

Appendix G

Meeting Summaries

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #1
Location	Charlevoix City Hall, 210 State Street
Date	Wednesday, October 20 th , 2010
Time	1:00 – 3:00pm

Invitees

Matt Bailey – Airport Manager Rob Straebel – City of Charlevoix David Welhouse – FAA Mark Grennell – Michigan DOT Mike Borta – RW Armstrong Paul Puckli – RW Armstrong Kevin Clarke – RW Armstrong Mike Spencer- City of Charlevoix Chuck Scherping- Emmet Sport Flyers	Jill Picha – City Council Lyle Gennett – City Council Boogie Carlson – City Mayor Rachel Teague – Fresh Air Aviation Paul Welke – Island Airways Dave Guanci- Latitude 45 Don Seelye- Pilot/Land Owner Erin Bemis- Chamber of Commerce Terry Salmonson- Charlevoix Flying Club
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Topics

- Inquiry Regarding Conflicts of Interest
- Introduction of Study Team and Technical Advisory Committee (TAC) members
- Define the role of the TAC
- Summary of Approved Minimum Standards and Municipal Code Chapter 26
- Overview of the Master Planning Process
 - An airport is a community asset
 - Airport funding
 - What is, and why do, an airport master plan
 - Project background
 - Schedule
- Previous planning efforts
- Current Facilities
 - Federal and state airport role
 - Nearby airports
 - Potential constraints
- Introduce planning concepts used in future analyses
 - Design standards
 - Airspace protection
- Activity Forecasting Effort – to date
 - Based aircraft
 - Operations
 - Enplanements
 - User surveys
 - FAA flight data
- Describe next steps

- Solicit input and ideas from the TAC
- Call for Public Comment
- Adjourn

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #1
Location	Charlevoix City Hall, 210 State Street
Date	Wednesday, October 20 th , 2010
Time	1:00 – 3:00pm
Summary By:	Kevin Clarke, RW Armstrong, 10-21-10

Invitees/Attendance

Attending	Name	Organization
Yes	Matt Bailey	CVX Airport Manager
Yes	Boogie Carlson	City Mayor
	Rob Straebel	City of Charlevoix
	Mike Spencer	City of Charlevoix
Yes	Jill Picha	City Council
Yes	Lyle Gennett	City Council
Yes	David Welhouse	FAA – Detroit ADO
via phone	Mark Grennell, Mark Dontje, John Pierce	Michigan Bureau of Aeronautics
Yes	Mike Borta	RW Armstrong
Yes	Paul Puckli	RW Armstrong
Yes	Kevin Clarke	RW Armstrong
Yes	Chuck Scherping	Emmet Sport Flyers
Yes	Rachel Teague	Fresh Air Aviation
	Paul Welke	Island Airways
	Dave Guanci	Latitude 45
Yes	Don Seelye	Pilot/Land Owner
	Erin Bemis	Chamber of Commerce
	Terry Salmonson	Charlevoix Flying Club
Yes	David Baker	Michigan Bureau of Aeronautics
Yes	Mary Delamater	Island Airways

Minutes/Meeting Summary

1. Meeting began a few minutes after 1:00pm, with those in attendance as indicated on the preceding table. Additional members of the Michigan DOT- Bureau of Aeronautics attended via teleconference. Other than those invited, no persons from the general public were in attendance.
2. Matt Bailey, Airport Manager, welcomed everyone, introduced several of the Technical Advisory Committee (TAC) members and inquired of any known Conflicts of Interest. Mr. Bailey then turned the presentation over to Paul Puckli, Director of Airport Planning for RW Armstrong. RW Armstrong is the airport's general consulting firm providing airport planning, design and program management services.
3. Mr. Puckli and Kevin Clarke (Project Manager with RW Armstrong) began a powerpoint presentation describing the airport master planning process and the study activities to date. The powerpoint presentation included the following topics/items:
 - a. Description of the meeting's goals and role of the TAC, emphasizing that all of the stakeholders are working towards a safe, efficient and sustainable airport facility.
 - b. Acknowledgement of the Policy Advisory Committee (PAC) and the work they had previously performed in developing the airport's Minimum Standards and Rules and Regulations (i.e. Chapter 26 of the Municipal Code). It was reiterated that these documents were approved by City Council 10-4-2010. A brief summary of what these documents contained was provided.
 - c. The importance of an airport to a community, as well as how airport development and operations are funded, was described.
 - d. An overview of the airport master planning process was provided. This included the what, why, general steps and anticipated schedule of the Charlevoix Municipal Airport (CVX) master plan study.
 - e. The previous planning studies for CVX were described. These included the 1980/84 Airport Master Plan and Airport Layout Plan (ALP), the 1991 ALP Update, and an ALP Update that began in 2008/09 that is currently on-hold pending the results of this current master plan study.
 - f. The roles of CVX in the federal and state air transportation systems were described.
 - g. General airport planning concepts and definitions were introduced, including Airport Reference Code (ARC) and Federal Aviation Regulations Part 77 Airspace Protection. The geographic extents to which the Part 77 protection surfaces overlay were identified, which include the City of Charlevoix and several of the nearby townships.
 - h. A comparison of the other local or nearby airports, within 45 nautical miles of CVX, was presented. The comparison was based on facilities and services provided as well as level of activity (i.e. operations and enplanements). Mr. Bailey provided additional insight into the activity at these nearby airports and how CVX, due mainly to its' location, provides very important and somewhat unique service to accommodate public demand for service to Beaver Island.

- i. Land uses and potential development constraints surrounding CVX were identified.
 - j. A description of the master plan study's airport activity forecasting effort was provided. This included the forecasting process, the factors that could influence the future activity levels (i.e. based aircraft, operations, enplanements) the previous forecasts, and the existing activity levels.
 - k. The results of previous user and business surveys were described. User surveys were performed in 1989, 2007 and 2010. The purpose of the surveys were to further identify who was using CVX, how the airport was being used and what facilities the pilots and businesses would like to see at the airport to support their needs. A vast majority of the responses indicated the desire/need for a longer primary runway to further enhance safety (particularly in inclement weather) and to increase their operational range and payload capability.
 - l. A preliminary description of FAA flight records, obtained for this study, was provided. Data from a five year period (2005-2010) showed an increase in instrument and turbine (jet and turboprop) operations to and from CVX. A further breakdown of the data by aircraft type was also provided.
 - m. The key airport facility requirements, or anticipated needs, to be addressed in the master plan study were identified. These included the terminal building, runway length, on- and off-airport land uses, airspace protection and funding strategies.
 - n. The next steps of the master plan were identified and a tentative date for the **second TAC meeting was set for 1:00pm, Wednesday December 8th, 2010.**
4. A call for comments from the TAC members and the general public was offered.
 5. The following summarizes the comments received from the TAC members, during the course of the presentation, and any ensuing discussion:
 - a. During the discussion of nearby airports it was questioned as to why the general aviation airports, including Beaver Island, had none or very few enplanements identified. Mr. Clarke answered that enplanement reporting to the FAA is mostly voluntary and that depending on the source of the information, data can vary widely. The data presented was obtained from the FAA National Plan of Integrated Airport Systems (NPIAS) and was offered only as an order of magnitude comparison.
 - b. During the discussion of airspace protection, the Michigan DOT (via telecom) commented that while the FAA may not have enforcement capability over off-airport land uses to protect obstacles from encroaching on protected airspace, the Michigan Tall Structures Act does. Mr. Bailey described a recent incident when the State and City worked together to review, and ultimately deter, the development of wind turbines in an area that could impede aircraft operations at CVX.
 - c. During the discussion of adjacent land uses and possible constraints, the alignment of the proposed Lake to Lake Trail was questioned. It was reiterated by Mr. Bailey and Mr. Clarke that this project is in the planning phase and that the proposed alignment, which follows a railroad right of way (owned by St. Mary's Cement) bisects parcels of property owned by the City/airport. This proposed alignment will have to be further

evaluated as it relates to the location and planned improvements to the crosswind runway.

