

DOORWAY BRIEF: WE WANT TO DEVELOP A VERTIPORT

Why You Might Be Here

Your community may be interested in developing a vertiport to support future passenger transportation, medical transportation, cargo operations, emergency response, business aviation, or other advanced aviation services.

Vertiports are among the newest types of aviation infrastructure. While they share some similarities with airports and heliports, they also introduce unique considerations related to aircraft design, electrical infrastructure, emergency planning, passenger movement, and community compatibility.

This doorway is intended to help communities understand the basic process, key decisions, and relevant toolkit resources.

Start with the FAA

One of the first steps in developing a vertiport, particularly because it's new, is engaging with the Federal Aviation Administration (FAA).

Federal regulations require advance notice before constructing, activating, altering, or changing the status of a landing area. The process typically begins through FAA Form 7480-1 and the procedures established under 14 CFR Part 157. The FAA uses this information to evaluate how a proposed facility may affect existing airspace, aviation operations, and nearby facilities.

Communities should also become familiar with FAA Engineering Brief (EB) 105A, which provides current FAA guidance for vertiport planning and design. It is expected that EB 105A will be incorporated into a broader vertical lift infrastructure design advisory circular later this year. While the industry continues to evolve, the document provides a useful foundation for understanding facility design, safety areas, operational considerations, and planning assumptions.

Remember, FAA review does not replace local approvals, state requirements, zoning decisions, environmental review, or community planning processes. Rather, it helps identify aviation-related issues early in project development.

Ground-Based or Rooftop?

One of the earliest decisions involves determining whether the facility will be located on the ground or on an elevated structure.

Ground-based facilities often provide greater flexibility for emergency access, utility infrastructure, future expansion, passenger circulation, and support facilities.

Rooftop facilities may provide direct access to hospitals, commercial centers, transportation hubs, or dense urban environments, but they often introduce additional considerations related to structural capacity, emergency access, evacuation procedures, utility routing, and compatibility with surrounding development, which can translate to significantly higher costs in planning, design, and construction.

The appropriate solution depends on the purpose of the facility and the characteristics of the surrounding environment.

More Than a Landing Pad

Vertiports are far more than a section of pavement with a “H” painted on it. They are complex transportation facilities with operational, safety, utility, and emergency response requirements.

Depending on the intended use, a vertiport may include:

- Touchdown and Liftoff Areas (TLOF)
- Final Approach and Takeoff Areas (FATO)
- Safety Areas
- Aircraft parking positions
- Passenger facilities
- Cargo handling areas
- Charging systems
- Battery energy storage systems
- Utility infrastructure
- Communications systems
- Emergency access routes

The scale and complexity of these elements will vary depending on the type of operation being proposed.

Utility and Infrastructure Considerations

Unlike many traditional aviation facilities, vertiports may require substantial electrical infrastructure.

Potential considerations include:

- Utility service capacity
- Charging equipment
- Transformer upgrades
- Battery energy storage systems
- Backup power

- Communications systems
- Electrical resilience

Early coordination with utility providers can help communities understand infrastructure requirements, upgrade timelines, and potential opportunities to align aviation investments with broader resilience or modernization objectives.

Community Compatibility

Vertiports are often proposed in locations where people live, work, receive medical care, shop, or travel.

As a result, compatibility planning remains important.

Topics communities may wish to evaluate include:

- Land use compatibility
- Emergency access
- Traffic circulation
- Passenger access
- Noise considerations
- Privacy concerns
- Downwash and outwash
- Future development patterns

Addressing these topics early can help communities make informed decisions and reduce uncertainty during project review.

Building a Strong Foundation

Communities do not need a development proposal in hand to begin preparing.

Potential early efforts may include:

- Reviewing local aviation definitions and terminology
- Evaluating existing zoning and development standards
- Identifying potential locations
- Reviewing emergency response capabilities
- Understanding utility infrastructure
- Coordinating with airport sponsors and stakeholders
- Reviewing existing policies and ordinances

These activities can improve readiness regardless of whether a vertiport is ultimately developed.

Understanding Future Opportunities

Many vertiport discussions focus on aircraft. Communities may benefit from focusing first on the services the facility could support.

Examples may include:

- Medical transportation
- Regional transportation
- Cargo and logistics
- Emergency response
- Business aviation
- Infrastructure inspection
- Workforce development

The intended use of the facility should drive decisions regarding location, infrastructure, design, operations, and community engagement.

Recommended Next Steps

If your community is considering vertiport development, consider reviewing:

Infrastructure, Land Use, and Place

To better understand vertiport design, facility requirements, utility considerations, emergency access, and compatibility planning.

Governance, Roles, Authority, and Coordination

To understand the responsibilities of local governments, facility owners, operators, state agencies, and federal agencies.

Environmental and Noise Mitigation Strategies

To understand compatibility planning, noise considerations, environmental review, and community expectations.

Public Safety and Emergency Preparedness Guide

To evaluate emergency response planning, facility access, training, utility coordination, and preparedness considerations.

Economic Development and Readiness

To explore how vertiports may support transportation, logistics, emergency response, workforce development, business attraction, or other community objectives.

Questions to Consider

- Why is the vertiport being proposed?
- What services will the facility support?
- Has the FAA been contacted?
- Will the facility be ground-based or rooftop?
- Is utility capacity available?
- How will emergency access be provided?
- How will passengers, cargo, or patients access the site?
- Are surrounding land uses compatible?
- What role will the facility serve within the community?
- Which sections of this toolkit are most relevant to the community's goals?

Vertiports represent an emerging form of transportation infrastructure. Communities that understand the purpose of the facility, the services it is intended to support, and the planning considerations associated with its development are often better positioned to evaluate future opportunities and make informed decisions.