Engineering Management
Field Project

Federal Aviation Administration’s
Airport Capital Improvement Program
Development Process

By

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Executive Summary

The Airport Capital Improvement Program (ACIP) serves as the primary tool for project planning and formulation by the Federal Aviation Administration (FAA). The FAA relies on the ACIP to serve as the basis for the distribution of Aviation Trust Funds under the Airport Improvement Program (AIP) through grants made to airport sponsors. The FAA’s ACIP provides the means to systematically identify, prioritize, and assign funds for airport development.

The FAA ACIP process is found in law, regulations, FAA Orders, FAA Advisory Circulars, and regional policy and guidance. The guidance provides, in detail, what is required for airport sponsors to obtain federal financial assistance for an AIP eligible project.

It became apparent to the Central Region Airports Division that airport sponsors were having trouble understanding the ACIP process by the lack of uniformity, incomplete information, and uncompleted steps found in the financial aid requests. How can the FAA Central Region provide information about the ACIP process to airport sponsors, consultants and stakeholders in a format that is easy to understand?

Previous outreach efforts by the FAA to airport sponsors included workshops, seminars, guidebooks, annual letters, and individual explanations of the ACIP process. The FAA must continually educate sponsors and stakeholders through various means about the ACIP process. A new ACIP Data Sheet and a Capital Planning Practices Brochure would provide information in a format that is easy to understand and deliver.
Chapter 1: Introduction

The Federal Aviation Administration (FAA) regulates civil aviation to promote a safe, secure, and efficient airport system. It is responsible for encouraging, researching, and developing civil aeronautics and the National Airspace System including air traffic control and navigation for both civil and military aircraft. One of the two largest activities that the FAA is responsible for is safety regulation. The FAA issues and enforces regulations and minimum standards covering airports, aircraft, and the National Airspace. Secondly, the FAA is responsible for airspace and air traffic management. The safe and efficient use of navigable airspace is one of the FAA’s primary objectives. The FAA develops air traffic rules, assigns the use of airspace, and controls air traffic (What we do, 2009).

In support of the safety mission, the FAA is responsible for guidance on airport planning, which is a systematic process utilized to establish guidelines for the efficient development of airports consistent with local, state, and national goals. The FAA establishes standards and provides guidance on national airport layout, master, and system planning. A key objective of airport planning is to assure the effective use of airport resources in order to satisfy aviation demand in a financially feasible manner (Planning and Capacity, 2009).

The FAA’s Airport Capital Improvement Program (ACIP) serves as the primary tool for project planning and formulation by the FAA. The FAA relies on the ACIP to serve as the basis for the distribution of Aviation Trust Funds under the Airport Improvement Program (AIP) through grants made to airport sponsors. The FAA believes
an effective AIP program converts Aviation Trust Funds into high priority aviation infrastructure that benefits aviation in a timely basis. The FAA’s ACIP provides the means to systematically identify, prioritize, and assign funds for airport development.

Previous outreach efforts by the FAA explaining the FAA’s ACIP process to stakeholders include workshops, seminars, sponsor guidebooks, annual letters, and one-on-one meetings. Educating stakeholders of the ACIP process is difficult because of turnover in airport management, local government, and consultants. Every year new airport managers, airport commission chairs, local elected officials, and other local decision makers need to be informed of the process. The FAA finds that it must inundate stakeholders through various and varied means of communication to try and educate stakeholders on the ACIP process.

**Chapter 2: Literature Review**

The FAA ACIP process is found in a variety of different publications and not easy to understand. The ACIP process, in some form or fashion, can be found in current law, regulations, FAA Orders, FAA Advisory Circulars, and regional policy and guidance. Additionally, many states, known as channeling act states, may have state laws and regulations governing the interaction between state programs and federal programs which can add an additional layer of complexity to the ACIP process.

Existing guidance covering the FAA’s process for ACIP development is primarily written for FAA program managers, airport sponsors, and airport consultants. Conforming to national policy, each of the nine Airports Regional offices provide their own guidance based on local needs, state laws, and specific ways of doing business.
The Airport Capital Improvement Program

“The airport sponsor must leverage AIP grants, Passenger Facility Charge (PFC) collections, state grants, and revenues generated from airport operations to the extent possible to develop the airport and ensure its long-term viability. A Capital Improvement Plan (CIP) is a document that guides investment of these funds for airport development, usually over a 5-year period. In order to guide investment decision-making effectively, the CIP should be well thought out, based on an approved ALP, and realistic. It should also contain responsible project cost estimates” (ACC, 2008).

Effective airport planning results in the sponsor identifying short-term and long-term needs of their airport. Airport needs may arise from aviation demand, airport inspections, runway safety recommendations, and security recommendations.

The ACIP serves as the FAA’s primary tool for project formulation based on the needs identified through planning efforts. The FAA relies on the ACIP to serve as the basis for the distribution of limited grant funds under the Airport Improvement Program (AIP). The ACIP provides the FAA a means to systematically identify, prioritize, and assign funds for airport development.

The FAA prepares the ACIP on an annual basis which represents the airport sponsor's five-year CIP for development at their airport. It is essential for good capital planning practices to be adopted in order to position airport development projects for bid-based AIP grant funding. For an airport sponsor to be as competitive as possible for the limited AIP funding, three strategies are recommended:
1. Identify development with system impacts including additional capacity, efficiency, or safety/security.

2. Utilize apportioned funds on high-priority development. In general, the highest priority work is that associated with safety/security, maintaining operation of existing runways and the primary taxiway system, noise reduction, planning, and environmental mitigation. Generally, new pavement construction, aprons, the terminal, and access to the airport are lower priorities.

3. Manage the airport Grant program effectively by implementing sound capital planning and grant management practices.

As part of the ACIP, sponsors submit to the FAA their requests for funding using an ACIP Data Sheet, shown below, for each work item they desire. The FAA requires the sponsor to submit an ACIP Data Sheet for each major work item listed within the sponsor's 5-year CIP that is requesting Federal assistance over the next 3-years. The FAA evaluates each project for eligibility, justification, reasonableness of cost, priority assessment, reasonableness of project schedule, and information deficiencies.

As a prerequisite for AIP eligibility, all such identified work must be shown on the current approved Airport Layout Plan (ALP) as well as have an approved environmental study to proceed. Except for rehabilitation projects, all projects seeking discretionary funds in excess of five million dollars require a benefit/cost analysis.

The sponsor may submit a funding request at any time during the year. However, in order to be included in a specific fiscal year (FY), timely submittal of the request is essential. Typically, requests for a particular fiscal year should be submitted by February
15th of the previous fiscal year. For example, requests for FY 2011 should be submitted by February 15th of 2010.

Sponsors are reminded that the preparation and submittal of a project to the ACIP does not represent a guarantee that the sponsor will receive Federal funds. The official notice that a sponsor will receive Federal funds is through a Congressional notification for release of funds. Until this formal release has been made, all project efforts are construed by the FAA as a sponsor initiative.

Airport Improvement Program Handbook, FAA Order 5100.38C

“This order provides guidance and sets forth policies and procedures for the administration of the Airport Improvement Program (AIP) by the Federal Aviation
Administration (FAA).” This order is the primary guidance used by the FAA with regard to any aspect of the AIP, which includes the ACIP process.

Chapter 1, Section 1, “General”, of the AIP Handbook provides information about the enabling legislation passed by Congress which authorizes the FAA to administer the AIP:

The AIP is authorized by Chapter 471 of Title 49 of the United States Code (U.S.C.), [as amended] which is referred to as the “Act”. […] The Act’s broad objective is to assist in the development of a nationwide system of public-use airports adequate to meet the current needs and the projected growth of civil aviation. The Act provides funding for airport planning and development projects at airports included in the National Plan of Integrated Airport Systems (NPIAS). [The NPIAS] lists development considered necessary to provide a safe, secure, efficient, and integrated airport system meeting the needs of civil aviation, national defense, and the U. S. Postal Service. An airport must be included in this plan to be eligible to receive a grant under the AIP.

The FAA supports the [policy statements in enabling legislation] by giving highest priority to projects that enhance safety and security of [the] airport system. Other major policy objectives are advanced by assigning high priority to the award of AIP funds to maintain airport infrastructure and increase the capacity of facilities to accommodate growing passenger and cargo traffic. The United States’ aviation policies are strengthened by statutory provisions that direct specific funding to … preserve and enhance capacity, safety, and security at primary and reliever airports; and ensure continued funding availability to general aviation and nonprimary commercial service airports.

Chapter 1, Section 3, “Overview of the Grant Process and Program Funding”, briefly explains the process to be followed for issuing a grant under the AIP program:

The starting point within the project development stage is capital improvement planning, which should receive early attention of regions to ensure the succeeding steps in the process work well. Except for the Congressional notification process … all actions shown for FAA are carried out in the regions and field offices.

Chapter 10, Section 1, “Project Formulation”, provides guidance on what is needed to develop an AIP funded project:

The project formulation stage begins with the sponsor’s identification of planning and development needs for an airport. Needs may be identified as a result of a master planning study, systems planning study, Part 150 study, Part 139 inspection, master record inspection, runway safety action team recommendations, security recommendation, planning conference, an FAA Facilities and Equipment project, or the implementation of a new approach procedure. Project formulation continues through the development of a concept; preparation of technical and cost information, including
benefit/cost analyses (BCA) if appropriate; development of a financial plan; accomplishment of engineering and design; and the review by the FAA of the project description, justification, and other supporting documentation. It may also include the required environmental actions, coordination processes, airspace analysis, and an overall project development schedule. […] Project formulation is normally conducted through the preparation of a Capital Improvement Program (CIP). The CIP, which represents the five-year plan of development of an airport, is prepared in close cooperation with the applicable FAA field office.

Chapter 10, Section 2, “Requests for Aid”, further explains that:

A sponsor’s five-year program of development is included in its CIP. The CIP is prepared on an annual basis and it identifies the airport, its proposed development, funding requirements, source of funding, fiscal year, project description, and justification. The CIP submission may also include information on environmental, […] land, [Airport Layout Plan] status, and sketches. The CIP is developed in close coordination between the sponsor and the FAA Airports Office, with participation by state aviation officials and metropolitan planning organizations, as appropriate. For further information on CIP development and the ACIP process, including a discussion of the National Priority System (NPS), submission and approval dates, and notification of sponsors, refer to FAA Order 5100.39.

