

MEMORANDUM

TO: Town Board of Supervisors, Town of Middleton, WI

FROM: Daniel P. Bartholomew, AICP, ACE, A.A.E., Airport Solutions, LLC

CC: Attorney Michael J. Lawton, Boardman Clark, LLP

DATE: January 12, 2021

SUBJECT: City of Middleton Municipal Airport – Morey Field (a/k/a “Morey Airport” or “C29”) Airport Master Plan Chapter 4: Environmental Setting, and Preliminary Development Alternatives

This Airport Master Plan chapter (Ch. 4 Environmental Settings) is somewhat unconventional in its timing, scope and content. Previous correspondence from the City of Middleton stated that the next Master Plan Chapter (Chapter 4), Development Alternatives, was to be distributed for comment in early-December, 2020, however, a replacement Chapter 4 - Environmental Setting, was released instead, nearly a month later, along with several conceptual airport development exhibits. Although there are no hard rules as to the exact order in which an Airport Master Plan must be written and disseminated, typically, these documents are constructed in a specific order to allow for the study to build from past and existing conditions, into possible future facility scenarios. Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, was specifically written to guide airports on how to conduct master planning efforts. The following is the recommended order of chapters within an Airport Master Plan:

- Existing Conditions (Inventory)
- Aviation Forecasts
- Facility Requirements
- Alternatives Development and Evaluation
- Airport Layout Plans
- Facilities Implementation Plan
- Financial Feasibility Analysis

A stand-alone chapter focusing specifically on the Environmental Setting surrounding an airport is notably not mentioned in this list. As noted in AC 150/5070-6B, *“Planners should develop each chapter of the master plan with environmental considerations in mind. Normally the environmental considerations **should not be in a stand-alone chapter**, but should be incorporated into the appropriate chapters, such as existing conditions and alternatives development and evaluation.”* Typically, existing environmental conditions are discussed in Chapter 1, Inventory of Existing Conditions, as a means to establish a facility “baseline” for the entire Master Plan study. Again, although it is not a hard rule, this AC states that *“The existing conditions chapter should document the airport’s environmental setting.”*

Some of the information in Chapter 4 is also redundant since Chapter 1, Section 1.2.2 Climate, Topography and Natural Resources discusses wetland and floodplains, and Section 1.2.4 City Ordinance discusses zoning and airspace height limitations. Many of these discussions will need to be readdressed as part of the Alternatives Development and Evaluation chapter to provide a cursory evaluation into the potential environmental impacts of each prospective alternative. Specifically, as stated in the AC, *“The principal*

objective of an environmental overview is to document environmental conditions that should be considered in the identification and analysis of airport development alternatives.” In addition, Section 1.2.3 City Comprehensive Plan mentions that the draft 2017 City of Middleton Comprehensive Plan (currently the draft 2021 City of Middleton Comprehensive Master Plan Update) recommends that the city should “Ensure the Airport continues to balance economic development and environmental goals.” For unknown reasons, this language has been removed from the latest version of the City of Middleton Comprehensive Plan.

The comprehensiveness of this stand-alone chapter dedicated to the Environmental Setting is oddly no more detailed, with the exception of perhaps the discussion of noise, than it would be if the information was presented as part of the Existing Conditions chapter. AC 150/5070-6B states that “*Noise levels and air and water quality are the most common environmental concerns. However, other environmental conditions in and around the airport should also be examined, including: solid waste generation and disposal; toxic material disposal; floodplains and wetlands; endangered and threatened species of flora and fauna; biotic communities; parklands and recreational areas; historic, architectural, archaeological and cultural resources; and prime and unique farmland. Planners should refer to the current version of FAA Order 1050.1, Environmental Impacts: Policies and Procedures, for a complete list of environmental impact categories that may need to be examined.*” The following includes the complete list of environmental topics that should, and with few exceptions, be included in any discussion on current environmental conditions, and especially in any chapter solely dedicated to the subject:

