

ACTION TRANSMITTAL – 2017-19

DATE: August 8, 2017

TO: Transportation Advisory Board

FROM: Technical Advisory Committee

PREPARED BY: Russ Owen, Senior Planner, MTS/Aviation, 651-602-1724
Amy Vennewitz, Dep. Director of Finance and Planning, 651-602-1058

SUBJECT: Final Draft Crystal Airport 2035 Long Term Comprehensive Plan (LTCP) Review

REQUESTED ACTION: State statute requires the MAC to submit a determination of conformance of the Final Draft Crystal Airport 2035 Long Term Comprehensive Plan with Council systems and consistency with Council policy.

RECOMMENDED MOTION: That TAB determine that the Final Draft Crystal Airport 2035 LTCP has a multi-city impact as well as conforms to the Council systems and is consistent with Council policies.

BACKGROUND AND PURPOSE OF ACTION: Under MS 473.165 and MS 473.611 the Council reviews the individual Long Term Comprehensive Plan (LTCP) for each airport owned and operated by the Metropolitan Airports Commission (MAC). The Crystal Airport 2035 LTCP replaces the 2008 plan and moves the planning horizon to 2035. The MAC has adopted a preferred development alternative for the Crystal Airport that retains its system role as a Minor general aviation facility, which is consistent with the Transportation Policy Plan.

RELATIONSHIP TO REGIONAL POLICY: Under the aviation planning process and TPP policy, airport LTCP's are to be periodically updated. MAC plans are to be consistent with all components of the metropolitan development guide. LTCP's are used as a basic input to the Council's update of the regional aviation system plan and in reviewing community comprehensive plans.

STAFF ANALYSIS: The Crystal Airport is located in Hennepin County, approximately seven miles northwest of downtown Minneapolis. The Crystal Airport is located primarily in the city of Crystal, with small portions of airport property overlapping into the City of Brooklyn Park and the city of Brooklyn Center (Attachment 1). Crystal Airport is the closest MAC airport to downtown Minneapolis.

The Crystal Airport is classified as a Minor Airport in the regional aviation system. The airport's primary role in the airport system is to attract general aviation traffic away from Minneapolis-St. Paul International Airport (MSP) to relieve congestion, which helps reduce operating costs and promotes sustainability. Crystal airport accommodates personal, recreational and some business aviation users within Hennepin County and the northwestern portion of the metropolitan area. The plan states that the airport will continue its current role in the system, and the aircraft type that the plan is designed for is not changing. There are currently four runways at Crystal Airport, three paved runways, and one turf runway. The previous LTCP recommended that MAC "right size" the airport, which included decommissioning two of the four runways. This LTCP focuses on refining the preferred alternative from the previous LTCP. The primary runway (14L/32R) is 3,267 feet long. Based on FAA guidance, along with airplane operational manuals, the recommend primary runway length should be 3,300-3,900 feet. The crosswind runway is 2,499 feet, and can accommodate the lower crosswind capable light single-engine aircraft used for personal, recreational and flight training activities. In developing the alternatives for the 2035 LTCP, MAC carried over some of the improvements recommended in the 2025 LTCP which have yet to be completed.

The Original Preferred Alternative (Attachment 2)

- Carry-over items from the 2025 LTCP
 - Decommission existing Runways 14R/32L and 06R/24L (Turf) to reduce airfield complexity and increase safety.
 - Convert existing Runway 14R/32L into a full length parallel taxiway and add taxiway lights
 - Preserve areas for future hangar development
- Refinements included in the draft 2035 LTCP Preferred Alternative
 - Convert existing paved blast pads on Runway 14L/32R to stopways, including edge lighting and additional runway safety area.
 - Expand fixed base operator (FBO) apron
 - Reconfigure the taxiways
 - Pursue the establishment of a new non-precision instrument approach to the Runway 32 end.

