MSP Airport Long-Term Plan Stakeholder Advisory Panel





Meeting #5 August 4, 2022

Welcome Remarks





Bridget Rief

MAC Vice President of Planning and Development

Meeting Objective



At this meeting, we will:

- Review the MSP Long-Term Plan goals, process and engagement program
- Share progress to-date, to include projected terminal, airside and landside facility requirements and a set of concepts ("alternatives") intended to fulfill projected requirements
- Invite questions, ideas and concerns from panel members about these alternatives

Meeting Agenda



1:30 - Welcome Remarks Bridget Rief – Vice President, Planning and Development

1:35 - MSP Airport Long Term Plan Overview and Engagement Program Dana Nelson - Director of Stakeholder Engagement

1:45 - Update from MAC's Airport Planner Eric Gilles, C.M., ACE - MAC Airport Planner

2:15 - Break

2:30 - Update from MAC's Airport Planner (Continued)

3:00 - Panel Discussion

3:25 - Comments and Announcements

3:30 - Close

Long-Term Plan Overview and Engagement Program



Long-Term Plan Overview



The Plan is:

A forward-looking planning tool that studies facility and infrastructure needs based on projected 20-year demand levels.

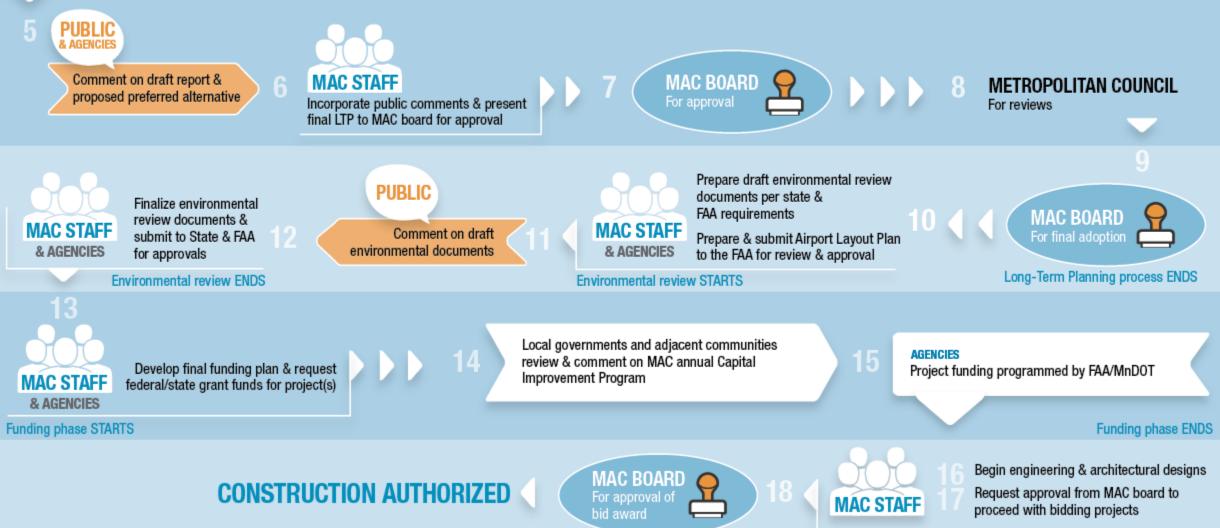
It will focus on evaluating when facility improvements are needed to accommodate projected demand in a manner that is safe, efficient, orderly and cost-effective.

The Plan does not:

Authorize construction or improvements to facilities, nor does it serve as a means of studying environmental impacts.



Research & study refinements to previous Long Term Plan recommendation Engage MAC board, municipal staff & other key stakeholders Draft report with alternatives including a proposed alternative Request formal MAC board approval to publish draft report for public comment NSP AIRPORT PLANNING AND DEVELOPMENT PROCESS



Long-Term Plan Goals



1. Plan for future facilities that will meet projected passenger activity levels in a manner that maintains and enhances customer service, while facilitating a seamless experience.

- 2. Produce a development plan that positions the MAC to
 - meet future demand levels,
 - enhance financial strength,
 - leverage environmental stewardship, and
 - infuse sustainable thinking.
- 3. Conduct the planning process in a manner that includes meaningful stakeholder engagement processes.

Long-Term Planning Process

	Baseline Existing Facilities	 Inventory and document existing facilities and aviation activity levels to establish baseline conditions
	Forecasts	 Forecast MSP aviation activity levels (passengers, cargo, and aircraft operations) for the milestone years between 2020 and 2040
We are currently	Facility Requirements (Gap Analysis)	 Determine any facility deficiency gaps between the baseline condition and desired future conditions based on forecasted activity levels
on these steps	Development Concepts	 Develop and evaluate alternative means to remedy facility deficiencies identified through the process
	Proposed Development	 Determine a proposed development program, funding plan, and implementation strategy to present to the community and the MAC board
	Environmental Considerations	 Prepare an overview of environmental factors that should be taken into consideration when implementing the plan

MSP Long-Term Plan Stakeholder Engagement Program

- Stakeholder Advisory Panel
- Experience MSP Public Event Series
- Project Website (<u>mspairport.com/long-term-plan</u>)
- E-News Monthly Project Updates
- Public surveys and polls
- Project Newsletters
- Print Notifications for Public Events
- Updates at NOC and MAC's PD&E Committee



MSP Long-Term Plan Stakeholder Advisory Panel

An advisory board representing major stakeholder groups that have an interest in the planning process.

The Panel serves **several important functions**:

- Representing a broad range of stakeholder groups;
- Receiving information about the planning process;
- Communicating public concerns and aspirations as the voice of key stakeholders.





Overview

Community and Stakeholder Engagement

Progress and Schedule

Documents and Links Stakeholder Advisory Panel Report

msp

Important Travel Information: Face coverings are now optional at MSP Airport



Save money with **Prebook Parking** and simplify your travels with **Online Food ordering**. **CLICK TO LEARN MORE!**

Home

Long-Term Planning

Community and Stakeholder Engagement | Progress and Schedule | Documents and Links | Frequently Asked Questions | Contact

Frequently Asked Questions

Contact Us

Sign up to receive updates on the project

MSP Airport Long-Term Plan

Questions or Comments about the MSP Long-Term Plan?