The CIP also serves as a preliminary notice of the sponsor’s interest and intent without actually obligating the sponsor to perform any work or expend any funds. Acceptance of the CIP by the FAA does not imply that the proposed project will be programmed under the AIP. When a project need is identified subsequent to the annual ACIP process, the sponsor may submit an updated CIP.

Airports Capital Improvement Plan, FAA Order 5100.39A

“The FAA identifies airports that are significant to national air transportation through the development of the National Plan of Integrated Airport Systems (NPIAS). The NPIAS identifies, for Congress and the public, the composition of a national system of airports together with the airport development and costs necessary that will be needed over the ensuing ten years to expand and improve the system in order to anticipate and meet the present and future needs of civil aviation, to meet requirements in support of national defense, and to meet the special needs of the Postal Service. The ACIP provides additional details including the anticipated sources of funds for specific NPIAS
development expected to be undertaken within the next 3 to 5 years and considered likely to be funded by the AIP.”

FAA Order 5100.39A “prescribes the development of the national Airports Capital Improvement Plan (ACIP):”

The ACIP serves as the primary planning tool for systematically identifying, prioritizing, and assigning funds to critical airport development and associated capital needs for the National Airspace System (NAS). The ACIP also serves as the basis for the distribution of grant funds under the Airport Improvement Program (AIP). By identifying and investing in airport development and capital needs, the Federal Aviation Administration (FAA) can ensure to the American public that the NAS is a safe, secure, and an efficient environment for air travel nationwide.

This Order provides guidance on how the FAA Regions develop the FAA’s ACIP using data gathered from the airport sponsor’s ACIP. Using the sponsor’s project data, which includes project descriptions, justification, local priority, proposed funding sources, and schedule, the Regions translate this data into the FAA ACIP. Each sponsor requested project is given an Overall Development Objective (ODO), and is assigned a national priority ranking, schedule, and federal funding sources.

The AIP, which provides Federal funds for planning and development at the nation’s public use airports, is a major source of revenue for airport planning and capital development nationwide. […] With the extensive demands for funds, FAA must distribute funds to the regions in a way that ensures that, nationally, the highest priority projects are being funded. The ACIP is intended to help accomplish this objective. It is a needs-based 3 to 5 year plan of funding for airport planning and development projects. The ACIP should be formulated by the FAA in cooperation with states, planning agencies, and airport sponsors. Appendix 1, The Airports Capital Improvement Planning Process, [see below], shows the relationship between the NPIAS, ACIP and AIP. The projects in the ACIP will respond to FAA’s emphasis on the following goals:

(1) Ensure that the air transport of people, services and goods is provided in a safe and secure environment

(2) Preserve and upgrade the existing airport system in order to allow for increased capacity as well as to ensure reliable and efficient use of existing capacity

(3) Improve the compatibility of airports with the surrounding communities

(4) Provide sufficient access to an airport for the majority of the American public.
The National Priority Ranking (NPR) system ranks specific projects against national priorities such as safety/security, statutory emphasis projects, reconstruction/rehabilitation, environment, planning, capacity, and standards. Qualitative factors that can not be quantified in the NPR formula are also considered when determining the relative ranking of a project in the ACIP.

A numerical rating alone cannot account for most qualitative factors that may affect the importance of an individual airport development project. Individual innovation, State and local priorities, environmental issues, impact on safety and performance, airport growth, and many other factors should contribute to the development of the ACIP when selecting projects for Federal funding. The numerical priority rating is intended to be used in conjunction with qualitative factors to select airport development projects. Use of qualitative factors that supplement a project’s numerical rating must be documented.

“Formulation of regional ACIPs and recommendations for AIP funding must be consistent nationally in order to accomplish national program goals and objectives. The
FAA expects the ACIP to provide an accurate description of airport needs and a realistic, complete funding plan to meet those needs. This information forms the foundation for decisions regarding the AIP.”

**Airport Master Plans, FAA Advisory Circular 150/5070-6B**

This Advisory Circular (AC) provides guidance for the preparation of master plans for all airports. An airport master plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet anticipated aviation demand. Airport master plans are prepared to support the modernization or expansion of existing airports or the creation of new airports. The master plan is the sponsor’s strategy for the development of the airport. The goal of a master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts.

Each master plan should meet the following objectives:

1) Document the issues that the proposed development will address.

2) Justify the proposed development through the technical, economic, and environmental investigation of concepts and alternatives.

3) Provide an effective graphic presentation of the development of the airport and anticipated land uses in the vicinity of the airport.

4) Establish a realistic schedule for the implementation of the development proposed in the plan, particularly the short-term capital improvement program.

5) Propose an achievable financial plan to support the implementation schedule.

6) Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved.

7) Present a plan that adequately addresses the issues and satisfies local, state, and Federal regulations.
8) Document policies and future aeronautical demand to support municipal or local deliberations on spending, debt, land use controls, and other policies necessary to preserve the integrity of the airport and its surroundings.

9) Set the stage and establish the framework for a continuing planning process. Such a process should monitor key conditions and permit changes in plan recommendations as required.

In most cases, the master plan will include the following elements; pre-planning, public involvement, environmental considerations, existing conditions, aviation forecasts, facility requirements, alternatives development and evaluation, airport layout plans, facilities implementation plan, and financial feasibility analysis.

In Chapter 11 of this AC, guidance is provided with regard to the master plan’s facility implementation plan and its connection with the ACIP. The implementation plan provides guidance on how to implement the findings and recommendations of the master planning effort. The plan lists major projects, detailed project descriptions, timing of key activities, estimated development cost, interrelated projects, and any special considerations. An implementation plan should provide the airport sponsor and the FAA with the information they will need to integrate the master plan’s recommendations into the ACIP.

Airport sponsors maintain a CIP that includes all of their airport planning and development projects, both those eligible and ineligible for AIP funding. The FAA takes AIP eligible projects from the sponsor’s CIP and develops the FAA ACIP by applying a priority system and expected funding levels to these projects and selecting those that it expects to be able to fund.

A new or revised Capital Improvement Plan (CIP) is a key element of the facility implementation plan. The projects illustrated on the ALP should be more precisely described in the sponsor’s CIP. While the ALP illustrates facility improvements for broad time periods, (5, 10, and 20 years), those descriptions must be refined into specific
projects for the CIP. The airport sponsor will then be able to integrate the master plan projects into its overall program of facility improvement projects, repair projects and maintenance projects. […] The planner should work with the sponsor to define ongoing projects with regard to schedule, scope, and sources and uses of funds in order to integrate the master plan projects into a realistic CIP.

Specific projects can be listed on a master table or on individual project data sheets. Project descriptions may include the following types of information:

- Project identification
- Project scope (detailed project description and illustrations)
- Concise project purpose or objective (why the project is needed)
- Project schedule (begin/end dates for pre-design, design, construction, close out, and start-up)
- Project budget (construction cost estimate, including quantities and unit costs, and soft costs)
- Environmental processing required
- Funding information (AIP grant and PFC estimates, other funding source),
- Benefit/cost information

The implementation plan should provide information regarding key activities and responsibilities. Because the lead-time associated with many projects is significant, the early identification by the sponsor of key activities and responsibilities can help ensure that essential preparatory activities are completed on a timely basis. The key activities and responsibilities will include many of the following:

- Sponsor-specific project approval activities, such as airport board, council, or other administrative body approvals; various budgetary approvals and funding appropriations; and similar sponsor-specific items
- Airline and other tenant approvals and lease modifications
- Project funding activities, such as FAA and other agency grant applications, PFC application, and long-term debt financing.
- Environmental processing activities
- Land acquisition activities
- Sponsor-specific project implementation process activities associated with designing and constructing the projects
- Government Agency coordination activities, including the FAA, local metropolitan planning organization or its equivalent, Transportation
Security Administration, Department of Defense, and other agencies that may have direct involvement with the airport

- *Public Coordination activities* that carry the public involvement process into the project implementation phase

**Central Region AIP Sponsor Guide**

This guide was created to assist Central Region airport sponsors and their consultants in obtaining and administering an AIP grant. It provides a convenient resource for identifying requirements associated with the AIP. The guide is not intended to establish requirements, but rather to summarize requirements found within United States Code, Public Law, Federal Regulations, and official FAA policy. The guide covers several aspects of the AIP grant process which includes requirements of; the airport improvement program, civil rights, procurement of professional services, airport planning, project formulation, land acquisition, grant implementation, grant closeout, project design and construction.

Under the Project Formulation section of this guide, requirements for project formulation and development of the ACIP are consolidated. It restates much of the same guidance previously covered above in the FAA Orders and AC.

The Sponsor’s Guide further provides sponsor submittal requirements in the form of an ACIP Data Sheet for each work item they desire to be programmed and funded in the FAA ACIP. The submittal requirements include such things as the need to submit projects requests for the next three years, be shown on the approved ALP, be environmentally cleared, work item description, sketch, program narrative/justification,
and cost estimate. Typically, requests for a particular fiscal year should be submitted by February of the previous fiscal year.

**FAA Central Region ACIP Data Sheet**

The Central Region AIP Sponsor Guide states: “Eligible airport owners [sponsor] seeking Federal assistance may accomplish such requests for aid through the FAA Airport Capital Improvement Program (ACIP). The ACIP serves as the primary planning tool for systematically identifying, prioritizing and assigning funds to critical airport development, and associated capital needs for their airport. The FAA relies on the ACIP to serve as the basis for the distribution of limited grant funds under the Airport Improvement Program.”

A sponsor’s CIP represents their five-year program for planning and development at their airport. Sponsors identify individual projects by submitting an ACIP Data Sheet for each work item they desire. An ACIP Data Sheet must be submitted for each work item listed on the sponsor’s ACIP for the current and next fiscal year (FY).

The ACIP Data Sheet (see Appendix A) is a form that airport sponsors fill out and submit each year during the FAA call for ACIPs. The form is basic in nature and requests that sponsors provide the following information; airport name, work item description, justification, and cost estimate.

The FAA uses the information to make AIP eligibility determinations on whether or not the project requesting federal assistance qualifies and to what extent. The information is also used to program the project and begin the process which will eventually end with the FAA issuing a grant in aid to the sponsor.

