Chapter 5. AIRFIELD CONSTRUCTION AND EQUIPMENT PROJECTS

Section 1. GENERAL ELIGIBILITY AND PROJECT REQUIREMENTS

500. PROJECT ELIGIBILITY.

No airfield construction or equipment acquisition project can be approved unless it meets requirements of Paragraph 300 and conforms with standards established by the Administrator, including standards for site location, airport layout, site preparation, paving, lighting, and safety of approaches. FAA determination on eligibility of safety and security facilities as well as other airport development items is based on a policy that airport standards, if fully met by a sponsor, provide for adequate facilities and equipment to meet public needs. Any development beyond those standards or requirements would not be eligible for Federal funding. This policy is reflected in the general ineligibility of aircraft rescue and fire fighting equipment beyond that required by Part 139 and the funding limits on construction of pavement longer, wider, or stronger than specified in advisory circulars. Furthermore, no airport development project may be approved unless the following conditions have been met:

a. Good Title and Property Inventory Map (Exhibit A). The sponsor, a public agency, or the Government must hold good title to the areas of the airport used or intended to be used for the landing, taking off, or surface maneuvering of aircraft, or good title will be acquired. A good title is a marketable title, free and clear of all liens and encumbrances (except those specified and usually agreed to by the government in advance). If the airport is acquiring land in the project, a property inventory map (Exhibit A) should be updated unless it is part of the approved airport layout plan.

b. Airport Layout Plan (ALP). The project must be consistent with a current ALP, which is approved by the FAA, and the interests of the community located near the project should be given fair consideration.

c. Airfield Lighting and Marking. The project must provide land required for installing approach light systems, touch-down zone and centerline runway lighting, or high intensity runway lighting, that the Secretary decides are necessary under Title 49 U.S.C., Section 47106(b)(3) for safe and efficient use of the airport by aircraft, considering the airport category and the kind and volume of traffic. The project must provide airfield marking if existing markings are obliterated by the construction or construction equipment.

d. Useable Unit of Work. A safe, useful, and usable unit of work must result from the project. In the case of development to be accomplished in stages, a safe, useful, and usable unit must be provided at least upon completion of the final stage.

e. Reducing Incursions. The project must provide airfield paving, lighting, and/or surface movement items where determined by the FAA Runway Incursion Action Team or formal inspection to be required for reducing runway incursions and aircraft accidents if the work involves runways/taxiways. The specific requirements of this initiative are identified within Sections 3 and 4 of this Chapter.

501. RECONSTRUCTION VERSUS MAINTENANCE.

The reconstruction, rehabilitation, pavement overlays, or major repairs of facilities and equipment are defined as eligible capital costs generally considered permanent with a 20-year life expectancy. The maintenance activities needed on a continuing basis to preserve the airfield in good condition, work involving regular cleaning operations, as well as minor repairs of facilities and equipment are defined as ineligible costs. For example, while the complete rehabilitation of power sweepers may be eligible, regular maintenance of it or sweeping operations for pavement areas are ineligible. However, routine pavement maintenance at nonprimary airports is eligible based on the requirements described in

Paragraph 520. This nonprimary airport maintenance is the major exception allowing the use of AIP funding for operations and maintenance costs as defined in this paragraph. In addition, when life-cycle costs are considered in procurement as described in paragraphs 508 and 911, certain operation or maintenance costs may be funded.

502. NATIONAL AIRSPACE SYSTEM REQUIREMENTS.

The FAA must constantly sustain and modernize the National Airspace System (NAS). AIP construction and equipment projects shall be consistent with the NAS Architecture, which details operational concepts, mandatory schedules, system requirements, human and physical resources, and regulatory policies essential for maintaining the safety as well as capacity of the NAS. AIP projects in the NAS include, but are not limited to, navigation, runways, lighting, weather equipment, and security. These components are defined in the current version of the NAS Architecture document. The NAS Architecture document is a dynamic document that is updated on an as-needed basis. A more thorough discussion on the NAS Architecture can be found at http://www.faa.gov/nasarchitecture.

a. National Plan of Integrated Airport Systems. Airfield construction and equipment included within the NPIAS are AIP eligible. NPIAS airports are considered major service providers and essential to the NAS. They must meet applicable standards to ensure the safe and efficient use of airspace by aircraft anywhere within the NAS. Other airports are occasionally treated as NAS components for various purposes, although those smaller airfields remain ineligible under the AIP.

b. Related Funding Sources. AIP grants are one among many related financing programs for airport improvements. Joint planning and decision making with other NAS funding sources is frequently critical to project implementation. The regions should ensure that the appropriate Airport Capital Improvement Plan includes a notation about the financing required to complete projects. For instance, when the FAA's Facilities and Equipment (F&E) program is needed to provide an airport traffic control tower as part of commissioning a new runway, the status of the F&E work must be carried with the AIP project information throughout the life of the airfield project. This applies to funding from the PFC program, other Federal programs, States, local governments, airport revenue, project borrowing, and contributions by private entities.

c. Reformed Acquisition Management System. The installation of certain NAS air traffic control, communications, navigation, surveillance, and weather facilities are usually the responsibility of the FAA rather than airports. The FAA's reformed Acquisition Management System (AMS) acquires NAS facilities in five steps: mission analysis, investment decisions, solution implementation, in-service management, and service life extension. Without further authorization about shifting FAA costs to airports, this is accomplished mainly through the F&E program. Under some limited circumstances, the traditional F&E equipment may also be AIP funded, and requirements for these projects are identified below. When projects can be accomplished through both programs, the AIP and F&E program requirements are the same, which means an airport should not view a grant as a means of accomplishing a project that is otherwise unqualified for F&E funding.

d. Facilities and Equipment Program Budgets. Any project included in an approved F&E program budget is ineligible for an AIP grant, and the FAA cannot use AIP funds to augment the F&E budget without specific statutory authority. (See Paragraph 311k.) Regions should check questionable equipment projects with the Airway Facilities division to ensure that duplication of project funding is avoided. The FAA should approve few traditionally F&E or National Airspace System Implementation Program (ANI) funded projects under grants, except instrument landing systems (ILSs) and associated lighting as described in Paragraphs 555 and 556. The AIP grants may involve site preparation required to meet airport standards separate from the F&E projects when the work is ancillary to such a project. Projects traditionally funded under the F&E program are facilities and equipment for navigation, weather reporting, communications, surveillance, and air traffic control. Contact APP-520 for assistance on eligibility of work primarily related to an approved F&E project.

e. Off-Airport Projects. Off-airport construction and equipment projects are eligible only to the extent that they accomplish the exceptions described in Paragraph 303. Such projects need to be clearly justified as airfield related on the FAA approved airport layout plan.

503. TRANSITION TO SATELLITE NAVIGATION.

The emphasis of many airfield construction and equipment projects is the FAA transition from the existing ground-based navigational aids to the satellite navigation (SATNAV) technology for airport instrument approach service in the NAS.

a. Augmentation and Revision of Standards. The FAA expects to meet the future airport approach and landing system requirements with the global positioning system (GPS), which will be augmented by the Wide Area Augmentation System (WAAS) and the Local Area Augmentation System (LAAS). Due to many differences between the GPS-based procedures and the traditional instrument landing system (ILS), airport standards are undergoing revision. Many airfield construction and equipment projects should be designed based on SATNAV requirements even though some advisory circulars retain dated material. (See Paragraph 506.)

b. Instrument Landing System and Backup Systems. After sufficient time has passed to allow for installation of SATNAV avionics in aircraft as well as experience with WAAS and LAAS, a phase-down in ground-based navigation aids will begin. In the interim, the ILS and other backup systems will continue to be deployed based on reduced life-cycle benefits. Airfield construction and equipment projects must be evaluated in light of the continuing cost for ground-based systems with these reduced benefits.

c. SATNAV Airport Facility Enhancement Team. During the transition to SATNAV, a focus group has been established within the Airports program to provide additional assistance that may be necessary. The SATNAV Airport Facility Enhancement Team (SAFET) has representation from the aircraft, avionics, and navigation systems integrated product team (AND-700) and each headquarters division within Airports. Contact AAS-100 for assistance from SAFET.

504. INNOVATIVE TECHNOLOGY AND FINANCE.

Airports should employ innovative technologies in accordance with Title 49, U.S.C., Section 47101(a)(11), or concepts that will promote safety, capacity, and efficiency improvements. However, implementation of AIP airfield construction and equipment projects must use demonstrated materials, procedures, and standards, except as noted above. Innovative financing mechanisms for airport development may also be considered within the context of overall aviation funding and demonstration projects authorized for that purpose.

a. Project Approval Levels. Regions may authorize any innovative technology implementation project that does not require approval of a modification of standards at a level above the region. Contact AAS-100 for other questions on approving projects using new pavement or equipment technology.

b. Demonstration Projects. Demonstration projects are occasionally authorized within legislation on new construction, management, or financing arrangements for airport planning and development. The AIP does not include significant numbers of such demonstrations because prior evaluations have concluded that the program is already flexible enough to accommodate many innovations. However, regions needing further information on a demonstration project should contact Airports Financial Assistance Division, Airport Improvement Program Branch (APP-520).

c. Research, Engineering, and Development Budgets. Any project included in an approved Research, Engineering and Development (RE&D) program budget would be ineligible under the AIP. The FAA cannot use AIP funds to augment the RE&D budget without specific statutory authority. (See Paragraph 311k.) Work may be proposed in the developmental or demonstration stage of innovation, which would be more appropriate as RE&D projects. Where the limited deployment of innovations is

anticipated, a project should be considered a candidate for research that includes a follow-up report. Regions may contact APP-520 for assistance on eligibility of work primarily related to an approved RE&D project.

505. AIRFIELD PROJECT JUSTIFICATION.

The facility size, strength of pavement, and other determinants of project cost must be adequately documented to allow an independent assessment that the amount of work is realistically justified. See Paragraph 320.

a. Aviation User Requirements. The general eligibility of work is not the same as justification based on current airport user needs. Letters of support should be requested from airport users whenever a proposal is beyond that justified by a lease or other firm commitment to use the project. Airport users should be asked to describe their plans and the anticipated public use activity level by a specific aircraft, including the approach category as well as airplane design group. In some cases, there may be more than one critical aircraft. For instance, pavement strength and layout are frequently dependent upon different aircraft. Except as otherwise noted, the activity levels used for accepting NPIAS airport roles apply to project justification, and Order 5090.3 describes procedures for field formulation of the NPIAS.

b. Documented Aeronautical Need. The simple endorsement of a project by the airport sponsor or a forecast of activity is not adequate by itself to establish justification for the work. Forecasts should be realistic and supported by the information and documentation provided by the sponsor. Formal justification by aviation users may have been previously documented in an airport planning report. When reviewing a proposal, the region should evaluate the work required upon completion of the project and forecast to occur at some future time. The sponsor's forecasts should be compared to the existing Terminal Area Forecast (TAF) and any substantial differences should be resolved. The FAA's TAF is to be used in accordance with Paragraph 428a. Economies of scale may be obtained by allowing a project to be expanded for the five-year forecast if, in the judgment of the FAA, the airport is growing sufficiently to necessitate that. However, no project should be approved for funding without analysis of the specific requirements for development and documentation of aeronautical demand used to justify the work.

506. PROJECT STANDARDS AND DESIGN.

If FAA Advisory Circular 00-2.15, Advisory Circular Checklist, identifies an Airports standard for the work proposed, a project must be carried out in accordance with the applicable FAA standards and designs in order to be eligible, except as described within this paragraph. See Paragraph 311. Grant assurance 34 normally limits applicable requirements based on a list of current advisory circulars for AIP eligible projects. This current list, which has fewer documents than the FAA advisory circular checklist, is available on our web site. If, in the view of the region, a proposal requires recently issued standards or requirements other than on the current list to make the project eligible, the additional requirement can be included as a special condition.

a. Development Exceeding Design Standards. New facilities exceeding FAA design standards are not eligible except as noted in Paragraph 505b, although AIP work may be combined with an ineligible project provided the airport pays the extra costs. See Paragraph 613. In addition, a project for rehabilitation of existing airfield facilities (or repairing equipment) that exceed FAA design standards may be eligible for AIP participation if it meets the other applicable requirements and the following:

(1) The project is otherwise eligible;

(2) The cost in excess of that required to achieve facilities/equipment that meet FAA design standards is justifiable in the view of the region for preserving or enhancing the existing capability; and

(3) Operational experience has established a continuing need for the existing facility or equipment to accommodate occasional airport users requiring it.

b. State Standards. FAA approval of State standards may have been accomplished for certain projects at nonprimary airports, although such a standard cannot be approved with respect to safety of approaches. If a sponsor proposes to apply a State's standards that have not been approved, the region may encourage the State to prepare standards under an AIP system plan project. However, use of the State standards is generally not permitted until they have FAA approval. Additionally, State highway specifications are permitted for airfield pavement construction using funds made available under Section 47114 of the Act at nonprimary airports with runways of 5,000 feet or shorter serving aircraft that do not exceed 60,000 pounds gross weight if the Secretary determines that (i) safety will not be negatively affected; and (ii) the life of the pavement will not be shorter than it would be if constructed using FAA standards. However, there is one limitation. An airport may not seek funds under this provision for runway rehabilitation or reconstruction of any such airfield pavement constructed using state highway specifications for a period of 10 years after construction is completed unless the FAA determines that the rehabilitation or reconstruction is required for safety reasons.

c. Projects without Standards. Some eligible projects, such as power sweepers for debris control, have no corresponding FAA scope of work, requirements, procedures, policy, plans, standards, and/or specification. Contact APP-520 for assistance on project eligibility. Contact AAS-100//300 for evaluation of project design.

507. COMMISSIONING AND DECOMMISSIONING AIRFIELD FACILITY.

The regional Airports divisions are the FAA lead organization responsible for commissioning and decommissioning AIP airfield facility construction or equipment projects. The work scope must include updating aeronautical publications to reflect all alterations to an airport's infrastructure both during and after the project.

a. Coordination of Airport Alterations. Project coordination is required to close runways and reopen them, for instance, so that the public can be made aware of the changes. The sponsor is required to coordinate with the airport traffic control tower and contractors. The sponsor is also required to obtain a non-objectionable determination from the FAA region. Timeliness is important due to safety and liability issues. To maintain the required level of safety and security during construction, the airport must comply with guidelines in Advisory Circular 150/5370-2.

b. Designating Temporary Runways. Operational safety on the airfield during construction, including airport ground vehicle/aircraft movement coordination, is important for many AIP projects. Designation of taxiways as temporary runways in accordance with FAA Order 7110.19, and other temporary features, must be included in the project. (See Paragraph 525c on converting runways to taxiways.)

c. Notice to Airmen. Regions are responsible for determining that airport operators provide accurate information for notices to airmen (NOTAM) in accordance with Advisory Circular 150/5200-28.

508. LIFE-CYCLE AIRPORT COSTS.

Life-cycle costs shall be considered in AIP procurement where specified in bidding documents. This is a requirement of Title 49, Code of Federal Regulations, Part 18. Life-cycle costs are defined to encompass the entire period facilities or equipment progress through a budget, including the stages for the airport planning, construction, commissioning, operating, management, maintenance, repair, improvements, and activities on decommissioning the project. Regional personnel should exercise care to treat life-cycle airport costs fairly for sponsors without requiring unreasonable initial capital expenditures. For additional information on the features or applications of life cycle cost analysis, see Paragraphs 501 and Section 6 of this chapter. See also Paragraphs 591 and 911.

509. RESERVED.

Section 2. SITE PREPARATION

510. GENERAL.

Work necessary to prepare the site for eligible airport development or to meet applicable design standards is eligible. Site preparation may include clearing, grading, grubbing, and installing drainage facilities or utilities. In the case of seaplane facilities, dredging of the seaplane anchorage and channel is eligible.

511. EXISTING FACILITY IMPROVEMENTS.

Any site preparation to bring an existing airfield facility into conformance with applicable airport design standards is eligible. These improvements may be required at existing nonstandard airports or due to a change in standards since the airport was constructed. See Paragraph 512 on major runway or extension projects.

512. NEW AIRPORT, MAJOR RUNWAY PROJECTS, AND MILITARY AIRPORT CONVERSIONS.

Major new airport improvements involve the need for more elaborate coordination between FAA organizations, states, the airport, and other parties than do less significant projects at existing facilities. A coordination process should be well underway to establish the site selection agreement or airport layout plan and to determine project eligibility before approval of a project for site preparation work. The use of the Operational Evolution Plan (OEP) process for projects involving significant demand-capacity issues will harmonize the activities and foster agreement on a collective course of action within the aviation community. New improvements at smaller airports may be outside the OEP. For these projects, the region should consider undertaking similar coordination on a reduced scale.

a. New Airports. An inter-division working committee (IWC) in accordance with Order 1110.117 or similar team, including possibly a separate office, should be established and used by regions for building major new airports to ensure initial site preparation eligibility issues are consistent with FAA policy. The IWC or other coordination process may continue throughout the development project phases.

b. Runways and Extensions. Major runway and extension projects should involve a similar IWC or other coordination mechanism as used for a new airport prior to site preparation. Redesign of facilities, revision of air traffic procedures, and related changes require formal coordination to ensure the airport is modernized consistent with FAA policy.

c. Military Airports. The conversion or joint use of former military airport areas is frequently as significant as building new airports. Therefore, a similar IWC should be established and used for former military airports as part of the project to ensure site preparation eligibility issues are consistent with FAA policy.

513. SAFETY AREAS.

Safety areas are a substantial site preparation requirement for airport development projects. Safety area or shoulder requirements are eligible. However, the standards for runway and taxiway safety areas may not relate directly to the risk of accidents for purposes of justifying improvements. A feasibility determination is needed by the FAA if costs are excessive. Refer to Order 5200.8, Appendix 2 for considerations in evaluating alternatives.

a. Runway Safety Area Program. The runway safety area program described in Order 5200.8 applies to AIP projects that involve construction of new runways and lengthening, widening, strengthening, or leveling of an existing runway. For work related to Facilities and Equipment projects, see Paragraphs 514 and 593.

b. Engineered Materials Arresting Systems. Engineered materials arresting systems (EMAS) described in Advisory Circular 150/5220-22 are not equivalent to a runway safety area, although the installation or repair of EMAS should be considered in the analysis of the improvements.

(1) Primary Airports. The analysis should consider the role of the airport, characteristics of unpaved surface areas surrounding the runways, airport activity, future plans for instrument approach procedures, and alternative operational requirements. EMAS is eligible where nonstandard situations exist for primary airport runway safety areas and it may be part of a determination by the FAA. Contact AAS-100 for assistance with EMAS.

(2) Nonprimary Airports. Where the standard safety area for a nonprimary airport is not practical, the project should be documented using the factors described above for primary airports. Regions should exercise additional care for airports with only smaller and lower speed aircraft pending more experience with EMAS at these locations.

c. Taxiway Safety Areas. Safety areas for parallel, bypass, or connecting taxiways and turnarounds as well as holding bays are eligible. The evaluation of taxiway safety areas may need to consider airport planning and alternatives in a similar way as described above for the runway safety area.

514. SITE PREPARATION FOR F&E INSTALLATIONS.

Site preparation for navigation aids may involve large areas on an airport. The site for an F&E installation may be prepared in connection with an eligible airport development project provided the grant agreement specifies that this work will be funded entirely by the F&E program. Except as specifically identified below, site preparation for F&E installations is ineligible.

a. Clearing, Grading, and Grubbing. Clearing, grading, grubbing, or related work for eligible airport development items may result in the site preparation of an F&E project. For example, clearing of the safety area and runway protection zone will prepare the site for an airport approach lighting system. This type of site preparation is eligible provided that:

(1) The work must be included as part of the site preparation for eligible airport development. Grants should not be issued for clearing of existing or future F&E sites exclusively (for instance, an item to remove existing non-frangible approach lighting equipment or procure and install frangible systems) outside a related airport development project. See Paragraphs 513 and 593;

(2) The cost of preparing a slightly larger area so NAVAID installations can be located outside safety areas must be determined as incidental to eligible site preparation costs for airport development in which the F&E equipment is included. See Paragraph 516; and

(3) The site preparation must meet airport design standards that would be applicable without the NAVAID.

b. Installation of Ducts. Installation of ducts or utilities to support an F&E project is not normally eligible for funding under the AIP. In cases where it is documented that ducts and utilities for F&E facilities can be more economically installed incidental to an AIP construction or equipment project, the installation may be funded if requested by the sponsor. An example is the placement and marking of sufficient conduits for planned requirements under runways and taxiways before initial paving to avoid the need for repeatedly cutting new trenches at a later time.

515. UTILITIES AND FUEL FARMS.

The installation, improvement, reconstruction, or repair of water, gas, electric utilities, drainage and wastewater treatment facilities will be eligible to the extent they are needed to serve areas eligible for AIP assistance. The allowable cost of any utility installation serving both eligible and ineligible areas or

facilities will be a prorated share of the total cost, the method to be determined by the FAA Airports Office as in Paragraph 613. Aircraft fueling facilities at an apron surface or below are incidental to the pavement project and eligible. See Paragraphs 538, 541, 586, 591, and 594.

a. Fuel Farms and Other Aeronautical Support Facilities. The installation of new fuel farms may be eligible at nonprimary airports using entitlements. Regions should ensure the sponsor has made adequate provisions for financing higher priority airfield projects that are currently required before this revenue-producing work. Contact APP-520 about proposals for the construction, alteration and repair of revenue-producing aeronautical support facilities other than any project clearly allowed in paragraph 526 or a new fuel farm at nonprimary airports. See 49 USC 47110(h).

b. Military Airport Program. Separate rules apply to the utilities or the fueling facilities for certain joint use and former military airports. An airport currently participating in Military Airport Program (MAP) has been given additional eligibility not to be confused with that at other military or joint use airports. For MAP, eligible work includes construction, improvement, or repair of all existing airport utilities even if that would not otherwise be allowable. This includes upgrading electric utilities or such systems in hangars and terminal buildings to meet electrical codes. This also includes fuel farms for non-exclusive use by the flying public. Projects cannot exceed certain funding levels at each airport for fuel farms, utilities and various related projects as described in Paragraph 606.

c. Ineligible Utilities. Installation or rehabilitation of utilities for areas not eligible are ineligible unless the work is specifically eligible under the Military Airport Program. Ineligible work includes installation or rehabilitation of fueling fixtures above the surface of an apron and fuel farms at primary airports.

516. PRORATION OF SITE PREPARATION WORK.

In some cases, a sponsor may determine that it is beneficial to undertake site preparation for both eligible and ineligible development through one construction contract. In these cases, the costs shall be prorated between the eligible and ineligible development items unless the cost of the unallowable work is incidental to the eligible development items. The determination of whether or not to prorate the costs must be made on a case-by-case evaluation.

a. Prorated Work. A sponsor may propose, for example, to include in a building five additional bays and substantial local government administrative space beyond that needed to house snow removal equipment. The cost of the site preparation for the ineligible space might be greater than 10 percent when compared to the overall eligible part of the building. It would not be an incidental part of the eligible development items. A prorated share for the allowable project cost should be calculated using methods similar to that in Paragraph 613.

b. Incidental Work. In another example, site preparation for an eligible apron requires fill. The sponsor proposes to obtain an equal amount of the fill by grading (and thereby preparing the site for) an adjacent area designated on the approved airport layout plan for aircraft hangars. Site preparation of the hangar area may be considered incidental to the work on the apron if the region determines it represents an effective and logical source for the fill. See a similar example in Paragraph 514a(2).

517. - 519. RESERVED.

Section 3. MANAGEMENT OF AIRFIELD PAVING PROJECTS

520. GENERAL.

Management of airfield paving projects has expanded beyond the determination of eligibility for the original project itself to include consideration of the life-cycle operation and maintenance issues. See Paragraph 306 on pavement evaluations as well as Advisory Circulars 150/5380-6 and 150/5380-7.

Paving for reducing runway incursions may need coordination with the FAA Runway Incursion Action Team.

a. Airfield Paving. Eligible work items under airfield paving include construction, reconstruction, or rehabilitation of runways, taxiways, and apron areas. This may include aggregate-turf pavement or other than the FAA standard for specifying construction at airports, as with the FAA-approved State standards. Specific programming criteria on the individual work items are provided in the subsequent paragraphs. Under Title 49 U.S.C., Section 47105e, the sponsor must assure the airport has implemented procedures for a pavement maintenance management program for any project to replace or reconstruct pavement. A special condition for pavement quality control is contained in Appendix 7. The basic requirements for the pavement maintenance management program are defined in Advisory Circular 150/5380-6.

b. Pavement Strengthening. The airport owner has a commitment to prevent overstressing of airfield pavements. If the owner is not prepared to strengthen the pavement, then its use must be limited to aircraft operations that will preclude such overstressing. The FAA does not consider such a limitation to be a noise restriction within the meaning of Title 49 U.S.C., Section 47524. Should pavement failure occur because the sponsor failed to take timely corrective action after being advised by the FAA of problems, any subsequent AIP project will be limited to the cost of such work as would have been required for strengthening had failure not occurred. Independently conducted pavement evaluations by the State as well as FAA, or those contained in airport master plan projects, may be used for advising sponsors and in making these determinations. See Paragraph 505 for justification of pavement design.

c. Seal Coats. The application of asphalt seal coats or resealing of joints in concrete pavements is a capital cost eligible for Federal participation under certain conditions. The region must analyze the need for seal coats and be satisfied that the sponsor has complied with assurances on regular maintenance. The following guidance will apply:

(1) The preparation of the pavement surface, including cleaning and filling of cracks, is eligible with a seal coat project.

(2) Eligible types of seal coats include those using aggregate, sand, emulsified asphalt slurry, coal tar pitch emulsion, rubberized material, or some combination of the these methods. See the advisory circulars and engineering briefs, or contact AAS-100 for advice on other applications.

d. Friction Surface Treatment. Friction surface treatments, such as grooving, aggregate seal coats or porous friction courses, to minimize hydroplaning and improve skid resistance are eligible capital costs. In accordance with Title 49 U.S.C., Section 47101(f)(2), surface treatment for primary and secondary runways at commercial service airports serving turbojet aircraft is high priority, and documentation for the project files should include an explanation when it is not accomplished. Portions of taxiway systems and apron areas are eligible for friction surface treatments where the increased skid resistance is needed to enhance safety.

e. Shoulders and Blast Pads. The treatment of areas adjacent to eligible pavement is eligible in accordance with applicable airport design standards to support the weight of aircraft or other surface vehicles. Shoulders and blast pads are eligible to prevent soil erosion from thrust effects of turbojet-powered aircraft or to improve the existing conditions such that regular maintenance will be facilitated.

f. Nonhub and Nonprimary Airport Pavement Maintenance. Nonhub and nonprimary airports have separate eligibility rules related to airfield pavement maintenance.

(1) Under Title 49, U.S.C., Section 47102(3)(H), the nonhub and nonprimary airports are eligible for certain cost effective routine pavement maintenance projects. Notwithstanding grant assurances, sponsors must be unable to fund maintenance using their own resources, which include transfer of funds to the airport from other sponsor accounts. The sponsor or State must implement a pavement

maintenance management program based on Advisory Circular 150/5380-6. Routine maintenance is defined as cleaning, filling, and/or sealing of longitudinal and transverse cracks, grading pavement edges, maintaining drainage systems, pavement patching, seal coats, and remarking paved areas.

(2) Routine maintenance projects are ineligible for any airport category where the region determines a capital improvement project is required when pavement condition has deteriorated to such a point that a maintenance project would not be considered cost effective. See Paragraph 501. The costs of routine maintenance are, likewise, ineligible for what may be frequent operations to remove mud, dirt, sand, aggregate, debris, foreign objects, water, snow, ice, loose contaminants, and rubber deposits, or the mowing of turf areas.

521. RUNWAYS.

Runways are eligible for development consistent with FAA design and engineering standards. Typical runway development includes construction of new runways and lengthening, widening, strengthening or leveling of existing runways. In accordance with 49 USC 47116(d), under certain conditions priority consideration should be given to the use of certain small airport funds for runway extensions that support turbine powered aircraft and to multi-year projects for new capacity runways. AIP participation may be limited to a single runway at an airport based on the criteria below.

a. Airspace Review of Landing Areas. Order 7400.2 on procedures for handling airspace matters contains the coordination and review that is required to designate an instrument runway as a change to the airport layout plan. The designation of an existing or proposed runway as an instrument runway makes it eligible to receive project grant funds under the AIP.

b. Parallel and Crosswind Runways. Additional runways are eligible if the volume of airport operations would justify the development (in accordance with Advisory Circular 150/5060-5 on capacity and delay) and the proposed airfield layout will expedite traffic. If the primary runway is subject to weather conditions that exceed airport design standards in Advisory Circular 150/5300-13, the minimum required crosswind runways to achieve adequate wind coverage are eligible.

c. Other Runways. AIP participation in runway development will be limited to a single instrument runway at an airport unless additional runways can be justified. A visual runway having airspace coordination and review will be eligible if in the judgment of the region an instrument runway is not required within the foreseeable future. An additional runway may be necessary to accommodate operational demands, minimize adverse wind conditions, or mitigate impacts identified in an approved environmental finding. Use criteria contained in the latest issue of AC 150/5300-13, Airport Design, to determine if the additional runway is justified. Any development (such as marking or lighting) related to or on an ineligible runway is also not eligible.

522. HELICOPTER AND TILT-ROTOR FACILITIES.

The paving to accommodate helicopters is eligible provided the facilities are located at eligible heliports or airports. Projects for development of tilt-rotor facilities must be coordinated with APP-520.

523. ULTRALIGHT FACILITIES.

Construction for ultra-light operations at an existing airfield is eligible if necessary for safety or capacity purposes and the airport would be eligible for grant funding. Contact AAS-400 for information about establishing airport areas for blimps, balloons, parachutes, and model airplanes.

524. SEAPLANE BASES.

Ramps and other paving are eligible facilities at eligible seaplane bases or airports with a seaplane ramp. Advisory Circular 150/5395-1 provides guidance on constructing seaplane bases.

525. TAXIWAYS.

Taxiways to expedite the flow of traffic between runways and aircraft parking areas available for public use are eligible. See Paragraph 526. Typical taxiway development includes the construction of new taxiways and lengthening, widening, strengthening or leveling of existing taxiways to meet FAA design/engineering standards for the critical aircraft.

a. Parallel, Bypass, and Connecting Taxiways. A full-length parallel taxiway connected to each end of an eligible runway is eligible. A partial parallel taxiway may be considered at general aviation airports where cost to construct the full length is excessive and the benefits do not warrant it.

b. Turnarounds and Holding Bays. Turnarounds and holding bays are eligible. Holding bay design standards can be found in AC 150/5300-13, Airport Design, Paragraph 409.

c. Converting Runways to Taxiways. Development related to the conversion of an ineligible runway to a taxiway will be eligible only if it can be justified on the basis of the costs involved and continuing use is assured. Such projects must be identified on the airport layout plan and taxiway marking should be included with the project. (See Paragraph 507b on designating temporary runways.)

526. APRON AREAS AND RELATED FACILITIES.

The construction, alteration, and reconstruction of public use apron areas are eligible. If the sponsor elects to establish aircraft parking facilities or areas in locations other than approved by the region as reasonable and economical, only a portion of the pavement for such area would be eligible. For example, the distance of a proposed parking area from the existing taxiway should be reasonable based on the standards and approved airport layout plan rather than factors related to non-aeronautical uses. Apron areas for the exclusive and near exclusive use of an air carrier, fixed base operator, or other tenant are not eligible. (For purposes of this paragraph, the definition of near exclusive use is that the airport has no procedures for the management and operation of the apron to ensure prompt access by each potential user.) Exclusive use of apron areas, and any determination that such is ineligible, in turn involves eligibility of associated terminal buildings. (See Chapter 6.) Additionally, the apron and related taxiway areas for use of a tenant not furnishing service to the general public are ineligible.

a. Parking Area Taxiways and Taxi-Lanes. Taxiways on, or connecting to, aprons available for use by the general public are eligible. If available for use by the public, this may include taxiways to aircraft storage, hangar, and service areas. Taxiways or taxi-lanes connecting the individual T-hangars to the public taxi-lane are eligible at nonprimary airports subject to determinations in d(1) below. (See Paragraph 525.)

b. Aircraft Ground Deicing Areas. A paved aircraft parking area for ground deicing or anti-icing activities is eligible if the improvements are to be owned by the airport and will become available on a non-exclusive use basis. Storage areas on AIP-funded pavement and foundations for ineligible deicing buildings are not eligible. See Paragraphs 544, 547, and 631.

c. Cargo Aprons. Special consideration may be given to low activity aprons used by cargo-only operators since they contribute to the Airport and Airway Trust Fund. Only one such carrier may serve the airport, although the apron for freight activity would be eligible provided the entire area or not all hours of operation are leased to that operator. The opportunity for another carrier to serve the airport in the future at fairly competitive terms must be provided.

d. Hangars and Other Support Facilities. The construction of certain support facilities or structures to house aircraft may be eligible at nonprimary airports using entitlements. Separate conditions apply to various projects as described below.

(1) Construction of new revenue-producing hangar projects at nonprimary airports may be eligible under 49 USC 47110(h) using entitlements. The region should ensure that the sponsor has

made adequate provisions for financing airfield projects that are currently required before revenue-producing work. Alteration and repair of existing facilities depends upon potential environmental issues and whether such facilities have an adequate remaining useful life. If the proposal is for acquisition, alteration or repair of existing hangars, contact APP-520.

(2) Certain other revenue-producing aeronautical support facilities at nonprimary airports may be allowable using entitlements. Contact APP-520 about such proposals other than the new fuel farms described in paragraph 515 and new hangars.

(3) Non-revenue-producing automobile parking lots associated with a passenger terminal building or hangar at nonprimary airports may be allowable under 49 USC 47119(b)(5). The airport must certify any needed airport development project affecting safety, security or capacity will not be deferred due to the project. See paragraph 604 for additional eligibility criteria for nonprimary and other airports.

527. AIRFIELD SERVICE ROADS.

Internal service roads located within the airfield area may be eligible if the road meets design standards and has resulted from a formal inter-division coordination. Also, see Chapter 6 about terminal area access roads and surface vehicle parking facilities.

a. Service Roads. Service roads in airfield locations identified on the airport layout plan are eligible to separate airplanes and ground vehicles where desirable due to traffic volume, occasional mixing of surface vehicle with aircraft activity, or other safety considerations. Service roads may also be necessary for:

(1) Aircraft rescue and fire fighting as determined by the airport certification safety inspection or an airport emergency response study;

(2) Security in accordance with an FAA approved Title 49 CFR, Part 1542 plan;

(3) Operation and maintenance of the airport;

(4) Access to AIP-funded safety, security, and related facilities, including navigation aids approved under the AIP; and

(5) Temporary access to the airfield for construction equipment; and

(6) Necessary to improve runway safety and reduce the possibility of runway incursions.

b. Roads Ineligible for Funding. Airfield roads along the airport fence, perimeter area, or not required for the functions described in Paragraph 527a, are ineligible unless the ineligible access is incidental to an approved AIP project. Other examples of ineligible roads include:

(1) Access to F&E-funded facilities or equipment exclusively for operating and maintaining FAA projects; and

(2) Roads exclusively serving non-aeronautical properties, areas, or facilities.

528. - 529. RESERVED.

