

Demonstration of FAA's Modification of Standards System

Presented to: ICAO – Colombia Webinar

By: Michael Ferry, P.E., Senior Civil Engineer

Date: August 6, 2020



**Federal Aviation
Administration**


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Airports

BENEFITS OF AGIS-MOS TOOL

- Streamline the timeline/process
 - Request won't get lost in email or mountain of papers
- Automatic notifications to all parties
 - System sends out request and status emails during review
 - Sends out reminder emails for expiring MOS (5-years)
 - Sponsor/Consultant can check status of review
- System automatically archives MOS
 - MOS archived (no paper copies or spreadsheet updates)
 - Search by location to provide MOS history of an Airport



- How an MOS begins


ADIP

[Portal Home](#)
[Facility Dashboard](#)
? Help
👤 Michael Ferry

- ☰ Sponsor Dashboard
- ✓ Draft
- ✓ Sponsor
- ✓ ADO Pre-Approval
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- ✓ ADO Post Approval
- MOS Options
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Completed INL_2020_15374 : Draft

➔ There are no pending actions for you, Michael.

Action: Draft Proposed By ✔ Kyra Hasbargen on 2020-02-13 08:04:24

Draft Recommendation:
This is for Runway 14-32, which is being created for temporary runway operations on Taxiway A.

Background

Airport: FALLS INTL-EINARSON FIELD
Location(City / State): INTERNATIONAL FALLS, MN
Loc ID: INL

Runway	Aircraft Approach Category (AAC)	Airplane Design Group (ADG)	Visibility Minimums
13/31	C Approach speed 121 knots or more but less than 141 knots	II Wingspan: 49' - < 79' (15 m - < 24 m) Tail Height: 20' - < 30' (6 m - < 9 m)	5000 Not lower than 1 mile

Affected Taxiway	Taxiway Design Group
Design Aircraft (Each Runway/Taxiway): CRJ-200	



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Approval Authority

- Level of approval authority
 - Determines coordination
 - Often impacts speed of reviews
- Doesn't preclude coordination with HQ

Category	Sub Category	ARP Region	ARP HQ	MOS Not Applicable
Design	New Instrument Approaches – Waivers to TERPS		X	
Design	Obstacle Free Zone (OFZ) - TERPS Waivers Related		X	
Design	Runway End Siting Requirements			X
Design	Runway Hold Positions - Marking		X	
Design	Runway Hold Positions - Offset Distance		X	
Design	Runway Object Free Area (ROFA)	X		
Design	Runway or Taxiway Width	X		
Design	Runway Protection Zone (RPZ)			X
Design	Runway to Heliport Separation		X	
Design	Airplane Design Group VI Standards		X	
Design	Runway to Taxilane Separation		X	
Design	Runway to Taxiway Separation		X	
Design	Runway Visibility Zone	X		
Design	Surface Gradient and Line of Sight	X		
Design	Taxilane to Parallel Taxilane	X		
Design	Taxiway Edge Safety Margin	X		
Design	Taxiway Object Free Area (TOFA)	X		
Design	Taxiway Safety Area (TSA)	X		
Design	Taxiway to Object Separation	X		
Design	Taxiway to Taxiway/Taxilane Separation	X		
Design	Taxiway/Taxilane Wingtip Clearance	X		



