

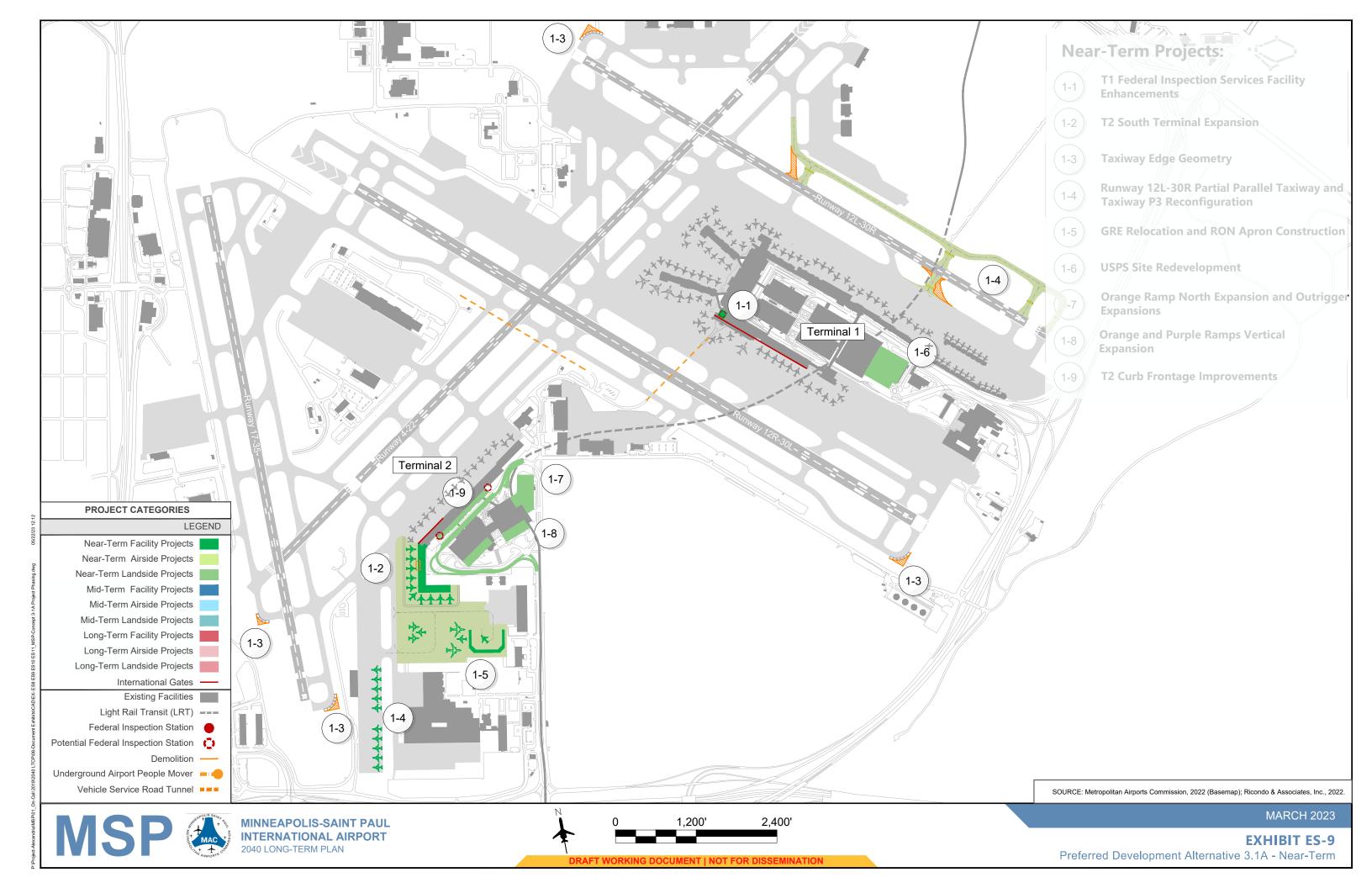
#### 1.1.6 Near-Term

Recommended near-term projects were selected because they provide continuity from previous LTP efforts, address imminent needs, or are prerequisites for mid- and/or long-term projects.

