391	\$5,159	\$5,366	\$1,725	\$207	\$2,300
Coldwater Board of Public Utilities	\$301,048	\$25,068	\$34,885	\$194,276	\$9,816	\$71,887
Croswell Light & Power Department	\$84,861	\$24,854	\$25,586	\$53,927	\$732	\$5,348
City of Eaton Rapids	\$84,448	\$12,725	\$12,725	\$64,662	\$0	\$7,062
Escanaba Electric Department	\$160,238	\$42,086	\$48,153	\$100,166	\$6,067	\$11,919
Grand Haven Board of Light and Power	\$370,376	\$127,819	\$127,819	\$220,900	\$0	\$21,656
City of Hart Hydro Electric	\$74,927	\$8,917	\$8,917	\$60,136	\$0	\$5,874
Holland Board of Public Works	\$1,472,659	\$218,567	\$262,713	\$1,017,473	\$44,146	\$192,473
Lansing Board of Water & Light	\$3,537,494	\$959,936	\$1,147,649	\$1,930,250	\$187,713	\$459,595
Lowell Light and Power	\$136,862	\$26,882	\$29,063	\$99,529	\$2,181	\$8,270
Marquette Board of Light and Power	\$403,665	\$108,110	\$128,924	\$249,891	\$20,814	\$24,850
City of Marshall Electric Department	\$84,910	\$21,211	\$22,550	\$50,465	\$1,339	\$11,895
Newberry Water & Light Board	\$16,728	\$4,822	\$5,877	\$8,371	\$1,055	\$2,480
Niles Utilities Department	\$222,279	\$73,477	\$73,477	\$136,734	\$0	\$12,068
Village of Paw Paw	\$79,359	\$18,404	\$20,404	\$52,796	\$2,000	\$6,159
City of Petoskey	\$167,240	\$29,773	\$36,813	\$119,847	\$7,040	\$10,580
Portland Light and Power Board	\$57,832	\$30,877	\$30,877	\$21,344	\$0	\$5,611
Sebewaing Light & Water Dept.	\$54,616	\$9,969	\$14,267	\$34,950	\$4,298	\$5,399
City of St. Louis	\$73,664	\$15,598	\$15,598	\$51,705	\$0	\$6,362
City of Stephenson	\$6,854	\$2,141	\$2,402	\$3,389	\$261	\$1,063
City of Slurgis	\$316,200	\$92,578	\$92,578	\$204,665	\$0	\$18,957
Traverse City Light & Power	\$460,846	\$73,942	\$78,816	\$330,790	\$4,874	\$51,240
Union City	\$9,679	\$5,244	\$5,371	\$3,708	\$127	\$600
City of Wakefield	\$0					
Wyandotte Municipal Services	\$346,719	\$124,803	\$145,179	\$183,247	\$20,375	\$18,293
Zeeland Board of Public Works	\$405,471	\$48,350	\$48,350	\$342,671	\$0	\$14,450

ATTACHMENT D

Energy Optimization Administration and Residential Surcharges for 2014			
Electric Municipals	Docket No.	Administration 2014	EO Residential Surcharge per \$/kWh or Per Meter
Bay City Electric Light & Power	U-17382	MPPA	0.000825
City of Charlevoix	U-17383	MPPA	\$0.00178
Chelsea Electric Department	U-17384	MPPA	\$0.00100
Village of Clinton	U-17385	Independently	\$0.00000
Coldwater Board of Public Utilities	U-17386	Independently	\$0.00252
Croswell Light & Power Department	U-17387	MPPA	\$0.00169
City of Eaton Rapids	U-17392	MPPA	\$0.00080
Escanaba Electric Department	U-17393	MECA	\$0.00216
Grand Haven Board of Light and Power	U-17395	MPPA	\$0.00180
City of Hart Hydro Electric	U-17397	MPPA	\$0.00130
Holland Board of Public Works	U-17399	MPPA	\$0.00166
Lansing Board of Water & Light	U-17401	Independently	\$0.00185
Lowell Light and Power	U-17402	MPPA	\$0.00163
Marquette Board of Light and Power	U-17403	MECA	\$0.00171
City of Marshall Electric Department	U-17404	Independently	\$0.00000
Newberry Water & Light Board	U-17406	MECA	\$0.00137
Niles Utilities Department	U-17407	MPPA	\$0.00000
Village of Paw Paw	U-17409	MPPA	\$0.00120
City of Petoskey	U-17410	MPPA	\$0.00182
Portland Light and Power Board	U-17411	MPPA	\$0.00132
Sebewaing Light & Water Dept.	U-17412	Independently	\$0.00174
City of St. Louis	U-17414	MPPA	\$0.00114
City of Stephenson	U-17415	MECA	\$0.00128
City of Sturgis	U-17416	MPPA	\$0.00191
Traverse City Light & Power	U-17417	MPPA	\$0.00000
Union City	U-17418	Independently	\$0.00090
City of Wakefield	U-17419	Independently	\$0.00170
Wyandotte Municipal Services	U-17420	MPPA	\$0.00197
Zeeland Board of Public Works	U-17421	MPPA	\$1.00 Per Meter

**STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

MMEA is Michigan's trade association of municipally owned electric utilities. As units of local government, municipal electric systems are non-profit, community owned and operated, and regulated directly by the city and customers they serve. In 2012, MMEA's members (Applicants) accounted for approximately 7.5% of all Michigan retail sales and served over 300,000 customers. Municipal utilities are small with confined service territories, and customer concentration and budgets for Energy Optimization (EO) programs can be very limited.

MMEA is requesting to exercise the option to file joint EO biennial plans for the years 2016-2017 as allowed under docket number U-17008 approved by the MPSC on April 17, 2012.

Based on conversations with MPSC staff, filing joint biennials will be acceptable if they are accompanied with updates from the last biennial filing in 2013. There has been two major plan updates since the 2013 biennial filing: Administrative Changes under U-17008 approved by the MPSC April 12, 2012 and the Market Transformation Multiplier for LED technologies, heat pumps and heat pump water heaters which MPSC found in compliance with PA 295 in March of 2014. Updates for both those filings are as follows.

Applicants request to continue operating under the current Commission-approved plans, with no changes at this time, through 2016 and 2017. The EO portfolio summary which details program budget and goals for 2016 and 2017 for each municipal utility can be found in Attachment A.

Administrative Changes under U-17008

On April 17, 2012 the MPSC issued an order U-17008 that allowed the MMEA members certain administrative changes in the way the Municipal Utilities (MUs) will be permitted to design and administer the energy optimization plans required under 2008 PA 295 (Act 295); MCL 460.1001 *et seq.*, in the future. The benefits of these administrative changes since this order was issued are outlined below.

A. Beginning with the 2011 annual reports due on May 31, 2012 and for all future annual reports thereafter, MUs shall be authorized to file individually or jointly in a combined energy optimization annual report format as provided in this order.

- Since 2011, the MUs have filed a joint annual report and this has resulted in time and cost-savings while providing consistent reporting data to the Michigan Public Service Commission (MPSC).

B. Beginning with the 2013 biennial energy optimization plans, MUs shall be authorized to have the option of filing either an individual or a joint energy optimization plan as provided in this order.

- MMEA is filing this joint biennial plan in 2015 for the years 2016 and 2017. This filing will continue to use the plans that were approved for the year 2015 in the biennial filing approved by the MPSC on November 12, 2013.

C. MUs shall be authorized to reallocate expenditures budgeted for a specific program offering within a customer class to successful programs in another customer class when the municipal utility's experience shows that the market in that customer class is not responding to energy optimization program offerings and the change is reasonable and cost effective as provided in this order.

- This benefits MUs by allowing the transfer of funds from one program to another that is performing well. One example is Bay City Electric Light & Power (BCELP). The utility's efficient lighting program experienced high participation and they were able to keep meeting customer demand by reallocating funds from a less successful program. Another MU, the Lansing Board of Water & Light (BWL) had low participation in a Residential Multifamily New Construction Pilot Program so funds were reallocated to the utility's high performing Business Custom Program. Holland Board of Public Works (BPW) and Traverse City Light & Power (TCLP) have also transferred funds between programs.
- Allowing the member utilities to reallocate expenditures within a customer class has allowed active programs to receive additional funding when it becomes evident that the budget for a less successful program will not be spent. This allows customers to continue participating in popular and effective EO programs and ensures that these programs will not be shut down partway through a program year.

D. MUs are authorized to limit the third party evaluations performed for certification purposes to the certification of a municipal utility's gross kilowatt-hour savings as provided in this order.

- This benefits MUs due to the limited funding available to invest in independent third party evaluations of incremental savings.

E. MUs shall be authorized to include savings resulting from load management programs that reduce overall energy usage and that allow for the transfer of renewable energy credits as provided in this order.

- At this time no MU is participating in this option.

F. MUs shall be authorized to calculate net energy savings towards the kilowatt-hour goals found in MCL 460.1077 by including energy savings resulting from a municipal utility customer's participation in an energy optimization heating, ventilation, and air conditioning program or a fuel-switching pilot program that results in the municipal utility customer thereafter undertaking fuel-switching that involves geothermal or air-to-air heat pumps as provided in this order. In addition, a municipal utility shall be authorized to include annual energy savings associated with customers installing solar thermal systems.

- MMEA members continue to evaluate these opportunities.

G. MUs shall be authorized the additional flexibility to allocate savings and budget over a multi-year period up to and including the projected life of the project by allowing their large commercial and industrial customers to implement multi-year projects with significant energy savings and costs as provided in this order if they continue to offer energy optimization programs to all customer classes.

- Several MUs have benefited from the ability to carry forward both savings and budgets into multiple years. Large (C&I) customers factor in the EO incentives when planning for energy efficiency upgrades with large electric savings potential. An example of this is the BWL's

projects with a large industrial customer. For this customer to invest in energy efficiency improvements they must meet certain payback criteria. One project produced savings of over 6 million kilowatt-hours (kWh). If BWL were only allowed to carry over 33%, over 2 million kWh savings would not have been claimed. Another example is Sebewaing Light & Water (SLW), a small rural utility with a large industrial processing plant. This customer implemented a significant Variable Frequency Drive (VFD) project in one year. Unless the associated savings can be carried forward, SLW would not be allowed to claim a significant amount of kWh savings, which could have challenged SLW's ability to meet their goals in future program years.

H. Upon petition by a municipal utility, the Commission may, for good cause, grant up to two extensions for compliance with the electric savings standard established by MCL 460.1077(1)(d) as provided in this order. Upon subsequent petition by a municipal electric provider, at least three months before the expiration of the second extension, the Commission may, for good cause, establish a permanent revised energy efficiency standard of less than 1%.

- At this time no MU is participating in this option. This may become more important as smaller municipal utilities reach market saturation of certain energy efficiency measures.

G. MUs and their governing bodies have sole discretion with respect to the use of volumetric or per-meter energy optimization surcharges as provided by law.

- At this time there is only one municipal utility that has a per-meter charge for residential customers.

Market Transformation Multiplier

On March 10, 2013 MMEA submitted a revised update to the 2014-2015 Energy Optimization Plan. This revision included the use of a market transformation multiplier for LED technology and Residential Heat Pumps and Heat Pump Water Heaters. The MPSC staff reviewed and found this update in compliance with PA 295.

- The market transformation multiplier on LED technologies, mini-split systems, heat pumps and heat pump water heaters began in 2014. Due to the increased savings allowed for these measures, MUs were able to offer higher incentives. In particular, this brought the price of LEDs down and made them more affordable for customers to purchase. Because of the competitive pricing, BCLEP, BWL, BPW and TCLP along with several other MUs have focused on featuring LED technologies prominently in their EO programs. In addition, prices dropped due to the increase in sales and competition. As more retailers and manufacturers wanted to be involved, it drove demand and spurred manufacturers to increase production of LEDs. In summary, retail prices for LEDs dropped in the market as a result of increased competition among manufacturers and retailers due to higher incentives offered.

Attachment A: Bay City Electric Light & Power Energy Optimization Program Portfolio U-17382

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	273,892	\$98,722	273,892	\$98,722	273,892	\$98,722
Residential Services	3.10	\$0.02	1,122,259	\$228,019	1,122,259	\$228,019	1,122,259	\$228,019
Educational Services	3.70	\$0.01	49,276	\$9,893	49,276	\$9,893	49,276	\$9,893
Pilot Programs	3.70	\$0.01	65,701	\$13,190	65,701	\$13,190	65,701	\$13,190
Subtotal - Residential Solutions	3.10	\$0.02	1,511,128	\$349,823	1,511,128	\$349,823	1,511,128	\$349,823
Business Services	4.40	\$0.01	1,658,955	\$233,840	1,658,955	\$233,840	1,658,955	\$233,840
Educational Services	3.70	\$0.01	49,276	\$9,893	49,276	\$9,893	49,276	\$9,893
Pilot/Emerging Technology Programs	3.70	\$0.01	65,701	\$13,190	65,701	\$13,190	65,701	\$13,190
Subtotal - Business Solutions	4.40	\$0.01	1,773,932	\$256,923	1,773,932	\$256,923	1,773,932	\$256,923
Total Program Portfolio			3,285,060	\$606,746	3,285,060	\$606,746	3,285,060	\$606,746
Utility Administration				\$26,380		\$26,380		\$26,380
Evaluation (EM&V)				\$26,380		\$26,380		\$26,380
Subtotal - Admin/Evaluation				\$52,760		\$52,760		\$52,760
Projected Annual Totals	3.6	\$0.01	3,285,060	\$659,507	3,285,060	\$659,507	3,285,060	\$659,507

Attachment A: City of Charlevoix Energy Optimization Program Portfolio U-17383

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	19,850	\$6,216	19,850	\$6,216	19,850	\$6,216
Residential Services	3.20	\$0.02	167,471	\$30,984	167,471	\$30,984	167,471	\$30,984
Educational Services	4.10	\$0.01	9,212	\$1,623	9,212	\$1,623	9,212	\$1,623
Pilot Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Residential Solutions	3.20	\$0.01	196,533	\$38,823	196,533	\$38,823	196,533	\$38,823
Business Services	4.30	\$0.01	408,420	\$57,996	408,420	\$57,996	408,420	\$57,996
Educational Services	4.10	\$0.01	9,212	\$1,623	9,212	\$1,623	9,212	\$1,623
Pilot/Emerging Technology Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	417,633	\$59,619	417,633	\$59,619	417,633	\$59,619
Total Program Portfolio			614,166	\$98,442	614,166	\$98,442	614,166	\$98,442
Utility Administration				\$5,409		\$5,409		\$5,409
Evaluation (EM&V)				\$4,327		\$4,327		\$4,327
Subtotal - Admin/Evaluation				\$9,736		\$9,736		\$9,736
Projected Annual Totals	3.7	\$0.01	614,166	\$108,178	614,166	\$108,178	614,166	\$108,178

Attachment A: Chelsea Electric Department Energy Optimization Program Portfolio

U-17384

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	15,061	\$5,403	15,061	\$5,403	15,061	\$5,403
Residential Services	2.50	\$0.02	80,994	\$16,372	80,994	\$16,372	80,994	\$16,372
Educational Services	4.20	\$0.01	14,408	\$2,380	14,408	\$2,380	14,408	\$2,380
Pilot Programs	4.20	\$0.01	24,014	\$3,966	24,014	\$3,966	24,014	\$3,966
Subtotal - Residential Solutions	3.00	\$0.02	134,477	\$28,122	134,477	\$28,122	134,477	\$28,122
Business Services	4.30	\$0.01	787,651	\$111,483	787,651	\$111,483	787,651	\$111,483
Educational Services	4.20	\$0.01	14,408	\$2,380	14,408	\$2,380	14,408	\$2,380
Pilot/Emerging Technology Program	4.20	\$0.01	24,014	\$3,966	24,014	\$3,966	24,014	\$3,966
Subtotal - Business Solutions	4.30	\$0.01	826,073	\$117,829	826,073	\$117,829	826,073	\$117,829
Total Program Portfolio			960,550	\$145,950	960,550	\$145,950	960,550	\$145,950
Utility Administration				\$6,346		\$6,346		\$6,346
Evaluation (EM&V)				\$6,346		\$6,346		\$6,346
Subtotal - Admin/Evaluation				\$12,691		\$12,691		\$12,691
Projected Annual Totals	3.9	\$0.01	960,550	\$158,642	960,550	\$158,642	960,550	\$158,642

Attachment A: Village of Clinton Energy Optimization Program Portfolio U-17385

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	2,164	\$1,000	2,164	\$1,000	2,164	\$1,000
Efficient Lighting	6.6	\$0.01	97,380	\$12,100	97,380	\$12,100	97,380	\$12,100
Educational Services	2.00	\$0.04	3,246	\$300	3,246	\$300	3,246	\$300
Subtotal - Residential Solutions	2.51	\$0.02	102,790	\$13,400	102,790	\$13,400	102,790	\$13,400
Business Efficient Lighting	4.90	\$0.04	110,365	\$3,300	110,365	\$3,300	110,365	\$3,300
Educational Services	2.00	\$0.04	3,246	\$300	3,246	\$300	3,246	\$300
Subtotal - Business Solutions	3.60	\$0.01	113,611	\$3,600	113,611	\$3,600	113,611	\$3,600
Total Program Portfolio			216,401	\$17,000	216,401	\$17,000	216,401	\$17,000
Program Administration				\$2,000		\$2,000		\$2,000
Evaluation (EM&V)				\$1,000		\$1,000		\$1,000
Subtotal - Admin/Evaluation				\$3,000		\$3,000		\$3,000
Projected Annual Totals	4.2	\$0.02	216,401	\$20,000	216,401	\$20,000	216,401	\$20,000

Attachment A: Coldwater Board of Public Utilities Energy Optimization Program Portfolio

U-17386

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	40,200	\$46,000	40,200	\$46,000	40,200	\$46,000
Efficient Lighting	6.70	\$0.01	494,100	\$107,500	494,100	\$107,500	494,100	\$107,500
Refrigerator/Freezer Recycling	2.90	\$0.03	43,300	\$8,500	43,300	\$8,500	43,300	\$8,500
Efficient Appliances/Electronics	2.50	\$0.06	40,000	\$11,600	40,000	\$11,600	40,000	\$11,600
Efficient HVAC Equipment	3.20	\$0.05	20,400	\$9,600	20,400	\$9,600	20,400	\$9,600
Educational Services	6.70	\$0.04	30,000	\$6,300	30,000	\$6,300	30,000	\$6,300
Pilot/Emerging Technology	2.10	\$0.04	45,000	\$7,800	45,000	\$7,800	45,000	\$7,800
Subtotal - Residential Solutions	N/A	N/A	713,000	\$191,000	713,000	\$191,000	713,000	\$191,000
Prescriptive Incentive Program	4.80	\$0.02	1,472,000	\$210,700	1,472,000	\$210,700	1,472,000	\$210,700
Custom Incentive Program	7.80	\$0.01	574,000	\$85,000	574,000	\$85,000	574,000	\$85,000
Educational Services	2.10	\$0.04	54,000	\$11,400	54,000	\$11,400	54,000	\$11,400
Pilot/Emerging Technology Programs	2.10	\$0.04	45,000	\$7,800	45,000	\$7,800	45,000	\$7,800
Subtotal - Business Solutions	N/A	N/A	2,145,000	\$314,900	2,145,000	\$314,900	2,145,000	\$314,900
Total Program Portfolio			2,858,000	\$505,900	2,858,000	\$505,900	2,858,000	\$505,900
Utility Program Administration Evaluation (EM&Y)				\$61,900		\$61,900		\$61,900
Subtotal - Admin/Evaluation				\$65,200		\$65,200		\$65,200
Projected Annual Totals	4.6	\$0.02	2,858,000	\$570,100	2,858,000	\$570,100	2,858,000	\$570,100

Attachment A: Croswell Light & Power Department Energy Optimization Program Portfolio U-17387

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	15,195	\$5,523	15,195	\$5,523	15,195	\$5,523
Residential Services	2.70	\$0.02	22,125	\$4,696	22,125	\$4,696	22,125	\$4,696
Educational Services	4.20	\$0.01	5,331	\$888	5,331	\$888	5,331	\$888
Pilot Programs	4.20	\$0.01	10,663	\$1,776	10,663	\$1,776	10,663	\$1,776
Subtotal - Residential Solutions	3.30	\$0.01	53,314	\$12,882	53,314	\$12,882	53,314	\$12,882
Business Services	4.40	\$0.01	296,784	\$40,703	296,784	\$40,703	296,784	\$40,703
Educational Services	4.20	\$0.01	5,331	\$888	5,331	\$888	5,331	\$888
Pilot/Emerging Technology Programs	4.20	\$0.01	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.40	\$0.01	302,115	\$41,591	302,115	\$41,591	302,115	\$41,591
Total Program Portfolio			355,429	\$54,474	355,429	\$54,474	355,429	\$54,473
Utility Administration				\$2,368		\$2,368		\$2,368
Evaluation (EM&V)				\$2,368		\$2,368		\$2,368
Subtotal - Admin/Evaluation				\$4,737		\$4,737		\$4,737
Projected Annual Totals	4.0	\$0.01	355,429	\$59,211	355,429	\$59,211	355,429	\$59,211

Attachment A: City of Eaton Rapids Energy Optimization Program Portfolio U-17392

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	23,826	\$7,465	23,826	\$7,465	23,826	\$7,465
Residential Services	2.70	\$0.02	107,088	\$24,113	107,088	\$24,113	107,088	\$24,113
Educational Services	3.90	\$0.01	8,182	\$1,500	8,182	\$1,500	8,182	\$1,500
Pilot Programs	3.90	\$0.01	13,637	\$2,500	13,637	\$2,500	13,637	\$2,500
Subtotal - Residential Solutions	2.80	\$0.02	152,733	\$35,578	152,733	\$35,578	152,733	\$35,578
Business Services	4.30	\$0.01	370,924	\$52,434	370,924	\$52,434	370,924	\$52,434
Educational Services	3.90	\$0.01	8,182	\$1,500	8,182	\$1,500	8,182	\$1,500
Pilot/Emerging Technology Programs	3.90	\$0.01	13,637	\$2,500	13,637	\$2,500	13,637	\$2,500
Subtotal - Business Solutions	4.30	\$0.01	392,743	\$56,434	392,743	\$56,434	392,743	\$56,434
Total Program Portfolio			545,476	\$92,012	545,476	\$92,012	545,476	\$92,012
Utility Administration Evaluation (EM&V)				\$4,000		\$4,000		\$4,000
Subtotal - Admin/Evaluation				\$8,001		\$8,001		\$8,001
Projected Annual Totals	3.7	\$0.01	545,476	\$100,013	545,476	\$100,013	545,476	\$100,013

Attachment A: Escanaba Energy Optimization Program Portfolio U-17393

Portfolio Category	Program Portfolio	USRCT Results	CCE Results	2015			Total - 4 Years			2016			2017		
				Gross First Year kWh Savings	Program Budget	Program Budget	Gross First Year kWh Savings	Program Budget	Program Budget	Gross First Year kWh Savings	Program Budget	Program Budget	Gross First Year kWh Savings	Program Budget	Program Budget
Residential	Low Income Services	N/A	N/A	18,029	8,520	71,738	33,902	18,029	8,520	18,029	8,520	18,029	8,520		
	ENERGY STAR Products	4.5	0.01	216,946	43,923	863,237	132,742	216,946	43,923	216,946	43,923	216,946	43,923		
	Appliance Recycling	5.8	0.01	69,618	8,013	277,012	31,883	69,618	8,013	69,618	8,013	69,618	8,013		
	Efficient HVAC Equipment	2.1	0.04	7,631	4,789	30,364	19,056	7,631	4,789	7,631	4,789	7,631	4,789		
	Audit/Weatherization/New Construction	5.6	0.01	8,006	769	31,855	3,061	8,006	769	8,006	769	8,006	769		
	Farm Services	N/A	N/A	-	-	-	-	-	-	-	-	-	-		
Commercial & Industrial	Educational Services	3.9	0.02	10,442	2,532	41,550	8,640	10,442	2,532	10,442	2,532	10,442	2,532		
	Pilot Programs	3.9	0.02	17,404	4,219	69,250	14,401	17,404	4,219	17,404	4,219	17,404	4,219		
	Subtotal - Residential Solutions	4.0	0.02	348,075	\$ 72,766	1,385,007	\$ 243,665	348,075	72,766	348,075	72,766	348,075	72,766		
	Self-Direct Customers	N/A	N/A	-	-	-	-	-	-	-	-	-	-		
	General Business Services	5.9	0.01	985,594	139,357	3,936,942	547,511	985,594	139,357	985,594	139,357	985,594	139,357		
Portfolio-Level Costs	Educational Services	5.5	0.01	32,139	5,565	128,379	21,748	32,139	5,565	32,139	5,565	32,139	5,565		
	Pilot/Emerging Technology Programs	5.5	0.01	53,565	9,275	213,964	36,247	53,565	9,275	53,565	9,275	53,565	9,275		
	Subtotal - Business Solutions	5.3	0.01	1,071,298	154,197	4,279,285	605,506	1,071,298	154,197	1,071,298	154,197	1,071,298	154,197		
	Total Program Portfolio			1,419,373	226,963	5,664,292	849,191	1,419,373	226,963	1,419,373	226,963	1,419,373	226,963		
	MECA Overall Administration	N/A	N/A	-	3,500	-	14,000	-	-	3,500	-	-	3,500		
Cooperative Overhead/Indirect	N/A	N/A	-	15,665	-	59,063	-	-	15,665	-	-	15,665			
Tracking Systems	N/A	N/A	-	4,952	-	18,810	-	-	4,952	-	-	4,952			
Evaluation	N/A	N/A	-	18,798	-	70,876	-	-	18,798	-	-	18,798			
Subtotal - Portfolio Level Costs				42,916		163,749			42,916			42,916			
Projected Annual Totals		5.0	0.01	1,419,373	269,879	5,664,292	1,012,940	1,419,373	269,879	1,419,373	269,879	1,419,373	269,879		

Attachment A: Grand Haven Board of Light and Power Energy Optimization Program Portfolio U-17395

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	40,061	\$13,618	40,061	\$13,618	40,061	\$13,618
Residential Services	2.90	\$0.02	630,133	\$122,623	630,133	\$122,623	630,133	\$122,623
Educational Services	4.00	\$0.01	54,710	\$9,761	54,710	\$9,761	54,710	\$9,761
Pilot Programs	4.00	\$0.01	68,387	\$12,201	68,387	\$12,201	68,387	\$12,201
Subtotal - Residential Solutions	3.10	\$0.02	793,291	\$158,203	793,291	\$158,203	793,291	\$158,203
Business Services	4.10	\$0.01	1,846,454	\$273,715	1,846,454	\$273,715	1,846,454	\$273,715
Educational Services	4.00	\$0.01	27,355	\$4,880	27,355	\$4,880	27,355	\$4,880
Pilot/Emerging Technology Programs	4.00	\$0.01	68,387	\$12,201	68,387	\$12,201	68,387	\$12,201
Subtotal - Business Solutions	4.10	\$0.01	1,942,196	\$290,796	1,942,196	\$290,796	1,942,196	\$290,796
Total Program Portfolio			2,735,488	\$448,999	2,735,488	\$448,999	2,735,488	\$448,999
Utility Administration				\$19,522		\$19,522		\$19,522
Evaluation (EM&V)				\$19,522		\$19,522		\$19,522
Subtotal - Admin/Evaluation				\$39,043		\$39,043		\$39,043
Projected Annual Totals	3.6	\$0.01	2,735,488	\$488,042	2,735,488	\$488,042	2,735,488	\$488,042

Attachment A: City of Hart Hydro Electric Energy Optimization Program Portfolio

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	11,314	\$4,314	11,314	\$4,314	11,314	\$4,314
Residential Services	2.70	\$0.02	38,481	\$8,294	38,481	\$8,294	38,481	\$8,294
Educational Services	4.20	\$0.01	6,495	\$1,099	6,495	\$1,099	6,495	\$1,099
Pilot Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Residential Solutions	2.90	\$0.02	56,290	\$13,707	56,290	\$13,707	56,290	\$13,707
Business Services	4.30	\$0.01	370,215	\$52,603	370,215	\$52,603	370,215	\$52,603
Educational Services	4.20	\$0.01	6,495	\$1,099	6,495	\$1,099	6,495	\$1,099
Pilot/Emerging Technology Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	376,710	\$53,702	376,710	\$53,702	376,710	\$53,702
Total Program Portfolio			433,000	\$67,410	433,000	\$67,410	433,000	\$67,410
LBWL Program Administration Evaluation (EM&V)				\$2,931		\$2,931		\$2,931
Subtotal - Admin/Evaluation				\$5,862		\$5,862		\$5,862
Projected Annual Totals	3.9	\$0.01	433,000	\$73,271	433,000	\$73,272	433,000	\$73,271

Attachment A: Holland Board of Public Works Energy Optimization Program Portfolio U-17399

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	281,062	\$85,824	281,062	\$85,824	281,062	\$85,824
Residential Services	2.80	\$0.02	966,158	\$188,764	966,158	\$188,764	966,158	\$188,764
Educational Services	4.30	\$0.01	162,681	\$26,537	162,681	\$26,537	162,681	\$26,537
Pilot Programs	4.30	\$0.01	271,135	\$44,228	271,135	\$44,228	271,135	\$44,228
Subtotal - Residential Solutions	3.20	\$0.02	1,681,036	\$345,354	1,681,036	\$345,354	1,681,036	\$345,354
Business Services	4.40	\$0.01	8,730,540	\$1,211,461	8,730,540	\$1,211,461	8,730,540	\$1,211,461
Educational Services	4.30	\$0.01	162,681	\$26,537	162,681	\$26,537	162,681	\$26,537
Pilot/Emerging Technology Programs	4.30	\$0.01	271,135	\$44,228	271,135	\$44,228	271,135	\$44,228
Subtotal - Business Solutions	4.40	\$0.01	9,164,355	\$1,282,226	9,164,355	\$1,282,226	9,164,355	\$1,282,226
Total Program Portfolio			10,845,391	\$1,627,580	10,845,391	\$1,627,580	10,845,391	\$1,627,580
Utility Administration				\$70,764		\$70,764		\$70,764
Evaluation (EM&V)				\$70,764		\$70,764		\$70,764
Subtotal - Admin/Evaluation				\$141,529		\$141,529		\$141,529
Projected Annual Totals	4.0	\$0.01	10,845,391	\$1,769,109	10,845,391	\$1,769,109	10,845,391	\$1,769,109

Attachment A: Lansing Board of Water & Light Energy Optimization Program Portfolio U-17401

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Low Income Services	N/A	N/A	754,691	\$195,000	754,691	\$195,000	754,691	\$195,000
Residential Services	3.01	\$0.02	3,410,377	\$581,919	3,410,377	\$581,919	3,410,377	\$581,919
Multi-family Services	2.45	\$0.02	796,009	\$172,461	796,009	\$172,461	796,009	\$172,461
Educational Services	2.83	\$0.02	434,258	\$80,000	434,258	\$80,000	434,258	\$80,000
Pilot Programs	2.83	\$0.02	759,952	\$140,300	759,952	\$140,300	759,952	\$140,300
Subtotal - Residential Solutions	2.51	\$0.02	6,155,287	\$1,169,680	6,155,287	\$1,169,680	6,155,287	\$1,169,680
Business Services	4.31	\$0.01	15,240,617	\$2,113,973	15,240,617	\$2,113,973	15,240,617	\$2,113,973
Educational Services	2.82	\$0.02	217,129	\$40,000	217,129	\$40,000	217,129	\$40,000
Pilot/Emerging Technology Programs	2.82	\$0.02	868,517	\$158,000	868,517	\$158,000	868,517	\$158,000
Subtotal - Business Solutions	3.60	\$0.01	16,326,263	\$2,311,973	16,326,263	\$2,311,973	16,326,263	\$2,311,973
Total Program Portfolio			22,481,550	\$3,481,653	22,481,550	\$3,481,653	22,481,550	\$3,481,653
LBWL Program Administration Evaluation (EM&V)				\$320,000		\$320,000		\$320,000
Subtotal - Admin/Evaluation				\$210,000		\$210,000		\$210,000
Projected Annual Totals	3.28	\$0.02	22,481,550	\$4,011,653	22,481,550	\$4,011,653	22,481,550	\$4,011,653

