

Current Practices and Requirements

Presented to: South Dakota Airports Conference

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Federal Aviation
Administration



Required Submittals in Advance of Bidding a Project

- Scope of Services
- Engineer's Report
- Construction Safety Phasing Plan
- Plans & Specifications



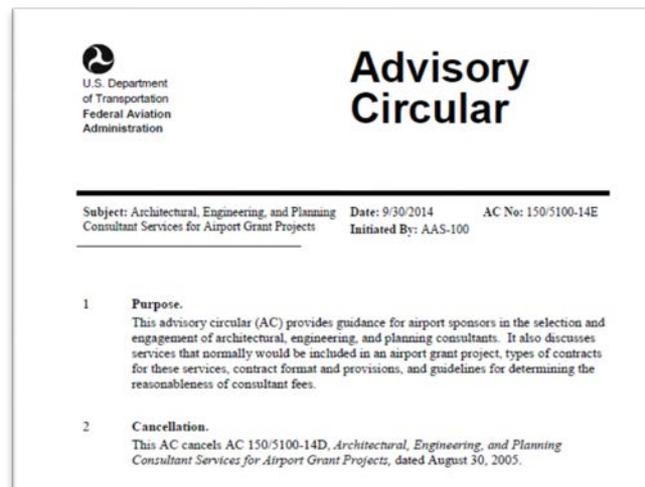
Some questions to answer with Scope Review

- Does the scope of work/services make sense to me?
- Do I understand the scope of the project to be designed?
- Do I support the scope of the project to be designed?
- Is all the work eligible and justified?
- Will the scope of work result in work that is in compliance with FAA standards?
- Does the scope of work provide for an Engineer's Design Report?
- Are all Modifications to Standard identified and approved?
- Does the scope of work provide for the FAA review of the Plans and Specs 90%?
- Will all as-built deliverables be provided to the Sponsor at the end of the project?



Scope of Services Samples

- **AC 150/5100-14E, Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects, Appendix C**
 - Example 1; Design Services scope
 - Example 2; Planning Services scope
 - Example 3; Construction Services scope



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Engineer's Report

- **Required for ALL development projects funded under the AIP.**
- **Serves to document the design considerations, engineering analysis and design selections.**



Engineer's Design Report

- The AIP Handbook gives guidance on this report.
(See Table 3-20)
- Central Region has good guidance as well.



FAA Form 5100-1 & FAARFIELD

AIRPORT PAVEMENT DESIGN								
STATE			CITY			AIRPORT		
PROJECT NUMBER			SPONSOR			DESIGN ENGINEER		
PROJECT DESCRIPTION								
GROSS ALLOWABLE AIRCRAFT WEIGHT (KIPS)								
<small>(Gear configuration or aircraft type)</small>								
SINGLE WHEEL	DUAL WHEEL	DUAL TANDEM	B-747	L 1011	DC-10-			
DESIGN CRITERIA								
DESIGN A/C	EQUIV. DEPARTURES	CBR	K	GROSS A/C WT. (kips)	USC	FLEX. STRENGTH	C _u or C _r	F
TYPICAL SECTIONS								
<small>(Show and number each course)</small>								
NON CRITICAL AREAS					CRITICAL AREAS			

<http://www.faa.gov/airports/resources/forms/>



Modifications to Standards

Minimum requirements prior to FAA review:

- MOS form complete and signed by the Airport Sponsor (not the airport's consultant).

- Airfield map clearly depicting locations.

- Reason for the MOS request (e.g. local material availability, cost savings, etc.)



Modifications to Standards

Minimum requirements prior to FAA review continued:

- Assurance that the MOS will provide a product that will meet FAA standards for acceptance and that the finished product will perform for its intended design life

- All referenced material (e.g. state specifications) must be provided in the MOS package

- The standard being modified must be submitted with tracked changes



Use of State Highway Standards

- **P-401, P-501, or P-403 should be used for all airport pavements unless otherwise approved.**
- **Approvals for State Highway Specifications mix design only apply to the mix design, testing requirements must still follow FAA specifications.**
- **P-401, P-501, or P-403 must be used on airports that have runways that are longer than 4,999 feet or have aircraft greater than 60,000 lb.**



Order 5300.1F, Modification to Standards

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

5300.1F

6/30/00

SUBJ: MODIFICATIONS TO AGENCY AIRPORT DESIGN, CONSTRUCTION, AND EQUIPMENT STANDARDS

1. PURPOSE. This Order establishes approval level for modifications to standards applicable to airport design, construction and equipment procurement projects.

