



## Metropolitan Airports Commission

---

6040 - 28th Avenue South, Minneapolis, MN 55450 • 612-726-8100 • metroairports.org

August 31, 2022

RE: Metropolitan Airports Commission's Preliminary 2023-2029 Capital Improvement Program

Dear Sir or Madam:

Each year the Metropolitan Airports Commission (MAC) compiles its seven-year Capital Improvement Program (CIP) which outlines construction projects proposed for the Commission's system of airports. The projects shown in year one represent projects that have been reasonably defined for implementation in the upcoming calendar year. Staff will have authority to develop final plans and specifications and advertise for bids for these projects. Projects in year two have been identified as a need or potential need but require further study in order to properly determine the scope, feasibility, or cost of the project. Staff will have authority to develop plans and specifications for these projects to refine them for inclusion in next year's program. Projects in year three will be studied and preliminary plans prepared. The last four years of the program include projects that staff deems likely to be needed during this period. This portion of the program assists in financial planning and meets the requirements of the Metropolitan Council's investment framework.

In 1998, legislation was passed (MS 473.621, Subd. 6 as amended) concerning local review of the CIP. The legislation requires the MAC to complete a process to provide "affected municipalities" surrounding the airport the opportunity for discussion and public participation in the MAC's CIP process. An "affected municipality" is a municipality that is either adjacent to a MAC airport, is within the noise zone of a MAC airport as defined in the Metropolitan Development Guide, or has notified the MAC that it considers itself an "affected municipality." Your community has been identified as an "affected municipality" by Metropolitan Council staff based upon the criteria as defined in the statute.

The legislation requires that the MAC provide adequate and timely notice, including a description of the projects in the CIP, to each affected municipality. The notices must include agendas and meeting minutes at which the proposed CIP was to be discussed or voted on in order to provide the municipalities the opportunity to solicit public comment and participate in the development of the CIP on an ongoing basis. Comments received from the affected municipalities will be reviewed and a response developed.

August 31, 2022  
Page 2

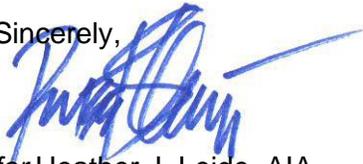
As has been done since 1999, the MAC has developed a schedule that will allow the affected municipalities the opportunity to participate in the CIP process. The implementation schedule for the 2023-2029 CIP is attached for your information. The shaded items represent actions/dates that pertain to the CIP. You will receive mailings regarding the CIP review and approval process. Once the Commission approves the preliminary CIP, you will have 60 days to provide comments on the proposed CIP to the MAC. Comments will be received until close of business on November 21, 2022. MAC staff will be available to attend any public meetings to answer questions regarding the projects in the CIP.

The Planning, Development, and Environment Committee of the Commission will be meeting on September 6, 2022 to review and make a recommendation to the full Commission on the Preliminary 2023 CIP. The approval of the Preliminary CIP will start the mandated environmental review process. Attached is the agenda for the Committee meeting, the Staff memo on the CIP, a spreadsheet showing the proposed 2023-2029 CIP, and project narratives for projects in year 2023.

All comments and questions on either the process or the CIP should be addressed to:

Heather Leide, Director of Airport Development  
Metropolitan Airports Commission  
6040-28<sup>th</sup> Avenue South  
Minneapolis, MN 55450  
Phone: 612.726.8128  
Email: [heather.leide@mspmac.org](mailto:heather.leide@mspmac.org)

Sincerely,



for Heather J. Leide, AIA  
Director of Airport Development

Attachments

HJL/rt

c: Jenn Felger, PD&E Coordinator  
Marisa Trapp, Manager of Environmental Affairs  
Bridget Rief, VP of Planning & Development  
CIP file



## Metropolitan Airports Commission

---

### **PLANNING, DEVELOPMENT AND ENVIRONMENT COMMITTEE**

#### **MEMBERS**

**Randy Schubring, Chair | Ikram Koliso, Vice Chair | Timothy Baylor | Yodit Bizen  
Leili Fatehi | Richard Ginsberg | James Lawrence | Rick King, Commission Chair  
Patti Gartland, Commission Vice Chair | Don Monaco, OF&A Chair**

#### **NOTICE OF RESCHEDULED REGULAR MEETING**

**Tuesday September 6, 2022 at 10:30 a.m.**

**Room LT-3048A - Terminal 1**

**Minneapolis-St. Paul International Airport**

#### **AGENDA**

1. Open Forum

- 1.1. Introductions [No Items]
- 1.2. Public Comment on Non-Agenda Items
- 1.3. Public Hearings [No Items]
- 1.4. Public Presentations [No Items]

2. Consent

2.1. Reports

- 2.1.1. Change Management Policy and Project Status Report - Bridget M. Rief, Vice President - Planning and Development
- 2.1.2. May - July Runway Use System (RUS) Reports - Michele Ross, Assistant Manager - Community Relations
- 2.1.3. Review of 2022 Summer MSP Listening Session - Michele Ross, Assistant Manager - Community Relations
- 2.1.4. Final Payments - MAC Contracts - Heather J. Leide, Director - Airport Development
  - 2.1.4. 1. 2020 Terminal 1 Redundant Power
  - 2.1.4. 2. 2021 Baggage Claim Ticket Lobby Operational Improvements P2
  - 2.1.4. 3. 2021 Terminal 2 Pre-Conditioned Air Replacement
  - 2.1.4. 4. 2022 St. Paul Downtown Airport (STP) Runway 14-32 Lighting Replacement

- 2.1.4. 5. 2022 MIC Taxilanes Pavement Reconstruction
- 2.1.4. 6. 2020 Air Handling Unit Safety Upgrades
- 2.1.4. 7. 2021 Parking Structure Rehabilitation
- 2.1.4. 8. 2021 Saint Paul Downtown Airport (STP) LED Edge Lighting
- 2.2. Bids Received - MAC Contracts - Heather J. Leide, Director - Airport Development
  - 2.2.1. 2022 Indoor Air Quality Monitoring System - REJECT
  - 2.2.2. 2022 Airport Police Department LRT Office
  - 2.2.3. 2022 Customs and Border Protection Camera System Upgrade
  - 2.2.4. 2022 Variable Air Volume (VAV) Box Replacement
- 2.3. Concourse G Infill Pod 2-3 Request for Environmental Assessment Worksheet and Public Hearing - Heather J. Leide, Director - Airport Development
3. Business
  - 3.1. Project Budget Adjustments - Heather J. Leide, Director - Airport Development
    - 3.1.1. 2021 Operational Improvements Baggage Claim Ticket Lobby Phase 2
    - 3.1.2. 2022 Silver Ramp Corrective Work
  - 3.2. Preliminary 2023-2029 Capital Improvement Program
    - 3.2.1. Program Overview - Heather J. Leide, Director - Airport Development
    - 3.2.2. Assessment of Environmental Effects (AOEE) and Request for Public Hearing - Bridget M. Rief, Vice President - Planning and Development
4. Information
  - 4.1. Enterprise Sustainability Update - Naomi Pesky, Vice President - Strategy and Stakeholder Engagement, Bridget M. Rief, Vice President - Planning and Development, Emmy Waldhart, Manager - Sustainability [Presentation Only]
5. Announcements
6. Closed Session [No Items]

### **SECURITY CHECKPOINT INFORMATION**

Commission board and committee meetings are held on the secure side of Minneapolis-St. Paul International Airport's Terminal 1. Depending on demand, it generally takes less than four minutes to obtain a security pass to gain access to the board chambers, but remember to give yourself time to park and be screened prior to the meeting. Follow these instructions to attend:

- Park in Daily Parking at Terminal 1. Please pull a ticket and bring it with you to have it validated at the meeting to avoid parking fees.

- Present a government-issued photo ID (driver's license) to the personnel at the Information Booth on Level T. They will prepare a security pass for you and direct you to the Ticketing Level.
- Use the North security checkpoint to pass through security. You will be asked to show your ID and security pass at that time.
- Once through security, proceed to your left. Go through the airport mall and look for the signs for the Airport Conference Center above the entrance to Concourse F.

The board meetings take place at the MSP Airport Conference Center on the Mezzanine Level above the Delta Air Lines Sky Club.

Use the stairs or elevator to go up one level.

For more information, call 612-726-5555.



## Metropolitan Airports Commission

---

TO: Planning, Development and Environment Committee

FROM: Heather J. Leide, Director – Airport Development (612-726-8128)

SUBJECT: **Preliminary 2023 – 2029 Capital Improvement Program  
Program Overview**

DATE: August 30, 2022

---

### FOR ACTION

#### **Summary**

Each year, MAC staff prepares a seven-year Capital Improvements Program (CIP) for review and approval by the full Commission. A preliminary version of the 2023-2029 CIP listing is provided in September in order to give Commissioners, Affected Municipalities and the public an opportunity to see what is planned for the upcoming seven-year program, with specifics included for the proposed projects forthcoming for construction contract award in 2023.

The seven-year CIP includes projects for both the Minneapolis-St. Paul International Airport (MSP) and the six airports in the Reliever Airport System. The majority of projects in the attached project listing focus on the rehabilitation and replacement of airport infrastructure, existing assets, and terminal systems to ensure that airport safety, security and operations are not compromised.