- Contact us via email at <u>MSPAirportLongTermPlan@mspmac.org</u>
- Visit the project website at <u>www.mspairport.com/long-term-plan</u>
- Receive regular updates by <u>signing up</u> for our e-newsletter

Questions or Comments about the MSP Long-Term Plan?



- The Plan may not incorporate all input provided by the public
- The Project Team will listen to concerns, input and aspirations shared by the public and, when possible, make changes
- Things to balance include:
 - Maintaining a high level of service
 - Achieving the established goals of the Plan
 - Conforming to design standards
 - Safety
 - Operational feasibility
 - Federal and state policies
 - Project costs

Airport Planning Update



- Airport Planner Introduction
- Long-Term Plan (LTP) Project Timeline
- Overview of Facility Requirements
- Draft Alternatives

Airport Planner Introduction



Eric Gilles, C.M., ACE

Education

- University of North Dakota BBA in Airport Management
- Licensed Private Pilot
- Aircraft Rescue and Fire Fighting (ARFF)
 Certification
- Experience
 - Started with MAC April 4, 2022
 - Previous 5.5 years as Project Manager/Senior Planning Consultant working on MAC airport projects
 - 12+ years airport planning experience

MAC Roles and Responsibilities

 Project Manager for all airport planning projects at the MAC, including MSP and six relievers

Long-Term Plan (LTP) Project Timeline

Current Project Status _____

Public Event

Cancelled Public Event

17

MSP Airport Long-Term Plan Timeline + Stakeholder Engagement

Tasks	2019	2020	2021	2022	2023
Inventory Baseline Conditions	COMPLETE			L	
Aviation Activity Forecasts	COMPLETE				
Estimated pause due to COVID-19					
Facility Requirements Analysis					
Alternatives Analysis			-		
Recommended Development & Phasing					
Environmental/Land Use Considerations					
Public Comment Period					-
MAC Board Approval					-
Metropolitan Council Review					
Public Engagement	*	 ➡☆ 	Updates provided electronically	●★ ●★ ●	*
Updated: May 2022 Notes: Timeline is subject to change. Tasks after the COVID-19 pause are estimations	i.			Stakeholder Advisor	y Panel

Overview of Facility Requirements



 Terminal, airside, and landside design standards were considered for both Planning Activity Levels (PALs) 2 and 3

 PALs are used to consider when development should occur, but does not authorize construction

 Development is tied to PALs instead of specific years, but years are associated as an estimated timeline from forecast

PALs often fluctuate based on actual demand.

• PAL 2 = 2030; PAL 3 = 2040

Overview of Facility Requirements

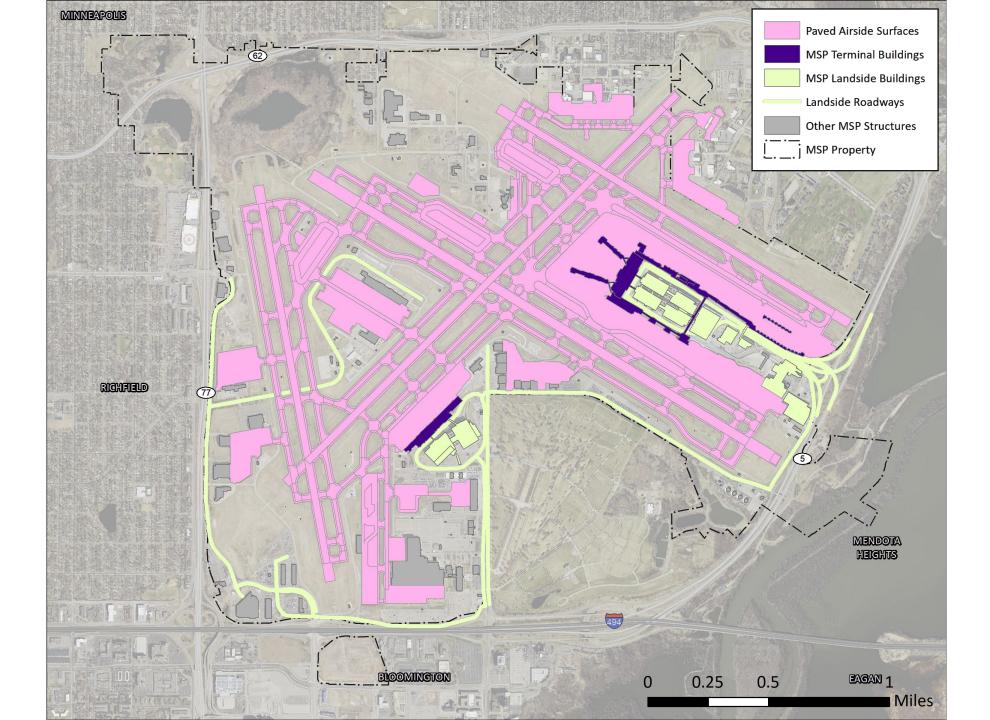


Terminal Challenges

- Gating requirements and passenger connectivity
- Flight Inspection Services (FIS)

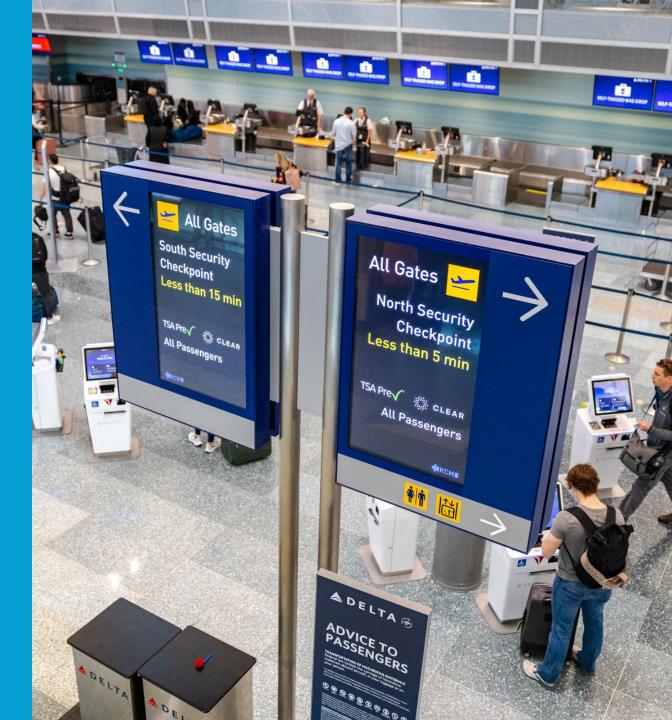
Airside Challenges

- Maintain airfield efficiency
- Long-term Remain Overnight (RON) aircraft parking needs
- Address airfield design standards
- Landside Challenges
 - Curbside and roadway congestion
 - Address long-term parking needs (private, rental, ride-share, etc.)