2. DISTRIBUTION. This Order is distributed to division level in the Offices of Airport Planning and Programming, Airport Safety and Standards, Air Traffic, Airway Facilities, and Flight Standards Services; to the division level in the regional Airports, Air Traffic, Airway Facilities, and Flight Standards Divisions; and to all Airport District and Field Offices.

3. CANCELLATION. Order 5300.1E, *Approval Level for Modification of Agency Airport Design and Construction Standards*, dated 10/22/91, is canceled.

4. DEFINITIONS.

a. "Modification to standards" means any change to FAA standards, other than dimensional standards for runway safety areas, applicable to an airport design, construction, or equipment procurement project that results in lower costs, greater efficiency, or is necessary to accommodate an unusual local condition on a specific project, when adopted on a case-by-case basis.

b. Regional or State standards are alternative standards that may be used within the subject Region or State for airport development projects without further documentation.

c. "Materials standards" are those standards that apply to the procurement or approval of materials.

d. "Construction standards as they relate to materials" are those standards that apply to installation methods and tolerances.

5. EXEMPTIONS. Exemptions from 14 CFR Part 139, *Certification and Operations: Land Airports Serving Certain Air Carriers* (Part 139) are not covered by this Order.

Distribution: A-W/PP/AS/AT/AF/FS)-2; A-X/AS/AT/AF/FS)-2; A-FAS-1(STD) Initiated by: AAS-100

FAA GREAT LAKES REGION
MODIFICATION OF AIRPORT DESIGN STANDARDS
COMPLETE FORM IN CONJUNCTION WITH THE USER GUIDE

BACKGROUND		
1. AIRPORT:	2. LOCATION (CITY, STATE):	3. LOC ID:
4. EFFECTED RUNWAY/TAXIWAY:	5. APPROACH (EACH RUNWAY): — PIR — NPI — VISUAL	6. AIRPORT REF CODE (ARC):
7. DESIGN AIRCRAFT (EACH RUNWAY/TAXIWAY):		
MODIFICATION OF STANDARDS		
8. TITLE OF STANDARD(S) BEING MODIFIED (CITE REFERENCE DOCUMENT):		
9. STANDARD REQUIREMENT:		
10. DESCRIPTION OF PROPOSED MODIFICATION:		
11. EXPLAIN WHY STANDARD(S) CANNOT BE MET:		
12. DISCUSS ALL VIABLE ALTERNATIVES:		
13. ASSURANCE THAT MITS WILL PROVIDE AS OUTLINED IN THE "USER GUIDE":		
ATTACH ADDITIONAL SHEETS AS NECESSARY – INCLUDE SKETCH/PLAN		

AGL MODIFICATION TO STANDARDS REQUEST FORM Page 1 of 3
Revised 2/20/2015

http://www.faa.gov/airports/great_lakes/engineering/



Airports GIS – MOS Submittals



Airports GIS Login

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Password:	<input type="password"/>
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Construction Safety Phasing Plan (CSPP)

- CSPP is mandatory for construction projects receiving AIP or PFC funding.
- Purpose: Primary tool used to ensure operational safety on the airport during construction.



Construction Safety Phasing Plan

- **Typical project, submit 3-4 months prior to bid solicitation**
- **Complex project, submit 6-8 months prior to bid solicitation**
- **Guidance:**
 - AC 150/5370-2F, *Operational Safety on Airports During Construction*
 - Standard Operating Procedures 1.00, *FAA Evaluation of Sponsor's CSPP*



Plans & Specifications

APPENDIX 1 AIP CONSTRUCTION PLANS AND SPECIFICATIONS REVIEW MATRIX

Primary and Part 139 Airports

	Required Submittals in advance of 90% P&S						Acceptance of Plans & Specs Based On		
	Consultant Scope of Work	Engineering Design Report	Const. Safety & Phasing Plan	Sponsor Cert for P&S	Eligibility Verification	Contract Provisions**	139/Primary Less than \$1M*	139/Primary Greater than \$1M*	139/Primary Greater than \$5M*
Runway New Construction-139/Primary	x	x	x	x	x	x	General	Full	Full
Runway Rehab-139/Primary	x	x	x	x	x	x	Sponsor Cert	General	Full
Runway Safety Area Improvements	x	x	x	x	x	x	General	Full	Full
Taxiway New Construction-139/Primary	x	x	x	x	x	x	General	General	Full
Taxiway Rehab-139/Primary	x	x	x	x	x	x	General	General	Full
Taxiway Safety Area Improvements	x	x	x	x	x	x	General	Full	Full
Apron New Construction-139/Primary	x	x	x	x	x	x	General	General	Full
Apron Rehab-139/Primary	x	x	x	x	x	x	Sponsor Cert	General	Full
Runway Airfield Lighting-139/Primary	x	x	x	x	x	x	General	General	Full
Taxiway/Apron Airfield Lighting-139/Primary	x	x	x	x	x	x	General	General	Full
AWOS	x	x	x	x	x	x	Sponsor Cert	General	General
NAVAIDS	x	x	x	x	x	x	General	General	Full
SRE Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General
ARFF Building	x	x	x	x	x	x	Sponsor Cert	General	General
Terminals 139	x	x	x	x	x	x	Sponsor Cert	General	General
Equipment	x	n/a	n/a	x	x	x	General	General	General