Section 4. AIRFIELD LIGHTING AND SURFACE MOVEMENT

530. GENERAL.

Eligibility of airfield lighting equipment and other surface movement projects is dependent upon the visibility conditions under which the airport operates. Sponsors may choose to install retro-reflective

signs and edge markers if traffic is such that they provide sufficient and safe guidance to aircraft operators. Part 139 certificate holders that have an approved airport certification manual are required to install the minimum level of equipment approved in that document. More guidance on this is covered in the advisory circulars listed in Table 5, which outlines current types of AIP funded airfield lighting and surface movement equipment, the principal standard requirements, as well as routing of the office of primary interest (OPI). This equipment has traditionally been considered an airport responsibility associated with construction of new pavements and lengthening, widening, strengthening or leveling existing pavement. Certain items of this equipment have been funded under the F&E program only to the extent that it would be used as a part of other FAA projects.

The inter-relationship of these projects requires that they be coordinated to ensure consistency of the work with airfield operational requirements. Scheduled air carrier operations when visibility is less than 1,200 feet runway visual range (RVR) requires a Flight Standards Division approved surface movement guidance and control system (SMGCS) plan. The SMGCS plan contains operational requirements and the identification of physical airport systems required for those operations. The inclusion of work within a SMGCS plan assures eligibility provided the other layout planning and coordination are complete, such as with the FAA Runway Incursion Action Team. In those cases without a SMGCS plan (or where the plan does not include a particular system) eligibility should be determined in accordance with Paragraphs 531-535. Please see AC No. 120-57, Surface Movement Guidance and Control System, and Paragraph 536 for additional information.

531. AIRFIELD MARKING AND REMARKING.

The initial marking of the eligible runways, heliports, taxiways, and apron areas is eligible. The markings must comply with Advisory Circular 150/5340-1 or the other applicable design standards for marking the airport and the terminal apron complex.

a. General. Under Title 49 U.S.C., Section 47101(f), runway edge marking for primary and secondary runways at each commercial service airport shall be given a high priority for programming.

b. Holding Position and ILS Critical Area Marking. Special holding position and ILS critical area markings for taxiways or apron areas are eligible in accordance with operational requirements.

c. Service Roads. The initial marking of service roads is eligible on aprons or in other airfield areas. During the construction phase of an AIP project, marking temporary service roads for routing equipment on paved areas is also eligible.

d. Remarking. Since the airport is required to remark the paved areas based on compliance and certification obligations, routine remarking is normally an ineligible maintenance item, except as described within Paragraph 520f. However, the remarking of the eligible paved areas will be eligible if required by the airport certification safety inspector, a restoration of markings has been determined to reduce the probability of runway incursions, or new operational requirements are established in accordance with the airport layout plan. Other examples of eligible remarking include:

(1) The present markings are obsolete or incomplete under the current FAA standards; and

Table 5 AIP-Funded Airfield Lighting and Surface Movement Equipment

EQUIPMENT	PRINCIPAL STANDARD	OPI ROUTING
Runway Edge Lights	Title 49 U.S.C., §47101(f), AC 150/5340-24	AAS-100
Runway Touchdown Zone Lights	Title 49 U.S.C., §47106(b)(3), AC 150/5340-4	AAS-100
Runway Centerline Lights	Title 49 U.S.C., §47106(b)(3), AC 150/5340-4	AAS-100
Land And Hold Short Lighting	AC 150/5340-29	AAS-100
Taxiway Centerline Lights	AC 150/5340-28	AAS-100
Runway Guard Lights	AC 150/5340-28	AAS-100
Stop Bars	AC 150/5340-28	AAS-100
Clearance Bars	AC 150/5340-28	AAS-100
Tilt-Rotor Facility Lighting	AC 150/5390-3	AAS-100
Heliport Lighting	AC 150/5390-2	AAS-100
Taxiway Edge Lights	Title 49 U.S.C., §47101f, AC 150/5340-24	AAS-100
Apron Edge Lights	AC 150/5340-24	AAS-100
Apron Area Lighting	AC 150/5300-14, AC 150/5360-13	AAS-100
Construction Area Lighting	AC 150/5370-2	AAS-300
Segmented Circles	AC 150/5340-5	AAS-100
Airfield Signage	Title 49 U.S.C., §47101f, AC 150/5340-18	AAS-300
Electrical Power Sources	AC 150/5340-17	AAS-100
Electrical Power Support	Contact OPI	AAS-100
Airfield Marking	AC 150/5340-1	AAS-300
Retro-Reflective Centerline Markers	AC 150/5345-39	AAS-100

(2) The present marking is obliterated by construction, alteration, or similar work included in an approved AIP development project.

e. Retro-Reflective Edge Markers. Retro-reflective markings in lieu of pavement edge lights or runway threshold lighting are eligible if traffic is such that it provides sufficient and safe guidance. Contact AAS-300 for assistance on marking and retro-reflective edge markers.

f. Retro-reflective Centerline Markers. Retro-reflective runway and taxiway centerline markers are eligible if traffic is such that it provides sufficient and safe guidance. Contact AAS-100/300 for assistance with marking and retro-reflective centerline markers.

532. AIRFIELD SIGNAGE.

Reflective airfield signage that is mandatory, or signs necessary to provide information or guidance to pilots, will be eligible when designed in accordance with Advisory Circular 150/5340-18, Standards for Airport Sign Systems. See Paragraphs 534 - 537 for additional information on lighted signs. Contact AAS-300 for assistance with the standards for airfield signage.

a. Runway Signage. Runway signage, including intersection and runway distance remaining signs, is eligible at all airports. Runway distance remaining sign eligibility is limited to only those primary and secondary runways used by turbo-jet aircraft.

b. Taxiway Guidance Sign System. Taxiway or taxi-lane signage, intersection, and destination signs, are eligible at all airports.

c. Service Road Signs. Signing for ground vehicles on eligible airfield service roads is eligible.

533. INSTALLATION AND ALTERATION OF AIRFIELD LIGHTING.

The installation, alteration, and rehabilitation of airfield lighting equipment and related electrical work is eligible in accordance with Paragraphs 500, 530, 532 and 534-538, provided they conform to FAA design and engineering standards.

a. Lighting Equipment Controls. Electronic equipment allowing the airport to remotely control the functioning of airfield lighting is eligible. See Paragraphs 536 and 538.

b. Non-mandatory Lighting. Although airfield lighting is considered part of the fundamental airport configuration, its inclusion in a project is not mandatory unless required under Paragraph 500c.

534. RUNWAY, HELIPORT, AND VERTIPORT LIGHTING.

Under Title 49 U.S.C., Section 47101(f), edge lighting and distance remaining signs for primary and secondary runways at each commercial service airport shall be given a high priority for programming. Any runway or helicopter landing area eligible for paving is also eligible for lighting in accordance with the criteria below. See Paragraph 521.

a. Runway Edge Lighting. Runway edge lighting projects are eligible and must be closely coordinated with operational requirements of the airport. The runway edge lighting system must be designed in accordance with Advisory Circular 150/5340-24, Runway and Taxiway Edge Lighting System, or the other design standards that may apply. Designated instrument runways meeting the F&E criteria for the installation of a navigation aid for a specific approach procedure within 5 years should be coordinated with the Flight Procedures Office to determine lighting intensity requirements.

b. Touchdown Zone Lights. Touchdown zone lighting systems are eligible on runways designated for landing operations below 2,400 feet runway visual range (RVR) and when designed in accordance with Advisory Circular 150/5340-4, Installation Details for Runway Centerline Touchdown Zone Lighting Systems, or the other applicable design standards.

c. Runway Centerline Lights. Runway centerline lighting systems are eligible when designed in accordance with Advisory Circular 150/5340-4, Installation Details for Runway Centerline Touchdown Zone Lighting Systems, on runways meeting the following requirements:

(1) Landing operations below 2,400 feet runway visual range;

(2) Use by aircraft with approach speeds exceeding 140 knots or if the runway has a width greater than 170 feet; or

(3) Takeoff operations below 1,600 feet RVR.

d. Land and Hold Short Lighting. Land and hold short lighting systems are eligible when designed in accordance with Advisory Circular 150/5340-29, Installation Details for Land and Hold Short Lighting Systems, for airports conducting land and hold short operations under Order 7110.118.

e. Tilt-rotor Facilities. Lighting projects for tilt-rotor facilities should be forwarded to APP-520 unless the costs of the proposal are incidental relative to the total project cost.

f. Heliports. Heliport lighting will be eligible provided the heliport/airport is eligible and the lighting system meets FAA standards.

535. TAXIWAY AND APRON LIGHTING.

As described further in this paragraph, the eligibility of lighting for the taxiways or aprons that are eligible to be paved is dependent upon an associated eligible runway being lighted. See Paragraphs 525, 526, and 536.

a. Taxiway Edge Lighting. The taxiway edge lighting system is eligible when designed in accordance with Advisory Circular 150/5340-24, Runway and Taxiway Edge Lighting Systems. Taxiway lights at commercial service airports shall be given a high priority for programming.

b. Taxiway and Apron Sign Lighting. Lighted taxiway guidance signs are eligible. (See Paragraph 532.) Under Title 49 U.S.C., Section 47101(f), the taxiway sign system at each commercial service airport shall be given a high priority for programming. ILS critical area taxiway and apron signs are also eligible based on operational requirements.

c. Taxiway Centerline Lighting. The taxiway centerline lighting system is eligible when designed in accordance with Advisory Circular 150/5340-28, Low Visibility Taxiway Lighting Systems, and under the following conditions:

(1) The taxiway connects to a Category II/III runway or a runway used under Category II/III conditions;

(2) A taxiway guidance problem exists during poor visibility conditions;

(3) Other lighting causes confusion;

(4) New or existing taxiways that will be associated with Category I runways, if the field office determines the runway will likely have Category II or Category III minimums within 5 years; or

(5) In additional instances where a taxiway guidance problem is documented. For example, a unique taxiway layout may cause pilot disorientation.

d. Clearance or Stop Bars and Runway Guard Lights. Clearance or stop bars and runway guard lights are eligible if designed in accordance with Advisory Circular 150/5340-28, Low Visibility Taxiway Lighting Systems, and where determined as necessary to prevent runway incursions. See Paragraph 536.

e. Taxi-Lane and Apron Lighting. Apron or taxi-lane lights are eligible for eligible areas when designed in accordance with Advisory Circulars 150/5340-24 and 150/5340-28. Apron area lighting needed for airport security or to identify the perimeter of aprons, and terminal gate position lead-in lights, are ineligible unless coordinated with AAS-100 ensuring the project will not cause confusion for aircraft operations.

536. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM.

SMGCS establishes eligibility of airport lighting and related systems for low visibility conditions when scheduled air carriers are authorized to conduct operations.

a. SMGCS Plans. To ensure aircraft and ground vehicle traffic safety, SMGCS plans are required for airport movement areas when visibility is less than 1,200 feet runway visual range (RVR) in accordance with Advisory Circular 120/57. If the SMGCS plan has not been approved, individual components below should be programmed only when they are required for another reason in the judgment of the region. Low visibility taxiway lighting systems are described in Advisory Circular 150/5340-28.

b. Approval of Taxi Routes. If a SMGCS plan has not been approved, tentative FAA approval of taxi routes, including coordination with the Flight Standards division, is necessary for AIP stop bar projects.

c. Approval of Individual SMGCS Components. At airports implementing a SMGCS plan, approval of individual visual aid components, which are described in detail within the paragraphs above, may include:

(1) Taxiway lighting and reflectors;

(2) Stop bars or runway guard lights at access points to active runways;

(3) Clearance bars and holding position markings on the taxiways;

(4) Taxi guidance signage and marking;

(5) Instrument landing system critical area signage and marking; and

(6) Equipment to monitor the SMGCS components in the airport traffic control tower.

537. OTHER AIRFIELD LIGHTING AND MARKING.

Other airfield lighting and marking may be eligible. For instance, the eligibility of lighted signs serving ground vehicles on service roads that are eligible to be paved is dependent upon an associated eligible runway being lighted. See Paragraph 527. Certain airport navigation aid equipment may also be eligible on a temporary basis during construction projects. See Paragraph 555. Miscellaneous airfield lighting and marking includes:

a. Segmented Circles. The segmented circle airport marker system that provides basic airfield information for pilots is eligible when designed in accordance with Advisory Circular 150/5340-5.

b. Wind Indicators. Lighted wind indicators are eligible when necessary for the operation of the airfield at night and designed in accordance with Advisory Circulars 150/5340-21 on miscellaneous lighting visual aids and 150/5340-23 for the supplemental wind cone. See Paragraphs 570 and 571.

c. Airport Hazards. Marking and lighting of an obstruction or hazard is eligible when designed in accordance with Advisory Circular 70/7460-1 if located within navigable airspace for a civil airport and required under FAR Part 77 or for an approach procedure needed at the airfield. See Paragraph 582.

d. Runway Closure Marking. Portable equipment to light and mark a runway closure on a temporary basis during maintenance or construction is eligible. See Paragraph 580.

e. Emergency and Construction Lighting. Mobile lighting, such as that used for emergency or unusual circumstances in airfield areas and associated with aircraft rescue and fire-fighting vehicles, is

eligible. See Paragraphs 540 and 541. Lighting equipment may be required in construction areas for night work. The sponsor or its contractor is responsible for coordinating with the airport traffic control tower. The sponsor is also responsible for ensuring notices to airmen and a regional non-objectionable airspace determination for use of construction lighting equipment.

538. ELECTRICAL POWER.

The installation, alteration, and rehabilitation of airfield electrical work are eligible provided it conforms to FAA standards. See Paragraph 515 on participation in electric utilities and separate rules that apply to the airports designated in the Military Airport Program. The criteria below include requirements for certain landside development projects as described in Chapter 6. Power services and sources related to the airfield lighting or navigation aids owned by the airport are the airport's responsibility. The FAA may own other facilities at the same location and is responsible for providing electrical requirements related to them. Where provision of power to any facilities is incidental to a current AIP project, it may be funded if requested by the airport.

a. Redundant Electrical Power Supply Policy. The interconnection of redundant power supplies may be determined to be necessary by the region at any airport eligible for airfield and/or terminal building lighting where there is a history of cable cuts, extraordinary meteorological conditions, maintenance of remote facilities, or a record of commercial utility interruptions. Orders 6030.20 and 6950.2 describe the electrical power policy implementation at certain facilities within the NAS. See these directives for identification of the requirements for alternate prime sources of power related to specific facilities. Under the policy, a single source of power may be appropriate when the prolonged loss of electric service would impose a minor impact with no derogation of safety or significant delays to airport users. In those cases, only a single power source for the airfield or terminal building is eligible.

b. Emergency Power Sources. The installation of standby engine generators with the necessary capacity are eligible as specified in the above electric policy directives to provide redundant external supplies. Standby power requirements for eligible airport lighting systems not owned by the FAA are identified in Advisory Circular 150/5340-17.

c. Continuous Power Airports. For any Continuous Power Airport designated in Order 6030.20, power must be automatically transferred within 15 seconds after failure of the prime source from the emergency source to the airport equipment. Continuous Power Airports and designated continuous power runways are required to have airway facilities and runway/taxiway lights operating for the safe landing of aircraft in the event of an area-wide power failure. In addition to the facilities required to be covered within Order 6950.2, uninterrupted emergency or alternate power meeting the 15 second requirement is eligible for the following:

(1) Runway touchdown-zone, centerline, and edge lights on runways designated for continuous operations;

(2) Taxiway edge lights, as well as SMGCS equipment, for taxiways serving continuous power runways; and

(3) Lighting of eligible areas within the terminal building and on the apron. See Chapter 6.

d. Category II/III Operations. For runways with Category II/III operations, including those on a Continuous Power Airport, power must be transferred in not more than one second from the emergency electrical plant to the airport equipment in accordance with the above directives. In addition to the facilities required to be covered within Order 6950.2, uninterrupted emergency or alternate power meeting the one second requirement is eligible for the following:

(1) Runway touchdown-zone, centerline, and edge lights on runways designated for Category II/III operations;

(2) Land and hold short lighting related to Category II/III runways;

(3) Taxiway edge lighting for taxiways serving Category II/III runways;

(4) SMGCS equipment; and

(5) Lighting of eligible areas within the terminal building and on the apron.

e. Electrical Power Support. Items such as electrical panels and transformer vaults necessary to support operation of eligible lighting are eligible. This includes equipment necessary for the operation of radio activated lighting systems. Contact AAS-100 for assistance with electrical power support equipment.

f. Deviation from Power Requirements. The revised standard power configurations in Order 6950.2 were effective with updating of the directive on 10/1/98. The new standard may differ from existing systems, and there is no requirement to change configurations that are already in operation. Standard configurations will be required for the proposed facilities covered in this paragraph unless waived by APP-500/AOS-100.

539. RESERVED.

Section 5. SAFETY, SECURITY, AND RELATED PROJECTS

540. FEDERAL AVIATION REGULATION PART 139 AND TITLE 49 CFR, PART 1542.

This section provides guidance on the eligibility of safety and security capital improvements that have been determined as necessary to support the operation of airports. Typical items include security equipment required by Title 49 CFR, Part 1542, safety equipment required by FAR Part 139, buildings to house the equipment, and other related projects. Under Title 49 U.S.C., Section 47102(3)(B)(ii), expanded safety and security equipment may be eligible. Airports not regulated under Part 139 or Title 49 CFR, Part 1542 may be eligible under the limited conditions described within Title 49 U.S.C., Section 47102(B)(ii) for safety, security and other related equipment. The continuing provisions of the Aviation and Transportation Security Act, and the required project coordination with the Transportation Security Administration (TSA), are described in Paragraphs 542 and 547. Table 6 outlines current types of federally funded safety, security, and related equipment, the principal standard requirements for that equipment, as well as identification (routing) of the office of primary interest.

541. SAFETY EQUIPMENT.

Acquisition of safety equipment to meet the requirements within FAR Part 139 is eligible. Items customarily involved with the procurement specifications, such as that to test vehicles and assure initial operational readiness, are eligible when purchased as components of the equipment. However, equipment in excess of that necessary to achieve the protection and level of safety required by Part 139 is not eligible except as provided in this paragraph. (See Paragraph 547 about the safety facilities.)

a. Aircraft Rescue and Fire Fighting (ARFF) Vehicles. Part 139 sets forth minimum extinguishing agents and water required for ARFF vehicles. However, airports may acquire ARFF vehicles as well as extinguishing agent and water supply systems that meet levels specified in Advisory Circulars 150/5210-6 and 150/5220-4 and it will be fully funded under the AIP (even if levels are higher than in the regulation). The number of eligible vehicles is based on the airport index in accordance with the criteria specified in Part 139 for conditions forecast within five years. This is an exception to the policy as stated in Paragraph 500.

(1) Acquisition of ARFF vehicles and water supply systems required for airport certification under Part 139 is eligible.

(2) ARFF vehicles are ineligible at locations with no airport operating certificate under Part 139 except as provided within Paragraph 546.

b. Other Rescue or Fire Fighting Vehicles. Mobile command vehicles are only eligible if an element of an approved Part 139 emergency plan. Water rescue equipment, such as boats, air cushion vehicles, and helicopters, is eligible to meet the requirements of Part 139 in accordance with Advisory Circular 150/5210-13. Structural fire fighting vehicles are eligible for buildings at airports with a Part 139 airport operating certificate if the response time for off airport units is expected to exceed 10 minutes. Contact AAS-300 for assistance with this equipment.

c. Driver's Enhanced Vision Systems. The driver's enhanced vision system (DEVS) in ARFF vehicles is eligible for airports with a Part 139 certificate that have operations below 1200 feet runway visual range. However, eligibility is limited at this time to two vehicles per qualifying airport for the full DEVS in accordance with Advisory Circular 150/5210-19, except as provided in Paragraph 541d. This will provide DEVS equipment within ARFF/command vehicles plus one additional vehicle. In addition, one more vehicle is eligible for each fire station beyond the first. For instance, this means an airport with two fire stations is eligible for three DEVS. The ineligible items include non-ARFF command and various operations vehicles, extended warranties, or other components (including displays- that can possibly be requested by the airport traffic control tower as described within material on DEVS).

d. Forward-Looking Infrared Systems. The forward-looking infrared system (FLIRS) is a component of DEVS. A stand-alone FLIRS is eligible for AIP eligible ARFF vehicles in accordance with Advisory Circular 150/5210-19.

e. Forcible Entry Tools. One set of forcible aircraft entry tools used on ARFF vehicles is eligible for each eligible vehicle. For assistance on this equipment, contact AAS-300.

f. Protective Clothing. The purchase of airport fire/rescue personnel protective clothing and apparatus in accordance with Advisory Circular 150/5210-14 is an eligible item based on the following criteria:

(1) One suit for each fire fighter employed full-time to fight aircraft fires; and

(2) One suit for each position less than full-time subject to the limitation that the total number of suits does not exceed two for lightweight vehicles and five in large type vehicles. These limitations may be exceeded if field personnel believe it to be justified.

The replacement of protective clothing is eligible as described within Paragraph 591c if required as a result of a Part 139 compliance inspection.

g. Power Sweepers. Power sweepers for the control of debris on airports are eligible. Eligibility is limited to one vehicle unless the area requiring maintenance is greater than 500,000 square yards or the annual airport traffic exceeds 40,000 aircraft operations. See Paragraph 543 on similar equipment for snow removal. (Contact AAS-100 for assistance with standards.)

h. Expanded Safety Equipment Eligibility. Other equipment may be eligible. For instance, ARFF vehicles may be equipped with specialized equipment. The basic criteria for eligibility of equipment will be that it is needed to meet a safety requirement at a particular airport. The sponsor's justification or reasoning to acquire the equipment with documentation of the features and costs, as well as the field office recommendation, should be sent to APP-520. Decisions on funding of safety equipment contributing significantly to the safety of persons and property at an airport will be referred on a case-by-case basis to AAS-300.

i. Ineligible Items. Aircraft removal equipment is ineligible. Expendable items, e.g. extinguishing agents (except for one test charge and one refill), are ineligible. Training of rescue and fire fighting personnel is not eligible except as provided in Paragraph 546.

Table 6 AIP-Funded Safety, Security, and Related Equipment

EQUIPMENT	PRINCIPAL STANDARD	OPI ROUTING
Aircraft Rescue and Fire Fighting (ARFF) Vehicle	14 CFR 139, AC 150/5220-4	AAS-300
Water Rescue Equipment	14 CFR 139, AC 150/5210-13	AAS-300
Structural Fire Fighting Vehicle	Contact OPI	AAS-300
Driver's Enhanced Vision System (DEVS)	AC 150/5210-19	AAS-300
Forward Looking Infrared System (FLIRS)	AC 150/5210-19	AAS-300
Protective Clothing	AC 150/5210-14	AAS-100
Forcible Entry Tool	Contact OPI	AAS-300
Emergency Lighting	Contact OPI	AAS-300
Training System	AC 150/5210-18	AAS-100
Security System	Title 49 CFR, Part 1542, Contact OPI	TSA
Power Sweeper	Contact OPI	AAS-100
Snow and Ice Control Vehicle	AC 150/5220-20, AC 150/5200-30	AAS-100
Runway Surface Condition Sensor	AC 150/5220-13	AAS-100
Aircraft Ground Deicing System	AC 150/5300-14	AAS-100
Aircraft Ground Anti-icing System	Contact OPI	AAS-100
Friction Measuring Device	AC 150/5200-30, AC 150/5320-12	AAS-100

542. SECURITY PROJECTS.

Security equipment projects should be examined closely to ensure sufficient Federal resources are available to meet basic security needs at all airports. This includes reliance on master plans to develop alternatives, phasing opportunities, and cost effectiveness of various options for accomplishing the required level of security. The acquisition of equipment under the AIP for requirements within Title 49 CFR, Part 1542, in the air operations area or other sterile areas, is eligible subject to the conditions below. (See Paragraph 547 about the security facilities and Chapter 6 regarding security equipment in terminal building areas.)

a. Title 49 CFR, Part 1542 Security Requirements. The proposed security project or specific piece of security equipment must be identified in the TSA approved airport security program as being a component or integral part of the overall security system for the airport. TSA approved security programs may include equipment and facilities not required under Title 49 CFR, Part 1542 standards.

Therefore, the TSA, or its designee, must assist in identifying a project as containing only equipment/facilities to meet requirements in Title 49 CFR, Part 1542, and a written determination shall be included within the project file. Equipment specifically identified within the airport security program approved by the TSA is eligible. A determination may also be made that equipment is a supporting element of the airport security program. The approved airport security program, for example, may indicate in only simple terms that an airport perimeter will be secured at a property line. In such a case, specific projects for perimeter fence, associated closed circuit television at key points, and similar elements may be considered.

(1) Approved Security Program. The projects justified as an access control requirement at a Title 49 CFR, Part 1542 airport (category X and I-IV) and contained in the approved security program, Federal security directive, or emergency amendments to rules, are eligible. While work may have been previously reviewed for the security program, these projects need concurrence from the TSA at the time of project formulation. Examples include door controls, lighting of fencing/gates, one-time replacement of key locks and cores, vehicle checkpoints, or explosive detection devices. An explosives transport vehicle or disposal equipment is eligible. With appropriate analysis, barriers to deflect bomb blasts and protective window film would also be eligible.

(2) Projects Requiring Additional Justification. A project not required in an approved program by the regulation where an airport believes it will significantly enhance security needs additional, convincing justification, e.g. perimeter fence higher than 7 feet (plus three strands of barbed wire on top of the fence). Justification for fuel farm security might be if it is near where ignition or explosion may create imminent danger to passengers, baggage, or aircraft. Completion of project coordination will provide the justification in some cases, e.g. when design of equipment requires an initial determination about how the TSA expects to operate at the airport.

(3) Projects Exceeding Requirements. The portion of a project exceeding Title 49 CFR, Part 1542 requirements may be unrelated to movement or protection of passengers, baggage, and aircraft. Projects that support a local law enforcement function, such as patrolling for purposes of protection against theft and vandalism or detection of traffic/parking violations, must not be confused with the need for air transportation security and are ineligible. A determination of the number of police vehicles required under Title 49 CFR, Part 1542 for patrols to secure the airport perimeter would identify eligible vehicles. A redundancy such as computerized access control combined with guard booths also requires scrutiny. Prorating this equipment based on discussions between an airport and TSA can define eligible work on national airport system security requirements (as well as Federal crimes) in contrast to ineligible projects for enforcing State, local, or airport laws/regulations.

b. Expanded Security Equipment Eligibility. Other security equipment may be eligible. For instance, there have been changes over time in the explosive detection devices and universal access systems that are proposed by sponsors for airport use only. The basic criteria for eligibility of equipment will be that it is needed to meet a security requirement at a particular airport. The sponsor's justification or reasoning to acquire the equipment with documentation of the features and costs, as well as the field office recommendation, may be sent to APP-520. Decisions on funding of security equipment contributing significantly to the security of individuals and property at an airport will be referred on a case-by-case basis to the Washington headquarters of TSA.

c. Biological Explosives Detection Systems (BEDS). AIP funds may also be used on a limited basis to support the explosive detection canine teams for airport participants in Explosive Detection Canine Team Program of the TSA. Requests must be reviewed within regions of that agency. These projects will be forwarded to their Washington headquarters for approval. Procurement and training of BEDS is eligible to the extent it was not otherwise funded by the Federal Government and to the extent that applicable certification requirements and Federal standards are met. The storage of retrieved explosives and security systems or vehicles to support canine operations are also eligible.
See Title 49 CFR, Part 1542.

d. Fingerprinting Equipment. Electronic equipment to submit fingerprints for criminal history checks on airport employees that have unescorted access to the Security Identification Display Area is a Federal requirement. The type of equipment and quantity to permit processing of 3 employees per hour is eligible provided the airport has that turnover rate. Equipment certified by the Federal Bureau of Investigation is listed at http://www.fbi.gov/hq/cjisd/iafis/cert.htm.

e. Airports Not Covered by Title 49 CFR, Part 1542. Early coordination of requests with TSA may be required where questions arise on whether the airfield is covered under Title 49 CFR, Part 1542. A security project at airports not covered by Title 49 CFR, Part 1542 is normally ineligible unless it would be incidental to other approved work.

f. Ineligible Items. Except as provided in this paragraph, any security equipment beyond that required by Title 49 CFR, Part 1542 is ineligible. Airfield operations and maintenance costs, or expendable items, are ineligible. Training for security personnel is not eligible except as specified in Paragraph 546.

g. Public Release of Security Planning. Before public involvement in a request or study on airport security, regions should coordinate with a TSA official to identify planning and material that must be protected under Title 49 CFR, Part 1520, which governs the release of such information.

543. SNOW AND ICE CONTROL EQUIPMENT.

Equipment required for clearing snow and ice from the runways, principal taxiways, aprons, and airport roads is eligible in accordance with Advisory Circular 150/5200-30. Eligibility is limited to the minimum requirements recommended by the FAA advisory circulars unless the volume of traffic requires additional equipment. (See Paragraph 547 about the snow and ice control facilities.)

a. General. The region may decide on a case-by-case basis the validity of the justification to fund equipment for snow and ice control on paved areas. Assistance can be obtained from AAS-100.

b. Runway Surface Condition Sensors. Runway surface condition sensors, which transmit airfield conditions used to determine the timing of chemical application for treatment, are eligible. Local conditions determine the need for this equipment and the number of sensors required. Normally, three or four sensors should be sufficient for a runway in accordance with specifications and guidance within Advisory Circular 150/5220-13 on surface condition sensor projects.

c. Ineligible Items. Expendable items such as sand, chemicals, fluids, and other types of deicing materials are ineligible.

544. AIRCRAFT GROUND DEICING AND ANTI-ICING EQUIPMENT.

Vehicles, gantries, or other equipment for aircraft deicing and anti-icing on the ground are eligible at any NPIAS airport. The equipment must be owned by the airport and be available on a non-exclusive use basis for any aircraft owner. Under Title 49 U.S.C., Section 47102(3)(B)(v), the aircraft deicing fluids and storage facilities for the equipment or fluids are ineligible. See Paragraphs 526, 547, 586, and 631. Contact AAS-100 for assistance on aircraft deicing equipment.

545. FRICTION MEASURING DEVICES.

Friction measuring devices are eligible when designed to meet the specifications in Advisory Circulars 150/5200-30 and 150/5320-12 on measurement, construction, and maintenance of skid resistant airport pavement surfaces.

a. Eligible Sponsors. Commercial service airports and those holding a Part 139 Airport Operating Certificate with scheduled turbojet operations are eligible to acquire a friction measurement device in accordance with the advisory circulars mentioned above. Regions should coordinate with neighboring

airports about purchasing the device for more than one airport since this equipment can effectively be used at several locations. State aviation agencies may be encouraged to sponsor such projects.

b. Type of Device. A self-contained friction measuring device, a towed device, or such equipment along with an adequate tow vehicle are eligible. This may include space in a building to house and protect a grant-funded friction-measuring device if that is incidental to an approved AIP project. If a towed device is funded alone, the sponsor must provide assurance that it has or will have available a tow vehicle that meets the specifications of the towed device manufacturer.

c. Special Condition. The special condition for friction measuring devices in Appendix 7 will be included in the grant agreement.

546. TRAINING SYSTEMS.

While training is normally an ineligible administrative cost, the capital projects for safety, security, and certain related training systems below are eligible. See Paragraph 310.

a. Interactive Training Systems. The acquisition of equipment as well as software for interactive training of airport personnel in accordance with Advisory Circular 150/5210-18 is eligible if they are to be used for federally mandated safety and security requirements. Interactive training systems related to the Americans with Disabilities Act and the Clean Air Act are also eligible. Personnel costs or rental of systems is ineligible.

b. Mobile ARFF Training Equipment. Mobile training equipment meeting Part 139 requirements is eligible for acquisition by airports required by the rule to comply with Index A and B ARFF standards if the airport is more than 100 miles from the nearest area-wide training facility. Mobile training equipment is also eligible for acquisition by States if it will benefit more than one airport. Contact AAS-100 regarding this equipment.

c. Area-Wide ARFF Training Facilities. An area-wide ARFF training facility is eligible when designed in accordance with standards for either flammable liquid hydrocarbon or propane fuel as described in Advisory Circular 150/5220-17. Projects may include land, the burn area, maneuvering areas, a control center, a dual-agent ARFF vehicle with capacity not to exceed 1500 gallons for foam production, the vehicle bay(s), utilities, maintenance facilities, environmental protection, fencing, the access road, as well as a building for classrooms, showers, and lockers. One additional ARFF vehicle may be eligible if justified in the view of the region based on the mix of area airport indices. Proposals for such an area-wide training facility should be coordinated with near by facilities to ensure inappropriate duplication is avoided. Not all states need such a facility, but if the region determines several area-wide training facilities in a State are required due to the area served, contact APP-500 for additional assistance.

547. SAFETY, SECURITY, AND RELATED FACILITIES.

The construction of safety and security facilities is eligible if required to house or maintain eligible equipment. Certain related facilities are eligible subject to the conditions within this paragraph. (See Paragraphs 541-545 on safety and security equipment.)

a. General. Buildings should be designed on a functional, safe, and efficient basis but in a manner that is consistent with the policy on design and architecture stated in Paragraph 304. Only provisions for basic utilities, such as heat, water, and electricity necessary for maintaining the equipment in an operational state of readiness or carrying out the activities related to the safety of persons/property on the airport is eligible. (See Paragraph 607 for energy assessments.) If a proposed building will include space in excess of that eligible for Federal participation, the cost of the building should be prorated in accordance with Paragraph 613.

b. ARFF Equipment Buildings. At airports without a Part 139 certificate, a minimal structure to house and protect the grant funded ARFF vehicle is eligible. At airports with a Part 139 certificate, the following criteria apply:

(1) The number of bays eligible shall be limited to that necessary for housing ARFF equipment required by regulation or forecast to be needed within 5 years. Space for a structural fire truck is eligible when such a truck is assigned to the unit to provide backup support for ARFF trucks and protection of airport buildings.

(2) The type of fire fighting requirements at the specific airport should determine eligible administrative space and personnel facilities.

(3) Bays for fire trucks that are stationed on the airport, but primarily provide protection to buildings outside the airport boundaries, are ineligible.

c. Snow and Ice Control Equipment Buildings. Funding snow and ice control buildings is limited to facilities necessary for eligible equipment in Paragraph 543 as well as storing abrasive or chemicals used in treatment of paved areas. At the time the building is programmed, the eligible equipment must be owned, on order, or budgeted by the airport. Regions should ensure that the snow and ice control abrasive or chemicals are to be used for airport pavement rather than aircraft in accordance with Paragraph 547d.

d. Aircraft Ground Deicing and Anti-icing Facilities. At commercial service airports, construction or reconstruction of aircraft deicing, anti-icing, and ice inspection facilities on the ground, including pavement, drainage, fluid collection, and environmental mitigation to reduce storm water discharge contamination, is eligible when designed in accordance with Advisory Circular 150/5300-14. See Paragraphs 526, 586, and 631. Eligible facilities include infrared ground deicing systems that obtain approval of the Flight Standards District Office.

(1) Structures on Obligated Paved Areas. An airport may construct a locally funded deicing or anti-icing structure on a Federal agreement taxi-lane or apron provided it is on an approved ALP, subject to a reasonable fee schedule, and not operated on an exclusive use or near-exclusive use basis.

(2) Ineligible Deicing Facilities. Under Title 49 U.S.C., Section 47102(3)(G), the storage areas or facilities for aircraft deicing equipment and fluids are ineligible. For example, a garage for the deicing or vacuum trucks is ineligible. See Paragraph 547c on eligibility of storing abrasive or chemical material for snow and ice control of airport-paved areas, which has separate justification.

e. Maintenance Facilities. Maintenance or service facilities for maintaining required safety and security equipment at airports with a Part 139 certificate may be funded up to a maximum of 1500 square feet in an existing, new, or free standing building.