In 2005, The FAA Southwest Region Airports Division developed a handout titled “5-Year Capital Improvement Planning” (see Appendix B) specific to the Southwest Region. This two page handout gave a rough outline of the project formulation process that sponsors should follow to have projects programmed in the FAA ACIP. Its basic premise is the FAA ACIP process takes about four years from project identification through implementation. The Southwest Region revised this handout into a threefold brochure format in 2007 titled “Capital Planning: Developing your Airport through Sound Capital Planning Practices” (see Appendix B).

The brochure identifies the steps needed for successful project formulation:

**Capital Planning Steps**

- Identify potential funding sources and amounts, PFC, AIP, State, Other Local
- Determine project eligibility under AIP or PFC
- Align AIP eligible projects with Federal Objectives
- Target non AIP funds for low AIP priority projects
- Develop budgets and phase projects
- Meet with your FAA Program Manager to refine plan during the first quarter of each calendar year
- Schedule quarterly discussions with your FAA Program manager to review program progress

The brochure also details what needs to happen in a specific year leading up to construction or implementation of the project.

<table>
<thead>
<tr>
<th>4 Years before Construction</th>
<th>2 Years before Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identify potential projects</td>
<td>• Determine if ALP or Exhibit A needs updating</td>
</tr>
<tr>
<td>• Communicate with users</td>
<td>• Identify if Benefit Cost Analysis (BCA) or Letter of intent (LOI) is appropriate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 Years before Construction</th>
<th>Instrument Approach Procedures, Airspace</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Scope the project</td>
<td>• Select Design Consultant</td>
</tr>
<tr>
<td>• Identify funding sources</td>
<td>• Refine - Scope, Cost Estimate</td>
</tr>
<tr>
<td>(AIP/PFC/State/Local)</td>
<td>• Coordinate with FAA NAVAIDS</td>
</tr>
<tr>
<td>• Identify type of environmental review (CE/EA/EIS) expected. If EIS is likely, initiate</td>
<td>Instrument Approach Procedures, Airspace</td>
</tr>
</tbody>
</table>
The Southwest Region provides this brochure to airport sponsors and consultants at regional conferences and workshops as promotional information to educate their stakeholders that the FAA ACIP development is not an “overnight” process. It takes many years of planning and preliminary work, much of which is not obvious to the public, to effectively accomplish the very noticeable implementation or construction piece of the project.

**Relationship of Literature to Central Topic of ACIP**

It is the intent of the Airport Improvement Program (AIP) to develop and maintain a nationwide system of public-use airports adequate to meet the needs of civil aviation. The program provides funding for airport planning and development projects needed to provide a safe, secure, and efficient, airport system. The ACIP is the primary tool used to identify, prioritize, assign, and distribute funds for airport development and other aeronautical needs. By investing in airport development, the FAA can provide a safe, secure, and an efficient environment for the national airspace system.

The literature reviewed above comprises the extent of the “official” FAA position and documentation, based in law, with regard to the FAA Airport Capital Improvement
Program (ACIP). The guidance provides, in detail, what is required of an airport sponsor to obtain federal assistance in an AIP eligible project. Whether it is construction of a new runway, acquisition of land, or purchase of snow removal equipment, if a sponsor seeks federal assistance, the process must be followed. Specific requirements must be met within specified time frames so as to not delay project implementation. The ACIP process is intensive and takes time (years) to develop.

As the scope of this field project was limited to providing the FAA Central Region with guidance on the existing FAA Airport Capital Improvement Program, research was limited in scope to existing “official” FAA policy and guidance. The intent of this project was not to develop or propose a better ACIP process, but rather to take existing information found in various guidance documents and synthesize it into a form that can be easily understood and communicated.

Chapter 3: The Problem

Through first hand observation and discussions with other FAA airport planners, it was apparent that sponsors and their consultants were having trouble understanding and completing the ACIP data sheet. There was a lack of uniformity in the data sheet submissions as well as incomplete or missing information. How can the FAA Central Region provide information about the Airport Capital Improvement Program (ACIP) process to airport sponsors, consultants and stakeholders in a format that is easy to understand?

Sponsors submit to the FAA their request for aid using an ACIP Data Sheet, also known as a Preapplication (Appendix A), for each major work item shown in their CIP.
The FAA evaluates each project for eligibility, justification, reasonableness of cost, priority assessment, reasonableness of project schedule, and information deficiencies.

The data sheet requests basic information from the airport sponsors such as:

- **Airport Name** – Legal name and Location
- **Local Priority** – Which project does a sponsor wish to be completed first, second, third and so on.
- **Work Item** – Description of the project such as runway end number, taxiway designation, project phase, dimensions of project, etc.
- **Identify FY that construction is desired** – Which fiscal year does the sponsor seek federal funding assistance.
- **Sketch** – A small graphic depicting project boundaries, dimensions, general location on the airport, etc.
- **Justification** – Documented justification showing 500 annual itinerant operations by critical aircraft, crosswind runway needed for 95% wind coverage, parallel taxiways needed for runway sight distance, instrument approach procedure, eliminate runway back taxi, waiting list, etc.
- **Cost Estimate** – Detailed cost estimate showing unit costs.
- **Sponsor Signature**

The FAA uses this information to make determinations on whether or not the project requesting federal assistance is AIP eligible. If the project is eligible, the project is programmed into the FAA ACIP, beginning the process towards the FAA issuing a grant to the sponsor.

For instance, the airport name may be given but not the location. For most this is not an issue since the city is identified in the airport name such as Springfield Municipal Airport. However, with some, the name may be Northwest Regional Airport which leads to confusion as to what city is associated with that airport. In other instances, sponsors would provide the work item such as Extend Taxiway, but give no details or description as to what taxiway they wanted to extend, dimensions of the taxiway, what project phase they are working on, or other details of the project. A lump sum cost estimate would be
provided with no cost details or breakout showing federal and local matching shares of the project. Sponsors would provide two or three sentences for the justification and fail to complete or attach the additional documentation required for a complete submittal.

The lack of information contained in the data sheet submittal required the FAA airport planners to solicit additional information through numerous phone calls, letters and emails. This usually led to delays in the programming of projects in the FAA ACIP and/or incomplete information being sent to the FAA airport engineers leading to project confusion and additional schedule delays.

In many instances, the sponsor’s consultants would fill out the data sheets and submit them to the sponsor for approval and signature prior to submittal to the FAA. When the sponsors were asked to provide additional information, they would not be aware of their own project requests. They did not know what the project entailed or what their local share of the costs would be. They would just sign and mail it without giving a second thought as to what they were submitting.

Previous outreach efforts by the FAA were made to sponsors and consultants. These efforts included regional workshops, seminars, convention breakout sessions, sponsor guidebooks, annual letters, and one-on-one explanations of the ACIP process. The FAA must continually inform sponsors and consultants through various means to try and educate stakeholders on the ACIP process. It was proposed that the development of a new ACIP Data Sheet and a Capital Planning Practices Brochure would provide information in an easier to understand format.
Documents Developed

- Central Region Airport Capital Improvement Plan (ACIP) Data Sheet:
  
  This involved the development of a new ACIP Data Sheet with pre-
  application instructions on how the data sheet is to be filled out and submitted.
  The expected outcome of the new data sheet is to enhance the airport sponsor’s
  ability to provide complete project preapplications and provide quality projects in
  a timely fashion.

- Central Region Capital Planning Practices Brochure:
  
  This involved creating an informational brochure to use as an aid for
  typical general aviation airport sponsors to develop and use planning techniques
  needed for successful management of the ACIP. The brochure compliments the
  new ACIP Data Sheet and revised pre-application instructions by informing
  sponsors about proper project planning for their airports to best use available AIP
  dollars. The brochure is expected to enhance the airport sponsor’s knowledge of
  the AIP program and ability to provide quality projects in a timely fashion.

Chapter 4: Results

Central Region Airport Capital Improvement Plan (ACIP) Data Sheet

The ACIP data sheet checklist that sponsors were requested to fill out tended to be
disassociated with the ACIP data sheets. Sponsors usually completed only one checklist
for several projects rather than one checklist per project. Additionally, the data sheet
submittals became more of a wish list request rather than a formal request for a project;
the planning was lost on the wish list projects.
The data sheet should focus attention to items that often require FAA airport planners to make multiple phone calls to sponsors asking if the items were completed before the projects can be programmed. Planners spend several days going through each airport, project by project, with data sheets in hand trying to determine if projects are ready: Are the projects shown on the ALP? Was an environmental review complete? Was the land acquired? Is there justification? It would be better if the sponsor could provide this information upfront on the data sheet.

Discussing the problem with other FAA airport planners within the region, it was suggested that the ACIP data sheet be revised. The data sheet needs to place more emphasis on the planning aspects of requesting an AIP project. Sponsors need to consciously look at each individual project and determine if it is eligible, justified, and ready to submit to the FAA. The new data sheet focuses sponsors on asking these questions:

- Is the project shown on the Airport Layout Plan?
- Is the project’s environmental review and documentation complete?
- Does the airport own the necessary land?
- Has additional documentation and justification for projects such as revenue producing facilities, equipment, or apron expansion been completed?

The revised data sheet attempts to get the sponsors and consultants thinking about each individual project being requested. The revised data sheet requests the date of completion for each planning element by incorporating the data sheet checklist directly into the form rather than a separate piece of documentation.
The data sheet was revised to specifically show the federal and local cost shares for the project. Many times sponsors would submit only a total cost which appeared to indicate that the sponsors did not know what their share of the cost was until well into the programming cycle when asked if they had their local match.

The regional AIP program manager made a comment that, even though the sponsor puts these dates on the form, the FAA is still ultimately responsible to assure that the project is on an ALP, the environmental has been completed, there are no obstructions to the approaches, there is a pavement maintenance program in place, etc. The FAA cannot just take the sponsor's certification that everything is complete. For instance, it is in the Law that before the FAA issues a grant, the project must be reflected on an approved ALP. It is not appropriate for the FAA to say the sponsor told us it was on an approved ALP. The FAA still must check the ALP, the Airport Master Record (5010), and other appropriate documentation to verify that what the sponsor puts on the data sheet is correct.

This is a valid comment. Although the FAA must verify everything that is shown on the data sheet prior to programming the project in the FAA ACIP, it is envisioned that by having the sponsors also perform these functions, that perhaps this will reduce the number of “not ready” projects that the FAA airport planners must sort through to put together the ACIP. It is anticipated that sponsors would realize the project is missing a key step, such as having completed the environmental study, and will wait to submit the project.

