

*TRANSPORTATION ADVISORY BOARD
Of the Metropolitan Council*

Notice of a Meeting of the
TECHNICAL ADVISORY COMMITTEE

Wednesday, December 5, 2018
Metropolitan Council
9:00 A.M.

AGENDA

1. **Call to Order**
2. **Approval of Agenda**
3. **Approval of November 7, 2018 Minutes**
4. **TAB Report** (Elaine Koutsoukos, TAB Coordinator)
5. **Committee Reports**
 - **Executive Committee** (Lisa Freese, Chair)
 - **Planning Committee** (Jan Lucke, Chair)
 - a. **2018-54 Metropolitan Airports Commission Capital Improvement Plan**
 - b. **2018-55 Safety Performance Measure Adoption**
 - **Funding & Programming Committee** (Paul Oehme, Chair)
 - a. **2018-57 Program Year Extension: Burnsville**
 - b. **2018-58 Scope Change Request: Hennepin County**
 - c. **2018-59 Program Year Extension: Hennepin County**
 - d. **2018-60 TIP Amendment: Hennepin County**
6. **Special Agenda Items**
 - **Draft 2018 HSIP Project Selection Recommendation** (Steve Peterson, MTS)
 - **Travel Pattern Flows** (Jonathan Ehrlich and Nicole Sullivan, MTS)
 - **2018 Regional Solicitation Funding Scenarios** (attachment) (Steve Peterson, MTS)
7. **Agency Reports**
8. **Other Business**
9. **Adjournment**

Click [here](#) to print all agenda items at once.

Streamlined Amendments going to TAB this month. Contact Joe Barbeau with questions at 651-602-1705.

MnDOT: I-94 Bridge Rehab NHPP

Metro Transit: Section 5339 FTA Funding for Heywood II

*Transportation Advisory Board
Of the Metropolitan Council*

**Minutes of a Meeting of the
TECHNICAL ADVISORY COMMITTEE
Wednesday, November 7 2018
9:00 A.M.**

Members Present: Doug Fischer, Lyndon Robjent, Brian Sorenson, John Doan, Brian Isaacson, Lisa Freese, Jan Lucke, Steve Bot, Elaine Koutsoukos, Steve Peterson, Michael Larson, Adam Harrington, Lynne Bly, Innocent Eyoh, Bridget Rief, Andrew Emanuele, Dave Jacobson, Karl Keel, Jesse Farrell, Paul Oehme, Michael Thompson, Kim Lindquist, Robert Ellis, Jim Kosluchar, Jen Hager, Paul Mogush, Bill Dermody, Paul Kurtz (Excused: Peter Dahlberg, Danny McCullough, Ken Ashfeld)

1. Call to Order

The meeting was called to order by Lisa Freese at 9:02 a.m.

2. Approval of Agenda

A motion to approve the agenda was moved by Brian Isaacson and seconded by Karl Keel. No discussion. Motion passed.

3. Approval of Minutes

A motion to approve the minutes was moved by Elaine Koutsoukos and seconded by Brian Isaacson. Motion passed.

4. TAB Report

Elaine Koutsoukos reported on the October 17 TAB meeting.

Committee Reports

A. Executive Committee (Lisa Freese, Chair)

Lisa Freese reported on the Executive Committee meeting, which discussed the day's agenda and regional solicitation scoring challenges. She also reported that Brian Isaacson is now representing Ramsey County, Paul Mogush from the City of Minneapolis, Lynne Bly from MnDOT, and Jesse Farrell is sitting in for Anne Kane today.

B. Planning Committee (Jan Lucke, Chair)

Jan Lucke introduced the October committee meeting report.

2018-47 TPP Amendment: Riverview Corridor. Jan Lucke introduced the item. Bridge Rief asked why the LPA timing did not allow inclusion in the original TPP. Jan Lucke responded that the new TPP was too far along to include the project earlier. Brian Isaacson moved and John Doan seconded the recommended motion. Motion passed.

C. Funding and Programming Committee (Paul Oehme, Chair)

2018-49 TIP Amendment: Chaska. Paul Oehme presented the item. Lyndon Robjent moved and Dave Jacobson seconded the recommended motion. Motion passed.

2018-50 TIP Amendment: Anoka County. Paul Oehme presented the item. Karl Keel moved and Lyndon Robjent seconded. Motion passed.

2018-48 TIP Amendment: I-94 Expansion. Paul Oehme presented the item. Steve Bot moved and Lynne Bly seconded. Motion passed.

2018-51 TIP Amendment: I-94 Bridges. Paul Oehme presented the item. Michael Thompson moved and John Doan seconded. Motion passed.

6. Special Agenda Items

Regional Solicitation Funding Scenario Options. (Steve Peterson, MTS) Steve Peterson presented the funding options requested by TAB and requested the group's feedback on the connector issue. Elaine Koutsoukos said that projects 3 and 4 are connectors, but is looking for the group's ideas on if projects 1 and 2 are as well. Bill Dermody suggested that project 2 is a connector improvement. Doug Fischer said that project 2's intent is to focus on the reliever. Lyndon Robjent said that the connector funding requirement is meant to assist two lane rural highways to connect more towns. These are hard to fund traditionally. Lisa Freese said that rural two lane roads are part of the regional system and should have the ability to get regional funding. Karl Keel said that we need to know how many projects we skip to pull up a connector; skipping three or four projects is fine but we shouldn't be picking the lowest scoring project to meet this aim. Brian Isaacson agreed. Lyndon Robjent argued that bridge scoring is very different than expansion scoring and bridge connector projects should not be included.

Lyndon Robjent asked about the schedule for the remainder of the project picking process, as TAB will discuss the projects three times but TAC only twice. Doug Fischer, Jan Lucke, and Lyndon Robjent expressed concern that TAC should see project lists before TAB in order to provide technical feedback in the committee structure as well as to TAB members in advance of the meeting. Karl Keel suggested that the November TAB meeting should be dedicated to reviewing scores and unique projects, with December TAB for the draft funding scenarios. Doug Fischer expressed concern that next week's Funding & Programming meeting has a very full agenda and perhaps another meeting should be added. Adam Harrington asked if project selection could be delayed until February. Joe Barbeau responded that this runs into conflict with the TIP adoption schedule, although we have worked within this constraint before. Lyndon Robjent said that his TAB member has already committed to the existing scoring schedule and may be unavailable if the schedule changes.

Regional Solicitation Before and After Study. (Katie White, MTS and Lance Bernard, HK) Katie White introduced and Lance Bernard presented on this study. Dave Jacobson asked if TAC would receive periodic updates on this work; Lance Bernard said yes. Steve Bot asked why usage is not included in bike/ped projects. Lance Bernard responded that we would like to but the data (especially 'before') is hard to collect. Karl Keel suggested the use of Strava data. Brian Isaacson asked how the solicitation would be restructured after seeing the results. Lance Bernard responded that we should know what types of projects deliver the best benefit, especially HSIP. Doug Fischer asked if the \$5 million cap on bike/ped projects would be included in the analysis. Lance Bernard responded that the MPO questions could help strike this balance. For instance Raleigh has a project maximum of \$20 million, indicating they fund bigger projects.

Bill Dermody indicated that a bike trail may be getting the same number of crashes but a higher usage and will therefore not appear to be scoring well under this metric. Dave Jacobson asked if the study will include a look at the return on investment for the projects. Lance Bernard responded yes. John Doan added that the leveraging of other dollars is important to consider. John Doan suggested that environmental and equity concerns should be investigated as well. Lance Bernard responded that the MPO questions include an equity question. Brian Sorenson said that the cost/benefit should be redone post-application. Elaine Koutsoukos said that the new solicitation has added this. Doug Fischer asked if the project cost could include staff time and other non-construction costs. Katie White responded that in order to reduce participatory burden on local jurisdictions, the datasets being used are the original applications and the MnDOT State Aid records. Karl Keel would like to see a similar statistical analysis on the impact of various scoring measures. Steve Peterson said that work would be repeated again this year.

7. Agency Reports

Innocent Eyoh reported that MPCA has closed the application periods for school buses, electric vehicle fast charger corridors, and level-2 chargers and are evaluating those applications. We currently have an open application period for the non-road equipment. RFPs for on-road heavy-duty vehicles (all fuels) and all-electric heavy-duty vehicles will be coming out in the next few months.

Lisa Freese recommended that local jurisdictions look at the exhibition of UMN students in the resilient communities program on December 7 from 12pm-4pm at the Humphrey School.

Doug Fischer requested that the meeting time be moved back to accommodate the morning rush hour. This will be explored by MTS staff.

8. Other Business and Adjournment

There being no other business, the meeting adjourned at 10:20AM.

Prepared by:

Katie White

ACTION TRANSMITTAL 2018-54

DATE: Nov. 30, 2018
TO: Technical Advisory Committee
FROM: TAC Planning
PREPARED BY: Russell Owen (651) 602-1724
SUBJECT: Review of Metropolitan Airports Commission 2019-2025 CIP Capital Improvement Program (CIP)
REQUESTED ACTION: MAC requests that the Metropolitan Council review the 2019-2025 MAC CIP as required by MN Statutes 473.181 and 473.621
RECOMMENDED MOTION: Recommend acceptance of the staff analysis of the MAC 2019-2025 Capital Improvement Program (CIP) and forward these comments to the Metropolitan Council for its consideration.

BACKGROUND AND PURPOSE OF ACTION:

The MAC annually prepares a CIP for projects at MSP International Airport and their six General Aviation reliever airports. Under state statutes 473.181 and 473.621 the Council must:

- Determine adequacy of public participation in the CIP process,
- Approve CIP projects meeting certain dollar thresholds, \$5 Million at MSP and \$2 Million at all reliever airports and “significant effects” criteria (referenced in Table 4, A-H),
- Review and comment on all projects for consistency with the Transportation Policy Plan (TPP), including planning and environmental concerns.

In order to allow letting of projects early enough for construction to start in the spring, the Council has agreed to utilize the draft CIP document released in September to expedite the review. The MAC 2019-2025 CIP will be finalized on December 3rd at the Planning, Development and Environment Committee meeting of the MAC with final action taken at the December 17th MAC Commission meeting. Any changes identified after the MAC Commission action will be reported to TAB. Any changes from the final CIP will be incorporated into the 2019 CIP review report that goes forward to the Met Council in January. All comments provided by TAC/TAB will be included for consideration with the final review report submitted by staff for Council action. MAC staff has reported that there were a few projects that moved in the final draft between 2019 and the out years. This happened after TAC-Planning reviewed the CIP. In the Staff Analysis section, there is an explanation of the number of projects that have shifted.

RELATIONSHIP TO REGIONAL POLICY:

The Metropolitan Council is required by state law to annually review the MAC CIP to ensure consistency of proposed projects with regional plans. Although state law doesn't require TAC/TAB to review the MAC CIP, staff traditionally has sought TAC/TAB comments in the review process.

STAFF ANALYSIS:

Analysis confirms that an Assessment of Environmental Effects (AOEE) has been prepared for 2019 projects with potential environmental effects, and MAC has in place an adequate public participation process for development and review of its AOEE and CIP. MAC will hold a public hearing on the AOEE on November 5th, at 10:30 AM at the Planning, Development and Environment Committee meeting at the MSP Conference Room.

The following 2019 projects meet the dollar threshold levels but do not meet the other "significant effects" criteria to trigger project approval:

- MSP – Terminal 1, Passenger Boarding Bridge Replacements – \$ 7M
- MSP – Terminal 1, IT Miscellaneous Modifications – \$ 8.4M
- MSP – Terminal 1, Baggage Claim/Ticket Lobby Improvements - \$ 98M
- MSP – Terminal 1, Terminal 1 Parking Ramp Modifications - \$17M
- MSP – Terminal 1, Restroom Upgrade Program - \$5M
- MSP – Terminal 1, Concourse G Moving Walks - \$5M
- MSP – Terminal 1, Concourse G, Air Handling Unit Replacement Program \$6.4M
- MSP – Noise Mitigation - \$13.5M
- STP – MAC Building Improvements - \$2.3M

Federal, state and MAC funding has been identified by the MAC for most projects in the 2019 CIP.

All projects in the 2019 CIP appear consistent with the Transportation Policy Plan (TPP). All of the 2019 MSP projects were evaluated in the 2020 EA for MSP that received a Finding of No Significant Impact (FONSI) in March of 2013 from the Federal Aviation Administration. Initial analysis of the future years (2020-2025) of the CIP shows that many projects will meet the dollar threshold of review but do not appear to meet the significant effects criteria. These projects will be re-evaluated on an annual basis.

There were 21 projects that have been moved throughout the years in the updating of the draft CIP to the final CIP. Many of these projects have been moved to the years 2022-2025, while there were 3 projects that got moved into the 2020-2021 time frame. These projects include updating the Concourse G Delta Skyclub, Air Handling Units and Lake Elmo Airfield modifications.

The following 2019 project does meet the dollar threshold level and the "significant effects" criteria to trigger project approval by the Metropolitan Council:

- 21D (Lake Elmo Airport) – Runway Replacement - \$ 3M (total cost is approximately \$7-10M)

The runway replacement project at Lake Elmo Airport (21D) is a project that meets the financial threshold and significant effects criteria to where the Metropolitan Council will need to approve the project. The updated long term comprehensive plan for Lake Elmo Airport proposes relocating and extending the primary runway northeast of its current alignment. The first phase of construction for this project, which primarily focuses on roadway realignment to make way for runway construction. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation. The project has undergone environmental documentation and received a determination of no significant impact by the FAA in August of 2018. The project is consistent with the TPP.

COMMITTEE COMMENTS AND ACTION: TAC Planning committee members asked questions regarding projects at minor and reliever airports. All answers were satisfactory. The committee moved to recommend, and the motion passed unanimously.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC - Planning	Review and Recommend	11-8-18
Technical Advisory Committee	Review and Recommend	
Transportation Advisory Board	Review and Recommend	
Metropolitan Council	Review and Approve	

MAC 2019 – 2025 CAPITAL IMPROVEMENT PROGRAM

The MAC 2019 – 2025 Capital Improvement Program material included in this memorandum reflects the actions of the Commission's PD&E Committee on Sep. 10, 2018. Final action by the Commission is expected at their December 17, 2018 meeting. Any changes made on December 3rd PDE Committee Meeting that may affect the CIP review would be reported at the December 19th Transportation Advisory Board.

The overall review schedule for the CIP is listed below. Materials for the TAC - Planning review are included in the following summaries:

- **MAC 2019 CIP Public Review Schedule**
(See Attachment 1)
- **2019 Projects Requiring an Assessment of Environmental Effects (AOEE)**
(See Attachment 2)
No projects meet criteria for environmental review.
- **Projects Meeting \$5M and \$2M Thresholds 2019-2025**
(See Attachment 3)
A number of projects potentially meet the threshold dollar levels.
- **Projects Meeting Statutory Review Criteria & Requiring Approval**
(See Attachment 4)
One project meets the criteria and requires approval from the Met Council. The project is the Lake Elmo Runway Replacement. A few projects other projects in 2019 meet the dollar threshold levels, but do not meet the criteria requiring project "approval".

Transportation Advisory Board

of the Metropolitan Council of the Twin Cities

1) MAC PUBLIC PARTICIPATION PROCESS:

MAC - 2019 CAPITAL IMPROVEMENT PROGRAM IMPLEMENTATION SCHEDULE

CAPITAL IMPROVEMENT PROGRAM	RESPONSIBILITY	SCHEDULE
PROJECTS DEFINITION Initial CIP Discussions ----- Requests for CIP Projects to Airport Development ----- Develop Projects Scopes, Costs, and Prioritization ----- Develop Draft Preliminary CIP -----	MAC Airport Development MAC Departments MAC Dept's & Airport Dev. Airport Development	January 2018 January 1 st - June 1 st January 1 st – May 1 st Feb. 1 st - July 31 st Feb. 1 st - July 31 st
PROJECTS ENVIRONMENTAL REVIEW Prepare AOEEs and EAWs as required----- Notice of September PD&E Meeting mailed to Affected Municipalities ----- Recommendation by PD&E Committee to Commission of Preliminary CIP for Environmental Review/Authorization to Hold Public Hearing on AOEEs and EAWs ----- Minutes of September PD&E Committee Meeting and Notice of September Commission Meeting mailed to Affected Communities ----- Approval of Preliminary CIP by Commission for Environmental Review/Authorization to Hold Public Hearing on AOEEs and EAWs ----- Preliminary CIP Mailed to Affected Communities ----- AOEEs and EAWs to EQB ----- Public Hearing Notice Published in EQB Monitor, starting the 30-Day Comment Period----- Minutes of September Commission Meeting mailed to Affected Communities ----- Public Hearing on AOEEs and EAWs at November FD&E Committee Meeting ----- Thirty-Day Comment Period on AOEEs and EAWs ends ----- Final Date for Affected Municipalities Comments on Preliminary CIP to MAC ----- Metro Council TAC Planning Review Metro Council – TAC ----- Notice of December PD&E Committee Meeting mailed to Affected Communities ----- Recommendation by PD&E Committee to Commission of Final CIP ----- Minutes of December PD&E Committee Meeting and Notice of December Commission Meeting mailed to Affected Communities ----- Metro Council – Transportation Advisory Board -----	Environment Airport Development Airport Development Airport Development Airport Development Airport Development Environment Environment Airport Development Environment Environment Affected Communities TAC-Planning TAC Airport Development Airport Development Airport Development TAB	July 31 – Oct. 7 th August 31 st September 5 th September 26 th September 25 ^h September 17 th October 1 st October 9 th October 31 st November 5 th November 8 th November 8 th November 8 th December 5 th November 30 th December 3 rd December 14 th December 19 th

PROJECTS PLANNING and FINANCIAL REVIEW		
Approval of Final CIP by Commission-----	Airport Development	December 17 th
Notification of Commission action to EQB-----	Airport Development	December 20 th
CIP Distributed to MAC Departments, Met Council, State Historical Society and Affected Municipalities -----	Airport Development	December 20 th
Metro Council – Committee Action-----	Transportation Committee	January 14 th
Metro Council – Council Action-----	Metro Council	January 28 th
Minutes of December Commission Meeting mailed to Affected Communities -----	Airport Development	

Note: **1)** All dates are tentative and subject to change. **2)** Shaded items represent actions/dates which pertain to the Affected Communities as defined in Minnesota Statutes § 473.621, Subd. 6, as amended. **3)** MAC = Metropolitan Airports Commission **4)** PD&E = MAC Planning, Development and Environment Committee **5)** AOEE = Assessment Of Environmental Effects **6)** EAW = Environmental Assessment Work Sheet **7)** EQB = [MN] Environmental Quality Board

2) PROJECTS REQUIRING AN ASSESSMENT OF ENVIRONMENTAL EFFECTS (AOEE's):

Project Description	Are the Effects of the project Addressed in an Approved EAW, EA or EIS?	Environmental Categories Affected by the Project													
		Air Quality	Compatible Land Use	Fish Wild-life and Plants	Flood-plains and Flood-ways	Hazardous Materials, Pollution Prevention and Solid Waste	Historical, Architectural, Archaeological and Cultural Resources	Light Emissions and Visual Effects	Parks & Rec. Areas and Trails	Noise	Water Quality (Storm, Waste and Ground Water)	Wet lands	Infra-structure and Public Services	Farm land	Erosion and Sedimentation
MSP AIRPORT PROJECTS															
No EA or EIS Required for 2018 projects	MSP 2020 Environmental Assessment findings.	No Effects													
RELIEVER PROJECTS															
No Projects	N/A	N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A				

3) MAC PROJECTS ANTICIPATED TO MEET THE \$5M AND \$2M THRESHOLDS FROM 2019 – 2025:

Airport	2019	2020	2021	2022	2023	2024	2025
MSP Environmental	Noise Mitigation	Noise Mitigation	Noise Mitigation	Noise Mitigation	Noise Mitigation	Noise Mitigation	Noise Mitigation
MSP Terminal 1 Lindbergh	-Passenger Boarding Bridge Replacements - \$ 7M -IT Miscellaneous Modifications - \$8.4M Mezzanine HVAC/AHU Replacements - \$6.4 M -Baggage Claim/Ticket Lobby Improvements \$ 98M -Terminal 1 Parking Ramp Mods - \$17M Concourse G Moving Walks -\$5M -Restroom Upgrade Program - \$5M	IT Modifications - \$5.5M -Baggage Claim/Ticket Lobby Operational Improvements - \$61.9M -Baggage Handling System - \$ 32M -Checkpoint Expansion - \$5.8M -FIS Operational Improvements -\$8.4 M -Folded Plate Repairs -\$8.9M -ARFF #2 Facility - \$10.5M -Air Handling Unit Replacement - \$6.4M -Concourse G, Delta Skyclub - \$45M -Safety Ops/Center - \$77.5M	-Passenger Boarding Bridge Replacements - \$ 8M -IT Modifications - \$9 M -Lower Level Curbside Check-In expansion- \$12.0M -Baggage Claim/Ticket Lobby Operational Improvements - \$32.5M -Folded Plate Repairs -\$8.9M -Air Handling Unit Replacement - \$6.5M -Police, Safety and Ops Center -\$35M	-IT Modifications - \$10.5M -Baggage Claim/Ticket Lobby Operational Improvements - \$28 M -Folded Plate Repairs - \$8.9M -Mechanical Room Upgrade -\$5.5M -Parking Guidance System - \$6.5M -Air Handling Unit Replacement - \$6.5M -Concourse G Rehabilitation - \$5M -34 th Avenue Reconstruction - \$7M -MAC Storage Facility \$10M	-IT Modifications - \$10M -Recarpeting Program - \$7M -Concourse G Rehabilitation \$5M -D Pod Outbound Baggage System - \$ 5.0 M -Air Handling Unit Replacement - \$6.5M -34 th Avenue Reconstruction - \$6M	-IT Modifications - \$10M -Checkpoint Expansion - \$11M -Recarpeting Program - \$7M -Concourse G Rehabilitation \$5M --Folded Plate Repairs - \$8.9M -Perimeter Gate Security Improvements - \$6.5M -Air Handling Unit Replacement - \$6.5M	-IT Modifications - \$10M -Checkpoint Expansion - \$11M -Recarpeting Program - \$7M -Concourse G Rehabilitation \$5M -Air Handling Unit Replacement - \$6.5M
MSP Airfield	-Taxiway B/Q Centerline lights - \$6.8M	-Taxiway D Reconstruction - \$10 M	-Runway 12L/30R – Shoulder Reconstruction – \$5M -Terminal 1 Apron Reconstruction - \$10.5M	-Runway 12L/30R – Shoulder Reconstruction – \$7M -Terminal 1 Apron Reconstruction - \$10.5M	-Terminal 1 Apron Reconstruction - \$10.5M	-Terminal 1 Apron Reconstruction - \$10.5M	-Terminal 1 Apron Reconstruction - \$10.5M -Taxiway A/B Pavement Reconstruction - \$6M
MSP							

Terminal 2 Humphrey							
Lake Elmo Airport	Runway 14/32 Replacement- \$3M	Runway 14/32 Replacement- \$2M Airfield Modifications - \$3M	Runway 14/32 Replacement- \$2M				
Airlake Airport				Runway 12/30 Improvements \$ 3.5M			
Flying Cloud Airport							
Anoka County- Blaine Airport							
St. Paul Downtown Airport	MAC Building Improvements - \$2.3 M					Runway 14/32 Reconstruction - \$5M	Runway 14/32 Reconstruction - \$5M
Crystal Airport*		Runway 14R/32L & Taxiway "E" Mods - \$ 3.8 M					

*Crystal Airport Runway 14R/32L project moved to 2020, in the Final CIP.

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4) 2019 PROJECTS MEETING STATUTORY REVIEW CRITERIA AND REQUIRING APPROVAL:

2019 CIP PROJECTS	Prior Reviews/Actions		Capital		Review			Criteria *		
	LTCP	AOEE***	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)**
AIRPORT / PROJECT	<ul style="list-style-type: none"> Review Action 	<ul style="list-style-type: none"> EA-EAW Prepared EIS Reviewed NPDES Approved Legislative Requirement Regulatory Requirement Legal Requirement 	Project meets Dollar threshold at: MSP = \$5M Relievers = \$2M	Loc. of a New Airport	New Runway at an Existing Airport	A Runway Extension at an Existing Airport	Runway Strengthening other than routine Maintenance.	New or Expanded Passenger Handling or Parking Facilities for 25% or more capacity Increase.	Land Acquisition associated with the other criteria, or that would cause relocation of residential or business Activities.	Project information made available by the MAC to affected cities for review.
MSP International Airport 2019 Program:	<ul style="list-style-type: none"> 2030 LTCP Update Approved in 2010 	.	<ul style="list-style-type: none"> Passenger Boarding Bridge Replacements Baggage Handling System Vertical Circulation Improvements Concourse G Rehabilitation Taxiway Centerline Lights 	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ST. PAUL DOWNTOWN	<ul style="list-style-type: none"> 2025 LTCP Approved in 2010 		None							
FLYING CLOUD	<ul style="list-style-type: none"> 2025 LTCP Approved in 2010 	MAC-City Agreement concluded; FAA review of Agreement & R.O.D. on FEIS completed as part of MAC/Airline Agreement. 2010 Plan being implemented.		N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRYSTAL	<ul style="list-style-type: none"> 2035 LTCP Approved in 2017 	(EA will begin in 2018).	None							
ANOKA CO. -BLAINE	<ul style="list-style-type: none"> 2025 LTCP Approved in 2010 		None							
LAKE ELMO	<ul style="list-style-type: none"> 2035 LTCP Approved 2016 	(EA issues Finding of No Significant Impact in Aug 2018)	Runway 14/32 Replacement – Estimated Cost \$3M		X					X
AIRLAKE	<ul style="list-style-type: none"> 2035 LTCP Approval expected in 2018 	(negotiations on sewer & water service).	None							X

* Criteria as defined under MS 473.

** Requirements defined under MS 473.

*** Per AOEE 2019-2025 Summary Environmental Assessment

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP End of Life/Replacement Projects							
10 - Terminal 1-Lindbergh							
Passenger Boarding Bridge Replacements	\$ 7,000,000	\$ 4,000,000	\$ 8,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Recarpeting Program					\$ 7,000,000	\$ 7,000,000	\$ 7,000,000
Terminal 1-Lindbergh Tug Doors Replacement	\$ 600,000						
Tram Systems Retrofit and Equipment	\$ 1,500,000	\$ 1,750,000					
TSA Recapitalization	\$ 12,000,000						
13 - Energy Management Center							
Variable Air Volume (VAV) Box Replacement			\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	
21 - Field and Runway							
Runway 12L-30R Bituminous Shoulder Reconstruction				\$ 7,000,000			
Runway 12R-30L Bituminous Shoulder Reconstruction			\$ 5,000,000				
Runway 12R-30L Tunnel Storm Sewer Reconstruction		\$ 900,000					
Sanitary Sewer Replacement Taxiway R		\$ 3,300,000					
Snow Melter Upgrades/Modifications	\$ 750,000						
Taxiway A/B Pavement Reconstruction							\$ 6,000,000
Taxiway D Reconstruction		\$ 12,000,000					
Terminal 1-Lindbergh Apron Pavement Reconstruction				\$ 10,500,000		\$ 10,500,000	
26 - Terminal Roads/Landside							
Lower Level Roadway Rehabilitation			\$ 1,100,000				
Upper Level Roadway Electrical System Rehabilitation			\$ 1,000,000				
Upper Level Roadway Rehabilitation			\$ 2,000,000				
UPS Loop Pavement Reconstruction		\$ 1,600,000					
Variable Message Signs Replacement, Phase 3		\$ 1,600,000					
36 - Terminal 2-Humphrey							
Public Walk Aisle Terrazzo Floor Installation	\$ 1,700,000						
Terminal 2 Recarpeting Program			\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	
39 - Public Areas/Roads							
28th Avenue South Reconstruction							\$ 2,270,000
28th Avenue Watermain Replacement	\$ 1,300,000						
East 62nd Street Reconstruction					\$ 2,400,000		
66 - Fire							
MSP Campus Fire Alarm System Transition	\$ 1,000,000	\$ 1,000,000					
MSP End of Life/Replacement Projects Subtotals	\$ 25,850,000	\$ 26,150,000	\$ 18,350,000	\$ 22,750,000	\$ 14,650,000	\$ 22,750,000	\$ 19,270,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP IT Projects							
10 - Terminal 1-Lindbergh							
Intelligent Monitoring and Control Systems (IMACS)	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000				
Interactive Digital Directory Upgrade	\$ 150,000						
IT Miscellaneous Modifications	\$ 8,400,000	\$ 5,500,000	\$ 9,000,000	\$ 10,500,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Telecom Room Equipment Continuity (TREC)	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000			
63 - Police							
Card Access Modifications	\$ 2,000,000	\$ 3,500,000					
MSP IT Projects Subtotals	\$ 13,550,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP Long Term Comprehensive Plan Projects							
10 - Terminal 1-Lindbergh							
Armed Forces Service Center Relocation	\$ 1,700,000						
Baggage Claim/Ticket Lobby Operational Improvements	\$ 98,000,000	\$ 61,900,000	\$ 32,500,000				
Baggage Handling System		\$ 32,000,000					
Checkpoint Expansion		\$ 5,800,000					\$ 11,000,000
D-Pod Outbound Baggage System					\$ 5,000,000		
FIS Recheck Operational Improvements		\$ 8,400,000					
MSP Long Term Comp Plan	\$ 2,200,000						
Terminal 1-Lindbergh Security Checkpoint Improvements	\$ 2,000,000						
Unstaffed Exit Lanes						\$ 1,000,000	
Valet Parking Lobby and Restroom Upgrade	\$ 5,000,000						
21 - Field and Runway							
Taxiway C1 Construction	\$ 4,000,000						
31 - Parking							
Terminal 1-Lindbergh Parking Ramp - Parking Ramp Modifications	\$ 17,000,000						
36 - Terminal 2-Humphrey							
Terminal 2-Humphrey North Gate Expansion Design Fees					\$ 2,000,000		
Terminal 2-Humphrey Security Checkpoint Improvements	\$ 1,500,000						
MSP Long Term Comprehensive Plan Projects Subtotals	\$ 131,400,000	\$ 108,100,000	\$ 32,500,000	\$ -	\$ 7,000,000	\$ 1,000,000	\$ 11,000,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP Maintenance/Facility Upgrade Projects							
10 - Terminal 1-Lindbergh							
ADO Office Expansion			\$ 500,000				
Art Display Areas	\$ 500,000	\$ 250,000	\$ 250,000	\$ 250,000			
Arts Master Plan	\$ 808,000	\$ 1,155,000	\$ 155,000	\$ 760,000	\$ 665,000		
Concourse D HVAC Upgrade	\$ 1,800,000						
Concourse G Moving Walks		\$ 2,500,000		\$ 2,500,000			
Folded Plate Repairs				\$ 8,900,000		\$ 8,900,000	
Lighting Infrastructure Technology and Equipment (LITE)	\$ 1,500,000			\$ 2,250,000		\$ 2,500,000	
Restroom Upgrade Program	\$ 500,000		\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
Terminal 1-Lindbergh Employee Breakroom	\$ 250,000						
Terminal 1-Lindbergh Mechanical Room C-1043				\$ 5,500,000			
Terminal 1-Lindbergh Public Walk Aisle Terrazzo Floor Installation					\$ 4,400,000	\$ 4,400,000	\$ 4,500,000
Way-Finding Sign Backlighting Replacement		\$ 1,600,000			\$ 1,600,000		
13 - Energy Management Center							
Air Handling Unit Safety Upgrades		\$ 550,000					
Concourse G Energy Efficiency Projects		\$ 2,000,000					
Energy Savings Program				\$ 2,000,000		\$ 2,000,000	
Indoor Air Quality Monitoring System		\$ 660,000					
LED Lighting Conversion in Valet		\$ 500,000					
Victaulic Piping Replacement		\$ 1,000,000	\$ 1,000,000		\$ 2,000,000		\$ 2,000,000
21 - Field and Runway							
Perimeter Gate Security Improvements		\$ 3,000,000				\$ 6,500,000	
Runway 4-22 Taxiway Lighting System	\$ 3,500,000						
Runway LED Lighting Upgrade		\$ 1,000,000		\$ 1,500,000	\$ 1,700,000	\$ 2,650,000	
Taxiway T Centerline Lights			\$ 600,000				
Taxiways Bravo & Quebec Centerline Lights	\$ 6,800,000						
Terminal 2-Humphrey Glycol Lift Station/forcemain					\$ 1,100,000		
31 - Parking							
Parking Ramp Railing Refinishing		\$ 1,000,000	\$ 1,000,000				
Parking Guidance System				\$ 6,500,000			
36 - Terminal 2-Humphrey							
Terminal 2-Humphrey Employee Breakroom		\$ 200,000					
Terminal 2-Humphrey Shuttle Waiting Area Expansion			\$ 200,000				
Terminal 2-Humphrey Skyway to LRT Flooring Installation				\$ 800,000			
39 - Public Areas/Roads							
Diverging Diamond Intersection Rehabilitation		\$ 340,000					
46 - Hangars and Other Buildings							
MAC Storage Facility				\$ 10,000,000			
Safety and Security Center		\$ 77,500,000					
56 - Trades/Maintenance Buildings							
South Field Maintenance Building Wash Bay		\$ 1,300,000					
63 - Police							
Badging Office Relocation		\$ 2,700,000					
Perimeter Fence Intrusion Detection System					\$ 1,000,000		
66 - Fire							
Campus Fire Protection	\$ 500,000		\$ 500,000		\$ 500,000	\$ 500,000	
70 - General Office/Administration							
GO Building Improvements		\$ 500,000					
76 - Environment							
Ground Service Equipment (GSE) Electrical Charging Stations	\$ 2,700,000				\$ 3,000,000		
Lift Station at Ponds 1 and 2		\$ 850,000					
Runway 12R-30L Glycol Forcmain Environmental Improvements		\$ 1,500,000					
Storm Sewer Rehabilitation	\$ 2,600,000						
Terminal 2-Humphrey Remote Ramp Lot/Drainage Improvements				\$ 2,000,000			
MSP Maintenance/Facility Upgrade Projects Subtotals	\$ 21,458,000	\$ 100,105,000	\$ 6,205,000	\$ 44,960,000	\$ 17,965,000	\$ 29,450,000	\$ 8,500,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval

	2019	2020	2021	2022	2023	2024	2025
Noise Mitigation Consent Decree Amendment	\$ 13,500,000	\$ 7,500,000	\$ 2,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	
MSP Ongoing Maintenance Programs							
10 - Terminal 1-Lindbergh							
Air Handling Unit Replacement	\$ 2,500,000	\$ 6,400,000	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000
Baggage System Upgrades	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	
Concourse G Rehabilitation	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
Conveyance System Upgrades			\$ 3,000,000			\$ 3,000,000	
Electrical Infrastructure Program (EIP)	\$ 1,500,000	\$ 2,000,000	\$ 2,000,000	\$ 2,500,000	\$ 2,500,000		\$ 2,500,000
Electrical Substation Replacement			\$ 1,400,000	\$ 1,400,000	\$ 1,400,000	\$ 1,400,000	\$ 1,200,000
Emergency Power Upgrades	\$ 1,500,000	\$ 2,000,000	\$ 2,000,000	\$ 2,500,000	\$ 2,500,000		\$ 2,500,000
Plumbing Infrastructure Upgrade Program	\$ 500,000	\$ 500,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 700,000	
Terminal Building Remediation Program	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	
Terminal Miscellaneous Modifications	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	
13 - Energy Management Center							
EMC Plant Upgrades (T1 & T2)	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,300,000			\$ 1,500,000
21 - Field and Runway							
Airside Bituminous Rehabilitation/Electrical Construction		\$ 1,100,000		\$ 4,000,000	\$ 2,300,000	\$ 2,500,000	
Glycol Tank Repairs		\$ 500,000					
Miscellaneous Airfield Construction	\$ 3,800,000		\$ 900,000			\$ 1,000,000	
Pavement Joint Sealing/Repair	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	
26 - Terminal Roads/Landside							
Glumack Drive Reconstruction					\$ 9,300,000		
Tunnel Approaches Reconstruction				\$ 2,370,000			
Tunnel/Bridge Rehabilitation	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	
31 - Parking							
Parking Structure Rehabilitation	\$ 2,500,000	\$ 2,500,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	
39 - Public Areas/Roads							
34th Ave Sanitary Sewer Replacement				\$ 2,200,000			
34th Avenue Bus Area Reconstruction					\$ 700,000		
34th Avenue Reconstruction				\$ 7,000,000	\$ 6,000,000		
Concrete Joint Repair			\$ 400,000	\$ 900,000	\$ 2,200,000	\$ 300,000	\$ 400,000
Landside Pavement Rehabilitation	\$ 400,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	
Landside Utility Rehabilitation			\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000
Roadway Fixture Refurbishment	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000		
46 - Hangars and Other Buildings							
Campus Building Rehab Program		\$ 500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	
Campus Parking Lot Reconstructions				\$ 650,000	\$ 650,000		
End of Life Campus Building Demolition				\$ 400,000	\$ 400,000		
MSP Campus Building Roof Replacements	\$ 600,000	\$ 1,000,000	\$ 1,300,000	\$ 2,900,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
MSP Ongoing Maintenance Programs Subtotals	\$ 24,600,000	\$ 28,200,000	\$ 35,150,000	\$ 52,870,000	\$ 53,700,000	\$ 33,900,000	\$ 21,350,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP Tenant Projects							
10 - Terminal 1-Lindbergh							
Concessions Rebids	\$ 3,200,000						
Concessions Upgrades/Revenue Development	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Concourse G Delta SkyClub		\$ 45,000,000					
RAC Terminal 2 QTA Security Enhancements	\$ 500,000						
MSP Tenant Projects Subtotals	\$ 3,900,000	\$ 45,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

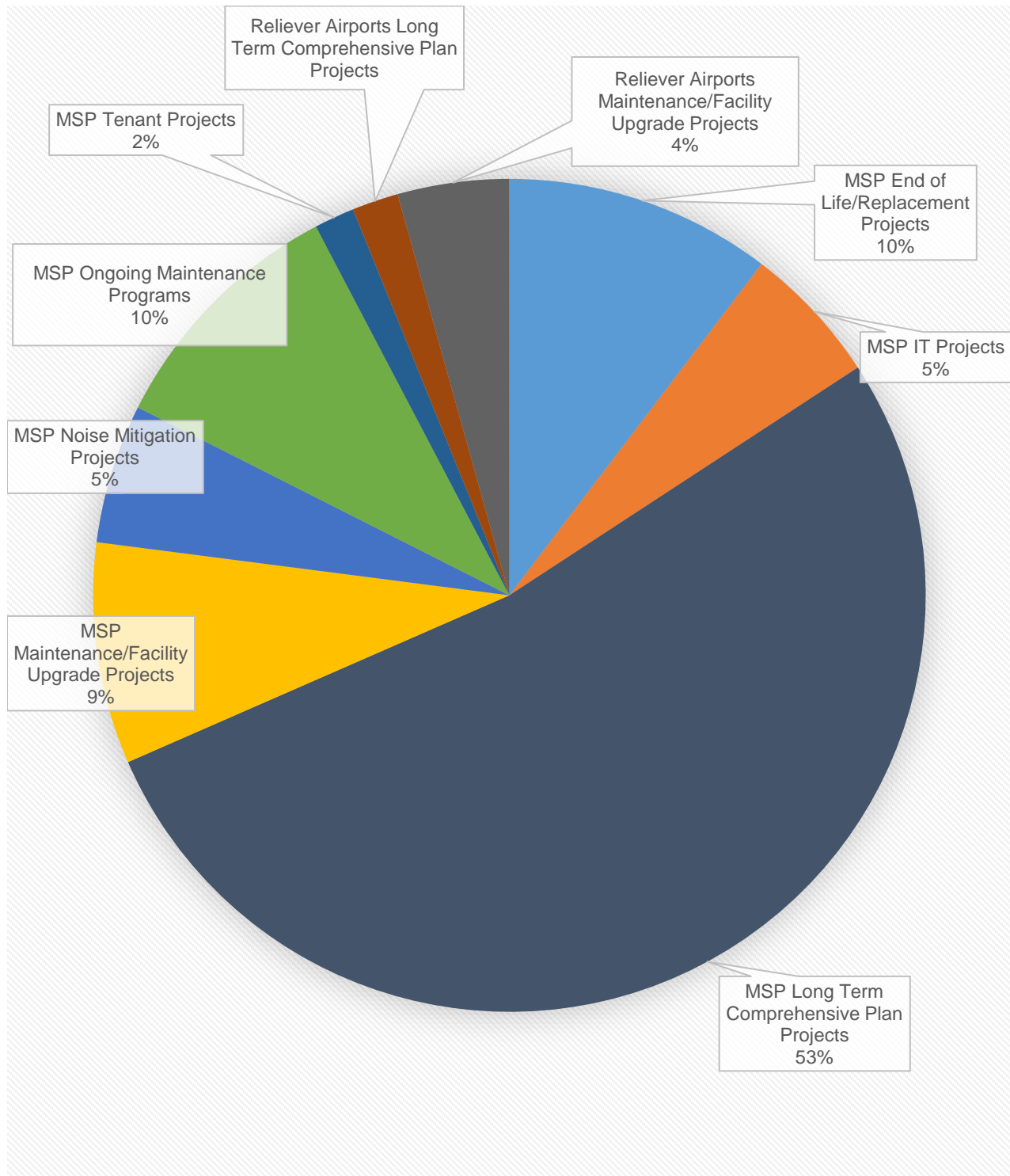
2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
Reliever Airports Long Term Comprehensive Plan Projects							
81 - St. Paul							
STP AGIS and ALP				\$ 300,000			
82 - Lake Elmo							
21D Airfield Modifications		\$ 3,000,000					
21D Long Term Comp Plan						\$ 100,000	
21D Runway 14-32 Replacement	\$ 3,000,000	\$ 2,000,000	\$ 2,000,000				
83 - Airlake							
LVN Long Term Comp Plan						\$ 100,000	
LVN Runway 12-30 Improvements				\$ 3,500,000			
LVN South Building Area Development - Phase 1	\$ 1,500,000						
84 - Flying Cloud							
FCM AGIS and ALP			\$ 300,000				
FCM South Building Area Utilities							\$ 600,000
85 - Crystal							
MIC Long Term Comp Plan						\$ 100,000	
MIC Runway 14R-32L & Taxiway E Modifications		\$ 3,800,000					
86 - Anoka County - Blaine							
ANE AGIS and ALP			\$ 300,000				
ANE Building Area Development - Xylite St. Relocation						\$ 1,000,000	
Reliever Airports Long Term Comprehensive Plan Projects Subtotals	\$ 4,500,000	\$ 8,800,000	\$ 2,600,000	\$ 3,800,000	\$ -	\$ 1,300,000	\$ 600,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
Reliever Airports Maintenance/Facility Upgrade Projects							
81 - St. Paul							
STP Airport Perimeter Roads		\$ 400,000				\$ 500,000	
STP Cold Equipment Storage Building					\$ 750,000		
STP Joint and Crack Repairs		\$ 100,000		\$ 100,000		\$ 100,000	
STP LED Edge Lighting Upgrades				\$ 1,000,000	\$ 1,500,000		
STP MAC Building Improvements	\$ 2,300,000		\$ 1,000,000	\$ 200,000		\$ 200,000	
STP Pavement Rehabilitation-Taxilanes/Tower Road							\$ 500,000
STP Runway 14-32 Reconstruction						\$ 5,000,000	\$ 5,000,000
STP Storm Sewer Improvements	\$ 1,500,000				\$ 1,500,000		
STP Taxiway B Rehabilitation						\$ 800,000	
STP Underground Fuel Storage Tank Replacment	\$ 100,000						
82 - Lake Elmo							
21D MAC Building Improvements	\$ 400,000						\$ 400,000
21D North Building Area Pavement Rehabilitation					\$ 900,000		
21D Parallel Taxiways Reconstruction	\$ 600,000			\$ 600,000			
21D Runway 04-22 Pavement Rehabilitation					\$ 4,000,000		
21D Taxilanes - South Building Area Pavement Rehab	\$ 900,000						
21D Underground Fuel Storage Tank Replacement	\$ 100,000						
83 - Airlake							
LVN Existing Runway 12-30 Reconstruction				\$ 3,500,000			
LVN Joint and Crack Repairs			\$ 150,000				
LVN LED Edge Lighting		\$ 500,000		\$ 200,000			
LVN MAC Building Improvements	\$ 400,000						\$ 550,000
LVN Plane Wash Pad	\$ 150,000						
LVN Public Restroom Facility	\$ 300,000						
LVN Underground Fuel Storage Tank Replacement		\$ 100,000					
84 - Flying Cloud							
FCM Airport Access Roads and Tango Lane							\$ 500,000
FCM Electrical Vault Modifications							\$ 500,000
FCM Executive Aviation Building Improvements	\$ 200,000						
FCM MAC Building Improvements			\$ 520,000				\$ 200,000
FCM Runway 10R-28L Pavement Rehabilitation					\$ 1,500,000		
FCM Taxiway D Pavement Rehabilitation	\$ 600,000						
FCM Taxiway E Pavement Rehabilitation	\$ 600,000						
FCM Taxiways A1, A3, F Pavement Rehabilitation		\$ 300,000					
FCM Underground Fuel Storage Tank Replacement		\$ 100,000					
85 - Crystal							
MIC Building Demo - Flight Simulator Building		\$ 150,000					
MIC LED Edge Lighting Upgrade			\$ 400,000	\$ 400,000			
MIC MAC Building Improvements		\$ 500,000			\$ 500,000		
MIC Taxilanes Pavement Rehabilitation				\$ 550,000		\$ 600,000	
MIC Taxiways Pavement Rehabilitation	\$ 700,000						
MIC Underground Fuel Storage Tank Replacement		\$ 100,000					
86 - Anoka County - Blaine							
ANE Air Traffic Control Tower Equipment Upgrades		\$ 100,000					
ANE Electrical Vault Improvements						\$ 750,000	
ANE LED Edge Lighting Upgrade		\$ 800,000		\$ 1,700,000			
ANE MAC Building Improvements				\$ 700,000			
ANE Obstructions Removal	\$ 100,000						
ANE South Service Road & East Landside Road Pavement Reconstruction	\$ 1,000,000						
ANE Taxilanes Pavement Reconstruction	\$ 750,000		\$ 750,000		\$ 750,000		
ANE Underground Fuel Storage Tank Replacement	\$ 100,000						
ANE West Perimeter Road					\$ 700,000		
Reliever Airports Maintenance/Facility Upgrade Projects	\$ 10,800,000	\$ 3,150,000	\$ 2,820,000	\$ 8,950,000	\$ 12,100,000	\$ 7,950,000	\$ 7,650,000

2019 - 2025 Capital Improvement Program - Final Draft for Commission Approval	2019	2020	2021	2022	2023	2024	2025
MSP Totals	\$ 234,258,000	\$ 327,255,000	\$ 106,405,000	\$ 133,780,000	\$ 104,515,000	\$ 98,300,000	\$ 70,320,000
Reliever Totals	\$ 15,300,000	\$ 11,950,000	\$ 5,420,000	\$ 12,750,000	\$ 12,100,000	\$ 9,250,000	\$ 8,250,000
Grand Totals	\$ 249,558,000	\$ 339,205,000	\$ 111,825,000	\$ 146,530,000	\$ 116,615,000	\$ 107,550,000	\$ 78,570,000

2019 CIP

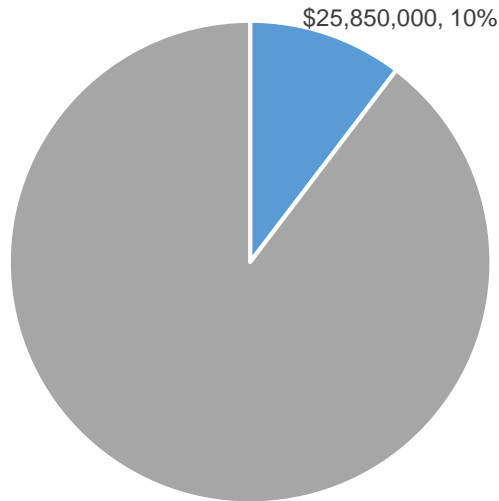
\$249,558,000



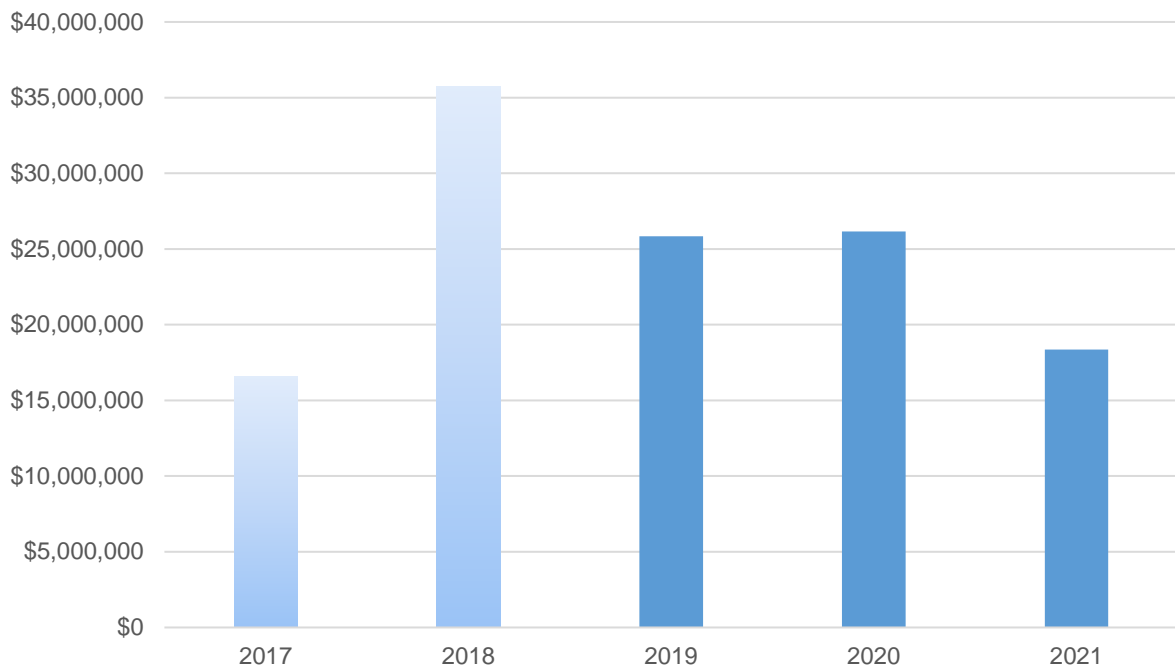
MSP END OF LIFE/REPLACEMENT PROJECTS

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

2019 End Of Life/Replacement Projects



MSP End of Life/Replacement Projects



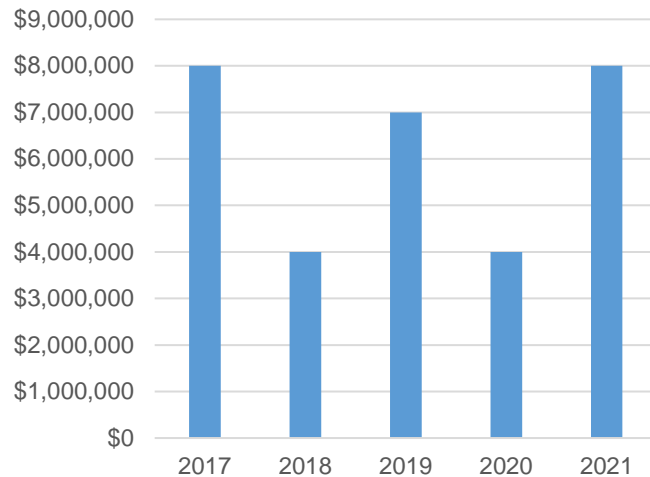
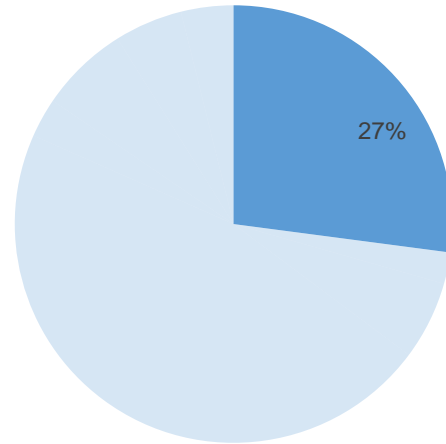
10 – Terminal 1-Lindbergh

PASSENGER BOARDING BRIDGE REPLACEMENTS

\$7,000,000

Anticipated funding source: PFCs

This project provides for the replacement of 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.