- *Air quality*
- *Biological resources (including fish, wildlife, and plants)*
- *Climate*
- *Coastal resources*
- *Farmlands*
- *Hazardous materials, solid waste, and pollution prevention*
- *Historical, architectural, archeological, and cultural resources*
- *Land use*
- *Natural resources and energy supply*
- *Noise and compatible land use*
- *Socioeconomics, environmental justice, and children’s environmental health and safety risks*
- *Visual effects (including light emissions)*
- *Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)*

Those categories that have been included in Chapter 4 are depicted with an underline in the above list. Even if a category is not relevant to the Middleton Airport, it should still be listed and noted as “Does Not Apply” in the chapter text. This way the reader knows that it has been addressed and not simply omitted without justification. Several categories are not relevant to the Middleton Airport such Coastal Resources (C29 does not reside within or near a coastal zone), Natural Resources and Energy Supply (although this would be an opportune platform to mention the energy offset realized from the airport’s solar array), Visual Effects, since the facility is not equipped with significant visual navigation aid lighting systems, and Scenic Rivers due to the lack of designated scenic waterways in the area. It should be noted that Climate was briefly discussed in Chapter One.

The omission of a discussion on Air Quality is the most surprising oversight from the list. Air quality seems particularly relevant since according to the US Environmental Protection Agency (EPA), ^[1]*“Leaded aviation gasoline is still used by approximately 167,000 piston-powered US aircrafts for engine safety, which accounts for about half of current lead emissions into air.”* In addition, according to EPA data from 2014 and 2017, of the 0.360 tons of lead emission in Dane County, nearly 90-percent (0.323 tones) are from aircraft. Given these facts, in addition to the other fossil fuels burned by aircraft engines, it is surprising that the topic of air quality is not even mentioned as an environmental condition.

There should also be an analysis and discussion section in Chapter 4 - Environmental Setting, regarding the impacts of the various proposed development alternatives on the Town of Middleton park land in Tallard Park, which is located immediately to the west of the airport, and how such development actions may trigger section 4(f) of the U.S. Department of Transportation Act.

A discussion of Farmland also isn't included, other than being listed as a bullet item goal of the Capital Area Regional Planning Commission. Given that the airport is bounded on two sides by prime farmland, and that the preservation of prime farmland is listed as a strategic item in the City of Middleton Comprehensive Plan Update, it would seem prudent that there would be a discussion of this item. There appears as a lack of continuity, and perhaps contradiction, between various planning efforts being instituted by the City.

Since wetlands, any installed retention facilities, runoff from non-permeable surfaces, and areas where aircraft operate on turf surfaces, offer a conduit for groundwater recharge and infiltration, there should be some mention of ground water in the discussion of water resources.

This chapter should also include a discussion of any areas including HUD/low income/affordable housing, areas subject to environmental justice impacts, and sensitive populations such as close in education and healthcare facilities. At a minimum, the locations of these areas in relation to the airport should be documented. An inventory of these conditions would serve as a baseline in determining which, if any, airport development and/or operating recommendations adversely impact these populations or facilities. It would also serve to determine if there are any existing adverse conditions that could be mitigated by development or operational alternatives. Unfortunately, socioeconomic issues are not discussed anywhere in the current draft Airport Master Plan. Again, this is an area where city planning efforts are not well aligned. A strategy in the City of Middleton Comprehensive Plan Update seeks to *“Provide incentives for the creation and preservation of affordable and income restricted housing.”* Again, without an inventory of areas of existing affordable housing, no baseline has been established to determine the amount that any proposed development alternative may have on these areas.

As is mentioned in Chapter 4, airports such as C29, having relatively low operations, are not required to model existing aircraft noise impacts. Although this is true, it is not meant to imply that impacts from airport operations do not exist. Regardless, it was good to see that the city chose to perform this analysis.