By having the requested data submitted, it is anticipated that the FAA airport planners will be more efficient at programming projects and in developing the overall
regional FAA ACIP. Less time will be required to verify data with sponsors in order to complete their preapplication materials. It is also anticipated that sponsors will be more aware of their project requests and be able to answer any specific questions more readily. Sponsor should be able to budget their local matching share of the cost and be ready to accept a grant when issued.

Other efficiencies that can be gained from the revised data sheet include providing a good project summary for other program managers within the Airports Division. When routed through the other program managers, such as environmental, land, engineering, airspace, and compliance, they can comment more readily on the status of their programs as they relate to the project being proposed.

The old and new ACIP data sheets can be found in Appendix A. The two data sheets are similar except for the addition of a more detailed Cost Estimate section and the addition of the Sponsor’s Verification section. The Cost Estimate section has the sponsor breaking out the costs associated with Federal, State, and Local shares. The Sponsor’s Verification section has the sponsor note the date that each item was completed and/or submitted to the FAA for review. Next to this section is a box for FAA Verification where the airport planner would initial and date the ACIP data sheet affirming that each of the items were verified and the project is ready for programming. These items include:

- Date of approved ALP with project shown
- Date of environmental determination (ROD, FONSI, CE), or cite CE paragraph # (307-312) in Order 1050.1E
- Date of land acquisition or signed purchase agreement
- Date of pavement maintenance program
- Snow removal equipment inventory & sizing worksheet (for SRE acquisition)
- Apron sizing worksheet (for apron projects)
- Revenue producing facilities (for fuel farms, hangers, etc.)
- Date statement submitted for completed airside development
- Date statement submitted for runway approaches are clear of obstructions
Additionally, the "Work Item" was changed to "Project Description" so that more detail about the project would be submitted rather than just “land acquisition” or “apron rehabilitation”, etc.

Associated with the revised ACIP data sheet is a more robust set of instructions to help the sponsor understand what is required in each section of the data sheet. Also, in helping the sponsor understand what is needed in each section, helper text (bubbles) was added to the data sheet itself.

The data sheet revisions were coordinated with management and Branch staff through one-on-one discussions and staff meetings. Management and staff had opportunities to review and comment on the revised data sheet.

There was no direct cost to develop and produce the revised data sheet. Approximately 15 man-hours were spent developing the revised data sheet and providing staff review and comment. Additionally, there are no reproduction costs for the FAA, as the data sheet was placed on the Central Region website in PDF and DOC formats that are readily accessible by sponsors and consultants. The effort resulted in the immediate use of the revised ACIP data sheet in the Central Region FY 2009 ACIP call letters.

Central Region Capital Planning Practices Brochure

To continue the effort in educating sponsors and consultants about the FAA’s ACIP process, the planning staff suggested that the Central Region Airports Division develop an informational brochure similar to that developed by the Southwest Region Airports Division. The brochure should compliment the ACIP data sheet and enhance
the sponsor’s knowledge of the FAA ACIP process and their ability to provide quality projects in a timely fashion.

Sponsors and consultants did not appear to understand when a proposed project was “ready” to be submitted to the FAA to be programmed. Many did not understand that the FAA ACIP is a process that could take many years to accomplish a single project. As an example, a sponsor would submit an ACIP data sheet requesting AIP assistance for a runway extension construction project in the next fiscal year.

In order for the FAA to program construction of the runway extension project, there are several steps that must be completed, usually several years prior to the actual construction phase. First and most importantly, the proposed runway extension must be shown on an approved Airport Layout Plan (ALP). This step involves several years of Master Planning, forecasting, and coordinating the project with local government and stakeholders. It also involves the coordination of the proposed runway end within the FAA airspace system which “protects” the runway approaches from possible future development that may obstruct and interfere with the proposed extension.

After the Master Planning and the updated ALP is approved, justification of 500 annual itinerant operations of the critical design aircraft must be submitted. The AIP is not a “build it and they will come” program. AIP is based on “just in time development”. In other words, the sponsor must show that they already have 500 operations of the design aircraft or have letters of commitment from aircraft owners showing immediate need for the extension.

When justification is in place, then the project must be environmentally studied and cleared. Depending on the project, this study can be relatively simple requiring that
only a checklist be approved, or more complicated with an Environmental Assessment (EA) which can take a couple of years. After environmental approval, the land must be purchased. This can take several years, especially if the process leads to condemnation proceedings to acquire the property.

After land is acquired, the engineering and design phase can commence which will take approximately one year. After all of this and many years of pre-construction planning, the construction of the runway extension can be recommended for AIP assistance.

As can be seen, for some projects, the AIP development process is not completed overnight. It can take ten years or longer to complete projects at some of the very largest airports. However, for many of the smaller general aviation airports, a typical runway extension project can be completed in about five years.

It is this project development process about which the FAA wants to educate sponsors and other airport stakeholders. It is too much to ask every stakeholder to read and understand all of the FAA policies and regulations with regard to the AIP, FAA ACIP, and project development. This is why it was suggested that the Central Region Airports Division create the “Developing Your Airport Through Sound Capital Planning Practices” brochure to give a quick synopsis of the processes and to ask for and seek further information.
The brochure is based heavily on the Southwest Region brochure and titled the same. The Central Region brochure differs in that it:

1. Has a small write-up on “Planning,” explaining the need for an ACIP.
2. Begins 5-years before construction.
3. Added dates to the ACIP time line for submittal of ACIP data sheets and submittal of the grant application.
4. Has a small write-up explaining the ACIP Data Sheet submittal requirements and the timing of submittals.

The Central Region felt that the brochure should include a brief explanation as to why it was important to develop an ACIP:

Airport planning is a systematic process used to efficiently guide future development of airports consistent with local, State, and national goals. […] Effective airport planning results in the sponsor identifying short term and long term needs of their airport. […]
The Airport Capital Improvement Program (ACIP) serves as the primary tool for project formulation. The FAA relies on the ACIP to serve as the basis for the distribution of limited grant funds under the Airport Improvement Program (AIP). […] Under the ACIP, sponsors submit to the FAA their requests for aid, including all required supplemental documentation. The FAA evaluates each project for eligibility, justification, reasonableness of cost, priority assessment, reasonableness of project schedule, and information deficiencies.

The expansion of the ACIP process to 5-years in the Central Region included an additional year for a project design phase prior to the construction phase. This extra year was needed to fully develop the scope of the project prior to construction, to include additional time for instrument approach procedures development and to incorporate new requirements for Airport GIS (Geographic Information System) surveys.

Dates were added to provide emphasis on when ACIP data sheets and AIP grant applications needed to be submitted to keep the process moving smoothly, February 15 and May 1 respectively. Lastly, a section was added for submittal requirements of the ACIP data sheets in order to tie this effort with the previous data sheet revision effort.

The cost to reproduce the brochure is approximately $500.00 for 500 legal size copies with full color, doubled sided, and pre-folded. The brochure is distributed at various meetings and conferences that Airports Division staff attends throughout the Central Region. It is also mailed to sponsors, consultants, and other stakeholders with the annual “call for ACIPs.” Additionally, a PDF copy was placed on the Central Region Airports website for viewing and downloading.

The brochure was coordinated through one-on-one discussions and staff meetings. Division management and staff had opportunities to review and comment on the brochure. Approximately 25 man-hours were used to complete the project which included development time, staff review and comment time, and final publication.
An independent report written by the Airports Consultant Council (ACC) titled “Improving the Quality of Airport Projects: ACC/FAA Best Practices”, developed and published around the same time as the brochure confirms much of what is shown in the brochure:

- Accept development in the FAA’s Airport Capital Improvement Plan (ACIP) as the cornerstone of all AIP and PFC investment decisions.
- Include consultants early in the development of cost estimates.
- Use responsible preliminary estimates because they can provide the basis for programming projects. Construction costs should be based on a detailed engineering cost estimate.
- Support “design-only” grants where cost effective and where development funding is anticipated in the subsequent year(s).
- Be prepared to bid projects early in the Federal fiscal year so that construction can begin as early in the construction season as possible.
- Submit 5-year airport CIPs to the FAA as early as possible in the calendar year preceding the Federal fiscal year in which funding is sought (e.g., January 2009 for Federal fiscal year 2010 funding).
- When developing airport CIPs, discuss with the FAA the status of environmental processing, reasonable AIP funding expectations, and other issues.
- Unless environmental processing is complete, or it is reasonably certain that a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) will be issued well before the end of the Federal fiscal year, show the associated design, land acquisition, and/or construction project(s) in the second or third year of the CIP, not in the first.
- If environmental processing for a project has not yet begun, show the associated design, land acquisition, and/or construction project(s) in the year following the expected completion of the EA/EIS or in future years if appropriate, but not in the same year.
- Show construction in the year following land acquisition, not in the same year.
- Include the consultant, sponsor, FAA, and other key stakeholders in scoping meetings.
- Establish realistic schedules to make it possible for all parties to deliver on agreed-upon commitments.
- For projects that will involve other elements of the FAA, such as Air Traffic, Technical Operations, and/or Flight Procedures, ask the Airports Division or ADO to coordinate a meeting with effected offices so that they can provide early input to ensure that project(s) can proceed expeditiously.
- Submit data and information to the FAA in the format requested on the AIP and/or PFC application forms.

Since the ACC publication was developed independently of the brochure, and the two do not conflict, but seem to mirror each other; the two documents together bring credibility to the message. The ACC document reinforces the policies and ideas that the Central Region wants to publicize and educate airport sponsors about in emphasizing the importance of an Airport Capital Improvement Program.
Chapter 5: Summary and Conclusion

Development of the ACIP data sheet and the capital planning practices brochure, oriented to the needs of the Central Region Airports Division, will aid in pre-grant planning. The documents should encourage airport sponsors to think a little more about project preparation and the amount of time that is needed for proper project execution.

It is approximately two years since the ACIP data sheet and the brochure were developed. Through a concentrated effort by the FAA Central Region and support from the state agencies to inform sponsors and consultants about the ACIP process, projects appear to be better planned. The State of Iowa has incorporated the brochure and ACIP data sheet into their “Airport Manager and Sponsor’s Guide to State Aviation Program” guidebook. As hoped, projects that are not ready are not being submitted until they are. Preapplication packages are being submitted that are more complete with less missing information.

