



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Great Lakes Region  
Illinois, Indiana, Michigan,  
Minnesota, North Dakota,  
Ohio, South Dakota,  
Wisconsin

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March 6, 2009

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Attn: Mr. Peter Harmet:

Chicago O'Hare International Airport  
Feasibility Case No. 2008-AGL-1862-NRA  
Elgin O'Hare West Bypass Feasibility Study

On September 30, 2005, the Federal Aviation Administration (FAA) approved the Chicago O'Hare International Airport Layout Plan (ORD ALP). The approved ALP contained FAR Part 77 penetrations associated with each runway, along with the proposed and FAA accepted resolutions (lower, remove, light, etc). A listing of the FAR Part 77 penetrations can be found on Pages 14 through 48 of the ALP. The goal of the FAA and the Illinois Department of Transportation (IDOT) should be to have all FAR Part 77 surfaces clear of obstructions and to have no impact on CAT II/III capability. However, in case-by-case situations, FAR Part 77 penetrations may exist, if no practical alternatives can be identified and is reviewed by the FAA.

As requested by IDOT, we have completed a feasibility study for this project. It is important to note that IDOT must submit a formal request for an airspace study before the actual proposed work may proceed.

Based on our review of the feasibility study, the FAA offers the following to consider as the design/planning process continues forward.

- 1) Ensure that there are no permanent impacts to CAT II/III minimums.
- 2) Any new information must be included in a Form 7460 submittal and have no objections from an airspace utilization standpoint.

- 3) Highway light poles must be obstruction lighted.
- 4) This feasibility study does not include the physical and electromagnetic radiation effect that temporary or permanent equipment may have on the operation of an air navigation facilities located on or off O'Hare. When conflicts arises with the air traffic electronic facilities during the planning phases of proposals, the FAA emphasizes the need for conserving the navigable airspace for aircraft; preserving the integrity of the National Airspace System, and protecting air navigation facilities from either electromagnetic or physical encroachments that would preclude normal operation. In the case of such a conflicting demand for airspace by the proposed construction or alteration, the first consideration is to change the proposal.
- 5) The Sponsor is responsible for the overall expenses for the relocation and/or replacement of modifications to FAA air traffic control and air navigation facilities or components when:
  - a) Class I facilities must be relocated, replaced or modified because the proposed project impairs the technical and operational characteristics of FAA facilities.
  - b) Class I facilities must be relocated, replaced or modified to permit the extension of runways or construction of new runways and taxiways or other improvements to the existing airport facilities; for example: expansion of roadways, parking areas, terminal buildings, and aircraft service areas.
  - c) The FAA has a lease, permit, license, or other document covering Class II facilities that gives FAA a legal basis for requesting that the airport owner or sponsor assume the cost of relocation and other modifications required for safety of public airports and protection of navigable airspace.

## **IFR IMPACTS**

### **Point 9R-PT5:**

Runway 27R Proposed – Departure ICA penetrated. Requires note identifying height and location of obstruction. MTA: 720. Penetrates by 2 feet.

### **Point 9R-PT6:**

Runway 27R Proposed – Departure ICA penetrated. Requires note identifying height and location of obstruction. MTA: 712. Penetrates by 7 feet.

### **Point 4R"G"-PT3:**

Runway 22L – Departure ICA penetrated. Requires note identifying height and location of obstruction. MTA: 681. Penetrates by 11 feet.

### **Point 14R-PT3:**

Runway 27R Proposed – Departure ICA penetrated. Requires note identifying height and location of obstruction. MTA: 693. Penetrates by 3 feet.

No IFR Effects for all other points identified in this feasibility study.

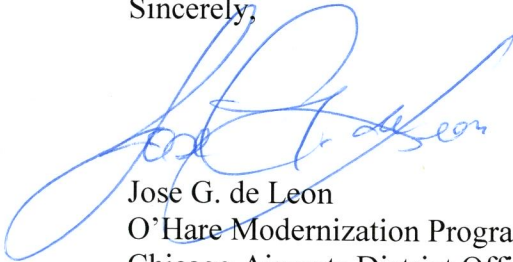
If the above points are reduced by the amount of the penetration, there should no longer be any IFR effects. This is subject to change based on the necessity to formally request an airspace study prior to the start of construction.

**PART 77 PENETRATIONS**

See attached **Tables 1 – 4** for the results of the FAR Part 77 Penetrations for the proposed Elgin O’Hare – West Bypass Feasibility Study.

If you have any questions or require further clarification, please contact Richard Kula at (847) 294-7507 or me at (847) 294-8409.

Sincerely,



Jose G. de Leon  
O’Hare Modernization Program Manager  
Chicago Airports District Office

cc: Mr. Michael Boland, City of Chicago  
ORD ATCT/ATM  
ORD ATCT/NPPM  
AGL 600  
AGL 200  
AGL 500  
AGL FPO  
AGL 471

**TABLE 1**  
**Chicago O'Hare International Airport**  
**Feasibility Study - Elgin O'Hare West Bypass**  
**FAA Part 77 Analysis - 2008-AGL-1862-NRA**  
**Critical Points for Height Restrictions**