Attachment A: Lowell Light and Power Energy Optimization Program Portfolio **U-17402**

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	7,123	\$2,501	7,123	\$2,501	7,123	\$2,501
Residential Services	2.80	\$0.02	136,714	\$30,566	136,714	\$30,566	136,714	\$30,566
Educational Services	3.90	\$0.01	10,274	\$1,887	10,274	\$1,887	10,274	\$1,887
Pilot Programs	3.90	\$0.01	17,124	\$3,145	17,124	\$3,145	17,124	\$3,145
Subtotal - Residential Solutions	3.00	\$0.02	171,235	\$38,099	171,235	\$38,099	171,235	\$38,099
Business Services	4.20	\$0.01	486,309	\$68,193	486,309	\$68,193	486,309	\$68,193
Educational Services	3.90	\$0.01	10,274	\$1,887	10,274	\$1,887	10,274	\$1,887
Pilot/Emerging Technology Programs	3.90	\$0.01	17,124	\$3,145	17,124	\$3,145	17,124	\$3,145
Subtotal - Business Solutions	4.20	\$0.01	513,706	\$73,225	513,706	\$73,225	513,706	\$73,225
Total Program Portfolio			684,942	\$111,325	684,942	\$111,325	684,942	\$111,325
Utility Administration				\$8,805		\$8,805		\$8,805
Evaluation (EM&V)				\$5,661		\$5,661		\$5,661
Subtotal - Admin/Evaluation				\$14,466		\$14,466		\$14,466
Projected Annual Totals	3.6	\$0.02	684,942	\$125,791	684,942	\$125,791	684,942	\$125,791

Attachment A: Marquette Energy Optimization Program Portfolio U-17403

Portfolio Category	Program Portfolio	2015		2016		2017			
		USRCT Results	CCE Results	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Residential	Low Income Services	N/A	N/A	42,910	20,279	42,910	20,279	42,910	20,279
	ENERGY STAR Products	4.5	\$ 0.01	653,137	132,236	653,137	132,236	653,137	132,236
	Appliance Recycling	5.8	\$ 0.01	209,592	24,123	209,592	24,123	209,592	24,123
	Efficient HVAC Equipment	2.1	\$ 0.04	22,974	14,418	22,974	14,418	22,974	14,418
	Audit/Weatherization/New Constru	5.6	\$ 0.01	24,102	2,316	24,102	2,316	24,102	2,316
	Farm Services	N/A	N/A	-	-	-	-	-	-
Commercial & Industrial	Educational Services	4.1	\$ 0.02	31,067	7,273	31,067	7,273	31,067	7,273
	Pilot Programs	4.1	\$ 0.02	51,778	12,121	51,778	12,121	51,778	12,121
	Subtotal - Residential Solutions	4.1	\$ 0.02	1,035,560	\$ 212,766	1,035,560	212,766	1,035,560	212,766
	Self-Direct Customers	N/A	N/A	-	-	-	-	-	-
	General Business Services	5.9	\$ 0.01	1,871,704	264,647	1,871,704	264,647	1,871,704	264,647
Portfolio-Level Costs	Educational Services	5.6	\$ 0.01	61,034	10,382	61,034	10,382	61,034	10,382
	Pilot/Emerging Technology Progra	5.6	\$ 0.01	101,723	17,303	101,723	17,303	101,723	17,303
	Subtotal - Business Solutions	5.4	\$ 0.01	2,034,461	292,332	2,034,461	292,332	2,034,461	292,332
	Total Program Portfolio			3,070,020	505,098	3,070,020	505,098	3,070,020	505,098
	MECA Overall Administration	N/A	N/A	-	6,000	-	6,000	-	6,000
Cooperative Overhead/Indirect	N/A	N/A	-	30,295	-	30,295	-	30,295	
Tracking Systems	N/A	N/A	-	10,745	-	10,745	-	10,745	
Evaluation	N/A	N/A	-	36,354	-	36,354	-	36,354	
Subtotal - Portfolio Level Costs				83,394		83,394		83,394	
Projected Annual Totals		4.9	\$0.01	3,070,020	588,493	3,070,020	588,493	3,070,020	588,493

Attachment A: City of Marshall Energy Optimization Program Portfolio U-17404

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Low Income Services	N/A	N/A	27,201	\$8,148	27,201	\$8,148	27,201	\$8,148
Residential Services	3.2	\$0.02	158,383	\$32,651	158,383	\$32,651	158,383	\$32,651
Educational Services	4.1	\$0.01	15,907	\$2,549	15,907	\$2,549	15,907	\$2,549
Subtotal - Residential Solutions	3.2	\$0.01	201,492	\$43,348	201,492	\$43,348	201,492	\$43,348
Business Services	4.3	\$0.01	843,084	\$108,737	843,084	\$108,737	843,084	\$108,737
Educational Services	4.1	\$0.01	15,907	\$2,549	15,907	\$2,549	15,907	\$2,549
Subtotal - Business Solutions	4.3	\$0.01	858,991	\$111,286	858,991	\$111,286	858,991	\$111,286
Total Program Portfolio			1,060,483	\$154,633	1,060,483	\$154,633	1,060,483	\$154,633
Program Administration				\$8,496		\$8,496		\$8,496
Evaluation (EM&V)				\$6,797		\$6,797		\$6,797
Subtotal - Admin/Evaluation				\$15,293		\$15,293		\$15,293
Projected Annual Totals	3.7	\$0.01	1,060,483	\$169,927	1,060,483	\$169,927	1,060,483	\$169,927

Attachment A: Newberry Energy Optimization Program Portfolio U-17406

Portfolio Category	Program Portfolio	USRCT Results	CCE Results	2015		2016		2017	
				Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Residential	Low Income Services	N/A	N/A	5,107	2,414	5,107	2,414	5,107	2,414
	ENERGY STAR Products	4.5	\$ 0.01	50,607	10,246	50,607	10,246	50,607	10,246
	Appliance Recycling	6.1	\$ 0.01	18,017	1,971	18,017	1,971	18,017	1,971
	Efficient HVAC Equipment	N/A	N/A	-	-	-	-	-	-
	Audit/Weatherization/New Construction	5.6	\$ 0.01	1,867	179	1,867	179	1,867	179
	Farm Services	4.3	\$ 0.02	2,338	374	2,338	374	2,338	374
Commercial & Industrial	Educational Services	4.1	\$ 0.02	2,541	598	2,541	598	2,541	598
	Pilot Programs	4.1	\$ 0.02	4,236	997	4,236	997	4,236	997
	Subtotal - Residential Solutions	4.2	\$ 0.02	84,714	\$ 16,779	84,714	16,779	84,714	16,779
	Total Program Portfolio			199,058	33,354	199,058	33,354	199,058	33,354
Portfolio-Level Costs	Self-Direct Customers	N/A	N/A	-	-	-	-	-	-
	General Business Services	5.9	\$ 0.01	105,196	14,874	105,196	14,874	105,196	14,874
	Educational Services	5.2	\$ 0.01	3,430	638	3,430	638	3,430	638
	Pilot/Emerging Technology Programs	5.2	\$ 0.01	5,717	1,063	5,717	1,063	5,717	1,063
	Subtotal - Business Solutions	5.1	\$ 0.01	114,344	16,575	114,344	16,575	114,344	16,575
	Total Program Portfolio			199,058	33,354	199,058	33,354	199,058	33,354
Portfolio-Level Costs	MECA Overall Administration	N/A	N/A	500	500	-	500	-	500
	Cooperative Overhead/Indirect	N/A	N/A	3,036	3,036	-	3,036	-	3,036
	Tracking Systems	N/A	N/A	665	665	-	665	-	665
	Evaluation	N/I	N/I	3,643	3,643	-	3,643	-	3,643
	Subtotal - Portfolio Level Costs			7,844	7,844		7,844		7,844
Projected Annual Totals		4.7	\$ 0.01	199,058	41,198	199,058	41,198	199,058	41,198

Attachment A: Niles Utilities Department Energy Optimization Program Portfolio U-17407

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	43,445	\$14,134	43,445	\$14,134	43,445	\$14,134
Residential Services	3.20	\$0.02	394,268	\$76,144	394,268	\$76,144	394,268	\$76,144
Educational Services	4.00	\$0.01	19,599	\$3,547	19,599	\$3,547	19,599	\$3,547
Pilot Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Residential Solutions	3.20	\$0.02	457,312	\$93,824	457,312	\$93,824	457,312	\$93,824
Business Services	4.30	\$0.01	829,694	\$117,801	829,694	\$117,801	829,694	\$117,801
Educational Services	4.00	\$0.01	19,599	\$3,547	19,599	\$3,547	19,599	\$3,547
Pilot/Emerging Technology Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	849,293	\$121,348	849,293	\$121,348	849,293	\$121,348
Total Program Portfolio			1,306,605	\$215,172	1,306,605	\$215,172	1,306,605	\$215,172
Utility Administration				\$11,823		\$11,823		\$11,823
Evaluation (EM&V)				\$9,458		\$9,458		\$9,458
Subtotal - Admin/Evaluation				\$21,281		\$21,281		\$21,281
Projected Annual Totals	3.7	\$0.01	1,306,605	\$236,453	1,306,605	\$236,453	1,306,605	\$236,453

Attachment A: Village of Paw Paw Energy Optimization Program Portfolio U-17409

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	38,955	\$6,936	38,955	\$6,936	38,955	\$6,936
Residential Services	3.00	\$0.02	83,545	\$15,838	83,545	\$15,838	83,545	\$15,838
Educational Services	4.20	\$0.01	7,350	\$1,242	7,350	\$1,242	7,350	\$1,242
Pilot Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Residential Solutions	3.10	\$0.02	129,850	\$24,016	129,850	\$24,016	129,850	\$24,016
Business Services	4.30	\$0.01	352,800	\$50,108	352,800	\$50,108	352,800	\$50,108
Educational Services	4.20	\$0.01	7,350	\$1,242	7,350	\$1,242	7,350	\$1,242
Pilot/Emerging Technology Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	360,150	\$51,350	360,150	\$51,350	360,150	\$51,350
Total Program Portfolio			490,000	\$75,366	490,000	\$75,366	490,000	\$75,366
Utility Administration				\$4,141		\$4,141		\$4,141
Evaluation (EM&V)				\$3,313		\$3,313		\$3,313
Subtotal - Admin/Evaluation				\$7,454		\$7,454		\$7,454
Projected Annual Totals	3.8	\$0.01	490,000	\$82,820	490,000	\$82,820	490,000	\$82,820

Attachment A: City of Petoskey Energy Optimization Program Portfolio U-17410

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	45,324	\$14,266	45,324	\$14,266	45,324	\$14,266
Residential Services	2.50	\$0.02	101,539	\$23,739	101,539	\$23,739	101,539	\$23,739
Educational Services	4.10	\$0.01	16,946	\$2,934	16,946	\$2,934	16,946	\$2,934
Pilot Programs	4.10	\$0.01	28,243	\$4,890	28,243	\$4,890	28,243	\$4,890
Subtotal - Residential Solutions	2.90	\$0.02	192,051	\$45,829	192,051	\$45,829	192,051	\$45,829
Business Services	4.30	\$0.01	892,473	\$126,290	892,473	\$126,290	892,473	\$126,290
Educational Services	4.10	\$0.01	16,946	\$2,934	16,946	\$2,934	16,946	\$2,934
Pilot/Emerging Technology Programs	4.10	\$0.01	28,243	\$4,890	28,243	\$4,890	28,243	\$4,890
Subtotal - Business Solutions	4.30	\$0.01	937,662	\$134,114	937,662	\$134,114	937,662	\$134,114
Total Program Portfolio			1,129,713	\$179,943	1,129,713	\$179,943	1,129,713	\$179,943
Utility Administration				\$7,824		\$7,824		\$7,824
Evaluation (EM&V)				\$7,824		\$7,824		\$7,824
Subtotal - Admin/Evaluation				\$15,647		\$15,647		\$15,647
Projected Annual Totals	3.9	\$0.01	1,129,713	\$195,590	1,129,713	\$195,590	1,129,713	\$195,590

Attachment A: Portland Light and Power Board Energy Optimization Program Portfolio U-17411

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	8,926	\$3,173	8,926	\$3,173	8,926	\$3,173
Residential Services	3.00	\$0.02	145,034	\$28,468	145,034	\$28,468	145,034	\$28,468
Educational Services	3.90	\$0.01	5,434	\$1,006	5,434	\$1,006	5,434	\$1,006
Pilot Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Residential Solutions	3.00	\$0.02	159,394	\$32,647	159,394	\$32,647	159,394	\$32,647
Business Services	4.30	\$0.01	197,432	\$28,025	197,432	\$28,025	197,432	\$28,025
Educational Services	3.90	\$0.01	5,434	\$1,006	5,434	\$1,006	5,434	\$1,006
Pilot/Emerging Technology Programs	0.00	\$0.00	-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	202,866	\$29,031	202,866	\$29,031	202,866	\$29,031
Total Program Portfolio			362,260	\$61,677	362,260	\$61,677	362,260	\$61,677
Utility Administration				\$2,682		\$2,682		\$2,682
Evaluation (EM&V)				\$2,682		\$2,682		\$2,682
Subtotal - Admin/Evaluation				\$5,363		\$5,363		\$5,363
Projected Annual Totals	3.5	\$0.01	362,260	\$67,041	362,260	\$67,041	362,260	\$67,041

Attachment A: Sebawaing Light & Water Dept. Energy Optimization Program Portfolio U-17412

Program Portfolio	USRT Results	CCE Results	2016 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	21,923	\$6,929	21,923	\$6,929	21,923	\$6,929
Residential Services	2.40	\$0.02	43,806	\$8,743	43,806	\$8,743	43,806	\$8,743
Educational Services	4.00	\$0.01	5,800	\$1,012	5,800	\$1,012	5,800	\$1,012
Pilot Programs	4.00	\$0.01	9,666	\$1,687	9,666	\$1,687	9,666	\$1,687
Subtotal - Residential Solutions	2.80	\$0.02	81,195	\$18,372	81,195	\$18,372	81,195	\$18,372
Business Services	4.30	\$0.01	289,981	\$41,020	289,981	\$41,020	289,981	\$41,020
Educational Services	4.00	\$0.01	5,800	\$1,012	5,800	\$1,012	5,800	\$1,012
Pilot/Emerging Technology Programs	4.00	\$0.01	9,666	\$1,687	9,666	\$1,687	9,666	\$1,687
Subtotal - Business Solutions	4.30	\$0.01	305,447	\$43,719	305,447	\$43,719	305,447	\$43,719
Total Program Portfolio			386,641	\$62,091	386,641	\$62,091	386,641	\$62,091
Utility Administration				\$2,700		\$2,700		\$2,700
Evaluation (EM&V)				\$2,700		\$2,700		\$2,700
Subtotal - Admin/Evaluation				\$5,399		\$5,399		\$5,399
Projected Annual Totals	3.8	\$0.01	386,641	\$67,490	386,641	\$67,490	386,641	\$67,490

Attachment A: St. Louis' Energy Optimization Program Portfolio U-17414

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	16,430	\$5,517	16,430	\$5,517	16,430	\$5,517
Residential Services	3.20	\$0.01	81,122	\$14,907	81,122	\$14,907	81,122	\$14,907
Educational Services	3.80	\$0.01	5,628	\$1,053	5,628	\$1,053	5,628	\$1,053
Pilot Programs	3.80	\$0.01	5,628	\$1,053	5,628	\$1,053	5,628	\$1,053
Subtotal - Residential Solutions	3.30	\$0.01	108,807	\$22,530	108,807	\$22,530	108,807	\$22,530
Business Services	4.10	\$0.01	253,258	\$38,865	253,258	\$38,865	253,258	\$38,865
Educational Services	3.80	\$0.01	5,628	\$1,053	5,628	\$1,053	5,628	\$1,053
Pilot/Emerging Technology Programs	3.80	\$0.01	7,504	\$1,403	7,504	\$1,403	7,504	\$1,403
Subtotal - Business Solutions	4.10	\$0.01	266,390	\$41,321	266,390	\$41,321	266,390	\$41,321
Total Program Portfolio			375,198	\$63,851	375,198	\$63,851	375,198	\$63,851
Utility Administration				\$2,807		\$2,807		\$2,807
Evaluation (EM&V)				\$3,508		\$3,508		\$3,508
Subtotal - Admin/Evaluation				\$6,315		\$6,315		\$6,315
Projected Annual Totals	3.7	\$0.01	375,198	\$70,167	375,198	\$70,167	375,198	\$70,167

Attachment A: Stephenson Energy Optimization Program Portfolio U-17415

Portfolio Category	Program Portfolio	2016		2017			
		USRCT Results	CCE Results	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Residential	Low Income Services	N/A	N/A	1,639	775	1,639	775
	ENERGY STAR Products	4.5	\$ 0.01	16,839	3,409	16,839	3,409
	Appliance Recycling	6.1	\$ 0.01	5,995	656	5,995	656
	Efficient HVAC Equipment	N/A	N/A	-	-	-	-
	Audit/Weatherization/New Construction	5.6	\$ 0.01	621	60	621	60
	Farm Services	N/A	N/A	-	-	-	-
Commercial & Industrial	Educational Services	4.2	\$ 0.02	818	185	818	185
	Pilot Programs	4.2	\$ 0.02	1,364	309	1,364	309
	Subtotal - Residential Solutions	4.3	\$ 0.02	27,277	\$ 5,394	27,277	5,394
	Self-Direct Customers	N/A	N/A	-	-	-	-
	General Business Services	5.9	\$ 0.01	28,842	4,078	28,842	4,078
Portfolio-Level Costs	Educational Services	5.4	\$ 0.01	941	165	941	165
	Pilot/Emerging Technology Programs	5.4	\$ 0.01	1,568	275	1,568	275
	Subtotal - Business Solutions	5.3	\$ 0.01	31,350	4,518	31,350	4,518
	Total Program Portfolio			58,628	9,912	58,628	9,912
	MECA Overall Administration	N/A	N/A		100		100
Projected Annual Totals	Cooperative Overhead/Indirect	N/A	N/A		661		661
	Tracking Systems	N/A	N/A		208		208
	Evaluation	N/A	N/A		793		793
	Subtotal - Portfolio Level Costs				1,762		1,762
Projected Annual Totals		4.8	\$0.01	58,628	11,674	58,628	11,674

Attachment A: Sturgis' Energy Optimization Program Portfolio U-17416

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	47,202	\$16,780	47,202	\$16,780	47,202	\$16,780
Residential Services	2.00	\$0.03	237,557	\$78,019	237,557	\$78,019	237,557	\$78,019
Educational Services	3.90	\$0.01	34,171	\$6,251	34,171	\$6,251	34,171	\$6,251
Pilot Programs			-	-	-	-	-	-
Subtotal - Residential Solutions	2.20	\$0.02	318,929	\$101,050	318,929	\$101,050	318,929	\$101,050
Business Services	4.40	\$0.01	1,811,063	\$255,283	1,811,063	\$255,283	1,811,063	\$255,283
Educational Services	3.90	\$0.01	34,171	\$6,251	34,171	\$6,251	34,171	\$6,251
Pilot/Emerging Technology Programs	3.90	\$0.01	113,903	\$20,838	113,903	\$20,838	113,903	\$20,838
Subtotal - Business Solutions	4.30	\$0.01	1,959,137	\$282,372	1,959,137	\$282,372	1,959,137	\$282,372
Total Program Portfolio	3.7	\$0.01	2,278,066	\$383,422	2,278,066	\$383,422	2,278,066	\$383,422
Utility Administration				\$16,671		\$16,671		\$16,671
Evaluation (EM&V)				\$16,671		\$16,671		\$16,671
Subtotal - Admin/Evaluation				\$33,341		\$33,341		\$33,341
Projected Annual Totals	3.7	\$0.01	2,278,066	\$416,764	2,278,066	\$416,764	2,278,066	\$416,764

Attachment A: Traverse City Light and Power Energy Optimization Program Portfolio U-17417

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	22,827	\$4,648	22,827	\$4,648	22,827	\$4,648
Residential Services	2.60	\$0.02	415,135	\$91,261	415,135	\$91,261	415,135	\$91,261
Educational Services	4.30	\$0.01	49,768	\$8,126	49,768	\$8,126	49,768	\$8,126
Pilot Programs	4.30	\$0.01	82,947	\$13,543	82,947	\$13,543	82,947	\$13,543
Subtotal - Residential Solutions	3.00	\$0.02	570,677	\$117,578	570,677	\$117,578	570,677	\$117,578
Self-Direct Customers	4.30	\$0.01	2,614,499	\$369,961	2,614,499	\$369,961	2,614,499	\$369,961
Business Services	4.30	\$0.01	49,768	\$8,126	49,768	\$8,126	49,768	\$8,126
Educational Services	4.30	\$0.01	82,947	\$13,543	82,947	\$13,543	82,947	\$13,543
Pilot/Emerging Technology Programs	4.30	\$0.01	2,747,215	\$391,630	2,747,215	\$391,630	2,747,215	\$391,630
Subtotal - Business Solutions	4.30	\$0.01	2,747,215	\$391,630	2,747,215	\$391,630	2,747,215	\$391,630
Total Program Portfolio	3.9	\$0.01	3,317,892	\$509,208	3,317,892	\$509,208	3,317,892	\$509,208
Utility Administration				\$21,668		\$21,668		\$21,668
Evaluation (EM&V)				\$10,834		\$10,834		\$10,834
Subtotal - Admin/Evaluation				\$32,503		\$32,503		\$32,503
Projected Annual Totals	3.9	\$0.01	3,317,892	\$541,710	3,317,892	\$541,710	3,317,892	\$541,710

Attachment A: Union City's Energy Optimization Program Portfolio U-17418

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	2,098	\$1,903	2,098	\$1,903	2,098	\$1,903
Residential Services	3.83	\$0.04	88,816	\$19,329	88,816	\$19,329	88,816	\$19,329
Educational Services	2.00	\$0.04	2,384	\$571	2,384	\$571	2,384	\$571
Subtotal - Residential Solutions			93,298	\$21,803	93,298	\$21,803	93,298	\$21,803
Business Services	4.50	\$0.02	63,258	\$12,252	63,258	\$12,252	63,258	\$12,252
Educational Services	2.00	\$0.04	2,384	\$571	2,384	\$571	2,384	\$571
Subtotal - Business Solutions			65,642	\$12,823	65,642	\$12,823	65,642	\$12,823
Total Program Portfolio	3.9	\$0.025	158,940	\$34,626	158,940	\$34,626	158,940	\$34,626
Utility Administration				\$1,903		\$1,903		\$1,903
Evaluation (EM&V)				\$1,522		\$1,522		\$1,522
Subtotal - Admin/Evaluation				\$3,425		\$3,425		\$3,425
Projected Annual Totals	3.9	\$0.025	158,940	\$38,050	158,940	\$38,050	158,940	\$38,050

Attachment A: Wakefield Power and Light's Energy Optimization Program Portfolio U-17419

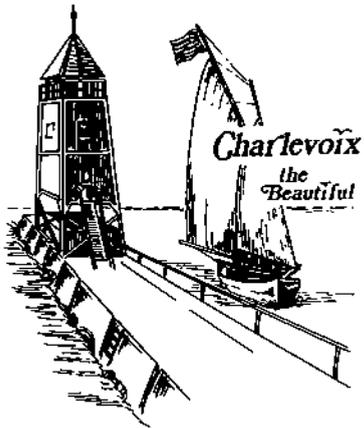
Program Portfolio	USRT Results	CCE Results	2015 Plan Filing			2016 Plan Filing			2017 Plan Filing		
			Gross First Year kWh	Program Budget	Program Budget	Gross First Year kWh	Program Budget	Program Budget	Gross First Year kWh	Program Budget	Program Budget
Low Income Services	N/A	N/A	3,899	\$2,477	\$2,477	3,899	\$2,477	3,899	\$2,477	\$2,477	
Residential Services	4.70	\$0.03	60,439	\$7,533	\$7,533	60,439	\$7,533	60,439	\$7,533	\$7,533	
Educational Services	2.10	\$0.04	1,950	\$310	\$310	1,950	\$310	1,950	\$310	\$310	
Subtotal - Residential Solutions			66,288	\$10,320	\$10,320	66,288	\$10,320	66,288	\$10,320	\$10,320	
Business Services	6.30	\$0.02	61,739	\$8,152	\$8,152	61,739	\$8,152	61,739	\$8,152	\$8,152	
Educational Services	2.10	\$0.04	1,950	\$310	\$310	1,950	\$310	1,950	\$310	\$310	
Subtotal - Business Solutions			63,688	\$8,462	\$8,462	63,688	\$8,462	63,688	\$8,462	\$8,462	
Total Program Portfolio	4.6	\$0.02	129,976	\$18,781	\$18,781	129,976	\$18,781	129,976	\$18,781	\$18,781	
Utility Administration				\$1,032	\$1,032		\$1,032		\$1,032	\$1,032	
Evaluation (EM&V)				\$826	\$826		\$826		\$826	\$826	
Subtotal - Admin/Evaluation				\$1,858	\$1,858		\$1,858		\$1,858	\$1,858	
Projected Annual Totals	4.6	\$0.02	129,976	\$20,639	\$20,639	129,976	\$20,639	129,976	\$20,639	\$20,639	

Attachment A: Wyandotte's Energy Optimization Program Portfolio U-17420

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	79,516	\$27,787	79,516	\$27,787	79,516	\$27,787
Residential Services	3.00	\$0.02	617,268	\$126,887	617,268	\$126,887	617,268	\$126,887
Educational Services	4.60	\$0.01	74,741	\$9,750	74,741	\$9,750	74,741	\$9,750
Pilot Programs	4.60	\$0.01	59,793	\$7,800	59,793	\$7,800	59,793	\$7,800
Subtotal - Residential Solutions	3.30		831,318	\$172,224	831,318	\$172,224	831,318	\$172,224
Self-Implementing Customer			1,135,897	\$0				
Business Services	4.30	\$0.01	955,233	\$150,128	955,233	\$150,128	955,233	\$150,128
Educational Services	4.60	\$0.01	15,065	\$1,950	15,065	\$1,950	15,065	\$1,950
Pilot/Emerging Technology Programs	4.60	\$0.01	90,388	\$11,750	90,388	\$11,750	90,388	\$11,750
Subtotal - Business Solutions	4.40		2,196,584	\$163,828	2,196,584	\$163,828	2,196,584	\$163,828
Total Program Portfolio	3.9	\$0.01	3,027,901	\$336,052	3,027,902	\$336,052	3,027,902	\$336,052
Administration				\$31,250		\$31,250		\$31,250
Evaluation (EM&V)				\$23,450		\$23,450		\$23,450
Subtotal - Admin/Evaluation				\$54,700		\$54,700		\$54,700
Projected Annual Totals	3.9	\$0.01	3,027,901	\$390,752	3,027,902	\$390,752	3,027,901	\$390,752

Attachment A: Zeeland's Energy Optimization Program Portfolio U-17421

Program Portfolio	USRT Results	CCE Results	2015 Plan Filing		2016 Plan Filing		2017 Plan Filing	
			Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget	Gross First Year kWh	Program Budget
Low Income Services	N/A	N/A	50,798	\$15,108	50,798	\$15,108	50,798	\$15,108
Residential Services	2.50	\$0.02	186,427	\$43,386	186,427	\$43,386	186,427	\$43,386
Educational Services	4.30	\$0.01	47,445	\$7,789	47,445	\$7,789	47,445	\$7,789
Pilot Programs	4.30	\$0.01	63,260	\$10,385	63,260	\$10,385	63,260	\$10,385
Subtotal - Residential Solutions	3.00	\$0.02	347,929	\$76,668	347,929	\$76,668	347,929	\$76,668
Business Services	4.30	\$0.01	2,767,617	\$393,265	2,767,617	\$393,265	2,767,617	\$393,265
Educational Services	4.30	\$0.01	47,445	\$7,789	47,445	\$7,789	47,445	\$7,789
Pilot/Emerging Technology Programs			-	\$0	-	\$0	-	\$0
Subtotal - Business Solutions	4.30	\$0.01	2,815,062	\$401,054	2,815,062	\$401,054	2,815,062	\$401,054
Total Program Portfolio			3,162,991	\$477,722	3,162,991	\$477,722	3,162,991	\$477,722
Utility Administration				\$25,963		\$25,963		\$25,963
Evaluation (EM&V)				\$15,578		\$15,578		\$15,578
Subtotal - Admin/Evaluation				\$41,541		\$41,541		\$41,541
Projected Annual Totals	3.9	\$0.01	3,162,991	\$519,263	3,162,991	\$519,263	3,162,991	\$519,263



CITY OF CHARLEVOIX

210 STATE ST. CHARLEVOIX, MICH. 49720

Dear Charlevoix Residential Electric Utility Customer,

The City of Charlevoix, in accordance with Michigan Public Act 295 of 2008, The Clean, Renewable and Efficient Energy Act, has established both an Energy Optimization Program and a Renewable Energy Plan for the City's Electric Utility. Below are the required annual summary reports on the status of these programs.

The City, again in accordance with requirements of the State of Michigan, has also established a policy for shutting off residential electric service for non-payment. More information on the shutoff policy is included at the end of this letter.

Copies of the complete 2014 annual reports for both the Energy Optimization and Renewable Energy Plan are available at City Hall and the plans and policy can all be found on the city's website: www.cityofcharlevoix.org in the Electric Department section.

2014 Annual Summary Report for the Energy Optimization and Renewable Energy Plans

Pursuant to 2008 Public Act 295 (PA 295), the City of Charlevoix is providing this annual summary for the Energy Optimization (EO) and Renewable Energy Plans (REP) for the calendar year 2014.

Energy Optimization Annual Summary

The City of Charlevoix's Energy Optimization Annual Report, available on the City's website, details the number of Energy Optimization Credits that were generated by the City's programs in 2014, and also details the expenditures that were made to obtain those kilowatt-hour reductions, as well as the future goals and expenditures predicted for the City.

The Energy Optimization program provides opportunities for customers to receive cash incentives for installing various energy saving measures. These incentives are available to all customers and the details can be found at www.mienergysmart.com/charlevoix.html. In 2014 for the second time since the program started we exceeded all of our goals. We currently have a contract with Franklin Energy to run these incentive programs. Please note that if you are not taking advantage of this program then you are paying the other customers so that they can save money! This program is open to all customers and is intended to pay you incentives to install measures to lower your electric usage.

Renewable Energy Plan Annual Summary

The City of Charlevoix has invested in multiple landfill gas plants in order to meet the goal of 10% of our energy to be generated by renewables by the year 2015. The first plant went operational in 2010, and further stations opened up during 2011 through 2014. In 2014 a small percentage of Charlevoix's energy consumption was supplied by renewable energy systems. The City's average renewable energy percentage for the 2014 reporting period was 3%. We are already positioned to meet the 10% goal in 2015.

Other Information Required by PA 295

- (a) The 2014 average monthly charge for a residential customer for implementing the renewable energy program requirements under PA 295 was \$0.00.
- (b) The 2014 average monthly charge to a residential customer for implementing the energy optimization program as required under PA 295 was \$.00178/kWh. This would amount to \$0.89 per month for a residential customer using 500 kWh.
- (c) The average electric residential customer is expected to save \$3.61 each month of the Energy Optimization/Efficiency program life.
- (d) For the average Michigan residential customer, renewable energy is estimated to avoid \$3.08 per month of new coal-fired generation costs.
- (e) The Michigan Public Service Commission's annual report on renewable energy can be viewed at the following website: <http://www.michigan.gov/mpsc>

Shutoff Policy Information

The "General Shutoff Rules for Residential Electric Service" provide guidance on when and under what circumstances a residential customer's electric service may be shut off for non-payment. The policy can be found on the City's website. The policy provides certain protections for certain customers.