#### **Fiscal Impact**

No Impact       Operating Budget       CIP       Other

The Airport Development Department works closely with Finance staff during the CIP development process to review funding for the seven-year program. Any project changes to the preliminary CIP will be reflected in the final version brought to the Commission in December for final adoption. At that time, Finance will also provide a companion funding analysis for the first three years of the program for information.

## **Action Requested**

- 1. Recommend that the full Commission accept the attached preliminary 2023-2029 Capital Improvement Program for purposes of conducting the affected municipalities review and the Assessment of Environmental Effects (AOEE) process; and**
- 2. Authorize staff to proceed with these processes.**

## **Background**

The 2023-2029 preliminary CIP includes the following (attached to this memo):

- (a) Anticipated CIP process schedule;
- (b) Draft listing of projects by category with proposed year and estimated cost for each;  
and
- (c) Draft project narratives for the projects listed in 2023.

## ***Applicable Legal Authority***

- (a) MAC's Bylaws, Minnesota Statutes Sec. 473.621, Subd. 6 and 7.

## **Analysis**

The projects in the first year of the program (2023) are primarily projects that have been carried forward from past years' programs. MAC staff worked hard to forecast project needs and make requests three to four years or more in the future. This preliminary draft reflects updated scopes and estimates as developed by the project teams in the course of their work authorized with approval of the 2022-2028 CIP. Staff is aware that the MSP Long Term Plan (LTP) will call for additional significant projects, but they will not be reflected in the CIP until the LTP is approved and adopted by the Commission. In particular for Terminal 2, and with the expectation that improvements at that terminal will be recommended in the near term, staff has included fees in 2024 to assist in development of the appropriate timing and budgets for those projects after completion of the LTP.

This preliminary draft ensures that potential projects will be vetted through the affected municipalities review and AOEE processes. Staff will work closely to refine funding plans, coordinate grant opportunities, and consider critical timing with project stakeholders prior to bringing the final draft to the Commission in December.

In 2023, the CIP lists dollars associated with the Terminal 1 arrivals and departures levels (enhancements continuing from previous years) via the Operational Improvements Program. This program provides benefit to the local travelers who utilize the check-in, baggage drop, baggage claim, and security-related passenger processing facilities. Other planned major investments at MSP include necessary pavement reconstruction, the first phase of the infill between Pods 2 and 3 on Concourse G, and the first phase of the Concourse and Gatehold Modernization project to be completed in partnership with Delta Air Lines.

Also note that the CIP includes over \$8 million in 2023 for planning and development work at the Reliever Airports.

The preliminary seven-year program as attached will be made available to affected municipalities for review and comment. Affected municipalities will have 60 days to review the proposed program and offer comments to MAC staff for consideration when preparing the final program recommendations for review by the full Commission in December. The 60-day comment period is anticipated to run from September 22 through November 21, 2022.

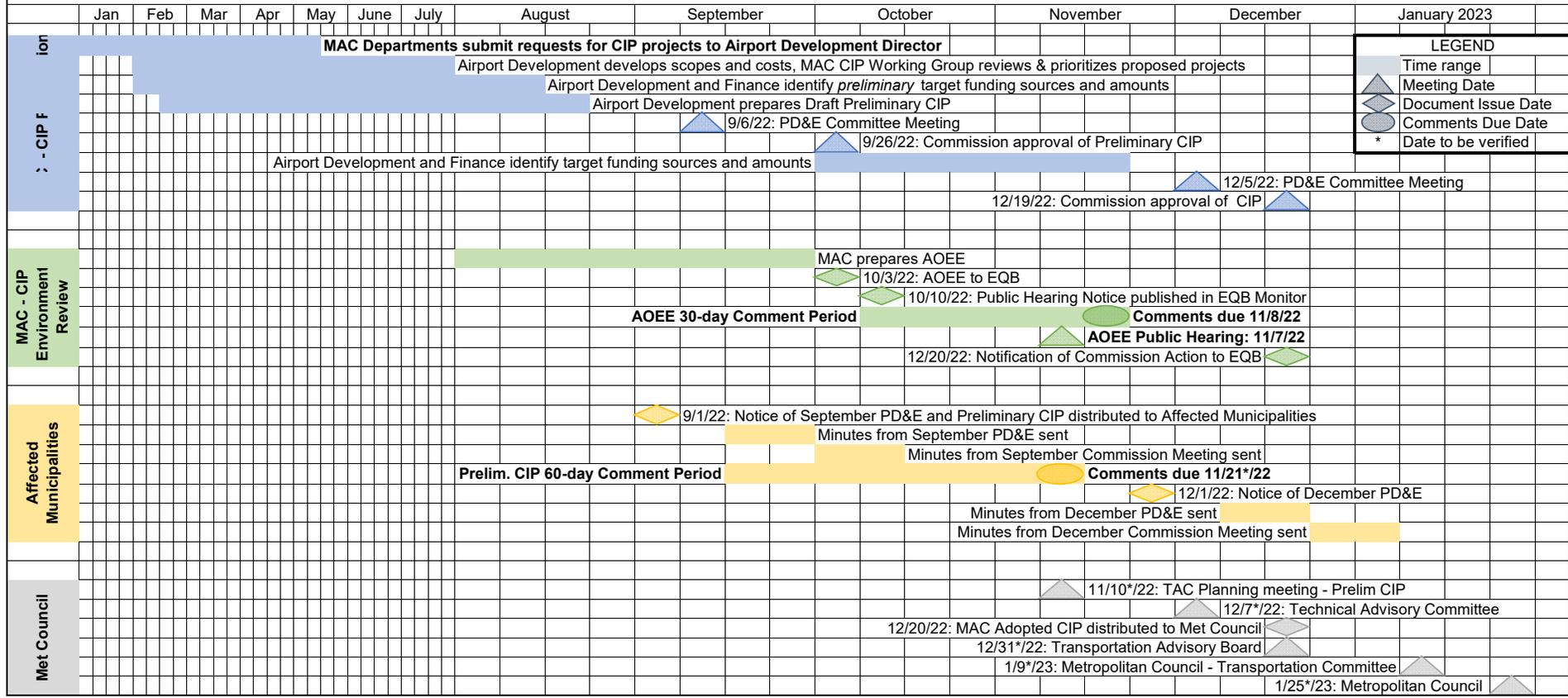
The preliminary program will also be utilized to develop the annual Assessment of Environmental Effects (AOEE) document, as outlined in the companion memorandum to this agenda item.

As required by Minnesota law, MAC's seven-year CIP must be reviewed by the Metropolitan Council. This preliminary program will be submitted to the sub-committees of the Metropolitan Council for initial review and discussion. Upon MAC's adoption of the final December version of the program, MAC will request review by the full Metropolitan Council of the adopted program in January 2023.

Looking forward, please note that the recommended action in December specific to the 2023-2029 CIP will include adoption of a proposed final CIP as well as authorize staff to:

- (a) Prepare plans and specifications and advertise for bids for the 2023 projects.
- (b) Conduct further studies to refine the scopes and costs, and to prepare plans and specifications for the 2024 projects.
- (c) Conduct studies and develop preliminary plans and specifications for the 2025 projects.
- (d) Utilize consultants as necessary in accordance with MAC's consultant use policies.
- (e) Initiate appropriate documentation to apply for federal, state, and PFC funding.
- (f) Forward the adopted 2023-2029 CIP to the Metropolitan Council for their review.

### 2023 - 2029 CAPITAL IMPROVEMENT PROGRAM DEVELOPMENT SCHEDULE



**LEGEND**

- Time range
- Meeting Date
- Document Issue Date
- Comments Due Date
- \* Date to be verified