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Sponsor Dashboard

Draft

Sponsor

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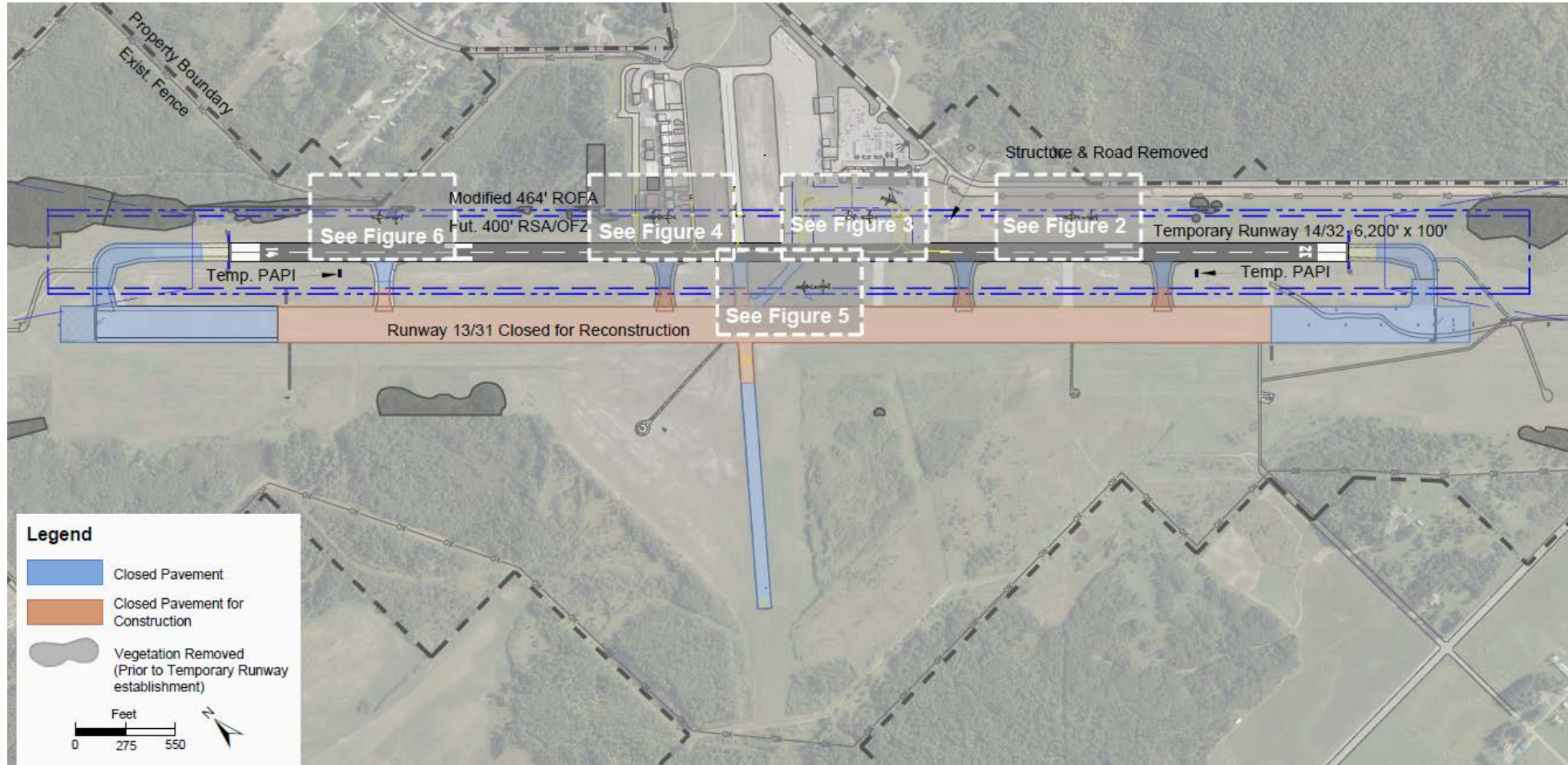
Completed INL_2020_15374 : View All Documents

Date	Added By	File Name	Category	Workflow	Access
02/12/2020 12:10 PM	Kyra Hasbargen	INL_SRM_Panel_Report_20180726.pdf	SRM Report	Draft	Public
SRM Report					
02/20/2020 3:22 PM	Kyra Hasbargen	INL_Figures_Combined_MOS_Modified_ROFA_Overall.pdf	General	Sponsor	Public
ROFA Figures 1-6					
03/11/2020 9:30 AM	Tracy Schmidt	INL_ROFA_MOS_Cond_Approval_Letter_signed.pdf	Transmittal Letter	ADO	Public



FAA Office of Airports

- Move temporary RW closer to terminal, hangars, fencing / trees, road
- Critical evaluation to maintain safety



Modification of Standards

AC Number: 150/5300-13A

Chapter: 3

Paragraph: 309

Page Number: 69

Title of Standard Being Modified (Cite Reference Document):

Airport Design

AC Published Date:

09/27/2012

EB Number: --

Airport Engineering Briefs:

EB Published Date:

Category: Design

Sub Category: Runway Object Free Area (ROFA)

1. Standard/Requirement:

The standard for a C-II ROFA is 800 feet.

