

**Lawrence J. Timmerman Airport: Strategic Development and Airport Master Plan Study**  
**Prepared For: Milwaukee County**  
**Prepared By: Coffman Associates, Airport Consultants**  
**Revised 2004**

**1.0 Inventory**

Airport planning exists at local, regional, state, and national levels. This Plan provides planning at the local level, while the preparation of *Regional Airport System Plan for Southeastern Wisconsin: 2010* by Southeastern Wisconsin Regional Planning Commission (SEWRPC) (December, 1996) reflects the regional planning at the regional level.

The Lawrence J. Timmerman Airport is a general aviation public-use airport located on the northwest side of Milwaukee County. Specifically it is located west of N.91<sup>st</sup> and Appleton stopping at 103<sup>rd</sup> Street and all land in between Hampton Avenue and Silver Spring Drive. This plan evaluates different categories of inventory for the Airport area, a few of which are as follows:

- At the national level, the Airport is included in the National Plan of Integrated Airport Systems.
- The airport is operated and maintained by Milwaukee County
- Turf runways and taxiways are closed from November 1<sup>st</sup> to May 1<sup>st</sup> of each year
- Approximately 127 aircraft are based at the Airport
- Average annual snowfall is 49 inches, average annual rainfall is 32.2 inches
- Winds from April to June are generally from north-northeast
- There are 10 other public use airports that are within a 30 nautical mile radius from Timmerman Airport

**2.0 Aviation Demand Forecasts**

The primary objective of forecasting is to define the magnitude of change that can be expected over time.

**3.0 Facility Requirements**

In planning for future facilities, several factors must be considered: flexibility of the plans, staging of development, potential impacts on the environment and funding sources. Facility requirements must be considered in the future include but are not limited to:

- The annual operations in 2003 represented 27.1% of the ASV. In the long term, it is projected the annual operations will reach 33.5% of the ASV.

- Annual Service Volume [ASV] (determined by the weighted hourly capacity, ratio of annual demand to average daily demand during the peak month, and the ratio of average daily demand to average peak hour demand during the peak month)
- As there is an increased demand on the airfield, there is the potential for larger planes utilizing the runways. Based off of industry requirements, the primary runway should be planned for 4,400 feet for take off and 4,300 feet for landing.
- Projections for future total hangar area include:
  - Currently available: 165,000 sq ft
  - Current need: 207,800 sq ft
  - Short term (5yr): 221,800 sq ft
  - Intermediate term (10yr): 233,200 sq ft
  - Long Term (20yr): 262,000 sq ft
- Projections for future general aviation apron area include:
  - Currently available: 20,800 sq ft
  - Current need: 28,800 sq ft
  - Short term (5yr): 32,200 sq ft
  - Intermediate term (10yr): 32,800 sq ft
  - Long Term (20yr): 36,900 sq ft
- Airport Maintenance is currently located on the north side of the airfield. This area offers expansion potential for a 4,700 sq ft building, as future needs dictate.
- Industry standards suggest a vehicle parking space be provided for each 1,000 sq ft of hangar space. Based on the long term needs of the airfield, the airport should provide 262 parking spaces (equivalent to 11,650 sq yards of paved area)

#### **4.0 Alternatives**

Following the identification of the facility needs over a twenty-year period, a series of airport development alternatives were formed. The alternatives were initially reviewed in late 1997 to early 1998 and revisited in 2004, with a set of revised design guidelines. Since the combination of alternatives can be extensive, only alternatives that appear to be feasible have been considered. The alternatives attempt to deal with the facility needs outlined above and provide a logical decision path which Milwaukee County can follow in meeting those projected needs.

- Initial development considerations:
  - Locations for future hangar expansions (a variety of types/sizes)
  - Locations for expansion of landside support functions (fuel farm, maintenance area, auto parking)

- Locations for consolidated auto parking, in order to reduce conflicts between surface traffic and aircrafts while also minimizing walking distance between parking lots and hangars
- Alternatives for achieving a runway length of 4,400 feet of useable length on the primary runway:
  - A: Shift the current runway (15L-33R) northeasterly and construct it over the alignment of Taxiway B. This alternative would pull approach and departure surfaces away from residential areas on the west side of the airport. It provides the opportunity to add additional runway length on the northwest end, although any extension beyond 250 ft will require the relocation of two ballfields.
  - B: Construct a new runway and taxiway on a slightly different alignment. The ballfields may need to be relocated, although the obstacle free area only extends over the southern most field. By pivoting the runway into a new alignment, the existing turf runway in the northwest-southeast alignment will also need to be realigned in order to remain parallel.
  - C: Add pavement at each end of the existing runway to create greater takeoff and landing lengths (300 ft at the northwest end and 100 ft at the southeast end). The northwest end is limited by the perimeter fence and existing housing on the west side; this extension will be costly (because of dropping terrain) and places the runway closer to existing residential areas. The southeast end is limited by a localizer antenna and equipment building.
- Additional Considerations: The airport perimeter road in the approach to Runway 22R penetrates the obstacle free area and should be relocated closer to the fence. This will place the road over a portion of the parking lot, which currently falls within the fence. It may be necessary to realign a short section of the fence to provide adequate space for the road.

## **5.0 Future Land Use Scenarios**

The following scenarios look at alternative future land uses for Timmerman Airport. Adequate automobile parking must be considered.

- Alternative One: Exclusive use as an airport (status quo)
  - Would include using all land for airport uses, even if land in excess of those needs were available.
  - Does not solve the noise and safety problems associated with aviation.
- Alternative Two: Exclusive use for non-airport uses
  - Would require the relocation of all aviation users to other airports and would eliminate a major aviation reliever airport from the Milwaukee area.

- Could potentially have a significant impact on the local area – trends show a potential market for this amount of land area.
- Alternative Three: Random mix of alternative land uses
  - Envisions that airport uses would continue and other non-aviation uses would be combined with them, without regard to special attempts to concentrate non-aviation uses.
  - Would be necessary to make land use and tenant decision based upon the needs of the time and the anticipated benefits to be afforded by acceptance of each tenant.
  - Has the advantage of retaining land for aviation uses, while allowing excess land to still be income producing.
- Alternative Four: Concentration of land use activities
  - Allows aviation uses to continue, while bringing in new activities to the airport which could enhance existing tenants.
  - Preserves long-range options for Timmerman Airport.

Based on the alternatives and the study as a whole, it is recommended that Timmerman Airport continue as an aviation field. The reasons for this assumption are as follows:

- Milwaukee County has a substantial investment in airport facilities, many of which could not be economically converted to any other use.
- Tenants depending on Timmerman Airport's aviation facilities have substantial investments in plant and equipment, which could not be realistically relocated to another airport.
- FAA grant assurances stipulate that the Airport will be maintained as such for at least 20 years after the most recent development grant, and these assurances remain in effect permanently for land acquired with federal assistance. Airport land, regardless of source of acquisition, can be used only for aeronautical purposes if shown on an approved airport layout plan (ALP) or property map. Changes made to non-aeronautical uses may be approved by FAA only if the aeronautical functioning of the airport is not impaired. FAA will not approve a change to an ALP where a non-aeronautical property usage option would result in the reduction of an airport's ability to meet existing or forecast aviation demands.
- If an option to close Timmerman Airport were chosen, the FAA release to Milwaukee County would obligate it to return all proceeds of the land at current fair market value for development purposes of Timmerman's replacement airport and/or the needs of the area's aviation system. A replacement airport would have to be in operation before the property could be released, requiring the sponsor or others to front the costs of its development.