Most evaluations of aircraft noise are fairly standardized, and the analysis in this chapter is no exception. Noise studies involve six primary inputs into a specialized software tool called the Aviation Environmental

Design Tool (AEDT) that extrapolates various noise metrics using industry standardized algorithms. The six inputs are as follows:

- Aircraft Activity Levels
- Aircraft Fleet Mix
- Runway Utilization
- Time of Day
- Surrounding Terrain
- Flight Tracks

Aircraft Activity Levels and Aircraft Fleet Mix inputs are derived from the baseline 2019 data provided in Chapter 2 – Aviation Demand Forecasts.

The fundamental weakness of these “models” are that there is a high degree of subjectivity associated with the application of input variables used in the analysis. Inputs for Runway Utilization and Time of Day are both educated guesses, but not likely exceedingly far from actual conditions. The information related to Surrounding Terrain in the area of the C29 would have little if any impact on the model due to the relatively uniform surface terrain in the area. The model would not factor in elevated areas being somewhat closer to aircraft overflights than those experienced in low lying locations. The input variable most impacted by input subjectivity is the location, dispersion, and aircraft volume along each Flight Track.

In the AEDT software, aircraft flight tracks can be entered using two methods: (1) Consolidated flight tracks are “drawn” in the software where (geographically) the user anticipates the majority of aircraft operations to take place. In addition, the volume of flight tracks (the percentage of annual operations and aircraft type) are assigned to each consolidated flight track; (2) Actual radar flight track data, containing at least one years’ worth of aircraft operations, is loaded into the software. Assuming aircraft operating to/from the facility are using best flight practices (Aircraft transponder in the “On” mode), the radar facility at the Dane County Regional Airport (MSN) should record the operation. The benefit of using this information is that each actual flight track contains not only the exact path of the aircraft flight, but also ongoing altitude, speed, and aircraft type. This nearly eliminates highly speculative modeling assumptions such as *“all piston aircraft operations were modeled as if they were all in the pattern performing touch-and-go operations”* and *“all jet and turbo powered aircraft were modeled as straight in arrivals and departures”*. In addition, the use of actual flight tracks versus consolidated flight tracks eliminates the assumption that all local aircraft operations remain within a slim traffic pattern corridor. Since the MSN radar may not capture all aircraft operations, either due to no operating transponder or radar coverage issues, they can be used, at a minimum, as an overlay to validate and refine a set of consolidated flight track input data. (Figure 4.6 – Existing Generalized Flight Tracks in the chapter would be greatly enhanced with an overlay of actual flight track data to validate the assumed generalized traffic pattern location). Actual flight track data can be obtained from the FAA National Data Offload Program free of charge, upon request.

The Day-Night Level (DNL) noise exposure contours depicted in Exhibit 4.7 - Existing 2019 DNL Noise Contours (With Terrain) appear as expected for an airport of this size and type of operations occurring in 2019. Because noise is difficult to quantify, the FAA uses the DNL metric (an annual average of noise exposure) to measure impacts. While this may not be the most ideal metric, it is considered the best to evaluate the degree of human response to noise and the cumulative impacts it may have on a population.

The chapter also includes an evaluation of noise impacts from operations at C29 using an alternative metric referred to as Lmax. Lmax is essentially a measure of the highest intensity (noise level) from a single aircraft operation. Two issues are of concern with the use of this metric. First, the Lmax metric does not factor in the duration of the event, only the sound level perceived along the aircrafts path, in this case, either an aircraft arrival or departure. While a turbine aircraft operation may be louder, the aircraft is usually traveling at a faster rate, meaning that the noise event is more rapid. A small piston powered aircraft may not produce a peak noise level equal to that of a turbine aircraft, however, the sound event will likely last longer due to the slower overflight of the aircraft. Secondly, the Lmax contours developed in the Master Plan chapter depict a straight out/in arrival/departure operations. This would only model an Lmax event directly aligned with the primary runway. Since the majority of the noise sensitive uses around the airport are offset from the runway centerline, and that most aircraft turn soon after departure (turbine arrivals are more likely to have a prolonged straight in approach path) the development of an Lmax contour with a turn would be prudent. In addition, since some piston powered aircraft can have a relatively large noise footprint, and they have been classified in this study as remaining in the traffic pattern, it would be prudent to develop an Lmax contour using a piston powered aircraft. In this case, the use of a Cirrus aircraft would be reasonable since they are typically the loudest piston powered aircraft regularly operating at the facility.