It is the result of multiple efforts in concert with each other, all with the same message, which can bring about change. In this effort to educate airport sponsors and stakeholders about the FAA ACIP process, it was the development of a revised ACIP data sheet, an informational brochure, giving presentations at conferences and workshops, and inundating the airport community with a targeted message that seems to have brought success.

Chapter 6: Suggestions for Future Research

Presentations
Outreach efforts should be conducted by FAA airport planners at state and regional workshops to further expand on the message of informing airport stakeholders of the FAA ACIP process and to establish proper project formulation techniques. To facilitate this outreach, a PowerPoint presentation was developed based on the revised Central Region ACIP data sheet and brochure, “FAA Project Formulation: Developing Your Airport Through Sound Capital Planning Practices” (see Appendix C). This presentation was given to airport sponsors and consultants at two workshops in Iowa, “Airport Management 101”. The workshops were sponsored by the Iowa Department of Transportation, Office of Aviation and the Aircraft Owners and Pilots Association (AOPA). It is recommended that similar presentations should include the other three states within the Central Region (Kansas, Nebraska, and Missouri).

Another presentation was given at a national training workshop, “Recurrent Planning” to FAA airport planners from all nine regions. The presentation is entitled "Regional Initiatives". Each FAA Region gave a short 5 to 10 minute presentation covering recent planning initiatives or significant projects in each Region that would be of interest to the planners in attendance. As part of the Central Region presentation, the ACIP data sheet and brochure were presented. See Appendix C.

**Project Management Checklist**

Under the Airport Improvement Program (AIP), *the sponsor is responsible for project management* which may include planning, engineering and design, construction, financial management, and project close-out. Coordination of certain elements with FAA
Airports Division does not relieve the Sponsor of the responsibility to coordinate with other FAA offices such as Flight Procedures, Technical Operations, and Air Traffic. The sponsor may hire a qualified consultant to accomplish certain aspects of the project management.

On numerous occasions, Airports Division planners and engineers receive phone calls asking why Airports Division did not notify the Sponsor to request approach procedures, or when is the sponsor supposed to complete an aeronautical survey, or is there some way to notify the sponsor to complete a specific task such as update their Airport Master Record. This inevitably leads to pushing other projects and consumes more Division resources.

After taking many calls from sponsors and receiving comments from the State, it is apparent that the sponsors and their consultants may benefit from a project management checklist. They appear to be under the impression that the FAA Airports Division provides these project management duties, such as coordinating with the other LOBs and sending reminders to have something completed. This checklist should compliment the ACIP data sheet and capital planning brochure in an effort to provide guidance on tasks that need to be completed for a project and provide the what, who, and when to complete each task. Preliminary discussions with the State of Iowa indicate that they would be in favor of a project management checklist and would consider publishing it in their Sponsor's Guidebook.

With a project management checklist, a sponsor can see what was completed and what still needs to be done. It should also show proposed time frames and dates of critical milestones and have the project schedule waterfall out. The checklist should not
be all inclusive, but highlight a few trouble spots. This can be another tool that can be added to the website to help sponsors and consultants be successful. This should be an effort to try and send the message that sponsors are responsible for project management. See Appendix D for a proposed project management checklist.
References


Bibliography


Appendix A

Old ACIP Data Sheet with Instructions

New ACIP Data Sheet with Instructions
Old ACIP Data Sheet with Instructions
REQUEST FOR FEDERAL ASSISTANCE
FEDERAL AVIATION ADMINISTRATION
CENTRAL REGION \ AIRPORTS DIVISION

AIRPORT CAPITAL IMPROVEMENT PLAN DATA SHEET (ACIP DATA SHEET)

An ACIP Data Sheet (see next page) must be submitted for each work item listed on the sponsor's ACIP for the current and next fiscal year - include the name of the airport, the local priority of the requested work and the work item description. Contact the State Airport Planner responsible for your state regarding which fiscal year to use.

SKETCH - color-coded sketch that depicts and identifies the scope of the proposed project.

JUSTIFICATION - the justification should be brief and describe the need, objectives, method of accomplishment, and the benefit expected from the project.

COST ESTIMATE - the total cost estimate (including engineering, administrative, legal, and appraisal costs, etc.) must show unit costs, aggregate in square yards (S.Y.), concrete paving in square yards (S.Y.) and asphalt paving in tons. Separate the costs for land acquired in fee and land acquired in easement. NOTE: cost estimates cannot include an amount for contingencies. Attach additional sheets if necessary.

Satisfying environmental requirements and a current FAA-approved Airport Layout Plan (ALP) are prerequisite for work reflected in the current year and next year program.

If required, evidence of State and Regional Clearinghouse coordination should be provided with the ACIP Data Sheet. If requesting Federal assistance for snow removal equipment, please include an inventory of the existing equipment and calculations based on Chapters 4 & 5 of the Airport Winter Safety and Operations, Advisory Circular (AC) 150/5200-30 and the Airport Snow and Ice Control Equipment, AC 150/5220-20 showing the minimum equipment needed, along with the ACIP Data Sheet.
### ACIP DATA SHEET

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**SKETCH:**

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**JUSTIFICATION:**

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**SPONSOR SIGNATURE:** ____________________________ **DATE:** ________________

**PRINTED NAME:** ____________________________ **TITLE:** ____________________________

**COST ESTIMATE:**

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**FAA USE ONLY**

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Request for Federal Assistance Checklist

Please attach the following documents with your application:

- Sponsor Identification Sheet for the Airport
- ACIP Data Sheet (one for each project)
- 5-year Capital Improvement Program (CIP)
- NPIAS Needs
- City/Sponsor resolution that endorses project, certifies availability of matching funds
- Verification of an updated ALP (when applying for new construction of buildings or airfield expansion)
- Verification of completed environmental processing in accordance with NEPA
- Verification of pavement maintenance program (when applying for pavement preservation or reconstruction)
- If required, evidence of State and Regional Clearinghouse coordination should be provided with the ACIP Data Sheet.

If requesting Federal assistance for snow removal equipment, please include an inventory of the existing equipment and calculations based on Chapters 4 & 5 of the Airport Winter Safety and Operations, Advisory Circular (AC) 150/5200-30 and the Airport Snow and Ice Control Equipment, AC 150/5220-20 showing the minimum equipment needed, along with the ACIP Data Sheet. Please use the Snowplow Design software at: http://www.faa.gov/airports_airtraffic/airports/regional_guidance/central/airports_resources/media/snowplow_design.xls, and include a copy of the completed spreadsheet.

If requesting Federal assistance for General Aviation (GA) apron expansion, please use the GA Apron Design software at: http://www.faa.gov/airports_airtraffic/airports/regional_guidance/central/airports_resources/media/ga_apron_expansion.xls, and include a copy of the completed spreadsheet.
New ACIP Data Sheet with Instructions
INSTRUCTIONS FOR COMPLETING
AIRPORT CAPITAL IMPROVEMENT PLAN
DATA SHEET

An Airport Capital Improvement Plan (ACIP) Data Sheet must be submitted for each major work item that is requesting Federal assistance over the next 3 years. If required, evidence of State and Regional Clearinghouse coordination should be provided with the ACIP Data Sheet. Submission of this information is necessary to effectively administer the Airport Improvement Program. Collection of information for the airports grant program is addressed under OMB control number 2150-0050.

HEADER INFORMATION - Include the name of the airport, the LOCID, the local priority of the requested work, the project description, and the desired Federal fiscal year (October 1st to September 30th) that you desire the project. Contact the State Airport Planner responsible for your state regarding which Federal fiscal years they are working on.

SKETCH - Color-coded sketch that depicts and identifies the scope of the proposed project.

JUSTIFICATION - The justification should be brief and describe the need, objectives, method of accomplishment, and the benefit expected to be obtained from the assistance.

COST ESTIMATE - The estimate of total cost (engineering, administrative, legal, appraisal costs, etc.) including Federal, State and Local shares. Attach a detailed cost estimate showing unit costs; aggregate in square yards (S.Y.), concrete paving in square yards (S.Y.) and asphaltic paving in tons. Separate the costs for land acquired in the project and land acquired in easement. NOTE: cost estimates cannot include an amount for contingencies.

SPONSOR'S VERIFICATION - The verification that the project is properly planned and is ready to "go" within the 1st year of the three-year ACIP program period. Except for equipment acquisition, proposed development and land acquisition must be shown on an approved ALP, have cleared environmental processing, and the land already acquired or have a signed purchase agreement. These requirements must be completed before a project can be considered for funding. For the 2nd and 3rd years of the ACIP program, the sponsor should be working towards satisfying those requirements. Date each item verifying that all project requirements are satisfied (check marks are not acceptable).

If requesting Federal assistance for new removal equipment, include an inventory of existing airport equipment and calculations based on Chapters 4 & 5 of the Airport Winter Safety and Operations, Advisory Circular (AC) 150/5300-30 and the Airport Snow and Ice Control Equipment, AC 150/5200-26 showing the minimum equipment needed, along with the ACIP Data Sheet.

If requesting Federal assistance for general aviation apron expansion, include calculations based on Appendix 5 of the Airport Design Advisory Circular 150/5300-13 showing justification for the size of apron needed, along with the ACIP Data Sheet.

If requesting Federal assistance for revenue producing facilities (fuel farms, hangars), please contact the State Airport Planner responsible for your state for eligibility requirements. Submit with the ACIP Data Sheet, 1) A statement that airline development projects are complete or a financial plan to fund airline needs over the next three years, 2) A statement that approach surfaces are clear of obstructions, and 3) A statement of capacity justification for the project.
**Airport Capital Improvement Program**

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Enter Project Description and Justification here

**Cost Estimate: (Attach detailed cost estimate)**

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**SPONSOR’S VERIFICATION:**

For each and every project as applicable

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**SPONSOR’S SIGNATURE:**

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**TITLE:** Enter Sponsor’s Title here

**PHONE NUMBER:** Enter Sponsor Phone Number here

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**Comment: [001]** Enter for airport name here.

**Comment: [002]** Enter for airport name here.

**Comment: [003]** This is a necessity and should be included in the project description. The intent is to explain the purpose of the project and the benefits it will provide.

**Comment: [004]** Enter a brief description of the project. This should include a brief overview of the project and how it will benefit the airport.

**Comment: [005]** Enter a sketch of the project. This should include a visual representation of the project.

**Comment: [006]** Enter a description of the project and its impact on the airport.

**Comment: [007]** Enter the project cost estimate. This should include a detailed breakdown of the costs involved in the project.