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>MSP End of Life/Replacement Projects</b>							
10 - Terminal 1							
Concourse and Hub Tram Replacement	\$ 500,000			\$ 300,000,000	\$ 300,000,000		
Cooling Unit Replacement		\$ 1,125,000					
Passenger Boarding Bridge Replacements	\$ 10,000,000	\$ 4,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Recarpeting Program change name for E only?			\$ 2,000,000				
Terminal 1 Outbound Baggage Handling System Replacement						\$ 250,000,000	
13 - Energy Management Center							
Concourse E and F Bridge Heating and Cooling System Replacement	\$ 2,100,000	\$ 2,200,000	\$ 1,800,000				
EMC Boiler and Chiller Replacement Study	\$ 155,000						
GTC Dual-temperature Pump Improvements	\$ 1,800,000						
Variable Air Volume (VAV) Box Replacement	\$ 950,000	\$ 950,000	\$ 950,000				
21 - Field and Runway							
30L Deicing Pad Reconstruction	\$ 10,000,000		\$ 10,000,000	\$ 10,000,000			
30L EMAS Replacement				\$ 19,000,000			
Airfield Snow Melter Replacement/Upgrades	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 2,000,000	\$ 2,000,000	
Bituminous Shoulder Reconstruction	\$ 7,000,000	\$ 7,500,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000		
Concourse G Apron Pavement Reconstruction	\$ 7,500,000	\$ 18,750,000	\$ 7,500,000		\$ 7,000,000		
Runway 12L-30R and 4-22 Intersection Reconstruction		\$ 11,000,000					
Taxiway A Pavement Reconstruction				\$ 6,500,000	\$ 9,500,000	\$ 8,500,000	
Taxiway B Pavement Reconstruction	\$ 4,000,000		\$ 4,000,000		\$ 4,000,000		
26 - Terminal Roads/Landside							
Terminal 1 Access Roadway Bridge Rehabilitation	\$ 4,750,000						
UPS Loop Pavement Reconstruction		\$ 1,800,000					
Variable Message Signs Replacement, Phase 3		\$ 1,600,000					
31 - Parking							
Parking Ramp Snow Melter Replacement/Upgrades		\$ 1,350,000	\$ 1,350,000				
36 - Terminal 2							
Terminal 2 Pre-Conditioned Air (PCA)	\$ 2,300,000						
Terminal 2 Recarpeting Program	\$ 800,000	\$ 1,300,000	\$ 150,000				
Terminal 2 Ticket Counter/Insert Replacement			\$ 730,000				
39 - Public Areas/Roads							
East 62nd Street Reconstruction					\$ 3,900,000		
East 70th Street Reconstruction		\$ 2,400,000					
Post Road Reconstruction Project				\$ 5,000,000			
56 - Trades/Maintenance Buildings							
MSP Liquid Deicer Storage Facility	\$ 11,200,000						
66 - Fire							
Fire Alarm System Transition	\$ 1,500,000	\$ 2,000,000	\$ 1,200,000	\$ 1,000,000	\$ 1,200,000		
70 - General Office/Administration							
GO Building VAV Replacement and Upgrade			\$ 2,000,000				
<b>MSP End of Life/Replacement Projects Subtotal</b>	<b>\$ 66,355,000</b>	<b>\$ 57,775,000</b>	<b>\$ 50,480,000</b>	<b>\$ 360,300,000</b>	<b>\$ 344,600,000</b>	<b>\$ 270,500,000</b>	<b>\$ 10,000,000</b>

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>MSP IT Projects</b>							
10 - Terminal 1							
Concourse C and G Digital Directory Replacement		\$ 200,000					
Customs Border Protection Camera System Upgrade	\$ 850,000					\$ 1,000,000	
MAC Technology Upgrades	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 11,000,000	\$ 11,000,000	\$ 11,000,000	\$ 11,000,000
Telecom Room Equipment Continuity (TREC)		\$ 1,510,000					
63 - Police							
Card Access Modifications		\$ 2,500,000		\$ 2,800,000		\$ 2,500,000	
<b>MSP IT Projects Subtotal</b>	<b>\$ 10,850,000</b>	<b>\$ 14,210,000</b>	<b>\$ 10,000,000</b>	<b>\$ 13,800,000</b>	<b>\$ 11,000,000</b>	<b>\$ 14,500,000</b>	<b>\$ 11,000,000</b>
<b>MSP Long Term Comprehensive Plan Projects</b>							
10 - Terminal 1							
Baggage Claim/Ticket Lobby Operational Improvements	\$ 47,675,000	\$ 15,000,000					
Checkpoint Expansion							\$ 11,000,000
Concourse G Infill - Pod 2-3	\$ 23,500,000	\$ 351,500,000					
Design and Construction Standards Update	\$ 350,000						
D-Pod Outbound Baggage System					\$ 15,000,000		
MSP Airport Layout Plan			\$ 1,000,000				
MSP Environmental Review			\$ 2,000,000				
MSP Long Term Plan							\$ 3,000,000
MSP Obstructions Removals				\$ 1,000,000		\$ 1,000,000	
21 - Field and Runway							
NAVAIDS Study for North Campus Development	\$ 350,000						
Runway 30R Parallel Taxiway				\$ 12,000,000	\$ 10,000,000	\$ 14,000,000	
36 - Terminal 2							
Long Term Plan Projects (fees)		\$ 1,000,000					
Terminal 2 North Gate Expansion		\$ 195,000,000					
<b>MSP Long Term Comprehensive Plan Projects Subtotal</b>	<b>\$ 71,875,000</b>	<b>\$ 562,500,000</b>	<b>\$ 3,000,000</b>	<b>\$ 13,000,000</b>	<b>\$ 25,000,000</b>	<b>\$ 15,000,000</b>	<b>\$ 14,000,000</b>

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>MSP Maintenance/Facility Upgrade Projects</b>							
10 - Terminal 1							
ADO Office Expansion		\$ 4,000,000					
Art Display Areas	\$ 200,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Arts Master Plan	\$ 665,000	\$ 1,240,000	\$ 1,565,000	\$ 565,000	\$ 600,000	\$ 600,000	
C/G Connector Lighting Improvements			\$ 1,000,000				
Concourse A Heating System Upgrade		\$ 11,000,000					
Concourse G Moving Walks			\$ 6,000,000				
Delivery Node Redevelopment	\$ 2,700,000	\$ 2,300,000	\$ 2,700,000	\$ 7,800,000	\$ 4,320,000	\$ 5,000,000	
F/G Connector & Skyclub Repairs and Improvements			\$ 1,100,000				
Folded Plate Repairs			\$ 43,400,000				
Lavatory Buildings Rehab		\$ 4,400,000					
Lighting Infrastructure Technology and Equipment (LITE)	\$ 2,300,000	\$ 1,500,000	\$ 2,550,000	\$ 1,500,000	\$ 2,550,000	\$ 1,500,000	\$ 2,200,000
LRT Stations Updates		\$ -	\$ 1,600,000				
Restroom Upgrade Program	\$ 2,050,000	\$ 2,050,000	\$ 2,050,000	\$ 2,050,000	\$ 2,050,000	\$ 2,050,000	\$ 2,050,000
Steam System Upgrade Program		\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	
Terminal 1 Information Booth Replacements			\$ 850,000				
Terminal 1 Curbside Canopy Repairs and Lighting Upgrades		\$ 350,000					
Terminal 1 Employee Breakroom			\$ 450,000				
Terminal 1 Mechanical Room C-1043	\$ 9,800,000						
Terminal 1 Tug Drive Heater Replacement	\$ 1,500,000	\$ 2,000,000					
Terminal 1 Tug Drive Waterproofing		\$ 2,900,000	\$ 2,900,000	\$ 2,900,000	\$ 2,900,000		
Way-Finding Sign Backlighting Replacement	\$ 2,000,000	\$ 1,000,000	\$ 3,000,000		\$ 2,000,000		\$ 2,000,000
13 - Energy Management Center							
Chiller Plant Optimization		\$ 3,000,000					
Energy Savings Program	\$ 2,000,000		\$ 2,000,000		\$ 2,000,000		
Indoor Air Quality Monitoring System	\$ 1,500,000	\$ 1,000,000					
MAC Automation Infrastructure Program	\$ 2,300,000	\$ 2,300,000	\$ 2,300,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000
Material Storage Building - Boiler Room Addition	\$ 1,830,000						
Steam Trap Monitoring System				\$ 3,000,000			
Terminal 2 Penthouse Chiller Plant Infrastructure Upgrades		\$ 5,500,000					
Victaulic Piping Replacement		\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 2,200,000	\$ 2,300,000	\$ 2,350,000
21 - Field and Runway							
Airfield Security Screening Facility (Study)	\$ 250,000						
Anti-Climb Fencing & Lighting	\$ 275,000						
Apron Lighting LED Upgrade		\$ 5,000,000	\$ 1,000,000	\$ 3,000,000	\$ 1,000,000	\$ 1,000,000	
Field Maintenance Bldg Efficiency Program			\$ 53,000,000		\$ 105,000,000		\$ 46,000,000
Localizer Array Upgrade	\$ 2,000,000						
Runway LED Lighting Upgrade	\$ 1,500,000	\$ 1,700,000	\$ 2,700,000				
Taxiways B & Q Islands	\$ 700,000						
Terminal 2 Glycol Lift Station/forcemain		\$ 1,100,000					
Tunnel Lighting LED Upgrade		\$ 1,100,000	\$ 1,000,000	\$ 900,000	\$ 400,000	\$ 1,200,000	
26 - Terminal Roads/Landside							
Tunnel Approaches Reconstruction	\$ 2,600,000						
<i>MSP Maintenance/Facility Upgrade Projects continues on the next page</i>							