(1) The eligible area will be determined by adding 10 feet to the length and 10 feet to the width of the largest ARFF vehicle serving the airport, then multiplying these two dimensions for the bay size and adding a like amount for support space. (FAA Chief Counsel (AGC) opinion dated 3/22/83 on eligibility of security and safety equipment facilities.)

(2) If the proposed building is part of a snow equipment storage facility, ARFF facility, or other eligible structure, the square footage of the service bay and support facility is in addition to that eligible under Paragraphs 547b and c. For instance, new snow removal equipment maintenance areas are an eligible addition to a proposed ARFF building.

f. Fencing. Contiguous perimeter fences encompassing the airfield facilities and terminal building areas are eligible. Fences must be of an appropriate type for the situation. For instance, fencing to discourage the access of wildlife, such as deer, to the airfield or terminal building are eligible, although

the specific location, extent, type, and height must be designed for the purpose intended based on requirements for restraining the targeted animals.

(1) Safety and Security Fence. Fencing of operational and/or secure areas as required to meet the requirements of FAR Part 139 and Title 49 CFR, Part 1542 is eligible. Fence requirements will be determined by the FAA airport certification safety inspector. The TSA office in the region, or its designee, should also be requested to approve fencing as required by the approved airport security program. Fencing at other airports must be identified on the approved airport layout plan to be eligible.

(2) Gates and Locking Devices. Under many circumstances, only the installation of standard gate and mechanical locking devices is eligible. Where secured gates require the use of an electric locking device or an automatic gate, these systems will be eligible, subject to FAA approval of the system to be used. If the facility is for security purposes, it requires TSA approval.

(3) Non-Airfield Fencing. Fencing of the AIP approved projects for off-airport navigation aids, road relocation, utilities, and wastewater treatment plants is eligible. In addition, fencing of area-wide ARFF training facilities is eligible. Fencing other areas outside the airfield or terminal building area should be carefully reviewed by the region. For example, fences in any area separate from the airfield or terminal building for purposes related to an environmental mitigation project would normally be ineligible unless specified as eligible within the environmental finding. Likewise, fencing to benefit non-aeronautical use areas of the airport that is not primarily for protection of the airfield or terminal building is ineligible without exceptional justification established by the region. The fencing of property not owned or leased by the sponsor, such as Federal navigation aid projects, is ineligible.

g. Security Facilities. Airfield facilities work should be subject to the same scrutiny and requirements as security equipment prior to approving projects as described in Paragraphs 542 and 547f.

(1) Law Enforcement Facilities. The airfield facilities to provide for a law enforcement presence are eligible if required for air transportation security.

(2) Command and Control Centers. Command and control centers are not specifically required under Title 49 CFR, Part 1542. Costs of eligible areas required for air transportation security in such centers must be prorated to separate out ineligible work on various other police facilities to support general law enforcement duties.

(3) BEDS Facilities. Kennels and other canine facilities for biological explosives detection teams are eligible to the extent they were not otherwise funded by the Federal Government.

(4) Security Coordination. The proposed airfield security facilities must be coordinated with TSA during project formulation to establish eligible and ineligible work.

(5) Other Facilities. See Paragraph 602 about the security facilities within eligible passenger terminal building areas. The security facilities for air cargo building areas are subject to the same limitations as airfield and passenger terminal building projects. Requests on airfield security facilities involving military, general aviation, non-aeronautical, or other areas must be for eligible projects described in this paragraph unless the work is incidental to an approved project. Airfield security facilities located off the airport are ineligible. Security facilities in areas not owned or leased by the sponsor are ineligible.

548. - 549. RESERVED.

Section 6. AIRPORT AND TERMINAL AREA NAVIGATION AID FACILITIES

550. GENERAL.

Installation of a NAVAID, or any navigation aid used in the terminal area, will be accomplished primarily through the F&E program, but, under some circumstances, may also be funded under the AIP.

a. Terminal Areas. In this context, a terminal area is the specific vicinity of an airport designated by the FAA for air traffic control (ATC), such as the Pittsburgh Terminal Area.

b. Benefit-Cost Analysis. Order 7031.2, Airway Planning Standard Number One Terminal Air Navigation Facilities and ATC Services, is used in the F&E program. The benefit-cost analysis (BCA) in that directive applies to the AIP projects for navigation aids even if they are to be maintained by the airport and have been considered necessary to meet standards. The required BCA may be that obtained from the Flight Procedures Office, the regional Airway Facilities division, or APO-200 for the F&E program. Navigation aid exceptions to the BCA requirements are the airport rotating beacon and non-directional beacons. In some cases, the calculation of the BCA for a NAVAID project may involve special circumstances that are not addressed under Order 7031.2, and it must submitted to APP-520 for coordination. For instance, this added coordination is needed if there may be difficult-to-quantify benefits or when omitting the maintenance costs and making similar life-cycle cost exclusions would be appropriate in the BCA recommended to support a project (e.g. when the airport will maintain equipment as discussed in Paragraph 508).

551. FAR PART 171.

Part 171 contains regulations for the use of certain non-Federal navigation facilities in the NAS. NAVAIDs must meet FAA performance specifications within Part 171 to be commissioned as part of the NAS. NAVAIDs will also be maintained and operated in accordance with the FAA standards within Part 171.

a. Part 171 Standards and Specifications. For eligible NAVAID models or types that are currently approved under Part 171, contact APP-520. For new models or types of navigation aids, the airport must exercise special care to ensure equipment can receive Part 171 approval before advertising for it. The approval process is complex, and no equipment is eligible unless it can be approved under Part 171.

b. Other Standards. AIP standards for navigation aids that are not contained in Part 171 will normally be included within a memorandum or advisory circular. In the absence of such standards or specifications, competitive procurement for projects under the AIP will use advertisements that refer to FAA performance approval letters provided for equipment manufacturers. The requirement will be for a vendor to have the FAA performance approval letter by the date of bid opening.

552. SIMPLIFICATION OF NON-FEDERAL NAVIGATION AID PROJECTS.

When both the AIP and F&E (or FAA Airway Facilities division) programs are involved, simplification of navigation aid project requirements is needed so that the programs are clearly presented to airports. A joint Airports and Airway Facilities division position about each such airport project should be identified by dialog within the region and, where necessary, with Washington headquarters. If airports propose improvements having complex limitations as described in this section, options should be reviewed, including common sense solutions to achieve desired results. Airports may be able to negotiate a maintenance agreement with Airway Facilities division (for instance, in lieu of taking over a facility) when takeover is prohibited. Individual agreements involving trade-offs that are equitable and beneficial for both parties might be negotiated for a variety of FAA airport facilities.

AIP navigation aids are federally funded projects. However, requirements on the establishment, operation, and FAA ownership of facilities are described in Order 6700.20, Non-Federal Navigational Aids and Air Traffic Control Facilities. AIP-funded projects are considered non-Federal facilities in that directive since they are not procured under the F&E program and may operate without FAA support.

a. Frequency Reservation. The sponsor is responsible for obtaining from the regional office the reservation of available radio frequency spectrum for any electronic navigation aid requiring such and a non-objectionable airspace determination.

b. FAA Takeover. Under Title 49 U.S.C., Section 44502(e), airports have the option of having the FAA take over maintenance for an instrument landing system (ILS) acquired with AIP funding and associated approach lighting as well as runway visual range (RVR) equipment that conforms to F&E performance specifications. Non-Federal proponents must contact the regional Airports/Airway Facilities office prior to procurement of these facilities to ensure a mutual agreement of the conditions under which a timely transfer of ownership would occur. Runway end identifier lights and visual glide-slope indicators are individually unqualified for takeover under Title 49 U.S.C., Section 44502(e). In addition, if a localizer (and other single or set of components) had been installed under the F&E program, completion of an ILS in an AIP project is unqualified for FAA takeover and the airport would be required to maintain the new equipment. The statute allows transfer of a grant funded ILS (and associated approach lighting and RVR equipment), not the individual components that are less than a complete system. See Paragraphs 553-557.

(1) Life-cycle costs are a major feature of the F&E program funding decisions and a key component of the FAA's reformed acquisition management system. When an AIP equipment project involves takeover by the FAA, life-cycle costs need to be considered even though the FAA does not normally include airport maintenance in grants. For instance, remote maintenance monitoring (RMM) enhancements should be considered in the takeover projects. The region may require RMM based on a determination of the Airway Facilities division that it is needed to permit the FAA to accomplish the takeover of equipment without delay. RMM includes the original equipment procurement and installation capital costs. Equipment operational cost, e.g. staffing, training, and on-going supply support, is ineligible unless specifically approved in another provision of this order. See Paragraphs 508 and 911.

(2) If requested by the airport, the FAA will assume ownership and maintenance responsibility for an ILS procured under the AIP, provided it meets the requirements of this paragraph. Airport sponsors do not have the same statutory option with an ILS procured solely using Passenger Facility Charge program funds (for the FAA to take over the project operation and maintenance), although the Airway Facilities division may agree independently to that arrangement based on policy currently in effect.

(3) An alternative to FAA assuming ownership in the case of some AIP projects may be a reimbursable maintenance agreement for the equipment. In this arrangement, the airport may agree to reimburse the FAA for costs of maintaining the equipment. Such a reimbursable maintenance agreement is not eligible. (See Paragraph 553.)

(4) Written consent of the airport to waive the ILS (and associated approach lighting as well as RVR equipment) takeover is needed from airports determining not to exercise this option for such facilities. The written consent should document that the airport understands its maintenance obligations. In these cases, the airport must ensure maintenance of the equipment with alternative funding.

(5) Pending eligibility of the systems, the FAA will consider the future takeover and maintenance of a local area augmentation system (LAAS) and associated equipment as an incentive for airports that plan to implement augmented global positioning system (GPS) projects rather than an ILS.

(6) Each project for an ILS and/or associated equipment that includes FAA takeover will be coordinated with APP-520 before approval. Information needed includes the airport name, associated

city, description of the designated instrument runway, equipment specifications, estimated cost, benefit-cost ratio, and related justification. Regions should also contact APP-520 before allowing the transfer of other than ILS and related facilities.

553. SUPPORTING AGREEMENTS TO IMPLEMENT NAVAID PROJECTS.

Reimbursable agreements and/or supporting contract arrangements between the FAA and airport are allowed under the AIP as well as F&E programs for NAVAID projects. In the context of reimbursable agreements, the FAA may provide work to the airport within a portion of a project and be paid or reimbursed for it under Title 49 U.S.C., Section 106(l), or vice versa in accordance with Title 49 U.S.C., Section 44502(a). Either the projects should be accomplished by the F&E program or AIP as described below rather than through joint funding. For instance, if the F&E program has warehoused inventory, a sponsor could use its airport revenue to install the equipment, but AIP projects for the installation work are ineligible as that would be illegal augmentation of a Federal budget. The mixing of these AIP and F&E funding sources is not allowed except as specifically provided within this paragraph. (See Tables 5, 6, and 10, as well as Chapter 9.) Contact APP-520 for use of reimbursable agreements or other contractual arrangements proposed for NAVAID projects, such as the following acceptable practices and limitations:

a. Airports may take advantage of cost savings by purchasing an ILS, runway visual range, or airport approach lighting equipment under existing F&E contract mechanisms. While the FAA is moving to commercial navigation aid performance standards rather than establishing separate specifications, there may be some costs savings even with this new procurement method. The FAA Airway Facilities division does not necessarily need to be a party to the AIP procurements using F&E contract vehicles. However, several arrangements are possible, including those involving an FAA-sponsor purchase agreement. This has been the subject of a limited demonstration.

b. Site preparation for related airport requirements that are similar to navigation aid projects, such as runway safety area grading, may be the subject of reimbursable agreements. When the F&E program funds a NAVAID, see the limitations on use of AIP funding described in Paragraph 514. However, airport revenue may be used to reimburse the FAA for more extensive work.

c. Equipment installation and inspection of AIP projects may be in reimbursable agreements to ensure the airport will meet FAA standards. Sponsors may use a portion of the grant to retain FAA services where there is no F&E project, especially as a means of ensuring takeover of equipment without delay. See Paragraph 311k for nonallowable costs.

d. Upgrading and rehabilitation of FAA equipment would not normally require reimbursable agreements since that would be accomplished under an F&E project. However, improvement of sponsor-owned equipment or in-kind relocation of FAA projects may use reimbursable agreements provided other requirements have been met to ensure the new facility meets standards.

e. Airport operation and maintenance costs in a reimbursable agreement not funded by the AIP may be an alternative to FAA assuming ownership of equipment under Section 44502(e) of Title 49 U.S.C.. See Paragraph 551.

554. AIRPORT APPROACH AND LANDING SYSTEMS.

Airport approach and landing systems in the National Airspace System provide aircraft guidance during the most critical phase of flight. The FAA, in most cases, designates instrument runways during airport planning as described in Paragraph 521.

a. Designation of Instrument Runways. Eligibility of airport approach and landing systems is dependent upon the region's designation of instrument runways. The designation will consider safety requirements, relevant meteorological history, NAS-wide capacity, delays at individual airports, aviation activity forecasts, changes in the airfield and operational environment (including relocation of existing

systems), as well as overall airport capital improvement costs regardless of the funding source. Only airport rotating beacons, runway end identification light systems, and visual glide-slope indicator systems do not require a designated instrument runway.

b. Non-Precision Instrument Approaches. For the commercial service airports, a high priority shall be given to programming at least one non-precision instrument approach for each secondary runway to the extent justified. (See Paragraph 505.) Use of the term “non-precision” with only horizontal guidance is no longer retained in some directives for approval of instrument procedures. However, the aviation community continues to use those concepts, which are characterized by higher weather minima.

c. Precision Approach System. For commercial service airports, a high priority shall be given to programming at least one precision approach system, vertical visual guidance system, and full approach lighting system for each primary runway to the extent justified. (See Paragraph 505.) Contact APP-520 if, after the benefit-cost study and alternatives analysis, the airport capital improvement costs exceed benefits at any such location.

d. Runway Visual Range. See Paragraphs 570 and 574.

e. GPS Procedures. As a part of airport planning pending implementation of the systems, the FAA may facilitate early implementation of GPS procedures using the wide area augmentation system (WAAS) where an ILS cannot be approved. Airports identified in Appendix 24 will be the initial candidates for approach procedures and the related AIP projects based on WAAS.

555. AIRPORT NAVIGATION AID EQUIPMENT.

Table 7 outlines limitations on current types of federally funded airport navigation equipment and eligibility under the F&E since that is the basic vehicle for such projects. Table 7 also outlines principal standards (specifications, type acceptance, site requirements, and operational performance), routing of the office of primary interest (OPI), need for a BCA, use of remote maintenance monitoring (RMM), and FAA takeover potential. See Paragraphs 550b and 552b.

a. Airport Rotating Beacon. The airport rotating beacon equipment is eligible in accordance with Advisory Circular 150/5340-21 on miscellaneous lighting aids when necessary for visual approaches to the airfield at night. In this order, “visual” approach means approaches conducted by visual reference to an airport whether with or without an Instrument Approach Procedure (IAP).

b. Other Airport Navigation Aid. Other airport NAVAID equipment should be part of a coordinated plan based on visual aids for land and hold short operations, requirements of published approach procedures, temporary use during construction projects, or other operational features as described in the following paragraph. If temporary visual navigation aids, such as runway end identifier lights or the precision approach path indicator are proposed, the benefit-cost analysis must be completed using the salvage value reduction in project costs as described in Paragraph 550b.

Table 7 Limitations on AIP-Funded Airport Navigation Aid Equipment

EQUIPMENT	F&E	PRINCIPAL STANDARD	OPI ROUTING	BCA	RMM	TAKEOVER
Airport Rotating Beacon	No	AC 150/5340-21	AAS-100	No	No	No
Precision Approach Path Indicator (PAPI)	Yes	Title 49 U.S.C., §47101f, AC 150/5345-28, AC 150/5345-52	AAS-100	Yes	No	No
Visual Glide-Slope Indicator	No	AC 150/5345-52	AAS-100	Yes	No	No
Runway End Identifier Lighting System (REILS)	Yes	Title 49 U.S.C., §47101f, AC 150/5340-14	AAS-100	Yes	No	No
Omni-Directional Approach Lighting System (ODALS)	Yes	Title 49 U.S.C., §47101f, AC 150/5340-14	AAS-100	Yes	No	No
Medium-Intensity Approach Lighting System (MALS)	Yes	Title 49 U.S.C., §47101f, AC 150/5340-14	AAS-100, AND-740	Yes	No	No
Medium-Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AAS-100, AND-740	Yes	Yes	Yes (if associated with an ILS)
Approach Lighting System with Sequenced Flashing Lights (ALSF)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AND-740	Yes	Yes	Yes (if associated with an ILS)

556. AIRPORT APPROACH LIGHTING SYSTEMS.

Visual navigation aids for a runway are eligible depending upon the type of approach procedure. If a combined NAVAID and pavement project exceeds $5 million, benefit-cost analysis will include consideration of the runway plus visual navigation aid. For purposes of FAA takeover provisions under Title 49 U.S.C., Section 44502(e), approach lighting is not an instrument landing system (ILS), but associated equipment. Therefore, a stand-alone approach lighting system is not necessarily taken over. Airports cannot transfer ownership of these projects to the FAA unless it will be associated with an ILS funded under the AIP. Contact the Airway Facilities division for further guidance or about variations, such as the simplified short approach lighting facility or the medium-intensity approach lighting system (MALS) with sequence flashers.

a. Approach Lighting System with Sequenced Flashing Lights (ALSF). The approach lighting system with sequenced flashing lights is eligible on runways that have or are planned within five years for a precision approach procedure. RMM equipment is eligible and may be required if the project is to be taken over by the FAA. Each project that must meet performance specifications and/or RMM requirements for FAA takeover will be coordinated with APP-520 before approval. (Contact the region Airway Facilities division for design and performance standards.)

b. Medium-Intensity Approach Light System and Runway Alignment Indicator Lights (MALSR). MALSR is eligible based on all of the same requirements as described in Paragraph 556a. If required to reduce minimums, MALSR is also eligible on runways that have or are planned within five years for an instrument approach procedure.

c. Omni-Directional Approach Lighting System (ODALS). If required to reduce minimums, ODALS designed in accordance with Advisory Circular 150/5340-14 about economy approach lighting aids is eligible on runways that have or are planned for an instrument approach procedure (IAP). MALS without the runway alignment indicator lights is eligible based on the same requirements as ODALS. The airport cannot transfer ownership of these systems to the FAA.

d. Runway End Identification Light System (REILS). The stand-alone runway end identification light system designed in accordance with Advisory Circular 150/5340-14 is eligible for visual approaches (whether with or without an IAP) on runways not equipped with an approach light system. For commercial service airports, REILS on each runway without an approach light system shall be given a high priority for programming. REILS are not ILS "associated approach lighting" within the meaning of statutory authority permitting the takeover, and the airport cannot transfer ownership of these systems to the FAA.

e. Visual Glide-Slope Indicator System. A precision approach path indicator is eligible to provide vertical guidance for visual approaches (whether with or without an IAP) and related operational requirements in accordance with Advisory Circulars 150/5345-28 and 150/5345-52. Visual glide-slope indicator systems are not ILS "associated approach lighting" within the meaning of statutory authority permitting takeover, and the airport cannot transfer the ownership of these systems to the FAA. The precision approach path indicator is the only visual glide-slope system eligible for funding at airports with a Part 139 certificate.

557. TERMINAL NAVAID FACILITIES.

Electronic navigation aids for a runway or runways are generally eligible based on the establishment criteria in Order 7031.2, including consideration of aviation requirements within five years. Table 8 outlines limitations on current types of federally funded terminal navigation equipment and eligibility under the F&E since that is the basic vehicle for such projects. Table 8 also outlines the principal standards (specifications, type acceptance, site requirements, and operational performance), routing of the office of primary interest, need for benefit-cost analysis, applicability of remote maintenance monitoring, and FAA takeover potential. (See Paragraphs 550b and 552b.)

a. Local Area Augmentation System (LAAS). LAAS facilities are currently ineligible, although it is anticipated that such will be eligible at a future time based on similar criteria as instrument landing systems. Further guidance on programming LAAS projects is pending approval of specifications, type acceptance, site criteria, and operational performance standards. LAAS is considered to be an ILS from the standpoint of takeover as defined in Title 49 U.S.C., Section 44502(e). Decisions on LAAS or ILS projects need to be based on the premise that many locations have a benefit-cost ratio greater than 1, which requires close coordination with the F&E program. If a location does not have a qualifying BCA, or equipment fails to meet conditions in Part 171, the navigation and landing requirements of the airport should be reviewed with the sponsor. The potential use of GPS and higher minima is discussed in the next subparagraph.

b. Instrument Landing System (ILS). A new ILS is eligible on designated instrument runways under the AIP for a new runway or extension where that equipment is qualified and was not previously installed. The FAA may review funding arrangements and recommend combinations of sources or deferring such projects pending use of satellite navigation (SATNAV). However, the ILS or associated projects proposed to be jointly funded under the AIP and F&E program for other than cases described in Paragraph 514 are ineligible. ILS facilities include a localizer, a glide slope facility, marker beacons, and various monitors and controls. Each project that must meet performance specifications and/or RMM

requirements for FAA takeover will be coordinated with APP-520 before approval to ensure that benefits of projects exceed aviation system costs.

(1) The FAA will initially screen proposed ILS candidate projects using Order 7031.2. Secondary screening of proposals will calculate a specific benefit-cost ratio in accordance with an FAA report entitled Establishment and Discontinuance Criteria for Precision Landing Systems (Phase II), FAA-APO-83-10. However, a shortened investment life cycle is being used based on WAAS and LAAS availability at particular airports. Category I project planning will utilize as the end of the life cycle the date WAAS service is scheduled to be available at the airport plus seven years. For runways planned to use LAAS for Category I approaches only and all Category II/III projects, the end of the life cycle will be the date LAAS service is scheduled to be available at the airport plus seven years.

Table 8 Limitations on AIP-Funded Terminal Navigation Aid Equipment

EQUIPMENT	F&E	PRINCIPAL STANDARD	OPI ROUTING	BCA	RMM	TAKEOVER
Partial Instrument Landing System (Localizer, Glide Slope, or Other Component)	Yes	Title 49 U.S.C., §47101f, 14 CFR 171, Contact OPI	AND-740	Yes	Yes	Yes (if it completes ILS)
Instrument Landing System (ILS)	Yes	Title 49 U.S.C., §47101f, 14 CFR 171, Contact OPI	AND-740	Yes	Yes	Yes
Local Area Augmentation System (LAAS)	Yes	Title 49 U.S.C., §47101f, 14 CFR 171, Contact OPI	AND-710, ASD-410	Yes	Yes	Yes (when it becomes eligible)
Non-Directional Beacon (NDB)	Yes	14 CFR 171, Contact OPI	AND-740	No	No	No
Distance Measuring Equipment (DME)	Yes	14 CFR 171, Contact OPI	AND-740	Yes	No	No
Very-High-Frequency Omni-Directional Range (VOR)	Yes	14 CFR 171, Contact OPI	AND-740	Yes	No	No

(2) The benefit-cost of the ILS proposals may be evaluated separately from the AIP runway work. Approach lighting and runway visual range may be separately evaluated from the ILS because that would also be used for GPS/WAAS/LAAS-augmented approaches.

(3) The establishment of a full ILS on existing runways would be a low priority for an AIP project since current FAA policy is to accomplish this under the F&E program if the BCA is acceptable and other requirements are met. The localizer is an ILS component commonly planned as a stand-alone project for existing runways. However, for purposes of this directive, a “partial” ILS is the individual localizer, glide slope, or other grant supported components of the instrument landing system. In light of transition to SATNAV, a partial ILS project is ineligible unless it completes the instrument landing system. Furthermore, an airport cannot transfer ownership of a partial ILS to the FAA unless that will complete the instrument landing system with each component of it funded under the AIP.

For extension of a runway with an existing FAA-owned ILS (to accommodate an approved AIP project or otherwise), an AIP project may include relocation costs. See Paragraph 593.

(4) The costs of any upgrade or replacement of the FAA-owned ILS equipment that is obsolete are not eligible. However, where the upgrade and/or replacement will result in an essentially new ILS that would otherwise be justified by new air traffic (e.g. to fully realize the benefits of related AIP runway work), the region may determine it should be allowed. The costs of any upgrade or replacement of the airport-owned ILS that is obsolete will be subject to the same requirements as new equipment within this paragraph.

(5) Airports identified in Appendix 24 with early benefit from WAAS should be requested by the region to study the feasibility of transitioning to SATNAV approach procedures rather than installing an ILS.

c. Other Terminal Navigation Aid. The Office of Airports Planning and Programming has no substantial experience with AIP projects for the other types of traditionally F&E navigation aids, such as the distance measuring equipment (DME), the very-high-frequency omni-directional radio range facilities (VOR), non-directional beacons (NDB), or microwave landing systems (MLS). This equipment normally requires justification in terms of an instrument approach procedure and lower minimums that would be based on it. Contact APP-520 for requests on a DME, VOR, NDB, MLS, or other such equipment proposed under the AIP.

558. SPECIAL CONDITION.

Any grant including a navigation aid must include one of the special conditions on this subject in Appendix 7.

559. RESERVED.

Section 7. COMMUNICATIONS, SURVEILLANCE, AND AIR TRAFFIC CONTROL

560. GENERAL.

The installation of communications, surveillance, and air traffic control facilities at airports is normally accomplished through the F&E program. Only the limited projects described below are accomplished under the AIP. Table 9 outlines current types of this equipment that are AIP eligible, the principal standard requirements, and routing of the office of primary interest.

561. COMMUNICATIONS EQUIPMENT.

Communications equipment to be used on certain ARFF vehicles and systems for the automated weather observing system (AWOS) are eligible for AIP funding. Communications equipment eligibility

Table 9 AIP-Funded Communications, Surveillance and Air Traffic Control Equipment

EQUIPMENT	PRINCIPAL STANDARD	OPI ROUTING
Transceiver	AC 150/5220-16, AC 150/5210-7	AUA-400, AAS-100
Telephone Answering Device	AC 150/5220-16	AUA-400
Air Traffic Control Items	Contact OPI	ATP-140

depends upon the underlying equipment being eligible and does not extend to a wide variety of other radios or telephones in use at the airport. Requirements of communications equipment projects include those of the ARFF or security vehicles and AWOS equipment. See Paragraphs 541, 542, and 572.

a. AWOS Telephone Systems. The AWOS may be provided with an answering device using separate telephone systems, which allows pilots to call the system and receive a weather report. This device and a modem is eligible and recommended for AIP funded AWOS. The ongoing cost for leasing the telephone lines to service the modem is not eligible. However, the regional Airway Facilities divisions may reimburse certain costs and provide information about the current status of these essential weather data link programs.

b. Data Link. Sponsors should be encouraged to connect with the FAA's AWOS data acquisition system, which is evolving with the Aviation Surface Weather Observation Network. The network, located at each FAA air route traffic control center as well as the Air Traffic Control System Command Center, provides the data to pilots, FAA controllers, airline traffic managers, and other NAS weather data users. Acceptance of weather reports into the network by AAT-1 is required.

c. Other Transmitters. FAA policy is to transmit AWOS output over the Unicom or voice channel of existing navigation aids, such as a VOR or NDB. If a separate very-high-frequency transmitter is needed, it is eligible. See Paragraph 552a on the airport's responsibility for frequency reservation.

d. Responsibility for Maintenance. The airport has responsibility for maintenance of this communications equipment because it cannot be taken over by the FAA under Order 6700.20. See Paragraph 572e.

e. Remote Transmitter-Receiver (RTR). RTR projects are AIP ineligible because that is specialized FAA equipment serving airport traffic control towers and similar Federal facilities. Limitations on relocating RTR equipment is described in paragraph 593.

562. RADAR.

Eligibility for radar equipment under the AIP is limited to relocation required by another approved AIP project. Terminal Doppler weather radar, airport surface detection equipment, precision runway monitors, and airport surveillance radar are otherwise AIP ineligible. See Paragraph 593.

563. AIRPORT TRAFFIC CONTROL TOWERS.

Installation of air traffic control facilities in a terminal area will be accomplished primarily by the F&E program. An airport traffic control tower (ATCT) may also be funded under the AIP. If an ATCT is to be funded by the AIP, coordination between the Air Traffic, Airway Facilities as well as Airports divisions is needed to ensure the objective evaluation and clear presentation of project requirements for the sponsor.

a. FAA-Owned Airport Traffic Control Towers. ATCT eligibility under the AIP for facilities owned by the FAA is limited to costs described in d below.

b. Portable ATCT Facilities. Portable equipment to provide the temporary ATC services for using a runway during construction or special events, irrespective of ownership, is ineligible.

c. Contract ATCT Facilities. Construction, improvement and relocation of the ATCT are eligible using entitlements for certain airports that are in the FAA Contract Tower program under 49 USC 47124. The project Federal share may be up to $1.5 million. Eligible costs include the ATCT structure and equipment inside it. Standards for ATCT equipment that is required within AIP projects are under control of Director of Terminal Safety and Operations Support (ATP-140). Modification of any equipment

standard must be approved by the regional Air Traffic division and/or ATP-140. Standards for locating an ATCT are in Advisory Circular 150/5300-13. (See Paragraph 406t.)

(1) For projects that were completed after October 1, 1996, retroactive funding of the ATCT and equipment is eligible provided the airport demonstrates statutory requirements were met. For instance, the project must have been accomplished using Disadvantaged Business Enterprise, minimum wage, Veteran's preference, environmental impact assessment, and other requirements under 49 CFR 18.

(2) If an airport proposes State apportionments for these projects, those funds may be used provided the region consults with the State aviation official and obtains the State's support for the project as part of its airport capital improvement plan. State apportionment funds may only be used on projects that are to be undertaken in the future rather than for retroactive funding. The project file should include the State's written advisory regarding its support.

(3) For the airports that are not in the FAA Contract Tower program, the application procedures for projects include the sponsor requesting the Air Traffic division to add the location to that program before following procedures in subparagraph c(4) below. Contact regional Air Traffic divisions on how airports qualify for the FAA Contract Tower program.

(4) The airports that are currently qualified for the FAA Contract Tower program must continue meeting statutory requirements administered by ATP-140 for eligibility under the AIP. The project file should include copies of the following documentation indicating general requirements have been met and talking points should cite the dates of it:

(a) ATP-140 should provide a letter or comparable documentation stating that the airport was selected to be a participant in the FAA Contract Tower program or that the construction of the ATCT would qualify the sponsor to be added to the program.

(b) Prior to issuing a grant, ATP-140 should provide evidence if not provided by processing under subparagraph c(4)(a) above that it will seek appropriations for and maintain the airport in the FAA Contract Tower program in the same manner and priority as other airports already in the program.

(c) The sponsor must certify in the FAA operating agreement and the cost share agreement, if applicable, that it will pay its share of the cost to equip, maintain and operate the ATCT. The sponsor must also arrange to provide the State/local share of the AIP project.

d. Other ATCT Facility Costs. For the facilities other than covered elsewhere in this paragraph, AIP eligibility is limited to relocation required by another approved AIP or Passenger Facility Charge project. For example, if an AIP or PFC project restricts a controller's visibility in airport movement areas, improvement or relocation costs of the ATCT would be eligible to the extent required as mitigation. However, the statute does not otherwise allow the repair and replacement of F&E project equipment or FAA take over of maintenance for an ATCT funded under the AIP. (See Paragraphs 591 and 593.)

564. - 569. RESERVED.

Section 8. AVIATION WEATHER EQUIPMENT

570. GENERAL.

Only the weather observation, detection, reporting, and communications projects described below may be accomplished under the AIP. Installation of such aviation weather or forecasting facilities at airports is normally accomplished through the F&E program. Table 10 outlines limitations on current types of AIP eligible aviation weather equipment, eligibility under the F&E, principal standard requirements (specifications, type acceptance, siting, and operational performance), routing of the office of primary interest OPI), requirement for benefit-cost analysis (BCA), applicability of remote maintenance monitoring (RMM), and FAA takeover. (Contact APP-520 on integrated terminal weather systems).

571. WIND INDICATORS AND RECORDING ANEMOMETERS.

Recording anemometers are eligible. For assistance with standards, contact AAS-100. Wind tees and cones for the airfield are eligible in accordance with Paragraph 537.

Table 10 Limitations on AIP-Eligible Aviation Weather Equipment

EQUIPMENT	F&E	PRINCIPAL STANDARD	OPI ROUTING	BCA	RMM	TAKEOVER
Wind Tee	No	AC 150/5340-21	AAS-100	No	No	No
Wind Cone	No	AC150/5300-21, AC 150/5340-23	AAS-100	No	No	No
Recording Anemometers	No	Contact OPI	AAS-100	No	No	No
Runway Visual Range (RVR) ***(if information is provided directly to pilot and associated with precision approach)***	Yes	Contact OPI	AND-740	Yes	No	Yes (if associated with an ILS)
Automated Weather Observing System (AWOS)	No	AC 150/5220-16	AUA-400	No	Yes	No
Low-Level Wind-Shear Alert System (LLWAS)	Yes	Contact OPI	AUA-400	Yes	Yes	No

572. AUTOMATED WEATHER OBSERVING SYSTEM (AWOS).

The F&E program has installed AWOS projects, and the FAA still operates many such facilities. Automated surface observing system (ASOS) is now funded by the F&E program, which in combination with various weather sensor programs accomplishes similar data collection as the AWOS. AWOS designed in accordance with Advisory Circular 150/5220-16 may be eligible at any eligible airport if Airway Facilities division confirms such equipment and ASOS has not been operated or approved for the same location under the F&E program. AWOS cannot be taken over by the FAA under Order 6700.20. States may install and maintain the AWOS equipment under the State sponsorship of airport projects. Contact APP-520 for assistance on eligibility of weather observing equipment.

a. Sensors. An airport may be eligible for any or all AWOS types in production, although the costs and benefits differ for each system. The different capabilities provided through individual sensors determine differences between the systems. The sponsor should procure the minimum system based on airport activity levels and certified weather reporting that is required for an Instrument Approach Procedure under instrument meteorological conditions. Benefit-cost analysis described in paragraph 550b does not apply to AWOS within a grant even through Order 7031.2 has a section on such projects. The F&E program no longer funds new AWOS equipment.

b. Communications Equipment. Automatic telephone answering systems or radio transmitters are eligible and recommended to fully benefit from the weather data link opportunities with an AWOS. See Paragraph 561.

c. Options. The minimum required optional displays and printer systems are eligible for an AWOS. Regions should ensure the ancillary equipment is justified by an operational need and will be used.

d. Operation and Maintenance. Sponsors are required to operate and maintain AWOS equipment during its lifecycle. The special condition required for navigation aid projects (Appendix 7, Paragraph 6) should be in each AWOS grant. Inspection for weather observing sensor compliance by the local System Management Office of the FAA may also be required.

e. Automated Surface Observing System. The installation of the ASOS projects, which has been adopted as the F&E program standard for weather observation, is normally accomplished under that program. Any questions on the ASOS projects should be directed to the Airway Facilities division.

573. LOW-LEVEL WIND-SHEAR ALERT SYSTEM (LLWAS).

The installation of the LLWAS under the F&E program for wind direction and speed detection is accomplished for airports meeting the requirements contained in Order 7031.2. We have no experience with AIP projects for LLWAS. The data obtained from the equipment would need to be directly provided to pilots. Any equipment providing data only to air traffic control would not be eligible. Contact APP-520 for assistance on AIP eligibility of the LLWAS.