- <u>Project 1-1: T1 Federal Inspection Services Facility Enhancements</u> Enhancements to the
  existing FIS inside T1 will help improve passenger throughput and make incremental
  improvements to existing capacity until the FIS function can be centrally located.
- <u>Project 1-2: T2 South Terminal Expansion</u> An expansion of contact gates at T2 is proposed to the south and will consist of 11 gates. The phasing of the south concourse expansion occurs in the near-term to provide swing gates for staging future terminal projects. This project was brought forward in previous LTP efforts and was approved in the 2013 Environmental Assessment (EA).
- Project 1-3: Taxiway Edge Geometry The taxiway edge geometry project will remove the existing 90-degree edge of pavement corners at the ends of Taxiway R and Taxiway R10, Taxiway W and Taxiway W1, Taxiway K and Taxiway K1, and Taxiway L and Taxiway L1. Revising the edge of pavement from a 90-degree corner to a rounded corner makes the taxiway easier to see and distinguishes it from the runway for pilots on approach, reducing the chances of a wrong-surface landing.
- Project 1-4: Runway 12L-30R Partial Parallel Taxiway and Taxiway P3 Reconfiguration –
  Existing Taxiways P and Q are wingspan restricted for simultaneous use by ADG III aircraft.
  Taxiway Q must remain sterile when aircraft larger than ADG III occupy Taxiway P. A partial parallel taxiway north of Runway 12L-30R will allow unrestricted ADG IV and V aircraft access to or from the Runway 30R approach end with full design conformity to improve airfield efficiency.
- Project 1-5: Ground Runup Enclosure (GRE) Relocation and Remain-Overnight Apron
   <u>Construction</u> The south expansion of T2 requires the existing GRE to be relocated while
   developing additional RON space for aircraft staging. This project is carried forward from the
   previous LTP efforts and was approved in the 2013 EA.
- <u>Project 1-6: U.S. Postal Service (USPS) Site Redevelopment</u> This project provides replacement public parking to accommodate parking displaced during Green/Gold Ramp demolition in the mid-term. The USPS site redevelopment project will construct a new rental car QTA facility and public parking structure on the footprint of the existing USPS site.
- Project 1-7: Orange Ramp North Expansion and Outrigger Expansions A new parking structure will connect directly to the existing Orange Ramp via pedestrian and vehicular bridges on each level. The east and LRT outriggers will be vertically expanded to match the maximum elevation of the existing structure The parking expansion at T2, in addition to the USPS site redevelopment, will bolster the Airport's parking capacity to enable the demolition of the Green/Gold Ramps.
- <u>Project 1-8: Orange and Purple Ramps Vertical Expansion</u> The vertical expansion includes two levels of parking structure for the entire Orange Ramp footprint, including the north

expansion, and seven levels of parking structure for the Purple Ramp outrigger expansion. Expansion can occur on the existing ramp footprint.

• Project 1-9: T2 Curb Frontage Improvements – This project includes needed physical improvements to vehicle operations in front of T2, specifically addressing curb front congestion. It will reconfigure the second level of the existing terminal to accommodate a new 2-level roadway along the front of the building. This reconfiguration will allow for optimal use of both the upper and lower curbsides for originating and destination passengers, alleviating the increased traffic on the existing single-level curbside. This project also consists of the construction of the new elevated departures roadway and at-grade arrivals roadway at T2. The new roadways will address curbside deficiencies and will be offset from the terminal building to provide additional security clearances.