From November 1, 2015 through April 15, 2016, all residential customers are protected against electric utility shutoffs for non-payment (this is a requirement to be in compliance with Michigan's Public Act 95 of 2013). If the customer has a senior citizen 65 years of age or older in the household, there are also protections against shutoff during the summer cooling season.

If your household income is less than 150% of the Federal Poverty Guidelines, or you are on assistance from a State Emergency Relief program, or you are on food stamps or on Medicaid, then there are similar protections against shutoff the rest of the year as long as a payment plan is established and maintained.

Help may also be available through other agencies, such as the Department of Human Services. The energy assistance telephone number at the Michigan Department of Human Services is 231-348-1600.

If the customer has a medical condition that requires the use of electricity where the interruption of service would be life-threatening, then shutoff can be postponed.

If the customer or spouse is called to active military duty pursuant to MCL 460.9c, then there are military protections from shutoff.

In any of these cases the City must have the customer's information to be able to follow the City policy. Therefore if you believe that you fall under one or more of the above circumstances please call 231-547-3259 and provide the information to be considered for shutoff protections.

CHARLEVOIX CITY COUNCIL

AGENDA ITEM

AGENDA ITEM TITLE: Consideration to Approve RS&H Engineering Contract for 2015 Airport Projects

DATE: July 20, 2015

PRESENTED BY: Liz Myer / David Joye

ATTACHMENTS: Engineering Agreement with RS&H

BACKGROUND INFORMATION:

Per our 10 year CIP (Capital Improvement Program) for FY-2015-2024 the Friction improvement design of RWY 09-27, the lighting and Rehabilitation design, Sidewalk removal design, is slotted for completion for this fiscal year. The friction improvement to RWY 09-27 will be completed by the overlay and grooving of our runway. The grooving of the runway aids in rain water runoff which in turn increases the breaking action for the heavier and faster aircraft. The lighting and rehabilitation of our runway lighting is due to poor readings and without resolving this issue, the airport runs the risk of its runway and taxiway lighting going dark. With respect to the sidewalk removal, this is a FAA issue as the sidewalk traverses through the Runway 27 RPZ (Runway Protection Zone).

RECOMMENDATION:

Approve the attached engineering agreement with RS&H and to authorize the Mayor and City Clerk to sign this agreement after City Attorney review.

October 2008

CONTRACT FOR PROFESSIONAL ENGINEERING SERVICE

This Contract is made and entered into this date of _____ by and between the Airport
Owner, hereinafter referred to as SPONSOR,

City of Charlevoix

210 State Street

Charlevoix, Michigan 49720

and the Engineer, hereinafter referred to as the CONSULTANT,

RS&H Michigan, Inc.

827 Willow Run Airport, Second Floor

Ypsilanti, Michigan 48198

for the following PROJECT:

Location: Charlevoix Municipal Airport

Charlevoix, Michigan

Description: Runway 9-27 Friction Improvement

(See Attachment D - Sketch for Location of Work Areas.)

WHEREAS, the SPONSOR desires to engage the CONSULTANT to perform professional engineering services for the described project;

WHEREAS, the SPONSOR has caused a review to be made of the qualifications of the CONSULTANT and is satisfied the CONSULTANT is competent and qualified;

WHEREAS, the CONSULTANT is willing and able to accomplish the services provided and set forth hereinafter in this Contract;

WHEREAS, the SPONSOR will compensate the CONSULTANT, in accordance with the terms and conditions set forth in this Contract.

NOW, THEREFORE, the parties agree to the following:

ARTICLE 1 – DESCRIPTION OF WORK TO BE DONE

The services to be furnished by the CONSULTANT to the SPONSOR, as set forth in Attachment E, Scope of Work/Services, together with obligations of the SPONSOR or the SPONSOR's Agent (Michigan Department of Transportation (MDOT), Aeronautics and Freight Services Bureau, Airports Division), hereinafter referred to as AERO, will contain certain information and data which will consist of the following described elements. Additional explanations are included in Attachment E.

DESIGN PHASE (1)

Element 1.11 - Pre-Design Conference

A pre-design conference called by the SPONSOR will be held between the SPONSOR, the CONSULTANT, and any other participating or regulatory governmental agency. This pre-design conference will be held for the express purpose of having the CONSULTANT ascertain from responsible representatives of each group, the SPONSOR and all participating governmental agencies, their individual project requirements affecting the scope of work, budget, design standards, presentation of final plans, and documents. The requirements set forth in this pre-design conference will be confirmed in writing by the CONSULTANT to the SPONSOR, with copies to each participating unit of government.

Element 1.12 - Engineering Survey

The CONSULTANT will determine the areas to be covered and make the necessary engineering field surveys to determine existing and topographical conditions, earth work, drainage, pavement conditions, structural elevations, and field testing as may be required to complete plans and specifications.

Element 1.13 - Detailed Construction Plans and Specifications

Plans and specifications will be certified by the CONSULTANT for compliance with current Federal Aviation Administration (FAA) and AERO requirements in effect at the time the plans and specifications are prepared. The CONSULTANT will prepare and furnish to the SPONSOR and AERO, in paper format, one copy of the final detailed construction plans and specifications for the work described above, presented on drawings (22" x 34") and other necessary documentation (8-1/2" x 11"). This will include but is not limited to; grading, drainage, paving, lighting, turf establishment, structures, construction safety phasing, etc. The documents will set forth, in detail, requirements for prospective bidders to submit proposals and the successful bidder to construct the project. Plans and specifications will comply with the requirements established in the pre-design conference, if applicable, together with the common practice of design and ethical practices of professional engineers. The CONSULTANT will also furnish one set of review plans if requested.

All projects bid through the MDOT letting will also include two electronic files in portable document format (pdf) along with a signed and sealed paper title sheet. The electronic files will be set up to print clearly in scalable 11" x 17" and 22" x 34" plan sheets.

Element 1.14 - Estimate of Probable Construction Cost

The CONSULTANT will prepare and submit to both the SPONSOR and AERO one copy of a

detailed estimate of construction costs based upon the detailed plans and specifications prepared under Element 1.13. This statement of probable construction cost prepared by the CONSULTANT represents the CONSULTANT's best judgment as a design professional at the time the estimate is finalized. This estimate will include the estimated amount for CONSULTANT services during construction. It is recognized, however, that neither the CONSULTANT nor the SPONSOR has any control over the cost of labor, materials, or equipment; over the contractor's method of determining bid prices; or over competitive bidding or market conditions. Accordingly, the CONSULTANT cannot and does not guarantee that bids will not vary from any statement of Probable Construction Cost or other cost estimates prepared by the CONSULTANT.

Element 1.15 - Engineering Report

The CONSULTANT will prepare and furnish to both the SPONSOR and AERO one copy of an engineering report which relates to the SPONSOR and participating governmental agencies the fundamental considerations and concepts used in design of the project. This report will include the basic design factors for drainage, pavement design, and scheduling of the various phases of the project during construction as may be required to maintain both ground and air traffic. Deviation in design and construction standards will be included in the engineering report.

Element 1.16 - Users Conference (if required)

The CONSULTANT will prepare for the SPONSOR an estimated time schedule to be followed during the construction period. This estimated time schedule of construction will be presented by the SPONSOR and the CONSULTANT in a meeting with airport users. The CONSULTANT will furnish one copy of the estimated time schedule to the SPONSOR for printing and disbursement to the users by the SPONSOR. However, it is recognized that neither the CONSULTANT nor the SPONSOR has absolute control over the estimated time schedule presented to any person, group, or organization.

Element 1.17 - Obligations of SPONSOR or AERO to CONSULTANT

When requested by the CONSULTANT, one copy of all existing data applicable to this project and in the possession of the SPONSOR or AERO or any other agency of government will be furnished at no cost to the CONSULTANT. Existing data will include but not be restricted to the following:

- 1) As-constructed plans.
- 2) Pavement design data/pavement condition index.
- 3) Soil borings, analysis, and classification.
- 4) Drainage design data.
- 5) Topographic notes and maps.
- 6) Approach data and zoning maps.
- 7) Property maps, including fee ownership and easements, and land descriptions.
- 8) All local, state, federal ordinances, regulations, or laws affecting the project.
- 9) Aerial photography, prints, topographic maps, etc.

The SPONSOR or AERO will furnish for projects bid by MDOT, at no cost to the CONSULTANT, standard contract documents for bidders, including but not restricted to the following:

- 1) Notice to contractors (including advertising charges).
- 2) Instructions to bidders.
- 3) All federal, state, or local wage rates as applicable to this project.
- 4) General provisions of the contract.
- 5) Supplemental provisions of the contract.
- 6) Special provisions of the contract (except as may be supplemented by the CONSULTANT).
- 7) Standard construction specifications (except as may be supplemented by the CONSULTANT).
- 8) Standard supplemental specifications (except as may be supplemented by the CONSULTANT).
- 9) Standard testing requirements (except as provided by the CONSULTANT).
- 10) Proposal.
- 11) Construction contract.
- 12) Form of performance and lien bond.
- 13) Reproducible copies of all standard plans to be incorporated in the contract plans and documents.

The SPONSOR or AERO, at no cost to the CONSULTANT, will furnish the location for the receipt of bids, the tabulation and recording of bids, the disbursement of information before and after the bid process, and the award of construction contracts.

All such services, data, information, and documents furnished by the SPONSOR or AERO will be furnished at the SPONSOR's expense.

Element 1.18 - Conferences and Meetings

The following conferences and meetings will be attended by the CONSULTANT and the SPONSOR at the location indicated for the purpose of coordination, information, and understanding.

- 1) Pre-Design Conference as provided under Element 1.11 to be called by the SPONSOR and to be held at the project site.
- 2) Progress meetings to be determined by the SPONSOR will be held at the office of the SPONSOR and attended by the CONSULTANT to apprise the SPONSOR of progress, to resolve any problems, to answer questions, and for general coordination.
- 3) Upon completion by the CONSULTANT of final plans, specifications, cost estimates, and engineering report, the CONSULTANT will submit copies to the participating governmental agencies for approvals as required. After reasonable time for review by the SPONSOR and participating governmental agencies, a meeting called by the SPONSOR may be held to review final plans with the SPONSOR and participating governmental agencies at the project site.
- 4) Upon determination of the estimated construction time schedule, a users conference as provided under Element 1.16 is to be called by the SPONSOR, to be held at a location designated by the SPONSOR.
- 5) Upon advertising the project for bids, the CONSULTANT and the SPONSOR or AERO will hold a pre-bid meeting or briefing with the prospective bidders at the project site to explain the project to the bidders and answer questions from prospective bidders. Any addendum information necessary will be submitted in a timely manner to the bidding

agency by the CONSULTANT. In addition, any bids over the engineers' construction estimate by ten (10) percent or more will be sufficiently justified before proceeding with award or recommended rejected by the CONSULTANT.

CONSTRUCTION PHASE (2)

Element 1.20 - Sufficient Personnel

The CONSULTANT will provide sufficient personnel and services necessary to comply with AERO Project Engineers Manual, the latest revision at the time this Contract is awarded.

Element 1.21 - Pre-Construction Conference

A pre-construction conference called by the SPONSOR or AERO will be held between the SPONSOR, the FAA (if applicable), AERO, any other participating or regulatory governmental agencies, the Contractor(s) and the CONSULTANT. This pre-construction conference will be held for the Contractor and CONSULTANT to receive instructions from the SPONSOR and participating/regulatory governmental units, to develop construction schedules, and to coordinate construction.

Element 1.22 - General Information and Coordination

The CONSULTANT will provide information and coordination to the SPONSOR and Contractor as to the understanding of the plans and specifications. The CONSULTANT will not guarantee the performance of the Contractor but will report to the SPONSOR any work and materials which, in the opinion of the CONSULTANT, do not meet the requirements of the plans and specifications. The CONSULTANT will not be responsible for any acts of the Contractor whatsoever but will only pay the contractor for work performed that meets the requirements of the plans and specifications.

Element 1.23 - Engineering Survey and Layout as May be Applicable

The CONSULTANT will take original ground elevations in areas of excavation for the purpose of determining pay quantities for excavation. The CONSULTANT will stake out the work for line and grade. The stake out will consist of one set of earth grade stakes spaced not more than one hundred feet apart, with cut or fill from top of stake to the earth grade marked on the stake; slope stakes around the perimeter of grade; one set of offset stakes for drainage spaced not more than twenty-five (25) feet apart with offset distance to center of pipe and flowline of pipe marked on the stake; one set of blue top stakes driven to grade spaced not more than fifty (50) feet apart for finish base course or pavement grade; and one offset line along the edge of pavement denoting location of each light fixture. All bench marks and alignment P.O.T.'s will be available to the Contractor for his reference and checking of the CONSULTANT's stakes. The CONSULTANT will not be responsible for setting stakes other than described above, for any stakes disturbed, and any stakes set by others including bench marks and P.O.T.'s.

Element 1.24 - Materials Testing and Shop Drawings

The CONSULTANT will review and approve material testing reports submitted by the Contractor to determine if test reports meet the requirements of the specifications and will submit two copies of material testing reports to the SPONSOR or AERO. The CONSULTANT will review and approve shop drawings to determine compliance with plans and specifications and will submit two copies of all shop drawings to the SPONSOR or AERO.

Element 1.25 - Field Tests and Grade Inspection as May be Applicable

The CONSULTANT will make periodic field tests and grade inspection at the project site to determine, in the opinion of the CONSULTANT, if materials and workmanship conform to the plans and specifications. Field tests will include compaction tests for soils in place; gradation tests for aggregates; extraction tests for bituminous mixtures and compaction tests for in-place bituminous pavements; and slump, entrained air, and yield tests for concrete pavement.

Element 1.26 - Cost Estimate and Change Orders/Contract Modifications

The CONSULTANT will prepare periodic cost estimates, change orders/contract modifications, and stop and start orders as may be applicable during the construction period and present three copies of the same to the SPONSOR or AERO for approval and processing. All projects bid through MDOT lettings will have all estimates and contract modifications processed using the FieldManager computer program.

Element 1.27 - Weekly Reports

The CONSULTANT will prepare FAA Form 5370-1, Construction Progress and Inspection Report or FieldManager inspector daily reports, and submit copies to the SPONSOR or AERO weekly during the construction period.

Element 1.28 - Final Inspection

The CONSULTANT will be present at final inspection, together with the SPONSOR, AERO, participating governmental units, and the Contractor.

Element 1.29 - Final Quantities - As-Constructed Plans

The CONSULTANT will compute final pay quantities, prepare as-constructed plans, and update all plan sheets of the current Airport Layout Plan (ALP) that shows work constructed under the project. The As-Constructed Plans will be submitted to the SPONSOR and AERO for approval in an electronic pdf file. The updated ALP will be submitted in paper (22"x 34") and in an electronic pdf file to the SPONSOR and AERO.

Element 1.30 - Equipment

The CONSULTANT will furnish all necessary surveying and field testing equipment to accomplish the above named work.

SUBCONSULTANT SERVICES (3)

Element 1.31 - Subconsultant Service

Any services to be provided by subconsultants will be provided for in a subconsultant agreement, which will meet the written approval of the SPONSOR. Costs of subconsultant services will be included in Element 3.1 – Fee. The CONSULTANT will not apply a fixed fee on any of the costs for subconsultant services.

ARTICLE 2 – TIME OF BEGINNING AND COMPLETION

DESIGN PHASE (1)

Element 2.11 - Time of Beginning

Upon acceptance of this Contract by both the SPONSOR and the CONSULTANT, the CONSULTANT will have seven (7) days from the date of notification to proceed in which to organize and actually commence work.

Element 2.12 - Time for Completion

The estimated time for the CONSULTANT to complete the work named in Element 1.11 through Element 1.18 of this Contract, and to submit final plans to the SPONSOR for the SPONSOR's approval is _____ () calendar days from the date the CONSULTANT actually starts work. The CONSULTANT will report his progress to the SPONSOR at the monthly progress meetings, as required under Element 1.18, to keep the SPONSOR informed of progress and any adjustments to the estimated time schedule which may be necessary because of information supplied to the CONSULTANT by the SPONSOR or AERO, as provided under Element 1.17, or any other reasons beyond the control of either the SPONSOR or the CONSULTANT. Changes in time for completion will be in accordance with Element 4.4.

CONSTRUCTION PHASE (2)

Element 2.21 - Time of Beginning

Provided the Notice to Proceed is issued sufficiently in advance of the start of construction, the CONSULTANT will begin work seven (7) days prior to the effective date of the Notice to Proceed to the Contractor. If not, the CONSULTANT will coordinate the beginning of work with the work of the construction contractor.

Element 2.22 - Time for Completion

The CONSULTANT will finish all work under this Contract within thirty (30) days after final acceptance of the construction work by the SPONSOR.

ARTICLE 3 - PAYMENT

Element 3.1 - Fee

The SPONSOR agrees to pay the CONSULTANT as full compensation for services rendered as set forth in this Contract as follows:

Phase 1 Design

Elements 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.18 and 1.31 a firm fixed fee of \$ 85,200.00. A breakdown of the cost is included as Attachment C.

The SPONSOR will compensate the CONSULTANT for requested printed materials in excess of those identified, in accordance with the following:

Black Print Plan sheets (22" x 34")	_____ /sheet
Black Print on White Paper (11" x 17")	_____ /sheet
Black Print on White Paper (8.5" x 11")	_____ /sheet

Phase (2) Construction

Elements 1.20, 1.21, 1.22, 1.23, 1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, and 1.31 a firm fixed fee of (to be negotiated as an Amendment to this Contract, upon completion of design and

advertising for bids).

The fee described above will be considered payment in full by the SPONSOR to the CONSULTANT for all services rendered except as hereinafter provided under Article 4 - Element 4.3 - Changes in Work and Element 4.4 - Delays and Extensions. Phase (2) Construction may not be needed if it is determined by the SPONSOR to terminate this Contract at the completion of Phase (1) Design.

Element 3.2 - Progress Payments

Phase (1) Design/Phase (2) Construction

Progress payments for completed work will be based on the following schedule of payments:

All charges for service will be due and payable upon receipt of invoice by SPONSOR. In the event Phase (1) Design is completed but bids are not received, final payment will be due and payable sixty (60) days after completion of Phase (1) Design.

The CONSULTANT will submit periodic invoices for services rendered. Each invoice will be based upon the proportion of the total service actually completed at the time of billing. The final invoice will be a minimum of 10% of the total contract amount. Payment on this invoice will be retained by AERO until all Contract requirements have been completed. The SPONSOR will make prompt payments in response to the CONSULTANT's periodic statements.

The CONSULTANT agrees to pay each subconsultant for the satisfactory completion of work associated with the subcontract no later than ten (10) calendar days from the receipt of each payment the CONSULTANT receives from the State of Michigan or SPONSOR. The CONSULTANT agrees further to return retainage payments to each subconsultant within ten (10) calendar days after the subconsultant's work is satisfactorily completed. Any delay or postponement of payment from these time frames may occur only upon receipt of written approval from the SPONSOR or AERO. These requirements are also applicable to all sub-tier subconsultants and will be made a part of all subconsultant agreements.

This prompt payment provision is a requirement of 49 CFR, Part 26, as amended, and does not confer third-party beneficiary right or other direct right to a subconsultant against the SPONSOR or the State of Michigan. This provision applies to both Disadvantaged Business Enterprise (DBE) and non-DBE subconsultants.

The CONSULTANT further agrees that it will comply with 49 CFR, Part 26, as amended, and will report any and all DBE subconsultant payments to AERO semi-annually in the format set forth in AttachmentG, dated June 1, 2001, attached hereto and made a part hereof, or any other format acceptable to the SPONSOR or AERO.

At the end of the State of Michigan fiscal year, the CONSULTANT will submit estimated payment amounts for both the CONSULTANT and contractors working on projects the CONSULTANT is supervising. These amounts will be submitted to the State of Michigan to establish a payable account.

ARTICLE 4 – MISCELLANEOUS PROVISIONS

Element 4.1 - Miscellaneous Provisions

The CONSULTANT will follow, insofar as applicable and reasonable and as approved by the SPONSOR, current design standards set forth by the SPONSOR, AERO and other participating governmental agencies in effect at the time the work herein provided is started. In the event design standards change after the CONSULTANT has completed that portion of the work to which a particular standard may apply, and in the event the CONSULTANT is required by the SPONSOR to make revisions to completed work to meet revised standards and certification requirements, the CONSULTANT will be entitled to additional compensation as provided under Element 4.3 - Changes in Work.

Design standards, standard plans, specifications, special conditions, contract documents, and requirements developed by the SPONSOR, AERO, or other participating governmental agency and required to be incorporated in the final plans and documents will not be the responsibility of the CONSULTANT. All liability to third parties, for loss or damage as a result of claims, demands, costs, or judgments arising out of activities, to be carried out by the SPONSOR in the performance of this contract will be the responsibility of the SPONSOR, and not the responsibility of the CONSULTANT, if the liability, loss, or damage is caused by or arises out of, the action or failure to act on the part of the SPONSOR, or any elected or appointed officer, employee or agent of the SPONSOR, provided that nothing herein will be construed as a waiver of any governmental immunity that has been provided to the SPONSOR, or any elected or appointed officer, employee or agent of the SPONSOR by statute or court decision.

Element 4.2 - Ownership of Documents

Completed original documents, such as final contract plans, maps and specifications prepared or obtained by the CONSULTANT as provided under the terms of this Contract will be submitted in final form. The final form of the originals will be delivered to and become the property of the SPONSOR. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities and other data will remain in the possession of the CONSULTANT as instruments of service but will be made available, upon request, to the SPONSOR without restriction or limitation on their use.

In the event any of the above documents are revised by the SPONSOR, the nameplates of the CONSULTANT will be removed and the SPONSOR will assume full responsibility for the reuse of these documents.

The original signed and sealed title sheet for projects bid through MDOT will be retained in AERO files. The CONSULTANT will be provided a scanned .tif electronic file for use in completing the as-constructed plan sheets.

Element 4.3 - Changes in Work

By mutual acceptance of both the SPONSOR and the CONSULTANT, changes in work from that work described in this Contract, including changes in original design standards and changes in previously completed final plans may be accomplished by amendment to this Contract. Each amendment will describe the revision or addition of work in detail. The associated cost of the

revised or additional work will be defined in a fixed dollar amount, and an adjustment to the payment schedule (if applicable) contained in this Contract will be provided. Any change to the contract time will also be defined in each amendment. Each amendment must be signed and dated by both the SPONSOR and the CONSULTANT.

Element 4.4 - Delays and Extensions

Changes in the estimated time schedule as may be required by the SPONSOR or the CONSULTANT will be in writing, setting forth the reason for delay or extension, and the estimated time adjustment necessary or as provided in Element 4.3 - Changes in Work.

Element 4.5 - Insurance and Liability

The CONSULTANT will maintain worker's compensation and public liability insurance as required by law and will, upon request, show proof of compliance with this requirement.

Element 4.6 - General Compliance with Laws

Unless otherwise specified, this Contract will be governed by the laws of the principal address of the SPONSOR. The CONSULTANT agrees to comply with all federal, state and local laws applicable to the work.

Element 4.7 - Subletting, Assignment and Transfer

The SPONSOR and the CONSULTANT each binds themselves, their partners, successors, assignees and legal representatives to the other party to this Contract and to the partners, successors, assignees, and legal representatives of such other party with respect to all covenants of this Contract. Neither the SPONSOR nor the CONSULTANT will assign, sublet, or transfer their interest in this Contract without the written consent of the other.

Element 4.8 - CONSULTANT's Endorsement

The CONSULTANT will seal and sign all final plans and specifications furnished to the SPONSOR.

Element 4.9 - Disputes

All disputes concerning a question of fact in connection with work not disposed of by agreement between the SPONSOR and the CONSULTANT will be settled through standard court actions.

Element 4.10 - Responsibility for Claims and Liability

The CONSULTANT will save harmless the SPONSOR, AERO, FAA, or other governmental agencies from all claims and liability due to negligence of the CONSULTANT or its subcontractors, except as provided in Element 4.1.

Element 4.11 - Assignment of Antitrust Rights

With regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract, the CONSULTANT hereby irrevocably assigns its right to pursue any claims for relief or causes of action for damages sustained by the State of Michigan or the MDOT due to any violation of 15 USC, Sections 1 - 15, and/or 1984 PA 274, MCL 445.771 - .788, excluding Section 4a, to the State of Michigan or MDOT.

The CONSULTANT will require any subcontractors to irrevocably assign their rights to pursue

any claims for relief or causes of action for damages sustained by the State of Michigan or the MDOT with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the MDOT under this Contract due to any violation of 15 USC, Sections 1 - 15 and/or 1984 PA 274, MCL 445.771 - .788, excluding Section 4a, to the State of Michigan or MDOT as a third-party beneficiary.

The CONSULTANT will notify the SPONSOR if it becomes aware that an antitrust violation with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract may have occurred or is threatened to occur. The CONSULTANT will also notify the SPONSOR or AERO if it becomes aware of any persons intent to commence, or of commencement of, an antitrust action with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract.

Element 4.12 - Prohibition of Discrimination in State Contracts

The CONSULTANT hereby agrees to comply with the requirements of Appendix A, attached hereto and made a part hereof.

Element 4.13 – Additional Provisions

Additional provisions of this Contract are included as Attachment B.

Element 4.14 – Non-Construction Requirements

The CONSULTANT hereby agrees to comply with the requirements of the Non-construction requirements of Attachment F, attached hereto and made a part hereof.

IN WITNESS WHEREOF the parties hereto have fixed their hand this day and date first written above.

ACCEPTED BY THE SPONSOR

Witness: City of Charlevoix
SPONSOR
210 State Street
Street Address
Charlevoix, MI 49720
City, State & Zip Code

BY: _____
Authorized Representative of SPONSOR

.....
ACCEPTED BY THE CONSULTANT

D. Delmon
Witness: RS&H Michigan, Inc.
CONSULTANT
827 Willow Run Airport, Second Floor
Street Address
Ypsilanti MI 48198
City, State & Zip Code

BY: Pat Lane
Authorized Representative

INCLUDE THIS PAGE IN ALL CONTRACTS!!

Consultants are advised to use the following attachment schedule. Any additional clauses or requirements should be included in Attachment B. The preceding is the base contract; no changes may be made to the wordage or numbering without the written approval of the Airports Division, Bureau of Aeronautics and Freight Services.

SCHEDULE OF ATTACHMENTS

Attachment A	Prohibition of Discrimination in State Contracts
Attachment B	Additional Provisions
Attachment C	Cost Breakdown
Attachment D	Sketches
Attachment E	Scope of Work/Services
Attachment F	Non-construction contract requirements
Attachment G	Prime CONSULTANT Statement of DBE Subconsultant Payments

APPENDIX A
PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS

In connection with the performance of work under this contract; the Contractor agrees as follows:

1. In accordance with Act No. 453, Public Acts of 1976, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a handicap that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants will be regarded as a material breach of this contract.
2. The Contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, will contain a covenant the same as hereinbefore set forth in Section 1 of this Appendix.
3. The Contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action will include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
4. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.
5. The Contractor or his collective bargaining representative will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this appendix.
6. The Contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.
7. The Contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each

subcontractor as well as the Contractor himself, and said Contractor will permit access to his books, records, and accounts by the Michigan Civil Rights Commission, and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, and orders of the Michigan Civil Rights Commission.