After multiple community meetings and comments from stakeholders, MAC evaluated adjustments to the original preferred alternative and developed a refined concept as follows:

- Primary Runway length: Convert portions of the paved blast pads on primary Runway 14L/32R to useable runway for a published length of 3,750 feet, with declared distances in effect.
 - Move the end of the primary runway approximately 115 feet to the northwest along its centerline to locate all of the Runway Protection Zone (RPZ) at the southeast end of Runway 32R on the MAC property.

- Turf Runway: Retain a portion of the existing turf runway and operate it in a manner that will reduce runway crossing points, and airfield complexity.
- Taxiway configuration changes: The Air Traffic Control Tower and operations staff made recommendations to make the airfield more efficient and to further simplify geometry.

2035 LTCP Final Preferred Alternative Summary (Attachment 3):

The 2035 LTCP Final Preferred Alternative for improvements at Crystal Airport includes the following items:

- Items from the 2025 LTCP Preferred Alternative
 - Decommission existing Runway 14R-32L to reduce airfield complexity and increase safety;
 - Convert existing Runway 14R-32L into a full-length parallel taxiway and add taxiway lights;
 - Preserve areas for future hangar development should demand arise;
 - Identify parcels for possible conversion to non-aeronautical revenue generating land uses.
- Refinements included in the 2035 LTCP Preferred Alternative
 - Update the runway designation to Utility and use small aircraft design standards to reduce RPZ dimensions;
 - Convert portions of the paved blast pads on primary Runway 14L-32R to extend useable runway for a published length of 3,750 feet with declared distances in effect, and extend taxiways to new runway ends;
 - Shift the primary runway approximately 115 feet to the northwest along its centerline to locate all of the RPZ for Runway 32R on MAC property, improving land use compatibility over the existing condition;
 - Retain a portion of the existing turf runway and operate it in a manner that will reduce runway crossing points, airfield complexity, and incursion potential while preserving turf operational capabilities at a metropolitan area airport;
 - Taxiway configuration changes;
 - Expand the FBO apron;
 - Pursue the establishment of a new non-precision instrument approach to the Runway 32 end, if feasible.

Advantages of this preferred alternative include:

- Primary Runway 14L/32R is extended to 3,750' consistent with FAA runway length guidelines
- All Runway RPZ's will be on airport property and comply with FAA compatibility criteria
- Runway 6/24 alignment retains optimal wind coverage
- Turf Runway will still be usable,

- Taxiway and runway incursion spots are all but eliminated.
- Existing airport operational footprint is maintained with no additional property acquisition
- Current Minor Airport classification does not change

Disadvantages of this preferred alternative include:

- Taxiway extension add pavement to maintain
- Operational impacts during construction
- May require obstacle (tree) removals
- Runway extensions move departing aircraft closer to the airport boundary, possibly increasing ground noise for neighborhoods closest to the airport boundary

The refined preferred alternative is responsive to the most prominent stakeholder concerns while still meeting the stated planning goals to: 1) better align airfield infrastructure to match existing and forecasted activity levels; 2) preserve and, if possible, improve operational capabilities for the current family of aircraft using the facility; and 3) enhance safety by simplifying the airfield movement area configuration.

This plan will also give the surrounding communities assurance of the airport’s future footprint for comprehensive community planning. MAC staff will continue discussions with the city of Crystal about non-aeronautical revenue-generating opportunities on airport property, and will work with the surrounding communities to ensure proper zoning exists.

COMMITTEE COMMENTS AND ACTION: TAC Planning concurred with staff recommendation and moved to recommend. The Technical Advisory Committee recommended that the Transportation Advisory Board adopt the recommended motion.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC Planning	Review & Recommend	7-13-17
Technical Advisory Committee	Review & Recommend	8-2-17
Transportation Advisory Board	Review & Recommend	
Metropolitan Council Transportation Committee	Review & Recommend	
Metropolitan Council	Review & Determine	

