

050902\_01 11944@aol.com  
 09/02/2005 02:39 PM To: 9-AGL-600-OMPEIS/AGL/FAA@FAA  
 cc: Subject: O'Hare Expansion

Don't pander me by playing games that you really haven't already made your decision regarding airport expansion. From what I've seen you are either incompetent in your analysis or on the "fix". No one could honestly and objectively review the increase in flights and where the runways will be aimed and determine that the noise, air, and hazard, and other environmental pollution to nearby residents is nonimal and acceptable. So which is it FAA, incompetence or crookedness? Or maybe apathy, since we're only "little people" not well connected! As I say don't pander me and give me false hope, do your phony analysis and sleep well!

CF Drake Bensenville

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Comment	Response
1	<p>The commenter's opinion is noted. FAA appreciates all the public comments and encourages public participation in the Environmental Impact Statement (EIS) process. The FAA takes seriously its responsibility to consider all comments on the Draft EIS. This responsibility includes careful consideration of the comments, whether submitted as recorded testimony, letters, postcards, voice messages, emails, and faxes.</p> <p>In response to commenters' expressed concerns that the FAA not "rubber stamp" the project, the FAA would never compromise the integrity of its review or decision-making process to "rubber stamp" any proposal. The FAA's careful and thorough decision-making process has been publicly documented and disseminated.</p> <p>Chapter 5 of the EIS discloses the potential environmental impacts resulting from the alternatives considered. Some of the sections that may be of particular interest to the commenters include: 1) Section 5.1, Noise, 2) Section 5.4, Social Impacts, and 3)Section 5.6, Air Quality.</p>

050903\_01



JMcGov603@aol.com  
09/03/2005 10:05 AM

To: 9-AGL-600-OMPEIS/AGL/FAA@FAA  
cc:  
bcc:  
Subject: O'Hare

I think it is ridiculous to even think of expanding O'Hare airport! The airlines are in serious financial straits. The air traffic controllers are already overtaxed. The expansion would disrupt existing businesses and displace families. There is a perfectly good airport in Gary that could benefit from increased use and that would better serve the people of Indiana and southeastern Chicago, maybe even downtown once the highway construction is completed. The idea of a few politicians who can't see past the end of their pocketbooks and should not be approved. Diane McGovern

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Comment	Response
1	<p>The FAA notes the commenter's opposition to the project. In addition, the FAA did evaluate the project's financial feasibility as well as the effect of the loss of a hubbing carrier at O'Hare, see Section 1.7 and Appendix R of the Final Environmental Impact Statement (Final EIS). FAA also documented and disclosed the impacts due to land acquisition of both homes and businesses in Section 5.4. Finally, the FAA also evaluated the use of other airports, including Gary/Chicago International Airport, as an alternative to O'Hare improvements, however, this alternative did not meet the purposed and need, see Chapter 3.</p> <p>Regarding air traffic controller workload, the FAA would not operate any alternative in such a way that safety would be impaired. Safety has been a key consideration in the development of all the alternatives and in defining how they would be operated. FAA is actively reviewing potential staffing needs and will budget for them accordingly.</p>

050905\_01

05 SEPTEMBER 2005

MR. MICHAEL MACMULLON  
 FAA GREAT LAKES REGION  
 2300 E. DEVON AVE.  
 DES PLAINES IL 60018

Rec'd 09/14/05  
 3:15 PM

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Initial examination of the CHICAGO O'HARE INTERNATIONAL AIRPORT final ENVIRONMENTAL IMPACT STATEMENT (EIS) and additional documentation finds it to be incomplete with some statements open to question. It should be further noted that the full EIS documentation (of some 35 CDs) was not distributed to any library (e.g. FRANKLIN PARK) in the southeast quadrant (relative to O'Hare). Additionally, no one could have foreseen the magnitude of distraction (and destruction) that hurricane KATRINA would create. I am therefore requesting that the deadline on this final EIS be extended for a reasonable period of not less than ten days. This documentation deserves full consideration due to its thoroughness and importance to the GREAT LAKES REGION.

An example of this EIS documentation needing further clarification is TABLE R-2 (on page R-3 of ALTERNATE CONSIDERATIONS) where the Airbus "A320" aircraft are included in the same AIR CARRIER category as the Boeing "B747". The A320 (like Boeing's 737 used by SOUTHWEST AIRLINES) can takeoff from all the runways in Chicago's O'Hare plan (and from both MIDWAY runways) at a rate of up to 3 per 2-minute interval. The B747 requires significantly longer runways for takeoff eliminating at least 3 of the shortest runways; its takeoff rate is 1 per 2-minute interval. Since the effectiveness of any airport plan is determined in part by a breakdown of the fleet mix and the passenger capacity of each aircraft, this becomes required information for plan analysis to be complete.

CONFIDENTIAL

Comment	Response
1	The FAA respectfully disagrees with the commenter's opinion of the completeness of the Environmental Impact Statement (EIS) analysis.
2	The FAA widely distributed the Draft and Final EIS to 33 local libraries, including Franklin Park and Elmhurst. In addition, the FAA posted both the Draft EIS, Final EIS and reference documentation to the world wide web site, <a href="http://www.agl.faa.gov/OMP/">http://www.agl.faa.gov/OMP/</a> . Finally, the FAA notes that the "full documentation" referred to by the commenter was distributed to five local libraries including Bensenville's location.
3	The FAA sent a letter to Mr. Blomberg on September 15, 2005 stating, "we must respectfully deny your request for an Final EIS comment period extension."
4	The FAA recognizes the importance of fleet mix assumptions in the evaluation of an airport improvement such as the one contemplated within the EIS. In fact, the FAA presents the detailed fleet mix assumptions in Appendix B of the EIS. The FAA also acknowledges the differences between aircraft such as the Airbus A320 and Boeing 747 in terms of operational performance and airfield requirements. The simulation modeling, documented in Appendix D of the EIS, conducted for the environmental analysis carefully considers the dynamic fleet mix employed by the users at O'Hare and accounts for the associated variable airfield requirements. Table R-2 referred to by the commenter is simply presenting an FAA definition of "air carrier" aircraft that generally includes aircraft that have more than 60 seats.

-2-

Also, to date, no documentation has been found to support the relatively large distances between the outer east-west runways (27R/9L and 28L/10R) and the nearest parallel runways. (The parallel runway sets closest to the terminal area are 1600 and 1200 feet apart, similar to Atlanta's spacing of 1000 and 1060 feet.) It would seem reasonable to prefer to eliminate airport hangars and parking spaces instead of suburban businesses and residential areas. (Elimination of diagonal runway 32L/4R would permit this for new runway 27R/9L.)

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As I previously stated earlier this year (in written comments relative to the O'Hare plan), I am willing to meet with local FAA representatives regarding this project. As an original board member and technical advisor to the O'Hare Area Noise Abatement Council - headed up by the late GEORGE FRANKS - I am dedicated to doing it right. Otherwise I would not have supported additional east-west runways for a more efficient and safer airport.

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*Richard C. Blomrose*  
 RICHARD C. BLOMROSE  
 P.O. BOX 292  
 BIRMINGHAM FL 32616

Comment	Response
5	The Airport Layout Plan and supporting documentation within the <i>Master Plan</i> document that the proposed runway lateral separation distances comply with applicable FAA design criteria to ensure safe operations. Current FAA directives (FAA Order 7110.65 and supplements) include provisions for operations on runways with the proposed spacing, and these were utilized in developing the planned operation. The procedures developed are fully compliant with these directives and are effectively utilized today at O'Hare. The spacing between runways depends on a number of factors, most importantly the intended use of the runway in the airfield. For example, the 4300 foot distance between proposed Runway 10R-28L and Runway 10L-28R allows simultaneous dual precision approaches. In other words, if the runways were closer together and the airfield was operating in adverse weather conditions requiring instrument flight rules, the two runways could not accommodate concurrent landings on the runways, in effect closing one of the runways.
6	Comment noted.

050906\_01



**Chicago Air Cargo Managers Association**  
 P.O. Box 66228  
 O'Hare International Airport  
 Chicago, IL 60666

06 September 2005

Federal Aviation Administration  
 Attn: Mr. Michael MacMullen,  
 Airports Environmental Program Manager  
 Chicago Airports District Office  
 2300 Devon Avenue  
 Des Plaines, IL 60018

Dear Mr. MacMullen,

We are submitting this correspondence as a formal submission within the public comment period on the FAA's Final EIS for O'Hare International Airport. Our comments and concerns will be directed at the Alternatives Section of the EIS. Specifically, the air cargo community at O'Hare has serious concerns about the FAA's recent decision to preserve the Rest Haven Cemetery within the footprint of the proposed O'Hare Modernization Plan, Alternative C. Preservation of this cemetery, as opposed to relocation, raises serious safety, security, operational and capacity issues for the new cargo areas being planned for the Southwest quadrant of the airport.

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As a bit of background, the cargo community has had ongoing contact with representatives of the OMP and Department of the Aviation over the last 18 months. Cargo organizations involved in these discussions include the Chicago Air Cargo Managers' Association (CACMA), the International Air Cargo Association of Chicago (IACAC) and the Customs Brokers and Foreign Freight Forwarders Association of Chicago. These organizations, taken as a whole, represent virtually every major participant in the air cargo community in Chicago. Their members employ thousands of employees, move millions of tons of air cargo and are anxious to see O'Hare maintain its position as a viable and vibrant air cargo airport.

These informal discussions centered on the scope and design of cargo areas at O'Hare Airport. While new space is designated west of the existing South Cargo areas for new Cargo aircraft ramps and handling facilities, the majority of the new space seemed to be used for existing cargo facilities relocated by the construction of runway 10C/28C. Since the existing FedEx Metroplex and United Cargo facilities would be directly impacted by the new runway, they would be required to be 'made whole' by the OMP process and would therefore receive a significant portion of the space allotted for Cargo in the Airport Layout Plan.

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Most industry sources predict annual growth rates of 5% for the international air cargo industry over the next 10-12 years. The question posed most often by the cargo community during these discussions: Where would this growth be handled on the new O'Hare airport?

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Comment	Response
1	Commenter's opinion is noted.
2	Comment noted.
3	In Section 4.3.1 of the Master Plan, the City of Chicago inventoried the existing cargo facilities and projected facility requirements based on cargo forecasts and interviews with the larger cargo carriers. The results of this study indicate that the Cargo would require an additional 55 acres which the City has identified on their Airport Layout Plan. In addition, the City of Chicago has indicated that a more detailed cargo area planning study will be conducted in later planning phases. The FAA would hope that the Chicago Area Cargo Managers Association would request to work with the City of Chicago through out their additional analyses.

We are pleased to report that these discussions with representatives of the OMP and Department of Aviation left most cargo organizations reassured that the 'new O'Hare' would devote sufficient resources to the cargo community. The O'Hare cargo community felt that the future growth needs (including parking/handling of cargo-only aircraft) would not be constrained by lack of resources under the OMP alternatives.

Incumbent in these discussions, however, was that the expanded South Cargo Area would be created without interruption by non-cargo parcels. The FAA's decision to leave Rest Haven Cemetery at its present location creates a cargo area design incompatible with safe and efficient cargo activities in that area. Many members of the cargo community has expressed serious concerns since this decision was made public in late July 2005.

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We would summarize these concerns into four main areas:

- I. Safety of cemetery visitors
- II. Security Perimeter
- III. Restriction of aircraft ground movement
- IV. Reduction of cargo capacity (economic losses)

We will outline each of these areas below. The remarks contained within the outline are based on the following scenario for the expanded South Cargo areas if the Rest Haven Cemetery is maintained at its present location:

1. The Rest Haven Cemetery would be surrounded on the north side by a taxi-way, on the east and west side by working cargo aircraft ramps and the south side by an access road used almost exclusively by air cargo trucking traffic.
2. The new South Cargo Ramp would be split in two. Each would have a single entrance/exit for use by aircraft. There would be no connection between the two new ramps. In essence, there would now be three non-contiguous aircraft ramps in South Cargo: the existing South Cargo ramp bounded on the west by a public road accessing the NW Cargo/Fed Ex Heavy buildings, a new ramp bounded by the same public road on the east and Rest Haven cemetery on the west, and a third cargo ramp bounded by the Rest Haven cemetery on the east and on the west by a taxi-way accessing the new 10R/28L runway.
3. Access to the cemetery would apparently be facilitated through a public access road which would run directly through an area planned for development of cargo handling facilities.

Using this scenario (and we see no other viable ramp designs given the central location of the Rest Haven Cemetery within the proposed cargo areas), we would like to address each area of concern in detail so that the impact of this decision is understood by all.

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- I. Safety of cemetery visitors – Aircraft ramps are shown by the Department of Labor to be one of the more dangerous workplaces in America. While many of these dangers are confined to the ramp area itself, certain of the hazards extend over the boundaries of the ramp by their very nature.

Comment	Response
4	The proposed design of the cargo area has been reviewed by the FAA and conforms to all safety requirements. As mentioned in response to comment 3 above, the City of Chicago has indicated that a more detailed cargo area planning study will be conducted in later planning phases. Actual layout of the cargo area including the exact placement of cargo building within the cargo apron will be determined during the period keeping in mind to design the facilities in the most efficient manner.
5	The FAA is confident that the final design of the cargo area will be accomplished in a manner that will preserve Rest Haven Cemetery while also permitting air cargo operations to be conducted efficiently.

- A. *Health hazards due to excessive noise from aircraft engines.* As noted in the scenario above, the Resthaven cemetery would be surrounded on 3 sides by working aircraft ramp areas. The decibel levels created by these ramp areas, at such close proximity to the cemetery, represent a hazard level to any cemetery visitors which exceeds those within OSHA guidelines. Ground crews and airline crews routinely wear hearing protection to mitigate this hazard. It seems unlikely that all visitors to the cemetery would be similarly protected. 6
  
- B. *Health hazards due to excessive jet blast.* Upon arrival and departure, the large jumbo jet cargo aircraft (747F, MD-11, etc) generated significant jet blast hazard as they maneuver in/out of their parking areas. These areas extend for hundreds of feet to rear of the aircraft and are well-documented within the airport safety regulations. Due to its small size and anticipated proximity to the cargo aircraft parking areas, the Resthaven cemetery would be within these blast areas from both adjacent cargo areas. If the cemetery remains in place in the final Airport Layout Plan, we recommend specification of blast fences on the east and west sides of the cemetery to mitigate this hazard. 7
  
- C. *Health Hazards due to Hazardous material incidents.* Cargo carried on cargo aircraft has always contained Hazardous Materials. Many of these materials (radioactive, infectious substances, flammable materials, explosives, etc.) are prohibited from passenger airplanes and must be carefully handled according to published regulations. Regrettably, such materials do occasionally spill and require evacuation of ramp/cargo buildings. Each cargo facility has well-planned evacuation plans for the safety of its employees during such an event. Any visitors to the cemetery would also be subject to such a hazard and outside the evacuation plans for each carrier. Safeguarding such visitors would fall to the airport authorities. We question whether the response to such an event would come in time to prevent the visitors from being exposed to such a spill. 8
  
- II. Security Perimeter** – Clearly, security at airports has become of our country’s top priorities in the post 9-11 area. Airport and TSA guidelines address, among many other points, access to airport ramps, cargo prepared to fly on flights (including passenger) and public vantage points within the airport footprint. We believe the retention of the cemetery raises several difficult points under this critical heading.
  - A. *Access to aircraft ramps.* The retained cemetery becomes a ‘public peninsula’ jutting out into the AOA perimeter of the cargo ramps. While we expect such an areas would be secured by the Department of Aviation with the normal AOA Perimeter fencing, etc., any such area where the public (with no business at the airport) can congregate so close to flight operations and fuel supplies is a concern. 9
  
  - B. *Cargo prepared to fly on flights (including passenger)* - This is a similar scenario to ‘A’ above. In this case, however, the threat is more indirect. Cargo is routinely staged on the secure AOA for departure on aircraft. Such a public area located so close to the prepared cargo presents a more difficult security problem than if the AOA has a uniform perimeter without interspersing public areas. 10
  
  - C. *Public vantage point within the airport footprint.* By definition, a cemetery area presumes green space, trees, gravestiesetc. Add to these characteristics our recommendation of jet blast fences to shield cemetery visitors from that aircraft hazard.... and the cemetery becomes a haven for those who wish to get as close as

Comment	Response
6	The FAA respectfully disagrees with the comment. The FAA’s land use compatibility guidelines use the noise metric of Day Night Noise Level (DNL). The baseline noise levels for Rest Haven cemetery are 65.6 DNL and would be 71.2 DNL with the FAA’s selected alternative. The FAA’s <i>Part 150 Land Use Compatibility Guidelines</i> for cemeteries is 85 DNL. Also, if determined necessary by the FAA, there may be blast fences to the north, east, and west of Rest Haven which could further reduce the effect of noise from ground movements of aircraft in the cargo area. In addition, there must be a minimum of 117 feet of distance from the aircraft movement area to either the security fence around the cemetery or the potential blast fences, which ever is closer to the aircraft movement area.
7	As noted in the response above, if determined necessary by the FAA, there may be blast fences to the north, east, and west of Rest Haven which could further reduce the effect of jet blast and noise from ground movements of aircraft in the cargo area. The blast fences would be a minimum of 8 feet high, with a potential maximum of 22 feet high.
8	The air carriers are responsible for the materials they carry, hazardous or not. The City of Chicago Fire Department is responsible for notifying neighboring public and private property owners if hazardous materials threaten the health and safety of individuals or property outside of the airport’s boundary.
9	The City of Chicago will install a security fence, meeting Transportation Security Administration (TSA) security requirements for airports, to surround the cemetery property. The FAA notes that the St. Johannes Cemetery is currently located on a “peninsula” within the AOA.
10	See response to comment 9 above.

possible to aircraft arriving/departing the airport. Such hidden proximity has obvious security consequences.

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III. **Restriction of AOA ground movement** - Using the scenario outlined earlier, the South Cargo area of O'Hare airport would be developed around three non-contiguous aircraft ramps -this configuration has operational impacts in several ways.

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A. *Restricted access to two cargo aircraft ramp areas* - Each new cargo ramp, separated by the Rest Haven cemetery, would now only have one way/one way out. This has implications for fuel burn for the aircraft (important to the airlines, perhaps not so important to the overall FAA criteria) but also has potential for a major operational incident. Many of the cargo airlines that function on the airport are working on extremely tight schedules. These schedules may be dictated by curfews at other airports, arrival schedules at domestic hubs, crew scheduling parameters, etc. By having only one way out of the ramps, any mechanical or ramp incident which blocks that egress effectively closes down ground traffic and traps planes within the ramp area. This scenario was not an issue under the previous ALP which showed two taxiways entering the new South Cargo ramp area.