8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this Contract, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated, and/or declare the Contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the contractor complies with said order of the Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the Contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency will be notified of such possible remedy and will be given the option by the Civil Rights Commission to participate in such proceedings.
9. The Contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

March 1998

ATTACHMENT B
Additional Provisions

ATTACHMENT C

Cost Breakdown



RUNWAY 9-27 FRICTION IMPROVEMENT - DESIGN & BID PHASE SERVICES

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CADD TECHN	SUPPORT STAFF	TOTAL
BASIC SERVICES (LUMP SUM)							
Task 1: Investigative Services							
Task 1.1 Pre-Design Meeting w/Airport		8		4			12
Task 1.2 Data Collection				4			4
Task 1.3 Coordinate Surveying Needs			2				2
Task 1.4 Coordinate Geotechnical Needs			2				2
Task 1.5 NEPA Documentation		2		16	2		20
Task 1.6 Pavement Field Investigation				8	8	2	18
TOTAL HOURS	0	10	4	32	10	2	58
RATE	\$75.00	\$56.00	\$42.00	\$30.00	\$24.00	\$18.00	\$33.86
TOTAL DIRECT LABOR \$	\$0	\$560	\$168	\$960	\$240	\$36	\$1,964
OVERHEAD @	178.83%						\$3,512
PROFIT @	11%						\$602
TOTAL BURDENED LABOR @	3.10						\$8,079
OTHER DIRECT NON-SALARY COSTS							
REPRODUCTION	# DWGS @	# PAGES @					
Drawings	\$1.50	\$0.10	#SETS				\$0
Reports/Specifications	0						\$0
TOTAL REPRODUCTION							\$0
POSTAGE/DELIVERY	# PCKGS @	# PCKGS @					
Drawings and Specifications	\$15.00	\$3.00					\$0
TOTAL POSTAGE/DELIVERY							\$0
SPECIALTY SUBCONSULTANTS							
Survey - Inland Seas Engineering (DBE) - Task 1.3							\$18,391
Geotechnical - Inland Seas Engineering (DBE) - Task 1.4							\$3,800
TOTAL SPECIALTY SUBCONSULTANTS							\$22,191
TRAVEL							
	# People	# Days	Airfare @ \$900	Car @ \$65	Lodging @ \$125	Per Diem @ \$40	No. of Times
Design Kickoff Meeting	2	2	\$0	\$130	\$250	\$160	1
Data Collection	1	2	\$0	\$130	\$125	\$80	1
Coordination Meeting	2	2	\$0	\$130	\$250	\$160	1
TOTAL TRAVEL							\$1,415
MILEAGE							
	0	Miles @	\$0.50				\$0
TOTAL ODCs							\$23,606
Total Proposed Fee for:	Task 1: Investigative Services						\$29,685

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CADD TECH	SUPPORT STAFF	TOTAL
Task 2: 60% Design							
Task 2.1 Prepare 60% Documents			8	32	40	4	84
60% Plans			2	4	4	2	12
Preliminary Engineer's Report			4			4	8
80% Contract Documents			4	16	16	4	40
60% Specifications (FAA)			4	4			8
Task 2.2 50% In-House Q.C. Review							0
Task 2.3 50% Design Submittal			8		8		16
Task 2.4 50% Design Review Meeting							
TOTAL HOURS	0	16	34	60	44	14	168
RATE	\$75.00	\$66.00	\$42.00	\$30.00	\$24.00	\$18.00	\$32.33
TOTAL DIRECT LABOR \$	\$0	\$896	\$1,428	\$1,800	\$1,056	\$252	\$5,432
OVERHEAD @	178.83%						\$9,714
PROFIT @	11.0%						\$1,666
TOTAL BURDENED LABOR @	3.10						\$18,312
OTHER DIRECT NON-SALARY COSTS							
REPRODUCTION	# DWGS	# PAGES					
	@	@					
	\$1.50	\$0.10	#SETS				
Drawings	50		2				\$150
Reports/Specifications		400	2				\$80
TOTAL REPRODUCTION							\$230
POSTAGE/DELIVERY	# PCKGS	# PCKGS					
	@	@					
	\$15.00	\$3.00					
Drawings and Specifications	2	2					\$36
TOTAL POSTAGE/DELIVERY							\$36
TRAVEL	# People	# Days	Airfare @ \$500	Car @ \$65	Lodging @ \$125	Per Diem @ \$40	No. of Times
50% Design Review Meeting	2	2	\$0	\$130	\$250	\$160	1
Coordination Meeting - Electrical Design	1	2	\$500	\$130	\$125	\$80	1
							\$1,375
MILEAGE	0	Miles @	\$0.50				\$0
TOTAL ODC's							\$1,641
Total Proposed Fee for:	Task 2: 60% Design						\$18,453

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CARD TECH	SUPPORT STAFF	TOTAL
Task 3: 90% Design							
Task 3.1 Incorporate 80% Review Comments			8	8	4		20
Task 3.2 Prepare 90% Documents			8	24	20	4	56
90% Plans			4	4	4	2	14
Final Engineer's Report			2	8		2	12
90% Contract Documents			4	8		4	16
90% Specifications (FAA)		4	8	32			44
Task 3.3 FAA Airspace Submittals			4	4			8
Task 3.4 90% In-House Q.C. Review							0
Task 3.5 90% Design Submittal			8		8		16
Task 3.6 90% Design Review Meeting			2		2		4
Task 3.7 FAA Checklist/Submission 90% Review							
TOTAL HOURS		0	18	34	90	28	162
RATE		\$75.00	\$56.00	\$42.00	\$30.00	\$24.00	\$33.10
TOTAL DIRECT LABOR \$		\$0	\$1,008	\$1,428	\$2,700	\$672	\$6,024
OVERHEAD @ 178.83%							\$10,773
PROFIT @ 11.0%							\$1,848
TOTAL BURDENED LABOR @ 3.10							\$18,644
OTHER DIRECT NON-SALARY COSTS							
	# DWGS	# PAGES					
REPRODUCTION	@	@	#SETS				
	\$1.50	\$0.10					
Drawings	60		2				\$180
Reports/Specifications		500	2				\$100
TOTAL REPRODUCTION							\$280
	# PCKGS	# PCKGS					
POSTAGE/DELIVERY	@	@					
	\$15.00	\$3.60					
Drawings and Specifications	2	2					\$38
TOTAL POSTAGE/DELIVERY							\$36
TRAVEL		Airfare @	Car @	Lodging @	Per Diem @	No. of	
	# People	# Days	\$500	\$65	\$125	\$40	Times
90% Review Meeting	2	2	\$0	\$130	\$250	\$160	1
							\$540
MILEAGE		0 Miles @	\$0.50				\$0
TOTAL ODC's							\$856
Total Proposed Fee for:	Task 3: 90% Design						\$19,500

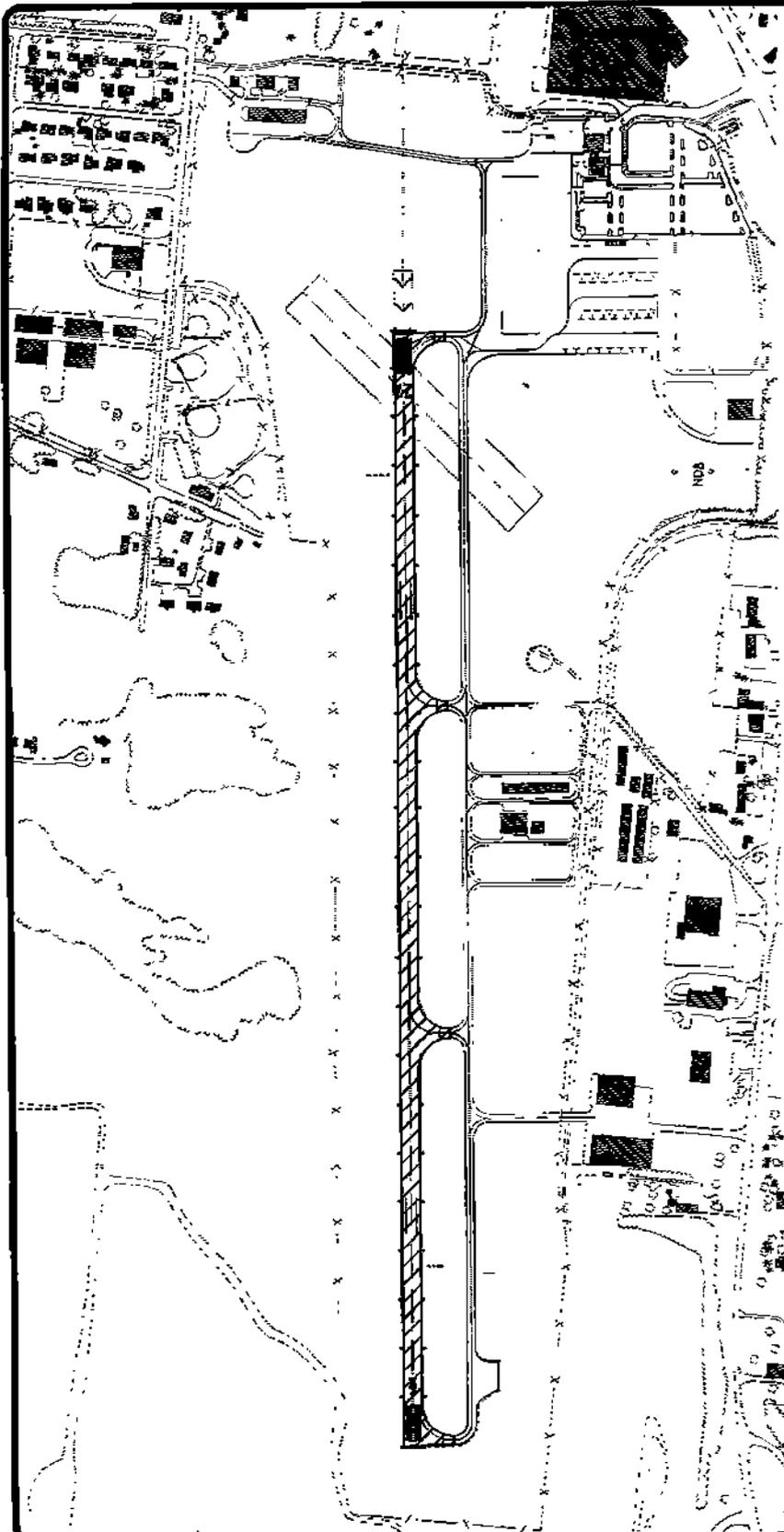
SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CADD TECHN	SUPPORT STAFF	TOTAL
Task 4: 100% (Bid Set) Design							
Task 4.1 Incorporate 80% Review Comments		2	2	8	4		16
Task 4.2 Prepare 100% Bid Documents							
Bid Set Plans			2	24	12	2	40
Final Contract Documents			2	8		2	12
Final Specifications (FAA)			4	8		2	14
Task 4.3 Prepare Final Cost Estimate		2	2	8			12
Task 4.4 100% In-House Q.C. Review		4	4				8
Task 4.5 100% Design Submittal							0
TOTAL HOURS	0	8	16	56	16	6	102
RATE	\$75.00	\$56.00	\$42.00	\$30.00	\$24.00	\$18.00	\$32.27
TOTAL DIRECT LABOR \$	\$0	\$448	\$672	\$1,680	\$384	\$108	\$3,292
OVERHEAD @ 178.83%							\$5,887
PROFIT @ 11.0%							\$1,010
TOTAL BURDENED LABOR @ 3.10							\$10,189
OTHER DIRECT NON-SALARY COSTS							
REPRODUCTION	# DWGS @ \$1.50	# PAGES @ \$0.10	#SETS				
Drawings	60		2				\$180
Reports/Specifications		500	2				\$100
TOTAL REPRODUCTION							\$280
POSTAGE/DELIVERY	# PCKGS @ \$15.00	# PCKGS @ \$3.00					
Drawings and Specifications	2	2					\$36
TOTAL POSTAGE/DELIVERY							\$36
TRAVEL	# People	# Days	Airfare @ \$500	Car @ \$65	Lodging @ \$125	Per Diem @ \$40	No. of Times
Coordination Meeting	2	2	\$0	\$130	\$250	\$160	1
							\$540
MILEAGE	0 Miles @ \$0.50						\$0
TOTAL ODC's							\$856
Total Proposed Fee for:	Task 4: 100% (Bid Set) Design						\$11,045

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CADD TECHN	SUPPORT STAFF	TOTAL
Task 5: Bid/Award Services							
Task 5.1 Pre-Bid Conference		8		8			16
Task 5.2 Addenda			4	4			8
Task 5.3 Bid Tabulation/Recommendation		2		4			6
TOTAL HOURS	0	10	4	16	0	0	30
RATE	\$75.00	\$56.00	\$42.00	\$30.00	\$24.00	\$18.00	\$40.27
TOTAL DIRECT LABOR \$	\$0	\$560	\$168	\$480	\$0	\$0	\$1,208
OVERHEAD @ 178.83%							\$2,180
PROFIT @ 11.0%							\$371
TOTAL BURDENED LABOR @ 3.10							\$3,739
OTHER DIRECT NON-SALARY COSTS							
REPRODUCTION	# DWGS @	# PAGES @		#SETS			
Drawings	10 @ \$1.50			2			\$30
Reports/Specifications		100 @ \$0.10		2			\$20
TOTAL REPRODUCTION							\$50
POSTAGE/DELIVERY	# PCKGS @	# PCKGS @					
Drawings and Specifications	2 @ \$15.80	2 @ \$3.00					\$36
TOTAL POSTAGE/DELIVERY							\$36
TRAVEL	# People	# Days	Airfare @ \$500	Car @ \$65	Lodging @ \$125	Per Diem @ \$40	No. of Times
Pre-Bid Conference	2	2	\$0	\$130	\$250	\$160	1
Bid Opening	2	2	\$0	\$130	\$250	\$160	1
TOTAL TRAVEL							\$1,080
MILEAGE	0 Miles @	\$0.50					\$0
TOTAL ODC's							\$1,186
Total Proposed Fee for:	Task 5: Bid/Award Services						\$4,905
TOTAL PROPOSED FEE (LUMP SUM) FOR:	BASIC SERVICES						\$83,500

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MGR	PROJECT ENGINEER	STAFF ENGINEER	CMO TECH	SUPPORT STAFF	TOTAL
SUPPLEMENTAL SERVICES (LUMP SUM)							
Task 6: Supplemental Services							
Task 6.1 PCN Analysis			4	8			12
TOTAL HOURS	0	4	8	0	0	0	12
RATE	\$75.00	\$56.00	\$42.00	\$30.00	\$24.00	\$18.00	\$46.67
TOTAL DIRECT LABOR \$	\$0	\$224	\$336	\$0	\$0	\$0	\$560
OVERHEAD @	178.85%						\$1,001
PROFIT @	11%						\$172
TOTAL BURDENED LABOR @	3.10						\$1,733
OTHER DIRECT NON-SALARY COSTS							
REPRODUCTION	# DWGS @	# PAGES @	#SETS				
	\$1.50	\$0.10					\$0
Drawings	0						\$0
Reports/Specifications		0	0				\$0
TOTAL REPRODUCTION							\$0
POSTAGE/DELIVERY	# PCKGS @	# PCKGS @					
	\$15.00	\$3.00					\$0
Drawings and Specifications	0	0					\$0
TOTAL POSTAGE/DELIVERY							\$0
SPECIALTY SUBCONSULTANTS							
TOTAL SPECIALTY SUBCONSULTANTS							\$0
TRAVEL	# People	# Days	Airfare @ \$500	Car @ \$65	Lodging @ \$125	Per Diem @ \$40	No. of Times
			\$0	\$0	\$0	\$0	1
							\$0
MILEAGE	0	Miles @	\$0.50				\$0
TOTAL ODC's							\$0
Total Proposed Fee for:	Task 6: Supplemental Services						\$1,700
GRAND TOTAL PROPOSED FEE (LUMP SUM) FOR:	RUNWAY 9-27 FRICTION IMPROVEMENT - DESIGN & BID PHASE SERVICES						\$65,200
	Runway 9-27 Friction Improvement - Design & Bid Services						\$ 72,100
	Runway 9-27 Lighting Rehabilitation - Design & Bid Services						\$ 11,000
	Runway 27 RPZ Sidewalk Removal - Design & Bid Services						\$ 2,000

ATTACHMENT D

**Sketch Showing Location of Work to be
Performed as Part of this Contract**



NORTH



SCALE: 1" = 700'

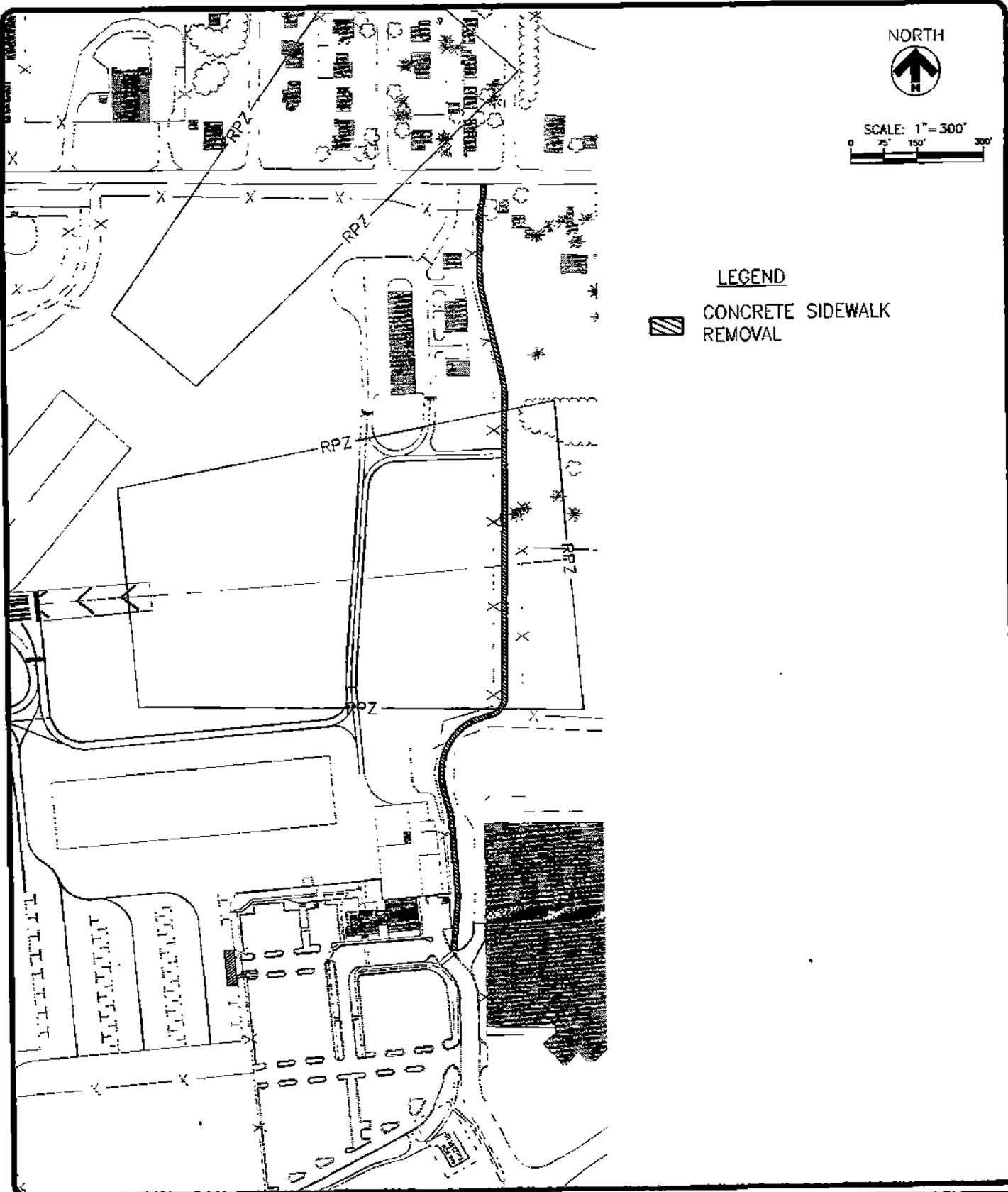


LEGEND

- RUNWAY FRICTION COURSE
- RUNWAY EDGE LIGHT

**CHARLEVOIX MUNICIPAL AIRPORT
CAPITAL IMPROVEMENT PROGRAM**

**RUNWAY 9-27 FRICTION IMPROVEMENT,
LIGHTING REHABILITATION & PCN
DETERMINATION - SITE PLAN**



NORTH



SCALE: 1" = 300'
 0 75' 150' 300'

LEGEND

 CONCRETE SIDEWALK REMOVAL




**CHARLEVOIX MUNICIPAL AIRPORT
 CAPITAL IMPROVEMENT PROGRAM**

**RUNWAY 27 RPZ SIDEWALK REMOVAL
 - SITE PLAN**

ATTACHMENT E

Scope of Work/Services

**ATTACHMENT E
SCOPE OF SERVICES**

RUNWAY 9-27 FRICTION IMPROVEMENT

**CITY OF CHARLEVOIX
CHARLEVOIX MUNICIPAL AIRPORT
CHARLEVOIX, MICHIGAN**

I. PROJECT DESCRIPTION

This project consists of design engineering and bid phase services for the Runway 9-27 Friction Improvement project at Charlevoix Municipal Airport, in accordance with FAA and MDOT Office of Aeronautics (AERO) standards. Specific elements of work include:

- NEPA documentation – Categorical Exclusion Long Form
- Bituminous pavement analysis – Runway 9-27 pavement
- Bituminous pavement design – Runway 9-27 pavement
- Runway 9-27 edge lighting upgrade design
- Construction Safety/Phasing Plans and security design.
- Pavement Classification Number (PCN) calculation for Runway 9-27

Construction Administration (CA) and Resident Project Representation (RPR) services will be negotiated at a later date.

II. PROJECT TASKS

TASK 1: INVESTIGATIVE SERVICES

Task 1.1

The Consultant shall coordinate and attend one (1) pre-design meeting with the City of Charlevoix staff in Charlevoix, MI to establish the preliminary design goals and methods. Site visits and investigations shall be as necessary.

Task 1.2

The Consultant shall collect, review, compile, and summarize available data related to the project. The Consultant will review the City of Charlevoix files and records to determine relevant information for the Airport to provide, such as survey data, previous design plans and as-built plans, specifications, and geotechnical investigation reports.

Task 1.3

The Consultant shall perform necessary field survey for the project. All surveying activities will be coordinated with the City of Charlevoix prior to surveying. The Consultant shall coordinate and review specific geometric criteria required for topography of existing pavements, airfield lighting and signage, drainage structures and other utilities.

The survey work shall include the following tasks:

- All survey work shall be performed in the Michigan State Plane coordinate system.
- Survey shall be performed at appropriate intervals within the project area. Spot elevations at appropriate intervals shall be included.
- Accurately locate any inlets, manholes, utilities, edge lights, signs, nav aids, edges of pavement, etc. which are within the project limits and provide top elevations only for each structure. Pipe sizes entering and exiting all structures shall be accurately noted.
- Fillets at all pavement intersections shall be supplemented with sufficient intermediate locations and elevations to provide accurate contouring of the intersections.
- An accurate plan of all facilities within the project limits shall be provided, as well as all appurtenant structures adjacent to or near the limits.
- All pavement grades shall be measured to the nearest hundredth of a foot and ground shots to the nearest tenth of a foot. All foot contours shall be interpolated and shown on the survey drawings and electronic files. The contours shall take into account all faults, break lines, etc.
- Show and site benchmark locations and elevations. Benchmarks shall be set using a closed loop from an established USGS benchmark on the airport. All level runs, benchmark descriptions and USGS benchmark descriptions shall be clearly recorded.

All survey data will be provided to the City of Charlevoix, if requested, in an acceptable format.

Task 1.4

The Consultant shall perform a Geotechnical Investigation and prepare a Geotechnical Report, in accordance with FAA Advisory Circular 150/5320-6E, "Airport Pavement Design and Evaluation". All geotechnical activities are to be coordinated with the City of Charlevoix.

The Geotechnical Investigation shall include the following items:

- Mobilization.
- Up to eight (6) borings in the area of existing Runway 9-27 pavements.
- One (1) boring shall be to a depth of at least 10 feet.
- Standard boring logs which will include material types, thickness and specifics of any materials present.
- Determination of groundwater table level and the associated seasonal high and/or low groundwater levels.
- Calculation of California Bearing Ratio (CBR) for each material found.

The Geotechnical Report shall include the following items:

- A description of the site and subsurface conditions, design recommendations, and a discussion of any special considerations (i.e. removal of unsuitable material, re-compaction of weak soils, estimated settlement, groundwater control, etc.).
- Stratified soil boring profiles, laboratory test data sheets, design CBR calculations and graphs, and any other pertinent information.

All geotechnical reports and data will be provided to the City of Charlevoix, if requested, in an acceptable format.

Task 1.5

The Consultant shall prepare National Environmental Policy Act (NEPA) documentation, required for environmental clearance of the project. This includes preparation of a Categorical Exclusion (CatEx) Long Form. Consultant shall submit CatEx Long Form to the City of Charlevoix for submittal to FAA.

Task 1.6

The Consultant shall conduct a detailed field investigation of Runway 9-27 pavements to map and quantify pavement distresses, including longitudinal and transverse cracking, block cracking, patch deterioration, raveling, weathering and rutting. This information will be utilized in preparation of the pavement design in subsequent tasks.

TASK 2: 60% DESIGN

Task 2.1

The Consultant shall prepare 60% plans, specifications, opinion of probable construction cost, and Final Engineer's Report. The development of the 90% design documents will be coordinated with City of Charlevoix authorized representative(s).

Task 2.2

The Consultant shall conduct an in-house quality control review of the 60% design plans, specifications, opinion of probable construction cost, and Final Engineer's Report prior to submittal to City of Charlevoix authorized representative(s).

Task 2.3

The Consultant shall submit two (2) sets of the 60% plans, specifications, opinion of probable construction cost, and Final Engineer's Report to the City of Charlevoix for review, comment, and approval to proceed to Bid Set design.

Task 2.4

The Consultant shall coordinate and attend one (1) meeting in Charlevoix, MI to review the 60% design submittal. The Consultant will provide written minutes of the meeting and distribute to all attendees within five (5) working days of the meeting. City of Charlevoix authorized representative(s) will provide any additional written comments to the Consultant within two weeks of the design review meeting.

TASK 3: 90% DESIGN

Task 3.1

The Consultant shall review all comments received from City of Charlevoix authorized representative(s) from 60% design submittal review and incorporate applicable comments into the plans, specifications, opinion of probable construction cost, and Engineer's Report.

Task 3.2

The Consultant shall prepare 90% plans, specifications, opinion of probable construction cost, and Final Engineer's Report. The development of the 90% design documents will be coordinated with City of Charlevoix authorized representative(s).

Task 3.3

RS&H Michigan, Inc.
Charlevoix Municipal Airport
City of Charlevoix

The Consultant shall prepare Construction Safety/Phasing Plans, FAA Form 7460-1 and other appropriate documentation for FAA airspace review for the project, and submit to the City of Charlevoix for submittal to the FAA for review and comment.

Task 3.4

The Consultant shall conduct an in-house quality control review of the 90% design plans, specifications, opinion of probable construction cost, and Final Engineer's Report prior to submittal to City of Charlevoix authorized representative(s).

Task 3.5

The Consultant shall submit two (2) sets of the 90% plans, specifications, opinion of probable construction cost, and Final Engineer's Report to the City of Charlevoix for review, comment, and approval to proceed to Bid Set design.

Task 3.6

The Consultant shall coordinate and attend one (1) meeting in Charlevoix, MI to review the 90% design submittal. The Consultant will provide written minutes of the meeting and distribute to all attendees within five (5) working days of the meeting. City of Charlevoix authorized representative(s) will provide any additional written comments to the Consultant within two weeks of the design review meeting.

Task 3.7

The Consultant shall submit the 90% plans, specifications, and opinion of probable construction cost to the FAA for review and comment.

TASK 4: 100% (BID SET) DESIGN

Task 4.1

The Consultant shall review all comments received from City of Charlevoix authorized representative(s) from 90% design submittal review and incorporate applicable comments into the plans, specifications, and opinion of probable construction cost.

Task 4.2

The Consultant shall prepare Bid Set plans and technical specifications in accordance with FAA and AERO standards. Specifications shall be based on a unit price total cost construction contract. Front-end specification requirements and format shall include, but not be limited to, the advertisement to bid, legal requirements, proposal, contract, bond forms, general provisions, labor rates, minority participation requirements, special conditions, insurance requirements, and any other pertinent and or required information.

Task 4.3

The Consultant shall prepare final opinion of probable construction costs. The opinion of probable construction cost is made on the basis of the experience, qualifications, and best judgment of a professional consultant familiar with the construction industry. However, the Consultant has no control over the cost of labor and materials, general contractor's or subcontractor's method of determining prices, or competitive bidding and market conditions. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Task 4.4

The Consultant shall conduct an in-house quality control review of the Bid Set design plans, specifications, and opinion of probable construction cost, and related documentation prior to each submittal to the City of Charlevoix.

Task 4.5

The Consultant shall submit to the City of Charlevoix all required documentation for CVX's use in bidding the project, including bidding documents, plans, specifications, and engineer's opinion of probable construction cost.

TASK 5: BID/AWARD SERVICES

Task 5.1

The Consultant shall attend a pre-bid conference at the Airport, receive comments, record the minutes of the conference and distribute to City of Charlevoix authorized representative(s) and prospective contractors.

Task 5.2

The Consultant shall issue to the City of Charlevoix all required information to revise plans, specifications and other contract documents prepared by the Consultant in order to (1) provide clarifications, (2) correct discrepancies, or (3) answer bidder questions.

Task 5.3

The Consultant review contractor bids for errors and Improprieties, tabulate submitted bids, and provide the City of Charlevoix with a recommendation for award of construction contract.

TASK 6: SUPPLEMENTAL SERVICES

Task 6.1

The Consultant shall perform all analysis necessary to calculate the Pavement Classification Number (PCN) for Runway 9-27. The analysis and calculations will be performed in accordance with FAA Advisory Circular 150/5335-5B, "Standardized Method of Reporting Airport Pavement Strength – PCN".

III. PRESENTATIONS AND/OR MEETINGS

The Consultant will prepare for and attend the following meetings:

- 1) Project Pre-design or Kick-off Meeting
- 3) Project 60% Design Review Meeting
- 4) Project 90% Design Review Meeting
- 5) Pre-Bid Conference at Airport
- 6) Required meetings with tenants

IV. DELIVERABLES

The Consultant will provide the following deliverables:

- 1) 2 Sets of Pavement Classification Number (PCN) Report

- 3) 2 Sets of 60% Plans, Specifications, Cost Estimate, and Engineer's Report
- 4) 2 Sets of 90% Plans, Specifications, Cost Estimate, and Engineer's Report
- 5) 2 Sets of 100% (Bid Set) Plans, Supplemental Specifications and Cost Estimate
- 6) 8 sets of safety & phasing plans, 7460-1 Forms, and other documentation as necessary for FAA airspace and safety/phasing reviews
- 7) Bid tabulation and recommendation for award of construction contract

V. SCHEDULE

Project Pre-Design or Kick-Off Meeting	August 2015
Project 60% Design Review Meeting	December 2015
Project 90% Design Review Meeting	February 2015
Bid Set Available to Contractors	April 2015
Pre-Bid Conference	April 2015
Bid Opening	May 2015

Attachment F

PROFESSIONAL SERVICES A/E CONTRACT

CIVIL RIGHTS ACT OF 1964, TITLE VI – 49 CFR PART 21 CONTRACTUAL REQUIREMENTS

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

- 1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the **Title VI List of Pertinent Nondiscrimination Statutes and Authorities**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- 3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- 4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- 5. Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 GENERAL
CIVIL RIGHTS PROVISIONS
49 U.S.C. 47123**

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property, real property or interest therein; structures or improvements thereon.

In these cases the provision obligates the party or any transferee for the longer of the following periods:

- (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or
- (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property.

ACCESS TO RECORDS AND REPORTS
49 CFR PART 18.36(i)

The Contractor will maintain an acceptable cost accounting system. The Contractor agrees to provide the SPONSOR, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representative's access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this Contract for a period of not less than three years after final payment is made and all pending matters are closed.

RIGHTS TO INVENTIONS
2 CFR 200 Appendix II(F)

All rights to inventions and materials generated under this contract are subject to requirements and regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

Appendix C
Assurances that Recipients and Contractors Must Make
(Excerpts from US DOT Regulation 49 CFR § 26.13)
(Revised October 1, 2005)

- A. Each financial assistance agreement signed with a DOT operating administration (or a primary recipient) must include the following assurance:

The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any US DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

- B. Each contract MDOT signs with a contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance:

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this

contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES
49 CFR Part 20, Appendix A

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the bidder or offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

TRADE RESTRICTION CLAUSE
49 CFR PART 30

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract will be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the SPONSOR cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor will provide immediate written notice to the SPONSOR if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the SPONSOR cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing will be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

TERMINATION OF CONTRACT 2 CFR § 200 Appendix II(B)

For all contracts in excess of \$10,000:

- a. The SPONSOR may, by written notice, terminate this contract in whole or in part at any time, either for the SPONSOR's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services will be immediately discontinued (unless the notice directs

otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the SPONSOR.

- b. If the termination is for the convenience of the SPONSOR, an equitable adjustment in the contract price will be made, but no amount will be allowed for anticipated profit on unperformed services.
- c. If the termination is due to failure to fulfill the contractor's obligations, the SPONSOR may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor will be liable to the SPONSOR for any additional cost occasioned to the SPONSOR thereby.
- d. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination will be deemed to have been effected for the convenience of the SPONSOR. In such event, adjustment in the contract price will be made as provided in paragraph 2 of this clause.
- e. The rights and remedies of the SPONSOR provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION
2 CFR part 180 (Subpart C), 2 CFR part 1200
DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility

For all contracts and subcontracts in excess of \$25,000:

CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR):

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS):

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

BREACH OF CONTRACT TERMS
49 CFR Part 18.36

For all contracts in excess of \$100,000:

Any violation or breach of terms of this contract on the part of the contractor or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this Contract. The duties and obligations imposed by the Contract Documents and the rights and remedies available there under will be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

CLEAN AIR AND WATER POLLUTION CONTROL
49 CFR Part 18.36(i)(12)
(April 14, 2008)

Contractors and subcontractors agree for all contracts in excess of \$100,000:

- a. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- b. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued there under;
- c. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;
- d. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

CONTRACT WORKHOURS AND SAFETY
STANDARDS ACT REQUIREMENTS
2 CFR 200 Appendix II (E)

Contractors and subcontractors agree for all contracts in excess of \$100,000:

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

1. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

2. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

3. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

DISADVANTAGED BUSINESS ENTERPRISES

49 CFR part 26

Contract Assurance (§ 26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts.

Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

Prompt Payment (§26.29)- The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than ten days from the receipt of each payment the prime contractor receives from the SPONSOR. The prime contractor agrees further to return retainage payments to each subcontractor within ten days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the SPONSOR. This clause applies to both DBE and non-DBE subcontractors.

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)
29 USC § 201, et seq.

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

Requirement	Federal Agency with Enforcement Responsibilities
Federal Fair Labor Standards Act (29 USC 201)	U.S. Department of Labor – Wage and Hour Division

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970
20 CFR part 1910

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

Requirement	Federal Agency with Enforcement Responsibilities
Occupational Safety and Health Act of 1970 (20 CFR Part 1910)	U.S. Department of Labor – Occupational Safety and Health Administration

TEXTING WHEN DRIVING
Executive Order 13513, and DOT Order 3902.10

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

The Contractor must promote policies and initiatives for employees and other work personnel that decrease crashes by distracted drivers, including policies to ban text messaging while driving. The Contractor must include these policies in each third party subcontract involved on this project.

Prime CONSULTANT Statement of DBE Sub-CONSULTANT Payments
Information required in accordance with 49 CFR §26.37 to monitor progress of the prime CONSULTANT in meeting contractual obligations to DBEs.