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<i>MSP Maintenance/Facility Upgrade Projects (continued)</i>							
31 - Parking							
Parking Guidance System			\$ 6,500,000				
Parking Ramp Railing Refinishing		\$ 1,000,000		\$ 1,000,000		\$ 1,000,000	
Red/Blue Parking Levels 2 & 3			\$ 9,200,000				
Rental Car EV Charging Infrastructure	\$ 1,500,000						
36 - Terminal 2							
Ramp Information Display System (RIDS)			\$ 3,600,000				
Terminal 2 Baggage Handling System			\$ 410,000				
Terminal 2 Gate Area Passenger Amenities			\$ 1,000,000				
Terminal 2 Gate Desk/Podium Replacement					\$ 450,000		
Terminal 2 Ground Transportation Waiting Area Expansion			\$ 400,000				
Terminal 2 lobby passenger flow program		\$ 1,000,000					
Terminal 2 MUFIDS/EVIDS Millwork Upgrades			\$ 350,000				
Terminal 2 Skyway to LRT Flooring Installation			\$ 800,000				
Terminal Door Locks and Emergency Egress Upgrades		\$ 400,000					
39 - Public Areas/Roads							
34th Avenue Bus Area Reconstruction		\$ 800,000					
34th Avenue Reconstruction				\$ 7,800,000	\$ 7,800,000		
34th Avenue Sanitary Sewer Replacement				\$ 2,200,000			
34th Avenue Traffic Control Improvements		\$ 200,000					
Diverging Diamond Intersection Rehabilitation					\$ 380,000		
Highway 494 Terminal and Airline Signs	\$ 300,000						
Taxi Cab Holding Lot Rehabilitation for Cell Phone Lot				\$ 650,000			
Terminal 1 Ground Transportation Modifications	\$ 1,140,000						
Terminal 1 Inbound Roadway Median Improvements			\$ 3,300,000				
Tunnel Fan Replacement		\$ 4,700,000	\$ 6,800,000				
46 - Hangars and Other Buildings							
MAC Storage Facility		\$ 30,000,000					
Safety and Security Center		\$ 150,000,000					
56 - Trades/Maintenance Buildings							
South Field Maintenance Building Wash Bay		\$ 3,500,000					
63 - Police							
Perimeter Fence Intrusion Detection System			\$ 1,000,000				
Perimeter Gate Security Improvements		\$ 6,500,000	\$ 6,500,000				
Police Department Improvements at Terminals 1 & 2						\$ 1,500,000	
Public Safety Modifications	\$ 1,000,000		\$ 1,000,000		\$ 850,000		\$ 850,000
Squad Parking Modifications				\$ 140,000			
66 - Fire							
Campus Fire Protection		\$ 2,400,000		\$ 3,400,000		\$ 1,900,000	\$ 3,500,000
76 - Environment							
Glycol Sewer & Storm Sewer Inspection/Rehabilitation		\$ 1,700,000	\$ 600,000				
Ground Service Equipment (GSE) Electrical Charging Stations	\$ 3,000,000						
Infield Fueling Facility Secondary Containment			\$ 400,000				
Lift Station at Ponds 1 and 2			\$ 2,300,000				
MSP Pond 3 / 494 Pond Sediment Removal & Repairs			\$ 5,500,000				
Runway 12R-30L Glycol Forcemain Environmental Improvements	\$ 2,000,000						
Terminal 2 Remote Ramp Lot/Drainage Improvements		\$ 2,000,000					
<b>MSP Maintenance/Facility Upgrade Projects Subtotal</b>	<b>\$ 45,110,000</b>	<b>\$ 263,490,000</b>	<b>\$ 186,675,000</b>	<b>\$ 45,155,000</b>	<b>\$ 138,750,000</b>	<b>\$ 22,300,000</b>	<b>\$ 61,600,000</b>
<b>MSP Noise Mitigation Projects</b>	<b>\$ 500,000</b>	<b>\$ 1,000,000</b>	<b>\$ 500,000</b>				

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>MSP Ongoing Maintenance Programs</b>							
10 - Terminal 1							
Air Handling Unit Replacement	\$ 6,500,000	\$ 6,500,000	\$ 13,000,000	\$ 13,000,000	\$ 13,000,000	\$ 13,000,000	\$ 13,000,000
Baggage System Upgrades	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Concourse G Rehabilitation		\$ 10,000,000					
Conveyance System Upgrades			\$ 3,000,000				
Electrical Infrastructure Program (EIP)	\$ 2,500,000	\$ 2,500,000		\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000
Electrical Substation Replacement	\$ 7,500,000	\$ 3,300,000	\$ 1,500,000	\$ 10,000,000	\$ 10,000,000		
Emergency Power Upgrades	\$ 6,600,000	\$ 2,500,000		\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000
Plumbing Infrastructure Upgrade Program	\$ 600,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000
Terminal Building Remediation Program	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Terminal Miscellaneous Modifications	\$ 2,600,000	\$ 2,600,000	\$ 2,600,000	\$ 2,600,000	\$ 2,600,000	\$ 3,100,000	\$ 3,100,000
13 - Energy Management Center							
EMC Life Safety Infrastructure Program		\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000
EMC Plant Upgrades (T1 & T2)	\$ 2,000,000	\$ 2,100,000	\$ 2,150,000	\$ 2,200,000	\$ 2,300,000	\$ 2,400,000	\$ 2,500,000
21 - Field and Runway							
Airside Electrical Construction	\$ 2,000,000	\$ 2,500,000	\$ 4,500,000				
Airside Roadway Pavement Restoration	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
Miscellaneous Airfield Construction	\$ 3,500,000	\$ 1,500,000					
Pavement Joint Sealing/Repair	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
26 - Terminal Roads/Landside							
Tunnel/Bridge Inspections	\$ 100,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 150,000	\$ 150,000
Tunnel/Bridge Miscellaneous Modifications			\$ 1,000,000		\$ 1,000,000		\$ 1,000,000
31 - Parking							
Parking Structure Rehabilitation	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
39 - Public Areas/Roads							
Concrete Joint Repair	\$ 900,000	\$ 1,000,000	\$ 300,000	\$ 400,000	\$ 1,200,000	\$ 2,900,000	\$ 750,000
Landside Pavement Rehabilitation	\$ 500,000	\$ 500,000	\$ 500,000		\$ 500,000	\$ 600,000	\$ 600,000
Landside Utility Rehabilitation	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000
Roadway Fixture Refurbishment	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
46 - Hangars and Other Buildings							
Campus Building Rehab Program	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000		\$ 1,500,000		\$ 1,500,000
Campus Parking Lot Reconstructions	\$ 650,000	\$ 650,000				\$ 700,000	
End of Life Campus Building Demolition			\$ 400,000	\$ 3,700,000			
MSP Campus Building Roof Replacements	\$ 8,300,000	\$ 6,100,000	\$ 12,500,000	\$ 10,200,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
56 - Trades/Maintenance Buildings							
Sump Pump Controls		\$ 4,000,000	\$ 4,000,000	\$ 3,500,000			
70 - General Office/Administration							
GO Building Improvements		\$ 500,000		\$ 500,000		\$ 500,000	
<b>MSP Ongoing Maintenance Programs Subtotal</b>	<b>\$ 55,150,000</b>	<b>\$ 59,870,000</b>	<b>\$ 59,070,000</b>	<b>\$ 63,220,000</b>	<b>\$ 50,420,000</b>	<b>\$ 41,550,000</b>	<b>\$ 40,800,000</b>

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>MSP Tenant Projects</b>							
10 - Terminal 1							
Concessions Upgrades/Revenue Development	\$ 100,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Concourse and Gatehold Modernization	\$ 23,800,000	\$ 85,600,000	\$ 73,100,000				
Delta Re-booking Station		\$ 350,000					
Elevator and concourse improvements related to relocated United Club	\$ 200,000					\$ 1,000,000	
Terminal 1 FIS Gate Common Use Additions	\$ 1,500,000		\$ 5,000,000				
Terminal 1 Pre-Conditioned Air (PCA)		\$ 2,500,000					
36 - Terminal 2							
Terminal 2 Concessions Development	\$ 2,800,000						
39 - Public Areas/Roads							
Tenant Parking Lot Reconstruction			\$ 2,900,000				
46 - Hangars and Other Buildings							
Ground Service Equipment (GSE) Maintenance Facility	\$ 200,000					\$ 2,000,000	
<b>MSP Tenant Projects Subtotal</b>	<b>\$ 28,600,000</b>	<b>\$ 88,650,000</b>	<b>\$ 81,200,000</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ 3,200,000</b>	<b>\$ 200,000</b>
<b>Reliever Airports Long Term Comprehensive Plan Projects</b>							
81 - St. Paul							
STP Airport Layout Plan	\$ 500,000						
STP Environmental Review			\$ 800,000				
STP Long Term Comprehensive Plan	\$ 800,000						
82 - Lake Elmo							
21D Airport Layout Plan		\$ 100,000					
21D Long Term Comp Plan							\$ 500,000
83 - Airlake							
LVN Airport Layout Plan			\$ 100,000				
LVN Long Term Comp Plan							\$ 500,000
LVN Runway 12-30 Improvements		\$ 4,400,000					
84 - Flying Cloud							
FCM Environmental Review		\$ 800,000					
FCM Purchase and Demolition of Hangars	\$ 1,300,000						
FCM South Building Area Utilities				\$ 800,000			
85 - Crystal							
MIC Long Term Comp Plan						\$ 500,000	
86 - Anoka County - Blaine							
ANE Airport Layout Plan		\$ 500,000					
ANE Building Area Development - Xylite St. Relocation			\$ 1,000,000				
ANE LTCP Update		\$ 800,000					
<b>Reliever Airports Long Term Comprehensive Plan Projects Subtotal</b>	<b>\$ 2,600,000</b>	<b>\$ 6,600,000</b>	<b>\$ 1,900,000</b>	<b>\$ 800,000</b>	<b>\$ -</b>	<b>\$ 500,000</b>	<b>\$ 1,000,000</b>

