

Part VI: Land Use

Chapter 20. Compatible Land Use

20.1 Background.

Land use planning is an important tool in ensuring that land on, adjacent to, or in the immediate vicinity of the airport is consistent with activities and purposes compatible with normal airport operations. Airport operations includes aircraft landing and takeoff. Ensuring compatible land use on or near federally obligated airports is an important responsibility and an issue of Federal interest.

Incompatible land use at or near airports may result in hazards to air navigation and reductions in airport utility resulting from obstructions to flight paths. Also, incompatible land use may result from residential construction in close proximity to the airport.

As communities grow, areas that were rural in nature can quickly become urbanized. A result of “urban sprawl” is the loss of open space and the resulting loss of airports and/or their utility. Many communities have relied upon their airports as an economic engine. Proximity of industrial parks and recreational areas to an airport has proven to be compatible and mutually beneficial.

20.2 Responsibilities.

It is the airport sponsor’s responsibility to ensure compatible land use on, adjacent, and in the immediate vicinity of the airport. It is also the sponsor’s Federal obligation not to make or permit any changes or alterations in the airport or any of its facilities that do not conform with the ALP, as approved by the FAA, and that might, in the opinion of the FAA, adversely affect the safety, utility, or efficiency of the airport.

The FAA Regional Airports Divisions (Regions) and Airport District Offices (ADOs) are responsible for ensuring that the sponsor fulfills its Federal obligations and will advise sponsors, when requested, regarding compatible land use. Regions and ADOs are also responsible for ensuring that residential developments on airport property are not approved. In addition, Regions and ADOs are responsible for ensuring that airport property is not released for residential development. There is no justification for the introduction of residential development on or near a federally obligated airport.

20.3 Controlling Grant Assurances and Additional Resources.

Grant Assurance 5, *Rights and Powers*, requires in part that:

- a. [The airport sponsor] will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this Grant Agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

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- g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 (FAA Modernization and Reform Act of 2012) and the sponsor assurances.

Grant Assurance 19, *Operation and Maintenance*, requires in part that:

- a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state, and local agencies for maintenance and operation. It will not cause or permit any activity thereon which would interfere with its use for airport purposes. * * *

Grant Assurance 21, Compatible Land Use, implementing 49 U.S.C. § 47107(a)(10) requires, in part, that the sponsor:

[T]ake appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

The FAA recognizes that not all airport sponsors have direct jurisdictional control over uses of property near the airport. However, for the purpose of evaluating airport sponsor compliance with the compatible land use assurance, the FAA does not consider a sponsor's lack of direct authority as a reason for the sponsor to decline to take action to achieve land use compatibility outside the airport boundaries.

Grant Assurance 31, Disposal of Land, requires that land purchased under a grant for airport development or noise compatibility purposes that is disposed of,

d. [W]ill be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

Additional resource information is available at the following:

- [AC 150/5190-4, Airport Land Use Compatibility Planning](#)
- [Compatible Land Use \(faa.gov\)](#)
- [AC 150/5070-6, Airport Master Plans](#)
- [Wildlife Regulations, Guidance, and Resources \(faa.gov\)](#)
- [Airport Airspace Analysis \(AAA\) \(faa.gov\)](#)

20.4 Compatible Land Use.

Compatibility of land use is attained when the use of adjacent property neither adversely affects flight operations from the airport nor is itself adversely affected by such flight operations. In most cases, the adverse effect of flight operations on adjacent land results from exposure of noise sensitive development, such as residential areas, to aircraft noise and vibration.

Land use that adversely affects flight operations is that which creates or contributes to a flight hazard. For example, any land use that might allow tall structures, block the

required line of sight from the control tower, inhibit pilot visibility (such as glaring lights, smoke, etc.), produce electronic aberrations in navigational guidance systems, or that would tend to attract birds would be considered an incompatible land use. For example, solar and wind energy projects, without proper land use planning can be hazardous to aircraft operations.¹ (See chapter 7, *Airport Operations and Maintenance* and FAA's policy on [Review of Solar Energy System Projects on Federally Obligated Airports](#), 86 Fed. Reg. 25801, May 11, 2021).

Additionally, under certain circumstances, an exposed landfill may attract birds. If open incineration is regularly permitted, it can also create a smoke hazard. It is possible, by properly addressing concerns and hazards, to mitigate some hazardous land use to a level that the FAA deems to be safe. (See chapter 7, *Airport Operations and Maintenance*, for additional information).

20.5 Zoning and Land Use Planning

a. Zoning.