PRIME CONSULTANT: CHECK IF PRIME IS MDOT-DBE CERTIFIED AUTHORIZATION NO. _____ CONTRACT NO. _____

BILLING PERIOD: Check if Final Payment JOB NO. _____

CERTIFIED DBE SUBCONSULTANT	SERVICES WORK PERFORMED	TOTAL CONTRACT AMOUNT	CUMULATIVE DOLLAR VALUE OF SERVICES COMPLETED	DEDUCTIONS	ACTUAL AMOUNT PAID TO DATE	ACTUAL AMOUNT PAID DURING THIS REPORTING PERIOD	DBE AUTHORIZED SIGNATURE (Final Payment Report Only)	DATE

As the authorized representative of the above prime CONSULTANT, I state that, to the best of my knowledge, this information is true and accurate.
 PRIME CONSULTANT'S AUTHORIZED REPRESENTATIVE (SIGNATURE) _____ TITLE _____ DATE _____

FOR MDOT USE ONLY

COMMENTS: _____
 CONTRACT ADMINISTRATOR (SIGNATURE) _____ DATE _____

SPECIAL NOTE: "Prime CONSULTANT or Authorized Representative" refers to recipients of federal funds as defined at 49 Code of Federal Regulations Part 26.

INSTRUCTIONS

PRIME CONSULTANT OR AUTHORIZED REPRESENTATIVE:

This statement reports the actual dollar amounts of the project cost earned by and paid to DBE subCONSULTANTS. Complete and submit to the Contract Administrator with each billing and within 20 days of receipt of final payment. Some forms may be blank if no payment was made since the previous billing.

For "Contract No., Authorization No.," and "Job No." as appropriate, use the numbers assigned by MDOT.

For "Period Covered," report the calendar days covered by the billing.

For "Services Work Performed" report the main service performed by the subCONSULTANT during the reporting period.

For "Total Contract Amount" report the total amount of the contract between the prime CONSULTANT and the subCONSULTANT.

For "Cumulative Dollar Value of Services Completed" report the total amount the subCONSULTANT has earned since beginning this project.

For "Deductions," report deductions made by the prime CONSULTANT to the subCONSULTANT's "Cumulative Dollar Value of Services Completed" for retainage, bond or other fees, materials, services or equipment provided to the subCONSULTANT according to mutual, prior agreement (documentation of such agreement may be required by MDOT).

For "Actual Amount Paid to Date," report cumulative actual payments made to the subCONSULTANT for services completed.

For "Actual Amount Paid During this Reporting Period" report actual payments made to the subcontractor for services during this reporting period.

Provide "DBE Authorized Signature" for final payment only.

Be sure to sign, title and date this statement.

MDOT CONTRACT ADMINISTRATOR:

Complete "Comments" if necessary, sign, date and forward to the Office of Business Development within seven (7) days of receipt.

MDOT Office of Business Development
P.O. Box 30050
Lansing, Michigan 48909
Questions about this form? call Toll-free, 1-866-DBE-1264

CHARLEVOIX CITY COUNCIL

AGENDA ITEM

AGENDA ITEM TITLE: Appointment for Committee to decide on Job Description/Responsibilities for DDA/Main Street Director

MEETING DATE: July 20, 2015

PRESENTED BY: Annie Doyle, DDA/Main Street Director

ATTACHMENTS: None

Background and Discussion

As a result of the additional Main Street Program job responsibilities, the job description for the DDA/Main Street Director has changed and needs to be officially documented and agreed upon by all involved stakeholders. The DDA/Main Street Board voted unanimously in their June 22, 2015 regularly scheduled meeting to create an executive committee tasked with this revision. The Board recommended the following individuals for the committee: Kirby Dipert, Fred DiMartino, Gabe Campbell, Patty DeRosia, Annie Doyle and a yet-to-be-determined City Council member. The DDA/Main Street Board is requesting the appointment of one additional member of City Council for this committee.

Recommendation

The City Council appoint an individual from the Council to serve on the executive committee tasked with creating a revised job description and associated set of responsibilities for the DDA/Main Street Director position.

**CHARLEVOIX CITY COUNCIL
AGENDA ITEM**

AGENDA ITEM TITLE: Consideration to Approve the Firefighter and Lifeguard Job Description
DATE: July 20, 2015
PRESENTED BY: Michael Spencer, Interim City Manager
DRAFTED BY: Patty DeRosia, Human Resource Assistant
ATTACHMENTS: Firefighter and Lifeguard Job Descriptions

BACKGROUND INFORMATION: We are presenting a job description for the new part time Firefighter position and revising the Lifeguard job description to clarify what certification is needed.

RECOMMENDATION: Motion to Approve the Lifeguard and Firefighter job descriptions.

CITY OF CHARLEVOIX

Title: Firefighter **FLSA:** Non-exempt
Department: Fire **STATUS:** Part-Time, Non-Union
Reports to: Fire Chief
Date: July 2015

Position Purpose and Objectives

The primary function of this position is to protect the community from disaster situations, including house and building fires, and promote an environment of public safety within the City of Charlevoix. This position also participates in fire prevention and inspection activities, equipment and quarter's maintenance, and training dealing with all phases of fire suppression, prevention inspection, rescue and emergency operation. This position is also responsible for maintaining fire equipment, fire records, providing general maintenance for Charlevoix City Hall and grounds. The work is performed under the direct supervision of the Fire Chief.

Essential Functions

- Responds to fire alarms and extinguishes fire(s);
- May respond to emergency calls for specialized service such as hazardous materials, confined spaces rescue, extrication and technical rescues that include high angle, below grade, swift water, trench and collapse rescues.
- Performs salvage operations such as throwing salvage covers, sweeping water and removing debris;
- Responds to and renders assistance in emergency cases;
- Inspects equipment and apparatus and notifies superior officer of any defects;
- Makes minor repairs to equipment and apparatus, performs routine preventative maintenance tasks, and keeps records of such action;
- Keeps fire station, city hall, equipment and grounds in a clean and orderly condition;
- Participates in training activities and instruction sessions;
- Acquires and retains a thorough knowledge of the City, including streets, buildings, water supply unusual hazards and related items;
- Performs all work duties and activities in accordance with City policies and procedures;
- Works in a safe manner and reports unsafe activity and conditions. Follows City-wide safety policy and practices and adheres to responsibilities concerning safety prevention, reporting and monitoring as outlined in the City's Safety Handbook.

Knowledge, Skills & Abilities

- The geography of the City of Charlevoix and surrounding areas (or the ability to quickly learn this information), including the streets system, hydrant locations, the layout and location of public utilities and potentially hazardous materials or substances;
- Specialized fire fighting vehicles and equipment;
- Current strategies for all types of fire such as wild-land, commercial, residential, airport, flammable and combustible liquids, vehicle, etc.;
- Basic mathematical and science skills;
- Uniform fire code for inspection purposes;
- Emergency response record systems, communications equipment and use, fire computer applications and incident reporting procedures;
- Computers and related software.
- Make determinations as to the best course of action for fighting fires or responding to other related emergency situations:
- Work under extremely stressful situations, day and night, which result from a fire and other emergencies, including the responsibility for remaining calm and carrying out all duties with the recognition of the threat to life and property;
- Work within a command structure requiring strict adherence to the following or orders;
- Work in a team environment under extremely stressful situations;
- Quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;
- Learn and correctly apply routine division and department policies and procedures.
- Read, comprehend, and follow simple oral and written instructions; and to understand and apply available guidelines to varied operational requirements;
- Perform a wide variety of duties and responsibilities with accuracy and speed under the pressure of time-sensitive deadlines;
- Demonstrate integrity, ingenuity and inventiveness in the performance of assigned tasks;
- Operate a personal computer using program applications appropriate to assigned duties;
- Communicate effectively both orally and in writing, with the public and other employees.

Minimum Qualifications

- High school diploma or GED equivalency;
- Must be at least 18 years of age at the time of application;
- Firefighter I Certification; and
- Any equivalent combination of experience and training which provides the knowledge and abilities necessary to perform the work.

Essential Physical Abilities

The primary duties of this class are performed in a work environment in which the employee is subject to potential personal danger; therefore, the following physical abilities are deemed essential:

- Sufficient clarity of speech and hearing and other communication capabilities, with or without reasonable accommodation, which permits the employee to communicate effectively, including during emergency situations which may involve a high degree of noise;
- Sufficient vision and other powers of observation, with or without reasonable accommodations, which permits the employee to effectively operate at a fire or related emergency scene;
- Sufficient manual dexterity with or without reasonable accommodation, which permits the employee to operate equipment used in fire fighting;
- Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, which permits the employee to perform all duties involved in protecting life and property.

The information contained in this position description is intended to describe the general content and requirements for successful performance of the job. It is not an exhaustive list of duties, responsibilities or requirements. Additional duties and requirements may be assigned at the sole discretion of the City. Hence, the job description does not constitute an employment agreement between the employer and employee and is subject to change by the employers as the needs of the employer and requirements of the job change. The position is an at-will position.

City Council approval:

CITY OF CHARLEVOIX

Title: Lifeguard
FLSA: Non-exempt
STATUS: Seasonal Summer

Department: Recreation

Reports To: Recreation Director

Date: April 4, 2012

Position Purpose and Objectives

Supervise swim area and enforces rules to ensure safety of beach visitors. Initiate and perform water rescue in the swim areas.

Scope and Environment

Works with little supervision. Work performed at one of the three City beaches: Ferry, Depot, and Michigan. Michigan Beach is located on Lake Michigan, which presents serious challenges/hazards due to rip tides and undertow. Work schedule is based on weather (no pay for rain days) and varies throughout the summer season.

Essential Job Functions

- Oversee beach and facilities.
- Patrol beach to enforce beach rules and prevent accidents.
- Respond to all emergency situations on beaches.
- Resolve problems and keep superiors apprised of incidents, etc.
- Maintain daily beach logs.

Knowledge, Skills and Abilities Required

- Strong swimmer with experience on Lake Michigan or a similar body of water.
- Able to work outdoors in all types of summer weather.
- Able to work independently.
- Excellent interpersonal and public relations skills, including the ability to interact with children and parents.
- Professional working knowledge of safety and first aid equipment and procedures.
- Resourceful/self-starter.
- Positive attitude.
- Excellent interpersonal and public relations skills.
- Patience working with people of all ages and abilities.
- Flexibility regarding work hours.
- Ability to project a courteous and positive public image of the City of Charlevoix.

Certifications

- ~~Current Red Cross Certification or equivalent to Life guarding certification (which includes First Aid/ and CPR/AED for the Professional Rescuer) certification.~~
- Must be 16 years of age or older.

The information contained in this position description is intended to describe the general content and requirements for successful performance of the job. It is not an exhaustive list of duties, responsibilities or requirements. Additional duties and requirements may be assigned at the sole discretion of the City. Hence, the job description does not constitute an employment agreement between the employer and employee and is subject to change by the employers as the needs of the employer and requirements of the job change. The position is an at-will position.

City Council Approval: 9/17/12

CITY OF CHARLEVOIX

Title: Lifeguard
FLSA: Non-exempt
STATUS: Seasonal Summer

Department: Recreation

Reports To: Recreation Director

Date: July 20, 2015

Position Purpose and Objectives

Supervise swim area and enforces rules to ensure safety of beach visitors. Initiate and perform water rescue in the swim areas.

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- Strong swimmer with experience on Lake Michigan or a similar body of water.
- Able to work outdoors in all types of summer weather.
- Able to work independently.
- Excellent interpersonal and public relations skills, including the ability to interact with children and parents.
- Professional working knowledge of safety and first aid equipment and procedures.
- Resourceful/self-starter.
- Positive attitude.
- Excellent interpersonal and public relations skills.
- Patience working with people of all ages and abilities.
- Flexibility regarding work hours.
- Ability to project a courteous and positive public image of the City of Charlevoix.

Certifications

- Lifeguarding/First Aid/CPR/AED certification.
- Must be 16 years of age or older.

The information contained in this position description is intended to describe the general content and requirements for successful performance of the job. It is not an exhaustive list of duties, responsibilities or requirements. Additional duties and requirements may be assigned at the sole discretion of the City. Hence, the job description does not constitute an employment agreement between the employer and employee and is subject to change by the employers as the needs of the employer and requirements of the job change. The position is an at-will position.

City Council Approval:

**CHARLEVOIX CITY COUNCIL
AGENDA ITEM**

AGENDA ITEM TITLE: MML Worker's Compensation Fund – Election of Board of Trustees

DATE: July 20, 2015

PRESENTED BY: Linda Jo Weller, Executive Assistant

ATTACHMENTS: Letter from MML Worker's Compensation Fund Board of Trustees Ballot

BACKGROUND INFORMATION:

The City of Charlevoix is a member of the Michigan Municipal League's (MML's) Workers' Compensation Fund. The City's governing body is asked to vote for the Fund's Board of Trustees each year. Attached is information on the prospective Board members. The City also has the option to write in a candidate.

RECOMMENDATION:

Request that City Council make a motion to authorize the City of Charlevoix's vote be cast for the six Trustees on the official ballot.



michigan municipal league

Workers' Compensation Fund

1675 Green Road
Ann Arbor, MI 48105

TEL 734.662.3246 800.653.2483
FAX 734.662.8083
WEB www.mml.org

to	Members of the MML Workers' Compensation Fund	from	Michael J. Forster
		date	June 22, 2015
		subject	2015 Fund Trustee Election

Dear Fund Member:

Enclosed is your ballot for this year's Board of Trustees election. Six (6) incumbent Trustees have agreed to seek re-election. You also may write in one or more candidates if you wish.

A brief biographical sketch of each candidate is provided for your review.

I hope you will affirm the work of the Nominating Committee by returning your completed ballot in the enclosed return envelope, no later than August 10. You may also submit your ballot online by going to www.mml.org. Click on *Insurance*, then *Workers' Compensation Fund*; the official ballot is located in the left navigation bar under *Online Forms*.

Thank you for your membership in the Worker's Compensation Fund, and for participating in the election of your governing board.

Sincerely,

Michael J. Forster

Fund Administrator

THE CANDIDATES

Four-year terms beginning October 1, 2015



Frank Brock, Jr., Mayor, City of Lathrup Village

Frank has more than 21 years experience as a municipal official, serving as the mayor of Lathrup Village for the last 17. He is a member of the Michigan Municipal League Legislative Governance Committee. Frank is a past chairman and current board member of the Southfield Area Chamber of Commerce and current board member of both the Lathrup Village DDA and Lathrup Village Community Foundation. Frank is seeking re-election to his second term as Trustee.



Larry Nielsen, Manager, Village of Paw Paw

Larry has more than nineteen years experience as a municipal official. Larry has been village manager in Paw Paw since August 2007 and was Bangor's city manager for the previous 9 years. He is currently chairman of the local chapter of the Michigan Local Government Management Association, has received Michigan Rural Water Association's Manager of the Year award and has been involved with community theatre for more than twenty-five years. Larry is seeking re-election to his third term as Trustee.



Daniel Reszka, President, Village of Elk Rapids

Dan has more than 12 years experience as a municipal official, serving as village president of Elk Rapids for the last 6 years. He is a current member of the Michigan Municipal League Governance Committee and past member of the Legislative and Urban Affairs Committee. Dan is a past chairman of Land Use and Planning Fund Grand Traverse Regional Community Foundation, past chairman and current board member of both Antrim County Habitat for Humanity and Lions Club. Dan is seeking re-election to his second term as Trustee.



Amy Roddy, Manager, City of Durand

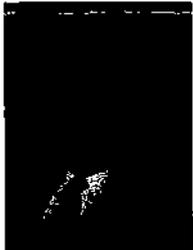
Amy has more than 25 years experience as a municipal official, serving as city manager of Durand for the last 4 years. She was part of the organizing team for the Elected Officials Academy in 1996, served as an EOA Board member from 1997 - 1999 and was on both the Legislative Affairs Committee and Governance Committee for 2009 - 2010. Amy is a member of MLGMA, MAMC, MEDA and MI Downtown Association. She serves on the board of directors for the Durand Area Chamber of Commerce, Durand Union Station, Inc. and the Durand Downtown Development Authority. Amy is seeking re-election to her second term as Trustee.

THE CANDIDATES
Four-year terms beginning October 1, 2015



Adam Smith, City Administrator, City of Grand Ledge

Adam has more than nine years experience as a municipal official, currently serving as the administrator in Grand Ledge. Prior to that he was manager in the Village of Mackinaw City. He is a member of the Michigan Local Government Management Association and currently serves on the MLGMA Board of Directors. Adam serves on MML's Elected Official Academy Board of Directors and is a member of the International City/County Management Association. He is also active in several local civic organizations. Adam is seeking election to his first term as Trustee.



Tom Winarski, Mayor, City of Gladwin

Tom has more than 37 years experience as a municipal official, serving as mayor of Gladwin for the last 11 years. He has previously served as councilman and planning commission chairman. Tom was an MML Region 6 officer and serves on various local and regional civic organizations. Tom is seeking re-election to his second term as Trustee.

Michigan Municipal League
Workers' Compensation Fund

OFFICIAL BALLOT - 2015

Vote for six Trustees by marking the line to the left of the name for four (4) year terms beginning October 1, 2015.

- Frank Brock, Jr. Incumbent
Mayor, City of Lathrup Village
- Larry Nielsen, Incumbent
Manager, Village of Paw Paw
- Daniel Reszka, Incumbent
President, Village of Elk Rapids
- Amy Roddy, Incumbent
Manager, City of Durand
- Adam Smith, Incumbent
Administrator, City of Grand Ledge
- Tom Winarski, Incumbent
Mayor, City of Gladwin

Write-in Candidate

I hereby certify that:

(Municipality/Agency)

by action of its governing body, has authorized its vote to be cast for the above persons to serve as Trustees of the Michigan Municipal League Workers' Compensation Fund.

Official Signature

Date:

**Ballot deadline:
August 10, 2015**

CHARLEVOIX CITY COUNCIL

AGENDA ITEM

AGENDA ITEM TITLE: Discussion on skydiving operations at the Charlevoix Municipal Airport.

DATE: July 15, 2015

PRESENTED BY: Mike Spencer, Interim City Manager

ATTACHMENTS: Skydive Harbor Springs proposal to operate in Charlevoix
Letter from Luther Kurtz dated July 15, 2015
Letter from Island Airways dated July 13, 2015
Email submitted by Luther Kurtz dated July 9, 2015
FAA Advisory Circulars for Sport Parachuting
Email regarding the City's airport insurance
Public comments received as of July 15, 2015

BACKGROUND INFORMATION:

As everyone is aware, at the past meeting there was a fairly heated discussion on skydiving operations taking place at the Charlevoix Municipal Airport. The purpose of this agenda item is to have a productive, fact-based discussion about skydiving at the airport, allow for additional public comment, and to determine what specific guidance should be given to the city attorney. My understanding is that Luther's goal is to continue to be allowed to operate his business at the airport and land on airport property. Further, it is my understanding that certain council members are not necessarily against skydiving, but want to ensure proper safety protocols are being followed and that the city is properly covered in the event of an incident, or subsequent lawsuit. If I am incorrect on these statements please clarify on record what the issues are. There are a number items attached to help assist in the discussion and specific public comments to consider. I would also like to offer the following points:

1. The FAA uses, and requires sport parachuting operations to follow specific guidelines that are published in "Advisory Circulars." These are included as an attachment and we have marked the specific sections with arrows that would apply to our airport, or the skydiving operation. I spoke to Tom Kozura with the FAA "Flight Standard District Office or FSDO" on July 15th. He stated that he has talked with Luther about the skydiving

operation and in his opinion they were following the FAA standards in accordance with the circulars.

2. Luther provided data from other airports summarizing the number and type of aircraft on the field, how many aircraft operations there are per day, and how many skydiving jumps there are on average at those airports. This information is included in the attachment.
3. As I reported to you on July 11, there were complaints about both the landing and flying patterns of Island Airways pilots and potential safety concerns from that behavior. There were also complaints about the trajectory and landing pattern of skydivers. Apparently communication was an issue between the pilots. Since Liz was not at the airport and she did not have all the facts surrounding the complaints, she decided to error on the side of safety and close the grass runway, and temporarily suspend skydiving. This issue was addressed Monday by Liz and the FAA. I spoke to Tom at the FAA and asked him what complaints he received, and if the FAA was pursuing any violations or found any wrongdoing. He said he received calls from "a lot of people including Island Airways and Luther." He stated that if the airport manager approves the skydiving operation and landing on airport, and the operation is following the standards for sport parachuting they are permitted. He also stated he spoke to Island Airways about complaints they received about "short landings" and "right traffic" which is apparently illegal. He stated that they talked to all parties involved and he was "not pursuing any violations." He also mentioned he spoke with Fresh Air Aviation who have never had any issues with the skydivers. I asked if he would email me or put in writing this information and his response was that "there is nothing to put in writing since we have followed up on the complaints and not found any violations." He also stated they do not get involved in local politics. I asked if he would be available to come to our meeting. He was not available Monday but stated he would be up here on August 5th, 6th, and would be leaving August 7th. He would be available to come to a meeting or just be present at City Hall to answer questions. Tom also recommended that all of the commercial operations and airport staff get together to discuss these issues and come up with specific recommendations on how to operate together safely. Luther and Paul Welke from Island Airways did meet and came up with solutions to improve safety and allow both operations to continue on the airport property. The airport manager is also supportive of their recommendations, including relocating the landing zone for skydivers. A letter from Mr. Welke is attached.
4. Luther sent an email on July 9th stating that there was no formal direction given to the city attorney at July 6th meeting concerning his legal review. The email is attached. I believe Luther is seeking clarification on what the other council members want Mr.

Howard to review and he clearly does not want Mr. Howard to be directed to find a way to stop his operation.

5. Kelly McGinn contacted the insurance provider for airport, which is Aviation Insurance Solutions. I included an email from Kelly to them and we think they will have a representative at the meeting.

RECOMMENDATION:

No specific recommendation at this time.



Skydive Harbor Spring, Inc. dba Skydive Charlevoix
8380 M-119, Harbor Springs, Michigan 49740

Charlevoix Airport Skydiving

Introduction:

Skydive Harbor Springs (SDH) is interested in using the Charlevoix Airport (CHX) for skydiving. Skydive Harbor Springs is owned by Luther and Mary Kurtz and currently operates out of the Harbor Springs Airport along with jumping at several other airports around Northern Michigan. The Kurtz's also own and operate the Charlevoix Cinema III. Additionally, the Kurtz's are majority owners of AivCon Inc., a company that operates several skydiving centers around the country, including operations in the metro areas of: Los Angeles, Miami, Phoenix, Detroit, Northern Michigan, Washington DC (Warrenton) and Atlanta. The call center for these locations is currently located in the upstairs office part of the SDH hanger at the Harbor Springs Airport. These operations have a great safety record and pride themselves on their ability to work well with all parts of the aviation community. It has been Luther's dream to offer skydiving at the Charlevoix Airport for a long time and we are grateful for the opportunity.

Compliance with USPA and FAA: In 2013, the FAA published AC-105-2e to provide suggestions, among other things, for the improvement sport parachuting safety. In AC-105-2E the FAA states "most parachute operations take place at airports, including having the parachute landing area located on the airport property." This is exactly what we are doing in Charlevoix.

Nature and Location of proposed Commercial Activity: AC105-2e also states that "the guidelines in the USPA's BSRs can be used in determining if the [parachute] landing area is adequate." The USPA's BSRs identify an unobstructed circle with a 50-meter radius as a sufficient landing area for USPA B-licensed skydivers and Tandem Parachutes. See supplement 3. SDH requires a B-license to skydive in Charlevoix unless the person is a passenger on a Tandem Jump with a licensed tandem instructor. The SDH Parachute Landing Area is unobstructed and is larger than a 50-meter radius circle. See Supplement 1. Therefore, the landing area is adequate for SDH's proposed skydiving at the Charlevoix Airport.

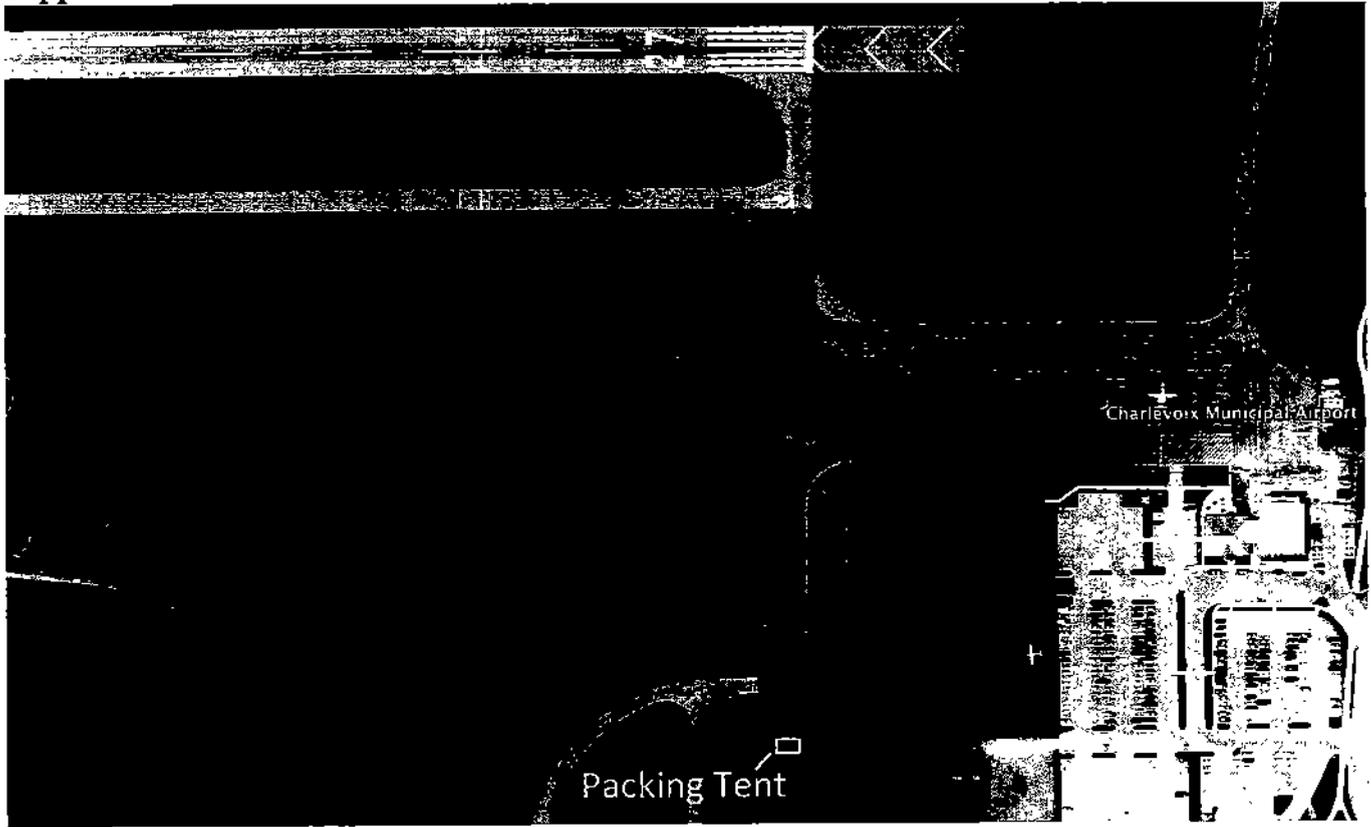
Proposed business location and routes: SDH proposes that its packing tent, parking and customer viewing area be located outside the fence. The access to the ramp will be through the gate near the packing tent. SDH and the Airport had a similar arrangement in 2014 and my understanding from conversations with Airport staff is that the arrangement worked well for the Airport. Supplement 1 shows where SDH will place its packing tent and allow customers to park during their jump. SDH will not allow overnight parking.

Establish compliance with Minimum Standards applicable to proposed Commercial Activity: SDH complies with all applicable Federal Aviation Regulations (FAR's) including Part 91, General Operating and Flight Rules; and Part 105, Parachute Operations. Additionally, SDH is a voluntary member of the United States Parachute Association. The Charlevoix Minimum Standards are presented below with an explanation of compliance.

Parachuting and Jump Schools. Businesses in this category shall, at a minimum:

- (1) Provide, at all times, a minimum of one aircraft properly licensed and FAA-certified, for parachuting activities, and employ personnel sufficient to be responsive during published business hours, as may seasonally change, to meet the needs of the aviation public.
 - a. *We are currently available three days a week in Charlevoix but this may change as the needs of the aviation public change.*
- (2) Provide a minimum of one FAA-certified pilot during advertised hours of business.
 - a. *We typically have two FAA commercial pilots on site during operations. We always provide a minimum of one FAA Commercial Pilot during operations.*
- (3) Maintain FAA and state approvals for schools, services and flight operations offered to the public.
 - a. *The FAA does not pre-approve Skydiving schools. Therefore, we are in compliance. However, we are voluntary group-members of the United States Parachute Association.*
- (4) Make regular and timely payments to the City as defined by the lease(s) and any operating agreement(s), in addition to applicable rates and charges imposed by the City, which may be updated and revised from time to time.
 - a. *SDH prepaid a \$2500 license fee to the city prior to starting operations for the 2015 season.*
- (5) Carry comprehensive general liability insurance per the Schedule of Insurances approved and updated by the City Council from time to time or as required in applicable lease(s) and/or operating agreement(s), if any.
 - a. *Certificate of insurance was submitted to the city on March 18th, 2015.*

Supplement 1:



Supplement 2:

e. Parachute Operations.

(1) All activities are normally conducted under a NOTAM noting the location, altitudes, and time or duration of jump operations. The Airport/Facility Directory lists airports where permanent drop zones are located.

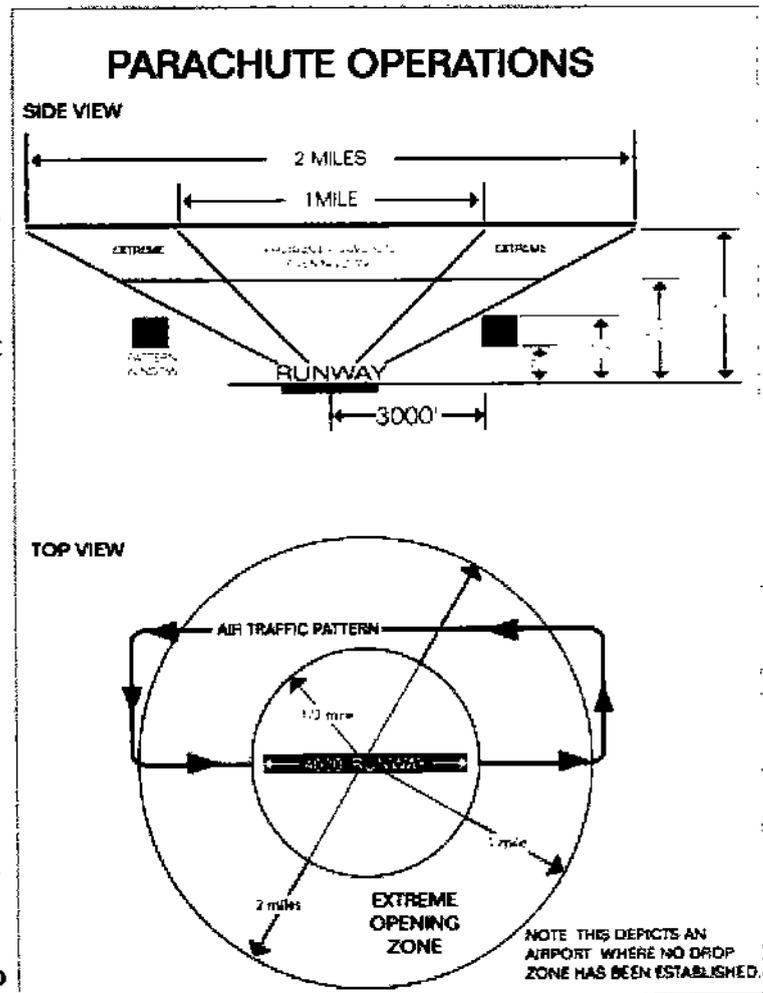
(2) Jumpers normally exit the aircraft either above, or well upwind of, the airport and at altitudes well above traffic pattern altitude. Parachutes are normally deployed between 2,000 feet and 5,000 feet AGL and can be expected to be below 3,000 feet AGL within 2 miles of the airport.

