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April 19, 2010

By E-Mail
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Molly Lamrouex
Airports Division
MDOT Bureau of Aeronautics and Freight Services
2700 Port Lansing Road
Lansing, Michigan 48906-2160

Re: Comments on the Ann Arbor Municipal Airport Environmental Assessment

Dear Ms. Lamrouex:

Comments by the Committee for Preserving Community Quality on the Ann Arbor Municipal Airport Environmental Assessment are attached.

Sincerely,

CHEVALIER, ALLEN & LICHMAN, LLP

Steven M. Taber

Committee for Preserving Community Quality
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Ann Arbor, MI 48108
734-944-9455

April 19, 2010

Molly Lamrouex
Airports Division
MDOT Bureau of Aeronautics and Freight Services
2700 Port Lansing Road
Lansing, Michigan 48906-2160

Re: Comments by The Committee for Preserving Community Quality on the Environmental Assessment for Ann Arbor Municipal Airport

Dear Ms. Lamrouex:

The Committee for Preserving Community Quality, a community group representing approximately 400 residents of Pittsfield and Lodi Townships and the cities of Ann Arbor and Saline, is filing these comments to strenuously object to the February 2010 Environmental Assessment for Ann Arbor Municipal Airport ("EA"). We feel, as the evidence below conclusively documents, that the EA is seriously flawed and that the proposed project is both dangerous and cannot be justified.

I. THE PROJECT'S STATED PURPOSE AND NEED IS UNSUPPORTED BY THE EVIDENCE.

An EA must include a discussion of the purpose and need for the proposed action which must "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." [40 C.F.R. § 1502.13]. In addressing the Purpose and Need section of an EA, FAA Order 1050.1E provides that: "This discussion identifies the problem facing the proponent (that is, the need for an action), the purpose of the action (that is, the proposed solution to the problem), and the proposed timeframe for implementing the action." FAA Order 1050.1E, ¶ 405c. The EA accomplishes none of these goals.

A. The EA Supports Neither the Problem it Aims to Solve Nor its Purported Solution.

First, the EA defines the *purpose* of the Project as "to provide facilities that more effectively and efficiently accommodate the *critical aircraft* that presently use the airport, as well as to enhance the operational safety of the airport." [EA, p. 2-4]. The EA defines "critical aircraft" as "the most demanding aircraft-type that performs a minimum of 500 annual operations at a particular airport," *Id.*, and states that a 2009 MDOT Airport User Survey "has confirmed that the critical aircraft classification for ARB is 'B-II Small Aircraft.'" *Id.* To effectuate the stated purpose, the EA purports to support the construction of a runway extension from 3,505 feet to 4,300 feet. However, the extant evidence is clear that no "B-II Small Aircraft" require a 4,300 foot long runway. All B-II Small Aircraft are capable of operating on the existing 3,505 feet long runway without weight restriction. *See*, attached Williams Aviation Consultants Report [incorporated herein by reference]. In fact, the representative B-II Small Aircraft cited in the EA, the Beechcraft King Air 200, requires only 2,579 feet of runway to take-off fully loaded, and 2,845 feet to land. *See*, http://www.hawkerbeechcraft.com/beechcraft/ king_airb200gt/specifications.aspx. Thus, the statement that "[d]evelopment of the primary runway at ARB to the recommended length of 4,300-feet would allow the majority of B-II Small Aircraft to operate at their optimum capabilities (without weight restrictions)" [p. 2-4], although true, is misleading. There is no need to extend Runway 6/24 to allow B-II aircraft to operate at ARB. They can operate on a 3,505 foot runway without weight restrictions. Therefore, the statement that interstate commerce would be negatively impacted by B-II Small weight restrictions does not state a valid need, and the purported purpose of "provid[ing] facilities that more effectively and efficiently accommodate the *critical aircraft* that presently use the airport" is an unnecessary solution to a nonexistent problem.

B. The EA Incorrectly Relies on *Total* Annual Operations to Support the Proposed Runway Extension.

The EA states, "[t]he critical aircraft, or grouping of aircraft are generally the largest, most demanding types that conduct at least 500 operations per year at the airport" [EA, p. 2-7], and concludes that the proper Airport Reference Code ("ARC") for ARB is "B-II Small", based on a total of "750 actual annual operations by B-II category critical aircraft from survey data year 2007." [EA, p. 2-9]. However, the EA's use of "annual operations" differs markedly from the FAA criteria for selecting runway lengths and widths set forth in FAA Order 5090.3C:

3-4. AIRPORT DIMENSIONAL STANDARDS

> Airport dimensional standards (such as runway length and width, separation standards, surface gradients, etc.) should be selected which are appropriate for the critical aircraft that will make substantial use of the airport in the planning period. Substantial

> use means either 500 or more annual ***itinerant*** operations, or scheduled commercial service. FAA Order 5090.3C, p. 21 (emphasis added).

(FAA Order 5090.3C does not state that critical aircraft must be the "largest.")

The FAA divides General Aviation operations into two categories, "local" and "itinerant." Itinerant operations are defined as "an operation performed by an aircraft, either IFR, SVFR, or VFR, that lands at an airport, arriving from outside the airport area, or departs an airport and leaves the airport area." [U.S. DOT JO 7210.695, p. 5]. Local operations are defined as "those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and the operations to or from the airport and a designated practice area within a 20-mile radius of the tower." *Id.*

The EA, without reference to this distinction, relies on "annual operations" and "total annual operations" not "itinerant operations," *see* EA, Table 2-1, p. 2-10. Separating itinerant and local operations at ARB would result in a dramatic reduction in the number of annual critical aircraft operations at the airport. For example, data from the website City-Data.com shows that there were 29,322 itinerant operations and 43,573 local operations at ARB in 2007, the year used by MDOT in the EA. *See*, http://www.city-data.com/airports/Ann-Arbor-Michigan.html. In that itinerant operations account for approximately 40% of the total operations at ARB, itinerant B-II operations for 2007 would be in the neighborhood of 300 operations per year [40% of 750 total operations], substantially below the FAA's threshold of 500 annual operations to constitute "substantial use." Moreover, the Airport User Survey shows only 293 annual B-II Small operations at ARB in 2007. [EA Appendix A-1, p. 7]. Thus, the FAA Order 5090.3C airport dimensional standards for B-II small aircraft do not apply.

Even if, for argument's sake, we were to accept the critical aircraft data reported in the Airport User Survey [EA Appendix A-1, p.7], a detailed analysis shows that a weighted average of 78 percent of those B-II aircraft operations took place within a 450-mile radius of ARB, according to MDOT's own data analysis (Exhibit 1). These represent areas that are within the flight range of ARB's current based fleet, according to the User Survey data, from the current-length runway. Thus, by another means of calculus, itinerant operations beyond the range of need are fewer than 200 and Purpose and Need fails.

Further, MDOT's choice of 2007 as a year of certification for critical aircraft was based on an arbitrary and capricious decision. The year 2007 represents the greatest number of ARB operations in the 5-year period 2004-2009 and was selected, according to the MDOT analyst involved, because "our thoughts were that the current recession could possibly have affected the 2008 operational levels in such a way that 2008 year records would not be a true indicator of a post-recession return to normal operations at the airport. . .." (Noel, 2009). Even the FAA suggests ARB will not return to such high operating levels as 2007 for the next 20 years [FAA Terminal Area Forecast, EA, p. 2-10.] Thus, MDOT was showing bias and affording Ann Arbor a huge advantage in not even evaluating operational data from any other year. Objectively, since

its standard is the independent Flight Aware data base, MDOT should analyze critical aircraft operational data for the five years 2004-2009 and base its decision on an average of those years' operational data.

C. Shifting Runway 6/24 150 Feet to the Southwest Will Not Achieve an Additional Margin of Safety.

The EA states as part of its purpose to "[e]nhance operational safety in low-visibility conditions by providing a clear 34:1 approach surface to Runway 24, over State Road." [EA, p. 2-5]. Operational safety in low visibility conditions will not be enhanced by providing a clear 34:1 approach surface to Runway 24. The EA is correct in stating that shifting the Runway 24 threshold 150 feet west would enhance safety by effectively removing the current obstruction to line-of-site vision (hangar) of the parallel taxiway for ATCT personnel. [EA, p. 2-5]. However, in the next paragraph the EA states, "The proposed shift of the Runway 24 threshold would also allow for a clear 34:1 approach surface to the east end of the runway (the current approach surface is the steeper 20:1). By keeping obstructions below the flatter 34:1 approach surface, an additional margin of safety is provided between approaching aircraft and any ground-based obstacles." [EA, p. 2-5]. This statement lacks support in either the Instrument Approach Procedure (IAP) design or Terminal Instrument Procedures ("TERPS") Obstruction Standards.

Both the 20:1 and the 34:1 surfaces exist simultaneously for every published IAP, and are defined as "Obstacle Identification Surfaces" which do not establish obstacle clearance safety margins, but rather only define instrument approach visibility minimums. The FAA does not require either of these two surfaces to be free of penetration by obstacles, and thus "providing an additional margin of safety" as stated in the EA does not apply in the case of these two surfaces. Other TERPS surfaces (Obstacle Clearance Surfaces) are established which do ensure clearance from obstructions, and the FAA requires that these Obstacle Clearance Surfaces be clear of structures and terrain. The current IAPs to Runway 24 were designed by the FAA to accommodate all existing obstructions. Thus, shifting the runway 150' west would not enhance safety. Assuming that the EA is correct in the assertion that shifting the Runway 24 threshold would eliminate obstruction penetrations to the existing 34:1 Obstacle Identification Surface, the effect would not be a safety improvement, but would result only in a reduction in the required approach visibility minimums. [*See*, attached Williams Aviation Report]

D. EA Falsely Intends to Convey Rural Setting in Densely Populated Area

The EA intends to deceive readers as to the cosmopolitan location of the airport, utilizing Figure 2.1 [Page 2-2], for instance, which depicts unpaved Lohr and Textile Roads and vacant land and rock pits and gravel pits where developed communities of Pittsfield (Brian Hill, Lake Forest, Lake Forest Highlands, Lohr Lakes Village, St. James Woods, Silo Ridge, Stonebridge, and Waterways) and Lodi (Travis Pointe) Townships exist today, with more than 2,000 homes – making the area appear far more rural and not susceptible to the safety risks from added airport development that are actually posed.