Zoning is an effective method of meeting the Federal obligation to ensure compatible land use and to protect airport approaches. Generally, zoning is a matter within the authority of state and local governments. Where the sponsor has authority to zone or control land use, the FAA expects the sponsor to restrict the use of land in the vicinity of the airport to activities and purposes compatible with normal aircraft operations. Even if the airport sponsor does not have zoning authority, FAA expects them to take reasonable efforts to oppose any zoning proposal that introduces incompatible land uses near or adjacent to an airport.

The majority of state and local zoning laws generally are in alignment with FAA land use compatibility guidance and recommendations. Most localities zone airports as commercial industrial, light manufacturing, public, or even open space. The objective of zoning land on and around the airport is to ensure that future uses of the land are compatible with airport operations to protect and preserve the airport and the public investment in the airport. Proper zoning strives to prevent incompatible uses, including residential and other noise sensitive uses and uses of land on the airport that interfere with areas needed for aviation related activities.

Sponsors and local communities should adopt adequate guidelines and zoning laws that consider noise impacts in land use planning and development. Similarly, any airport

¹ See, e.g., *Paskar v. U.S. DOT*, 714 F.3d 90 (2nd Cir. 2013), in which the owner of a coastal garbage facility implemented the FAA's recommended changes, making the facility safe for air navigation.

sponsor that has the authority to adopt ordinances restricting incompatible land development and limiting the height of structures in airport approaches according to the standards prescribed in [14 CFR part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace](#), is expected to use that authority. (See also chapter 7, *Airport Operations and Maintenance*).

b. Land Use Planning and Master Planning.

An airport master plan is a published document approved by the local governmental agency or authority that owns or operates the airport. The airport master planning process provides a means to promote land use compatibility around an airport. Incompatible land uses around an airport can affect the safety and utility of airport operations. Within an airport's noise impact areas, residential and public facilities – such as schools, churches, public health facilities, and concert halls – are sensitive to high noise levels and can affect the development of the airport. Generally, commercial and industrial uses, are compatible with airports. FAA's [AC 150/5190-4, Airport Land Use Compatibility Planning](#) provides general guidance on airport compatible land use planning.

It is important for the sponsor to involve local land use planners in the review and development of the airport's master plan. They can provide input on potential impacts that future airport development plans may have on communities surrounding the airport. (See [AC 150/5070-6, Airport Master Plans](#), for additional guidance). Other opportunities for coordination and communication between the airport and local planning agencies include the FAA noise compatibility planning process. (See chapter 13, *Airport Noise and Access Restrictions*, for information on aircraft noise compatibility planning).

20.6 Minimizing Incompatible Land Use.

In all cases, the FAA expects a sponsor to take appropriate actions to the extent reasonably possible to minimize incompatible land use.

In cases where the airport disposes airport property, they are required under [Grant Assurance 5, Rights and Powers, and Grant Assurance 31, Disposal of Land](#), to ensure that upon the sale or conveyance of airport property they retain adequate property rights, including, but not limited to, an adequate easement, deed restriction, covenant, or other property right or reservation to ensure compatible land use.

In cases where the airport sponsor does not have authority to enact zoning ordinances, the sponsor should demonstrate a reasonable attempt to inform surrounding jurisdictions on the need for land use compatibility zoning. Quite often, airport sponsors have a voice in the affairs of the community where an incompatible development is located or proposed. The sponsor can accomplish this through the dissemination of information, education, or ongoing communication with surrounding municipalities.

Depending upon the sponsor's capabilities and authority, action could include exercising zoning authority as granted under state law or engaging in active representation and defense of the airport's interests before the pertinent zoning authorities. The sponsor may also act with respect to implementing sound insulation, land acquisition, purchase of easements, and real estate disclosure programs or initiatives to mitigate areas to make them compatible with aircraft operations. Sponsors without zoning authority may also work to change zoning laws to protect airport interests. The sponsor should be able to demonstrate that it pursued reasonable efforts to ensure proper zoning or other land use controls.

Airports present a variety of unique challenges to those involved in community planning. Height restrictions are necessary in the vicinity of airports and airways to protect aircraft in flight. Residential housing and other land uses near airports must remain compatible with airports and the airport approach/departure corridors. Additional concerns include the airport's proximity to landfills and wetlands that may result in hazards to air navigation created by flocks of birds attracted to the landfills or wetlands. Unusual lighting in the approach area to an airport can create a visual hazard for pilots. Also, land uses that obscure visibility by creating smoke or steam may be hazardous to flight. (See chapter 7, *Airport Operations and Maintenance*). Each of these concerns must be addressed in community planning to maintain the safety, utility, and efficiency of the airport as well as the quality of life expected by community residents.

20.7 Residential Use of Land on or Near Airport Property.

a. General.