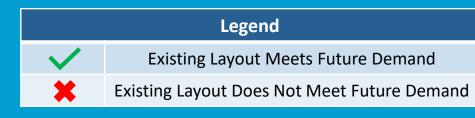
Facility Requirements - Terminal

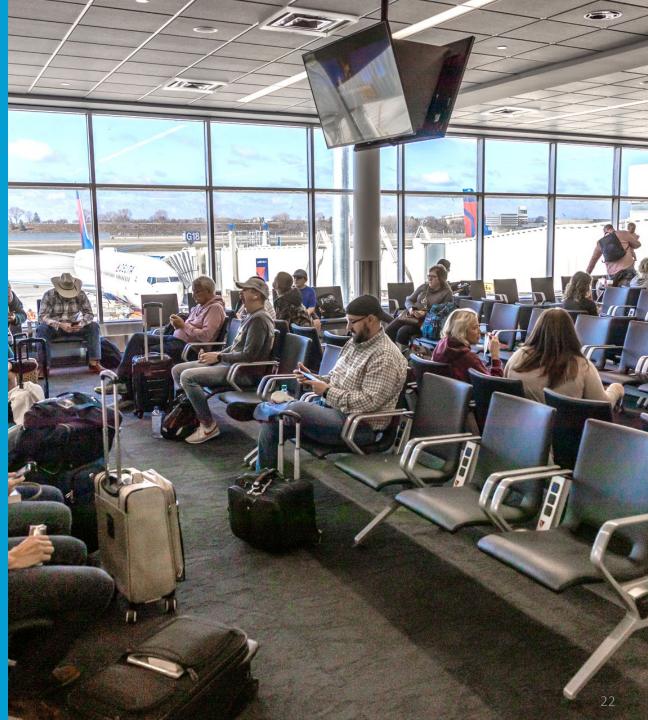
- Evaluated based on existing terminal footprint and operating conditions
- Reviewed operational standards for multiple areas of the terminal
- Gating strategies, passenger connectivity, and international arrival facilities were primary drivers in evaluating potential future terminal layouts



Facility Requirements - Terminal

	Terminal 1				
Facility	ility PAL 2 PAL 3 (2030) (2040)		Notes		
Check-In	\checkmark	\checkmark	More kiosks for proprietary needs (PAL 3)		
Security	\sim	*	Remote screening may resolve PAL 3		
Bag Inspection	\sim	\checkmark			
Bag Claim	\checkmark	\sim			
Holdroom Space	×	×	All except Concourses C and D		
International	×	×	Need 7 more inspection booths and 1,700 SF of queue space in PAL 2		





Facility Requirements - Terminal

	Terminal 2				
Facility	PAL 2 (2030)	PAL 3 (2040)	Notes		
Check-In	\checkmark	\checkmark	More kiosks for proprietary needs (PAL 3)		
Security	\sim	*	Remote screening may resolve PAL 3		
Bag Inspection	×	×	One additional screening device (PAL 2/3)		
Bag Claim	\checkmark	\sim			
Holdroom Space	\checkmark	\checkmark			
International	\checkmark	\sim			

Legend

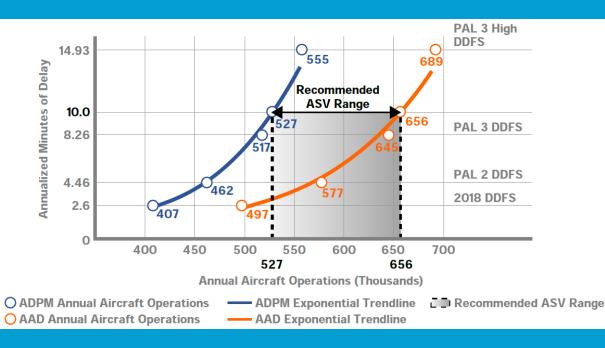
Existing Layout Meets Future Demand

Existing Layout Does Not Meet Future Demand



Facility Requirements - Airside

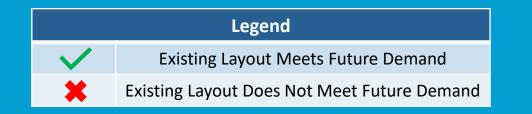
- Completed airfield capacity study
 Recommended Annual Service Volume (ASV) range – 527-656 thousand operations
 - Represents Average Day Peak Month (ADPM)
 - No need for new runway





Facility Requirements - Airside

Airfield Campus				
Facility PAL 2 PAL 3 (2030) (2040)			Notes	
# of Runways	\checkmark	\checkmark		
Runway Length	\sim	\sim		
Noise Abatement	\checkmark	\checkmark	Continue industry-leading noise abatement and mitigation efforts	
Taxiways	\checkmark	\checkmark	Additional taxiways may enhance operational flexibility	
NAVAIDs	\checkmark	\checkmark		
Aircraft Parking	\sim	×	Additional Remain Overnight (RON) PAL 3	
Aircraft Deicing	\checkmark	\checkmark		
Air Cargo	\sim	\sim		





Facility Requirements - Landside

Private Parking

- Loss of some off-airport operators by PAL 3
- Green/Gold ramp end of useful life
- Private Vehicle Pick-Up and Drop-Off
 Peak hour congestion at both terminals

