

COMPATIBLE LAND-USE PLANNING FOR AREAS ADJACENT TO AIRPORTS

A CASE STUDY OF INDIANAPOLIS, INDIANA

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As community planners know too well, once an area is committed to any given form of development, it can be nearly impossible to reverse the trend. Airports present serious challenges for their host communities when it comes to land-use planning. They require large tracts of land; they produce varied impacts beyond their boundaries; and they serve a dynamic and growing industry that often seems to be in constant transition. Furthermore, airports are important, if not vital, to local and regional economies.

Thus, local governments are faced with a demanding balancing act: to minimize the risk that future populations will be exposed to substantial airport-related impacts; to protect the long-term viability of the airport by ensuring that encroaching development does not choke the airport's long-term development needs; and to ensure that urban development permitted in the airport environs provides fair opportunities to property owners while producing lasting value to the community.

An especially difficult aspect of the airport/community planning interface relates to future airport facility requirements. New facilities can have profound effects on the surrounding environs. Construction of a new runway or the relocation of an airport passenger terminal, for example, can require substantial land acquisition, the rerouting of major highways and arterial streets, and the introduction of aircraft noise to new parts of the community. The inability to develop needed facilities can seriously compromise the ability of the airport to accommodate air-travel demand. In extreme cases, the choking off of airport development potential can lead to the abandonment and relocation of the airport—a project of daunting expense with potentially severe adverse impacts of its own.



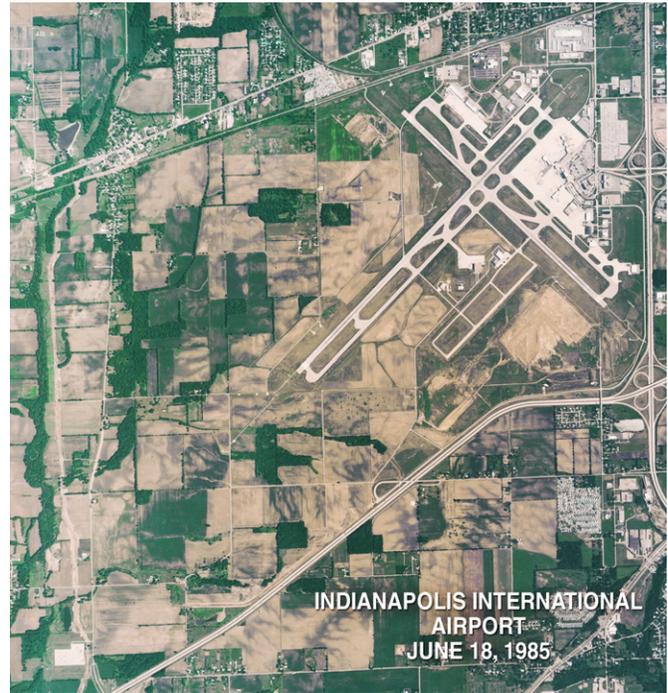
If a local government is to establish a land-use planning and regulatory framework that promotes the orderly, long-term development of the airport, the airport must have a long-term master plan that defines the broad outlines of the ultimate airport development. Indeed, experience indicates that strong and visionary airport leadership is crucial to a successful airport land-use-compatibility planning program.

When the future of the airport is sufficiently well defined and broad in scope, local governments have the guidance they need to establish compatible land-use plans and regulations. That long-term vision also enables the airport and the local government to coordinate on future property acquisition and long-term infrastructure needs. Without a sufficiently comprehensive vision of long-term airport development, local land-use policies and regulations may be enacted that allow incompatible development in key areas, potentially foreclosing what could otherwise have been attractive long-term airport development options.