Figure ES-1: Existing Airport Layout

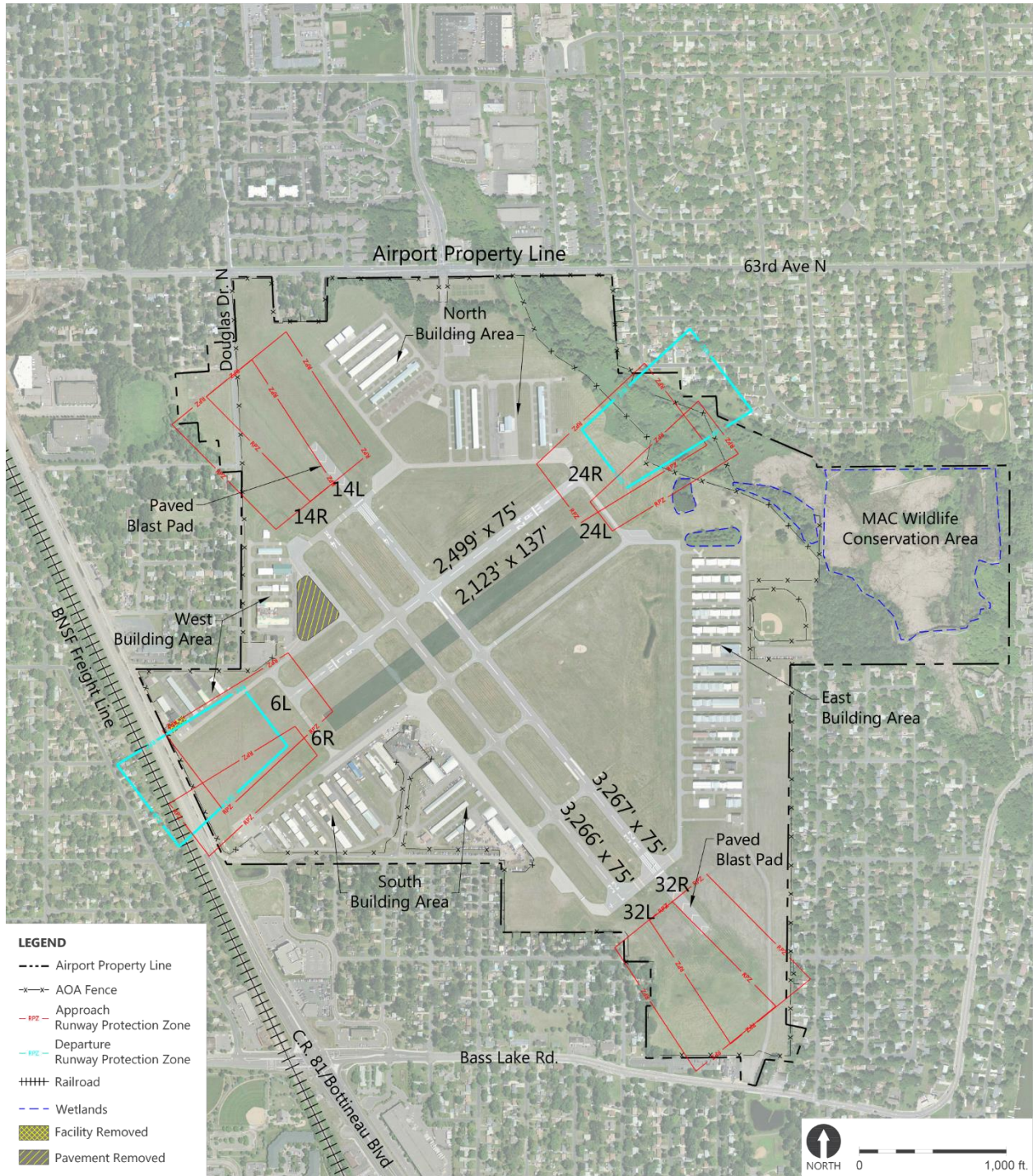


Figure ES-3: 2035 LTCP Original