II. THE EA DOES NOT CONSIDER ALL REASONABLE ALTERNATIVES.

The National Environmental Policy Act ("NEPA") [42 U.S.C. §§ 4321 *et seq.*] requires that federal agencies examine all reasonable alternatives in preparing environmental documents. [42 U.S.C. § 4332(c)(iii)]. An agency preparing an EA should develop a range of alternatives that could reasonably achieve the need that the proposed action is intended to address. The Council on Environmental Quality ("CEQ") Regulations ("NEPA Regulations"), which implement NEPA, require that Federal agencies "[u]se the NEPA process to identify and assess the reasonable alternatives to the proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment" 40 C.F.R. § 1500.2(e), and that "agencies shall . . . (a) Rigorously explore and objectively evaluate all reasonable alternatives . . ." 40 C.F.R. § 1502.14(a). The EA fails to explore all reasonable alternatives to the Preferred Alternative selected.

The EA [p. 2-5] lists five objectives of the proposed project:

- Enhance interstate commerce by providing sufficient runway length to allow the majority of critical aircraft to operate without weight restrictions.
- Enhance operational safety by improving the FAA ATCT line-of-sight issues.
- Enhance operational safety in low-visibility conditions by providing a clear 34:1 approach surface to Runway 24, over State Road.
- Reduce the occurrence of runway overrun incidents by small category A-I aircraft (local objective).
- Relocate and potentially upgrade the Runway 24 Approach Light System.

As shown in Section I above, enhancing interstate commerce by providing sufficient runway length to allow the majority of critical aircraft to operate without weight restrictions is not a valid need. Further, lengthening Runway 6/24 is not necessary to achieve the remaining four objectives. Those objectives could be met by simply shifting Runway 6/24 150 feet to the southwest, *i.e.*, removing 150 feet from the approach end of Runway 24 and adding 150 feet to the departure end of Runway 24. Runway length would remain 3,505 feet. Section 2.2.1 of the EA states that a 150-foot shift of the Runway 24 threshold to the west would (1) enhance the safety of ground operations by taxiing aircraft; (2) enhance operational safety, and possibly prevent runway incursions, by expanding the view of the hold area and parallel taxiway to ATCT personnel; (3) allow for a clear 34:1 approach surface to the east end of the runway, providing an added margin of safety between approaching aircraft and ground-based obstacles, which is particularly beneficial when aircraft are operating in low-visibility conditions; and (5) include relocation and replacement of the existing runway approach light system with newer Medium

Intensity Approach Lighting System with Sequenced Flashers (MALSF). [EA, pp. 2-5, 2-6]. Shifting Runway 6/24 150 feet to the Southwest without lengthening the runway would also accommodate future widening of State Road. Nevertheless, this "reasonable alternative" was not considered in the EA.

An Environmental Assessment "shall include brief discussions of . . . alternatives . . ." 40 C.F.R. § 1508.9(b).[1] Absent an analysis of an alternative based on a 150-foot southwesterly shift of the runway, without lengthening the runway, the EA is inadequate.

III. THE EA FAILS TO ADEQUATELY ANALYZE OR DISCLOSE THE PROJECT'S AIR QUALITY IMPACTS WHERE IT FAILS TO ADDRESS OR DETERMINE THE PROJECT'S CLEAN AIR ACT CONFORMITY.

Section 7506 of the Federal Clean Air Act [42 U.S.C. §§ 7401 *et seq*.] mandates that "[n]o department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to [a State Implementation Plan] after it has been approved or promulgated under [42 U.S.C. § 7410]." The Environmental Protection Agency (EPA) has promulgated regulations implementing Section 7506 (the "Conformity Provision") in 40 C.F.R. §§ 93.150 *et seq*. ("General Conformity Rule"). The General Conformity Rule requires, in part, that Federal agencies first determine if a project is either exempt from conformity analysis or presumed to conform. If it is neither, the agency must conduct a conformity applicability analysis to determine if a full conformity determination is required. *See*, *Air Quality Procedures for Civilian Airports and Air Force Bases*, p. 13.

The project area, *i.e*., Washtenaw County, is in attainment for five of the seven criteria pollutants [p. 4-17], and marginal nonattainment for Ozone [p. C-3].[2] The area is designated as in nonattainment for PM2.5. [EA, p. C-4]. Therefore, one of the following applies:(1) the project is exempt from conformity; (2) the project is presumed to conform; or (3) the agency must conduct a conformity applicability analysis to determine if a conformity determination for PM2.5 is required. The EA does not indicate that any of the required actions was performed

As a threshold matter, the EA is internally inconsistent with regard to whether the Project is exempt or presumed to conform. At page C-4, the EA states unequivocally that "[f]or this

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[1] Courts have consistently held that the "existence of reasonable but unexamined alternatives renders an EIS inadequate." *See*, *e.g.*, *Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1065 (9th Cir. 1998).

[2] The original six criteria pollutants are Ozone (O3), Particulate Matter (PM10), Carbon Monoxide (CO), Nitrogen Oxides (NO2), Sulfur Dioxide (SO2) and Lead (Pb). FAA Order 1050.1E ("Environmental Impacts; Policies and Procedures"), p. A-3, ¶ 2.1b, includes both PM10 and PM2.5 under the category Particulate Matter. On April 5, 2010 the EPA published Revisions to the General Conformity Regulations Final Rule [75 Fed. Reg. 17254-279 (2010)] which, among other things, added PM2.5 to the list of criteria pollutants in 40 C.F.R. § 93.153(b).

analysis it will be assumed that the project is neither exempt nor presumed to conform." [Emphasis added.] However, at page C-5 the EA states ". . . a conformity determination is not required and the proposed project is presumed to conform to the state implementation plan." [Emphasis added.] Under either scenario, however, the EA is deficient and fails to meet the "public disclosure" requirement under the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et seq*.

A. The EA Fails to Establish That the Project Is Exempt.

A federal agency has two options to determine that a project is exempt from conformity analysis: (1) if the project is included in the list of exempt actions listed in § 93.153(c)(2); or (2) if the project's total of direct and indirect emissions are below the emissions levels specified in § 95.153(b) of the Conformity Regulations ("*de minimis*"), § 93.153(c)(1).

The first option does not apply here because runway and taxiway extension projects such as the one described in the EA [p. 2-1] are not included in the exempt actions listed in Section 93.153(c)(2). Nor does the EA establish that the Project can be considered exempt as *de minimis* under 40 C.F.R. § 93.153(c)(1). The EA instead relies on the 1996 MDOT Bureau of Aeronautics Air Quality Study of seven general aviation airports (which notably do not include ARB) for the conclusion that "typical GA airports generate a low level of pollutants." [EA, p. 4-17]. From that nonspecific conclusion, the EA further generalizes to the assertion that, because ARB is comparable in size and activity to the seven airports studied, it can be assumed that emissions resulting from the Project will not exceed the conformity threshold levels, and, on that basis, concludes that a conformity analysis is not required.

This assumption is fatally flawed, however, for at least two reasons: (1) the EA does not quantify PM2.5 emissions from flight operations at ARB at all, relying exclusively on the 1996 Study; and (2) because there is no quantification, there is also no comparison with the explicit *de minimis* thresholds established in 40 C.F.R. § 93.153(c)(1). It is correct that the original version of 40 C.F.R. § 93.153(c)(1) did not establish explicit thresholds for PM2.5, as distinguished from PM10. However, the newly implemented revised General Conformity Rule does establish that distinction, and now serves as the template for the air quality analysis required in the EA. Moreover, FAA Order 1050.1E, Appendix A, p. A3, § 2.16 includes both PM10 and PM2.5 in "particulate matter."

B. The EA Fails to Establish That the Project Is Presumed to Conform.

The second option, the presumption of conformity does not apply here either. In July, 2007, the FAA published a "Federal Presumed to Conform Actions Under General Conformity Final Notice" [72 Fed.Reg. 41,565-580 (July 2007)] in which the FAA listed fifteen Airport Project categories which the FAA presumes to conform to applicable SIPs. The runway and taxiway extension project described in the EA does not fall within any of those presumed to conform categories. Therefore, the FAA cannot rely on the Presumed to Conform Final Notice to presume that the Project is in conformity.

C. The EA Fails to Establish the Project's Conformity Status.

Finally, even if, for argument's sake, the study of airports other than ARB were adequate for air quality analysis of ARB in the EA, the 1996 Study would be an inadequate substitute for the required analysis. 40 C.F.R. § 93.159 requires that analyses under the General Conformity Rule be based on, among other things: (1) "the latest planning assumptions," 93.159(a); and (2) "the latest and most accurate emissions estimation techniques available," 93.159(b). The 1996, 14-year old, Study patently fails to fall within either, let alone both, of these parameters.

In summary, the EA fails to establish the existence of any of the necessary components of the required finding of conformity for a Federal project, and, thus, is inadequate under both NEPA and the Clean Air Act.

IV. THE EA FAILS TO ACCOUNT FOR WELLS ON AIRPORT PROPERTY.

While Section 4.5.2 of the EA purports to address "Geology, Groundwater, and Soils" affected by the Project, it understates the significance of the fact that water resources are a principal use of the grounds where the airport is located.

"If there is the potential for contamination of an aquifer designated by the [EPA] as a sole or principal drinking water resource for the area, the responsible FAA official needs to consult with the EPA regional office, as required by section 1424(e) of the Safe Drinking Water Act, as amended." FAA Order 1050.1E, pp. A-74, 75, ¶ 17.1c. "When the thresholds indicate that the potential exists for significant water quality impacts, additional analysis in consultation with State or Federal agencies responsible for protecting water quality will be necessary. *Id.*, pp. A-75, A-76, ¶ 17.4a. "If the EA and early consultation [with the EPA] show that there is a potential for exceeding water quality standards [or] identify water quality problems that cannot be avoided or mitigated . . . an EIS may be required. *Id.*, pp. A-75, ¶ 17.3.

There are two issues raised by the Project that require further examination in the EA. First, there is the issue of contamination from the Airport. The Airport is the location of a porous sand/gravel formation that yields a large amount of water for pumping Historically, the land where the airport is located was originally acquired by the City of Ann Arbor for water rights in 1929. Until recently, 15% of Ann Arbor's water supply came from the three wells located on Airport property. Water Quality Report, 2008, City of Ann Arbor, p. 2 (available at http://www.a2gov.org/government/publicservices/water_treatment/documents/ccr.pdf). Due to the importance of the water supply at ARB, the EA needs to have more than a few passing words ("Based on coordination with the City of Ann Arbor, the proposed runway extension would not impact the water supply wells or the new water supply line (Bahl, 2009)"). [EA, p. 4-20].