B. *Interline transfer of freight* - The way of the airline world has become one of alliances and partnerships. A frequent outgrowth of these agreements is transfer of cargo from one carrier to another. Since each of the new cargo ramps might be 'isolated' from the other cargo ramp areas (only way out is by aircraft), such freight may have to be transferred the 300-400 yards via landside (truck) rather than rampside. This presents not only an economic burden on the airlines but also raises security issues as well.

IV. **Reduction of Cargo Capacity** - As mentioned at the outset, the cargo community has been quite concerned about the future resources devoted to handling of cargo on the 'new O'Hare'. These concerns are well founded; absent a firm plan for cargo handling at the old military ramp on the north side of the airport, the space allocated for new cargo areas seemed to be minimal when the relocation of operations affected by 10C/28R was taken into account. The retention of the Rest Haven cemetery further restricts the options for future cargo handling areas.

A. *Loss of Cargo Aircraft Parking spaces*- While it is difficult to estimate the exact number of parking spots lost to Rest Haven, one can easily foresee that two aircraft parking spots are no longer available due to the intrusion of the 'peninsula' into the new South Cargo areas. While two spots does not seem significant, if one assumes each spot would be used once daily by a 747F freighter/300 days per year with payload of 80 Tons in/80 tons out (all conservative assumptions):

- Loss of 48,000,000 kgs of export capacity/48,000,000 kgs of import capacity due to no place to park the aircraft.
- Assuming 100,000 kg/month/warehouse employee (a common logistics assumption) this means 80 airport warehouse jobs are not realized as well as further employment implications which are difficult to calculate (truckers, freight forwarders, custom brokers, etc.).
- Access to foreign markets (both import and export) reduced for Chicago area manufacturers, distributors and consumers.

Comment	Response
11	The trees currently surrounding Rest Haven Cemetery will be removed with the FAA's selected alternative. See also response to comment 9 above.
12	See response to comment 5 above.

- B. *Loss of Cargo Facility Development Area* – It is clear that some sort of public access road would have to be maintained to allow visitors to the cemetery to reach the grounds. Such a road would be placed, out of necessity, directly south of the cemetery grounds and connected to the main cargo road winding through the cargo area.
- I. One of the primary concerns of the O'Hare Cargo community is the current lack of on-airport facilities for cargo warehouses/handling. This dearth of facilities would be made worse by the annexation/destruction of several current industrial developments south and west of the current South Cargo area (i.e. ProLogis, etc.). Removing any real estate from prime on-airport, on-ramp locations (as would be the case with the retention of Rest Haven) only serves to exacerbate this shortage.

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When all aspects of this issue are taken into account, we believe it is self-evident that the long-term impact of retaining Rest Haven Cemetery in its current location on safety, security and commerce is significant and outweighs the regrettable short-term impact of moving the cemetery to a new location more appropriate for its long-term future.

We urgently request that the FAA approve re-locating the Rest Haven Cemetery as part of its Record of Decision.

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Please feel free to contact me if you have any further questions or comments on this submission. I can be reached at the CACMA mailing address contained within our letterhead, by E-mail at [CACMAcargo@sbcglobal.net](mailto:CACMAcargo@sbcglobal.net) or by telephone at 847/571-1971.

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Thank you in advance for your consideration.

Sincerely,

Daniel Gadow  
2005 CACMA Chairman

Comment	Response
12	See response to comment 5 above.
13	The FAA respectfully disagrees with the commenter's opinion. The FAA has evaluated the feasibility of retaining Rest Haven cemetery in its present location and determined it would not impair the safety or efficiency of the operation.
14	Comment noted.

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BEFORE THE  
FEDERAL AVIATION ADMINISTRATION  
CHICAGO AIRPORTS DISTRICT OFFICE

\_\_\_\_\_  
In the matter of the )  
FINAL ENVIRONMENTAL IMPACT )  
STATEMENT FOR THE O'HARE )  
MODERNIZATION PROGRAM )  
(OMP) \_\_\_\_\_

COMMENTS ON AND OBJECTIONS TO THE  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE O'HARE MODERNIZATION PROGRAM

Communications with respect to this document should be addressed to:

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Counsel for The Village of  
Bensenville and Elk Grove Village

September 6, 2005

BEFORE THE  
FEDERAL AVIATION ADMINISTRATION  
CHICAGO AIRPORTS DISTRICT OFFICE

\_\_\_\_\_  
In the matter of the )  
FINAL ENVIRONMENTAL IMPACT )  
STATEMENT FOR THE O'HARE )  
MODERNIZATION PROGRAM )  
(OMP) \_\_\_\_\_

**COMMENTS ON AND OBJECTIONS TO THE  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE O'HARE MODERNIZATION PROGRAM**

The Village of Bensenville and Elk Grove Village (the "Community Objectors"), St. John's United Church of Christ, Helen Runge, Shirley Steele, Rest Haven Cemetery Association, Robert Placek and Leroy Heinrich (the "Religious Objectors") and Roxanne Mitchell representing the Homeowner Objectors hereby submit these comments<sup>1</sup> on and objections to the FAA's Final Environmental Impact Statement ("FEIS") for the O'Hare Modernization Program ("OMP").

**I. Introduction.**

Preliminarily, the Objectors renew their objection to the refusal of the FAA to extend the comment period for the Final EIS ("FEIS") beyond the day after Labor Day, September 6, 2005. On July 28, 2005,

<sup>1</sup> The Community, Religious and Homeowner Objectors are collectively referred herein to as the "Objectors."

the FAA delivered FEIS documents, spanning ten volumes and several thousand of pages, including hundreds of pages of new detailed technical materials and discussion by the FAA not previously presented in the Draft Environmental Impact Statement ("DEIS") — many of the new FEIS material and documents were cross-referenced to several hundred other technical documents and materials.

Further, the FAA continues to fail to respond fully to our clients' outstanding FOIA requests by withholding thousands of pages of documents of critical relevance to the issues raised by the interrelated requests by Chicago for FAA approvals and funding for OMP Phase 1, and the full build OMP-Master Plan ALP. As we stated in our letter to Mr. Cooper on August 26, 2005 (enclosed), FAA's refusal to extend the time period — coupled with FAA's continued stonewalling by refusing to produce relevant documents — constitute clear cut denials of our clients' due process rights and impair our clients' ability to present meaningful and relevant rebuttal comments and evidence in response to the FAA's FEIS.

Nevertheless, we will continue to analyze the FEIS and FAA's comments and reserve the right to file supplemental comments after September 6, 2005.

Based on the limited examination we have been able to perform in the unreasonably short time allowed for comments, it is clear that the FAA has manipulated the data ("cooked the books") to reach a pre-determined result to approve the City's and FAA's Preferred Alternative and to reject all other alternatives. The following discusses

the serious errors and flaws in the FEIS that we have identified in the limited time we have had for review of that document.

**II. FAA's Cruel Hoax of Environmental and Religious Protection.**

FAA has told the public that FAA would carefully consider the need to protect homes, businesses, parklands and the religious cemeteries within the framework of federal environmental laws and religious protection laws. Just the opposite is now clear. The FAA in the FEIS has stated that it intends to give Chicago the green light to bulldoze the homes, businesses and parklands in our communities and St. Johannes Cemetery before the FAA ever reaches a determination of on the inextricably linked OMP funding decisions: i.e., whether the project is economically feasible, whether the City will obtain all of the federal funds the City requires, and whether there are sufficient sources of non-federal funds to finance/build the project.

In a cruel irony, FAA now says that when it gets around to its funding decisions for AIP and PFCs, it will consider harm to homes, business, parks and St. Johannes Cemetery — and alternatives to avoid that harm — at the time FAA makes its funding decisions. However, since the homes, business, parks and St. Johannes Cemetery will have already been destroyed, there will not be anything left to protect!

The FAA's funding decisions for this project are governed by the federal laws at issue here; i.e., NEPA, Section 4(f), Section 106, and by the federal Religious Freedom Restoration Act. The fundamental

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Comment	Response
1	<p>The FAA disagrees with the commenter's characterization of the FAA's evaluation. The FAA has provided detailed responses to each of the following sections of this filing by the commenter which outline the basis for FAA's disagreement.</p> <p>The FAA addressed the commenter's request for extension in a letter to Mr. Joseph Karaganis dated August 26, 2005. The letter outlined the rationale for the denial of the request for extension; the letter also stated, "[the Agency] will, however, review and respond to comments received after the close of the comment period, to the extent practicable, before issuance of our Record of Decision."</p> <p>With regard to FOIA, the FAA directs the commenter to Section 8.1 of the Record of Decision.</p>

objective of these environmental and religious protection statutes is that the destruction of the impacted resources should not take place until and unless the FAA makes its decisions on the merits of the project, including the funding issues which are critical to whether or not OMP can actually proceed. To allow the destruction to occur before the funding decisions are made would make a mockery of the law.

FAA's callous indifference to legal protections afforded to the communities and the religious cemeteries is particularly egregious in light of the complete collapse of the financial house of cards on which the City's financial plan and its funding requests for OMP Master Plan and Phase One are premised (see discussion below).

It would be a travesty of justice and violation of law for FAA to allow the destruction to proceed prior to determining the merits of the critical funding requests, when there is a strong likelihood that the FAA is prohibited by federal law from funding either Phase One or the full build OMP-Master Plan. Allowing the "destruction before decision" will create an unnecessary wasteland for a project that is likely never to materialize.

**III. The Evidence in the Record is Overwhelming that the Full Build OMP - Master Plan Cannot be Financed.**

As we have stated several times, Chicago cannot assemble the financing for the full build OMP-Master Plan. The likely problems with financing were emphasized in a July 2005 report by the DOT Inspector General. We incorporate by reference into these comments the DOT Inspector General's Report which is attached hereto. The Inspector General stated that FAA had possession of the report since

Comment	Response
2	<p>The FAA rejects the commenter's contention that harm as described in their document has yet to be identified or considered. The Final EIS is replete with a comprehensive analysis of environmental and other impacts associated with the OMP. This process is intended to fully satisfy all of the FAA's obligations associated with this project, including the FAA finding that of eligibility for federal grant-in-aid funds and or PFC.</p> <p>It is not the Agency's intention to replicate these analyses as part of any funding decisions that may follow shortly after this Record of Decision. The FAA directs the commenter to Section 10.1.1 of the Record of Decision for FAA's consideration of these issues.</p>

2

April of 2005 yet no mention is made in the FEIS of the serious financing concerns raised by the Inspector General.

**The Sources of Money FAA Says Will Be Needed**

Project Element	FAA-Chicago cost	AIP entitlement	AIP discretionary	PFC pay as go	PFC Bonds	GARBS	Third Party or Special Facility Financing
OMP	\$7,087,000,000	\$70,870,000	\$566,960,000	\$141,740,000	\$1,417,400,000	\$4,181,330,000	\$708,700,000
WGP	\$2,977,000,000					\$2,322,060,000	\$654,940,000
CIP	\$4,128,000,000		\$247,680,000	\$454,080,000	\$1,238,400,000	\$2,229,120,000	
<b>Total</b>	<b>\$14,192,000,000</b>		<b>\$814,640,000</b>	<b>\$595,820,000</b>	<b>\$2,655,800,000</b>	<b>\$8,732,510,000</b>	<b>\$1,363,640,000</b>

Source Tables 15 and 16 FAA D-EIS, Executive Summary- individual cost amounts based on percentages presented in Table 16—amounts do not reconcile due to rounding

When one examines the \$14.2 billion dollar estimate put forward by FAA, it becomes readily apparent — consistent with the concerns raised by the Inspector General — that Chicago cannot assemble the money needed to build the full build OMP-Master Plan:

- A. FAA is prohibited by law from funding the \$800 million AIP discretionary money needed by Chicago because the benefits of the full build OMP-Master Plan do not exceed the costs.
- B. FAA is prohibited from authorizing the more than \$3 billion in PFC money that FAA says Chicago will need for the full build OMP-Master Plan because federal law prohibits FAA from authorizing PFCs unless there is sufficient money from non-PFC sources to pay for the

remaining cost of the project. Without the \$800 million in AIP discretionary, FAA cannot authorize the PFC funds.

- C. There is no assurance from the Majority In Interest (MII) airlines that they will agree to pay the more than \$8 Billion in General Airport Revenue Bonds needed for the full build OMP-Master Plan. The likelihood that the airlines will not agree is increased by the airlines' past refusal to provide MII approval for the terminal components of the project.
- D. Finally, there is no evidence that there is any source of special facility or third party financing available to pay the more than \$1.3 billion component that Chicago and the FAA say must come from those sources.

FAA is silent on these problems, resorting again (as it did in the DEIS) to an unsupported "assumption" that the money will be available. Given the facts stated above, there is simply no basis for "assuming" that \$14.2 billion will be available to build the full build OMP-Master Plan.

**IV. The Evidence in This Record Is Overwhelming That There Are Insufficient Funds To Build Phase One.**

There are also insufficient funds to build Phase One. FAA fails to address or even acknowledge several problems with Phase One financing that create the high probability that Phase One cannot be funded:

- A. Chicago's \$300 million application for discretionary AIP funding fails because the request fails the statutory benefit-cost test; the record shows that the benefits of the Phase

Comment	Response
3	<p>The EIS is a public document, a draft report from the Department of Transportation Office of Inspector General was not public at that time. The FAA did not mention the Draft report in the Final EIS, because it believed it would be inappropriate to discuss a government document not yet made public.</p> <p>With regard to the comments 3A-3D, the FAA directs the commenter to the responses the Campbell affidavit filed as an attachment to this document, beginning on page A.2-101 of this Appendix A. In addition, the FAA respectfully disagrees with the commenter's assertion that FAA has made an "unsupported assumption" regarding the financing plan for the OMP. The Final EIS and the administrative record accurately document the agency's thorough consideration of the financial feasibility of the full-build OMP in the satisfaction of its environmental obligations.</p>

3

One project are less than the costs. We hereby incorporate by reference and adopt for this record the June 3, 2005 submission of the Community and Religious Objectors in opposition to the City's AIP/LOI request and the accompanying analysis prepared by Campbell Hill Aviation Group, Inc. entitled "Chicago's O'Hare Modernization Program Fails to Meet The FAA Tests For Benefit-Cost Justification."

- B. Based on available public information the \$2.9 billion dollar financing plan for Phase One does not include the required Lima Lima taxiway and Chicago has not presented a funding source for the Lima Lima component. According to press reports, the cost of Lima Lima exceeds \$250 million.
- C. As noted by the Inspector General, the federal PFC statute and the federal statute governing the issuance of entitlement funds prohibits FAA from authorizing PFC funds or from awarding even entitlement AIP funds unless the FAA has clear evidence that sufficient funding sources are available to pay for the balance of the project. The shortfall in Phase One financing caused by the failure of the discretionary AIP component (\$300 million) or the Lima Lima taxiway component (\$200 plus million) — either individually or in combination — prohibit the FAA from authorizing the more than \$1 billion in PFC funds sought

by Chicago for Phase One or the \$63 million in AIP entitlement funds sought for Phase One.

Given the likely failure of Phase One financing, it is unconscionable for FAA to allow Chicago to proceed with bulldozing the communities and the homes, businesses and park lands and St. Johannes Cemetery before FAA addresses the critical funding issue for Phase One.

**V. The Time Period of Analysis is Wrong.**

One of the most significant defects of the FEIS is the FAA's arbitrary decision to cut off all analysis of impacts and alternatives after 2018 — using an unreasonably short period of only five years after the project opens to examine the impacts of the Preferred Alternative and all other alternatives. This crabbed and truncated period of analysis (coupled with the inaccurate and improper use of the 2002 TAF (discussed infra)) artificially enabled FAA to ignore the impacts of the rapidly rising exponential delay curve which will shortly produce delays for the full build OMP equal to if not greater than historic high levels. Moreover, the rising exponential delays that would be experienced soon after the arbitrary five year cut-off date applied by the FAA would have been even greater if FAA used the more recent 2003 TAF or even the low-ball 2004 TAF.

There is no reasonable basis for applying a five year cut-off for a project of this immense magnitude, especially since application of such a short analytical cut-off time date covers up the delay impacts that FAA's own analysis shows would occur in later years and completely

Comment	Response
4	<p>The FAA disagrees with the commenter regarding the funding of Phase I and the full build OMP. The FAA addresses these issues in Section 1.7 of the Final EIS.</p> <p>A. Section 10.1.1 of this ROD describes the general parameters of inquiry for FAA approval to amend an ALP. This Section also describes the delineation in analysis and authorization between those matters considered in the ALP process and those that are more appropriately addressed in reviewing an application for funding under the Airport and Airway Improvement Act. To the extent that the issues raised by this comment have implications for the adequacy of the FAA's environmental analysis, we refer the commenter to the following documents: Section 1.7 of the Final EIS, Appendix U of the Final EIS where these very issues were raised and responded to in considerable detail and elsewhere in this Appendix A of this ROD where the FAA has further analyzed some of these contentions. In particular in response to comments on the Final EIS, the Agency has conducted a sensitivity assessment of the City's financing plan. This sensitivity assessment examined a number of mechanisms the City could employ should part of the funding for the project not be implemented as planned. These mechanisms include deferral of improvements, use of contingency, increased debt issuance, and short-term borrowing. The sensitivity analysis evaluated what-if scenarios, such as the \$300 million LOI being unavailable or disapproved, reduction in airline traffic with the loss of a major carrier at O'Hare, and the possibility that the authorized level of PFC collection is static. The sensitivity assessment demonstrated that changes in cost per enplaned passenger resulting from the use of these mechanisms would not be substantial and in some instances could be offset by cost benefits from the project's implementation.</p> <p>B. The cost of the Lima Lima taxiway was included in the City's financing plan. Recent correspondence with the City of Chicago has confirmed the City's intention to construct Taxiway Lima Lima according to the proposed phasing plan utilized for the EIS. In addition, the City of Chicago's Airport Layout Plan submitted in September 2005 for approval contains Taxiway Lima Lima on the Phase I drawing and the future full-build drawing.</p> <p>C. The FAA will comply with applicable statutes governing PFC approval or authorization of AIP grants.</p>

undermines the FAA's findings and conclusions in support of the Preferred Alternative.

Moreover, application of a five year time period of analysis is wholly inconsistent with FAA's requirements for the Master Plan for the OMP and for AIP grants. Thus, FAA issued an AIP master planning grant to Chicago in 2002 which had a Time Period of Analysis to the year 2030. Moreover as required as a condition for FAA to evaluate and decide on Chicago's AIP grant application for OMP, FAA required Chicago to use a Time Period of Analysis from the opening year of the OMP (2013) to 2032. This is a standard FAA requirement of a Time Period of Analysis from the year the project opens to 20 years later.