Preferred Alternative

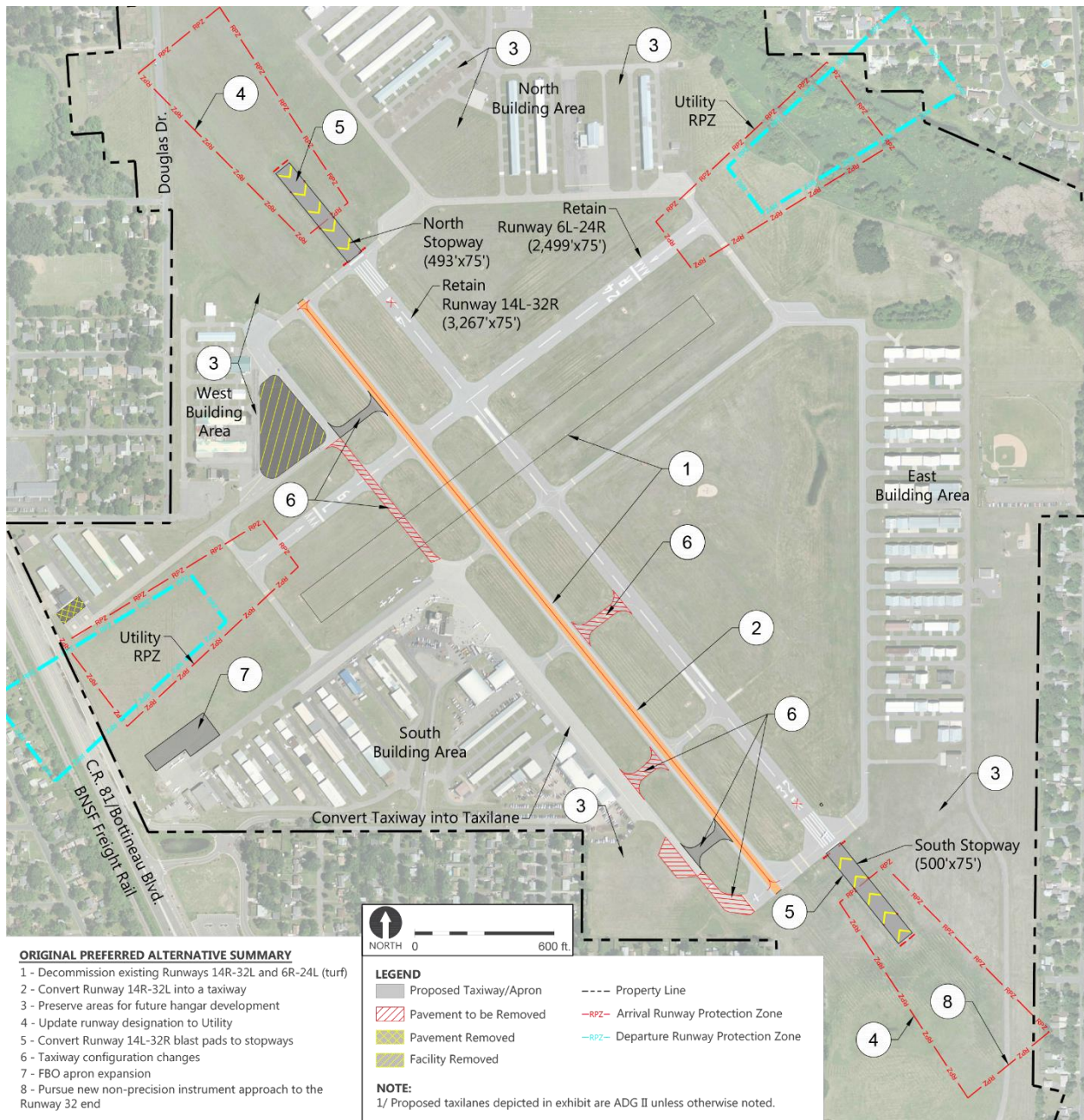


Figure ES-4: 2035 LTCP Final Preferred Alternative