Second, paving the area for a runway, roads, *etc.* increases the impervious area on the aquifer. This in turn reduces the infiltration of water that feeds the aquifer/City water supply. Adding 950 feet to the end of the runway adds another 71,250 square feet of impervious area

over an aquifer that is vital to the City of Ann Arbor. Further environmental review should provide detailed analyses of the impact of this increase in impervious surface, as well as the possibility of contamination, currently unexplored in the EA.

V. THE EA FAILS TO ANALYZE THE PRESENCE OF HAZARDOUS WILDLIFE NEAR THE AIRPORT AND FAILS TO PRESENT ANY MANDATORY MITIGATION MEASURES.

FAA Advisory Circular 150/5200-33B ["Hazardous Wildlife Attractants on or Near Airports"] contains standards for land uses that have the potential to attract hazardous wildlife on or near public-use airports. The standards are applicable to airport development projects, including airport construction, expansion and renovation. Airports that have received Federal grant-in-aid assistance must use these standards. [*See* AC 150/5200-33B, p. ii]. The FAA recommends separation distances of 5,000 feet at airports that do not sell Jet-A fuel, and 10,000 feet at airports that sell Jet-A fuel for hazardous wildlife attractants. [AC 150/5200-33B, p.1]. The Ann Arbor Municipal Airport sells both. The FAA also "recommends a distance of 5 statute miles between the farthest edge of the airport's AOA [Air Operations Area] and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace." [AC 150/5200-33B, p. 1]. Finally, AC 150/5200-33B provides that "[a]irport operators should identify hazardous wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects" [p. 17] and "[t]he FAA will not approve the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants without appropriate mitigating measures." pp. 17-18].

The FAA ranks geese as number three [3] in a list of the relative hazard to aircraft for 25 species groups. [AC 150/5200-33B, Table 1, p. iii]. However, the EA does not disclose that the area surrounding the airport is a prime habitat for large numbers of Canada Geese, which data clearly show it to be. More than a dozen Canada geese water habitats fall within the designated risk area (Exhibit 2), which are populated by numerous Canada geese much of the year (Exhibit 3 photographs), so much so that less than 1,000 feet from the Ann Arbor Municipal Airport itself, city officials must warn motorists of a Canada goose road crossing (Exhibit 4). And yet EA Appendix F lists 38 species of birds that have either been observed, or for which there has been confirmed or probable breeding in Airport fields during 2006 through 2008. And the list does not include Canada Geese. Canada Geese populate waterways on a golf course, in business parks and in neighboring wetlands located west and southwest of the airport, well within the separation distances prescribed by the FAA, as the exhibits document.

We raise the Canada geese issue because of growing safety concerns with respects to bird strikes in aviation. We know, for instance, that a 12-pound Canada goose struck by an aircraft traveling at 150 miles per hour has the kinetic energy impact of a 1,000 pound weight dropped from 10 feet. With more than 9,000 bird strike incidents in the U.S. last year (Associated Press, 2010), and seven reported in the history of the Ann Arbor Airport itself, it is a serious issue.

This type of risk contributed to the deaths of three passengers and two crew members in the crash of a Cessna Citation in Oklahoma City in 2008 because, according to the National Transportation Safety Board, a large bird hit the plane wing because the FAA had done an inadequate job of enforcement of wildlife hazard requirements (National Transportation Safety Board, 2009). With many large birds in the ARB area, in close proximity to many homes, at low altitudes of under 100 feet, citizens surrounding ARB do not want that type of disaster to be repeated here because of an ill-informed EA that ignores Canada geese.

It must be underscored that Canada geese were a subject of detailed communication between preparers of the EA and at least one member of the EA's Citizens Advisory Committee (CAC). CAC Committee Member Shlomo Castell, a commercial passenger airline pilot, requested that the EA's preparer, contractor JJR, collect papers from a national Birdstrike Prevention Forum in Chicago and, perhaps, seek the assistance of the panel's FAA liaison for a follow-up discussion with an FAA expert who presented important information at the conference for relevant Canada geese research. Mr. Castell's request was summarily rebuffed by JJR study coordinator Amy Eckland, writing, "The scope of this proposed project is to address the recommended runway length design parameters for the critical aircraft and to address line of sight issues from the tower. I will be meeting with CAC member and City of Ann Arbor Ornithologist, Dea Armstrong, to better understand the birds that are known to occur around the airport. Reviewing all of the information presented at the bird strike conference is an extensive inquiry that is beyond the scope of this project."

Mr. Castell followed up, explaining that in his view as a CAC member, bird strikes were environmental and a safety issue, and that as the only professional commercial passenger airline pilot on the panel he felt it important that such information be analyzed and that a "careful environmental study using FAA funds (via MDOT) would seriously consider the current work of the FAA's top bird strike expert." Mr. Castell went on to add: " . .In my flying career, I have encountered three bird strikes. The most severe one involved three geese on a final approach to Detroit in a Boeing 727. Their bones were later found in the wing's leading edge and flaps. Thankfully they were not ingested by the engines. Should something similar ever occur to a departing business jet, turbo-prop or light twin out of ARB, results will most likely be different."

But the subject was ignored by JJR, the EA and Ann Arbor.

Consequently, the preferred alternative (Build Alternative 3) would extend Runway 6/24 950 feet to the southwest. The extension would allow aircraft landing on Runway 6 and departing on Runway 24 to overfly areas populated by Canada Geese at altitudes of less than 100 feet. The EA does not consider this hazardous condition. Even though they are not designated as "special concern", "threatened" or "endangered," the presence of Canada Geese in the Airport area poses a hazard to aircraft operational safety, and should be identified and analyzed in the EA, along with proper mitigation measures.

VI. THE EA DOES NOT ACKNOWLEDGE OR ANALYZE THE PROJECT'S MANIFEST GROWTH-INDUCING IMPACTS.

A Federal agency is required to evaluate not merely the direct impacts of a project, but also its indirect impacts, including those "caused by the action and later in time but still reasonably foreseeable." 40 C.F.R. § 1508.8(b). Indirect impacts include a project's growth-inducing effects, such as changes in patterns of land use and population distribution associated with the project [40 C.F.R., § 1508.8(b)] and increased population, increased traffic, and increased demand for services. *City of Davis v. Coleman*, 521 F.2d 661, 675 (9th Cir. 1975). The "growth-inducing effects of [an] airport project appear to be its 'raison d'etre.'" *California v. U.S. D.O.T.*, 260 F.Supp.2d at 978, *citing City of Davis, supra*, 521 F.2d at 675. The EA ignores this requirement, even though the Project is virtually defined by its growth-inducing impacts. Despite the fact that the EA assumes that the "percent of night and jet operations would remain constant between the existing condition and the future years," [EA, p. 4-2] there is substantial evidence to indicate that the Project will cause a large increase in both types of operations.

As indicated above, there are no weight restrictions that must be lifted to allow the EA's "critical aircraft" to operate at ARB without weight restrictions. The "load restrictions" referenced on page 2-12 refer not to category B-II aircraft, but to the fact that higher category aircraft (jets in the C-I and C-II categories) must currently operate at reduced weights in order to use the current 3,505 foot runway. (Required takeoff length is the primary restrictor.) Operationally, weight is reduced by carrying fewer passengers, less baggage and/or less fuel, all of which discourage these aircraft from conducting operations at ARB.

For example, a Cessna Citation II (Category B-II) requires 2,990 feet for takeoff at maximum certificated gross weight on a standard day, and can operate at unrestricted weight from the existing 3,505 foot runway. A Lear 35 (Category C-I), on the other hand, requires 5,000 feet for takeoff at maximum certificated gross weight on a standard day. While extending the runway to 4,300 feet would not facilitate unrestricted operations by the Lear 35, the required weight reduction would be less than is currently required. Therefore, the runway extension to 4,300 feet would operationally benefit the Category C-I Lear 35, but would provide no operational benefit to the Category B-II Citation jet, which the EA states is a "critical aircraft."

The longer runway will facilitate the loading of additional passengers and baggage on high performance jet aircraft. Also, the ability to carry additional fuel may mean that, in certain cases, costly and time consuming intermediate fuel stops will become unnecessary. If the runway is lengthened to 4,300 feet, it is reasonably foreseeable that ARB will become much more attractive to operators of higher performance jet aircraft, such as the Lear 25 (Category C-I), Cessna Citation III (Category C-II) and Cessna Citation Sovereign (Category C-II), who could then operate at ARB instead of driving to and from Willow Run Airport.

Contrary to the unsupported assertions in the EA [EA, p. 42; Appendix B-1, p. B-4], it is reasonably foreseeable that the fleet mix will change in favor of a higher percentage of jet operations as compared to the current level of light single and multi-engine propeller driven aircraft operations. The smaller Category A-I/II and B-I aircraft account for a high percentage of ARB operations. B-II aircraft account for a low percentage of ARB operations.

It is, therefore, reasonably foreseeable that the number of night operations will increase as the number of arrivals of longer haul business jets often occur in the evening hours due to the longer time duration of their trips. Since one of the stated purposes of the EA is to increase interstate commerce, this is not merely an indirect, but also a direct effect, the Project will have on the surrounding community. This will also affect the fleet mix of night operations to reflect a higher percentage of jet operations than exist under current conditions.

Thus, the evidence is clear that the Project will cause an increase in both jet *and* night operations. It is also reasonably foreseeable that these added high-performance jet aircraft operations and night operations will be accompanied by significant noise and air quality impacts. Nevertheless, the EA fails to acknowledge, let alone analyze, these reasonably foreseeable impacts caused by expansion of airport physical facilities and operational profile and, thus, is inadequate.

This is especially troublesome because these increased number of high-performance aircraft impact almost 10,000 citizens within Pittsfield Township and another 10,000 in surrounding communities and would cross over rooftops at projected altitudes of 93 feet when landing on an extended Runway 6 in densely populated neighborhoods.

VII. POLITICAL JURISDICTIONS PROPOSED ACTION OR ALTERNATIVES WOULD IMPACT

It is not surprising that Ann Arbor completely ignored the implications of its proposed actions or alternatives on the political jurisdictions affected, as described in Federal Aviation Administration Order 5050.4B in response to the National Environmental Policy Act, in its Environmental Assessment – and, in fact, omitted this section completely -- since the principal jurisdiction affected, Pittsfield Township, in which the airport is wholly located, has unanimously passed a Resolution to oppose the expansion and is strenuously fighting it. Neighboring Lodi Township has passed a similar Resolution opposing the expansion. That Ann Arbor continues its push to expand its airport in the face of such opposition represents an unconscionable, heavy-handed and perverse assertion of land rights despite the will of its neighbors, subjecting citizens of other communities to undue risks.