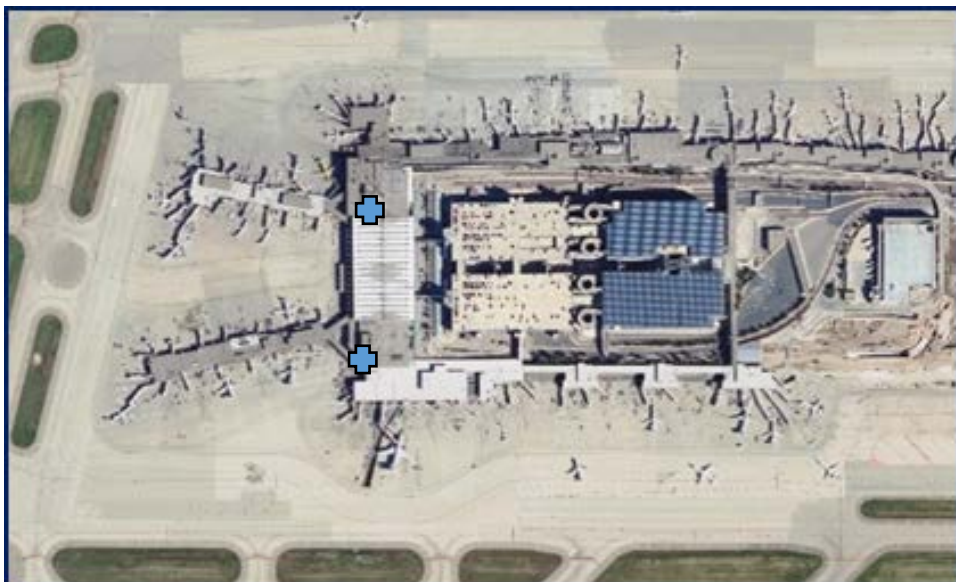
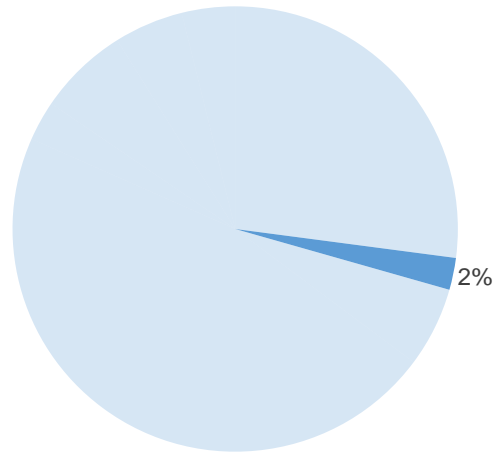


TERMINAL 1-LINDBERGH TUG DOORS REPLACEMENT

\$600,000

Anticipated funding source: Airline Repair and Replacement Fund

This project will replace the tug doors at Terminal 1-Lindbergh as they have reached the end of their useful life.

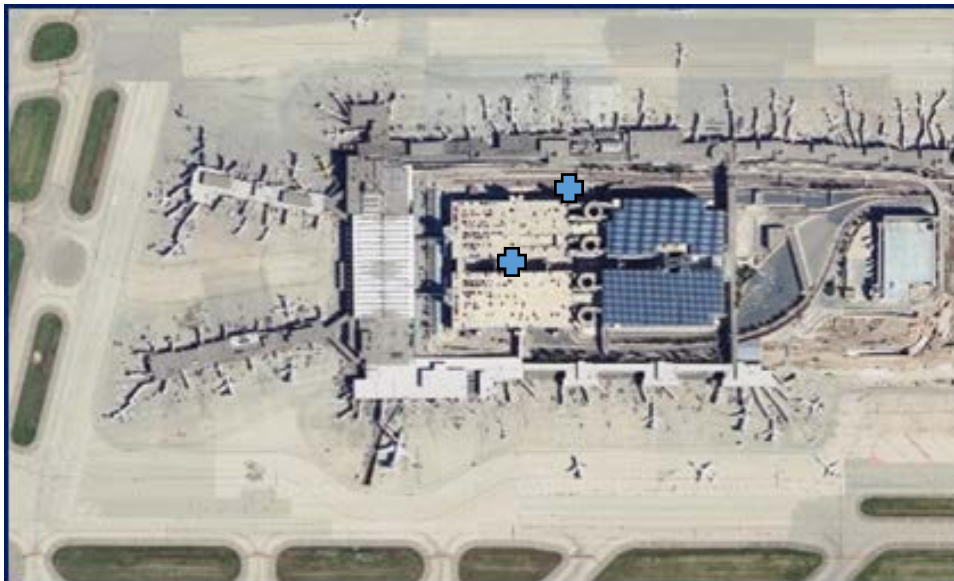
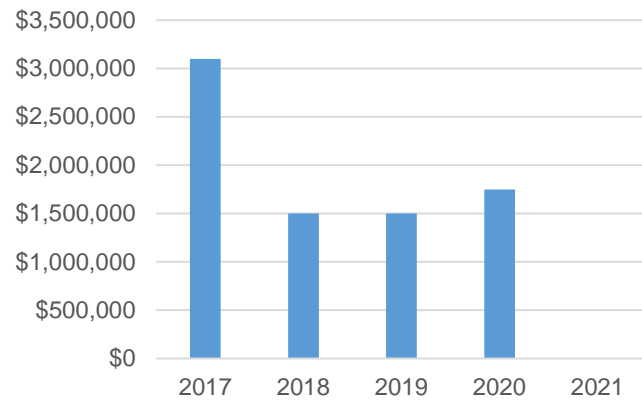
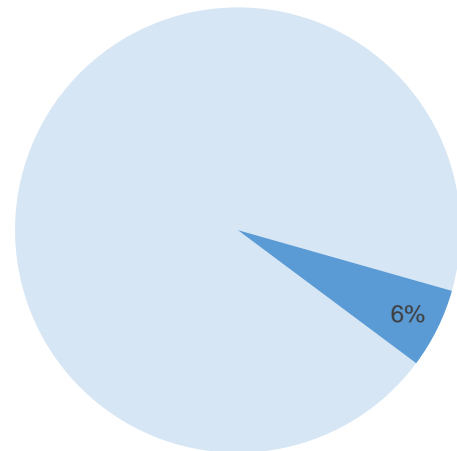


TERMINAL 1-LINBERGH TRAM SYSTEMS RETROFIT AND EQUIPMENT

\$1,500,000

Anticipated funding source: Airline Repair and Replacement Fund

This project is a phase of the multi-year program that extends the life of the C Concourse and Hub Trams by updating the electrical, mechanical, and structural components.

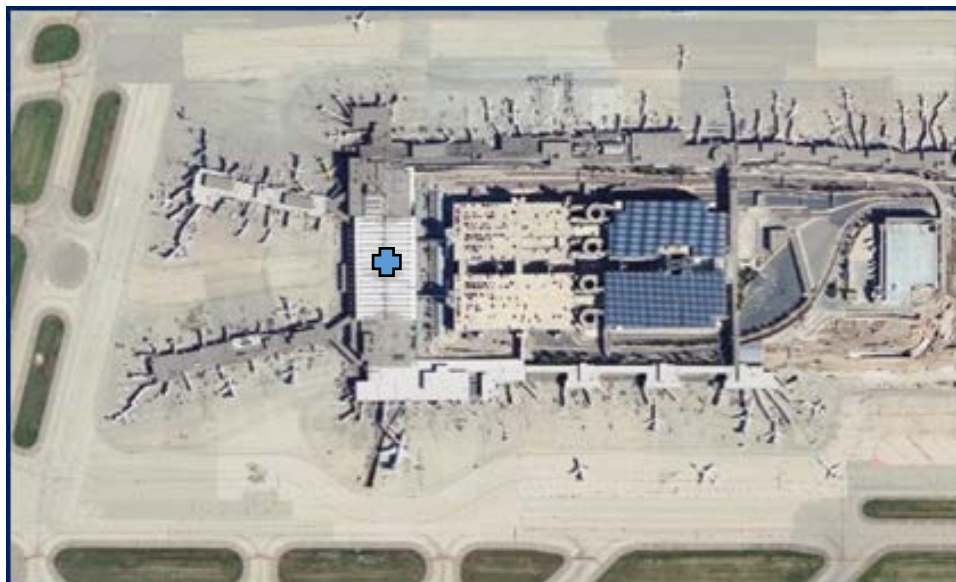
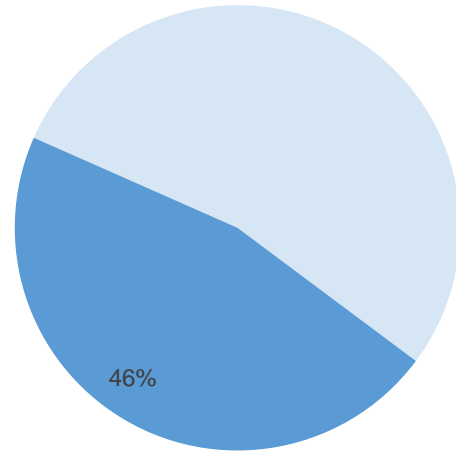


TSA RECAPITALIZATION

\$12,000,000

Anticipated funding source: TSA Other Transaction Agreement

In 2005 the Commission approved construction of the West Checked Baggage Inspection System (CBIS), which included a TSA contribution of seven CTX devices, supporting technologies and equipment, and staff. Subsequently, the CTX devices have begun to approach end-of-life status based on current required maintenance cost, as determined by the TSA. The TSA has offered for negotiation a 100% funded (no MAC cost) "Other Transaction Agreement" (OTA) for design and construction services for device replacement and other required upgrades to accommodate the new technology. There will be two OTAs, one for the design phase and a second OTA for the construction phase will be negotiated in 2019. This project will provide for the design and installation of TSA furnished devices and other required equipment at no cost to the MAC.



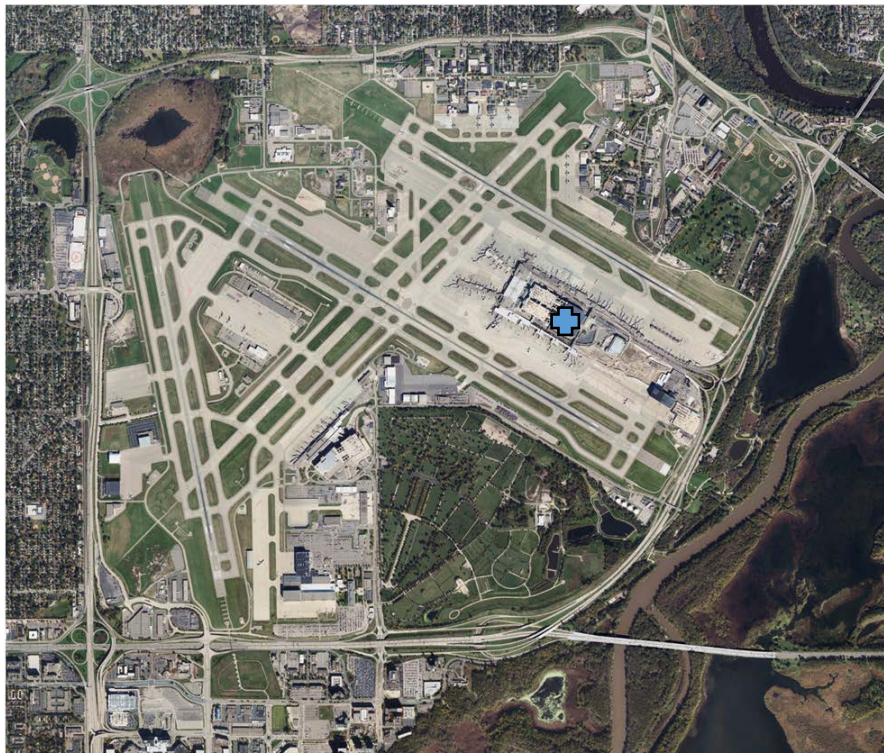
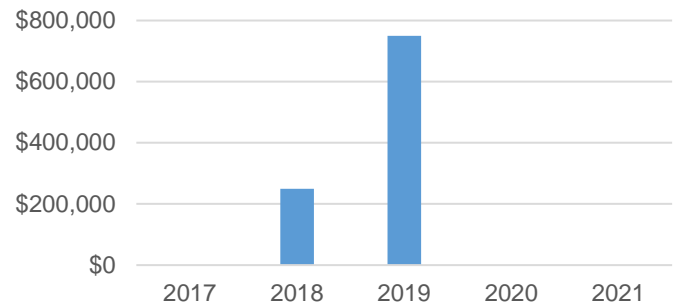
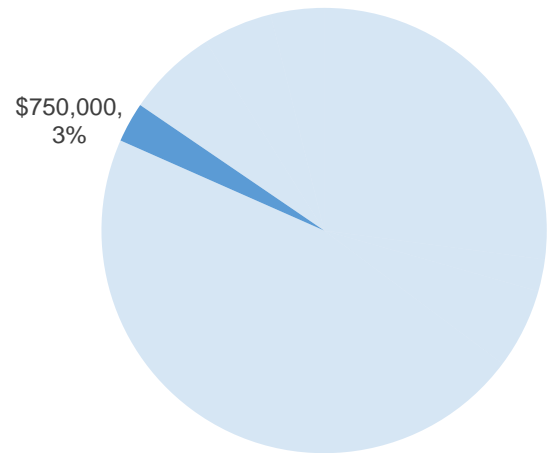
21 – Field and Runway

SNOW MELTER UPGRADES/MODIFICATIONS

\$750,000

Anticipated funding source: General Airport Revenue Bonds - 2016

This project is the second of a two-year program that provides for the evaluation, maintenance, miscellaneous modifications, and replacement of existing airfield snow melters located around the MSP campus.



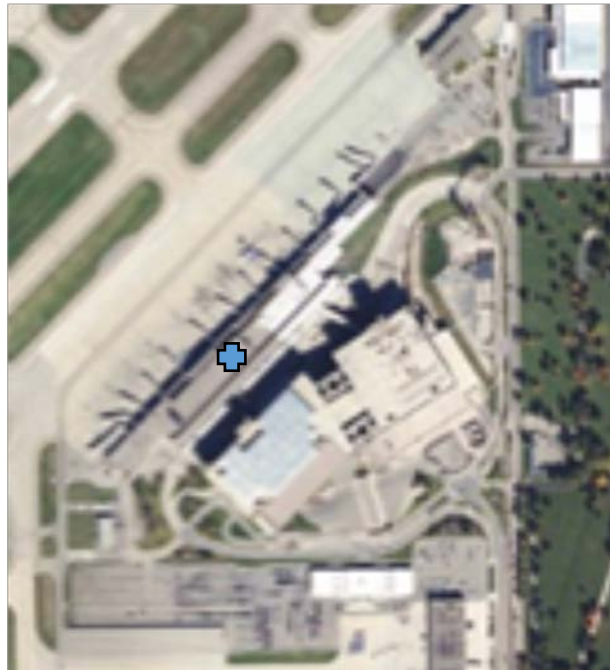
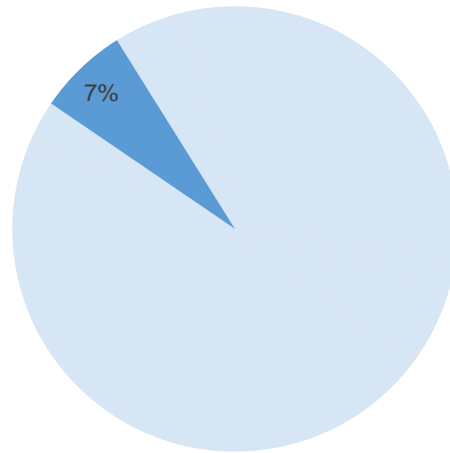
36 – Terminal 2-Humphrey

PUBLIC WALK AISLE TERRAZZO FLOOR INSTALLATION

\$1,700,000

Anticipated funding source: Airline Repair and Replacement Fund

This project will remove carpet and install terrazzo in the baggage claim area and the walk aisle at Gates H1-H7 to match the terrazzo installed in the Gate Expansion that opened in 2016 as well as install terrazzo between the ticket lobby and Checkpoint 1.



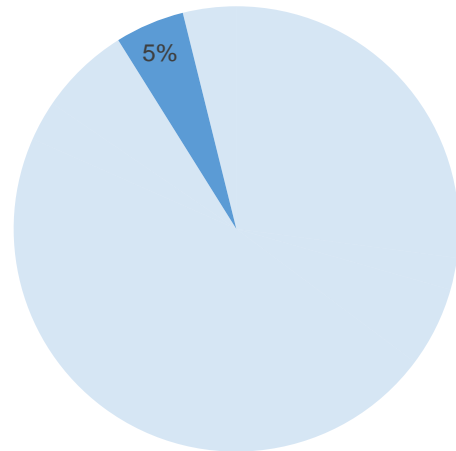
39 – Public Areas/Roads

28th AVENUE WATERMAIN REPLACEMENT

\$1,300,000

Anticipated funding source: MAC Funds

This project provides for reconstruction of approximately 2,600 linear feet of 18-inch watermain along 28th Avenue. Major items of work include miscellaneous removals, removal and reconstruction of ductile iron watermain, valves, hydrants, aggregate base, bituminous pavement, curb, concrete walk, fencing, and restoration of turf and landscaping.



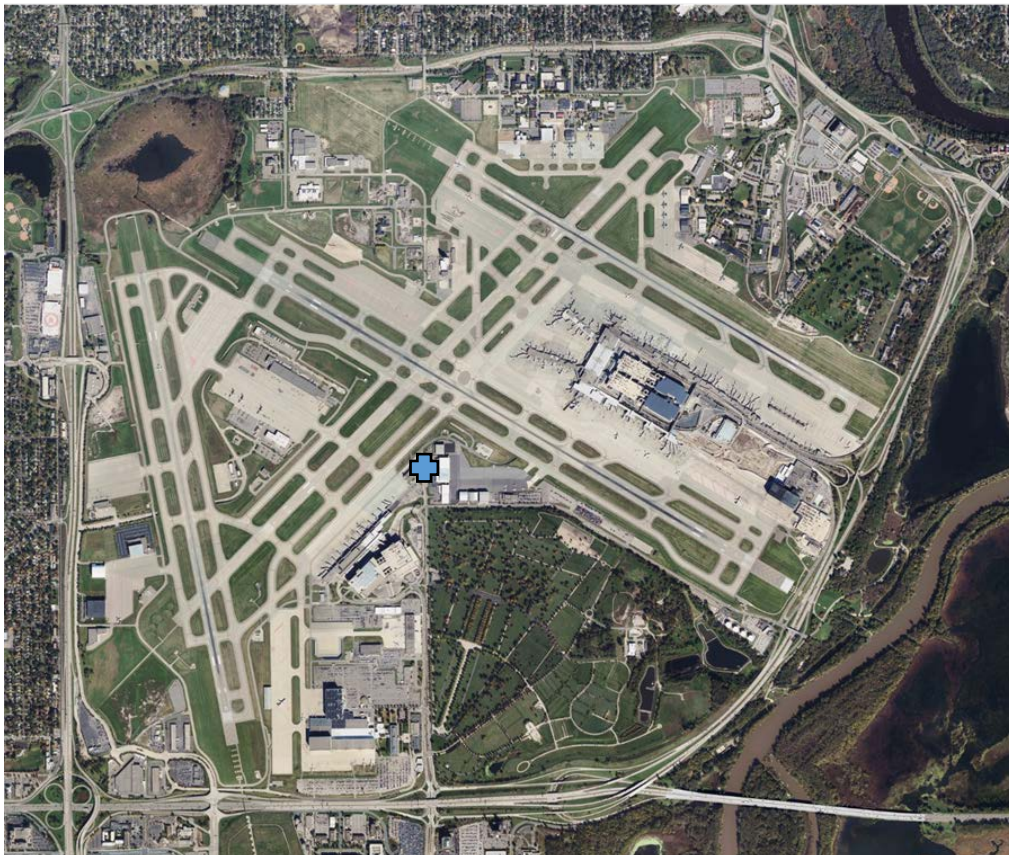
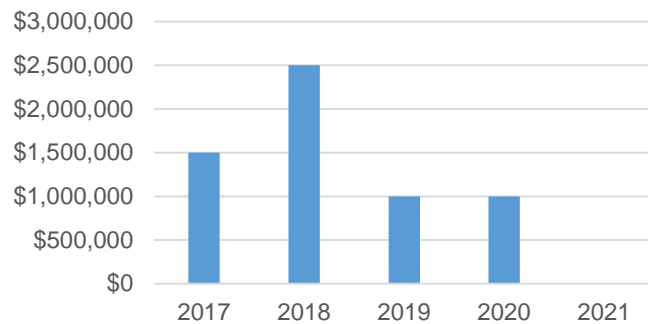
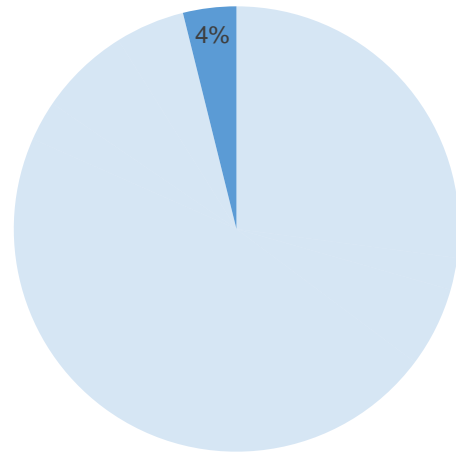
66 – Fire

MSP CAMPUS FIRE ALARM SYSTEM TRANSITION

\$1,000,000

Anticipated funding source: Airline Repair and Replacement Fund

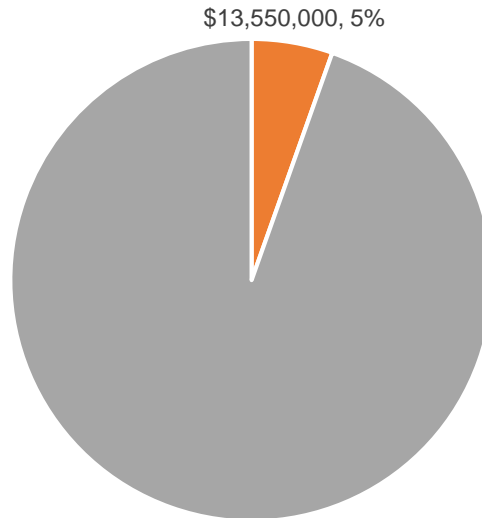
In an effort to improve monitoring reliability and eliminate the existing single point of failure configuration, this multi-year project will include database redundant systems, device controller upgrades and the decentralization of the fire alarm master control equipment.



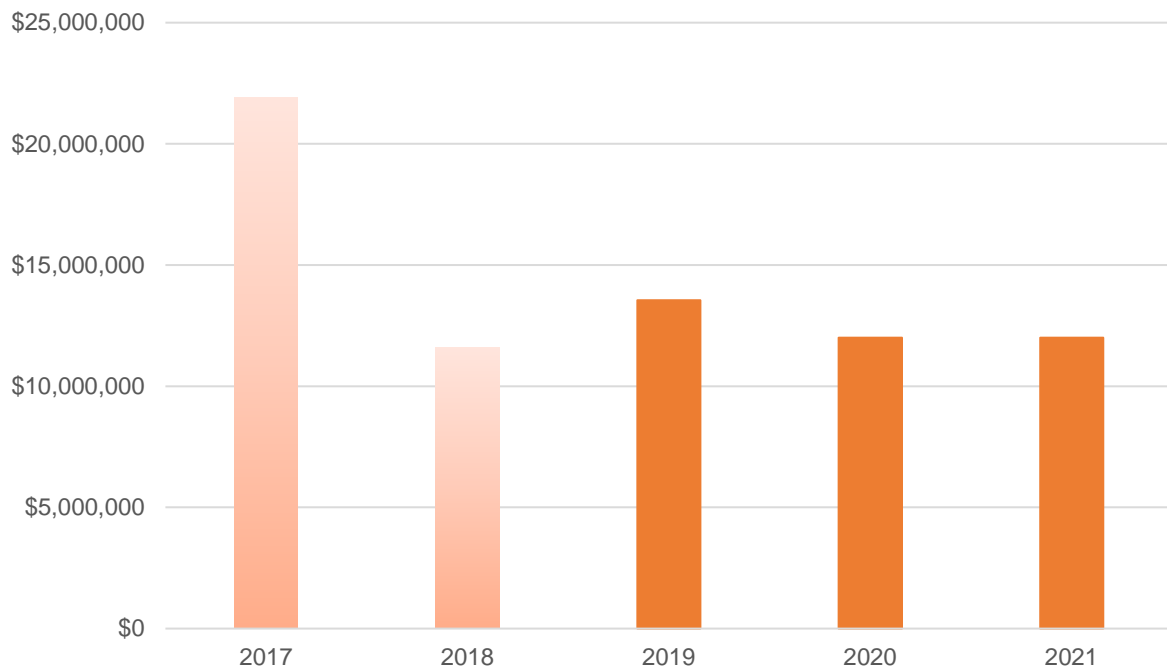
MSP IT PROJECTS

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

2019 MSP IT PROJECTS



MSP IT Projects



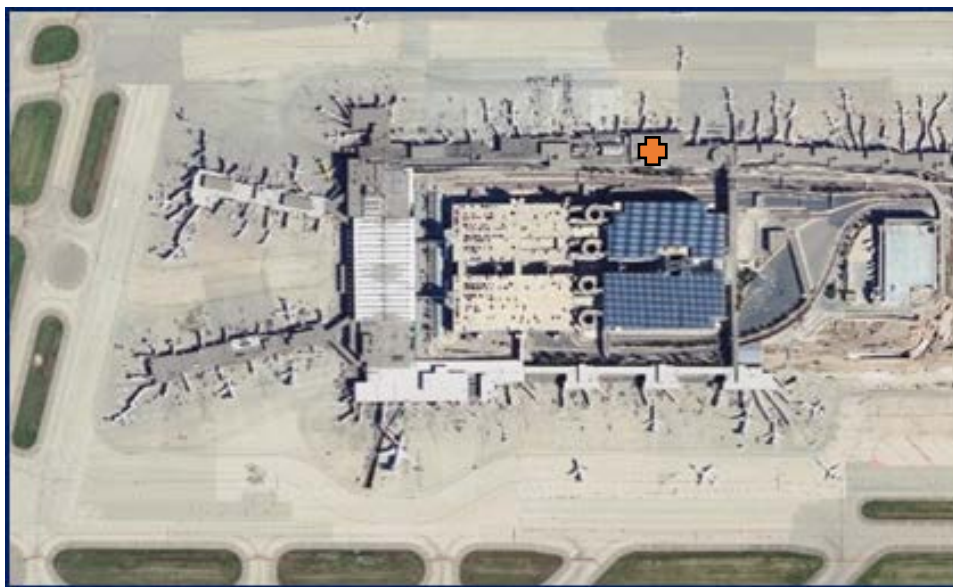
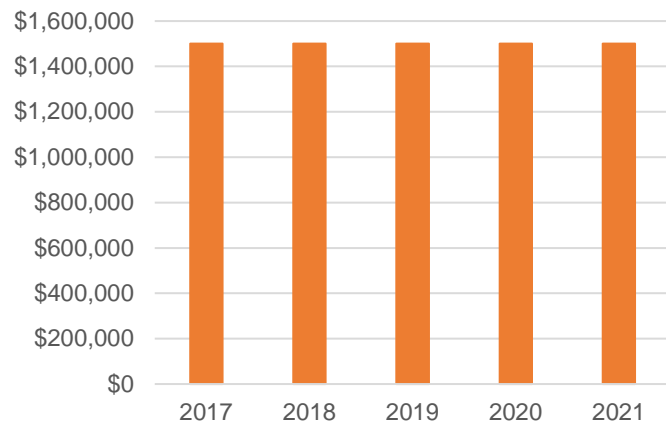
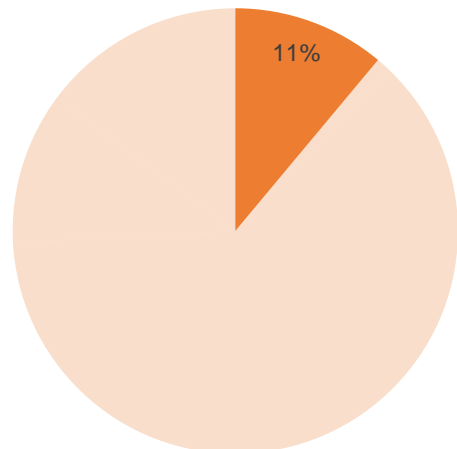
10 – Terminal 1-Lindbergh

INTELLIGENT MONITORING AND CONTROL SYSTEMS (IMACS)

\$1,500,000

Anticipated funding source: MAC Funds and Airline Repair and Replacement Fund

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.

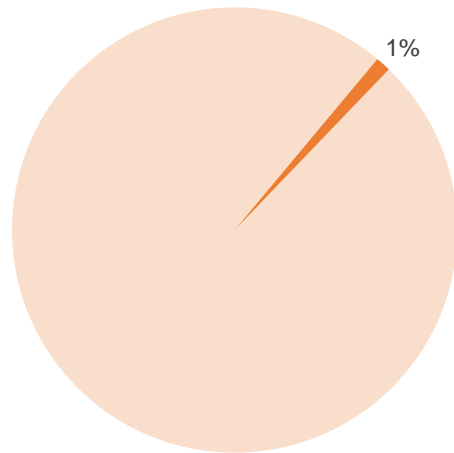


INTERACTIVE DIGITAL DIRECTORY UPGRADE

\$150,000

Anticipated funding source: MAC Funds

Replace all 55" digital and print directories at Terminal 1-Lindbergh with a new digital kiosk design.



Locations throughout Terminal 1-Lindbergh

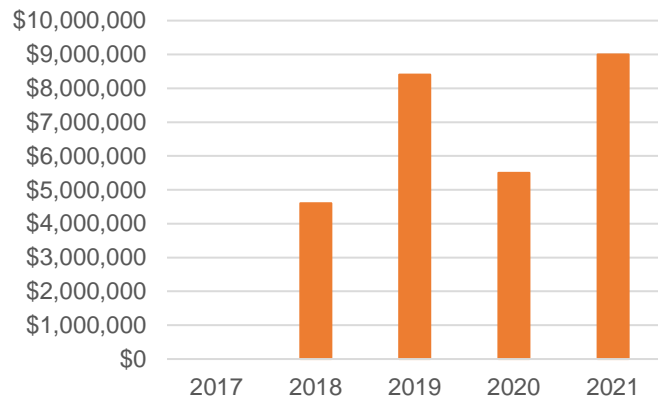
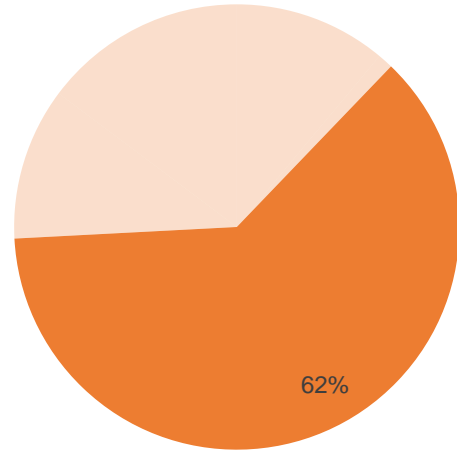


IT MISCELLANEOUS MODIFICATIONS

\$8,400,000

Anticipated funding source: MAC Funds and Airline Repair and Replacement Fund

Each year, there are a number of 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 2019.

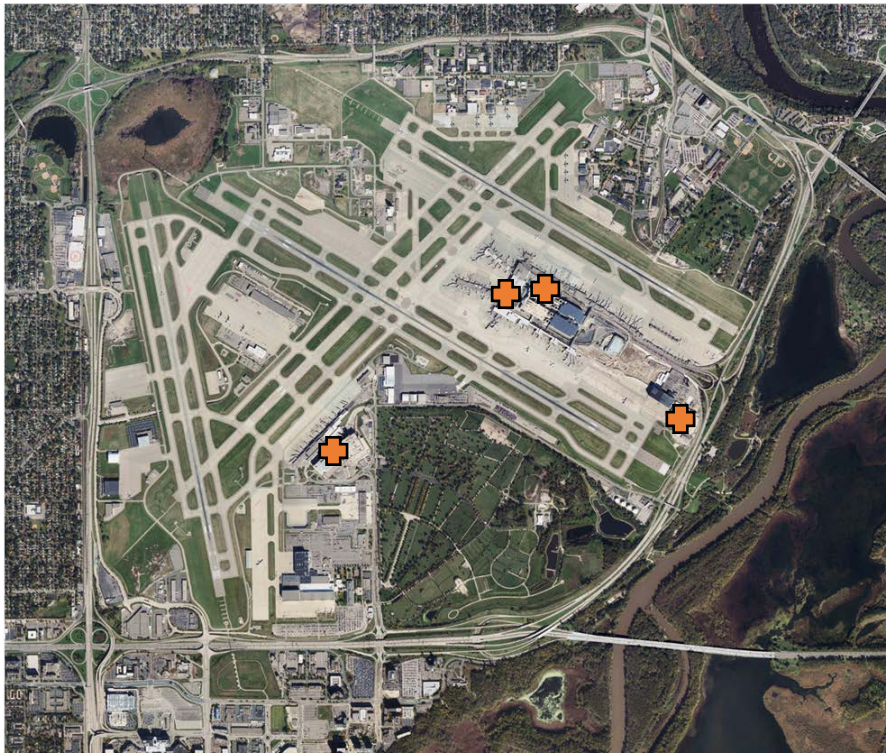
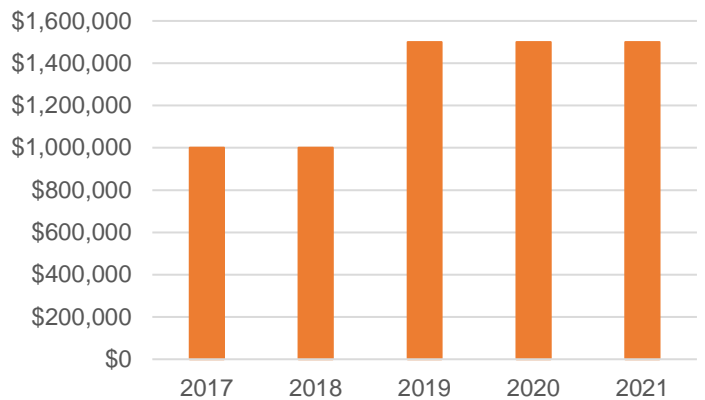
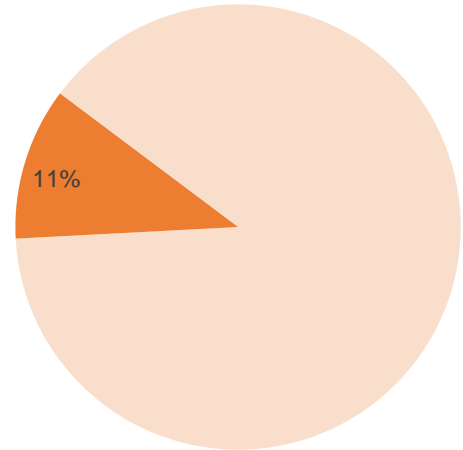


TELECOM ROOM EQUIPMENT CONTINUITY (TREC)

\$1,500,000

Anticipated funding source: Airline Repair and Replacement Fund

The MAC network (MACNet) carries, along with other information, credit card data collected from the landside parking revenue control system. Merchants like the MAC are required to meet credit card security standards created to protect card holder data. Among these requirements are security standards for the physical locations where MACNet equipment is located. Additionally, the network equipment itself must have added security features to prevent unauthorized network access. This multi-year program addresses these standards by providing security equipment and relevant network hardware for the 150 telecommunications rooms on the MAC campus.



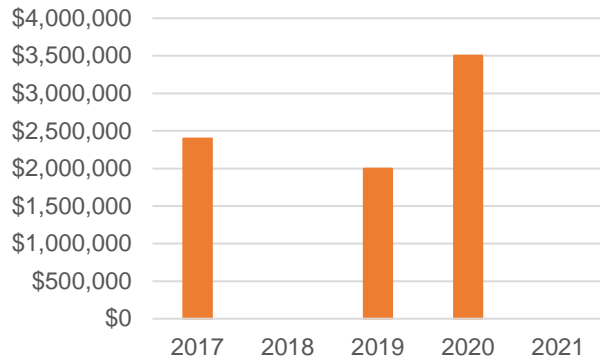
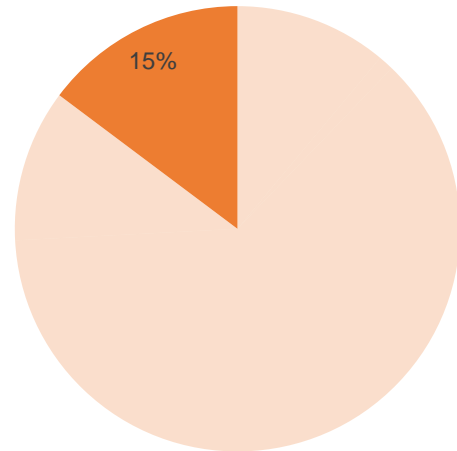
63 – Police

CARD ACCESS MODIFICATIONS

\$2,000,000

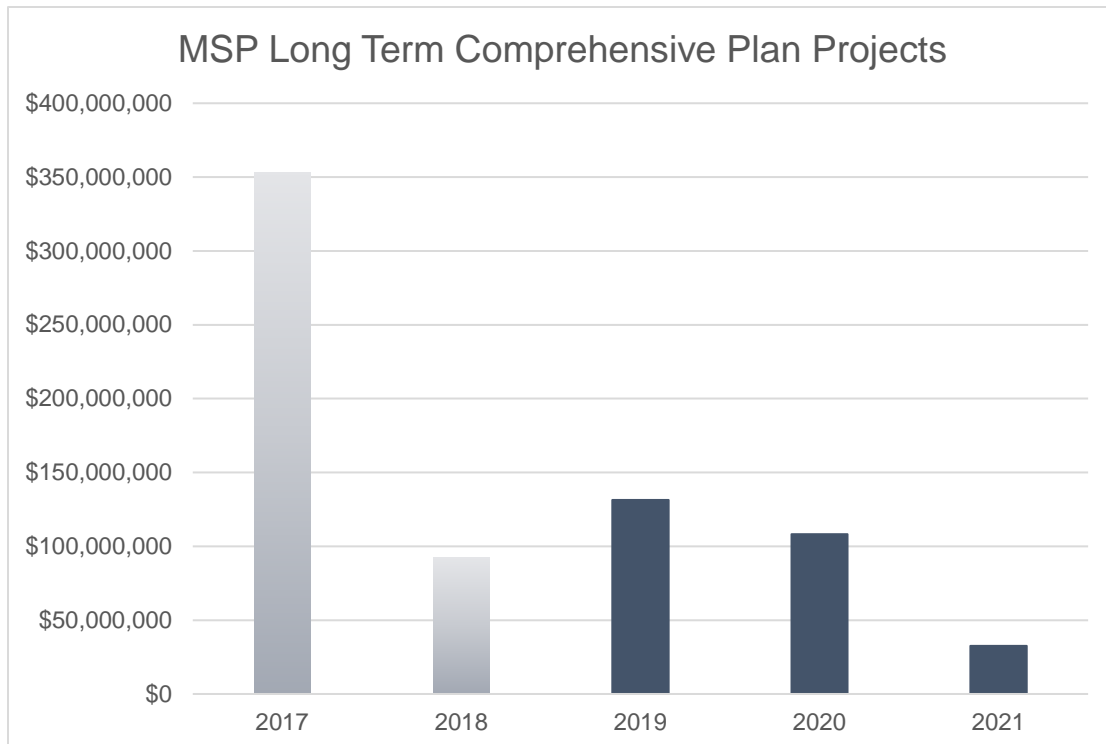
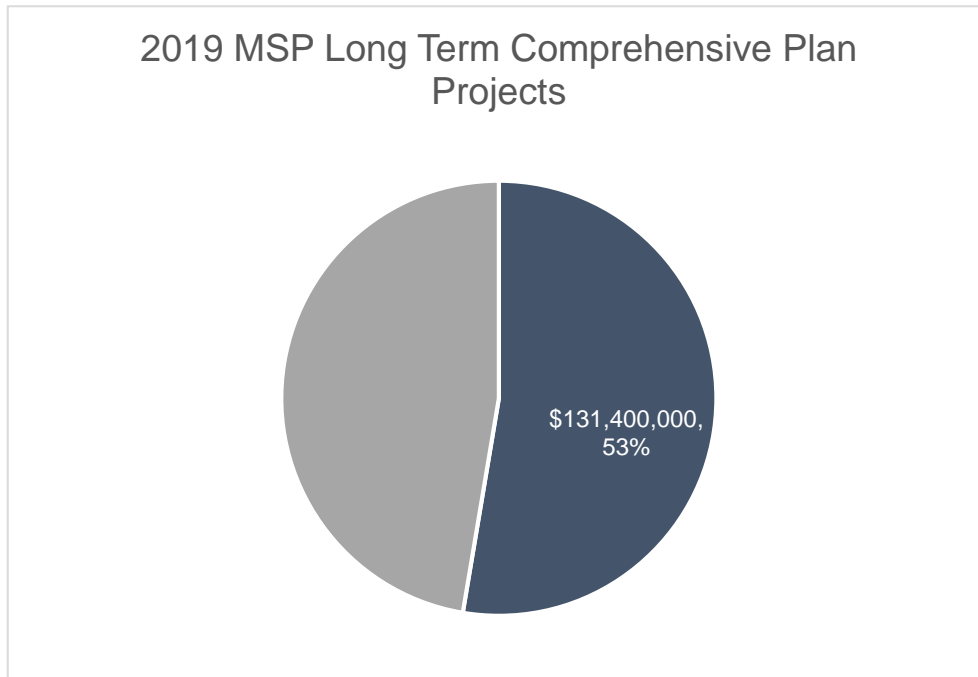
Anticipated funding source: PFCs

This program will add card access controls at passenger boarding bridge doors for improved security at a pace faster than only adding the controls as bridges are replaced.



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.

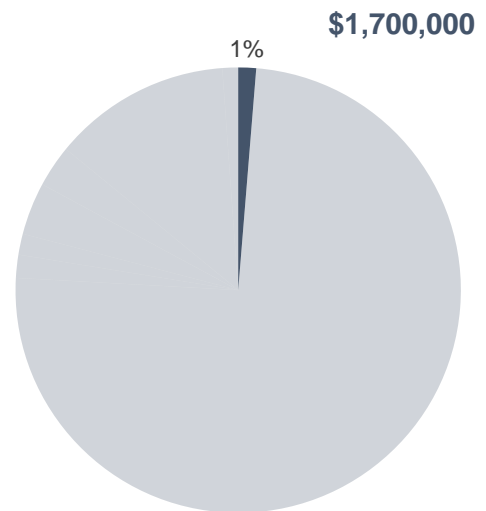


10 – Terminal 1-Lindbergh

ARMED FORCES SERVICE CENTER RELOCATION

Anticipated funding source: PFCs, State Grants, and MAC Funds

The Armed Forces Service Center location is being displaced by the Operational Improvements program. This project will relocate the center to a desired location behind the security line in the terminal.

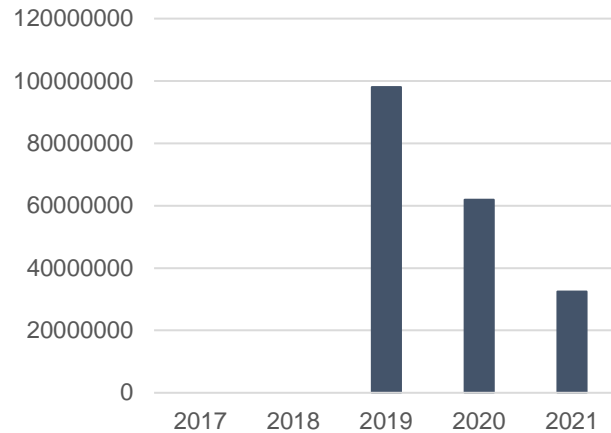
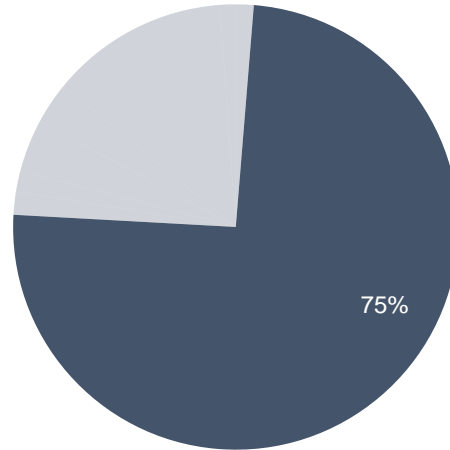


BAGGAGE CLAIM/TICKET LOBBY OPERATIONAL IMPROVEMENTS

\$98,000,000

Anticipated funding source: PFCs, General Airport Revenue Bonds-2019, and Airline Repair and Replacement Fund

This is the first of three projects in a program that will provide the level of service requirements for short- and medium-term growth of the O&D passengers, including walkways that meet required codes, public seating areas, centralized meet and greet space, unclaimed baggage storage, baggage service offices, concessions (food & beverage and retail), improved lighting, fire protection throughout the space, structural enhancements, improved sight lines, curbside lighting and access, and other operational improvements in the Arrivals Hall. In the Departures Hall, this program addresses, with the Vertical Circulation Improvements Program, issues of congestion and functionality in the Terminal 1-Lindbergh Ticket Lobby. It will provide walkways that meet required codes, ticket counter consolidations, airline ticket offices, centralized meet and greet areas, improved vestibules and access, east mezzanine removal/reduction, structural enhancements, curtain wall replacement, and other operational improvements. On both levels, the 2019 project constructs new restrooms in order to allow future phases to demolish the existing old and outdated restrooms.