Non Primary Airports

	Required Submittals in advance of 90% P&S						Acceptance of Plans & Specs Based On		
	Consultant Scope of Work	Engineering Design Report	Const. Safety & Phasing Plan	Sponsor Cert for P&S	Eligibility Verification	Contract Provisions**	NP Less than \$300K*	NP Less than \$500K*	NP Greater than \$500K*
Runway New Construction- NP	x	x	x	x	x	x	General	General	Full
Runway Rehab-NP	x	x	x	x	x	x	Sponsor Cert	General	General
Runway Safety Area Improvements	x	x	x	x	x	x	General	General	Full
Taxiway New Construction-NP	x	x	x	x	x	x	Sponsor Cert	General	General
Taxiway Rehab-NP	x	x	x	x	x	x	Sponsor Cert	General	General
Taxiway Safety Area Improvements	x	x	x	x	x	x	General	General	Full
Apron New Construction-NP	x	x	x	x	x	x	Sponsor Cert	General	General
Apron Rehab-NP	x	x	x	x	x	x	Sponsor Cert	General	General
Runway Airfield Lighting-NP	x	x	x	x	x	x	General	General	General
Taxiway/Apron Airfield Lighting-NP	x	x	x	x	x	x	Sponsor Cert	General	General
AWOS	x	x	x	x	x	x	Sponsor Cert	Sponsor Cert	General
NAVAIDS	x	x	x	x	x	x	General	General	General
Hangars/GA Terminal Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General
SRE Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General
Equipment	x	n/a	n/a	x	x	x	Sponsor Cert	General	General



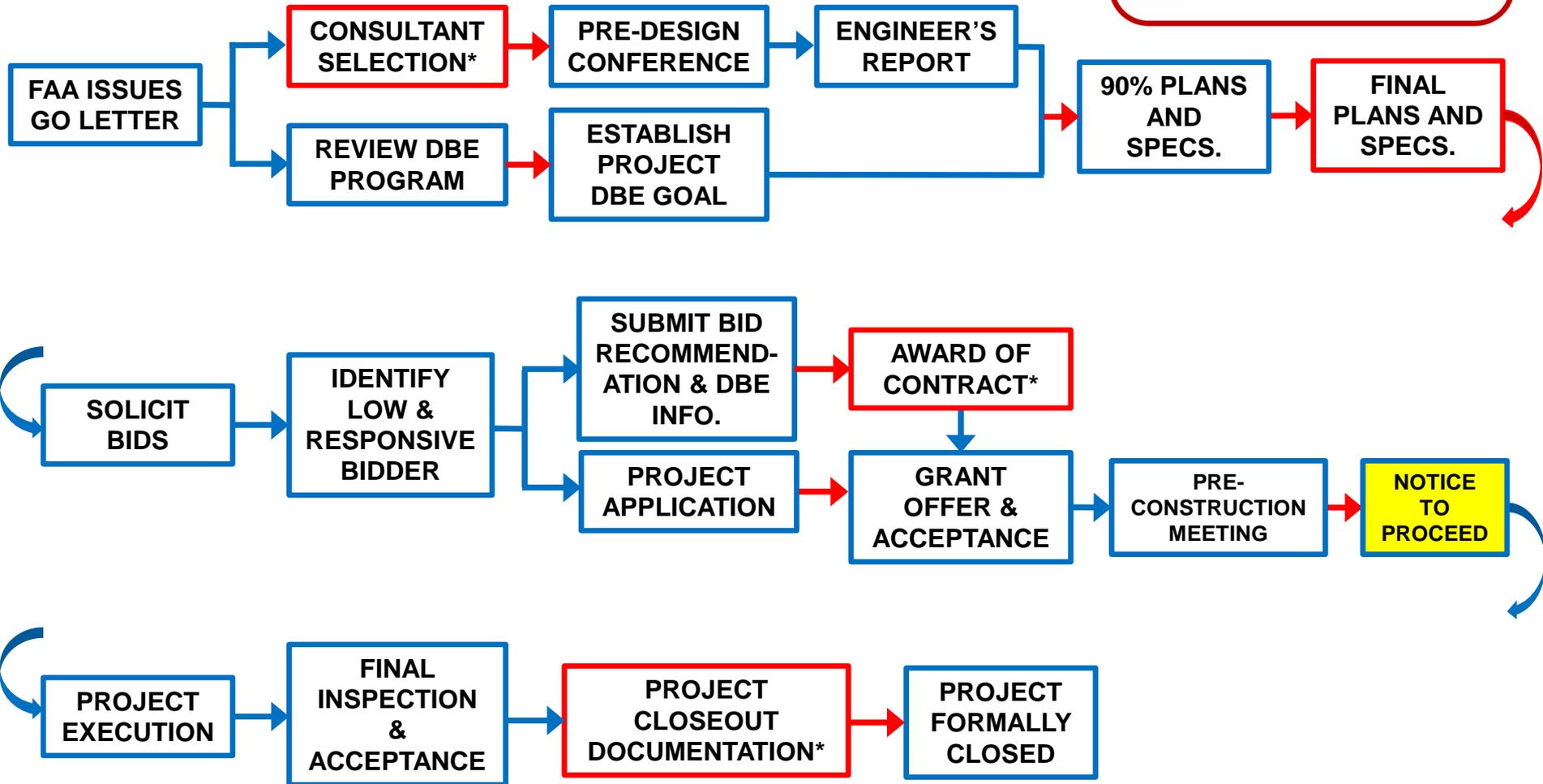
Required Submittals in advance of Bidding a Project

