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Appendix I: Airport Long-Term Comprehensive Plans

Plan Context

The twenty-year long-term comprehensive airport plan (LTCP) is intended to integrate all information pertinent to planning, developing and operating an airport in a manner that reflects its system role and compatibility with its surrounding environs. The plan- content guidelines apply to Major, Intermediate and Minor airports; therefore some flexibility for emphasis or level of detail on certain plan elements will be necessary. Plans should be reassessed every five years and updated according to the review schedule defined later in this appendix. The reassessment involves reviewing the new forecasts against prior forecasts and actual airport activity, checking the progress of implementation efforts (e.g. individual project planning, environmental evaluations, and capital program), and identifying any other issues or changes that may warrant continued monitoring, interim action or establish a need for a plan update.

The LTCP does not replace any other planning or reporting requirements of another governmental unit. The scope and emphasis of a long-term comprehensive airport plan should reflect the airport's system role and the objectives for each plan content category as described below.

Plan Content

Airport Development

Objective: To portray the type and location of airport physical and operational development in a systematic fashion, reflecting both the historical and forecast levels of unconstrained aviation demand. The plan should include:

- Background data including a description of previous planning studies and development efforts; each item described should contain a synopsis of pertinent dates, funding sources, objectives and results.
- An overview of historical and forecast aviation activity (number of based aircraft, aircraft mix, number of annual and peak hour aircraft operations) and the demand compared to the existing and proposed facilities.
- An airport map showing land use areas, by type, within the airport property boundary or under airport control. Maps showing airport development phasing based upon key demand and capacity levels. A description of facilities staging, by phase, for specific land use areas. A copy of the latest FAA-approved airport layout plan (ALP) with associated data tables as described in FAA AC 150/5070-6.

Airport and Airspace Safety

Objective: To identify planning and operating practices required to ensure the safety of aircraft operations and protect the regional airspace resource. The plan should include:

- An airport map depicting the airport zoning district, land use safety zones and a description of the associated airport zoning ordinance as required under MS 360.061-360.074 and defined in MN Rules 8800.2400. This map should contain appropriate topographical reference and depict those areas under aviation easements.
- An airport area map showing the FAA FAR Part 77 airspace surfaces, including an approach and clear zone plan as described in FAA AC 150/5070-6.
- A map of aircraft flight tracks depicting the local aircraft traffic pattern and general description of operating parameters in relation to the physical construction and operational development phasing of the airport.

Airport and Aircraft Environmental Capability

Objective: To define aviation impacts and measures needed to meet both social and natural environmental needs of the region. The plan should include:

- Aircraft on-ground and over-flight activities described within a historical and forecast context, including seasonal and daily traffic. Maps of aircraft noise impact areas depicted by contours of DNL noise levels for annualized aircraft activity.
- Description of adopted Noise Abatement Operations Plan and/or operational abatement measures being implemented.
- Description of land use measures and proposed strategy for off-airport land uses affected by aircraft noise as defined in the *Land Use Compatibility Guidelines for Aircraft Noise* (See Appendix M). Description of aircraft, ground vehicle and point-source air pollution emissions within a historical and forecast context, including definition of the seasonal and daily operating environment. Identify existing and potential air-quality problem area(s).
- Description and map of existing drainage system including natural drainage-ways and wetlands by type. Provide map and description of proposed surface water management plan for water quantity and quality including proposed facilities, storage volumes, rates and volumes of runoff from the site, and pollutant loadings associated with planned airport site facilities (as identified in SPCC and SWPPP) that could affect surface water quality. More specific mitigation measures, to avoid off-site flooding, minimize pollution of surface waters, and loss or alteration of wetlands, should be included in an EA or an EIS, not the LTCP.
- Description of the types of potential groundwater contaminants present on the site and proposed measures for the safe handling, storage and disposal of these substances to protect ground water, including description of the MAC and private operators roles for managing these materials.

- Projection of the annual average volume of wastewater to be generated for the next 20 years by five year increments from terminals, operators and the proposed facilities (description and map) for handling and treating wastewater including public sewer service, private treatment plants and individual on-site sewage disposal systems. Include a description of proposed management for private facilities and roles of the MAC and private operators in implementation.
- Description of recommended air, water and noise control plans, including monitoring programs.