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<b>Reliever Airports Maintenance/Facility Upgrade Projects</b>							
<b>80 - Reliever Airports</b>							
Relievers Building Miscellaneous Modifications	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Relievers Obstruction Removal	\$ 300,000		\$ 300,000		\$ 300,000		\$ 300,000
Relievers Pavement Rehabilitation Miscellaneous Modifications	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Relievers Used Oil Sheds & Tanks			\$ 550,000				
<b>81 - St. Paul</b>							
STP Airport Perimeter Roads			\$ 500,000				
STP Airport Road and Eaton Street Retaining Wall						\$ 700,000	
STP Cold Equipment Storage Building				\$ 750,000			
STP Customs and Border Protection General Aviation Facility		\$ 4,500,000					
STP Floodwall Inspection and Repairs	\$ 200,000						
STP Intelligent Monitoring and Control System (IMACS) Expansion		\$ 2,250,000					
STP LED Edge Lighting Upgrades	\$ 500,000	\$ 1,500,000					
STP MAC Building Improvements	\$ 200,000		\$ 200,000		\$ 200,000		\$ 200,000
STP Pavement Rehabilitation-Taxilanes/Tower Road				\$ 750,000			
STP Runway 13-31 Pavement Reconstruction			\$ 5,000,000				
STP Runway 14-32 EMAS Replacement					\$ 10,000,000		
STP Runway 14-32 Reconstruction			\$ 5,000,000	\$ 5,000,000			
STP Storm Sewer Improvements		\$ 1,500,000					
STP Taxiway B Rehabilitation			\$ 800,000				
STP Taxiway Lima Rehabilitation					\$ 200,000		
STP Vehicle Gate Replacement	\$ 500,000						
<b>82 - Lake Elmo</b>							
21D AWOS Replacement			\$ 100,000				
21D Intelligent Monitoring and Control System (IMACS)			\$ 1,150,000				
21D Materials Storage Building		\$ 500,000					
21D North Building Area Pavement Rehabilitation		\$ 900,000					
21D North Service Roads Rehabilitation			\$ 500,000				
21D Northside Taxiway Reconstruction			\$ 600,000				\$ 600,000
21D Runway 04-22 Pavement Rehabilitation		\$ 4,000,000					
<b>83 - Airlake</b>							
LVN AWOS Replacement			\$ 100,000				
LVN Existing Runway 12-30 Reconstruction		\$ 3,500,000					
LVN Intelligent Monitoring and Control System (IMACS)				\$ 1,150,000			
LVN LED Edge Lighting	\$ 200,000						
LVN Maintenance Building Renovation			\$ 750,000				
LVN North Service Road Pavement Rehabilitation					\$ 500,000		
LVN North Taxilanes Pavement Rehabilitation					\$ 1,250,000		
LVN South Building Area Utilities and Taxilanes		\$ 1,300,000					
LVN Taxiway Bravo Pavement Rehabilitation		\$ 600,000					
<i>Reliever Airports Maintenance/Facility Upgrade Projects continues on the next page</i>							

2023-2029 Capital Improvement Program - Preliminary Draft	2023	2024	2025	2026	2027	2028	2029
<i>Reliever Airports Maintenance/Facility Upgrade Projects (continued)</i>							
84 - Flying Cloud							
FCM Airport Access Roads and Tango Lane				\$ 500,000			
FCM Airport Access Roads Pavement Rehabilitation					\$ 500,000	\$ 500,000	\$ 500,000
FCM Electrical Vault Modifications				\$ 500,000			
FCM Executive Aviation/MAC Maint Apron				\$ 600,000			
FCM Gate Replacements			\$ 500,000				
FCM Intelligent Monitoring and Control System (IMACS)		\$ 2,250,000					
FCM MAC Building Improvements				\$ 600,000			
FCM Parcel 7 Sewer and Water	\$ 300,000						
FCM Runway 10R-28L Pavement Rehabilitation		\$ 2,700,000					
FCM Runway 18-36 Pavement Rehabilitation							\$ 700,000
FCM Spring Lane Extension and Taxilane Connector	\$ 600,000						
FCM Tower Equipment for Airfield Lighting and Utilities			\$ 1,000,000				
FCM Underground Fuel Storage Tank Replacement		\$ 500,000					
85 - Crystal							
MIC Existing Hangar Revitalization				\$ 800,000			
MIC Intelligent Monitoring and Control System (IMACS)				\$ 1,150,000			
MIC LED Edge Lighting Upgrade	\$ 400,000						
MIC Runway 6L-24R Pavement Rehabilitation					\$ 2,500,000		
MIC Service Roads	\$ 1,200,000						
MIC Taxilanes Pavement Rehabilitation	\$ 750,000		\$ 600,000		\$ 600,000		
MIC Taxiway Alpha Pavement Reconstruction							\$ 1,200,000
MIC Tower Parking Lot Reconstruction		\$ 675,000					
MIC Underground Fuel Storage Tank Replacement		\$ 500,000					
86 - Anoka County - Blaine							
ANE AWQS Replacement	\$ 100,000						
ANE Electrical Vault Improvements			\$ 750,000				
ANE Equipment Storage and Maintenance Building	\$ 700,000						
ANE Gate Controller Upgrades				\$ 400,000			
ANE Intelligent Monitoring and Control System (IMACS)			\$ 1,150,000				
ANE Pavement Rehabilitation - Taxiway A and Edge Lights	\$ 1,800,000						
ANE Runway 18-36 Pavement Rehabilitation					\$ 3,000,000		
ANE Runway 9-27 Pavement Rehabilitation						\$ 3,750,000	
ANE Taxiway B Pavement Rehabilitation							\$ 1,400,000
ANE Underground Fuel Storage Tank Replacement		\$ 500,000					
ANE West Perimeter Road		\$ 1,800,000					
<b>Reliever Airports Maintenance/Facility Upgrade Projects Subtotal</b>	<b>\$ 8,450,000</b>	<b>\$ 30,175,000</b>	<b>\$ 20,250,000</b>	<b>\$ 12,900,000</b>	<b>\$ 19,750,000</b>	<b>\$ 5,650,000</b>	<b>\$ 5,600,000</b>
MSP Subtotal	\$ 278,440,000	\$ 1,047,495,000	\$ 390,925,000	\$ 495,675,000	\$ 569,970,000	\$ 367,050,000	\$ 137,600,000
Relievers Subtotal	\$ 11,050,000	\$ 36,775,000	\$ 22,150,000	\$ 13,700,000	\$ 19,750,000	\$ 6,150,000	\$ 6,600,000
<b>Total</b>	<b>\$ 289,490,000</b>	<b>\$ 1,084,270,000</b>	<b>\$ 413,075,000</b>	<b>\$ 509,375,000</b>	<b>\$ 589,720,000</b>	<b>\$ 373,200,000</b>	<b>\$ 144,200,000</b>

## 2023 Capital Improvement Program Narratives

### **MSP END OF LIFE/REPLACEMENT PROJECTS**

End of Life/Replacement projects include systems, components, and pavements that can no longer be economically or feasibly maintained and must be replaced.

#### **10 – Terminal 1**

##### **Concourse and Hub Tram Replacement \$500,000**

This project funds a study to evaluate equipment and procurement options for the replacement of the Hub Core and Concourse C Trams which are nearing the end of their useful life.

##### **Passenger Boarding Bridge Replacements \$10,000,000**

This program replaces jet bridges at Terminal 1. Bridges to be replaced will be determined based on a condition assessment and input from the airlines. Aircraft parking positions will be optimized at the impacted gates and fuel pits adjusted as necessary. Podiums and door openings may also be adjusted to optimize gate hold area. It is assumed fixed walkways may need to be replaced or added to meet ADA slope requirements and all gate hold areas will be upgraded with security doors, card readers, and cameras.

#### **13 – Energy Management Center**

##### **Concourse E and F Bridge Heating and Cooling System Replacement \$2,100,000**

This is the first of three phases of work to replace and improve the heating and cooling systems on the bridges to Concourses E and F. In this phase, the original chilled water piping will be replaced and located in an accessible soffit. A redundant cooling loop will be added as well to minimize impacts to the concourses during disruptions and construction relocations.

##### **EMC Boiler and Chiller Replacement Study \$155,000**

This is a study to review the Terminal 1 boilers and chillers for replacement. The study will look at replacement equipment with a more efficient design, as well as building impacts to remove the old equipment and bring the new equipment into the building.

##### **GTC Dual-temperature Pump Improvements \$1,800,000**

This project will replace end of life pumps and supporting infrastructure.

##### **Variable Air Volume (VAV) Box Replacement \$950,000**

This program will replace Variable Air Volume (VAV) boxes throughout Terminal 1 with more efficient equipment connected to the IMACS system and located for maintenance accessibility.

#### **21 – Field and Runway**

##### **30L Deicing Pad Reconstruction \$10,000,000**

This is the first of three phases to reconstruct the deicing pad at Runway 30L.

##### **Airfield Snow Melter Replacement/Upgrades \$1,800,000**

This project will replace, modify and/or upgrade snow melters on the airfield that are beyond their useful life.

**Bituminous Shoulder Reconstruction** **\$7,000,000**

This project provides for the reconstruction of full depth bituminous shoulder at the end of Runway 30R from Taxiway P1 to Taxiway P3. Work will include removals, crushed aggregate base, bituminous pavement, pavement marking, and electrical construction.