2. Proposed:

INL is requesting a 464 foot ROFA for temporary runway operations on Runway 14/32.

3. Explain Why Standard Cannot be Met (FAA ORDER 5300.1):

The existing parallel Taxiway A will be converted to a temporary C-II runway (Runway 14-32) to maintain commercial air service during the reconstruction of the middle section of Runway 13-31. The RSA for Runway 14-32 will meet standards, but there are objects inside the 800 foot standard ROFA. The attached Figure 1-6 show that a 464 foot ROFA excludes all obstacles.

[Less](#)

4. Discuss Viable Alternatives (FAA ORDER 5300.1):

Alternative 1: Reduce category of aircraft allowed to B-II. This would not allow commercial service to continue during runway reconstruction. The scheduled commercial service aircraft is a C-II aircraft (CRJ-200). This aircraft is also the critical aircraft.

Alternative 2: Design the runway to C-II (critical aircraft) and Implement wing span restriction to ensure an acceptable level of safety is met for the ROFA through wing tip clearances.

[Less](#)

5. Explain Why the Modification is Necessary to Conform to Local Laws and Regulations (if Applicable):

N/A



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- Equivalent safety required

6. State Why Modification Would Provide Acceptable Level of Safety, Economy, Durability, and Workmanship (FAA ORDER 5300.1):

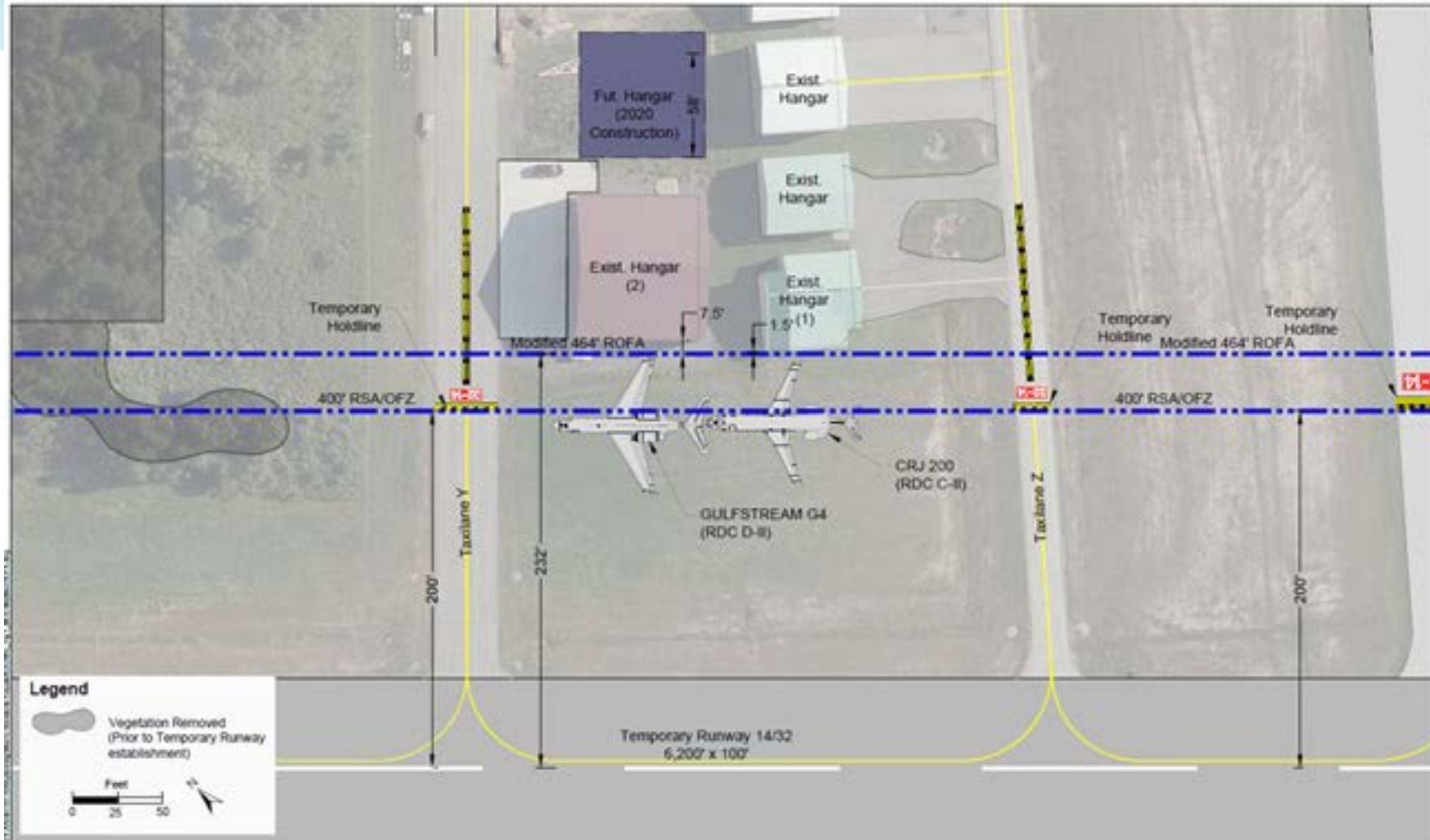
The modification of standards would allow an acceptable level of safety. The wing tip of the critical aircraft (CRJ-200) when the aircraft wheels are placed at the edge of the RSA does not impact the objects identified outside the modified ROFA. See attached Figures 1 through 6. The CRJ-200 arrives via scheduled service up to 2 times per day. Minimal other C-II aircraft will be utilizing the runway during the Runway 14-32 operations due to limited instrument approach capabilities and reduced runway length. The majority of aircraft operating at INL are A-I to B-II category aircraft.