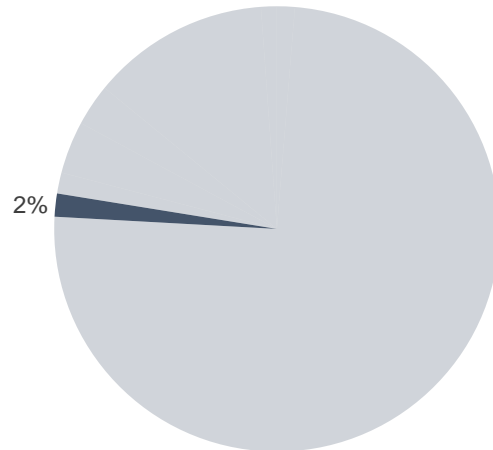


MSP LONG TERM COMP PLAN

\$2,200,000

Anticipated funding source: MAC Funds

The MSP 2030 Long Term Comprehensive Plan (LTCP), previously completed in April 2010, is scheduled to be updated in 2020. While some efforts have already started with checkpoint modeling and parking analyses, the work in 2019 will continue the forecasting efforts and include preparation of the LTCP document for public review and Commission approval.



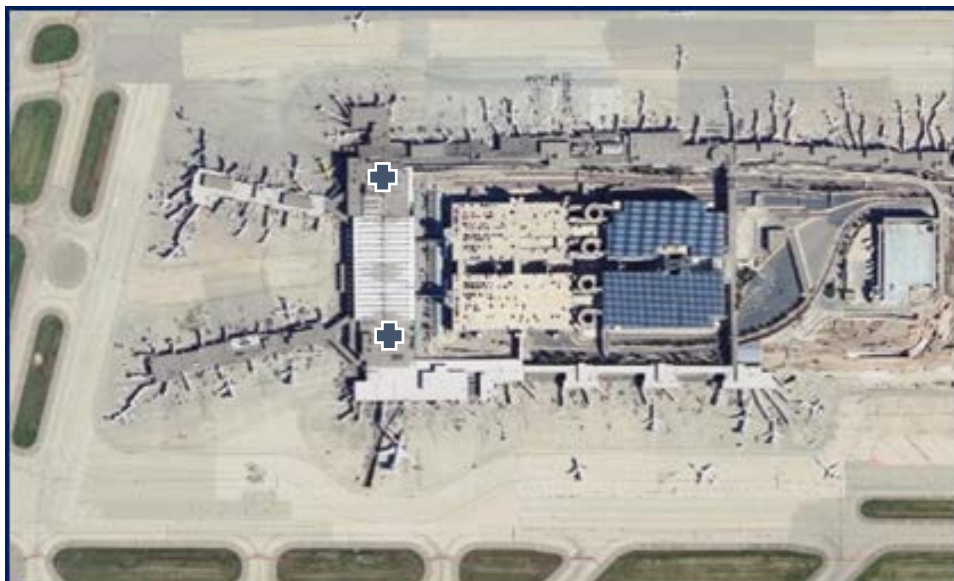
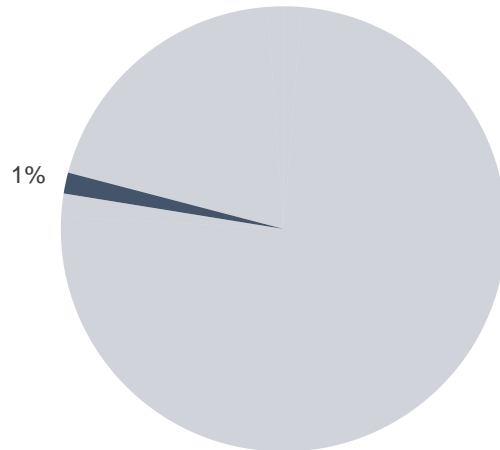
TERMINAL 1-LINDBERGH SECURITY CHECKPOINT IMPROVEMENTS

\$2,000,000

renamed from Automated Security Lanes (ASLs)

Anticipated funding source: PFCs

This project supports upgrades to or replacement of the existing security lane equipment to enhance security and improve through-put where possible. Additional work required to support installation will include power and data additions for new and replacement equipment and for equipment network requirements.

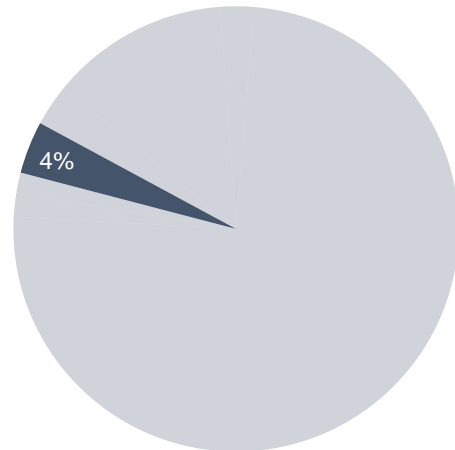


VALET PARKING LOBBY AND RESTROOM UPGRADE

\$5,000,000

Anticipated funding source: PFCs and MAC Funds

This project includes a relocation and expansion of the MAC Lost and Found, consolidation of the Valet Parking Lobby and support spaces, and Restroom Upgrades to current standards. The work is to be completed in two major phases, and includes a centralization of the drop-off and pick-up of the valet parking product, centered on the new Operational Improvements elevator lobby, with finishes to match the product being provided. There is also a mosaic art component for the restrooms and the space that is funded through the percent for arts program.



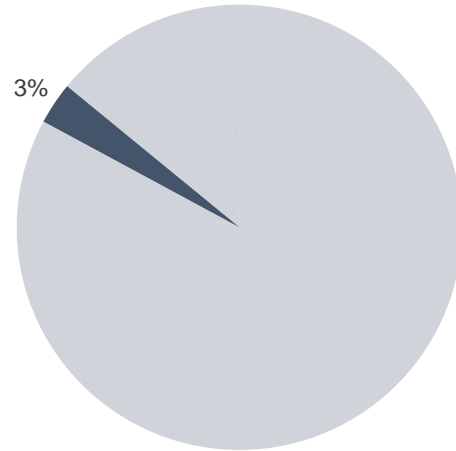
21 – Field and Runway

TAXIWAY C1 CONSTRUCTION

\$4,000,000

Anticipated funding source: PFCs and Federal Grants

Project provides for the construction of Taxiway C1 located abeam to Gates H5/H6 between Taxiway C and Taxiway D as well as the replacement of a portion of Taxiway D which has reached the end of its useful life. Major items of work include excavation and backfill, concrete taxiway pavement, bituminous shoulder pavement, pavement markings, and airfield lighting and signing.

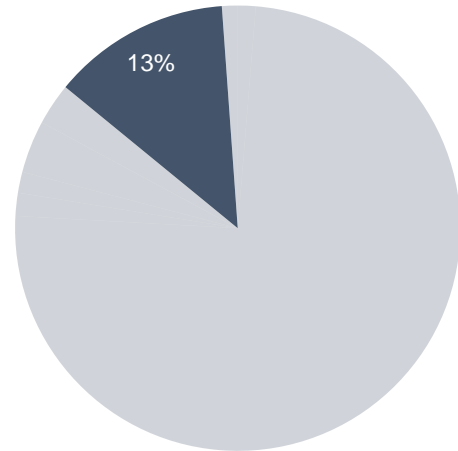


31 – Parking

TERMINAL 1-LINDBERGH PARKING RAMP – PARKING RAMP
MODIFICATIONS \$17,000,000

Anticipated funding source: General Airport Revenue Bonds-2016

This project will modify the Red and Blue parking levels vacated by Rental Car agencies when they move to the new parking ramp. This project will prepare the areas to accommodate public parking.



36 – Terminal 2-Humphrey

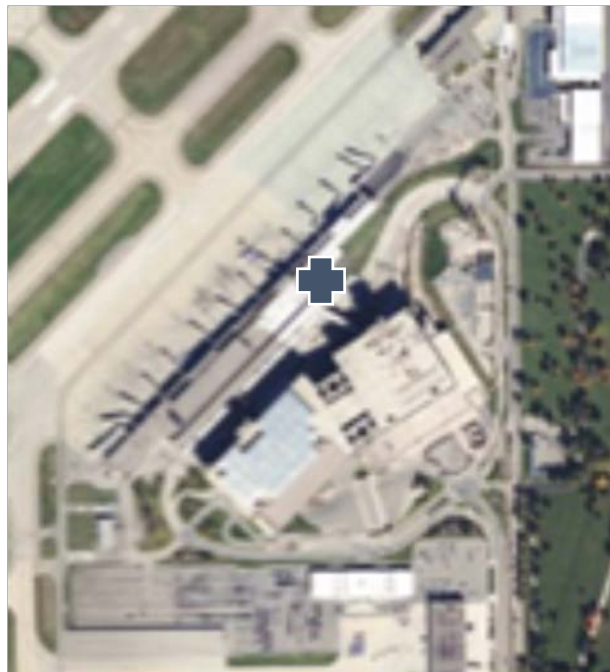
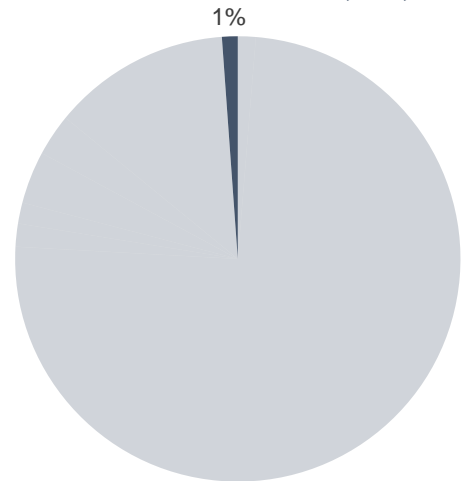
TERMINAL 2-HUMPHREY SECURITY CHECKPOINT IMPROVEMENTS

\$1,500,000

renamed from Automated Security Lanes (ASLs)

Anticipated funding source: PFCs

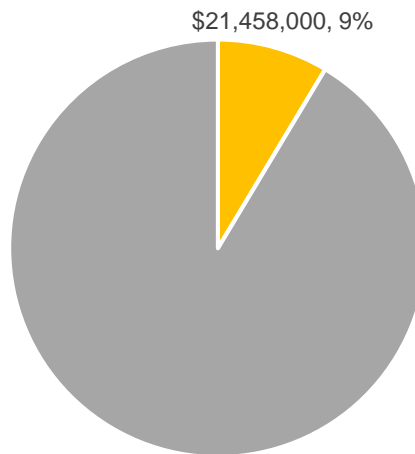
This project supports upgrades to or replacement of the existing security lane equipment to enhance security and improve through-put where possible. Additional work required to support installation will include power and data additions for new and replacement equipment and for equipment network requirements.



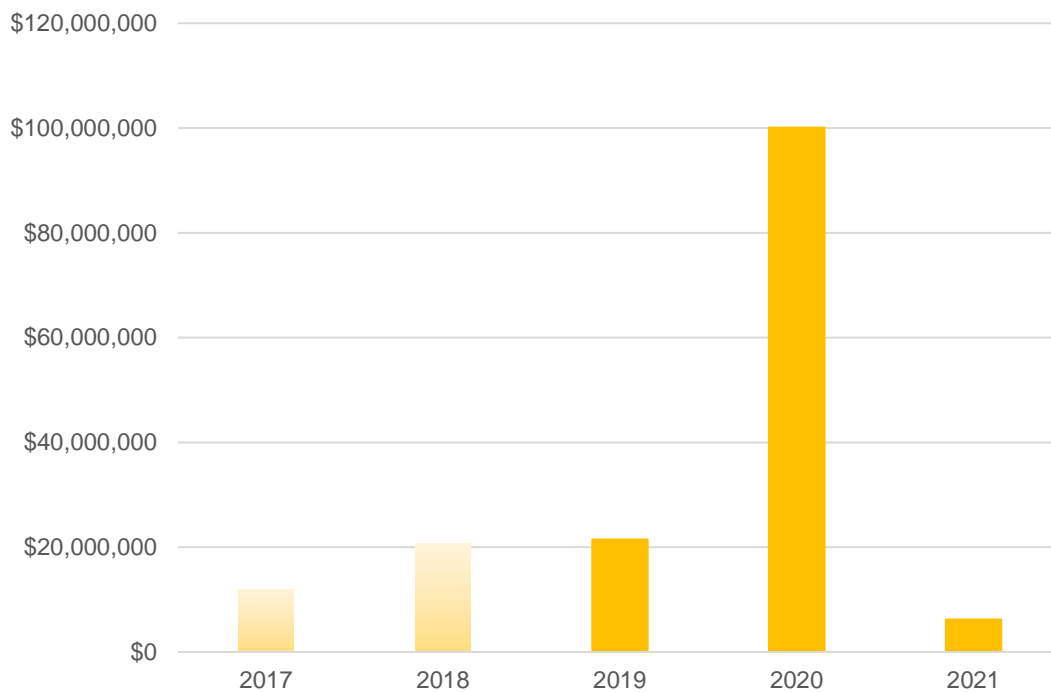
MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

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.

2019 MSP Maintenance/Facility Upgrade Projects



MSP Maintenance/Facility Upgrade Projects

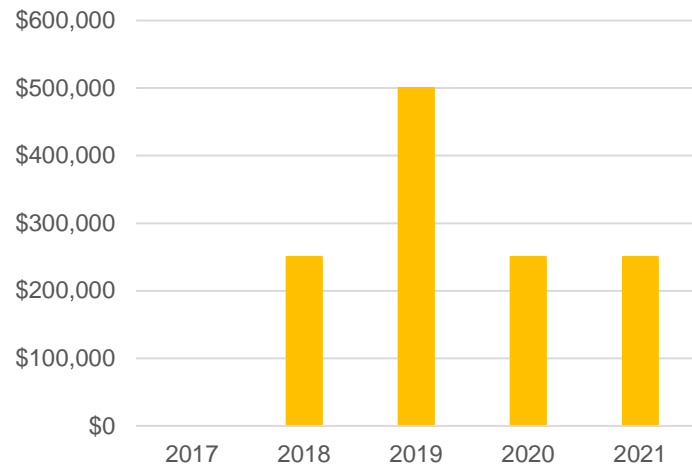
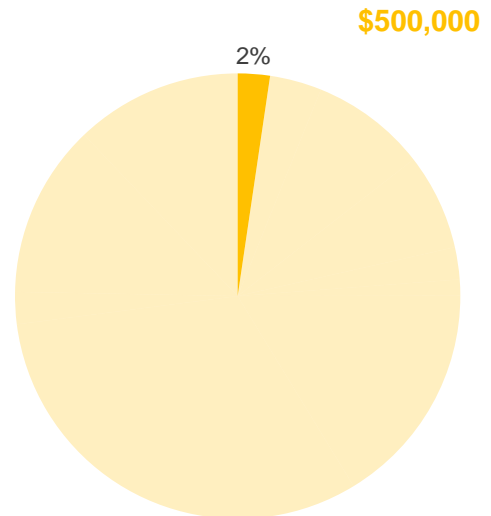


10 – Terminal 1-Lindbergh

ART DISPLAY AREAS

Anticipated funding source: MAC Funds

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. This year's project will support an outdoor Art Park adjacent to the Hotel for permanent and rotating exhibits with public access for travelers and hotel guests.

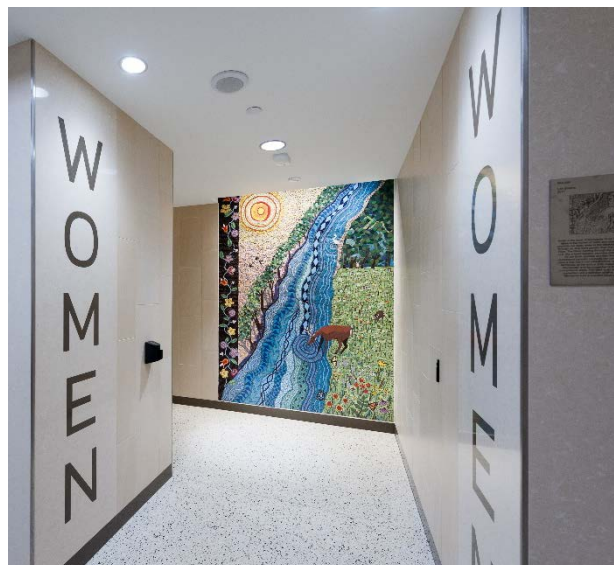
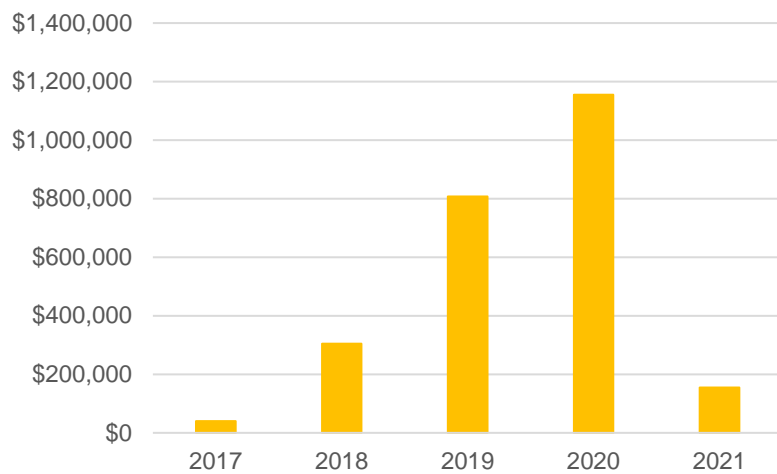
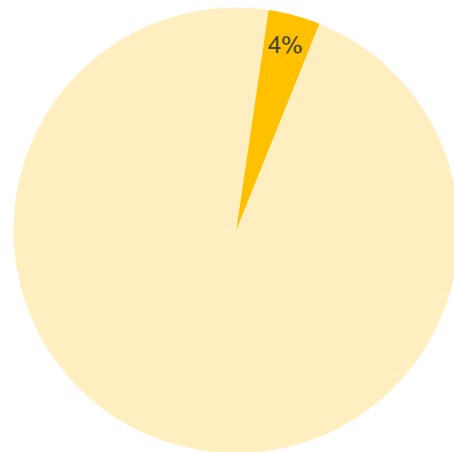


ARTS MASTER PLAN

Anticipated funding source: MAC Funds

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

\$808,000

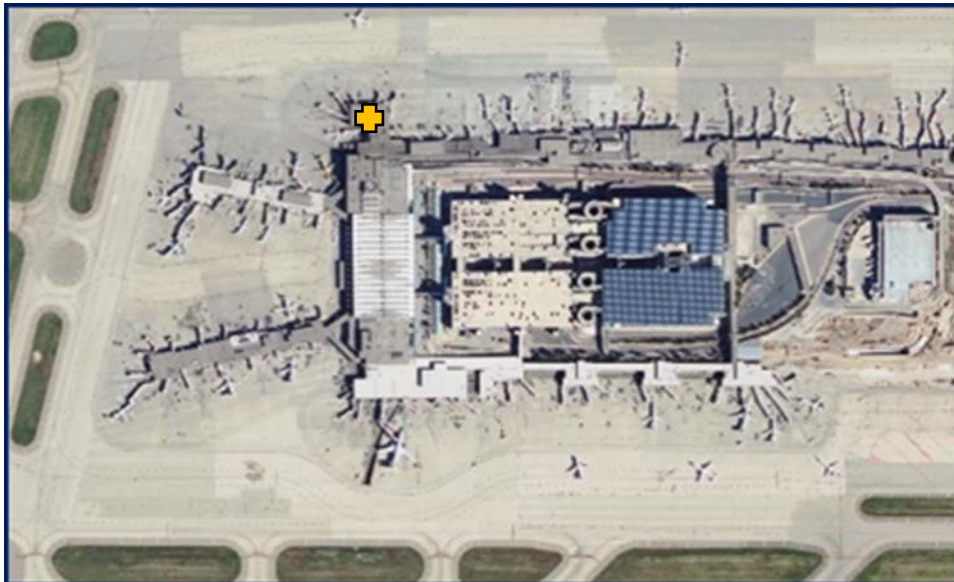
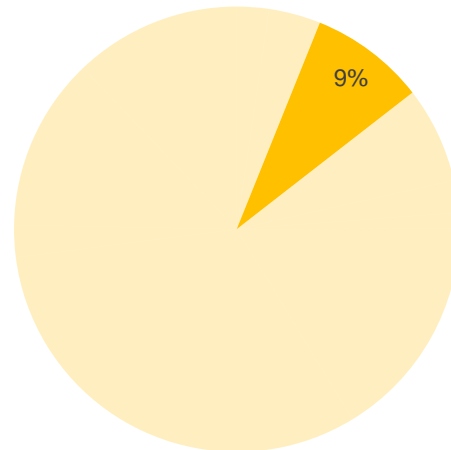


CONCOURSE D HVAC UPGRADE

\$1,800,000

Anticipated funding source: MAC Funds and Airline Repair and Replacement Fund

The ground level of the D Concourse was originally designed as a tug drive system. It has been abandoned and underutilized for many years in this function. As a result the systems in this area are no longer functioning. The space is being utilized as part office, part vehicle bay and part storage area. The mechanical systems need to be upgraded to meet the needs of the space.

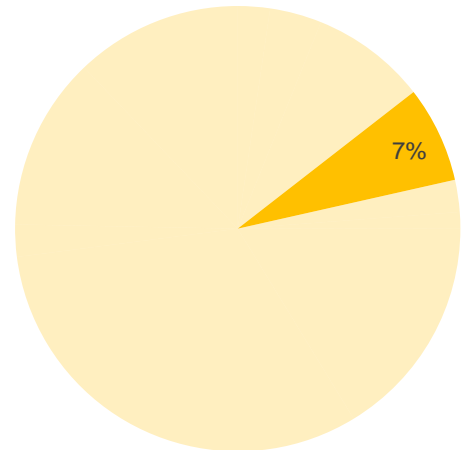


LIGHTING INFRASTRUCTURE TECHNOLOGY AND EQUIPMENT (LITE)

\$1,500,000

Anticipated funding source: Airline Repair and Replacement Fund

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 also change and upgrades will provide for more energy efficient lighting systems.

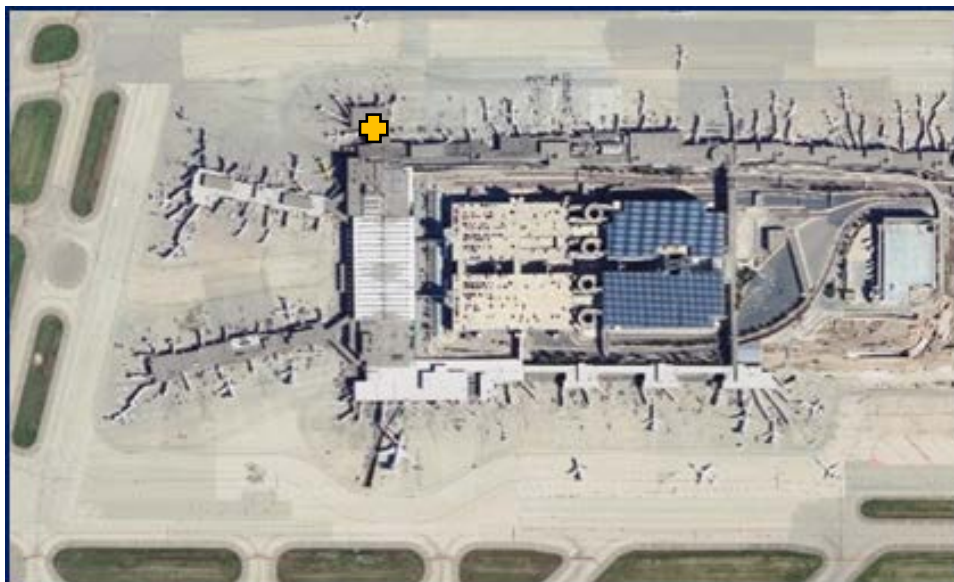
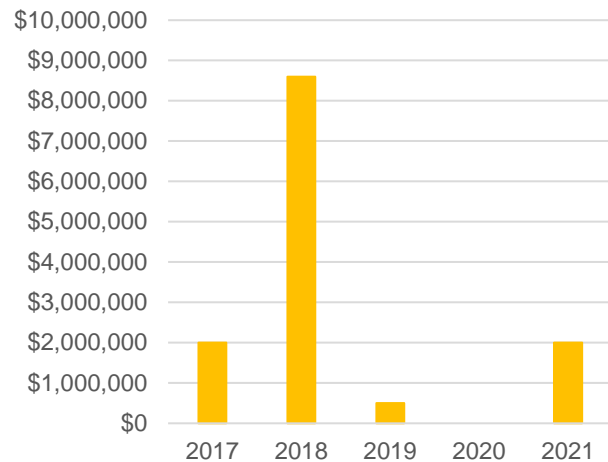
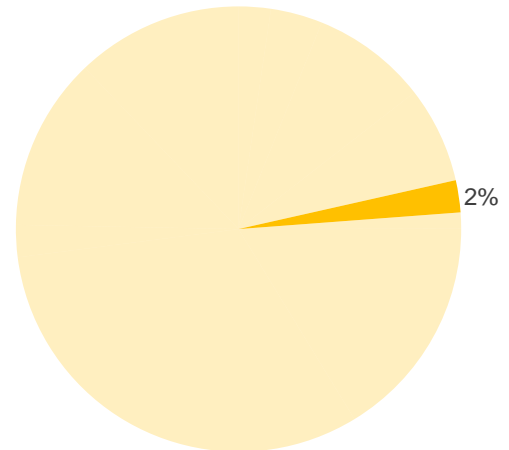


RESTROOM UPGRADE PROGRAM

\$500,000

Anticipated funding source: PFCs

Located near Travelers Assistance Central near Concourse D, the 2019 project will expand an existing 'companion-care/family' restroom into a restroom with an adult changing table and emergency notification system. With changing demographics and the need for facilities to change people of larger stature and weight than a young child, the proposed height-changing electrically-powered changing table will allow side transfer for guests in a wheelchair, and low access for others, allowing safe access, and the correct ergonomic height for changing. The Operational Improvements program will also include changing tables in the arrivals hall program.

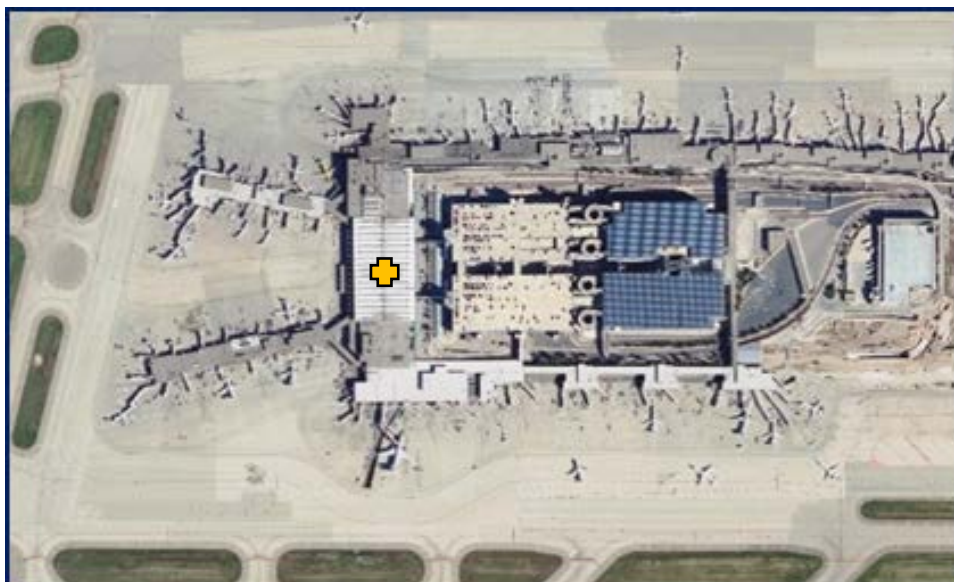
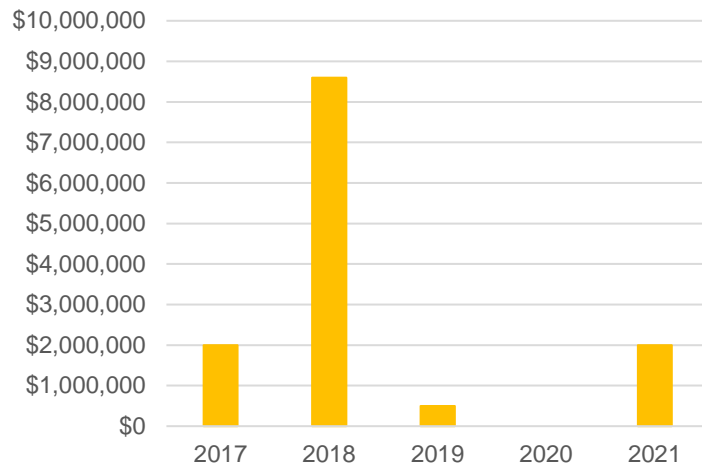
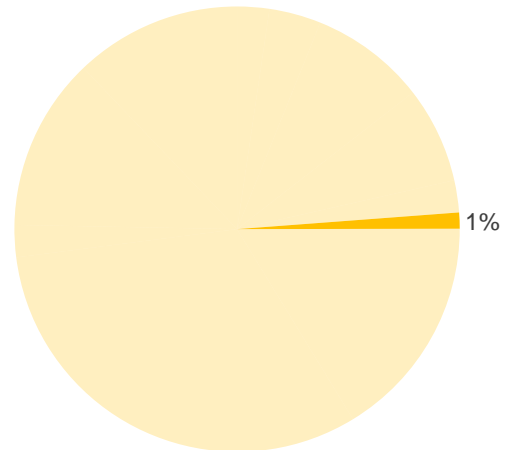


TERMINAL 1-LINDBERGH EMPLOYEE BREAKROOM

\$250,000

Anticipated funding source: MAC Funds

This project will provide a MSP employee break room that will have a quiet area for employees who work multiple shifts on the campus to eat, read, etc. By providing this quality work support area, front line and other employees will be able to rest and eat out of view of the public.



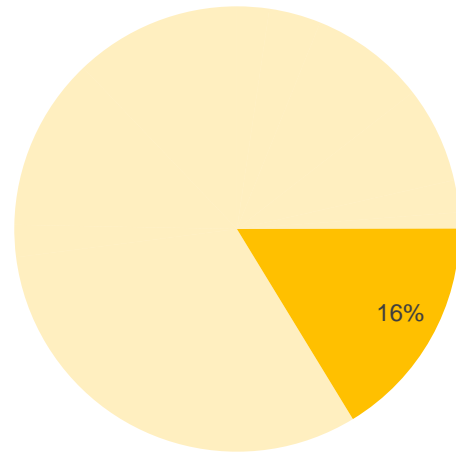
21 – Field and Runway

RUNWAY 4-22 TAXIWAY LIGHTING SYSTEM

\$3,500,000

Anticipated funding source: Federal Grants and General Airport Revenue Bonds-2016

This project provides for the construction of taxiway lighting systems for runway 4-22 between runway 12L-30R and runway 17-35 with lead-in/off centerline lighting on the end connector taxiways. Work includes installation of taxiway edge and centerline lights, cabling, and modifications at the ALEC south building. This will provide the FAA aircraft control tower the ability to convert runway 4-22 into a fully functional taxiway and back to a runway configuration as required. The lighting system will allow for the safe aircraft taxi operations on runway 4-22 during peak operational periods without the risk of a possible pilot caused runway incursion due to confusion of current lighting systems. This will bring this unique operation conversion to be fully compliant with the FAA design requirements for a taxiway operation.

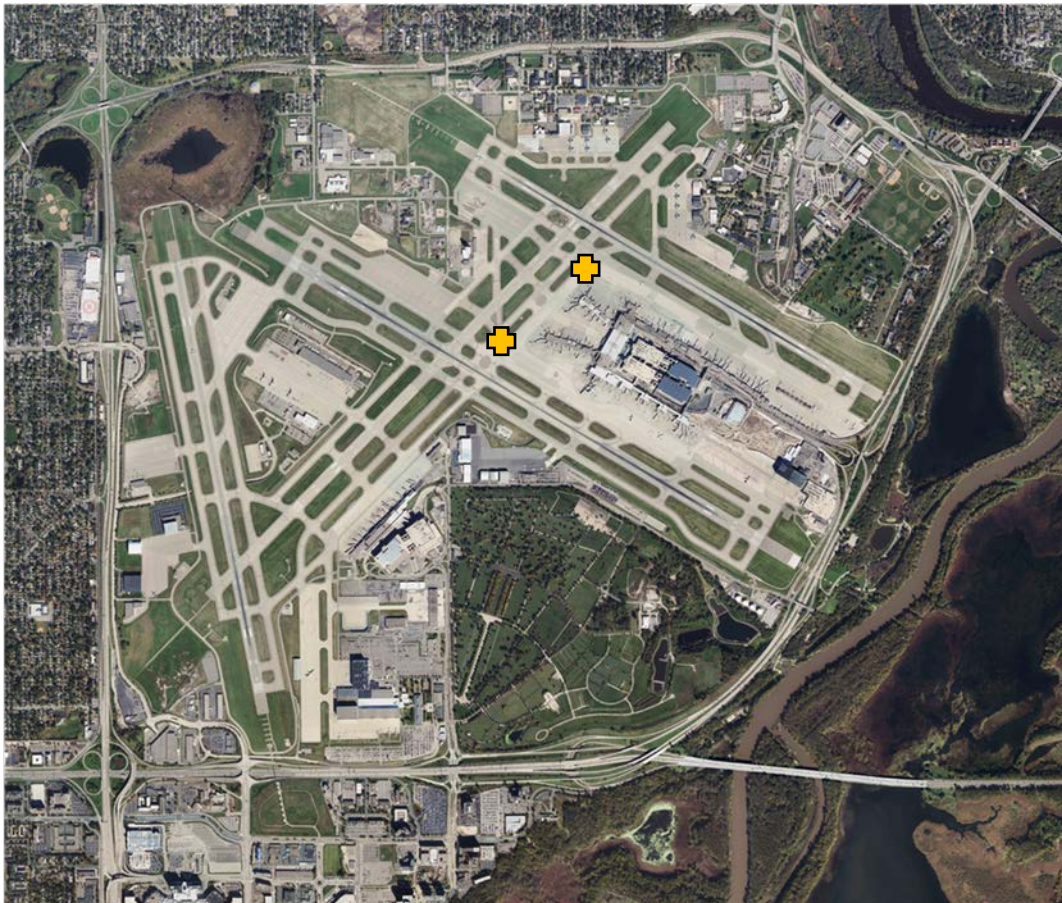
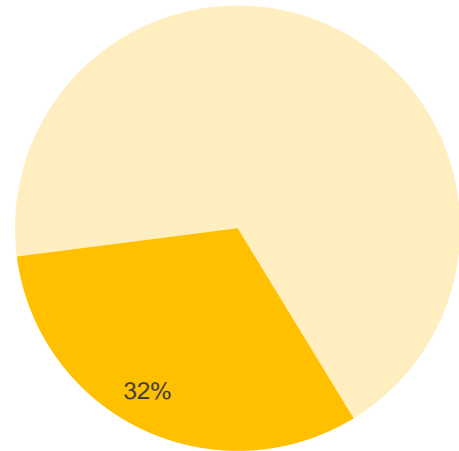


TAXIWAYS BRAVO & QUEBEC CENTERLINE LIGHTS

\$6,800,000

Anticipated funding source: PFCs and Federal Grants

This project provides for the construction of taxiway centerline lighting systems for taxiways Bravo and Quebec, located adjacent to the Terminal 1-Lindbergh aprons through the intersections with taxiway Delta. Work includes removal of existing taxiway centerline reflectors, installation of taxiway centerline lights and conductors, and modifications at the airfield lighting control building.



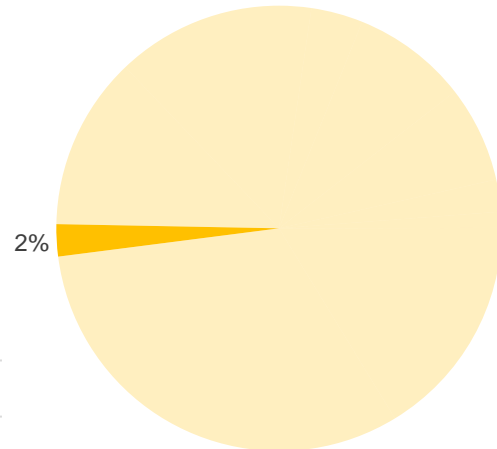
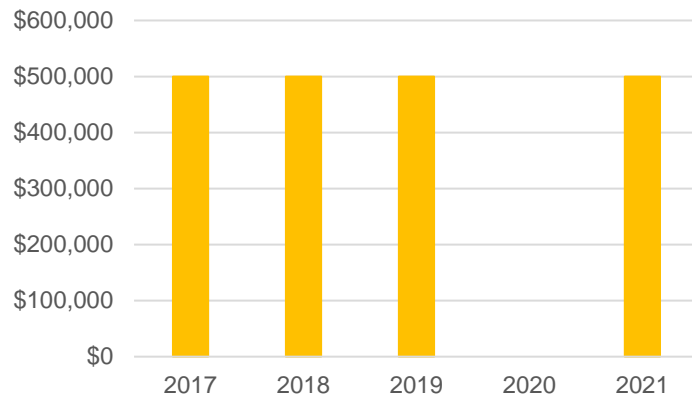
66 – Fire

CAMPUS FIRE PROTECTION

\$500,000

Anticipated funding source: Airline Repair and Replacement Fund

This project is part of a multi-year program to upgrade fire protection systems in various MAC-owned buildings on the MSP campus to meet MAC standards for improved compatibility with current and planned firefighting equipment.



locations to be determined

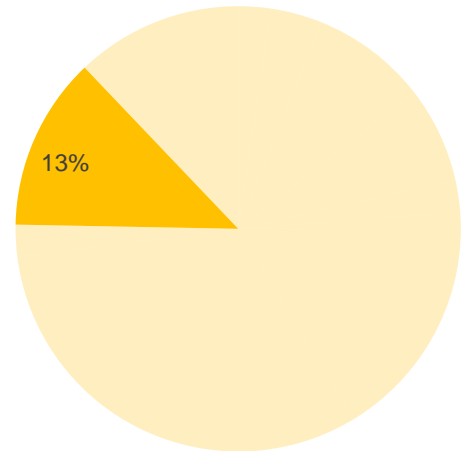


76 – Environment

GROUND SERVICE EQUIPMENT (GSE) ELECTRICAL CHARGING STATIONS \$2,700,000

Anticipated funding source: MAC Funds

This project will purchase and install charging stations for 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-Lindbergh 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.



locations to be determined

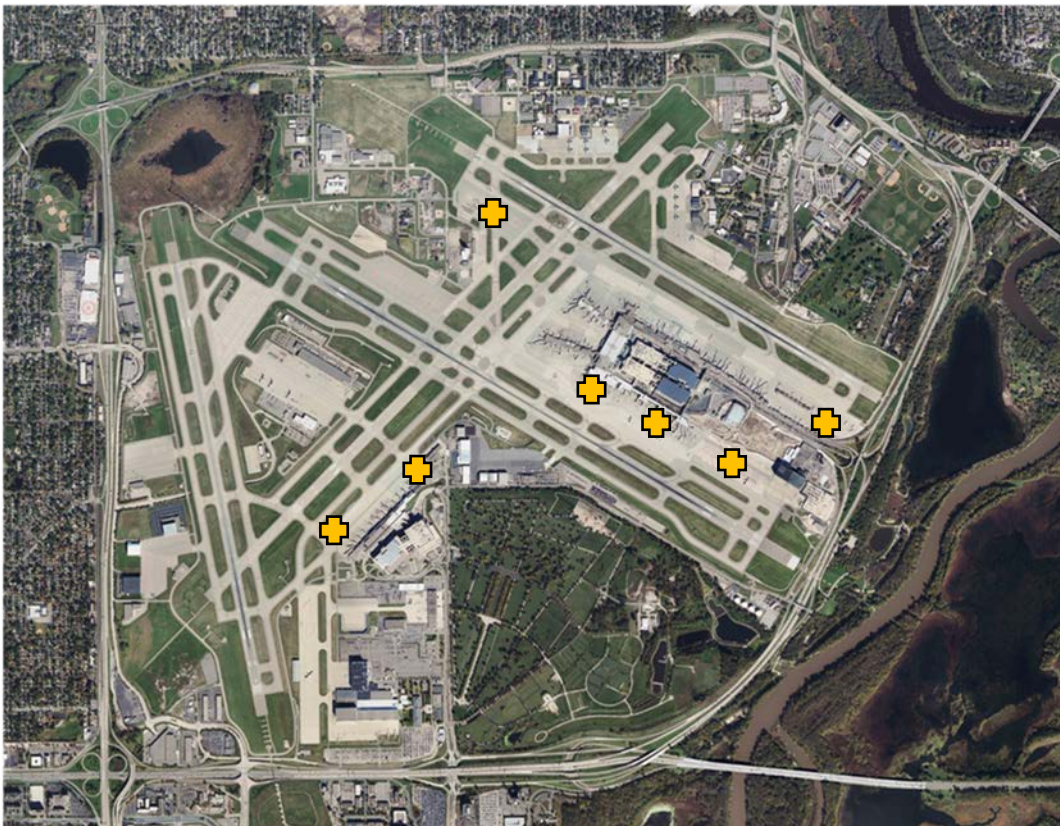
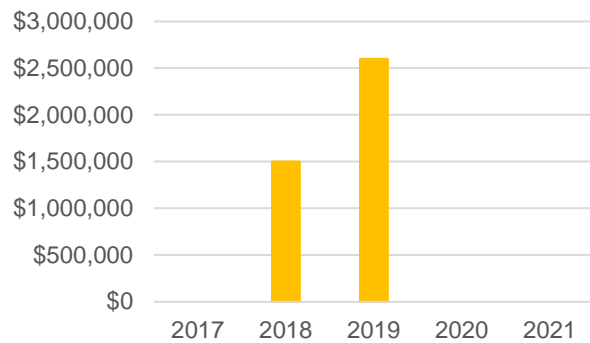
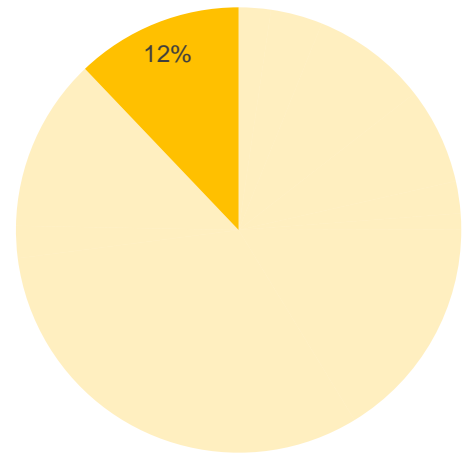


STORM SEWER REHABILITATION

\$2,600,000

Anticipated funding source: General Airport Revenue Bonds-2016

This is the second of a two-year program that supports and complies with the 2017 MAC/MPCA Memorandum of Understanding concerning the MSP Glycol Collection Program. This project provides for cleaning, inspection, and rehabilitation of storm sewers and glycol sewers at various locations where aircraft deicing occurs, to enhance collection and storage of glycol-impacted stormwater resulting from deicing operations.

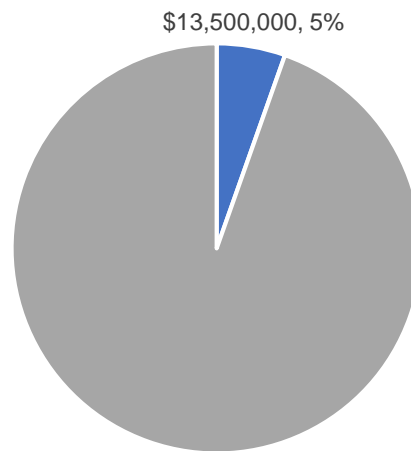


NOISE MITIGATION CONSENT DECREE AMENDMENT

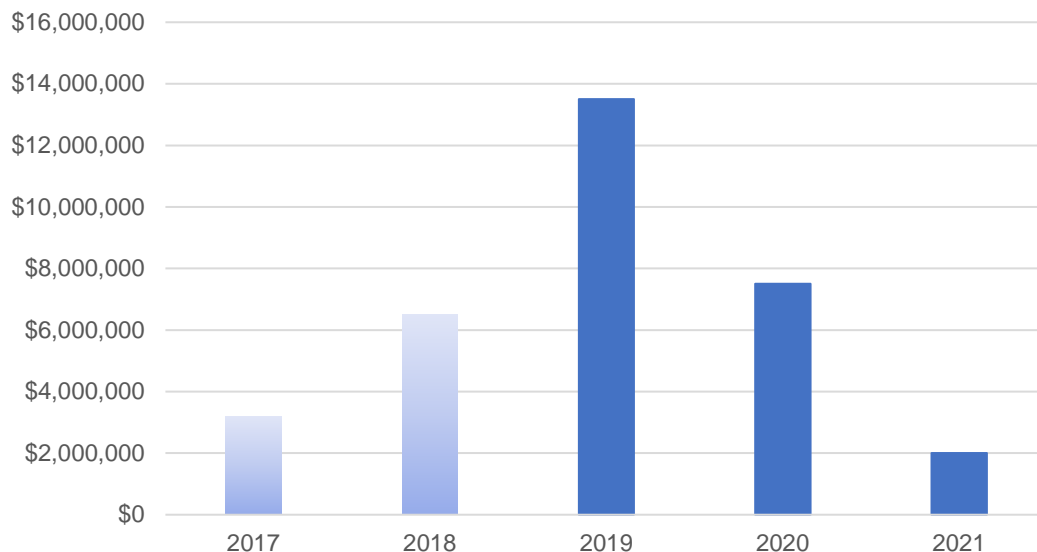
Noise Mitigation Projects are completed in compliance with the Consent Decree First Amendment. It is a residential noise mitigation program that began in March 2014 under the terms of an amended legal agreement (Consent Decree) between the Metropolitan Airports Commission (MAC) and the cities of Richfield, 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.

