

TYPICAL AIRPORT LAYOUT

A typical airport layout includes the airside area (runways, taxiways, and aprons) and the landside area (terminal buildings and parking). The layout is designed for the efficient and safe movement of aircraft and passengers, with runways as the landing/take off zones, taxiways connecting them to other facilities, and aprons for parking aircraft. The terminal building centralizes passenger services like check-in, security, and gates, while landside includes car parking and public transport access

Airside components

- **Runways:** Paved areas used for aircraft takeoffs and landings.
- **Taxiways:** Paths that connect runways to aprons, terminals, and hangars.
- **Aprons (or Ramps):** Paved areas adjacent to the terminal where aircraft park, are loaded/unloaded, and refueled.
- **Aircraft stands:** Designated parking spots on the apron for specific aircraft.
- **Hangars:** Covered buildings for aircraft maintenance and storage.
- **Air traffic control tower:** A high structure for managing air traffic, located to provide a clear view of the airfield

Landside components

- **Terminal building:** The main building where passengers check in, go through security, and board flights. It contains areas for baggage claim, ticket counters, and waiting lounges.
- **Parking areas:** Facilities for cars and other vehicles, typically located near the terminal.
- **Public transport links:** Access points for buses, trains, and other forms of public transportation.

Supporting elements

- **Aerobridges:**

Enclosed, movable bridges that connect the terminal directly to an aircraft.

- **Approach area:**

An open area at the ends of the runway that must be free of obstacles to ensure a safe angle for aircraft to land and take off.

Components of An Airport Layout

1. Runway
2. Terminal Building
3. Apron
4. Taxiway
5. Aircraft Stand
6. Hanger
7. Control Tower
8. Parking

1. Runways

A runway is the area where an aircraft lands or takes off. It can be grass, or packed dirt, or a hard surface such as asphalt or concrete. Runways have special markings on them to help a pilot in the air to tell that it is a runway (and not a road) and to help them when they are landing or taking off. Runway markings are white.

Most runways have numbers on the end. The number is the runway's compass direction. (For example, runway numbered 36 would be pointing north or 360 degrees). Some airports have more than one runway going in the same direction, so they add letters to the end of the number R for right, C for center, and L for left. The other end of the runway is pointing in the opposite direction, so it gets a different number. The runway called 36 would be called 18 (for 180 degrees) if you were looking at it from the other end.



2. Terminal Buildings

Also known as airport terminal, these buildings are the spaces where passengers board or alight from flights. These buildings house all the necessary facilities for passengers to check-in their luggage, clear the customs and have lounges to wait before disembarking. The terminals can house **cafes**, lounges and **bars** to serve as waiting areas for passengers. Ticket counters, luggage check-in or transfer, security checks and customs are the basics of all airport terminals. Large airports can have more than one terminal that are connected to one another through link ways such as walkways, sky-bridges or trams. Smaller airports usually have only one terminal that houses all the required facilities.

3. Aprons

Aircraft aprons are the areas where the aircraft park. Aprons are also sometimes called ramps. They vary in size, from areas that may hold five or ten small planes, to the very large areas that the major airports have. Unlike the runways or taxiways, vehicles can use aprons. Your work may require you to drive on an apron. If so, be very careful in these areas. Watch out for aircraft that are moving and yield the right of way to them. Don't assume the pilot will see you and stop - he or she may be busy with other things like radio communications or checking the aircraft instruments. Every year there are many accidents involving vehicles and aircraft that result in property damage, personal injury, and in some cases, death. Don't let this happen to you! Your airport Executive Director has established rules for driving a vehicle on the airport - get a copy and read and obey them. The rules are there for your safety as well as the safety of the aircraft pilot and passengers.



4. Taxiway

A taxiway is a path on an airport connecting runways with ramps, hangars, terminals and other facilities. They mostly have hard surface such as asphalt or concrete, although smaller airports sometimes use gravel or grass.

5. Aircraft Stand

A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.



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6. HANGAR:

A hangar is a building at an airport used for aircraft storage, maintenance, and repair. Hangars are several key components, alongside runways, taxiways, terminals, and aprons,

FUNCTION

Storage: Provides a covered and protected space for aircraft.

Maintenance and Repair: Serves as a facility for servicing, overhauling, inspecting, and repairing aircraft.

Weather Protection: Protects aircraft from elements like sun, rain, and wind.

7. Control Tower

A tower at an airfield from which air traffic is controlled by radio and observed physically and by radar.

8. Parking

Parking is a specific area of airport at which vehicles park



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