As a means for a noise evaluation to be effective, it is critical to depict the various existing land uses within the airport environs. Both the DNL and Lmax exhibits should contain a land use overlay. The Lmax exhibit would also benefit from a higher resolution background aerial photograph. The one currently used does not offer nearly enough resolution to be of practical benefit.

Preliminary Airport Development Alternatives

Several sets of Alternatives were also released, in exhibit form only, depicting several hanger and runway development options. Typically, it is not best practices when performing airport master planning to solicit comments on prospective alternatives without an associated chapter writeup as it is difficult to effectively evaluate any alternative without a descriptive context as an accompaniment. It is assumed that an additional evaluation period will be forthcoming in which to offer comment on prospective alternatives along with their respective chapter text. FAA AC 150/5070-6B clearly states that *“If stakeholders become aware that the important decisions were made before they were invited to participate, they may distrust the planners. In addition, when public involvement opportunities are not provided until late in the planning process, there may not be enough time to make significant changes. The tendency, instead, will be for planners to merely defend previously determined courses of action, rather than exploring any new alternatives. An effective public involvement program will usually avoid such an undesirable outcome.”* In addition, the AC specifically states the following regarding the creation of Airport Development Alternatives: *“an organized approach to identifying and evaluating alternative development options is essential for effective planning.”* and *“Effective facility planning must consider environmental issues in the alternatives identification, evaluation, and selection effort. The early consideration of the potential environmental impacts of alternatives can avoid later problems.”* Both of these statements imply the need to evaluate prospective alternative with the associated chapter text in order to solicit feedback and make informed decisions. It is assumed that a full written chapter will be disseminated prior to any public or committee meeting in which the airport development alternatives will be thoroughly discussed.

Public involvement is also an important step that the FAA has identified in the development of Airport Master Plans, specifically when considering Airport Development Alternatives. In fact, FAA AC 150/5070-6B describes this milestone in the master plan process as follows: *“The alternatives identification, evaluation, and selection process should be the most collaborative portion of the master plan study as part of an effective public involvement program.”* In addition, the AC characterizes that *“The alternatives analysis process should incorporate the public involvement program. Although the appropriate level of public involvement will vary, a meaningful involvement program is important and will provide a number of important benefits.”* It should be noted that this section states that public involvement should be included in the alternatives development **process**, not after the final alternatives have been selected. It is also assumed that comprehensive public input will be garnered prior to the selection of any airport development alternative.

Runway Alternatives:

Five preliminary runway development alternatives were provided for Runway 10/28 (Primary Runway):

- *No Build Alternative (Required)*
- *200-foot Westerly Extension Runway 10/28*
- *440-foot Westerly Extension Runway 10/28*
- *730-foot Westerly Extension Runway 10/28*
- *1,440-foot Westerly Extension Runway 10/28*