- d. During the discussion of forecasts, it was noted that the US Coast Guard and the Army both use the airport for rescue and training missions. Mr. Clarke indicated that they would research the use patterns and facility needs of these agencies further.
 - e. During the forecast discussion, Mr. Bailey reemphasized that over 70% of the airport's total activity happens over the five month period May-September. It was noted that this places a lot of demand over a short period thus stressing the need for facilities able to accommodate this peak load characteristics (i.e. terminal space, apron space). It was noted that there are occasions when 10 business jet aircraft may be on the ramp at one time creating congestion with the airlines and other recreational aircraft.
 - f. During the discussion of land use and airspace protection, concerns were raised about residential land uses immediately adjacent to, and just northeast of the airport property. It was stated that the City is currently in the process of rezoning certain parcels in this area to residential and it was questioned whether this was rational and if the City should coordinate this with the airport more closely. It was recommended that Mr. Bailey discuss this with the City planning personell.
6. The meeting was adjourned at approximately 2:30pm.

-- End of Meeting Summary --

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #2
Location	Charlevoix City Hall, 210 State Street
Date	Wednesday, December 8 th , 2010
Time	1:00 – 3:00pm

Invitees

Matt Bailey – Airport Manager Rob Straebel – City of Charlevoix David Welhouse – FAA Mark Grennell – Michigan DOT David Baker – Michigan DOT Mike Borta – RW Armstrong Paul Puckli – RW Armstrong Kevin Clarke – RW Armstrong Mike Spencer- City of Charlevoix Chuck Scherping- Emmet Sport Flyers	Jill Picha – City Council Lyle Gennett – City Council Boogie Carlson – City Mayor Rachel Teague – Fresh Air Aviation Paul Welke – Island Airways Dave Guanci- Latitude 45 Don Seelye- Pilot/Land Owner Erin Bemis- Chamber of Commerce Terry Salmonson- Charlevoix Flying Club
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Topics

- Call to Order
- Inquiry Regarding Conflicts of Interest
- Introductions and Housekeeping
- Progress Report/Status Update
- Aviation Activity Forecasts
 - Based aircraft
 - Operations
 - Enplanements
- Review of Airport Reference Code (ARC) & Part 77 Airspace Protection
- Facility Requirements – to date
 - Runway Length Analysis
 - What would it take to extend the runway?
 - What would it take to improve the approach minimums?
 - What would it take to increase the ARC from B-II to C-II?
 - Preliminary Terminal Requirements
 - Apron & Hangar Space
- Land Use and Airspace
 - City's updated land use plan
 - Tall Structures Act and local zoning
- Describe next steps
- Solicit input and ideas from the TAC
- Call for Public Comment
- Adjourn

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #2
Location	Charlevoix City Hall, 210 State Street
Date	Wednesday, December 8 th , 2010
Time	1:00 – 3:00pm
Summary By:	Aaron Lofurno & Kevin Clarke, RW Armstrong, 12-30-10

Invitees/Attendance

Attending	Name	Organization
Yes	Matt Bailey	CVX Airport Manager
Yes	Boogie Carlson	City Mayor
Yes	Rob Straebel	City of Charlevoix
Yes	Mike Spencer	City of Charlevoix
Yes	Jill Picha	City Council
Yes	Lyle Gennett	City Council
	Erin Bemis	Chamber of Commerce
Via Phone	David Welhouse	FAA – Detroit ADO
Via Phone	Ernie Gubry	FAA – Detroit ADO
Via Phone	Mark Grennell	Michigan Bureau of Aeronautics
	David Baker	Michigan Bureau of Aeronautics
Via Phone	Mark Noel	Michigan Bureau of Aeronautics
Via Phone	Kelly Crannell	Michigan Bureau of Aeronautics
	John D. Pierce	Michigan Bureau of Aeronautics
Yes	Rachel Teague	Fresh Air Aviation
	Paul Welke	Island Airways
Yes	Angel Welke	Island Airways
Yes	Chuck Scherping	Emmet Sport Flyers
Via Phone	Dave Guanci	Latitude 45
Yes	Don Seelye	Pilot/Land Owner
Yes	Terry Salmonson	Charlevoix Flying Club
Yes	Mike Borta	RW Armstrong
Yes	Kevin Clarke	RW Armstrong
Yes	Aaron Lofurno	RW Armstrong

Minutes/Meeting Summary

1. Meeting began a few minutes after 1:00pm, with those in attendance as indicated on the preceding table. Members of the Michigan DOT- Bureau of Aeronautics and FAA Detroit ADO attended via teleconference, along with Dave Guanci. Other than those invited, no persons from the general public were in attendance.
2. Matt Bailey, Airport Manager, welcomed everyone, introduced several of the Technical Advisory Committee (TAC) members and inquired of any known Conflicts of Interest. Mr. Bailey then turned the presentation over to Kevin Clarke, Manager of Airport Planning for RW Armstrong. RW Armstrong is the airport's general consulting firm providing airport planning, design and program management services.
3. Kevin Clarke and Aaron Lofurno (Planner with RW Armstrong) began a powerpoint presentation describing an update of the master planning process and the study activities to date. The powerpoint presentation included the following topics/items:
 - a. Description of the meeting's goals and an update on the progress of the master planning effort.
 - b. The forecasts of aviation demand were described including the types of forecasts conducted and the various methods used. It was mentioned that a draft of the working paper was submitted to the FAA and MDOT, and that once approved, these forecasts will be used to identify appropriate design standards and facility needs.
 - c. As a part of the forecasting process, the factors influencing aviation demand were described, which included socioeconomic and demographic trends, tourism industry trends, airport prominence, air service options, and nationwide aviation industry trends.
 - d. The forecast results were described in detail, including forecasts for based aircraft, general aviation operations, air taxi operations, military operations, operations by aircraft type, and enplanements. Peak period forecasts were also discussed including peak operations and peak passenger forecasts.
 - e. The discussion shifted to facility requirements and the various planning questions associated with "what facilities will it take to meet the forecast demand and what impacts could it have on the surrounding community."
 - f. A brief refresher on general planning concepts and definitions were discussed, including Airport Reference Code (ARC) and Federal Aviation Regulations Part 77 Airspace Protection.
 - g. An introduction of the meaning behind the "design aircraft" was discussed, leading into the introduction of the "critical aircraft group" as interpreted by the planning team. The group included a mix of B-II and C-II Jet aircraft.
 - h. The FAA design standards imposed on an airport relative to its ARC designation and approach capabilities were introduced. It was noted that the airport currently meets all standards for a B-II airport, but does not meet some of the C-II standards.