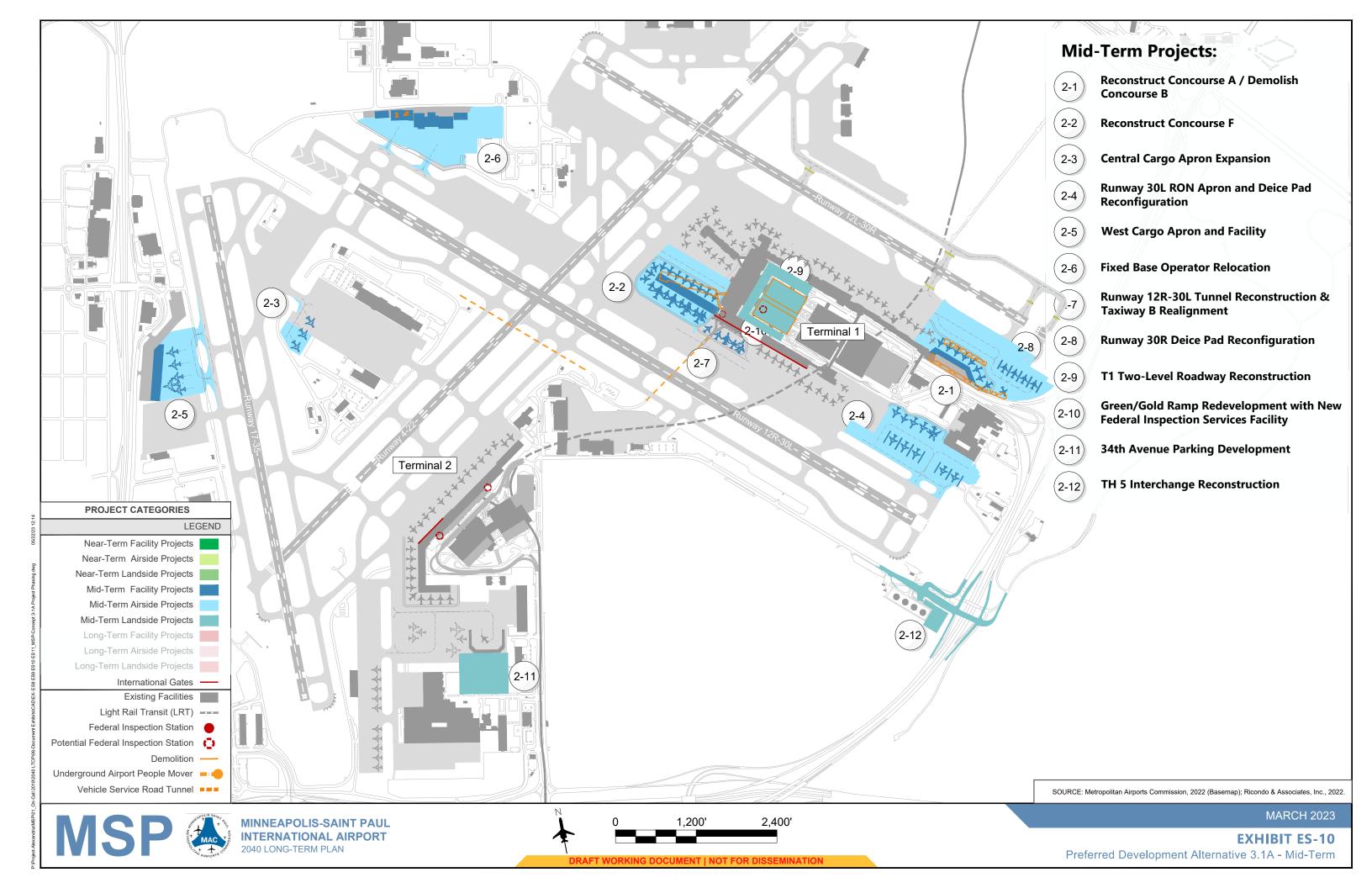


#### 1.1.7 Mid-Term

These projects are intended to meet mid-term demands and prepare for future long-term developments. Demands primarily include an increased need for contact gates for both domestic and international operations with expanded landside capacity to meet the additional demand.