With the exception of the “No Build Alternative”, which is required for inclusion as an alternative in any Airport Master Plan study, three of the four remaining runway alternatives provided were developed to conform to aircraft operations at C29 as depicted on Table 3-12 in Chapter 3 – Facility Requirements of the Airport Master Plan study (Below). Two of the runway alternatives provided, a 730’ extension and a 1,440’ extension, would only be viable if the facility realizes the minimum threshold of 500 annual itinerant aircraft operations, for specific groups of aircraft, within the 20-year planning horizon. In 2019, the number of aircraft operations associated with these alternatives only reached 158 and 118, respectively. These operational number are well below the 500 annual itinerant operational thresholds required for consideration. At this time, and likely within the 20-year planning horizon, only a 200’ extension could be potentially justified. Chapter 3 articulates this realization by stating: *“While the current operational levels do not warrant a runway longer than 4,200 feet, the Airport may wish to protect for the longer runway lengths in the future as demand levels warrant.”* The inclusion of a 440’ extension only appears to be under consideration since it allows for the maximum runway extension without the need for additional property acquisition.

Table 3-12: Regular Use Runway Length Threshold

| Aircraft Group | Required Runway Length at C29 (feet) | Annual Operations Year 2010 | | Annual Operations Year '15 - '19 Avg. | | Annual Operations Year 2019 | | Regular Use @ 4,200 feet |
|--|--------------------------------------|-------------------------------------|---------------|---------------------------------------|---------------|-----------------------------|---------------|--------------------------|
| | | Ops by Group | Accrued Total | Ops by Group | Accrued Total | Ops by Group | Accrued Total | |
| | | Jet Aircraft (12,500 - 60,000 lbs.) | 5,440 | 322 | 322 | 132 | 132 | |
| Turboprop Aircraft (12,500 - 60,000 lbs.) | 4,730 | 148 | 470 | 78 | 210 | 40 | 158 | |
| Turboprop Aircraft (10+ passenger seats) | 4,200 | 18 | 488 | 338 | 548 | 420 | 578 | |
| Jet Aircraft (less than 12,500 lbs.) | 3,870 | 88 | 576 | 268 | 816 | 226 | 804 | |
| Turboprop Aircraft (less than 12,500 lbs.) | 3,870 | 390 | 966 | 120 | 936 | 104 | 908 | |

Source: FAA's Traffic Flow Management System Counts (TFMSC) database

Source: C29 Airport Master Plan Chapter 3 – Facility Requirements (Draft – October 22, 2020)

According to the FAA, for an alternative to be considered for federal funding, as stated in AC 150/5070-6B, *“The alternatives identification should consider only those alternatives meeting the sponsor’s planning need and that the FAA or the airport sponsor will be able to implement.”* Chapter 3 of the C29 Airport Master Plan Study already stated that *“The existing 4,000-foot length of Runway 10/28 is adequate to accommodate the majority of small aircraft (i.e. those weighing under 12,500 pounds) with the exception of those aircraft with 10 or more passenger seats such as the Beech 99, which*

operates frequently at C29. For small aircraft of this category, FAA guidance recommends a slightly longer runway length, 4,200 feet. When considered together, the current operations by large aircraft and those with 10 or more passenger seats eclipse the 500 annual operations threshold defined as regular use. As such, the analysis shows that a small extension to Runway 10/28 from 4,000 to 4,200 feet is currently supported by existing demand levels.” Since the FAA supports planning studies evaluating long-range future planning needs, alternatives such as a runway extension exceeding the afore mentioned 200’ can be used as placeholders for planning purposes, even though the only viable runway extension alternative is a possible 200’ westward extension. Further environmental and operational considerations will need to be brought forth in the Alternatives Analysis before even the 200’ extension can be considered.

A potential issue restricting the feasibility of any runway extension is related to existing airspace obstructions within the area. Page 4-1 of Chapter 4 mentions that *“Wisconsin Statute §114.136 enables local governments to enact restrictions and regulations within a 3-mile radius of an airport they own to protect approaches. The City of Middleton has an Airport Height Limitations Zoning Ordinance establishing elevations to which structures within each zone can be constructed.”* In addition, the City, as the airport owner, is bound by FAA Grant Assurances as a condition of accepting federal airport development grant funds, and is therefore required to protect the safety and operational integrity of the airport facility. Specifically, Grant Assurance 20 (Hazard Removal and Mitigation) clearly states that the airport *“will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.”* The City, as the airport owner, failed to protect the airspace west of the facility by allowing high-voltage powerline towers to be erected approximately 2 miles west of the existing primary runway centerline. In order for any runway lengthening to transpire, these poles would likely need to be mitigated, Since the airport owner failed to adhere to their grant assurance requirements, they should, and will likely, be required to pay for all costs associated with the relocation of these obstructions (typically ranging from hundreds of thousands to millions of dollars depending on the method and degree of mitigation required), without the assistance of any entitlement or discretionary grant funding. This is something that should be monitored.