- i. An overview of the runway length analysis to date was discussed including the description of three methodologies used. All three methods suggest that a longer runway is warranted based on the airports elevation, average temperature, and the mix of aircraft utilizing the airfield.
- j. Animations were used to show the effects of a runway extension on the design standards, such as the runway safety area (RSA), runway object free area (ROFA), runway protection zone (RPZ), primary surface, and building restriction line (BRL). Runway extensions to 5,000 and 5,500 feet were shown on the Runway 27 end. It is unlikely that an extension on the Runway 9 end would be plausible due to the location of the quarry.
- k. Animations were also used to show the effects of improving the instrument approach minimums on the design standards and surfaces. The RPZ, primary surface and BRL would be affected.
- l. Animations were further used to show the effects of upgrading the designated ARC of the airfield from B-II to C-II. An ARC upgrade would affect the RSA and ROFA. Due to the location of the quarry and the required runway to taxiway separation standard, the runway would have to be shifted and widened in order to accommodate C-II standards.
- m. The preliminary analysis of terminal sizing was discussed. The analysis included a review of airport terminals with similar enplanements to CVX, a review of the existing terminal space allocation by area/purpose, assumptions of terminal activities and requirements in the year 2030, and a review of the terminal analysis in comparison to the new terminal design as recently developed established by the City and the Terminal Design Study Group.

The FAA requested that the analysis also compare the existing facility to the 2010 space requirements.

- n. The preliminary analysis of hangar requirements was discussed. The analysis called for 1-8 additional T-hangar or box hangars and 3 to 4 additional spaces for larger turbo-prop and jet aircraft (in the form of group hangars or jet pods) by the year 2030.
 - o. The preliminary analysis of apron requirements was discussed. The preliminary analysis suggests that there is currently a deficit for Group-II tiedowns/parking positions and total square apron yardage. A diagram of what is thought to be a typical aircraft parking layout on a busy day was shown. The diagram depicted congestion and inefficiency and the inability of the larger aircraft to “power-in/power-out” of parking positions. The existing mid-apron fueling station/pump was also identified as a hindrance to circulation.
 - p. The next steps of the master plan process were identified and the date for the **third TAC meeting was tentatively established for mid to late February, 2011**. MDOT indicated that the Michigan Aviation Conference will be held February 16th & 17th.
4. A call for comments from the TAC members and the general public was offered.

5. The following summarizes the comments received from the TAC members, during the course of the presentation, and any ensuing discussion:
 - a. During the discussion on runway length analysis, it was mentioned by Mr. Gubry and Mr. Welhouse that the first two methodologies (AC 150/5325-4B and Airport Design Program 4.2D) were great methods for preliminary runway length analysis, but to ultimately justify design and funding of a runway extension, a more airport/aircraft-specific analysis would have to be conducted. Mr. Clarke reiterated that the start of such an analysis was included in the presentation. Discussion followed pointing out that these analyses were basically under “ideal” weather conditions and that in Charlevoix, periods of high wind and contaminated runways (i.e. snow, slush, ice) occur through much of the year. These conditions would ultimately influence both takeoff and landing performance and would likely require more usable runway length or more severe load restrictions than what was indicated in the presentation. Mr. Clarke indicated that these factors would be taken into consideration for the final analysis.
 - b. During the runway extension animations, Mr. Gubry stated that if the City were to pursue any sort of runway extension, the FAA would be looking for the airport to be designed for C-II standards. He further stated that the reason for this is that a 5000’ runway would be more attractive to C-II aircraft operators and when the number of operations by C-II aircraft passed the 500 annual operations threshold – it would be become a problem for the FAA and the facilities would, from a planning perspective, have to comply with C-II design standards. Mr. Clarke questioned this logic and noted that there are numerous airports across the country that are classified as B-II with primary runways of 5000’ to 5500’. He also mentioned FAA southern region guidance that indicates a minimum of 5000’ should be provided for airports intended to serve business jet aircraft. Mr. Bailey and Mr. Clarke, on behalf of the City, further discussed that the FAA’s argument for developing the airport to C-II standards is speculative or that while a longer runway ‘could’ be more attractive to some operators of C-II aircraft, there is no guarantee that those operators ‘would’ operate into CVX. In all reality, as expressed by the various user surveys, a longer runway could also be more attractive to operators of B-II aircraft for both payload and margin of safety reasons. It was reiterated that it is not the City’s intention to attract larger aircraft but to better serve the types of aircraft that are currently operating at the airport and to provide year-round, all-weather facilities.

Upon further research following the TAC meeting, it was found that according to the 2008 Michigan Aviation System Plan (MASP) there are 53 airports in Michigan that are classified as B-II (this is based on the MASP and there is potential that the approved ALPs for these airports could indicate differently), of these 49 are identified in the FAA’s National Plan of Integrated Airport Systems (NPIAS), of these nine (9) have primary runway lengths greater than that of Charlevoix, of these five (5) are 5000’ or greater. This indicates that there is a precedence for B-II airports with 5000’ runways in Michigan.

- c. While the option of potentially using declared distances to achieve longer take-off length was discussed, Mr. Gubry and Mr. Welhouse stated that declared distances are not favorable and are usually reserved for solving existing conditions or problems and that new or improved facilities should not be designed with declared distances in mind.

- d. During discussion on improving the approach minimums, Mr. Bailey mentioned that $\frac{3}{4}$ mile instrument approaches are currently available to the airport. Mr. Bailey also stated that the approach surfaces are currently being evaluated/protected to an FAA Part 77 standard of 20:1. This was confirmed by the FAA/MDOT and per FAA guidance would correspond with a runway classification of “utility” use. (*it should be noted that per Part 77, “utility” is defined as a runway designed to serve small propeller driven aircraft under 12,500lbs.*) It was decided that further review on existing approach capability and established airspace protection standards is needed.

Upon further research following the TAC meeting, it was confirmed that the best instrument approach procedure provides 1 mile visibility minimums and not $\frac{3}{4}$ mile. It should be noted that per Part 77, the approach surface standards for non-precision instrument approach capability for runways serving large aircraft (i.e. non-utility) is 34:1.

- e. During the discussion, Mrs. Welke asked what the expected implementation schedule is for NextGen systems, including Wide Area Augmentation System (WAAS). Mr. Clarke gave a rough estimation of 20-25 years and the FAA concurred. It was briefly discussed that NextGen is a comprehensive joint partnership program that includes government and industry entities and entails improvements/advancements of aircraft and aircraft systems, operating policies and procedures, navigation systems, and airport environments. A brief discussion of NextGen technologies and the potential effects on the airport will be included in the master plan report.