**Concourse G Apron Pavement Reconstruction** **\$7,500,000**

This project will reconstruct a portion of the apron area adjacent to Concourse G. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, fuel pits, and pavement marking.

**Taxiway B Pavement Reconstruction** **\$4,000,000**

This project will reconstruct a portion of Taxiway B. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, bituminous shoulders, pavement marking, and taxiway centerline lights.

**26 – Terminal Roads/Landside**

**Terminal 1 Access Roadway Bridge Rehabilitation** **\$4,750,000**

This project will repair the bridge deck, replace expansion joints, paint to protect the steel beams, and complete other repairs as needed.

**36– Terminal 2**

**Terminal 2 Pre-conditioned Air (PCA)** **\$2,300,000**

This project will replace outdated pre-conditioned air (PCA) units at Gates H1-H10 at Terminal 2 with new units that meet the MAC standard.

**Terminal 2 Recarpeting Program** **\$800,000**

This multi-year program will replace end of life carpeting throughout Terminal 2.

**56– Trades/Maintenance Buildings**

**MSP Liquid Deicer Storage Facility** **\$11,200,000**

This project includes construction of a new airfield runway deicer storage and off-loading facility with additional offload ports, upload ports, and increased liquid capacity for airfield runway deicing chemicals.

**66 – Fire**

**Fire Alarm System Transition** **\$1,500,000**

In an effort to improve monitoring reliability and eliminate the existing single point of failure configuration, this multi-year project will include database redundant systems, device controller upgrades and the decentralization of the fire alarm master control equipment.

## **MSP IT PROJECTS**

MSP IT Projects include those that have a significant amount, if not all, technology-related enhancements, maintenance, or restructuring.

### **10 – Terminal 1**

#### **Customs and Border Protection Camera System Upgrade \$850,000**

The Customs and Border Protection’s security camera system has reached the end of its functional and repairable life. The agency requires a standalone camera system rather than one integrated with the MAC IVISN system. The 2023 project will complete gaps in coverage and additional cameras to support CBP operational needs.

#### **MAC Technology Upgrades \$10,000,000**

Each year, there are several IT projects that are beyond the resources of MAC’s staff and operating budget to accomplish. These projects are prioritized and completed either as a series of contracts or as purchase orders. Work may include Fiber Optic Cable Upgrades, MACNet maintenance and upgrades, EVIDs/MUFIDs digital signs, Wireless System enhancements, and MAC Public Address System maintenance and upgrades. The list of potential projects will be compiled and prioritized in early 2022.

## **MSP LONG TERM COMPREHENSIVE PLAN PROJECTS**

MSP Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted passenger needs.

### **10 – Terminal 1**

#### **2023 Baggage Claim / Ticket Lobby Operational Improvements \$47,675,000**

This program addresses issues of congestion and functionality in the Baggage Claim and Ticket Lobby. It will provide the level of service requirements for short and medium-term growth of the origin and destination passengers, including walkways that meet required codes, public seating areas, centralized meet and greet space, unclaimed baggage storage, baggage service offices, concessions, improved lighting, fire protection throughout the space, structural enhancements, improved sight lines, curbside lighting and access, ticket counter consolidations, airline ticket offices, improved vestibules and access, east mezzanine removal/reduction, structural enhancements, curtain wall replacement, and other operational improvements.

#### **2023 Concourse G Infill – Pod 2-3 \$23,500,000**

This project includes an expansion/redevelopment of Concourse G. The expansion includes an infill between the existing Pods 2 and 3, which will provide enlarged gate hold areas. The redevelopment will include new and upgraded restrooms, new moving walkways, new mechanical rooms and air handling equipment, redevelopment of concessions space and miscellaneous relocations of tenant space within the project footprint

#### **Design and Construction Standards Update \$350,000**

This project will fund consultant support of updating the MAC’s Design and Construction Standards to improve consistency and clarity for project teams, including those for tenant construction projects.

### **21 – Field and Runway**

#### **NAVAIDS Study for North Campus Development \$350,000**

This project funds a one-time study of navigational aids related to development on the MSP campus in conjunction with the airport long term plan efforts. This study is needed for analysis of north field development potential.

## **MSP MAINTENANCE/FACILITY UPGRADE PROJECTS**

MSP Maintenance/Facility Upgrade projects include those that provide improvements to individual buildings or systems across the campus on a one-time or short-term basis.

### **10 – Terminal 1**

#### **Art Display Areas \$200,000**

This program is a continuation of the existing program, in partnership with the MSP Foundation, to provide opportunities and space build out for the display of permanent and temporary/rotating art exhibits.

#### **Arts Master Plan \$665,000**

This program supports procurement of commissioned art and rotating exhibits as part of the Percent for Arts program.

#### **Delivery Node Redevelopment \$2,700,000**

MAC's existing node delivery and storage system requires long-term improvements at Terminal 2, and Terminal 1 (Concourses A, C, E, F, and G) to provide for safe and efficient delivery, by the logistics company, to MAC and airport tenants. This program will improve or replace existing nodes with more centralized locations that should include loading docks, elevators where needed, adjacent storage, trash and recycling, etc. The 2023 project is planned to redevelop the former main dock under Concourse C at Terminal 1, replaced by the MAC Receiving and Distribution Center, to achieve highest use.

#### **Lighting Infrastructure Technology and Equipment (LITE) \$2,300,000**

This is a multi-year program that will analyze, assemble, and organize lighting system upgrade recommendations for the MSP campus. Annual investment in lighting infrastructure is necessary to ensure its safe operation, reduce energy and maintenance costs, and to implement technology upgrades to improve lighting quality. Light fixtures age and degrade due to time, heat or exterior elements. Lighting technologies upgrades will also provide for more energy efficient lighting systems.

#### **Restroom Upgrade Program \$2,050,000**

A study of all restrooms in Terminal 1 was completed in 2010 and a program developed to upgrade/modernize the restrooms at Terminal 1. From this study, each restroom was prioritized based on its condition. This program will provide for the phased modernization of the Terminal 1 restrooms to include upgraded finishes, lighting, air quality, energy saving upgrades, and ADA compliance.

#### **Terminal 1 Mechanical Room C-1043 \$9,800,000**

Concourse C Mechanical Room C-1043 is a mechanical room that houses a very large aging high pressure steam pressure reducing station, an aging domestic water main meter assembly, aging HVAC pumps, fire protection valves, electrical conduits etc. This project will expand and separate portions of the system into unused rooms and replace systems which will be safer, more efficient, meet current code requirements and be reliable.

#### **Terminal 1 Tug Drive Heater Replacement \$1,500,000**

This project will replace all existing Terminal 1 tug drive steam unit heaters with hot water unit heaters.

**Way-Finding Sign Backlighting Replacement** **\$2,000,000**

Wayfinding is a critical customer service piece of our passenger's experience at MSP. Existing wayfinding signs are outdated, provide information no longer relevant, or are no longer illuminated. This program replaces the failed cold-cathode illumination with LED backlit signs as it is not practical or cost effective to repair them. This program updates sign information, locations, and provides new illuminated signs and/or digital signs where needed at Terminal 1 and Terminal 2 and supports repair that exceeds routine maintenance budgets.

**13 – Energy Management Center**

**Energy Savings Program** **\$2,000,000**

The scope of this year's project involves work at both Terminal 1 and Terminal 2 and in general includes the replacement of valves, boilers, lighting controls, and motors with high efficiency models.

**Indoor Air Quality Monitoring System** **\$1,500,000**

This project continues efforts begun in 2021 to add CO2 and NO2 sensors where required and tie new and existing sensors to the IMACS system for remote monitoring and automatic safety ventilation. It will provide the Energy Management Center with advanced modular Indoor Air Quality sensors to install temporarily at any location with IMACS connectivity. The project will also upgrade controls wiring for the post fire smoke evacuation systems.

**MAC Automation Infrastructure Program** **\$2,300,000**

This is a continuation of a multi-year program to upgrade all MAC building automation systems to an open architecture protocol so that MAC can bid maintenance and construction contracts more competitively. This project will replace sole-source controllers such as Siemens and Legacy Honeywell with controllers from Honeywell, Circon, Distech, and TAC systems that are LonMark certified products.

**Material Storage Building – Boiler Room Addition** **\$1,830,000**

This project will replace the corrosion damaged boiler equipment and install it in a new boiler room. The equipment to be replaced is dangerous to maintain due to the corrosion and has already begun to fail and has caused safety concerns. This CIP would build a new boiler room, new boilers, pumps, piping, controls, electrical power and VFD's, unit heater and remove existing boiler equipment in existing mechanical spaces.

**21 – Field and Runway**

**Airfield Security Screening Facility Study** **\$250,000**

This study will assist MAC staff to determine location, type, and number of staffed field gates or midfield inspection areas to maximize the number of badge holders screened on the airfield. A subsequent project to execute the study's recommendations will be proposed to enhance both airfield and terminal security.

**Anti-Climb Fencing and Lighting** **\$275,000**

Fencing, CCTV cameras, and lighting will be added between Gate 124 and the Terminal 1 inbound roadway rock wall.

**Localizer Array Upgrade** **\$2,000,000**

This project will upgrade the parallel runways' localizer arrays to improve instrument approaches signal clarity.