Rental Cars

 Existing maintenance/quick turnaround facility deficit (wash bays, fueling, storage)

Commercial Vehicle Operations

 Inconsequential deficits at both terminals through PAL 3



Facility Requirements - Landside

Other Landside Influencers

- Growing interest in accommodating Electric Vehicles (EVs)
- Future Energy Management Center (EMC) requirements

Terminal 1 and Terminal 2				
Facility	PAL 2 (2030)	PAL 3 (2040) Notes		
Private Parking	\checkmark	*	Green/Gold Ramp; off-airport providers	
Curbside	×	*	Deficiency exists today	
Rental Cars	*	×	Deficiency exists today	
Commercial	\checkmark	\sim		





Draft Alternatives



Alternative Concept Families

- Alternative 1A

- Single Flight Inspection Service (FIS) facility at Terminal 1
- Maximize preferential gating
- <u>Alternative 2A</u>
 - Single FIS at Terminal 2
 - Emphasis on common-use gating

- Alternative 3A

- Two FIS facilities (Terminal 1 and 2)
- Maximize preferential gating
- How the airport operates today

Single FIS Facility (Terminal 1) Preferential Gating (PAL 3)

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FUTURE LANDSIDE ROADWAY	
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TAXIWAY OBJECT FREE AREA (TOFA)	TOFA
TAXILANE OBJECT FREE AREA (TLOFA)	
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RUNWAY HOLDING POSITION	
FUTURE AOA FENCE	
FUTURE JET BLAST DEFLECTORS	
NON-AERONAUTICAL DEVELOPMENT	
FUTURE EXTERNAL DEVELOPMENT BOUNDARIES	
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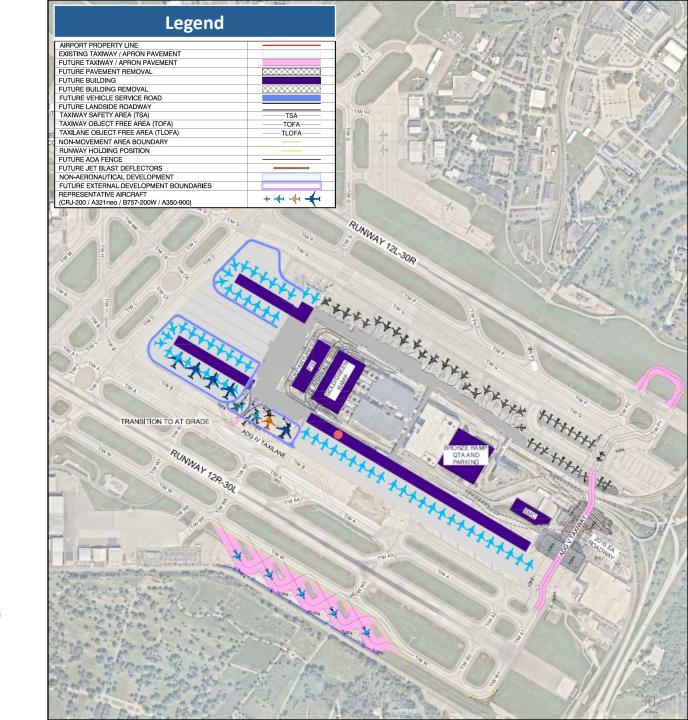
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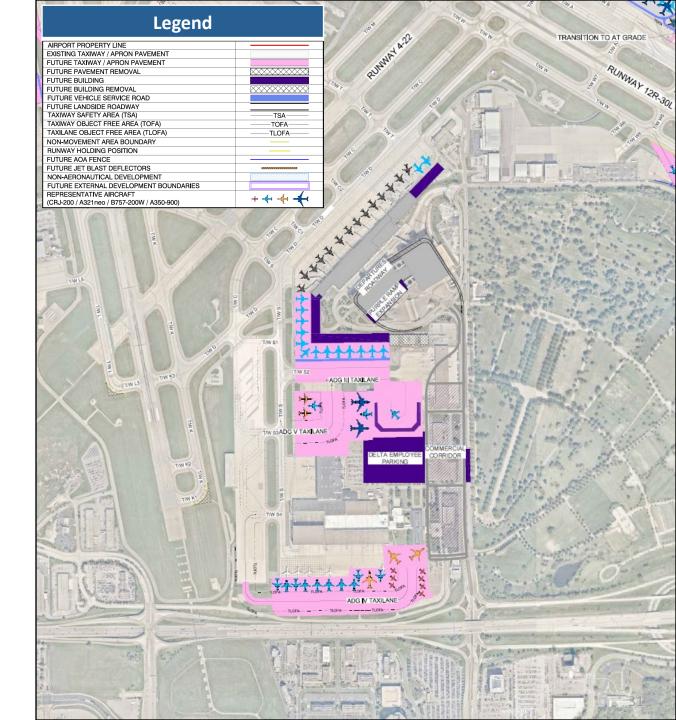
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- Concourse E and F Reconstruction
- Extend Concourse G
- Airside
 - Cover Vehicle Service Road
 - Crossover Taxiway (RWY 30L & 30R)
 - Relocate RWY 30L Deicing (TWY W)
 - North Partial Parallel Taxiway (RWY 30R)
- Landside
 - Reconstruct Green/Gold Ramps
 - Construct Single FIS Facility (Green/Gold Area)
 - Additional Vehicle Curb Frontage
 - Bronze Ramp/EMC Needs



Terminal

- Extend Terminal 2 South and North
- Airside
 - Additional Remain Overnight (RON) Parking for Sun Country (Humphrey Pad) and Delta (Near i494)
- Landside
 - Purple Ramp Expansion
 - Potential Commercial Development Along 34th
 - Delta Employee Parking Structure