Upon further research following the TAC meeting, it was confirmed that existing instrument approach capability at CVX includes a WAAS supported LPV approach to Runway 9. Additional information on WAAS and LPV approaches can be found at http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/tech_ops/navservices/gnss/media/MaximizingAirportOperationsUsingWAAS.pdf

- f. During the discussion on apron facilities, it was agreed among Mr. Bailey and the FAA that congestion on the apron is a problem that needs to be addressed. Mr. Bailey and the FAA are currently working on a grant application to fund a project addressing this concern.
- g. After the call for comments and questions, Mr. Spencer mentioned that the city master plan in development is incorporating language to account for a future airport overlay zone by the planning commission. A brief discussion ensued that indicated recent proposed changes in zoning to a few select parcels near the airport took into consideration height requirements relative to land use, Part 77 airspace protection and the recommendations of MDOT’s “Approach Protection Plan” for CVX. It was stated that the City will continue working with its consultants through this master plan and any future projects to satisfy the appropriate airspace requirements (*see also item d above*). It was also mentioned by Mr. Bailey that he has received a few noise complaints from residents near the Runway 22 end.

6. The meeting was adjourned at approximately 3:00pm.

-- End of Meeting Summary --

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 2)
Meeting	Technical Advisory Committee (TAC) Meeting #3
Location	Charlevoix City Hall, 210 State Street
Date	Tuesday, February 15 th , 2011
Time	1:00 – 3:00pm
Summary By:	Aaron Lofurno & Kevin Clarke, RW Armstrong, 2-22-11

Minutes/Meeting Summary

1. Meeting began a few minutes after 1:00pm, with those in attendance as indicated on the attached sign-in sheet. Members of the Michigan DOT- Bureau of Aeronautics and FAA Detroit ADO attended via teleconference. Other than those invited, no persons from the general public were in attendance.
2. Matt Bailey, Airport Manager, welcomed everyone and inquired of any known conflicts of interest. No conflicts of interest were stated. Mr. Bailey then turned the presentation over to Kevin Clarke and Aaron Lofurno of RW Armstrong. RW Armstrong is the airport's general consulting firm providing airport planning, design and program management services.
3. Kevin and Aaron began a powerpoint presentation describing an update of the master planning process and the study activities to date. The powerpoint presentation included the following topics/items:
 - a. Description of the meeting's goals and an update on the progress of the master planning effort.
 - b. A proposed, or working version, of a vision statement for the Airport was described. Key elements of the vision/mission include:
 - Supporting both the commercial and general aviation user interests;
 - Providing safe, efficient, and attractive aviation facilities;
 - Serving both residential and business communities well into the future;
 - Better serving the existing types of users and aircraft;
 - Providing year-round, all-weather facilities;
 - Being a good neighbor to the surrounding residential and business land uses; and
 - Promoting the long-term operational sustainability of the Airport.
 - c. The forecasts of aviation demand were reviewed briefly. It was mentioned that the forecasts were approved by the FAA in December 2010.

Ernie Gubry (FAA) mentioned that the forecasts were not specifically "approved" but were "generally concurred upon" by the FAA. When questioned further, the FAA indicated that their general practice is to offer concurrence and not approvals.
 - d. The critical aircraft family to be used for evaluating facility requirements was described. This grouping of aircraft includes the most demanding B-II and C-II turbo-props and business jets currently using the Airport. It was also mentioned that

additional aircraft were considered in some facility planning exercises to accommodate for changes in the fleet (primarily the current best selling B and C business jet aircraft).

- e. Based on the 2010 IFR Flight Data, the corresponding identification of the critical aircraft family, and the current operational use of the airfield, the near- and mid-term ARC for the Airport was recommended to be B-II for the primary runway and A-I *small* for the crosswind (possibly A/B-I). It was further discussed that the 500 operations threshold (for determining critical/design aircraft and thereby justifying federal funding support) could potentially be reached for C-I/II aircraft by the end of the mid-term planning horizon (i.e., 2019-2020). This calculation was based on a simple projection of the number of the 2010 operations by C-I/II aircraft at the growth rates presented in the forecasts which are consistent with the FAA national forecast rates.

It was later discussed that this forecast projection did not take into account any airfield improvements (i.e. extended runway) which if implemented, could potentially or theoretically increase the rate of growth or actual experienced number of operations by C aircraft. It was also indicated that if additional C type aircraft to become based at the Airport, the actual experienced number of operations by C aircraft could also increase significantly. It was reiterated that these are assumptions and calculations and there are many variables that can affect what aircraft will actually use the Airport in the future (i.e. hangar availability, market conditions, FBO services, etc.).

- f. The runway length analysis and the three methodologies used was discussed. The two FAA methods suggest a runway length of approximately 4,800 feet in dry conditions and 5,300 to 5,500 feet in wet/contaminated conditions. The critical aircraft family method (as determined from the individual aircraft flight planning guides) indicated that 6 out of the 10 aircraft in the family require takeoff lengths longer than the current runway length (at maximum takeoff weight). Additionally, 8 out of the 10 aircraft require landing lengths longer than the current runway length (at maximum landing weight). Based on this analysis, it was recommended that 5000-5500 foot runway is needed to adequately support the operational requirements of the critical aircraft family and the business jet type aircraft anticipated to use the Airport.
- g. The application of *declared distances* and *displaced thresholds* was discussed as a means for achieving a primary runway extension, and improving overall utility, while minimizing impacts to the land uses east of the Airport.
- h. Crosswind runway requirements for orientation and length were discussed. FAA guidance suggested a crosswind runway between 2,490 to 2,900 feet long. It was also described that a northwest-southeast to northeast-southwest orientation would provide the best combined wind coverage for small aircraft (A-I and B-I under 12,500) particularly for those months when the primary runway did not provide the desired 95% coverage itself.
- i. The hangar requirements were discussed. The analysis indicated the need for at least one 10-unit t-hangar complex and one jet-capable group hangar in the near term (1-5 years) and additional T and group hangars as warranted in the mid term (6-10) years and long term (11-20 years).

- j. The apron requirements were discussed. The analysis suggests that the terminal apron should be reconfigured in the immediate near term (1-5 years), the terminal apron area would likely need expansion in the mid-term (6-10 years), and additional expansion could be warranted in the long-term (11-20 years).
- k. The goals and space requirements of the terminal building were discussed. The analysis indicated a deficit in many of the usage areas within the terminal in the current year and even more so by 2030. Working with the FAA, the city has completed the majority of the design process for the planned terminal expansion including the design development, schematic design phases, public comment, City Council approval, and CATEX submittal, just short of the final drawings phase. The planned terminal would meet the anticipated requirements over the 20 year planning horizon.
- l. Five alternative overall airport development concepts were described. This included a discussion of potential benefits and drawbacks of each and a comparison of the alternatives in terms of total land acquisition, total number of residential and commercial properties displaced, and the level of obstruction mitigation required.

Angel Le Fevre of Island Airways inquired if any cost estimates for the development and land acquisition had been prepared. Kevin Clarke responded that while none had been prepared to date, they would be once the alternatives became more defined and that would be a likely evaluation factor for comparing the alternatives in future working papers. Kevin requested that if the City had a local land appraiser, or recent property acquisition project, that they share that info with RW Armstrong to use in preparing future estimates.