Anticipated funding source: Direct Loan-Short Term Program

2019 Noise Mitigation Project



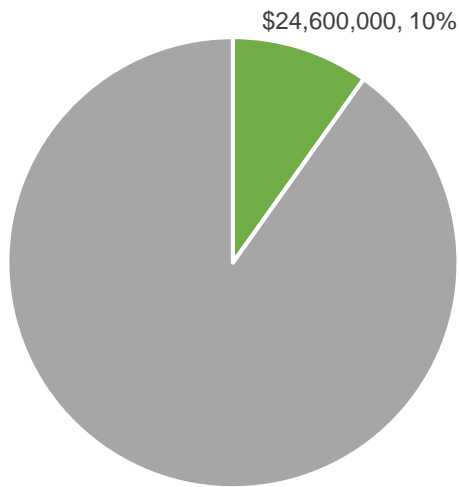
MSP Noise Mitigation Projects



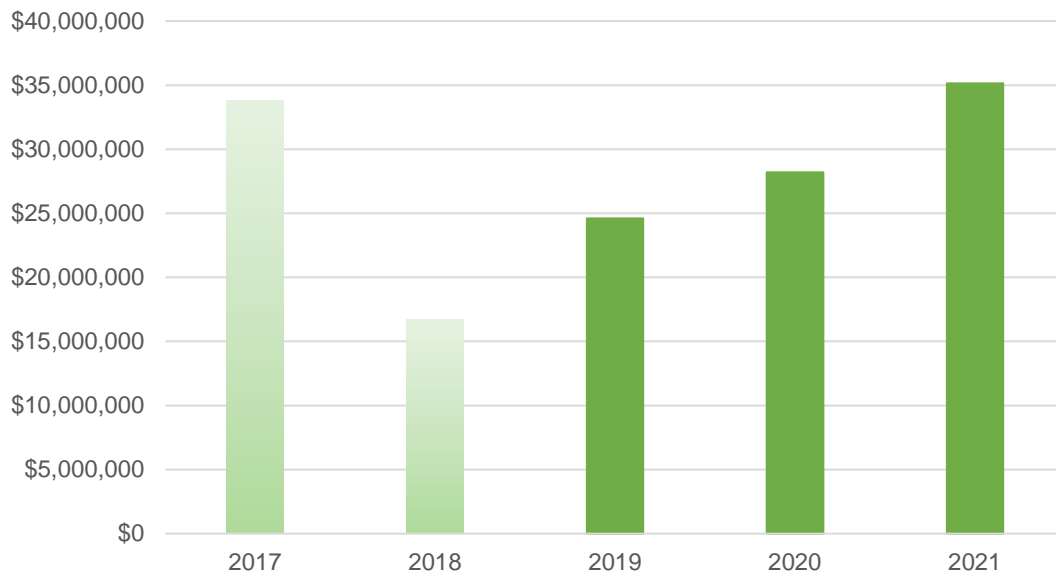
MSP ONGOING MAINTENANCE PROGRAMS

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.

2019 MSP Ongoing Maintenance Programs



MSP Ongoing Maintenance Programs



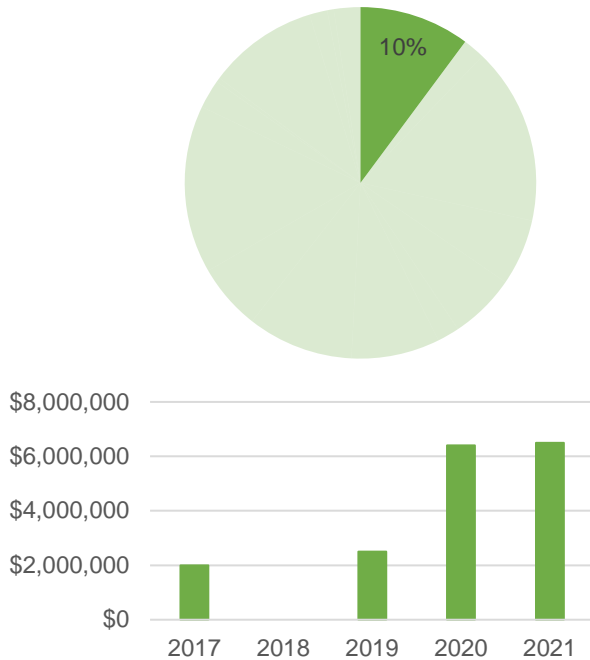
10 – Terminal 1-Lindbergh

AIR HANDLING UNIT REPLACEMENT

Anticipated funding source: General Airport Revenue Bonds-2016

There are existing air handling units serving Terminal 1-Lindbergh 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.

\$2,500,000

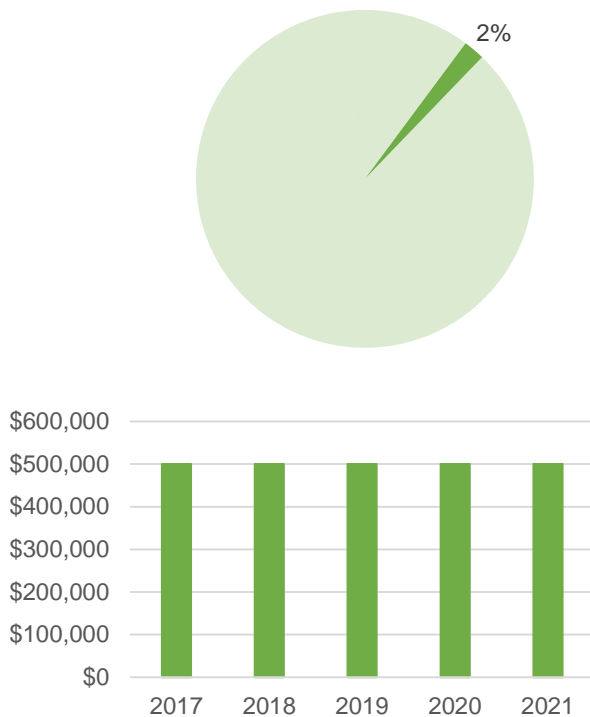


BAGGAGE SYSTEM UPGRADES

Anticipated funding source: Airline Repair and Replacement Fund

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

\$2,500,000

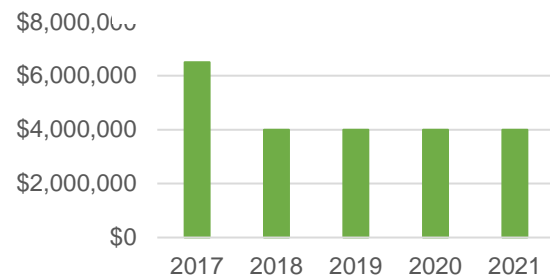
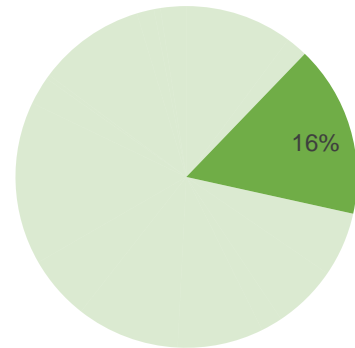


CONCOURSE G REHABILITATION

Anticipated funding source: General Airport Revenue Bonds-2016

This multi-year program will provide operational improvements to the existing concourse over time, including replacing elevators, modifying and replacing structural, electrical and mechanical systems.

\$4,000,000

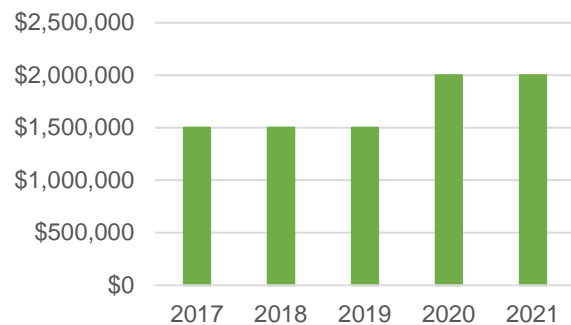
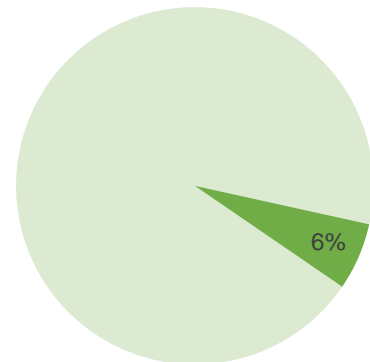


ELECTRICAL INFRASTRUCTURE PROGRAM (EIP)

Anticipated funding source: Airline Repair and Replacement Fund

There are 53 electrical substations that serve the Terminal 1-Lindbergh complex. It is imperative that these substations be inspected, cleaned, and upgraded in order to ensure their continued performance. This is a continuation of a multi-year program that began in 2009.

\$1,500,000

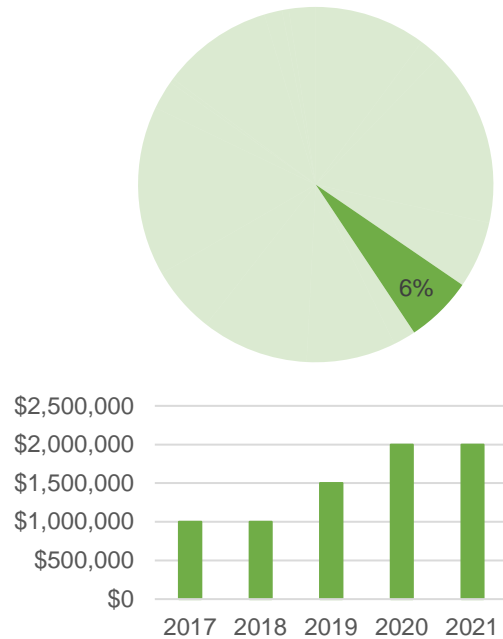


EMERGENCY POWER UPGRADES

\$1,500,000

Anticipated funding source: Airline Repair and Replacement Fund

A study and survey of Terminal 1-Lindbergh 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.

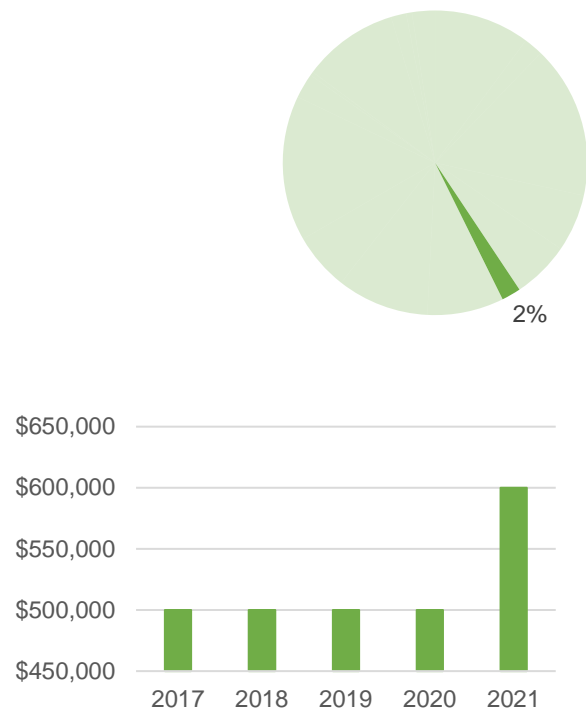


PLUMBING INFRASTRUCTURE UPGRADE PROGRAM

\$500,000

Anticipated funding source: Airline Repair and Replacement Fund

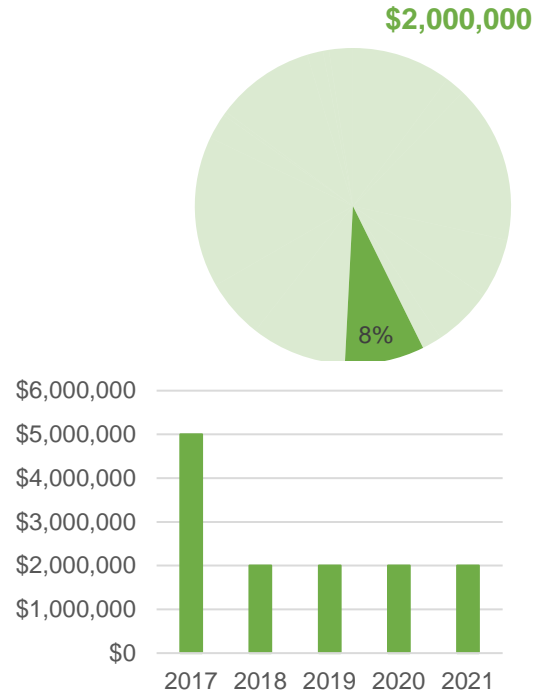
In 2010, MAC staff prepared a preliminary study of the reliability and maintainability of the existing plumbing infrastructure. Portions of the existing plumbing infrastructure serving Terminal 1-Lindbergh are over 40 years old, have systems that are undersized for today's demands, contain isolation 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 2019 project is to continue the replacement of aging plumbing systems.



TERMINAL BUILDING REMEDIATION

Anticipated funding source: General Airport Revenue Bonds-2016

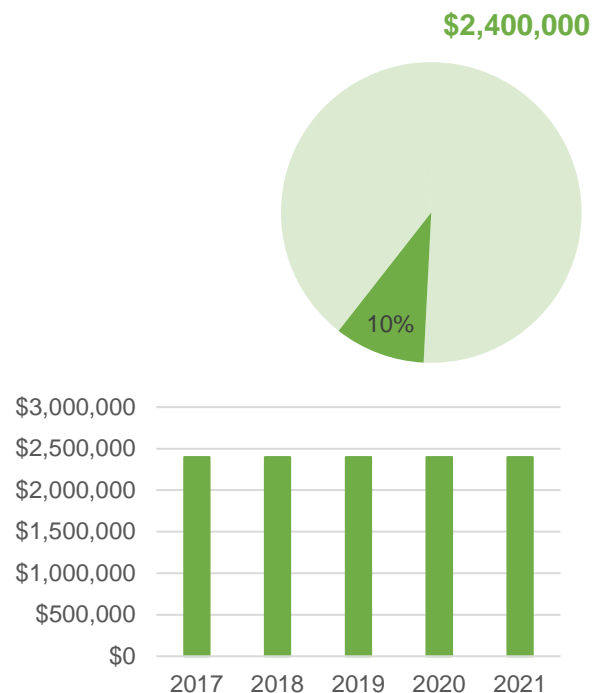
Continual maintenance of the terminal buildings is imperative to passenger comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold and other health issues. Building and concourse envelope issues include curtain wall systems, glazing, sealant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



TERMINAL MISCELLANEOUS MODIFICATIONS

Anticipated funding source: MAC Funds

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 2019.

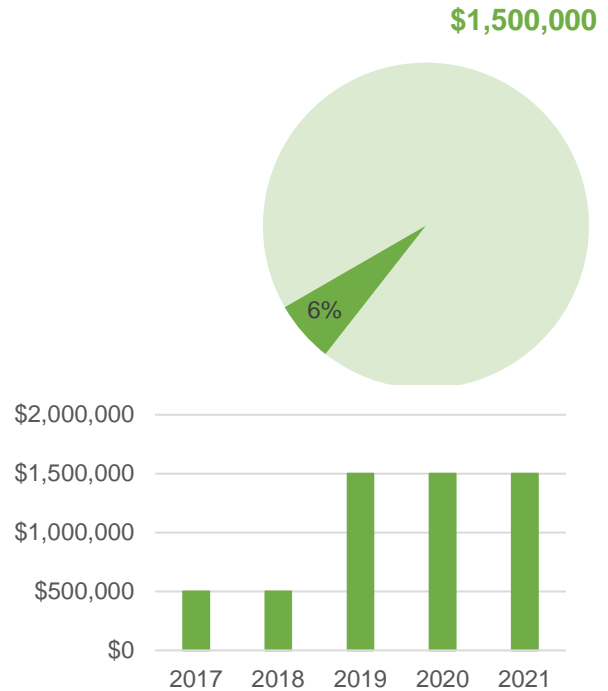


13 – Energy Management Center

EMC PLANT UPGRADES (T1 & T2)

Anticipated funding source: General Airport Revenue Bonds-2016

This multi-year program provides upgrades to the MAC's Energy Management Center (EMC) Boiler and Chiller Plants at both Terminal 1-Lindbergh and Terminal 2-Humphrey. 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.



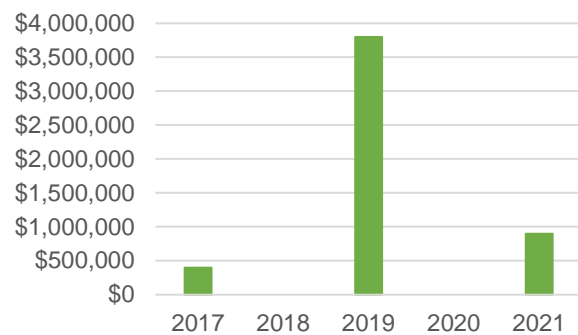
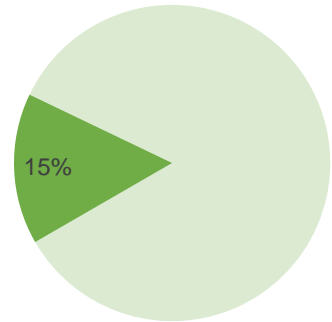
21 – Field and Runway

MISCELLANEOUS AIRFIELD CONSTRUCTION

Anticipated funding source: Federal Grants and General Airport Revenue Bonds-2016

This is an ongoing program to consolidate various items beyond the capabilities of the maintenance personnel, projects too small to be accomplished independently, or to handle airside problems requiring repair which come up unexpectedly. This year's program will also address repairs and maintenance required by the most recent Part 139 inspection.

\$3,800,000

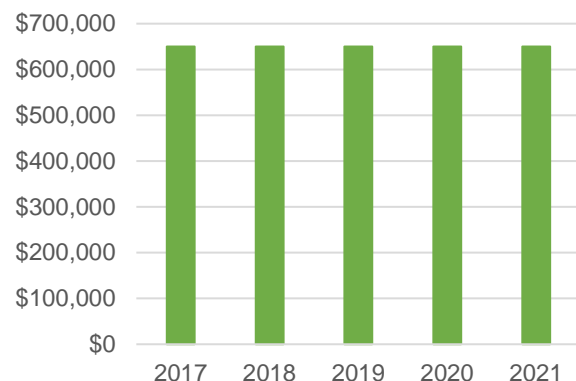
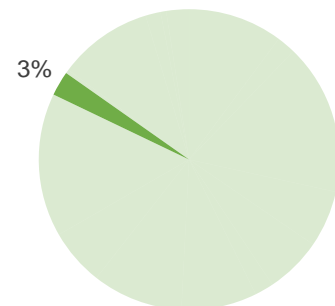


PAVEMENT JOINT SEALING/REPAIR

Anticipated funding source: Airline Repair and Replacement Fund

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.

\$650,000

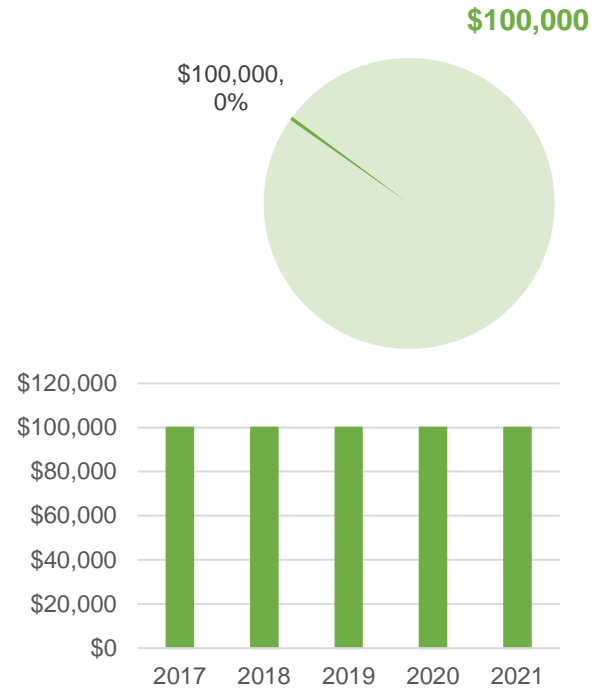


26 – Terminal Roads/Landside

TUNNEL/BRIDGE REHABILITATION

Anticipated funding source: MAC Funds

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.

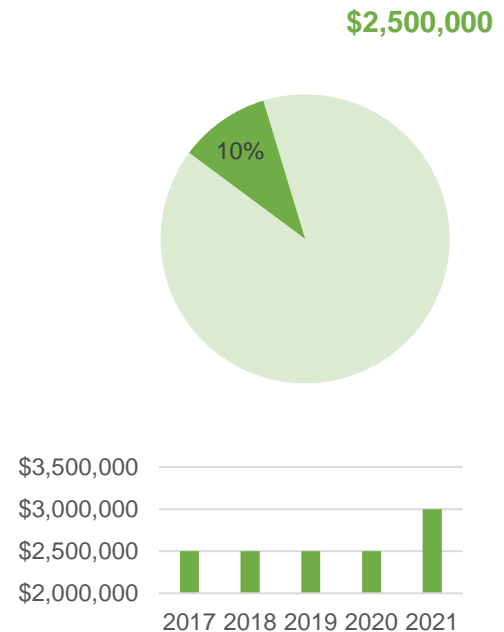


31 – Parking

PARKING STRUCTURE REHABILITATION

Anticipated funding source: MAC Funds

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.

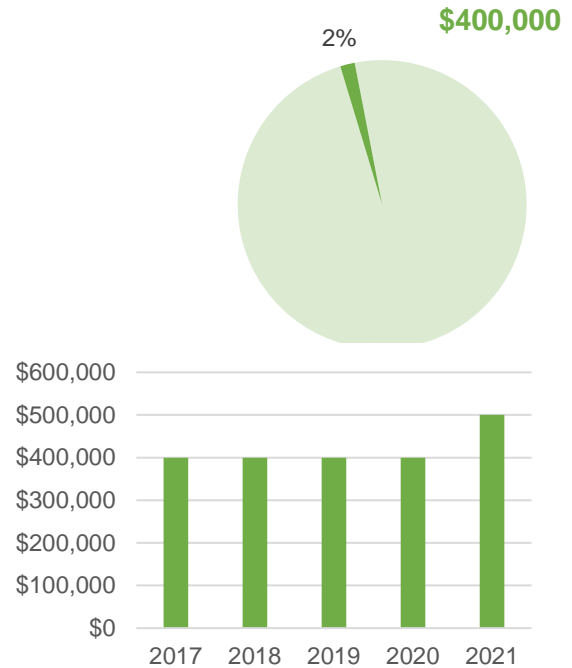


39 – Public Areas/Roads

LANDSIDE PAVEMENT REHABILITATION

Anticipated funding source: MAC Funds

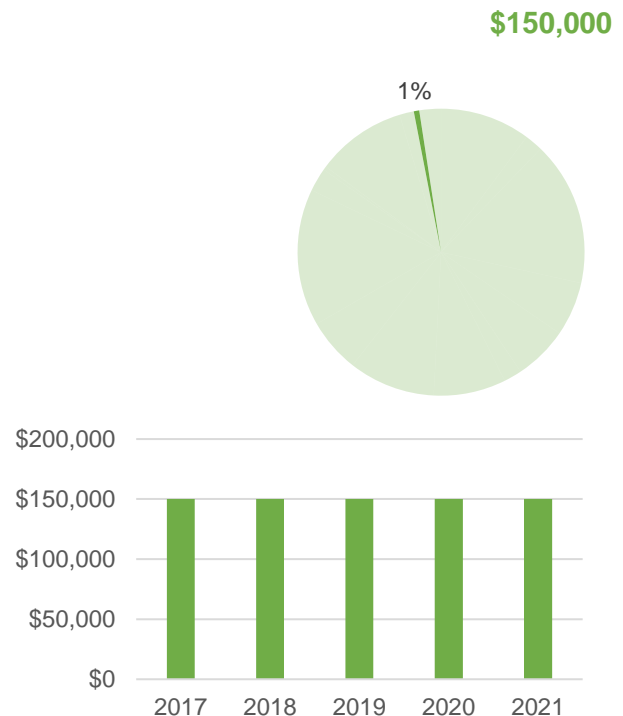
This is an ongoing program to construct or reconstruct bituminous pavements outside of the Air Operations Area (AOA). Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project.



ROADWAY FIXTURE REFURBISHMENT

Anticipated funding source: MAC Funds

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

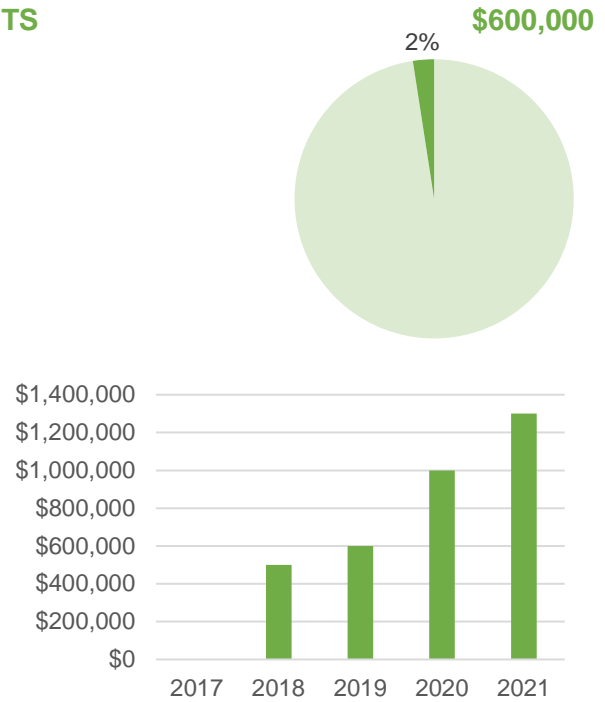


46 – Hangars and Other Buildings

MSP CAMPUS BUILDING ROOF REPLACEMENTS

Anticipated funding source: MAC Funds

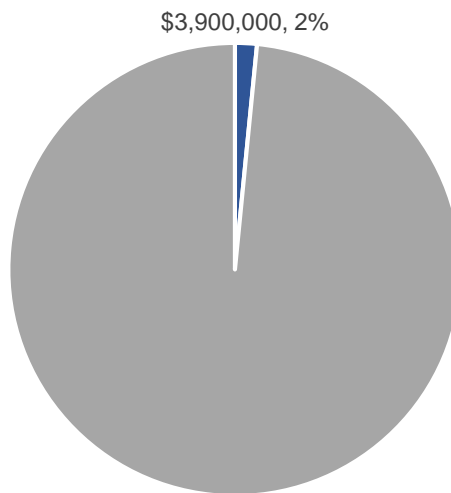
A report has been developed within the MAC that evaluates one-half of the roofs every other year. This on-going program allows these roofs that have been evaluated to be prioritized and programmed for repair. In 2019, the roof of the ALEC North building will be replaced. Emergency repairs may also be needed on some other roofs; this program will provide dollars for such instances.



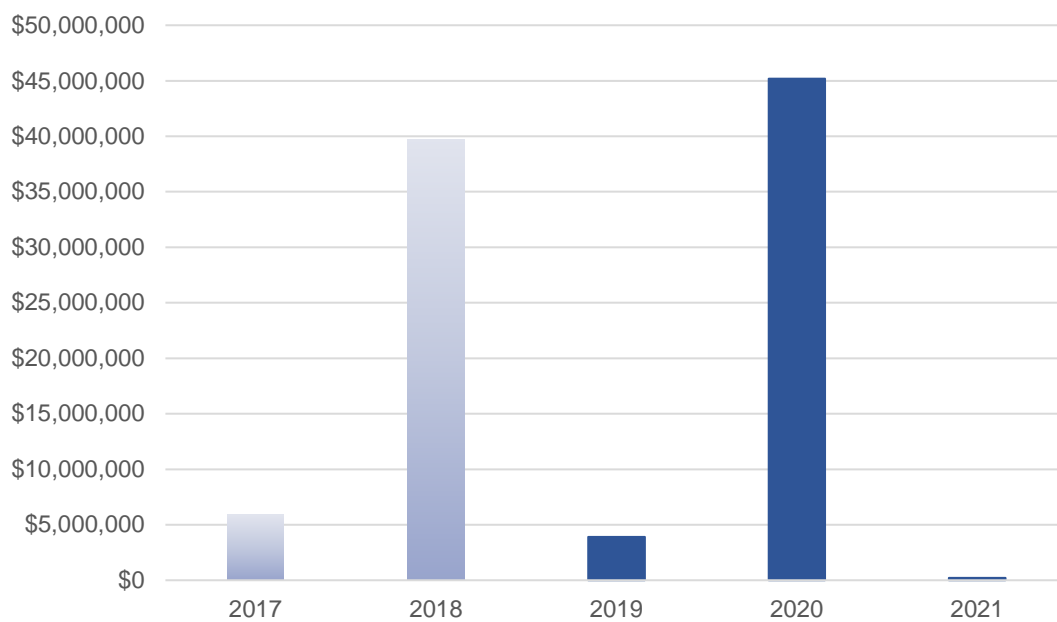
MSP TENANT PROJECTS

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.

2019 MSP Tenant Projects



MSP Tenant Projects



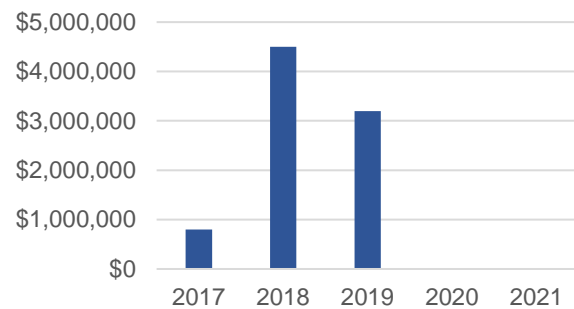
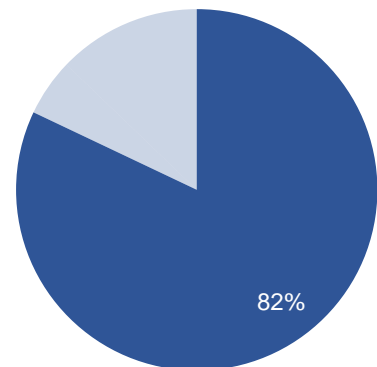
10 – Terminal 1-Lindbergh

CONCESSIONS REBIDS

Anticipated funding source: MAC Funds

This program provides support for required infrastructure to be brought to lease-lines, shell-space for new build-outs, and for other major changes required to implement the concessions rebid programs at Terminal 1-Lindbergh.

\$3,200,000

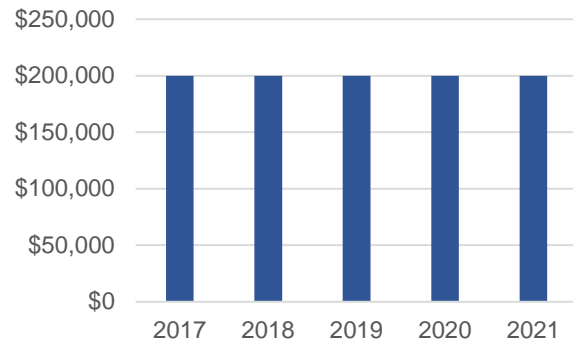
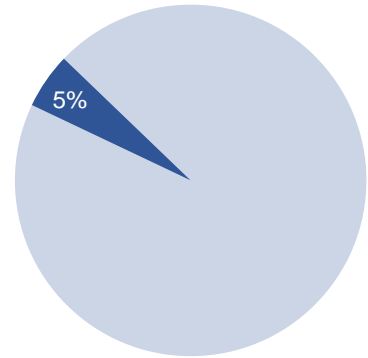


CONCESSIONS UPGRADES/REVENUE DEVELOPMENT

\$200,000

Anticipated funding source: MAC Funds

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.

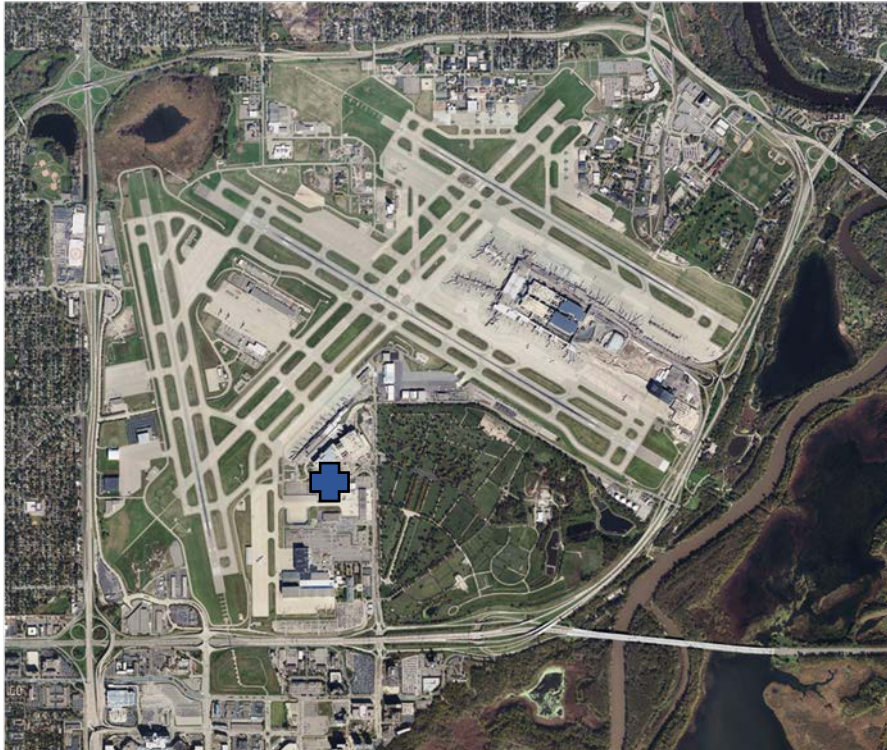
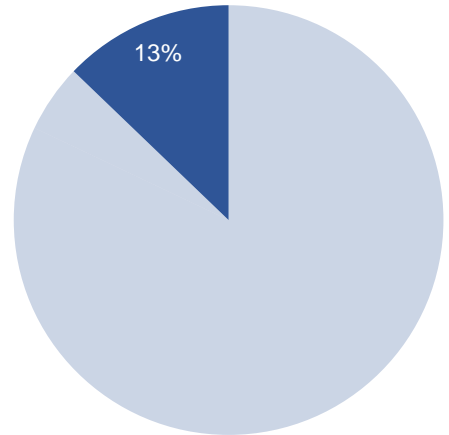


RAC Terminal 2-Humphrey QTA SECURITY ENHANCEMENTS

\$500,000

Anticipated funding source: MAC Funds

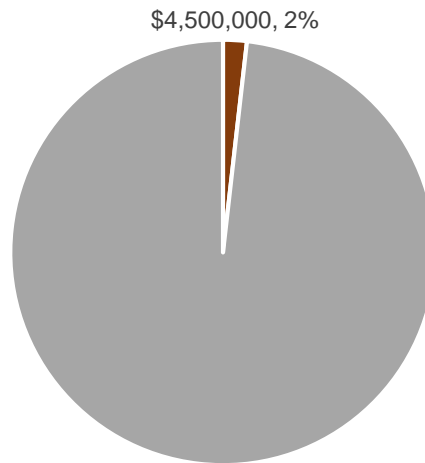
Airport Police and the rental auto companies requested increased security measures be taken to reduce increasing auto thefts. This project will install additional fencing and of metal stop plates in the Terminal 2-Humphrey Quick Turn Around Facility.



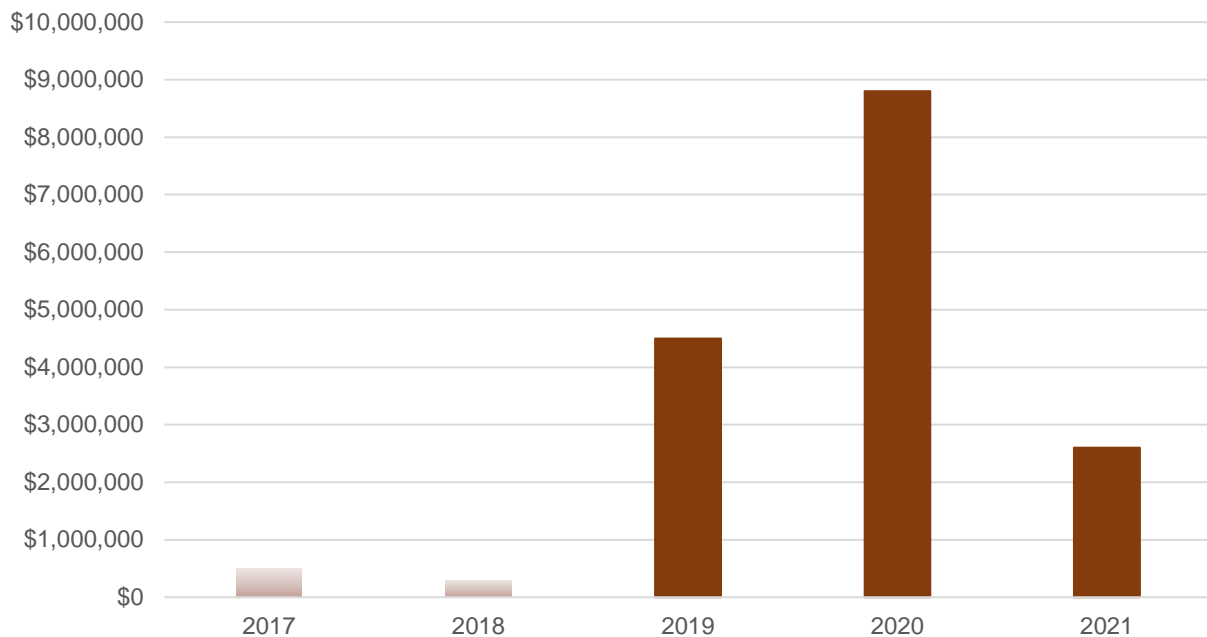
RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

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.

2019 Reliever Airports Long Term Comprehensive Plan Projects



Reliever Airports Long Term Comprehensive Plan Projects



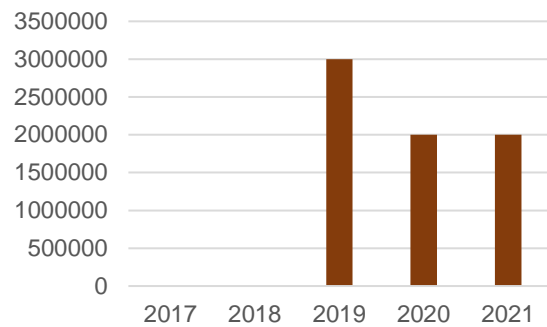
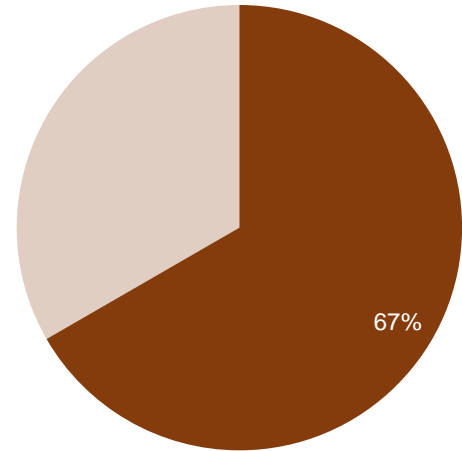
82 – Lake Elmo

21D RUNWAY 14-32 REPLACEMENT

Anticipated funding source: Federal Grants and MAC Funds

The updated long term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. This year's scope includes the first phase of construction for this project, which primarily focuses on roadway realignment to make way for runway construction. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

\$3,000,000



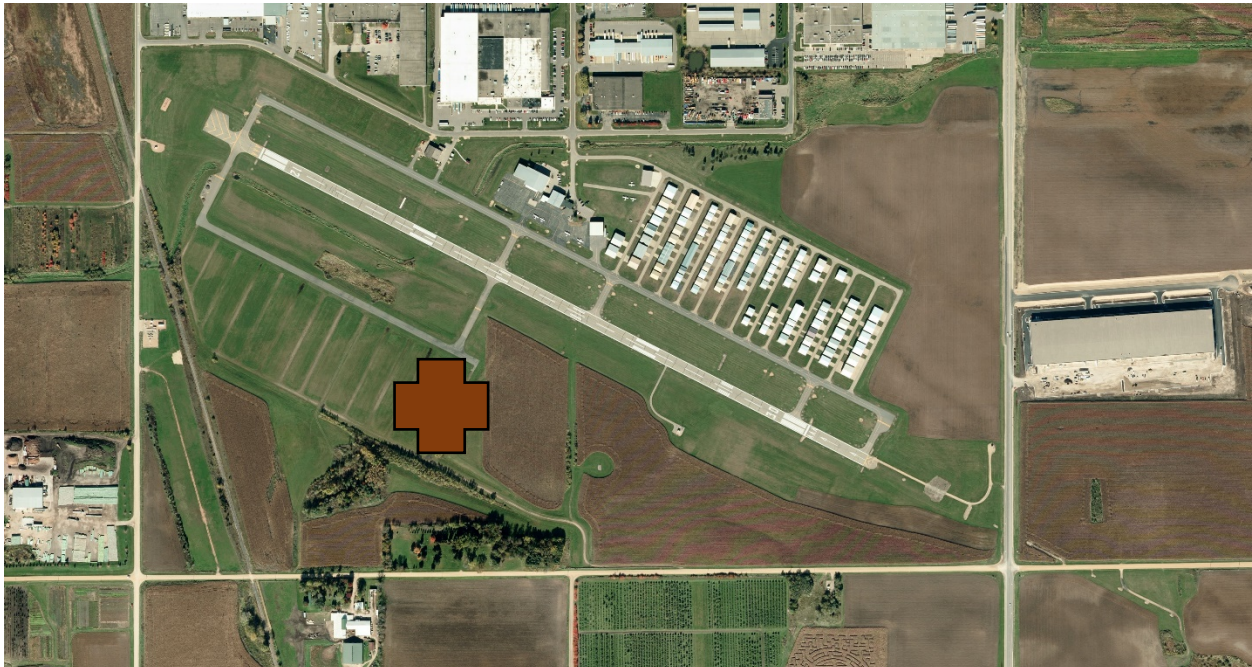
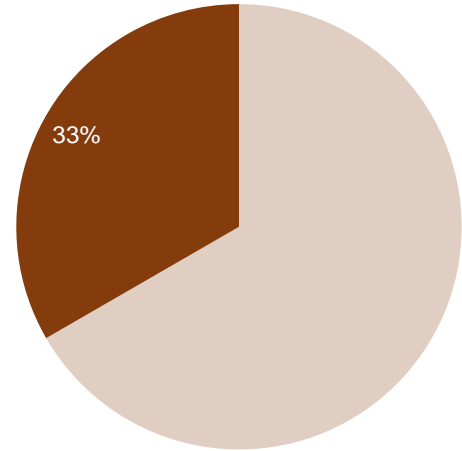
83 – Airlake

LVN SOUTH BUILDING AREA DEVELOPMENT – PHASE 1

\$1,500,000

Anticipated funding source: MAC Funds

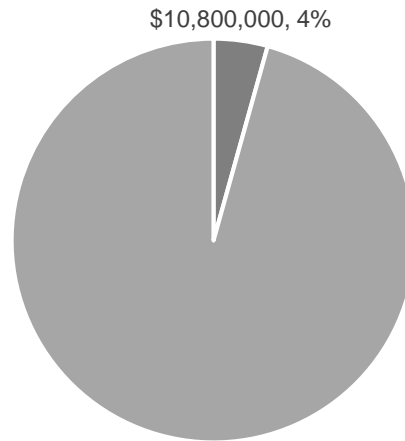
This project includes phase 1 construction of sanitary sewer and water mains and lot services to the south building area. Phase 1 also includes construction of associated taxilanes and the south entrance road.



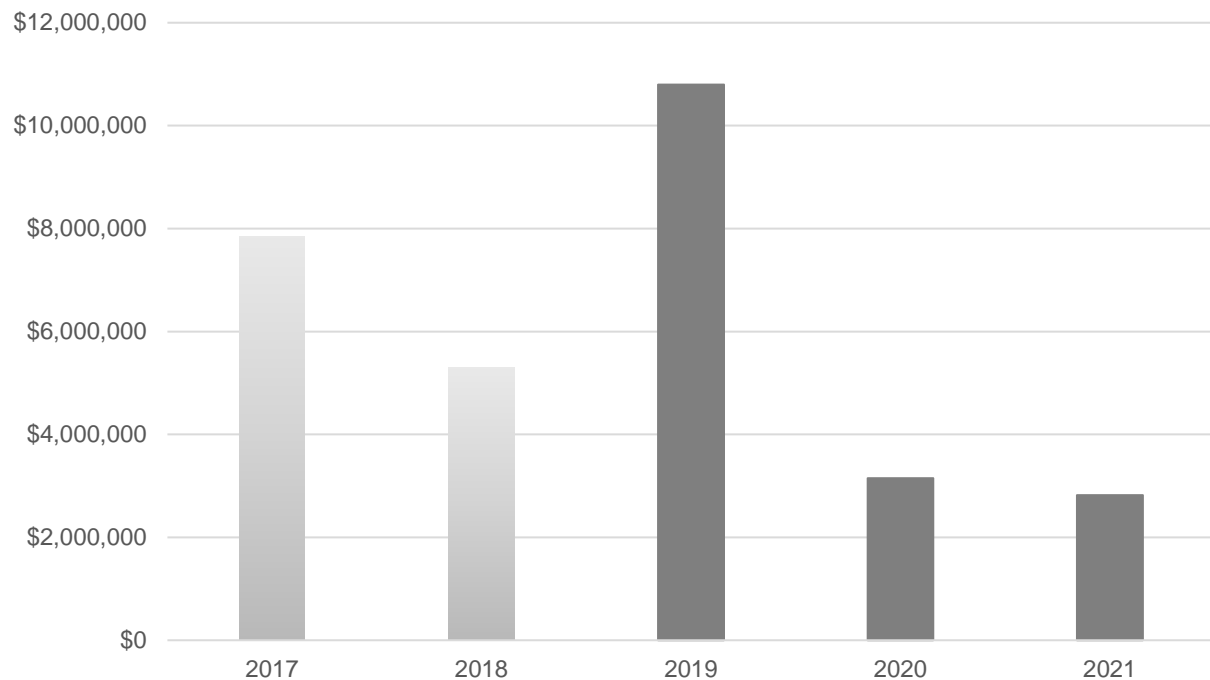
RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

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.

2019 Reliever Airports Maintenance/Facility Upgrade Projects



Reliever Airports Maintenance/Facility Upgrade Projects



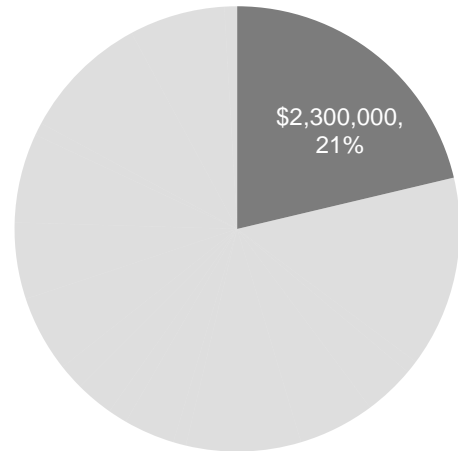
81 – St. Paul

STP MAC BUILDING IMPROVEMENTS

\$2,300,000

Anticipated funding source: MAC Funds

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 will include improvements to the Administration Building, Equipment Storage Building, Maintenance Building, and both Cold Storage Buildings.

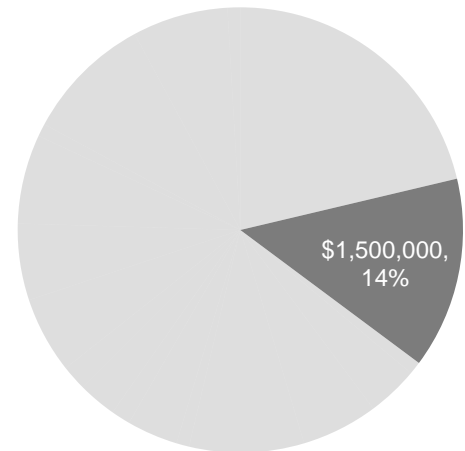


STP STORM SEWER IMPROVEMENTS (PHASE 2)

\$1,500,000

Anticipated funding source: State Grants and MAC Funds

This project includes improvements to the existing storm sewer systems in the West Building Area and infield area between Taxiways Delta and Lima, to improve storm water removal and to address soil and pavement distress in the vicinity of deficient storm sewer structures. The project will also evaluate the potential for improvements to the flood pump stations to maximize efficient removal of storm water from the airfield during flood events.

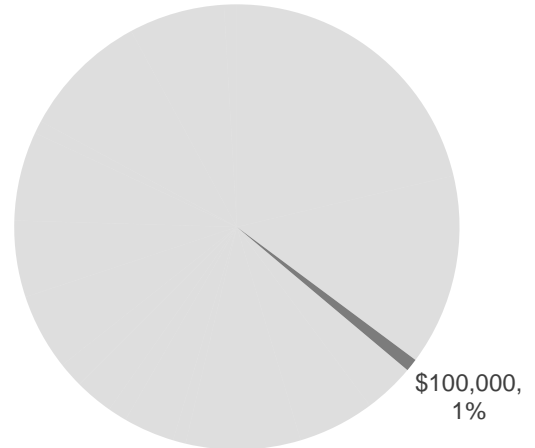


STP UNDERGROUND FUEL STORAGE TANK REPLACEMENT

\$100,000

Anticipated funding source: MAC Funds

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.