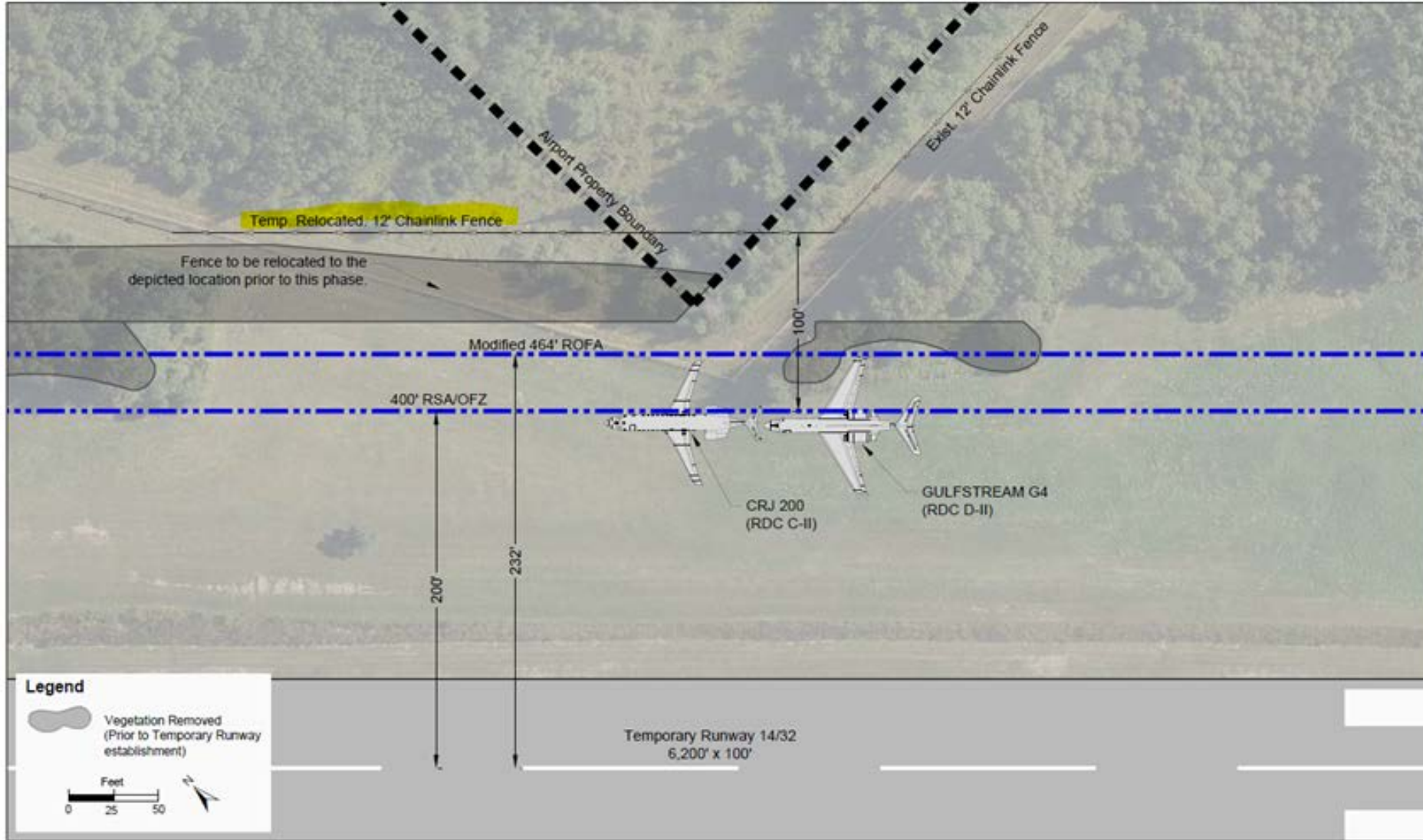
Runway 14/32 will be limited to ADG II aircraft with wingspans less than or equal to 77 feet. This accommodates a G-IV type aircraft, which has a wingspan of 77 feet. While a G-IV aircraft may utilize the airport occasionally, it is not the critical aircraft. However, it is acknowledged those aircraft operators may choose to utilize INL. C-II and D-II category aircraft both use the same Runway Design Standards Matrix as shown on Table A7-8 of AC 150/5200-13A. The "D:" category only affects the instrument approach procedure minima.