Worse, MDOT, which with its predecessor state agencies has been advocating the expansion of the Ann Arbor Airport's primary runway for almost four decades now, is charged under 49 USC 47128 with serving as the FAA's agent in Michigan but jeopardized its block grant status by taking an advocacy position, often abdicating its public agency obligation to represent all Michigan citizens and, instead, become a de facto sponsor of the Ann Arbor expansion. In so doing it subjects both the government of Pittsfield and the people of Pittsfield to untold potential future damage both in safety risks and in economic loss that could result in an effective taking of their property rights because of repeated low flying, heavy jet aircraft, forcing them to seek recovery in the event of a tragic accident or inverse condemnation class action proceedings, from Ann Arbor, a city already suffering from such financial difficulty that it could

be unable to pay any significant damage awards. As such, Pittsfield victims would be left without effective remedy at law.

Thus, on behalf of the people of Pittsfield, Lodi, Ann Arbor, and Saline, the Committee for Preserving Community Quality seeks protection at the federal level to preserve the 14th Amendment rights of all area citizens, but notably Pittsfield citizens, and asks federal intervention to preserve their due process rights, since their local government is afforded no voice in the ultimate decision. Federal law, however, provides the Pittsfield government and citizens extraordinary petition rights direct to the U.S. Secretary of Transportation because their situation is so unusual and so serious (49 USC 47106 (C) (1) (iii)).

Pittsfield citizens would be subjected to a perfect storm of potential risks from low-flying aircraft in heavily populated neighborhoods that are also occupied by wildlife, including many Canada geese, during much of the year. This is confirmed by a study conducted by MDOT and Ann Arbor's own airport architects (URS Corporation) (Exhibit 5), which was excluded from the EA, and visualized on a projection of what the approach to an expanded Runway 6 would look like relative to the close proximity to area homes, which was corrected for accuracy (Exhibit 6).

An expanded Ann Arbor Municipal Airport would attract more jets of more types and bring multi-engine aircraft closer to heavily populated residential areas – within 600 yards at altitudes of 93 feet above rooftops of semi-luxury homes, or lower, on a regular, planned basis. Aircraft landing on Runway 6 would pass Lohr Road below 90 feet – the site of a new, planned non-motorized bike path, designated the Lohr-Textile Greenway Project, for which the Washtenaw County Parks and Recreation Commission has awarded Pittsfield a $ 300,000 Connecting Communities grant. Thus, low-flying, heavy jets would be landing just feet over people traversing a new non-motorized trail.

This is especially dangerous with heavier aircraft because, in the event of any common multi-engine aircraft mishaps -- such as an engine failure on takeoff, a bird strike on takeoff, climb out, or approach, or similar incident – with aircraft in very close proximity to homes, the risk could be grave – a perfect storm of environmental or human risk. Contrary to common belief, any twin-engine jet would lose 80 percent of its climb performance – and at low altitudes that could be tragic. In a light twin-engine aircraft, the consequences would be worse, because most will not continue to climb on one engine in takeoff configuration; neither can they turn back toward the airport at low altitude in takeoff configuration, which is why so many classically crash near airports.

This is no allusive fear. In June 2009, a small single-engine plane landing at the Ann Arbor Airport made an emergency landing 1,200 yards short of the field on a Stonebridge Golf Club fairway in Pittsfield after its engine died at low altitude on final approach. (Exhibit 7) The pilot said if there had been people on the fairway at the time, he would have "crashed into the trees," which would have probably been fatal for him and his grandson, whom he was instructing at the time (Wunderlich, 2008). And it is not insignificant that, between 1973 and 2001, nine people died from accidents flying in the Ann Arbor Airport traffic pattern within three miles of the airport (NTSB reports, 1973-2001). With the Ann Arbor runway moved 950 feet farther to

the southwest and even closer to hundreds of homes, as proposed, and planes still lower on approach – and planes heavier, larger, carrying greater payloads, and more people – this poses a risk too grave to bring to a heavily populated community.

Such impacts and safety implications on political jurisdictions where airport decision-making bodies are absentees – and where local citizens and their governments have no say – must be investigated to protect the safety of all concerned. This was not done or addressed in the EA in any way.

VIII. NOISE MODELING FOR THE PROJECT FAILED TO INCLUDE INCREASED JET AIRCRAFT AND NIGHTTIME OPERATIONS IN DEVELOPING NOISE CONTOURS.

The FAA's Integrated Noise Model ("INM") was used to model annual operations for the 2009 existing condition, *i.e.*, April 2008 through March 2009 [EA Appendix B-1, p. B-4] and develop 65, 70 and 75 DNL noise contours for the Project. [EA, p. 4-3]. The EA states that "[t]he existing 65 DNL contour does not extend beyond airport property." [EA, p. 4-3]. During the time modeled, jet operations accounted for approximately 2 percent of total operations at ARB, and nighttime operations accounted for 4.2 percent of total operations. [EA, p. 4-2]. The EA states: (1) "[t]he percent of night and jet operations would remain constant between the existing condition and the future years"; (2) "fleet mix between the 2009 Existing Condition and the 2014 Future Alternatives would remain static" [EA, p. 4-2; Appendix B-1, p. B-4]; and "[t]he ARB 2014 proposed project alternative DNL 65 dBA noise contour does not extend beyond airport property." [EA, p. B-6].

However, as shown in Section VI above, the Project will likely facilitate an increased number of night operations, and a change in fleet mix, which will include higher performance jet aircraft. DNL calculations depend on, among other things, forecast numbers of operations, operational fleet mix and times of operation (day verses night). [EA, Appendix B-2, p. B-16]. However, the EA fails to model or assess future increased night operations and fleet mix changes resulting from the Project.

The FAA is required to use INM to produce, among other things: (1) noise contours at the DNL 75 dB, DNL 70 dB and DNL 65 dB levels; (2) analysis within the proposed alternative DNL 65 dB contour to identify noise sensitive areas where noise will increase by DNL 1.5 dB;[3] and (3) analysis within the ***DNL 60-65 dB contours*** to identify noise sensitive areas where noise will increase by DNL 3dB, ***if*** DNL 1.5 dB increases as documented within the DNL 65 dB contour. [FAA Order 1050.1E, Appendix A, p. A-62, ¶ 14.4d].

As the noise modeling failed to take into account the foreseeable increases in nighttime

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[3] A significant noise impact would occur if analysis shows that the proposed action will cause noise sensitive areas to experience an increase in noise of DNL 1.5 dB or more at or above DNL 65 dB noise exposure when compared to the no action alternative for the same timeframe." [FAA Order 1050.1E, Appendix A, P. A-61, ¶ 14.3]

and jet aircraft operations at ARB, the questions of whether the future DNL 65 dB contour will be increased, and to what extent, and whether increased noise levels within the DNL 65 dB contour would necessitate designation of a DNL 60 dB contour remain unanswered.

IX. PROCEDURAL JUSTICE.

For 40 months, the Ann Arbor Municipal Airport expansion proposal has been in the works. Most of that time, it has been clouded in injustice. A long line of Procedural Justice violations began with the birth of the expansion proposal by Ann Arbor on January 22, 2007. On that day, the Ann Arbor City Council unanimously approved Resolution R-31-1-07, formally adopting the airport's previous Airport Layout Plan (ALP) and ordering the city staff to return with a separate proposal to expand the airport's primary runway within 60 days and that "notification of the proposal be sent out to citizens in the surrounding area."

Not only did the Ann Arbor city staff not return to its City Council with an expansion proposal within 60 days, it did not share such a proposal with neighboring citizens such as Pittsfield as required by its Council's order. Instead, however, just 37 days after its initial City Council Resolution order, on February 28, 2007, the city of Ann Arbor secretly submitted to MDOT-AERO a proposal for an 800-foot extension of primary runway 06-24 at Ann Arbor Municipal Airport – essentially, the present proposal being considered by the FAA. No corresponding notice was given to Pittsfield.

Thus began a plan by an overzealous Ann Arbor City Administration and Airport Manager run amok, beyond the control and limits of even its own elected officials and their mandates, in what amounted to an illegal and systematic effort to evade and elude any type of public disclosure about its airport expansion plans, regardless of the legal and political consequences.

On September 12, 2007, the proposed ALP was amended at the request of MDOT to allow for the 150-foot southwesterly movement of the entire primary runway, to provide for the eventual widening of State Street-State Road, which MDOT concedes cannot be funded for decades. Still, Pittsfield had not been informed by the applicant or MDOT about the proposed expansion on land within its jurisdiction, even though the Airport Emergency Plan calls for Pittsfield to provide primary Fire and Rescue Protection at the airport.

On April 23, 2008, MDOT approved the revised Ann Arbor Airport ALP. The state review had taken 420 days.

On June 4, 2008, the FAA's review of the Ann Arbor Airport ALP was begun by Cheri Walter, an Airspace Program Manager of the FAA. On the day she began her review, Ann Arbor Airport Manager Matt Kulhanek wrote her the following:

> Cheri: Wow! I can't tell you how much I appreciate your timely response to our review. I was happy to just hear that you were moving it to the top of the pile. For you to be that responsive to our local concerns reflects someone with a good heart who truly wants to serve their customers. I can honestly say that I have never received such a high

> level of service from the FAA. I would be honored to share that with your supervisor if you want to provide me with the contact information. Again, thank you so much. I hope that at some point in the near future, this action assists us in providing a longer and safer runway for the aviation community. Have a great day! (Kulhanek, 2008.)

Ms. Walter responded early the next morning with a note of thanks and the e-mail address of her supervisor, John Weizenbach, to whom Mr. Kulhanek wrote on the following day:

> Mr. Weizenbach, I wanted to send you a short email to inform you of the excellent customer service I recently received from a member of your staff, Cheri Walter. Ms. Walter was assigned the airway facilities review for the Ann Arbor (MI) Layout Plan update. Unfortunately, the ALP update had taken an extended period of time through MDOT staff. This delay was causing timing and political issues on our proposed runway extension project. I was able to explain this to Ms. Walter whose response was remarkable. She located our plan and completed the review in a very timely manner. This quick turnaround from the FAA will greatly aid the success of our proposed project. Ms. Walter was pleasant, accommodating and very open to our local concerns. As a customer of the FAA, I could not have asked for better service. You should be very proud to have someone like Ms. Walter on your staff and representing the FAA in such a positive way. Have a great day. (Kulhanek, 2008.)