Compatibility with Metropolitan and Local Plans

Objective: To identify demand and capacity relationships between airport and community systems and define a management plan for maintaining compatibility. The plan should include:

- Description of historical and forecast ground traffic activities, including average and peak-flow characteristics on a seasonal, daily, and peak hour basis. Map showing location of ground access points, parking areas and associated traffic counts. Definition of potential problem areas and plan for traffic management.
- Description of water supply, sanitary and storm sewer and solid waste systems. Definition of historical and forecast use levels and capacities. Depictions of locations where airport systems interface with local or regional systems. Identification of potential problem areas and the plan(s) for waste management.
- Description of other airport service needs (for example, police and fire) that may require changes in agreements or types/levels of governmental and/or general public support.

Implementation Strategy

Objective: To establish the type, scope and economic feasibility of airport development and recommended actions to implement a compatible airport and community plan. The plan should include:

- Description of the overall physical and operational development phasing needed over the [next] twenty years.
- A capital improvement plan to cover a seven-year prospective period. The first three years of the development plan should be project-specific, and the other four years of the plan, including projects of more than four years duration and new projects, may be aggregate projections. Estimates of federal, state and local funding shares should be included for all projects included in the plans.
- Identification of the planning activities needed for implementation of the comprehensive airport plan.

Plan Amendment

The LTCP is to be prepared on a regular basis for each affected airport as defined in the LTCP review schedule. The document should be prepared to meet the plan content information discussed previously. In the event that a change to the plan cannot be accommodated during its scheduled update the LTCP,

or parts thereof, should be amended. An amendment should be prepared and reviewed by the Council prior to project inclusion in [that] year's capital improvement program. Examples of potential amendments include, but are not limited to the following items:

- Projects meeting the capital review thresholds of \$5 million at MSP, and \$2 million at reliever airports (as defined in CIP Review Criteria Table P-3 and Table P-4),
- Changes requiring an update to FAA airport layout plan (ALP),
- Runway changes
- Projects having potential off-airport effects
- Reliever Airport Non-aviation land use changes. This involves land use parcels on-airport that are not being released by the FAA for sale, but remain as part of the airport property and are made available by the airport operator through lease agreements with private parties to enhance revenues to the airport sponsor. The size of parcels and lease period may vary considerably; location and use of potential parcels were not part of individual LTCP reviews. Council review objectives are:
 - to monitor such parcel changes for purposes of maintaining its overall land use data base,
 - to know the location and use of the parcels in relation to the approved LTCP,
 - to appraise airport operators of any recent local or metro system changes they may not be aware of that may need additional review/coordination.
 - to establish an administrative review process in coordination with airport sponsors for review of non-aviation land use change proposals.

Table I-1: LTCP Update Schedule

METRO AREA PUBLIC USE AIRPORTS	PLAN STATUS	5-YEAR UPDATE
Minneapolis-St. Paul Int'l.	2030 LTCP Approved June 2010	2015
St. Paul Downtown	2025 LTCP Approved April 2010	2015
Anoka County-Blaine	2025 LTCP Approved April 2010	2015
Flying Cloud	2025 LTCP Approved April 2010	2015
Airlake	2025 LTCP Approved October 2008	2013
Crystal	2025 LTCP Approved October 2008	2013
Lake Elmo	2025 LTCP Approved October 2008	2013
So. St. Paul Municipal	Community CPU Approved 2009	2018
Forest Lake Municipal	Community CPU Approved 2009	2018
Lino Lakes Seaplane Base	Community CPU Approved 2009	2018
Wipline Seaplane Base	Community CPU Approved 2009	2018