<b><u>Runway LED Lighting Upgrade</u></b>	<b>\$1,500,000</b>
This project will replace lighting on Runway 12R-30L with LED lighting.	
<b><u>Taxiways B and Q Islands</u></b>	<b>\$700,000</b>
This project will construct taxiway islands created by Taxiways A and B, C and D, and P and Q.	
<b>26 – Terminal Roads/Landside</b>	
<b><u>Tunnel Approaches Reconstruction</u></b>	<b>\$2,600,000</b>
This project will provide for the reconstruction of the approaches to Tunnel Y-3 and 17-35 Tunnel. These tunnels were constructed in the early 2000's and have had periodic maintenance activities to date. The existing concrete tunnel approaches for Tunnel Y-3 are in need of reconstruction as the pavement has been repaired but the repairs require yearly maintenance efforts that provide a temporary solution. A permanent solution is to reconstruct the approaches to correct the panel movements and other ongoing issues of the approach sections. The tunnel approaches to the 17-35 Tunnel is similar to Tunnel Y-3 on maintenance with less panel and other issues such that rehabilitation and/or reconstruction should be reviewed.	
<b>31 – Parking</b>	
<b><u>Rental Car EV Charging Infrastructure</u></b>	<b>\$1,500,000</b>
This project will install electrical infrastructure on levels 2-5 of the Silver Parking Ramp at Terminal 1 for the rental car agencies to support the agencies' installation of electric vehicle (EV) charging stations as they add EVs to their fleets.	
<b>39 – Public Areas/Roads</b>	
<b><u>Highway 494 Terminal and Airline Signs</u></b>	<b>\$300,000</b>
This project will fund replacement of overhead signage on Interstate Highway 494 and Minnesota Highway 5 to accommodate eight airline names per sign instead of the existing signs' limit of six.	
<b><u>Terminal 1 Ground Transportation Modifications</u></b>	<b>\$1,140,000</b>
This project will relocate the Taxi, Transportation Network Companies (TNCs), and other transportation services at the Terminal 1 Ground Transportation Center. Configuration of existing east and west commercial areas will be revised. Anticipated work includes variable message sign relocation, pavement marking, signage, and other related items.	
<b>63 – Police</b>	
<b><u>Public Safety Modifications</u></b>	<b>\$1,000,000</b>
This program enhances the safety of the MSP campus through door hardware, signage, security controls, and other equipment to provide for egress requirements, code compliance, security conformity, and emergency responder access.	
<b>76 – Environment</b>	
<b><u>Ground Service Equipment (GSE) Electrical Charging Stations</u></b>	<b>\$3,000,000</b>
This project will purchase and install charging stations for airline electric ground support equipment (GSE). These fast, energy-efficient charging stations allow for simultaneous charging, adjustable charging rates, and automatic shut-off when the GSE are fully charged. The charging stations are to be installed at Terminal 1 for use by Delta GSE. This project fits into the proposed long-term goal of converting all Delta GSE to electric power thereby reducing overall air emissions and noise pollution at MSP from fossil fuel-burning GSE. Delta will pay for electric usage of the charging units.	

**Runway 12R-30L Glycol Forcemain Environmental Improvements** **\$2,000,000**

This project provides for construction of glycol pumping stations and forcemains to convey glycol-impacted stormwater from the Runway 30R and 30L deicing pads to the existing glycol sewers west of Runway 4-22 and the glycol management facility.

**MSP NOISE MITIGATION PROJECTS**

**Noise Mitigation Consent Decree Amendment** **\$500,000**

The Consent Decree First Amendment Program is a residential noise mitigation program that began in March 2014 under the terms of an amended legal agreement (Consent Decree) between the Metropolitan Airports Commission (MAC) and the cities of Richfield, Minneapolis, and Eagan, and approved by the Hennepin County District Court (effective until December 31, 2024). Under this program, eligibility of single-family and multi-family homes will be determined annually, based upon actual noise contours that are developed for the preceding calendar year, beginning in March 2014. This project will provide noise mitigation for those single family and multifamily homes meeting the eligibility requirements of the program.

**MSP ONGOING MAINTENANCE PROJECTS**

MSP On-Going Maintenance projects include buildings, systems, pavements, and other infrastructure that require improvements on an annual basis in order to maintain the facilities and manage MAC assets.

**10 – Terminal 1**

**Air Handling Unit Replacement** **\$6,500,000**

There are existing air handling units serving Terminal 1 that were installed with the original terminal construction in 1958-60 and are over 50 years old. A study of these units has been completed that evaluated each unit's age, condition, and its ability to adequately heat or cool the spaces it serves. A multi-year program has been implemented to provide for the replacement of the units that have been identified as needing replacement. The project costs include modifications to building walls to facilitate the removal of existing equipment and installation of the new units, upgraded electrical and temperature controls, and asbestos abatement.

**Baggage System Upgrades** **\$500,000**

This multi-year program will provide necessary upgrades to the inbound and outbound baggage system not covered by general system maintenance.

**Electrical Infrastructure Program** **\$2,500,000**

There are 53 electrical substations that serve the Terminal 1 complex. It is imperative that these substations be routinely inspected, cleaned, and upgraded to ensure their continued performance.

**Electrical Substation Replacement** **\$7,500,000**

This is a multi-year program to replace electrical substations which are at or very near end of life. This program will also improve redundancy.

**Emergency Power Upgrades** **\$6,600,000**

A study and survey of Terminal 1 transfer switches and emergency lighting was completed in 2008. This year's project is part of a multi-year program that will continue the design and implementation of emergency power and lighting corrective work identified in this study.

**Plumbing Infrastructure Upgrades** **\$600,000**

In 2010, MAC staff prepared a preliminary study of the reliability and maintainability of the existing plumbing infrastructure. Portions of the existing plumbing infrastructure serving Terminal 1 are over 40 years old, have systems that are undersized for today's demands, contain isolation valves that are either inaccessible or no longer functional, and utilize aging water meter systems. There are also deteriorated sections of the existing sanitary and storm water systems. This ongoing program was implemented in 2012 to upgrade the plumbing infrastructure system to meet current code requirements and MAC standards. The focus of the 2023 project is to continue the replacement of aging plumbing systems.

**Terminal Building Remediation Program** **\$3,000,000**

Continual maintenance of the terminal buildings is imperative to passenger comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold, and other health issues. Building and concourse envelope issues include curtain wall systems, glazing, sealant repair/replacement, louver repair/replacement, metal panel repair/replacement, and soffit repair/replacement and insulation systems.

**Terminal Miscellaneous Modifications** **\$2,600,000**

Each year, there is a list of maintenance projects that are beyond the resources of MAC's maintenance and trades staff to accomplish. These projects are prioritized and completed either as a series of contracts or as purchase orders. Typical work includes door replacements, emergency upgrades to mechanical, electrical, plumbing or HVAC systems, loading dock work, etc. The list of potential projects will be compiled and prioritized in early 2023.

**13 – Energy Management Center**

**EMC Plant Upgrades (T1 & T2)** **\$2,000,000**

This multi-year program provides upgrades to the MAC's Energy Management Center (EMC) Boiler and Chiller Plants at both Terminal 1 and Terminal 2. The work includes upgrades to the aging Chilled Water and Heating Water systems throughout both terminals. The pumping and piping systems on both the heating and cooling systems are aging and in need of repair work beyond regular maintenance.

**21 – Field and Runway**

**Airside Electrical Construction** **\$2,000,000**

This program provides for the removal and replacement of airfield lighting and signage with LED technology, and lighting control upgrades.

**Airside Roadway Pavement Restoration** **\$1,200,000**

This is an ongoing program to rehabilitate roadways on the airfield through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. The pavement condition index report as well as an inspection of the pavement will be completed to determine the areas most in need of repair on an annual basis.

**Miscellaneous Airfield Construction** **\$3,500,000**

This program supports Part 139 Airport Certification through grading and drainage improvements within runway safety areas, airfield pavement marking modifications, and other miscellaneous airside projects that are too small to accomplish independently or arise unexpectedly.

**Pavement Joint Sealing/Repair** **\$800,000**

This is an ongoing program to provide for the resealing of joints, sealing of cracks, and limited surface repairs on existing concrete pavements. The areas scheduled for sealing will be as defined in the overall joint sealing program or as identified by staff inspection in the early spring of each year.

**26 – Terminal Roads/Landside**

**Tunnel/Bridge Inspections** **\$100,000**

The MSP Campus has MAC-owned bridges and tunnels. Bridge and tunnel inspections are conducted each year to identify maintenance and repairs which are then implemented in a timely fashion.

**31 – Parking**

**Parking Structure Rehabilitation** **\$3,000,000**

This is an annual program to maintain the integrity of the airport's multi-level parking structures. Projects typically include concrete repair, joint sealant replacement, expansion joint repairs, concrete sealing, and lighting improvements.

**39 – Public Areas/Roads**

**Concrete Joint Repair** **\$900,000**

This project is to complete landside pavement joint repair on MSP campus roadways as a preventative maintenance activity to prolong the existing pavement from reconstruction.