574. RUNWAY VISUAL RANGE (RVR).

For precision approach systems, RVR equipment is eligible if the visibility information is made available directly to pilots. RVR benefit-cost analysis may be separated from the AIP runway work and instrument landing system projects. Under Title 49 U.S.C., Section 44502e, an AIP ILS project including associated RVR, is to be taken over by the FAA at the option of the airport. RVR is not an ILS facility, but associated equipment. The airport cannot transfer ownership of AIP RVR equipment to the FAA unless it will be associated with an ILS as described in Paragraph 552. Contact APP-520 for assistance with proposed RVR projects.

575. - 579. RESERVED.

Section 9. AVIATION HAZARDS AND ENVIRONMENTAL MITIGATION

580. GENERAL.

This section includes information concerning the eligibility of projects to remove objects in the runway protection zones as well as certain airport hazards and environmental mitigation. See Paragraph 537 on airport hazard or runway closure marking/lighting and Chapter 7 for relocation caused by removal of hazards. See Chapter 8 on noise compatibility projects. Table 11 outlines current types of federally funded aviation hazard and environmental mitigation equipment, the principal standard requirements, as well as routing of the office of primary interest.

a. ENVIRONMENTAL MITIGATION IN APPROVED PROJECT. An environmental mitigation project is eligible as airport development if it is a condition of approval of an environmental action associated with an AIP funded airport development project. However, if the development project for which the environmental mitigation project was a condition of approval is ineligible, the environmental mitigation would be ineligible. Frequently environmental impact statements include both eligible and ineligible projects. Therefore, inclusion of a mitigation measure in an environmental impact statement does not automatically make the mitigation measure eligible for Federal funding.

b. STAND-ALONE ENVIRONMENTAL PROJECT. Stand-alone environmental projects that do not depend upon an AIP funded airport development project are described in paragraphs 585 and 587.

581. OBJECTS IN RUNWAY PROTECTION ZONE.

The runway protection zone (RPZ) is an area off the runway end to enhance the protection of people and property on the ground and to minimize aircraft damage if an airplane was to inadvertently leave the actual runway environment. See Paragraph 702 as well as Sponsor Assurances 20 and 21.

a. Control of Land Use. For any AIP development project that involves acquiring the property and/or constructing/reconstructing the runway associated with a nonstandard RPZ, the region should consider fee simple for RPZ land acquisition projects as the preferred method but, if this is not feasible, the phased acquisition of RPZ land or less-than-fee interest to control land use may be acceptable.

(1) An easement, lease, or restrictive covenant should be required if fee interest in a parcel is infeasible in the foreseeable future. For projects on new runways and extensions, a comprehensive analysis is necessary if it appears likely fee acquisition may not be attainable upon runway completion. In such a case, a study on alternative airport configurations, which may include airport site evaluation, may be necessary. At minimum, this study must identify costs of fee acquisition, legal constraints, and analysis comparing continued present use with potential reuse of the land. This study may result in a determination by the FAA to phase acquisition or approve less-than-fee property interests.

Table 11 AIP-Funded Aviation Hazard and Environmental Mitigation Equipment

EQUIPMENT	PRINCIPAL STANDARD	OPI ROUTING
Runway Closure Marking	AC 150/5345-55	AAS-100
Aviation Obstruction Lighting and Marking	AC 70/7460-1	ATA-400
Bird Hazard Reduction Equipment	AC 150/5200-33	AAS-300
Industrial Waste Treatment Facilities	AC 150/5320-15	AAS-100
Low Emission Systems	Contact OPI	APP-600

(2) The special condition in Appendix 7 should be applied to the cases involving a nonstandard RPZ.

b. Removal of Objects. The removal or relocation of any object located in the RPZ is eligible regardless of whether it constitutes an obstruction and/or airport hazard. When property within the RPZ is acquired under the AIP, structures and activities located on this land must be removed unless granted an exception by the regional Airports Division Manager or needed for air navigation facilities.

582. AIRPORT HAZARDS.

The removal, relocation, lowering, and other modification of any object (both natural and man-made) that constitutes an airport hazard as defined in Title 49 U.S.C., Section 47102 is eligible where an aeronautical study conducted under FAR Part 77 determines that action is required. Arrangements must be made that will preclude the problem from being recreated.

583. HAZARDOUS WASTE.

Land involving hazardous waste must be identified at the earliest possible time during the airport planning and development process.

a. Due Diligence Audits. Emphasis should be placed on due diligence audits to determine the nature and responsibilities for hazardous waste as an AIP eligible activity of environmental assessment during airport planning. Solutions that identify acceptable remedial actions can frequently be established in such a study. Where no solution can be identified, airport site evaluation may be required.

b. Ineligible Hazardous Clean Up. Clean up of hazardous waste is normally ineligible in airport development projects. Contact APP-500 for assistance on projects when hazardous waste is first found during the accomplishment of an AIP development project. See Paragraph 586.

584. WILDLIFE HAZARDS.

If wildlife hazards have been determined to exist (or may result because of planned construction or airport expansion) under procedures of Advisory Circular 150/5200-33, capital improvements to reduce the hazard within the airport boundary are eligible provided the actions will be designed to produce long-term solutions.

a. Habitat Modification. Removal of wildlife attractants through improving airport drainage, elimination or modification of man-made structures used by birds for nesting or roosting, purchase of contiguous land or easements, or modification of the habitat, are eligible. APP-520 shall be consulted prior to programming any items in this subparagraph.

b. Bird Hazard Reduction Equipment. Acquisition of equipment for bird patrols and wildlife hazard reduction on or adjacent to an airport is eligible. This includes cassette tape decks and public address systems for broadcasting distress calls, exploding gas cannons, shotguns, and pyrotechnic pistols.

c. Ineligible Items. Expendable items such as the shotgun shells, chemicals, and pyrotechnic devices (other than pistols) are not eligible. Airport operations vehicles associated with wildlife control are ineligible.

585. LOW EMISSION SYSTEMS AND OTHER AIR QUALITY PROJECTS.

Projects for low emission systems and the protection of air quality are eligible either for mitigation within a conventional airport development project in accordance with paragraph 580a or as stand-alone work. In addition to general requirements of Paragraph 505, the project file should contain relevant sections of the State implementation plans, environmental mitigation requirements within an airport development project, or the other documentation to justify the project. Contact APP-600 for assistance with air quality projects.

a. Stand-Alone Projects. Stand-alone air quality projects as described within this subparagraph must result in the airport receiving appropriate Airport Emission Reduction Credit (AERC). The region's approval of the stand-alone projects is contingent upon receipt of the State air quality agency letter of assurance to the FAA on the AERC credits under provisions of 49 USC 47139. Stand-alone projects may be authorized under any of several different statutory definitions, each with its own requirements:

(1) Sponsor Compliance Responsibility. As defined by 49 USC 47102(3)(F), projects must be the sponsor's compliance responsibility under the Clean Air Act of 1970 (CAA), as amended, and may include construction, reconstruction, repair, improvement or purchase of equipment to comply with Environmental Protection Agency (and State air quality agency) requirements; or

(2) Voluntary Airport Low Emission (VALE) Program. VALE program system projects are eligible at commercial service airports located in a non-attainment or maintenance area defined under the CAA. See http://www.faa.gov/arp/environmental/vale for general information regarding low emission systems for that program. Systems must meet emission standards contained within the VALE technical report dated September 30, 2004.

(a) Equipment. In the projects acquiring or providing for conversion to low emission systems, vehicles and equipment must be airport owned. In this paragraph, "equipment" means ground service or maintenance equipment used to support aeronautical and related activities at the airport that will remain in operation for its useful life. The vehicles and equipment cannot be used in non-airport

activities. See Appendix 7 for a special condition to be used on these projects. See 49 USC 47102(3)(L).

1. The vehicle and equipment technology must rely exclusively on alternative fuels that are substantially non-petroleum based, as defined by United States Department of Energy. However, this requirement does not exclude hybrid vehicles.

2. If the vehicles would not otherwise be eligible, such as shuttle buses, incremental costs of low emission technology are the allowable portion of the project.

(b) Facilities. For work necessary to construct or modify facilities to provide low-emission fuel systems, gate electrification and other related airport air quality infrastructure improvements, requirements of subparagraph a(2)(a) above apply except for the sentence about alternative fuels. See 49 USC 47102(3)(K).

b. Ineligible Work. Work benefiting non-aeronautical revenue producing airport areas and locations that are not at an airport is ineligible except as described in Paragraphs 303 and 502e. Ineligible portions may be prorated from eligible work in a project. Vehicles are ineligible if not operated within or in close proximity to the airport boundary and dedicated to the airport.

586. WETLANDS.

Wetland projects may be associated with separate justification related to wildlife hazards and water quality. See Paragraphs 584 and 587. In addition, similar wetland mitigation projects may be a requirement for coastal zones, endangered species, floodplains, and other environmental impacts included within the environmental documents for airport development.

a. General. Wetland restoration, creation, enhancement or exchange projects are eligible only when required by an environmental finding for an approved AIP project. Sponsors shall not implement wetland wildlife attractions unless the mitigation project is located at a site remote from existing or planned airport development as defined within Advisory Circular 150/5200-33, Hazardous Wildlife Attractants on or Near Airports. Wetland preservation and related work is not eligible when it conflicts with aircraft operations. (See http://www.faa.gov/arp/environmental/5054a/wildhazmou.pdf for a discussion of minimizing aircraft-wildlife strike potential.)

b. Monitoring Wetlands. Monitoring of wetland areas is eligible in a project for up to two years from the grant agreement (or the period projects are open for other project purposes) to determine whether the as-built conditions meet design objectives. A project should not be open beyond two years for the exclusive purpose of wetland monitoring. Two years is a common grant closeout objective. However, approved mitigation plans typically require a five-year oversight period. Such lengthy studies may be eligible for reimbursement of work accomplished prior to a grant and/or within multiple grants as follows:

(1) A portion of wetlands evaluation already completed and reimbursable may be eligible subject to the limitations of Paragraph 311j.

(2) A supplemental planning project continuing the wetland monitoring studies may be eligible after the initial grant is closed under provisions of Paragraph 406s.

c. Mitigation Banking. Mitigation banks combine wetlands required for various current or future projects. Funding for mitigation banks is allowable for a specific airport development project the FAA intends to fund under the AIP within two years from the grant agreement for wetland banking. See http://www.faa.gov/aip/environmental/5054a/wetpol.html for information on mitigation banking.

d. Environmental Trust Funds. Certain environmental trust funds or other similar devices that combine projects required for a variety of resources in addition to wetlands may be provided AIP funding

subject to the same conditions as mitigation banks in lieu of financing specific wetland projects. The purpose of the AIP funds must be identified in these cases for the management entity below.

e. Management Entity. Sponsors may not have wetland expertise or jurisdiction over the wetland areas. Therefore, the airport may prefer to work through a natural resource agency, conservation organization, or land trust to acquire and manage the land for project mitigation. In these cases, eligibility is dependent upon passing the airport's obligations on to the management entity. The eligibility for operations of a management entity to monitor wetlands is limited to conditions in subparagraph b above. Any additional costs incurred by the management entity are considered administrative or maintenance costs and would be ineligible for AIP funding.

f. Management Agreements. A formal agreement co-signed by the airport and proposed owner or management entity must be obtained to protect AIP funds. Agreements may be with public agencies or nonprofit organizations and should including the following information:

(1) A commitment to use the property on a continuous basis compatibly with airport operations and not subject to undue liability or misuse in any way;

(2) A wetland monitoring requirement for the period before, during or beyond the AIP project ensuring the property has at least value and function equal to that of the required mitigation as described in subparagraph b above; and

(3) The understanding that the administration and maintenance of the property in accordance with applicable laws will be the sole responsibility of the management entity, which is AIP ineligible.

587. WATER QUALITY PROJECTS.

Projects for protection of water quality are eligible as stand-alone work or as mitigation within a conventional airport development project as described in paragraph 580a. In addition to the general requirements of Paragraph 505, the project file should contain an applicable National Pollutant Discharge Elimination System permit, environmental mitigation requirements within an airport development project, or the other documentation to justify the work. On proposed projects that involve deicing, see Paragraphs 544 and 547.

a. Stand-Alone Projects. Stand-alone water quality projects must be a sponsor compliance responsibility under the Federal Water Pollution Control Act of 1972, as amended. The project may include any construction, reconstruction, repair, improvement or purchase of capital equipment for the airport necessary to comply with requirements of the U.S. Environmental Protection Agency and State agencies that have water quality jurisdiction. Advisory Circular 150/5320-15, Management of Airport Industrial Waste, describes eligible water quality equipment and facilities. (Contact AAS-100 for assistance on water quality projects not included in that advisory circular.)

b. Ineligible Work. Work benefiting non-aeronautical revenue producing airport areas and locations outside of airport boundaries is ineligible except as described in Paragraphs 303 and 502e . Ineligible areas may be prorated from eligible work in a project.

588. - 589. RESERVED.

Section 10. MISCELLANEOUS

590. BLAST FENCES.

Blast fences are eligible when they are needed for safety and are more economical than the acquisition of additional property interests or expansion of an apron.

591. EQUIPMENT LEASE, REPAIR, MODIFICATION, AND DISPOSAL.

a. Lease/Purchase. In a lease/purchase plan between a sponsor and a vendor, funding is limited to the purchase portion of the arrangement, and a grant would be issued only after the sponsor decides to buy. In such cases, the original lease/purchase solicitation must meet requirements of Chapter 9.

b. Refurbishing, Repair, or Modification. The cost to refurbish, repair, and/or modify eligible equipment and increase performance or extend its useful life may be eligible. Regions should carefully review the sponsor's economic basis for each such project to ensure it is not, in fact, normal maintenance. For information purposes, APP-520 should be notified of all projects for refurbishing or modification of equipment, which might be due to design or specification shortcomings.

c. Replacement of Equipment. The replacement of equipment acquired under the grant program, which has been destroyed accidentally, become obsolete, worn out, or may be otherwise deemed inoperable through no fault of the sponsor, is eligible.

d. Spares. AIP project costs of any eligible airfield equipment may include an additional 10 percent of the cost of equipment for spare parts or minor replacement components of systems to be used by the airport in maintaining the system. If the region has reason to believe the airport will be unable to store and accurately account for the spare parts inventory, the additional cost is ineligible.

e. Used Equipment. The acquisition of used equipment is eligible provided it meets FAA specifications and has an acceptable useful life based on the proposed purchase price. See also Advisory Circular 150/5150-2, Federal Surplus Personal Property for Public Airport Purposes.

f. Disposal of Replaced or Unneeded Equipment. Equipment with a current per unit fair market value of $5,000 or more may be retained by the sponsor, sold for salvage, traded for replacement, or transferred to another eligible airport or sponsor. If retained and used for airport purposes, no reimbursement is required. If transferred to another sponsor, grant obligations shall also be transferred. There is no need for monetary consideration if the entity receiving the equipment would be eligible under the grant program. If a non-eligible sponsor or non-airport entity obtains the equipment, fair market value shall be required and used to reduce the amount of a subsequent grant for replacement equipment at the option of the FAA Airports Office.

592. LANDSCAPING AND TURF.

Landscaping and turf are only eligible to the extent that they are a cost associated with an AIP project and necessary for erosion control or State and/or local construction practices. See also exceptions based on noise in Chapter 8. Art or decorative landscaping for the sole purpose of the aesthetic enhancement are not an allowable costs. See definitions and examples in Paragraph 304. Where the sponsor desires to include landscaping for aesthetic effect with a project, the eligible costs must be prorated.

593. PURCHASE, RELOCATION, OR DEMOLITION OF INELIGIBLE FACILITIES.

AIP funds cannot be used for any part of an airport building, except eligible portions of terminal buildings, certain former military facilities, hangars and parts of buildings intended to house equipment or activities directly related to safety. (If an underground storage tank that meets current standards must be relocated due to an AIP project actually funded by a grant or with the PFC program, relocation is an allowable cost of the project. If an underground storage tank that does not meet current standards must be relocated because of such a project, the costs are allowable and the project must result in placement of a tank that meets the current standard.) Existing non-eligible buildings located on the airport that constitute aviation hazards or impede an AIP project actually funded by a grant or with the PFC program may be purchased and relocated or demolished subject to the criteria below. See Chapter 7.

a. Non-Federal Structures. The purchase by an airport sponsor of a building from any owner other than the Federal Government is eligible. The market value and the costs associated with its demolition and removal are eligible, minus any salvage value. The relocation of the structure or facility to another location on the airport in lieu of purchase is eligible up to the market value of the facility. Nominal incidental costs of the relocation, e.g. extinguishing a lease or footings and floors, may be included.

b. Federally Owned Facilities. The cost of moving buildings owned by the Federal Government that impede an AIP grant or PFC project is eligible. Table 12 outlines limitations on FAA equipment relocation eligibility since the F&E program is the basic vehicle for such projects. Table 12 also outlines principal standard requirements (specifications, type acceptance, siting, and operational performance), routing of the office of primary interest (OPI), need for benefit-cost analysis (BCA), applicability of remote maintenance monitoring (RMM), and FAA takeover potential.

(1) Examples of relocating such Federal facilities include navigation aids, weather equipment, the airport traffic control tower (ATCT), the remote transmitter-receiver (RTR), terminal Doppler weather radar (TDWR), airport surface detection equipment (ASDE), the precision runway monitor (PRM), and airport surveillance radar (ASR). Under 49 USC 47110(b)(1), the projects may include military facilities or any other federally owned facility.

(2) Rebuilt facilities must be of an equivalent size and type. Equivalent capability of buildings, pavements, and facilities may require different features than existing structures depending on proposed location. However, the allowable costs will cover in-kind move or replacement rather than an upgrade and rebuilding with current technology. Prorating eligible cost may be necessary. See Order 6030.1 and Advisory Circular 150/5300-7 about FAA policy on ATCT, RTR, TDWR, ASDE, PRM, ASR, and other facility relocations occasioned by airport improvements or changes. See also Paragraphs 311k, 513, 514 and 550-574.

c. Sponsor Owned Facilities. A sponsor may choose to either remove or demolish a facility it owns. These costs are eligible minus any salvage value. The cost to the sponsor of extinguishing a lease is eligible.

(1) When a structure acquired under an AIP project is to be removed later, such as in 5 years, the sponsor may use the structure for any incidental purposes it deems desirable provided it does not interfere with the purpose of the airport. Any revenue at fair rental value received during the period between acquisition and demolition of the structure constitutes airport revenue and is to be used according to Sponsor Assurance 25. If a decision is made not to demolish the structure, then the sponsor will be responsible for reimbursing the grant program the Federal share of the appraised value attributed to the structure.

(2) The cost of a structure on land being acquired under the AIP is allowable if the building is to be used by the sponsor for a grant eligible facility, such as an ARFF building.

(3) The costs of a structure on land that is to be acquired for airport purposes is not allowable if the structure is to remain on the land or is to be relocated and will be used by the sponsor for a purpose not grant eligible. However, if the structure is to be relocated because its present location constitutes an airport hazard or impedes eligible airport development, then such relocation would be eligible up to the estimated costs to demolish and remove the structure. Participation is limited to the cost of a like facility.

Table 12 Limitations on AIP-Eligible Relocation of FAA Equipment

EQUIPMENT	F&E	PRINCIPAL STANDARD	OPI ROUTING	BCA	RMM	TAKEOVER
Airport Navigation Aid Equipment	Yes	See Table 8	AAS-100, AND-740	Yes	Yes	Yes
Terminal Navigation Aid Equipment	Yes	See Table 9	AND-700, ASD-400	Yes	Yes	Yes
Weather Equipment	Yes	See Table 11	AUA-400	Yes	Yes	Yes
Airport Traffic Control Tower (ATCT)	Yes	Contact OPI	AUA-300	Yes	No	Yes
Remote Transmitter-Receiver (RTR)	Yes	Contact OPI	AND-300	Yes	No	Yes
Terminal Doppler Weather Radar (TDWR)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AUA-400	Yes	No	Yes
Airport Surface Detection Equipment (ASDE)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AND-400	Yes	No	Yes
Precision Runway Monitor (PRM)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AND-400	Yes	No	Yes
Airport Surveillance Radar (ASR)	Yes	Title 49 U.S.C., §47101f, Contact OPI	AND-400	Yes	No	Yes

594. REPLACEMENT FACILITIES.

AIP funds may not be used to replace a building on the airport except as described in this chapter. If the sponsor is responsible for utilities, an above ground utility may be replaced by an underground utility provided the sponsor certifies that the airport is legally obligated to fund the work. Replacement of underground storage tanks is ineligible, except for certain former military airports. (See Paragraph 593.)

595. CONSTRUCTION PROJECT SIGNS.

Project signs at an airport construction site are not required, but, if erected, may be an eligible cost if the construction includes at least $200,000 of Federal funds and will be underway for at least 3 months. Cost of the sign should be limited to $1,000. The sign shall contain a brief description of the project and the following statement: “Part of the funding for this project is being provided by a grant from the Airport Improvement Program, which is administered by the Federal Aviation Administration and financed through the Airport and Airway Trust Fund.”

596. - 599. RESERVED.

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Chapter 6. TERMINALS, LANDSIDE, AND TERMINAL ACCESS PROJECTS

Section 1. TERMINAL DEVELOPMENT

600. GENERAL ELIGIBILITY.

This chapter includes information concerning eligibility or limitations for an airport terminal building, multi-modal terminal development, other landside projects, and surface access. See Paragraph 613 about prorating of eligible and ineligible terminal building work. As general requirements for eligibility, sponsors must:

a. Design all structures in accordance with the appropriate FAA Advisory Circulars attached to the project grant. At this time the FAA is initiating a revision to Advisory Circular 150/5360-13, Planning and Design Guidelines for Airport Terminal Facilities. This AC plays an important role in the understanding and analysis of airport terminal designs. It establishes requirements for airport terminal design for projects to be funded with AIP grants. It is also used to determine reasonableness of cost for Federal and federally approved funding.

However, industry methodologies for determining terminal space requirements have changed since the research for the original AC was completed. For example, the AC presents the equivalent aircraft factor methodology, while a level of service or similar method as described by the International Air Transport Association (IATA) is currently used by many airport planning and design consultants.

While AC 150/5360-13 continues to be the FAA standard for terminal planning and design, prudence should be applied when reviewing terminal building proposals. As an interim measure until the revision of the Planning and Design Guidelines AC is complete, we recommend methodologies following the IATA recommendations ("Airport Development Reference Manual", 8th edition), and a review of existing terminals facilities at comparable airports be considered as well as the AC recommendations when making FAA determinations. (Contact APP-400 for additional guidance if required.)

b. Submit with the grant application the required "Certification of Compliance with the Seismic Design and Construction Requirements of Title 49 CFR, Part 41". This certification submitted by the sponsor or the Sponsor's authorized representative states that the Sponsor will comply with the requirements set forth in Title 49 CFR, Part 41 in the design and Construction of the building(s) to be financed with the assistance of the Federal Aviation Administration;

c. Certify the airport has, on the date of submittal of the project application, all the FAR Part 139 safety and Title 49 CFR, Part 1542 security equipment required for certification of the airport;

d. In the event that Part 139 does not apply to the airport, certify any needed airport development project affecting safety, security or capacity will not be deferred due to the project; and

e. Provide access for passengers to enplaning and deplaning areas of aircraft other than air carrier aircraft.

601. TERMINAL DEVELOPMENT.

Except as noted by Paragraphs 602-606, "terminal development" is defined in this Chapter as development for non-revenue producing public-use areas that are directly related to the movement of passengers and baggage in terminal facilities within the boundaries of the airport. Typical eligible items include baggage claim delivery areas, automated baggage handling equipment (see Paragraph 602c for limitations), public-use corridors to boarding areas, central waiting rooms, restrooms, holding areas, and foyers and entryways, as well as passenger loading bridges and handicapped boarding assistance

devices. Excluded would be those areas that are primarily revenue producing such as restaurants, concession stands, and airline ticketing areas. With exception to the terminal modifications in Paragraph 602 regarding baggage makeup areas, only public-use areas associated with baggage claim delivery are eligible under the AIP program. See Table 13 on page 114, which describes terminal eligibility by commercial service airport type.

a. For large, medium, and small hub airports, terminal development can only be funded from a sponsor's passenger entitlement funds.

b. For nonhub airports, funds from the discretionary or small airport fund may be used for terminal development. For nonhub primary airports, passenger entitlements may be used as well.

c. Cargo entitlement funds may not be used for terminal development.

d. Nonprimary commercial service airports cannot receive more than $200,000 of discretionary money in any fiscal year for allowable terminal development project costs.

e. Reliever airports cannot receive more than $200,000 of discretionary funds in any fiscal year for allowable terminal development project costs. Typical eligible items include baggage claim delivery areas, automated baggage handling equipment (see Paragraph 602c for limitations), public-use corridors to boarding areas, central waiting rooms, restrooms, holding areas, and foyers and entryways, as well as passenger loading bridges and handicapped boarding assistance devices. See Table 14.

602. TERMINAL SECURITY PROJECTS.

Projects that are justified as meeting an access control requirement at Category I-IV and X, Title 49 CFR, Part 1542, (formerly 14 FAR Part 107) airports are AIP eligible. Projects to prevent the unauthorized intrusion of individuals near aircraft parked on aprons or in operation on taxiways and runways, or any other part of the air operations area (AOA) are also eligible. (See Section 542 for a more detailed discussion of eligible security projects.) Further, any sponsor who proposes a terminal security project that requires TSA staffing must have a written commitment by the TSA to provide the necessary personnel for operation of the equipment or manning of those facilities. These typical security projects are generally required in an airport's Part 1542 security plan or required of an airport by the FAA in a security directive or emergency amendment to Part 1542.

a. Other security projects that are generally considered eligible would include such things as finger printing equipment, computerized and noncomputerized door controls, perimeter security fencing and gates (including adequate lighting at gates), closed circuit television to monitor persons' exiting from buildings to the AOA or vehicular and persons entering the AOA from public roadways and other landside locations, vehicle checkpoints on the AOA if secondary security is determined necessary, the one-time replacement of keylocks and cores after September 11th, and explosive detection devices to inspect and transport packages in the terminal environment outside the sterile area and explosive disposal equipment.

b. Security for other facilities on the airport may be determined eligible with the submission of additional, convincing justification. One such area would be the security of fuel farms. Airports desiring AIP grants to provide increased security in a fuel farm area would need to demonstrate that the fuel farm is located in an area where the ignition or explosion of fuel would create an imminent danger to passengers or aircraft. The more remote the fueling facility is to terminals or the AOA, the more the project becomes one intended to prevent theft or vandalism, which is a local law enforcement issue rather than air transportation security.

Another project might be the purchase of tow trucks to tow vehicles left within the secured area of a terminal. While not strictly required, these trucks could be a mitigation measure. TSA has indicated that frequent public announcements and adequate signage are also acceptable less costly mitigation

methods. Due to the fact that tow vehicles would inevitably be used for other purposes including general traffic control, parking violations unrelated to security and for vehicle assistance, the FAA has determined that these would not compete well for discretionary funds. Entitlement funds, however, may be used.

Further, since tow charges are normally passed on to the violator rather than remaining an airport expense, and in those locations where adequate towing services are available, regions should consider the need for an airport owned tow truck.

Other projects in this category may include public address systems and terminal improvements for checking baggage or passengers. For example, the replacement or installation of a general public address system, which will be used predominately for air carrier announcements and only periodically make required automatic security announcements, would not be eligible. However, the equipment necessary to make the automatic announcements and the feed to the public address system would be eligible. In the case of full replacement or installation, costs should be prorated in order to identify the required security costs.

c. The Aviation and Transportation Security Act (ATSA) amended Title 49 U.S.C., Section 47102(3) to include terminal modifications necessary to accommodate the installation of Explosive Detection Systems (EDS) in baggage makeup areas as eligible for AIP funding. Note the amendment only provides for that development or reconfiguration necessary to accommodate the installation of bulk explosive detection equipment. It does not provide general eligibility for the baggage makeup area and baggage conveyor systems under the AIP program. Since passage of ATSA, projects were funded with either entitlement or discretionary funding. After FY 2003, the projects are limited to entitlements. Note the FY 2004 and FY 2005 Appropriations Act prohibit using AIP funds for baggage system, terminal building or other modifications in order to install EDS during each of those years.

The project may include the replacement of baggage conveyor systems, and reconfiguration of terminal baggage areas, that are undertaken by an airport owner or operator and that the FAA determines necessary to install the bulk explosive detection devices. If replacement of an outdated baggage system is found necessary, project files must contain substantial justification that no feasible alternative exists to the complete replacement. The Regional Airports Division or ADO will consider the use of proration in order to determine an acceptable approximation of the costs of replacement due to explosive detection systems versus replacement due to age. If an entire baggage handling system must be replaced it must be available to all air carriers on a non-exclusive use basis and it must remain the property of the airport. Where the project is in the baggage makeup area only, either discretionary or entitlement funding may be used.

d. A project to provide an efficient use of terminal space or even aesthetics in the public spaces of the terminal, such as enlargement of areas to permit more efficient queuing of passengers or to accommodate random screening, is considered to be terminal development and therefore can only be funded at large, medium and small hubs using entitlement funds (nonhub and reliever airports may use discretionary funds if available). Widening of the entrance to a concourse to accommodate additional screening lanes or construction of rooms to do random screening rather than performing the screening in the terminal for example are not security projects but may be considered terminal development. It should be noted here that the Federal share for terminal development projects, as well as this expanded eligibility, remains unchanged for these projects.

In federalizing the screening activities at an airport, some security projects that were previously funded under AIP through Section 308 of the FAA Reauthorization Act of 1996 such as X-ray equipment, magnetometers, search wands and any similar equipment used by TSA screening agents are no longer eligible and cannot be funded. Also, projects that appear to exceed known requirements or are used to support law enforcement functions unrelated to air transportation security such as parking enforcement, and general traffic law enforcement patrol duties are ineligible for funding.

603. OTHER ELIGIBLE TERMINAL DEVELOPMENT.

Normally the following areas are considered eligible terminal development:

a. Sufficient space is eligible to house necessary equipment/items and personnel to support the FAR Part 139 safety and Title 49 CFR, Part 1542 security operations at the airport. That area is limited to that required by Title 49 CFR, Part 1542 "Airport Security" and endorsed by the Manager, Regional Civil Aviation Security Division as facilities required to meet Title 49 CFR, Part 1542. Any non-public use area beyond that required by Title 49 CFR, Part 1542 is not eligible. This may necessitate a prorated cost procedure for the terminal.

b. Emergency operation command centers may be located in a separate building or within the terminal building. These facilities can vary widely in cost and complexity. Since their use is directly tied to the occurrence of major emergencies on airports (hijacks, bomb threats, major accidents), the following rules should be followed in determining reasonable and necessary costs of eligible work:

(1) Only special facilities and equipment directly necessary for dealing with emergencies during a major incident are eligible along with the normal ARFF and security equipment required by FAR Part 139 and Title 49 CFR, Part 1542. Other equipment and facilities used for day-to-day airport operations may not be funded under this type of project even though they may be used during a major emergency.

(2) Where an emergency operation command center is co-located with the airport operation center, as is often the case, a means of pro-rating the cost of space and facilities between eligible and ineligible portions must be developed.

(3) Austerity should be sought, since such facilities will be rarely used. Amenities such as dormitories or kitchenettes are not considered directly necessary and are not eligible. Please consult with APP-520 as soon as details of such proposed projects are known.

c. Buildings devoted to aircraft safety (aircraft rescue and firefighting) are normally located on the airfield side. (See Chapter 5.)

604. EXPANDED TERMINAL ELIGIBILITY AND PARKING LOTS.

Generally the Act prohibits using AIP funds for decorative landscaping, the provision or installation of sculpture or works of art, and the construction, alteration, or repair of public parking facilities for passenger automobiles or any part of an airport building except those identified in Paragraphs 601, 602, 603 and 606. The following two exceptions should be considered:

a. The ATSA makes mitigation of an explosive blast that would significantly damage a terminal building eligible under AIP. This would include barriers to prevent vehicles from entering an area in close proximity to a terminal building, a guard facility for the purpose of inspecting vehicles, or an actual deflection device constructed as a result of a blast analysis. However, replacement of parking lots would not be considered an air transportation security project.

b. Section 47110(d)(2) expands the area of allowable costs to include terminal development in revenue-producing areas and construction, reconstruction, repair and improvement of non-revenue-producing public parking lots at nonhub primary and nonprimary commercial service airports. Non-revenue-producing parking lots associated with a passenger terminal building or hangar are also eligible at nonprimary airports that do not have commercial service under 49 USC 47119(b)(5) provided requirements described in paragraph 526d(3) have been met. See Tables 13 and 14.

Section 47110(d)(2) does not specifically alter the requirement that allowable costs be directly related to the movement of passengers and baggage in air commerce. However, allowable costs attributable to other revenue-producing areas in a terminal at an airport in this category are likely to be

incidental with respect to the total project cost. Therefore, allowable costs in a project for terminal development may include, in addition to other allowable costs, incidental costs attributable to revenue-producing areas other than those directly related to the movement of passengers and baggage in air commerce.

Examples of such areas include space for a snack shop or vending machines, an alcove for pay telephones, and wall or floor space to accommodate rental car, lodging reservation facilities, or public or travelers information booths. In addition, the costs necessary to provide utilities, heating, ventilating, and air conditioning for such space are allowable. Costs related to administrative (nonpublic use) space and any equipment, furnishings or facilities used in revenue production (e.g., snack bar equipment or furniture, vending machines, telephones, reservation lines) are not allowable costs under this provision. Non-revenue producing parking lots not associated with the passenger terminal building (or a hangar in the case of nonprimary airports) are ineligible. Employee parking lots are ineligible. The FAA has also determined that a project solely to provide a restaurant, for example, in an existing terminal is not an eligible project.

605. AMERICANS WITH DISABILITIES ACT OF 1990 (ADA)

Section 47102(3)(F), makes projects to comply with the Americans with Disabilities Act of 1990 eligible under the AIP. See Advisory Circular 150/5360-14.

The provision applies for any construction, reconstruction, repair or improvement of an airport (or any purchase of capital equipment) which is necessary for compliance with the responsibilities of the owner or operator of the airport and does not primarily benefit a revenue producing area used by a nonaeronautical business, most often referred to as a concession.

It is important that projects of this nature be scrutinized to determine that they are in fact the responsibility of the airport owner or operator. Many access projects may be required for an airport tenant (air carrier or other aeronautical business) under Title I of the ADA for employment purposes or required under the Air Carrier Access Act. These projects are not the responsibility of the airport and would be ineligible. On the other hand, some projects that had not been considered eligible previously are now eligible under this section of the Act. (For example, an elevator to airport offices for public and internal meeting use had not been considered eligible as terminal development since the elevator was not “directly related to the movement of passengers and baggage in air commerce". Under this provision, the same elevator may now be eligible if it is determined to be necessary to comply with ADA.) Projects to comply with Title I for airport owners or operators would be eligible, even though Title I requirements for other than airport owners or operators are ineligible.

The Federal Share for these projects is the same as other airport development for the airport.