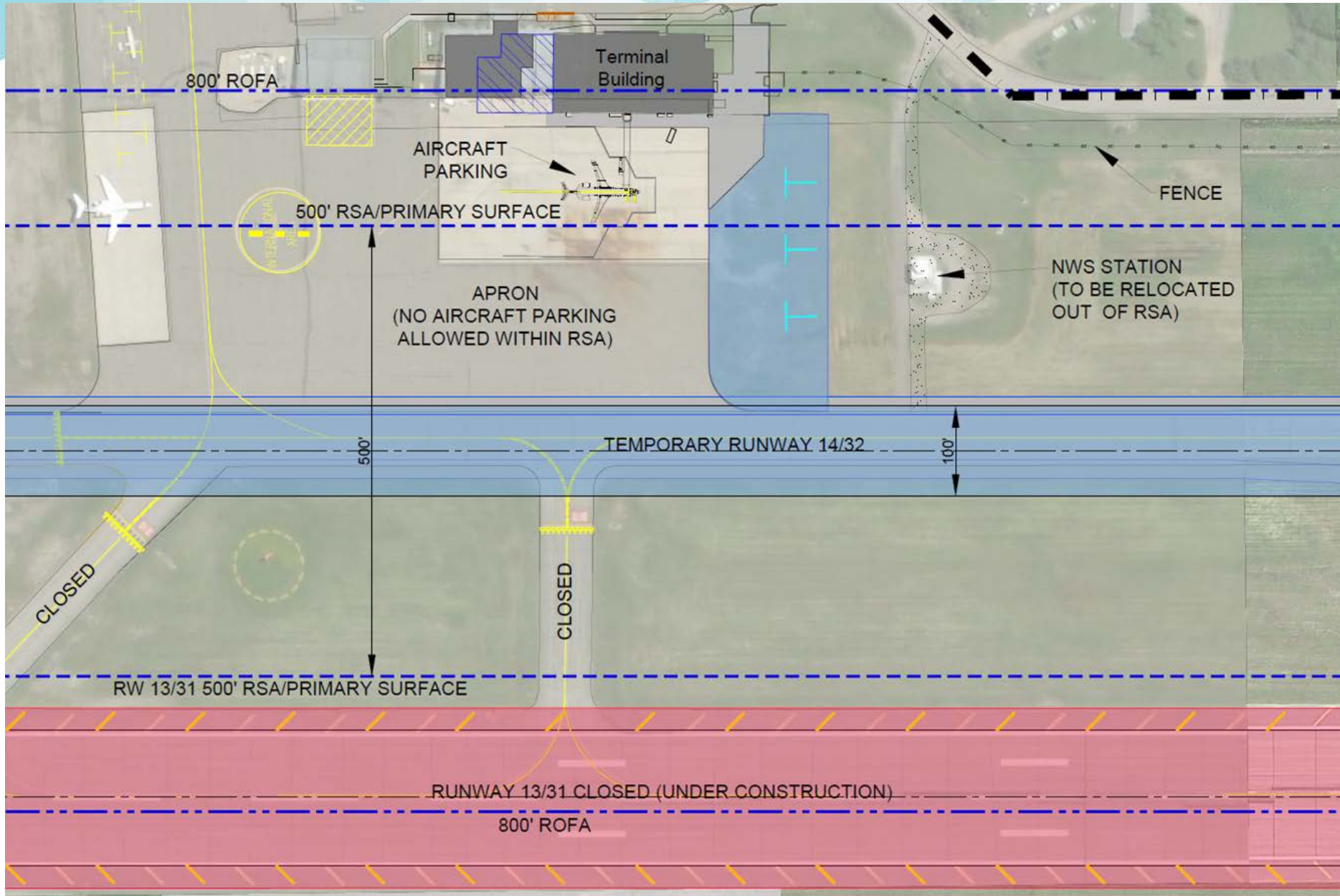
[Less](#)