- ✓ Scope of Services
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Grant Process Overview

 SEEK FAA APPROVAL PRIOR TO NEXT STEP
 SPONSOR CERTIFICATION REQUIRED



Summary

- **Required submittals prior to soliciting bids.**
 - Scope of Services
 - Engineer's Report
 - Construction Safety Phasing Plan
 - Plans & Specifications (if required)
- **Required submittals prior to construction**
 - Construction Management Plan



New SOP's

- **SOP 6.00 Standard Operating Procedure for FAA Review and Approval of an Airport Improvement Program (AIP) Grant Application**



New SOP's

- **SOP 7.00 – Standard Operating Procedures for Airport Improvement Program (AIP) Construction Project Change Orders.**
 - A cost evaluation must be done and documented prior to negotiation with the contractor to be eligible for AIP funding.
 - A Sponsor cannot request reimbursements for costs incurred under a change order until the change order is approved by the FAA.



New SOP's

- **SOP 8.00 – Standard Operating Procedures for Runway Safety Area Determination**
 - Sponsors that are working within the a Safety Area will be required to certify that the Safety Area meets current standards or document what does not meet current standards.



Obstacle Action Plan

- **Memorandum Dated August 18, 2015 requires:**
 - Identifying obstructions to the approach and departure surfaces
 - Developing an Obstacle Action Plan for any obstructions.
 - Mitigating obstructions
 - Prevent new obstructions



Obstacle Action Plan

- We will be looking 5010s (airport data records) prior to issuing a grant:

<u>LIGHTING/APCH AIDS</u>	
> 40 EDGE INTENSITY:	MED
> 42 RWY MARK TYPE-COND:	NPI - G / NPI - G
> 43 VGSI:	P2R / P2L
44 THR COSSING HGT.:	21 / 26
45 VISUAL GLIDE ANGLE:	3.00 / 3.00
> 46 CNTRLN-TDZ:	- / -
> 47 RVR-RVV:	- / -
> 48 REIL:	/ Y
> 49 APCH LIGHTS:	/
<u>OBSTRUCTION DATA</u>	
50 FAR 77 CATEGORY	A(NP) / A(NP)
> 51 DISPLACED THR:	/
> 52 CTLG OBSTN:	ROAD / ROAD
> 53 OBSTN MARKED/LGTD:	/
> 54 HGT ABOVE RWY END:	18 / 13
> 55 DIST FROM RWY END:	712 / 435
> 56 CNTRLN OFFSET:	0B / 300R
57 OBSTN CLNC SLOPE:	28:1 / 18:1
58 CLOSE-IN OBSTN:	N / N

- Airports that have an obstruction identified on their 5010 will need to submit an Obstacle Action Plan prior to receiving a grant.



Questions?