Terminal

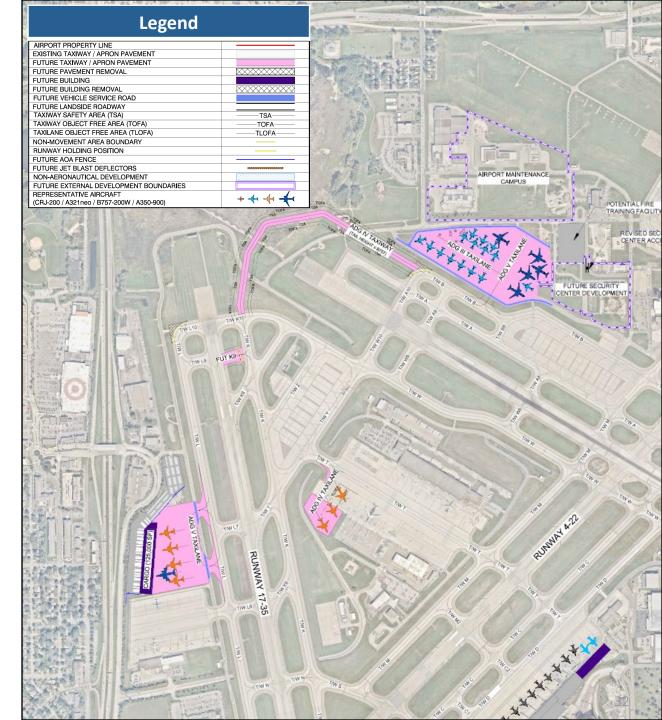
None in-View

Airside

- Additional Remain Overnight (RON) Parking
- RWY 12R End-Around Taxiway
- Potential for Small Cargo Expansion

Landside

None in-View



Single FIS Facility (Terminal 1) Preferential Gating (PAL 3)

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Terminal 2	16	29	+ 13
Total	118	137	+ 19 33

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Break – 5 minutes



Single FIS Facility (Terminal 2) Common-Use Gating (PAL 3)

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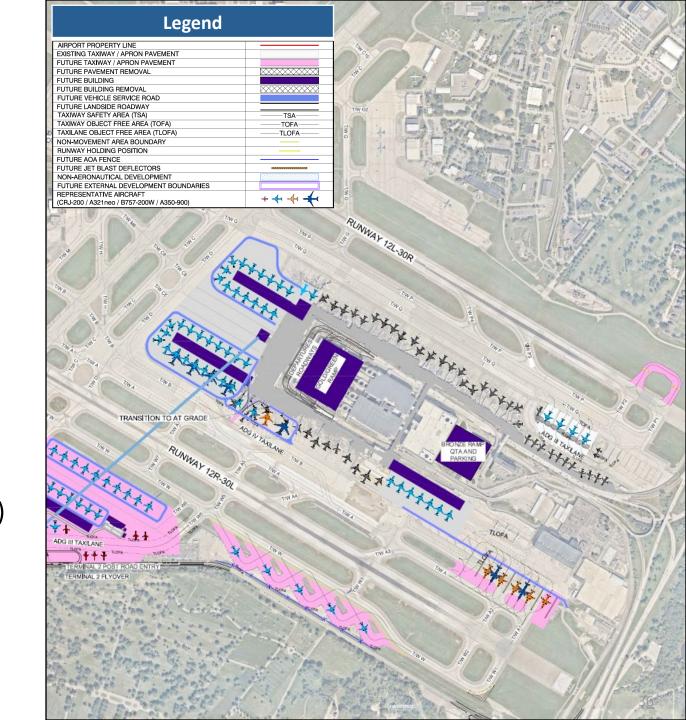
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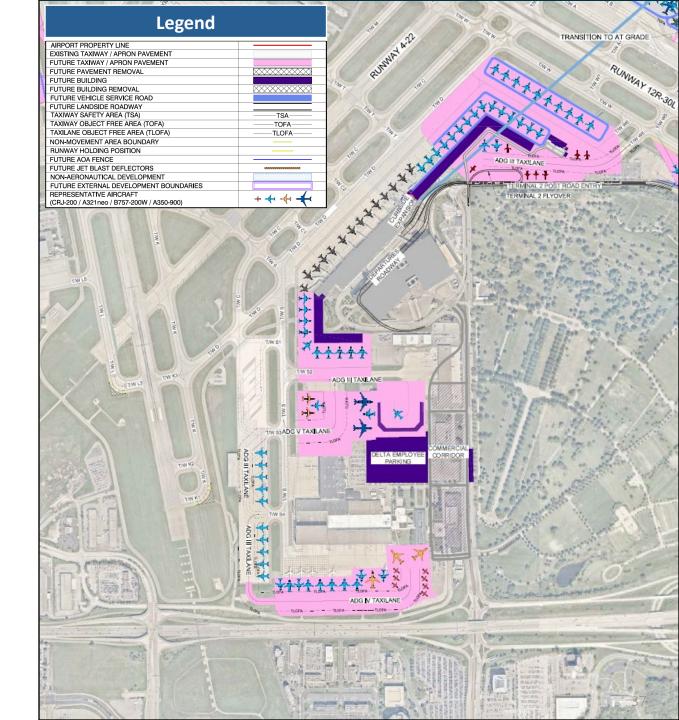
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- Concourse E and F Reconstruction
- Extend Concourse G
- Airside
 - Cover Vehicle Service Road
 - Expand RWY 30L Deicing (TWYs B and W)
 - North Partial Parallel Taxiway (RWY 30R)
 - Demolish Concourse B; Add Deicing (RWY 30R)
- Landside
 - Reconstruct Green/Gold Ramps
 - Additional Vehicle Curb Frontage
 - Bronze Ramp/EMC Needs



Terminal

- Extend Terminal 2 South and North
- Sterile Connection to Terminal 1
- Airside
 - Additional Remain Overnight (RON) Parking for Sun Country (Humphrey Pad) and Delta (Near i494)
 - RON/Deicing Pad North of Terminal 2
- Landside
 - 34th Flyover; Post-Road Improvements
 - Potential Commercial Development Along 34th
 - Delta Employee Parking Structure