Figure I-2: MSP 2030 Long-term Concept Plan

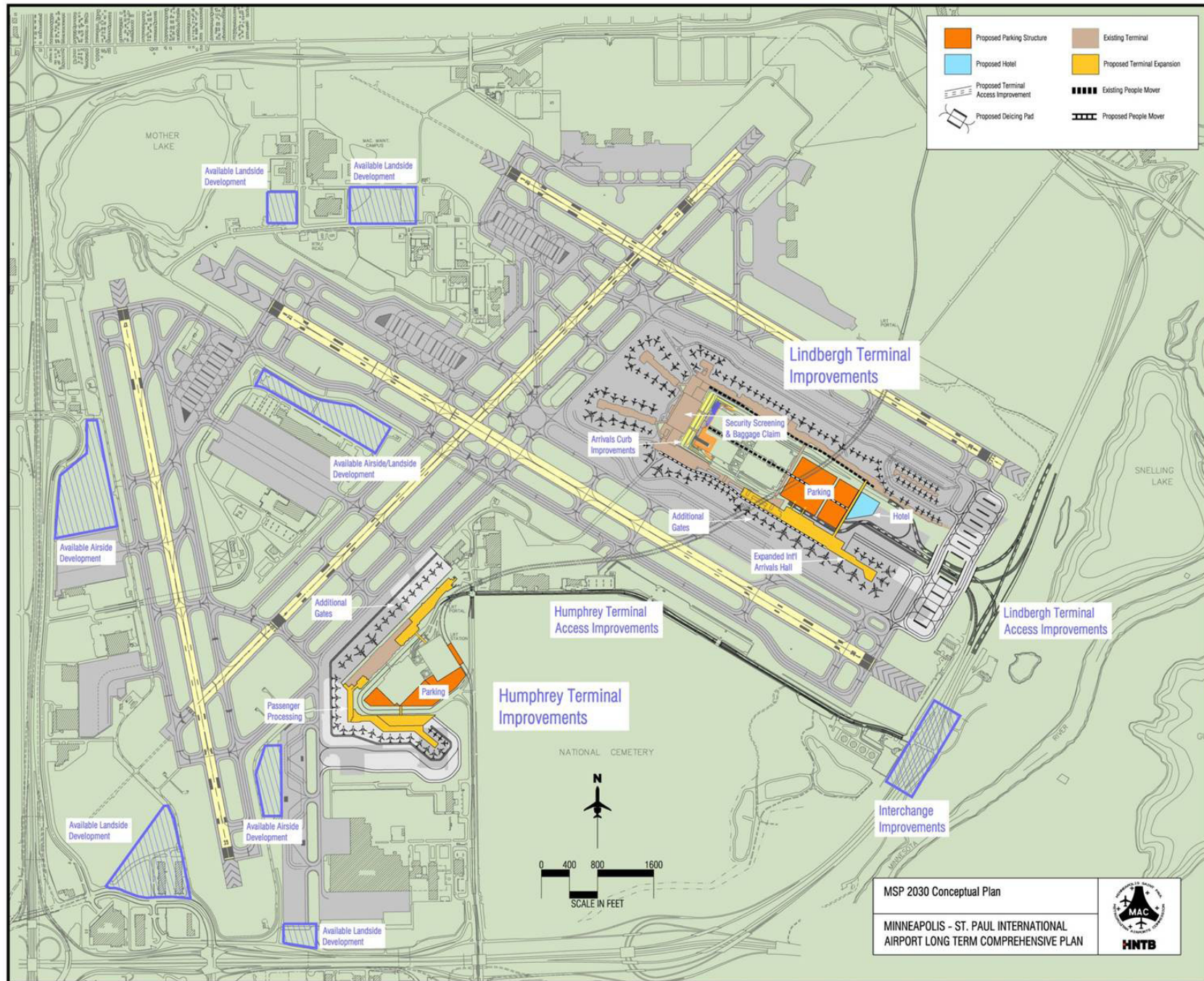


Figure I-3: MINNEAPOLIS-ST. PAUL INTERNATIONAL AIRPORT 2030 LTCP

OBJECTIVES

- Keep existing runways, improve taxiways
- Continue the pavement maintenance program
- Expand/Rehabilitate Terminal 1 Building, add Gates and tram on concourse G/H, add Parking
- Expand Terminal 2, add Gates and Parking
- Improve road access to Terminals 1 & 2
- Construct cross-over Twy