(3) Pilots of jump aircraft are required by Part 105 to establish two-way radio communications with the air traffic control facility or Flight Service Station which has jurisdiction over the affected airspace prior to jump operations for the purpose of receiving information in the aircraft about known air traffic in the vicinity. In addition, when jump aircraft are operating at or in the vicinity of an airport, pilots are also encouraged to provide advisory information on the CTAF, i.e., "Chambersburg traffic, jumpers away over Chambersburg."

(4) When a drop zone has been established on an airport, parachutists are expected to land within the drop zone. At airports that have not established drop zones, parachutists should avoid landing on runways, taxiways, aprons, and their associated safety areas. Pilots and parachutists should both be aware of the limited flight performance of parachutes and take steps to avoid any potential conflicts between aircraft and parachute operations.

(5) Appendix 3 diagrams operations conducted by parachutists.

*Harold W. Becker
Acting Director, Air Traffic
Rules and Procedures Service*



Supplement 3:

Section 2: Basic Safety Requirements and Waivers

E

Contents:

Summary

Section 2-1: Basic Safety Requirements

Section 2-2: Waivers to the Basic Safety Requirements

Section Summary

Skydiving is based on the Basic Safety Requirements (BSRs) that have been established as the cornerstone of a self-policing principle. The BSRs represent the industry standard generally agreed upon as necessary for an adequate level of safety. Research can be conducted to develop and document new methods and procedures within the BSRs and, when necessary, under waivers to the BSRs, to establish a justifiable basis to modify these standards. This section includes two fundamental, interrelated USPA publications: the Basic Safety Requirements and waivers to the Basic Safety Requirements.

H. Drop zone requirements

1. Areas used for skydiving should be unobstructed, with the following minimum radial distances to the nearest hazard: [S]
 - a. solo students and A-license holders—100 meters
 - b. B- and C-license holders and all tandem skydives—50 meters
 - c. D-license holders—12 meters
2. Hazards are defined as telephone and power lines, towers, buildings, open bodies of water, highways, automobiles, and clusters of trees covering more than 3,000 square meters. [NW]
3. Manned ground-to-air communications (e.g., radios, panels, smoke, lights) are to be present on the drop zone during skydiving operations. [NW]

Michael Spencer

From: luther kurtz <lutherkurtz@hotmail.com>
Sent: Wednesday, July 15, 2015 6:53 AM
To: Michael Spencer
Subject: FW: Skydiving

Hi Mike, I have gathered some information for you. Immediately below are Charlevoix's published operations data on airnav.com. Then, below that are 7 other airports around the country that have medium or high intensity parachute operations at the airport. I have highlighted the airport data for those operations in blue and also included a link to the page for that specific airport. I hope this helps. I'll send a copy of ac105-2e in another email.

Skydive Harbor Springs. Charlevoix Airport: Low intensity parachute operation. Average 50-70 jumps per week.
<http://www.airnav.com/airport/KCVX>.

Aircraft based on the field: 14	Aircraft operations: avg 82/day *
Single engine airplanes: 7	40% air taxi
Multi engine airplanes: 7	32% transient general aviation
	27% local general aviation
	2% military
	* for 12-month period ending 31 December 2012

Skydive Deland in Deland, FL: High intensive parachute operation. Several Hundred parachute jumps per day.
<http://www.airnav.com/airport/KDED>.

Aircraft based on the field: 197	Aircraft operations: avg 322/day *
Single engine airplanes: 148	70% transient general aviation
Multi engine airplanes: 35	30% local general aviation
Jet airplanes: 8	<1% air taxi
Helicopters: 4	<1% military
Ultralights: 2	* for 12-month period ending 13 August 2013

Ohio Skydiving Center in Carol, Ohio: Medium intensity skydiving operation.

Aircraft based on the field: 88	Aircraft operations: avg 118/day *
Single engine airplanes: 73	92% local general aviation
Multi engine airplanes: 7	8% transient general aviation
Helicopters: 7	<1% military
Ultralights: 1	* for 12-month period ending 23 May 2012

Start Skydiving in Middletown, OH: High Intensity parachute operation.

<http://airnav.com/airport/KMWO>.

Aircraft based on the field: 66	Aircraft operations: avg 110/day *
Single engine airplanes: 63	46% transient general aviation
Multi engine airplanes: 1	44% local general aviation
Jet airplanes: 1	9% air taxi
Helicopters: 1	<1% military
	* for 12-month period ending 02 August 2013

Former civilian DZ: Skydive San Diego. And current military team practices on airport. Brown Field in San Diego, CA.

<http://www.airnav.com/airport/KSDM>.

Aircraft based on the field: 204	Aircraft operations: avg 246/day *
Single engine airplanes: 166	56% local general aviation
Multi engine airplanes: 23	26% transient general aviation
Jet airplanes: 10	14% military
Helicopters: 5	3% air taxi

* for 12-month period ending 31 March 2015

Skydive Ogden: Ogden, UT. High Intensity Parachute operation.

<http://www.airnav.com/airport/KOGD>.

Aircraft based on the field: 241	Aircraft operations: avg 247/day *
Single engine airplanes: 191	59% local general aviation
Multi engine airplanes: 25	37% transient general aviation
Jet airplanes: 8	4% air taxi
Helicopters: 12	<1% military
Gliders airplanes: 2	<1% commercial
Ultralights: 3	* for 12-month period ending 30 September 2014

Skydive Space Center: Titusville, FL: High intensity Parachute operation.

<http://airnav.com/airport/X21>.

Aircraft based on the field: 73	Aircraft operations: avg 111/day *
Single engine airplanes: 47	74% local general aviation
Multi engine airplanes: 5	25% transient general aviation
Helicopters: 1	1% military
Ultralights: 20	* for 12-month period ending 14 August 2013

Skydive Jacksonville: Jacksonville, FL. Medium intensity parachute operation. Note: I heard they moved or closed this year but their USPA membership is still

current. <http://www.uspa.org/FindaDZ/GroupMemberListbyState/Florida/tabid/365/Default.aspx#809>.

<http://airnav.com/airport/KHEG>.

Aircraft based on the field: 187	Aircraft operations: avg 221/day *
Single engine airplanes: 137	53% local general aviation
Multi engine airplanes: 18	43% transient general aviation
Jet airplanes: 1	3% military
Helicopters: 1	* for 12-month period ending 19 February 2014
Gliders airplanes: 13	
Ultralights: 17	

Island Airways

ATTACHMENT

Toll Free (866) 202-8683
FAX (231) 448-3118
www.islandairways.com

July 13, 2015

Liz Myer, Airport Manager
Charlevoix Municipal Airport
111 Airport Drive
Charlevoix MI 49782

Dear Liz,

I am writing to follow-up on recent events at the Charlevoix Airport. As you know, I have been operating a charter service between Beaver Island and Charlevoix for 43 years. Additionally, that service (McPhillips Flying Service, Inc. dba Island Airways) has been in operation for 70 years. Safety, customer service, and community service are top priorities at Island Airways. It was a matter of safety that initiated events in the last week.

Today I had the first of what I believe will be many conversations with Luther Kurtz regarding how we can improve operations at Charlevoix Airport and continue to provide the services our customers require AND improve the overall safety of all involved. I appreciate that Luther is relocating his operation to the area designated at the South side of Charlevoix Airport. I believe this will greatly reduce issues. I have also agreed, in the spirit of working together, to change some of our flight patterns to help further prevent conflicts in the airspace around Charlevoix Airport.

Based on these discussions, I believe skydiving can be accommodated at the Charlevoix Airport. It is important that we as operators continue to communicate. We will continue to work with Luther to improve our respective operations at Charlevoix Airport.

If you have any questions or would like to discuss this matter further, please contact me via e-mail at pwelke@islandairways.com. This drops directly into my mobile phone.

Sincerely,



Paul Welke
Owner / Director of Operations / Chief Pilot
Island Airways

CC: Charlevoix City Council (via e-mail)

FAA Approved Air Carrier • Passengers & Freight / Hazardous Material Approved
Aviation Fuels
FAA CRS ECLR465D
Britten-Norman Islander Specialists
Year Round Air Service between Beaver Island and Charlevoix

Michael Spencer

From: luther kurtz <lutherkurtz@hotmail.com>
Sent: Thursday, July 09, 2015 6:41 PM
To: Michael Spencer
Subject: Skydiving

Good evening, Mr. Mike Spencer,

I am emailing you about the city council meeting on Monday night where the city discussed Skydive Harbor Springs' license to use the airport. My understanding was that there was no formal direction given to the attorney, Mr. Scott Howard. This email is my request that you do not allow individual council members to make specific requests of Mr. Howard regarding this issue. I would like council to give him formal direction about this issue at a public meeting. I am requesting this because I want the opportunity to encourage council to direct Mr. Howard to try to find a solution rather than directing him to try to find a way to attack my business.

Thank you for your consideration,

-Luther



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Sport Parachuting

Date: 12/4/13

AC No: 105-2E

Initiated by: AFS-800

Change:

1. PURPOSE. This advisory circular (AC) provides suggestions to improve sport parachuting safety and disseminates information to assist all parties associated with sport parachuting to be conducted in compliance with Title 14 of the Code of Federal Regulations (14 CFR) part 105. It also contains information for jumpers and riggers on parachuting equipment, on-airport parachuting operations, jump pilot training, aircraft maintenance programs, parachute rigging, and procedures for Federal Aviation Administration (FAA) authorization for flight operations with a removed or modified door.

2. CANCELLATION. This AC cancels AC 105-2D, Sport Parachuting, dated May 18, 2011.

3. RELATED 14 CFR PARTS AND PUBLICATIONS. The FAA's primary responsibility with respect to skydiving is the protection of air traffic and persons and property on the ground. Part 105 was developed to accomplish this task.

a. Title 14 CFR. This paragraph describes the 14 CFR parts that are of interest to skydivers, parachute riggers, and jump aircraft pilots. They may be downloaded from the FAA's Web site at <http://www.faa.gov>. Since the Federal regulations and other publications may be amended at any time, all FAA regulations, ACs, and other documents are also available for download from the FAA's Web site for continued compliance with current requirements.

(1) Part 65, Certification: Airmen Other Than Flight Crewmembers. Subpart F concerns parachute riggers, their eligibility requirements, privileges, and performance standards.

(2) Part 91, General Operating and Flight Rules. Parachute operators and jump pilots must comply with all applicable sections of part 91.

(3) Part 105, Parachute Operations. This part is especially important to parachutists, parachute riggers, and the pilots who fly parachutists, since it contains regulations governing intentional parachute jumping.

(4) Part 119, Certification. Air Carriers and Commercial Operators (§ 119.1(e)(6)). Pilots who conduct parachute operations within a 25 statute mile (sm) radius of the airport of departure may conduct them as commercial operations under part 91.

b. Technical Standard Order (TSO)-C23, Personnel Parachutes Assemblies. The TSO-C23 series contains the minimum performance standards for parachute assemblies and components. Manufacturers design and test new parachutes to the most current TSO standards,

although they may continue to produce parachutes approved under earlier TSO standards. The most current TSO-C23 document may be obtained from the FAA Web site, <http://www.faa.gov>.

c. Parachuting Symbols on Charts, Electronic Navigation Equipment, and Related Publications. Having parachuting symbols on aeronautical charts, electronic navigation equipment, and related publications helps alert pilots to the location of parachuting drop zones and the need for extra caution in those areas. The FAA Aeronautical Information Management Office (AJV-2) collects, stores, and distributes static parachute jumping activities (PAJA) data for use in FAA publications, charts, and navigation databases.

(1) Operators conducting parachute operations should report any additions, deletions, or changes to static PAJA data to the FAA air traffic control (ATC) facility with jurisdiction over the affected airspace. Operators should submit changes as outlined in part 105, § 105.15.

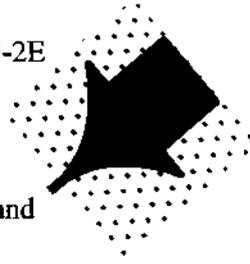
(2) ATC facilities that have jurisdiction over the affected airspace should report any additions, deletions, or changes to static PAJA data to AJV-2. At a minimum, include location; distance and radial from the nearest Very High Frequency Omnidirectional Range (VOR); maximum altitude; drop zone radius; day/time of use; and the ATC frequency. Submit static PAJA changes to the National Flight Data Center (NFDC) Web site at <http://nfdc.faa.gov>.

4. BACKGROUND.

a. Parachuting as an FAA-Recognized Aeronautical Activity. Sport parachuting (skydiving) continues to increase in popularity and is an FAA-recognized aeronautical activity even though parachutists are not certificated airmen. As an FAA-recognized aeronautical activity, regulations require airports that have received FAA funding to accommodate this activity unless the FAA determines that compatibility issues prohibit parachuting operations at a particular airport. FAA Order 5190.6, FAA Airport Compliance Manual, has more information regarding airport obligations.

b. Training, Licensing, and Instructor Rating. Sport parachuting has certain inherent risks for all participants. The FAA encourages sport parachutists to complete formal training courses offered by nationally recognized organizations or organizations that have equivalent training programs. The United States Parachute Association (USPA) is an FAA-accepted, nationally recognized skydiving organization that licenses skydivers in the United States. Many local skydiving clubs, schools, and drop zone operators (DZO) require documentation of experience and competency before using their equipment and/or parachuting facilities. This documentation usually consists of a logbook with endorsements and/or a skydiving license issued by a nationally recognized organization.

c. Parachute Equipment. Parachuting as a sport depends on equipment manufacturers, materials suppliers, parachute riggers, government and military agencies, and other industry professionals. The Parachute Industry Association (PIA) is an international trade association that brings all of these interests together for the purpose of advancing the technology and safety of parachutes and parachuting activities. The PIA creates, publishes, and maintains materials, technical, and certification standards relating to parachutes, accessible on their Web site: <http://www.pia.com>.



5. SKYDIVER SAFETY.

a. Basic Safety Requirements (BSR). The USPA developed basic safety requirements and information for skydiving activities. These requirements and information are for training, checking equipment, and conducting a wide variety of sport parachuting activities. While not approved by the FAA, the BSRs are considered industry best practices and are widely accepted for use by individuals and parachute centers. The BSRs may be obtained from: The United States Parachute Association, 5401 Southpoint Centre Boulevard, Fredericksburg, VA 22407. The association's phone number is (540) 604-9740 and the USPA Web site is <http://www.uspa.org>. The FAA encourages skydivers to use facilities that conduct their operations in accordance with the USPA BSRs or other similar skydiving association best practices.

b. Medical Certificates. While the regulations do not require an FAA medical certification, the FAA urges prospective skydivers to receive a physical examination prior to their first jump and on a periodic basis thereafter. The skydiver should inform the physician of the purpose of the examination.

c. Training Methods. The skydiving industry has developed various methods of first-jump instruction. The FAA recommends that beginning skydivers seek instruction from instructors that have met the qualifications set forth by a nationally recognized parachuting organization.

d. Safety Devices and Equipment.

(1) Deployment Assist Device. Section 105.47 requires that all persons making a parachute jump with a static line attached to the aircraft and main parachute use an assist device to aid the pilot chute in performing its function. An assist device is also required if no pilot chute is used in direct deployment of a round, main parachute canopy. The regulations do not require an assist device for direct deployment of a ram-air main parachute canopy.

(2) Automatic Activation Device (AAD). An AAD is a self-contained mechanical or electromechanical device attached to the parachute container that automatically releases the parachute closing system when it meets specific parameters, such as exceeding a specific vertical velocity and being at or below a specific altitude. Parachutists may attach this device to the main, reserve, or both. However, it is normally only attached to the reserve. An AAD does not physically open the parachute container or deploy the canopy, but rather initiates the container opening by pulling the ripcord pin or by cutting the container closing loop, allowing the canopy to deploy in a similar manner as when pulling the ripcord manually.

(a) The FAA requires that all tandem parachutes have an AAD installed on the reserve parachute. Many skydiving schools and clubs follow USPA BSRs and require the use of an AAD for all unlicensed skydivers.

(b) The FAA has not established minimum operational performance standards (MOPS) or a TSO for AADs. Therefore, the FAA recommends that anyone using an AAD review manufacturer's reports conforming to the PIA Technical Standard TS-120, AAD Design and Testing Report Format, and independent third-party reports attesting to the AAD's performance standard in order to make an educated decision prior to the use of any particular make or model AAD. The FAA recommends that jumpers using AADs to satisfy the

requirements set forth in part 105 purchase them from manufacturers who provide such reports. Each parachute manufacturer approves the installation of the AAD on their equipment.

(c) Users of AADs should be aware of the device's level of reliability and its operating limitations, be knowledgeable about the various parameters of the device, and be trained on the specific use and setting for the particular AAD. Users should be well informed about the use of the AAD and have access to the manufacturer's instructions.

(d) Users should understand that AADs are strictly backup devices and are not intended to replace training or timely manual execution of emergency procedures. AADs may or may not initiate reserve parachute deployment at a sufficient altitude, depending upon various combinations of circumstances.

(e) Jumpers should make a pre-jump check using the manufacturer's recommended procedures for proper setting, arming, and operational status verification to ensure the proper functioning of the AAD. This pre-jump check is usually made prior to boarding the aircraft to ensure that it is set at the proper altitude and under current weather conditions to aid in accuracy. This is especially important when using an AAD that has selectable or adjustable activation settings, or when the intended landing area is at an elevation different from that of the departure airfield.

(f) AADs may have selectable or adjustable altitude activation settings. Some AADs are preset for the intended type of operation (e.g., Tandem or Student), while others may be user-selectable. The model, version, and settings, must be appropriate for the particular type of equipment and jump. Different manufacturers may have different arming altitudes, as well as different activation altitudes and vertical speeds for the similar settings.

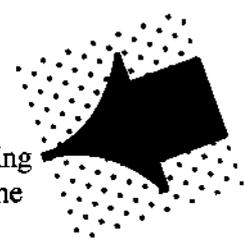
(g) Since body position and other factors may cause a delay in the actual parachute opening altitude, the devices should only be used as a backup to manually deploying the reserve parachute. When the situation requires the use of the reserve parachute, the jumper should always manually pull the reserve ripcord using the established procedures for reserve deployment before ever reaching AAD activation altitude. The procedures for deployment of the reserve parachute are usually the same whether an AAD is installed or not.

(h) AAD malfunctions and activations should be reported to the AAD and container manufacturers, as well as to the USPA.

e. Weather. Strong or gusty winds can be dangerous, especially to student jumpers. In addition, skydivers and pilots should ensure adequate ceiling and visibility to maintain the required weather minimums.

f. Parachute Landing Areas. The FAA recommends that areas used as parachute landing areas remain unobstructed, with sufficient minimum radial distances to the nearest hazard. The guidelines in the USPA's BSRs can be used in determining if the landing area is adequate.

g. Water Safety Equipment. Flotation gear should be worn whenever the intended exit point or landing point of a skydiver is within 1 mile of an open body of water.



h. Advanced Parachuting. Many of the safety suggestions presented in this AC are intended primarily for the student parachutist, who should make all jumps in a controlled training environment. Individual experience and judgment dictate what additional training should be obtained before undertaking more advanced parachuting activities. All parachutists should acquire experience and training before using unfamiliar or high-performance equipment.

i. Pre-Jump Equipment Checks. The parachute system user has primarily responsibility for the airworthiness of his equipment at the time of use. Prior to each jump, the user should inspect his equipment for serviceability, including at least general condition, AAD serviceability (see subparagraph 5d(2)), pilot chute bridle routing, main and reserve pin seating, and Reserve Static Line (RSL) routing and connection.

6. PARACHUTE OPERATIONS ONTO AIRPORTS.

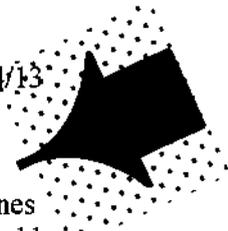
a. Stipulations for Landing at or Flying Over an Airport. Most parachute operations take place at airports, including having the parachute landing area located on the airport property. Section 105.23 requires approval from airport management prior to skydiving onto any airport. However, § 105.23(c) allows a parachutist to drift over an airport with an open parachute without airport management approval as long as the parachutist remains at least 2,000 feet above that airport's traffic pattern. Airport traffic patterns are generally 1,000 to 1,500 feet above ground level (AGL).

b. Additional Aviation Activities. A large number of airports that accommodate parachute operations also have different kinds of aviation activities taking place simultaneously, including flight training, glider and helicopter operations, emergency medical services, sightseeing operations, and aerobatic practice over or in the immediate vicinity of the airport. Many airports accommodate a large volume of transient traffic during skydiving operations.

c. Shared Facility Airports. The FAA recommends that shared facility airports have operating procedures so that each activity can operate safely by knowing the procedures for each of the other activities. Representatives of each type of activity can operate more effectively by knowing the procedures for each of the other activities. Representatives of each type of airport user group should develop procedures specific to their activity and share these procedures with other user groups. Airport management must ensure that airport policies and procedures are kept current, which can be accomplished via regularly scheduled meetings with all airport user groups.

(1) Traffic Patterns. With a minimum parachute opening altitude of 2,000 feet AGL (most parachutists open much higher), parachutes are nearly always open 800 feet or more above the traffic pattern altitude for any airport. Parachutes descend relatively slowly and are easy for pilots to acquire visually. Parachutists and pilots have a shared responsibility to see and avoid each other. Refer to the current edition of AC 90-66, Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports without Operating Control Towers, for information on traffic patterns and parachute operations.

(2) Parachute Landings on Airports. Airports may designate suitable parachute landing areas. While skydivers attempt to land in such areas, at times there may be inadvertent landings



in other grass or hard-surfaced areas. This could include landings on runways, taxiways, and other hard-surfaced areas. Areas such as runways, taxiways, clearways, and Obstacle Free Zones (OFZ) are not prohibited areas but should not be designated as a primary landing area and should be vacated as soon as practical. Flying a parachute over runways at low altitudes should be avoided where possible. The FAA recommends that airport management work with parachute operators to develop standard operating procedures (SOP) for activities conducted by parachutists. Airports that receive or have received Federal funding or grant assurances may have additional requirements or restrictions to parachute landing areas. For additional information, see the current editions of FAA Order 5190.6, FAA Airport Compliance Manual, AC 150/5190-7, Minimum Standards for Commercial Aeronautical Activities; and AC 150/5300-13, Airport Design.

7. JUMP AIRCRAFT MAINTENANCE AND JUMP PILOTS. Whenever flights are offered for compensation or hire, the flight is considered a commercial operation under part 91, and Federal regulations require:

a. Aircraft Inspections. The operator must ensure the aircraft is maintained in accordance with part 91, § 91.409 as applicable:

- (1) Section 91.409(a) and (b), annual and 100-hour inspection programs;
- (2) Section 91.409(d), progressive inspection program;
- (3) Section 91.409(f)(3), manufacturer's inspection program; or
- (4) Section 91.409(f)(4), approved inspection program.

b. Aircraft Inspection Quality Assurance (QA). Aircraft operated commercially under part 91 must be inspected by a person authorized to perform inspections under a 100-hour/annual program or an FAA-approved progressive inspection program consistent with the requirements for part 91 operations. Operators must maintain aircraft operated under 14 CFR part 125 or 135 under an FAA-approved maintenance program. The FAA recommends the use of an aircraft status sheet for QA.

c. Additional Information on Acceptable Maintenance Programs. Anyone conducting parachuting operations should contact his or her local FAA Flight Standards District Office (FSDO) for additional information on acceptable maintenance programs. Reviewing aircraft maintenance records can be simplified by the use of an aircraft status sheet (see Figure 1, FAA Aircraft Status Inspection List Example).

FIGURE 1. FAA AIRCRAFT STATUS INSPECTION LIST EXAMPLE

N _____ S/N _____ A/C M/M _____

Name of A&P, AI, or FAA Repair Station responsible for the inspection of the aircraft:

A&P or IA Certificate No. or Repair Station No.: _____

Inspection Item Pending	Hours: Date	Next Due	
Annual or Progressive Inspection			
100-Hour Inspection			
Static System Check			
Altimeter Check			
Transponder Check			
ELT Battery			
AD Number	Description	Hours Date Completed	Next Due

8. PILOT RESPONSIBILITIES. The pilot in command (PIC) must adhere to all regulations applicable to the operation conducted. This includes, but is not limited to, the following:

a. Pilot Certification, Experience, and Operating Requirements. The PIC is responsible for meeting the certification, proficiency, operating, and experience requirements of, but not limited to, 14 CFR parts 61, 91, and 105. Pilots conducting flight operations for compensation or hire are required to possess a Commercial Pilot Certificate with the appropriate ratings for the aircraft being flown and must have a current Class 2 medical certificate or equivalent.

b. Jump Pilot Training. For those DZOs and parachuting operations that do not have a nationally recommended jump pilot training program, the FAA recommends that pilots flying aircraft for the purpose of sport parachuting have appropriate initial and recurrent training. The training program should include testing to ensure a high level of competence in the jump aircraft being flown. The training should include at least the following:

(1) Ground Training.

(a) Preflight inspection specific to jump aircraft and modifications.

(b) Aircraft limitations.

(c) Weight and Balance (W&B).

1. Takeoff computations.
2. Weight shift in flight procedures for exiting jumpers.
3. Landing configuration.

(d) Low-speed operations for jump runs.

1. Maneuvering at minimum speed.
2. Opening and closing jump door, if applicable.
3. Stall recognition and recovery.

(e) Emergency procedures.

1. Standard aircraft emergencies.
2. Emergencies caused by jump activities.
3. Bailout procedures.

- (f) Aircraft airworthiness determination.
 - 1. Maintenance requirements and procedures.
 - 2. Aircraft Status Inspection List (Figure 1).
 - 3. Minimum equipment list (MEL), if applicable.
 - 4. Logging maintenance discrepancies.
- (g) Parachute packing in compliance with § 105.43.
- (h) Drop zone surface and airspace familiarization.
- (i) Descent Procedures.
 - 1. Aircraft best-glide speed for engine failure.
 - 2. AAD activation considerations with skydivers onboard.

(2) Flight Training.

- (a) Takeoffs and landings with representative loads.
- (b) Center of gravity (CG) shift with jumper exit.
- (c) Stall-spin prevention and recovery.
- (d) Configuration for jump run and jumper exit including procedures for tail strike avoidance.

c. W&B Procedures. The PIC is solely responsible for assuring that the aircraft being flown is properly loaded and operated so that it stays within gross weight and CG limitations. The PIC should obtain additional aircraft station position information (loading schedule) for future W&B computations. The PIC is also responsible for reviewing these records and the flight manual to gain familiarity with an aircraft's W&B procedures and flight characteristics.

d. Computing W&B. The PIC must include the following factors:

- (1) The maximum allowable gross weight and the CG limitations.
- (2) The currently configured empty weight and CG location.
- (3) The weight and CG location prior to each flight.
- (4) The weight and location of jumpers during each phase of the flight in order to ensure that the aircraft stays within CG limits. The PIC must remain aware of CG shifts and their effects on aircraft controllability and stability as jumpers move into position for exiting the aircraft and as they exit.

e. Operational Requirements. The PIC is solely responsible for the operational requirements of parts 91 and 105, including compliance with the special operating limitations and placards required for flight with the door open or removed. The PIC is also responsible for ensuring that each occupant has been briefed on operation of his or her restraint system, procedures for ensuring aircraft W&B stays within limits while jumpers exit, and procedures to avoid tail strikes.

f. Suitable Placards. Placards should be located in the aircraft to help the pilot inform jumpers of the maximum approved loading and weight distribution. These placards should be located where anyone boarding the aircraft can see them. They should also clearly show the maximum approved seating capacity and the load distribution.

g. Seatbelts and Approved Loading. Section 91.107(a)(3)(ii) permits persons aboard an aircraft for the purpose of participating in sport parachuting activities to use the floor of the aircraft for a seat. However, among jump aircraft there are a wide variety of seats, benches, troop seats, and floor seating arrangements. In all cases, each person must have access to an installation-approved seatbelt. See Appendix 3, Seats and Restraint Systems, for additional information describing seat and restraint system configurations. The maximum number of skydivers is determined by that aircraft's W&B limitations, as long as there is a seatbelt or restraint for each skydiver. The approved number of skydivers that each aircraft can carry for parachute operations will most commonly be found on FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), used for field approvals, or an aircraft Supplemental Type Certificate (STC).

h. Oxygen. Pilots must use oxygen when flying above 14,000 feet mean sea level (MSL). Operators must provide oxygen to occupants when the jump plane is above 15,000 feet MSL. Above 25,000 feet MSL, occupants should use pressure-demand oxygen systems. High-altitude jumps should be made only after becoming familiar with the problems and hazards created by low temperatures, lack of oxygen, and the various types of oxygen equipment. Jumpers should not attempt high-altitude jumps without an adequate supply of breathing oxygen (refer to § 91.211). Also, pilots must use oxygen while flying between 12,500 to 14,000 feet MSL for a duration of over 30 minutes.

i. Altitude Reporting. Pilots report altitudes in feet above MSL.

9. PARACHUTE OPERATIONS IN DESIGNATED AIRSPACE. Section 105.25 contains information on the ATC authorization and notification process (see Appendix 1, Table of Location of Jump Authorization or Notification).

a. Parachute Operations Restrictions. No person may conduct a parachute operation, and no PIC of an aircraft may allow a parachute operation to be conducted from that aircraft:

(1) Over or within a restricted or prohibited area, unless the controlling agency of the area concerned has authorized that parachute operation;

(2) Within or into a Class A, B, C, or D airspace area without, or in violation of the requirements of, an ATC authorization issued under § 105.25; or

(3) Within or into a Class E or G airspace area (except as provided in subparagraphs 9c and 9d), unless the ATC facility that has jurisdiction over the airspace at the first intended exit altitude receives notification of the parachute operation no earlier than 24 hours before and no later than 1 hour before the parachute operation begins.

b. Request for a Parachute Operation Authorization or Notification. Submit each request for a parachute operation authorization or notification required under this section to the ATC facility that has jurisdiction over the airspace at the first intended exit altitude and include the information prescribed by § 105.15(a).

c. Notification of Parachute Operations. For the purposes of subparagraph 9a(3), ATC facilities may accept a written notification from an organization that conducts parachute operations and lists the scheduled series of parachute operations over a period of time not longer than 12 calendar-months. The notification must contain the information prescribed by § 105.15(a) (see Appendix 1).

d. Armed Force. Subparagraph 9a(3) does not apply to a parachute operation conducted by a member of a Department of Defense (DOD) armed force within a restricted area that extends upward from the surface when that area is under the control of the DOD armed force.

10. JUMPS OVER AND INTO CONGESTED AREAS AND OPEN-AIR ASSEMBLIES OF PERSONS.

a. Off-Airport Jumps. A skydiver may make parachute jumps away from the usual on-airport parachute school, club, or center location, as long as landowner permission is obtained for the off-airport location.

b. Certificate of Authorization (COA). Section 105.21(a) requires an FAA COA in order to conduct a parachute operation over or into a congested area of a city, town, or settlement, or an open-air assembly of persons. The responsible person of the proposed jump must obtain this COA from the FAA FSDO that has jurisdiction over the site where the jump is proposed by submitting an application, FAA Form 7711-2, Certificate of Waiver or Authorization Application. A copy of FAA Form 7711-2 and information on filling out this form can be obtained from the local FSDO or downloaded from <http://www.faa.gov>. An application for a COA should be submitted at least 10 working days in advance of the intended jump date to allow time for processing. Approval or denial of the application must be completed within 5 working days of receipt by the FSDO.