By using only a short 5 year Time Period of Analysis FAA was able to select OMP and discard several other alternatives because only the 5 year Time Period of Analysis gave FAA exactly the right answer it was seeking. Only OMP could meet the "unconstrained demand" until 2018 (and even then only by using the outdated and unreasonably low 2002 TAF). Any alternative that could not meet unconstrained demand was then summarily discarded from further meaningful consideration.

This arbitrarily truncated analytical approach artificially gave the FAA a false basis to categorically reject every other alternative that involved a level of development less than full build OMP-Master Plan on the phony predicate that such alternative would not meet "unconstrained demand" until 2018.

By putting the analytical blinders on impacts after 2018, FAA ignores the undisputed fact that the full build OMP-Master Plan, which even under the 2004 uncorrected TAF runs out of capacity (i.e., exceeds FAA's 15 minute AAAW standard) and fails to meet "unconstrained demand" by 2023, and beyond, thus requiring use of the very blended alternative that FAA rejected.

**VI. The Use of the 2002 Terminal Area Forecast is Wrong.**

The outcome of environmental impacts, delay comparisons, capacity calculations, alternatives analysis, and a host of other important factors is driven by the Demand Forecast. FAA unreasonably persists in using the out-dated and understated 2002 Terminal Area Forecast (TAF). The record demonstrates that results would be dramatically different if FAA had used more frequent forecasts such as 2003 and 2004 TAFs.

FAA claims that it needed to use the 2002 TAF because it requires at least 12 months to perform delay-capacity simulation modeling. That assertion is without merit. First, the FAA had the more recent 2003 TAF for over a year before the DEIS was issued. Second, FAA and its contractors were in fact conducting delay-capacity simulation modeling as to existing O'Hare and full build OMP-Master Plan — using the 2003 TAF — *before* FAA completed the DEIS and even before FAA did several of the TAAMs model runs for the DEIS using the 2002 TAF.

FAA's second excuse for using the outdated 2002 TAF is that the 2004 TAF somehow "validates" the use of the 2003 TAF. However

Comment	Response
5	<p>The FAA respectfully disagrees. The commenter is directed to Section 10.1.2 of this ROD where the various planning horizons are discussed and placed in their proper perspectives.</p> <p>The FAA acknowledges that at some point beyond the "reasonably foreseeable" future O'Hare, even after improvements, could return to high levels of delay. However, this possibility does not negate the benefits that the OMP will produce. The OMP airfield will serve an additional 220,000 operations per year at a level of delay that is a fraction (~6 minutes per operation) of that experienced by the airport today (~17 minutes per operation). Finally, the FAA notes that the financial analysis, conducted as part of the Agency's review of the LOI request, will utilize the longer time period as required to evaluate the OMP from a benefit-cost perspective.</p>

there are two reasons that FAA's "validation" argument does not hold water.

First, the 2004 TAF — without the necessary correction discussed below— produces dramatically different results than the 2002 TAF. Under the 2004 TAF, full build OMP-Master Plan hits the FAA's 15 minute AAAW wall in 2023 and — because of the added taxi penalty due to the further outer runways of OMP which FAA did not consider— loses any time saving advantage by 2019. This means that even under the extreme and unprecedented 15 minute AAAW standard used in the FEIS, OMP will have no delay savings by 2019 and will be totally out of capacity by 2023 (and likely sooner) and as a result FAA will be required to employ congestion management with full build OMP-Master Plan under the uncorrected 2004 TAF by 2023, and likely sooner.

Further, if one uses the definitions of practical capacity used by FAA in Denver, Philadelphia, Boston and other airports (i.e., a maximum of 10 minutes AAAW delay) full build OMP-Master Plan will be out of capacity by 2019 (even under the 2004 TAF).

Here is what the DOT said about what occurs with 8-10 minute AAAW delays, the condition that will exist at the full build OMP-Master Plan in the 2018-2019 time frame using the uncorrected 2004 TAF:

- ***8 to 10 minutes of delay per operation: increasing VFR delays in peak hours with translation to shoulder hours in all but optimum conditions; high delay in IFR with resulting flight cancellations.*** -
- ***Over 10 minutes of delay per operation: VFR operations***

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Comment	Response
6	<p>FAA acknowledges that the 2003 TAF was issued in February 2004, about one year before the DEIS was issued in January 2005. However, the work necessary to produce a DEIS in January 2005 was initiated before the 2003 TAF was available. Analytical work on airline flight schedules and other derivative forecasts required to complete the complex technical analyses reported in the DEIS were initiated in early 2003, and continued through the end of 2004. FAA determined that "re-starting" such analyses after publication of the 2003 TAF, which occurred in the middle of such detailed technical analyses, would significantly delay the completion of such analyses and the resulting DEIS. For a project of OMP's magnitude and complexity, the comprehensive analyses required by the FAA necessitated more than one year of analysis. FAA determined that it would be appropriate to conduct sensitivity analysis of any new forecasts produced during the course of the EIS analysis. This is fully explained in the Final EIS (including the letter from FAA approving the use of the 2002 TAF and the requirement to conduct sensitivity analysis on subsequent TAF results), and the sensitivity analysis is documented in Appendix R of the Final EIS. In addition, please see Section 4 of the ROD.</p> <p>FAA believes that the commenter may have the facts somewhat confused. FAA has not attempted to validate the use of the 2003 TAF, but has instead validated the use of the 2002 TAF. The remainder of this response is prepared assuming that the commenter meant to refer to validation of the 2002 TAF.</p> <p>FAA has addressed the significance of potential new forecasts—including the 2003 TAF and the 2004 TAF—in Appendix R of the Final EIS. FAA has acknowledged that future conditions may be different from those represented by the 2002 TAF, and this is the reason for including Appendix R in the Final EIS.</p> <p>The FAA respectfully disagrees with the commenter's assertion that additional taxitimes were not considered. The FAA, in their comprehensive TAAM analysis, included all aircraft movements: both on the airfield and in the airspace. Published results of the TAAM modeling showed the unimpeded travel times for each configuration modeled as well as the annual average for each alternative. The travel times were also included in the evaluation of the environmental impacts including air quality (time in mode) and noise impacts (day/night distribution) for all configuration in all alternatives modeled.</p>

*experience increasing delays in peak periods and shoulder hours in all but optimum conditions; very high delays in IFR resulting in extensive flight cancellations.*

\*\*\*

...[W]hen the AAAW delay per operation reaches **6 minutes**, project planning, engineering and design of capacity improvements should be actively pursued. When AAAW delay reaches **eight minutes**, implementation of capacity improvements should be underway.

1995 DOT HDR Report, Technical Supplement # 3, page D-2 (emphasis added in bold underscore and italics).

Using the uncorrected 2004 TAF, which will produce delays (exclusive of added taxi time penalty) of 8-10 minutes AAAW, O'Hare under the full build OMP-Master Plan will experience unacceptable conditions in the 2017-2019 time frame. In short, OMP does NOT meet the stated purpose and need to meet forecast demand at acceptable levels of delay.

The discussion immediately above is premised on the use of the uncorrected 2004 TAF. But according to Campbell Hill Aviation Group, the economic variables which FAA used in the 2004 TAF should have produced higher enplanements and operations in the 2004 TAF than in the 2003 TAF. In other words, with the corrections that should be made to the 2004 TAF to reflect the use of higher values for the higher economic variables, the corrected 2004 TAF would result in even higher delays far sooner than the uncorrected 2004 TAF and higher delays far sooner than even the 2003 TAF. See, affidavit of Brian Campbell, Chairman of Campbell Hill Aviation Group, attached hereto.

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Comment	Response
7	The FAA has addressed Campbell-Hill's comment regarding practical capacity in their April 6, 2005 submittal, please see response to comments 44-47 beginning on page U.4-528 in Appendix U of the Final EIS.

7

FAA in the FEIS tries to hide behind its self-proclaimed “expertise” as to the mysterious and unexplained major drop in enplanements between the 2003 and 2004 TAFs. But internal FAA documents demonstrate that the 2004 TAF for O'Hare is defective and cannot be used. Thus, after months of FOIA requests, FAA on August 26, 2005, finally produced what FAA said were the working documents for the 2002-2004 TAFs.

These documents confirm that, as our economic experts had demonstrated, the economic variables used for the 2004 TAF showed a **higher rate of growth** than the 2003 TAF. This higher rate of growth should have— using the “industry standard” methodology FAA claims its “experts” followed— produced a higher level of enplanements and a higher level of operations for the 2004 TAF than the 2003 TAF.

Moreover, the limited documents provided by FAA as the purported basis of the 2004 TAF did not contain the data or the calculations by which our trained forecasting experts could replicate or recreate the forecast results for enplanements and operations contained in the 2004 TAF. Put bluntly, the TAF working papers produced at figuratively the eleventh hour on August 26, 2005 cannot support an audit trail that leads from the working papers to the forecast results for enplanements and operations contained in the 2004 TAF.

Had a corrected 2004 TAF (with higher values than the 2003 TAF) been used, it would have resulted in full build OMP-Master Plan being out of capacity (*i.e.*, hitting the FAA's 15 minute AAAW ceiling) well **before 2018** and requiring the FAA to employ after that time a

blended alternative (*i.e.*, demand management plus use of other airports) with full build OMP-Master Plan.

8

Comment	Response
8	The commenter suggests that the 2004 TAF should be “corrected” in accordance with assumptions developed by the commenter’s consultant, Campbell-Hill. FAA has separately responded to this assertion, and on the basis of this response, does not agree with the commenter. Please see response to comments 75-81 of the Campbell affidavit, beginning on page A.2-101 of this Appendix A.

**VII. The FEIS Uses the Wrong Base Case.**

Using the outdated 2002 TAF demand forecast, the FEIS says the Base Case (so-called “No Action”) will represent a delay level of 17.2 minutes AAAW in the year 2018 vs. a delay level of 5.8 minutes AAAW for the full build OMP-Master Plan. Yet the modeling for the Base Case was premised on conditions at O'Hare in 2003 and 2004 — before the FAA instituted the current scheduling order of 88 arrivals per hour.

The FAA states in the FEIS that the 17.2 minute projected delay compares with the delay experienced in 2004 and recorded in the FAA’s ASPM database. We strongly contest the correlation and consistency of ASPM values with modeled TAAM values because of the significant differences of key variables between the two methods of delay measurement or prediction — including the wide variation in IFR weather conditions. However, a fundamental defect of the FAA’s analysis is that the TAAM modeling that FAA did for the Base Case No Action scenario did not include the TAAM modeling of the effects of the FAA scheduling order.

Since the existing FAA scheduling order represents the existing condition at O'Hare, FAA should have performed TAAM modeling with the scheduling order in place. Based on the significant reduction in delays experienced under the scheduling order, the 17.2 minute TAAM

modeling delay attributed to the base case significantly overstates the delay that FAA should attribute to the existing airport.<sup>2</sup>

This failure is significant in and of itself; but when compared and added to the flaws in the delays savings claimed for the full build OMP-Master Plan discussed herein, this failing demonstrates that FAA's claimed delay savings are virtually non-existent.

**VIII. FAA Continues to Hide ASV and Other Delay Information for O'Hare and Other OEP Airports Which Objected Have Requested in Long Delayed FOIA Requests.**

Despite our repeated requests (see, e.g., our June and August FOIA correspondence attached hereto) FAA continues to hide critical and relevant information on delay and capacity from the Objectors and from the EIS process.

For example, in the FEIS FAA says that the Annual Service Volume (ASV) is irrelevant to the issue of capacity and delay. Yet other FAA publications (see our FOIA correspondence) state that ASV has been (and is) calculated for O'Hare and for the other OEP (Operational Evolution Plan Airports in the country). Further, these same publications state that FAA has calculated ASV (which FAA uses as a capacity standard) for existing O'Hare and for the full build OMP-Master Plan.

<sup>2</sup> The FAA continues to assert that O'Hare ranks in the top 5 airports in terms of delay as measured by the various FAA and DOT databases. On the contrary, O'Hare ranks well below the top five in all of these databases since the scheduling order took effect. According to the Inspector General in a May 2005 report, O'Hare ranked 14<sup>th</sup> among the major airports in delays.

Comment	Response
9	<p>The FAA disagrees with the commenter's assertion that FAA utilized the wrong base case for the EIS. The extensive environmental analysis began in 2002 and therefore 2002 was used as the base case; this is standard practice for evaluating alternatives in an environmental impact statement.</p> <p>In addition, the imposition of the 2004 scheduling order represents, as stated in that order, an interim solution to a long term problem of delay. As a temporary situation it would have been inappropriate to rely on such an artificially constrained environment for a base case. Moreover, the commenter is simply wrong in suggesting that as a result of using the 2002 TAF as the base case for its conclusions that delay is overstated. With the scheduling order in place for 11 months of the year, ASPM data for calendar year 2004 revealed an average annual delay of approximately 18 minutes per operation and 990,000 operations. In contrast, the 2002 EIS base case reflected some 16,000 fewer operations. Therefore, were the FAA to model the No Action Alternative using the higher level of operations that are permitted under the current scheduling order (990,000 operations), then the EIS base case (974,000 operations) as the commenter is suggesting, the levels of delay projected by the simulation modeling would likely be even higher. This would naturally result in a greater difference between the average annual delay of the No Action Alternative and the OMP.</p>

The relevance of this hidden information is clear. If, as we know, FAA has performed ASV capacity calculations on O'Hare and other major OEP airports, we believe that the delay value (i.e., minutes of AAW) that FAA has used as an acceptable level of delay with which to calculate practical capacity and Annual Service Volume is far lower than the 15 minute ceiling used in the FEIS. We believe the hidden information demonstrates that the practical capacity of the full build OMP-Master Plan — using these hidden ASV numbers — is far less than claimed by FAA. Further, these hidden ASV values likely also reveal that full build OMP-Master Plan will run out of capacity far sooner than suggested by FAA in the FEIS.

The ASV values are not the only area of critical documents hidden by FAA. Objectors have asked in their FOIA request for the capacity and delay calculations made by the MITRE Corporation for MITRE's 2004 capacity study. That study included several different capacity calculations for existing O'Hare and for full build OMP-Master Plan. Despite the relevance of these calculations by MITRE and despite Objectors request for this information, the material remains hidden and was not available for review in the FEIS process.

Similarly, MITRE performed delay and capacity calculations and modeling for existing O'Hare for the FAA as part of the scheduling order process. That information has also been withheld.

This hidden information also has relevance in another area. FAA makes the unsupported claim in the FEIS that it could not model the

Comment	Response
10	<p>With regard to FOIA, the FAA directs the commenter to Section 8.1 of the Record of Decision.</p> <p>The FAA rejects the commenter's assertion that the Agency has hidden or ignored ASV and other delay information in considering the OMP. The FAA notes that the ASV calculations done as part of the Appendix C of the Final EIS did not include an assessment of the performance of ORD improvements. The FAA did not rely on ASV calculations for O'Hare in the development of the EIS.</p> <p>With regard to the MITRE analyses cited by the commenter, the FAA did not utilize this information in the development of the EIS because the TAAM analysis provides a more comprehensive assessment of alternatives from an operational perspective.</p> <p>The FAA and TPC participated in an intensive, nine month review process during this simulation effort. The objective of this process was to ensure that TAAM input assumptions, modeling methodologies, and output data conformed to industry best modeling practices and accurately reflected air traffic control rules and procedures. In total, the FAA invested over 2,000 hours reviewing assumptions, draft results, animations, and final results. The FAA review was conducted by an Air Traffic Work Group consisting of: FAA Management and National Air Traffic Controller Association (NATCA) representatives from O'Hare Tower, the Chicago Terminal Radar Approach Control Facility (TRACON), and the Chicago Center (ZAU); FAA Airports Division; and the FAA's TPC.</p>

10

2003 Terminal Area Forecast (TAF) because it would take too long.<sup>3</sup> Yet according to MITRE's 2004 capacity study, MITRE was able to model existing O'Hare and the full build OMP-Master Plan with the 2003 TAF several months before FAA conducted its modeling and several months before FAA issued the DEIS.

For FAA to approve — and fund (to the tune of billions of federally authorized taxpayer dollars) — a project using outdated two year old forecast data is indefensible.

**IX. The FAA Produces Erroneous Claims of Delay Savings.**

A key claim by FAA is that full build OMP-Master Plan produces less delay per flight operation than either the existing O'Hare or any of the blended alternatives. This claim is erroneous for several reasons.

First, as noted above, FAA has failed to model the Base Case with the controls of the FAA scheduling order input into the TAAM model. Inclusion of the scheduling order controls would likely substantially reduce the 17.2 minute delay previously modeled for the existing airport.

Second, as delay goes up with OMP, the delay savings differential (*i.e.*, the difference between existing O'Hare and OMP) goes down. Thus while FAA claims a 5.8 minute AAW for OMP in 2018, use of

<sup>3</sup> FAA provides no evidence to support this claim. Once a model is set up on a computer with appropriate parameters, it is difficult to believe that it would take a year simply to run the 2003 or 2004 TAF through the same model. Indeed, our preliminary ongoing inquiry with a leading experienced computer model expert suggests that the 2003 or 2004 TAFs could have been run through the model in a few weeks. See, affidavit of Tung Lee.

Comment	Response
11	<p>The FAA's rationale for declining to model the 2003 TAF is not based upon an evaluation of the time it would take. The FAA does not need to rerun models to make professional analytical judgments regarding the effects of an alternative level of activity within a reasonable range such as the 2003 TAF. The FAA has held consistently that as more recent TAFs were made available the FAA would reexamine the appropriateness of the use of the 2002 TAF. Appendix R of the Final EIS is an example of the work conducted in such an examination. The range of activity presented in Appendix R encompasses the levels of activity presented in the 2003 and 2004 TAF.</p> <p>The FAA disagrees with the estimate of time required to conduct a thorough and complete modeling evaluation for the purposes of the EIS. The commenter's time estimate largely deals with the actual time to run the model and not the additional work necessary to validate and interpret the results for their subsequent use. The commenter is neglecting a number of factors in the estimating the amount of time necessary for an adequate modeling assessment. For further information regarding the time required for modeling, please see the response to the Le affidavit, beginning on page A.2-98.</p>

11

the uncorrected 2004 TAF has OMP reaching this value in 2015 and (based on interpolation between the 1.4 million demand in 2023 —13-16 minutes AAAW per Appendix R) reaching approximately 8-10 minutes AAAW in 2018.

When one adds the added taxi time penalty due to OMP's distant runways (approximately an additional 6.5 minutes per operation), any claimed passenger and airline operation time savings disappear by 2018 and likely sooner given the overstatement of Base Case delay noted above!