Figure I-4: ST. PAUL DOWNTOWN AIRPORT 2025 LTCP

OBJECTIVES

- Keep existing runways
- Continue the pavement maintenance program
- Improve sub-drain system for Terminal Building
- Improve Electrical vault for code compliance
- Plan on-going floodwall maintenance, operations, and monitoring/permits
- Continue development of non-aviation land uses for revenue enhancement

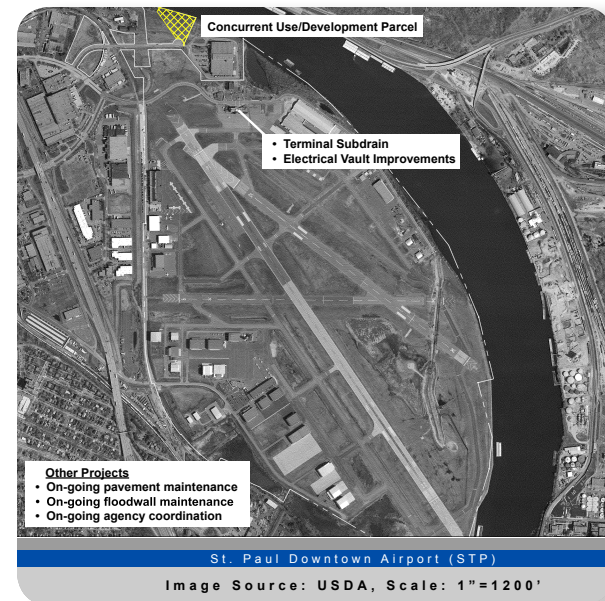


Figure I-5: ANOKA COUNTY-BLAINE AIRPORT 2025 LTCP

OBJECTIVES

- Maintains current runways.
- Retains parallel runways for post 2025 system needs.
- Continues the pavement maintenance Program.
- Completes relocation and construction of Xylite street.
- Relocates/extends Taxiway Charlie.
- Improves security gates
- Continues development of non-aviation uses for revenue enhancement.



Figure I-6: FLYING CLOUD AIRPORT 2025 LTCP

OBJECTIVES

- Maintain parallel runways
- Shift/extend cross runway
- Continue the runway maintenance program
- Complete So. Bldg. Area utilities
- Provide object-free area on Taxiway (A)
- Relocate ATCT
- Continue development of non-aviation land uses for revenue enhancement



Figure I-7: CRYSTAL AIRPORT 2025 LTCP

OBJECTIVES

- Removes one main-wind and one cross-wind runway.
- Provides several on-airport parcels for non-aviation development.
- Uses existing vacant hangars to provide spaces in short and mid-term period.
- Identifies potential new hangar areas to be developed by private funding, if need arises.