It also appears that the City approved the construction of a building in 2017 that currently impacts the

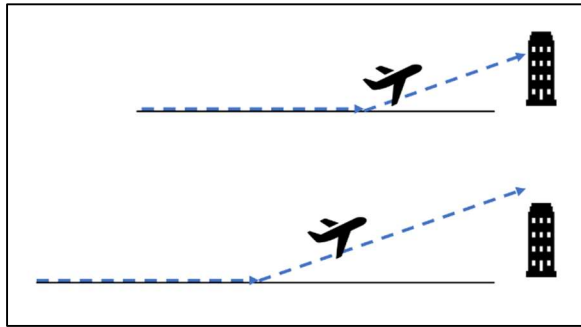


Figure 1: Runway Extension for Obstruction Mitigation

40:1 Departure surface for Runway 10 (depicted on Exhibit 5-3). Since one method to mitigate for obstructions within a departure surface is to move the initial aircraft takeoff point further from the obstruction, allowing an aircraft more distance in which to gain altitude and safely clear the obstruction (See Figure 1), it may be seen that an extension to Runway 10/28 to the west is partially being sought to mitigate this issue. Ultimately, failure of the City to protect for this airspace may also be considered a FAA Grant Assurance Violation, and may require the

airport owner (the City) to pay a prorated portion of any runway extension, regardless of length. This issue should also be monitored.

Before any obstruction mitigation is commenced, it is advisable that land owners around the airport ensure that they received fair market value for the application of an aviation easement. In addition, individuals who have had, or anticipate having, trees removed or altered in an area that is not under a valid aviation easement should receive fair market value for the entire tree and/or portions removed. It is possible that owners who have had trees altered or removed in the past, that were not under valid aviation easements, may be entitled to fair market compensation. In all these cases, individuals may want to consult an attorney. Individuals may also want to consult an attorney to verify whether their aviation easement is valid.

Nine preliminary runway development alternatives were provided for Runway 01/19 (Crosswind Runway):

- *No Build Alternative (Required)*
- *Shorten Runway (from the South) by 550'*
- *Shorten Runway (from the South) by 800'*
- *Shorten, Shift, and Realign the Runway*
- *Close (Remove) Runway*
- *Pave and Extend Runway to 3,280' (Includes East Side Parallel Taxiway)*
- *Pave, Realign and Extend Runway to 3,280' (Includes East Side Parallel Taxiway)*
- *Pave, Realign and Extend Runway to 3,280' (Includes West Side Parallel Taxiway)*
- *Pave, Realign and Extend Runway to 4,200' (Includes West Side Parallel Taxiway)*

Of these nine alternatives, the only viable alternatives appear to be: Shorten Runway (from the South) by 800', and to Shorten, Shift, and Realign the Runway. Both of these alternatives shift the existing off property portion of the southern RPZ onto airport property while maintaining some degree of crosswind operational component for the airport. While the "No Build" and Shorten Runway by 550' alternatives are seemingly viable if the off airport RPZ property was purchased in fee simple, Airport Road, however, would still remain within the RPZ. (It should be noted that the RPZ on Exhibit 5.9 – Runway 01 Plan and Profile - Existing Conditions, does not match the Existing Conditions RPZ on the "Approved" Airport Layout Plan (ALP)). While the removal of Runway 01/19 would immediately mitigate several existing safety issues