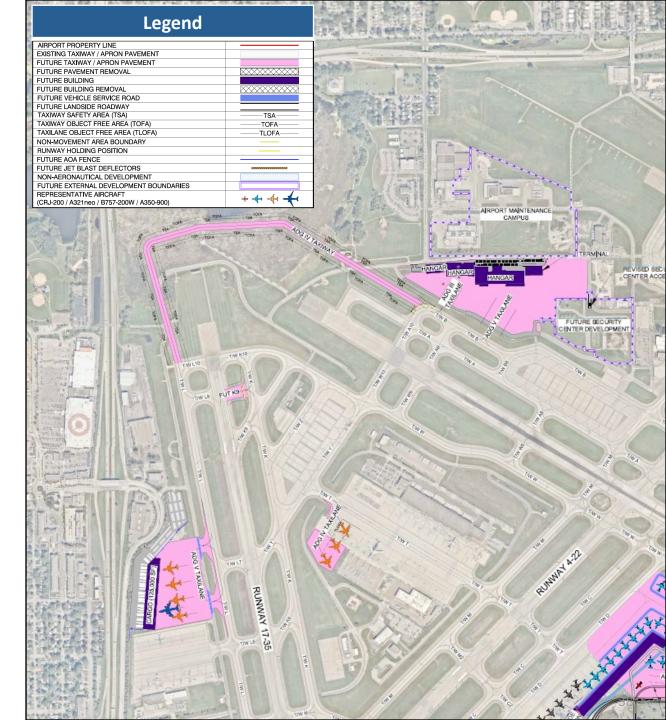


Terminal

None in-View

Airside

- Additional Remain Overnight (RON) Parking
- RWY 12R End-Around Taxiway
- Potential for Small Cargo Expansion
- Relocated Fixed-Base Operator (FBO)
- Landside
 - None in-View



Single FIS Facility (Terminal 2) Common-Use Gating (PAL 3)

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Two FIS Facilities (Terminal 1 and 2) Preferential Gating (PAL 3)

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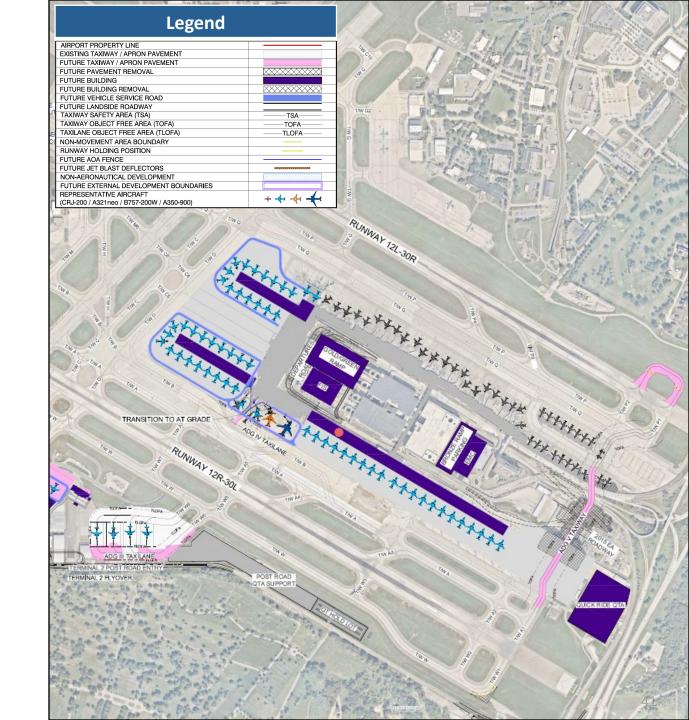
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	Total	118	135	+ 17 40

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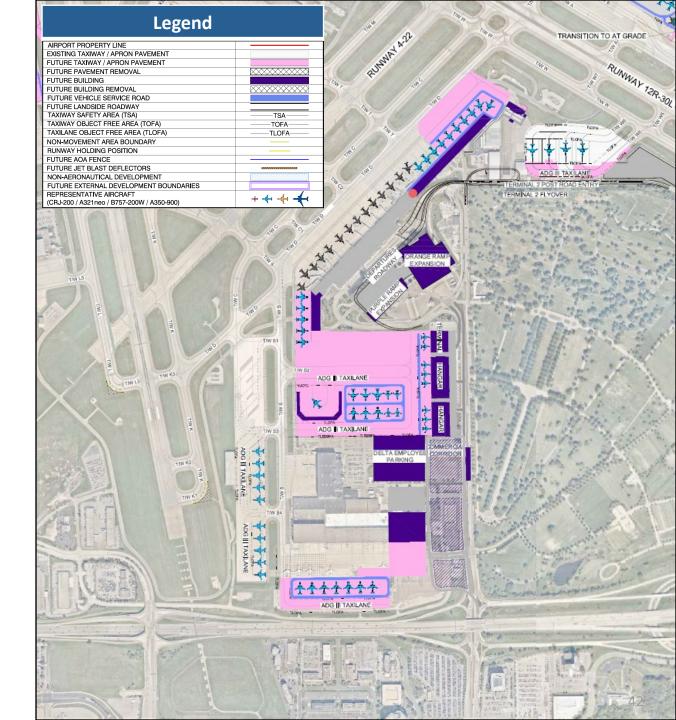
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Terminal

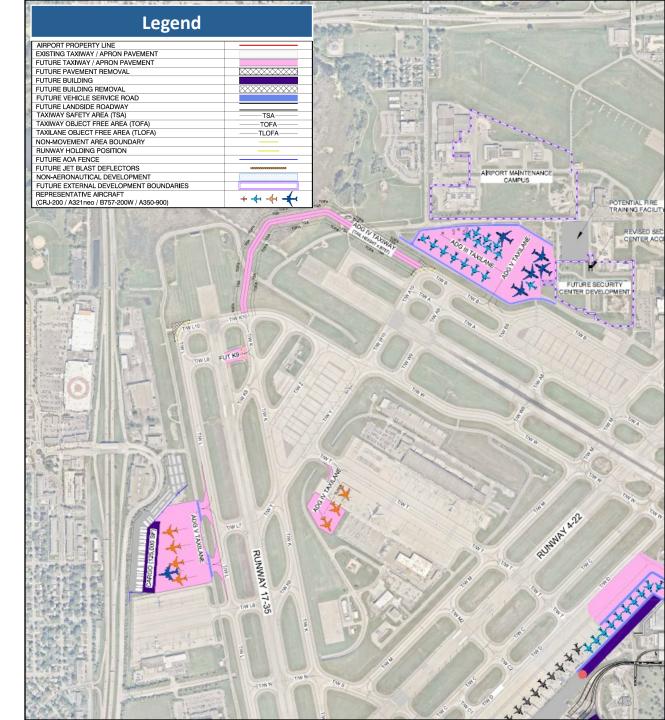
None in-View

Airside

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- Potential for Small Cargo Expansion