*View to SE &
Minneapolis CBD*

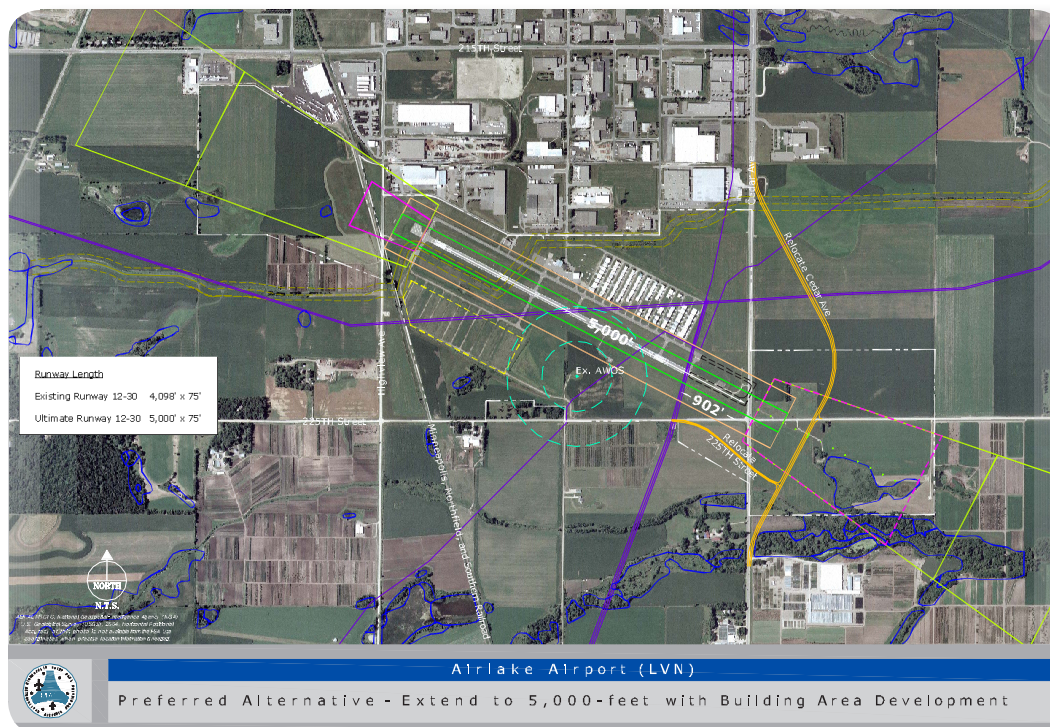


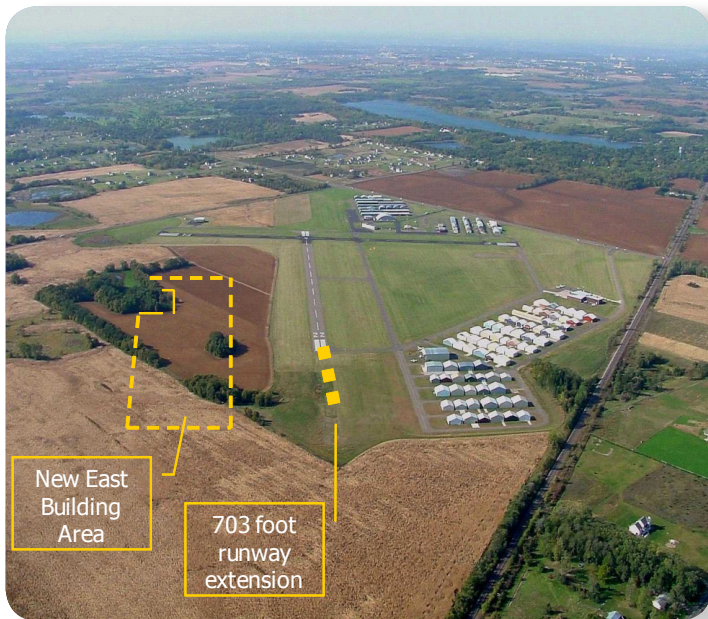
Figure I-8: AIRLAKE AIRPORT 2025 LTCP

OBJECTIVES

- Previously proposed cross-wind runway removed from the plan.
- New South hangar building area to be developed with private funds.
- Existing runway extended in long-term, requires Cedar Ave. relocation.



Figure I-9: LAKE ELMO AIRPORT 2025 LTCP



*View to SW down
cross-wind runway*

OBJECTIVES

- Extend cross-wind runway and taxiway.
- Develop new east-side hangar building area with private funds.
- Request Mn/DOT install a on-airport weather monitoring and reporting system.
- Retain new mainwind RWY for post 2025.

Figure I-10: SOUTH ST. PAUL AIRPORT 2018 PLAN

OBJECTIVES

- Obstruction Removals
- Rwy/Twy asphalt maint.
- Hangar refurbishment
- Service Equip. replacement
- Construct Maintenance Bldg.
- Construct 12-Unit T-Hangars



Figure I-11: FOREST LAKE AIRPORT 2018 PLAN



OBJECTIVES

- Obstruction Removals
- Land Acquisition
- Pave RWY (Phase I -2700' x 75')
- T-Hangar 15-unit
- Automated Weather Station
- FBO Hangar
- Airport Perimeter Fence
- Relocate Fuel Facility
- Extend RWY 600' (Phase II)