7. Explain any Special Operational Procedures and/or Restrictions Necessary to Accommodate the Modification of Standards:

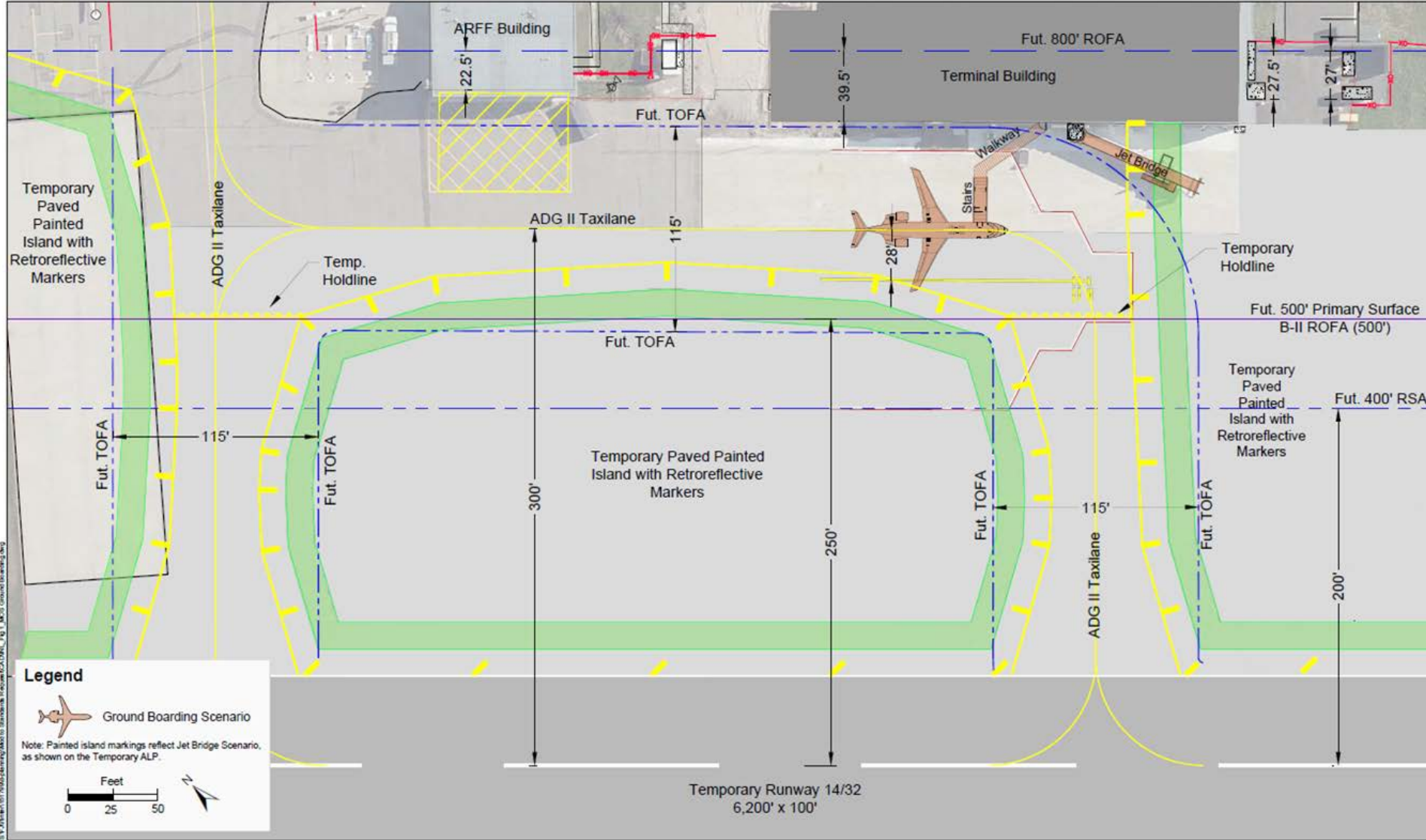
Obstructions can be lit with obstruction lights as needed.







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3/17/2020 10:15:10 AM \\p151799\Drawings\Projects\151799\151799_Ground Boarding.dwg