- <u>Project 2-1: Reconstruct Concourse A; Demolish Concourse B</u> The new Concourse A is a single-loaded concourse consisting of 8 ADG III contact gates. The Concourse will replace the existing Concourse A/B complex, currently serving ADG II aircraft, which are under-sized.
- Project 2-2: Reconstruct Concourse F The new Concourse F is a double-loaded concourse consisting of 19 ADG III contact gates. The reconstructed Concourse F provides 4 ADG V Multiple Aircraft Ramp System (MARS) gates capable of serving international flights. The redevelopment of Concourse F increases the existing gate count on the concourse by two gates. It also expands the number of gates capable of international arrivals to accommodate increased demand.
- <u>Project 2-3: Central Cargo Apron Expansion</u> The Central Cargo Apron, specifically UPS apron, will be expanded to add two parking stalls.
- Project 2-4: Runway 30L Remain-Overnight Apron (RON) and Deice Pad Reconfiguration –
  The Runway 30L deice pad will be reconfigured to accommodate larger aircraft on the deice
  pad. The reconfiguration will make room for expanding the south end of Concourse G.
- <u>Project 2-5: West Cargo Apron and Facility</u> This project will construct a new airfield apron, cargo warehouse and sort facility, and landside trailer docking and parking lot on the open lot north of the shared Amazon / DHL apron. The new apron and facilities will meet the anticipated cargo requirements for additional e-commerce cargo facilities.
- <u>Project 2-6: Fixed Base Operator Relocation</u> To accommodate the north expansion of T2, the existing Fixed Base Operator (FBO) terminal and hangars will be relocated to the north side of the airfield, adjacent to Taxiway B. The new FBO is sized for in-kind replacement of existing facilities and is anticipated to meet long-term needs of the FBO (Signature Flight Support).
- Project 2-7: Runway 12R-30L Tunnel Reconstruction and Taxiway B Realignment The Runway 12R-30L tunnel reconstruction and Taxiway B realignment project will increase airfield capacity and efficiency by extending the existing Vehicle Service Road (VSR) tunnel. The tunnel extension will allow for the alignment of Taxiway B as it crosses over the tunnel to be parallel to Taxiway A. The realignment of Taxiway B will allow aircraft to simultaneously taxi over the tunnel on Taxiway A and Taxiway B. This project is anticipated to occur concurrently with the reconstruction of Concourse F.
- <u>Project 2-8: Runway 30R Deice Pad Reconfiguration</u> The Runway 30R deice pad reconfiguration will increase the capacity of the existing 30R deice pad by allowing up to four ADG III aircraft to be deiced at a time.
- <u>Project 2-9: T1 Two-Level Roadway Reconstruction</u> The existing elevated departures and at-grade arrivals roadways will be reconstructed as the upper-level structure reaches the end

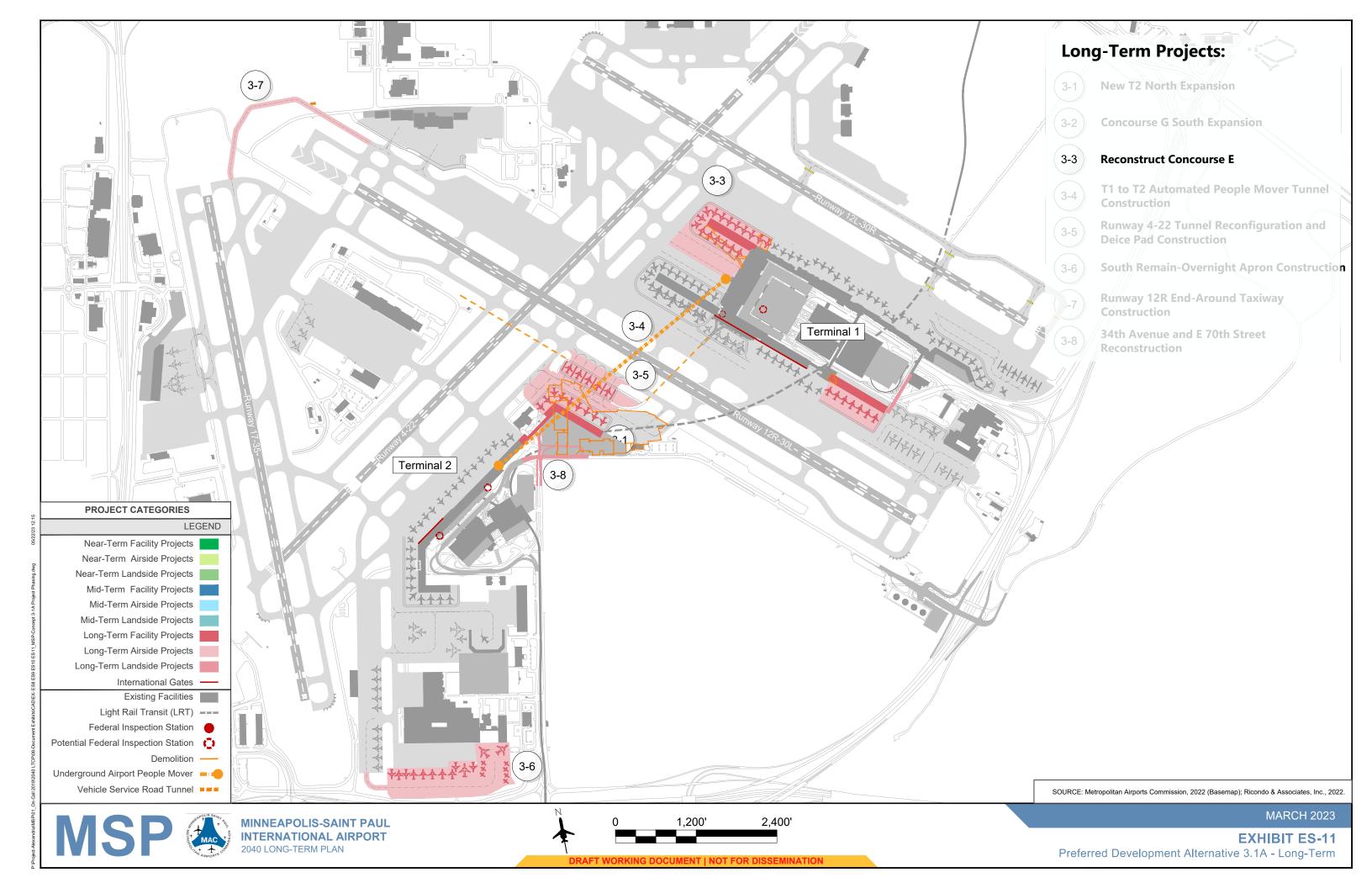
- of life. The reconstructed inbound and outbound roadways will be compatible with the proposed Green/Gold Ramp redevelopment.
- <u>Project 2-10: Green/Gold Ramp Redevelopment with New Federal Inspection Service (FIS)</u>
   <u>Facility</u> The ramps will be reconstructed as they near their end of useful life. The new structure will consist of a multi-use facility including parking, a centralized FIS facility, and MAC administrative space. The LTP recommends a preliminary design and alternative refinement project ahead of this project to validate a preferred layout as well as goals, objectives, and timeline of the reconstruction.
- <u>Project 2-11: 34<sup>th</sup> Avenue Parking Development</u> This proposed concrete parking structure along 34<sup>th</sup> Avenue will serve as an employee parking facility for Delta employees. It will enable the proposed RON aircraft parking area adjacent to I-494 in the long-term project list.
- <u>Project 2-12: TH 5 Interchange Reconstruction</u> A proposed new intersection for TH 5 and Post Road will improve capacity and intersection LOS. The geometry of the intersection included in the LTP is based on the work completed as part of the 2020 Improvements Environmental Assessment / Environmental Assessment Worksheet (EA/EAW).