**X. The FAA's Arbitrary Refusal to Explore Blended Alternatives.**

The analysis above demonstrates how FAA has artificially manipulated key elements— 1) the Time Period of Analysis, 2) the Demand Forecast, and 3) the Level of Acceptable Delay — to produce the only answer FAA wanted, *i.e.*, approval and funding of the full build OMP-Master Plan. FAA used this same manipulation to reject consideration of other viable alternatives — several of which would avoid the destruction of homes, businesses, parklands and the destruction of St. Johannes Cemetery.

However, as described above, the use of even the uncorrected 2004 TAF and a Time Period of Analysis extending just 5 years beyond FAA's crabbed analysis demonstrates that FAA will be compelled to employ demand management and other airports as part of a blended alternative.

Comment	Response
12	<p>The FAA disagrees with the basis for the comment that the "FAA Produces Erroneous Claims of Delay Savings." As stated in response to comment 9, FAA disagrees with the commenter regarding the use of the base case.</p> <p>With regard to the level of delay associated with a higher level of activity, the FAA notes that it is not unaware that this would result in a higher level of annual average delay. This possibility of a higher level of activity serves to bolster the need for improvements as included in the selected alternative.</p> <p>With regard to the "taxi time penalty," the FAA refers the commenter to response to comment 6 of this document.</p>

12

Moreover, several of these blended alternatives have delay values equal to or better than full build OMP-Master Plan (as posited by FAA without demand management). See Table below.

Alternative	Level of delay per operation
Full build OMP-Master Plan in 2023 at 15 minutes AAAW delay plus 6.5 minutes taxi delay — without demand management	21.5 minutes
<b>Derivative H</b> – No Action with Use of Other Airports and Congestion Management (Average Annual Delay of 9.3 Minutes per Operation)	9.3 minutes
<b>Derivative I</b> – No Action with Use of Other Airports and Congestion Management (Average Annual Delay consistent with NPRM Modeled Delay)	<b>[unknown]</b> FAA has not run TAAMs model on FAA Scheduled Order delays
<b>Derivative J</b> - No Action with Use of Other Airports and Congestion Management (Average Annual Delay 4, 6, 8 Minutes per Operation or other FAA Level)	4, 6, or 8 minutes as selected by FAA

Nor does FAA’s constant refrain that it has no legal power to “directly” “compel” airlines to use other hubs provide cover for FAA’s blind refusal to consider and employ blended alternatives. No one is asking FAA to “order” the airlines to use other airports. But reality shows that FAA under its existing grant and regulatory authority has approved or implemented numerous blended airport alternatives throughout the country. FAA cannot continue to ignore such examples

as: 1) the 1984 decision by Chicago and FAA to use a blended alternative at O'Hare (See 1983 DEIS and 1984 ROD) to accommodate less than all of the "unconstrained demand" at O'Hare while using other airports to carry the excess demand; 2) the existing blended alternative in place now at O'Hare, LaGuardia, and Reagan National, 3) the selection of a physical blended alternative at LAX, and 4) the imposition through grant requirements of demand management (*i.e.*, blended alternative) in conjunction with use of regional airports for Boston Logan. Each of these actions has had or will have the necessary consequence of causing the airlines using O'Hare, LGA, Logan, Reagan National and LAX to shift some of their flights to other airports.

FAA's rejection of various viable alternatives is without merit and unsupported by facts or logic. As noted above, Alternatives H, I, and J use the existing airport and are by definition safe. As to Alternatives M, N, and the C1-C5 Derivatives, a detailed rebuttal of the FAA's alternative analysis is set forth in the affidavit of Kenneth Fleming, a renowned aviation airspace/air traffic expert with Embry Riddle University, attached hereto. Mr. Fleming conclusively demonstrates that FAA's rejection of alternatives, including alternatives that would avoid the destruction of the cemeteries, cannot be sustained.

**XI. The FEIS Does Not Comply With Clean Air Act Conformity Requirements.**

The Final General Conformity Determination included in FEIS Appendix J, and discussed at subsection 5.6.4, remains inadequate for

Comment	Response
13	<p>The FAA included a detailed examination of blended alternatives, along with the use of congestion management, is discussed in the Final EIS at Chapter 3 and in this ROD at Section 6. Further, the FAA rejects the commenter's assertion that O'Hare delay will reach some 21.5 minutes at ten years beyond the full build out of the OMP. Delay projections do not include unimpeded taxi time as was improperly included in the commenter's table at page 20 of its submission, see response to comment 6.</p> <p>Contrary to the commenter's assertion, the FAA does not believe that its action in this matter is in any way inconsistent with how it has treated proposed improvement projects at other airports or earlier in the history of O'Hare. The 1984 decision of the FAA identified by the commenter expressly approved an improvement project for that planning horizon which reflected both the goals of the City of Chicago and its airport master plan then in effect. In essence, the FAA approved 1984 O'Hare planned improvements, limited as they were, with the same degree of deference to the sponsor that it exhibited in approving the recent proposals for improvements at LAX and Boston Logan.</p> <p>The FAA's consideration of proposed improvements or techniques to address delays at those airports where airport capacity improvements are practically infeasible, such as LaGuardia, Washington-National, and Midway, will be substantially different from situations where the airport sponsor has the capacity and interest in improving its facility and contributing to overall enhancement of the National Airspace System.</p> <p>The commenter's reliance upon our recent decisions approving improvements at LAX and Boston Logan as evidence that we have approved or implemented blended airport alternatives is misplaced. The alternative selected by the FAA for approval in the LAX ROD did not include either congestion management or use of other airports. The FAA's ROD approving Runway 14/32 at Boston Logan did not independently impose demand management through grant requirements, but rather referred to the requirement that the State in certifying approval of the project under the Massachusetts Environmental Policy Act imposed upon the Massachusetts Port Authority to implement demand management. The FAA's ROD for Boston Logan also established a timeline for fulfilling this commitment by directing Massport to develop and submit a detailed plan or draft proposal for peak period pricing, or other comparable demand management program, before commencing construction of Runway 14/32. The alternative that the FAA selected in the LAX ROD did not include congestion management or use of other airports although the airport sponsor hopes that physical constraints will encourage airlines to shift service to other regional airports.</p> <p>The FAA has responded to the Fleming affidavit separately beginning on page A.2-170 of this appendix.</p>

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the reasons set forth in detail in the Community and Religious Objectors' Comments on and Objections to the Draft General Conformity Determination for the O'Hare Modernization Program, submitted on June 20, 2005, and supplemented on June 24, 2005.

The FAA has yet to demonstrate that construction-related emissions from the project conform to the Illinois Clean Air Act State Implementation Plan ("SIP"). Under the applicable conformity regulations, 40 C.F.R. § 93.158(a)(5)(i)(A), where the SIP does not specifically account for project-related emissions, the Illinois Environmental Protection Agency ("IEPA") must determine and document that those emissions for which there is no SIP accounting—along with all other emissions in the local air quality control region—will not exceed the applicable overall SIP budget for emissions of that pollutant. IEPA has not documented such a determination. Instead, in a letter dated July 13, 2005, IEPA simply states: "Although this SIP did not explicitly include additional VOC and NOx emissions to account for the O'Hare Modernization Program, sufficient emissions were incorporated into both the Attainment Demonstration modeling and the Rate-of-Progress emissions projection to accommodate the emissions projected to result from the O'Hare Modernization Project." This generic statement—without any documentation—is an incomplete finding of conformity. Without a complete conformity finding, the Clean Air Act bars the FAA from supporting the project.

Comment	Response
14	<p>The FAA disagrees that the Final General Conformity Determination is inadequate for any of the reasons set forth in the Community and Religious Objectors' Comments on and Objections to the Draft General Conformity Determination for the O'Hare Modernization Program, submitted on June 20, 2005, and supplemented on June 24, 2005. Under the applicable conformity regulations, several acceptable approaches are set forth. In consultation with both IEPA and USEPA, FAA implemented one such acceptable conformity demonstration approach as shown in the Final EIS and its associated General Conformity Determination for O'Hare Modernization.</p> <p>As noted in the Appendix J of the Final EIS, USEPA recognized that emissions associated with airport-related development are not typically specifically identified or accounted for in SIPs. Joint guidance from USEPA and FAA (<i>General Conformity Guidance for Airports Questions and Answers 17, 21 and 22, September 25, 2002</i>) states that if the airport emissions are not readily identifiable in a SIP inventory, that the State should be consulted to determine what, if any, portion of a category could or would be allocated to an airport. Such a determination is done on a case-by-case basis with input from the State/local air quality agency and the USEPA regional office.</p> <p>As stated in the IEPA's letter "The Illinois IEPA worked with the FAA in the preparation of the General Conformity Determination, providing information on the level of VOC and NOx emissions incorporated into the SIP for O'Hare aircraft, aircraft refueling, and ground service equipment operations, as well as regional construction equipment and motor vehicle emissions. Comparing the level of emissions projected for the construction and operation of the O'Hare Modernization Program in the General Conformity Determination for the necessary analysis requirements, the Illinois EPA concurs that such emissions are accounted for within the 1-hour Attainment Demonstration SIP for the Chicago region." FAA made its conformity determination based on consultation with the appropriate state and federal agencies; therefore, no further documentation is required.</p>

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**XII. The FEIS Does Not Take Into Account Indirect Air Quality Impacts of the Proposed Project.**

For the reasons discussed in the Community and Religious Objectors' Comments on and Objections to the Draft Environmental Impact Statement for the O'Hare Modernization Program, dated April 6, 2005, the FEIS similarly fails to take into account the indirect air quality impacts of the project. The FEIS does not specifically analyze the impact of indirect emissions—for example, increased off-site power generation—caused by the project. Under FAA Order 1050.1E, Appendix A, § 2.1o, the FAA must analyze the impact of these emissions. Instead, in its response to comments, the FAA simply concludes that IEPA has included projections of future power production in its SIP analyses, that the FAA generally (and in an unspecified way) relies on the generic SIP projections, and that there is therefore no need to specifically analyze indirect emissions impacts. Until the FAA performs the required indirect emissions impact analysis (as it did for the LAX expansion), its NEPA obligations are incomplete.

**XIII. FAA fails to perform a quantitative health risk analysis on the health risk of Hazardous Air Pollutants on surrounding communities.**

FAA has ignored our request to perform a quantitative health risk assessment of the impact of increased hazardous air pollutants on surrounding communities on the ground of feasibility. Yet such studies have been performed — in some instances at the direction of the courts— in California and in the New England States. Emission

Comment	Response
15	<p>The FAA respectfully disagrees with the commenter's assertion that indirect emissions were not assessed in the EIS. The FAA's Final EIS properly relied upon the estimated increase in emissions from electrical production in the 1 hour Ozone Attainment Demonstration State Implementation Plan to account for the anticipated increase in emissions by the power plant at O'Hare that would be attributable to the proposed improvements. It was not necessary to quantitatively estimate these indirect emissions where, as here, as here, the IEPA supported the FAA's determination that the projects conforms because project-related emissions are accounted for in the SIP within the meaning of 40 C.F.R. 93.158(a)(5)(i)(A). As the FAA determined that a general conformity evaluation and determination were required for these pollutants, the provisions in FAA Order 1050.1E Appendix A, paragraph 2.1o, cited by the commenter, are inapplicable. These provisions apply in determining whether emission threshold levels are exceeded so that a conformity evaluation is required. The commenter's reliance upon the LAX Final EIS is misplaced. The commenter is correct that the potential increase in indirect emissions that would be caused by electrical generation associated with the proposed LAX improvements were quantified as part of that EIS. However, the projected increase in indirect emissions attributable to power plants was so small that these emissions were not considered in analyzing potential air quality impacts in the Final EIS for LAX.</p> <p>Specifically, as stated in Appendix U of Final EIS (page U.4-473) in response to this comment, the air quality analysis assumed that there would be an increase in emissions associated with the power plant at O'Hare with the proposed improvements. In addition, the IEPA accounts for the growth in emissions from the commenter's identified indirect source, electrical production, within the non-attainment area in their State Implementation Plans (SIPs). As a result of this air quality analysis, NEPA's command to identify indirect impacts (here, air quality) has been satisfied. By virtue of the inclusion of these indirect impacts in the SIP, NEPA's duty to identify the environmental consequences of such impacts has also been fulfilled.</p>

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inventories for major airports such as O'Hare have been acknowledged to represent some of the largest— if not the largest sources of toxic and hazardous air pollutants in most states. There is no reason why FAA should exempt O'Hare from such an analysis.

The surrounding communities have a right to know the base-line and incremental toxic health hazards that O'Hare's operation and its proposed expansion impose on our communities.

**XIV. FAA's 4(f)/6(f) Evaluation Improperly Dismisses Prudent and Feasible Alternatives.**

The Final Section 4(f)/6(f) Evaluation included in Appendix L of the FEIS, and summarized in Section 5.8 is inadequate. For the reasons set forth in detail above and in our earlier comments on Chapter 3, Alternatives, the FAA's conclusion that there are no prudent and feasible alternatives to using the 4(f)/6(f) resources is not supported by the facts as required by 49 U.S.C. § 303(c)(1).

Similarly, the FAA's legal interpretation of Section 4(f) is untenable. The FAA identified no fewer than 15 feasible alternatives in the FEIS that would avoid destruction of 4(f)/6(f) resources, but dismissed some of the most promising of these alternatives because in the FAA's view, the alternative would not perform "as well as Alternative C." See FEIS, Section 5.8.5, and Appendix L, Section L.3.2. This interpretation of "prudent" completely disregards the preservation and conservation benefits of the less destructive alternatives, and is fundamentally inconsistent with the FAA's responsibilities under 49 U.S.C. § 303(c)(1).

Comment	Response
16	The FAA directs the commenter to Section 9.3 of the ROD regarding HAP issues.
17	<p>FAA respectfully disagrees with the commenters' assertions that the FAA's analysis does not meet the requirements of 49 U.S.C. 303 (c)(1). FAA further disagrees with the commenters' statement that "FAA's legal interpretation of Section 4(f) is untenable." FAA's evaluation of alternatives as presented in Chapter 3 of the Final EIS makes it clear which alternatives can satisfy the purpose and need.</p> <p>Based on comments previously submitted on the Draft EIS and on the Draft Section 4(f)/6(f) Evaluation, FAA conducted a thorough analysis of derivatives as presented in Section 3.6 of the Final EIS. In addition, FAA has thoroughly considered and responded to additional comments on the Final EIS in this ROD (e.g. Fleming affidavit, Campbell affidavit). Based upon all the information developed and reviewed by FAA, including the comments received on the Section 4(f)/6(f) process, the FAA believes that this ROD satisfies the requirements of Section 4(f)/6(f).</p>

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**XV. Failure to Include All Possible Planning To Minimize Harm to 4(f)/6(f) Resources.**

Publication of the Final 4(f)/6(f) Evaluation in the FEIS clearly demonstrates that the FAA has failed to include "all possible planning to minimize harm to . . . historic site[s]" as required by Section 4(f)/6(f). 49 U.S.C. § 303(c)(2). The FAA had not completed the Section 106 process at the time it published the Final 4(f)/6(f) Evaluation in the FEIS. Rather, the FEIS indicates that the FAA will complete the Section 106 process some time after the FEIS publication. One of the core purposes of Section 106 of the National Historic Preservation Act is to establish a planning process specifically designed to minimize harm to historic resources, a subcategory of 4(f)/6(f) resource. The failure to complete this planning process before completing the 4(f)/6(f) evaluation violates 49 U.S.C. § 303(c)(2).

**XVI. FAA's Abject Failure to Meet Its Responsibilities Under the First Amendment and the Federal Religious Freedom Restoration Act.**

After waiting three years without answer for a response to our repeated entreaties that FAA protect the religious cemeteries' religious rights and that FAA not violate the religious cemeteries' religious rights through ALP approval and funding of Phase One and the full build OMP-Master Plan, FAA finally responded on July 28<sup>th</sup> by proposing an alternative that will destroy St. Johannes Cemetery and rejecting a host of alternatives that would avoid the destruction of the

Comment	Response
18	<p>The FAA respectfully disagrees. Numerous opportunities for comments on Section 106 and Section 4(f)/6(f) resources were afforded, and numerous comments were received. The FAA has completed the consultation process under Section 106 with the signing of the MOA by the Advisory Council on Historic Preservation, State Historical Preservation Office, FAA, and City of Chicago.</p> <p>Despite the fact that the Section 106 consultation process was concluded after the Final Section 4(f)/6(f) Evaluation, the FAA fully satisfied the requirements of these statutes. With respect to historic preservation concerns, the FAA identified the properties that might be potentially affected in the Draft EIS and included early concepts for potential mitigation in the Draft Section 4(f)/6(f) Evaluation. It is clear from both the text of the Draft EIS and Draft Section 4(f)/6(f) Evaluation, the public comments thereon, and the Final EIS that there has been a vigorous discussion and analysis of Section 4(f)/6(f) and Section 106 resources. Although there are occasions when the NEPA/EIS and Section 4(f)/6(f) and Section 106 proceed simultaneously, there is no requirement in any of those statutes that simultaneous consideration is the only acceptable means of satisfying these several requirements. Here, the FAA urged the inclusion of several potentially eligible properties in order to afford them the formal protections of Section 106. Had the FAA been less proactive in seeking to expand the scope of the duties under this Act it might have concluded these processes earlier. In any event, the Agency believes it has fully satisfied all applicable requirements.</p> <p>Indeed, in an August 30, 2005 consultation meeting with the SHPO, FAA, the City of Chicago, and Consulting Parties (Village of Bensenville, Elk Grove Village, St. John's Church of Christ, and the Rest Haven Cemetery Association), the Director of Federal Programs of the Advisory Council, recognized that there are circumstances when adverse effects on protected properties cannot be avoided. In those cases, the Director recognized that the appropriate step is to minimize if possible and then mitigate those adverse effects. The Director reminded those in attendance at the meeting of the limited scope of the Section 106 consultation process. This includes taking into account effects to historic properties and affording the Council an opportunity to comment. Adoption of a Memorandum of Agreement signifies completion of the process and compliance with the statute (see transcript of consultation meeting for resolution of adverse effects 8/30/2005 pages 128-131).</p> <p>The Section 4(f) and Section 106 processes have been completed with the signing of the MOA and issuance of this ROD.</p>

cemetery. For the reasons stated in our earlier communications (incorporated herein) we believe that FAA is violating the federal Religious Freedom Restoration Act and is a co-participant (through ALP approval, and FAA AIP and PFC decision-making) with Chicago in violating the cemeteries' First Amendment right to the Free Exercise of Religion. For the reasons set forth previously and above:

- A. Chicago has singled out these two religious institutions for discriminatory treatment in stripping the protection of the Illinois Religious Freedom Restoration Act from these two religious institutions while preserving the protection of that Act for all other religious institutions in the State of Illinois.
- B. FAA is complicit in Chicago's First Amendment violation by proposing to approve the OMP with the foreseeable and known consequence of which is the destruction of St. Johannes Cemetery.
- C. FAA's proposal to isolate Rest Haven behind blast walls in a sea of concrete in the middle of a high jet traffic cargo area continues to cause unacceptable injury and a substantial burden on the religious beliefs and practices of the Rest Haven Religious Objectors.
- D. FAA has now acknowledged that FAA's and Chicago's actions in destroying St. Johannes Cemetery impose a "substantial burden" on the exercise of the cemetery's religious practices and beliefs within the meaning of the First Amendment and the federal RFRA.

