ACRP Problem Statement: 95 **Recommended Allocation:** $250,000

Guidebook for Developing Contractual Language for Building Information Modeling (BIM) Airport Projects

Click here to see problem statement in IdeaHub: http://ideascale.com/t/UKsrZBVDa *(Note: you must be a registered user in myACRP/IdeaHub.)*

TAGS: Construction, Design, Legal, Maintenance

STAFF COMMENTS

The proposed research should consider the findings of Project 09-15, Building Information Modeling (BIM) Beyond Design, which is expected to be completed by the end of this year.

AVERAGE INDUSTRY RATING SUMMARY

	Committees[1]	Airport Community[2]
Achievable	2.00	4.50
Applicable	2.00	4.50
Implementable	2.00	3.88
Understandable	2.00	4.50
OVERALL	2.00	4.34

Notes: 1. Includes TRB aviation committees and committees from ACI-NA and AAAE.
2. Includes airport employees serving on active ACRP project panels.

USE THIS LINK TO SEE DETAILED INDUSTRY RATINGS. Click on the arrow in the Problem Statements dropdown menu in the upper right and select the problem statement number.

USE THIS LINK TO SEE DETAILED INDUSTRY COMMENTS. Click on the arrow in the Problem Statements dropdown menu in the upper right and select the problem statement number.

ACRP OVERSIGHT COMMITTEE (AOC) DISPOSITION

The average AOC rating among its voting members was 2.3 on a scale of 1 to 5. There was no discussion. The problem statement was not selected for ACRP funding and will be returned to the idea collection phase of ACRP's IdeaHub.

ACRP Problem Statement: 95

Guidebook for Developing Contractual Language for Building InformationModeling (BIM) Airport Projects

TAGS: Construction, Design, Legal, Maintenance

OBJECTIVE

Create guidance for developing contractual language for building information modeling (BIM) airport projects.

BACKGROUND

Building information modeling (BIM) offers tools that allow airport decision makers to understand all components of a facility, their location and attributes, graphically and systematically, to minimize the total cost of owning and operating an airport facility. BIM supports an integrated, collaborative approach to project delivery and contracting strategies for new construction and renewal projects. The coordination and information sharing capabilities of BIM facilitates efficient communication between team members for increased project knowledge and improved solutions. BIM is an emerging technology that is only recently being implemented in airports in North America.

The need for improved contracts to support BIM is a continuing challenge for the industry. There is currently no guidance for airports related to developing appropriate contract language that would facilitate BIM use. Further research is needed in this topic area to support an airport's ability to develop project delivery and contracting strategies for new construction and renewal projects using BIM. It will also support full integration of BIM throughout the organization, yielding the greatest benefit.

APPROACH TO RESEARCH

1. Review of literature, case law, and state-of-practice for BIM contractual language.
2. Interview airport operators and stakeholders engaged with the design, construction, and maintenance of airport facilities and infrastructure.
3. Analyze responses
4. Identify BIM requirements to consider for future project solicitations/Request for Proposal (RFP)
5. Develop draft guidebook
6. Review of draft by airport operators and attorneys/legal staff
7. Develop guidance to establish contractual language

COST AND JUSTIFICATION

Estimated cost is $250,000. Duration:
18 months

This project will require time to complete a comprehensive literature review and case law review, stakeholder interviews, response analysis, recommendations for solicitation of future projects (RFP), and guidebook preparation.

RELATED RESEARCH

- ACRP Synthesis (2016): Building Information Modeling for Airports
- ACRP Report 33 (2011): Guidebook for Developing and Managing Airport Contracts

- US NBIMS (2015): US National Building Information Modeling Standard: Version 3, National Institute of Building Sciences
- BIM Planning Guide for Facility Owners, Version 2, (2013): Computer Integrated Construction Research Program, The Pennsylvania State University
- National BIM Guide for Owners (2017): National Institute of Building Sciences
- Level of Development Specification Guide for Building Information Models, Version: 2017: BIMForum

IDEA CREATOR
Person who first shared the idea with the IdeaHub community.

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OWNER/SUBMITTER
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