# 1.1.8 Long-Term

Long-term projects align with forecasted demand and prepare for future development beyond the 2040 LTP timeline. Forecasted demands primarily include an increased need for contact gates for both domestic and international operations, expanded landside capacity to meet additional demand, and increased connections between the two terminals to improve operational flexibility and enhance the passenger experience.

- Project 3-1: New T2 North Expansion The expansion is a terminal extension consisting of nine ADG III contact gates north of the existing T2 footprint. This project will allow for current T2 carrier expansion and gates to accommodate reconstruction of T1 concourses. It is predicated on the relocation of the Signature FBO facilities to the north side of the MSP campus.
- <u>Project 3-2: Concourse G South Expansion</u> The expansion includes seven ADG III contact gates. The phasing of the new concourse expansion occurs in the long-term to address the increasing demand of contact gates for aircraft operations.
- <u>Project 3-3: Reconstruct Concourse E</u> The project includes 15 ADG III contact gates and is likely to result in Concourse E absorbing the existing Concourse D, which would trigger the need to rename the concourses in T1. This new concourse alignment creates additional airfield space between Concourse E and Concourse F, accommodating ADG III independent points of aircraft ingress and egress.
- Project 3-4: T1 to T2 Automated People Mover (APM) Tunnel Construction A new APM tunnel from the headhouse of T1 will connect to the new north concourse on T2. The tunnel will allow for airside connectivity for passengers between the two terminals and increases the flexibility of the terminal for more efficient and connected operations.
- Project 3-5: Runway 4-22 Tunnel Reconfiguration and Deice Pad Construction This project
  will increase deicing capabilities by adding an additional five ADG III deice positions north of
  the T2 north expansion. The positions may also be utilized as RON parking in non-deicing
  conditions.
- <u>Project 3-6: South Remain-Overnight (RON) Apron Construction</u> The project will increase
  the Airport's available RON parking. The RON apron will expand the apron capacity by
  approximately 1 million square feet.
- Project 3-7: Runway 12R End-Around Taxiway (EAT) Construction The project will build a
  new taxiway around the approach end of Runway 12R, connecting Taxiway B to Taxiway K.
  The EAT will increase airfield capacity and safety by eliminating the crossing of Runway 12R30L by aircraft landing or departing on Runway 17-35.
- <u>Project 3-8: 34<sup>th</sup> Avenue and East 70<sup>th</sup> Street Reconstruction</u> This project consists of the reconstruction of the 34<sup>th</sup> Avenue and East 70<sup>th</sup> Street intersection to improve capacity. The intersection improvements would promote primary access to T2 facilities via Post Road. An elevated roadway across the intersection is recommended to reduce vehicle conflicts at the intersection.