11. AUTHORIZATION AND NOTIFICATION REQUIREMENTS FOR PARACHUTE OPERATIONS. Whether regulations require verbal or written authorization or a COA (FAA Form 7711-1, Certificate of Waiver or Authorization) for a parachute operation depends upon the type of airspace involved and the area where the parachutist intends to land. The airspace and landing area will determine the requirements. Parachutists and pilots can use Appendix I to determine what authorization or notification requirements are necessary for various types of jumps. The FAA recommends that anyone establishing a permanent drop zone or a temporary jump site contact the ATC facilities nearest the site as early as possible. ATC personnel are in the best position to provide information on arrival and departure routes, airspace

classifications, and other airspace operations that may affect the safe and efficient flow of a parachuting operation. If you are uncertain of the requirements after looking at Appendix 1, contact your local FSDO and/or ATC facility for additional information.

12. EXHIBITION JUMPS AT OFF-AIRPORT LOCATIONS.

a. Parachute Landing Areas. The FAA requires the following size areas when issuing a COA for parachuting operations conducted over or into a congested area or an open air assembly of persons.

(1) Open Field. An open area, no less than 500,000 square feet (e.g., approximately 710 feet by 710 feet, or dimensions with a sum total that equals or exceeds 500,000 square feet) that will accommodate landing no closer than 100 feet from spectators. Allows a jumper to drift over the spectators with sufficient altitude (250 feet) so as to not create a hazard to persons or property on the ground.

(2) Level I. An open area that will accommodate a landing area no smaller than 250,000 square feet (e.g., approximately 500 feet by 500 feet, or dimensions with a sum total that equals or exceeds 250,000 square feet) and which will accommodate landing no closer than 50 feet from spectators. Allows a jumper to pass over the spectators no lower than 250 feet, including the canopy and all external paraphernalia. Many open field athletic areas and airport operational areas constitute Level I landing areas.

(3) Level II. An open area that will accommodate a rectangular, square, oval, or round-shaped landing area of approximately 5,000 square feet for no more than four jumpers, with at least 50 feet in width. Also accommodates an additional 800 square feet minimum for each additional jumper over four for any jumper landing within 30 seconds of the last of any four jumpers. This permits jumpers to land no closer than 15 feet from spectators and to pass over the spectators no lower than 50 feet including the canopy and all external paraphernalia.

(4) Stadium. A level II landing area smaller than 450 feet in length by 240 feet in width and bounded on two sides or more by bleachers, walls, or buildings in excess of 50 feet high.

(5) Other Landing Area Considerations.

(a) A landing area that exceeds the maximum dimensions of a Level I landing area, that permits a parachutist to drift over a congested area or open air assembly with a fully deployed and properly functioning parachute (if the parachutist is at sufficient altitude to avoid creating a hazard to persons and property on the ground) and that has no other safety concerns would likely not require a COA as required by § 105.21.

(b) Any parachute jumping demonstration planned in conjunction with a public aviation event will require a COA with appropriate special provisions as required by § 105.21, even if the landing area exceeds the maximum dimensions for a Level I area. A parachute jumping demonstration planned in conjunction with a public aviation event is one that takes place any time after the first spectator arrives for the event that day.

(6) Tandem Jump Demonstrations. Only tandem instructors, rated by the USPA or authorized by the FAA General Aviation and Commercial Division (AFS-800), Federal Aviation Administration, Flight Standards Service, 800 Independence Avenue, SW, Washington, DC 20591 may conduct tandem demonstrations. Tandem jumps may be authorized as follows:

(a) Tandem jumps into open field and Level I landing areas do not require any previous jump experience for the passenger.

(b) Tandem jumps into Level II areas require the passenger to have a USPA category D license with a Professional Exhibition Rating (PRO).

(7) Alternate Landings Areas. Regardless of the parachutists' experience, "runoffs" or escape areas must be identified.

(8) Intentional Cutaway. Cutaways may not be performed if the cutaway equipment will drift into the spectator area.

b. Qualification and Currency Requirements. In addition to landing area size requirements, the FAA also imposes qualification and currency requirements. The FAA recognizes and accepts USPA licenses and ratings found in the parachutist's license and recent experience requirements that are established in the current edition of FAA Order 8900.1, Flight Standards Information Management System (FSIMS), Volume 3, Chapter 6, Section 1, Issue a Certificate of Waiver or Authorization for an Aviation Event, located at <http://fsims.faa.gov>. In accordance with Order 8900.1, parachutists and instructors who are not members of the USPA and who wish to participate in a demonstration or exhibition jump over or into a congested area must present satisfactory evidence of the experience, knowledge, and skill equivalent to that required by the USPA and must have a letter of approval from AFS-800.

13. PARACHUTE EQUIPMENT RULES.

a. Parachute. Title 14 CFR part 1, § 1.1 defines a parachute as a device used, or intended to be used, to retard the fall of a body or object through the air. For the purposes of this AC, a parachute assembly normally, but not exclusively, consists of the following major components: a canopy, a deployment device, a pilot chute and/or drogue, risers, a stowage container, a harness, and an actuation device (ripcord). There are, of course, some lesser parts associated with these major components such as connector links, bridles, and hardware. The term "pack," when used in this AC, refers to the complete harness-container system, including the main parachute container, plus the reserve parachute and associated components. Except for an RSL (if installed), it does not include the main canopy, main risers, or components that depart with the main canopy if it is jettisoned. If a container is designed to be easily disconnected from its harness (for storage or transport, for example), the term "pack" refers to the container/canopy assembly by itself, without the harness.

b. Parachute Harness. Section 105.43 requires a solo parachutist making an intentional jump wearing a single-harness dual-pack parachute to have at least one main parachute and one approved reserve parachute. For tandem jumps, the parachute system defined in § 105.3 includes a main parachute, a reserve parachute, a harness and dual parachute container, an AAD, and a forward harness for a passenger parachutist. For both solo and tandem parachutists, the harnesses

(including the forward harness of a tandem system) and reserve parachute packs must be approved types, but the main parachutes do not need approval. The following are examples of approved parachutes as defined in § 105.3:

(1) Parachutes Manufactured under TSO-C23. This TSO prescribes the minimum performance and QA standards for personnel parachutes that are carried aboard civil aircraft or by skydivers for emergency use, including reserve parachutes used for intentional jumps. The manufacturer must meet these standards before labeling its parachute or components as complying with the TSO.

(2) Demilitarized or Military Surplus Parachutes. Military personnel-carrying parachutes (other than high-altitude, high-speed, or ejection kinds) identified by military drawing number, military order number, or any other military designation or specification. These parachutes are often referred to as demilitarized or military surplus parachutes.

c. Assembly of Major Components. The assembly or mating of approved parachute components from different manufacturers may be made by a certificated, appropriately rated parachute rigger in accordance with the parachute manufacturer's instructions and without further authorization by the manufacturer or the FAA. Specifically, when various parachute components are interchanged, the parachute rigger should follow the canopy manufacturer's instructions as well as the parachute container manufacturer's instructions. However, the container manufacturer's instructions take precedence when there is a conflict between the two.

(1) Assembled parachute components must be compatible. Each component of the resulting assembly must function properly and may not interfere with the operation of the other components. For example:

(a) Do not install a canopy of lesser or greater pack volume than the intended design criteria for the specific size of container, since it could adversely affect the proper functioning of the entire parachute assembly.

(b) A TSO'd canopy may be assembled with a demilitarized harness, or vice versa, as long as the assembled components comply with the safety standard of the original design.

(c) In cases where a main canopy that is already mounted on risers is assembled to an existing harness/container system, ensure that the completed assembly functions correctly. Refer to the manufacturer's instructions to see if and how the RSL (if installed) may be deactivated when equipment configuration does not permit its use.

(2) Any questions about the operation of the assembly should be resolved by actual tests by the rigger to make certain the parachute is safe for emergency use.

(3) For a single-harness parachute system, the strength of the harness must always be equal to or greater than the maximum force generated by the canopy during certification tests. The rigger who assembles the system should record these limits in a place accessible to the user when he or she dons the assembly. Some manufacturers may also specify minimum weights or speeds for safe operation.

(a) The maximum operating weight and maximum pack opening speed of components manufactured under TSO-C23c, TSO-C23d, and TSO-C23f are marked on the components themselves.

(b) In the case where either the harness or canopy of a single-harness system is certified under TSO-C23b and the manufacturer has not specified operating limits, derive the maximum pack opening speed for that component from the strength test table in the National Aerospace Standards Specification (NAS)-804, Parachutes.

1. For the maximum operating weight of the TSO-C23b component, use the highest weight in the table less than or equal to the maximum operating weight of the other component and use the corresponding speed in the table as the maximum pack opening speed of the TSO-C23b component.

2. For the maximum pack opening speed of the TSO-C23b component, use the highest speed in the table less than or equal to the maximum pack opening speed of the other component and use the corresponding weight in the table as the maximum operating weight of the TSO-C23b component.

(4) For tandem systems, there may be additional limits for each harness.

d. AAD Installation. The FAA accepts the installation (addition of pockets, channels, guides, etc., required for the AAD assemblage in the parachute container) of each make/model AAD as part of the paperwork that is submitted by the parachute manufacturer during the TSO approval for parachute harness/container systems. The TSO approval by the FAA and the AAD approval by the manufacturer (mentioned, for example, in § 105.43(b)) are for the installation only, and are based on AAD operation not interfering with normal function of the parachute. A retrofit installation, or installation of a make or model AAD other than those specifically authorized for use by the parachute manufacturer for a particular TSO or Military Specifications (MIL-SPEC)-approved parachute, constitutes an alteration to that parachute (see paragraph 16). Manufacturer and retrofit installation are done in consultation and agreement with the AAD manufacturer, and in accordance with established test procedures such as PIA Technical Standard (TS)-112, Harness/Container - AAD Installation Test Protocol.

e. Instructions for Maintenance, Repair, or Alteration of Specific Parachutes. These instructions may be available by contacting manufacturers. Many manufacturers provide their manuals online through their Web sites. The PIA Web site, <http://www.pia.com>, provides a good starting point for searches. When such instructions are not available, The Parachute Manual, Volumes I and II (Dan Poynter, 1991) and FAA-H-8083-17, Parachute Rigger Handbook, set out commonly accepted repair practices. The Parachute Manual and The Parachute Rigger Handbook can be purchased from commercial booksellers; The Parachute Rigger Handbook is also available for download at: <http://www.faa.gov>.

f. Parachutist's Handling of Equipment. The user of a parachute system may perform simple assembly and disassembly operations necessary for transportation, handling, or storage between periods of use if the parachute's design simplifies such assembly and disassembly without the use of complex operations.

g. Removal of Pilot Chute. A certificated senior or master parachute rigger may remove the pilot chute from a front-mounted (e.g., chest-type) reserve parachute if the canopy does not use a diaper, bag, or other deployment device. When complete, the parachute must have the plain marking, "PILOT CHUTE REMOVED." This kind of parachute can be used for intentional jumping only.

h. Extra Equipment. The FAA does not consider the attachment of an instrument panel, knife sheath, or other material to the exterior of the parachute assembly an alteration. If attaching any extra equipment, take care not to impair the functional design of the system.

14. PARACHUTE PACKING.

a. Reserve Parachutes.

(1) A certificated and appropriately rated parachute rigger must pack the reserve parachute.

(2) Visiting foreign parachutists jumping parachute systems that the FAA has not approved must have their reserve parachutes packed by someone acceptable to the foreign parachutist's Civil Aviation Authority (CAA) or by a FAA-certificated rigger.

(3) The certificated and appropriately rated parachute rigger must pack the reserve parachute within 180 days before the date of use if the parachute system is made of materials substantially resistant to mold, mildew, or other rotting agents, or within 60 days of the date of use otherwise.

(4) A parachute user must ensure that an AAD is maintained in accordance with the AAD manufacturer's instructions and service requirements. When a rigger packs a reserve parachute, the rigger is only certifying that it meets all safety requirements on the day it is packed; therefore, riggers should note any maintenance or battery replacement due date(s) on the packing data card so that users are able to determine AAD airworthiness and ensure conformance to the regulations. AADs are to be installed in accordance with the harness/container manufacturer's instructions.

(5) Only the rigger who did the packing, and whose seal is removed to permit scheduled or unscheduled maintenance or repairs to the reserve container, may open, reclose, and reseal it (e.g., AAD service or closing loop adjustment) within the 180-day or 60-day period in subparagraph 14a(3).

b. Main Parachutes. Main parachutes must be packed within 180 days before the date of use and be packed by any certificated parachute rigger or a person working under the direct supervision of a certificated parachute rigger. The person making the next jump (including a tandem parachutist in command, but not the passenger parachutist) may also pack the main parachute.

15. PARACHUTE REPAIRS.

a. Major Repair. A major repair, as defined in § 1.1, is a repair that, if improperly done, might appreciably affect airworthiness.

b. Minor Repair. A minor repair is a repair other than a major repair.

c. Major or Minor Repair Determination. When there is a question about whether a particular repair is major or minor, follow the manufacturer's instructions. In the absence of the manufacturer's instructions, riggers should use the FAA's Parachute Rigger Handbook (FAA-H-8083-17) and Poynter's Parachute Manual Volume I and II as guides. If the procedure calls for a master rigger, it should be considered a major repair. If the procedure allows for a senior rigger, it should be considered a minor repair.

(1) The same kind of repair may be classed as major or minor depending on size or proximity to key structural components. For example, a basic patch may be a minor repair if it is small and away from seams, but may be a major repair if it is large or adjacent to a seam.

(2) The same kind of repair may be classed as major or minor depending on whether it is done to an approved or unapproved component. For example, replacement of a suspension line on a reserve canopy is usually a major repair, while replacement of a suspension line on a main canopy is generally considered a minor repair (even if the identical technique is required for both replacements).

(3) If an operation results in an approved configuration, the operation is considered a repair. For example, if a parachute system is approved with and without an RSL, then removing or replacing RSL components is a repair that may be major or minor depending on whether, if improperly done, it might appreciably affect airworthiness. Similarly, resizing a harness, when the original design permits a range of sizes, is a repair when the resized harness remains within the permitted range.

(4) Only an appropriately rated master rigger or a manufacturer of approved parachute components may make major repairs. The manufacturer may designate certain repairs to be done only by the manufacturer or the manufacturer's designee.

16. PARACHUTE ALTERATIONS.

a. Configuration. Alterations are changes to a parachute system configuration that the manufacturer or the manufacturer's supervising FAA Aircraft Certification Office (ACO) has not approved. Examples include removing a deployment device from a reserve canopy, adding harness fittings to permit attaching an additional canopy, using nonstandard repair materials or techniques, or installation of a specific make/model AAD when the manufacturer has not authorized such changes. Changes that result in an approved configuration are considered repairs (see paragraph 15).

b. Approval. An alteration to an approved parachute system must be done in accordance with approved manuals and specifications and only by those with specific authorization to perform that alteration. Specific approval is not needed for the method of altering a non-TSO'd

main parachute canopy. A person seeking authorization to alter an approved parachute system should proceed as follows:

(1) A person qualified to alter a parachute (as listed below) should contact his or her local FAA FSDO inspector to discuss the proposed alteration. The applicant should be prepared to show the inspector the nature of the alteration by using a sample assembly, sketch, or drawing and be prepared to discuss the nature of the tests necessary for showing that the altered parachute meets all applicable requirements.

(2) The inspector will review the proposal with the applicant and a plan of action will be agreed upon.

(3) The applicant will then prepare an application, in the format of a letter, addressed to the local FSDO. Attach all pertinent data. The data should include:

- A clear description of the alteration;
- Drawings, sketches, or photographs, if necessary;
- Information such as thread size, stitch, pattern, materials used, and location of altered components; and
- Some means of identifying the altered parachute (model and serial number).

(4) The FSDO aviation safety inspector (ASI) may send an alteration to the ACO for review if the ASI is not experienced in parachute alterations. When satisfied, the inspector will indicate approval by date stamping, signing, and placing the FSDO identification stamp on the letter of application.

(5) Only a certificated and appropriately rated master parachute rigger, a current manufacturer of approved parachute systems or components, or any other manufacturer the Administrator considers competent may perform alterations to approved parachutes.

17. MATERIALS USED FOR REPAIRS TO TSO-APPROVED COMPONENTS.

a. Material Quality. Materials used for repairs to TSO-approved components including, but not limited to, fabric, suspension line, tape, webbing, thread, and hardware, must meet the same specifications, requirements, and certifications of the original materials used by the manufacturer.

b. Parachute Fittings. Hardware may be reconditioned and reused, as long as it complies with subparagraph 17a. However, the plating or replating of load-carrying parachute fittings may cause hydrogen embrittlement and subsequent failure under stress unless the plating is done properly. Chrome- or nickel-plated harness adjustment hardware may also have a smoother finish than the original and may permit slippage.



/s/

John Barbagallo
Director, Flight Standards Service

APPENDIX 1. TABLE OF LOCATION OF JUMP AUTHORIZATION OR NOTIFICATION

Location of Jump	Kind of Authorization Required	When to Apply or Notify	Where to Apply or Notify	Title 14 CFR Section Reference
Over or onto any airport	Prior approval	Prior to jump	Airport management	§ 105.23
In or into Class E or G airspace	Air Traffic Control (ATC) notification	Between 24 hours and 1 hour prior to jump	ATC facility having jurisdiction	§ 105.25
In or into Class A, B, C, or D airspace	ATC authorization (see Note 1)	Prior to jump	ATC facility having jurisdiction	§ 105.25
Over or within a restricted or prohibited area	Prior authorization	Prior to jump	Controlling agency, as noted on sectional chart	§ 105.25
Over or into a congested area or open air assembly of persons	FAA Form 7711-1, Certificate of Authorization	10 working days prior to jump	Flight Standards District Office (FSDO) having jurisdiction over the area where jump is to be made	§ 105.21
Note 1: Verbal authorization normally issued.				

APPENDIX 2. OPERATION OF AIRCRAFT WITH DOOR REMOVED OR MODIFIED FOR PARACHUTING OPERATIONS

1. Operating Limitations Revision. The previous revision, Advisory Circular (AC) 105-2D, Sport Parachuting, Appendix 2, provided a list of aircraft that have Federal Aviation Administration (FAA)-approved door open or removal procedure authorization with operating limitations. That list did not include all the aircraft currently used in skydiving operations. Instead of continuing with the use of that list, contact your local Flight Standards District Office (FSDO) for information on getting an authorization to operate your aircraft with the door removed and/or a door modified to open/close in flight. Aircraft that have approved procedure and operating limitations in their FAA-approved Aircraft Flight Manual (AFM) or a FAA-approved Supplemental Type Certificate (STC) may operate in accordance with those documents.

2. Operation with Modified or Removed Door. Any aircraft type, utility/normal category model that has had FAA-approved data used for skydiving operations or door removal can be considered.

a. Required Data. It is the responsibility of the applicant to supply the FAA aviation safety inspector (ASI) with any data necessary to have his or her aircraft approved to operate with a door removed or a door modified to open/close in flight during jump operations. If the aircraft is altered and operated in accordance with an STC, no other limitations are required.

b. Approved Data. Many aircraft have jump door and/or restraint systems approved by type certificate (TC), STC, or field approval. Aircraft that have not been FAA-approved by TC, STC, or field approval must have the required data to address the alteration from a Designated Engineering Representative (DER), Organization Designation Authority (ODA), or other FAA-approved data. This data will allow the owner/operator the ability to apply for a field approval or one-time STC for that aircraft.

3. Previously Approved Field Approvals. Applicants can present a previously FAA-approved field approval for jump door, handles, step, and skydiver restraint systems as data for the field approval process if the FAA-approved data are for the same aircraft make, model, and series (M/M/S).

4. Field Approval Process. Applicants need to follow the latest guidance found in FAA Order 8900.1, Flight Standards Information Management System (FSIMS), Volume 4, Chapter 9, Selected Field Approvals, for a field approval process. This guidance can be found at <http://fsims.faa.gov>. Any changes to the flight manual require FAA and Aircraft Certification Office (ACO) approval. Applicants must include placards and skydiver restraint systems in the continued airworthiness instructions covering the repair of placards, restraint system components, steps, handles, jump doors, etc. Installation, removal, and inspection of installed equipment will be entered in the aircraft maintenance records, including the inspection checklist for the installation and operational check of restraint systems.

APPENDIX 3. SEATS AND RESTRAINT SYSTEMS

1. Seating Configuration and Restraint System Safety. Not all seating and restraint system configurations used in jump aircraft provide the same level of safety in the event of an emergency landing. This appendix provides general information concerning the relative safety of commonly used seating configurations and restraint systems. These safety assessments are based on available research data and in-service experience.

2. General Information.

a. Quick Release Track Fittings. Single stud quick release track fittings have been shown to release from the track at dynamic loads much lower than their rated strength. Dual stud quick release fittings did not exhibit this behavior in dynamic tests. Therefore, dual stud quick release fittings of the type shown in Figure 2, Dual Stud Quick Release Track Fitting, provide a much more reliable restraint anchorage than single stud fittings.

b. Lap Belts. Lap belts are only effective if there is a solid support surface behind the occupant, such as a seat back, aircraft sidewall, or bulkhead. Otherwise, a tether restraint that attaches to the parachute harness provides more effective restraint.

c. Restraint for Aft-Facing Parachutists. Research has shown that to restrain aft-facing parachutists, the most effective point to attach a tether restraint to a parachute harness is at the junction of the leg straps, main lift web, and the horizontal back strap. Figure 3, Tether Restraint Usage, illustrates this attachment method, in which the tether loop encircles the junction by passing between the main lift web and the horizontal back strap, and between the upper leg strap and the lower leg strap. One way to achieve this is to route the tether loop under the upper leg strap, then under the main lift web before latching the loop, as depicted in Figure 4, Pass Tether Loop Under Upper Leg Strap, Figure 5, Pass Tether Loop Under Main Lift Web, and Figure 6, Latch Tether Loop Around Parachute Harness. Since these two components of the harness are easily accessible by the wearer, this attachment method should not be prone to misuse. It also provides more effective restraint than attaching at other points on the parachute harness since the restraining force is applied near the seated occupant's center of gravity (CG).

d. Restraint Belts or Tethers. Past experience and testing have shown the validity of attaching a restraint belt(s) or tether(s) to the parachute harness as part of the overall integrated restraint system. However, most manufacturers have not tested their parachute harness configurations to see if they can accept the load vectors that would be experienced during the actual use of this type of restraint configuration. Because of this, any parachute harness that has been subjected to actual use as part of an integrated restraint system must be removed from service and inspected by the manufacturer or a parachute rigger designated by the manufacturer to determine the continued airworthiness of the parachute harness. If the inspection shows that the harness is Airworthy, it may be returned to service.

3. Specific Seating/Restraint Configurations.

a. Side-Facing. Conventional side-facing bench seats employing dual point lap belts are a superior means of carrying parachutists in aircraft large enough to accommodate them. They offer the advantages of being simple to use and can be designed to provide significant vertical energy absorption.

b. Rear-Facing Floor Seating.

(1) Restraints are more effective if attached to the floor instead of the sidewall. Only use sidewall attachments if floor attach points are not available.

(2) Effectiveness is increased if overall tether length is kept as short as possible and the tether attachment to the aircraft is aft of the harness attachment point.

(3) Single point, single tether restraints are not recommended.

(4) Dual point, dual tether restraints offer superior restraint compared to single point, single tether restraints. This restraint method consists of two straps, each connecting the parachute harness to the aircraft floor on both sides of the parachutist as shown in Figures 7, Tether Restraint Attachment To Floor For Rear-Facing Floor Seats, Figure 8, Dual Point, Dual Tether Restraint Configuration For Rear-Facing Floor Seats, and Figure 9, Dual Point, Dual Tether Restraint Attachment To Floor For Rear-Facing Straddle.

c. Rear-Facing on Straddle Bench.

(1) Straddle benches can offer more occupant crash protection than floor seating since they can be designed to provide significant vertical energy absorption.

(2) As with floor seating, restraints are more effective if attached to the floor instead of the sidewall.

(3) Restraint effectiveness is improved if the tether strap is attached to the floor such that it is at an approximately 45 degree angle, as shown in Figure 9.

(4) Single point, single tether restraints are not very effective.

(5) Dual point, dual tether restraints offer superior restraint compared to single point, single tether restraints.

FIGURE 2. DUAL STUD QUICK RELEASE TRACK FITTING



FIGURE 3. TETHER RESTRAINT USAGE

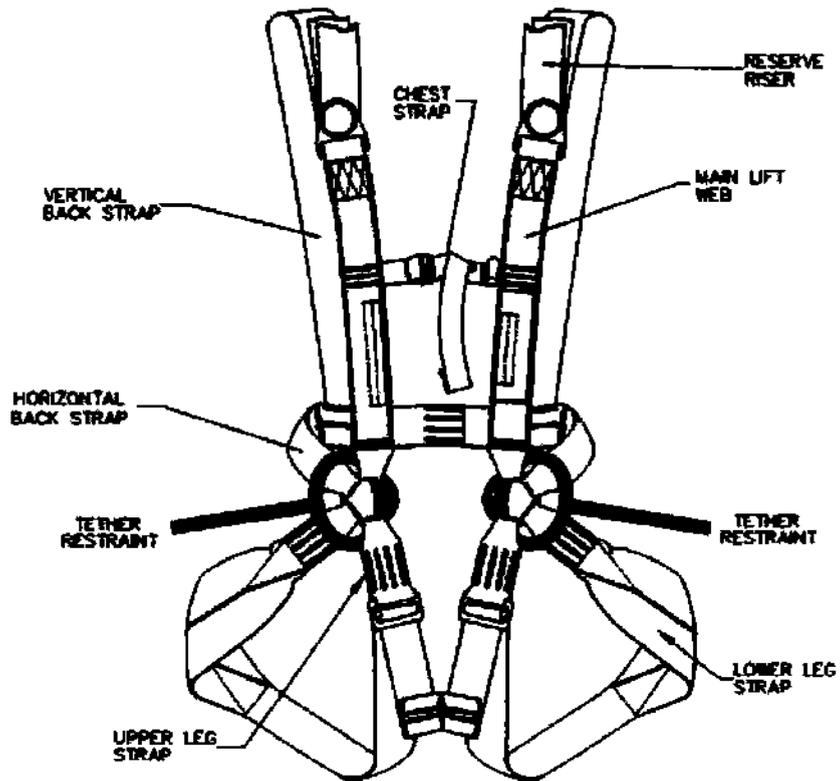


FIGURE 4. PASS TETHER LOOP UNDER UPPER LEG STRAP



FIGURE 5. PASS TETHER LOOP UNDER MAIN LIFT WEB



FIGURE 6. LATCH TETHER LOOP AROUND PARACHUTE HARNESS

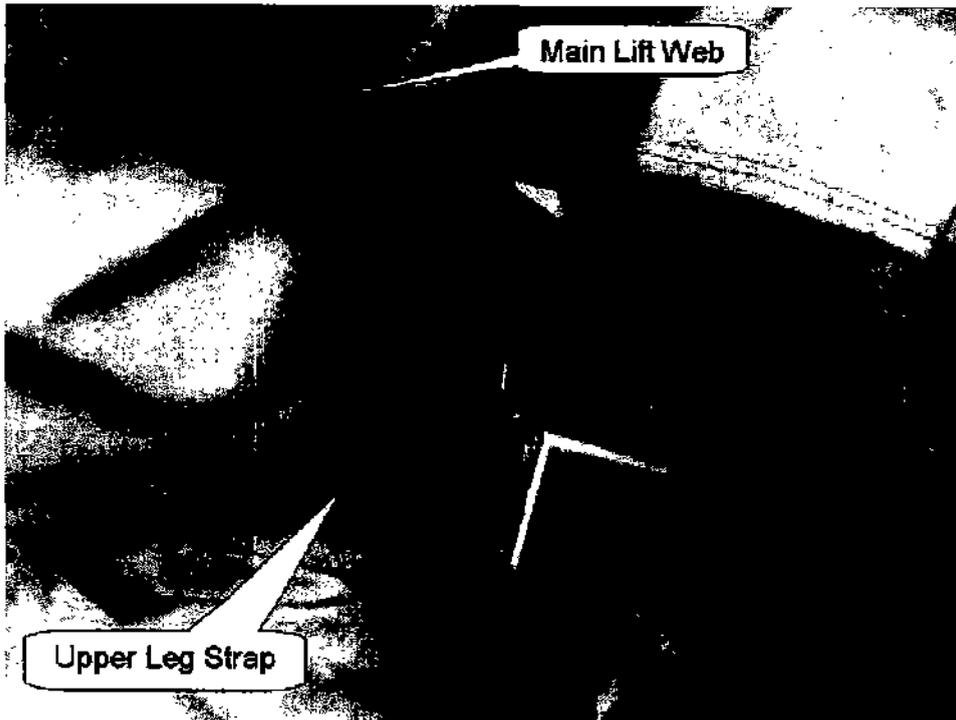


FIGURE 7. TETHER RESTRAINT ATTACHMENT TO FLOOR FOR REAR-FACING FLOOR SEATS

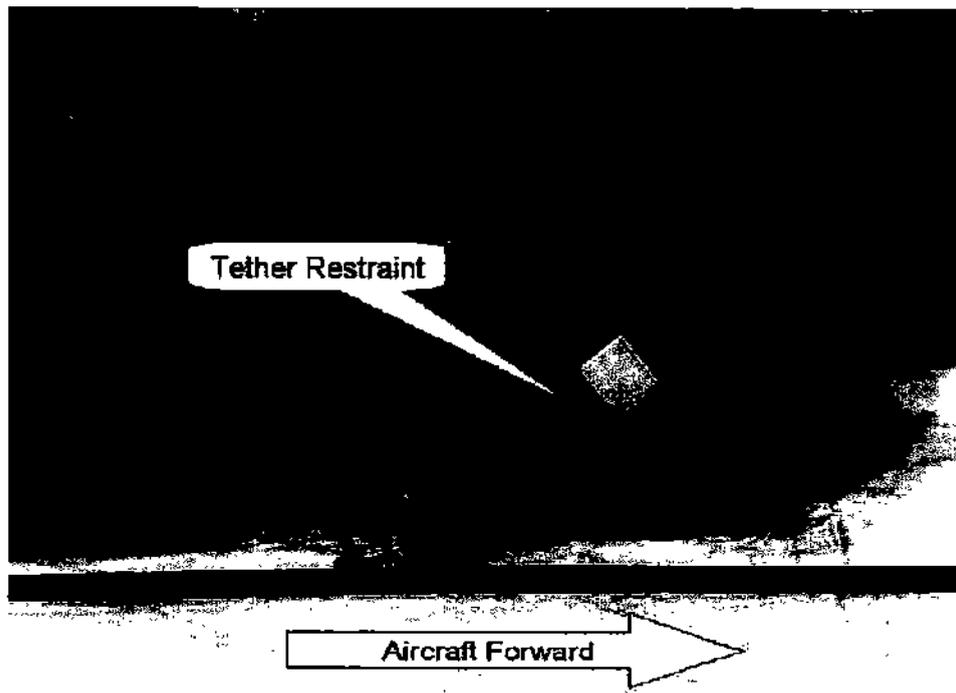
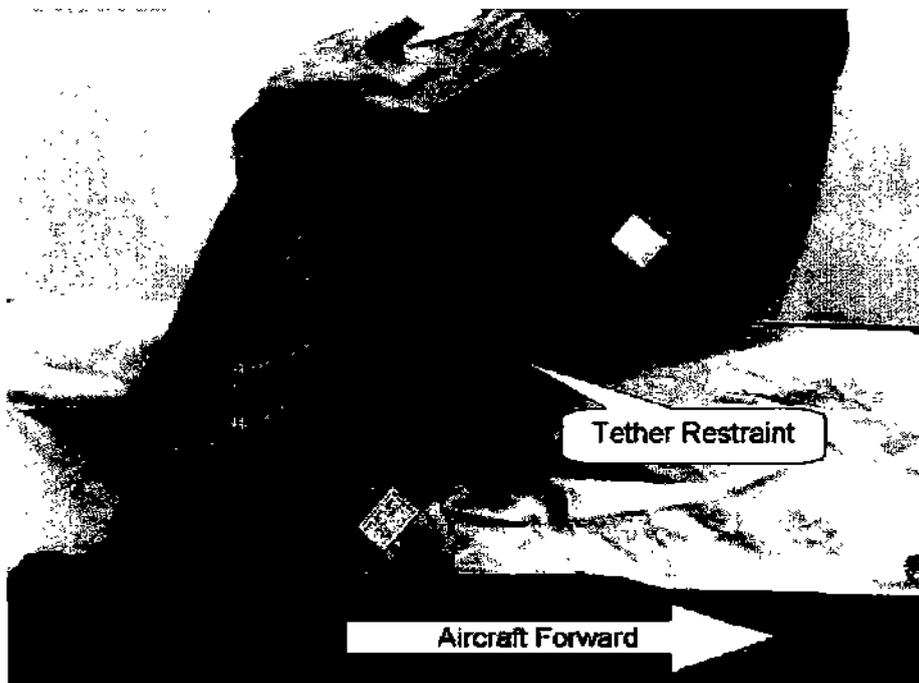


FIGURE 8. DUAL POINT, DUAL TETHER RESTRAINT CONFIGURATION FOR REAR-FACING FLOOR SEATS



FIGURE 9. DUAL POINT, DUAL TETHER RESTRAINT ATTACHMENT TO FLOOR FOR REAR-FACING STRADDLE





U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: RECOMMENDED STANDARD TRAFFIC PATTERNS AND PRACTICES FOR AERONAUTICAL OPERATIONS AT AIRPORTS WITHOUT OPERATING CONTROL TOWERS

**Date: 8/26/93
Initiated by: ATP-230**

AC No. 90-66A

1. PURPOSE.

This advisory circular (AC) calls attention to regulatory requirements and recommended procedures for aeronautical operations at airports without operating control towers. It recommends traffic patterns and operational procedures for aircraft, lighter than air, glider, parachute, rotorcraft, and ultralight vehicle operations where such use is not in conflict with existing procedures in effect at those airports.