606. EXPANDED ELIGIBILITY UNDER THE MILITARY AIRPORT PROGRAM (MAP).

Some expanded eligibility at MAP locations will facilitate the transition of military facilities to civil airports. The greatest obstacle to growth at current or former military airports designated by the Secretary to receive funds under MAP may be inadequate facilities that are ordinarily ineligible. The expanded projects may be funded from MAP discretionary funds. Discretionary funding of expanded items may not exceed an aggregate amount of $10 million per airport per year in FY 2004-2005. Thereafter that amount will be $7 million.

a. Passenger Terminal Buildings. Section 47118(e) of the Act makes eligible the construction, improvement or repair of a terminal building facility, including terminal gates used for revenue passengers getting on or off aircraft. The gates must not be leased for more than 10 years. The gates must not be subject to majority in interest clauses.

b. Related Projects. Section 47118(f) of the Act makes eligible the construction, improvement, or repair of airport surface parking lots, fuel farms, utilities, hangars and air cargo terminal building facilities

of an area that is 50,000 square feet or less. MAP airports may be reimbursed using entitlements, discretionary funds, or the MAP discretionary funding for the cost of construction work for these items performed in FY 2003-2004 prior to a grant.

(1) Parking Lots. Parking lot eligibility is limited to parking facilities serving passenger terminal buildings. Allowable size is limited to that area needed to support the forecast parking needs of the air carrier passengers and other terminal users, as specified in the airport master plan. Reference FAA Advisory Circulars 150/5360-9, Planning and Design of Airport Terminal Facilities at Nonhub Locations, and 150/5360-13, Planning and Design Guidelines for Airport Terminal Facilities, to determine the scope of the parking development as based on forecasts. Provisions of Paragraph 526 are superseded by the MAP eligibility.

(2) Fuel Farms. Fuel farm eligibility includes new construction of fuel farms (based on forecasted needs) and rehabilitation of existing fuel farms to bring them up to operating standards established by the EPA or local permitting agencies. FAA participation is limited to those fuel farms, which will be operated by the sponsor or leased to or managed by a fixed base operator for non-exclusive use by the flying public. The branch of the military that operated or currently operates the military airport is responsible for cleanup of contamination. Cleanup that has occurred under civil ownership or operation is ineligible. See Paragraph 515.

(3) Utilities. Utility eligibility is generally allowable subject to proration in accordance with Paragraph 613. The eligibility of utilities at MAP locations is expanded to allow the rehabilitation of existing utility systems to support the aeronautical use portions of the designated airports. Projects on the non-aeronautical, revenue-producing portions of an airport are ineligible under this provision. See Paragraph 515.

607. ENERGY ASSESSMENT.

Energy assessments on new buildings or on the expansion of an existing building are eligible as incidental elements when part of the building design. They are not eligible items of work under a master plan.

608. VALUE ENGINEERING.

Value engineering is the systematic application of recognized techniques that identify the function of a project or service and provide the best function reliably at lowest overall cost. See Paragraph 1009.

609. UTILITIES.

The installation of water, gas, and electric utilities and wastewater treatment facilities will be eligible to the extent they are needed to serve eligible airport development projects. The allowable cost of any installation serving both eligible and ineligible areas or facilities will be a prorated share of the total cost, the method to be determined by the FAA Airports Office as in Paragraph 612a. (See Paragraph 612 and Appendix 12, Paragraph 1 for special conditions, and Paragraph 515 for airfield utilities. Also, see Paragraph 605 for utilities on former military airports.)

610. RELOCATION OF AIR TRAFFIC CONTROL TOWERS AND NAVIGATIONAL AIDS.

Section 47102(3)(E) of the Act makes eligible the relocation of an air traffic control tower (ATCT) and any air navigation facility aid (NAVAID) (including radar) if such relocation is necessary to carry out an AIP or PFC project. Such a project, therefore, is eligible airport development under the AIP. (See Paragraph 593(b).)

This provision applies in those circumstances where the facility physically impedes the construction or future use of an approved AIP project (i.e., shown on an approved airport layout plan and environmentally approvable as well). Relocation of ATCTs solely to correct existing line-of-site problems would not be eligible. Also, the Act is specific in using the term “air traffic control tower". Therefore,

terminal radar approach control (TRACON) facilities, air route traffic control centers (ARTCC'S), flight service stations (FSS) and automated flight service stations (AFSS) are not eligible for relocation; an ILS or TVOR is eligible.

Allowable costs under the AIP are limited to the costs incurred by an in-kind relocation; costs incurred for any upgrade in equipment or facility size are not eligible. In addition, AIP Funds will not be used to relocate an ATCT or navigational aid (including radar) that is presently included in the Facilities and Equipment (F&E) budget or CIP for the current and next 3 fiscal years.

The programming priority of facility relocation will be the same as the project for which it is required. The AIP participation rate for such relocation should be the same as for the development item with which it is associated; i.e., the rate would be 75 percent for relocation to accommodate terminal development at a large primary airport, and 90 percent if done in conjunction with construction of a runway at a reliever airport.

AIP funds may (as well as PFC revenues) be used for relocation of an ATCT or NAVAID only if the project, which necessitated this relocation, is funded under either AIP or PFC.

APP-520 must be consulted if an airport sponsor applies, or intends to apply, for a grant to relocate an ATCT or NAVAID. These proposed relocations will be reviewed on a case-by-case basis.

611. ELIGIBILITY LIMITATIONS.

Terminal development, as defined in Paragraph 601, is eligible. The Federal share of allowable project costs for large and medium hub primary airports shall not exceed 75 percent. At all other commercial service airports the Federal share is 95 currently percent.

a. Except as noted in Paragraphs 603-605 eligibility is limited to non-revenue producing public-use areas that are directly related to the movement of passengers and baggage in air carrier and commuter service terminal facilities within the boundaries of the airport. Typical eligible items include baggage claim delivery areas, automated baggage handling equipment, public-use corridors to boarding areas, central waiting rooms, restrooms, holding areas, and foyers and entryways, as well as loading bridges. Excluded would be those areas that are primarily revenue producing such as restaurants, concession stands, and airline ticketing areas. With regard to baggage areas and equipment serving those areas, only public-use areas associated with baggage claim delivery are eligible.

(1) The fact that public-use areas are subject to a lease where monies are recovered to defray amortization, depreciation, maintenance, or operation costs of the building will not make such areas nonpublic or revenue producing and thus ineligible. In addition, the fact that areas may be limited in use for reasons of security or processing international passengers shall not affect eligibility.

(2) Incidental use of public space for display or advertising, vending machines for public convenience, or coin-operated locks in restrooms will not render areas ineligible. However, costs associated with building adaptation for installation of these items are not eligible. In addition, areas

Table 13 Terminal Eligibility by Commercial Service Airport Type

COMMON AIRPORT NAME*	ELIGIBILITY	FEDERAL SHARE (%)**	DISCRETIONARY FUNDS RESTRICTION	ENTITLEMENT FUNDS (APPORTIONMENTS) ALLOWED
Large & Medium Hub	Limited to public use, non-revenue producing areas **§47110(d)(1)**	75	None, §47119 (b) does not allow the use of discretionary funds	Any amount of passenger entitlement funds for the specific airport **§47119(b)**
Small Hub	Limited to public use, non-revenue producing areas **§47110(d)(1)**	95	None, §47119 (b) does not allow the use of discretionary funds	Any amount of passenger entitlement funds for the specific airport **§47119(b)**
Nonhub Primary	May include revenue producing areas and non-revenue public parking lots. Does not include equipment and final finishes of restaurants and retail spaces **§47110(d)(2)**	95	Any amount of discretionary and small airport funds Secretary approves	Any amount of passenger entitlement funds for the specific airport **§47119(b)**
Nonprimary Commercial	May include revenue producing areas and non-revenue public parking lots. Does not include equipment and final finishes of restaurants and retail spaces **§47110(d)(2)**	95	$200,000 / FY **§47119(b)(2)(B)** and **§47119(b)(4)***	Nonprimary entitlements apportioned **§47114(d)(3)(A)**

Note: See Table 14 for terminal eligibility by general aviation and special airport categories.

*See Paragraph 23 for information on types of airports.

**See Paragraph 26 for variations in Federal share.

***This limits program costs to $25,000,000 per fiscal year per airport.

Table 14 Terminal Eligibility by General Aviation and Special Airport Categories

COMMON AIRPORT NAME*	ELIGIBILITY	FEDERAL SHARE (%)**	DISCRETIONARY FUNDS RESTRICTION	ENTITLEMENT FUNDS (APPORTIONMENTS) ALLOWED
Reliever §47102(18)	May include revenue producing areas and non-revenue public parking lots. Does not include equipment and final finishes of restaurants and retail spaces **§47110(d)(2)**	95	$200,000 / FY **§47119(b)(2)(B)**	Nonprimary entitlements apportioned **§47114(d)(3)(A)**
Military Airport Program §47118 (a)	Construct, improve, or repair a terminal facility, including gates for revenue passengers. Gates may not be leased for more than 10 years or subject to majority in interest clauses **§47118 (a)**	95	Not more than $10,000,000 / FY at each airport '04 and '05; $7,000,000 thereafter **§47118(e) and (f)**	Any amount of apportioned funds to the specific airport **§47119(b)**
Cargo Service §47114(c)(2)	None	95	Depends on requirements based on the airport's other airport types or categories	None
General Aviation	May include revenue producing areas and non-revenue public parking lots. Does not include equipment and final finishes of restaurants and retail spaces **§47110(d)(2)** and **§47119(b)(5)*****	95	None, limited to nonprimary entitlements **§47119(b)**	Nonprimary entitlements apportioned **§47114(d)(3)(A)**

Note: See Table 13 for terminal eligibility by commercial service airport type.

*See Paragraphs 23 and 40 for information on airport program categories.

**See Paragraph 26 on variations in Federal share.

***Contact APP-520 for revenue-producing support facility proposals other than hangars and fuel farms.

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designed to provide income by serving the public through coin machines and similar collection methods such as cleaning and laundry areas, game rooms, etc., are not eligible.

b. Terminal Passenger vehicles that are used exclusively within the boundaries of the airport primarily to move passengers between airline terminals or gates and devices used to board airline passengers with mobility impairments are eligible. Vehicles to transport passengers to and from aircraft are also eligible. The fact that monies are recovered to defray the costs of amortization, maintenance, and operations will not make such vehicles ineligible. Also, see AC 150/5220-21, Guide Specification for Devices used to Board Airline Passengers with Mobility Impairments.

c. The construction or improvement of public-use areas of Federal inspection facilities, including baggage-handling equipment is eligible, with the following exceptions:

(1) Administrative office space is not eligible, and

(2) Special purpose equipment such as, computers, radios, video monitors, telephones, and teletypewriters are not eligible. Also space, such as training rooms and employee break rooms, are not eligible.

d. Fixed terminal facilities and equipment including ramps, mechanical lifts, or other suitable boarding devices required by Title 49 CFR, Part 27 for access to aircraft by persons with disabilities to any aircraft with a minimum seating capacity of 19 passengers are eligible provided:

(1) They are an integral part of the design of new terminal construction or are incidental to a major terminal renovation;

(2) They are not minor items of personal property such as telephones, teletypewriters, etc. (Legal opinion, AGC-130, Aug.20, 1980);

(3) They do not serve an area exclusively leased to a single carrier and are not themselves exclusively leased; and

(4) Other terminal development eligibility criteria are met.

612. MULTIMODAL TERMINAL BUILDINGS.

Subject to the requirements in guidance above, AIP funds may be used to develop a multimodal terminal located within the boundaries of the airport.

a. Multimodal terminal buildings serve as an interchange for passengers and baggage between two or more modes of transportation that operate on a scheduled basis under a franchise or similar authority granted by a Federal, state, or local agency.

b. Only the portions of the building, which are directly related to air commerce, are eligible. APP-520 shall be consulted prior to the programming of any multimodal terminal project.

613. PRORATION OF TERMINAL BUILDING WORK.

Terminal building projects will usually involve work in both eligible and ineligible areas (See Paragraph 601 and Appendix 7, for special conditions). Federal participation may be determined by the following or other methods, as appropriate (and may be used for other eligible airport buildings):

a. Detailed Cost Analysis. A detailed analysis is undertaken by the sponsor's design consultant during the design stage and prepared on the basis of assigning costs to eligible areas under the guidelines in Paragraph 602. This analysis would also prorate costs for items such as site preparation,

foundations, and utilities that contribute to public-use areas. This method of proration is particularly applicable to new terminal construction.

b. Proration on a Square Footage Basis. Construction costs are prorated on the ratio of the square footage that the eligible area bears to the total usable square footage of the structure. The proration of costs for items that contribute to public-use areas such as site preparation, foundations, and utilities is based on this ratio. This method of proration is particularly applicable to determining retroactive financial assistance for existing terminal facilities.

614. TERMINAL DEVELOPMENT BOND RETIREMENT.

For most airports, see the information on the payment of interest in Paragraph 504b. Additional information within this paragraph applies to a limited number of airports subject to the normal limitations on terminal development funding categories and levels.

a. Repaying the principal of bonds for terminal development or other evidences of indebtedness is an allowable cost when carried out –

(1) On or after July 1, 1970, and before July 12, 1976, at commercial service airports;

(2) Between January 1, 1992, and October 31, 1992, at nonhub, commercial service airports; or

(3) Between January 2003 and August 2004 at nonhub primary airports in the Military Airport Program during FY 2003.

b. The reimbursement under this paragraph is eligible if:

(1) The sponsor submits the required terminal development grant certification in Paragraph 600;

(2) The Secretary of Transportation decides that using the amount to repay the borrowed money will not defer an airport development project outside the terminal area at that airport; and

(3) Amounts available for airport development under Section 47119 of the Act will not be used for additional terminal development projects at the airport for at least 3 years beginning on the date the grant is used to repay the borrowed money subject to funding limitations.

c. In addition to subparagraph b above at airports described in subparagraph a(2), eligible work is not subject to the requirements for Veteran's preference, Davis-Bacon, Disadvantaged Business Enterprise, and the Brooks Act (professional services).

615. - 619. RESERVED

Section 2. TERMINAL ACCESS

620. ACCESS ROAD ELIGIBILITY.

The construction, reconstruction, and alteration of airport roads and related facilities may be eligible.

a. Access Roads. Access roads and related facilities are eligible provided they meet the following conditions:

(1) The access road may only extend to the nearest public highway of sufficient capacity to accommodate airport traffic.

(2) The access road must be located on the airport or within a right-of-way acquired by the airport sponsor.

(3) The access road must serve exclusively airport traffic. Any section of the roadway, which does not serve airport traffic exclusively, is ineligible. (AGC opinions, 1949, and 1951.) As an example, an airport is fronted by a retail and hotel development. That portion of the road that goes through and also serves the commercial development would not be eligible; however, that portion of the road continuing into the airport to the terminal would be eligible. As another example, a road that serves an airport terminal complex, then goes on to provide access to other unrelated airport development would not be eligible. Also, the access road must serve airport traffic exclusively and the cost of that road cannot be prorated on the basis of airport traffic to nonairport traffic.

(4) More than one access road is eligible if the airport surface traffic is of sufficient volume to require more than one road. The justification for the additional access road(s) shall be supported by traffic counts and a recent traffic study. This study may be an element of a master plan study or an individual study specifically to support the proposed project.

(5) Related facilities such as acceleration and deceleration lanes, exit and entrance ramps, street lighting, and bus stops also are eligible when they are a necessary part of an eligible access road.

b. Public Circulation Roads. Roads constructed to provide for the circulation of passengers and freight on the airport are eligible except:

(1) Roads exclusively for the purpose of connecting parking facilities to an access or circulation road (for roads that directly connect terminal facilities to ineligible public facilities, see Paragraph c. below);

(2) Roads serving solely industrial or non-aviation related areas or facilities; and

(3) Roads necessary only to maintain FAA facilities installed under the F&E program.

c. Service Roads. Service roads located on the airfield side of the airport are eligible in accordance with Paragraph 527 if necessary for:

(1) ARFF access to the runway and runway safety areas; or

(2) Operation and maintenance of the airport.

(3) A service road that provides incidental access to FAA or other non-aviation related areas or facilities may be eligible.

(4) Roads constructed to provide separation of airport surface vehicles and aircraft may be justified on the basis of safety. This would depend on the amount of surface vehicle and aircraft traffic and the specific layout of the airport.

d. Special Circumstances. Roads directly from a terminal to an ineligible (revenue producing) parking lot are eligible as would be sidewalks or people movers between eligible terminal areas and the ineligible parking lot. The Act provides that access to and from a terminal is eligible if it is necessary for the movement of passengers and baggage. This also includes sidewalks and people movers. In addition, access between an eligible terminal and an eligible parking facility (nonrevenue parking lot on a nonhub primary or nonprimary commercial service airport) is eligible.

621. WALKWAYS.

At commercial service airports, walkway facilities including surface sidewalks, moving sidewalks, tunnel walkways, stairs, and overhead walkways are eligible. Covers or canopies over surface sidewalks may be eligible when necessary to protect concentrations of persons from the weather such as at passenger loading or unloading areas. If structurally part of the terminal facility, they will be

considered as part of terminal development. At airports other than commercial service airports, surface sidewalks and bike lanes will be eligible only as an incidental part of an eligible access roadway project.

622. ON AIRPORT RAPID TRANSIT SYSTEMS.

a. Light Rail, Monorail, and Automated People Mover Systems. Light rail, monorail, and automated people mover systems, including equipment needed to provide operational control of the system, used to transport passengers and baggage between eligible terminals and parking lots and other areas of an airport are eligible. Stations or stops for passenger access are only eligible to the extent that they only provide passenger access. Any commercial areas, maintenance areas, employee parking lots, ticketing, or fare collection areas are ineligible. If any ineligible areas are included in the station's design, the cost for the station must be prorated. Any operations, maintenance, storage facility, spare parts, spare equipment, any equipment required to perform any maintenance, whether that maintenance be on rail cars, structural elements, operations systems, or other components, administrative offices, and any track to a maintenance facility is ineligible. Also, extensive justification for an on airport passenger transportation system is required. This justification must include a discussion of other alternatives. Any such project should be coordinated with APP-520 before it is programmed.

b. Rail Service to Airports. Rail service to an airport must meet the same eligibility criteria as airport access roads as found in Paragraph 620. The rail line must be limited to only serve passengers and employees traveling to and from the airport. Stations or stops for passenger access are only eligible to the extent that they only provide passenger and employee access. Any commercial areas, maintenance areas, ticketing, or fare collection areas are ineligible. If any ineligible areas are included in the station's design, the cost of the station must be prorated. At a minimum, the eligibility/ineligibility in Paragraph a above would apply to rail service to airports. Also, any equipment needed for fare collections is not eligible.

623. - 629. RESERVED.

Section 3. OTHER TERMINAL LANDSIDE CONSTRUCTION.

630. GENERAL.

There are other terminal area projects that may be eligible. These projects may be required as a result of environmental findings, such as, water and air quality projects. (See Paragraphs 544, 547(d), 580,and 586).

631. ESTABLISHMENT OF STRUCTURES ON FEDERALLY OBLIGATED PAVED AREAS.

An airport sponsor may construct a locally funded structure for deicing or anti-icing purposes (only) on an AIP funded taxi lane or apron, even if that structure would be located on an existing Federally obligated pavement. (See Paragraph 526b.) A sponsor may build more than one shelter for additional capacity. Other types of structures are not permitted. The FAA will take appropriate action to ensure sponsor compliance with the following requirements when a deicing or anti-icing structure is constructed:

a. Any proposed anti-icing shelters; adjacent hangars or related facilities must be depicted on the FAA-approved ALP prior to initiating work. The size of the structures must accommodate an appropriate range of user aircraft if limited anti-icing facilities are available. In reviewing the ALP, FAA Airports offices should give special attention to any adverse impacts that such construction may have on taxi or run up operations at the airport.

b. The sponsor will establish a fee schedule for use of the structures consistent with the assurance that requires that the airport be as self-sustaining as possible. Use of the structures during fair weather and for other than deicing/anti-icing purposes will be considered in establishing the fees.

c. The sponsor may not operate the structures on an exclusive or near exclusive basis, and the sponsor must establish procedures for management and operation of the structure to ensure prompt access to the facility for each potential user. This may include movement of aircraft parked within the shelters to accommodate other airport users.

632. - 639. RESERVED.

Section 4. AIP/PFC PROGRAM DISPARITIES

640. GENERAL.

There are few disparities between the AIP and PFC programs and they are as follows: At large, medium, and small hub airports the terminal baggage makeup area is not eligible under the AIP program except as described in Paragraph 602(c). Under the PFC program, this area would be eligible. Also, non-exclusive use baggage makeup equipment (conveyors) owned by the sponsor would be eligible under the PFC program. This equipment would not be eligible under the AIP. These areas are considered “gates and related areas", which is an area of additional eligibility for the PFC program. The ineligible areas must be prorated for an AIP grant; however, the PFC program would not require a proration. In addition, the PFC program is not subject to the source of funding limitations to which the AIP is subject. At nonhub primary airports and nonprimary commercial service airports, revenue-producing areas are eligible under both programs. See Paragraph 600(g) and Table 11. Also, for a more detailed discussion on the PFC program, and more specifically gates and related areas eligibility, please refer to FAA Order 5500.1.

641. - 699. RESERVED.

Chapter 7. LAND ACQUISITION PROJECTS

Section 1. LAND ACQUISITION

700. GENERAL.

a. The acquisition of any interest in land is eligible when it is necessary for airport purposes, provided the land was acquired after the date of enactment of the Federal Airport Act, May 13, 1946. For reimbursement of land costs, see paragraph 310a(4).

(1) The cost of all real property acquired for AIP purposes shall be supported by a real estate appraisal and accepted settlement justification in accordance with Order 5100.37A, Land Acquisition and Relocation Assistance for Airport Projects, and in Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects. These documents contain detailed coverage of the appraisal and acquisition of real property, and are expected to be used as complimentary guidance to Order 5100-38, Airport Improvement Program Handbook.

(1) The term “airport purposes", as used herein, refers to all aviation activities normally found on an airport. Although many infrastructure and construction elements are not eligible for AIP, the land they occupy would be eligible for acquisition.

(2) The term “necessary", as used above, is relative and need not be so narrowly applied as to limit land acquisition to the minimum presently required for the airport. The acquisition of any interest in land if it is necessary for future as well as current airport development purposes shall be encouraged based on reasonable projections contained in the latest airport master plan but, not to exceed 20 years of aeronautical need as determined by the FAA Airports Office.

b. The approved ALP serves as a primary basis for determining the areas of land necessary for the airport. Generally, land necessary for airport purposes includes the building areas, landing area, runway protection zones, approach areas, areas for noise compatibility, and offsite areas required for airport utilities, such as sanitary sewers, storm drainage, electrical power, and obstruction lighting facilities.

c. Eligible land acquisition will normally be fee simple; however, some lesser interest may be acquired if that interest is legally sufficient for the purpose of the grant. However, when the cost of a lesser interest approaches the cost of a fee simple interest, the acquisition in fee simple is encouraged. It may also include extinguishment of easements or other interests in land held by others, such as mineral rights, which interfere with or might adversely affect the development or operation of the airport.

d. Existing property lines and boundaries created by nature such as rivers and manmade development (highways, railroads, etc.) should be recognized in delineating areas of land to be acquired. There will be instances where it is prudent for a sponsor to acquire an entire parcel of land rather than a specific portion that is the minimum needed for airport projects, (such as where the entire parcel can be purchased for approximately the same price as the portion required for airport purposes). This excess land should be treated in accordance with Paragraph 702 of this Order.

e. Where a partial acquisition would leave the owner with an uneconomic remnant (defined at Title 49 CFR, Part 24.2 [1]), as required under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) the airport owner shall offer to purchase the remnant

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1 uneconomic remnant. The term "uneconomic remnant" means a parcel of real property in which the owner is left with an interest after the partial acquisition of the owner's property, and which the airport sponsor has determined has little or no value or utility to the owner.

parcel in addition to the property needed. Uneconomic remnants may be incorporated into airport property as feasible, or disposed of in accordance with Paragraph 702 of this Order.

701. LAND ACQUISITION FOR CURRENT AIRPORT DEVELOPMENT.

The acquisition of land or any interest in land for current airport development is eligible when necessary for:

a. Airside Development. Runways, taxiways, associated safety areas, ramps, aprons, and the land adjacent to these facilities required by current standards for separation and clearance. In addition, land for ultra light operations at an existing airport is eligible when necessary for safety or capacity purposes and if the airport itself is eligible to receive grant funding.

b. Protection of The Airport Approach Area. The approach zones (including runway protection zone), horizontal, conical, and transitional zones at airports required to convey a right of flight. This also includes the right to remove existing obstructions and to restrict the establishment of future obstructions (See Chapter 5, Section 9). As used in this paragraph, zone means land lying under the appropriate Part 77 surface.

(1) Runway Protection Zone (RPZ). The sponsor should be strongly encouraged to acquire fee title to all land within the RPZ, with first priority given to land within the Object Free Area. See Paragraph 581. If the fee title acquisition is impracticable, an avigation easement is required. This easement must convey the right of flight with inherent noise and vibration below the approach surface, the right to remove existing obstructions, and a restriction against the establishment of future obstructions. Alternatively, for existing runways the RPZ may be subject to written agreements (rather than an easement) with a public agency, e.g. a State highway division, to control the use of land. The grant agreement must contain the special condition in Appendix 7, Paragraph J which obligates the sponsor to protect the runway protection zone.

(2) Approach and Transitional Zones. Land interest is eligible when acquisition is necessary to restrict the use of land in the approach and the transitional zones (the dimensions as cited in the applicable AC's) to activities and purposes compatible with normal airport operations as well as to meet current and anticipated development at the airport. Unless there is a need for the land for future development or noise compatibility purposes, sponsors should be encouraged to acquire the minimum property interest necessary to ensure safe aeronautical use. For approach zones, except for noise compatibility, fee simple acquisition beyond 5000 feet from the end of the existing or proposed primary surface will not normally be eligible.

(3) Protection of Horizontal and Conical Surfaces. Normally zoning will be adequate to provide the necessary rights and protection above the entire horizontal and conical surface. In any case, where an easement or fee title acquisition is needed to provide such rights, special justification should be included in the project file to document such need.

c. Landside Development. Items include airport terminal and administrative buildings; hangars; equipment buildings; fixed base operator buildings; and other airport buildings needed in connection with the operation and maintenance of the airport. The building area also includes the tie-down area, transient parking apron, automobile parking, access roads, and walks. Land acquisition specifically for development of industrial or nonaeronautical commercial building areas is ineligible.

d. Navigational Aid Facilities. Land may be acquired for the installation, operation, and maintenance of a Sponsor owned navigational aid or another aid (including a precision approach system) used by aircraft for landing at or taking off from the airport, whether located within or outside of the airport boundary. Also, a relocation site may be acquired for an air traffic control tower and any NAVAIDs (including radar) if the relocation is required by eligible airport development and if the sponsor is responsible for such relocation. (See Paragraph 305.)

e. Installation of Airport Utilities. Right-of-way for drainage, sanitary sewers, storm water runoff, utility lines, etc., that are located outside the airport boundary.

f. Mitigation of Airspace Conflicts. The resolution of a conflict caused by the proximity of two or more airports, which cannot be resolved by an acceptable operational or design alternative. Allowable costs for resolving such conflicts are limited to the lesser of the following:

(1) The appraised value of acquisition of any easement or of placing a restrictive covenant on the property necessary to permit full development and use of facilities eligible for AIP grants-in-aid. The value of the easement or restriction must be based on appraisals using the Before-and-After Method as described in Paragraph 2-21, Order 5100.37A.

(2) An amount equal to the difference in cost between fee simple acquisition of the property and the resale of the property at full market value after imposition of appropriate restrictions to allow airport development. If this method is used, the sponsor should be cautioned that the Uniform Act may apply, depending upon the sponsor's acquisition techniques. Also, the grant may not include any provision for directly paying sponsor costs of fee simple acquisition.

702. TREATMENT OF UNNEEDED REAL PROPERTY.

Normally, AIP funds may be used to pay the Federal share of the cost of acquiring only such land as is needed for airport or noise compatibility purposes. However, where the sponsor must acquire a tract of land in excess of airport needs and where the land or improvements will be immediately disposed of, the grant may be based on the full value of the parcel, including that part which is excess. The net proceeds from the sale shall be deducted from the grant amount before project closeout. In those cases in which the sponsor does not intend to sell the excess property immediately after acquisition, the amount of the purchase price attributable to such property shall not be included in the grant. If, after having originally selected the option of immediate disposal, the sponsor elects after grant award to retain any property for nonaeronautical purposes, the amount attributable to that property retained shall be deducted from the grant.

703. RETENTION OF EXCESS LAND FOR NOISE PURPOSES.

Where the sponsor must acquire a tract of land for airport development and a portion of the tract is in excess of airport development needs and that portion is to be retained for noise purposes, the excess land must meet the requirements contained in Chapter 8, Section 2.

704. RELOCATION AND REAL PROPERTY ACQUISITION ASSURANCES.

For projects that involve the acquisition of real property or which result in the relocation of any person or business, the sponsor must satisfy certain requirements of the Uniform Act and the implementing DOT regulations contained in Title 49 CFR, Part 24. Information on these requirements is contained in Order 5100.37A, Land Acquisition and Relocation Assistance for Airport Projects, and in Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects. These assurances are required both for all FAA assisted projects and programs where acquisition or relocation is required or contemplated, and for projects to reimburse the sponsor for prior acquisition or relocation.

705. LAND ACQUISITION FOR FUTURE AIRPORT DEVELOPMENT.

a. General. Acquisition of land for future airport development is eligible if it is based on reasonable projections of aeronautical need as determined by the FAA Airports Office. "Future development" is considered to be the development of a facility more than 5 years after acquisition. A sponsor may consider such land acquisition in planning a new airport or in the orderly development of an existing airport. Justification for use of current AIP funding for long term land needs must be documented, taking into consideration such factors as rising land costs, encroachment on available land by incompatible uses and development, and the probable unavailability of land for airport use in the future. The property

acquisition must conform to Uniform Act requirements and persons displaced shall be provided relocation assistance and payments as prescribed. The acquisition of land for future airport development must meet the requirements of the National Environmental Policy Act (NEPA) of 1969, as implemented by the current versions of FAA Orders 1050.1 and 5050.4.

b. Requirements. No project to acquire land for future development of a proposed airport shall be approved unless the following requirements have been satisfied:

(1) There is a valid aeronautical need for the land;

(2) The site selected has been approved by the FAA;

(3) Airspace clearance for the site has been granted;

(4) There is an approved airport layout plan; and

(5) Environmental concerns have been identified and addressed in accordance with NEPA.

c. Special Conditions. The grant document shall include the special conditions specifically drafted for projects that include land as contained in Appendix 7, Paragraph K.

d. Land Banking and Purchase of Land Options. Studies of the concepts of "Land Banking" and "Purchase of Land Options" were conducted to determine if there were conditions and procedures that enabled acquisition of land needed for future airport development in the current time frame. The 1977 study of land banking assesses the potential to ensure the future availability of land for airport development. A study of the purchase of land options was completed in 1997. That study summarized some of the findings and conclusions of the land banking study. It then evaluated the concept of purchase of land options as used in the private sector with a view toward adapting the concept to Federal projects. It provides a comprehensive overview of the use of land options, with an emphasis on terminology used in the commercial real estate arena. The study also summarizes Federal experience with advance purchase of land for future development. The study concludes that the concept of purchase of land options may have limited usefulness in the Federal sector. The study is available on the APP-500 web site at the following address: http://www.faa.gov/arp/500home.htm. The report, Land Options Used in Federally Funded Airport Projects, is listed near the bottom of the page and is available for viewing and downloading in both HTML and PDF.

706. LAND ACQUISITION FOR NOISE COMPATIBILITY.

a. General. The acquisition of, or interest in, land to ensure that such land is used only for purposes compatible with the noise level of the airport is eligible provided:

(1) It is a noise compatibility program measure approved by the FAA pursuant to FAR Part 150;

(2) It is reimbursement for noise land acquired through FY 1986 or it was a noise compatibility project included in a multi-year grant that was entered into prior to FY 1987. In either of these cases, the project must have been an element of a noise compatibility program determined by the FAA to be substantially consistent with the purposes of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses under Title 49 U.S.C., Section 47504(c)(2)(c).

(3) It is required as a mitigation measure in an environmental document for airport development upon which approval of the project is conditioned.

b. Areas below DNL 65 dB. Airport sponsors may determine that local circumstances warrant land acquisition for noise compatibility, including noise buffers, in areas of moderate noise exposure (i.e., either between DNL 65-60 dB or between DNL 65-55 dB). Such acquisition is eligible when supported by appropriate documentation from the sponsor and approved in a Part 150 program or FAA

environmental document. Contact APP-600 for assistance in advising sponsors on documentation. The funding priority for land outside DNL 65 dB is lower than for land subject to significant levels of noise exposure.

c. AIP/PFC Program Disparity. PFC eligibility differs from AIP eligibility. To be eligible for PFC, a noise mitigation project must be located in an area adversely impacted by noise and the proposed mitigation must be eligible for approval as a noise compatibility measure under Part 150 if it were so submitted. However, PFC funded projects do not have to be submitted to FAA in a Part 150 program and do not have to receive Part 150 approval. Where a project is not in an approved Part 150 program, FAA requires a sponsor to provide documentation demonstrating that the project will accomplish a noise mitigation purpose that would be eligible for approval under Part 150. The eligibility of the proposed noise project must be supported by noise contours that could be prepared in conjunction with a Part 150 study, environmental document, or other suitable planning analysis. Noise mitigation in areas of moderate noise exposure below DNL 65 dB is also eligible, as with AIP.

707. ACQUISITION OF A PRIVATE AIRPORT BY A PUBLIC SPONSOR.

a. General. The acquisition of a private airport by a public sponsor will normally include acquisition of lands already developed as a privately owned airport and of all structures, fixtures, and improvements constituting a part of the realty. A public sponsor, when purchasing an existing privately owned airport, normally acquires all land owned and used for the airport. To do otherwise would encourage "through the fence operations."

b. Highest and Best Use - As an Airport. The value of structures, lands, or other development, which would be ineligible for inclusion in a construction or land acquisition project under the AIP, may not be included in the grant amount when the appraisal is based on the highest and best use as an airport.

c. Highest and Best Use - Other than an Airport. If the basis of an appraisal is the highest and best use other than as an airport, the grant may be based on the entire appraised estimate of value.

d. Legal Review. A legal review shall be made of the agreement of sale to ensure that the sponsor can carry out all of the grant obligations. Particular attention should be paid to any on-going agreements with former owners.

708. LAND ACQUISITION AT A PRIVATELY-OWNED PUBLIC USE AIRPORT [2].

a. Eligibility of Land. The eligibility of land acquisition at privately owned public use airports is limited to that land necessary for landing areas (including helipads), taxiways, aprons, associated safety areas, and runway protection zones or land necessary to improve safety. A private sponsor can only acquire land needed for AIP eligible development.

b. Ineligibility of Land. The acquisition of land for an entire airport for a private sponsor is ineligible.

c. Full Disclosure. The sponsor must provide full disclosure of any prior interest it may have had in any land proposed for acquisition. Where such interest exists or existed, the FAA Airports Office should contact APP-520 for guidance.

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2 As defined in Paragraph 208. Private Airport Owners. This may be an individual, a partnership, corporation, etc., that owns or operates a reliever airport or a public use airport that receives scheduled passenger service of aircraft which enplane annually 2,500 or more passengers.