- m. An overview of what the future alternatives evaluation matrix would look like was provided. Input was solicited from the TAC on potential evaluation criteria. No responses were made at this time, however Kevin indicated that evaluation matrices will be sent out to the TAC members in the near future so that the committee members will have the opportunity to identify evaluation criteria that would be important to their needs and to rank (or weight) the proposed criteria in order of importance.
 - n. The next steps of the master plan process were identified and the **fourth TAC meeting was tentatively established to take place in April, 2011.**
- 4. A call for comments from the TAC members and the general public was offered.
 - 5. The following summarizes the comments received from the TAC members, during the course of the presentation, and any ensuing discussion:
 - a. Ernie Gubry of the FAA indicated that he would provide additional comment on the use of the term “margin of safety” as compared to the FAA’s perspective of airport facilities being either “safe or unsafe”.
 - b. Angel Le Fevre asked Ernie specifically about his thoughts on the proposed projects outside of the runway extension and crosswind runway. Ernie responded that FAA funding support of these projects will be dependent upon appropriate justification, determination of need and with the understanding that they would be pursued in accordance with the applicable FAA design standards.

- c. Erin Beemis inquired about the development schedule for the alternatives. Kevin Clarke explained that individually these alternatives represented potential development over the 20-year planning horizon. He further described that as presented, these 5 alternatives could also be viewed as a natural progression (i.e. from no-build through ultimate long term build out). Eventual development recommendations would be phased as determined by need/desire, funding schedule, and other implementation requirements. Kevin indicated that one possible course of development over the 20 year horizon could include something like:



- d. Lyle Gennett mentioned that he believed that technology will prove itself and that aircraft will soon require shorter runways. Kevin Clarke responded that while technologies are improving and business jet aircraft are getting smaller, lighter, and more efficient (to focus on speed and distance), takeoff lengths may be getting shorter but landing lengths are not necessarily getting shorter due to the small wing area and certificated landing requirements. Kevin continued, that while it is likely that aircraft will continue to evolve with shorter field capabilities, one area where technology is already starting to be noticed is in approach capability. NextGen technologies are lessening the requirement for expensive ground based navigation systems to provide the improved approach capabilities that GPS can. The consulting industry is hoping that due to the accuracy of these new technologies, on the ground safety requirements will hopefully lessen and that the FAA standards between design and airspace will become more consistent, thus potentially reducing the land protection requirements on the Airport sponsor.
- e. Ernie Gubry reiterated that satisfactory justification, including letters of commitment or support from existing users or potential tenants, indicating the need for such facilities (i.e. extended primary runway, or crosswind runway) would be needed. These forms of justification would be support or substantiate an anticipated 500 annual operations for that specific facility. Matt Bailey questioned if letters from the airlines, flight training staff, and other regular airport users expressing the need for a longer runway would help justify a runway extension project. Ernie responded that letters of this nature would help justification but they should be specific in the reason for their need and anticipated usage of that facility if it were improved.
- f. Don Seelye expressed his concern that the amount of land acquisition suggested by the alternative concepts would not be good for the image of City. He further commented on the importance of keeping the small town feel of Charlevoix, and that commercially developable land near the downtown area was also important to maintain. He further

cautioned against developing the Airport to an extent comparable to that of Traverse City or Pellston.

- g. Chuck Scherping asked the group if it would be more feasible to investigate building a new Airport in a new location, instead of developing in an already constrained area. Kevin Clarke responded that it's fairly rare for the FAA to support a replacement airport unless there were serious safety or system capacity concerns. He acknowledged that while this was a reasonable question, it was beyond the scope of this master plan to evaluate such a concept and that his initial thought is that it might be hard to find a convenient location that would be of benefit to the City especially considering the proximity of the other GA and commercial service airports.
 - h. Mike Spencer commented on the apparent impact of a southwest-northeast oriented crosswind runway on the neighborhood off the northern runway end. This area is densely populated and even if parcels are acquired for the RPZ, it would still leave a rather dense neighborhood under the approach to that runway. He noted that a northwest-southeast oriented crosswind runway may provide significantly less impacts to residential and commercial landowners and utilize the undeveloped land and place approaches more over the quarry. In response to comments from other TAC members that few developable parcels exist in Charlevoix, Mike mentioned that there are currently some undeveloped parcels north of the airport and possibly along U.S. 31 that are for sale.
 - i. Ernie Gubry mentioned that federal funding support for crosswind runways can be challenging to obtain and that satisfactory justification and concurrence on the demand (supported by at least 500 annual operations) would be needed. It was reiterated that letters of support from operators that are unable to use the crosswind in it's current configuration would help support such justification. Don Seelye mentioned that there are many days when he chooses not to fly because of high crosswinds particularly when the crosswind is closed due to snow. Kevin Clarke mentioned an incident that supports the overall need for the crosswind runway when in 2001 a small aircraft was flipped due (at least partially) to high crosswinds when attempting to land Runway 27. Fortunately pilot and passenger were uninjured.
 - j. Erin Beemis asks if it would be possible to shift the NE-SW oriented turf (or paved) crosswind runway to the southwest to minimize the impacts to the neighborhood to the north. Kevin Clarke indicated that was a valid idea and it would be considered in future evaluations.
6. The meeting was adjourned at approximately 3:00pm.

-- End of Meeting Summary --

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #3
Location	Charlevoix City Hall, 210 State Street
Date	Tuesday, February 15 th , 2011
Time	1:00 – 3:00pm

Initial		Invitees	Representing	Email	Phone
<i>MB</i>	✓	Matt Bailey	Airport Manager	charlevoixairport@charterinternet.com	231-838-5434
<i>NLC</i>	✓	Norman (Boogie) Carlson, Jr.	Mayor - City of Charlevoix	ncarlson@cityofcharlevoix.org	231 675-4561
<i>RS</i>	✓	Rob Straebel	City of Charlevoix	rstraebel@cityofcharlevoix.org	
<i>MDS</i>	✓	Mike Spencer	City of Charlevoix	michaels@cityofcharlevoix.org	547-3265
	✓	Jill Picha	City Council	skatermama@yahoo.com	
<i>JGD</i>	✓	Lyle Gennett	City Council	lgennett@chartermi.net	547-5598
<i>✓</i>	✓	David Welhouse	FAA Detroit Airports District Office	David.welhouse@faa.gov	734-229-2952
	✓	David Baker	Michigan Bureau of Aeronautics	bakerda@michigan.gov	
	✓	Mark Grennell	Michigan Bureau of Aeronautics	GRENNELLM@michigan.gov	
	✓	Kelly Crannell	Michigan Bureau of Aeronautics	crannell@michigan.gov	
	✓	Ralph Sims	Michigan Bureau of Aeronautics	simsr@michigan.gov	
<i>RG</i>	✓	Rachel Teague	Fresh Air Aviation	rachel@freshairaviation.net	231-237-9482
<i>AML</i>	✓	Angela Le Fevre (Welke)	Island Airways	lefevre@hotmail.com	231 448 2071
<i>DA</i>	✓	Dave Guanci	Latitude 45	miavice@aol.com	
<i>Seelye</i>	✓	Don Seelye	Pilot/Land Owner	dseelye@flexcharge.com	
<i>EB</i>	✓	Erin Bemis	Chamber of Commerce	bemis@charlevoix.org	231.547.2101