Not surprisingly, the FAA approved the Ann Arbor ALP on June 23, 2008 – just 19 days after the review was begun, less than 1/20th the time the state review took, and after the e-mail exchange of praise between the Ann Arbor Airport manager and the FAA reviewer. And, still, Pittsfield had not been officially notified about the expansion proposal.

On August 22, 2008, Ann Arbor first officially provided Pittsfield plans and notification of the proposed ARB expansion and detailed proposed changes in the ALP. These documents were required to be provided more than 18 months earlier under both the January 2007 Ann Arbor City Council Resolution mentioned hereinabove and under a separate 1979 Policy Statement referenced by the Ann Arbor official authoring the letter. It is noteworthy, that this first notification from Ann Arbor to Pittsfield is dated 59 days after the FAA approved the revised Ann Arbor Airport ALP. Under 49 USC 46110, routine federal court appeals are barred after 60 days. Thus, Pittsfield was effectively barred from legally objecting to the Ann Arbor ALP before even being notified by Ann Arbor about its revised ALP.

Pittsfield responded to Ann Arbor's August notice, objecting to the proposed expansion, citing the (1) increased noise that would be generated, (2) larger aircraft that would be attracted, and (3) and greater use by heavier aircraft that could result. Pittsfield subsequently unanimously Resolved (March 24, 2009) to oppose any expansion of the Ann Arbor Municipal Airport. Lodi Township subsequently passed a similar Resolution.

The Ann Arbor City Council approved the revised Ann Arbor ALP on September 22, 2008, without considering Pittsfield's objections, or those of Lodi Township.

Subsequently, in Spring 2009, a Citizens Advisory Committee (CAC) was appointed to advise the preparers of the Environmental Assessment submitted by Ann Arbor. The CAC was initially comprised of:

- The Ann Arbor Airport manager.
- The chairman of Ann Arbor's Airport Advisory Committee.
- An Ann Arbor 4th Ward resident, who is also a member of the Airport Advisory Committee.
- An Ann Arbor 3rd Ward resident, who is also a flight instructor at the airport.
- Another pilot based at the airport, who is also chief pilot of Avfuel, which operates the Cessna Citation 560 Excel based at the airport, which stands to be the single greatest beneficiary from the runway extension.
- Another airport flight instructor, who is also a member of the airport-based FAA Safety Team.
- A citizen member from Ann Arbor's 5th Ward.
- A representative from Ann Arbor's 2nd Ward, who is also a member of the Ann Arbor City Council.
- A representative of the Washtenaw Audubon Society, which conducted a previous study that found no Canada geese among 38 other species on the airport.
- Lodi Township Supervisor Jan Godek.
- Pittsfield Township Deputy Supervisor Barbara Fuller.

It was only after extensive political pressure that two additional outside members were added to the CAC:

- Shlomo Castell, a commercial passenger airline pilot from the Stonebridge Community Association in Pittsfield Township, and
- Kristin Judge, Washtenaw County Commissioner from District 7, which includes Pittsfield.

Even so, for an airport located in Pittsfield Township that most dramatically impacts Pittsfield and Lodi Townships and Ward 4 of Ann Arbor, the CAC was dominated by Ann Arbor and airport members who stood to benefit from the expansion and the CAC was under-represented by those immediately outside the airport perimeter whose safety could be placed at greater risk by any expansion. The Environmental Assessment never addressed nor studied the safety implications of any such expansion.

Throughout the process, the only opportunity for any public discussion -- with elected public officials present -- about the proposed expansion plan was before the Ann Arbor City Council, where speakers must call-in to register in advance. Only the first ten callers on the day of Council meetings are permitted to speak. Speakers are limited to three minutes. Such a process typically has a stifling effect on open and candid discussions for subjects as complex as an airport ALP and runway expansion proposal.

To satisfy the federal "Public Hearing" requirement, MDOT and Ann Arbor devised an equally stifling process. On March 31, 2010, a three-hour "open house" was held during the dinner hour period between 4-7 pm, during which individuals could assemble and provide public comments in response to the Environmental Assessment. Local media announcements of the event (AnnArbor.com) encouraged citizens to send Environmental Assessment comment letters directly to the Airport Manager, rather than MDOT, until Respondents intervened and requested that MDOT correct the process to restore a semblance of fairness. At the session itself, there was no dias of public officials impaneled. There were no open, public statements with the media present. All testimony was given in private rooms to court reporters, to be forwarded to MDOT for later evaluation and, presumably, incorporation into some finalized Environmental Assessment.

That citizens, not public officials, needed to police the process was the ultimate insult to ensure any semblance of fairness and equity. By this public hearing process being so restricted, members of the public were effectively deprived of their due process rights under the 14th Amendment of the U.S. Constitution to ever have an opportunity to speak in an open and fair forum in a reasonable amount of time in opposition to the airport expansion before a public body. That is because, if the expansion proposal goes forward, the Ann Arbor City Council generally restricts all outside speakers to three minutes, which is hardly an adequate time to offer an organized and coherent argument against such a complex proposition as an airport expansion, whereas – at the same time – city officials and their surrogates are afforded unlimited time to speak to the City Council to advocate in favor of the runway expansion, in clear violation to due process protections. Thus, by closing off the fairness and balance intended by this only federally-mandated forum, related to EA comments, stifled the only open public commentary and dissent regarding the airport, in violation of the law.

IX. CONCLUSION.

Given the Project's many potential significant environmental impacts that have not been identified or fully analyzed in the EA, the substantial potential risks to human and environmental life living in the vicinity of the airport that have not been properly studied and are placed at risk

by the proposed expansion, it should be rejected. At minimum, a full Environmental Impact Statement (EIS) is required prior to approval and implementation of the Project. "No matter how thorough, an EA can never substitute for preparation of an EIS, if the proposed action could significantly affect the environment." *Anderson v. Evans*, 371 F.3d 475, 494 (9th Cir. 2004).

Sincerely,

Andrew R. McGill, Ph.D.

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Williams Aviation Consultants, Inc. was retained by the law firm of Chevalier, Allen & Lichman, LLP to review and comment on Chapters 1 and 2, and Appendices A and B of the DRAFT Ann Arbor Municipal Airport Environmental Assessment (DEA), February, 2010. The following are our comments on the DEA.

A. Accommodating the Critical Aircraft at Ann Arbor Municipal Airport (ARB)

As stated in paragraph 2.2.7, "*The proposed shift and extension of primary Runway 6/24 at ARB would provide a runway configuration that more effectively accommodates the critical aircraft that presently use the facility.* (Emphasis added)

In particular, the proposed project would provide the following benefits:

- *Enhance business aviation and interstate commerce by providing sufficient runway length to allow the majority of category B-II Small critical aircraft that currently use ARB to operate without load restrictions (i.e. reduction in passengers, cargo, and fuel associated with aircraft range).* (Emphasis added)

According to paragraph 2.2, Purpose and Need, "The purpose of the proposed improvements at ARB is to provide facilities that more effectively and efficiently *accommodate the critical aircraft* that presently use the airport, as well as to enhance the operational safety of the airport. (Emphasis added)

The critical aircraft is defined by the FAA as the most demanding aircraft-type that performs a minimum of 500 annual operations at a particular airport. In cases where the critical aircraft weigh less than 60,000 lbs, a classification of aircraft is used rather than a specific individual aircraft model. A recent Airport User Survey has confirmed that the critical aircraft classification for ARB is "*B-II Small Aircraft.*" (Emphasis added)

Also stated under "Purpose and Need" "*Development of the primary runway at ARB to the recommended length of 4,300-feet would allow the majority of B-II Small classification aircraft to operate at their optimum capabilities (without weight restrictions).* (Emphasis added)

WAC Comment: There are no aircraft in the B-II Small aircraft classification that require a runway length of 4,300 feet to conduct normal operations. All B-II Small Aircraft are capable of operating out of the current runway (3,505 feet long) without the need to reduce weight by off-loading passengers, baggage or fuel.

Regarding the establishment of the critical aircraft, ARB lacks the required number of 500 annual operations by B-II Small Aircraft, so they have added larger aircraft such as B-II Large, Category C-I and C-II operations to meet the 500 classification requirement. It is the Category C-I and C-II aircraft which would benefit by the runway extension to 4,300 feet, not

those aircraft that fall within the definition of Category B-II Small Aircraft. The current runway length of 3,500 feet is sufficient to handle all Category B-II Small Aircraft.

B. Lengthening Runway 6/24 to 4,300 Feet: The Impact on Aircraft Load Restrictions and Fleet Mix

The "load restrictions" referenced above in paragraph 2.2.7 refer to the fact that the higher category aircraft (primarily jets in the C-I and C-II categories) must currently operate at reduced weights in order to operate out of the current 3,500 foot runway (required takeoff length is the primary restrictor). Operationally, weight is reduced by carrying fewer passengers, less baggage and/or less fuel; all of which discourage these aircraft from conducting operations out of ARB.

For example: A Cessna Citation II (Category B-II) requires 2,990 feet for takeoff at maximum certificated gross weight on a standard day and may therefore operate unrestricted as to weight from the current 3,500 foot runway. A Lear 35 (Category C-I) requires 5,000 feet for takeoff at maximum certificated gross weight on the same standard day.

The Category B-II Citation II can conduct unrestricted operations from the current 3,500 foot runway. Whereas extending the runway to 4,300 feet would not facilitate unrestricted operations by the Category C–I, Lear 35, the required weight reduction would be less than is currently required. In this way, the runway extension to 4,300 feet would operationally benefit the Category C-I Lear 35, but would provide no operational benefit to the Category B-II Small Citation jet, or any other Category B-II Small aircraft.

All Category B-II Small aircraft, i.e. the ARB critical design aircraft, are currently accommodated on the existing 3,500 foot runway. Contrary to what is stated in the DEA, lengthening the runway to 4,300 feet WOULD NOT "provide a runway configuration that more effectively accommodates the critical aircraft that presently use the facility."

If the runway is lengthened to 4,300 feet, other jets such as the Lear 25 (Category C-I), Cessna Citation III (Category C-II) and Cessna Citation Sovereign (Category C-II) may be able to operate out of ARB with minor reductions in takeoff weight. This will impact the community as it could reasonably be expected that the longer runway will attract more of the larger, higher performance jet aircraft to the airport.