709. LAND ACQUISITION FROM A STATE/LOCAL PUBLIC AGENCY.

The FAA Airports Office shall determine that land acquired from another public agency is, in fact, a bona fide sale to the sponsor, and that such land was not transferred merely for the purpose of making the land eligible for Federal Funding. This pertains to purchase from another public agency and not donation. Donated land valuation is covered in Chapter 3.

Section 2. TITLE AND PROPERTY INTEREST

710. TITLE REQUIREMENT.

Title 49 U.S.C., Section 47106(b)(1) states that no project grant application for airport development may be approved by the Secretary until the Secretary is satisfied that the sponsor, a public agency, or the United States Government holds good title to the areas of the airport used or intended to be used for the landing, taking off, or surface maneuvering of aircraft, or gives assurance to the Secretary that good title will be acquired.

711. TITLE FOR LANDING AND BUILDING AREAS.

a. General. Title with respect to lands to be used for landing area or building area purposes can be either fee simple title (free and clear of any and all encumbrances), or title with certain rights excepted or reserved. Any encumbered title must not deprive the sponsor of possession or control necessary to carry out all obligations under the grant. A deed containing a reversionary clause, for “so long as the property is being used for airport purposes", does not negate good title provided the other conditions are satisfied. Where rights excepted or reserved would prevent the sponsor from carrying out its obligations under the grant, such rights must be extinguished or subordinated prior to approval of the project.

b. Airport Property Subject to a Mortgage. The existence of a mortgage on the airport property, in and of itself, is not a sufficient reason to render such project ineligible. However, the sponsor’s ability to meet the principle and interest payments on the mortgage must be determined prior to the approval of the project.

c. Lease of Aeronautical Land. Privately owned public use airport sponsors that qualify for Federal funding under AIP must own the landing and building areas and may not be a lessee of land for aeronautical purposes. In those instances where the public sponsor’s title consists of a long-term lease, such title is satisfactory provided the following conditions are met:

(1) If the landing area is leased, the lessor must be a public agency;

(2) The sponsor has a long-term lease (minimum of 20 years from the date of the grant) to all landing areas and building areas;

(3) The lease contains no provision which prevents the sponsor from assuming any of the obligations of the grant agreement; and

(4) That consideration for the entire lease is paid in advance. However, this condition may be waived if the sponsor has adequate financial resources to assure future lease payments.

712. TITLE FOR OFF-AIRPORT AREAS.

Property interests required in off-airport areas (See Paragraph 303) must be sufficient to assure that the sponsor will not be deprived of its right to occupy and use such lands for the purposes intended.

713. DETERMINATION OF ADEQUATE TITLE.

A certification by a sponsor that it has acquired property interests required for a project may be accepted in lieu of any detailed title evidence (See FAA Order 5100.37A Paragraph 3-13) and need not be submitted to the Regional Counsel unless the regional Airports Division Manager considers legal review necessary. Without such certification, the sponsor's submission of title evidence must be reviewed to determine adequacy of title. The adequacy of such title is an administrative determination made by FAA Airports Office personnel and need not be submitted to Regional Counsel for review unless there is reason to suspect title is not adequate.

714. TITLE REQUIREMENT PRIOR TO NOTICE TO PROCEED.

Authorization for the sponsor to issue a notice to proceed with construction work should not be given until it has been determined that all required property interests on which construction is to be performed have been or will be acquired in conformance to the Uniform Act and that comparable replacement dwellings have been made available to persons displaced from their homes. The Sponsor Uniform Act Certification and Certification of Title may be accepted in making these determinations and should be provided to the FAA prior to notice to proceed being issued (See Chapter 9 of AC 150/5100-17). See Paragraph 1203 for more information.

715. - 719. RESERVED.

Section 3. LAND COSTS

720. GENERAL.

The purchase price or cost of land, including justified administrative settlement amounts (See FAA Order 5100.37 for acceptable criteria) and costs incidental to the acquisition of any property interest necessary for airport purposes including appraisal costs, is allowable provided such costs are necessary and reasonable in amount. Sponsor costs for obtaining title insurance for lands it purchased are not allowable. The sponsor shall maintain adequate documentation to support costs as eligible for Federal reimbursement. A documentation checklist and quality control guidelines are provided in AC 150/5100-17.

721. RELOCATION COST.

a. General. The cost incurred by the sponsor to meet the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 is eligible for Federal assistance as project costs except that the Federal share of the cost incurred by the sponsor of providing payments and assistance under the Act from January 2, 1971 through June 30, 1972, is 100 percent of the first $25,000. (See Order 5100.37A.) Also, see Appendix 7 for special conditions for land in projects.

b. Examples of Relocation Costs:

(1) Moving expenses;

(2) Reestablishment expenses;

(3) Replacement housing payments;

(4) Rent supplements;

(5) Down payments;

(6) Mortgage interest differentials or mortgage buy downs;

(7) Incidental expenses in connection with the acquisition of replacement housing;

(8) Advisory services; and

(9) Preparation of feasibility studies and relocation plans.

722. REIMBURSEMENT FOR LAND PREVIOUSLY ACQUIRED.

b. For public sponsors the grant shall be based on the value of the land at the time it was acquired by the sponsor. Where it is necessary to substantiate the reasonableness of cost of land previously acquired, an examination of the facts surrounding the transaction should be made. If the sponsor, at the time of acquisition, did not obtain and use appraisal reports, a historical appraisal shall be prepared. For private reliever sponsors AIP funds may be used to reimburse at the current fair market value for land acquired prior to receipt of a preapplication.

c. Title 49 U.S.C. provides a special rule regarding the valuation of land contributed by the sponsor of a privately owned reliever airport. Unlike public sponsors, owners of eligible privately owned reliever airports receive current fair market value for land contributed (not donated) to a project as the sponsor's share. Title 49 U.S.C., Section 47109(c) provides that a privately owned reliever airport that contributes any lands, easements, or rights-of-way to carry out a project under AIP is permitted to credit the current fair market value of these property interests toward the non-Federal share of allowable project costs. Public sponsors, however, continue to receive credit based on the cost or value at the time of acquisition. The methodology for applying this provision is unchanged from that set forth in Paragraph 353, except that, for a project at a private reliever airport in which land is contributed in lieu of cash for the local share, the basis for the value of the land must be based on the current fair market value. Such claims of valuation should be supported by recent credible appraisals. Land contributed to a project, whether by a public or private sponsor, is subject to Assurance 31 should the sponsor propose to dispose of the land.

(1) The background on the evolution of the current policy for valuation of previously acquired land is provided below.

(a) A letter was written to Congress on behalf of a privately owned reliever airport owner's concern for the way the Federal Aviation Administration was handling land reimbursement policy at private reliever airports, and in particular, his. His contention was that he was donating land for the airport development project and therefore should be able to claim current fair market value. He also contended that we were treating private and public relievers differently.

(b) An evaluation of his assertion resulted in the conclusion that he was confusing two distinct and separate matters related to land. He consistently referred to donated land in his letters to his Congressman. In his case, he was not dealing with donated land, which would entail a gift from another party. Instead, he was dealing with the issue of using previously acquired land as the sponsor's matching share for a new Federal grant.

(c) The policy, in effect at the time, on the use of previously acquired land was based on legislation contained in Title 49 U.S.C.. Specific language in Title 49 U.S.C., Section 47110(c) outlines eligibility of certain prior costs as allowable costs in a new grant. The costs of formulating a project, including costs incurred after May 13, 1946, to acquire interests in land, may be included in a grant associated with the project. It should be noted that this section provides no authority to base the grant amount on other than the actual costs incurred by the sponsor, or to reimburse any land acquisition costs incurred on or before May 13, 1946.

(d) This provision, as it applies to public airports, has been in effect since 1946, the first year of Federal grant programs for airports. Under this provision, a sponsor may include the cost of all or a portion of previously acquired land in a project grant application. The grant is then issued, in effect, for a project in which land acquisition and construction costs are combined, and the grant amount is based on the Federal share of the combined allowable costs. When the cost basis of such land equals the sponsor's share of total project costs, the sponsor need contribute no cash toward the construction

costs of the project. For example, in a project with construction costs of $90,000, the inclusion of $10,000 in previous land acquisition costs would result in combined project costs of $100,000. With the Federal share set at 90 percent of allowable project costs, the AIP grant would be $90,000 and the sponsor would not need to make any additional cash contribution.

(e) When legislation was enacted establishing the eligibility for AIP grants at private reliever airports, FAA did not apply the provision for reimbursement of prior land acquisition costs to privately owned airports. This, however, did not preclude the use of AIP grant funds to acquire additional development land where needed at a private reliever airport.

(f) A 1994 conference report directed the FAA to determine if private relievers should be treated differently in regard to the valuation of land they used in a project. The inference was that the land had been relatively worthless before being developed as an airport, and to use that value would not provide the sponsor the ability to maximize his return on the increased value of the land as an airport. It was found that the improvements to the land and the valuable contribution of the airport to the Nation's aviation system were not being recognized. However, there was no authority under Title 49 U.S.C., Section 47110 to revise the policy of land valuation for private relievers.

(g) The FAA's response to Congress identified rationale for interpretation of legislative intent being applied to valuation of previously acquired land.

3. Most of the 3,400 airports in the FAA's National Plan of Integrated Airport Systems are small publicly owned facilities, and, as at private airports, funds for the matching share on Federally assisted projects are extremely limited. Using the cost of previously acquired land allows a sponsor, public or private, to obtain a grant for an important project without a cash outlay for the sponsor's share. Public owners have always been reimbursed for previously acquired land based on their actual acquisition costs. The same provision, at that time, was being applied to private owners.

4. The authority provided in Title 49 U.S.C., Section 47110(c) to reimburse an airport sponsor for project formulation costs incurred after May 13, 1946, including costs to acquire land or interests in land for airport development, refers to costs incurred. This section sets forth an exception to the more general provision in Section 47110(b) that likewise defines allowable costs in terms of costs incurred. The FAA found no statutory basis for reimbursing a sponsor for an amount other than its actual costs incurred. Thus, in the example noted above, no basis in law could be found for valuing the land at any amount other than $10,000 for determining total project costs or actual local share.

(h) Based on the findings by FAA, Congress acted to clarify their intent in relation to private reliever airports. Section 1211 of the Federal Aviation Reauthorization Act of 1996 amends Section 47109 to change the way land reimbursement is treated when a privately owned reliever airport uses a portion of existing airport land for use in a project to cover the non-Federal share. The current fair market value, instead of the fair market value at time of acquisition, is now to be used to determine the value of the land included in the project.

(i) This change results from our findings during the past several years that the private relievers should be treated no differently than public relievers and legislation would not permit any other method. Although this change validates our previous eligibility determination for valuing land included in an airport project, we must now treat public and private reliever airports differently.

d. There have been suggestions that in the past we may have allowed some private reliever sponsors to obtain current fair market value for land they included in projects. We believe this may have resulted from a misinterpretation of the terms "donation" and "reimbursement". If it is found that an error was made through confusion of terms, the fact should be documented in the project folder. It is not likely that recovery of excess funds would be feasible or possible. That fact should also be noted in the folder.

723. LAND ACQUIRED THROUGH CONDEMNATION.

The cost of land or property interest established by the courts in a condemnation proceeding may be accepted as a reasonable cost, even though above current appraised value. However, if the FAA has reason to believe that the court award is excessive, the sponsor should be requested to appeal the award. While infrequent, there have been cases where the amount of the original award has been reduced on appeal because it was found to be excessive and unreasonable. There have been other cases where the condemner, after withdrawing from the proceeding because of excessive amount of the award, obtained the land involved by negotiation or subsequent condemnation at a lower price. Attorney fees, interest, and other incidental expenditures included in a court award to land owners in a condemnation action may be included as project costs.

724. LAND EXCHANGE.

The acquisition of land required for the airport, through the exchange of other land owned by the sponsor, constitutes an eligible project cost. In such cases, the value of the sponsor-owned land will be determined in the same manner in which the value of donated land is established. In the case of a donation (See Paragraph 351), the maximum value eligible for Federal participation is the fair market value at the time the property was conveyed to the sponsor, as determined by an independent historical appraisal in accordance with Paragraph 722. Therefore, if the sponsor acquires property from some third party through the exchange of other property it owns, it may seek reimbursement from the FAA for the appraised fair market value of its property with a date of value as of the time that property was originally conveyed to it.

725. LAND LEASES.

Lease payments in the form of periodic rental payments for use of land owned by another public agency are considered to be operating costs and are not eligible. However, prepaid rent, which is payment in full in advance for the full term of the lease, is eligible. The pre-paid rent should reflect the present value of the rent payments not to exceed the current fair market value of the real property leased.

726. NONALLOWABLE LAND COSTS.

See Paragraph 311.g. for limitation on interest charges related to land acquisition. Land costs should exclude payments that exceed entitlements prescribed in Title 49 CFR, Part 24 and for items generally held to be non-compensable in eminent domain (e.g. compensation for loss of business, goodwill, frustration of development plans, and applicable limitations as described in the Uniform Appraisal Standards for Federal Land Acquisitions available on the Department of Justice web site at the following address: http://www.usdoj.gov/enrd/land-ack). DOJ appraisal standards are used to describe the compensable limits. Some of the provisions of the DOJ appraisal standards do not apply where the state or local government is taking title, and only apply when taking title in the name of the USA and having condemnations in US Courts. The FAA appraisal standards conform to Title 49 CFR, Part 24.103 and are described in FAA Order 5100.37A, Land Acquisition and Relocation Assistance for Airport Projects, and in Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects. Consult APP-600 for other suspected nonallowable land costs.

727. - 729. RESERVED.

Section 4. DISPOSAL OF UNNEEDED LAND

730. DISPOSAL OF LAND.

Land that initially had an aeronautical purpose, but is no longer needed for such purpose, shall be disposed of in accordance with Order 5190.6A and such proceeds shall be handled in accordance with Assurance 31, Disposal of Land. That portion of the proceeds retained by the airport is considered airport revenue, subject to the requirements of Title 49 U.S.C., Sections 47107(b) and 47133.

731. USES OF AIRPORT REVENUE.

a. Title 49 U.S.C., Section 47133 Requirement. Under Title 49 U.S.C., Section 47133 sponsors must provide assurance that all revenue generated by their airport, if it is a public-owned airport, will be expended for the capital or operating costs of the airport, the local airport system or other local facilities which are owned or operated by the sponsor and directly and substantially related to the actual air transportation of passengers or property. This requirement appears as Assurance 25 in the Assurances for Airport and Planning Agency Sponsors though it does not apply to planning projects.

b. Exceptions to Title 49 U.S.C., Section 47133 Requirement. Title 49 U.S.C., Section 47133 does not apply to planning agency, private, or nonairport sponsors. Additionally, the section itself contains language exempting certain sponsors from this limitation and "shall not apply if a provision enacted not later than September 2, 1982, in a law controlling financing by the airport owner or operator, or a covenant or assurance in a debt obligation issued not later than September 2, 1982, by the owner or operator, provides that the revenues, including local taxes on aviation fuel at public airports, from any of the facilities of the owner or operator, including the airport, be used to support not only the airport but also the general debt obligations or other facilities of the owner or operator." AAS-400 should be consulted for assistance in making determinations on the applicability of the exemption in particular cases.

c. Guidance on Airport Revenue. Additional guidance on acceptable uses of airport revenue can be found in Federal Register Notice, Policy and Procedures Concerning the Use of Airport Revenues, Volume 64, Number 30, Tuesday, February 16, 1999.

732. - 799. RESERVED

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Chapter 8. NOISE COMPATIBILITY PROJECTS

Section 1. GENERAL

800. GENERAL.

The Aviation Safety and Noise Abatement (ASNA) Act of 1979, as amended, and recodified without substantive change at Title 49, U.S.C., Sections 47501 – 47510, permits the FAA to provide funds for projects at both commercial service and general aviation airports to carry out an FAA approved noise compatibility program (NCP). In addition, the FAA may provide AIP funds for noise insulation projects in buildings used primarily for educational or medical purposes that are not included in an FAA approved NCP. Grants for such projects may be made to airport sponsors as well as to eligible public agencies not owning airports (nonairport sponsors). However, noise mitigation associated with airport development projects will continue to be funded as airport development (See Paragraph 580 of this Order).

801. PROJECT ELIGIBILITY.

Prior to programming noise compatibility projects, airport sponsors and FAA Airports Offices should review the Noise Exposure Maps upon which noise compatibility projects are based to ensure they are a reasonable representation of current and/or forecast conditions at the airport. (This review may be accomplished using the Noise Exposure Map Checklist, Part II, Section III.B. The checklist is available at http://www.faa.gov/arp/environmental/14cfr150/index14.htm.) A proposed noise compatibility project is eligible for Federal participation if it meets one of the following four criteria (Note: Projects are *eligible* if they are approved under Part 150. However, projects must also be *justified* using the criteria specified for the project type as further described in Section 2 of this chapter):

a. It is a measure in an NCP, as described under Section 47504(a) of Title 49 U.S.C., prepared by the airport sponsor, and the measure is approved by the FAA in accordance with FAR Part 150; or

b. It is a project to provide noise insulation for a building that is:

(1) Used primarily for educational or medical purposes in the noise impact area surrounding a public airport(s), and

(2) Determined to be adversely affected by airport noise; or

c. It is reimbursement for costs that were incurred:

(1) After February 1, 1980 (date of enactment of the ASNA Act), by the airport operator,

(2) Before, on, or after the execution of the grant agreement,

(3) To implement a part of the airport sponsor's approved NCP (including project formulation costs), subject to the following criteria:

(a) The NCP must show evidence that the project was specifically approved in the NCP, or

(b) If the project involved acquisition, the acquisition must have been accomplished in accordance with provisions of the Uniform Relocation Assistance and Real Properties Acquisition Polices Act in effect at the time the land was acquired, and

d. It is in accordance with other exceptions as listed in Section 47504(c)(2) of Title 49 U.S.C.

802. SPONSOR ELIGIBILITY.

a. Airport Sponsors. Noise compatibility projects may be carried out by eligible airport sponsors as described in Chapter 2 of this Order.

b. Nonairport Sponsors (Unit of Local Government or Public Agencies not Owning Airports). Noise compatibility projects may also be carried out by a unit of local government or public agencies that are not airport sponsors. Section 47504(c)(1)(B) of Title 49 U.S.C. requires a unit of local government to have the capability to carry out the projects for which applications are made. Though any unit of local government meeting this criterion is eligible, the FAA should encourage sponsorship by those units of local government with the widest or most direct authority for land use control so as to obtain more effective compliance with the compatible land use assurance.

803. COSPONSOR.

Any two or more units of local government may cosponsor a noise compatibility project, provided that such units of local government jointly or severally are eligible sponsors. An airport sponsor may be a cosponsor on such a project. Cosponsorship should be encouraged, particularly where it would contribute to more effective compatible land use commitments on the part of unit of local government having jurisdiction over land use.

804. APPLICABILITY OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT (AAIA) PROVISIONS.

Title 49 U.S.C., Section 47504(c)(5) states that all of the provisions applicable to AIP grants shall be applicable to any grants for noise compatibility projects. Therefore, requirements pertaining to DBE, Davis-Bacon, NEPA, E.O. 12372, etc., apply to noise compatibility projects. (AGC Opinion, August 24, 1983.)

805. ENVIRONMENTAL CONSIDERATIONS.

Noise compatibility projects must receive appropriate FAA environmental determinations prior to consideration for AIP funding. The current version of Order 5050.4, Airport Environmental Handbook, indicates which noise compatibility projects require an environmental assessment or environmental impact statement, and which are categorically excluded. Environmental requirements for non-airport development projects, for air traffic procedures for example, are covered by the most current version of FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts. Contact the Community and Environmental Needs Division (APP-600) for assistance in this area.

806. AGREEMENTS FOR NOISE COMPATIBILITY PROJECTS ON PUBLIC PROPERTY NOT OWNED BY THE SPONSOR.

a. General. Where a noise compatibility project is located on public property not owned by the sponsor, Assurance 5 requires the sponsor to enter into an agreement with that unit of local government, having control over the public property, to ensure that such a beneficiary complies with the same general requirements to protect the Federal investment, regardless of whether or not it “sponsors” the project. The agreement should be modeled on the Nonairport Sponsors assurances (available on the FAA web site at the following address: http://www.faa.gov/arp/financial/aip/assurances.cfm?ARPnav=aip). The agreement may take one of two forms, depending on whether the noise compatibility project is sponsored by an airport sponsor or a nonairport sponsor. The specific assurances that should be incorporated into each agreement are listed below, although circumstances unique to the project, sponsor, or unit of local government may require ad hoc variations. For example, when the sponsor is administering the procurement and construction, and the other unit of local government is not directly involved in project accomplishment, Assurances 8, 9, 10, 11, and 12 need not be incorporated into the agreement. For the purposes of this Paragraph 806, a Nonsponsoring unit of local government is not a party to the actual grant with the Federal Government but is the actual owner of the public property. A sponsoring unit of local government is the unit of government that is a party to the grant agreement with the FAA.

b. Agreements between Airport Sponsors and Nonsponsoring Units of Local Government. Except as discussed in Subparagraph a., the agreement between the airport sponsor and the non-sponsoring unit of local government should incorporate the substance of the following nonairport sponsor assurances, as applicable:

(1) Assurance 1, General Federal Requirements. It is only necessary to include the first paragraph. Reference to and listing of laws and regulations may be deleted;

(2) Assurance 2, Responsibility and Authority of the Sponsor;

(3) Assurance 3b, Sponsor Fund Availability;

(4) Assurance 8, Accounting System, Audit, and Record keeping Requirements;

(5) Assurance 9, Minimum Wage Rates;

(6) Assurance 10, Veterans Preference;

(7) Assurance 11, Conformity to Plans and Specifications;

(8) Assurance 12, Construction Inspection and Approval;

(9) Assurance 13, Operation and Maintenance;

(10) Assurance 15, Compatible Land Use;

(11) Assurance 16, Reports and Inspections; and

(12) Assurance 17, Civil Rights.

The airport sponsor may also add any other terms and conditions, consistent with the Assurances, which it believes are necessary.

c. Agreements between Sponsoring and Nonsponsoring Units of Local Government. Except as discussed in Subparagraph a., an agreement between the nonairport sponsor and another unit of local government should include the following nonairport sponsor assurances, as applicable:

(1) Assurance 1, General Federal Requirements. It is only necessary to include the first paragraph. Reference to and listing of laws and regulations may be deleted;

(2) Assurance 2, Responsibility and Authority of the Sponsor;

(3) Assurance 3b, Sponsor Fund Availability;

(4) Assurance 8, Accounting System, Audit, and Record keeping Requirements;

(5) Assurance 11, Conformity to Plans and Specifications;

(6) Assurance 12, Construction Inspection and Approval;

(7) Assurance 13, Operation and Maintenance;

(8) Assurance 14, Hazard Prevention;

(9) Assurance 15, Compatible Land Use; and

(10) Assurance 17, Civil Rights.

The nonairport sponsor may also add any other terms and conditions, consistent with the assurances, which it believes are necessary.

807. PROJECTS ON PRIVATELY OWNED PROPERTY - CONDITION IN GRANT AGREEMENT.

a. Requirement for Agreement. Assurance 5 requires the sponsor and the private property owner to enter into an agreement that contains provisions specified by the Secretary. To aid in satisfying this requirement, the special condition Noise Projects on Privately Owned Property contained in Appendix 7, shall be included in the grant agreement.

b. Responsibility for Operation and Maintenance. The purpose of requiring the special condition Noise Projects on Privately Owned Property in Appendix 7 is to establish that the owner is responsible for maintenance and operation of the noise compatibility improvements, not that the owner is required to conduct any specific operation and maintenance activities. In the case where the private property is a parochial school, for example, this condition should not be construed to mean that the owner is obligated to operate the facility as a school for the useful life of the noise compatibility measures. It should generally be understood, however, that noise compatibility projects should be implemented only in those buildings that can reasonably be expected to be used for a period of time equal to or exceeding the useful life of the project.

808. EASEMENT IN CONJUNCTION WITH SOUNDPROOFING.

A grant under the AIP may not include a requirement that a property owner donate an easement (or other property interest) to the airport sponsor in exchange for noise insulation. FAA policy, however, encourages sponsors to work out such voluntary arrangements locally, exclusive of FAA grant stipulations. Alternatively, the airport sponsor may agree to acquire an easement at the time the structure receives noise insulation. See Paragraph 811 for additional discussion of easement acquisition.

809. REVENUE FROM NOISE COMPATIBILITY PROJECTS.

In some noise compatibility projects, sponsors may acquire property that produces net revenue, such as rents and royalties. Such revenue earned prior to final project closeout shall be deducted from the total cost of that project for determining the net costs on which the grant will be based. Revenue earned after final project closeout shall be considered airport revenue. (See Section 3 for the use of proceeds from the disposal of land acquired for noise compatibility).

Section 2. NOISE COMPATIBILITY PROJECTS

810. GENERAL.

a. Eligible noise compatibility projects generally fall into the following categories: land acquisition (including relocation assistance), noise insulation, runway and taxiway construction (including associated land acquisition, lighting and NAVAIDs), noise monitoring equipment, noise barriers and other Part 150 approved noise abatement/compatibility measures. Sponsors may from time to time propose noise compatibility measures not described in this section. In such a case, contact APP-600 for assistance in determining the scope of FAA approval in the sponsor's NCP; contact APP-520 for assistance in determining the scope of eligible work in such proposals.

b. Noise compatibility projects usually are located in areas where aircraft noise exposure is significant, as measured in day-night average sound level (DNL) of 65 decibels (dB) or greater. However, projects may also be approved and made eligible in areas of less noise exposure. The following criteria apply: the airport operator must adopt a designation of non-compatibility different from the Federal guidelines; the NEM and NCP must identify the areas as noncompatible; and the measures proposed for mitigation in that area must meet Part 150 approval criteria. If a noise buffer is

recommended in areas of moderate noise exposure (i.e., DNL 64-55 dB), only non-noise sensitive land uses may be developed within the area to be considered a noise buffer. Projects in areas below DNL 65 dB that are approved in noise compatibility programs must be supported by appropriate documentation from the sponsor to determine whether they are justified for Federal financial assistance for the year of the grant application. These measures, when proposed for approval in a Part 150 document, are subject to the same FAA review and approval processes as noise compatibility projects within the DNL 65 dB noise contour. Contact APP-600 for assistance in advising sponsors of documentation requirements. The AIP priority ranking assigned to projects below DNL 65 dB would be lower. In addition, projects within DNL 65 dB may be expanded beyond the DNL 65 dB contour to include a reasonable additional number of otherwise ineligible parcels contiguous to the project area, if necessary to achieve equity in the neighborhood. Neighborhood or street boundary lines may help determine what is reasonable, in addition to numbers of properties. Other projects that produce community-wide benefits (development of a noise attenuation standard in a local building code, for example) are also eligible.

c. Individual recipients (e.g., homeowner or school) of noise compatibility projects may be entitled to more than one mitigation measure if the additional measures are approved in the sponsor's NCP, enhance land use compatibility, provide additional protection for the airport, and the total cost of the measures is reasonable in relation to the property value. For example, noise insulation may be combined with acquisition of an easement, or a sponsor may acquire residential property and install noise insulation with an easement, before offering it for resale.

d. Noise compatibility proposals in an NCP that are not approved by the FAA are not eligible under the AIP when eligibility depends on Part 150 approval. Remedial noise mitigation measures that are disapproved under Part 150 for new noncompatible development constructed after October 1, 1998 also are not eligible. Other noise compatibility proposals may be approved in the NCP as noise beneficial, but are not eligible for AIP. These projects may include: development of new or modified flight procedures or environmental assessments prepared by the FAA for flight procedures approved in an NCP; projects which cannot be implemented by an eligible sponsor; operational or administrative costs of a sponsor's ongoing noise mitigation program; and demonstration programs intended to test the effectiveness of new noise mitigation technology. Projects that are not described in sufficient detail to determine their noise mitigation benefits are also ineligible.

811. ACQUISITION OF LAND OR INTERESTS IN LAND FOR NOISE COMPATIBILITY.

Both airport and nonairport sponsors are eligible to acquire land for noise compatibility purposes. Earlier guidance stated that costs of removing structures from land acquired under a grant for noise compatibility purposes were not allowable. However, sponsors frequently have strong justification for demolishing or otherwise removing structures promptly after they acquire property. Therefore, land acquisition with justification for demolishing or otherwise removing structures is allowable. However, sponsors should be encouraged to consider other alternatives (e.g., sale and relocation or reuse for compatible purposes), if appropriate, if those alternatives could lower the project costs. Acquisition may occur under the following criteria and limitations:

a. Land Acquisition to Change Land Use. These programs acquire non-compatible property within the designated eligible areas and relocate the occupants from the noise impact. Acquired land is assembled for reuse as an airport compatible land use. This airport compatible use normally should be maintained as a buffer area, even if airport noise is projected to decrease and place the property within areas of moderate (DNL 64-55 dB) noise exposure. Procedures and requirements for acquiring noncompatible property are identical to those outlined in Chapter 7 of this Order and must conform to the Uniform Act as described in the most current versions of the Land Acquisition and Relocation Assistance for Airport Projects, Order 5100.37 and Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects, AC 150/5100-17. Under these "Buy-out" programs, displaced homeowners and tenants are entitled to relocation assistance and payments prescribed in the Uniform Act. The following factors should also be considered when acquiring land for noise compatibility purposes when the objective is to convert to compatible uses.

(1) The FAA should work closely with the sponsor in such land acquisition projects to develop a long-term plan for land reuse. (See Paragraph e. below regarding the land disposal assurance.) Land acquisition projects should include development of land use conversion, economic feasibility, and marketing plans to ensure that subsequent land uses are consistent with local land use plans and policies, including compatibility with noise exposure levels in the area, and that the sponsor recoups a reasonable amount upon resale. Such planning is eligible in conjunction with a land acquisition project or as a separate project. However, costs to implement the marketing plan are considered operational costs and as such are not allowable. (See Section 3 of this Chapter and Order 5190.6A on the use of resale proceeds.)

(2) Costs attributable to removal of structures from land acquired for noise compatibility, when properly justified, are allowable costs under a grant for land acquisition or for reimbursement. Such removal costs may include, but are not limited to, demolition of structures, sale of structures for removal by purchaser, and relocation of structures to another site. Removal costs and proceeds from sale of structures may be used to adjust the net proceeds from resale of the property.

(3) Costs attributable to preparing land for resale may be deducted from the proceeds of disposal, but are not allowable costs under a grant. Such costs may include, but are not limited to, rezoning, replatting and upgrading of utilities and services.

(4) Costs associated with holding land are not allowable under a grant, nor may they be deducted from the proceeds of resale. Such holding costs may include, but are not limited to, property taxes assessed against the sponsor during the period of ownership, charges for utilities and public services, insurance, financing charges, and assessments.

Example: A sponsor acquires 10 parcels of land for a total cost of $1.0 million; the sponsor removes all structures, assembles the parcels into one marketable unit, prepares requests for zoning changes, resurveys, determines consistency with local land use plans and files necessary documents with local officials; utilities and public services improvements are made at sponsor expense; a marketing plan is prepared and the property is sold for $750,000. The proceeds of the sale are calculated as follows:

Acquisition Cost = $1,000,000 ($800,000 Federal/$200,000 Local)	
Development and Sale Costs:	
Remove Structures	$250,000
Revise Zoning, Local Plans, Maps, etc.	$100,000
Improve Utilities and Public Services	$100,000
Marketing and Sales	$ 50,000
Total Costs	$500,000
Sales Price	$750,000
Less Total Costs	$500,000
Net Proceeds	$250,000 ($200,000 Federal/ $50,000 local)

Note: Costs associated with holding the land (taxes, fees, assessments, insurance, etc.) may not be used in calculating the net proceeds.

b. Land Acquisition without Change to Land Use. An airport sponsor's approved NCP may include "Purchase Assurance", "Sales Assurance", or "Transaction Assistance" measures (described below) to acquire for resale or assist a market sale of eligible noncompatible property without changing the existing land use. These measures assist homeowners to move from the noise impact by facilitating a timely market sale of their noise-impacted property. Noise insulation of residences is eligible prior to

sale or resale. Also, pre-existing noise insulation will not disqualify a property from these programs (see paragraph 812 for noise insulation criteria). Under these programs, the sponsor shall ensure that potential buyers are provided with an appropriate disclosure statement that describes the airport noise exposure on the property and the intention of the sponsor to retain an easement or similar interest.

(1) Purchase Assurance. Under Purchase Assurance, a property that fails to sell within a specified time period is purchased by the airport and then resold for continued residential use. The airport purchases the property at the appraised fair market value "as is" subject to airport noise. Typically, noise insulation is provided and the property is then listed and sold subject to the airport's easement.

(2) Sales Assurance. Under Sales Assurance the appraised fair market value of the homeowner's residence is guaranteed on a timely market sale, however the airport does not acquire the property. Should the property sell for less than the appraised value, the selling owner is compensated for the short fall by the airport. Property is appraised at its current fair market value "as is" subject to airport noise. The property is listed and sold subject to the airport's easement that is conveyed to the airport at sale of the property.

(3) Transaction Assistance. Transaction assistance generally involves an agreement by the airport sponsor to pay certain costs associated with the sale of residential property. Allowable costs should generally be limited to the real estate sales commission (consult with APP-600 for other allowable transaction costs). The property is listed and sold subject to the airport's easement that is conveyed to the airport at the assisted sale of the property.

c. Easements and Other Property Interests.

(2) Purchase of easements or similar property interests for noise compatibility is eligible if it is an approved measure of a sponsor's NCP. Depending on local real estate laws and other site factors, sponsors may propose to acquire restrictive covenants, development rights, or other specified interests. The requirements and procedures applicable to acquisition of such property interests with Federal assistance are described in Chapter 7 of this Order.

(3) Easement compensation is difficult to appraise because of limited market information. Acceptable appraisal procedures are described in the most current version of FAA Order 5100.37, and specific considerations and methods to appraise easements acquired for noise compatibility are provided in FAA AC 150/5100-17. As provided in this guidance appraised just compensation owed for an easement acquisition shall be based on application of the "Before and After Appraisal" method. The estimated or actual costs of acquiring easements should be carefully reviewed prior to approving the project or approving payment to the sponsor to confirm adherence to this valuation guidance. Where the cost for acquiring easements seems disproportionately high, the FAA office administering the project should consider whether it meets the reasonable cost criterion as discussed in Paragraphs 310 and 1022. Where costs appear to be unreasonable when compared to costs associated with other, more tangible mitigation measures, airport sponsors should be encouraged to consider revising the NCP and developing these means to achieve compatibility.