Landside

None in-View



Two FIS Facilities (Terminal 1 and 2) Preferential Gating (PAL 3)

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UTURE PAVEMENT REF UTURE BUILDING FUTURE BUILDING REMC FUTURE VEHICLE SERVIC FUTURE LANDSIDE ROAD TAXIWAY SAFETY AREA AXIWAY OBJECT FREE AXII ANE OBJECT

NON-MOVEMENT AREA BOUNDAR

(CRJ-200 / A321neo / B757-200W / A350-900)

REPRESENTATIVE AIRCRAFT

DEVELOPMENT FUTURE EXTERNAL DEVELOPMENT BOUNDARIES POTENTIAL FIRE REVISED SECURIT CENTER ACCESS LOCATION

+++

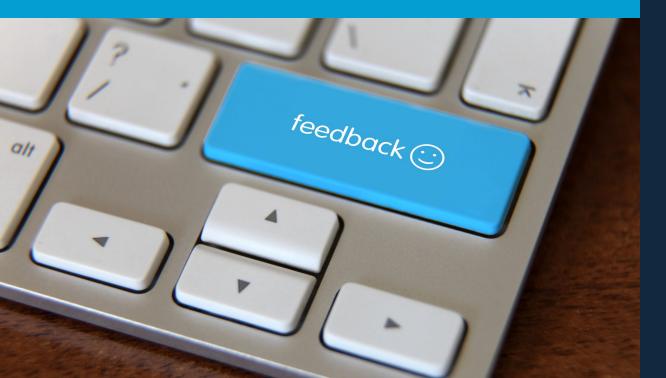
ACG H TANK

***** 501

Service and		Existing Gates	Future Gates (PAL 3 – 2040)	Net Gate Increase
2	Terminal 1	102	106	+ 4
The second	Terminal 2	16	29	+ 13
1	Total	118	135	+ 17 44

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Panel Discussion



What questions, concerns or ideas do you have about...

- The projected facility requirements
- The preliminary alternatives

Comments and Announcements



Comments and announcements are welcome from both Panel members and attendees from the public not on the Panel.

August 23rd Experience MSP Event



The public is invited to the next Experience MSP event Tuesday, August 23, 2022 MAC Administrative Offices 6040 28th Avenue South, Minneapolis

Show up any time between 4:30 and 7 p.m. for interactive booths, knowledgeable resources in a welcoming setting. Presentation on the MSP Long-Term Plan will begin at 5:30 p.m.

Presentation begins at 5:30 p.m.

This event is the third in a four-part series where the public can learn about MSP's Long-Term Plan and provide input.

Thank you

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metroairports.org mspairport.com

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@mspairport

MAC's Definition of Sustainability

Our definition is driven by our mission and commitment to enhancing our economic viability, operational effectiveness, environment, and social responsibility. We recognize the interconnection of these elements and strive to make decisions that will result in the greatest benefits today and for centuries to come.

∠ Economic Viability

Making financial decisions and investments that balance short- and long-term considerations to foster a thriving and continuously improving system of airports

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Operational Effectiveness

Optimizing human, financial, and material resources and engaging partners in cooperative, reciprocal efforts to enhance operations



Environmental

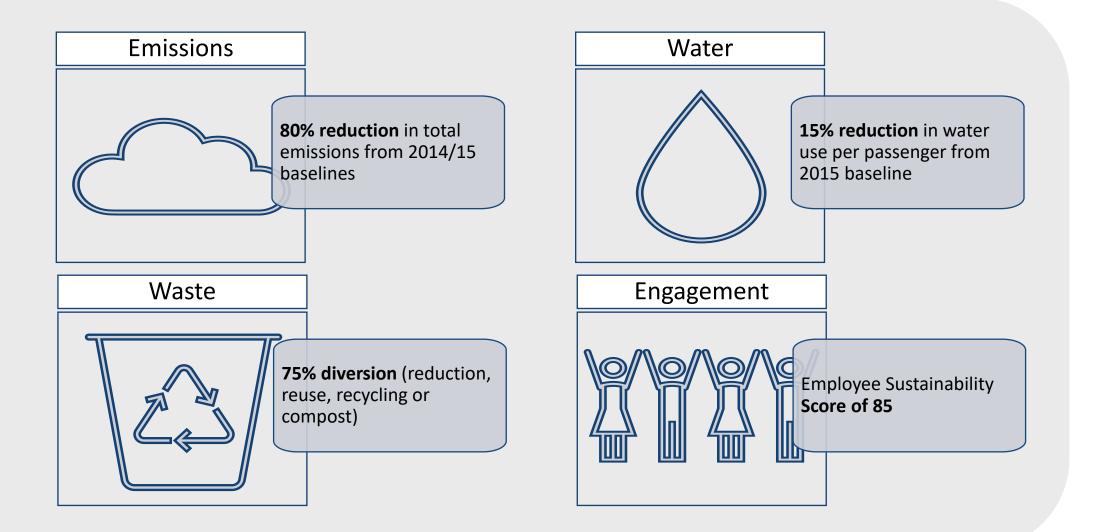
Enhancing our environment and eliminating negative impacts to foster a healthy region



Responsibility

Working to improve and promote the quality of life in our communities and for the people we serve, partner with and employ. We listen to our stakeholders, respond thoughtfully and work to create reciprocal relationships.