These added high performance jet aircraft operations will be accompanied by noise and air quality impacts. Many of these operations will take place at night, thereby negatively affecting the general quiet of the surrounding community.

C. Shifting Runway 6/24 150 Feet to the West While Maintaining the Current Runway Length of 3,500 Feet: The Impact on Load Restrictions, Future Fleet Mix and Safety of Operations

Load Restrictions

Maintaining the current runway length of 3,500 feet would mean that the Category C-1 and C-II aircraft would continue to suffer significant load restrictions. These load restrictions would thereby continue to serve as a deterrent to these aircraft operating out of ARB.

Future Fleet Mix

Maintaining the current runway length would serve to maintain the current fleet mix. Category B-II Small jet aircraft include lower powered models such as the smaller versions of the Cessna Citation (Category B-I/II) and the Mitsubishi Diamond jet (Category B-I). Higher powered jet aircraft such as the Lear 25 (Category C-I), Lear 35 (Category C-I), IAI Astra (Category C-I) and Cessna Citation III (Category C-II) may be generally discouraged from flying into Ann Arbor and would generally, with few exceptions choose to land at Detroit and drive the 40 miles to Ann Arbor.

Safety of Operations

2.2.1 Safety Enhancements:

In the first paragraph, the consultant is correct in stating that shifting the Runway 24 threshold 150 feet west would enhance safety by effectively removing the current obstruction to line-of-site vision (hangar) of the parallel taxiway for ATCT personnel.

However, in the next paragraph the consultant states, "The proposed shift of the Runway 24 threshold would also allow for a clear 34:1 approach surface to the east end of the runway (the current approach surface is the steeper 20:1). By keeping obstructions below the flatter 34:1 approach surface, an additional margin of safety is provided between approaching aircraft and any ground-based obstacles."

This statement betrays a lack of understanding by the consultant of Instrument Approach Procedure (IAP) design and TERPS Obstruction Standards. Regarding the 20:1 and the 34:1 surfaces; it is not either/or, but both/and. Both the 20:1 and the 34:1 surfaces exist simultaneously for every published IAP and are defined as "Obstacle Identification Surfaces" which do not establish obstacle clearance safety margins but rather only define instrument approach visibility minimums. The FAA does not require either of these two surfaces to be free of penetration by obstacles, and thus "providing an additional margin of safety" as stated by the consultant does not apply in the case of these two surfaces.

Other TERPS surfaces (Obstacle Clearance Surfaces) are established which do ensure clearance from obstructions and the FAA requires that these Obstacle Clearance Surfaces be clear of structures and terrain. The current IAPs to Runway 24 were designed by the

FAA to accommodate all existing obstructions. In this respect, shifting the runway 150' to the west would not enhance safety.

Summary: Assuming that the consultant is correct in their assertion that shifting the threshold would eliminate obstruction penetrations to the existing 34:1 Obstacle Identification Surface, the effect would not be a safety improvement but would only result in a reduction in the required approach visibility minimums.

D. Appendix B Noise Analysis Report
B-1 Noise Impact Analysis
B.1.3 Data
Flight Operations

The consultant states "INM-modeled annual operations for the 2009 existing condition, consisting of operations from April 2008 through March 2009, totaled 61,969 operations, which is approximately 169 daily operations. Jet operations accounted for approximately 2 percent of the total operations. Nighttime operations accounted for 4.2 percent of the total operations."

2014 future condition aircraft operations were obtained from the 2008 FAA TAF for ARB. Modeled annual operations for the 2014 condition totaled 69,717 operations, or approximately 191 daily operations. *It is assumed that the percent of night and jet operations will remain constant between the existing condition and the future years. In addition, it is also assumed that the fleet mix between the 2009 Existing Condition and the 2014 Future Alternatives will remain static.* The existing and future fleet mix with annual operations is shown in Table B-2." (Emphasis added)

The consultant wrongly assumes that the percent of night and jet operations will remain constant, and that the fleet mix will remain static if Runway 6/24 is lengthened to 4,300 feet.

The longer runway will make ARB much more attractive to larger and higher performance jet aircraft as the added runway length will facilitate the loading of additional passengers and baggage on to these aircraft. Also, being able to carry additional fuel may mean that, in certain cases, costly and time consuming intermediate fuel stops will become unnecessary. As ARB becomes more attractive to higher performance jet aircraft, these larger aircraft may then consider operations to/from ARB in lieu of landing at Detroit and driving to Ann Arbor.

As more high performance jet aircraft begin operations at ARB, the fleet mix will change in favor of a higher percentage of jet operations as compared to the current level of light single and multiengine propeller driven aircraft operations. The smaller Category A-I/II and B-I aircraft currently reflect a high percentage of ARB operations. B-II Small aircraft (the critical design aircraft) reflect a low percentage of ARB operations. Recall that Category B-II Large and Category C aircraft had to be added to the currently operating Category B-II Small aircraft design group in order to meet the 500 operation requirement for establishing the critical aircraft and thereby justify the runway extension.

The number of night operations also has the strong potential to increase as the number of arrivals of the larger, longer haul business jets often occur in the evening hours due to the longer time duration of their trips. This will also affect the fleet mix of night operations to reflect a higher percentage of jet operations than exist under current conditions.

EXHIBIT 1

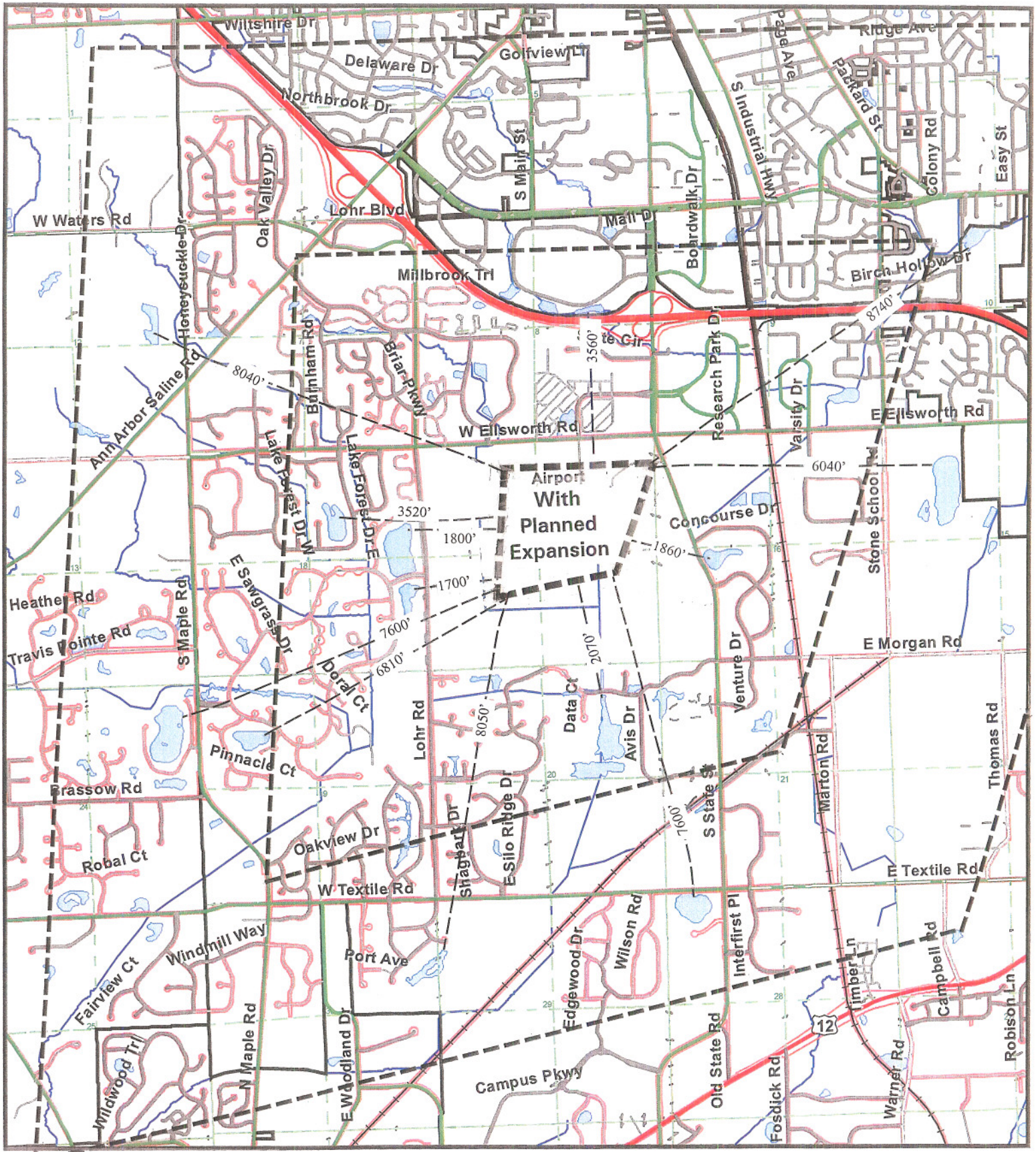
Table 1

Analysis of MDOT-AERO Origin-Destination Data

Analysis of MDOT-AERO Origin / Destination Analysis of IFR Operations

State	B-II Large	B-II Small
Illinois	5	64
Indiana	1	21
Michigan	20	162
Ohio	13	38
Wisconsin	4	9
Great Lakes Region Total	**43**	**294**
D.C.	2	1
Kentucky	0	13
Maryland	7	3
Pennsylvania	4	23
W. Virginia	0	7
Added Flights Within 450-Mile Radius of ARB	**13**	**47**
Total Flights Within 450-Mile Radius of ARB	**56**	**341**
% B-II Operations Within 450-Mile Radius of ARB	66%	81%