- E. FAA has not made the required factual demonstration to an independent judicial tribunal that there is a compelling governmental need for the full build OMP-Master Plan (or Phase 1) as opposed to an alternative which would avoid the destruction.
- F. FAA has not made the required factual demonstration to an independent judicial tribunal that there are no alternatives available to meet a purported governmental need which would avoid the injury.
- G. Religious Objectors submit that FAA has not been given — or could be given within the mandate of Article III of the Constitution — the judicial authority to make the adjudicative determinations of the application of the First Amendment and RFRA requirements to the contested facts in this matter.
- H. Assuming *arguendo* that federal courts determine that FAA has the judicial authority to make the adjudicative determinations of the application of the First Amendment and RFRA requirements to the contested facts in this matter, the adjudicative procedures used by FAA in this matter have violated basic principles of Due Process and the requirements of the Administrative Procedure Act. FAA has hidden evidence, engaged in improper *ex parte* communication, and used officials and contractors who should have disclosed their past relationships with Chicago and who should have been disqualified from any

participation in any adjudicative decision-making processes by FAA.

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For the foregoing reasons, the FAA's FEIS is legally defective and the FAA may not approve the OMP or permit the OMP project to go forward.

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Comment	Response
19	The Final EIS at Section 5.22 presented the FAA's proposed findings with respect to issues arising under the First Amendment and RFRA. The Agency invited public comment on those tentative findings. After careful consideration of those comments, the FAA has made its final determinations under these measures in of Section 12 of this ROD. These determinations are fully responsive to the comments presented here.
20	The FAA respectfully disagrees with the commenter's assertion that the Final EIS is legally defective. The FAA has carefully considered the comments provided and does not find the arguments raised by the commenter persuasive as outlined throughout the FAA's responses.

Respectfully submitted,



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 Leroy Heinrich and Roxanne  
 Mitchell

Counsel for The Village of Bensenville  
 and The Village of Elk Grove Village

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**AFFIDAVIT**

Tung Xuan Le , being first duly sworn on oath, deposes and says:

1. I am President of LeTech Inc., a computer technology consulting firm in Alexandria, Virginia.
2. Bachelor of Science in Mechanical Engineering, minor in Computer Science, 1983, Catholic University of America, Washington, DC.
3. For the past sixteen years. I have worked as a professional computer scientist in airport computer simulation. In that time I have performed numerous simulation analyses for airspace, runway, gates, and terminal worldwide. Additionally, I am the developer of TotalAirportSim and was a member of the FAA's SIMMOD development team. I am very familiar with the structure of airport capacity and delay simulation models.
4. I have conducted a preliminary review of the TAAM simulation model runs and data used by the FAA in the Final Environmental Impact Statement for the project called the "O'Hare Modernization Program" ("OMP").
5. FAA used as input to the program the year 2002 Terminal Area Forecast (TAF) and I was asked to give a professional expert opinion as to the length of time that would be necessary to re-run the TAAM program with either 2003 or 2004 TAF data as the inputs.
6. My opinion as to the length of time required for such an effort and the basis for my opinion is as follows:
  - A. In performing an airport analysis using an airport/runway simulation model, there are two major parts for development, 1) building the network and 2) building the input schedule.
  - B. In comparison of these two major parts mentioned above, the less complex part to build is the input schedule for a full airport simulation analysis.

Comment	Response
Attachment 1 to Karaganis-Cohn	The FAA's response to Mr. Le's affidavit appears immediately following the last page of the affidavit.

C. Assuming that a series of experiment with the 2003 or 2004 TAFs all uses exactly the same network, the only effort is to build a different input schedule for each experiment.

D. In any one experiment (e.g., the use of the 2003 or the 2004 TAF), the effort to translate a new schedule to be useable with the network, should not take more than 20 business days and as little as 1 week in some cases , with the following assumptions:

- 1) The same analyst or someone comparable in expertise, in the tool and understanding of the dataset, performs the experiment.
- 2) The new schedule does not require any modification to the network.
- 3). The new schedule, 2003 or 2004, is derived from the 2002 schedule using cloning method, duplication and/or modification method or some other agreed upon method.
- 4). The same new schedule is used for all other experiments.

7. If any additional variations or modifications were necessary, the work could still be done in the time frame I discussed if sufficient financial and manpower resources were assigned to the task.

Signature *[Handwritten Signature]*  
 Signature Date: Sept 6, 2005

Sworn before me on this 6 day of September, 2005 (Date).

*[Handwritten Signature]*  
Notary Public

05/31/2006  
My Commission Expires



FAA Response to Le Affidavit:

The FAA disagrees with the estimate of time required to conduct a thorough and complete modeling evaluation for the purposes of the Environmental Impact Statement (EIS). The commenter's time estimate largely deals with the actual time to run the model and not the additional work necessary to validate and interpret the results for their subsequent use. In the estimating the amount of time necessary to conduct the entire modeling and evaluation assignment, as performed by FAA, the commenter has neglected the following factors:

- the work involved in the modification of the derivative flight schedules currently based on the 2002 TAF to incorporate accurately the levels of activity associated with the 2003 or 2004 TAFs;
- the balancing of airfield and the gating of the modified flight schedules;
- coordination among the parties involved including the modelers, FAA reviewers, and most importantly the air traffic controllers;
- the time to conduct an iteration following the review by FAA, its contractor, and the air traffic controllers;
- the time associated with gaining FAA, including air traffic controller, concurrence with the simulation following the first iteration;
- the time associated with developing the substantial documentation and outputs from the TAAM modeling for use in the inputs to the noise and air quality modeling necessary for a complete environmental evaluation;

The FAA also notes that to generate reliable accurate results each alternative modeled would be subject to a number of experiments. For example, the full build out of Alternative C was modeled under both east and west flow under a variety of weather conditions requiring 6 experiments alone for a given level of activity.

The commenter mentions the assumption that the same schedule be used for all experiments, and the FAA notes that this could not yield a demand delay curve. To build a credible demand delay curve, each experiment would, by necessity, require the running of at least three different schedules. In other words, the 2003 TAF would need at least three schedules developed for three different levels of activity, such as 2009, 2013, and 2018.

In addition, each experiment involves the time-intensive task of building appropriate rules within the experiment to dictate the taxiway routes and numerous other operational restrictions that are unique to a given alternative.

As stated in the response to Karaganis-Cohn's September 6, 2005 comments on the Final EIS, the FAA's rationale for declining to model the 2003 TAF is not based upon an evaluation of the time it would take. The FAA does not need to rerun models to make professional analytical judgments regarding the effects of an alternative level of activity within a reasonable range such as the 2003 TAF. The FAA has held consistently that as more recent TAFs were made available the FAA would reexamine the appropriateness of the use of the 2002 TAF. Appendix R of the Final EIS is an example of the work conducted in such an examination. The FAA believes that the use of the 2003 or 2004 TAFs would not alter the conclusions reached in the Final EIS or the approval of Alternative C in this ROD.

Comment	Response
Attachment 2 to Karaganis-Cohn	The FAA's response to Dr. Campbell's affidavit appears immediately following the last page of the affidavit.

**AFFIDAVIT OF BRIAN M. CAMPBELL**

Brian M. Campbell, being first duly sworn on oath, deposes and says:

1. I serve as Chairman of the Campbell-Hill Aviation Group, Inc, an aviation and economic research and consulting firm located at 700 North Fairfax Street, Alexandria, Virginia.

2. I have a Ph.D. degree from Columbia University in Business Administration (1969).

3. Since 1968 I have served in a variety of roles in the aviation industry, including service as a senior airline executive and several decades of experience as a consultant to airlines, airports, state governments, and the agencies of the federal government (FAA and DOT). My training, experience, and expertise is in airline economics, aviation planning and forecasting, the measurement of the economic impacts of air services on local and regional economies, and the economic analysis of aviation issues. This includes financial, marketing, planning, and operations aspects of airlines, airports, and equipment manufacturers. A detailed description of my and my firm's (Campbell-Hill Aviation Group, Inc.) expertise, experience and representative clients is included as Exhibit A to this affidavit.

4. I and my firm have been asked by the Villages of Bensenville and Elk Grove Village to conduct an analysis and evaluation of the City of Chicago's proposed construction of modifications to O'Hare Airport, including analysis of the Draft (DEIS) and Final (FEIS) Environmental Impact Statements prepared by the FAA for Chicago's proposed construction at O'Hare and including the City of Chicago's pending request from FAA for a 300 million dollar discretionary Airport Improvement Program ("AIP") grant for Phase One of the project, and a request for over one billion dollars in federal Passenger Facility Charge (PFC) authorization for Phase One.

5. Because components of Chicago's proposed construction of modifications to O'Hare Airport have been given different names — e.g., "World

Gateway Program" ("WGP"); "O'Hare Modernization Program" ("OMP"); and "Capital Improvement Program" ("CIP") — I will refer to Chicago's proposed construction of modifications to O'Hare Airport as the "full build OMP-Master Plan" which is described in a Master Plan funded by the FAA, prepared by the City of Chicago and published in February 2004. This full build OMP-Master Plan proposal has been selected by FAA in the Final Environmental Impact Statement (FEIS) as "Alternative C". The initial component of Alternative C is called "Phase One".

6. My firm's analysis of these materials prepared and released by Chicago and the FAA is contained in four documents: a) *A Critical Assessment Of The Draft Environmental Impact Statement For The O'Hare Modernization Program (OMP)* (April 6, 2005); *Chicago's O'Hare Modernization Program Fails To Meet The FAA Tests For Benefit-Cost Justification* (June 6, 2005); *Comments In Regard To: The Federal Aviation Administration's Draft Section 4(f) And Section 6(f) Evaluation For Chicago O'Hare International Airport* (July 5, 2005) and *Presentation to The Federal Aviation Administration In Regard to The City of Chicago Benefit-Cost Analysis In Support of Its Proposed O'Hare Modernization Program* (July 21, 2005).

7. As set forth in Chicago's Master Plan and the FAA's Final EIS, Chicago's proposed modifications will have a highly destructive impact on homes, businesses, and parklands in the communities of Bensenville and Elk Grove Village and on at least one religious cemetery adjacent to O'Hare. Under the Chicago proposal, as now proposed for approval and funding by the FAA, Chicago intends to acquire and destroy homes, businesses and parkland in Bensenville and businesses and parkland in Elk Grove Village, including what Bensenville has advised me is the largest supply of affordable housing in all of DuPage County, Illinois. Under the Chicago proposal, as now proposed for approval and funding by the FAA, Chicago will acquire and destroy the St. Johannes Religious Cemetery. Based on the design and construction schedule put forward by Chicago all of the acquisition and destruction of the homes, businesses,

park lands in Bensenville and Elk Grove and the destruction of St. Johannes Cemetery will occur in Phase One.

I. **The Scope of My Analysis and Affidavit**

8. I have been asked by Bensenville and Elk Grove Village to conduct an investigation and analysis of the proposed Chicago modifications of O'Hare — both as to the full build OMP-Master Plan and the initial phase of the project known as "Phase One" and to make findings on a variety of issues, including:

A. **Financial Feasibility.** FAA has stated that a necessary element of any alternative selected by FAA to meet the goals set by FAA is that it be feasible.

The DOT Inspector General has stated in a recent report that FAA is mandated by federal statute to confirm that there are assured financial resources for both the full build OMP-Master Plan as well as Phase One before issuing any AIP grants or PFC awards for Phase One.

(1) For the reasons I set forth below, I conclude that the full build OMP-Master Plan is not financially feasible and that neither Chicago, nor the FAA, nor the airlines have or can obtain the financial resources needed to build the full build OMP-Master Plan. Therefore, it is virtually certain that all Chicago can build with realistically available resources is some smaller component of the full build OMP-Master Plan. This finding has major implications for the FAA's identification of facilities needed to meet the aviation needs of the Chicago region (a major stated purpose of the FAA) and for the selection of alternatives to meet those needs as well as the FAA's asserted reasons for rejecting certain alternatives.

(2) For the reasons set forth below, I conclude that — based on the available evidence — Chicago cannot finance the completion of Phase One of the full build OMP-Master Plan. This finding also has major implications for Chicago, the FAA and the impacted communities. FAA proposes to allow

Chicago to acquire and bulldoze the homes, businesses and parklands in Bensenville and Elk Grove Village and the destruction of St. Johannes Cemetery before FAA makes federal funding decisions on approximately \$1.4 billion dollars of the 3 billion dollars Chicago says it needs for Phase One. The available facts discussed below demonstrate that FAA is prohibited from awarding or authorizing these funds. Therefore, FAA is proposing to allow Chicago to bulldoze and destroy these resources (and cause millions of dollars of economic losses to these communities) with the virtual certainty that the money will not be available to complete Phase One and that some other alternative will need to be pursued — an alternative which need not involve the destruction of these resources.

- B. **Alternatives.** Are there feasible alternatives which would avoid the destruction of the homes, businesses, parklands in Bensenville and Elk Grove and the destruction of St. Johannes Cemetery? For the reasons discussed below, I conclude that there are a variety of feasible alternatives which can meet aviation demand growth and control delays to acceptable levels — without destroying the homes, businesses, and parklands in the Bensenville and Elk Grove Village and without destroying St. Johannes Religious Cemetery.
- C. **The credibility and associated logic and evidentiary support for FAA's assertions in the FEIS.** Do the reasons provided by FAA in the FEIS for proposing to approve Chicago's proposal for the full build OMP-Master Plan — and for rejecting alternatives which would avoid the destruction of the homes, businesses, and parklands in the Bensenville and Elk Grove Village and the destruction of St. Johannes Religious Cemetery — find support in evidence and logic? Based on the facts and analysis set forth below, I find that the reasons provided by the FAA in the FEIS as justification for FAA's proposed action are neither supported by evidence or logic. Many of the major reasons asserted by

FAA to justify its proposed actions are 1) unsupported claims devoid of any evidentiary or factual support; 2) "non sequiturs" — *i.e.*, statements or assertions that do not follow logically from the asserted premise on which they are based; 3) *ipse dixit* assertions — *i.e.*, assertions put forward as true and accurate simply because FAA says it is so, and 4) statements supported only by sweeping claims of "expertise" without any evidence and reasoning to support the claim.

## II Summary of Findings and Conclusions.

9. Based on the analysis and evidence set forth below, the following is a summary of my findings and conclusions:

- A. Construction of the full build OMP-Master Plan is not financially feasible. There are insufficient funds for Chicago to build the full build OMP-Master Plan.
- B. Based on the available evidence, there are insufficient funds for Chicago to build Phase One.
- C. As emphasized by the DOT Inspector General in his July 2005 report, FAA should not fund Phase One without assurance that the funds are available and secure to build the remainder of the full build OMP-Master Plan.
- D. FAA is faced with the situation of wanting to approve a project which federal law prohibits FAA from funding because the project violates statutory mandates. Because of these funding prohibitions (the full build OMP-Master Plan fails several statutory tests), full build OMP-Master Plan will most likely never be constructed. Moreover, because the same statutory funding prohibitions also prohibit the funding of Phase One, FAA's announced intent to allow Chicago to go forward with the destruction of homes, businesses, and park lands in Bensenville and Elk Grove Village before FAA makes its determination as to funding decisions will likely lead to an unfinished Phase One with enormous damage to the surrounding communities and the religious cemetery.

- E. FAA intends to allow the destruction of homes, businesses, and park lands in Bensenville and Elk Grove Village before FAA makes its determination as to funding decisions for AIP and PFC federal funds for either Phase One or full build OMP-Master Plan. It is my opinion that allowing such destruction before FAA makes its funding decisions is arbitrary and irrational. For the reasons set forth in this affidavit, it is extremely unlikely that FAA can approve the requested federal AIP and PFC funding for either Phase One or the full build OMP-Master Plan. It is my understanding that when making these funding decisions, FAA is under a legal mandate to consider protecting these resources under a variety of federal environmental and religious protection laws. If FAA allows destruction of these resources to proceed before its funding decisions are made, there will be no resources for FAA to protect when it makes its funding decisions.
- F. The alternative proposed by FAA as the preferred alternative –Alternative C (the full build OMP-Master Plan) will neither meet unconstrained demand nor reduce delays over a proper time period of analysis. Based on the 2004 Terminal Area Forecast, the capacity of the full build OMP-Master Plan will be exhausted no later than 2023, and likely sooner. Similarly any asserted delay benefits for full build OMP-Master Plan will be exhausted by 2019. Use of either the 2003 or 2004 TAF show that the capacity of the full build OMP-Master Plan will be exhausted either at the time it opens (depending on what level of delay is deemed acceptable as a measure of capacity) or within a few years after it opens — leading to the necessity for FAA to employ blended alternatives of congestion management and use of other airports to accommodate the so-called “unconstrained” demand even with full build OMP-Master Plan.
- G. There are several alternatives which will allow the servicing of forecast aviation demand and controlling delay while avoiding the destruction of the homes,

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businesses, and parklands in the Bensenville and Elk Grove Village and the destruction of St. Johannes Religious Cemetery.

- H. FAA's rationalizations and justifications for the positions it has taken on several of the issues relating to its proposed approval and eventual funding of full build OMP-Master Plan and Phase One suffer from a profound absence of evidence, logic, and objective analysis.

### III. The full build OMP-Master Plan Is Not Financially Feasible

10. In conducting my basic analysis of the financial feasibility of the full build OMP-Master Plan, I have accepted (for purposes of this analysis only) the cost estimate provided by FAA in the FEIS at page 1-54 (Table 1-11) and the funding sources listed by FAA at page 1-55 (Table 1-12). For the reasons stated below, I believe that the cost estimate provided by FAA understates the true cost of the full build OMP-Master Plan, but in order to minimize areas of dispute I have directed my analysis of financial feasibility to the cost estimate of 14.29 billion dollars provided by FAA at page 1-54.