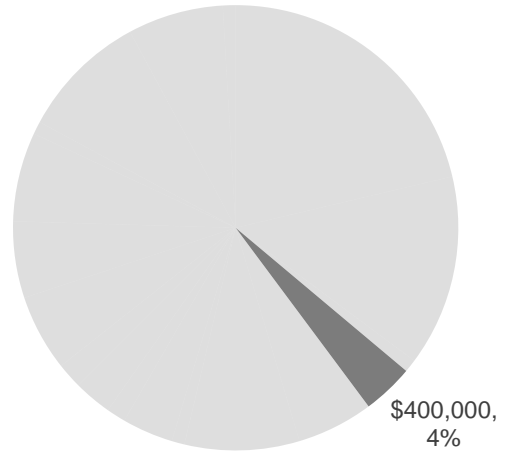
82 – Lake Elmo

21D MAC BUILDING IMPROVEMENTS

\$400,000

Anticipated funding source: MAC Funds

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings. This year's project will include improvements to the MAC Maintenance Building.

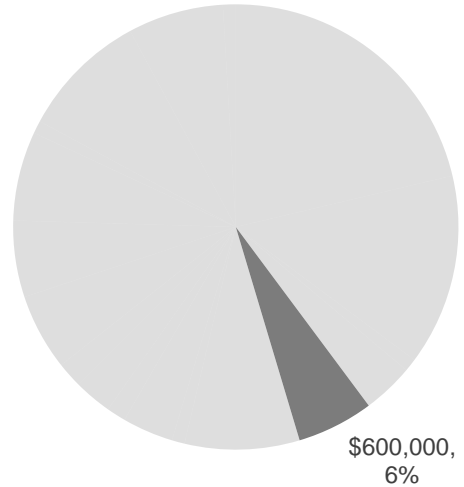


21D PARALLEL TAXIWAYS RECONSTRUCTION

\$600,000

Anticipated funding source: Federal Grants and MAC Funds

This project is part of an ongoing effort 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 Lake Elmo Airport suffers from poor subgrade materials, which contribute to the overall deterioration of pavements. This project includes the full-depth reconstruction of the oldest portions of Taxiway Alpha and Bravo not included in previous projects.



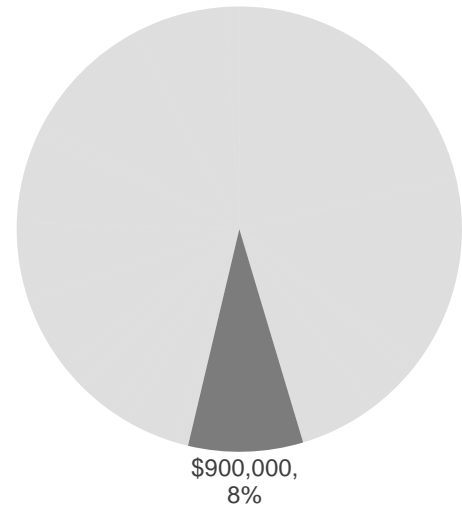
21D TAXILANES – SOUTH BUILDING AREA PAVEMENT REHAB

\$900,000

Renamed from Alleyways – South Building Area Pavement Rehab

Anticipated funding source: MAC Funds

This project is part of an ongoing effort 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. This project includes rehabilitation of taxilanes in the South Building Area.

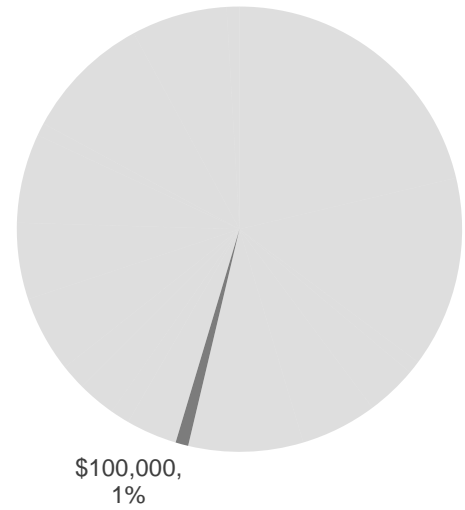


21D UNDERGROUND FUEL STORAGE TANK REPLACEMENT

\$100,000

Anticipated funding source: MAC Funds

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.



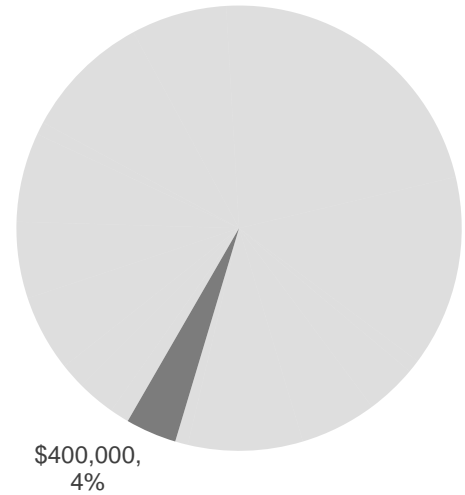
83 – Airlake

LVN MAC BUILDING IMPROVEMENTS

\$400,000

Anticipated funding source: MAC Funds

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings. This year's project will include improvements to the MAC Maintenance Building.

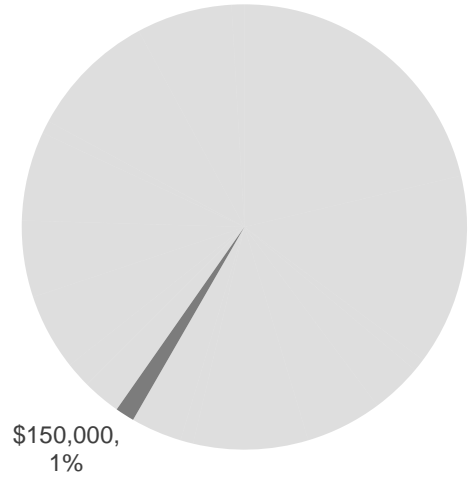


LVN PLANE WASH PAD

\$150,000

Anticipated funding source: MAC Funds

This project includes the construction of a designated airplane wash pad.

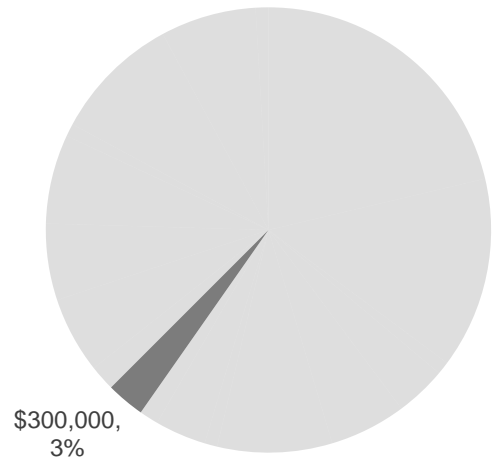


LVN PUBLIC RESTROOM FACILITY

\$300,000

Anticipated funding source: MAC Funds

This project includes the construction of a tenant-use restroom facility on the north side of the airport.



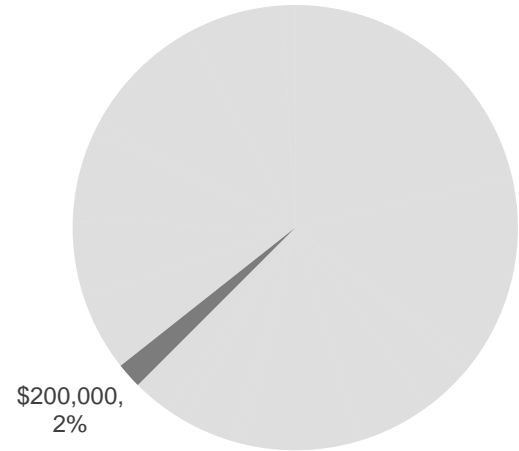
84 – Flying Cloud

FCM EXECUTIVE AVIATION BUILDING IMPROVEMENTS

\$200,000

Anticipated funding source: MAC Funds

This project is to complete the work associated with repurposing the Executive Aviation building for MAC use. Work to be completed includes creating meeting space, equipment access to/from the building and airfield and other miscellaneous work items.

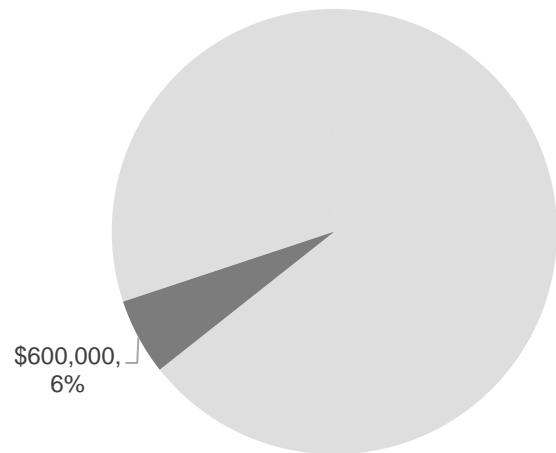


FCM TAXIWAY D PAVEMENT REHABILITATION

\$600,000

Anticipated funding source: Federal Grants and MAC Funds

This project is part of an ongoing effort 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. This project includes rehabilitation of Taxiway Delta.

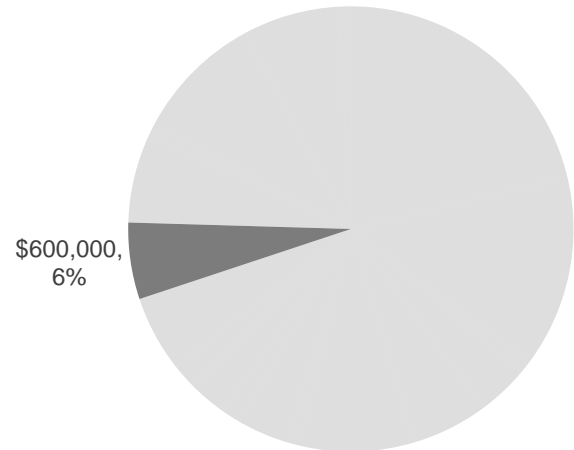


FCM TAXIWAY E PAVEMENT REHABILITATION

\$600,000

Anticipated funding source: Federal Grants and MAC Funds

This project is part of an ongoing effort 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. This project includes rehabilitation of Taxiway Echo.



85 – Crystal

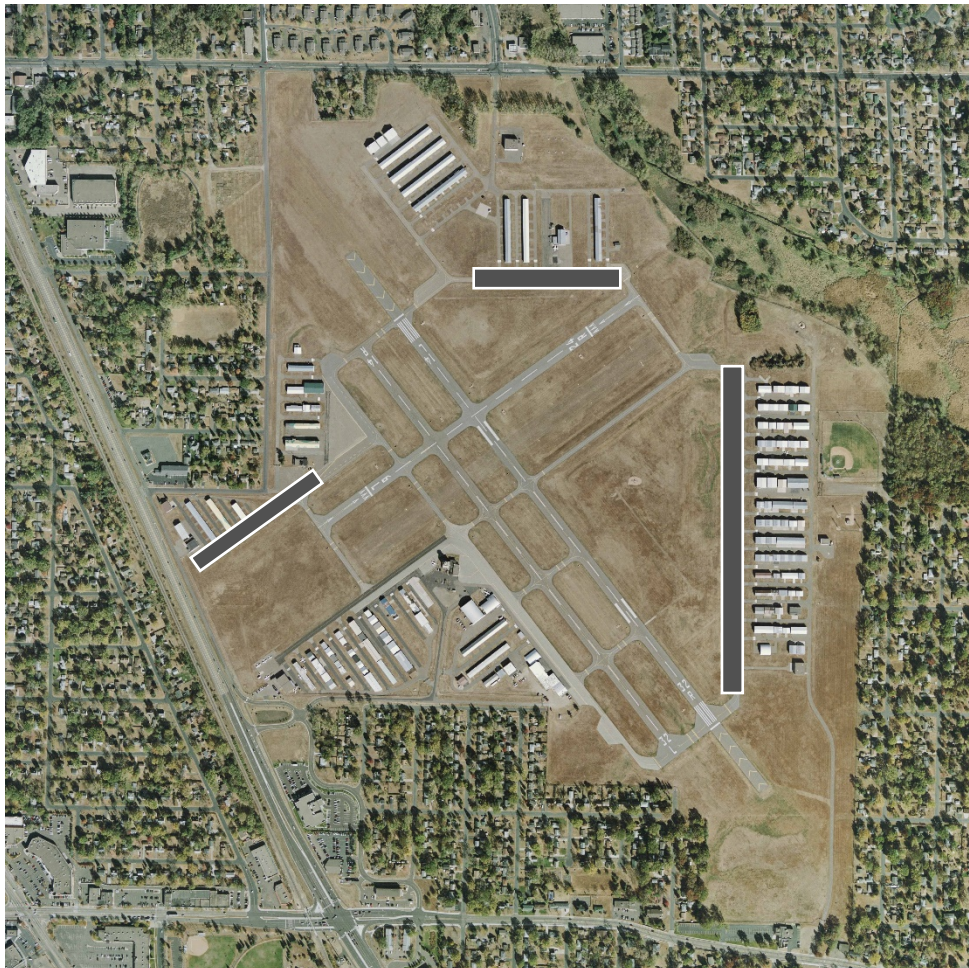
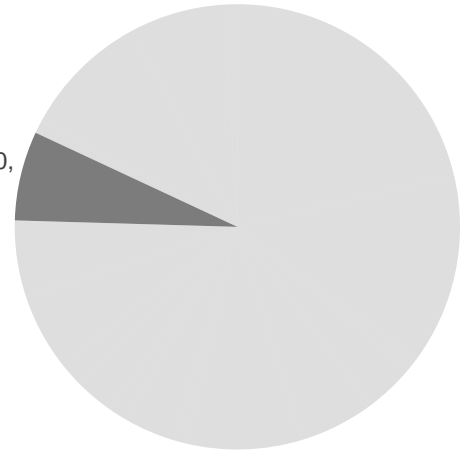
MIC TAXIWAYS PAVEMENT REHABILITATION

\$700,000

Anticipated funding source: Federal Grants and MAC Funds

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. This project includes the rehabilitation of the taxiway or portions of taxiways in most need of repair. 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.

\$700,000,
6%



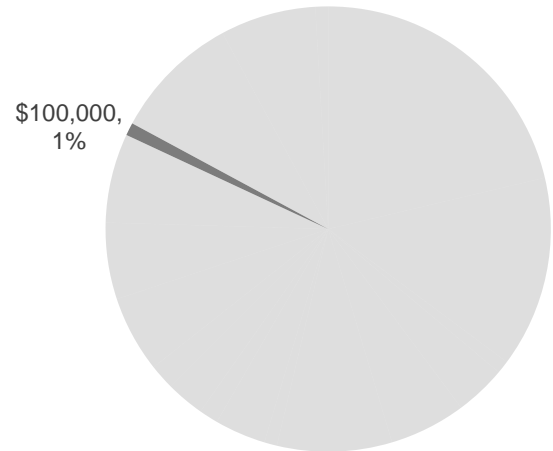
86 – Anoka County - Blaine

ANE OBSTRUCTIONS REMOVAL

\$100,000

Anticipated funding source: MAC Funds

This project will address identification and removal of obstructions to the runway approach surfaces.



Locations to be determined following a survey of all four runway ends.

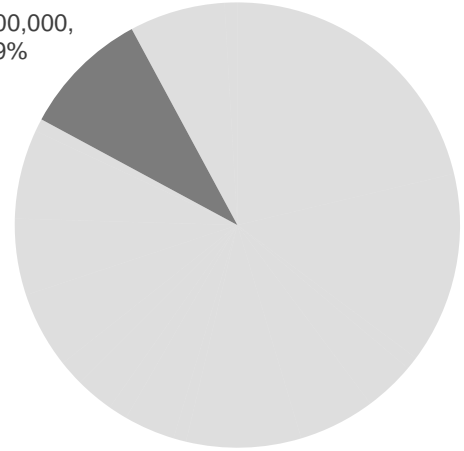


ANE SOUTH SERVICE ROAD & EAST LANDSIDE ROAD PAVEMENT RECONSTRUCTION \$1,000,000

Anticipated funding source: Federal Grants and MAC Funds

This is an ongoing effort to rehabilitate airport pavements through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes the rehabilitation of the airport service road connecting the east and west building areas.

\$1,000,000,
9%



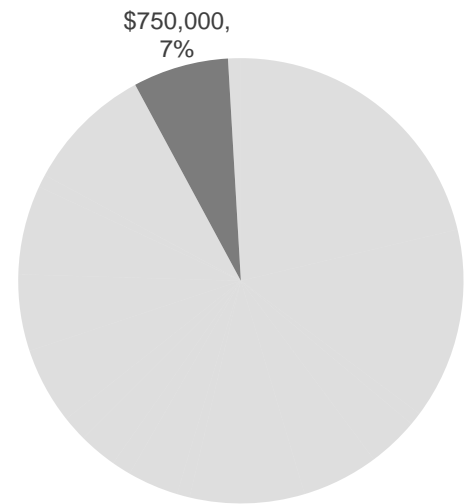
ANE TAXILANES PAVEMENT RECONSTRUCTION

\$750,000

Renamed from Alleyways Pavement Reconstruction

Anticipated funding source: MAC Funds

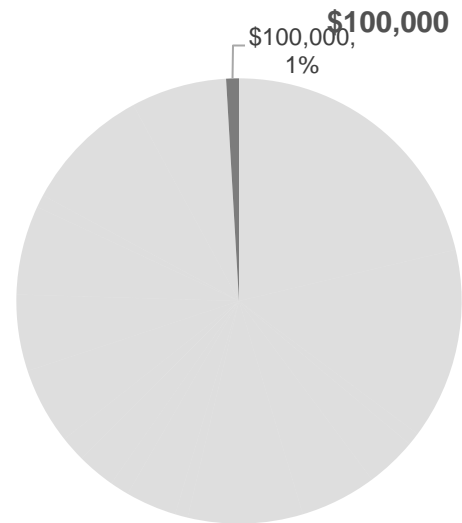
This is an ongoing program to reconstruct aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes rehabilitation of taxilanes in the West Building Area.



ANE UNDERGROUND STORAGE TANK REPLACEMENT

Anticipated funding source: MAC Funds

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.



MEMORANDUM

TO: Planning, Development and Environment Committee

FROM: Bridget M. Rief – Vice President, Planning and Development (725.8371)

SUBJECT: 2019-2025 CAPITAL IMPROVEMENT PROGRAM PUBLIC HEARING -
ASSESSMENT OF ENVIRONMENTAL EFFECTS

DATE: October 28, 2018

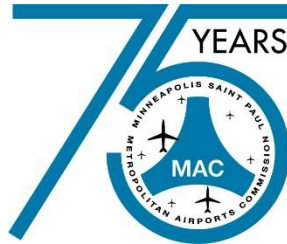
At the September 2018 Commission meeting, a public hearing related to the Assessment of Environmental Effects (AOEE) for the 2019-2025 MAC Capital Improvement Program (CIP) was authorized and the members of the Planning, Development and Environment Committee were appointed as the hearing officers. This hearing will take place at the November 5, 2018, Planning, Development and Environment Committee meeting.

The AOEE evaluates the cumulative environmental effects of the projects included in the 7-year CIP at each of the Commission's airports. The document has been available on MAC's website for public review since October 8, 2018. The website page where it is located is:

<http://www.metroairports.org/Airport-Authority/Metropolitan-Airports-Commission/Administration/Publications.aspx>

A copy of the AOEE document is also included with the Committee package.

Metropolitan Airports Commission



2019–2025 Capital Improvement Program Assessment of Environmental Effects (AOEE)

Date: Published October 8, 2018



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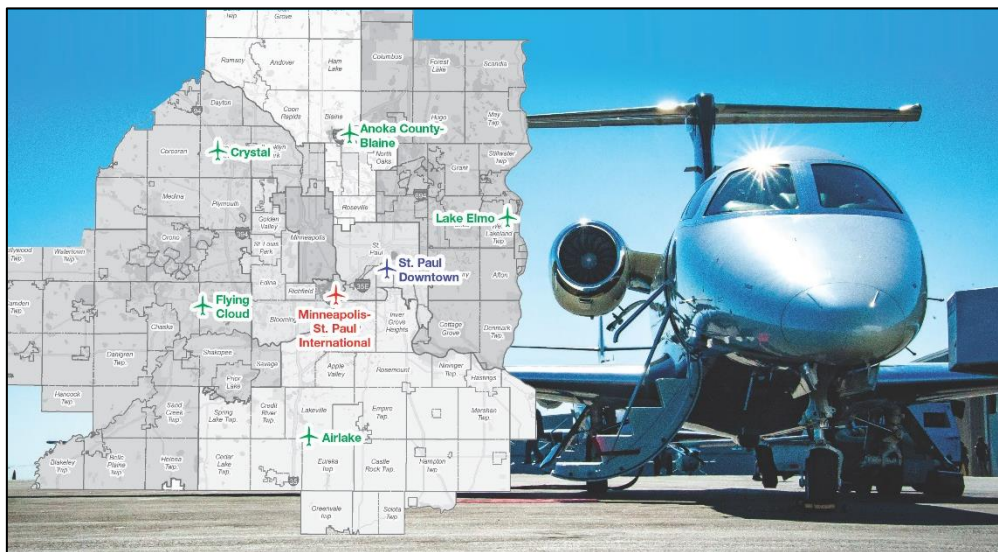
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1.0 INTRODUCTION

The Metropolitan Airports Commission (MAC) is a public corporation founded by the Minnesota Legislature in 1943 to promote aviation in Minnesota. The MAC oversees coordinated air service throughout the Twin Cities Metro Area through its system of seven airports, including the Minneapolis-St. Paul International Airport (MSP) and six reliever airports. MSP is a public use large hub international airport owned and operated by the MAC. MSP is located south of downtown Minneapolis near the confluence of the Minnesota and Mississippi Rivers and covers approximately 3,400 acres. MSP is served by two terminals: Terminal 1-Lindbergh (Terminal 1) and Terminal 2-Humphrey (Terminal 2). Terminal 1 is the larger of the two terminals and accounts for nearly 88% of passenger enplanements. In 2017 over 38 million passengers traveled through MSP, the highest total in the airport's history. This included approximately 1,100 operations (take-offs and landings) daily.

The MAC's six reliever airports play a vital role in both providing easy access to business and communities throughout the metropolitan area and offering an attractive alternative to MSP for private pilots.



The MAC System of Airports

For 75 years, the MAC has worked to promote safe, efficient, environmentally responsible air transportation services for the Minneapolis – St. Paul metropolitan area. In the process, our airports have been key economic drivers for the area economy, generating nearly \$16 billion in total economic output and supporting approximately 87,000 jobs.

Each year, the MAC prepares a seven-year Capital Improvement Program (CIP). A preliminary version of the CIP is adopted by the Commission in September. The purpose for providing the Commission with a preview of the CIP is twofold. First, it gives the Commission an opportunity to consider the projects proposed by MAC staff in the upcoming years. Second, it provides a list of projects that may be reviewed by the public as a part of this Assessment of Environmental Effects (AOEE) process.

Upon completion of this AOEE process, which includes a public hearing, the Commission will adopt a final version of the CIP in December.

On September 17, 2018, the MAC Commission adopted the Preliminary 2019–2025 CIP (shown in Appendix A). This AOEE report is prepared in accordance with the requirements of Minnesota Statutes 1986, Section 473.614, as amended in 1988 and 1996. It presents an assessment of the potential environmental effects of projects in the MAC preliminary seven-year CIP from 2019 to 2025 for each MAC-owned airport. Under Minnesota law, the MAC is required to “examine the cumulative environmental effects at each airport of projects at that airport (in the seven-year CIP), considered collectively.”



St. Paul Downtown Airport

Most of the projects in the CIP involve replacement and maintenance/upgrades of existing facilities and assets. Some projects involve primarily information technology (IT) upgrades, and others include rehabilitation and/or upgrades to tenant facilities. These projects will not affect use of the facilities and therefore, will not add to or subtract from, cumulative environmental effects.

Minnesota Statutes Section 473.614 also requires the preparation of an Environmental Assessment Worksheet (EAW) under the Minnesota Environmental Policy Act (MEPA) for projects that meet all of the following conditions:

1. The project is scheduled in the CIP for the first CIP calendar year (2019 for this AOEE);
2. The project is located at MSP and is anticipated to cost \$5 million or more, or the project is located at one of the Reliever Airports and estimated to cost \$2 million or more;
3. The project involves the construction of:
 - a. A new or expanded structure for handling passengers, cargo, vehicles or aircraft; or
 - b. A new runway or taxiway, or the extension of an existing runway or taxiway.

An Environmental Assessment Worksheet (EAW) or Environmental Impact Statement (EIS) has been prepared for all projects scheduled to be implemented in 2019 that meet the above three conditions in Minnesota Statutes Section 473.614 for a mandatory EAW.

This AOEE report analyzes each airport in the order in which the projects are presented in the CIP. Appendix A lists all of the projects included in the preliminary seven-year CIP (2019–2025). The notes in the table explain the type of work for each proposed project and why the work may or may not have a potential effect on the environment. Appendix B provides a description for each project included in the first two years (2019 and 2020) of the preliminary CIP. Appendix C includes a draft description for projects in years 2021 through 2025 that meet the above three conditions in Minnesota Statutes Section 473.614 for a mandatory EAW.

2.0 MINNEAPOLIS-ST. PAUL INTERNATIONAL AIRPORT (MSP)

New air service, larger planes and higher demand pushed passenger levels to a record high in 2017, with 38,034,341 total travelers flying to or from MSP, which is 1.4 percent more than in 2016. In 2017, airlines offered non-stop service to nearly 160 destinations from MSP: 131 domestic and 28 international.

MSP is situated approximately seven miles south of downtown Minneapolis, Minnesota and seven miles southwest of downtown St. Paul, Minnesota. MSP is not part of any city but is surrounded by Minneapolis, St. Paul and the suburban cities of Bloomington, Eagan, Mendota Heights, and Richfield.

The MSP airfield consists of four runways. Runway 12L-30R and Runway 17-35 are both 8,000 feet long. Runway 12R-30L is 10,000 feet long. And the crosswind Runway 4-22 is 11,000 feet long. There are multiple instrument approaches and an air traffic control tower.



MSP Concourse C Tram

2.1 MSP LONG-TERM COMPREHENSIVE PLAN STATUS

In July 2010, the MAC adopted the 2010-2030 Long Term Comprehensive Plan (LTCP) for MSP. The plan reviewed two alternatives: airlines remain at the terminals as they were currently operating; and airlines relocate, in which all non-Delta Sky Team airlines would eventually move to Terminal 2-Humphrey. The MSP 2030 LTCP concluded that landside and terminal improvements were needed to adequately serve the forecasted number of passengers over the course of the plan, including significant improvements to curbside, bag claim, gates, parking facilities and security. No major airfield improvements were identified based on operations forecasts or peak hour demand.

As expected, MSP has operated in the “Airlines Remain” scenario since 2010. MAC has been proceeding with the improvements needed to parking, bag claim, and other terminal upgrades. Since the completion of that plan in July 2010, continued up-gauging of aircraft and higher load factors have reduced the number of aircraft operations, which continues to support a determination that no major airfield improvements are required.

While Terminal 2 has expanded in recent years from 10 gates to 14, modifications to existing terminal space to accommodate aircraft up-gauging at Terminal 1 have reduced the number of gates at that facility from 117 to 104. Therefore, MSP is operating with fewer total aircraft gates than it has had at any time since 2005.

In 2010, at the request of the Metropolitan Council and the communities surrounding the airport, the MAC agreed to complete updates to the MSP LTCP every five years. In mid-2014, the MAC began the 2035 LTCP Update process with development of aircraft operations forecasts. The associated planning activities continued through much of 2015, with anticipated delivery of the updated LTCP to the Metropolitan Council in early 2016 for its Metropolitan Development Guide (Thrive 2040) and the Transportation Policy Plan (TPP) consistency review.

In 2015, the MAC and the Metropolitan Council, in conjunction with the MSP Noise Oversight Committee, agreed to defer completion of the update to the MSP LTCP based on communications between the MAC and the Federal Aviation Administration (FAA) regarding the FAA's non-intersecting Converging Runway Operations (CRO) mitigation activities. MSP air traffic control operates in compliance with FAA CRO requirements. The FAA continues to make progress on developing a more efficient long-term CRO solution for MSP, with anticipated resolution by the end of 2018. While many factors influence runway use and/or hourly operations, any modifications prompted by CRO solutions will be taken into account in the MSP LTCP 2020-2040 document.

In October 2017, the MAC, the Met Council, and the Noise Oversight Committee reaffirmed the 2015 agreement that the MAC should delay its update to the MSP LTCP until the FAA could finalize procedures for addressing CRO. The decision was made in an effort to be responsive to community stakeholders. In addition, the delayed update would allow for a LTCP with projected runway use assumptions and aircraft noise contours that reflect as close as possible final air traffic control procedures related to CRO requirements. The Met Council and the MAC also agreed that the 20-year planning horizon for the updated LTCP will be 2020-2040. The MAC is finalizing its timeline, but the majority of MSP LTCP work for the 2020-2040 (2040 LTCP) plan is anticipated to occur during 2019.

MAC will conduct an updated airfield capacity study as part of the 2040 LTCP to gain a fresh perspective on airfield performance using the latest operational procedures and modeling tools.

2.2 MSP ENVIRONMENTAL STUDIES

Under the Minnesota Environmental Policy Act (MEPA), an Environmental Assessment Worksheet (EAW) or Environmental Impact Statement (EIS) must assess cumulative potential environmental effects. A cumulative potential effect under MEPA is a consequence on the environment that could result from the incremental potential effect from projects under review in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources. In other words, the cumulative potential effects analysis examines whether the incremental effects of a proposed project, combined with other projects in the same geographic area and taking place over the same time period, will have a significant effect on the same environmental resources.

In September 2010, the MAC and the Federal Aviation Administration (FAA) began preparation of the MSP 2020 Improvements EA/EAW, which was a joint document satisfying both MEPA and NEPA requirements for the projects the MAC may implement at MSP through the year 2020 as outlined in the 2010 LTCP.

In March 2013, the FAA determined that the MSP 2020 Improvements EA/EAW was adequate under NEPA and issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the projects analyzed in the document. In April 2013, the MAC concluded that the MSP 2020 Improvements EA/EAW was adequate under MEPA and issued an Adequacy Determination and Negative Declaration on the need for an EIS for the projects analyzed in the document.

Projects listed in the year 2019 that require the preparation of an EAW that were included in the MSP 2020 Improvements EA/EAW review are shown in Table 2-1 on Page 6.

2.3 MSP PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

Of all the projects listed for the year 2019 at MSP, there are two that meet the criteria in Minnesota Statutes Section 473.614 for the preparation of a mandatory EAW. That is, the projects are scheduled for 2019, exceed \$5 million, and involve a new or expanded structure for handling passengers, cargo, vehicles or aircraft. See Table 2-1. The MSP 2020 Improvements EA/EAW, which the MAC completed in 2013, analyzes both projects.

Baggage Claim/Ticket Lobby Operational Improvements

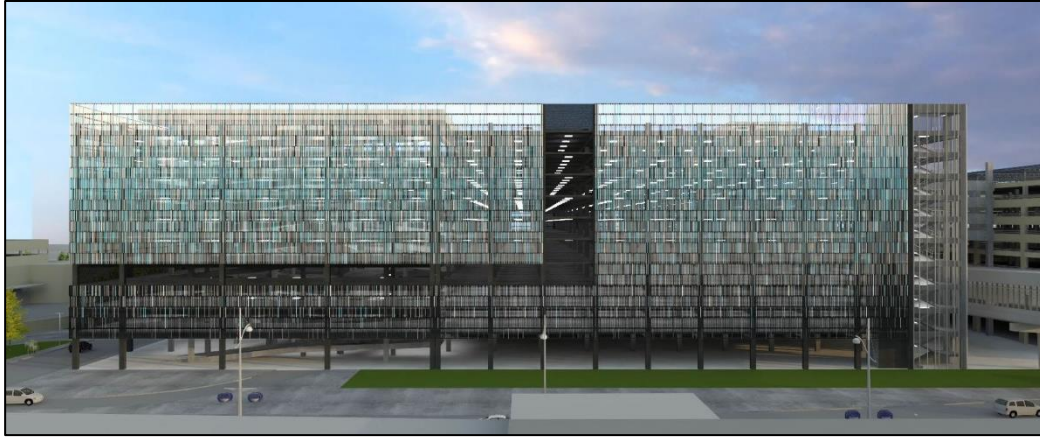
The Terminal 1-Lindbergh Operational Improvements program, which began in 2016, continues in 2019 with ticket counter consolidations, airline ticket offices, centralized meet and greet areas, improved vestibules and access, new elevators and escalators, east mezzanine removal/reduction, curtain wall replacement, unclaimed baggage storage, baggage service offices, concessions (food & beverage and retail), improved lighting and sight lines, curbside lighting, and construction of new restrooms in order to allow future phases to demolish the existing old and outdated restrooms.



MSP Operational Improvements – New Elevators

Terminal 1-Lindbergh Parking Ramp - Parking Ramp Modifications

This project will modify parking levels in the red/blue parking ramps vacated by rental car agencies when they move to the new Terminal 1 silver parking ramp. This project will prepare the areas to accommodate public parking.



MSP Terminal 1 Silver Parking Ramp Rendering

Table 2-1
MSP Projects in the CIP that Require a Mandatory EAW

Project (All located at Terminal 1)	CIP Year Proposed	Approved EAW
Baggage Claim/Ticket Lobby Operational Improvements	2019	MSP 2020 Improvements EA/EAW
T1-Lindbergh Parking Ramp Modifications	2019	MSP 2020 Improvements EA/EAW
Baggage Claim/Ticket Lobby Operational Improvements	2020	MSP 2020 Improvements EA/EAW
Baggage Handling System	2020	MSP 2020 Improvements EA/EAW
FIS Recheck Operational Improvements	2020	MSP 2020 Improvements EA/EAW
Concourse G Expansion and Delta Sky Club	2020	To be completed in 2019
Baggage Claim/Ticket Lobby Operational Improvements	2021	MSP 2020 Improvements EA/EAW
Lower Level Curbside Expansion	2021	MSP 2020 Improvements EA/EAW
D-Pod Outbound Baggage System	2022	MSP 2020 Improvements EA/EAW

With one exception, all MSP projects in the 2019-2025 CIP that meet the requirements in Minnesota Statutes Section 473.614 for preparation of a mandatory EAW were analyzed in the MSP 2020 Improvements EA/EAW, which MAC completed in 2013. The exception is the newly proposed Concourse G Expansion and Delta Sky Club project, shown in the CIP in 2020. The MAC will prepare an EAW on the project in 2019 so that construction of the project may proceed in 2020.

One project proposed for 2019 has changed scope since the 2018-2024 version of the CIP. Last year's AOEE identified the "Taxiway C1 Construction" project as a project requiring environmental review because its estimated cost was listed at \$6 million and involved construction of a new taxiway connector extending from Taxiway D to Taxiway M. As it is now listed in the 2019-2025 CIP, the scope of the project has changed.

Based on updated information from the MSP air traffic controllers, the “Taxiway C1 Construction” project now involves the construction of only one short connector extending from Taxiway D to Taxiway C along with reconstruction of a portion of existing Taxiway D. The cost for the project is now \$4 million. Based on the modified scope and cost, the project no longer meets the criteria for a mandatory EAW.



Table 2-1 Project Locations at Terminal 1

2.4 MSP CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Under Minnesota Statutes Section 473.614, the MAC must examine the cumulative environmental effects of projects at each airport in the proposed CIP, considered collectively. Aside from those listed in Table 2-1, all other MSP projects listed in the CIP involve end-of-life replacement and maintenance/upgrades of existing MAC facilities and assets, information technology (IT) upgrades, residential home noise mitigation, or rehabilitation of tenant facilities. Many MSP projects in the capital program exceed the \$5 million threshold, but those listed in Table 2-1 meet the criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.

Although some of the MSP projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at MSP.

3.0 ST. PAUL DOWNTOWN AIRPORT (STP)

In the mid-20th century, St. Paul Downtown Airport (Holman Field) vied with Minneapolis' airport to become the area's primary air transportation center. Ultimately, the Minneapolis airport became what is now - the Minneapolis-St. Paul International Airport, and St. Paul Downtown became the metro area's primary facility for private business aviation.

St. Paul Downtown Airport is the only reliever airport in the MAC system with a runway longer than 5,000'. In fact, the airport has three runways: Runway 14-32 (6,491 feet long); Runway 13-31 (4,004 feet long), and Runway 9-27 (3,642 feet long). The airport has precision instrument approaches to Runways 14 and 32, non-precision instrument approaches to Runways 14, 31 and 32, and a published precision instrument approach procedure for helicopters.

Recent improvements at STP include modifications to the conjoined ends of Runway 14 and Runway 13 to physically separate pavements and enhance airfield safety. The MAC has also been making changes to the terminal building to support the development of a new full-service restaurant and an outdoor public airfield viewing space. The parking lot has been modernized to provide enough space for operations and to accommodate visitors to the facility.



St. Paul Downtown Airport

3.1 STP LONG-TERM COMPREHENSIVE PLAN STATUS

In June 2010, the MAC adopted the 2030 Long-Term Comprehensive Plan for STP. Recommendations in the LTCP Update include:

- On-going pavement reconstruction and rehabilitation/maintenance;
- Continued discussions and planning for the on-going maintenance, training, personnel/resources, compensatory excavation monitoring, and permit requirements for the floodwall;
- Continued research for and development of parcels for revenue generation;
- Continued cooperation with the cities of St. Paul, South St. Paul and West St. Paul through the existing Downtown Airport Advisory Commission and on-going MAC/city staff interaction.

No major projects or improvements have been planned for STP aside from pavement reconstruction and upgrades to existing MAC-owned buildings.

The MAC is currently in the early stages of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the STP LTCP. It is anticipated the 20-year planning period will extend to 2040.

3.2 STP ENVIRONMENTAL STUDIES

No environmental reviews have been completed for projects at the St. Paul Downtown Airport since 2005 when the federal Environmental Assessment was completed for the airfield subdrain project that preceded the construction of the floodwall. Prior to that, in 2003, an EAW was completed for the floodwall.

3.3 STP PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

No STP projects in the 2019-2025 Preliminary CIP meet the criteria defined in Minnesota Statutes Section 473.614 for preparation of an EAW.

3.4 STP CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Projects identified at STP in the preliminary 2019-2025 CIP include on-going improvements to the MAC-owned terminal building. The 2019 MAC Building Improvements project is intended to address exterior upgrades to building façade, along with renovations to an existing equipment storage building, an equipment maintenance building, and cold storage buildings.

The proposed STP Storm Sewer Improvements – Phase 2 project is intended to rehabilitate pavement and soils in the west building area along with replacement of end-of-life storm sewer pipe. Another 2019 project is planned to replace aging underground fuel storage tanks.

In 2020, preliminary projects include rehabilitation of portions of public airport service roads and annual airfield joint sealing/crack repairs. Looking longer term, the projects listed in the later years of the Preliminary CIP (2021-2025) include more rehabilitation projects, primarily for runways, taxiways, roadways and the terminal building. Proposed airfield lighting upgrades to LED fixtures are also contemplated.

The proposed projects mentioned in this section do not meet the threshold in Minnesota Statutes Section 473.614 for an EAW. Although some of the STP projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at STP.



St. Paul Downtown Airport Administration/Terminal Building

4.0 LAKE ELMO AIRPORT (21D)

An easy drive to the St. Paul business district or to scenic destinations along the St. Croix River, such as Stillwater, Minnesota and Hudson, Wisconsin, Lake Elmo Airport is conveniently located for both business and leisure travelers. The airport is served by a fixed base operator and an aircraft maintenance provider. Lake Elmo Airport has two runways. Runway 14-32 is 2,849 feet long, while Runway 4-22 measures 2,497 feet in length. There are two non-precision instrument approaches to the airport, which has no air traffic control tower.

Recent projects at the airport have included pavement rehabilitation and joint repairs. The underlying soils drain very poorly, so pavement may be subjected to significant freeze-thaw damage each year.



Images from Lake Elmo Airport

4.1 21D LONG-TERM COMPREHENSIVE PLAN STATUS

In September 2016, the MAC adopted the 2035 LTCP. Similar to previous plans, the LTCP objectives include improving safety in compliance with FAA guidelines, providing appropriate facilities for the aircraft types currently utilizing the airport, and delineating the future footprint of the airport.

4.2 21D ENVIRONMENTAL STUDIES

The MAC is currently in the process of finalizing a federal Environmental Assessment (EA)/state Environmental Assessment Worksheet (EAW) document for a proposed project at the airport. As outlined in the 2035 LTCP, the proposed project components include construction of a new 3,500-foot primary runway that will be parallel to the existing Runway 14-32. The existing runway will then become part of a parallel taxiway. Other airfield modifications will be made for connection to the new runway, along with an extension of crosswind Runway 4-22 to 2,750 feet. Realignment of 30th Street North is also a part of the proposed project.

The EA/EAW is a joint document prepared in accordance with the Federal Aviation Administration (FAA) policies and procedures detailed in FAA Order 1050.1F under the National Environmental Policy Act

(NEPA). In addition to addressing federal environmental review requirements, the document addresses state requirements under the Minnesota Environmental Policy Act (MEPA). The FAA issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the project on August 31, 2018, finding the federal EA satisfies NEPA. As the Responsible Government Unit (RGU) for the project under MEPA, the MAC is scheduled to consider the EAW at its full Commission meeting on October 22, 2018.

The EA/EAW and related documents may be found on the MAC website:

<https://metroairports.org/General-Aviation/Lake-Elmo-Environmental-Assessment/Documents-and-Links.aspx>.

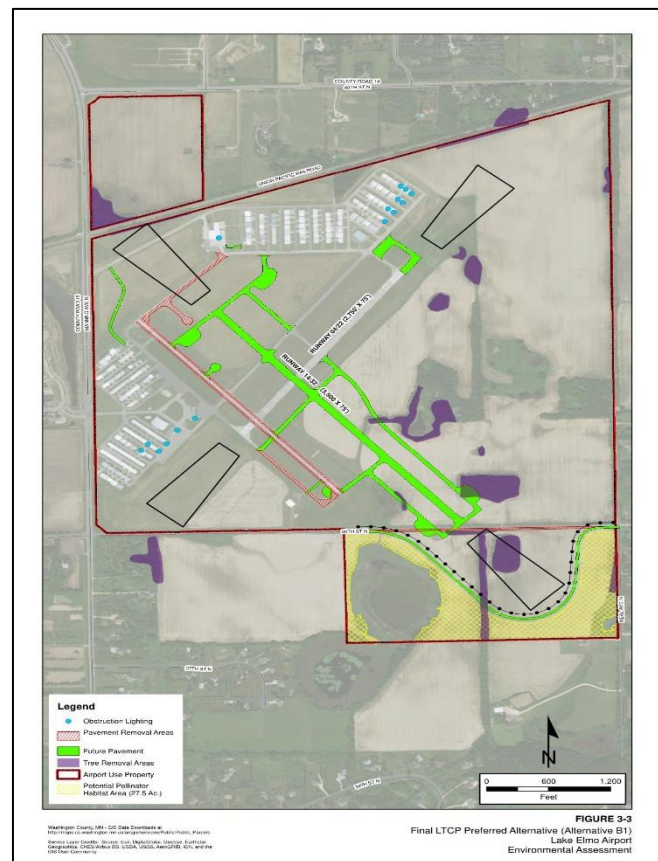
4.3 21D PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

The MAC plans to move forward with construction of the Runway 14-32 Relocation/Extension and Associated Improvements project immediately upon approval of the state EAW. The first phase of the program is scheduled for 2019, and is planned to be phased over three years. Components of the proposed project are outlined in Table 4-1 on Page 12.

If for any reason the MAC action on the state EAW for the proposed project is deferred beyond October 2018, MAC staff will describe any schedule changes for the proposed project at the November 4, 2018 public hearing for this AOEE document (more information is located in the Next Steps chapter).

For the Runway 14-32 Relocation/Extension and Associated Improvements project, the EA/EAW process noted several environmental categories where *de minimis*, or “insignificant”, impacts may occur. Therefore, the EA/EAW concludes, and the FAA has found, that no significant impacts are anticipated from the proposed project. The environmental categories with *de minimis* effects include: air quality; biological resources (fish, wildlife and plants); farmlands; land use; construction equipment noise; visual effects; and water resources (wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers).

Based on the EA/EAW analysis, the FAA determined that no single impact, even when considered with past or future actions, represents a substantial impact that cannot be mitigated. The EA/EAW also finds, and the FAA concluded, that there are no significant or cumulative potential effects associated with the Runway 14-32 Relocation/Extension and Associated Improvements project.



Runway 14-32 Relocation/Extension and Associated Improvements

Table 4-1
21D Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	Pending EAW
Runway 14-32 Replacement	2019	Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects (pending MAC action on 10/22/18)
Runway 14-32 Replacement	2020	Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects (pending MAC action on 10/22/18)
Airfield Modifications	2020	Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects (pending MAC action on 10/22/18)
Runway 14-32 Replacement	2021	Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects (pending MAC action on 10/22/18)
Runway 4-22 Rehabilitation	2021	Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects (pending MAC action on 10/22/18)

4.4 21D CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Under Minnesota Statutes Section 473.614, the MAC must examine the cumulative environmental effects of projects at each airport in the proposed CIP, considered collectively. Aside from those project components listed in Table 4-1, for which a completed EA/EAW is pending final consideration by the full MAC Commission on October 22, 2018, all other Lake Elmo projects listed in the CIP involve end-of-life replacement and maintenance/upgrades of existing MAC facilities and assets which do not meet all three criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.

Although some of the Lake Elmo projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at Lake Elmo.

5.0 AIRLAKE AIRPORT (LVN)

Located south of the Twin Cities near Lakeville and Farmington, Minnesota, Airlake Airport has a single 4,098-foot long Runway 12-30 and full length parallel taxiway. The airport offers a precision instrument approach to Runway 30 and a non-precision approach to Runway 12. The airport has no air traffic control tower.

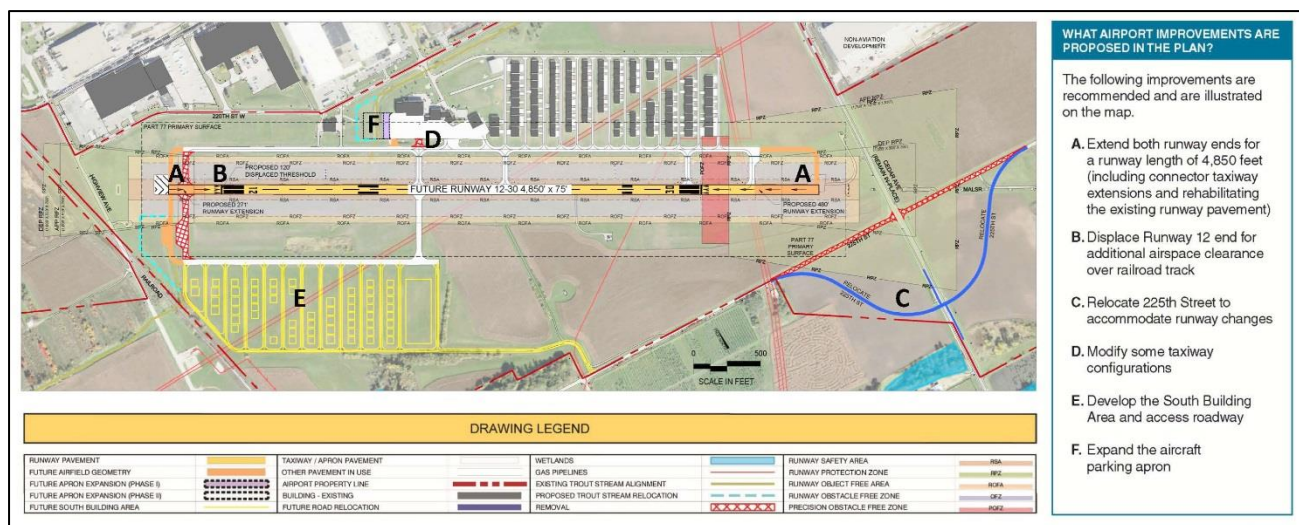
Airlake Airport is located near one of Minnesota's largest industrial parks, making it ideally suited for business-related aviation needs as well as recreational use.



Images from Airlake Airport

5.1 LVN LONG-TERM COMPREHENSIVE PLAN STATUS

In April 2018, the MAC adopted the Airlake Airport 2035 Long-Term Comprehensive Plan (LTCP). The goals of the plan include better accommodating business aircraft need by maximizing the airfield's operational capabilities and existing property footprint; maintaining or improving the Runway Protection Zone (RPZ) land use compatibility; mitigating existing issues with airspace penetrations to the extent practical; and updating the taxiway layout to reflect current industry best practices and enhance safety.