# **ES 6. PROJECT COST ESTIMATES**

The current work of the 2040 LTP included cost estimation based on the project phasing and priorities discussed in **Section ES 5**. As of Spring 2023, this work is in progress and will be included in the final LTP report as well as the final version of this executive summary.

### **ES 7. ENVIRONMENTAL OVERVIEW**

The MAC has a longstanding commitment to creating a sustainable future. The MAC furthered this commitment in 2020 by setting the following 2030 goals:

- Reduce MSP's greenhouse gas emissions by 80%.
- Reduce MSP's water usage per passenger by 15%.
- Divert 75% of the Airport's waste away from landfills.
- Achieve a MAC employee engagement sustainability score of 85.

The MAC and airport stakeholders are working toward reaching these goals through a variety of means, such as reducing energy and CO2 emissions, achieving Level 2 in the Airport Carbon Accreditation program, diverting airport waste, reducing water consumption and climate resiliency planning.

Prior to any new construction identified in this plan, the MAC will complete an Environmental Assessment (EA) and/or an Environmental Assessment Worksheet (EAW) to meet Met Council guidelines and FAA requirements for utilizing Airport Improvement Program (AIP) grant funds. The environmental categories required for study prior to construction of the preferred development plan include noise, air quality, and water quality within the region surrounding the airport.

### 1.1.9 Aircraft Noise

The FAA's Aviation Environmental Design Tool (AEDT) was used to develop contours to evaluate potential aircraft noise impacts associated with the preferred development plan. To address the inherent uncertainty of developing a 20-year forecast of air traffic demand, three 2040 forecast scenarios were developed to evaluate the range of potential noise impact levels. These various scenarios create planning efficiencies and flexibility.

The 2040 Baseline Forecast is the expected outcome based on the preferred development plan and is the forecast contour used in the noise impact analysis. Forecast 2040 High and 2040 Low scenarios were also used to display a range of potential noise impact levels 20 years into the future.

The contours represent noise levels, expressed in the Day-Night Average Sound Level (DNL) metric. The FAA requires the DNL noise metric for determining and analyzing aircraft noise exposure to aid in the determination of aircraft noise and land use compatibility around U. S. airports.

While the FAA considers residential structures incompatible within the 65 DNL noise contour, the MAC's noise mitigation program at MSP offers residential noise mitigation to the 60 DNL level. The 2040 forecast noise contours and analysis contained in this report do not qualify homes for the MAC's noise mitigation program. Eligibility for noise relief provided by the MAC is determined annually, based upon actual MSP noise contours developed for the preceding calendar year.

In summary, when the 2040 Baseline forecast, contours are compared to the 2018 Base Year contours:

- For the 60 DNL contour, the acreage contained with the contour increases by 39.9%. The 2040 Baseline Forecast 60 DNL contour contains 14,470 single-family homes and 4,234 multi-family units. More than 89% of these single-family homes and multi-family units have already been eligible for aircraft noise relief offered by the MAC's noise mitigation programs.
- For the 65 DNL contour, the acreage contained within the contour increases by 33.5%. The 2040 Baseline Forecast 65 DNL contour contains 2,421 single-family homes and 747 multi-family units. All single-family homes within the 65 DNL contour have already been eligible for the MAC's 5 dB noise reduction package. All multi-family units have already been eligible for aircraft noise relief offered by the MAC's noise mitigation programs.

A depiction of the noise contours from the three 2040 forecast scenarios is provided in **Exhibit ES-12**.