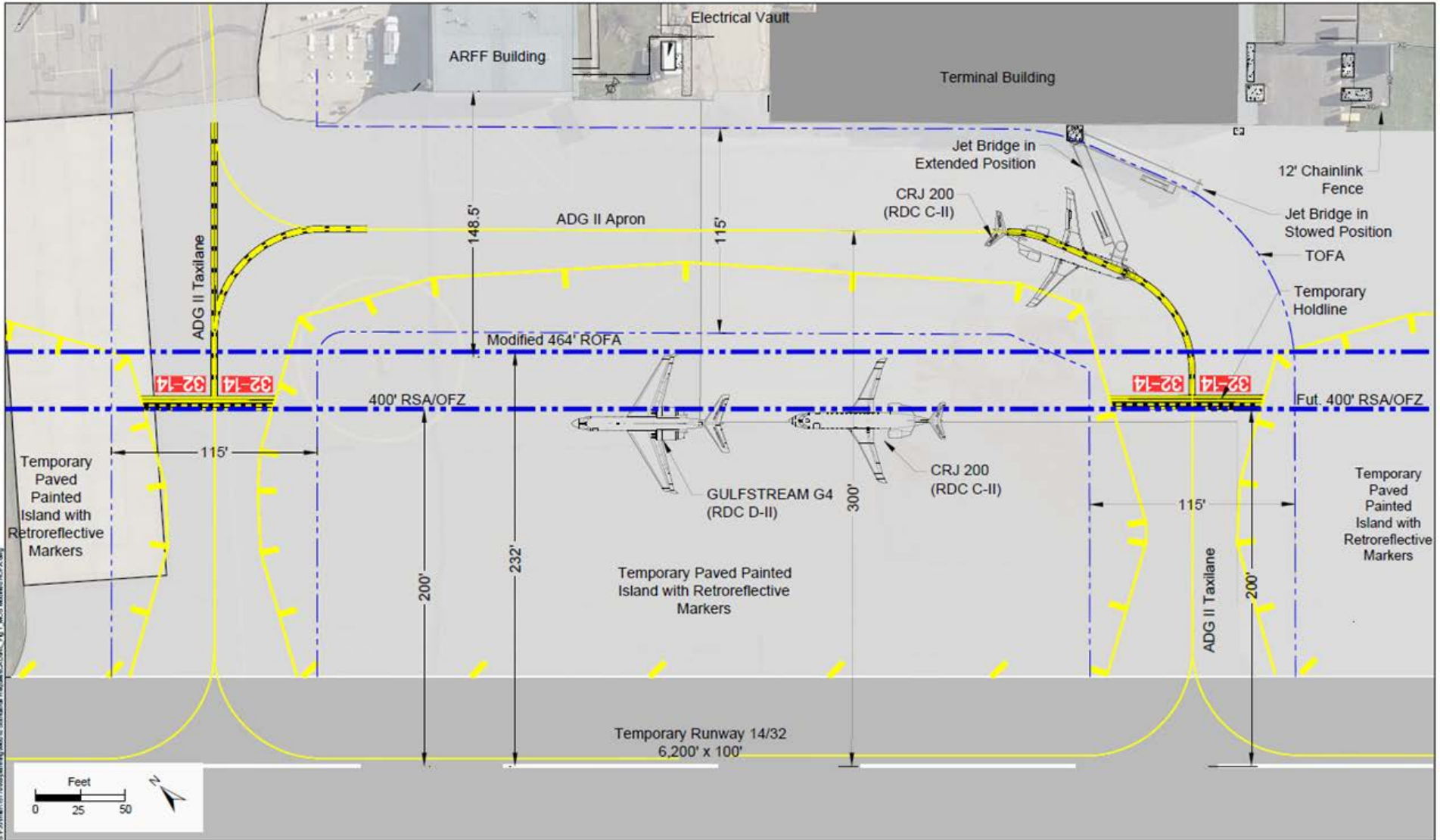
Legend

- Ground Boarding Scenario

Note: Painted island markings reflect Jet Bridge Scenario, as shown on the Temporary ALP.

Scale: 0 25 50 Feet





- Enhanced hold lines after 139 review



- Sponsor Dashboard
- ✓ Draft
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- ✓ ADO Pre-Approval
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- ✓ ADO Post Approval

MOS Options

- MOS Form
- Export PDF
- History
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- Notes

Completed INL_2020_15374 : Region

There are no pending actions for you, Michael.

- Region Dashboard
- Review & Approval
- Coordinations
- Conditions 2

Conditions

Date	Created By	Condition Description	ADO Acknowledgment
03/06/2020	Michael Ferry	Use of temporary runway is limited to aircraft with wingspans of 64 feet or less, or Gulfstream IV or CRJ 200, as proposed.	Tracy Schmidt on 03/10/2020
03/06/2020	Michael Ferry	No obstructions are permitted in the OFA that are not fixed by function, per allowable OFA design criteria. Lighting obstructions does not mitigate this condition.	Tracy Schmidt on 03/10/2020



Sponsor
ADO Pre-Approval
Region Pre-Approval
HQ Approval
Region Post-Approval
ADO Post-Approval
Notes

Final Approval Validation	ADO Preview	Review & Acceptance	Coordination(s)
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JO level
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 I)
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 shoo.com

Recommendation:

ADO Review due date:
 Has Safety Risk Assessment been performed?: Yes: No:

• Explain Why Safety Risk Assessment Has Not Been Performed:

SMS Process may be required for certain MOS and airport activity levels (i.e. Air Carrier, Hubs, etc)

• Recommendation:

MOS request recommended for approval

Please type a recommendation before submitting to Manager.

Please Complete Safety Assessment or Explain why Safety Assessment was not performed.

Questions



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