**Comment: [008]** Enter the project's start and end dates.

**Comment: [009]** Enter the project's budget and funding sources.

**Comment: [010]** Enter the project's contact information.

**Comment: [011]** Enter the project's status and progress details.

**Comment: [012]** Enter the project's timeline and schedule.

**Comment: [013]** Enter the project's implementation plan.

**Comment: [014]** Enter the project's expected outcomes.

**Comment: [015]** Enter the project's potential risks and mitigation strategies.

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</table>

<table>
<thead>
<tr>
<th>Page 2: [9] Comment [JDD14]</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter the date your Airport Layout Plan (ALP) was approved. If you do not have an approved ALP or this project is not shown on the approved ALP then this project is not eligible for AIP funding.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All projects using Federal funds must have an environmental determination. Enter the date of the Record of Decision (ROD), Finding of No Significant Impact (FONSI), or accepted Categorical Exclusion (CE) Checklist here. N/A is NOT acceptable. The project is not eligible without a valid entry here.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Only enter a date here if this is a project to acquire land. AIP participation in land acquisition is done on a reimbursement basis so the land must either be purchased or under contract before a grant will be issued. Land should not be purchased until first receiving the appropriate environmental determination and obtaining the required appraisals and necessary environmental site assessments. Contact our office for detailed land acquisition requirements to ensure your land acquisition is eligible for AIP funding.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Page 2: [12] Comment [JDD17]</th>
<th>Instructions</th>
</tr>
</thead>
</table>
If you have received AIP funds for a pavement project and are requesting a pavement project then you must have an approved Pavement Maintenance Program. Enter the date the program received its approval here.

Place a check here to indicate this request for Snow Removal Equipment (SRE) has the required completed SRE sizing worksheet and inventory of the airport’s existing SRE attached.

Page 2: [14] Comment [JDD19] Instructions
Place a check here to indicate this request for apron area has the required completed apron sizing worksheet attached.

Only Non Primary Entitlement funds can be used for revenue producing facility projects which include fuel farms and hangars. Only new facilities are eligible; if the 5010 Master Record shows fuel available a new system for the same type of fuel is NOT eligible. Attached must be a signed and dated statement that no runway, taxiway, or apron project in excess of available entitlements will be needed during the three years that follow an AIP funded revenue producing facility project.

Page 2: [16] Comment [JDD21] Instructions
Revenue producing facility projects are not eligible without an attached signed and dated statement that no obstructions in the approaches are identified on the 5010 Airport Master Record, in the Airport/Facility Directory (A/FD), or in the U.S. Terminal Procedures publication; that all safety areas and zones are clear of obstacles and free of incompatible land uses; and that the approach categories to the airport are consistent with the approach types listed on the approved Airport Layout Plan.
Appendix B

Southwest Region Capital Planning Brochures

New Central Region Capital Planning Brochure
2005 Southwest Region Capital Planning Brochures
Capital Planning Process for AIP Funding

Competition for limited AIP funds requires advanced capital planning. A well-developed Airport CIP allows you to identify critical issues and coordinate with interested stakeholders. It also allows the FAA to assist you with identifying reasonable expectations for potential discretionary funding. Meet with your Program Manager during the first quarter of each year to review your 5-year plan. See our website for CIP templates and other information.

Capital Planning Steps
- Identify potential funding sources and amounts
- Determine project eligibility under AIP or PFC
- Align AIP eligible projects with Federal Objectives
- Assign budgets and phase projects
- Meet with your Program Manager to refine plan during the first quarter of each year

4 Years before Construction
- Identify potential projects

3 Years before Construction
- Scope of the project
- Identify funding sources (AIP/PFC/State/Local)
- Identify if new or existing NAVAIDs will be affected by the project
- Identify if any Instrument Approach Procedures will need to be modified due to the project
- Identify type of environmental review (CE/EA/EIS) expected. If EIS is likely, initiate.
- Determine if ALP or Exhibit A needs updating
- Determine if DBE goals required
- Determine if Benefit Cost Analysis (BCA) or Letter of Intent (LOI) is appropriate

2 Years before Construction
- Select Consultant
- Refine
  - Scope
  - Cost Estimate
- Coordinate
  - NAVAIDS
  - Instrument Approach Procedures
  - Airspace, Air Traffic
- Initiate
  - Environmental review (CE or EA)
  - ALP update, Exhibit A update, DBE Goal, LOI, BCA

1 Year before Construction
- Final Scope
- 90% Design
  - Additive/Deductive Alternates
  - Safety Plan
- Revise Estimates
- Develop 90 percent plans and specification
- Finalize
  - Reimbursable Agreement
  - BCA, LOI, DBE Goal
  - ALP Update, Environmental Review, Exhibit A
- Request Congressional Announcement

Implementation Year
- Advertise, Secure Bids
- Make application and receive AIP Grant based on bids and negotiated fees
- Issue Notice-to-Proceed

1 Year after Implementation
- Use the improvement
- Close AIP Grant
2007 Southwest Region Capital Planning Brochures
**Keys to Success**

The Southwest Region believes an effective AIP program converts Aviation Trust Funds into Aviation System improvements that increase safety/security, reduce noise impacts or improve system efficiency as quickly as possible.

The Region believes efficient management of the AIP grant program includes: grant awards based on bids or negotiated fees, grants initiated immediately with most closed in two years from acceptance and all grants closed within four years.

For an airport to be as competitive as possible for the limited discretionary funding, three strategies are recommended:

1. Identify development with system impacts including additional capacity, efficiency or safety/security.
2. Utilize apportioned funds on high-priority development. In general, the highest priority work is that associated with safety/security, runways and the primary taxiway system, noise reduction, planning and environmental mitigation. Generally, apron, terminal and roads are lower priority.
3. Manage your Grant program effectively by implementing sound capital planning and grant management practices.

**Resources**

FAA Order 5100.38C: AIP Handbook  
FAA Order 5100.39, Airport Capital Improvement Planning  
FAA Website: http://www.faa.gov/  
Regional Website—additional information and templates
Capital Planning Process for AIP

It is essential for good capital planning practices to be adopted in order to position airport development projects for bid-based AIP grant funding. The Region believes that bid-based grant awards are imperative to realizing aviation system and capacity improvements in a timely manner. Following the capital planning practices summarized below will assist in the efforts to invest the federal dollar in the most efficient way. Please visit our regional website for CIP templates and additional information.

Capital Planning Steps
- Identify potential funding sources and amounts, PFC, AIP, State, Other Local
- Determine project eligibility under AIP or PFC
- Align AIP eligible projects with Federal Objectives
- Target non AIP funds for low AIP priority projects
- Develop budgets and phase projects
- Meet with your FAA Program Manager to refine plan during the first quarter of each calendar year
- Schedule quarterly discussions with your FAA Program Manager to review program progress

4 Years before Construction
- Identify potential projects
- Communicate with users

3 Years before Construction
- Scope the project
- Identify funding sources (AIP/PFC/State/Local)
- Identify new or existing NAVAIDS that will be affected by the project
- Identify if any Instrument Approach Procedures need modification due to the project
- Identify type of environmental review (CE/EA/EIS) expected. If EIS is likely, inRate
- Determine if ALP or Exhibit A needs updating
- Determine if DBE goals are required
- Identify if Benefit Cost Analysis (BCA) or Letter of Intent (LOI) is appropriate

2 Years before Construction
- Select Design Consultant
- Refine
  ◦ Scope
  ◦ Cost Estimate
- Coordinate with FAA
  ◦ NAVAIDS
  ◦ Instrument Approach Procedures
  ◦ Airspace, Air Traffic
- Initiate
  ◦ Environmental review (CE or EA)
  ◦ ALP update, Exhibit A Update, DBE Plan Goals, LOI, BCA
  ◦ Reimbursable Agreement

1 Year before Construction
- Solidify Project Scope
- Develop 90 percent plans and specifications
  ◦ Include Additive/Deductive Alternatives to ensure the project is consistent with budget
- Develop Construction Safety Plan
- Update/Revise Cost Estimates
- Finalize
  ◦ Reimbursable Agreement, BCA, LOI, DBE Goals
  ◦ ALP Update, Environmental Review, Exhibit A
- Review project schedule with FAA and agree you will be able to accept a grant the following year based on firm costs

Implementation Year
- Advertise, Secure Bids
- Make application and receive AIP Grant based on firm costs
- Issue Notice-to-Proceed
- Initiate routine grant drawdowns

Year After Implementation
- Use the aviation improvement
- Close, or initiate Grant Closure
New Central Region Capital Planning Brochure
**Keys to Success**

The Central Region believes an effective AIP program converts Aviation Trust Funds into high priority aviation infrastructure that benefits the aviation user on a timely basis.

Current National FAA AIP fiscal practices include:
- Issuing grants based on bids or negotiated fees
- Timely programming of grants
- Ensuring no grant stays inactive for 18 months
- Grant funded projects must be closed in two years from acceptance
- Closing all grants within four years of appropriation

For an airport to be as competitive as possible for the limited discretionary funding, three strategies are recommended:

1. Identify development with system impacts including additional capacity, efficiency or safety/security.
2. Utilize apportioned funds on high-priority development. In general, the highest priority work is that associated with safety/security, pavement rehabilitation of runways and the primary taxiway system, noise reduction, planning and environmental mitigation. Generally, new pavement construction, apron, terminal and access are lower priority.
3. Manage your Grant program effectively by implementing sound capital planning and grant management practices.

**Resources**

Central Region AIP Sponsor Guide:

AIP Handbook: FAA Order 5100.38C

Airport Capital Improvement Planning: FAA Order 5100.38

FAA Website: http://www.faa.gov/

**Planning**

Airport planning is a systematic process used to efficiently guide future development of airports consistent with local, State and national goals. The FAA establishes standards and provides guidance on master and system planning. A key objective of airport planning is to assure the effective use of airport resources in order to satisfy aviation demand in a financially feasible manner.

Effective airport planning results in the sponsor identifying short term and long term needs of their airport. Airport needs may arise from aviation demand, airport inspections, runway safety recommendations and security recommendations.

The Airport Capital Improvement Program (ACIP) serves as the primary tool for project formulation. The FAA relies on the ACIP to serve as the basis for the distribution of limited grant funds under the Airport Improvement Program (AIP). The ACIP provides the means to systematically identify, prioritize and assign funds for airport development.