11. Based on the percentages of the sources of funding provided in Table 1-13 of the FEIS, the amounts of money Chicago must raise to pay for full build OMP-Master Plan and the sources of those funds are as shown in Table One of this Affidavit:

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TABLE ONE

Project Element	FAA-Chicago cost	AIP entitlement	AIP discretionary	PFC pay as go	PFC Bonds	GARBS	Third Party or Special Facility Financing
OMP	\$7,087,000,000	\$70,870,000	\$566,960,000	\$141,740,000	\$1,417,400,000	\$4,181,330,000	\$708,700,000
WGP	\$2,977,000,000					\$2,322,060,000	\$654,940,000
CIP	\$4,128,000,000		\$247,680,000	\$454,080,000	\$1,238,400,000	\$2,229,120,000	
<b>Total</b>	<b>\$14,192,000,000</b>		<b>\$814,640,000</b>	<b>\$595,820,000</b>	<b>\$2,655,800,000</b>	<b>\$8,732,510,000</b>	<b>\$1,363,640,000</b>

Source: Tables 15 and 16 FAA DEIS, Executive Summary- individual cost amounts based on percentages presented in Table 16— amounts do not reconcile due to rounding

12. The significance and need for a realistic assessment by FAA of Chicago's ability to raise the massive amount of funds identified by FAA as needed to finance the \$14.29 billion cost estimate by FAA has been underscored by the DOT Inspector General in his July 2005 report entitled *Chicago's O'Hare Modernization Program* (Report Number Av-2005-067) in which the Inspector General states:

"The City is projecting that approximately one-third of the OMP will be funded with FAA-approved PFCs and FAA-issued AIP grant funds. FAA will need to verify that the OMP's costs, schedule, and sources of funding are realistic, reasonable, and credible and that any known risks that could affect the cost and schedule of the OMP are fully disclosed and considered."

IG report at 11-12 (emphasis added)

The Inspector General said further:

"Given the amount of taxpayer dollars at stake in the OMP, it is essential that FAA fulfill its statutory mandate to ensure, among other things, that the use of the PFC revenues is adequately justified. The Department has a statutory mandate to ensure that sufficient funding exists to complete a project before committing AIP discretionary funds to that project. Fulfilling these mandates will require FAA to proactively and aggressively analyze the reasonableness and validity of the OMP financial plan. We are making this point because FAA has the legal obligation to assure that the project costs not paid for with AIP grants or PFC revenue will in fact be covered by non-Federal funds (such as airport-issued bonds) before approving the LOI for Phase 1.

Id at 12 (emphasis in bold and underscore added)

13. The Inspector General's July 2005 report states that the FAA had in its possession the text of the draft IG report since April of 2005 yet the July 2005 FEIS contains absolutely no evidence to indicate that FAA has addressed the concerns raised by the Inspector General.

14. I and my firm have conducted a financial analysis of the \$14.29 billion dollar cost estimate used by FAA in the FEIS and the likelihood that the huge amounts of money indicated in the above Table will be available. For the following reasons, I conclude that the assumed financing for the project — both as to the assumed sources of the funding and the total needed amount of the funding— will not materialize.

15. **The more than 800 million dollars in AIP "discretionary" funds listed in Table One above will not be available.** The federal AIP statute prohibits FAA from awarding AIP "discretionary" funds unless the project benefits exceed the costs. Chicago has submitted to FAA a Benefit-Cost analysis claiming that the benefits of the full OMP exceed the costs of the full OMP and that the full OMP has a benefit-cost ration of \$1.04 worth of benefits for every \$1.00 of cost — *i.e.*, a benefit-cost ration of 1.04.

16. An examination of the Chicago benefit-cost analysis (used to produce that benefit-cost comparison of 1.04) discloses that Chicago ignored the very FAA demand

forecast and the very FAA capacity and delay modeling results used by FAA in the FEIS and by Chicago in its Benefit-Cost Analysis. In order to push asserted economic benefits above the huge costs of the full OMP, Chicago assumed that traffic under the full OMP would stay constant at 974,000 operations for the next 20 years after the project opened (2013 to 2032) and that the delay differential between the full build OMP and the existing airport (*i.e.*, the asserted minutes of delay savings claimed by Chicago) that Chicago and the FAA predicted for the year 2013 would stay the same for the entire period 2013-2032.

17. These assumptions (constant traffic level at 974,000 operations and constant delay differential — both for the period 2013-2032) are contrary to the FAA and Chicago's own forecasts of traffic growth and delay. As stated by FAA in the FEIS:

"The commenter appropriately notes that growth in aviation activity at O'Hare will cause delays at the Airport to rise in the future following completion of the OMP (if approved). Simulation results used in the DEIS clearly show that these delays will increase as demand continues to grow beyond 2013."

FEIS, U.4-526 (emphasis added)

18. Using FAA's own 2002 Terminal Area Forecast (extrapolated over the project opening date plus 20 years required by FAA for benefit-cost justification, *i.e.*, 2013-2032) and the delay differentials represented in the delay curve generated FAA-Chicago modeling (called TAAMs modeling) Campbell-Hill finds that the delay savings will be far less and for a far shorter time than claimed by Chicago. In part this results from the increased aircraft taxi times that will be required because the new runways of the OMP are farther away from the terminals. The detailed analysis by Campbell-Hill is contained in the Campbell-Hill reports and materials: *Chicago's O'Hare Modernization Program Fails To Meet The FAA Tests For Benefit-Cost Justification* (June 6, 2005) and *Presentation to The Federal Aviation Administration In Regard to The City of Chicago Benefit-Cost Analysis In Support of Its Proposed O'Hare Modernization Program* (July 21, 2005). However I have enclosed a chart as Exhibit B to this affidavit which illustrates in simple terms why the

benefits of the full OMP are dramatically less than the costs. Instead of \$1.04 in benefits for every \$1.00 of costs — using Chicago and FAA's own forecast and delay curve data—the benefits of the full OMP would only be 27 cents for every \$1.00 of cost:

19. Given this enormous discrepancy between the economic benefits of full build OMP and the huge costs of the OMP (only 27 cents of benefit for every dollar of costs) FAA is prohibited by law from awarding AIP discretionary grants for the full build OMP-Master Plan. For this reason, the more than \$800 million in AIP discretionary funds that FAA assumes in the FEIS will be available to pay for a major portion of the cost of the full build OMP-Master Plan will not be available.

20. **The more than 3 billion dollars of Passenger Facility Charge (PFC funds) that FAA assumes will be available to pay for the full build OMP-Master Plan will not be available.** As shown by Table One above, FAA assumes that more than 3 billion dollars of PFC money will be available to pay for the \$14.29 billion cost of full build OMP-Master Plan. As the Inspector General pointed out in his report, FAA is prohibited from authorizing the \$3 billion in PFC funds (or awarding the projected \$70 million in AIP "entitlement" funds shown in Table One) unless there is assurance that there are sufficient funds from other sources to pay the remaining costs of the project. With an \$800 million dollar hole in the project financial plan because of the unavailability of AIP discretionary funds, the federal PFC statute prohibits FAA from authorizing the \$3 billion in PFC funds or the \$70 million shown in Table One for AIP entitlement funds.

21. **The FAA has also assumed PFC funds based on a \$6.00 PFC authorization that has not been approved by Congress and likely will not be approved.** The barebones discussion by Chicago in its Master Plan and the even skimpier discussion of the financing needs in the FEIS assumes that Congress will authorize a 25% increase in the Passenger Facility Charge (PFC) from a current maximum of \$4.50 to \$6.00 per passenger. Based on my work for several of the major airlines in this country and in recognition of the severe financial stresses already on the airline industry, I feel certain that the airline industry

will vigorously oppose any proposed increase in the PFC charge. Failure by Congress to increase the PFC will leave an additional several hundred million dollar hole in the project. (As noted above, FAA is prohibited from authorizing any PFCs — even from the currently authorized \$4.50— unless FAA can demonstrate that there are sufficient funds from other sources to pay for the project).

22. **There is no assurance that the “Majority In Interest” (MII) airlines will agree to underwrite the more than \$8 billion in General Airport Revenue Bond (GARB) debt assumed by FAA in the FEIS to fund the full build OMP-Master Plan.** In order for the City of Chicago to issue bonds for the full build OMP-Master Plan, Chicago has to receive approval (under the terms of the lease between Chicago and the airlines which use O'Hare) from the “Majority In Interest” (“MII”) airlines, which, given the high percentage of their flights at O'Hare, means United and American. This means that in order for Chicago to sell the more than \$8 billion in General Airport Revenue Bonds (GARBs) assumed by FAA in the FEIS, Chicago must get MII approval from the major O'Hare airlines including United and American. FAA, in the FEIS, points to informal public relations statements of support by American and United for the full build OMP-Master Plan. Yet nowhere does FAA or Chicago provide any evidence of any commitment by American or United (or any of the other airlines serving O'Hare) to approve the issuance of more than \$8 billion of GARBs to pay for the full build OMP-Master Plan. Indeed the only MII approval for GARBs is for a portion of the \$3 billion Phase One (discussed below) and even that commitment is contingent on almost 1.5 billion dollars of PFC and AIP money being available — a contingency which cannot occur because of the problems with AIP and PFC funding for Phase One described below. Based on the economically perilous state of the airline industry over the last several years— and in particular the economic fragility of United and American— it is highly unlikely that these two airlines will support MII approval of the more than \$8 billion in GARBs assumed by FAA. Indeed, it is far more likely that the fragile MII airlines will refuse to give MII approval for the GARB portion of

the full build OMP-Master Plan debt since the other principal sources (AIP and PFC) are likely to be unavailable — raising the amount that would need to be financed by GARBs even further. My conclusion about the reluctance or unwillingness of the MII airlines at O'Hare to commit to the GARB debt for the full OMP is further buttressed by the reported refusal of the MII airlines to approve funding in 2002 of the so-called “World Gateway” terminals — terminals whose multi-billion dollar cost is an integral part of the full build OMP-Master Plan— and terminals without which the passenger traffic that Chicago and FAA claim as benefits of the full build OMP-Master Plan cannot be accommodated.

23. **There is no evidence that any of the airlines serving O'Hare has the financial wherewithal or willingness to afford the more than 1.3 billion dollars in special facility bonds or third party financing for terminals for the full build OMP-Master Plan which the FAA assumes will be available.** As shown in Table One above FAA assumes that more than 1.3 billion dollars “third party” financing will be available. In the Master Plan, this component is also called “special facility” financing.

The City intends to fund selected portions of the planned new terminal facilities at the Airport (i.e., WGP and West Terminal Complex) with third-party financing, which may or may not include special facility debt. This approach is consistent with the City's use of special facility debt to fund portions of the existing terminal facilities at the Airport.

Master Plan p. VII-29

24. Special facility financing refers to bonds underwritten by the users of specific or “special” facilities at the airport — facilities that are not used by the airlines across the board. An example of a special facility requiring that a single airline underwrite “special facility” debt is the existing United Terminal One at O'Hare which was financed with a special facility bond underwritten by United. According to the Master Plan, Terminal 7 (the western terminal) is scheduled to be used exclusively by United and its alliance partners. Based on United's default on several hundred million dollars of special facility bonds on the existing United Terminal One, it is highly unlikely that United will be

able to sell special facility bonds and take on the several hundred million dollar cost of the western terminal. Nor has FAA or Chicago provided any evidence that any third party financing sources have demonstrated a willingness and commitment to provide over 1.3 billion dollars for terminal financing.

25. For the reasons stated above I conclude that it is not feasible to finance the \$14.29 billion dollar cost of the full build OMP-Master Plan.

**IV. Additional costs required by full build OMP-Master Plan which FAA has failed to include in its cost estimate of costs required for the full build OMP-Master Plan**

26. I have reached my conclusion as to the lack of financial feasibility of the full build OMP-Master Plan strictly on the basis of the \$14.29 billion cost estimate contained in the FAA's FEIS. There are additional costs associated with the full build OMP-Master Plan which — while not part of the basis of my conclusion in paragraph 14 above — provide additional evidence of the financial infeasibility and economic irrationality of the full build OMP-Master Plan:

**A. The Cost of Airspace Changes.** The Inspector General's report stated that "a number of airspace changes need to be made outside of Chicago airspace to sustain the expected benefits of the OMP." Id at p. 21 According to the Inspector General "FAA has not yet finalized the costs and resource requirements for making these airspace changes." Id. Yet it is clear from the Inspector General's report that full build OMP-Master Plan will require that these airspace costs be identified and paid in order to carry the projected traffic. As stated by Congress' Office of Technology Assessment:

"The three segments of the aviation system — airports, ATC facilities, and airspace use procedures — need to be developed in coordination. Piecemeal development could lead to inefficiencies, bottlenecks, and misdirected investment. For example, it would probably be a waste of resources to add runway capacity at an airport if the ATC system cannot be upgraded to handle the additional traffic in that area until several years later."

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Office of Technology Assessment (OTA) report  
(done for the House Public Works Committee)  
entitled *Airport System Development* (OTA-STI-  
231 1984) (emphasis added)

**B. Highway Costs.** It is clear from the surface transportation analysis conducted by the FAA that even the increased surface traffic projections for 2018 (only five years after the full build OMP-Master Plan is scheduled) for the traffic to and from the airport will require additional surface road modifications to carry the forecast surface traffic for the airport. At page 5.3-60 of the FEIS FAA states that FAA is "continuing discussions" with Chicago to identify "appropriate mitigation initiatives to address the project related surface traffic for the Build Alternatives". According to the FAA these "mitigation initiatives" could include payment by Chicago of a "prorated" share of the "total estimated costs of planning, designing, and constructing the required improvements to the significantly impacted roadway segments and intersections." Id at 5.3-60. Yet these costs are not identified (nor included, as they should have been, in Chicago's benefit-cost application for AIP funding). Further, the FAA's use of an end date of 2018 for its FEIS analysis (only five years after the project opens) ignores the even more substantial costs that will be imposed in surface roads and intersections beyond 2018. As discussed below, FAA should have used a project start plus 20 years as the period of analysis. This would allow FAA to coordinate its impact and highway cost analysis with the regional transportation plan which has a 2030 planning horizon and with FAA's own benefit-cost requirements for AIP funding for the full build OMP-Master Plan which require a start date (here 2013) plus 20 years (2032) as the period of analysis. By using a start date plus 20 years, it is likely that the surface traffic associated with airport demand (as predicted by the extended 2003 or 2004 Terminal Area Forecast) would far exceed the capacities of the existing surface roads and intersections. Payment of the airport's pro-rata share of the roadway changes needed to meet the airport related surface traffic demand (e.g., expressways) through

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the end of the period of analysis (2032) would be a very large cost that has not been identified by FAA.

C. **Capitalized Interest.** We stated in our earlier comments that the interest that Chicago must pay during construction is properly an element of the capital cost of the project. Including capitalized interest adds a billion or more dollars to the capital cost of the full build OMP-Master Plan. (See my discussion, *infra*, of FAA assertions).

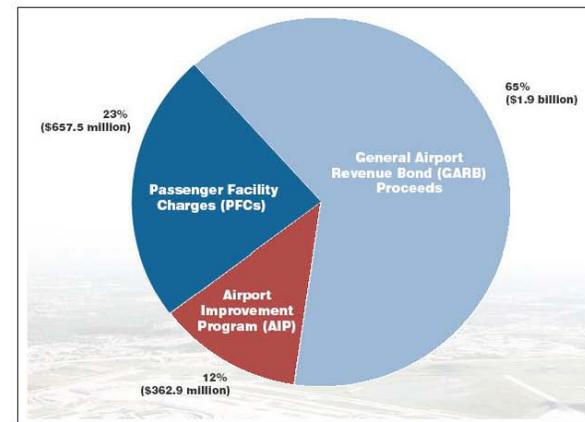
D. **Lack of a Detailed Line Item Quantity and Unit Cost Estimate for the full build OMP-Master Plan with appropriate contingency costs.** The Inspector General emphasized that the OMP's cost estimates be "realistic, reasonable, and credible." Id at 3. Compounding the problem of the current FAA estimate is the fact that there is no detailed current 2005 line item and quantity and unit cost estimate for the project. Instead FAA has provided a hodgepodge of disorganized piecemeal estimates predicated on a cost analysis performed in 2003. The Inspector General emphasized that cost estimates performed several years ago are unreliable. Given the very large rise in the cost of raw materials (*e.g.*, steel) mentioned by the Inspector General and the massive rise in fuel costs, generic adjustments for general inflation are highly inaccurate and biased to the low side. For a project approval and FAA funding on a project that the FAA itself acknowledges will cost \$14.29 billion dollars, fundamental economic prudence dictates that a current 2005 line item and quantity and unit cost estimate (with a significant contingency cost component) be prepared for the project to verify — in the Inspector General's words — that the costs are "realistic" and "credible".

V. **The Phase One Project is not Financially Feasible.**

27. It is equally obvious that the Phase One project is not financially feasible. Neither Chicago nor FAA has demonstrated that sufficient financial resources are committed to insure completion of Phase One. As the Inspector General's report

emphasized, FAA has a statutory mandate (and a corresponding statutory prohibition) to withhold AIP and PFC funding unless assurances of complete funding are in place.

28. Chicago has told FAA that Phase One will cost \$2.9 billion dollars and that the sources of funding for the Phase One project are as follows:



29. The reasons why I conclude that Phase One is not financially feasible and why sufficient funds have not been committed to assure completion of Phase One are as follows.

30. **The \$300 million dollars in AIP “discretionary” funds Chicago says it needs are not available and FAA is prohibited from awarding the \$300 million dollar AIP discretionary grant for Phase One because the benefits are far less than the costs.** Of the \$362 million Chicago says it will obtain from AIP funds, Chicago seeks \$300 million from “discretionary” AIP funding and approximately 60 million from AIP “entitlement” funds. As discussed above, the federal AIP statute prohibits FAA from awarding AIP “discretionary” funds unless the project benefits exceed the costs.

31. Chicago has submitted to FAA a Benefit-Cost analysis claiming that the benefits of Phase One are \$2.13 for every \$1.00 of cost or a benefit cost ratio of 2.13.

32. However, an examination of the Chicago benefit-cost analysis (used to produce that benefit-cost comparison of 2.13 for Phase One ) discloses that Chicago ignored the very FAA demand forecast and the very FAA capacity and delay modeling results used by FAA in the FEIS.

33. In order to push asserted economic benefits above the cost of Phase One , Chicago assumed that traffic under Phase One would stay constant at 974,000 operations for the next 20 years after the Phase One project opened (the initial runway of Phase One is scheduled for 2007 and the full Phase One to open in 2009 leading to a planning and analysis horizon of 2028) and that the delay differential between the Phase One and the existing airport (i.e., the asserted minutes of delay savings claimed by Chicago) that Chicago and the FAA predicted for the year 2009 would stay the same for the period 2009-2028. These assumptions (constant traffic level at 974,000 operations and constant delay differential — both throughout the period 2009-2028) are contrary to the FAA and Chicago’s own forecasts of traffic growth and delay and they are contrary to any sensible real life analysis of the future and to the stated requirements in the FAA’s BCA Guidance.