Penetrations are measured in Feet

NA represents Not Applicable

<u>Point</u>	<u>Runway 9L/27R</u>			<u>Future Runway 9C/27C</u>			<u>Future Runway 9R/27L</u>			<u>Runway 27L</u>	
	<u>Runway 9L</u>		<u>Runway 27R</u>	<u>Primary</u>	<u>Runway 9C</u>		<u>Runway 27C</u>	<u>Primary</u>	<u>Runway 9R</u>		
	<u>Primary</u>	<u>Approach</u>	<u>Primary</u>		<u>Approach</u>	<u>Transition</u>	<u>Primary</u>		<u>Approach</u>		<u>Transition</u>
9L-PT0	1	NA	5	NA	NA	NA	NA	NA	NA	NA	NA
9L-PT1A	NA	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
9L-PT1B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9L-PT2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9L-PT3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9C-PT0	NA	NA	NA	1	NA	NA	17	NA	NA	NA	NA
9C-PT1A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9C-PT1B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9C-PT2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9C-PT3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT0	NA	NA	NA	NA	NA	NA	NA	1	NA	NA	19
9R-PT1A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT1B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9R-PT7	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	NA

**TABLE 2**  
**Chicago O'Hare International Airport**  
**Feasibility Study - Elgin O'Hare West Bypass**  
**FAA Part 77 Analysis - 2008-AGL-1862-NRA**  
**Critical Points for Height Restrictions**

Penetrations are measured in Feet

NA represents Not Applicable

Point	<u>Runway 10/28</u>			<u>Future Runway 10C/28C</u>				<u>Future Runway 10R/28L</u>					
	Primary	<u>Runway 10</u>		<u>Runway 28</u>		<u>Runway 10C</u>		<u>Runway 28C</u>		<u>Runway 10R</u>		<u>Runway 28L</u>	
		Approach	Transition	Primary	Primary	Approach	Transition	Primary	Primary	Approach	Transition	Primary	
10L-PT0	1	NA	NA	22	NA	NA	NA	NA	NA	NA	NA	NA	NA
10L-PT1	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10L-PT2	NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10L-PT3	NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10L-PT4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10C-PT0	NA	NA	NA	NA	1	NA	NA	20	NA	NA	NA	NA	NA
10C-PT1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10C-PT2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10C-PT3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10C-PT4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10R-PT0	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	22
10R-PT1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10R-PT2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10R-PT3	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	NA	NA	NA
10R-PT4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	NA	NA

**TABLE 3**  
**Chicago O'Hare International Airport**  
**Feasibility Study - Elgin O'Hare West Bypass**  
**FAA Part 77 Analysis - 2008-AGL-1862-NRA**  
**Critical Points for Height Restrictions**

Penetrations are measured in Feet  
 NA represents Not Applicable

<u>Point</u>	<u>Runway 4R/22L</u>		
	<u>Runway 4R</u>		<u>Runway 22L</u>
	<u>Primary</u>	<u>Approach</u>	<u>Primary</u>
4R"E"-PT0	1	NA	8
4R"E"-PT1	NA	3	NA
4R"E"-PT2	NA	8	NA
4R"E"-PT3	NA	NA	NA
4R"F"-PT0	1	NA	8
4R"F"-PT1	NA	6	NA
4R"F"-PT2	NA	5	NA
4R"F"-PT3	NA	8	NA
4R"G"-PT0	1	NA	8
4R"G"-PT1	NA	9	NA
4R"G"-PT2	NA	NA	NA
4R"G"-PT3	NA	22	NA

**TABLE 4**  
**Chicago O'Hare International Airport**  
**Feasibility Study - Elgin O'Hare West Bypass**  
**FAA Part 77 Analysis - 2008-AGL-1862-NRA**  
**Critical Points for Height Restrictions**

Penetrations are measured in Feet

NA represents Not Applicable

<u>Point</u>	<u>Runway 14L/32R</u>		<u>Runway 14R/32L</u>			<u>Future Runway 28L</u>	
	<u>Runway 14L</u>		<u>Runway 32R</u>	<u>Runway 14R</u>		<u>Runway 32L</u>	<u>Runway 28L</u>
	<u>Primary</u>	<u>Approach</u>	<u>Primary</u>	<u>Primary</u>	<u>Approach</u>	<u>Primary</u>	<u>Approach</u>
28L-PT0	NA	NA	NA	NA	NA	NA	NA
28L-PT1	NA	NA	NA	NA	NA	NA	NA
28L-PT2	NA	NA	NA	NA	NA	NA	NA
14L-PT0	1	NA	5	NA	NA	NA	NA
14L-PT1	NA	NA	NA	NA	NA	NA	NA
14L-PT2	NA	NA	NA	NA	NA	NA	NA
14L-PT3	NA	NA	NA	NA	NA	NA	NA
14L-PT4	NA	NA	NA	NA	NA	NA	NA
14L-PT5	NA	NA	NA	NA	NA	NA	NA
14L-PT6	NA	NA	NA	NA	NA	NA	NA
14L-PT7	NA	NA	NA	NA	NA	NA	NA
14L-PT8	NA	NA	NA	NA	NA	NA	NA
14R-PT0	NA	NA	NA	1	NA	17	NA
14R-PT1A	NA	NA	NA	NA	NA	NA	NA
14R-PT1B	NA	NA	NA	NA	NA	NA	NA
14R-PT2	NA	NA	NA	NA	NA	NA	NA
14R-PT3	NA	NA	NA	NA	NA	NA	NA
14R-PT4	NA	NA	NA	NA	NA	NA	NA
14R-PT5	NA	NA	NA	NA	NA	NA	NA