Under the ACIP, sponsors submit to the FAA their requests for aid, including all required supplemental documentation. The FAA evaluates each project for eligibility, justification, reasonableness of cost, priority assessment, reasonableness of project schedule, and information deficiencies.

Sponsors should note that the preparation and submittal of an ACIP project does not represent a guarantee that the sponsor will receive Federal funds. The official notice that a sponsor will receive Federal funds is through a Congressional notification for release of funds. Until this formal release has been made, all projects efforts are construed as a sponsor initiative.
Capital Planning Process for AIP Funding

The ACIP is prepared on an annual basis and represents the airport sponsor's five-year program for development at their airport.

It is essential for good capital planning practices to be adopted in order to position airport development projects for bid-based AIP grant funding. Grant awards based on bids are imperative to realizing aviation system and capacity improvements in a timely manner. Following the capital planning practices summarized below will assist in the efforts to invest the federal dollar in the most efficient way. Please visit our regional website for CIP templates and additional information.

Capital Planning Steps
- Identify potential funding sources and amounts, PFC, AIP, State, Other Local
- Determine project eligibility under AIP
- Align AIP eligible projects with Federal Objectives
- Target non AIP funds for low AIP priority projects
- Assign budgets and phase projects
- Contact your FAA Program Manager to refine plan during the first quarter of each calendar year
- Schedule periodic discussions with your Program manager to review program progress

5 Years before Construction
- Review Master Plan and ALP. Identify potential projects
- Determine if ALP or Exhibit A Property needs updating
- Communicate with users and tenants

4 Years before Construction
- Scope the project
- Identify funding sources (AIP/State/Local)
- Identify type of Environmental Documentation (CE or EA) expected
- Determine if DBE goals are required
- Identify if Benefit Cost Analysis (BCA) or Letter of Intent (LOI) is appropriate
- By February 15, Submit ACIP Data Sheet showing Environmental Assessment next year, if required

3 Years before Construction
- Select Consultant as needed for remaining AIP implementation steps
- Refine Scope and Cost Estimate
- Identify new or existing NAVAIDS that will be affected by the project
- Identify if any Instrument Approach Procedures will need modification due to the project
- Initiate
- Environmental Documentation (CE/EA)
- ALP update, Airspace Review, Exhibit A Property Update, DBE Plan, LOI, BCA
- By February 15, Submit ACIP Data Sheet showing
  - Construction 3 years out
  - Reimbursement for Land Acquisition next year

2 Years before Construction
- Finalize ALP Update, Environmental Documentation, Exhibit A
- Purchase Land or have contract to purchase
- Coordinate
- NAVAIDS
- Reimbursable Agreement with FAA Air Traffic Organization facilities group

2 Years before Construction (cont')
- By February 15, Submit ACIP Data Sheet showing
  - Construction 2 years out
  - Project Design next year
- By May 1, Submit Grant Application for Land Acquisition Reimbursement

1 Year before Construction
- Solidify Project Scope
- Conduct Aeronautical Survey (Instrument Approach Procedures take 18-24 months for development after acceptance of Aeronautical survey)
- Develop plans and specifications
  - Include Additive/Deductive Alternatives to ensure the project is consistent with budget
  - Develop Construction Safety Plan
- Update/Revise Cost Estimates
- Finalize Reimbursable Agreement, LOI, DBE Goals
- Review project schedule with FAA and agree you will be able to accept a grant the following year based on bid
- By February 15, Submit ACIP Data Sheet showing Construction next year
- By May 1, Submit Grant Application for Design and Aeronautical Survey this year
- If construction will occur within 2 years of design
- Review funding

Implementation Year
- Advertise, Secure Bids
- Make Grant application based on Bid
- By May 1, Submit Grant Application for Construction based on bid this year

Immediately Following Implementation
- Use the aviation improvement
- As-built ALP
- Close, or initiate Grant Closing within 90-days of acceptance

ACIP Data Sheets
Sponsors identify individual projects by submitting an ACIP Data Sheet for each work item they desire.

Submission Requirements
An ACIP Data Sheet must be submitted for each major work item listed within the sponsor's 5-year ACIP that is requesting Federal assistance over the next 3 years. If required, evidence of State and Regional Clearinghouse coordination should be provided with the ACIP Data Sheet.

As a prerequisite for AIP eligibility, all such identified work must comply with the current approved Airport Layout Plan (ALP) as well as have an environmental determination to proceed. For projects seeking discretionary funds in excess of five million dollars, a benefit/cost analysis is required.

Timing of Submission The sponsor may submit a request-for-aid at any time during the year. However, in order to be included in a specific fiscal year (FY), timely submission of the request is essential. Typically, requests for a particular fiscal year should be submitted by February 15 of the previous fiscal year. For example, requests for FY 2009 should be submitted by February 15 of 2008.
Appendix C

Airport Planning Workshop Presentation

Recurrent Planning Workshop Presentation
Airport Planning Workshop Presentation
FAA PROJECT FORMULATION

Developing Your Airport Through Sound Capital Planning Practices

Presented to: New Airport Management 1.0 Workshop
By: Scott Kramer, P.E.
FAA Capital Program Management
Date: October 26 & 29, 2009

Objectives

Planning Process
- Capital Planning Stages
  1. Five-Year Period
  2. Five-Year Period
  3. Five-Year Period
  4. Post-Related Construction

Implementation of Year
- Area Planning
- Joint Planning

ACIP Data Needs
- Substantial Requirements
- Delay in Submittal

Keys to Success

Planning Process

Sponsor Responsibility

- Under the Airport Improvement Program (AIP), the sponsor is responsible for project management which may include planning, engineering, design, construction, financial management, and project close-out. Coordination of certain elements with FAA is also required. The sponsor of the responsibility is coordinate with other FAA offices such as Flight Standards, Technical Operations, and Air Traffic.

- The sponsor may hire a qualified consultant to accomplish certain aspects of the project management.
**Capital Planning Steps**

**4 Years before Construction**
- Scope the project
- Identify funding sources (AP, State, Local)
- Identify type of Environmental Documentation (CE or EA) expected
- Determine if DEE goals are required
- Identify if Benefit Cost Analysis (BCA) or Letter of Intent (LOI) is appropriate
- By February 15, Submit ACP Data Sheet showing Environmental Assessment next year, if required

**5 Years before Construction**
- Prepare Master Plan and ALP, Identify potential projects
- Full scope of projects (structures, facilities, more, safety, noise, etc.)
- Check to see if any additional projects are necessary
- Determine if Amendment to ALP is needed
- Determine if Environmental Assessments are necessary
- Determine if any other permits are required
- Determine if ALP or Exhibit A Property needs updating
- Communicate with users and tenants

**3 Years before Construction**
- Select Consultant as needed for remaining AIP implementation steps
- Refine Scope and Cost Estimate
- Identify new or existing NARADS that will be affected by the project
- Identify if any Instrument Approach Procedures will need modification due to the project
Capital Planning Steps

3 Years before Construction, continued
- Finalize ALP Update, Environmental Documentation, Exhibit A
- Purchase Land or have contract to purchase
- Coordinate
  - NAVAIDS
  - Nontaxable Agreements with FAA and Traffic Organization facilities group

By February 16, submit ACIP Data Sheet showing
- Construction years out
- Project Design next year

By May 1, submit Grant Application for Land Acquisition [Emphasis on rent]

2 Years before Construction
- Finalize ALP Update, Environmental Documentation, Exhibit A
- Purchase Land or have contract to purchase
- Coordinate
  - NAVAIDS
  - Nontaxable Agreement with FAA Air Traffic Organization facilities group

By February 16, submit ACIP Data Sheet showing
- Construction years out
- Project Design next year

By May 1, submit Grant Application for Land Acquisition [Emphasis on rent]

1 Year before Construction
- Solidify Project Scope
- Conduct Aeronautical Survey [Instrument Approach Procedures take 18-24 months for development after acceptance of Aeronautical survey]
- Develop plans and specifications
- Include Additive/Deductive Alternatives to ensure the project is consistent with budget
- Develop Construction Safety Plan

By February 16, submit ACIP Data Sheet showing
- Construction years out
- Project Design next year

By May 1, submit Grant Application for Land Acquisition [Emphasis on rent]
Capital Planning Steps

1 Year before Construction, continued
- Update/Revise Cost Estimates
- Finalize Reimbursable Agreement, BCA, LOI, DBE Goals
- Review project schedule with FAA and agree you will be able to accept a grant the following year based on bid

Requesting Approaches

- Please contact the Flight Procedures Office, the AGIS office and NIOS with any specific questions.
- Their first question to you will be “Did you read the ACs?” (AC 150/5300-16A, 17B, 1999)

1. The Sponsor requests new approach procedures now through the Flight Procedures Office (FPO) and submit design data.
2. The Sponsor then needs to get on the AGIS system and create an AGIS project. Sponsor designates their consultant to enter plans and data into the system.
3. After an AGIS project is created, the flight procedures request will be placed on the flight procedures production schedule (18-24 months) and begin preliminary procedures development.
Requesting Approaches

4. Refer to Table 2-1 in AC 150 when developing the AGIS scope of work.
   - The SOW must be submitted and approved in the AGIS system.
   - There is an example SOW on the AGIS website.
5. After the SOW is approved, the control survey (AC 150) plan, photography (AC 176) plan, and the ground survey (AC 16A) plan needs to be submitted to the AGIS system for NGS approval.
6. After the plans are approved, the control is surveyed and the report submitted to the AGIS system for NGS approval.

Requesting Approaches

7. After the control is approved, the photography can be taken. Then the photography is submitted to the AGIS system for NGS approval. (The photo must be taken within 90 days of the survey.)
8. After the photography is approved, the ground survey and final report is submitted to the AGIS system for NGS approval. (The ground survey must be within 90 days of the photography.)
9. Flight procedures will develop draft procedures.

Requesting Approaches

10. After Construction, submit "As-built survey data for NGS approval. Flight procedures will then take the approved as-built survey data and validate the draft procedures and plans. (As-built aerial photography is not needed.)"

This is a very intensive step-by-step process with lots of plans and reports. It will take some time to complete. Do not try to shortcut the system as this will just cause delays.