Ernest Gubri
FAA Detroit Airports DO

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #4
Location	Charlevoix City Hall, 210 State Street
Date	Monday, May 2 nd , 2011
Time	1:00 – 3:00pm

Invitees

Matt Bailey – Airport Manager
 Rob Straebel – City of Charlevoix
 Mike Spencer- City of Charlevoix
 Jill Picha – City Council
 Lyle Gennett – City Council
 Norman (Boogie) Carlson – City Mayor
 Diane Morse – FAA
 Ernest Gubry - FAA
 Mark Grennell – Michigan DOT
 Kelly Crannell – Michigan DOT
 David Baker – Michigan DOT
 Ralph Sims – Michigan DOT

Rachel Teague – Fresh Air Aviation
 Angela LeFevre (Welke) – Island Airways
 Dave Guanci- Latitude 45
 Don Seelye- Pilot/Land Owner
 Erin Bemis- Chamber of Commerce
 Terry Salmonson- Charlevoix Flying Club
 Chuck Scherping- Emmet Sport Flyers
 Mike Borta – QoE Consulting
 Paul Shapter – QoE Consulting
 Paul Puckli – RW Armstrong
 Kevin Clarke – RW Armstrong
 Aaron LoFurno – RW Armstrong

Topics

- Call to Order
- Inquiry Regarding Conflicts of Interest
- Introductions and Housekeeping
- Progress Report/Status Update
- Refined Alternative Development Scenarios
 - Primary Runway
 - Crosswind Runway
 - Evaluation Criteria & Comparison
- Preferred Development Concept
- Preliminary Implementation Plan
 - Cost
 - Phasing
- Describe Next Steps
- Solicit input and ideas from the TAC
- Call for Public Comment
- Adjourn

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 2)
Meeting	Technical Advisory Committee (TAC) Meeting #4
Location	Charlevoix City Hall, 210 State Street
Date	Tuesday, May 2 nd , 2011
Time	1:00 – 3:00pm
Summary By:	Aaron Lofurno & Kevin Clarke, RW Armstrong, 5-12-11

Invitees/Attendance

Attending	Name	Organization
Yes	Matt Bailey	CVX Airport Manager
No	Boogie Carlson	City Mayor
No	Rob Straebel	City of Charlevoix
Yes	Mike Spencer	City of Charlevoix
Yes	Jill Picha	City Council
Yes	Lyle Gennett	City Council
No	Erin Bemis	Chamber of Commerce
Via Phone	Diane Morse	FAA – Detroit ADO
Via Phone	Ernie Gubry	FAA – Detroit ADO
Via Phone	Mark Grennell	Michigan Bureau of Aeronautics
No	David Baker	Michigan Bureau of Aeronautics
Via Phone	Kelly Crannell	Michigan Bureau of Aeronautics
Via Phone	Ralph Sims	Michigan Bureau of Aeronautics
Yes	Rachel Teague	Fresh Air Aviation
MTD for	Angel Welke	Island Airways
Yes	Chuck Scherping	Emmet Sport Flyers
No	Dave Guanci	Latitude 45
Yes	Don Seelye	Pilot/Land Owner
No	Terry Salmonson	Charlevoix Flying Club
No	Mike Borta	QoE Consulting
Yes	Kevin Clarke	RW Armstrong
Yes	Aaron Lofurno	RW Armstrong
Yes	Paul Shapter	QoE Consulting

Minutes/Meeting Summary

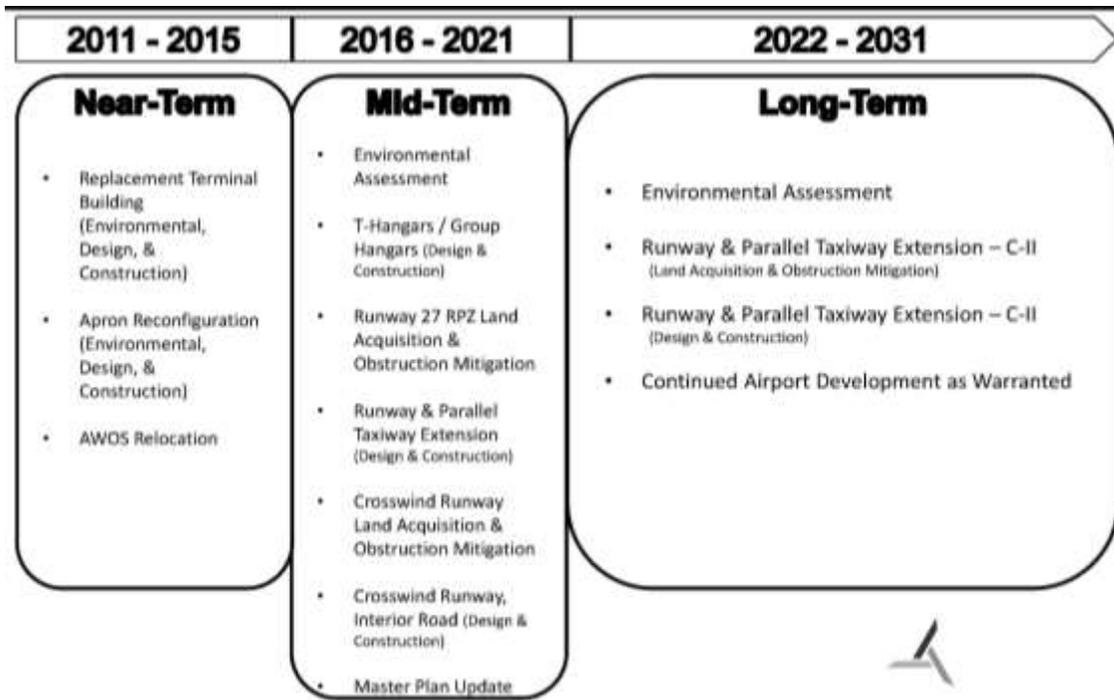
1. Meeting began a few minutes after 1:00pm, with those in attendance as indicated on the preceding table. Bill McDonough of the Beaver Island Boat Company was also in attendance. Members of the Michigan DOT- Bureau of Aeronautics and FAA Detroit ADO attended via teleconference.
2. Matt Bailey, Airport Manager, welcomed everyone and inquired of any known conflicts of interest. No conflicts of interest were stated. Mr. Bailey introduced Diane Morse as Dave Welhouse's replacement at the FAA Detroit ADO. He then turned the presentation over to Kevin Clarke and Aaron Lofurno of RW Armstrong. RW Armstrong is the airport's general consulting firm providing airport planning, design and program management services.
3. Mr. Clarke and Mr. Lofurno began a powerpoint presentation describing an update of the master planning process and the study activities to date. The powerpoint presentation included the following topics/items:
 - a. Description of the meeting's goals and an update on the progress of the master planning effort. At this point in the project, the consultant team is finalizing the alternative development concepts, choosing a preferred alternative, and beginning the initial stages of developing the implementation, financial, and airport layout plans.
 - b. The TAC members, City and Agencies were solicited for updates, news or other issues relevant to the Airport and the master planning process. No updates or comments were received.
 - c. An overview of the process used to develop and evaluate the alternative concepts was presented. Multiple concepts were developed for both runways at CVX. The runway concepts were evaluated on criteria established by the TAC, City of Charlevoix, and Consultant Team. It was explained that once the preferred concepts were chosen for both runways, the other airfield components (terminal, hangars, aprons, taxiways, etc.), which have greater planning flexibility, can be logically "filled-in" around the preferred runway concepts.
 - d. The specific evaluation criteria was briefly discussed and included:
 - Improves utility and operational margin of safety;
 - Supports corporate / business aviation;
 - Supports airline operations / passenger convenience;
 - Supports recreational and general aviation;
 - Provides year-round / all-weather accessibility;
 - Flexibility for future, unforeseen needs and opportunities;
 - Supports airport revenue opportunities;
 - Impacts to residential properties;
 - Impacts to commercial properties;
 - Implementation costs; and
 - Operations and maintenance costs.
 - e. The primary runway concepts were described, including:
 - No Development Concept (maintains existing runway length)
 - Concept A1 – 5,500 Foot Runway