2. CANCELLATION.

AC 90-66, Recommended Standard Traffic Patterns for Airplane Operations at Uncontrolled Airports, dated February 27, 1975, is cancelled.

3. PRINCIPAL CHANGES.

This AC has been updated to reflect current procedures at airports without operating control towers. Principal changes include: adding on "Other Traffic Pattern" section, amending appendix charts to remain consistent with the Airman's Information Manual (AIM), expanding the "Related Reading Material" section from "airplane" to "aeronautical" operations, adding definition and references to Common Traffic Advisory Frequency (CTAF), acknowledging straight-in approaches are not prohibited but may be operationally advantageous, and adding a paragraph on wake turbulence.

4. DEFINITIONS.

a. Airports Without Operating Control Towers. Airports without control towers or an airport with a control tower which is not operating. These airports are commonly referred to as non-towered, uncontrolled, or part-time towered airports.

b. Common Traffic Advisory Frequency (CTAF). A frequency designed for the purpose of carrying out airport advisory practices while operating to or from an airport without an operating control tower. The CTAF may be a UNICOM, MULTICOM,

flight service station, or tower frequency and is identified in appropriate aeronautical publications.

5. RELATED READING MATERIAL.

- a. Airport/Facility Directory (AFD).
- b. Airman's Information Manual (AIM).
- c. Fly Neighborly Guide, Helicopter Association International.
- d. Aviation USA, Aircraft Owners and Pilots Association (AOPA).
- e. State aviation publications.
- f. Various pilot guides.
- g. Pilot Operations at Nontowered Airports, AOPA Air Safety Foundation pamphlet.
- h. Guidelines for the Operation of Ultralight Vehicles at Existing Airports, United States Ultralight Association.
- i. Facts for Pilots, United States Parachute Association.
- j. The latest addition of the following AC's also contain information applicable to operations at airports without operating control towers:
 - (1) AC 90-23, Aircraft Wake Turbulence.
 - (2) AC 90-42, Traffic Advisory Practices at Airports Without Operating Control Towers.
 - (3) AC 90-48, Pilot's Role in Collision Avoidance.
 - (4) AC 91-32, Safety In and Around Helicopters.
 - (5) AC 103-6, Ultralight Vehicle Operations-Airports, Air Traffic Control, and Weather.
 - (6) AC 105-2, Sport Parachute Jumping.

6. BACKGROUND AND SCOPE.

a. Regulatory provisions relating to traffic patterns are found in Parts 91, 93, and 97 of the Federal Aviation Regulations (FAR). The airport traffic

patterns contained in Part 93 relate primarily to those airports where there is a need for unique traffic pattern procedures not provided for in Part 91. Part 97 addresses instrument approach procedures. At airports without operating control towers, Part 91 requires only that pilots of airplanes approaching to land make all turns to the left unless light signals or visual markings indicate that turns should be made to the right.

b. The Federal Aviation Administration (FAA) believes that observance of a standard traffic pattern and the use of CTAF procedures as detailed in AC 90-42 will improve the safety and efficiency of aeronautical operations at airports without operating control towers.

7. GENERAL OPERATING PRACTICES.

a. Use of standard traffic patterns for all aircraft and CTAF procedures by radio-equipped aircraft are recommended at all airports without operating control towers. However, it is recognized that other traffic patterns may already be in common use at some airports or that special circumstances or conditions exist that may prevent use of the standard traffic pattern.

b. The use of any traffic pattern procedure does not alter the responsibility of each pilot to see and avoid other aircraft. Pilots are encouraged to participate in "Operation Lights On," which is a voluntary pilot safety program described in the AIM designed to enhance the "see-and-avoid" requirement.

c. As part of the preflight familiarization with all available information concerning a flight, each pilot should review all appropriate publications (AFD, AIM, Notices to Airmen (NOTAM), etc.), for pertinent information on current traffic patterns at the departure and arrival airports.

d. It is recommended that pilots utilize visual indicators, such as the segmented circle, wind direction indicator, landing direction indicator, and traffic pattern indicators which provide traffic pattern information.

e. The FAA encourages pilots to use the standard traffic pattern. However, for those pilots who choose to execute a straight-in approach, maneuvering for and execution of the approach should be completed so as not to disrupt the flow of arriving and departing traffic. Therefore, pilots operating in the traffic pattern should be alert at all times to aircraft executing straight-in approaches.

f. Pilots who wish to conduct instrument approaches should be particularly alert for other

aircraft in the pattern so as to avoid interrupting the flow of traffic. Position reports on the CTAF should include distance and direction from the airport, as well as the pilot's intentions upon completion of the approach.

g. Pilots of inbound nonradio-equipped aircraft should determine the runway in use prior to entering the traffic pattern by observing the landing direction indicator or by other means. Pilots should be aware that procedures at airports without operating control towers generally do not require the use of two-way radios; therefore, pilots should be especially vigilant for other aircraft while operating in the traffic pattern.

h. Wake turbulence is generated by all aircraft. Therefore, pilots should expect to encounter turbulence while operating in a traffic pattern and in proximity to other aircraft. Aircraft components and equipment can be damaged by wake turbulence. In flight, avoid the area below and behind the aircraft generating turbulence especially at low altitude where even a momentary wake encounter can be hazardous. All operators should be aware of the potential adverse effects that their wake, rotor or propeller turbulence has on light aircraft and ultralight vehicles.

8. RECOMMENDED STANDARD TRAFFIC PATTERN.

Airport owners and operators, in coordination with the FAA, are responsible for establishing traffic patterns. However, the FAA encourages airport owners and operators to establish traffic patterns as recommended in this AC. Further, left traffic patterns should be established except where obstacles, terrain, and noise-sensitive areas dictate otherwise. Appendix 1 contains diagrams for recommended standard traffic patterns.

a. Prior to entering the traffic pattern at an airport without an operating control tower, aircraft should avoid the flow of traffic until established on the entry leg. For example, wind and landing direction indicators can be checked while at an altitude above the traffic pattern. When the proper traffic pattern direction has been determined, the pilot should then proceed to a point well clear of the pattern before descending to the pattern altitude.

b. Arriving aircraft should be at the appropriate traffic pattern altitude before entering the traffic pattern. Entry to the downwind leg should be at a 45-degree angle abeam the midpoint of the runway.

c. It is recommended that airplanes observe a 1000-foot above ground level (AGL) traffic pattern altitude. Large and turbine-powered airplanes should enter the traffic pattern at an altitude of 1,500 feet AGL or 500 feet above the established pattern altitude. A pilot may vary the size of the traffic pattern depending on the aircraft's performance characteristics.

d. The traffic pattern altitude should be maintained until the aircraft is at least abeam the approach end of the landing runway on the downwind leg.

e. The base leg turn should commence when the aircraft is at a point approximately 45 degrees relative bearing from the runway threshold.

f. Landing and takeoff should be accomplished on the operating runway most nearly aligned into the wind. However, if a secondary runway is used, pilots using the secondary runway should avoid the flow of traffic to the runway most nearly aligned into the wind.

g. Airplanes on takeoff should continue straight ahead until beyond the departure end of the runway. Aircraft executing a go-around maneuver should continue straight ahead, beyond the departure end of the runway, with the pilot maintaining awareness of other traffic so as not to conflict with those established in the pattern. In cases where a go-around was caused by an aircraft on the runway, maneuvering parallel to the runway may be required to maintain visual contact with the conflicting aircraft.

h. Airplanes remaining in the traffic pattern should not commence a turn to the crosswind leg until beyond the departure end of the runway and within 300 feet below traffic pattern altitude, with the pilot ensuring that the turn to downwind leg will be made at the traffic pattern altitude.

i. When departing the traffic pattern, airplanes should continue straight out or exit with a 45-degree left turn (right turn for right traffic pattern) beyond the departure end of the runway after reaching pattern altitude. Pilots need to be aware of any traffic entering the traffic pattern prior to commencing a turn.

j. Airplanes should not be operated in the traffic pattern at an indicated airspeed of more than 200 knots (230 mph).

k. Throughout the traffic pattern, right-of-way rules apply as stated in FAR Part 91.113. Any aircraft in distress has the right-of-way over all other aircraft. In addition, when converging aircraft are of different categories, a balloon has the right-of-way over any other category of aircraft;

a glider has the right-of-way over an airship, airplane, or rotorcraft; and an airship has the right-of-way over an airplane or rotorcraft.

9. OTHER TRAFFIC PATTERNS.

Airport operators routinely establish local procedures for the operation of gliders, parachutists, lighter than air aircraft, helicopters, and ultralight vehicles. Appendices 2 and 3 illustrate these operations as they relate to recommended standard traffic patterns.

a. Rotorcraft.

(1) In the case of a helicopter approaching to land, the pilot must avoid the flow of fixed-wing aircraft and land on a marked helipad or suitable clear area. Pilots should be aware that at some airports, the only suitable landing area is the runway.

(2) All pilots should be aware that rotorcraft may fly slower and approach at steeper angles than airplanes. Air taxi is the preferred method for helicopter ground movements which enables the pilot to proceed at an optimum airspeed, minimize downwash effect, and conserve fuel. However, flight over aircraft, vehicles, and personnel should be avoided.

(3) In the case of a gyrocopter approaching to land, the pilot should avoid the flow of fixed-wing aircraft until turning final for the active runway.

(4) A helicopter operating in the traffic pattern may fly a pattern similar to the airplane pattern at a lower altitude (500 AGL) and closer to the airport. This pattern may be on the opposite side of the runway with turns in the opposite direction if local policy permits.

(5) Both classes of rotorcraft can be expected to practice power-off landing (autorotation) which will involve a very steep angle of approach and high rate of descent (1,500-2,000 feet/minute).

b. Gliders.

(1) A glider, including the tow aircraft during towing operations, has the right-of-way over powered aircraft.

(2) If the same runway is used by both airplanes and gliders, the glider traffic pattern will be inside the pattern of engine driven aircraft. If a "Glider Operating Area" is established to one side of a powered-aircraft runway, the glider pattern will normally be on the side of the airport closest to the "Glider Operating Area." This will allow gliders to fly the same direction traffic pattern as powered aircraft in one wind condition and necessitate a separate opposing direction traffic

pattern in the opposite wind condition. (See examples in Appendix 2, Glider Operations).

(3) Typically, glider traffic patterns have entry points (initial points) from 600 to 1,000 feet AGL.

c. Ultralight Vehicles.

(1) In accordance with FAR Part 103, ultralight vehicles are required to yield the right-of-way to all aircraft.

(2) Ultralight vehicles should fly the rectangular pattern as described in Appendix 2. Pattern altitude should be 500 feet below and inside the standard pattern altitude established for the airport. An ultralight pattern with its own dedicated landing area will typically have a lower traffic pattern parallel to the standard pattern with turns in the opposite direction.

(3) All pilots should be aware that ultralights will fly significantly slower than airplanes. In addition, ultralights may also exhibit very steep takeoff and approach angles. Turns may be executed near the end of the runway in order to clear the area expediently.

d. Lighter Than Air Aircraft.

(1) A balloon has the right-of-way over any other category of aircraft and does not follow a standard traffic pattern.

(2) Due to limited maneuverability, airships do not normally fly a standard traffic pattern. However, if a standard traffic pattern is flown, it will be at an airspeed below most other aircraft.

e. Parachute Operations.

(1) All activities are normally conducted under a NOTAM noting the location, altitudes, and time or duration of jump operations. The Airport/Facility Directory lists airports where permanent drop zones are located.

(2) Jumpers normally exit the aircraft either above, or well upwind of, the airport and at altitudes well above traffic pattern altitude. Parachutes are normally deployed between 2,000 feet and 5,000 feet AGL and can be expected to be below 3,000 feet AGL within 2 miles of the airport.

(3) Pilots of jump aircraft are required by Part 105 to establish two-way radio communications with the air traffic control facility or Flight Service Station which has jurisdiction over the affected airspace prior to jump operations for the purpose of receiving information in the aircraft about known air traffic in the vicinity. In addition, when jump aircraft are operating at or in the vicinity of an airport, pilots are also encouraged to provide advisory information on the CTAF, i.e., "Chambersburg traffic, jumpers away over Chambersburg.

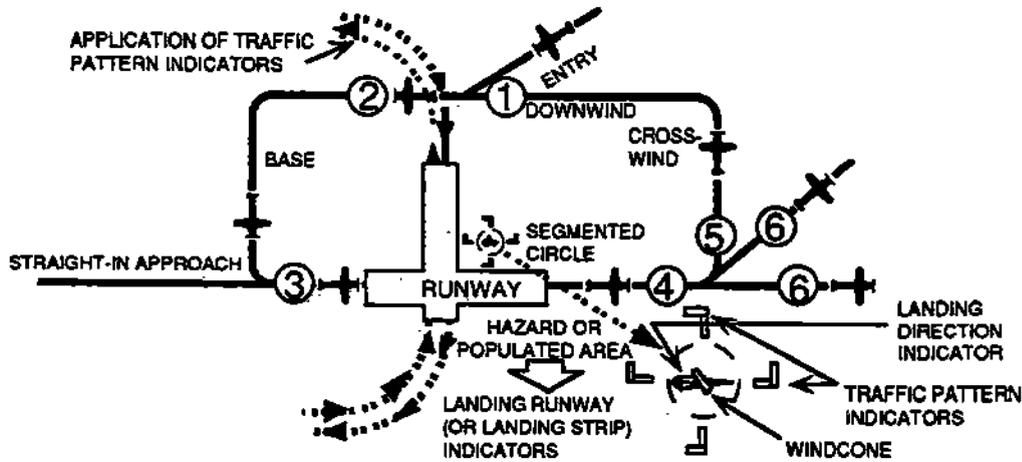
(4) When a drop zone has been established on an airport, parachutists are expected to land within the drop zone. At airports that have not established drop zones, parachutists should avoid landing on runways, taxiways, aprons, and their associated safety areas. Pilots and parachutists should both be aware of the limited flight performance of parachutes and take steps to avoid any potential conflicts between aircraft and parachute operations.

(5) Appendix 3 diagrams operations conducted by parachutists.

Harold W Becker

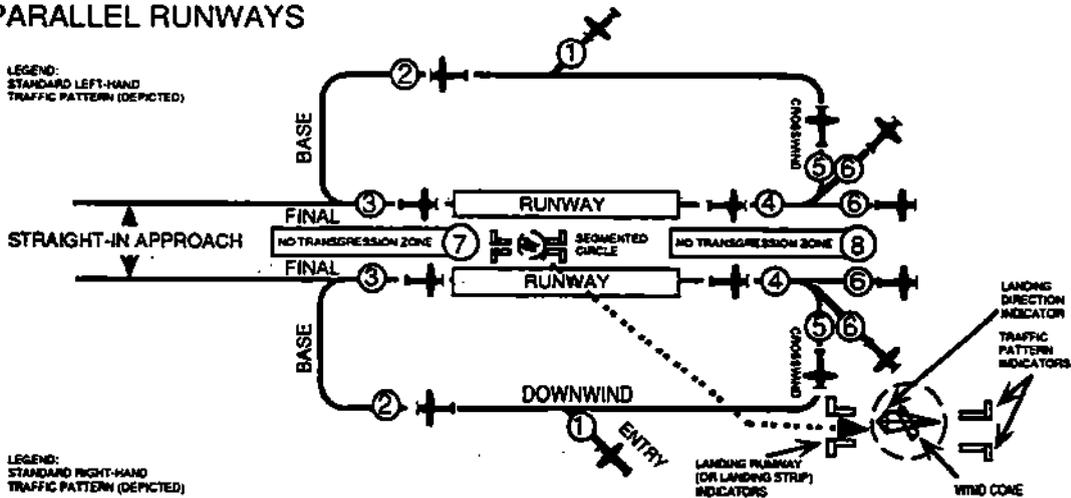
Harold W. Becker
Acting Director, Air Traffic
Rules and Procedures Service

SINGLE RUNWAY AIRPORT OPERATIONS



PARALLEL RUNWAYS

LEGEND:
STANDARD LEFT-HAND
TRAFFIC PATTERN (DEPICTED)

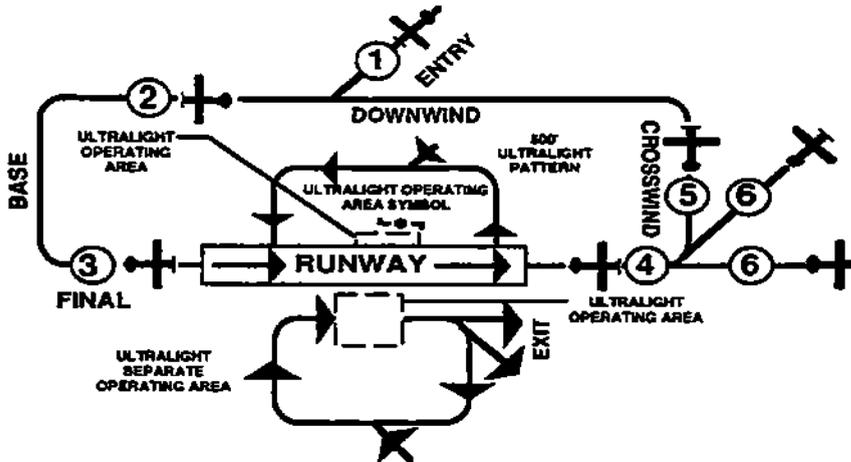


LEGEND:
STANDARD RIGHT-HAND
TRAFFIC PATTERN (DEPICTED)

KEY

- ① Enter pattern in level flight, abeam the midpoint of the runway, at pattern altitude. (1000' AGL is recommended pattern altitude unless established otherwise).
- ② Maintain pattern altitude until abeam approach end of the landing runway, or downwind leg.
- ③ Complete turn to final at least 1/4 mile from the runway.
- ④ Continue straight ahead until beyond departure end of runway.
- ⑤ If remaining in the traffic pattern, commence turn to crosswind leg beyond the departure end of the runway, within 300 feet of pattern altitude.
- ⑥ If departing the traffic pattern, continue straight out, or exit with a 45° left turn beyond the departure end of the runway, after reaching pattern altitude.
- ⑦ Do not overshoot final or continue on a track which will penetrate the final approach of the parallel runway.
- ⑧ Do not continue on a track which will penetrate the departure path of the parallel runway.

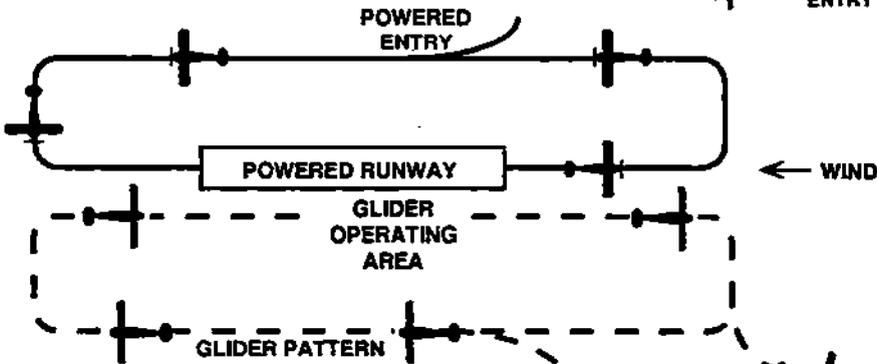
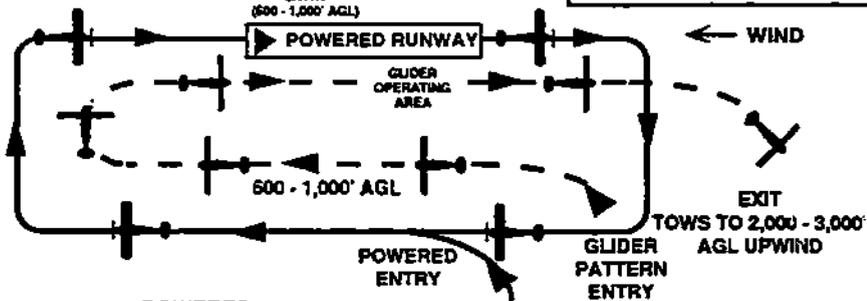
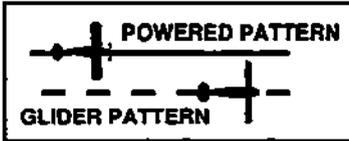
ULTRALIGHT OPERATIONS



GLIDER OPERATIONS

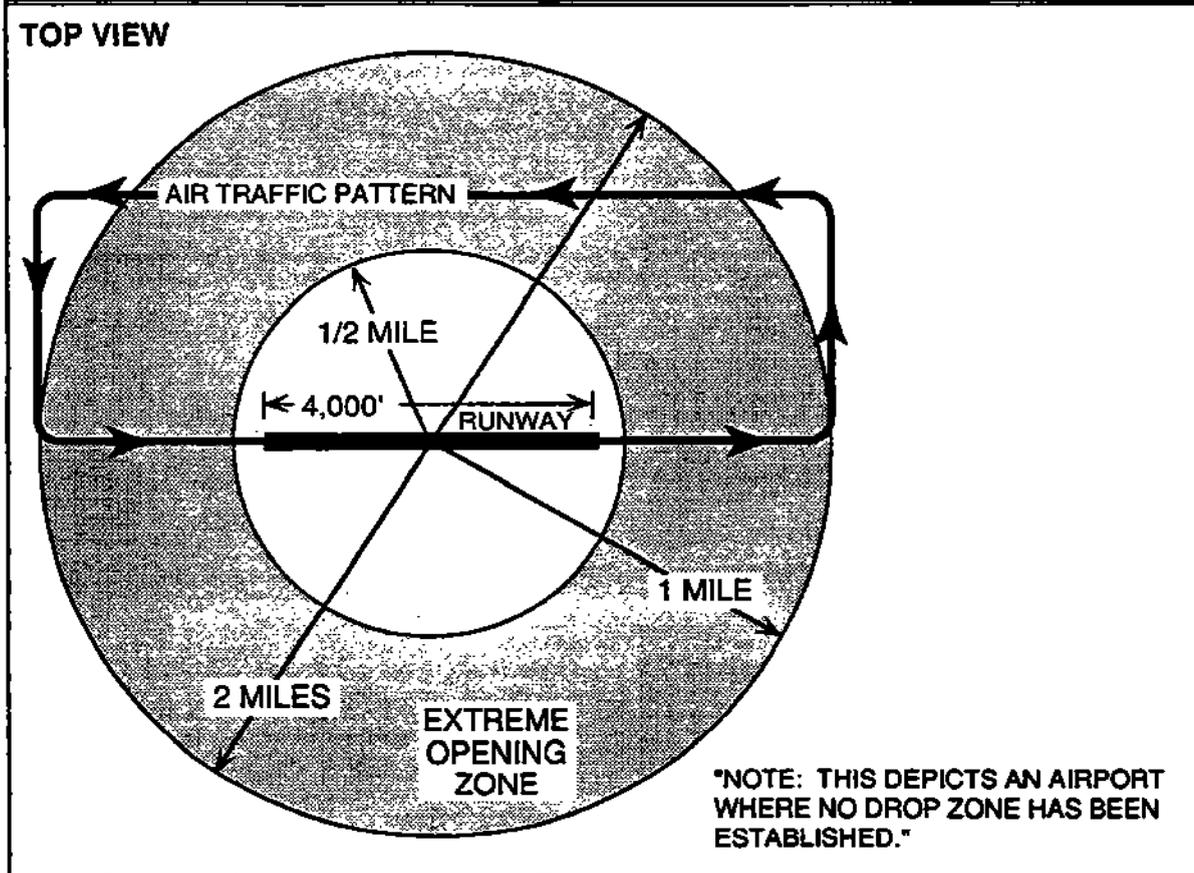
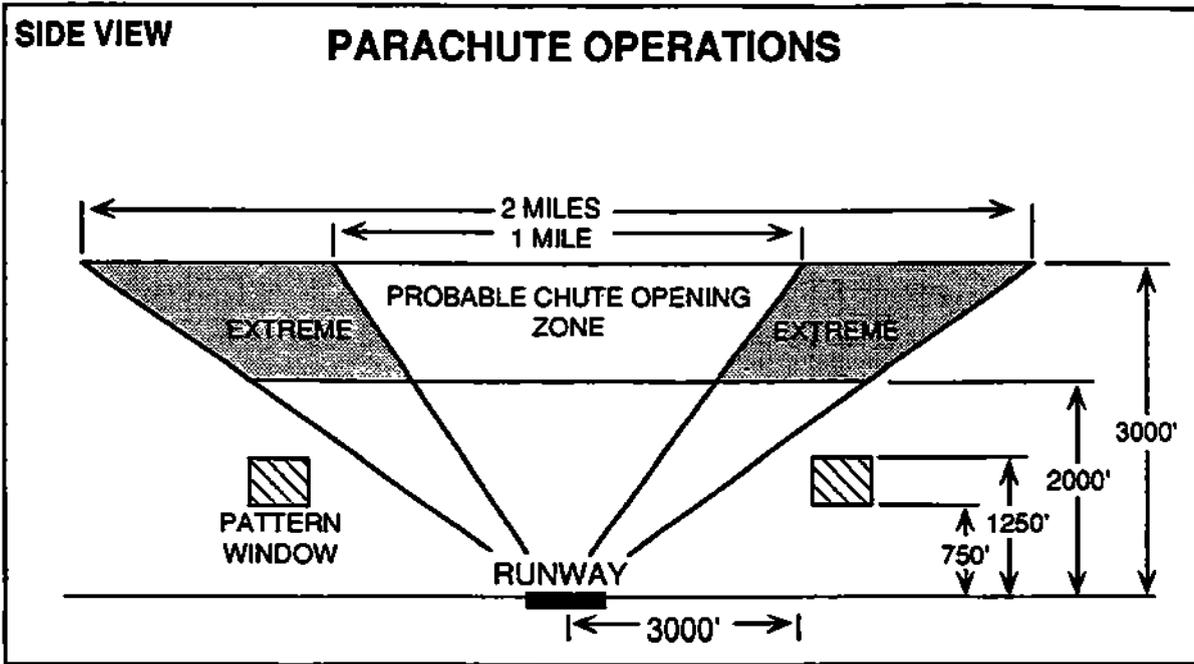
GLIDER PATTERN AND POWER PATTERN
SAME SIDE OF RUNWAY

GLIDER PATTERN INSIDE TRAFFIC
PATTERN FOR ENGINE-DRIVEN
AIRCRAFT



GLIDER PATTERN AND POWER PATTERN
OPPOSITE SIDE OF RUNWAY
GLIDER PATTERN IS SEPARATE
FROM POWERED RUNWAY

ENTRY
600 - 1,000' AGL
TOWS TO
2,000 - 3,000 FT. AGL
UPWIND



Michael Spencer

From: Kelly McGinn
Sent: Tuesday, July 14, 2015 9:09 AM
To: Liz Myer; Michael Spencer; avsurance@avfuel.com
Subject: Airport Insurance

Kathleen,

Thank you for speaking with me this morning regarding our airport insurance.

From what I understand, our insurance covers any situation where the airport has “care, custody, and control” of a particular situation.

In the case of skydivers/parachuting, the tenant would be responsible for this business activity (we do not have control of this business activity).

The City should have a waiver from this tenant (actually all tenants) on their insurance policy.

As we also discussed, on Monday, July 20, 2015, our Council for the City of Charlevoix will be meeting at 7:00 p.m. at City Hall to discuss the issue of skydivers/parachuting at our airport.

It may be beneficial for a representative from our insurance available at this meeting to answer any questions that may surface regarding the Airport’s liability coverage for these types of businesses.

I realize that this is very short notice, but if someone could be available for this meeting, it would be helpful for the Council to make decisions regarding the issue at hand.

Thank you again for speaking with me this morning.

Please let us know if a representative would be available on Monday, July, 20th, 2015 at 7:00 p.m. at City Hall.

I have attached our Airport Manager and Interim City Manager to this email.

Thank you again,

Kelly McGinn
City of Charlevoix
Treasurer

Linda Weller

From: Robert Christoph [rwc@rcimarine.com]
Sent: Tuesday, July 07, 2015 12:34 PM
To: Linda Weller
Cc: Robert Christoph, Jr.; Luther Kurtz
Subject: Sky diving at Charlevoix Airport

Any and all activities that encourage people to come to and enjoy all that Charlevoix has to offer should be encouraged and supported. So long as all the appropriate protections, licenses, insurances are in place and this activity is scheduled so as not to interfere with the airports primary business of planes landing and taking off, sky diving is a new venue that promotes the airport and the community to a visitor group that heretofore did not view Charlevoix as a skydiving destination.

This is a concrete example of how Charlevoix's economic base and growth can be enhanced through better and expanded programs offered by and operating at it's two unique community assets - the Airport and it's expansion and the Harbour (lake port) and it's expansion. Grow the PORTS and prosperity will follow!

Robert W Christoph Sr.

Date: July 11, 2015

To: Mayor Gabe Campbell and the Charlevoix City Council

From: Connie Saltonstall

Re: Sky Divers at Charlevoix City Airport

I am not a resident of the city of Charlevoix but I am a customer of the Charlevoix City Airport. I am very concerned that the Charlevoix City Council has been discussing that sky divers could be allowed to use the Charlevoix Airport property for a landing location for the sky divers. The potential for accidents and the additional stress and confusion on pilots should preclude this from happening.

The city has the responsibility to create the safest environment possible for the aircraft, pilots, and passengers. I cannot imagine that the Charlevoix City Council would be willing to create a serious safety and liability situation endangering lives and the financial health of the city.

The aircraft of the private sky diving business should be allowed to take off and land like any other aircraft. People jumping out of those aircraft have no business being in airport airspace. There are open fields in the area that are not in the airport air space and would not endanger air traffic.

I can't believe that this was even a topic of discussion!

Connie Saltonstall

11362 Boyne City Road

Charlevoix, MI 49720

231-547-2138