The FAA's longstanding policy is that residential use on or near a federally obligated airport, whether permanent or transient, is incompatible with airport operations and not permissible. Allowing residential use is inconsistent with [Grant Assurance 19, Operations and Maintenance](#), which states that an airport sponsor will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. This is because it can result in noise exposure that exceeds guidelines for residential land use, create encroachment, and residents may seek restrictions on airport operations that limit the existing or future utility of the airport.

Residential use typically involves persons that live on or near the airport but have no association with the airport. For this purpose, the FAA considers residential use to include permanent or long-term living quarters; part-time or secondary residences; residential hangars; hangar homes; campgrounds; permanent or transient accommodation of people experiencing homelessness; fly-in communities; or airpark developments – even when co-located with an aviation hangar or aeronautical facility. Additionally, the FAA considers residential use of airport property, and through-the-

fence access from a residence to the property of a commercial service airport, to be incompatible with airport operations.

The FAA expects the airport sponsor to have rules and regulations to control residential use, as well as to oppose residential zoning that would permit such uses since these uses may create hazards or safety risks between airport operations and nonaeronautical tenant activities. If doubts exist regarding the nature of a proposed facility, the airport sponsor may ask the FAA to evaluate the proposed development. Also, the FAA may conduct a land use inspection to determine the true nature of the development; the FAA would then determine whether the facility is compatible with the guidance provided herein.

b. Private Airparks.

It is common for private airparks to impose restrictions on the use of the airfield, such as night curfews, that would be considered a violation of reasonable access at a public use airport. A private airport that has not received Federal assistance has no obligation to provide reasonable access to the public and may impose restrictions at private unobligated airparks operated by the resident owners for their own benefit.

c. Residential-Through-The-Fence.

(1) Federally Obligated General Aviation Airports.

In 2012, Congress amended the Airport and Airway Improvement Act to add 49 U.S.C. § 47107(s), which provides that the sponsor of a federally obligated general aviation airport will not be in violation of the grant assurances for entering into an agreement for residential through-the-fence access to the airfield, on certain conditions. Under this statute, an acceptable agreement for residential through-the-fence access must provide, at a minimum, for the resident's payment of an access fee comparable to the charges of on-airport users; the resident's acceptance of the cost of any infrastructure necessary for access to the airport; the use of the property only for residential, non-commercial purposes; a prohibition on access for others through the resident's property; and a prohibition on aircraft refueling on the property. (See chapter 12, *Review of Aeronautical Lease Agreements* and the FAA's [Residential Through-the-Fence Access Toolkit](#)).

(2) Commercial Service Airports.

The FAA considers through-the-fence access from a residence to a commercial service airport to be incompatible with the operation of the airport. For that reason, the FAA will not approve new through-the-fence access from residential property to a commercial service airport.

At the same time, the FAA has recognized that there are existing residential through-the-fence arrangements at a small number of commercial airports, and that termination of these arrangements could be disruptive and have a potential adverse effect on property values. In July 2013, the FAA published a [Final Policy on Existing Through-the-Fence Access to Commercial Service Airports from a Residential Property \(from 78 Fed. Reg. 42419, July 16, 2013\)](#). Under that policy, the FAA will not consider the sponsor of a commercial service airport to be in violation of its grant assurances for maintaining an existing residential through-the-fence arrangement, if the FAA determines that the arrangement meets certain standards. (See [Section II, Standards for Compliance at Commercial Service Airports with Existing Through-the-Fence Access, at 78 Fed. Reg. 42428](#).) Prior to awarding a new AIP grant to the sponsor, the FAA will review the sponsor's plan for compliance with the standards listed in the policy statement. If the sponsor's plan meets the standards, the sponsor will not lose eligibility for AIP grants. However, the FAA may consider the effect of through-the-fence access on the airport's utility as a factor in future funding decisions.

d. Crewmember Quarters and Hangar Residences.

The FAA differentiates between a typical pilot resting facility or crewmember quarters and a hangar residence or hangar home. The former is designed to be used for overnight and/or resting periods for crewmembers and not as a permanent or even temporary residence. The FAA recognizes that certain aeronautical uses – such as commercial air taxi, charter, and medical evacuation services – may have a need for limited and short-term crewmember quarters for temporary use, including overnight and on-duty times. There may be a need for Aircraft Rescue and Fire Fighting (ARFF) quarters if there is a 24-hour coverage requirement. Moreover, an airport manager or a fixed-base operator (FBO) duty manager may have living quarters assigned as part of his or her official duties. Living quarters or caretaker quarters in these cases would be airport-compatible if an airport management or FBO job requires an official presence at the airport during off-duty times, and if the specific circumstances at the airport reasonably justify that requirement.