(4) Nonairport sponsors are also eligible for grants to acquire easements only; however, the easement should be written specifically to protect the airport.

d. Currently Compatible Land-Use. If the airport sponsor proposes to acquire land presently in compatible use (e.g., parking lot, agricultural, vacant) on the grounds that noncompatible development is highly likely and that local controls are inadequate to prevent that development, and if the FAA has approved the sponsor's recommendation in an approved NCP, the acquisition is eligible. In such cases, it is advisable to urge the sponsor to first consider acquisition of an interest less than fee simple (e.g., development rights, easement). If fee simple acquisition is approved, the sponsor should be advised of the requirement for timely disposal.

e. Sponsor Assurance Regarding Disposal of Land Acquired for Noise Compatibility. Title 49 U.S.C., Section 47107(c)(2)(A) provides that for land purchased under a grant for airport noise compatibility purposes, the airport owner will dispose of the land, when the land is no longer needed for such purposes, at fair-market value, at the earliest practicable time. Any disposal must assure that the land is re-used compatibly with aircraft noise exposure levels, including land that was purchased within the DNL 65 dB contour and is now subject to "moderate" noise exposure (DNL 64-55 dB) with Stage 3 transition or other airport specific factors. In cases where such land was incompatible with airport noise at the time of acquisition (based on the sponsor's selected noise compatibility criteria in the NCP of either the Federal guidelines or the local compatibility standard adopted by the airport sponsor in accordance with Part 150), and the noise levels both now and in the foreseeable future are no longer "significant" using the standard adopted by the airport sponsor, at a minimum disposal of the land must include a noise avigation easement to protect the airport against noise damages. Where possible, the FAA prefers the property to be reused for non-noise sensitive development to provide a noise buffer around the airport to guard against potential new noncompatible land uses that could not be foreseen at the time the property was disposed. Further, the portion of the proceeds of such disposition that is proportionate to the United States' share of acquisition of such land will, at the discretion of the FAA acting on behalf of the Secretary of Transportation, 1) be repaid to the Airport and Airway Trust Fund, or 2) be reinvested in an approved noise compatibility project. Reinvestment of proceeds from the sale of noise land at the original airport is the option preferred by the FAA. See Section 3 of this Chapter for more information on the use of proceeds from the sale of such land.

812. NOISE INSULATION PROJECTS.

a. General. Noise insulation, if approved in an airport sponsor's NCP, or if qualified as a school or hospital under Title 49 U.S.C., Section 47504 is eligible under the AIP. To be justified for discretionary funding assistance, the project must meet the noise insulation criteria in this chapter. Eligible sponsors include units of local government having jurisdiction over the project location, airport sponsors, and special purpose units of local government (e.g., school and hospital districts). Eligible structures include residences (single family and multifamily), schools, hospitals, churches, and other noncompatible structures identified in the sponsor's NCP and approved by the FAA as a project in the NCP. In addition, noise insulation may be installed in buildings near an airport without an approved NCP if the buildings are used for educational or medical purposes and they are demonstrated to be adversely affected by airport noise.

(1) Noise insulation projects are subject to the general guidance governing noise compatibility projects within and below DNL 65 dB in Paragraph 810.b. In addition, unless extenuating circumstances dictate, noise insulation should normally not be considered for a number of types of noise sensitive structures (e.g., residences, schools, hospitals, churches, auditoriums, concert halls) within a DNL 75 dB or greater noise contour since it is preferable to change the land use. Noise insulation is not a viable noise compatibility project for mobile homes, since their design and construction may not lend themselves to effective noise reduction measures. However, modular structures may be classified as permanent if they meet construction guidelines applied to permanent structures. A determination to noise insulate these structures will be made on a case-by-case basis.

(2) The purpose of noise insulation projects is to reduce the adverse impact of airport-related noise on building occupants or residents. These projects are not intended to compensate for inadequate maintenance, to bring nonconforming structures up to building code standards, or to improve the comfort or attractiveness of a building, although these benefits may result indirectly from the project. Therefore, if a noise insulation project requires that new windows be installed, or that upgraded electrical service be provided for ventilation equipment to achieve noise reduction objectives, the costs associated with those work elements are allowable costs. If, however, it is determined in the course of designing a project that a building needs several improvements to conform to local building codes, the costs of such improvements are not allowable under the grant program.

(3) Where noise insulation is being proposed as a single project for a large number of structures, and where a standard package of noise insulation improvements will be included, the

qualifying criteria need not be so restrictively applied that it would prevent an incidental number of homes within the project area from receiving the standard package of improvements. For example, if acoustical windows are to be installed in a preponderant number of homes within the project area, eligibility may be extended to an incidental number of homes within the project area, even though they would not qualify for window installation if considered individually.

(4) Sponsors must certify to the FAA that the engineering plans and specifications for the noise insulation measures conform to the local building code.

(5) A noise level reduction (NLR) of 25-35 dB from outdoor noise levels to indoor levels usually can be achieved with some combination of window and door replacement, ceiling insulation, caulking, weather-stripping, and central air ventilation (or air conditioning as limited below) systems. Therefore, project eligibility will normally be limited to these measures plus "before and after" noise testing. The target noise level for the interior habitable area is a DNL of 45 dB (refer to Table 1 of 14, CFR part 150). If, for example, existing construction or the location of the structure within the noise contour causes the structure to already meet or exceed the interior target of DNL 45 dB, additional noise insulation normally is not justified. Some limited exceptions may apply, as described below. APP-520 should be consulted if additional measures are recommended.

(6) Sponsors may offer a continuous positive ventilation system or air conditioning to owners of eligible structures in conjunction with noise insulation projects. The goal of a continuous positive ventilation system is to provide two volume changes of air per hour. This roughly equates to a condition where windows in the structure are open. Likewise, an air conditioning system will provide air exchanges along with temperature and humidity reduction. The added benefits are preferred by most residents. Either option preserves the noise attenuation benefits achieved with the insulation project by eliminating the need to open windows to maintain an acceptable level of indoor comfort. However, the FAA believes that an air conditioning system would be comparable in cost, and perhaps less expensive than customized air handling systems. Consequently, air conditioning could be offered as an eligible noise attenuation measure in lieu of the positive air handling equipment. There is no need to compile a price comparison and to prorate cost differentials between options offered for selection. Two caveats should be discussed with sponsors and recipients who receive air conditioning or a continuous positive ventilation system:

(a) The recipient will be expected to operate the system installed under the AIP grant to preserve the noise attenuation benefits achieved with the insulation project. Failure to use the installed system will negate the benefits and will not be grounds for making complaints about noise levels.

(b) Property owners and residents should be presented with information about utility and maintenance costs for the installed equipment. Increased utility costs are to be expected. Also, routine maintenance costs should be planned to keep the system operating at peak efficiency. Maintenance service contracts tend to minimize disruptions by providing regular checks of the installed system. The costs of these contracts are a responsibility of the property owner.

(7) Sponsors are encouraged to obtain a noise easement in return for the noise insulation provided by the project, but it is not a mandatory AIP requirement. (See Paragraph 808.).

b. Residential Noise Insulation.

(1) The design objective in a residential noise insulation project generally should be to achieve the requisite NLR when the project is completed. (This is mathematically equivalent to achieving a DNL of 45 dB in all habitable rooms.) For residences located in areas where exterior noise exposure is DNL 65 dB, the requisite NLR provided by the structure should be at least 20 dB in major habitable rooms. The requisite NLR should be increased commensurate with any increase in exterior DNL above 65 dB. The project design should be based on exterior DNL and the existing NLR in the structure. The existing construction must provide less than the needed noise level reduction for the noise exposure level at the

location of the residence. For purposes of equity in a neighborhood where noise insulation has taken place, the following example may be considered as a guide. A house having 30 dB noise level reduction is located at the DNL 68 dB. It is already compatible because the interior noise level would be approximately equivalent to 38 dB, well below the target 45 dB. Although such a dwelling is compatible under the Federal guidelines of part 150, some lesser level of noise insulation (replacement of depreciated windows, storm doors, caulking and weather stripping, etc.) may be provided to assure conformity of improvements and perceived equity of application in the project neighborhood.

(2) Since it takes an improvement of at least 5 dB in NLR to be perceptible to the average person, any residential noise insulation project should be designed to provide at least that increase in NLR as a marginal minimum.

(3) Examples.

(a) A residence located in an area where the DNL is 73 dB has existing NLR of 26 dB. The requisite NLR in that area is 28 dB (73 - 45). However, to meet the requirement for increasing the NLR by not less than 5 dB, a noise attenuation project for that residence should result in NLR of 31 dB (26 + 5).

(b) A residence located in an area where the DNL is 67 dB has existing NLR of 16 dB. The requisite NLR in that area is 22 dB (67 - 45). Therefore, the noise insulation project should be designed to increase the NLR by at least 6 dB (22 - 16).

c. Noise Insulation in Schools.

(1) For schools, the usual design objective for classroom environment is a time-average A-weighted sound level of 45 dB resulting from aircraft operations during normal school hours. As with residential noise insulation, a school project should reduce existing noise levels by at least 5 dB for the same time-average school hours time frame.

(2) Eligible schoolrooms include classrooms, libraries, offices, and other rooms for which noise insulation is specifically justified because of the substantial and disruptive effect of aircraft noise. Facilities, such as gymnasiums, cafeterias, and hallways are usually not eligible, unless the facility is also used substantially for purposes that qualify for noise insulation. Consequently, eligibility for these areas should take into consideration the extent they are used for instructional activities and assemblies.

d. Other Buildings. Churches, concert halls, offices, and other structures identified as noncompatible, and for which noise insulation has been recommended by the airport sponsor in its NCP and approved by the FAA, are also eligible. Such proposals should be evaluated carefully on a case-by-case basis and should involve consultation with APP-520 and APP-600.

813. NOISE MONITORING EQUIPMENT/SYSTEMS.

A project for noise monitoring may be as modest as a few portable noise monitors or as extensive as a system of a dozen or more fixed monitors linked to a central processing unit, perhaps incorporating air traffic, weather and land use data. Such projects are eligible, subject to the following criteria:

a. Noise monitoring must be an approved item in the sponsor's NCP. Procurement of noise monitoring equipment in conjunction with master planning or noise compatibility planning is not eligible. In the case of a planning product, such as a master plan or NCP, the noise monitoring equipment is only a tool used by the consultant to prepare the study. However, the NCP may include a measure for an ongoing requirement for the sponsor to monitor noise conditions. In that case, acquisition of equipment to be used by the airport sponsor for that purpose is eligible. (Consult with APP-600 for clarification.)

b. Nonairport sponsors (e.g., school districts, municipalities) are eligible only for portable noise monitoring equipment when used in connection with noise insulation projects managed by that sponsor.

In cases where more than one sponsor is expected to engage in noise insulation programs, however, the airport sponsor should be encouraged to acquire the equipment and make it available to other local agencies as needed.

c. Eligibility for a fixed (permanent) monitoring system will be limited to circumstances where sponsors can clearly show that portable monitors would be inadequate. Fixed noise monitoring equipment is ineligible where the Part 150 noise exposure maps (existing and forecast) show no noncompatible land uses. In all cases, sponsors should be encouraged to acquire the least costly system that will satisfy the purposes used to justify the project.

d. A noise-monitoring proposal should not be an end in itself, nor an instrument for enforcement of a noise rule or procedure. Rather, noise monitors should provide an ongoing stream of useful products and data in support of the overall noise compatibility program. A primary justification should be to provide information necessary to carry out other noise compatibility projects in the approved NCP, or to monitor progress in achieving noise compatibility objectives. Some sample uses of noise monitoring data include:

(1) Selection of dwelling units or other structures for noise insulation;

(2) Pre- and post-insulation interior/exterior noise measurement;

(3) Compliance with a monitoring requirement of State noise law;

(4) Aiding implementation of other noise compatibility projects; or

(5) Providing noise data for future revision of the NCP.

e. Allowable costs include system design, noise monitoring equipment, dedicated data processing equipment and software, equipment installation, site preparation and one-time costs for installation of electrical power and data transmission lines. All costs for permanent monitoring systems should be minimized. Sponsors should be encouraged to obtain low cost monitoring locations by using existing utility poles and easements, accessible public land, or donated access to private property.

f. Costs for vehicles to be used in a noise-monitoring program, general-purpose computer software, operating costs, and equipment to be used only for public information purposes (equipment for visual presentations at public meetings or hearings, for example) are not allowable.

814. NOISE BARRIERS.

Noise barriers may be effective in certain locations to reduce adverse noise impacts from aircraft on the ground, particularly from maintenance areas and loading gates. Generally, such activities do not make a substantial contribution to total noise exposure, but single event occurrences may disrupt nearby classrooms or residences. Noise barriers, earth berms, wall structures, “hush houses” and other devices designed to shield areas from noise generated on the airport are eligible with the following provisions:

a. Noise barriers must be located and constructed in areas that benefit noncompatible uses affected by a single event ground operation noise that interferes with sleep and conversation. A single event noise reduction of at least 5 decibels should be realized at the nearest noncompatible land uses.

b. The construction or installation must mitigate noise from a variety of airport users. For example, a hush house in the leased area of an airline maintenance facility is not eligible. If the airport sponsor proposes to designate an area on the airport for all engine runups, however, a noise barrier or hush house may be eligible to shield nearby areas from such activities.

c. Noise barriers must be designed to ensure that they do not violate airport design standards or Part 77 surfaces.

d. Landscaping costs in conjunction with noise barrier or berm construction are allowable only for materials necessary to stabilize soil against wind or water erosion.

e. If not done in conjunction with evaluation of alternatives in the Part 150 study, a cost-benefit analysis should be conducted which compares the effectiveness of the proposed noise barrier with other feasible alternatives, such as land acquisition and noise insulation. If other feasible alternatives were not approved in the NCP, a Part 150 update comparing the effectiveness and costs of other alternatives may be required to permit the use of noise set-aside funds. (Consult with APP-600 if additional guidance is needed.) Noise barriers constructed outside of the Part 150 process may not be paid for using the noise set aside.

815. MISCELLANEOUS NOISE COMPATIBILITY PROJECTS.

The following types of projects, when they are approved measures in a sponsor's NCP, are eligible if they are justified as described below. The Federal share shall be calculated as other noise compatibility projects:

a. Runway and Taxiway Construction. Runways and taxiways, including land acquisition, lighting and marking, if it can be shown that the primary purpose and benefit is noise relief. For example, if a proposed project is part of development shown in a master plan for capacity or safety purposes and has incidental noise benefits, it is not an eligible noise compatibility project. It may, however, be eligible as airport development. However, if it can be shown that the project would have a significant immediate noise benefit it may be eligible.

b. Lighting and/or Visual Markers. Lights or other visual devices to help pilots fly specific noise abatement VFR flight tracks or traffic patterns.

c. Special Studies. Special studies are eligible if they are approved in an NCP, and may be justified for Federal participation if they meet applicable criteria. Studies to redevelop a noncompatible area, to determine the most effective location for a hush house or sound barrier, to determine the most effective noise abatement departure procedures to be used by aircraft operators (not the actual flight procedure itself, which would be implemented by the FAA) at various runways, to evaluate airport noise and access restrictions, to address noise compatibility problems that were beyond the scope of the basic Part 150 study, or to prepare noise elements of local building codes, are typically appropriate to be included in a Part 150. In the case of noise and access restriction studies, the measure to study restrictions must be included in an NCP, approved by the FAA for study, and included in a Part 150 update. Studies are eligible provided that they result in definitive, implementable products. Usually, these studies are accomplished by the airport operator's consultant. Studies whose implementation would be within the purview of a local land use planning jurisdiction (for noise elements of local building codes, for example) may be accomplished by a local agency sponsor by force account. In the latter case, however, sponsors should clearly understand that routine administrative costs are not allowable under the AIP. (Refer to the discussion of force account work in Chapter 4.)

d. Other. Consult with APP-520 for other noise compatibility proposals.

816. ALLOWABLE PROJECT COSTS.

Costs for work that is necessary to accomplish a noise compatibility project are allowable in the same way that such costs are allowable for airport development projects as discussed in Chapter 5. For example, if construction of a noise barrier would require the demolition of a structure on the airport, those costs are allowable. If the structure were occupied by a tenant under a lease, the cost of relocating the tenant and the cost associated with terminating the lease, as provided for under the Uniform Act, are also allowable. The Federal share of such costs associated with a noise compatibility project is the same as the Federal share of the cost for noise compatibility projects at that airport, rather than the share applicable to airport development projects.

817. - 819. RESERVED.

Section 3. USE OF PROCEEDS FROM SALE OF NOISE COMPATIBILITY LAND

820. DISPOSAL REQUIREMENT.

When land acquired for noise compatibility purposes is no longer needed for that purpose, the sponsor is required to dispose of the property. The proceeds, at the discretion of the FAA, may be returned to the Airport and Airway Trust Fund or reinvested in approved noise compatibility projects. Reinvestment of proceeds from the sale of noise land at the original airport is the option preferred by the FAA.

821. USE OF FUNDS.

In accordance with Section 47107(f), proceeds from the sale of noise compatibility land that are returned to the Trust Fund may be reissued in grants for airport development and airport planning and are not subject to obligation limitations. Contact APP-520 for information on procedures for depositing such proceeds and their subsequent reuse. To avoid unnecessary actions, in lieu of returning the funding to the Trust Fund to be reissued, regions may request approval from APP-500 to allow use of the proceeds directly in an airport development or planning project. Project files should contain enough of an audit trail so that these actions are clearly understood.

822. EVALUATING REINVESTMENT PROPOSALS.

In many cases, it will be desirable to reinvest proceeds from the sale of noise land in another noise compatibility project at the original airport or vicinity. The following factors should be considered, however, prior to approving local reinvestment of such funds:

a. The sponsor's financial management procedures should be able to account for the proceeds and track their subsequent use in new projects.

b. Projects at that airport should be of sufficient priority to justify their reuse locally, and the FAA should concur in the sponsor's project selection for use of the proceeds.

823. REQUIREMENTS FOR REINVESTMENT.

Where the proceeds are to be reinvested in another noise compatibility project, the following provisions apply:

a. The project must be an eligible noise compatibility project as described in Paragraph 801. In addition to those eligible projects in an NCP, the FAA may allow the reinvestment of revenues for projects not in an NCP such as noise insulation projects in buildings used primarily for educational or medical purposes.

b. The project must be at the same airport or in the vicinity as that where the land sale proceeds were realized.

c. The same sponsor who disposed of the land and realized the proceeds of the sale must sponsor the new project.

d. When Federal assistance is used to acquire land, and the land is subsequently sold and the proceeds are used to acquire additional land, that acquisition is also subject to the provisions of the Uniform Act, even if no "new" Federal funds are provided for the later acquisition. (Regional/General Counsel Opinion 3/1/88) By extension, it follows that other conditions and assurances are renewed when such proceeds are used in follow-on projects. The sponsor should be advised of this continuing obligation early in the original grant application process, if possible, but no later than prior to use of the proceeds in a new project. The following actions are normally applied to facilitate tracking these sponsor obligations:

(1) Award a grant with "new" (current year) Federal grant funds when a project is to be undertaken with proceeds from the sale of noise land to ensure sponsor/FAA cognizance of the renewed grant obligations; and/or

(2) Use the proceeds for noise insulation or another noise related improvement project which uses up the funds and eliminates the need to track the proceeds and sponsor obligations through subsequent iterations; and/or

(3) Amend the original grant to make use of the proceeds if the grant amendment requirements and limitations can be met.

824. CONVERSION TO AIRPORT DEVELOPMENT LAND.

Land acquired for noise compatibility purposes may subsequently be redesignated as airport development land without any further certifications or adjustment in the Federal share of the cost of acquisition, provided that the land being redesignated as airport development land is justified by a new or revised airport master plan. In addition to the justification, the land must be depicted on a new or revised airport layout plan, depicted as future development land, and unconditionally approved by the FAA.

825. - 899. RESERVED.

Chapter 9. PROCUREMENT AND CONTRACT REQUIREMENTS

Section 1. PROCUREMENT

900. GENERAL.

a. Procurement Regulations. Title 49 CFR, Part 18.36 (referred hereinafter as Part 18.36) provides the policy, procedures, and regulations to be used for procurements made under Federal grant programs. Typical procurements under the airport aid program involve construction projects, equipment purchases, and professional services such as engineering/architectural, planning, legal, land appraisal, and audit services.

b. State and Local Procurement Standards. Federal law provides that the granting agency (FAA) has a minimal role in the procurement used by airport sponsors. For example, if the sponsor is a state, states are authorized under Part 18.36 to use the same procurement policies and laws that they use for procurements not funded in whole or in part by Federal sources. Other non-state Sponsors will use their own procurement procedures that reflect applicable state and local laws and regulations, provided that the procurements conform to applicable Federal law and the standards identified in Part18.36.

c. Contractual Responsibility. The standards in this section do not relieve the sponsor of the contractual responsibilities arising under its contracts. The sponsor is the responsible authority, without recourse to the FAA regarding the settlement and satisfaction of all contractual and administrative issues arising from procurements entered into, in support of an AIP grant. This includes, but is not limited to, disputes, claims, protests of award, source evaluation, or other matters of a contractual nature.

d. Code of Conduct. The sponsor is required to maintain a code of standards of conduct, which governs the performance of its officers, employees, or agents in contracting with and expending airport aid funds. The sponsor's officers, employees, or agents are not allowed to solicit or accept gratuities, favors, or anything of monetary value from contractors or potential contractors. To the extent permissible by the state or local law, rules, or regulations, such standards shall provide for penalties, sanctions, or other disciplinary actions to be applied for violations of such standards by either the sponsor's officers, employees, or agents, or by the contractors or their agents.

901. REVIEW OF PROPOSED PROCUREMENTS.

FAA Airports Office personnel are required to assure that a proposed procurement meets the standards of Part 18.36. Except as provided below, this can be accomplished by two methods. The first and preferred method is for the review and determination that a sponsor's procurement system complies with the standards of Part 18.36. Absent this summary determination, each proposed procurement must be reviewed for compliance with regulatory requirements.

Under Part 18.36, a sponsor is exempt from the pre-award review if the FAA determines that its procurement systems comply with the standards of Part 18.36. Therefore, FAA Airports Office personnel are not required to review or concur in award of sponsors' contract if a determination is made that the sponsor's procurement system complies with Part 18.36 requirements. In order to manage workload, FAA Airports Office personnel are encouraged to review the standards of Part 18.36 with airport sponsors and to perform a procurement system compliance review. Regional Airports Divisions are delegated the authority to determine that a proposed procurement meets the requirements of Part 18.36. Such authority may be redelegated.

FAA Airports Offices are authorized to accept certifications that the technical specifications meets the standards of the FAA but may require sponsors to submit such technical specifications on proposed

procurements where the FAA believes such review is needed to ensure that the item or work specified meets FAA standards.

a. Pre-Award Review Required. Pre-award review of proposed contracts is required in the following cases:

(1) The sponsor does not comply with the standards promulgated in Title 49 CFR, Part 18.36, Procurement;

(2) The proposed contract is to be awarded on a sole source basis or when only one bid or proposal is received in which the aggregate expenditures exceed $100,000 (all proposed contracts specifying “brand name” products shall be considered sole source procurements);

(3) The apparent low bidder under a formally advertised procurement is determined by the sponsor to be a non-responsive and/or not responsible bidder (the FAA must review and concur in this determination and document it in the project file); or

(4) A review of the bid abstract reveals the possibility of bid improprieties (See Paragraph 1053).

b. Pre-Award Review Optional. The FAA Airports Office has the option to impose pre-award review when:

(1) Sponsors are working on their first assistance project supported by DOT and have not yet been reviewed for compliance with the standards contained in Title 49 CFR, Part 18.36, Procurement;

(2) Sponsors request pre-award assistance for proposed contracts;

(3) Contracts are awarded for automatic data processing in accordance with Paragraph C1 of Attachment B to OMB Circular A-87;

(4) Contracts are repeatedly awarded to the same firm;

(5) Purchasing is performed outside the sponsor’s established procurement system or office;

(6) Proposed construction contracts are to be awarded through the competitive proposal procurement method; and/or

(7) FAA determines that the circumstances warrant and requests such documents.

902. FAA REVIEW OF CONTRACT DOCUMENTS.

When requested by the FAA Airports Office, the sponsor shall submit one copy of the executed contract and other procurement documents for review to determine whether all of the required contract provisions have been included. The sponsor is required to make procurement documents available for pre-award review when:

a. FAA has determined that the sponsor’s procurement procedures or operation fail to comply with the standards of Part 18.36 as provided above;

b. the procurement is expected to exceed $100,000 and is to be awarded without competition or only one bid or offer is received;

c. the procurement, which is expected to exceed $100,000, specifies a “brand name”;

d. the proposed award over $100,000 is to be awarded to other than the apparent low bidder; or

e. a proposed contract modification changes the scope of a contract or increases the contract amount by more than $100,000.

903. COMPETITION IN PROCUREMENTS.

Title 49 CFR, Part 18.36(c) states “all procurement transactions will be conducted in a manner providing full and open competition consistent with the standards of Part 18.36".

a. Practices considered to be restrictive of competition include but are not limited to:

(1) Unreasonable requirements on firms in order for them to qualify to do business;

(2) Noncompetitive pricing practices between firms;

(3) Organizational conflicts of interest;

(4) Unnecessary experience and bonding requirements;

(5) Unnecessary product or “brand name” specifications; and

(6) Preference to in-state or local bidders.

b. In addition to the proceeding Paragraph a, the specification of features that require bidders to significantly alter a product’s design can have an effect of limiting competition. Therefore, FAA Airports Office employees should encourage sponsors to be diligent in specifying only essential requirements in purchase specifications.

c. The sponsor’s requests for bids or proposals shall clearly and accurately describe the technical requirements for the material, product, or service to be procured. The request must clearly state all requirements that must be fulfilled and the factors that will be used to evaluate the bids or offers.

d. Unreasonable limitations placed in a solicitation are not permitted. There are conditions under which specifications may be limited to meet valid operational demands or other pertinent circumstances. If a sponsor knowingly writes a proprietary specification (and, therefore, knows the specification is actually limited or sole source), it must advise the FAA in advance of issuance that the specification contains limitations, is proprietary, and must justify this procurement method.

904. PROCUREMENT METHODS.

Four basic methods of procurement are permitted:

a. Competitive Sealed Bids. Competitive sealed bids are usually used in the airport grant program for procurements involving construction projects or equipment purchases. In this procurement method, sealed bids are publicly solicited and a firm fixed price contract (either lump sum or unit price) is awarded to the responsible bidder whose bid, conforming to all the material terms and conditions of the invitation for bids, is lowest in price.

(1) The invitation for sealed bids must be publicly advertised although it may also be sent directly to known suppliers;

(2) Where specified in the bidding document, factors such as discounts, transportation costs, and life cycle costs may be considered in determining which bid is lowest (See Paragraph 910 for additional guidance on use of life cycle costs);

(3) If the sponsor determines that the bidder submitting the lowest bid is not responsive and/or responsible, the FAA must review and concur in this determination. The FAA’s action on the sponsor’s

determination should be documented in the project file (See Paragraph 912 for Award to Other than the Apparent Low Bidder).

b. Competitive Proposal. Competitive proposals are used when it is not appropriate to use the sealed bid method. This method would be used, for example, when complete and adequate specifications or purchase description are not available, or when more than one responsible bidder is not reasonably expected to bid, or when the selection of contractor cannot be made principally on the basis of price. Generally, competitive proposals include price but elements of price are prohibited when being used for selection and award for professional services as described below.

(1) Competitive proposals are solicited from an adequate number of qualified sources. Additionally, the request for proposals (RFP) is also publicized. The request for proposals must identify all the factors that will be used to evaluate the proposals and their relative importance. Under this method (except for professional services in Paragraph (2) below), Sponsors may be permitted to pay a reasonably higher price for a better quality product if justified. Since this de-emphasizes the price concept, the approval to use competitive negotiations is given sparingly except for the required use for procurement of professional services.

(2) The procurement of certain professional services is accomplished through a special form of competitive proposal. The nature of the services dictates the use of this method rather than the professional credentials of the employees to be used. These services include program management, construction management, planning and feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping, and related services. The competitive negotiation method recognizes that the expertise of firms (or individuals) providing professional services varies. Although several firms may be qualified to provide the professional service required, some of them may have more expertise in the particular area than others. For this reason, procurement (selection) under this special competitive negotiation method considers the technical qualifications of the competitor, subject to negotiation of fair and reasonable compensation (price). Sponsors may not request price or cost data prior to determination of the best qualified firm even if the data is submitted in a separate sealed envelope and further, price may not be used as a selection factor in the procurement of these services. Sponsors may use competitive proposals for procuring engineering and architectural services whereby only the offeror's technical qualifications are evaluated for selection. In these cases, the request for proposals requires that firms only submit their technical qualifications for performing the project. The best-qualified firm is then selected subject to the negotiation of a fair and reasonable price. If the sponsor and the best-qualified firm cannot agree upon a price, negotiations with that firm are terminated. Price negotiations are then entered into with the second best qualified firm. The same procedure should be followed with the third firm, fourth firm and so on until a fair and reasonable price can be negotiated with a qualified firm. Once negotiations have been terminated with a firm and begun with another, they cannot be reopened with the former firm. Advisory Circular 150/5100-14 provides further details on the procurement of engineering and architectural services through competitive negotiation.

c. Small Purchase Procedures. The procurement process under small purchase procedure is less formal than either of the previously discussed methods and may only be used for procurements of less than $100,000. The number of sources solicited would be determined by the number of qualified sources available, the time frame involved, and the dollar value. Oral solicitation is acceptable for very small purchases, but should be adequately documented. Except for very small purchases, a letter request should be issued as a minimum, and a written proposal should be solicited.

d. Noncompetitive Proposal.

(1) Although it is preferred that all procurements be made on a competitive basis, a noncompetitive proposal is permitted under the following circumstances:

(a) The item is available only from a single source;

(b) Public exigency or emergency when the urgency for the requirement will not permit a delay incident to competitive solicitation;

(c) After solicitation of a number of sources, competition is determined inadequate; or

(d) The FAA authorizes noncompetitive negotiation.

(2) Under (1)(d) above, regions may authorize noncompetitive negotiation for professional services if the cost of the contract is not expected to exceed $10,000 and the professional services are incidental to the grant project. Typical contracts of this nature include:

(a) Services to review legal sufficiency of the grant;

(b) Appraisal;

(c) Grant audit services performed as part of a project; and

(d) Independent project cost estimates.

(3) Care must be exercised in allowing noncompetitive contracts for legal services involving land acquisition (especially those which may include condemnation proceedings) since these types of contracts may exceed the $10,000 limitation and, in some cases, could be considered a prime rather than an incidental part of the project. Similarly, engineering/architectural services are normally a prime part of the project (rather than incidental); and, therefore, noncompetitive proposal would not be appropriate.

(4) If a sponsor knowingly writes a specification that is noncompetitive (and, therefore, knows the specification is actually sole source), it must notify the FAA in advance that the specification is, in fact, sole source and then justify this procurement method.

(5) Utility companies owning service lines or other facilities generally do not permit work on their property or equipment by anyone other than their own employees. Accordingly, contracts for installation, extension, removal, and relocation of public utility facilities may be entered into through a noncompetitive proposal. However, the contracts, cost estimates, and plans for such work must be reviewed and approved by the FAA. (See Paragraph 594.)

e. Other Methods of Contracting. Other methods of contracting may be appropriate when used for an AIP project. One such method is considered a two-step procurement in which a general scope of the project is provided to prospective bidders. A technical proposal is submitted and the sponsor determines which bidders provide a technical proposal that meets the requirements of the general scope. An invitation for bids that encompasses the general scope and incorporates a bidder's technical proposal by reference is issued to each bidder whose technical proposal is deemed acceptable. The bidder then bids on the general scope as well as its technical approach and the responsible and responsive bidder submitting the lowest bid is awarded the contract. Other methods that may have some use under AIP are various forms of Design-Build. Except in those circumstances under which a project has been approved under a Design-Build pilot program, sponsors should be cautioned that the design-build contracting must still meet the requirements of both Paragraph 904(b)(2) above for professional services as well as the price competition for construction. In addition, sponsors should be cautioned that except under limited circumstances (See Chapter 3, Section 2) costs incurred prior to a grant are not necessarily reimbursable so the contract phasing should reflect the need to perform construction services after a grant is issued.

905. PROCUREMENT OF EQUIPMENT.

a. FAA is authorized to establish or approve standards for airport development, which is to be accomplished with AIP funds. FAA has done this for many types of equipment, such as snow removal

equipment, airport lighting, aircraft rescue and firefighting equipment, etc. In some cases, it has also published approved lists of items meeting FAA plans and specifications. However, the fact that a piece of equipment is not on an approved list, in and of itself, does not make the equipment ineligible or not acceptable. For such equipment, the sponsor will have to establish, to FAA's satisfaction, that the equipment does, in fact, meet the standards and specifications. If the equipment does not meet the standards and specifications, it is not eligible for Federal aid. If the sponsor elects to install equipment, which has not been approved by FAA and cannot meet standards at the time of commissioning, then the sponsor must take whatever steps necessary to replace the equipment or the appropriate costs will be disallowed.

b. Where FAA has published specifications for specific items, the specifications should be used with no modification, unless the sponsor can justify to FAA such modification. Some sponsors in the past have altered or required features not contained in the advisory circulars for items such as airfield lighting and aircraft rescue and firefighting equipment. Sponsors should be advised that, if not approved by FAA in advance, these alterations could jeopardize FAA's ability to fund the purchases through AIP. A sponsor's solicitation should contain only FAA specification and related designation (e.g. AC 150/5345-46, L-850A, runway centerline fixture). Solicitations should not include limiting factors, which have the effect of restricting competition, which requires manufacturers to radically change design or make other changes to their equipment unreasonably. Inclusion of limiting factors could cause a defacto limitation of competition.

c. While FAA can appreciate the sponsor's desire to have uniformity of equipment, both for maintenance as well as for aesthetic purposes, Federal regulations regarding the bidding process require open and free competition. This is not to imply that there may not be reasons for specifying a certain type of equipment. If such is the case, the sponsor must submit a justification for such restriction to FAA for consideration. An example of such justification might be that the equipment quantities to be acquired represent an insignificant number (for example, less than 5%) of the overall equipment in use and, therefore, do not justify the creation of duplicate inventory. In some cases a sponsor may request equipment to "match existing" equipment. If the effect of such request is, de facto, the establishment of sole source procurement because of the lack of interchangeability of parts or equipment, then this type of wording should not be allowed in the solicitation. Open and free competition is to be the norm and not the exception.

d. To allow sponsors flexibility in purchasing equipment, they should be permitted to select and specify in their bidding documents, equipment features, and characteristics when FAA standard specifications for such equipment allow a choice. However, in selecting those features and characteristics, the sponsor must assure FAA that at least two manufacturers will be able to meet the selected specification with their standard production model. In cases where sponsor selections are likely to result in only one qualified manufacturer, field personnel must secure from the sponsor sufficient justification for those selected features that create the exclusivity since the resulting procurement would be noncompetitive.

e. FAA Airports Offices may approve procurement of equipment containing additional features not contained in FAA specification. Unless the additional features represent state-of-the-art development, Federal financial participation shall be limited to those features incorporated in the specification and some basis must be established for determining the cost of nonessential items. State-of-the-art features may be eligible for participation if approved by the Office of Airport Safety and Standards (AAS) and justified by the airport sponsor. In no case can these added features (other than state-of-the-art ones) result in the elimination of competitive bidding by specifying a design limited exclusively to one manufacturer.

f. Field offices should strongly encourage sponsors to send nonstandard specifications for equipment to industry for review and comment prior to issuance of the Invitation for Bids (IFB). This will allow defects in the specifications to be identified in advance, especially if the specification is proprietary.

Using the information and input from industry, correcting or modifying the specification, the sponsor can certify to FAA that at least two manufacturers will be able to meet the proposed specification in the IFB.

g. If a sponsor knowingly writes a proprietary specification (therefore, knows the specification is actually sole source), it must notify in advance FAA that the specification is, in fact, proprietary and then justify this procurement method.

906. PRICE OR COST ANALYSIS.

a. Required Analysis. Sponsors are required to perform some form of a cost or price analysis for every procurement, including change orders. This analysis is needed for FAA review to determine the reasonableness of cost (See Paragraph 1052) and to identify possible bid improprieties (See Paragraph 1053).