(Intersecting Runway Safety Areas and an off airport RPZ), it would not allow the facility to satisfy required crosswind component operations. This would likely be viewed as discriminatory, while also introducing additional safety issues. The remaining alternatives involving paving the runway along with a combination of lengthening and alignments would unlikely be feasible, and in one case, would not address existing off airport RPZ issues. Most major capital development efforts using federal funding require a cost/benefit analysis. The realignment of Schneider Road for the implementation of a longer Runway 01/19 (realigned to become Runway 02/20) would likely not prove fiscally viable.

Hanger Alternatives:

Four preliminary hanger development alternatives were provided:

- *No Build Alternative (Required)*
- *Hanger with Existing Airport Property (Northeast and southwest of the primary runway)*
- *Hangers associated with a Paved Runway 02/20 and Eastside Taxiway*
- *Hangers associated with a Paved Runway 02/20 and Westside Taxiway*

As mentioned in an August 20, 2020 memo discussing the C29 Airport Master Plan Forecast, *“From a purely economic standpoint, a shortage of hanger space, an increasing based aircraft count, along with a robust hanger wait list, may indicate that the current pricing for aircraft storage at C29 is too low and price equilibrium has not been reached. Since the FAA allows airports to charge less than fair market value of aeronautical uses (such as aircraft storage), the perceived convenience to storage an aircraft at C29 is not supported by current costs of storage at C29.”* Prior to any additional hanger development at C29, a pricing study should be performed to ascertain whether current hanger rates at the airport are sufficient. Such a study would ideally be part of this Master Plan study to indicate whether additional hanger storage space is warranted as an alternative. If it is determined that adjusting hanger lease rates would remedy perceived aircraft storage deficits, the No Build alternative would be the sensible option.

The existing airport property does not adequately support practicable options for aircraft hanger development. This is another area where the City planning and development efforts appear misaligned and fractured. An ideal location for new hanger development is the area currently occupied by Penni Klien Park. Since the park (A City of Middleton facility was constructed near the same time as the redevelopment of the Middleton Airport, the land should have likely been reserved for future airport development since a park facility is significantly less site specific. Unfortunately, this oversight greatly limits the siting options for new hangers, forcing them to be located adjacent to noise sensitive residential developments.

The two hanger development options associated with a paved crosswind runway are unlikely to come to fruition. These development options are predicated on the development of a runway that will likely be rejected due to dubious fiscal constraints (property acquisition and roadway realignment). Should funding become available, of the two, only that associated with hanger construction associated with a west side taxiway should be considered since this option positions the facility away from existing noise sensitive land uses. The alternative associated with the east side taxiway option would place hangers, including aircraft operations, within 250' of a residential development. The remaining alternative accommodates hanger development within the existing airport property holdings, separated into two areas. An area southwest of the primary runway, bordering Penni Klien Park, is an ideal location and could accommodate up to 18 small hanger structures. If more property was available in this location, all of the forecasted

hangers could be located in this area, ideally removed from close in noise sensitive development. The remaining large hangers identified in this alternative are situated immediately northeast of runway 10/28. Unfortunately, this would place larger aircraft within 400' of a single-family residential development. This option will certainly exacerbate issues of incompatible land use around the airport.

Finally, prior to any development fixated on enhancing the airport facility, especially those addressing future possible operational conditions, all existing issues related to safety should be mitigated. These include the accusation property incumbered by airport RPZs and the purchase of avigation easements for all areas currently and potentially impacted by airspace obstructions, including the mitigation of the building located immediately east of the airport that currently penetrates the 40:1 Departure Surface.

[1] US Environmental Protection Agency. 40 CFR Part 87. Advance notice of proposed rulemaking on lead emissions from piston-engine aircraft using leaded aviation gasoline. 75 FR 22439. Published 2010 Accessed February 26, 2015.