However, other than the performance of official duties in running an airport or FBO in a remote location with off-airport housing unavailable, the FAA does not consider permanent or long-term living quarters to be an acceptable use of airport property at federally obligated airports. This includes developments known as airparks or fly-in

communities, and any other full-time, part-time, or secondary residences on airport property even when co-located with an aviation hangar or aeronautical facility. While crewmember or caretaker quarters may include some amenities, such as beds, showers, televisions, and refrigerators, these facilities are designed to be used for overnights and resting periods, not as permanent or even temporary residences for crewmembers, aircraft owners or operators, guests, customers, or the families or relatives of same.

A crewmember is limited to those individuals assigned to perform duty in an aircraft during flight time (See 14 CFR §1.1, *General definitions*). It may include the pilot-in-command (PIC), second in command, flight engineer, flight attendants, loadmasters, search and rescue (SAR) flight personnel, medical technicians, and flight mechanics. It does not include passengers, families, relatives, or guests of crewmembers not meeting the preceding definition.

e. Releases.

The FAA will not approve a proposed release of airport property from its Federal obligations so that the property can be used for a residential development or to establish residential “through-the-fence” access to the airfield. (See chapter 22, *Land Use Changes and Releases of Federally Acquired and Federally Conveyed Land* for additional information).

f. Authority and Compliance Requirements.

Allowing new residential development, including airport hangars that incorporate living quarters for permanent or long-term use, on federally obligated airports is incompatible with airport operations. It conflicts with federal surplus property obligations and several grant assurance requirements including [Grant Assurance 5, Preserving Rights and Powers](#); [Grant Assurance 19, Operation and Maintenance](#); and [Grant Assurance 21, Compatible Land Use](#). Moreover, an airport sponsor permitting on-airport residential living quarters will have greater difficulty convincing local zoning authorities to restrict residential development off-airport.

Therefore, airport sponsors are encouraged to:

- (1) Explicitly prohibit the development of new residential living quarters on the airport in all tenant leases and subleases.
- (2) Develop minimum standards that require the explicit advanced approval of all tenant subleases by the airport sponsor.
- (3) Include clauses in all tenant leases stating that unauthorized development of residential living quarters may be declared an event of default under the lease

and that the airport sponsor may declare any noncomplying subleases null and void.

- (4) If possible and practical, convert any existing living quarters into nonresidential use at the earliest opportunity, especially if the airport sponsor holds title to the living quarters.

20.8 Homelessness On and Adjacent to Federally Obligated Airports.

In addition to being a nonaeronautical use of airport property, the FAA's longstanding policy is that residential use, which includes accommodating people experiencing homelessness, permanently or transiently, on federally obligated airports is not permissible and is incompatible with airport operations.

In recent years, the use of airport property to accommodate homeless activities (*e.g.*, homeless camps, safe parking, and associated support services) has increased for several reasons, but a common perception is that airports are public property, accessible, and have land and facilities available to accommodate people experiencing homelessness. The FAA began advising airport sponsors on a case-by-case basis that Federal grant obligations preclude the use of airport property for such purposes and that corrective actions are required to mitigate the use.

Regions and ADOs should advise ACO-100 of existing, new, or potential homeless activities on federally obligated airports once the activity becomes known. The Region or ADO should send a formal letter of inquiry to the sponsor to initiate discussions and obtain detailed information about the status and extent of the homeless issue and to request a corrective action plan.

Homeless activities on airports vary widely in size, scope, facilities, duration, and location. Accordingly, an airport-specific Corrective Action Plan (CAP) is needed to bring the sponsor back into compliance with Federal law and FAA policy. While the FAA does not prescribe a specific or uniform set of measures to implement corrective actions, the sponsor is expected to pursue mitigation measures that are effective, timely, and acceptable to the FAA.

An initial review of the CAP should be conducted by the Region/ADO and in accordance with the applicable grant assurance and/or property obligations. In its review, ACO-100 may recommend that the Region request more detailed information or propose additional mitigations. If so, the Region/ADO should notify the airport of any changes that need to be made to the CAP. Once approved, corrective actions identified in the plan must be implemented.

The Regions and ADOs are responsible for tracking and monitoring CAPs. Particular attention should be given to due dates, sponsor attentiveness to required actions, and the disposition of corrective actions relative to the sponsor's current or projected

requests for AIP grant funding. Sponsor requests for additional time to implement corrective actions, or to use an alternative means of compliance not included in the FAA accepted CAP, must be submitted in writing to the Region and coordinated with ACO-100.

20.9 through 20.13 Reserved.