(1) Cost Analysis. Cost analysis is the review and evaluation of a contractor's proposal and the judgmental factors, which the contractor applied. The analysis is used by the sponsor to form an opinion as to whether proposed costs are consistent with what contract performance should cost, assuming reasonable economy and efficiency. For the procurement of professional services, the sponsor should make a technical evaluation of the effort needed to perform the tasks and should include this in the analysis. Cost analysis results in a determination of the necessity for costs and the reasonableness of the amounts.

(2) Price Analysis. Price analysis is accomplished by comparing the submitted proposals or quotations with prior quotations and prices and using parameters such as average unit cost, published price lists, etc. A price analysis should be used in most cases, other than for professional services, since a detailed cost analysis is already required. Apparent gross inconsistencies should be subjected to more intensive inquiry.

(3) Significant Differences. Significant differences in the proposed contract prices and the sponsor's cost estimate should be explained as part of the analysis.

b. FAA Review. The sponsor's analysis shall be submitted to FAA for review only if the procurement is submitted for review under Paragraph 901. Otherwise, the analysis will be retained with the sponsor's procurement file and made available upon FAA request. Particular attention should be paid to the sponsor's analysis where the procurement involves a negotiated price.

907. PROFESSIONAL SERVICE RETAINERS.

a. Many sponsors hire firms (or individuals) to provide professional services necessary for their normal operations (not necessarily related to a grant) on a retainer basis. The sponsor may use these same firms to provide professional services necessary for a grant project without further procurement action provided that:

(1) The retainer contract was awarded as a result of a procurement method which would have met the requirements of competitive procurement, as specified in Paragraph 904;

(2) The parties competing for the work were advised that anticipated grant funded projects would be performed under the retainer contract. This would include advising them of a specific scope of services for those specific projects; and

(3) The price for the work to be performed under the grant contract will be fair, reasonable, and supported by a cost or price analysis. Comparisons should be made to similar type projects.

b. The sponsor shall be required to initiate a competitive procurement action in accordance with Paragraph 904 if the firm on retainer does not meet all of the above conditions.

908. PROCUREMENT OF ENGINEERING, ARCHITECTURAL, AND OTHER PROFESSIONAL SERVICES FOR SEVERAL PROJECTS.

Advisory Circular 150/5100-14provides guidance for airport sponsors in the selection and employment of architectural, engineering, and planning consultants under FAA airport grant programs. Firms competing for engineering, architectural, and other professional services must be selected on their qualifications subject to the negotiation of a fair and reasonable price. Consequently, it would be permissible for the sponsor to procure engineering and architectural services for several grant projects through one procurement action if the following criteria are met:

a. The parties competing for the work must be advised that the work is expected to be accomplished during the course of several grant projects;

b. The parties shall also be advised that possibly all or some of the services may not be required and that the sponsor reserves the right to initiate additional procurement actions for any of the services included in the procurement;

c. The scope of the proposed development work and required services must be defined along with the expected schedule of project initiation. The scope of the development must be specific rather than general;

d. Unless otherwise approved in writing by the appropriate FAA Airports Office, the services included in the procurement shall be limited to those projects that can reasonably be expected to be initiated within five years of the final procurement selection. This time limitation has been established so that competition is not unduly restricted. In some circumstances (e.g. a project that will take many years to complete a safe, usable unit), it may be permissible to approve an engineering contract that involves services beyond the five-year limitation. However, APP-500 shall be consulted prior to approval for periods exceeding five years:

e. The negotiation of the fee will usually be limited to the services expected to be performed under the initial grant;

f. The contract should be limited to the services covered by the negotiated fee. Subsequent services should be covered by amendment to the initial contract or subsequent contracts. However, at the time the initial contract and cost analysis are submitted for review, the sponsor should notify FAA of the subsequent services that were included in the procurement;

g. The negotiation of the fee for subsequent services (i.e. services included in the procurement action but not included in the initial contract) shall occur at the time those services are needed. The sponsor must perform a cost analysis for each of these negotiations. If a price cannot be agreed upon between the sponsor and the selected firm, then negotiations are terminated with that firm. However, rather than entering negotiations with the firm ranked in the next place at the time the initial contract was negotiated, a new procurement action must be initiated.

909. SOLICITATIONS CONTAINING BOTH ELIGIBLE AND INELIGIBLE WORK.

Unless there is a convincing reason to combine eligible and ineligible work in a single solicitation, sponsors should be discouraged from doing so. Sponsors who issue such combined IFBs should be made aware of the policy in this paragraph before the IFB is issued. In solicitations or IFBs where both eligible and ineligible work are combined (e.g. paving an apron and building a hangar), the extent of Federal participation with grant funds will be determined as follows:

a. Where a combined solicitation is logical, eligible work should be clearly identifiable as separate line items, or, as in the case of pavement overlay for instance, easily prorated;

b. On any solicitation to be funded in part with Federal grant money, the sponsor must award to the lowest responsive and responsible bidder on the entire contract, except as in "c" below;

c. If the low overall bid contains a cost for the eligible work higher than that of other bids, Federal participation shall be based on the lowest amount bid for the eligible work by a responsive and responsible bidder, unless it is obvious from a comparison with other bids or the engineering estimate that the bid containing the lowest price for the eligible work is unbalanced and the price of the eligible item is unreasonably low. In this case, FAA Airports Office should limit Federal participation to the next lowest reasonable bid on the eligible work.

910. LIFE CYCLE COSTS IN COMPETITIVE SEALED BIDS.

a. The concept of life cycle costs recognizes that although an item may have the lowest initial cost, it may actually be more expensive than some other item when other costs such as those associated with operation and maintenance are considered. Under the life cycle cost concept, any costs expected to be incurred for the item over its useful life (i.e. acquisition, installation, operation, and maintenance) are considered. Cost data must be verifiable independently of a claim by the manufacturer or contractor. Since life cycle costing can result in overall economy to the sponsor when properly carried out, FAA Airports Offices should encourage life cycle costing when the conditions below can be met:

(1) The invitation for bid states that life cycle costs will be used in determining the low bidder;

(2) The factors to be considered are specified and the costs associated with the factors must be quantifiable:

(a) "Specified" means that the invitation for bid specifically states the factors that will be included in the life cycle cost computation. Examples of factors that could be specified include annual fuel consumption for a motor vehicle, electrical consumption, and lamp replacement for lighting equipment, recurring inspection, and maintenance. All factors that have quantifiable costs should be specified in the bidding document.

(b) "Quantifiable" means that there is sufficient information available so that costs associated with these factors can be readily calculated. Calculation of energy consumption costs is fairly straightforward and should be based upon some objective standard or independent testing. For lighting equipment, electricity consumption and lamp replacement should be based upon the rating assigned by the manufacturers of the components rather than the equipment manufacturer. Calculation of costs associated with recurring inspections and maintenance is much more difficult. Generally, costs associated with maintenance should only be included in the life cycle costs computation if a fair and accurate calculation of such costs can be made. Maintenance costs, if used, should be independently validated.

(3) The IFBs must explain how the costs for each of the specified factors will be calculated:

(a) The costs associated with a factor can vary substantially depending upon how they are calculated. For this reason, any assumptions that will be used in making the calculations should be included in the bidding document. For example, if the fuel consumption of a vehicle will be considered, the IFB should state the expected number of annual miles and the price of fuel that will be included in the calculation.

(b) The period of time over which the life cycle costs will be calculated should also be stated.

b. The item that meets the bidding specification and has the lowest life cycle cost is the successful bid. Sponsors desiring to use the life cycle cost concept should be advised to consult with their FAA Airports Office before issuing an IFB to assure that their procurement procedure will meet grant requirements.

911. BONDING.

Bonding requirements for construction are found in Title 49 CFR, Part 18.36(h) and allows sponsors to follow their own requirements relating to bid guarantees, performance bonds, and payment bonds for construction unless the contract or subcontract exceeds $100,000. For those contracts and subcontracts exceeding $100,000, FAA may accept the bonding policy and requirements of the sponsor provided the appropriate FAA Regional Office has made a determination that the Federal Government's interest is adequately protected. The determination should be adequately documented in the project file. If such a determination has not been made, the minimum requirements shall be as follows:

a. Bid Guarantee of Five Percent. Each bidder shall submit a bid guarantee equivalent to five percent of the bid price with its bid. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of its bid, execute such contractual documents as may be required within the time specified.

b. Performance Bond of 100 Percent. Each contractor shall submit a performance bond for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such a contract.

c. Payment Bond of 100 Percent. Each contractor shall submit a payment bond for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract.

912. AWARD TO OTHER THAN APPARENT LOW BIDDER.

When the competitive sealed bid procurement method is used, the contract must be awarded to the lowest responsible and responsive bidder. If the sponsor determines that the apparent low bidder (i.e., the bidder submitting the lowest dollar amount) is not responsible and/or nonresponsive, FAA must review and concur in this determination. Although the sponsor can award to other than the apparent low bidder, Federal funds cannot be used in the contract unless FAA concurs in the determination prior to award of the contract.

a. Not Responsible. The bidder must be a responsible party, i.e. it must have the required financial, managerial, technical, and ethical capacity to perform the contract. Part 18.36 (b)(8) reads that "grantees...will make awards only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources." However, sponsors possess a wide amount of discretion in determining who is responsible. To concur in a sponsor's determination of not responsible, FAA personnel should review the determination to assure that there is a factual basis for the determination.

b. Nonresponsive. When a bid does not conform to all the material terms and conditions of the IFB that are deemed substantial, it is nonresponsive. It is the sponsor's responsibility to determine if the exceptions taken by a bidder to the solicitation are substantial or not and the extent of deviation it is willing to accept. Sponsors should be encouraged to disallow all deviations except for those that they would waive as being immaterial. Items affecting material terms and conditions of the invitation for bids such as delivery time, quantity, technical specifications, price, etc., should be considered material. FAA project manager should normally not use his/her judgment in place of the sponsor's unless there are compelling reasons to do so or unless the sponsor is not in compliance with local procurement regulations. Determinations of nonresponsiveness should not be based upon deviations that are not substantial.

913. ALTERNATE BIDS.

To allow more flexibility in the procurement process, the sponsor may request alternate bids in a procurement action. For example, a sponsor may be taking bids on a bituminous aircraft-parking apron. An alternate might be the construction of the same apron with concrete. The amount of Federal participation will depend on the manner in which the alternate bids are addressed in the IFB.

a. If the sponsor specifies in the IFB that it reserves the right to award to the low bidder in either alternate category and establishes a reasonable objective standard that will be applied in making the award, then the contract may be awarded to the low bidder in either alternate with full Federal participation. (As an example, the IFB might state that: "The sponsor reserves the right to award to the low bidder in either Alternate "A" or Alternate "B," provided that the amount of the low bid in the alternate selected does not exceed the amount of the low bid in the other alternate by more than 10%.")

b. If, in the IFB, the sponsor has not reserved the right to accept the low bid in either alternate or has not established an objective standard to be applied in making the award, the sponsor may award to the low bidder in the higher alternate bid if local policy allows; but the Federal participation will be based on the lowest responsive alternate bid.

c. If a sponsor plans to use alternate bids, the FAA Airports Office should call to the sponsor's attention the differences in "a" and "b", above, so that the sponsor is aware prior to the issuance of the IFB of the Federal participation.

914. BID PROTESTS.

a. Role of the Sponsor. Under Title 49 CFR, Part 18.36, the sponsor will develop protest procedures to handle and resolve disputes relating to their procurements and shall, in all instances, disclose information regarding the protest to FAA. The sponsor is responsible for all procurement actions to be accomplished in accordance with its established procedures including the handling of complaints and protests.

b. Role of FAA. FAA's role is limited to a review of the protest for violations of Federal law or regulations and violations of the sponsor's protest procedures if the bidder subsequently appeals to FAA. A protestor must exhaust all administrative remedies with the sponsor before pursuing an appeal with FAA. FAA field offices should ensure that the sponsor sends a copy of all protests to them and should redirect to the sponsor any protests received from bidders. To avoid delaying the procurement process, field offices should immediately review any protest they receive and send a copy to APP-520 to assure consistency in the resolution of bid protests. APP-520 will provide advice on matters of regulation and policy upon request. Regions should determine the disposition of appeals to FAA in consultation with Regional Counsel, if such consultation is deemed appropriate.

c. Defects in Bid Solicitation.

(1) Since defects in the bid solicitation can be identified prior to bid opening, the protest should be filed with the sponsor before bid opening since the deficiency can often be corrected by amending the solicitation. Unless a sponsor has a valid and justifiable reason to shorten the time, bid-opening dates should be at least 30 and preferably 45 days after the public issuance of the bid solicitation (including the issuance of plan sets). This would normally allow a prospective bidder time to review the plans and specifications and to confer with the sponsor in order to clarify any area that may be vague or misunderstood. Such informal discussion may be in order because of unintentional inclusions of proprietary items by the sponsor or its engineer in the plans and specifications. This would allow the sponsor time to issue addenda, as necessary. Such action may well avoid the filing of a formal protest.

(2) If a prospective bidder formally protests the procurement on the grounds that the bid solicitation is defective, it is the responsibility of the bidder to notify the sponsor in writing and before the bids are open, about what aspects of the solicitation the bidder is protesting. The sponsor shall send a

copy of the protest (or have the bidder do so) to the ADO or regional Airports office. The bid opening is to be delayed, if necessary, until the protest is satisfied (including rejection) or to allow time for the sponsor to issue an addendum, as appropriate. Since the most common occurrence in the grant program under this category is the use of proprietary specifications, the project manager should review the solicitation, especially if the sponsor has certified that the plans and specifications meet FAA standards, are nonproprietary, and are in accord with Section18.36. The fact that FAA may have approved the specification or accepted the sponsor's certification is obviated by the receipt of the bid protest. Because of the complexity of some of the equipment being used by sponsors today, it may be necessary to seek the advice of headquarters personnel, such as found in AAS-100 and 200, on technical or design issues. If the sponsor insists on opening the bids when there is a protest outstanding, they should be advised that FAA will not approve awarding of a contract and that Federal funds may not be used.

(3) If a protest of this nature is made after bid opening (and assuming that the bid package has been available for more than 10 working days) and if local procurement regulations allow, the sponsor may have the option of rejecting the protest without action, even if, in fact, the protest is valid. This is based on a General Accounting Office principle that a bidder normally has sufficient time to protest a defective solicitation prior to bid opening and not after bid opening.

(4) There are times when it is not practical to have a 30 or 45-day solicitation period for all bids. Sometimes a sponsor may be able to justify a shorter period of time. If the sponsor allows 10 days or less for bid proposals, then the prospective bidders should be allowed to protest a defective specification up to contract award.

d. Improper Evaluation of Bids. While protests pertaining to defective solicitations are made prior to bid opening, there is another type of protest that occurs after bid opening (the time period for filing is dependent upon the provisions of local law). This involves an improper bid evaluation. A bidder may be improperly disqualified or the sponsor may fail to disqualify the apparent low bidder for a defective bid. Here, the most common question deals with bid responsiveness and the responsibility of the bidder. If the apparent low bidder is determined by the sponsor to be non-responsive or not responsible, FAA must concur in the determination (See Paragraph 912). If an unsuccessful bidder protests that the low bidder was either non-responsive or not responsible, FAA must ask the sponsor to provide information on how it made its determination. In view of the protester's complaint, FAA must also concur in this determination.

915. SPECIFIC SITUATIONS.

Because procurement regulations vary from locale to locale, it can be extremely difficult for FAA project manager to keep track of all the procurements in progress. Below are outlined several scenarios which are not uncommon and which provide appropriate guidance:

a. A Contractor uses Quote from Supplier "A" and is Apparent Low Bidder. After Awarded the Contract, the Contractor Obtains the Equipment from Supplier "B."

There is no Federal requirement preventing a contractor from switching suppliers as long as there is no change in the bid. This is also true in the case of using subcontractors. While this is probably not a good business practice, FAA has no control over this situation. The assumption here is that there has been no influence, either overtly or covertly, from the sponsor. However, when a protest is filed and to ensure the sponsor has not been exerting pressure, FAA project manager may request that the sponsor supply the names of the suppliers/manufacturers from the prospective bidders. FAA Airports Office should review such submittals to confirm that all the contractors are not using the same suppliers and distributors.

b. A Contractor uses a Quote from Supplier "A" and is Apparent Low Bidder. After Awarded the Contract, the Sponsor's Engineer Refuses to Accept the Material from Supplier "A" and Makes Arrangements for the Contractor to Obtain the Material from Supplier "B" at the Same Price.

This type of action is not acceptable and would be in violation of, Title 49 CFR, Part 18. The sponsor is interfering with the open and competitive market. As long as the material from supplier "A" meets the standards and specifications, the sponsor may not specify with whom the contractor shall do business.

c. A Contractor uses Quote from Supplier "A" and is Apparent Low Bidder. After Awarded the Contract, the Contractor is Told by the Sponsor to Furnish Material from Another Supplier at a Higher Cost. The Sponsor will Pay the Additional from its Own Funds. There has been a long-standing policy by OMB that this is not acceptable**.** This is an obvious attempt to circumvent the procurement regulations and is not to be allowed.

Sponsor Category Plans to Procure Equipment under the Grant Program. Can He or Should He Break Up the Order to Accommodate Several Suppliers/Manufacturers or Should He Purchase as a Complete Usable Unit, E.G. Lighting Fixtures and Cans.This practice is left up to the discretion of the sponsor. By breaking up the order, the sponsor may be able to meet its overall Disadvantaged Business Enterprise goals more easily. However, there may be inherent problems using this technique, such as delivery dates, compatibility of equipment, having to deal with more than one vendor or contractor, etc. Normally, FAA project manager should not get involved in this type of decision unless there are extenuating circumstances.

916. - 919. RESERVED.

Section 2. TRADITIONAL CONTRACTS

920. GENERAL.

a. The type of contract (e.g. fixed-price contract and cost-reimbursement contract) shall be appropriate for the particular procurement and for promoting the best interest of the project involved. Discussion about other less traditional contracting methods, commonly referred to as alternative delivery methods contrtacting (or "Design-Build") is contained in section 3 of this chapter. Contracts should be sound and complete agreements and include, to the extent appropriate, provisions defining:

(1) The scope and extent of the contract work;

(2) The time for completion of the contract work, including, where appropriate, dates for completion of significant tasks;

(3) The contract price and method of payment;

(4) Identification of key personnel and facilities necessary to accomplish the work within the required time;

(5) The extent of consulting contracts and subcontracting to be performed;

(6) Changes by the sponsor within the general scope of the contract in the services or work to be performed; and

(7) Contractor conformance with the terms, provisions, conditions, and specifications.

b. FAA should carry out pre-award contract review in accordance with Paragraph 901.

921. NONALLOWABLE PRACTICES.

a. Cost-Plus-a-Percentage-of-Cost. The "cost-plus-a-percentage-of-cost" method of contracting shall not be used.

b. Contract bonus for expedited construction completion. Contracts sometimes provide for payment of a bonus to the contractor for completing construction ahead of schedule. Under airport aid grants, this is not an item to be considered in determining reasonableness of construction costs. Therefore, such bonus payments are ineligible.

c. Escalator Clauses. Unless otherwise authorized by APP-1, FAA will not participate in any costs in a contract that are subject to an escalator clause. For example, during periods of rising crude oil prices occasionally a contractor will request a clause providing for an increase in the cost of bitumen be inserted into a paving project contract. Such authorization will only be provided in instances where short-term price fluctuations in the market indicate that expected costs cannot be accurately estimated.

922. REQUIRED FEDERAL PROVISIONS.

a. In addition to the general requirements above, Federal laws and regulations prescribe that certain provisions be included in federally funded contracts, as specified below. For purposes of this paragraph, the term, “contract", includes subcontracts. For specific wording of contract clauses and solicitation provisions, please see the FAA Airports website at http://www.faa.gov/arp/financial/procurement/ .**All Contracts.**

(1) Civil Rights - Title VI. Appropriate clauses from the Standard DOT Title VI Assurances must be included in all contracts. The clauses can be found in Appendix 2 in Advisory Circular 150/5100-15, Civil Rights Requirements in the Airport Improvement Program.

(2) Disadvantaged Business Enterprises. Appropriate clauses from Title 49 CFR, Part 26 must be included in all contracts.

(3) State Energy Conservation Plans. The contracts shall recognize mandatory standards and policies relating to energy efficiency that are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201). Sponsors should be advised to include their State’s plans in contracts issued as a result of AIP grants.

(4) Record Availability. Contracts must include a provision to the effect that the sponsor, FAA, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contact for the purpose of making audit, examination, excerpts, and transcriptions. Sponsors shall require contractors to maintain all required records for three years after the sponsor makes the final payment and all other pending matters are closed.

(5) Remedies. Contracts must allow for administrative, contractual, and legal remedies to instances in which contractors violate or breach contract terms and providing such appropriate sanctions and penalties.

(6) Foreign Trade Restriction. All solicitations, contracts, and subcontracts resulting from projects funded under the AIP must contain the foreign trade restriction required by Title 49 CFR, Part 30, Denial of Public Works Contracts to Suppliers of Goods and Services of Countries That Deny Procurement Market Access to U.S. Contractors. See the Standard Solicitation and Contract Language provided on the FAA Airports web site.

b. All Contracts over $10,000. These contracts must contain provisions or conditions for termination for cause or convenience by the sponsor including the procedure and the basis for settlement. In addition, such contracts shall describe conditions under which the contract may be terminated because of circumstances beyond the control of the contractor.

c. All Contracts over $25,000. All solicitations, contracts, and subcontracts that exceed $25,000, shall contain the required provision from Title 49 CFR, Part 29, Government Debarment and Suspension (Non-procurement). Further, this provision will be inserted in all solicitations and contracts when the

solicitation or contract is for auditing services regardless of amount. See the Standard Solicitation and Contract Language provided on the FAA Airports web site.

d. All Contracts over $100,000. Contracts in amounts in excess of $100,000 shall contain a provision which requires compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC 7602, et seq.)), Section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, Environmental Protection Agency regulations (40 CFR Part 15), and Title 49 CFR, Part 20.

e. All Construction Contracts. All contracts involving labor must contain provisions necessary to ensure that in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to qualified individuals who are Vietnam era veterans or disabled veterans, who have been honorably discharged from such service. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates. The clause can be found in Advisory Circular, AC 150/5100-6, Labor Requirements for the Airport Improvement Program.

f. All Construction Contracts over $2,000.

(1) Davis-Bacon Requirements. All construction contracts over $2,000 need to include a provision for compliance with prevailing wage rate requirements of the Davis-Bacon Act (40 USC 3701 et seq. to a-7) and the Department of Labor (DOL) implementing regulations (29 CFR Part 5). Under this Act, contractors are required to include the contract provisions in Section 5.5(a) of 29 CFR Part 5, and to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in the wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less often than once a week. The sponsor shall place a copy of the current prevailing wage determination in each solicitation, and the award of a contract shall be conditioned upon the acceptance of the wage determination. The sponsor shall report all suspected or reported violations to FAA. (AC 150/5100-6 contains detailed guidance in this area along with the appropriate clauses.)

(2) Contract Work Hours and Safety Standards Act Requirements. The contracts must include a provision for compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (formerly 40 USC 327-330) as supplemented by the Department of Labor regulations (29 CFR Part 5). Under Section 103 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate not less than 1.5 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to health and safety as determined under construction, safety, and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchases of supplies, materials, or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence. Appropriate clauses can be found in AC 150/5100-6, Appendix 2.

(3) Copeland "Anti-Kickback" Act Requirements. All construction contracts over $2,000 must include a provision for compliance with the Copeland "Anti-Kick Back" Act (18 USC 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This act provides that each contractor shall be prohibited from inducing, by any means, persons employed in the construction, completion, or repair of public work to give up any part of their compensation. The sponsor must report all suspected or reported violations to FAA. .

g. All Construction Contracts over $10,000. Executive Order 11246, Equal Employment Opportunity, applies to all construction contracts over $10,000. Appropriate clauses from 41 CFR Part 60 must be included in all applicable contracts.

h. Contracts for Steel or Manufactured Products. Buy-American preferences established within Title 49 U.S.C., Section 50101 require that the steel and manufactured products used for AIP-assisted projects must be produced in the United States. This provision may be subject to the following four exceptions:

(1) applying the provision is not in the public interest. This is reserved for significant public interest determinations;

(2) the steel or manufactured product is not available in sufficient quantity or quality in the United States; this refers to the manufacturing capability of the United States and whether it can meet demand;

(3) the cost of components and subcomponents produced in the United States is more than 60 percent of the total components of a facility or equipment, and final assembly has taken place in the United States. (The term "final assembly" for purposes of this provision should be substantial rather than a light bulb put in a vehicle.) The application of this subsection is determined after bid opening. FAA Airports Offices should use the cost of the facility being constructed in determining the cost of the components. For example, if a project is to construct a runway, the components would cover things such as rebar, lights, etc. If a project is for runway lights only, the components would be the lenses, etc. Depending on the project scope, therefore, a piece of equipment may be found to not comply with this section in one instance and be acceptable in another; or

(4) applying this provision would increase the cost of the overall project by more than 25 percent.

The FAA project manager is responsible for assuring that the sponsor inserts the appropriate Federal clauses into its contracts and solicitations. A special condition to be used in grants is found in Appendix 7.

923. - 929. RESERVED.

Section 3. ALTERNATIVE DELIVERY METHODS

930. GENERAL.

In 2000, a pilot program was established to test design-build contracting and other forms of alternative delivery methods. Such methods are gaining popularity in local and state governments. The philosophy behind these new types of delivery methods is generally that delivery time can be reduced and change orders are minimized resulting in overall lower costs and higher quality. Although this is the philosophy, conditions for the project must be evaluated to determine if traditional design-bid-build methods in section 2 is more appropriate before undertaking an alternative delivery method. Contract clauses shown in section 2 would still apply to procurement action that seek alternative delivery methods under this section.

Title 49, United States Code was amended to add Section 47142, which established design-build contracting as an approvable form of contracting under AIP. Under the statute, design-build contracting is defined as an agreement that provides for both design and construction of a project by a contractor. Since different laws affect the contracting for the design portion of a project and the construction portion, there were infrequent opportunities to use design-build contracting under AIP until the pilot program and subsequent permanent inclusion.

Other alternative delivery methods, however, have not been as hampered. Although not intended to be restrictive and all-inclusive, two other methods are described below.

a. Construction Manager-At-Risk (CM-A-R). Under forms of CM-A-R, the sponsor would engage a design firm for the design of the project. At an early stage of design, a contract is let for CM-A-R in

which the contractor reviews designs as they evolve to provide expertise for the construction phase. The CM-A-R and the sponsor also negotiate a ceiling amount for the construction beyond which the CM is "at-risk."

b. Task Order Contracting. In many procurement systems, these are sometimes referred to as indefinite quantity/indefinite delivery contracts and other similar contracting instruments. Under the most common approach to this type of contracting, the sponsor would procure an annual need such as paving or floor finishing (there could be many areas adaptable to this form of contracting.) The sponsor would estimate a ceiling amount and most frequently a maximum per order amount. The contract is also procured on the basis of criteria such as standard fees or unit rates and provides the standard contract clauses. When a contractor is needed for a relatively small job within the category, the contractor and sponsor will negotiate by applying the basic agreed upon fee against the scope of the specific project. No further competition is necessary if the task order contract was competed within the same year. If a sponsor wishes to use this tool beyond a 12-month period, regions and ADO's should advise sponsors that such action would require agreement with FAA in order for the cost to be found allowable. The most important factor is a determination that there is no necessity to recompete the agreement due to similar economic conditions, stability of wages and fringe benefits under Davis-Bacon determination and similar cost areas.

931. DESIGN BUILD.

a. Design-build is a method of contracting in which two distinct phases of project accomplishment, design phase and construction phase, are combined into a seamless process performed by one contractor who retains single-source responsibility for that entire process. Due to timesavings in the contracting process as well as earlier commencement of construction, design-build may provide cost savings. There are many recognized forms of design-build and the following is a brief description. There may be hybrid types of design-build that use variations of the basic philosophies.

b. Design-build project delivery can be performed by a single company with both design and construction capability in-house, or by a team of design firms and contracting firms, working under a single design-build contract. The design-build firm/team contracts to design and build the facility, and retains the risk for overall project completion, budget, and schedule. There is no division of responsibility to the Sponsor between the design organization and the construction organization.

c. Design-build services can be performed under all of the contractual methods used for construction including lump sum, cost plus (excluding cost-plus- percentage-of-costs which is unauthorized), cost with a guaranteed maximum, etc. Design fees can be included in the overall contract price or separated as a subset of the price.

d. Contracting for design-build services can be done by either of two basic methods:

(1) Qualifications Based Selection (QBS) - In this method, contracting for design-build services is nearly identical to selection procedures commonly used for professional design services. The Sponsor solicits proposals for the project, and design-build firms and teams respond with qualification information as prescribed in the solicitation. The sponsor chooses a short list of the most qualified firms/teams, and presentations/interviews are made by those firms/teams. The sponsor then selects the most qualified firm/team and negotiates a contract for professional services that also provides for subsequent establishment of a guaranteed maximum price (or lump sum, or cost plus fee, or another form of pricing) and guaranteed completion date for the entire project at an agreed level of completion of the preliminary design work.

(2) Competitive Proposal Selection (CPS) - The contracting process for design-build services is accomplished in two steps. The Sponsor first prepares a design criteria package for the project using in-house staff or a retained design firm (often a firm with an existing retainer contract.) Design-build firms/teams respond to a solicitation, and are short-listed in the same process used for QBS. In the second step, a design criteria package is issued to the short listed firms/teams, who respond with

separate technical and price proposals. Technical proposals are evaluated first, using a numerical "points earned" system. Then, price proposals are opened and prices are factored into the "points earned" system to determine the final selection. A common method of "scoring" price information is to divide the price by the technical points score, and the resulting low score wins.

(3) Note that the CPS process may have more costs than the QBS method. Under the CPS, the Sponsor must bear the cost of design criteria package preparation. Further each short listed design-build firm/team must bear the considerable cost of preparing a technical proposal with preliminary drawings and outline specifications, along with a conceptual cost estimate to establish a price. To control this substantial submittal cost, Sponsors should avoid short lists longer than 3-4 firms/teams. Sponsors should also consider granting a stipend to each unsuccessful firm/team in return for the right to use any concepts from the unsuccessful teams/firms' technical proposals for the project.

e. Limitations. The following are some limitations on the approval of projects for design-build contracting:

(1) The selection process must be permitted under State or local law;

(2) FAA must approve the use of design-build in advance;

(3) FAA must approve the method of design-build used;

(4) Sponsors must provide a schematic design adequate for FAA to approve the grant and assure that the contract will be executed after competitive procedures;

(5) Sponsors must demonstrate that the use of the contracting method will be cost-effective and will expedite the project;

(6) Sponsors must show that the contracting method will safeguard against conflict of interest;

(7) The selection must be as open, fair and objective as the competitive bid system and at least 3 or more bids will be submitted.

f. Airport District Offices or regional offices, as appropriate, should advise airport sponsors that to be considered, the sponsor should, as a minimum, submit the following:

(1) A full description of the project together with general sketches of proposed work;

(2) A description of the contracting process to be utilized as well as steps to be taken to assure that 3 or more companies will bid on the proposed project, including a statement that the type of project has an adequate number of firms involved regularly in the execution of design-build contracts;

(3) An analysis of the cost-savings and/or time savings that will be gained by the use of the design-build construction method;

(4) A statement describing what safeguards are in place to prevent conflicts of interest and that the process will be as open, fair and objective as the normal contracting process;

(5) A statement citing specific references to the state or local law that permits the use of design-build contracting methods.

932. - 939. RESERVED.

Section 4. CHANGE ORDERS AND SUPPLEMENTAL AGREEMENTS

940. CHANGE ORDERS AND SUPPLEMENTAL AGREEMENTS.

Most contracts will incorporate AC 150/5370-10, Standards for Specifying Construction of Airports, as part of the standards and specifications. This AC addresses both change orders and supplemental agreements. In contracts not incorporating the AC, procedures for change orders and supplemental agreements that are as close as feasible to those in the AC should be followed.

a. Change Orders. A change order is a written order by the sponsor to the contractor, given pursuant to a recognized right or rights reserved in the contract, which makes a change in the design, drawings, or specifications of the contract within the general scope. No new wage rate decision will be required to cover the work involved in the change order. Any change that exceeds an increase or decrease of 25% of the estimated cost of the contract or of a major item (as defined in the AC) must normally be accomplished through a supplemental agreement.

b. Supplemental Agreements. A supplemental agreement covers work that is not within the general scope of the existing contract and which the contractor is not obligated to perform under the terms of the contract, or is work which exceeds the 25% limitation, covered in "a." above. Thus, a supplemental agreement is a separate contract and requires execution by both parties with the same formality as any other contract. A new wage rate decision will be required for each supplemental agreement involving more than $2,000 unless it involves work under a project for which a wage determination decision was issued and such decision has not expired at the time of award of the supplemental agreement.

c. FAA Approval. The sponsor must get prior FAA approval for any change orders and supplemental agreements, which will result in a grant amendment. In other cases and in emergency situations, the region may choose to establish procedures and levels of changes in cost and scope below which the sponsor need not obtain prior approval. The region must ensure that the sponsor understands what these procedures and levels are. The sponsor should also be made aware of the statutory limitation on the increase in grant amount.

d. Eliminating Items of Work. A change order is used to eliminate items of work from the plans and specifications of a construction contract. If the item to be eliminated is of such magnitude as to change the scope of the project as described in the grant agreement, there must be a formal amendment of the grant agreement prior to issuance of the change order.

941. - 949. RESERVED.

Section 5. SUSPENSION AND DEBARMENT

950. GENERAL.

Title 49 CFR, Part 29, Governmentwide Debarment and Suspension (Nonprocurement), was revised and became effective October 1, 1988. The suspension or debarment of an individual or a company by one Federal agency now has Governmentwide effect. All departments within the Executive Branch of the Federal Government have adopted GSA and OMB's common rule on debarment and suspension.

951. APPLICABILITY OF TITLE 49 CFR, PART 29.

The procedures are applicable to contractors and subcontractors at any level, including suppliers, fee appraisers, inspectors, real estate agents and brokers, consultants, architects, engineers, attorneys, and to affiliates of these contractors when the procurement contract for goods or services equals or exceeds the Federal procurement small purchase threshold, currently set at $100,000 (this limit does not apply to auditors under OMB Circular A-133).

952. NONPROCUREMENT LIST.

The "Nonprocurement List" is that portion of the "List of Parties Excluded from Federal Procurement and Nonprocurement Programs" compiled, maintained, and distributed by GSA which contains the names and other information about persons or companies who have been debarred, suspended, or voluntarily excluded from participation in Federal programs. An individual or company named in the "Nonprocurement List" may not be awarded a grant, a contract, or a subcontract except as provided in Title 49 CFR, Part 29. Sponsors may gain access to this list on the web by using http://epls.arnet.gov/.

953. DESIGNATIONS.

a. Debarring/Suspending Official. The Administrator has designated the Airports Division Managers as debarring and suspending officials. This designation may not be delegated.

b. Coordinator. APP-520 will serve as the national coordination point and should be notified when a party has been suspended, debarred, or voluntarily excluded from contracts under AIP. They, in turn, will notify all regions and the Assistant Secretary for Administration (OST) for the purposes of inclusion on the Non-procurement List.

954. PROCEDURES FOR SUSPENSION AND DEBARMENT.

Regions should consult and carefully follow the procedures for suspension and debarment contained in Title 49 CFR, Part 29.

955. - 999. RESERVED.