34. Using FAA’s own 2002 Terminal Area Forecast (extrapolated over the project opening date plus 20 years required by FAA for benefit-cost justification, i.e., 2009-2028) and the delay differentials represented in the delay curve generated FAA-Chicago modeling for Phase One (called TAAMs modeling) Campbell-Hill finds that the travel time savings for Phase One will be far less and for a far shorter time than claimed by Chicago. In part this results from the increased taxi times that will be required because the new runways of the OMP are farther away from the terminals. The detailed analysis by Campbell-Hill is contained in the Campbell-Hill reports and materials: *Chicago’s O’Hare Modernization Program Fails To Meet The FAA Tests For Benefit-Cost Justification* (June 6, 2005) and *Presentation to The Federal Aviation Administration In Regard to The City of Chicago Benefit-Cost Analysis In Support of Its Proposed O’Hare Modernization Program* (July 21, 2005).

35. However the chart attached to this affidavit as Exhibit C illustrates in simple terms why the benefits of the full Phase One are dramatically less than the costs. Instead of \$2.13 in benefits for every \$1.00 of costs — using Chicago and FAA’s own forecast and delay curve data—the benefits of the Phase One would less than one cent for every \$1.00 of cost. The area marked in green is where Phase One (based on Chicago and FAA’s own modeling) would have a lower average travel time than the existing airport. The area marked in red is where (because of rapidly rising delays with Phase One and higher taxi times) Phase One would have higher average travel time than the existing airport.

36. Given this enormous discrepancy between the economic benefits of Phase One and the cost of Phase One (less than 1 cent of benefit for every dollar of costs) FAA is prohibited by law from awarding AIP discretionary grants for Phase One. For this reason, the \$300 million in AIP discretionary funds that FAA assumes in the FEIS will be available to pay for a major portion of the cost of the Phase One will not be available.

37. **The more than \$1 billion dollars Chicago is seeking in PFC authorizations for Phase One will not be available.** Chicago is seeking more than \$1

billion in PFC authorization for Phase One (several hundred million dollars of this authorization is to pay interest on the PFC bonds because the income stream for these PFCs will not be available for many years.) As discussed above and noted by the Inspector General in his report, FAA is prohibited by statute from authorizing PFC funds unless the applicant can show that sufficient funding is available from other sources to pay for the remainder of the project. Since it is clear that FAA is prohibited from awarding any AIP discretionary funds for Phase One, FAA will necessarily be prohibited from awarding the PFCs unless Chicago can demonstrate that sufficient funds are available from other sources. Chicago has made no such demonstration. Similarly the approximately 60 million dollars Chicago seeks in AIP "entitlement" funds for Phase One will equally be prohibited because of the funding shortfall.

38. **The Lima Lima Taxiway shortfall.** Correspondence between Chicago and the FAA indicates that Chicago has removed the Lima Lima taxiway and its associated costs from the Phase One project. FAA does not discuss the Lima Lima issue in the FEIS but news media reports have reported the cost of Lima Lima at \$200-\$250 million. Chicago's entire benefits analysis and the entire modeling of Phase One by FAA in the FEIS to assess Phase One's impact and performance is predicated on the Lima Lima taxiway being in place. If FAA wishes to fund Phase One with either AIP or PFC funds, FAA must demonstrate that sufficient funds to pay for Lima Lima are in place and should require the preparation of a new cost estimate for Phase One and a new benefit-cost analysis including the added cost of Lima Lima. Without that funding assurance for Lima Lima in place, FAA will be prohibited by statute from providing either AIP funds or PFC funds.

39. **The Majority In Interest Airline GARB commitment for Phase One is contingent on all other sources of funding being secure.** As noted by the Inspector General's report, the airlines have not provided a MII commitment and approval for the full build OMP-Master Plan and the airlines' MII commitment to General Airport Revenue Bonds for a portion of Phase One is contingent on the other sources of money for Phase One

being available and assured. Since, as demonstrated above, federal statutes prohibit FAA from awarding AIP and PFC funds, and since there is an additional \$200-\$250 million shortfall with the Lima Lima taxiway (there is no evidence that the airlines have provided additional MII approvals to pursue GARB funding for Lima Lima), there necessarily is no assurance that the airlines GARB commitment for Phase One will materialize. Indeed, given the express contingency limitation of the airlines MII approval of Phase One, the airline commitment does not exist without the assurance of these other funding sources.

40. For the reasons stated above I conclude that it is not feasible to finance the \$2.9 billion (or more depending on the status of the Lima Lima taxiway) cost of Phase One.

#### VI. FAA's Unsupported Assumptions regarding Financial Feasibility

41. The Inspector General warned FAA that it could not and should not make assumptions and conclusions that had no basis in fact and warned FAA that bald reliance on FAA's self-declared "expertise" should not and will not be accepted by the courts. Yet it is just such reliance on bald unsupported assumptions and "expert" opinion that marks FAA's bare bones conclusion (based more on wishful thinking than on any evidence) that the full funding of these massive costs for full build OMP-Master Plan and Phase One will be available.

42. As set forth above, I and Campbell-Hill have provided specific facts as to why the full build OMP-Master Plan and Phase One have fatal financial feasibility problems. At no place in the FEIS does FAA address any of these very substantial and most likely fatal financial problems. Instead FAA in the FEIS simply parrots unsupported assumptions and conclusions which have no evidentiary foundation:

"...FAA has no reason to believe that the City's financial plan cannot be implemented as generally presented in the ORD Master Plan."

FEIS 1-57

"FAA has concluded that it is reasonable to assume that, based upon the impact O'Hare has on the Chicago region, as well as

the NAS, and the benefits to the regional economy, there will be sufficient funds to complete the City's proposal, if approved."

*Id.* (emphasis added)

43. FAA's sole justification for these bald unsupported assumptions and conclusions is that earlier bonds issued by the City to pay for a portion of Phase One were given "investment-grade" ratings and are thus an indication that the financial community considers Chicago's financial plan as reasonable. (FEIS at 1-57). But as Campbell-Hill pointed out in its April 6, 2005 report, (page 59, Section 3.3.3) the prospectuses for those bond issues claimed benefits (benefits which cannot be substantiated) for the entire full build OMP-Master Plan without ever revealing the true costs of the full build OMP-Master Plan and without revealing the problems that the full build OMP-Master Plan and Phase One have with AIP and PFC financing. Indeed, these prospectuses claimed that OMP would produce a 70 percent reduction in delays (which FAA's own modeling shows is not the case and FAA's own modeling shows that rising delays under Phase One and full build OMP-Master Plan will quickly exhaust any delay savings). Similarly, the prospectuses claimed that the full build OMP-Master Plan would meet the forecast demand through the year 2030 when we know that the full build OMP-Master Plan will run out of capacity shortly after it opens. FAA certainly cannot assert that these earlier bond prospectuses revealed to the investment community all of the material costs of the full build OMP-Master Plan, the financing problems with AIP and PFC funding, and the rapid rise in delays that will be experienced in both Phase One and full build OMP-Master Plan.

**VII. The Implications of the Facts Demonstrating that neither the full build OMP-Master Plan nor Phase One are financially feasible.**

44. The facts set forth above in my analysis demonstrate with a high degree of probability that Chicago cannot assemble the financial resources necessary to build the \$14.29 billion (the amount FAA admits to, it is likely more) full build OMP-Master Plan.

Nor has Chicago demonstrated that it can assemble the resources needed to build the \$2.9 billion Phase One project.

45. The lack of financial feasibility for both full build OMP-Master Plan and Phase One has major implications on the consideration of aviation needs, adverse impacts and destruction of homes, businesses, parklands and religious cemeteries, and on the availability of ORD alternatives to avoid this destruction.

46. **The Implications of the Financial Infeasibility of the full build OMP-Master Plan** Central to the FAA's proposed action in approving the full build OMP-Master Plan is FAA's categorical rejection of what FAA calls "blended alternatives". As described in more detail below, a "blended alternative" is simply using the existing airport (or some smaller added increment of runways of lesser scope than full OMP) in combination with demand management and the use of other airports. Blended alternatives have historically been widely used by FAA in metropolitan areas across the country and are currently in use or proposed for use in major urban centers nationwide. FAA currently uses a blended alternative (*i.e.*, demand management plus the use of other airports) at O'Hare, Reagan National, and New York's LaGuardia and is proposing blended alternatives (*i.e.*, a physical airport smaller than required to accommodate the so-called "unconstrained" demand with some form of a mechanism to cause the use of other airports) at Los Angeles LAX, and Boston's Logan. Similarly, based on forecast demand at Midway and the capacity analysis described by FAA in the FEIS, FAA will be required to implement a blended alternative at Midway within a very few years. Indeed, in the last consideration of major expansion at O'Hare, Chicago and the FAA in 1984 expressly selected a blended alternative at O'Hare to avoid damage to surrounding communities.

47. FAA implicitly acknowledges — and the Inspector General expressly emphasizes — that if the full build OMP-Master Plan is not built (*e.g.*, because the project cannot be funded), some form of blended alternative will be required at O'Hare. Once that fact is accepted, there are a variety of blended alternatives at O'Hare that can meet demand,

control delays to desired levels, and avoid destruction of the homes, businesses, parklands and religious cemeteries in the surrounding communities.

48. The FAA's unsupported assumption that the full build OMP-Master Plan is financially feasible— *i.e.*, that sufficient financial resources are or will be available to complete the full build OMP-Master Plan — is central to the FAA's conclusions: i) that the proposed modifications will meet the FAA's stated purpose and need; ii) that there are no alternatives to the proposed modification that would avoid the destruction:

- A. FAA asserts that the full build OMP-Master Plan is needed to (and will) meet the stated purpose and need of meeting all "unconstrained" future traffic demand at O'Hare (an assertion that is in error as discussed below).
- B. On the basis of that assertion FAA categorically rejects the use of "blended alternatives" (alternatives which combine the use of a lesser scale O'Hare with demand management and use of other airports) on the argument that only alternatives at O'Hare which meet the "unconstrained" demand will be considered; and since blended alternatives do not meet the "unconstrained" demand, these alternatives are rejected.

49. Assuming *arguendo* that full build OMP-Master Plan will meet unconstrained demand (as discussed below, the data strongly contradict FAA's assertion that full build OMP-Master Plan will meet the unconstrained demand), if there is insufficient funding for the massive \$14.29 billion full build OMP-Master Plan, FAA, of necessity will be compelled to use a "blended alternative". The Inspector General's report emphasizes this point. Once the inevitable and unavoidable need to use a "blended alternative" is acknowledged, then FAA must necessarily consider a variety of blended alternatives, including blended alternatives that either use the existing airport (*i.e.*, without additional runways) or blended alternatives using other runway variants (of lesser size at O'Hare than full build OMP-Master Plan) that could meet the demand while avoiding the destruction of homes, businesses, parklands and the St. Johannes Religious Cemetery.

50. The Inspector General recommended that FAA confirm that the financial resources for the entire full build OMP-Master Plan be certain before proceeding with the funding of Phase One. If FAA is unable to confirm the availability of the full funding for full build OMP-Master Plan, FAA must necessarily consider blended alternatives for Phase One as well as other blended alternatives. FAA has rejected all blended alternatives, including a blended alternative for Phase One. If FAA is unable to confirm the availability of the full funding for full build OMP-Master Plan, FAA should be required to explore these other blended alternatives before allowing the destruction of homes, businesses, parklands and the St. Johannes Religious Cemetery.

51. **The Implications of the Fact That Phase One is Not Financially Feasible.** FAA agrees that Phase One will not meet the FAA's stated need to accommodate unconstrained demand and implicitly acknowledges that if only Phase One is built (or anything short of full build OMP-Master Plan) FAA will be required to use a blended alternative at O'Hare.

52. But FAA refuses to examine Phase One in comparison to other existing and potential blended alternatives at O'Hare on two central assertions:

- A. FAA asserts that only full build OMP-Master Plan will meet "unconstrained demand" at O'Hare and that meeting the so-called "unconstrained demand" for forecast operations is an unconditional requirement of any alternative. (As discussed below full build OMP-Master Plan does not meet unconstrained demand and even full build OMP-Master Plan will need to use a blended alternative. However, for purposes of the financial feasibility issue, I have accepted *arguendo*, this assertion)
- B. FAA's blind unsupported claim — without addressing any of the fatal financial flaws described above — that the \$14.29 billion dollars will somehow materialize.

53. Based on this bizarre reasoning, FAA intends to proceed with approving the construction of Phase One — and the associated destruction of homes, businesses, parklands, and the destruction of St. Johannes Cemetery — on the assertion that Phase One is simply a part of the (in FAA's mind) inevitable construction of full build OMP-Master Plan. FAA simply refuses to consider the implications of Phase One (if only Phase One is constructed) or some form of O'Hare configuration less than full build OMP-Master Plan as being a potential reality).

54. But there are additional implications for the lack of financial resources to build Phase One. Without having the money to build Phase One in place (and likely not being able to assemble the money for the reasons stated above) FAA is intending to allow Chicago to bulldoze and destroy the homes, businesses, parklands, and the destroy St. Johannes Cemetery before FAA conducts the analysis and reaches a conclusion on the availability of funds to build the Phase One project. FAA's proposed action creates the distinct likelihood that Chicago's bulldozers will destroy these resources only to find later that the money is not there to complete the Phase One project.

55. It is my opinion that FAA's proposed action to allow the acquisition and destruction of these properties before FAA determines that the money to build Phase One is available is arbitrary and irrational. Without the AIP, PFC and GARB funds discussed above and required for Phase One, these homes, businesses, parklands and religious cemetery will have been destroyed for no purpose.

56. It is also arbitrary and irrational for FAA to allow the destruction of homes, businesses, parklands and the St. Johannes Religious Cemetery until it determines if there is sufficient money available for the full build OMP-Master Plan. As discussed above, if there is not sufficient money to construct the full build OMP-Master Plan, then FAA will necessarily (as pointed out by the Inspector General) be compelled to investigate the use of blended alternatives — something FAA has refused to do to this date. Once FAA examines blended alternatives, FAA has already conceded that there are blended alternatives that will

not destroy the homes, businesses, parklands and religious cemetery that Chicago proposes to destroy (with FAA funding) for Phase One.

#### VIII. The Three Variables That FAA Has Used To Support its Decision To Approve full build OMP-Master Plan.

57. FAA has used three principal variables in reaching its conclusion that Chicago's full build OMP-Master Plan project will meet the "unconstrained" forecast demand at acceptable levels of delay:

- A. **The Forecast Demand.**
- B. **The Acceptable Level of Delay**
- C. **The Time Period of Analysis.**

Changes or manipulation of any one of these variables — either alone or in combination— can and have lead to dramatic misstatements about the capacity of either Phase One or the full build OMP-Master Plan, and the time at which that capacity is exhausted, as well as to dramatic misstatements and erroneous conclusions about alternatives to Phase One and full build OMP-Master Plan.

58. The **Forecast Demand** is a key variable in determining the size and configuration of the facilities needed to meet what is called "unconstrained" demand and is also key in determining when the capacity of a proposed facility will be exhausted. If the Forecast Demand is larger and grows faster in one forecast as compared to another forecast, the date at which the proposed facility's capacity is exhausted will be substantially different. If the capacity is exhausted at an earlier date, then the alternatives that FAA must consider change considerably. As discussed below, the FAA's failure to use a more current Forecast Demand *e.g.*, the 2003 or 2004 Terminal Area Forecast (TAF)) instead of the 2002 Terminal Area Forecast, has a major impact on the ability of the proposed full build OMP-Master Plan and Phase I airfields to meet future demand. Use of either the 2003 or 2004 TAF shows that the capacity of the full build OMP-Master Plan will be exhausted either at

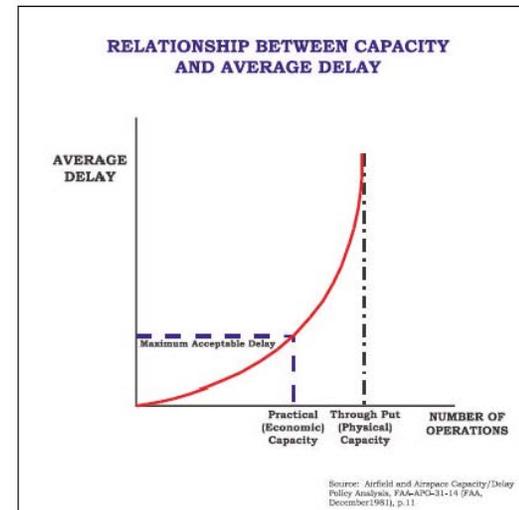
the time it opens (depending on what level of delay is deemed acceptable as a measure of capacity) or within a few years after it opens — leading to the necessity for FAA to employ blended alternatives of congestion management and use of other airports to accommodate the so-called “unconstrained” demand even with full build OMP-Master Plan

59. FAA in the FEIS categorically rejects the use of blended alternatives but the fact that FAA will be required to use a blended alternative even with full build OMP-Master Plan means that FAA can certainly consider other blended alternatives that would not require the destruction of the homes, businesses and parklands in Bensenville and Elk Grove Village and the destruction of St. Johannes Cemetery

60. The **Acceptable Level of Delay** is a second key determinant in the capacity of an existing facility. To determine when the capacity of a proposed facility will be exhausted, FAA uses a delay simulation model to calculate what the level of delay will be at a given level of **Forecast Demand**. Obviously, the higher level of delay one deems to be acceptable, the higher the capacity (*i.e.*, the number of operations) for a given facility.

61. In discussions of what is an Acceptable Level Of Delay, the FAA uses the term “Average Annual All Weather” Delay or “AAAW”. The values given for Average Annual All Weather Delay can be deceptive in that a given value for AAAW delay will often mask a much higher average delay in bad weather. For example, a 14.2 minute AAAW delay predicted by FAA for Phase One in the year 2013 (using the low 2002 TAF forecast) predicts that average bad weather delays will be in the 70-90 minute range. As discussed below, FAA has deliberately used a very high and misleading number as to acceptable levels of delay for Phase One and full build OMP-Master Plan – 15 minutes AAAW — thus overstating the capacity of these facilities. However, FAA refuses to disclose the level of “bad weather” or IFR delay that will occur when full build OMP-Master Plan reaches 15 minutes AAAW, thereby ignoring the issue of whether IFR delays are proportionally lower with OMP.

62. FAA and the U.S Department of Transportation have made a number of statements about what the acceptable level of delay and the practical capacity of an airport. The analysis of delay and capacity (including practical capacity) is governed by a capacity delay curve published by the FAA:



This chart applies to every airport — including the existing O'Hare and the proposed Phase One and full build OMP-Master Plan.