Capital Planning Steps

- Implementation Year
  - Advertise and Secure Bids
  - Make Grant application based on Bid
- May 1, Submit Grant Application for Construction based on bid this year
**Capital Planning Steps**

- **Immediately Following Implementation**
  - Use the aviation improvement
  - As-built the ALP
  - Close, or initiate Grant Closure within 90-days of acceptance

**ACIP Data Sheets**

- Is the ACIP data sheet complete?
  - Airport Name, City and LocID
  - Project Description & Federal Fiscal Year
  - Sketch
  - Justification
  - Cost Estimate – breakdown by unit
  - Additional Information
  - Signature & Date
  - Title of Authorized Official
  - Phone Number

**ACIP Data Sheets**

- Airport Name, City and LocID
- Project Description & Federal Fiscal Year

---

6
ACIP Data Sheets

Justification

- Specific Justification
  - 600 annual commuter operations by critical aircraft
  - Crosswind runway needed - 85% wind coverage, crosswind runway directions - aircraft use
  - Parallel taxiways - runway safety distance, instrument approach procedure, eliminate runway back tax
  - Apron Area - "Apron Area Calculation" spreadsheet
  - New Ground Equipment - "SHE Calculator"
  - AMOS, Approach Light System - Apron Planning Standards Number One (APS-1)

Cost Estimate

- Are the costs reasonable and updated recently? Are the costs complete? Are they for the described project? Cost breakdown with unit quantities and unit costs - identify sequentili by number and show FAA specification number. WILSON CONSTRUCTION.
- Federal Share is 85%, and airport sponsor share is 5%.

ACIP Data Sheets

Cost Estimate

Additional Information
Key to Success

- Focus on one thing at a time.
- Break large projects into small projects.
- Parallel vs. sequential (construction, environmental reviews, etc.).
- Critical path vs. fast tracking.
- Disburse funding early.
- Track milestones.
- Be flexible.
- Plan, execute, and adapt.
-资源整合:
  - Air traffic management
  - Airline scheduling.
- An effective airport planning and development process that involves the airport as a partner.
- Current backlog of FAA-AIP project funding.
- New program and/or new airport.
- New project and/or new funding.
- New airport and/or new program.

Key to Success

- For an airport to be as competitive as possible for the limited discretionary funding, three strategies are recommended:
  1. Identify the project's impact on overall network performance.
  2. Utilize a single funding stream for high-priority projects.
  3. Manage your grant program effectively by implementing sound capital planning and grant management practices.

FAA Project Formulation

Resources
- AIP Handbook: FAA Order 5100.38C
- Airport Capital Improvement Planning: FAA Order 5100.39
- FAA Website: http://www.faa.gov/
FAA Project Formulation

QUESTIONS???
&
ANSWERS???
Recurrent Planning Workshop Presentation
**ALP Checklist with Helper Test**

- Originally put together for use
- Just updated to include Change 14 of AC 190-5B00-13
- One Table with the most commonly used airport design dimensions from AC 190-5B00-13 and Order 7406.2
- Runway and Taxiway standard dimensions
- Part 77 surface dimensions
- Has a table that compares Part 77 approach surface types to RPZ uses
- Now on our website for anyone to download (.pdf)

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**Design Dimensions Cheat Sheet**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway Width</td>
<td>65.0 ft</td>
</tr>
<tr>
<td>Taxiway Width</td>
<td>45.0 ft</td>
</tr>
<tr>
<td>Elevation</td>
<td>0.0 ft</td>
</tr>
<tr>
<td>Slope</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

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**Resources**

- FAA Central Region Airport WebSite: [http://www.faa.gov/airport/index.cfm](http://www.faa.gov/airport/index.cfm)
- Francisco, P.E.
  - Email: ffranco@ala.gov
  - Twitter: @franco_alaa
- Gail, P.E.
  - Email: gail.caillouet@ala.gov
  - Twitter: @gailleala

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**Design Dimensions Cheat Sheet**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway Width</td>
<td>65.0 ft</td>
</tr>
<tr>
<td>Taxiway Width</td>
<td>45.0 ft</td>
</tr>
<tr>
<td>Elevation</td>
<td>0.0 ft</td>
</tr>
<tr>
<td>Slope</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

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**Resources**

- FAA Central Region Airport WebSite: [http://www.faa.gov/airport/index.cfm](http://www.faa.gov/airport/index.cfm)
- Francisco, P.E.
  - Email: ffranco@ala.gov
  - Twitter: @franco_alaa
- Gail, P.E.
  - Email: gail.caillouet@ala.gov
  - Twitter: @gailleala
Appendix D

Draft Project Management Checklist
Draft Project Management Checklist
AIP Development Project
Project Management Checklist

Airport Project Management, Engineering & Design

Sponsor Responsibility
Under the Airport Improvement Program (AIP), the sponsor has the responsibility for project management, which may include planning, engineering and design, construction, financial management and project close-out. Coordination of certain elements with FAA Airports Division does not relieve the Sponsor of the responsibility to coordinate with other FAA offices such as Flight Procedures, Technical Operations, and Air Traffic. The sponsor may hire a qualified consultant to accomplish certain aspects of the project management.

The Sponsor shall use qualified technical resources for the project design and to prepare a bid package that complies with Federal, State and local regulations and standards. The project design shall incorporate sound engineering principles along with accepted "Best Practice" design considerations and methods.

FAA Standards
By accepting an AIP grant, the sponsor agrees to adhere to FAA standards that are presented in applicable Advisory Circulars (ACs), technical orders, and federal regulations (i.e., grant assurances). A listing of applicable ACs is attached to each grant agreement.

Unless specifically approved in writing by the FAA, the Sponsor must apply all applicable FAA standards to the project design. Non-standard design elements that are deemed not acceptable to the FAA are ineligible for AIP participation. While the FAA maintains a list of approved modifications, a request must be submitted to allow the FAA to evaluate the applicability of the modification.

FAA Review
Sponsors, along with their consultant, are strongly encouraged to consult with the FAA prior to commencement of project design. This coordination will establish the limits of AIP eligibility and limit any time consuming work that may be declared ineligible after the fact.

The primary purpose of the FAA's review is to verify that applicable FAA standards are being applied as well as to make a determination regarding the limits of AIP eligibility. The review is generally limited to the FAA's eligibility determinations and review of critical project elements such as the safety plan, pavement details, airfield markings and airfield signage details.

FAA approval of plans and specifications is based on a combination of a FAA cursory review and the submittal of a satisfactorily executed sponsor certification. The FAA review shall not be construed as the Sponsor's/Engineer's quality control review.

Any review and approval by the FAA does not relieve the Sponsor or the engineer of the responsibility for the accuracy, completeness, and technical content of the plans and specifications.

The sponsor and their consultant shall allow sufficient time for the FAA to conduct an appropriate review. This may vary per size and type of project. Generally, a review time frame of 2-3 weeks is requested.
# AIP Development Project
## Project Management Checklist

**Location:**

**AIP Project Number:**

**Project:**

- **Activity:** Planning (Several years prior to project engineering and construction)
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Project Formulation
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Project eligible and shown on approved AIP
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** FAA Environmental Determination (EA, ROE, FONSI, CE Checklist)
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Benefit Cost Analysis
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Land Acquisition
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Pavement Maintenance Program
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Coordinate AIP funding
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Submit AIP Data Sheet
  - **Planned Date:**
  - **Actual Date:** February 15, Previous Year
  - **Comments:**

### Engineering

- **Activity:** Receive GO-Letter
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Select Consultant and verify DBE @
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:** Must follow open selection process

- **Activity:** Confirm scope, schedule, budget & funding availability, w/Sponsor and FAA Engineer
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Pre-design meeting
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Coordinate FAA Facility Impacts w/ FAA Technical Operations
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Coordinate Reimbursable agreement w/ FAA Technical Operations
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Finalize Contractual agreement
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Submit engineering Airport request (FAA 7468-1) via CENAA website
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Request Modification to Standard
  - **Planned Date:**
  - **Actual Date:** As required
  - **Comments:**

- **Activity:** FAA Approval of Modification to Standard
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Conduct Aeronautic Survey for approach development
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Submit preliminary plans & specifications, engineers report, pre-construction photos, safety plan for FAA review & comment @
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Sponsor annotated response to FAA comments
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Submit final plans & specifications
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Finalize scope, schedule, budget & funding availability, w/Sponsor and FAA Engineer
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** Submit Approach request to FAA Flight Procedures Office
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:** Minimum 18 months prior to project completion

- **Activity:** Minimum 18 months prior to project completion
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

- **Activity:** FAA approval to solicit (Authority to Advertise)
  - **Planned Date:**
  - **Actual Date:**
  - **Comments:**

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<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Opening</td>
<td>February</td>
</tr>
<tr>
<td>Award</td>
<td>April</td>
</tr>
<tr>
<td>FAA approval of award</td>
<td></td>
</tr>
<tr>
<td>Submit Grant Application based on Bid &amp; defined Costs (ESA) ®</td>
<td>May 1</td>
</tr>
<tr>
<td>Submit Certification of Title, Exhibit &quot;A&quot; Property Map</td>
<td>if required</td>
</tr>
<tr>
<td>Execute Grant</td>
<td>By date shown on agreement</td>
</tr>
</tbody>
</table>

**CONSTRUCTION**

- Preconstruction meeting
- Notice to Proceed ®
- NOTAMs
- Project execution
- Coordinate status of approach request w/ FAA Flight Procedures
- Submit As-built Survey to FAA (GIS Format)
- Flight Inspection
- Final Acceptance of Work
- Commissioning

**CLOSE-OUT**

- Final Outlay Report (SF-271)
- Final Construction Report w/ summary of test results & post-construction photos ®
- Submit As-built Airspace Notice (FAA 7460.2) via CE/AAA website
- 5010 Update
- As-built drawings
- As-built AIP
- Final Project Budget Summary
- Support Documentation for Final Expenses
- Sponsor Certification for Final Acceptance
- Amendment required
- Summary of DBE utilization

**Notes:**

1. Coordination of certain elements with FAA Airports Division does not relieve the Sponsor of the responsibility to coordinate with other FAA offices (Flight Procedures, Technical Operations, Air Traffic, etc.).
2. Activities requiring action from other offices usually happen sooner if work is coordinated beforehand and an advance copy of paperwork is provided to the persons involved.
3. Activities are listed in more or less chronological order; many can be done concurrently.

® Sponsor certification required.