**Landside Pavement Rehabilitation** **\$500,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments, and resurfacing on roadways located outside of the Air Operations Area (AOA). This program effectively slows deterioration rates, extends service life and delays need for total reconstruction of bituminous and concrete pavements. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project.

**Landside Utility Rehabilitation** **\$750,000**

Each year there are numerous landside utility projects that are beyond the resources of MAC's staff and operating budget to accomplish. These projects are prioritized annually and completed with either a series of contracts or purchase orders. Electric power, sanitary sewer, storm sewer and watermain improvements will be addressed with this program. Also, a study will be conducted as part of the first year's project to identify future potential projects. The study will be updated annually reflect current priorities.

**Roadway Fixture Refurbishment** **\$150,000**

Many of the light poles, clearance restriction boards, sign units, fence sections, and canopies on the airport roadways need repainting and maintenance. This project provides for fixture refurbishment.

## **46 – Hangars and Other Buildings**

### **Campus Building Rehab Program \$1,500,000**

Continual maintenance of MAC non-terminal buildings is imperative in providing a stable infrastructure and meeting the MAC’s sustainability goals. Age and weather contribute to building deterioration, mold and other health issues. Building envelope issues include curtain wall systems, glazing, sealant repair/replacement, louver repair/replacement, metal panel replacement and/or painting/tuck-pointing, structural repair and insulation systems. This program will also include repair/replacement related to interior issues. This is part of an on-going program to maintain MAC buildings as assets.

### **Campus Parking Lot Reconstruction \$650,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments and resurfacing of parking lots. This program effectively slows, deterioration rates, extends service life and delays need for total reconstruction of parking lot pavements is required. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year’s project. The 2023 project is planned to reconstruct the pavement around the MAC Field Maintenance facility.

### **MSP Campus Building Roof Replacement \$8,300,000**

A report has been developed within the MAC that evaluates one-half of the roofs every other year. This on-going program allows these roofs that have been evaluated to be prioritized and programmed for repair. The focus of the 2023 project is anticipated to be on replacement of portions of the South Field Maintenance, North Field Maintenance, and Cold Storage buildings’ roofs. Emergency repairs may also be needed on some other roofs; this program will provide dollars for such instances.

## **MSP Tenant Projects**

MSP Tenant projects include those that enhance or expand tenant or leasehold facilities that MAC supports, with the tenants reimbursing the costs to MAC for work within leasehold spaces.

## **10-Terminal 1**

### **Concessions Upgrades/Revenue Development \$100,000**

This is an annual program to fund miscellaneous upgrades such as finishes, furniture, signage, and/or modified connections to utilities for the concession programs or other revenue generating programs at the airport.

### **2023 Concourse and Gatehold Modernization \$23,800,000**

This is the first phase of the Concourse and Gatehold Modernization program and will complete work in Concourses D and F. Through a reimbursable agreement, Delta Air Lines will complete MAC-funded work including ceiling and lighting improvements, window tint, wainscoting, column wraps (excluding branding), paint (excluding branding), wayfinding information displays (“WIDS”), and flooring in the public area concourse corridors (including terrazzo, tile, and carpet where applicable). The program budget will also support MAC consultant fees for design collaboration and project oversight.

### **Elevator and Concourse Improvements Related to Relocated United Club \$200,000**

This project allocates fees to study the feasibility of relocating the United Club to the area above Concourse E that will be vacated by Airside Operations when the Safety and Security Center, Phase 2 is complete.

### **Terminal 1 FIS Gate Common Use Additions \$1,500,000**

This project will install two common use podiums, backwalls, and boarding pass reader podiums, along with all associated IT equipment for two existing Concourse G gates to be connected to the Terminal 1 FIS facility.

### **36-Terminal 2**

#### **Terminal 2 Concessions Development \$2,800,000**

This project relates to the restaurants and news stores in the middle of Terminal 2. The Terminal 2 concessions program is expiring in the next 3-5 years. It needs to be redeveloped to include a much needed back of house corridor for the delivery of products to the concessions, expanded seating areas, vending alcoves, and mobile ordering kiosks to assist with the relief of long que lines. The CIP budget will go to right sizing concessions and positioning them to maximum efficiency.

### **46-Hangars and Other Buildings**

#### **Ground Service Equipment (GSE) Maintenance Facility \$200,000**

This project allocates fees to study the programmatic needs for a Ground Service Equipment (GSE) Maintenance Facility and identify a site on campus for the stand-alone facility.

### **RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS**

Reliever Airport Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted operational needs.

### **81 – St. Paul**

#### **STP Airport Layout Plan \$500,000**

The new ALP will show current conditions and any development proposed in the Long-Term Comprehensive Plan (LTCP). A portion of the budget will be used to acquire new AGIS base mapping to create a new Airport Layout Plan (ALP) set that complies with current FAA guidelines and criteria.

#### **STP Long Term Comprehensive Plan \$800,000**

This project will review current airport facilities, identify service gaps, and better facilitate the safe movement of aircraft at St. Paul Downtown Airport, which is part of the MAC's system of reliever airports designated by the FAA to reduce congestion at the Minneapolis-St. Paul International Airport and to provide improved general aviation facilities in the overall community.

### **84 – Flying Cloud**

#### **FCM Purchase and Demolition of Hangars \$1,300,000**

This will purchase and demo all or portions of five hangars within the object free area of Flying Cloud's Taxiway Alpha.

### **RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS**

Reliever Airport Maintenance / Facility Upgrade projects include improvements to buildings, systems, pavements and other infrastructure across the Reliever Airport system on a one-time or short-term basis.

### **80 – Reliever Airports**

#### **Relievers Building Miscellaneous Modifications \$400,000**

This program will address ongoing needs for repairs and modifications of MAC-owned buildings at the five of the reliever airports, excluding St. Paul. These items may include crew rest areas, heating, air conditioning, structural repairs, and aesthetic updates. The list of potential projects will be compiled and prioritized in early 2023.

<b><u>Relievers Obstruction Removal</u></b>	<b>\$300,000</b>
This program will address ongoing needs for obstruction removals at the six reliever airports. The list of potential projects will be compiled and prioritized in early 2023.	
<b><u>Relievers Pavement Rehabilitation Miscellaneous Modifications</u></b>	<b>\$300,000</b>
This program will address ongoing needs for crack sealing, joint repairs, pavement rejuvenation, and pavement repairs at the six reliever airports. The list of potential projects will be compiled and prioritized in early 2023.	
<b>81 – St. Paul</b>	
<b><u>STP Floodwall Inspection and Repairs</u></b>	<b>\$200,000</b>
This will include a complete inspection of all floodwall components and repairs to these components as identified during the inspection. This project will save time when the wall is put up by ensuring all components are functioning properly.	
<b><u>STP LED Edge Lighting Upgrades</u></b>	<b>\$500,000</b>
This project will replace taxiway edge lighting and signage with LED lighting.	
<b><u>STP MAC Building Improvements</u></b>	<b>\$200,000</b>
This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings or modifications necessary to meet the requirements of the tenants. This year's project priorities will be set early in 2023.	
<b><u>STP Vehicle Gate Replacement</u></b>	<b>\$500,000</b>
There are several gates that are aging at the airport. Many of these gates have ongoing maintenance issues and are in need of replacement. This project would replace the gates that are in the worst shape and provide the highest level of vehicles accessing the airport.	
<b><u>LVN LED Edge Lighting</u></b>	<b>\$200,000</b>
This project will replace edge lighting and signs with new LED lighting.	
<b>84 – Flying Cloud</b>	
<b><u>FCM Parcel 7 Sewer and Water</u></b>	<b>\$300,000</b>
These funds will reimburse the City of Eden Prairie for installing water and sanitary sewer connections to the MAC non-aeronautical development parcels adjacent to Pioneer Trail as part of a City street reconstruction project.	
<b><u>FCM Spring Lane Extension and Taxilane Connector</u></b>	<b>\$600,000</b>
This project will extend Spring Lane Taxilane to the east and provide a connector to Taxiway B. The project is operationally necessary for the development of a site near the south building area for a flight school.	
<b>85 – Crystal</b>	
<b><u>MIC LED Edge Lighting Upgrade</u></b>	<b>\$400,000</b>
This project will replace edge lighting and signs with new LED lighting.	
<b><u>MIC Service Roads</u></b>	<b>\$1,200,000</b>
This project will develop three new service roads which were identified in the LTCP to improve safety on the airport.	

**MIC Taxilanes Pavement Rehabilitation**

**\$750,000**

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. The pavement condition index report as well as an inspection of the pavement will be completed to determine the area most in need of repair.

**86 – Anoka County - Blaine**

**ANE AWOS Replacement**

**\$100,000**

This project is to cover the civil work associated with a MnDOT Aeronautics project to replace the existing Automated Weather Observing System (AWOS) with a new system. The new system will be placed adjacent to the existing system.

**ANE Equipment Storage and Maintenance Building**

**\$700,000**

This project will construct a new equipment storage and maintenance building for the Anoka County-Blaine airport to replace airport staff's use of a leasable hangar to support this function.

**ANE Pavement Rehabilitation – Taxiway A and Edge Lights**

**\$1,800,000**

This project will rehabilitate the taxiway and add edge lighting. The work begins at taxiway A1 and ends at the north end of taxiway A.