- Concept A2 – 5,500 Foot Runway with Declared Distances
 - Concept A3 – 5,000 Foot Runway
- f. Concept A1 provides 5,500 feet of takeoff and landing length in all directions. Concept A2 provides 5,500 feet of takeoff length on the Runway 27 end and 5,500 feet of landing length on the Runway 9 end, but the impacts are similar to those of Concept A3. Concept A3 provides 5,000 feet of takeoff and landing length in all directions. Improvements associated with all four concepts include removal of the end-around taxiway and protection of the 34:1 Part 77 Approach Surface.
- g. The potential impacts and costs of each primary runway concept was reviewed. In terms of fee-simple property acquisition, Concept A1 had the largest property requirement (8 acres, 9 parcels) and A2 and A3 had the same property requirement (4 acres, 2 parcels). In terms of avigation easements, Concept A1 required the least amount (6.5 acres), Concept A2 (10 acres) and A3 (5 acres). The estimated construction costs of the Concepts A1-A3 ranged from 2.0 to 2.6 million (excluding property acquisition).
- h. The primary runway concept evaluation matrix was also reviewed which indicated Concept A2 (5,500 feet runway with declared distances) as the preferred concept.
- i. The crosswind runway concepts were described, including:
- No Development Concept (1,280 foot turf runway)
 - Concept B1 – Runway 5-23 (1,647 feet)
 - Concept B2 – Runway 17-35 (2,500 feet)
 - Concept B3 – Runway 15-33 (2,500 feet)
 - Concept B4 – Runway 15-33 (2,200 feet) (to be developed)
- j. It was described that the wind coverage of the crosswind runway is important, particularly to the smaller aircraft, due to the strong winds at CVX and the lack of coverage provided by the primary runway during the winter months. Concept B1 does not provide the necessary (i.e., 95%) combined wind coverage to make this option beneficial to the airport. Concept B2 and B3 provide the necessary 95 percent wind coverage year round.

It was also noted that the Consultant Team has been discussing these alternatives with St. Mary's Cement Company. St. Mary's has been very helpful in providing advice and recommendations on what could feasibly be done in regards to how the alternatives relate to quarry property now and in the long term future. Based on this coordination, Concept B4 is being developed and will be further evaluated.

- k. The potential impacts and cost comparison of each crosswind runway concept was reviewed. The No Development Concept, Concept B1 and B2 all require residential property acquisition (between 19 and 31 parcels). Concept B2 would require all parcels within Applewood Estates. The alignment of Concept B3 avoids the property requirements within Applewood Estates. Concepts B3 and B4 would require 7 residential property acquisitions, B1 would require 5, B2 would require 4 and the No Development concept would require 2. Preliminary construction costs range from approximately 1.8 million (Concept B1) to approximately 3.5 million (Concepts B2 and B3).

- l. The crosswind runway concept evaluation matrix was also reviewed which indicated Concept B3 (Runway 15-33) as the preferred concept, followed closely by B2 (runway 17-35). This evaluation does not yet include Concept B4 which will basically be a shortened version of B3.
- m. The established facility requirements for the additional “fill-in” components were then discussed, including the requirements for taxiways, aprons, terminal, and hangars. As described in previous TAC meetings and working papers, some of the major requirements include:
 - Extending the parallel taxiway to the full length of the primary runway;
 - Reconfiguring the apron to provide power-in / power-out parking positions for Group-II aircraft and separating GA and airline operations;
 - Relocating the fuel island;
 - Expanding or building new terminal building to accommodate existing and forecasted passenger and pilot traffic;
 - Removing the end-around taxiway; and
 - The addition of one t-hangar building and one bulk hangar.
- n. The preferred development plan was then presented. The preferred runway concepts (5,500 foot primary with declared distances, 2,500 foot crosswind oriented to 15-33) were shown as well as the “fill-in” components. The improvements to the terminal area included the larger replacement terminal, a relocated fuel island, and an expanded apron that provides 10-12 Group-II parking positions. The improvements in the midfield area include a t-hangar and bulk hangars utilizing the existing taxiway system. The taxiway connecting the bulk hangars will have to be expanded to Group-II standards. An internal access road to provide automobile access to the midfield is also proposed to separate aviation and automobile traffic. The northern area becomes open for future aviation related development with the reorientation of the crosswind runway. The existing AWOS and NDB would have to be relocated, possibly to the northeast quadrant of the airfield. Taxiway improvements and likely property acquisitions were also identified.
- o. A brief overview of the potential long-term development plan (i.e., 15-20+ years) was presented, which includes an upgrade of the primary runway to C-II standards. In order to meet FAA design standards, the runway would have to be shifted eastward and widened. The parallel taxiway would also have to be shifted southward. Additional property acquisition (4 residential, 18 commercial) and avigation easements (< 1 acre) east of U.S. 31 would be needed. With the goal of avoiding impacts to the alignment to U.S. 31, upgrading the runway to C-II standards would result in improved takeoff length available for Runway 9, but reduced landing length resulting in 5400’ of takeoff length in both directions, and 5000’ of landing length.
- p. The following preliminary phasing and implementation plan was presented:



- q. The next steps of the master plan process were identified and the date for the **final public meeting was tentatively established for Summer, 2011**. There will be no more TAC meetings.
4. A call for comments from the TAC members and the general public was offered.
 5. The following summarizes the comments received from the TAC members, during the course of the presentation, and any ensuing discussion:
 - a. Ernie Gubry stated that he is not comfortable with a 5,500 foot runway designed to B-II standards. Justification for funding and eligibility could be problematic from the ADO’s perspective. It was reiterated that further analysis of costs and user support, beyond that already documented in the master plan working papers, would likely be needed. Letters of user support should be as detailed and descriptive as possible and include why the improvements are needed and how it would impact their use of the airport if they were not pursued. Ernie mentioned that most, but not necessarily all, airports that have runways greater than 5,000’ of length are designed to C-II standards. By the end of the conversation, Mr. Gubry indicated that a 5,000’ runway to B-II standards at CVX is reasonable.
 - b. Matt Bailey stated that he has taken calls from private users that cannot, or will not, land on the existing 4,550’ runway. It was acknowledged by the City, TAC and Agencies that CVX is losing traffic to other nearby airports with longer runways, particularly in times of inclement weather.
 - c. Kevin Clarke stated that other states, such as VA, identify in their system plans that 5000’ is the minimum desired runway length to support business jet operations. He also reminded everyone that the Michigan Aviation System Plan also recommended that the runway at CVX be lengthened and upgraded to C-II standards to support corporate/business aircraft. Furthermore he called attention to a 2009 FAA letter to

the City that referred to the existing runway as being ‘extremely short for the level of instrument operations and corporate jet traffic’ at CVX.