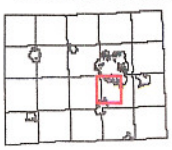
EXHIBIT 2



April 2010

GIS Map Print

Location Map



N

0 2,400 4,800

Feet

1 inch = 3,000 feet

WASHTENAW COUNTY MICHIGAN 1826

Geographic Information System

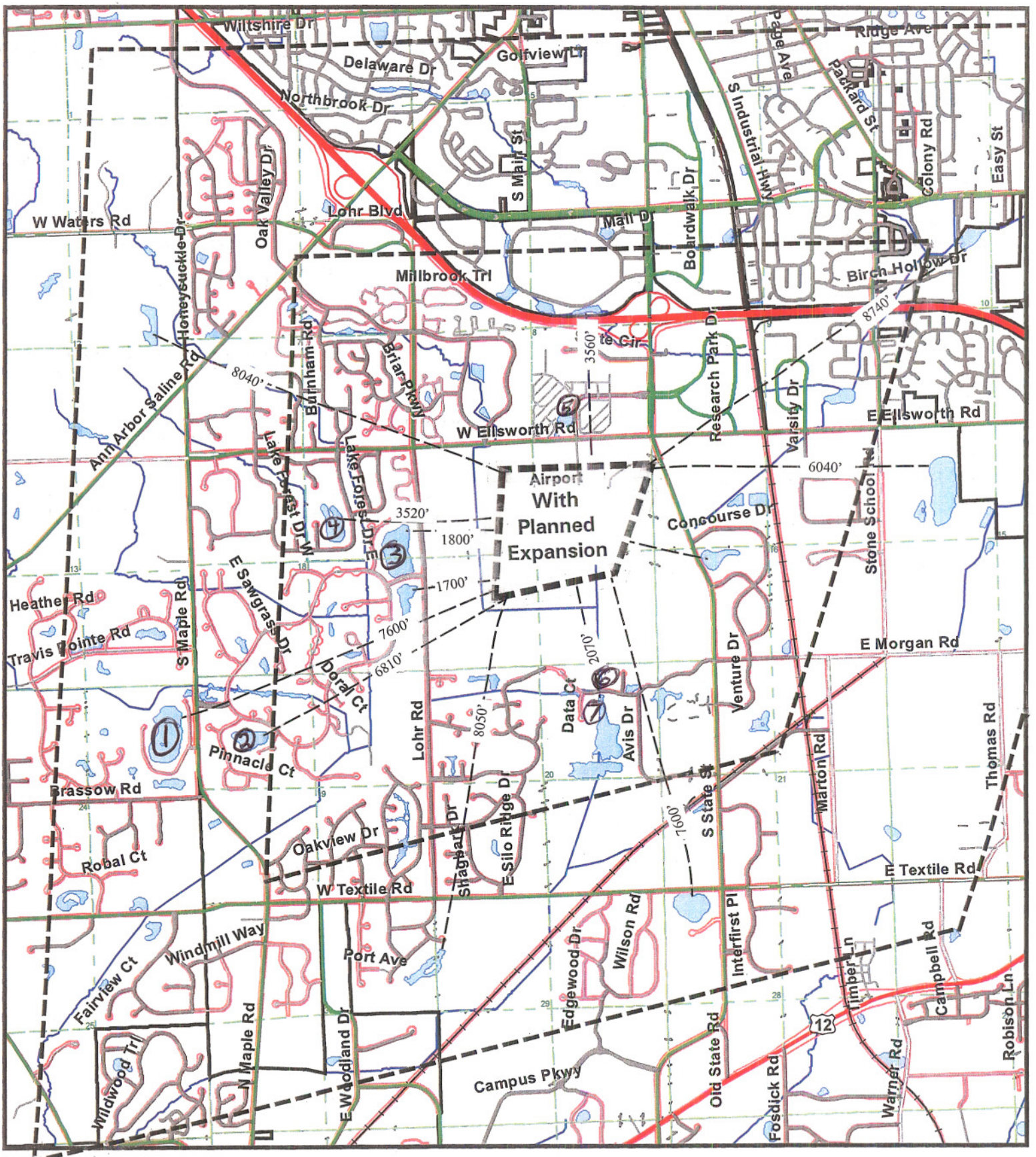
The information contained in this cadastral map is used to locate, identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey description". The information is provided with the understanding that the conclusions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.

NOTE: PARCELS MAY NOT BE TO SCALE

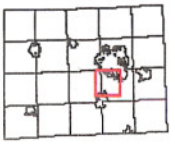
Date Printed: 04/01/2010

Committee for Preserving Community Quality

EXHIBIT 3



Location Map



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GIS Map Print

Date Printed: 04/01/2010

StopA2RunwayExtension.com

April 2010

(1)

(2)

(W)

4

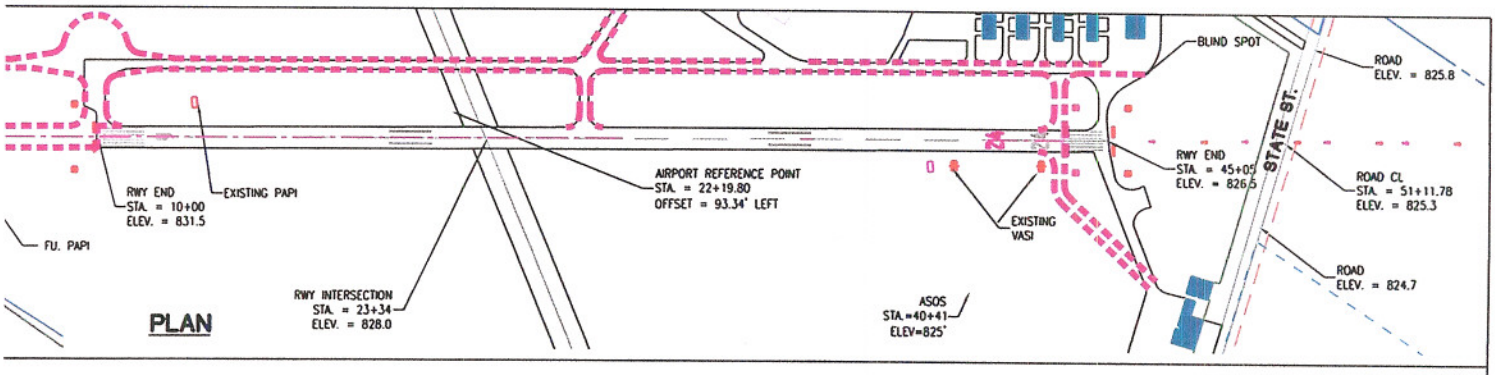
5

EXHIBIT 4

STOP
WARNING
GOOSE
CROSSING

EXHIBIT 5

APPROACH AND DEPARTURE



APPROACHES

APPROACH SLOPE FOR ALL AIRCRAFT WOULD BE AT 3° ALONG THE PRECISION APPROACH PATH INDICATOR (PAPI).

APPROACH CLEARANCE (LOHR RD.)
166' EXISTING
117' PROPOSED EXTENSION

DEPARTURES

DEPARTURE SLOPES ARE SHOWN FOR 3 AIRCRAFT TYPES FOR THE 839' AIRPORT ELEVATION AT 83°F. CROSSING HEIGHTS SHOWN FOR CL OF RUNWAY OVER LOHR RD.

CESSNA 172 – AI SMALL AIRCRAFT
MAX. GROSS LOAD: 2,300 LBS
CLIMB RATE: 700 FT. PER MINUTE
CLIMB AIRSPEED: 73 KNOTS
CLIMB ANGLE: 5.4°
GROUND ROLL: 850 FT.
DEPARTURE CLEARANCE (LOHR RD.)
255' EXISTING
248' PROPOSED EXTENSION

KING AIR 200 – BII SMALL AIRCRAFT
MAX. GROSS LOAD: 12,5000 LBS
CLIMB RATE: 2,400 FT. PER MINUTE
CLIMB AIRSPEED: 125 KNOTS
CLIMB ANGLE: 10°
GROUND ROLL: 2200 FT.
DEPARTURE CLEARANCE (LOHR RD.)
358' EXISTING
345' PROPOSED EXTENSION

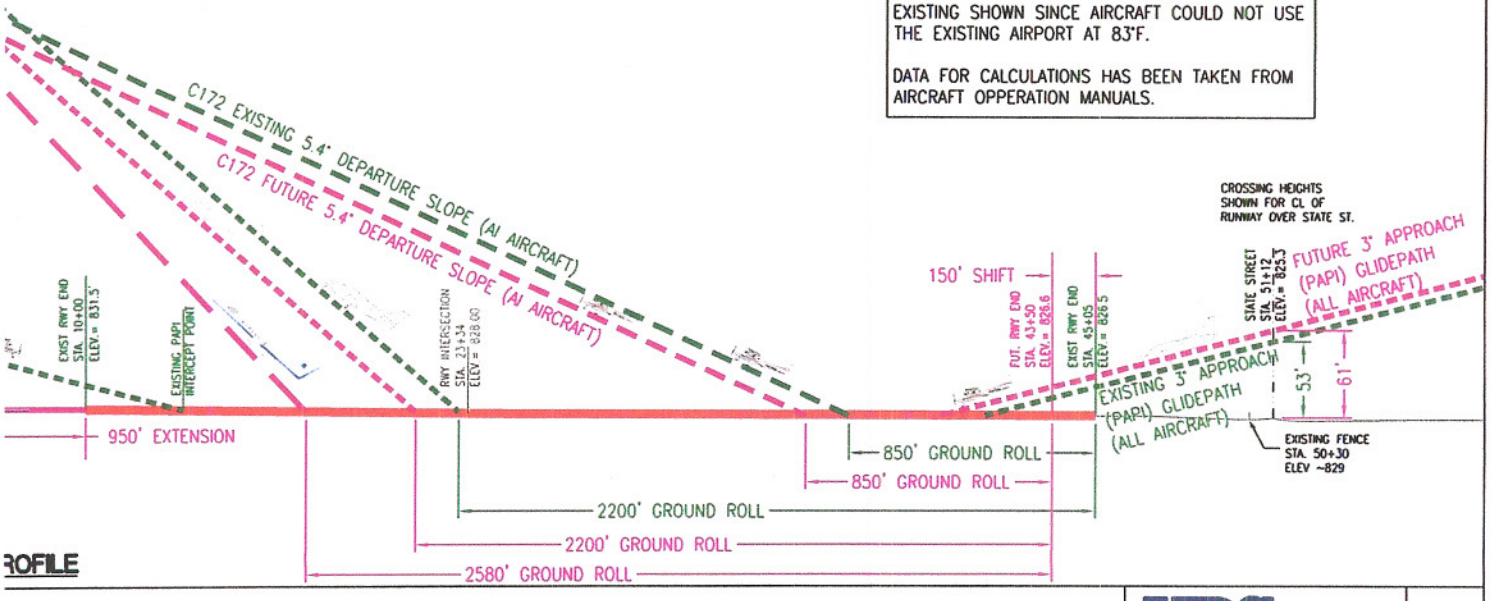
HAWKER 700A – CI LARGE AIRCRAFT
MAX. GROSS LOAD: 24,800 LBS*
CLIMB RATE: 3,000 FT. PER MINUTE
CLIMB AIRSPEED: 135 KNOTS
CLIMB ANGLE: 12°
GROUND ROLL: 2850 FT.
DEPARTURE CLEARANCE (LOHR RD.)
376' PROPOSED EXTENSION

* FOR FUTURE RUNWAY LENGTH AIRCRAFT COULD ONLY USE AIRPORT AT 60% LOAD AT 83°F. NO EXISTING SHOWN SINCE AIRCRAFT COULD NOT USE THE EXISTING AIRPORT AT 83°F.