63. The key variables in examining this chart in the context of any airport are:

- A. **The level of delay that one deems acceptable (the higher the delay that is acceptable the higher the practical capacity).** For example if one says that the acceptable delay (*i.e.*, the proxy for practical capacity) is 15 minutes you can get more traffic through the airport than if you say the acceptable level of delay is 4 or 6

minutes. Which level one selects depends upon the level of delay one finds acceptable and the consequences (*e.g.*, cancellations, chaotic conditions, see discussion by USDOT below) of that level of delay. In economic terms, the level of acceptable delay one selects is the “supply” side of the equation. It controls how much traffic can go through the airport.

B. **The Forecast Demand and the timing of that demand, *i.e.*, the year that the traffic volume rises to the level that the delay curve turns vertical.** How soon the airport facility (in this case Phase One or full build OMP-Master Plan) runs out of capacity and reached the assumed level of acceptable delay depends upon the forecast demand and the year at which the forecast demand produces that delay level.

64. The following is what FAA and DOT and Chicago have said about the level of average annual delay that is either “acceptable” or “tolerable.”

#### 1998-2002 NPIAS

“Experience shows that delay increases gradually with rising levels of traffic until the practical capacity of an airport is reached, at which point the average delay per aircraft operation is in the range of 3 to 5 minutes. Delays increase rapidly once traffic demand increases beyond this level. An airport is considered to be congested when average delay exceeds 5 minutes per operation. Beyond this point delays are extremely volatile, and a small increase in traffic, adverse weather conditions, or other disruptions can result in lengthy delays that upset flight schedules and impose a heavy workload on the air traffic control system.”

FAA *National Plan for Integrated Airport Systems* (NPIAS) (1998-2002), p. 10 (emphasis added).

#### 2005-2009 NPIAS

“The Annual Service Volume (ASV), at a particular level of delay, is used to measure airfield capacity at individual airports. Traditionally, a delay of four to six minutes per aircraft operation is used in ASV calculations. The relationship between aircraft operations and delay is non-linear, and often exponential. Experience shows that airfield delay increases gradually with rising levels of traffic until a certain level is

reached. Thereafter, the delay rises more rapidly with increased traffic. For larger airports, it is our observation that the onset of the more rapid growth in delay often occurs when delay is between 4 and 6 minutes per aircraft operation.”

NPIAS (2005-2009) p. 12 (emphasis added)

#### The City of Chicago March 2004 LOI Application

“According to the *FAA’s National Plan of Integrated Airports Systems (NPIAS)*, *March 1999*, and the *BCA Guidance*, an airport is at practical capacity when the average annual delay reaches a range of 4 to 6 minutes per operation”

Chicago March 2004 LOI Application, page II-14 (emphasis added)<sup>1</sup>

#### The 1995 DOT HDR Study

There has long been a recognition that — despite the fact that 4 minutes AAW is the desired goal — in actuality several major airports are operating at higher levels of AAW delays. This reality was recognized in the DOT’s 1995 High Density Rule Report which spoke of the limits of “tolerable” AAW delay:

The 1995 DOT HDR report states:

There are no defined criteria that delineate acceptable versus unacceptable delays. FAA has historically regarded up to four minutes of AAW delay per operation to be an “acceptable” level. At some airports, however, this level of delay is exceeded on a regular basis. At the largest airport facilities, AAW delays in excess of six minutes per operation are routinely experienced. Growth in delays to higher levels has and will continue to occur at airports with increasing operations, at least until new capacity can be added.

In the absence of specific acceptability criteria for delays, a level-of-service scale has been developed to describe the operational conditions generally associated with increasing AAW delays. This scale provides a means to gauge the extent to which delays will be tolerated rather than accepted. On the basis of AAW delay, operational conditions at large hub airports could be characterized as follows:

- 0 to 4 minutes of delay per operation: efficient overall operations; delays limited to the most extreme weather conditions.

<sup>1</sup> In the 1990s Chicago made the following statement: “The practical capacity of the airfield will be defined as the maximum level of average all-weather throughput achievable while maintaining an acceptable level of delay. \* \* \* Ten minutes per aircraft operation will be used as the maximum level of acceptable delay for the assessment of the existing airfield’s capacity.... This level of delay represents an upper bound for acceptable delays at major hub airports . . .” (Landrum & Brown January 1993 Demand Forecast Analysis for the City of Chicago)

- 4 to 6 minutes of delay per operation: less *efficient* overall operations; limited peak hour VFR delays along with IFR delays experienced in both moderate and extreme weather conditions.
- 6 to 8 minutes of delay per operation: increasing VFR delays in peak hours: increasing delays and eroding operational reliability in IFR conditions; high sensitivity to operational anomalies.
- 8 to 10 minutes of delay per operation: increasing VFR delays in peak hours with translation to shoulder hours in all but optimum conditions; high delay in IFR with resulting flight cancellations. -
- Over 10 minutes of delay per operation: VFR operations experience increasing delays in peak periods and shoulder hours in all but optimum conditions; very high delays in IFR resulting in extensive flight cancellations.

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.. [W]hen the AAW delay per operation reaches 6 minutes, project planning, engineering and design of capacity improvements should be actively pursued. When AAW delay reaches eight minutes, implementation of capacity improvements should be underway.

1995 DOT HDR Report, Technical Supplement # 3, page D-2 (emphasis added in bold underscore and italics)

65. For the O'Hare FEIS, FAA has refused to identify the Acceptable Level of Delay for full build OMP-Master Plan but stated that traffic growth would stop when AAW delay reached 15 minutes AAW:

"A thorough evaluation of analytical data that examines the relationship between aircraft delay and airport capacity indicates that market forces will likely constrain aircraft operations at O'Hare when average annual delay reaches approximately 15 minutes per operation. Selection of this level of delay as the metric to "cap" aircraft operations in a constrained (i.e., no action) environment is consistent with the FAA's Benefit-Cost Analysis guidance, historical data collected from O'Hare and other highly-delayed U.S. airports, and precedents set in other recent EIS efforts' supporting capacity-enhancing projects at representative large airports."

FEIS Appendix B, B-22

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66. FAA has not provided any "analytical data" — let alone any document containing a "thorough evaluation" of that "analytical data" to support its statement that traffic will stop growing at 15 minutes AAW, as opposed to some lesser AAW value. FAA has cited no evidence from "precedents" in other "recent EIS efforts" supporting capacity-enhancing projects at representative large airports" that support this statement of 15 minutes as a cap on operations. Nor, has FAA produced any data and statistical analysis (apart from FAA's *ipse dixit* statement) showing that the values FAA has modeled at 15 minutes in its FEIS preparation have a valid statistical correlation with any historical data at O'Hare or elsewhere.

67. Every other airport cited by FAA stated that acceptable delay limits — *i.e.*, the measure of acceptable capacity — was ten minutes or less — nowhere near the 15 minute ceiling used by FAA in the O'Hare EIS:

The Miami International Airport EIS1 used 10 minutes per operation of average annual delay as a measure of acceptable delay, citing it as a "national standard." The Denver International Airport EIS2 used 6 minutes per operation of average annual delay. ... At Boston Logan, delays averaged 7.86 minutes per operation over this period, and it was concluded that actions to reduce delay were required as delays approached 8 minutes per operation.

68. **The Time Period of Analysis** is the third variable that is critically important. Selecting too short a Time Period of Analysis can produce a very misleading picture of the ability of a given facility to meet the aviation demands of the region or even the aviation demand projected for a specific facility. Too short a Time Period of Analysis also creates a false and misleading benefit/cost picture. Similarly, because delays grow as demand grows over time, selection of too short a Time Period of Analysis can produce a very misleading picture of the ability of the facility to reduce delays. In FAA's planning grant to Chicago to analyze the impacts and capacity and delays associated with the full build OMP-Master Plan, FAA wisely required a **Time Period of Analysis** to the year 2030:

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"It is anticipated that planning activity levels of 2015 and 2030 based on the most recent TAF will be identified at the basis of this effort"

March 7, 2002 FAA grant to Chicago, Scope of Work at p. 2 (emphasis added)

Similarly, in Chicago's application for the AIP discretionary money for full build OMP-Master Plan, Chicago is required by the FAA to use a **Time Period of Analysis** of the date the project is scheduled to open (2013) plus 20 years – or a Time Period of Analysis from the opening of the project to the year 2032.

69. In contrast to the Time Period of Analysis of 2030 directed by FAA in its multi-million dollar planning grant for OMP, and in contrast to FAA's requirement for federal AIP discretionary funding for OMP to use a Time Period of Analysis of project start plus 20 years (*i.e.*, 2013 to 2032), FAA in the FEIS only used a Time Period of Analysis of 5 years (*i.e.*, from 2013-2018). By using this very short 5 year Time Period of Analysis FAA reached misleading and incorrect conclusions about: 1) the ability of the full build OMP-Master Plan to meet the "unconstrained" forecast demand, 2) the need for and availability of blended alternatives that will be required to be used with full build OMP-Master Plan and which blended alternatives can be used with lesser scaled development at O'Hare, and 3) the impacts of the project.

**IX. FAA's Manipulation of the Three Variables (Forecast Demand; Acceptable Level of Delay; and Time Period of Analysis) To Reach Incorrect and Misleading Conclusions About full build OMP-Master Plan.**

70. FAA has stated that it rejected any alternatives which did not have the capacity to meet "unconstrained forecast demand"(FEIS U.4-594, U.4-586, U.4-253 *passim*). FAA also concluded that Alternative C (*i.e.*, the full build OMP-Master Plan proposed by Chicago) would meet unconstrained forecast demand and therefore was eligible to be selected as the preferred alternative. By making this assertion, FAA was able to claim that it need not consider any blended alternatives (discussed below) because FAA's preferred alternative (Alternative C) met the "unconstrained" demand.

71. In making this assertion — that full build OMP-Master Plan (Alternative C) would meet unconstrained forecast demand — FAA improperly manipulated each of the three principal variables just discussed: 1) Forecast Demand; 2) The Acceptable Period of Delay, and 3) the Time Period of Analysis. FAA performed this manipulation to conceal the problems with the full build OMP-Master Plan; to conceal the fact that the full build OMP-Master Plan will not meet the unconstrained demand; and to avoid the fact that FAA will be required to use a blended alternative (*i.e.*, demand management and the use of other airports) with the full build OMP-Master Plan to accommodate the "unconstrained" forecast demand.

72. Once that likelihood is established — *i.e.*, that FAA will be required — even with Alternative C— to utilize blended alternatives, then there is no reason why FAA cannot and should not consider blended alternatives at lesser levels of development at O'Hare — including the existing O'Hare or other runway options that do not destroy the homes, businesses, parkland and St. Johannes Religious Cemetery.

73. Rather than address the collective impact of FAA's misuse of all three major variables, I first address the individual impact of FAA's misuse of each of the principal variables:

74. **The Understated Forecast Demand.** FAA persists in using the 2002 TAF even though later TAFs (2003 and 2004) show that the Forecast Demand will reach the point where — even under the FAA's unprecedented use of a 15 minute AAAW standard — Alternative C (*i.e.*, the full build OMP-Master Plan) will be out of capacity within a few years after the project opens. Attached as Exhibit D to this affidavit is a spreadsheet showing the Forecast Demand of ORD operations under the 2002 TAF through the 2004 TAF. The following analysis examines the implications of using the different forecasts in terms of the ability of OMP to handle projected demand<sup>2</sup>:

<sup>2</sup> The predicted years when full build OMP will hit various delay levels is based on three model results provided for OMP: (1) 5.8 minutes of AAAW delay at 1.2 million operations from FEIS modeling of Alternative C, (2)

- A. **The 2003 TAF** The 2003 TAF shows that the Forecast Demand will hit the FAA's 15 minute AAAW ceiling in the 2018-2019 time frame. FAA refused to model the 2003 TAF (see discussion below) but in Appendix R to the FEIS makes the following statement that is applicable to the 2003 TAF:

"Using extrapolation and professional judgment, the FAA believes that Alternative C with the high range forecast would most likely perform at an average annual delay of between 13 and 16 minutes per operation at the high range forecast level in 2018 (1.4 million operations).

Given the slope of the delay curve, it is virtually certain under the 2003 TAF Alternative C (full build OMP-Master Plan) will exhaust its capacity by 2018-2019. If one used the lower numbers for the **Level of Acceptable Delay** used elsewhere by FAA (even the highest number used elsewhere, *i.e.*, 10 minute AAAW) then Alternative C (full build OMP-Master Plan) will exhaust its capacity even sooner (approximately 2015 for a 10-minute delay; between 2013 and 2015 for an 6-8 minute delay) using the 2003 TAF.

- B. **The 2004 TAF.** FAA asserts that it is justified in part in refusing to run the modeling on the 2003 TAF because the 2004 TAF "validates" the use of the 2002 TAF (FEIS U.4-31, U.4-538 *passim*). On the contrary, despite its questionable evidentiary foundation (see discussion below) the 2004 TAF demonstrates that under the 2004 TAF Alternative C (full build OMP-Master Plan) will exhaust its capacity by 2023 under FAA's extreme 15 minute AAAW standard. If one used the lower numbers for the **Level of Acceptable Delay** used elsewhere by FAA (even the highest number used elsewhere, *i.e.*, 10 minute AAAW) then Alternative C (full build OMP-Master Plan) will exhaust its capacity even sooner (approximately 2019 for a 10-minute delay; between 2016 and 2018 for an 6-8 minute delay) using the 2004 TAF. Contrary

10.9 minutes of delay at 1.3 million operations from Ricordo's 2003 study, and (3) 13-16 minutes of delay at 1.4 million operations from FEIS Appendix R (see Exhibit D). These results correspond closely to Campbell-Hill's analysis of delay levels using the Campbell-Hill Adjustment A curves.

to the statements in the FEIS, the use of the 2004 TAF demonstrates unequivocally that Alternative C will exhaust its capacity under the 2004 TAF Forecast Demand and FAA will be required to use a blended alternative (*i.e.*, demand management and other airports) in combination with Alternative C. If FAA can and must use a blended alternative with full build OMP-Master Plan there is no reason why FAA cannot employ either existing O'Hare or lesser levels of development at O'Hare in combination with demand management and use of other airports) — blended alternatives which would avoid the destruction of the homes, businesses and parklands in Bensenville and Elk Grove Village and the destruction of St. Johannes Cemetery.

- C. **The 2002 TAF.** FAA persists in using the 2002 TAF because FAA says it would take too long to use the 2003 or 2004 TAF in another modeling exercise — suggesting it would take a year to re-run the TAAMs model with the new input data. FAA has provided no documentation for this claim other than its *ipse dixit* statement that it would take too long. Further, the FAA persists in making generic statements about the 2002 TAF for which it has no basis. For example, here is the time frame that FAA states full build OMP-Master Plan will hit the 15 minute AAAW limit under the 2002 TAF:

"Using the aviation activity forecasts compiled for the DEIS, activity growth appears likely to result in delays reaching levels similar to those experienced today—between 13 and 16 minutes per operation—sometime in the mid-2020s. Should aviation activity grow faster than forecast—as the commenter asserts—delays would be likely to reach levels similar to those experienced today sooner."

U.4-526 (emphasis added)

While the quotation from the FEIS is supportive of the fact that Alternative C (full build OMP-Master Plan) will run out of capacity — even under the 2002 TAF — by the mid 2020s, thus requiring FAA to use a blended alternative with the full build OMP-

Master Plan even with the 2002 TAF, FAA provides no data or analysis to support this statement.

75. **The Manipulation of the 2004 TAF.** Even accepting arguendo the 2004 TAF as valid (which it is not), the 2004 TAF Forecast Demand shows the full build OMP-Master Plan running out of capacity by 2023 –requiring the use of the blended alternatives of demand management and other airports. But there are serious concerns about whether someone at FAA has manipulated the 2004 TAF downward so as to soften the impact of the Forecast Demand on the capacity and delay limitations of full build OMP-Master Plan, and to assess the reasonableness of staying with the 2002 TAF.

76. My firm and I specialize in aviation demand forecasting and we are very familiar with the methods used to prepare the Terminal Area Forecast (TAF). As stated by the FAA:

“The TAF is prepared by FAA staff using industry-standard methodology—including statistical analysis of historical trends, review of recent trends in airline service, and assumptions regarding future airline developments.”

FEIS, B-3

For large hub airports, TAF forecasts are based on a regression analysis of income and other local socio-economic variables.

*Aviation Forecast Q and A.* FAA APP-400, 3-14-05

“FAA disagrees with the comment [by Campbell-Hill] that the decrease in activity from the 2003 TAF to the 2004 TAF is unjustified. FAA conducts a comprehensive review of recent airline activity and future outlook for each annual TAF. This review is coordinated with a review of national aviation trends used in developing the forecast of aviation activity for the nation as a whole. In preparing the 2004 TAF, FAA determined that the long-term outlook for ORD was different from that reported in the 2003 TAF, and this is reflected in the results of the 2004 TAF. The FAA finds the commenter data for a few recent historical years unpersuasive on this issue. The assumptions regarding the future growth at ORD are based on the judgments of the FAA’s forecast experts.”

FEIS, p. U.4-540 (emphasis added)

77. Given my personal professional familiarity with forecasting methodology and FAA’s use of “regression analysis of income and other local socio-economic variables” in preparing the TAFs, I am perplexed by the unexplained and very large drop in forecast enplaned passengers from the 2003 TAF to the 2004 TAF. (see Exhibit E to this Affidavit) All of the “income and other local socio-economic variables” that would have been used for the 2004 TAF supported the use of higher growth rates — and thus higher enplanements in the 2004 TAF than the 2003 TAF.

78. As the Inspector General stated, FAA cannot rely on bald statements of self-proclaimed “expertise”, without supporting evidence and calculation, to justify the huge drop in the 2004 TAF. Campbell-Hill has prepared a detailed review of the available data and economic variables comparing 2003 with 2004 (attached as Exhibit F ). Based on that detailed data and analysis, it is clear that the 2004 TAF should have been higher than in the 2003 TAF — not substantially lower.

79. Further, on August 26, 2005 FAA purported — in response to Freedom of Information Requests that had been outstanding for several months — to produce the backup documents used by FAA in the preparation of the 2002, 2003, and 2004 TAF. The documents provided do not allow independent forecasting experts such as we have at Campbell-Hill to replicate or recreate the forecast values used by FAA in the 2004 TAF. There is simply no evidentiary basis for the FAA’s 2004 TAF values.

80. However, the backup papers released by FAA on 2004 do confirm Campbell-Hill’s opinion that FAA knew of and used significantly higher growth rates in the 2004 TAF working papers than the growth rates used in the 2003 TAF. There is simply no data or substantiation for the substantial decline in enplanements and operations between the 2003 TAF and the 2004 TAF.

81. Based on both Campbell-Hill’s independent computations and analysis — using the same “industry standard” techniques as does the FAA— and on our examination of the backup documentation for the 2003 and 2004 TAF provided by the FAA on August