Airlake Airport LTCP Preferred Alternative

5.2 LVN ENVIRONMENTAL STUDIES

The Airlake 2035 LTCP proposes completion of the final phase of the south building area alleyways, access road and associated utilities (in 2019), as well as an extension to Runway 12-30 (currently envisioned in 2022). The MAC prepared an EAW for the south hangar area in January 1999. The EAW addressed storm water runoff and designated trout stream tributary impacts. In 2001, the MAC completed initial grading for the building area (including subgrade placement for a partial parallel taxiway, all alleyways and the access road), with construction of a storm water detention pond to capture runoff before it enters the designated trout stream. The MAC also relocated a portion of the trout stream under a permit issued by the Minnesota Department of Natural Resources (DNR) as part of the project. In 2003, the MAC paved the partial parallel taxiway on the south side of Runway 12-30 and two connectors to provide respite areas for pilots prior to takeoff. The work did not include paving any other portions of the hangar area. The next phase planned for 2019 includes construction of sanitary sewer and water mains and utility services to the south building area, including paving of associated taxilanes and the south entrance road.

The proposed extension of Runway 12-30 and any rehabilitation needed for the existing portion of the runway pavement is currently programmed for 2022. The MAC will have to identify funding sources for implementation of these proposed improvements and will not proceed with work until the necessary environmental review is completed. The MAC anticipates preparing a joint federal EA/state EAW before the FAA approves and the MAC undertakes the project.



Airlake Airport

5.3 LVN PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

There are currently no 2019 projects at Airlake shown in the MAC 2019-2025 Preliminary CIP that meet the criteria defined in Minnesota Statutes Section 473.614. There are projects currently shown in 2022 that may meet the criteria. See Table 5-1. The MAC and the FAA will jointly determine the scope of environmental review necessary before approving the project. The MAC anticipates preparing a joint federal EA/state EAW for the projects meeting the criteria in Minnesota Statutes Section 473.614.

Table 5-1
Airlake Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW
Runway 12-30 Improvements	2022	To be determined
Existing Runway 14-32 Reconstruction	2022	To be determined

5.4 LVN CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

The largest project scheduled for 2019 at the Airlake Airport includes the construction of sanitary sewer and water mains and utility services to the south building area, including paving of associated taxilanes and the south entrance road. This building area was prepped and graded nearly twenty years ago, but the MAC never began construction because hangar demand has not dictated a need for it. Now, there is interest in building new hangars at the airport in the south building area, and therefore, the MAC is proceeding with a project in 2019.

Other projects included in the CIP for 2019 include improvements to the existing MAC maintenance building, construction of an airplane wash pad, and construction of a tenant-use restroom facility on the north side of the airport.

Additional future projects envisioned for the Airlake Airport include installation of LED airfield lighting fixtures and continuation of the on-going joint and crack repair program. In addition, the MAC may replace underground fuel storage tanks.

The proposed projects mentioned in this section do not meet the threshold in Minnesota Statutes Section 473.614 for an EAW. Although some of the projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at Airlake Airport.

6.0 FLYING CLOUD AIRPORT (FCM)

The Flying Cloud Airport is situated in the southwestern corner of the Twin Cities metropolitan area, in the community of Eden Prairie. Popular as a home base for corporate business jets and turbo-props, Flying Cloud has a strong reputation for serving the needs of busy corporate executives and their flight crews.

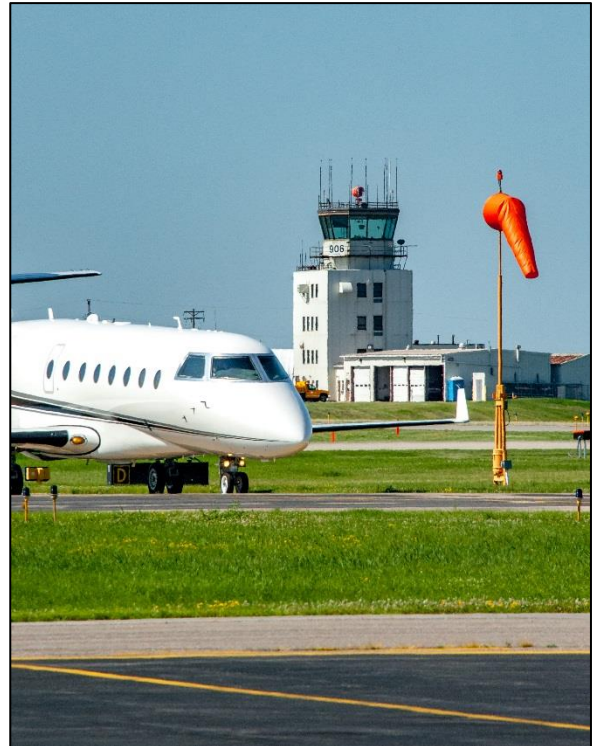
Airport improvements include the 2008 extension of Runway 10L-28R to 3,900 feet and the 2009 extension of Runway 10R-28L to 5,000 feet. Other improvements include lengthening the taxiway system and developing a new hangar area on the south side of the facility. The north-south runway, 18-36, is 2,691 feet long.

One of the busiest airports in the MAC reliever system, Flying Cloud has a FAA-operated control tower and an instrument landing system. A precision instrument approach is available to Runway 10R and non-precision instrument approaches are available to runways 10R, 28L, 28R and 36. The airport also has a published precision instrument approach procedure for helicopters.

6.1 FCM LONG-TERM COMPREHENSIVE PLAN STATUS

In October 2010, the MAC adopted the Flying Cloud Airport Long-Term Comprehensive Plan Update. Based on the forecasts and existing airfield configuration, no airside or landside expansions were proposed in the LTCP Update. Recommendations in the LTCP Update include:

- That Runway 18-36 be shifted north and lengthened to 2,800 feet to create a compliant runway safety and object free areas, and better serve aircraft using the runway especially during critical cross-wind operations;
- Constructing a north perimeter road as a part of the Runway 18-36 improvements;
- Continuing on-going pavement reconstruction, rehabilitation, and maintenance, including reconstruction of the south end of Runway 18-36;
- Removing obstructions in the approach area to Runway 18 (trees in the runway protection zone);
- Continue efforts to achieve Taxiway Alpha object free area clearance;
- Continue discussions with the FAA relative to the ultimate relocation of the Air Traffic Control Tower to a location in the new south hangar area;
- Continue research for and development of parcels for revenue generation; and
- Continue cooperative efforts with the City of Eden Prairie through the existing MAC/city agreements, the Flying Cloud Airport Advisory Commission and on-going MAC/city staff interaction.



Flying Cloud Airport

Many of these LTCP projects were implemented, and efforts related to clearing the Taxiway A object free area continue. In addition, MAC and the City of Eden Prairie have worked jointly to zone airport parcels for non-aeronautical revenue generation/development and maintain on-going communication by using the airport advisory group, joint airport zoning board meetings, and other informal discussions.

When MAC shifted Runway 18-36 north to create compliant runway safety areas, the length was not extended to 2,800 feet as recommended in the LTCP due to existing obstructions north of Pioneer Trail. MAC did construct the north perimeter road, and completed the required trees removals.

No major projects or improvements have been planned for FCM aside from pavement reconstruction and upgrades to existing MAC-owned buildings or assets.

The MAC is currently in the early stages of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the FCM LTCP. It is anticipated the 20-year planning period will extend to 2040.

6.2 FCM ENVIRONMENTAL STUDIES

The most recent environmental review for FCM was completed for the extension to the south parallel runway from 3,900 feet to 5,000, extension of the north parallel runway from 3,600 feet to 3,900 feet, and construction of a new south building area. The MAC and the FAA completed the Final Environmental Impact Statement (FEIS) for the proposed improvements at the Flying Cloud Airport in 2004. The FEIS was a joint state and federal document that included a Section 4(f) federal review. As the Responsible Governmental Unit (RGU) for the project under MEPA, MAC was responsible for the State EIS. However, at MAC's request, the Environmental Quality Board (EQB) agreed to be the RGU for the Determination of Adequacy of the Final EIS for the State of Minnesota. The EQB issued its Determination of Adequacy for the FEIS in February 2006. The FAA, responsible for the Federal EIS under NEPA, issued a Record of Decision in May 2008 for the document and Section 4(f) review.



Images from Flying Cloud Airport

6.3 FCM PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

No projects in the 2019-2025 Preliminary CIP at FCM meet the criteria defined in Minnesota Statutes Section 473.614.

6.4 FCM CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Projects proposed at Flying Cloud do not include any major improvements. In 2019, taxiway pavement rehabilitation is planned along with improvements to an existing hangar/office building that MAC recently acquired from an airfield tenant. Future projects include more pavement reconstruction, underground fuel storage tank replacement, upgrades to other existing MAC-owned buildings, access road improvements and electrical vault modifications. Although some of the projects at FCM may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at FCM.

7.0 CRYSTAL AIRPORT (MIC)

Named after one of the cities in which it is located, Crystal Airport also overlaps boundaries with Brooklyn Park and Brooklyn Center. The airport currently has three paved and one turf runway and two non-precision instrument approaches. Runway 14L-32R is 3,267 feet long; Runway 14R-32L is 3,266 feet long; and Runway 6L-24R is 2,500 feet long. Closed during the winter months, turf Runway 6R-24L is 2,123 feet long. The airport also has a FAA-operated air traffic control tower.

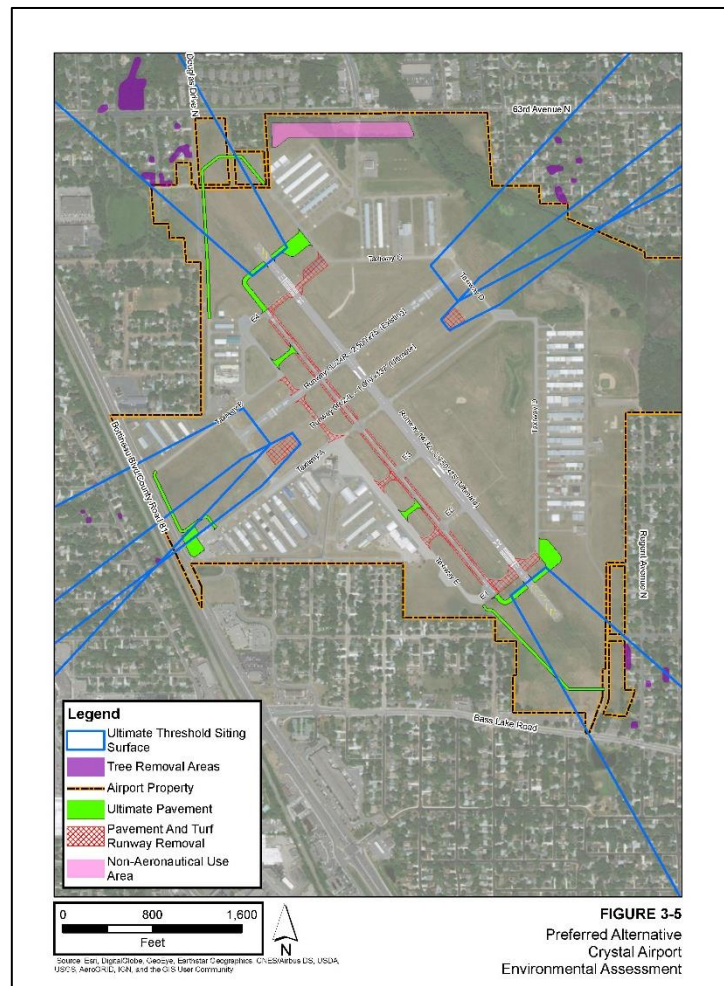
7.1 MIC LONG-TERM COMPREHENSIVE PLAN STATUS

In October 2017, the MAC adopted the 2035 Crystal Airport Long-Term Comprehensive Plan (LTCP). The proposed project includes converting a portion of existing blast pad pavement on each end of Runway 14L-32R to usable runway length, bringing the total length from 3,267 feet to 3,750 feet. The parallel Runway 14R-32L will be decommissioned and reconstructed as a taxiway. All associated electrical runway and taxiway lighting work will be included along with taxiway reconfiguration to simplify airfield geometry. Also proposed is shortening of the existing turf runway to reduce the number of runway crossings.

7.2 MIC ENVIRONMENTAL STUDIES

Based on the recommendations in the 2035 LTCP, the MAC has embarked on a federal Environmental Assessment (EA)/ state Environmental Assessment Worksheet (EAW) for the proposed improvements. The EA/EAW is a joint document prepared in accordance with the FAA policies and procedures detailed in FAA Order 1050.1F for compliance with NEPA. In addition to addressing federal environmental review requirements, the document addresses state review requirements in compliance with MEPA.

The EA/EAW process is anticipated to continue into 2019. In the 2019-2025 Preliminary CIP, the Runway 14R-32L and Taxiway E Modifications (converting that runway into a taxiway) was shown as a 2019 project. Because the environmental work will continue into 2019, this project will be moved to a 2020 project in the December 2018 final version of the 2019-2025 CIP.



Crystal Airport Runway 14R-32L and Taxiway E Modifications

7.3 MIC PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

Once the Runway 14-32 Modifications project shifts to 2020 in the December 2018 version of the CIP, there will be no 2019 projects shown in the MAC 2019-2025 Preliminary CIP that meet the criteria defined in Minnesota Statutes Section 473.614. Table 7-1 lists the single MIC project in the preliminary CIP that meets the criteria. Construction will not begin on the runway and taxiway improvements project until the environmental review process under NEPA and MEPA is completed.

Table 7-1
Crystal Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW
Runway 14R-32L and Taxiway E Modifications	2020 (after project year shifts from 2019)	Underway

7.4 MIC CUMULATIVE POTENTIAL FOR ENVIRONMENTAL EFFECTS

Projects at the Crystal Airport do not include any major improvements aside from the one listed in Table 7-1 above. In 2019, taxiway pavement rehabilitation is planned, along with 2020 improvements to existing MAC-owned buildings, pavement rehabilitation and lighting upgrades. Future projects include more pavement reconstruction and underground fuel storage tank replacement. Although some of the projects at MIC may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at MIC.



Images from Crystal Airport

8.0 ANOKA COUNTY–BLAINE AIRPORT (ANE)

Situated in the north metro near the National Sports Center, Anoka County-Blaine Airport (ANE) is a 1,800-acre airport that serves the most diverse aircraft mix in the MAC reliever system. Runway 9-27 is 5,000 feet long, and Runway 18-36 is 4,855 feet long. It has an instrument landing system (ILS), and multiple hangar areas. The airport has a MAC-owned, non-federal air traffic control tower.

8.1 ANE LONG-TERM COMPREHENSIVE PLAN STATUS

In June 2010, the Commission adopted the Anoka County-Blaine Airport Long-Term Comprehensive Plan Update. Based on the forecasts and existing airfield configuration, the MAC did not propose any airside or landside expansions in the LTCP Update. Recommendations in the LTCP Update include:

- The Xylite Street relocation;
- Improvements to the existing security gate system;
- An extension to Taxiway Charlie to the south;
- On-going pavement reconstruction and rehabilitation/maintenance;
- Continued research for and development of parcels for revenue generation;
- Continued cooperation with the cities surrounding the airport through the existing Anoka County Airport Advisory Commission and on-going MAC/City staff interaction.



Anoka County-Blaine Airport

No major projects or improvements have been planned for ANE aside from pavement reconstruction and upgrades to existing MAC-owned buildings or assets.

The MAC is currently in the early stages of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the ANE LTCP. It is anticipated the 20-year planning period will extend to 2040.

8.2 ANE ENVIRONMENTAL STUDIES

Prior to the 2006 extension of Runway 9-27 to 5,000 feet, MAC and the FAA completed a joint environmental review document combining a federal environmental assessment (EA) and a state environmental impact statement (EIS). The EA/EIS included review for the extension of Runway 9-27 and its corresponding taxiway from 4,000 to 5,000 feet, installation of an instrument approach system, construction of two building areas (northwest and east expansion), relocation of Xylite Street, and construction of the National Youth Golf Center. All of these improvements are complete except for the Xylite Street relocation and the east building area expansion.

8.3 ANE PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

No projects in the 2019-2025 Preliminary CIP at ANE meet the criteria defined in Minnesota Statutes Section 473.614.

8.4 ANE CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Projects included for 2019 include reconstruction of an interior airport service road, replacement of existing underground fuel tanks, and obstruction removals. Other future projects in the 2019-2025 CIP include additional pavement rehabilitation, equipment upgrades for the MAC-owned air traffic control tower facility, and miscellaneous upgrades to MAC-owned buildings and assets. Although some of the projects at ANE may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at ANE.



Images from Anoka County-Blaine Airport

9.0 NEXT STEPS

This report is being made available to the public for review and comment. The comment period will run from October 8, 2018 through November 7, 2018. Comments may be submitted in writing addressed to:

Ms. Jenn Felger
Planning and Environment Coordinator
Metropolitan Airports Commission
6040 28th Avenue South
Minneapolis, MN 55450
Jenn.felger@mspmac.org

A public hearing is scheduled as part of the regular meeting on the MAC Planning Development and Environment (PD&E) Committee on November 5, 2018 at 10:30 a.m. Commission board and committee meetings are held on the secure side of Minneapolis-St. Paul International Airport's Terminal 1-Lindbergh. Be sure to give yourself time to park and be screened prior to the meeting.

Follow these instructions to attend the MAC Public Hearing:

- 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 south 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 right. Once inside the airport mall, look for the staircase/elevator to the left of 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**.

Upon completion of the AOEE process, MAC staff will finalize the 2019-2025 Capital Improvement Program (CIP) and present it to the full Commission for adoption during the month of December, 2018. The December PD&E Committee meeting, scheduled for December 3, 2018, 10:30 a.m., will include a hearing officer's report and responses to any comments received during the AOEE public comment period.

10.0 APPENDICES

10.1 APPENDIX A – MAC PRELIMINARY 2019-2025 CIP LISTING

10.2 APPENDIX B – DESCRIPTIONS FOR 2019 AND 2020 PROPOSED PROJECTS

10.3 APPENDIX C – DRAFT DESCRIPTIONS FOR 2021-2025 PROJECTS THAT MEET CRITERIA DEFINED IN MINNESOTA STATUTE SECTION 473.614

10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES		2019	2020	2021	2022	2023	2024	2025
MSP END OF LIFE/REPLACEMENT PROJECTS								
10 - Terminal 1-Lindbergh								
4	Passenger Boarding Bridge Replacements	\$7,000,000	\$7,000,000	\$5,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
5	Recarpeting Program					\$7,000,000	\$7,000,000	\$7,000,000
4	Terminal 1-Lindbergh Tug Doors Replacement	\$600,000						
2	Tram Systems Retrofit and Equipment	\$1,500,000	\$1,750,000					
5	TSA Recapitalization	\$12,000,000						
13 - Energy Management Center								
3	Variable Air Volume (VAV) Box Replacement			\$750,000	\$750,000	\$750,000	\$750,000	
21 - Field and Runway								
2	Runway 12L-30R Bituminous Shoulder Reconstruction				\$7,000,000			
2	Runway 12R-30L Bituminous Shoulder Reconstruction			\$5,000,000				
2	Runway 12R-30L Tunnel Storm Sewer Reconstruction		\$900,000					
2	Sanitary Sewer Replacement Taxiway R		\$3,300,000					
4	Snow Melter Upgrades/Modifications	\$750,000						
2	Taxiway A/B Pavement Reconstruction							\$6,000,000
2	Taxiway D Reconstruction		\$12,000,000					
2	Terminal 1-Lindbergh Apron Pavement Reconstruction			\$10,500,000	\$10,500,000	\$10,500,000	\$10,500,000	\$10,000,000
26 - Terminal Roads/Landside								
2	Lower Level Roadway Rehabilitation			\$1,100,000				
2	Upper Level Roadway Electrical System Rehabilitation			\$1,000,000				
2	Upper Level Roadway Rehabilitation			\$2,000,000				
2	UPS Loop Pavement Reconstruction		\$1,600,000					
4	Variable Message Signs Replacement, Phase 3		\$1,600,000					
36 - Terminal 2-Humphrey								
5	Public Walk Aisle Terrazzo Floor Installation	\$1,700,000						
5	Terminal 2 Recarpeting Program			\$500,000	\$500,000	\$500,000	\$500,000	
39 - Public Areas/Roads								
2	28th Avenue South Reconstruction							\$2,270,000
2	28th Avenue Watermain Replacement	\$1,300,000						
2	East 62nd Street Reconstruction					\$2,400,000		
66 - Fire								
6	MSP Campus Fire Alarm System Transition	\$1,000,000	\$1,000,000					
MSP End of Life/Replacement Projects Total		\$25,850,000	\$29,150,000	\$25,850,000	\$22,750,000	\$25,150,000	\$22,750,000	\$29,270,000

- NOTES:
1. A project that has the potential for substantial environmental effects.

2. A reconstruction, rehabilitation, repair or replacement that does not physically alter the original size (an EAW or EIS is not required).

3. An electrical or mechanical device that monitors, indicates or controls existing conditions (an EAW or EIS is not required).

4. An electrical, mechanical or structural device and/or modification of an existing structure that does not significantly increase size or passenger capacity (an EAW or EIS is not required).

5. A project that consists of safety or security enhancements, facility maintenance, or facility upgrades (an EAW or EIS is not required).

6. A new, replacement or expansion project that does not have substantial effect (an EAW or EIS is not required).

7. Consultant fees only for planning, design, or environmental work.

8. Residential noise mitigation efforts that are designed to alleviate the impact of aircraft noise (an EAW or EIS is not required).

9. Projects associated with the Airport Foundation art program (an EAW or EIS is not required).

10. Projects involving the demolition of existing buildings (an EAW or EIS is not required).

10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES		2019	2020	2021	2022	2023	2024	2025
	MSP IT PROJECTS							
	10 - Terminal 1-Lindbergh							
4	Intelligent Monitoring and Control Systems (IMACS)	\$1,500,000	\$1,500,000	\$1,500,000				
4	Interactive Digital Directory Upgrade	\$150,000						
4	IT Miscellaneous Modifications	\$8,400,000	\$5,500,000	\$9,000,000	\$10,500,000	\$10,000,000	\$10,000,000	
5	Telecom Room Equipment Continuity (TREC)	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000			
	63 - Police							
5	Card Access Modifications	\$2,000,000	\$3,500,000					
	MSP IT Projects Total	\$13,550,000	\$12,000,000	\$12,000,000	\$12,000,000	\$10,000,000	\$10,000,000	
	MSP LONG TERM COMPREHENSIVE PLAN PROJECTS							
	10 - Terminal 1-Lindbergh							
2	Armed Forces Service Center Relocation	\$1,100,000						
2	Automated Security Lanes (ASLs)	\$2,000,000	\$2,000,000	\$4,000,000				
1	Baggage Claim/Ticket Lobby Operational Improvements	\$98,000,000	\$61,900,000	\$32,500,000				
1	Baggage Handling System		\$32,000,000					
2	Checkpoint Expansion		\$5,800,000				\$11,000,000	
1	D-Pod Outbound Baggage System				\$5,000,000			
1	FIS Recheck Operational Improvements		\$8,400,000					
1	Lower Level Curbside Expansion			\$12,000,000				
7	MSP Long Term Comp Plan	\$2,200,000						
5	Unstaffed Exit Lanes - North Exit						\$2,500,000	
5	Valet Parking Lobby and Restroom Upgrade	\$5,000,000						
	21 - Field and Runway							
6	Taxiway C1 Construction	\$4,000,000						
	31 - Parking							
1	Terminal 1-Lindbergh Parking Ramp - Parking Ramp Modifications	\$17,000,000						
	36 - Terminal 2-Humphrey							
2	Terminal 2-Humphrey Automated Security Lanes (ASLs)	\$3,000,000	\$3,000,000					
4	Terminal 2-Humphrey FIS Baggage Claim Improvements		\$1,000,000					
7	Terminal 2-Humphrey North Gate Expansion Design Fees					\$5,000,000		
	MSP Long Term Comprehensive Plan Projects Total	\$132,300,000	\$114,100,000	\$48,500,000	\$5,000,000	\$5,000,000	\$13,500,000	

- NOTES:
1. A project that has the potential for substantial environmental effects.

2. A reconstruction, rehabilitation, repair or replacement that does not physically alter the original size (an EAW or EIS is not required).

3. An electrical or mechanical device that monitors, indicates or controls existing conditions (an EAW or EIS is not required).

4. An electrical, mechanical or structural device and/or modification of an existing structure that does not significantly increase size or passenger capacity (an EAW or EIS is not required).

5. A project that consists of safety or security enhancements, facility maintenance, or facility upgrades (an EAW or EIS is not required).

6. A new, replacement or expansion project that does not have substantial effect (an EAW or EIS is not required).

7. Consultant fees only for planning, design, or environmental work.

8. Residential noise mitigation efforts that are designed to alleviate the impact of aircraft noise (an EAW or EIS is not required).

9. Projects associated with the Airport Foundation art program (an EAW or EIS is not required).

10. Projects involving the demolition of existing buildings (an EAW or EIS is not required).

10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES		2019	2020	2021	2022	2023	2024	2025
	MSP MAINTENANCE/FACILITY UPGRADE PROJECTS							
	10 - Terminal 1-Lindbergh							
5	ADO Office Expansion	\$750,000						
9	Art Display Areas	\$500,000	\$250,000	\$250,000	\$250,000			
9	Arts Master Plan	\$808,000	\$1,155,000	\$155,000	\$760,000	\$665,000		
4	Concourse D HVAC Upgrade	\$1,800,000						
4	Concourse G Moving Walks		\$2,500,000		\$2,500,000			
2	Folded Plate Repairs		\$8,900,000	\$8,900,000	\$8,900,000	\$8,900,000		
4	Lighting Infrastructure Technology and Equipment (LITE)	\$1,500,000	\$1,500,000	\$1,500,000	\$2,250,000	\$2,500,000		
2	Observation Deck Improvements		\$1,600,000					
5	Restroom Upgrade Program	\$500,000		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
6	Terminal 1-Lindbergh Employee Breakroom	\$250,000						
5	Terminal 1-Lindbergh Mechanical Room C-1043		\$5,500,000					
5	Terminal 1-Lindbergh Public Walk Aisle Terrazzo Floor Installation			\$4,400,000	\$4,400,000	\$4,500,000		
4	Way-Finding Sign Backlighting Replacement		\$1,600,000		\$1,600,000			
	13 - Energy Management Center							
4	Air Handling Unit Safety Upgrades		\$550,000					
4	Concourse G Energy Efficiency Projects		\$2,000,000					
4	Energy Savings Program		\$2,000,000		\$2,000,000		\$2,000,000	
4	Indoor Air Quality Monitoring		\$660,000					
4	LED Lighting Conversion in Valet		\$500,000					
4	Victaulic Piping Replacement		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	
	21 - Field and Runway							
2	Establish Taxiway J	\$200,000						
5	Perimeter Gate Security Improvements		\$3,000,000		\$5,500,000			
4	Runway 4-22 Taxiway Lighting System	\$3,500,000						
4	Runway LED Lighting Upgrade		\$1,000,000	\$1,500,000	\$1,700,000	\$2,650,000		
4	Taxiway T Centerline Lights			\$600,000				
4	Taxiways Bravo & Quebec Centerline Lights	\$6,800,000						
2	Terminal 2-Humphrey Glycol Lift Station/forcemain			\$1,100,000				

- NOTES:

1. A project that has the potential for substantial environmental effects.

2. A reconstruction, rehabilitation, repair or replacement that does not physically alter the original size (an EAW or EIS is not required).

3. An electrical or mechanical device that monitors, indicates or controls existing conditions (an EAW or EIS is not required).

4. An electrical, mechanical or structural device and/or modification of an existing structure that does not significantly increase size or passenger capacity (an EAW or EIS is not required).

5. A project that consists of safety or security enhancements, facility maintenance, or facility upgrades (an EAW or EIS is not required).

6. A new, replacement or expansion project that does not have substantial effect (an EAW or EIS is not required).

7. Consultant fees only for planning, design, or environmental work.

8. Residential noise mitigation efforts that are designed to alleviate the impact of aircraft noise (an EAW or EIS is not required).

9. Projects associated with the Airport Foundation art program (an EAW or EIS is not required).

10. Projects involving the demolition of existing buildings (an EAW or EIS is not required).

10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES	2019	2020	2021	2022	2023	2024	2025
MSP MAINTENANCE/FACILITY UPGRADE PROJECTS, continued							
31 - Parking							
2 Parking Ramp Railing Refinishing		\$1,000,000	\$1,000,000				
36 - Terminal 2-Humphrey							
6 Terminal 2-Humphrey Employee Breakroom		\$200,000					
6 Terminal 2-Humphrey Shuttle Waiting Area Expansion			\$200,000				
5 Terminal 2-Humphrey Skyway to LRT Flooring Installation				\$800,000			
39 - Public Areas/Roads							
2 Diverging Diamond Intersection Rehabilitation		\$340,000					
46 - Hangars and Other Buildings							
6 MAC Storage Facility	\$9,000,000						
6 Safety and Operations Center - AOC/EOC		\$18,000,000					
6 Safety and Operations Center - APD		\$20,000,000					
6 Safety and Operations Center - ARFF #2		\$16,700,000					
6 Safety and Operations Center - Sitework		\$14,200,000					
6 Safety and Operations Center - Technology		\$8,600,000					
56 - Trades/Maintenance Buildings							
6 South Field Maintenance Building Wash Bay		\$1,300,000					
63 - Police							
6 Badging Office Relocation		\$1					
5 Perimeter Fence Intrusion Detection System		\$1,000,000	\$1,000,000	\$1,000,000			
5 Razor Wire Perimeter Fencing	\$60,000						
66 - Fire							
5 Campus Fire Protection	\$500,000		\$500,000		\$500,000	\$500,000	
70 - General Office/Administration							
5 GO Building Improvements		\$500,000					
76 - Environment							
4 Ground Service Equipment (GSE) Electrical Charging Stations			\$2,700,000		\$3,000,000		
4 Lift Station at Ponds 1 and 2		\$850,000					
4 Runway 12R-30L Glycol Forcemain Environmental Improvements		\$1,500,000					
2 Storm Sewer Rehabilitation	\$2,600,000						
2 Terminal 2-Humphrey Remote Ramp Lot/Drainage Improvements				\$2,000,000			
MSP Maintenance/Facility Upgrade Projects Total	\$28,768,000	\$117,905,001	\$26,805,000	\$36,660,000	\$25,715,000	\$5,500,000	

- NOTES:
1. A project that has the potential for substantial environmental effects.

2. A reconstruction, rehabilitation, repair or replacement that does not physically alter the original size (an EAW or EIS is not required).

3. An electrical or mechanical device that monitors, indicates or controls existing conditions (an EAW or EIS is not required).

4. An electrical, mechanical or structural device and/or modification of an existing structure that does not significantly increase size or passenger capacity (an EAW or EIS is not required).

5. A project that consists of safety or security enhancements, facility maintenance, or facility upgrades (an EAW or EIS is not required).

6. A new, replacement or expansion project that does not have substantial effect (an EAW or EIS is not required).

7. Consultant fees only for planning, design, or environmental work.

8. Residential noise mitigation efforts that are designed to alleviate the impact of aircraft noise (an EAW or EIS is not required).

9. Projects associated with the Airport Foundation art program (an EAW or EIS is not required).

10. Projects involving the demolition of existing buildings (an EAW or EIS is not required).

10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES		2019	2020	2021	2022	2023	2024	2025
MSP NOISE MITIGATION PROJECTS								
8	Noise Mitigation Consent Decree Amendment	\$13,500,000	\$7,500,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	
	MSP Noise Mitigation Projects Total	\$13,500,000	\$7,500,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	
MSP ONGOING MAINTENANCE PROGRAMS								
10 - Terminal 1-Lindbergh								
4	Air Handling Unit Replacement	\$2,500,000	\$2,500,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
4	Baggage System Upgrades	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	
4	Concourse G AHU Replacement Program	\$6,400,000	\$3,500,000	\$3,500,000	\$3,500,000	\$5,900,000	\$3,500,000	\$3,500,000
4	Concourse G Rehabilitation	\$4,000,000	\$4,000,000	\$4,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
4	Conveyance System Upgrades	\$3,000,000		\$3,000,000			\$3,000,000	
4	Electrical Infrastructure Program (EIP)	\$1,500,000	\$2,000,000	\$2,000,000	\$2,500,000	\$2,500,000		\$2,500,000
4	Electrical Substation Replacement			\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,200,000
4	Emergency Power Upgrades	\$1,500,000	\$2,000,000	\$2,000,000	\$2,500,000	\$2,500,000		\$2,500,000
4	Plumbing Infrastructure Upgrade Program	\$500,000	\$500,000	\$600,000	\$600,000	\$600,000	\$700,000	
5	Terminal Building Remediation Program	\$2,000,000	\$2,000,000	\$2,000,000	\$3,000,000	\$3,000,000	\$3,000,000	
4	Terminal Miscellaneous Modifications	\$2,400,000	\$2,400,000	\$2,400,000	\$2,500,000	\$2,500,000	\$2,500,000	
13 - Energy Management Center								
4	EMC Plant Upgrades (T1 & T2)	\$1,500,000	\$1,500,000	\$1,500,000	\$1,300,000			\$1,500,000
21 - Field and Runway								
2	Airside Bituminous Rehabilitation/Electrical Construction		\$1,100,000	\$4,000,000	\$2,300,000	\$2,500,000		
2	Glycol Tank Repairs		\$500,000					
2	Miscellaneous Airfield Construction	\$3,800,000		\$900,000			\$1,000,000	
2	Pavement Joint Sealing/Repair	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	
26 - Terminal Roads/Landside								
2	Glumack Drive Reconstruction				\$9,250,000			
2	Tunnel Approaches Reconstruction				\$2,370,000			
2	Tunnel/Bridge Rehabilitation	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
31 - Parking								
2	Parking Structure Rehabilitation	\$2,500,000	\$2,500,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	

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10.1 APPENDIX A – MAC Preliminary 2019-2025 Capital Improvement Program (CIP) Listing

NOTES		2019	2020	2021	2022	2023	2024	2025
	MSP ONGOING MAINTENANCE PROGRAMS, continued							
	39 - Public Areas/Roads							
2	34th Ave Sanitary Sewer Replacement			\$2,200,000				
2	34th Avenue Bus Area Reconstruction					\$700,000		
2	34th Avenue Reconstruction		\$13,000,000					
2	Concrete Joint Repair	\$400,000	\$900,000	\$2,200,000	\$300,000	\$400,000	\$2,300,000	\$2,900,000
2	Landside Pavement Rehabilitation	\$400,000	\$400,000	\$500,000	\$500,000	\$500,000	\$500,000	
2	Landside Utility Rehabilitation	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000		
2	Roadway Fixture Refurbishment	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000		
	46 - Hangars and Other Buildings							
5	Campus Building Rehab Program		\$500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	
2	Campus Parking Lot Reconstructions				\$650,000	\$650,000		
10	End of Life Campus Building Demolition				\$400,000	\$400,000		
2	MSP Campus Building Roof Replacements	\$600,000	\$2,900,000	\$1,300,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	MSP Ongoing Maintenance Programs Total	\$35,150,000	\$44,350,000	\$43,150,000	\$48,720,000	\$39,200,000	\$32,650,000	\$23,100,000
	MSP TENANT PROJECTS							
	10 - Terminal 1-Lindbergh							
2	Concessions Rebids	\$3,200,000						
2	Concessions Upgrades/Revenue Development	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	
1	Concourse G Delta SkyClub		\$30,000,000					
	MSP Tenant Projects Total	\$3,400,000	\$30,200,000	\$200,000	\$200,000	\$200,000	\$200,000	

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	RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS							
	81 - St. Paul							
7	STP AGIS and ALP				\$300,000			
	82 - Lake Elmo							
1	21D Airfield Modifications		\$3,000,000					
7	21D Long Term Comp Plan						\$100,000	
1	21D Runway 14-32 Replacement	\$3,000,000	\$2,000,000	\$2,000,000				
	83 - Airlake							
7	LVN Long Term Comp Plan						\$100,000	
1	LVN Runway 12-30 Improvements				\$3,500,000			
1	LVN South Building Area Development - Phase 1	\$1,500,000						
	84 - Flying Cloud							
7	FCM AGIS and ALP			\$300,000				
6	FCM South Building Area Utilities							\$600,000
	85 - Crystal							
7	MIC Long Term Comp Plan						\$100,000	
1	MIC Runway 14R-32L & Taxiway E Modifications (* Project will move to 2020 in Final CIP)	\$3,800,000						
	86 - Anoka County - Blaine							
7	ANE AGIS and ALP			\$300,000				
1	ANE Building Area Development - Xylite St. Relocation						\$1,000,000	
	Reliever Airports Long Term Comprehensive Plan Projects Total	\$8,300,000	\$5,000,000	\$2,600,000	\$3,800,000		\$1,300,000	\$600,000

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	RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS							
	81 - St. Paul							
6	STP Airport Perimeter Roads		\$400,000				\$500,000	
6	STP Cold Equipment Storage Building					\$750,000		
2	STP Joint and Crack Repairs		\$100,000		\$100,000		\$100,000	
4	STP LED Edge Lighting Upgrades			\$1,500,000	\$1,000,000			
5	STP MAC Building Improvements	\$2,300,000		\$1,000,000	\$200,000		\$200,000	
2	STP Pavement Rehabilitation-Taxilanes/Tower Road							\$500,000
2	STP Runway 13-31 Pavement Reconstruction				\$5,000,000			
2	STP Runway 14-32 Reconstruction						\$5,000,000	\$5,000,000
2	STP Storm Sewer Improvements	\$1,500,000				\$1,500,000		
2	STP Taxiway B Rehabilitation						\$800,000	
2	STP Underground Fuel Storage Tank Replacement	\$100,000						
	82 - Lake Elmo							
2	21D Alleyways - South Building Area Pavement Rehab	\$900,000						
5	21D MAC Building Improvements	\$400,000						\$400,000
2	21D North Building Area Pavement Rehabilitation					\$900,000		
2	21D Parallel Taxiways Reconstruction	\$600,000			\$600,000			
2	21D Runway 04-22 Pavement Rehabilitation			\$4,000,000				
2	21D Underground Fuel Storage Tank Replacement	\$100,000						
	83 - Airlake							
2	LVN Existing Runway 12-30 Reconstruction				\$3,500,000			
2	LVN Joint and Crack Repairs			\$150,000				
4	LVN LED Edge Lighting		\$500,000		\$200,000			
5	LVN MAC Building Improvements	\$400,000						\$550,000
6	LVN Plane Wash Pad	\$150,000						
6	LVN Public Restroom Facility	\$300,000						
2	LVN Underground Fuel Storage Tank Replacement		\$100,000					

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RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS, continued							
84 - Flying Cloud							
2	FCM Airport Access Roads and Tango Lane						\$500,000
6	FCM Electrical Vault Modifications						\$500,000
5	FCM Executive Aviation Building Improvements		\$200,000				
5	FCM MAC Building Improvements		\$520,000				
2	FCM Runway 10R-28L Pavement Rehabilitation		\$1,500,000				
2	FCM Taxiway D Pavement Rehabilitation		\$600,000				
2	FCM Taxiway E Pavement Rehabilitation		\$600,000				
2	FCM Taxiways A1, A3, F Pavement Rehabilitation			\$300,000			
2	FCM Underground Fuel Storage Tank Replacement			\$100,000			
85 - Crystal							
2	MIC Alleyways Pavement Rehabilitation			\$550,000	\$600,000	\$500,000	
10	MIC Building Demo - Flight Simulator Building			\$150,000			
4	MIC LED Edge Lighting Upgrade			\$400,000	\$400,000		
5	MIC MAC Building Improvements			\$500,000	\$500,000		
2	MIC Taxiways Pavement Rehabilitation			\$700,000			
2	MIC Underground Fuel Storage Tank Replacement			\$100,000			
86 - Anoka County - Blaine							
5	ANE Air Traffic Control Tower Equipment Upgrades			\$100,000			
2	ANE Alleyways Pavement Reconstruction			\$750,000	\$750,000	\$750,000	
4	ANE Electrical Vault Improvements						
4	ANE LED Edge Lighting Upgrade			\$800,000	\$1,700,000		
5	ANE MAC Building Improvements						
4	ANE Obstructions Removal			\$100,000			
2	ANE South Service Road & East Landside Road Pavement Reconstruction			\$1,000,000			
2	ANE Underground Fuel Storage Tank Replacement			\$100,000			
6	ANE West Perimeter Road						
Reliever Airports Maintenance/Facility Upgrade Projects Total		\$10,800,000	\$4,450,000	\$8,320,000	\$14,000,000	\$5,850,000	\$7,850,000
Grand Total		\$271,618,000	\$364,655,001	\$169,425,000	\$144,130,000	\$112,115,000	\$60,620,000

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10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

2019 Capital Improvement Program Narratives

MSP END OF LIFE/REPLACEMENT PROJECTS

10 – Terminal 1- Lindbergh

Passenger Boarding Bridge Replacements

\$7,000,000

This project provides for the replacement of 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.

Terminal 1-Lindbergh Tug Doors Replacement

\$600,000

This project will replace the tug doors at Terminal 1-Lindbergh as they have reached the end of their useful life.

Terminal 1-Lindbergh Tram Systems Retrofit and Equipment

\$1,500,000

This project is a phase of the multi-year program that extends the life of the C Concourse and Hub Trams by updating the electrical, mechanical, and structural components.

TSA Recapitalization

\$12,000,000

In 2005 the Commission approved construction of the West Checked Baggage Inspection System (CBIS), which included a TSA contribution of seven CTX devices, supporting technologies and equipment, and staff. Subsequently, the CTX devices have begun to approach end-of-life status based on current required maintenance cost, as determined by the TSA. The TSA has offered for negotiation a 100% funded (no MAC cost) "Other Transaction Agreement" (OTA) for design and construction services for device replacement and other required upgrades to accommodate the new technology. There will be two OTAs, one for the design phase and a second OTA for the construction phase will be negotiated in 2019. This project will provide for the design and installation of TSA furnished devices and other required equipment at no cost to the MAC.

21 – Field and Runway

Snow Melter Upgrades/Modifications

\$750,000

This project is the second of a two-year program that provides for the evaluation, maintenance, miscellaneous modifications, and replacement of existing airfield snow melters located around the MSP campus.

36 – Terminal 2-Humphrey

Public Walk Aisle Terrazzo Floor Installation

\$1,700,000

This project will remove carpet and install terrazzo in the baggage claim area and the walk aisle at Gates H1-H7 to match the terrazzo installed in the Gate Expansion that opened in 2016 as well as install terrazzo between the ticket lobby and Checkpoint 1.

39 – Public Areas/Roads

28th Avenue Watermain Replacement

\$1,300,000

Project provides for reconstruction of approximately 2,600 linear feet of 18-inch watermain along 28th Avenue. Major items of work include miscellaneous removals, removal and reconstruction of ductile iron watermain, valves, hydrants, aggregate base, bituminous pavement, curb, concrete walk, fencing, and restoration of turf and landscaping.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

66 – Fire

MSP Campus Fire Alarm System Transition

\$1,000,000

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

10 – Terminal 1- Lindbergh

Intelligent Monitoring and Control Systems (IMACS)

\$1,500,000

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.

Interactive Digital Directory Upgrade

\$150,000

Replace all 55" digital and print directories at Terminal 1-Lindbergh with a new digital kiosk design.

IT Miscellaneous Modifications

\$8,400,000

Each year, there are a number of 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 2019.

Telecommunications Room Equipment Continuity (TREC)

\$1,500,000

The MAC network (MACNet) carries, along with other information, credit card data collected from the landside parking revenue control system. Merchants like the MAC are required to meet credit card security standards created to protect card holder data. Among these requirements are security standards for the physical locations where MACNet equipment is located. Additionally, the network equipment itself must have added security features to prevent unauthorized network access. This multi-year program addresses these standards by providing security equipment and relevant network hardware for the 150 telecommunications rooms on the MAC campus.

Card Access Modifications

\$2,000,000

This program will add card access controls at passenger boarding bridge doors for improved security at a pace faster than only adding the controls as bridges are replaced.

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

10 – Terminal 1- Lindbergh

Armed Forces Service Center Relocation

\$1,100,000

The Armed Forces Service Center location is being displaced by the Operational Improvements program. This project will relocate the center to a desired location behind the security line in the terminal.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Automated Security Lanes (ASLs)

\$2,000,000

This multi-year program will provide funding for procurement and installation of additional TSA-approved Automated Security Lanes to enhance throughput by 20-40% per lane, without the loss of the existing quantity of lanes. The replacement conveyor equipment provides bin returns to the divesture area managed by TSA staff, suspect bin isolation for searches, analytics for improved reporting and training, and improved x-ray image display, storage, and monitoring. Additional work required to support the installation will include power and data additions for new and replacement equipment and for equipment network requirements.

Baggage Claim/Ticket Lobby Operational Improvements

\$98,000,000

This is the first of three projects in a program that will provide the level of service requirements for short- and medium-term growth of the O&D passengers, including walkways that meet required codes, public seating areas, centralized meet and greet space, unclaimed baggage storage, baggage service offices, concessions (food & beverage and retail), improved lighting, fire protection throughout the space, structural enhancements, improved sight lines, curbside lighting and access, and other operational improvements in the Arrivals Hall. In the Departures Hall, this program addresses, with the Vertical Circulation Improvements Program, issues of congestion and functionality in the Terminal 1-Lindbergh Ticket Lobby. It will provide walkways that meet required codes, ticket counter consolidations, airline ticket offices, centralized meet and greet areas, improved vestibules and access, east mezzanine removal/reduction, structural enhancements, curtain wall replacement, and other operational improvements. On both levels, the 2019 project constructs new restrooms in order to allow future phases to demolish the existing old and outdated restrooms.

MSP Long Term Comp Plan

\$2,200,000

The MSP 2030 Long Term Comprehensive Plan (LTCP), previously completed in April 2010, is scheduled to be updated in 2020. While some efforts have already started with checkpoint modeling and parking analyses, the work in 2019 will continue the forecasting efforts and include preparation of the LTCP document for public review and Commission approval.

Valet Parking Lobby and Restroom Upgrade

\$5,000,000

This project includes a relocation and expansion of the MAC Lost and Found, consolidation of the Valet Parking Lobby and support spaces, and Restroom Upgrades to current standards. The work is to be completed in two major phases, and includes a centralization of the drop-off and pick-up of the valet parking product, centered on the new Operational Improvements elevator lobby, with finishes to match the product being provided. There is also a mosaic art component for the restrooms and the space that is funded through the percent for arts program.

21 – Field and Runway

Taxiway C1 Construction

\$4,000,000

Project provides for the construction of Taxiway C1 located abeam to Gates H5/H6 between Taxiway C and Taxiway D as well as the replacement of a portion of Taxiway D which has reached the end of its useful life. Major items of work include excavation and backfill, concrete taxiway pavement, bituminous shoulder pavement, pavement markings, and airfield lighting and signing.

31 – Parking

Terminal 1-Lindbergh Parking Ramp – Parking Ramp Modifications

\$17,000,000

This project will modify the red/blue parking levels vacated by Rental Car agencies when they move to the new parking ramp. This project will prepare the areas to accommodate public parking.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

36 – Terminal 2- Humphrey

Terminal 2-Humphrey Automated Security Lanes (ASLs) **\$3,000,000**

This first phase of a two-year project will provide funding for procurement and installation of TSA-approved Automated Security Lanes at the Terminal 2-Humphrey's Security Checkpoint No. 1 to enhance throughput by 20-40% per lane, without the loss of the existing quantity of lanes. The replacement conveyor equipment provides bin returns to the divestiture area managed by TSA staff, suspect bin isolation for searches, analytics for improved reporting and training, and improved x-ray image display, storage, and monitoring. Additional work required to support the installation will include power and data additions for new and replacement equipment and for equipment network requirements.

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

10 – Terminal 1- Lindbergh

ADO Office Expansion **\$750,000**

Additional office and meeting space is needed for MAC staff. Completion of the South Mechanical Penthouse and work in the southern portion of the Valet space project will provide an opportunity to repurpose a mechanical room adjacent to the Airport Director's Office suite into office space.

Art Display Areas **\$500,000**

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. This year's project will support an outdoor Art Park adjacent to the Hotel for permanent and rotating exhibits with public access for travelers and hotel guests.

Arts Master Plan **\$808,000**

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

Concourse D HVAC Upgrade **\$1,800,000**

The ground level of the D Concourse was originally designed as a tug drive system. It has been abandoned and underutilized for many years in this function. As a result the systems in this area are no longer functioning. The space is being utilized as part office, part vehicle bay and part storage area. The mechanical systems need to be upgraded to meet the needs of the space.