- d. Mr. Gubry emphasized that additional analysis and user support would likely be needed for FAA eligibility and funding for the crosswind runway.
- e. Diane Morse mentioned that due to new FAA policy and practice, the fuel farm relocation and terminal funding could be harder to obtain. Mr. Bailey and Mr. Clarke emphasized that it’s only the fuel dispenser that is being relocated and an extensive FAA supported terminal study has already been completed. Ms. Morse said that if the City were to fund the dispenser relocation, there would likely be no major hurdles for FAA funding of the apron reconfiguration.
- f. Regarding the planned terminal replacement, Mr. Clarke brought up the fact that the City was scheduled to receive Part A AIP funding for the final design of the building but at the last minute funding was pulled. Ms. Morse stated that the terminal project was halted because of the midfield terminal concept previously presented by the consultant team. Mr. Clarke described that the mid-field terminal concept was a due-diligence planning effort, presented and subsequently discounted in the earlier master plan working papers. Due to the existing infrastructure in the current terminal area, such as utilities, parking, apron, and fueling it would be time and cost prohibitive to pursue relocating the terminal building to any other area. In the overall development plan for the airport, due to the uncertainties of the real estate market and the location of the City/Town border (near the midfield of the airport) utilizing the midfield and northeast areas for hangar development provides the most flexibility in developing facilities to meet user and tenant demands. Combined with the fact that the proposed terminal can adequately be developed on the existing terminal site, there is no reason to pursue a relocated terminal area.
- g. Mr. Gubry asked Mr. Bailey what was currently on his “Pre-application” for fiscal year (FY) 2011. Mr. Bailey responded that it was in the process of being updated. The terminal design was originally on the application but since that project was placed on hold by the FAA, the FAA and City coordinated to use the programmed \$650,000 for the purchase of snow removal equipment. The terminal is now planned for FY 2012, along with the apron configuration. Kelly Crannell added that the Pre-App needs to be delivered with changes to the State as soon as possible to get on the July transfer.
- h. Mr. Bailey reminded everyone that the City has been “banking” or reserving their entitlement funds in anticipation of the terminal project and that the City cannot afford to lose those monies due to the “3-year expiration” date of those funding allocations (i.e. use it or lose it). The FAA, City and State acknowledged that they are working together to preserve and maximize the use of these “banked” funds. Mr. Bailey reiterated that in an effort to prevent the loss of these banked funds, and to keep the design of terminal building in fiscal year 2012, the draft Master Plan/ALP will need to be submitted to the FAA as early in the summer as possible and that the agencies will hopefully review and concur upon expeditiously so as to not jeopardize the funding schedule.
- i. Don Seelye expressed his concern that a C-II 5,500 foot runway is a “pipe-dream” and that the City could not afford to reduce the amount of available commercial property. Mr. Seelye also stated that such a plan would likely receive substantial negative feedback from the citizens. He stated there should be a limit to the proposed airport

- development and that the airport should accommodate the existing users/traffic without losing the cultural of the town.
- j. Chuck Scherping added that if the plan were to impact so many properties, maybe relocating the airport to a new location should be evaluated. Mr. Clarke responded that such an evaluation was not included in this master planning effort and that due to the surrounding airports, finding a location that would benefit the City could be extremely challenging.
 - k. Lyle Gennett expressed concern that noise impact could also be too great if the airport were upgraded to C-II and that the City cannot afford to take away commercial property and lose the tax revenues generated from them.
 - l. Jill Picha responded by stating that this Master Plan is intended to look 15 to 20 years down the road and the City should be prepared for unforeseen opportunities and what could happen within the marketplace. She stated that a far enough look ahead was not done a decade ago when the terminal was built and now it is too small. She reiterated that the improvements identified in the master plan would only be pursued when warranted and that if sufficient space is not preserved now, future opportunities could be missed.
 - m. Mr. Gennett described that in the distant future, the quarry will cease operation and become an inland water body to be developed with surrounding homesites like Bay Harbor. He expressed concern that residential properties next to a “jet runway” would be reduced in value. Mr. Seelye agreed adding that he did not see any high-end development potential for property adjacent to the airport and runway ends.
 - n. In closing the meeting, Mr. Bailey summarized what the City will likely pursue in the Draft Master Plan as the Preferred Development Program for the Airport. This summary was based on the analyses presented in the working papers to date, the discussions of the previous and current TAC meetings, verbal input from the FAA regarding B-II versus C-II design standards, community/TAC/City concerns about residential/commercial property impacts, and the preliminary coordination with St. Mary’s Cement Company. At this point in time, the City’s preference is to pursue a 5,000’ B-II primary runway and a ±2,200’ paved crosswind runway oriented at 15-33.
6. The meeting was adjourned at approximately 3:00pm.

-- End of Meeting Summary --

Project	Charlevoix Municipal Airport (CVX) Airport Master Plan Study (Phase 1)
Meeting	Technical Advisory Committee (TAC) Meeting #4
Location	Charlevoix City Hall, 210 State Street
Date	Monday, May 2 nd , 2011
Time	1:00 – 3:00pm

Initial	Invitees	Representing	Email	Phone
<i>MB</i>	Matt Bailey	Airport Manager	charlevoixairport@charterinternet.com	231-838-5434
	Norman (Boogie) Carlson, Jr.	Mayor - City of Charlevoix	nearlson@cityofcharlevoix.org	
<i>RS</i>	Rob Straebel	City of Charlevoix	rstraebel@cityofcharlevoix.org	
<i>MS</i>	Mike Spencer	City of Charlevoix	michaels@cityofcharlevoix.org	
<i>JP</i>	Jill Picha	City Council	skatermama@yahoo.com	
<i>JD</i>	Lyle Gennett	City Council	lgennett@chartermi.net	
	Diane Morse	FAA Detroit Airports District Office	Diane.Morse@faa.gov	734-229-2929
	David Baker	Michigan Bureau of Aeronautics	bakerda@michigan.gov	
	Mark Grennell	Michigan Bureau of Aeronautics	GRENNELLM@michigan.gov	
	Kelly Crannell	Michigan Bureau of Aeronautics	crannellk@michigan.gov	
	Ralph Sims	Michigan Bureau of Aeronautics	simsr@michigan.gov	
<i>RS</i>	Rachel Teague	Fresh Air Aviation	rachel@freshairaviation.net	
<i>MTD for</i>	Angela Le Fevre (Welke)	Island Airways	lefevream@hotmail.com	
	Dave Guanci	Latitude 45	miavice@aol.com	
<i>DA</i>	Don Seelye	Pilot/Land Owner	dseelye@flexcharge.com	
	Erin Bemis	Chamber of Commerce	bemis@charlevoix.org	