MAC 2030 Board-Adopted Enterprise Sustainability Goals



Enterprise Sustainability Plans

Gain MAC
 Board adoption
 of 2030
 Enterprise
 Sustainability
 Goals



Operationalize

 new sustainability
 approach,
 including
 Executive
 Sustainability
 Committee (ESC)



- Identify and pilot sustainability projects
- Baseline, measure and track enterprise goals



Increase
 sustainability minded
 communications,
 including public
 dashboard



Progress Toward Goals



Receiving and Distribution Center

- Opened February 2020
- Designed with Energy Use Intensity (EUI) at 36% less than Energy Code Baseline

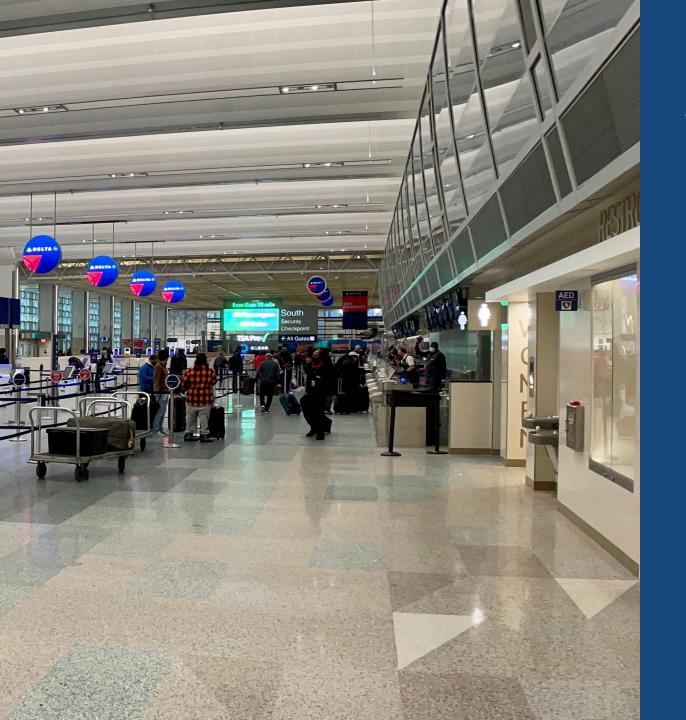
Incorporates:

- LED lighting
- Destratification fans
- Improved insulation
- Improved loading dock door seals
- Green stormwater infrastructure
- Skylights for daylighting
- Durable materials improve life cycle cost
- Native landscaping (cultivars)
- Electrical rough in and roof structured to accommodate solar in the future



New Boilers

- Positive financial and environmental impact:
 - Efficiency rated at 88-97% (versus only 78-80%)
 - Total cost including install: \$260,000
 - Annual energy savings for boilers and peripherals: \$150,000
 - Equates to a financial return on investment of less than two years with immediate improvements to emissions



O/I Program

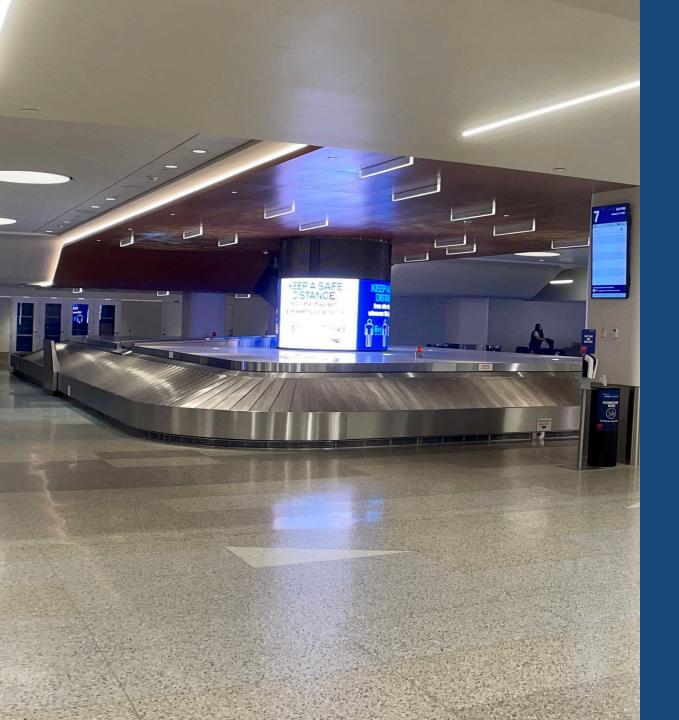
- Sustainable Element Examples
 - Reduction in ticket lobby/airline office air handling units



 Reduction in baggage claim air handling units



• All new air handling units in these areas and the valet garage have adjustable energy efficient fans



O/I Program

- Heating water system replaced with base mounted pumps and variable motor; previously, the system had constant speed pumps, large motors and no redundancy
- New bypass piping around tertiary chilled water pumps so that those can be turned off in winter to save energy
- All new areas as well as all existing lighting updated to LED
- Solar panels installed at North Checkpoint



Concourse G Infill

- Construction is underway and includes:
 - LED lighting
 - Daylighting
 - Lighting controls
 - Improved insulation
 - Durable materials to improve life cycle cost
 - Water conserving plumbing fixtures
 - High-performance glazing and electrochromic glazing in critical areas



ARFF Station #2 Replacement

- Design includes:
 - Material recycling (pavement, soils, etc.)
 - LED lighting
 - Efficient mechanical systems including heat recovery on exhaust and ventilations systems
 - Water conserving plumbing fixtures
 - Composting and recycling facilities
 - Reusing/repurposing existing furniture and equipment
 - White aggregate roofing reduces solar heat gain
 - Sustainable site and landscaping
 - High-performance glazing and electrochromic glazing in critical areas



EMISSIONS



Examples of CIP Programs that support MAC's efforts toward our emissions reduction goal:

- Concourse G Energy Savings
- LITE Program
- Apron Light and Roadway Fixture Replacements
- Terminal Miscellaneous Modifications



WATER



Examples of CIP Programs that support MAC's efforts toward our water use reduction goal:

- Restroom Upgrade Program
- Plumbing Infrastructure Upgrade Program
- Terminal Miscellaneous Modifications



WASTE



Examples of CIP Programs that support MAC's efforts toward our waste diversion goal:

- Airfield and Landside Projects
- Tram Systems Retrofit
- Restroom Upgrade Program
- Terminal Miscellaneous Modifications



Airport Carbon Accreditation (ACA)

 Currently Level 2: Maintaining a reduction in fuel and electricity use compared to the last three-year average