Lighting Infrastructure Technology and Equipment (LITE) **\$1,500,000**

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 also change and upgrades will provide for more energy efficient lighting systems.

Restroom Upgrade Program **\$500,000**

Located near Travelers Assistance Central near Concourse D, the project will expand an existing 'companion-care/family' restroom into a restroom with an adult changing table and emergency notification system. With changing demographics and the need for facilities to change people of larger stature and weight than a young child, the proposed height-changing electrically-powered changing table will allow side transfer for guests in a wheelchair, and low access for others, allowing safe access, and the correct ergonomic height for changing. The Operational Improvements program will also include changing tables in the arrivals hall program.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Terminal 1-Lindbergh Employee Breakroom **\$250,000**

This project will provide a MSP employee break room that will have a quiet area for employees who work multiple shifts on the campus to eat, read, etc. By providing this quality work support area, front line and other employees will be able to rest and eat out of view of the public.

21 – Field and Runway

Establish Taxiway J **\$200,000**

Project provides for marking, lighting and signage for a 900-foot length of Taxiway J between Taxiway M and Taxiway Q.

Runway 4-22 Taxiway Lighting System **\$3,500,000**

This project provides for the construction of taxiway lighting systems for runway 4-22 between runway 12I-30r and runway 17-35 with lead-in/off centerline lighting on the end connector taxiways. Work includes installation of taxiway edge and centerline lights, cabling, and modifications at the ALEC south building. This will provide the FAA aircraft control tower the ability to convert runway 4-22 into a fully functional taxiway and back to a runway configuration as required. The lighting system will allow for the safe aircraft taxi operations on runway 4-22 during peak operational periods without the risk of a possible pilot caused runway incursion due to confusion of current lighting systems. This will bring this unique operation conversion to be fully compliant with the FAA design requirements for a taxiway operation.

Taxiways Bravo & Quebec Centerline Lights **\$6,800,000**

This project provides for the construction of taxiway centerline lighting systems for taxiways Bravo and Quebec, located adjacent to the Terminal 1-Lindbergh aprons through the intersections with taxiway Delta. Work includes removal of existing taxiway centerline reflectors, installation of taxiway centerline lights and conductors, and modifications at the airfield lighting control building.

46 – Hangars and Other Buildings

MAC Storage Facility **\$9,000,000**

This project will construct a new building to provide storage and associated workspace to replace storage spread around the campus in buildings that can no longer provide adequate protection from the elements and pests.

63 – Police

Razor Wire Perimeter Fencing **\$60,000**

To install razor wire perimeter fencing along the T1 & T2 airfield. This project will likely be incorporated into the Miscellaneous Airfield Construction project.

66 – Fire

Campus Fire Protection **\$500,000**

This project is part of a multi-year program to upgrade fire protection systems in various MAC-owned buildings on the MSP campus to meet MAC standards for improved compatibility with current and planned firefighting equipment.

76 – Environment

Storm Sewer Rehabilitation **\$2,600,000**

This is the second of a two-year program that supports and complies with the 2017 MAC/MPCA Memorandum of Understanding concerning the MSP Glycol Collection Program. This project provides for cleaning, inspection, and rehabilitation of storm sewers and glycol sewers at various locations where aircraft deicing occurs, to enhance collection and storage of glycol-impacted stormwater resulting from deicing operations.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

MSP NOISE MITIGATION PROJECTS

Noise Mitigation Consent Decree Amendment

\$13,500,000

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

10 – Terminal 1- Lindbergh

Air Handling Unit (AHU) Replacement

\$2,500,000

There are existing air handling units serving Terminal 1-Lindbergh 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.

Concourse G AHU Replacement Program

\$6,400,000

In January 2016, the MAC took ownership of the G Concourse at Terminal 1 - Lindbergh from Delta Airlines. With that came additional maintenance of all of the equipment on that concourse. Most of the equipment was original to the building, dating back more than forty years. Air handling units (AHUs) typically have a lifespan of twenty-five years. Inspections and routine maintenance revealed that these AHUs need replacement.

Concourse G Rehabilitation

\$4,000,000

This multi-year program will provide operational improvements to the existing concourse over time, including replacing elevators, modifying and replacing structural, electrical and mechanical systems.

Conveyance System Upgrades

\$3,000,000

This year's project within the multi-year program will add an elevator to the Observation Deck above Concourse D, making it accessible ahead of the upgrades to that area scheduled in 2020.

Electrical Infrastructure Program

\$1,500,000

There are 53 electrical substations that serve the Terminal 1-Lindbergh complex. It is imperative that these substations be inspected, cleaned, and upgraded in order to ensure their continued performance. This is a continuation of a multi-year program that began in 2009.

Emergency Power Upgrades

\$1,500,000

A study and survey of Terminal 1-Lindbergh 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.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Plumbing Infrastructure Upgrades

\$500,000

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-Lindbergh 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 2019 project is to continue the replacement of aging plumbing systems.

Terminal Building Remediation

\$2,000,000

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

\$2,400,000

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 2019.

13 – Energy Management Center

EMC Plant Upgrades (T1 & T2)

\$1,500,000

This multi-year program provides upgrades to the MAC's Energy Management Center (EMC) Boiler and Chiller Plants at both Terminal 1-Lindbergh and Terminal 2-Humphrey. 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

Miscellaneous Airfield Construction

\$3,800,000

This is an ongoing program to consolidate various items beyond the capabilities of the maintenance personnel, projects too small to be accomplished independently, or to handle airside problems requiring repair which come up unexpectedly. This year's program will also address repairs and maintenance required by the most recent Part 139 inspection.

Pavement Joint Sealing/Repair

\$650,000

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 Rehabilitation

\$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.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

31 – Parking

T1/T2 Parking Structure Rehabilitation

\$2,500,000

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

\$400,000

This is the first year of a new multi-year program intended 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

\$400,000

This is an ongoing program to construct or reconstruct bituminous pavements outside of the Air Operations Area (AOA). 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 a number of 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. In this first year of the program, a study will be conducted as part of 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 are in need of repainting and maintenance. This project provides for refurbishment of these fixtures.

46 – Hangars and Other Buildings

MSP Campus Building Roof Replacements

\$600,000

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. In 2019, the roof of the ALEC North building will be replaced. Emergency repairs may also be needed on some other roofs; this program will provide dollars for such instances.

MSP TENANT PROJECTS

10 – Terminal 1- Lindbergh

Concessions Rebids

\$3,200,000

This program provides support for required infrastructure to be brought to lease-lines, shell-space for new build-outs, and for other major changes required to implement the concessions rebid programs at Terminal 1-Lindbergh.

Concessions Upgrades/Revenue Development

\$200,000

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.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

82 – Lake Elmo

21D Runway 14-32 Replacement **\$3,000,000**

The updated long term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. This year's scope includes the first phase of construction for this project, which primarily focuses on roadway realignment to make way for runway construction. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

83 - Airlake

LVN South Building Area Development – Phase 1 **\$ 1,500,000**

This project includes phase 1 construction of sanitary sewer and water mains and lot services to the south building area. Phase 1 also includes construction of associated taxilanes and the south entrance road.

85 – Crystal

MIC Runway 14R-32L & Taxiway E Modifications **\$3,800,000**

The updated long term comprehensive plan for this airport proposes “right-sizing” the airport infrastructure, including decommissioning Runway 14R-32L. This project includes converting Runway 14R-32L into a parallel taxiway and rehabilitating portions of Taxiway Echo. The project also includes electrical vault improvements triggered by associated runway lighting modifications. The project budget also includes the required environmental review studies.

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

81 – St. Paul

STP MAC Building Improvements **\$2,300,000**

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 will include improvements to the Administration Building, Equipment Storage Building, Maintenance Building, and both Cold Storage Buildings.

STP Storm Sewer Improvements (Phase 2) **\$1,500,000**

This project includes improvements to the existing storm sewer systems in the West Building Area and infield area between Taxiways Delta and Lima, to improve storm water removal and to address soil and pavement distress in the vicinity of deficient storm sewer structures. The project will also evaluate the potential for improvements to the flood pump stations to maximize efficient removal of storm water from the airfield during flood events.

STP Underground Fuel Storage Tank Replacement **\$100,000**

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

82 – Lake Elmo

21D Alleyways – South Building Area Pavement Rehab **\$900,000**

This project is part of an ongoing effort 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. This project includes rehabilitation of alleyways in the South Building Area.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

21D MAC Building Improvements **\$400,000**

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings. This year's project will include improvements to the MAC Maintenance Building.

21D Parallel Taxiways Reconstruction **\$600,000**

This project is part of an ongoing effort 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 Lake Elmo Airport suffers from poor subgrade materials, which contribute to the overall deterioration of pavements. This project includes the full-depth reconstruction of the oldest portions of Taxiway Alpha and Bravo not included in previous projects.

21D Underground Storage Tank Replacement **\$100,000**

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

83 – Airlake

LVN MAC Building Improvements **\$400,000**

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings. This year's project will include improvements to the MAC Maintenance Building.

LVN Plane Wash Pad **\$150,000**

This project includes the construction of a designated airplane wash pad.

LVN Public Restroom Facility **\$300,000**

This project includes the construction of a tenant-use restroom facility on the north side of the airport.

84 – Flying Cloud

FCM Executive Aviation Building Improvements **\$200,000**

This project is to complete the work associated with repurposing the Executive Aviation building for MAC use. Work to be completed includes creating meeting space, equipment access to/from the building and airfield and other miscellaneous work items.

FCM Taxiway D Pavement Rehabilitation **\$600,000**

This project is part of an ongoing effort 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. This project includes rehabilitation of Taxiway Delta.

FCM Taxiway E Pavement Rehabilitation **\$600,000**

This project is part of an ongoing effort 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. This project includes rehabilitation of Taxiway Echo.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

85 – Crystal

MIC Taxiways Pavement Rehabilitation

\$700,000

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. This project includes the rehabilitation of the taxiway or portions of taxiways in most need of repair. 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 Alleyways Pavement Reconstruction

\$750,000

This is an ongoing program to reconstruct 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. This project includes rehabilitation of alleyways in the West Building Area.

ANE Obstructions Removal

\$100,000

This project will address identification and removal of obstructions to the runway approach surfaces.

ANE South Service Road & East Landside Road Pavement Reconstruction

\$1,000,000

This is an ongoing effort to rehabilitate airport pavements through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes the rehabilitation of the airport service road connecting the east and west building areas.

ANE Underground Storage Tank Replacement

\$100,000

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

2020 Capital Improvement Program Narratives

MSP END OF LIFE/REPLACEMENT PROJECTS

10 – Terminal 1- Lindbergh

Passenger Boarding Bridge Replacements

\$7,000,000

This project provides for the replacement of 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.

Terminal 1-Lindbergh Tram Systems Retrofit and Equipment

\$1,750,000

This project is the final phase of the multi-year program that extends the life of the C Concourse and Hub Trams by updating all of the electrical, mechanical, and structural components. This phase also replaces the guideway lighting for both trams. This final phase brings the operation and maintenance of all tram systems to their end-of-design-life of January 1, 2026.

21 – Field and Runway

Runway 12R-30L Tunnel Storm Sewer

\$900,000

Project provides for construction of a new storm sewer main inside the existing Runway 12R-30L vehicular tunnel to replace the existing storm sewer which is not functional due to deterioration and accumulated sediment.

Sanitary Sewer Replacement – Taxiway R

\$3,300,000

Project provides for reconstruction of the sanitary sewer currently located beneath the U.S. Air Force Apron. The sewer will be relocated between Taxiway R and the apron. New lateral sewers will be constructed to connect Air Force sewers to the new sewer main, and abandoned sewers will be filled with sand. The project will require removal and replacement of portions of the apron pavement and connecting taxiways.

Taxiway D Reconstruction

\$12,000,000

Project provides for reconstruction of a portion of Taxiway D between Taxiway W and Taxiway C1. Existing concrete pavement was constructed in 1972. Major items of work include pavement removals, excavation and backfill, concrete taxiway pavement, bituminous shoulder pavement, and airfield lighting and signing.

26 – Terminal Roads/Landside

UPS Loop Pavement Reconstruction

\$1,600,000

This project is to reconstruct the existing UPS Loop. The existing concrete pavement has had periodic maintenance including repairs to the existing joints near the UPS gate entrance. The reconstruction work will include concrete pavement, lighting, electrical infrastructure, concrete walk, landscape and other improvements.

Variable Message Signs Replacement, Phase 3

\$1,600,000

This project replaces approximately 26 variable message signs across the MSP campus and installs five new signs to assist with parking diversions.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

66 – Fire

MSP Campus Fire Alarm System Transition

\$1,000,000

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

10 – Terminal 1- Lindbergh

Intelligent Monitoring and Control Systems (IMACS)

\$1,500,000

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.

IT Miscellaneous Modifications

\$5,500,000

Each year, there are a number of 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 2020.

Telecommunications Room Equipment Continuity (TREC)

\$1,500,000

The MAC network (MACNet) carries, along with other information, credit card data collected from the landside parking revenue control system. Merchants like the MAC are required to meet credit card security standards created to protect card holder data. Among these requirements are security standards for the physical locations where MACNet equipment is located. Additionally, the network equipment itself must have added security features to prevent unauthorized network access. This multi-year program addresses these standards by providing security equipment and relevant network hardware for the 150 telecommunications rooms on the MAC campus.

Card Access Modifications

\$3,500,000

This program will add card access controls at passenger boarding bridge doors for improved security at a pace faster than only adding the controls as bridges are replaced.

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

10 – Terminal 1- Lindbergh

Automated Security Lanes (ASLs)

\$2,000,000

This multi-year program will provide funding for procurement and installation of additional TSA-approved Automated Security Lanes to enhance throughput by 20-40% per lane, without the loss of the existing quantity of lanes. The replacement conveyor equipment provides bin returns to the divesture area managed by TSA staff, suspect bin isolation for searches, analytics for improved reporting and training, and improved x-ray image display, storage, and monitoring. Additional work required to support the installation will include power and data additions for new and replacement equipment and for equipment network requirements.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Baggage Claim/Ticket Lobby Operational Improvements

\$61,900,000

This is the second of three projects in a program that will provide the level of service requirements for short- and medium-term growth of the O&D passengers, including walkways that meet required codes, public seating areas, centralized meet and greet space, unclaimed baggage storage, baggage service offices, concessions (food & beverage and retail), improved lighting, fire protection throughout the space, structural enhancements, improved sight lines, curbside lighting and access, and other operational improvements in the Arrivals Hall. In the Departures Hall, this program addresses, with the Vertical Circulation Improvements Program, issues of congestion and functionality in the Terminal 1-Lindbergh Ticket Lobby. It will provide walkways that meet required codes, ticket counter consolidations, airline ticket offices, centralized meet and greet areas, improved vestibules and access, east mezzanine removal/reduction, structural enhancements, curtain wall replacement, and other operational improvements. On both levels, the 2019 project constructs new restrooms in order to allow future phases to demolish the existing old and outdated restrooms.

Baggage Handling System

\$32,000,000

This project is part of a multiphase program supporting the Operational Improvements program. The 2020 phase of work begins the multiple phase installation of new inbound claim devices, and ticket counter changes for the north departures and arrivals halls, matching the work of the south departures and arrivals halls. The work is coordinated with the Operational Improvements multi-phase projects including the façade expansion, ticket lobby and baggage claim phased projects, and replaces ticket counter belts and other conveyors that are end-of-life and not controlled by the BHS system.

Checkpoint Expansion

\$5,800,000

The South Security Checkpoint will be expanded from six to nine lanes, including an initial employee lane, to accommodate growth of originating passenger enplanements, potential changes to employee screening, and will include structural enhancements from the Operational Improvements program, bypass doors to match the OI: north security checkpoint designs (consistent with Terminal 2-Humphrey SSCP bypass doors), and the ability to close the security checkpoint at night to the secure side, improving opening times the following day by not requiring a TSA security sweep. The project also balances the departures lobby by providing balanced security checkpoint lanes and employee screening opportunities, plus space for additional ASLs, CTs, and CATs.

FIS Recheck Operational Improvements

\$8,400,000

As a part of the long term comprehensive plan, expansion to the FIS luggage recheck area will be needed to accommodate additional passengers, lengthened queue at the expanded Security Checkpoint 07, and a relocation of the existing restrooms at gate G6 to accommodate the expansion and relocation of the FIS recheck.

36 – Terminal 2- Humphrey

Terminal 2-Humphrey Automated Security Lanes (ASLs)

\$3,000,000

This second phase of a two-year project will provide funding for procurement and installation of TSA-approved Automated Security Lanes at the Terminal 2-Humphrey's Security Checkpoint No. 1 to enhance throughput by 20-40% per lane, without the loss of the existing quantity of lanes. The replacement conveyor equipment provides bin returns to the divesture area managed by TSA staff, suspect bin isolation for searches, analytics for improved reporting and training, and improved x-ray image display, storage, and monitoring. Additional work required to support the installation will include power and data additions for new and replacement equipment and for equipment network requirements.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Terminal 2-Humphrey FIS Baggage Claim Improvements **\$1,000,000**

This project will modify the inbound baggage handling system and add movable partitions to allow one of the two FIS baggage carousels to be used for domestic flights while the other remains secure for international arrivals.

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

10 – Terminal 1- Lindbergh

Art Display Areas **\$250,000**

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 **\$1,155,000**

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

Concourse G Moving Walks **\$2,500,000**

This is the second project of a multi-year program to replace the near end-of-life moving walks on the G Concourse. This year's project will replace the moving walks between Pods 3 and 4. The walks will also be shortened to accommodate future development of passenger amenities adjacent to the ends of the moving walks.

T1 Folded Plate Repairs **\$8,900,000**

This four-year program to rehabilitate the existing structure is the next step now that the previously constructed drainage improvements are complete. This year's project will remove the existing roof layers, including asbestos material and wood structural pieces, and construct a new roof in one quadrant of the structure.

Lighting Infrastructure Technology and Equipment (LITE) **\$1,500,000**

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 also change and upgrades will provide for more energy efficient lighting systems.

Observation Deck Improvements **\$1,600,000**

This project includes changes to the space to accommodate guests with the associated elevator access project, including heating and cooling changes, expansion as needed to meet the new elevator, railing modifications, floor finish changes, curtainwall repairs, lighting improvements, and public address connection to air traffic control tower.

Terminal 1-Lindbergh Mechanical Room C-1043 **\$5,500,000**

Concourse C Mechanical Room C-1043 is a mechanical room that houses a very large high pressure steam pressure reducing station, a domestic water main meter assembly, HVAC pumps, fire protection valves, and electrical conduits. The age of this equipment and limited access to maintain and repair it increases the risk of a loss of service on Concourse C. 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.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Way-Finding Sign Backlighting Replacement **\$1,600,000**

The third phase of the multi-year program to replace failing cold-cathode lighting with LED lighting and update signage, remove signs, relocate and combine signs, and modify verbiage and symbols on signs to be more consistent with international signage norms. Since 2008 the cold-cathode lighting has been maintained and requires staff and material costs; newer signage standards update the lighting and allow for easier/less-costly signage face changes, and has been implemented within the Operational Improvements program, Silver Ramp, and other projects.

13 – Energy Management Center (EMC)

Air Handling Unit Safety Upgrades **\$550,000**

This project will verify the wiring of safety sensors on the air handling units (AHUs) at MSP and correct those that are wired incorrectly. 41 of the 97 AHUs initially tested were found to have safety sensors wired through the automation system rather than directly to the motor controller (starter or variable frequency drive).

Concourse G Energy Efficiency Projects **\$2,000,000**

This project will focus on improving the energy efficiency of mechanical and electrical systems in the G Concourse.

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

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

Indoor Air Quality Monitoring **\$660,000**

This project will install needed CO₂ sensors in common return air ducts, and tie all new and existing sensors into the IMACS for remote monitoring and for automatic safety ventilation. I will also provide the EMC with advanced modular indoor air quality (IAQ) sensors to install temporarily at any location that has IMACS to detect ultra-fine particles, volatile organic compounds, CO₂, CO, NO₂ and other gasses in the area of an IAQ complaint, enabling the EMC to accurately assess the problem and solution.

LED Lighting Conversion in Valet **\$500,000**

This project replaces light fixtures in the valet parking area with LED fixtures for improved energy efficiency in support of the MAC's Carbon Management Plan.

Victaulic Piping Replacement **\$1,000,000**

This 5-year program will replace the Victaulic piping and valves in Terminal 2-Humphrey, Terminal 1-Lindbergh: Concourse E, Concourse F, Concourse C and Concourse C Tunnel. While Victaulic pipe fittings allow for the pipe to be quickly and easily disassembled when needed, it has been discovered that the joints cause leaking because the seals shrink when they cool due to shut downs and service disruptions which occur frequently at MSP and then don't hold tight when the system is restored to normal operation. 2020 is the first year of work under this program.

21 – Field and Runway

Perimeter Gate Security Improvements **\$3,000,000**

Project provides for the reconstruction of Gate 269 with a full crash beam gate, updated electrical controls, and a new full pre-fabricated guard booth.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Runway LED Lighting Upgrade **\$1,000,000**

Project provides for all runway edge lights, centerline lights, and touchdown zone lights on Runway 12L-30R to be replaced with LED lights.

31 – Parking

Parking Ramp Railing Refinishing Project **\$1,000,000**

This multi-year project will address the parking ramp metal railings that have weathered and degraded over time. The paint has chipped and peeled away, which caused the exposed metal rail to rust and corrode. If not repaired, the degraded metal railings could become at risk for detachment. The rust has stained the concrete walls and concrete slabs creating an unsightly appearance for airport customers and resulting in concrete repair work in the surrounding areas.

36 – Terminal 2-Humphrey

Terminal 2-Humphrey Employee Breakroom **\$200,000**

This project will provide a MSP employee break room that will have a quiet area for employees who work multiple shifts on the campus to eat, read, etc. By providing this quality work support area, front line and other employees will be able to rest and eat out of view of the public.

39 – Public Areas/Roads

Diverging Diamond Intersection Rehabilitation **\$340,000**

This project will complete pavement rehabilitation, mill and overlay, of the Diverging Diamond Intersection. The approximate limits of the project is from the 34th Avenue limit to MAC Property line (asphalt pavement only). The existing bituminous pavement has yearly maintenance work to repair potholes, cracks and other items. This project would complete repairs to the pavement after milling and prior to the bituminous overlay.

46 – Hangars and Other Buildings

Safety and Operations Center – AOC/EOC **\$18,000,000**

Safety and Operations Center – APD **\$20,000,000**

Safety and Operations Center – ARFF #2 **\$16,700,000**

Safety and Operations Center – Sitework **\$14,200,000**

Safety and Operations Center – Technology **\$8,600,000**

These projects together construct a new Airport Operations Center which includes Airside Operations and the Emergency Communications Center, a dedicated primary Emergency Operations Center, consolidated Airport Police Department facilities, and a replacement Aircraft Rescue and Fire Fighting (ARFF) Station #2. This combined facility is intended to bring together the airport entities that are stakeholders in the daily operations to improve collaboration and coordination.

56 –Trades/Maintenance Buildings

South Field Maintenance Building Wash Bay **\$1,300,000**

This project add an equipment wash bay to the South Field Maintenance Building.

63 – Police

Badging Office Relocation **\$1**

This project will co-locate all Badging Office functions to the spaces occupied by the Rental Car Agencies in the Red/Blue parking ramp core following RAC relocation to the Customer Service Building in the Silver Ramp. The Preliminary 2019-2025 CIP was issued with a placeholder \$1 for a cost, which is why it is shown at that cost in this document. The actual cost is anticipated to be closer to \$1,000,000.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Perimeter Fence Intrusion Detection System

\$1,000,000

This is a three year program to provide for installation of a fence intrusion detection system. Project will include camera installations, perimeter gate upgrades, fiber distribution and collection node establishment, and systems integration.

70 – General Office/Administration

GO Building Improvements

\$500,000

Continual maintenance of MAC buildings is necessary for comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold and other health issues. The General Office Building, built in the 1960's, has experienced a number of window and building issues that need to be corrected including: window sealing and replacements, curtain wall sealing, roof repairs, and valve replacements. This program will also address replacement of end-of-life finishes as required.

76 – Environment

Lift Stations at Ponds 1 and 2

\$850,000

Project provides for construction of two stormwater lift stations adjacent to MSP Ponds 1 and 2. The lift stations will utilize the existing 8-inch forcemain to divert water from one pond to the other to facilitate pond cleaning and maintenance.

Rwy 12R-30L Glycol Forcemain Environmental Improvements

\$1,500,000

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

\$7,500,000

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

10 – Terminal 1- Lindbergh

Air Handling Unit (AHU) Replacement

\$2,500,000

There are existing air handling units serving Terminal 1-Lindbergh 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.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

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.

Concourse G AHU Replacement Program

\$3,500,000

In January 2016, the MAC took ownership of the G Concourse at Terminal 1 - Lindbergh from Delta Airlines. With that came additional maintenance of all of the equipment on that concourse. Most of the equipment was original to the building, dating back more than forty years. Air handling units (AHUs) typically have a lifespan of twenty-five years. Inspections and routine maintenance revealed that these AHUs need replacement.

Concourse G Rehabilitation

\$4,000,000

This multi-year program will provide operational improvements to the existing concourse over time, including replacing elevators, modifying and replacing structural, electrical and mechanical systems.

Electrical Infrastructure Program

\$2,000,000

There are 53 electrical substations that serve the Terminal 1-Lindbergh complex. It is imperative that these substations be inspected, cleaned, and upgraded in order to ensure their continued performance. This is a continuation of a multi-year program that began in 2009.

Emergency Power Upgrades

\$2,000,000

A study and survey of Terminal 1-Lindbergh 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

\$500,000

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-Lindbergh 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 2019 project is to continue the replacement of aging plumbing systems.

Terminal Building Remediation

\$2,000,000

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

\$2,400,000

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 2019.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

13 – Energy Management Center

EMC Plant Upgrades (T1 & T2)

\$1,500,000

This multi-year program provides upgrades to the MAC's Energy Management Center (EMC) Boiler and Chiller Plants at both Terminal 1-Lindbergh and Terminal 2-Humphrey. 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 Bituminous Rehabilitation/Electrical Construction

\$1,100,000

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

Glycol Tank Repairs

\$500,000

Project provides for repair of leaking construction joints and cracks in concrete walls and floors of the glycol tanks located at the MSP Glycol Management Facility. The 2020 project will include repairs to the west wall of tank No. 3.

Pavement Joint Sealing/Repair

\$650,000

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 Rehabilitation

\$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

T1/T2 Parking Structure Rehabilitation

\$2,500,000

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

34th Avenue Reconstruction

\$13,000,000

This project provides for the reconstruction of 34th Avenue South between I-494 and Gate 222. The existing bituminous pavement is nearing the end of its design life and is in need of replacement. The new corridor section will include: concrete pavement, lighting and electrical infrastructure, concrete walk, ADA access, and bicycle lane improvements.

Concrete Joint Repair

\$900,000

This is the first year of a new multi-year program intended 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

\$400,000

This is an ongoing program to construct or reconstruct bituminous pavements outside of the Air Operations Area (AOA). Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

Landside Utility Rehabilitation

\$750,000

Each year there are a number of 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. In this first year of the program, a study will be conducted as part of 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 are in need of repainting and maintenance. This project provides for refurbishment of these fixtures.

46 – Hangars and Other Buildings

Campus Building Rehabilitation Program

\$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.

MSP Campus Building Roof Replacements

\$2,900,000

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. In 2020, the roof of the Field Maintenance building will be replaced. Emergency repairs may also be needed on some other roofs; this program will provide dollars for such instances.

MSP TENANT PROJECTS

10 – Terminal 1- Lindbergh

Concessions Upgrades/Revenue Development

\$200,000

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.

Concourse G Delta SkyClub

\$30,000,000

This project will infill space between Pods 4 and 5 to provide additional gatehold seating and shell space for Delta to finish a third SkyClub at MSP.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

82 – Lake Elmo

21D Airfield Modifications

\$3,000,000

The updated long term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. The scope for this project includes taxiway construction and airfield modifications associated with construction of the replacement Runway 14-32.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

21D Runway 14-32 Replacement

\$2,000,000

The updated long term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. This year's scope includes the second phase of runway construction. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

81 – St. Paul

STP Airport Perimeter Roads

\$400,000

This is an ongoing effort to rehabilitate airport pavements through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes the rehabilitation of the airport access road along Airport Road and Eaton Street.

STP Joint and Crack Repairs

\$100,000

Given the extremely poor sub grade materials at this airport, the need for crack repair and joint sealing is critical to maintain pavement strength and pavement life. An inspection of the pavement will be completed to determine the areas most in need of repair.

83 – Airlake

LVN LED Edge Lighting

\$500,000

This project includes the installation of the taxiway edge lighting system, edge lighting will include LED lighting.

LVN Underground Fuel Storage Tank Replacement

\$100,000

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

84 – Flying Cloud

FCM Taxiways A1, A3, F Pavement Rehabilitation

\$300,000

This project is part of an ongoing effort 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. This project includes rehabilitation of Taxiways A1, A3, and Foxtrot.

FCM Underground Fuel Storage Tank Replacement

\$100,000

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

85 – Crystal

MIC Alleyways Pavement Rehabilitation

\$550,000

This is an ongoing program to reconstruct 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. This project includes rehabilitation of alleyways in the North Building Area.

MIC Building Demolition – Flight Simulator Building

\$150,000

This project will remove the Flight Simulator Building which has reached the end of its functional life and is beyond rehabilitation.

10.2 APPENDIX B – Descriptions for 2019 and 2020 Proposed Projects

MIC MAC Building Improvements

\$500,000

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of MAC buildings. This year's project includes improvements to the MAC East and North Maintenance Building, Administration Building, and both restroom buildings.

MIC Underground Fuel Storage Tank Replacement

\$100,000

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

86 – Anoka County - Blaine

ANE Air Traffic Control Tower Equipment Upgrades

\$100,000

The Anoka County-Blaine Airport control tower is owned by MAC. The equipment used by the air traffic controllers has been in service for over 20 years and needs to be replaced and/or updated to ensure continued reliability.

ANE Alleyways Pavement Reconstruction

\$750,000

This is an ongoing program to reconstruct 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. This project includes rehabilitation of alleyways in the West Building Area.

ANE LED Edge Lighting Upgrade

\$800,000

This project includes replacement of the existing medium intensity runway edge lighting system, new edge lighting will include LED lighting.

10.3 APPENDIX C – DRAFT DESCRIPTIONS FOR 2021-2025 PROJECTS THAT MEET CRITERIA DEFINED IN MINNESOTA STATUTE SECTION 473.614

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

Terminal 1 – Lindbergh

2021 Baggage Claim / Ticket Lobby Operational Improvements **\$32,500,000**

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 origination 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.

2021 Lower Level Curbside Expansion **\$12,000,000**

This project includes the reconfiguration of the arrivals curb at Terminal 1-Lindbergh to address congestion issues. In addition to potential roadway modifications, the program would include additional seating, vestibules, restrooms, curbside waiting areas, lighting and other functions.

2022 D-Pod Outbound Baggage System **\$5,000,000**

This project will provide an expansion of the existing outbound baggage handling system in the lower level of the Concourse D-Pod area.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

Lake Elmo

2021 Runway 14-32 Replacement **\$2,000,000**

This project will be the third phase of the Runway 14-32 Replacement project, which relocates and extends the primary runway northeast of its current alignment. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

Airlake

2022 Runway 12-30 Improvements **\$3,500,000**

This project will provide for the extension of Runway 12-30 from 4,098 feet to the maximum feasible length (approximately 4,850 feet) that can be provided without having to relocate Cedar Avenue, which lies directly east of the airfield. Project details are currently being evaluated in the process to update the airport's Long Term Comprehensive Plan.

ACTION TRANSMITTAL – 2018-55

DATE: November 27, 2018
TO: Technical Advisory Committee
FROM: TAC Planning
PREPARED BY: David Burns, Senior Highway Planner, 651-602-1887
SUBJECT: Proposed Safety Performance Measures and 2019 Targets
REQUESTED ACTION: Request that the Transportation Advisory Board adopt the proposed safety performance measures and short-term targets and recommend adoption by the Metropolitan Council.
RECOMMENDED MOTION: Recommend adoption of the safety performance measures and short-term targets for the Metropolitan Council Planning Area.

BACKGROUND AND PURPOSE OF ACTION: Pursuant to 23 CFR 490.29, all State DOTs and Metropolitan Planning Organizations (MPOs) must adopt a program to measure system performance and set performance targets in order to monitor progress. These performance measures are divided into the following three categories:

- Safety Performance Measures (PM1);
- Pavement/Bridge Performance Measures (PM2); and
- System Performance Measures and CMAQ (PM3).

Each of the performance measure programs have different timelines for adoption and implementation for both state DOTs and MPOs. MPOs are given an additional 180 days after the DOT adoption to either adopt the state-wide target or chose an alternative target. MnDOT officially adopted the updated safety performance measures and established statewide targets on August 31, 2018. The Council must adopt updated safety performance measure targets no later than February 27, 2019.

Per federal requirements, both the state DOTs and MPOs must establish targets for five safety performance measures. MnDOT has set targets based upon a 1.5% and 5% annual reduction from the 2017 base-year data for crashes involving fatalities and serious injuries, respectively. The following are MnDOT's adopted **state-wide** 2019 targets for the five federally-required measures:

- Number of traffic fatalities: 347
- Fatality rate (fatalities per 100 million vehicle miles travelled): 0.62 per 100M vehicle miles travelled
- Serious injuries: 1,708
- Serious injury rate (number of serious injuries per 100 million vehicle miles travelled): 2.85 per 100M VMT
- Non-motorized fatalities and serious injuries: 241

Staff recommends using the same methodology as MnDOT to calculate safety targets for the Council's metropolitan planning area. At the time of the writing of this memo, staff was in the process of obtaining 2017 crash data for the metropolitan planning area. It is anticipated that this will be available prior to the November meeting of the TAC-Planning Committee and staff will provide the 2019 targets during the meeting.

RELATIONSHIP TO REGIONAL POLICY: The current 2040 Transportation Policy Plan includes a listing of performance measures used to monitor and assess system performance. These performance measures support the six over-arching transportation system goals of the TPP. The proposed safety performance measures and targets directly support the Safety and Security goal of the 2040 TPP, while simultaneously fulfilling the federal requirements of an MPO.

STAFF ANALYSIS: Overall, the total number and rate of crashes involving fatalities and serious injuries is lower in the metro area than the state as a whole. The desired trend is to continue to make progress for improving safety for all modes within the region. The annual rate of reduction adopted by MnDOT is reasonable and likely attainable.

COMMITTEE ACTION: TAC Planning moved to recommend the motion.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC Planning	Review & Recommend	11-8-18
Technical Advisory Committee	Review & Recommend	
Transportation Advisory Board	Review & Recommend (or Adopt)	
Metropolitan Council Transportation Committee	Review & Recommend (or Concurrence)	
Metropolitan Council	Review & Adopt (or Concurrence)	

ACTION TRANSMITTAL No. 2018-57

DATE: November 21, 2018

TO: Technical Advisory Committee

FROM: TAC Funding and Programming Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: Program Year Extension Request: Burnsville Lake Marion Greenway

REQUESTED ACTION: The City of Burnsville requests a program year extension for its Lake Marion Greenway trail construction project (SP# 179-090-005) to 2020.

RECOMMENDED MOTION: That the Technical Advisory Committee recommend to TAB approval of the program year extension request to move Burnsville's Lake Marion Greenway Trail construction project (SP# 179-090-005) to 2020.

BACKGROUND AND PURPOSE OF ACTION: The City of Burnsville received \$1,598,400 in Surface Transportation Block Grant (STBG) Program funding for program year 2019 in the 2016 Regional Solicitation. The City is requesting an extension of the program year to 2020 following delays due to needed alignment shifts. These realignments are needed after an unsuccessful negotiation with a railroad and working with Minnesota Department of Natural Resources to mitigate wetland impacts.

RELATIONSHIP TO REGIONAL POLICY: The Transportation Advisory Board (TAB) adopted the Program Year Policy in April 2013 and updated it in August 2014 to assist with management and timely delivery of transportation projects awarded federal funding through the TAB's Regional Solicitation. The policy includes a procedure to request a one-year extension based on extenuating circumstances within certain guidelines.

STAFF ANALYSIS: Based on the score on the attached worksheet, staff recommends approval of the program year extension to 2020. It is important to note that an extension of the program year does not guarantee federal funding will be available in that year. The project sponsor is responsible for completing the project in the new program year and covering the federal share of the project until federal funding becomes available. At this time the project would be in line for 2022 reimbursement of federal funds, though an earlier reimbursement may occur if funding becomes available. In that case the TAB Federal Funds Management Process would be followed. The program year change would be administered in the annual Transportation Improvement Program (TIP) update and does not require a separate TIP amendment.

COMMITTEE COMMENTS AND ACTION: At its November 15, 2018, meeting, the Funding & Programming Committee voted unanimously to recommend approval of the program year extension request to move Burnsville's Lake Marion Greenway Trail construction project to 2020.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC Funding & Programming Committee	Review & Recommend	11-15-2018
Technical Advisory Committee	Review & Recommend	
Transportation Advisory Board	Review & Approve	

October 15, 2018

Mr. Paul Oehme
Chair, TAC Funding and Programming Committee
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

Re: Program Year Extension
S.P. 179-090-005
Lake Marion Greenway
Burnsville, Dakota County, Minnesota

Dear Mr. Oehme:

The City of Burnsville respectfully requests that the Metropolitan Council TAC Funding and Programming Committee consider a one-year Program Year Extension for the above referenced project. The project's current program year is 2019 and includes construction of 2.7 miles of multi-use trail as part of the Lake Marion Greenway.

The City of Burnsville has been working diligently on the design and coordination of the Lake Marion Greenway since 2016. The original alignment for the trail was around the north or south side of the wetland complex within Kelleher Park. As part of the alignment study, both on-site meetings and off-site meters were conducted with the Minnesota Department of Natural Resources (DNR). The DNR identified the potential for rare and endangered species both within the wetlands as well as upland areas. Time was spent investigating the environmental restrictions of the wetland complex. The DNR was unaware of many of the features present in this location. We believe an alignment and elevated boardwalk has been agreed upon by all parties but this has also resulted in an increased cost and delay in development of the plan set.

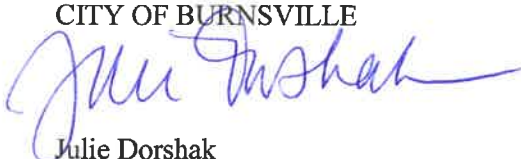
The trail alignment goes under the existing CSAH42 bridge. After numerous discussions with the Canadian Pacific Railroad, they have indicated that they are unwilling to allow the trail to encroach into the railroad right of way under the bridge. Therefore, the trail needs to be shifted to the west closer to the existing bridge abutment to be out of the railroad right of way. To achieve this alignment, a wall needs to be built under the bridge to support the fill slope which results in significant increased cost.

The county/city has had many discussions and the county recently secured the additional contributions to construct the project. Prior to the county's commitment to the additional funds, the federal funds would have been forfeited due to lack of project funding. Now the current obstacle is the funding year deadline.

The enclosed information provides details on our request. If you have any questions or require any additional information, please contact me at (952) 895-4509 or julie.dorshak@burnsvillemn.gov.

Sincerely,

CITY OF BURNSVILLE



Julie Dorshak
Recreation and Community Services Manager

REQUEST FOR PROGRAM YEAR EXTENSION
S.P. 179-090-005
Lake Marion Greenway
Burnsville, Dakota County, Minnesota

1. PROJECT BACKGROUND

a) Project Name:

Lake Marion Greenway (from Sunset Pond Park to Burnsville Parkway adjacent to Kelleher Park) in the City of Burnsville

b) Location Map:

A project location map is attached as **Figure 1**.

c) Sponsoring Agency:

City of Burnsville

d) Other Participating Agencies:

Dakota County, Scott County, City of Savage, Minnesota DNR

e) Project Description:

Dakota County's greenway vision encompasses 200 miles of regional greenways. The Lake Marion Greenway is one of these regional greenways, which is envisioned as a continuous regional destination trail for non-motorized transportation. When it is completed, the Lake Marion Greenway will connect Burnsville, Savage, Credit River Township, Lakeville and Farmington. The Lake Marion Greenway will link the Minnesota River and the Minnesota River Greenway to Murphy-Hanrehan Park Reserve, Ritter Farm Park, Lake Marion, downtown Lakeville, South Creek and downtown Farmington, where it will connect with the North Creek Greenway.

The Lake Marion Greenway is approximately 3 miles long and is located starting at Sunset Pond Park to Burnsville Parkway adjacent to Kelleher Park / Murphy-Hanrehan Regional Park Reserve.

f) Funding Category:

The project is funded with Federal Transportation Alternatives Program (TAP) funds.

g) Federal Funds Allocated:

Federal funds in the amount of \$1,598,400 have been secured for Fiscal Year 2019.

2. PROJECT PROGRESS

a) Project Schedule:

Program Schedule for Program Year Extension is attached as **Attachment 1**.

- City of Burnsville hired WSB..... December 21, 2016
- Public Open HouseApril 6 and August 23, 2017

- DNR Coordination Summer 2017-Present
 - Wetland Delineation Approved Fall 2017
 - Coordination with Agencies 2017-Present
 - Project Memo Early Coordination Responses September 30, 2018
 - Draft Project Memo - State Aid Review October 2018
 - Construction Plans & Engineer's estimate submitted to MnDOT June 2019*
 - Right of Way Acquisition December 2019*
 - Bid Project January 2020*
- *dates based on receiving the program year extension

b) Right-of-Way Acquisition:

The project will require approximately:

- 5.9 acres of permanent easements from 24 parcels; and
- 4.3 acres of temporary easements from 15 parcels
- 15 of the 24 parcels are park properties

c) Plans:

Preliminary Layout and Plan preparation is estimate at percent complete.

d) Permits:

The following table is a list of anticipated permitting agencies and the status of their reviews:

Permits Required	
Agency/Permit	Status
USACE Section 404	Permit will be obtained prior to construction.
DNR - Public Waters	Permit will be obtained prior to construction.
DNR - Water	Permit will be obtained, if needed (for dewatering).
MPCA - NPDES	Permit will be obtained prior to construction.
MPCA - Section 401	Permit will be obtained prior to construction.
Wetland /BWSR	Permit will be obtained prior to construction.
Roadway (Canadian Pacific)	Grading permit to be obtained prior to construction.
City of Burnsville	A Conditional Use Permit will be obtained prior to construction.

e) Approvals:

The proposed improvements will require approval from MnDOT in addition to the permit approvals identified above.

f) Identified Funds Spent to Date on Project:

To date the City has spent funds in excess of \$122,000 on preliminary design, public engagement, wetland delineation, topography survey, the preparation of the project memorandum, Kittentail survey, and geotechnical investigation along with coordination with DNR, City of Savage, Dakota and Scott County and property owners in the area of the project.

3. JUSTIFICATION FOR EXTENSION

a) What is unique about this project that requires an extension of the program year?

The Lake Marion Greenway as two segments that have unique features that have led to the time delay in project development.

Trail Alignment under the CSAH 42 bridge:

The trail alignment goes under the existing CSAH42 bridge. After numerous discussions with the Canadian Pacific Railroad, they are not going to allow the trail to encroach into the railroad right of way under the bridge. The trail needs to be shifted to the west closer to the existing bridge abutment to be out of the railroad right of way. To achieve this alignment, a wall needs to be built under the bridge to support the fill slope. Due to the constrained conditions under the bridge, it has been determined that a soil nail wall is likely the best solution but costs about \$1,000,000 more than originally estimated.

Trail Alignment through the wetland in Kelleher Park:

The original alignment for the trail was around the north or south side of the wetland complex within Kelleher Park. As part of the alignment study, both on-site meetings and off-site meters were conducted with the Minnesota Department of Natural Resources (DNR). The DNR identified the potential for rare and endangered species both within the wetlands as well as upland areas. As a result, WSB staff conducted a Kittentail Survey and Inventory. This survey was conducted within the upland areas located in the southwest corner of Kelleher Park. The DNR was concerned with proposed trail alignments within these two areas either directly impacting these rare plants or impacting the surrounding environments. Following this inventory and study of plant environments, it was recommended to avoid these two areas to preserve the Kittentail population that currently exists thereby removing potential trail alignment corridors previously explored. Without the ability to develop a trail around the north or south side of the wetland, exploration of the boardwalk system to cross the wetland complex became apparent.

Discussions were initiated with the environmental staff from the City of Burnsville as well as the Department of Natural Resources (DNR).

Indications were provided that the Kelleher wetlands could potentially contain

areas of calcareous fens and other rare and endangered species. Several boardwalk alignment options were explored to cross the nearly 70-acre wetland to help minimize impacts to the wetland environment as well as project costs. Evaluations of the wetland complex was conducted by staff from the DNR, City of Burnsville, and WSB. Evaluations were made by the use of aerial photography, drone obtained visual surveys, on the ground evaluations, and past data received from the City of Burnsville and DNR. Following evaluations, a preferred trail / boardwalk alignment was developed through the wetland complex to ensure avoidance of “high quality wetlands” pockets and areas of calcareous fens. To avoid impacts to pockets of these wetland species, the trail alignment through the wetland was shifted. One example is a portion of the proposed boardwalk in the northeast corner of the wetland was shifted to enter the wetland further west than originally proposed. This shift was made to avoid impacts to identified higher quality wetlands and calcareous fen pockets.

Within the wetland itself, a boardwalk system will be utilized rather than a bituminous trail on fill to minimize environmental impacts. The boardwalk will be elevated high enough above the surface to avoid permanent shading of the vegetation below. Construction of the boardwalk will most likely occur during the winter, when the wetland is frozen, to minimize vegetation damage and rutting in the wetland. Further efforts to minimize the temporary impacts from construction, such as construction methods and materials, will be reviewed with the DNR and U.S. Army Corps of Engineers during project permitting.

- A portion of the project boundary is within and adjacent to an area the Minnesota Biological Survey (MBS) has identified as a Site of Outstanding Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as Outstanding contain the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state. This particular site contains several high quality native plant communities and state protected plants.
- A calcareous fen was documented in the direct vicinity of Alternative 1. A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota. The Wetlands Conservation Act states that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by any activity, except as provided for in a management plan approved by the commissioner of the Department of Natural Resources. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates.

Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. As such, it is important the project does not alter the hydrological conditions of the fen.

- Surveys have been completed in the area of the proposed project resulting in multiple records of kitten-tails (*Besseyia bullii*), a state-listed threatened plant, within the vicinity of the trail alignment. As currently proposed, the trail alignment avoids known occurrences of kitten-tails. However, given the protected status of this species and the near-by known occurrences within the Kelleher Wetlands, an avoidance plan will be required.

Due to the sensitivity of the features found in the wetland complex, the trail alignment refinement has been significant with the requirement for an elevated boardwalk system which is estimated to cost \$1.2 million for approximately 1300 feet of boardwalk.

Time was spent investigating the environmental restrictions of the wetland complex. The DNR didn't realize many of the features were present in this location. We think an alignment and elevated boardwalk have been agreed upon by all parties. The next item to resolve was the increased project cost. Between the retaining wall under the CSAH 42 bridge and the newly proposed boardwalk, the overall project was approximately \$2.2M short of funding. The county/city had many discussions and the county recently secured the additional contributions to construct the project. Prior to the county's commitment to the additional funds, the federal funds would have been forfeited due to lack of project funding. Now the current obstacle is the funding year deadline.

b) What are the financial impacts if this project does not meet its current program year?

If federal funds are surrendered, the trail construction will be postponed until an alternate source of funding can be secured. Additionally, some of the funding expended to date could become lost if funding cannot be secured in a timely manner. The city has spent funds in excess of \$122,000. The city's funds were utilized to complete the wetland delineation, project memorandum and preliminary design. The wetland delineation and project memorandum will likely have to be redone by the time an alternate source of funding is secured.

c) What are the implications if the project does not obtain the requested extension?

The project cannot be delivered within the current funding year due to the right of way process time frame. Time was spent evaluating the Kitten-tail populations, high quality wetlands and calcareous fen so placement of the trail and boardwalk would be acceptable to the DNR. The elevated boardwalk system is much more expensive than the previously proposed trail. Time was spent discussing the boardwalk system, cost and potential funding sources.

Dakota County has committed to provide additional funding to the project for the increased cost of the boardwalk system and retaining wall. Without the current federal funds, the project will be short funding and the project will not move forward at this time.

d) What actions will the agency take to resolve the problem facing the project in the next three to six months?

The City of Burnsville will continue to work closely with the DNR on the restrictions/requirements for the calcareous fen and believe the trail location utilizing an elevated boardwalk system will meet the DNR requirements.