DATA FOR CALCULATIONS HAS BEEN TAKEN FROM AIRCRAFT OPPERATION MANUALS.

TYPICAL CLIMB PERFORMANCE BY AIRCRAFT TYPE

AIRCRAFT TYPE	TYPICAL CLIMB ANGLE	TYPICAL CLIMB RATES
SINGLE ENGINE PISTON	4°–7°	500–1,000 FT/MIN
TWIN ENGINE PISTON	7°–9°	1,00–1,500 FT/MIN
TWIN ENGINE TURBOPROP	10°–11°	2,000–2,500 FT/MIN
JET	12°–16°	3,000–4,000 FT/MIN



ROFILE

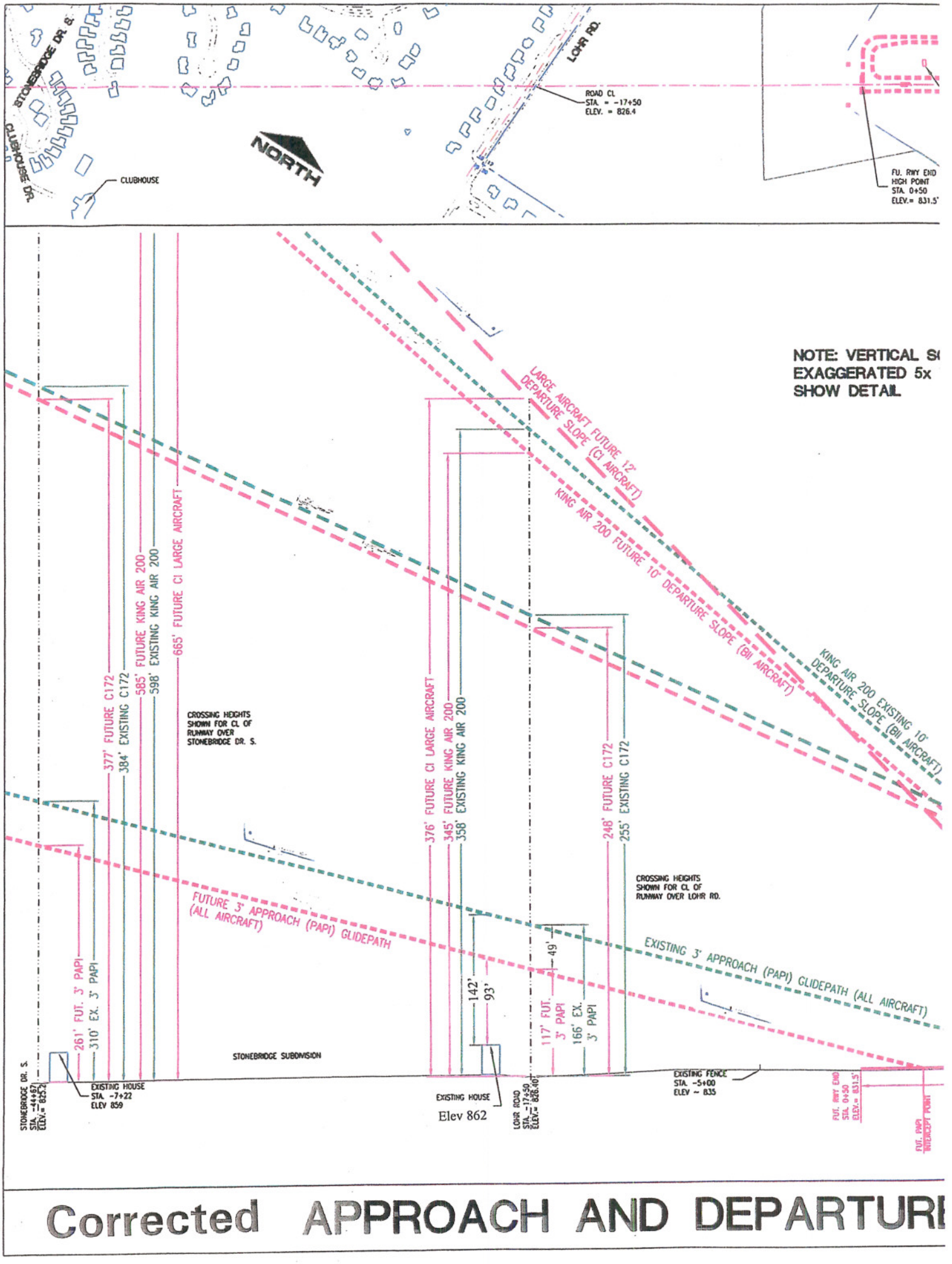
CLEARANCES

URS GRAND RAPIDS, MI., 3950 SPARKS DR. S.E. 616 574-6500

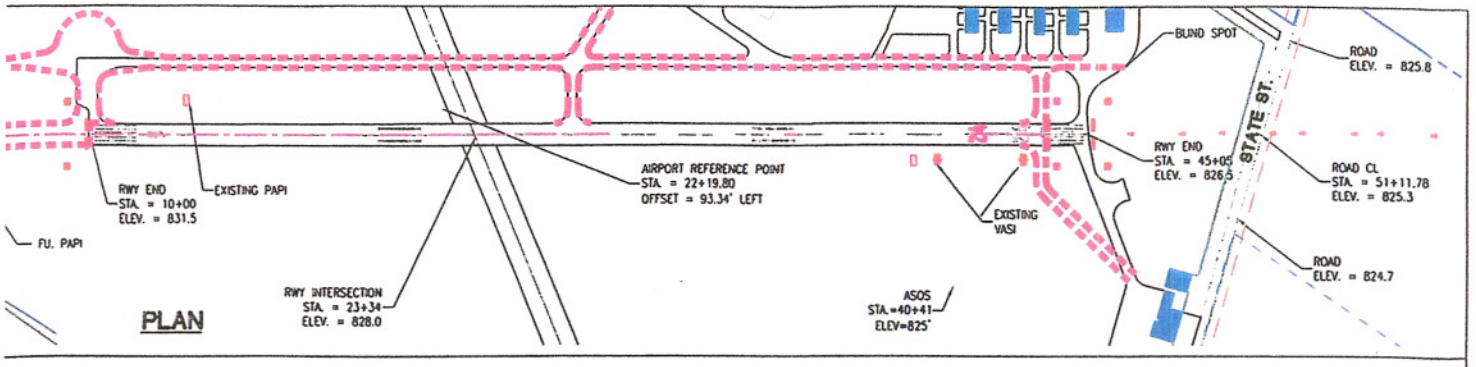
PROJECT NO. 12940723

ANN ARBOR MUNICIPAL AIRPORT

EXHIBIT 6



Corrected APPROACH AND DEPARTURE



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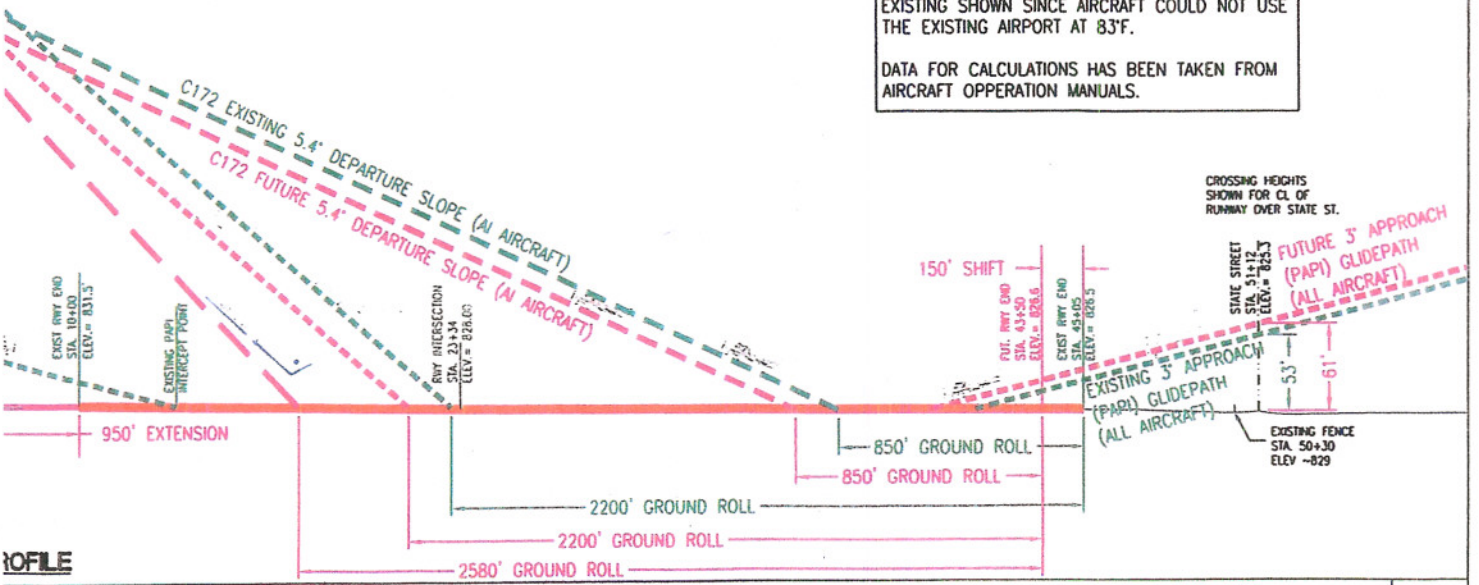

ROFILE

CLEARANCES

Base Map by: URS GRAND RAPIDS, MI., 3950 SPARKS DR. S.E. 616 574-3600

PROJECT NO. 12040733

ANN ARBOR MUNICIPAL AIRPORT

April 2010

Committee for Preserving Community Quality

EXHIBIT 7

Exhibit 7

Aircraft Emergency Landing: Stonebridge Golf Course – June 2009