Many of the success stories in airport/community planning collaboration are at relatively new airports, generally

developed since the 1970s. Examples include Dallas–Fort Worth International Airport, opened in 1974 (where Dallas, Denton, and Tarrant counties and several cities, including Arlington, Dallas, Euless, Fort Worth, Grapevine, and Irving collaborated to form a joint airport zoning board)); Denver International Airport (1995, where the City and County of Denver prepared the innovative Gateway Plan to promote a high quality, sustainable community in the core of an airport influence area affecting Adams County, Aurora, and Commerce City, as well as Denver); Kansas City International Airport (1972, where Platte County and Kansas City, Missouri, have collaborated for years on a compatible land use framework in the airport environs); Southwest Florida International Airport (1983, where Lee County has a system of noise overlay zoning, open space/environmental protection zoning, and commercial-industrial zoning in the airport area); and Washington Dulles International Airport (1962, where Fairfax and Loudon counties, Virginia, are shepherding the emergence of an airport city or aerotropolis through implementation of a long-range comprehensive plan of highway, transit, and economic development-oriented land use development).

Among older, long-established airports, Indianapolis International Airport offers an instructive example. The airport is a major air-cargo hub and consistently ranks among the top 50 airports in the nation in number of commercial passengers. Opened in 1931 in the farmlands west of Indianapolis, the airport was a modest municipal airport for many years. Through the 1940s, 1950s, and 1960s, the city gradually grew to the eastern edge of the airport property. The burgeoning aviation industry and the advent of commercial jet aviation in the 1960s spurred the need for airport expansion. In 1975, the Indianapolis Airport Authority prepared an airport master plan with a bold, long-term vision. The plan called for the development of parallel runways capable of simultaneously accommodating aircraft on instrument approaches and the relocation of the passenger terminal to a midfield location. This airfield configuration



would provide a high level of capacity and efficiency to meet air-traffic demand far into the future. Over the next 33 years, this vision was fully implemented.

Bob Duncan, the Airport Authority's chief operating officer, credits this success to four factors:

- A consistent management approach and the consistent support of the Airport Authority's board of directors throughout the period.
- Strict zoning controls to protect airport approach airspace and to promote compatible land use in the airport environs, especially off the ends of the planned parallel runways.
- A comprehensive noise-compatibility program that established flight procedures to reduce noise exposure over the neighborhoods east of the airport. The program also provided for the mitigation of the effects of noise in seriously affected neighborhoods through sound insulation and acquisition and relocation projects.
- An extensive land-acquisition program that provided the Airport Authority with the land needed for future facilities far in advance of construction.

The crucial first step was the preparation of a visionary master plan. With this plan, the local governments (Indianapolis-Marion County and Hendricks County) had the critical information they needed to adopt airport-vicinity overlay zoning to protect the airport approaches. In the mid-1980s, the Airport Authority undertook its first Federal Aviation Regulation (FAR) Part 150 noise-compatibility study. The resulting noise-compatibility program proposed noise-abatement procedures that were quickly implemented and that were understood to be the model for procedures that would continue after the construction of the new runways. The noise-compatibility program also

clarified the need for revisions in airport-compatible overlay zoning and set in motion several mitigation programs for dealing with noise-affected properties. This was all accomplished before the Airport Authority set out on its major airfield-development program.

Through these preparatory steps, the Airport Authority was able to enlist the cooperation of the local governments in compatible land-use planning while also assuring them and local residents that it was committed to being a good neighbor in addressing noise impacts. By the time the Airport Authority was preparing for its first major development project in the late 1980s—one of the planned parallel runways—the compatible land-use planning was in place to readily accommodate the development, even with the resulting change in noise-exposure patterns. Through good planning and the steady pursuit of its vision, the Airport Authority built the partnerships with the public and local governments that enabled it to move forward with substantial community support and negligible opposition.

The Indianapolis Airport Authority (IAA) owns and operates Indiana's largest airport system. In addition to Indianapolis International Airport (IND), its facilities include the Downtown Heliport, Eagle Creek Airpark, Hendricks County Airport, Metropolitan Airport, and Mt. Comfort Airport. Indianapolis International Airport was named the best North American airport by J.D. Power and Associates serving under ten million passengers per year in 2010. IND's economic impact in central Indiana is more than \$3.3 billion annually and about 10,000 people work at the airport each day. According to U.S. Department of Transportation data, IND's average domestic air fare is one of the lowest in the nation. IND averages 154 daily departures to 35 nonstop destinations. Home of the second-largest FedEx Express operation in the world, IND is the eighth largest cargo facility in the U.S.