The Project Memo draft has been reviewed, comments will be incorporated, and the document will be finalized.

The trail design and construction plan development are underway. The construction plan is being developed with the anticipated alignment through the wetland and will only require modification if the DNR has comments during their review.



Figure 1 - Project Location
Lake Marion Trail
Burnsville, Minnesota



0 1,500 Feet
1 inch = 1,500 feet



Attachment 1: PROGRESS SCHEDULE FOR PROGRAM YEAR EXTENSION

October 12, 2018

INSTRUCTIONS:

1. Check status of project under each major heading.
2. Enter dates as requested for each major heading.
3. Enter points as suggested by each applicable response.
4. Total points received in the TOTAL POINTS line on the last page. **The minimum score to be eligible to request an extension is seven points.**

ENVIRONMENTAL DOCUMENTATION

PROJECT MEMORANDUM

X Reviewed by State Aid If checked enter 4. 4
Date of approval October 2018

 Completed/Approved If checked enter 5.
Date of approval

 EA
 Completed/Approved If checked enter 2.
Date of approval

EITHER

 Not Complete
Anticipated Date of Completion
If prior to January 31st of the program year, enter 1.

OPPORTUNITY FOR PUBLIC HEARING (not necessary for project memorandum)

 Completed
Date of Hearing If checked enter 2.
 Not Complete
Anticipated Date of Completion
If prior to February 28th of the program year, enter 1.

FINAL ENVIRONMENTAL ASSESSMENT (not required for project memorandum)

 Completed/FONSI Approved If checked enter 2.
Date of approval
 Not Complete
Anticipated Date of Completion
If prior to March 31st of the program year, enter 1.

STUDY REPORT (required for Environmental Assessment Only)

_____ Complete/Approved _____ If checked enter 1. _____
Date of Approval _____
_____ Not Complete
Anticipated Date of Completion _____

CONSTRUCTION PLANS

_____ Completed (includes signature of District State Aid Engineer)
Date _____ If checked enter 3. _____
_____ Completed (approved by District State Aid as to SA Standards but not signed)
Date _____ If checked enter 2. _____
X _____ Not Complete
Anticipated Date of Completion June 2019
If prior to June 30th of the program year, enter 1. 1

RIGHT OF WAY ACQUISITION

_____ Completed (includes approval of R/W Cert. #1 or #1A) If checked enter 2. _____
Date _____
X _____ Not Complete
Anticipated Date of Completion December 2019
If prior to December 31st of the year following the original program year, enter 1. 1

ENGINEERS ESTIMATE OF COSTS

_____ Completed _____ If checked enter 2. _____
Date _____
X _____ Not Complete
Anticipated Date of Completion June 2019
If prior to December 31st of the year following the original program year, enter 1. 1

AUTHORIZED

Anticipated Letting Date January 2020.
Anticipated letting date must be prior to June 30
in the year following the original program year,
so that authorization can be completed prior to
June 30 of the extended program year.

TOTAL POINTS 7

ACTION TRANSMITTAL No. 2018-58

DATE: November 16, 2018

TO: Technical Advisory Committee

FROM: TAC Funding and Programming Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: Scope Change Request for Hennepin County's CSAH 46 Pedestrian Safety Project

REQUESTED ACTION: Hennepin County requests a scope change for its CSAH 46 pedestrian safety project (SP # 027-646-010) to remove project elements from two intersections.

RECOMMENDED ACTION: That the Technical Advisory Committee recommend to the Transportation Advisory Board approval of Hennepin County's scope change request for its CSAH 46 pedestrian safety project (SP # 027-646-010) to remove project elements from two intersections with no federal funds reduction

BACKGROUND AND PURPOSE OF ACTION: Hennepin County was awarded \$506,480 in Surface Transportation Block Grant funds for the 2019 fiscal year in the Pedestrian Facilities category as part of the 2016 Regional Solicitation. The scope includes pedestrian improvements along CSAH 46 (46th Street) between Garfield Avenue and 18th Avenue. These improvements include retrofitting signals with accessible pedestrian signals (APS), curb ramp improvements, and pedestrian crossing enhancements at Oakland Avenue.

While the County intends to have all project elements completed, it is requesting the removal of some elements from the scope so that they can be completed along with other elements. These will occur at the following intersections:

CSAH 46 (46th Street) / Chicago Avenue. The ADA pedestrian ramp improvements, APS upgrades and countdown timers can be completed during Metro Transit's D-Line bus rapid transit construction. This would have cost \$115,000.

CSAH 46 / Grand Avenue. The ADA pedestrian ramp work can be completed during the City of Minneapolis's Grand Avenue reconstruction. This would have cost \$35,000.

RELATIONSHIP TO REGIONAL POLICY: Projects that receive funding through the Regional Solicitation process are subject to the regional scope change policy. The purpose of this policy is to ensure that the project is designed and constructed according to the plans and intent described in the original application. Additionally, any federally-funded project scope change must go through a formal review and TIP amendment process if the project description or total project cost changes substantially. The scope change policy allows project sponsors to adjust their projects as needed while still providing substantially the same benefits described in their original project applications.

A TIP amendment accompanies his request. Also accompanying this request is a request for a program year extension does, as the applicant wants to move the project to 2020 to better align with the Metro Transit and Minneapolis projects.

STAFF ANALYSIS:

Approval/Denial of the Scope Change: This project was funded through the Pedestrian Facilities category in the 2016 Regional Solicitation. The project scored 839 points out of a possible 1,100, 140 points higher than the lowest-scoring funded project and 297 points higher than the highest-scoring unfunded project. No project scorer reported a reduction in score. Therefore, it is reasonable to conclude the project would have been funded if originally applied for as is currently being requested.

Funding: The original application request was for \$506,480 with a 20-percent match of \$126,620, for a project total of \$633,100. Since that time, the projected cost has risen to \$1,150,000, as shown in the current TIP. If the requested scope change is approved, the County projects a \$150,000 decrease in total cost. The County requests that the original federal amount of \$506,480 remain intact. The below table illustrates these amounts:

	Application (2016)	Current	Proposed
Federal	\$506,480	\$506,480	\$506,480
Local	\$126,620	\$643,520	\$493,520
Total	\$633,100	\$1,150,000	\$1,000,000
% Federal	80%	44%	51%

Historically, it has been commonplace to reduce federal funds by the amount/proportion of the project being removed. There are two possibilities:

- Given that \$150,000 would be removed, a \$120,000 (80%; bringing the federal total to \$386,480) reduction may be warranted.
- The applicant informed Council staff that the elements being removed would have cost \$65,000. Therefore, a \$52,000 (80%; bringing the federal total to \$454,480) may be warranted.

COMMITTEE COMMENTS AND ACTION: At its November 15, 2018, meeting, the Funding & Programming Committee voted unanimously to recommend approval of the scope change request with no reduction in federal funds. The rationale for recommending no reduction in federal funds was that the project elements being removed will be completed in other projects at the expense of Hennepin County.

ROUTING

TO	ACTION REQUESTED	COMPLETION DATE
TAC Funding & Programming Committee	Review & Recommend	11-15-2018
Technical Advisory Committee	Review & Recommend	
Transportation Advisory Board	Review & Approve	

HENNEPIN COUNTY

MINNESOTA

October 18, 2018

Mr. Paul Oehme
Chair, TAC Funding and Programming Committee
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

RE: SCOPE CHANGE REQUEST FOR S.P. 027-646-010
CSAH 46 (46TH STREET) PEDESTRIAN SAFETY IMPROVEMENTS

Dear Mr. Oehme

In 2016, Hennepin County was awarded federal funding as part of the Metropolitan Council Regional Solicitation to make safety and mobility improvements to pedestrian facilities at 23 intersections along County State Aid Highway (CSAH) 46, also known as 46th Street, in south Minneapolis between Garfield Avenue and 18th Avenue. Such improvements include Americans with Disabilities Act (ADA) pedestrian ramps at all 23 intersections, and accessible pedestrian signals (APS) and pedestrian countdown timers at four of the 23 intersections.

Project development has been ongoing since late 2017; and in 2018, it became known that coordinating agencies were planning improvement projects on streets that intersect CSAH 46 within the limits of the subject line project, at the following locations:

- CSAH 46 / Chicago Avenue South – Metro Transit D Line (Chicago-Fremont) Rapid Bus Project
- CSAH 46 / Grand Avenue South – City of Minneapolis Grand Avenue Reconstruction Project (Lake Street to 48th Street)

At this time, Hennepin County requests that the TAC Funding and Programming Committee consider a scope change that would remove the planned improvements at the above locations from the subject line project; and, as a result, include such work in the larger Metro Transit and city of Minneapolis reconstruction projects. This would will allow for additional coordination and enhanced improvements at these intersections, and is intended to yield exceptional ADA accommodations, beyond what can be done as part of an ADA retrofit project. The change would also consolidate work into two projects (rather than three) which will further minimize impacts to the local community and traveling public.



HENNEPIN COUNTY

MINNESOTA

Please refer to the enclosed documentation and attachments for additional information regarding this request and please contact me with any questions at (612) 596-0375, or by email at nathan.ellingson@hennepin.us.

Sincerely,



Nathan Ellingson, PE
Senior Project Manager
Hennepin County Transportation Project Delivery

CC: Colleen Brown, MnDOT State Aid
Jessa Trboyevich, Hennepin County
Jason Pieper, Hennepin County

Carla Stueve, Hennepin County Engineer
Chad Ellos, Hennepin County



HENNEPIN COUNTY

MINNESOTA

REQUEST FOR SCOPE CHANGE

S.P. 027-646-010

CSAH 46 (46TH STREET) PEDESTRIAN SAFETY IMPROVEMENTS



1. Original Project Scope (from 2016 Regional Solicitation)

a. Project Description

46th Street is a major east-west pedestrian corridor, connecting to the Chain of Lakes to the west and lakes Hiawatha and Nokomis to the east. The corridor also connects four neighborhood commercial nodes that generate pedestrian traffic. These nodes, particularly Nicollet Avenue, are served by 14 bus routes (5 local, 6 limited stop, and 3 express) which intersect and traverse the corridor. These transit routes provide access to the employment centers of downtown Minneapolis, MSP International Airport and the University of Minnesota. This project will create a safe and accessible route to the Orange Line BRT on Interstate 35W, with a station at 46th Street, providing fast, direct access into downtown Minneapolis.

The 46th Street Pedestrian Safety Improvements project will reconstruct curb ramps at intersections along 46th Street (CSAH 46) in South Minneapolis, beginning at Garfield Avenue in the west and continuing to 18th Avenue in the east. All signals identified as part of the project will be retrofitted with accessible pedestrian signals (APS) and pedestrian countdown signal heads where not already existing. Finally, due to needs identified during conversations with members of the Field Regina Northrop Neighborhood Group the project will construct pedestrian crossing enhancements at the Oakland Ave. crossing such as high visibility signage, upgraded pedestrian-activated beacon and a raised concrete median.

The curb ramp improvements that are part of this project will build upon scheduled roadway improvements occurring during summer 2016, these include a mill and overlay, a modern striping configuration which converts the existing four lane road to a three lane road with a center turn lane and the addition of bicycle lanes throughout the corridor. The ADA compliant curb ramps constructed during the 46th Street Pedestrian Safety Improvements project will complete the transformation of the 46th Street corridor, converting an auto oriented street into a multimodal pedestrian, bicycle and transit friendly space that safely accommodates all modes of travel.

The project will improve safety and access to several institutions in the corridor, including four schools, Hope Street for Runaway and Homeless Youth and several places of worship. The overall character of 46th Street is residential with neighborhood based retail and services oriented along major cross streets. The roadway is a class A minor augmentor from Park Avenue west and a class B minor from Park Avenue east.

b. TIP Description Guidance

On CSAH 46 (46th St.) from Garfield Avenue to 18th Avenue in Minneapolis. Pedestrian ADA accessible curb ramp reconstruction, APS and pedestrian countdown signal heads at signalized intersections, pedestrian crossing improvements at Oakland Ave.



2. Scope Changes Requested

a. CSAH 46 (46th Street) / Chicago Avenue South Intersection

Current SP 027-646-010 scope: ADA pedestrian ramp improvements, APS (signal upgrade), and countdown timers (signal upgrade) at all four corners.

Estimated cost: \$115,000

Metro Transit D Line (Chicago-Fremont) rapid bus project proposed work (2020/2021): Improvements to the NE and SW quadrants to include platforms/sidewalk, curb bump outs, neighborhood-scale stations, and other amenities associated with rapid bus transit. Full signal system replacement at this intersection is also being discussed with Minneapolis.

Request: Remove SP 027-646-010 work at this intersection and include in Metro Transit's project.

b. CSAH 46 (46th Street) / Grand Avenue South Intersection

Current SP 027-646-010 scope: ADA pedestrian ramp improvements at all four corners.

Estimated cost: \$35,000

City of Minneapolis Grand Avenue Reconstruction Project proposed work (2021): Full reconstruction of Grand Avenue between Lake Street and 48th Street; including through the intersection of CSAH 46.

Request: Remove SP 027-646-010 work at this intersection and include in Minneapolis' project.

3. Funding Scenario

Current Funding vs. Proposed Funding

	Current	Proposed - if (\$150K) Intersection Work at Chicago & Grand Removed
Federal	\$506,480	\$506,480
Local Match	\$643,520	\$493,520
Total Construction Cost	\$1,150,000	\$1,000,000
% of Federal to Total	44%	51%

4. Attachments

Attachment 1

Project map of improvements, identifying locations of work to be removed.

Attachment 2

Letters of support and commitment from Metro Transit and the city of Minneapolis

HENNEPIN COUNTY

MINNESOTA

ATTACHMENT 1

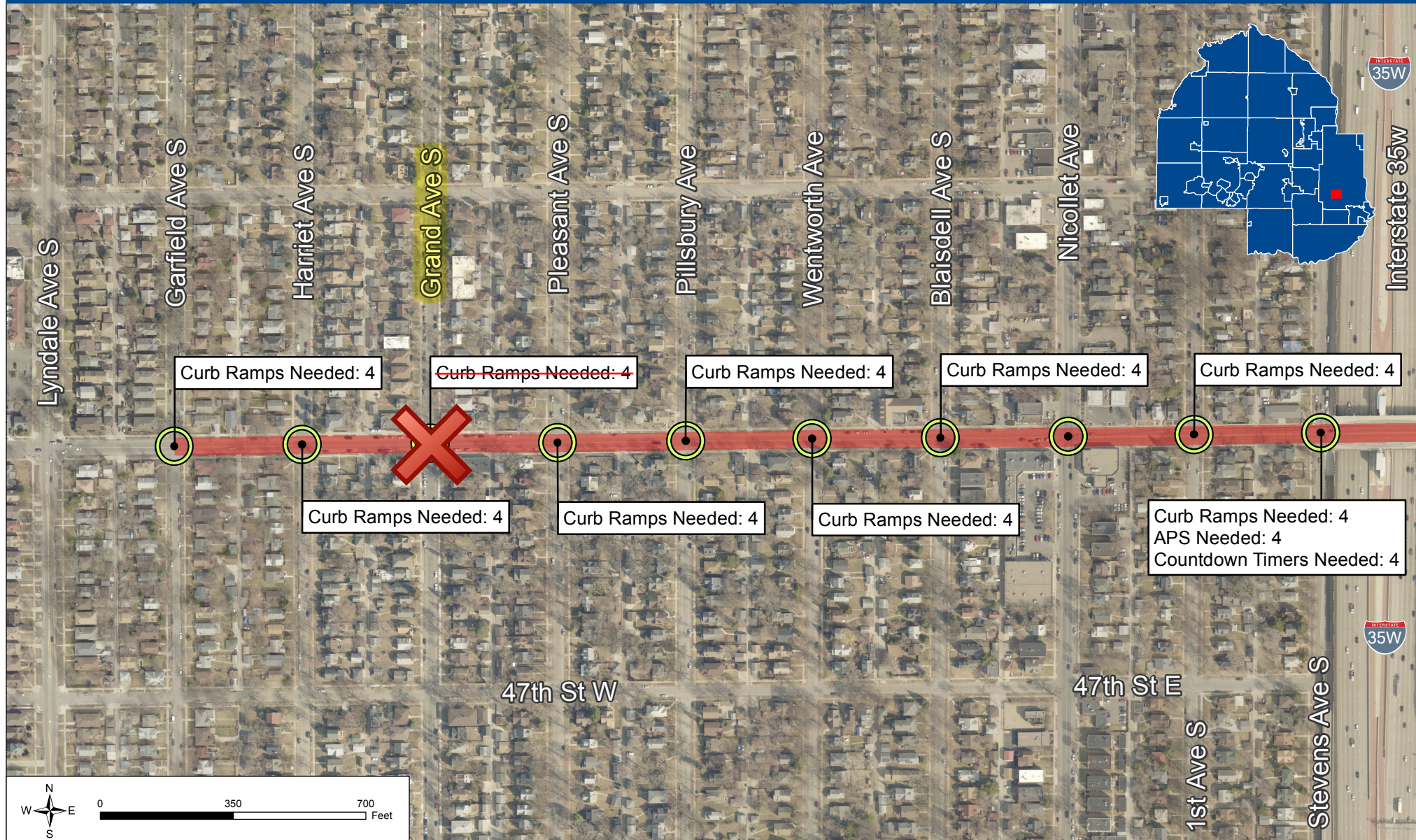
PROJECT MAP & PLANNED IMPROVEMENTS



46th Street (CSAH 46) from Garfield Avenue South to 18th Avenue South

Planned Pedestrian Amenities

Figure 1



Regional Solicitation
Map version date: 07/11/2016

Data source: Hennepin County



Planned intersection work to be
removed from project scope.
(October 2018)

This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

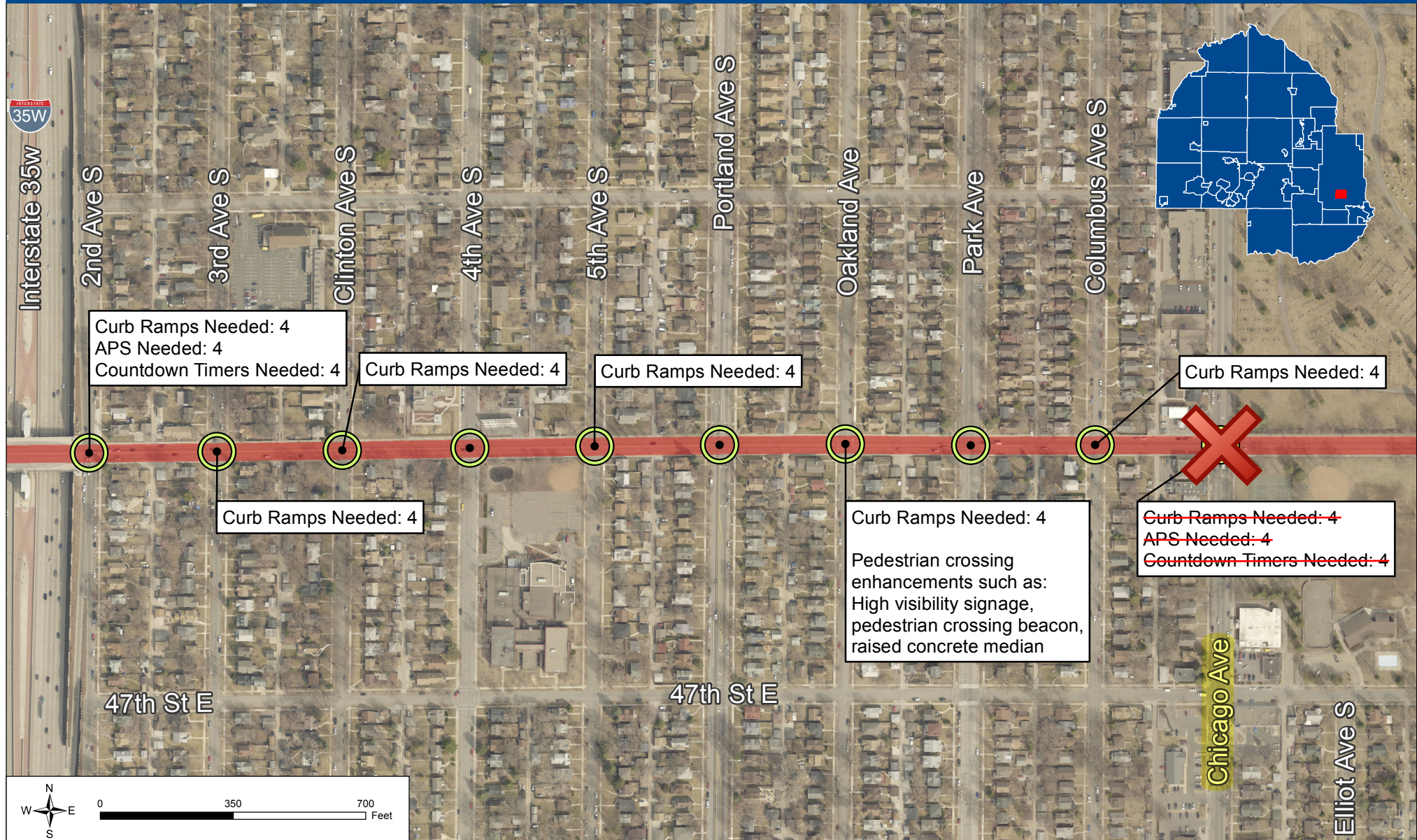
Hennepin County Public Works



46th Street (CSAH 46) from Garfield Avenue South to 18th Avenue South

Planned Pedestrian Amenities

Figure 2



Regional Solicitation
Map version date: 07/11/2016

Data source: Hennepin County



Planned intersection work to be
removed from project scope.
(October 2018)

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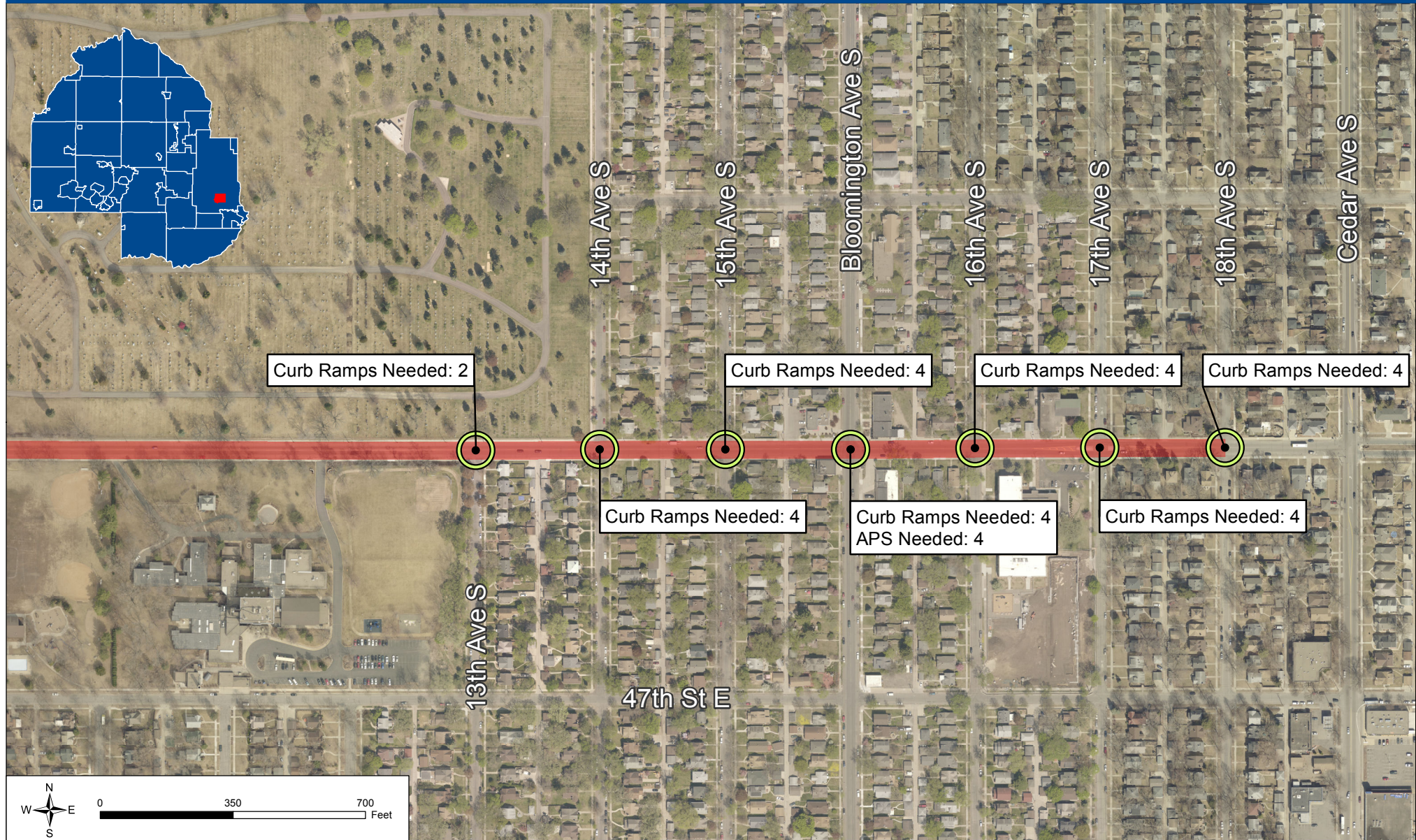
Hennepin County Public Works



46th Street (CSAH 46) from Garfield Avenue South to 18th Avenue South

Planned Pedestrian Amenities

Figure 3



Regional Solicitation
Map version date: 07/11/2016

Data source: Hennepin County

This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Hennepin County Public Works



HENNEPIN COUNTY

MINNESOTA

ATTACHMENT 2

AGENCY LETTERS OF SUPPORT AND COMMITMENT



October 10, 2018

Carla Stueve, P.E., P.T.O.E.
Director of Transportation Project Delivery and County Engineer
Hennepin County Public Works
1600 Prairie Drive
Medina, MN 55340

RE: CSAH 46 (46th Street) Pedestrian Safety Improvements Project – Letter of Commitment

Dear Ms. Stueve:

The City of Minneapolis formally presents this letter of commitment to Hennepin County regarding the county's CSAH 46 (46th Street) Pedestrian Safety Improvements Project (Hennepin County Project No. 1617); specifically, the planned ADA work at the Grand Avenue South intersection.

It is understood that Hennepin County has received federal funding to support ADA improvements at various intersections along 46th Street between Garfield Avenue South and 18th Avenue South, including the intersection of Grand Avenue South. Such work at this intersection includes upgrading pedestrian ramps at all four corners to meet ADA. It is further understood that Hennepin County is seeking a program year extension for its work along 46th Street to occur in 2020, rather than 2019.

Furthermore, the City of Minneapolis currently has programmed a reconstruction of Grand Avenue South between Lake Street and 48th Street in its five-year capital improvement program, which includes work at the 46th Street intersection. At this time, it is anticipated that the Grand Avenue South project will be delivered in 2021 by the City of Minneapolis and will include new pavement, sub-grade, curb, gutter, and applicable ADA improvements.

The City of Minneapolis supports consolidating work at the Grand Avenue intersection and hereby commits, via its programmed Grand Avenue South project, to include the ADA improvements at Grand Avenue that would have otherwise been delivered as part of Hennepin County's Project No. 1617. This consolidation will not only minimize construction impacts to the nearby property owners and visitors, it will also allow for the construction of improved ADA accommodations due to the opportunity to substantially modify curb lines and associated utility conflicts as part of the Grand Avenue South reconstruction project.

The City of Minneapolis looks forward to continued coordination with Hennepin County on both 46th Street and Grand Avenue South projects.

Sincerely,



Jenifer Hager
Director of Transportation Planning & Programming
Minneapolis Public Works



October 15, 2018

Carla Stueve, P.E., P.T.O.E.
Director of Transportation Project Delivery and County Engineer
Hennepin County Public Works
1600 Prairie Drive
Medina, MN 55340

RE: CSAH 46 (46th Street) Pedestrian Safety Improvements Project – Letter of Understanding

Dear Ms. Stueve:

Metro Transit formally presents this letter of understanding to Hennepin County regarding the county's CSAH 46 (46th Street) Pedestrian Safety Improvements Project (Hennepin County Project No. 1617); specifically, the planned ADA work at the 46th Street / Chicago Avenue intersection.

It is understood that Hennepin County has received federal funding to support ADA improvements at various intersections along 46th Street between Garfield Avenue South and 18th Avenue South, including the intersection of 46th Street / Chicago Avenue. Such work at this intersection includes upgrading pedestrian ramps at all four corners to meet ADA. It is further understood that Hennepin County is seeking a program year extension for its work along 46th Street to occur in 2020, rather than 2019; this will allow agencies to best coordinate the planned improvements.

It is further acknowledged that Metro Transit is developing the D Line bus rapid transit (BRT) project with planned station construction primarily along Emerson-Fremont Avenues North and Chicago Avenue South. The project is currently unfunded. If Metro Transit is successful in securing full project funding, it is anticipated that the D Line project will be delivered in 2020-2021 and will include a station with platforms on two corners of the Chicago & 46th Street intersection.

Metro Transit supports consolidating Hennepin County's work at the 46th Street / Chicago Avenue intersection into D Line project delivery. In conjunction with the planned D Line project, Metro Transit commits to partnering with Hennepin County participation to include those improvements at 46th Street / Chicago Avenue that would have otherwise been delivered as part of Hennepin County's Project No. 1617. Such consolidation will not only minimize construction impacts to the local community and roadway users; it will also allow for the construction of superior ADA accommodations due to the opportunity to substantially modify curb lines in conjunction with the D Line BRT project.

Metro Transit looks forward to continued coordination with Hennepin County on both the 46th Street and D Line projects.

Sincerely,

A handwritten signature in black ink, appearing to read 'Charles Carlson'.

Charles Carlson
Director, Bus Rapid Transit Projects

A service of the Metropolitan Council

ACTION TRANSMITTAL No. 2018-59

DATE: November 16, 2018

TO: Technical Advisory Committee

FROM: TAC Funding and Programming Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: Program Year Extension Request: Hennepin County CSAH 46 Pedestrian Safety Improvements

REQUESTED ACTION: Hennepin County requests a program year extension for its CSAH 46 (46th Street) pedestrian improvements project (SP# 027-646-010) to 2020.

RECOMMENDED MOTION: That the Technical Advisory Committee recommend to TAB approval of the program year extension request to move Hennepin County's CSAH 46 (46th Street) pedestrian improvements project (SP# 027-646-010) to 2020.

BACKGROUND AND PURPOSE OF ACTION: Hennepin County received \$506,480 in Surface Transportation Block Grant (STBG) Program funding for program year 2019 in the 2016 Regional Solicitation. Hennepin County is requesting an extension of the program year to 2020 to allow for the project to better align with other projects commencing in 2020 along, and in vicinity of the project corridor.

RELATIONSHIP TO REGIONAL POLICY: The Transportation Advisory Board (TAB) adopted the Program Year Policy in April 2013 and updated it in August 2014 to assist with management and timely delivery of transportation projects awarded federal funding through the TAB's Regional Solicitation. The policy includes a procedure to request a one-year extension based on extenuating circumstances within certain guidelines.

STAFF ANALYSIS: Based on the score on the attached worksheet, staff recommends approval of the program year extension to 2020. It is important to note that an extension of the program year does not guarantee federal funding will be available in that year. The project sponsor is responsible for completing the project in the new program year and covering the federal share of the project until federal funding becomes available. At this time the project would be in line for 2022 reimbursement of federal funds, though an earlier reimbursement may occur if funding becomes available. In that case the TAB Federal Funds Management Process would be followed. The program year change would be administered in the annual Transportation Improvement Program (TIP) update and does not require a separate TIP amendment.

COMMITTEE COMMENTS AND ACTION: At its November 15, 2018, meeting, the Funding & Programming Committee voted unanimously to recommend approval of the program year extension request to move Hennepin County's CSAH 46 (46th Street) pedestrian improvements project to 2020.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC Funding & Programming Committee	Review & Recommend	11-15-2018
Technical Advisory Committee	Review & Recommend	
Transportation Advisory Board	Review & Approve	

HENNEPIN COUNTY

MINNESOTA

October 12, 2018

Mr. Paul Oehme
Chair, TAC Funding and Programming Committee
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

RE: PROGRAM YEAR EXTENSION REQUEST FOR S.P. 027-646-010
CSAH 46 (46TH STREET) PEDESTRIAN SAFETY IMPROVEMENTS

Dear Mr. Oehme

In 2016, Hennepin County was awarded federal funding as part of the Metropolitan Council Regional Solicitation to make safety and mobility improvements to pedestrian facilities at intersections along County State Aid Highway (CSAH) 46, also known as 46th Street, in south Minneapolis between Garfield Avenue and 18th Avenue. As part of the solicitation, Hennepin County selected a preferred program year of 2020, while offering 2018 and 2019 as additional program years. Ultimately, 2019 was the awarded program year.

At this time, Hennepin County requests that the TAC Funding and Programming Committee consider a program year extension to 2020 which will allow for the work to better align with other projects commencing in 2020 along and in the vicinity of the corridor. The extension will also facilitate project coordination between MnDOT, Hennepin County, the city of Minneapolis, and Metro Transit on timing of these concurrent projects and to minimize impacts to the traveling public.

Please refer to the enclosed documentation and attachments for additional information regarding this request and please contact me with any questions at (612) 596-0375, or by email at nathan.ellingson@hennepin.us.

Sincerely,



Nathan Ellingson, PE
Senior Project Manager
Hennepin County Transportation Project Delivery

CC: Colleen Brown, MnDOT State Aid
Jessa Trbojevich, Hennepin County
Jason Pieper, Hennepin County

Carla Stueve, Hennepin County Engineer
Chad Ellos, Hennepin County

Hennepin County Transportation Project Delivery
Public Works Facility, 1600 Prairie Drive, Medina, MN 55340
612-596-0300 | hennepin.us



REQUEST FOR PROGRAM YEAR EXTENSION

S.P. 027-646-010

CSAH 46 (46TH STREET) PEDESTRIAN SAFETY IMPROVEMENTS

1. Project Progress

a. Progress Schedule

Please see [Attachment 1](#).

b. Right of Way Acquisition

Permanent and temporary easements are anticipated to be acquired on this project. Permanent easements will likely be sidewalk easements to ensure curb ramp designs and adjacent sidewalk are in compliance with Americans with Disability Act (ADA) requirements. Temporary construction easements will be obtained in order to construct the improvements at each corner. Please see [Attachment 2](#) for locations and types of anticipated easements. Acquisitions will be complete by December 15, 2019.

c. Plans

Please also refer to [Attachment 2](#) for preliminary drawings of the planned improvements. Detail design plans at the 30, 60, 90, and final (100%) levels will be developed starting in January of 2019 and will be complete by December 15, 2019.

d. Permits

Anticipated permits on this project include the following:

- MPCA National Pollutant Discharge Elimination System (NPDES) Permit
- Minnehaha Creek Watershed District Erosion Control Permit
- MnDOT Miscellaneous Work on Trunk Highway Right of Way (Form 1723)

Permits will be obtained and approved prior to project letting.

e. Approvals

In addition to the permit approvals noted above, plan approval will be required from MnDOT, Hennepin County, and the city of Minneapolis.

f. Funding / Expenditures

Hennepin County anticipates spending approximately \$50,000 by December 2018 to complete preliminary engineering, initial right of way need determination, and environmental documentation (project memorandum) for this project. Such work is being funded by Hennepin County. Final design and project procurement is expected to cost an additional \$200,000.

2. Justification for Extension Request

a. What is unique about this project that requires an extension of the program year?

Since the 2016 Regional Solicitation, several ancillary projects have unfolded in the vicinity and within the project limits of CSAH 46, including MnDOT's I-35W project (downtown to crosstown) – currently under construction; Metro Transit's "D-Line" Bus Rapid Transit (BRT) project along Chicago Avenue – currently in design; and a city of Minneapolis' project along Grand Avenue – currently in planning. As CSAH 46 is an east-west route that is intersected by the above listed roadway projects, Hennepin County and its project partners believe it to be in the best interest of all three projects to consolidate project development and construction activities to best suit and minimize the overall duration of impacts to the traveling public.

Considering MnDOT's I-35W project, the freeway ramps to/from I-35W at CSAH 46 (46th Street) are expected to be closed starting in 2019 through 2021, with both on and off-ramps being closed simultaneously in the summer of 2020. These closures will likely divert traffic off CSAH 46 and would help facilitate construction along CSAH 46 during that time.

Metro Transit's "D-Line" project is anticipated to begin construction work in 2020, with an enhanced BRT station located at the intersection of CSAH 46 and Chicago Avenue. Though coordination with Metro Transit has been ongoing, design on this BRT project will not begin until late fall of 2018 and more time is required to best coordinate the improvements at this intersection, determine if design work should be moved to one project or the other, and determine if construction activities be consolidated into one contract.

The city of Minneapolis is also planning a reconstruction project along Grand Avenue in 2021 that includes the intersection of CSAH 46. Similarly to Metro Transit's project, more time is required to coordinate scope, design, and construction activities at this intersection.

b. What are the financial impacts if this project does not meet its current program year?

If the project does not meet its current program year, federal funding would be lost and the project would be left competing for funding amongst other needs in Hennepin County's five-year Capital Improvement Program (CIP).

c. What are the implications if the project does not obtain the requested extension?

If the project does not obtain the requested extension, Hennepin County would likely not be able to deliver the project by the current program year deadline, in particular, the acquisition of right of way. The unknowns related to the previously mentioned nearby and concurrent projects may lead to unnecessary do-over work if project elements aren't properly coordinated; resulting in unnecessary impacts to users and administration inefficiencies. If construction work was to commence in accordance with the current program year, the traveling public would experience traffic impacts along the CSAH 46 corridor in 2019, 2020, and 2021. If the extension were approved, this could be reduced to 2020 and 2021.

d. What actions will the agency take to resolve the problems facing the project in the next three to six months?

Coordination with MnDOT, Metro Transit, and the city of Minneapolis will continue and formal agreements on work consolidation will be obtained. Right of way acquisition will commence upon finalizing preliminary design which will provide Hennepin County's land acquisition group the necessary time to obtain title and possession by the December 2019 deadline (assuming program year extension is granted). Hennepin County will also appropriate the necessary funding to complete the design work in 2019 and proceed with project bidding and construction in 2020.

ATTACHMENT 1

PROGRESS SCHEDULE FOR PROGRAM YEAR EXTENSION

Attachment 1: PROGRESS SCHEDULE FOR PROGRAM YEAR EXTENSION

Enter request date

2020

INSTRUCTIONS:

1. Check status of project under each major heading.
2. Enter dates as requested for each major heading.
3. Enter points as suggested by each applicable response.
4. Total points received in the TOTAL POINTS line on the last page. **The minimum score to be eligible to request an extension is seven points.**

ENVIRONMENTAL DOCUMENTATION

PROJECT MEMORANDUM

☒ Reviewed by State Aid

If checked enter 4.

4

Date of approval 07/31/2018

____ Completed/Approved

If checked enter 5.

Date of approval _____

____ EA

____ Completed/Approved

Date of approval _____

EITHER

____ Not Complete

Anticipated Date of Completion _____

If prior to January 31 of the program year, enter 1. _____

NOTE: PM PENDING FINAL
SIGNATURE AT THE TIME
OF THIS STATUS UPDATE.
ANTICIPATE FINAL
SIGNATURE OCT/NOV 2018.

OPPORTUNITY FOR PUBLIC HEARING (not necessary for project memorandum)

____ Completed

Date of Hearing _____

If checked enter 2.

☒ N/A Not Complete

Anticipated Date of Completion _____

If prior to February 28 of the program year, enter 1. _____

FINAL ENVIRONMENTAL ASSESSMENT (not required for project memorandum)

____ Completed/FONSI Approved

If checked enter 2.

Date of approval _____

☒ N/A Not Complete

Anticipated Date of Completion _____

If prior to March 31 of the program year, enter 1. _____

STUDY REPORT (required for Environmental Assessment Only)

_____ Complete/Approved If checked enter 1. _____
Date of Approval _____
☒ N/A Not Complete
Anticipated Date of Completion _____

CONSTRUCTION PLANS

_____ Completed (includes signature of District State Aid Engineer)
Date _____ If checked enter 3. _____
_____ Completed (approved by District State Aid as to SA Standards but not signed)
Date _____ If checked enter 2. _____
☒ Not Complete
Anticipated Date of Completion 12/15/2019
If prior to June 30 of the program year, enter 1. 1

RIGHT OF WAY ACQUISITION

_____ Completed (includes approval of R/W Cert. #1 or #1A) If checked enter 2. _____
Date _____
☒ Not Complete
Anticipated Date of Completion 12/15/2019
If prior to December 31 of the year following the original program year, enter 1. 1

ENGINEERS ESTIMATE OF COSTS

☒ Completed If checked enter 2. 2
Date 09/11/2018
_____ Not Complete
Anticipated Date of Completion _____
If prior to December 31 of the year following the original program year, enter 1. _____

AUTHORIZED

Anticipated Letting Date 04/21/2020.
Anticipated letting date must be prior to June 30
in the year following the original program year,
so that authorization can be completed prior to
June 30 of the extended program year.

TOTAL POINTS

8

ACTION TRANSMITTAL No. 2018-60

DATE: November 16, 2018

TO: Technical Advisory Committee

FROM: TAC Funding and Programming Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: 2019-2022 TIP Amendment: Hennepin County's CSAH 46 Pedestrian Safety Project

REQUESTED ACTION: Hennepin County requests an amendment to the 2019-2022 Transportation Improvement Program (TIP) to change the cost and program year of its CSAH 46 Pedestrian Safety Project (027-646-010).

RECOMMENDED MOTION: That the Technical Advisory Committee recommend to TAB approval of an amendment to the 2019-2022 Transportation Improvement Program (TIP) to change the cost and program year of Hennepin County's CSAH 46 Pedestrian Safety Project (027-646-010).

BACKGROUND AND PURPOSE OF ACTION: This TIP amendment is needed to reflect a proposed scope change and program year extension requested by Hennepin County. While the scope change does not change the project's description, it does reduce the project's cost. The program year extension from 2019 to 2020 necessitates not only moving the project from the former to the later year but adding an advance construction project line for fiscal year 2022.

RELATIONSHIP TO REGIONAL POLICY: Federal law requires that all transportation projects that will be funded with federal funds must be in an approved TIP and meet the following four tests: fiscal constraint; consistency with the adopted regional transportation plan; air quality conformity; and opportunity for public input. It is the TAB's responsibility to adopt and amend the TIP according to these four requirements.

STAFF ANALYSIS: The TIP amendment meets fiscal constraint because the federal and local funds are sufficient to fully fund the project. This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on January 14, 2015, with FHWA/FTA conformity determination established on March 13, 2015. The Minnesota Interagency Air Quality and Transportation Planning Committee determined that the project is exempt from air quality conformity analysis. The 2019-2022 TIP conforms to the relevant sections of the Federal Conformity Rule and to the applicable sections of Minnesota State Implementation Plan for air quality. Public input opportunities for this amendment are provided through the TAB's and Council's regular meetings.

COMMITTEE COMMENTS AND ACTION: At its November 15, 2018, meeting, the Funding & Programming Committee voted unanimously to recommend approval of an

amendment to the 2019-2022 Transportation Improvement Program (TIP) to change the cost and program year of Hennepin County's CSAH 46 Pedestrian Safety Project.

ROUTING

TO	ACTION REQUESTED	DATE COMPLETED
TAC Funding & Programming Committee	Review & Recommend	11-15-2018
Technical Advisory Committee	Review & Recommend	
Transportation Advisory Board	Review & Adopt	
Metropolitan Council Transportation Committee	Review & Recommend	
Metropolitan Council	Review & Concur	

Please amend the 2019-2022 Transportation Improvement Program (TIP) to make the changes indicated in Project 1 below and to add the AC payback row in Project 2:

PROJECT IDENTIFICATION:

Project 1

SEQ #	State Fiscal Year	A T P	D i s t	Route System	Project Number (S.P. #) (Fed # if available)	Agency	Description include location, description of all work, & city (if applicable)	Miles
	2019 2020	M	M	CSAH 46	027-646-010	Hennepin County	CSAH 46 (46th St) from Garfield Ave to 18th Ave in Mpls- Pedestrian ADA-accessible curb ramp reconstruction, APS and pedestrian countdown signal heads at signalized intersections, and pedestrian crossing improvements at Oakland Ave (payback in FY 2022)	1.89
Prog	Type of Work	Prop Funds	Total \$	FHWA \$	AC \$	FTA \$	TH \$	Other \$
EN	Bike/Ped	STBG - TAP	1,150,000 1,000,000	506,480	506,480			643,520 1,000,000

Project 2

SEQ #	State Fiscal Year	A T P	D i s t	Route System	Project Number (S.P. #) (Fed # if available)	Agency	Description include location, description of all work, & city (if applicable)	Miles
	2019 2022	M	M	CSAH 46	027-646-010	Hennepin County	CSAH 46 (46th St) from Garfield Ave to 18th Ave in Mpls- Pedestrian ADA-accessible curb ramp reconstruction, APS and pedestrian countdown signal heads at signalized intersections, and pedestrian crossing improvements at Oakland Ave (payback 1 of 1)	1.89
Prog	Type of Work	Prop Funds	Total \$	FHWA \$	AC \$	FTA \$	TH \$	Other \$
EN	Bike/Ped	STBG - TAP	506,480	506,480				

PROJECT BACKGROUND:

1. Briefly describe why amendment is needed (e.g., project in previous TIP but not completed; illustrative project and funds now available; discretionary funds received; inadvertently not included in TIP).

This amendment is needed to reflect a change in scope for Hennepin County's CSAH 46 pedestrian safety project. The change includes removal of improvements at two intersections. This does not impact the project description, but does lead to a reduction in cost. The County is also moving the project from FY 2019 to 2020, which is reflected in the request, as well.

2. How is Fiscal Constraint Maintained as required by 23 CFR 450.216 (check all that apply)?

- New Money
- Anticipated Advance Construction
- ATP or MPO or MnDOT Adjustment by deferral of other projects
- Earmark or HPP not affecting fiscal constraint
- Other (includes State TH funds under Corridors of Commerce Program) ✓

✓ Regional Solicitation Funds and local match.

CONSISTENCY WITH MPO LONG RANGE PLAN:

This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on January 14, 2015, with FHWA/FTA conformity determination established on March 13, 2015.

AIR QUALITY CONFORMITY:

- Subject to conformity determination
- Exempt from regional level analysis ✓
- N/A (not in a nonattainment or maintenance area)

✓ Exempt from regional level analysis: AQ-2: Bicycle and pedestrian facilities.

Information Item

DATE: December 5, 2018
TO: TAC Committee
PREPARED BY: Steve Peterson, Manager of TAB/TAC Process (651-602-1819)
SUBJECT: Draft 2018 HSIP Solicitation Scores, Rankings, and Funding

BACKGROUND: The Highway Safety Improvement Program (HSIP) is a core federal program designed to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. HSIP requires a data-driven, strategic approach to improving safety on all public roads that focuses on performance. Project funding is not limited to highway projects and can include improvements for other modes. In order to obligate HSIP funds, the state must develop, implement, and update a Strategic Highway Safety Plan and produce a program of projects.

During summer/fall 2018, MnDOT conducted a solicitation and 38 project applications were evaluated by a team of transportation professionals, representing city, county, regional, and state agencies. For the first time, projects were given a score of between 0 and 1,000 points and are ranked from the highest-scoring project to the lowest-scoring project. This change provides greater transparency to the process and will assist in future scope changes and reallocation of funds and help decide where to distribute any additional HSIP funds that come to the region. Projects were scored based on the criteria outlined in the HSIP application. It is anticipated that a work group will be convened in 2019 to further detail the scoring measures with the end result being detailed, written scoring guidance provided to applicants, similar to the Regional Solicitation.

The project scores, ranking, and 25 projects recommended for funding by the HSIP scoring committee are in the attached tables and maps. If approved, the projects will be included in the 2020-2023 TIP to be released for public comment in June, 2019. The funds available for HSIP this funding cycle total \$22.9 million. The proposed program shows over-programming of 8% in 2022 and 2023. Total project awards total approximately \$24.5 million.

With guidance and recommendation from its technical committees, the TAB's role is to approve the HSIP application materials and select projects in the 7-county metropolitan area to be awarded HSIP funds. The one Chisago County project in the list was selected by MnDOT and is not part of the TAB approval. An action item on the HSIP project selection will be presented to the TAC Funding & Programming Committee in December 2018, with a TAC recommendation and TAB approval in January 2019.

Recommended Locations for 2018 Highway Safety Improvement Program Projects

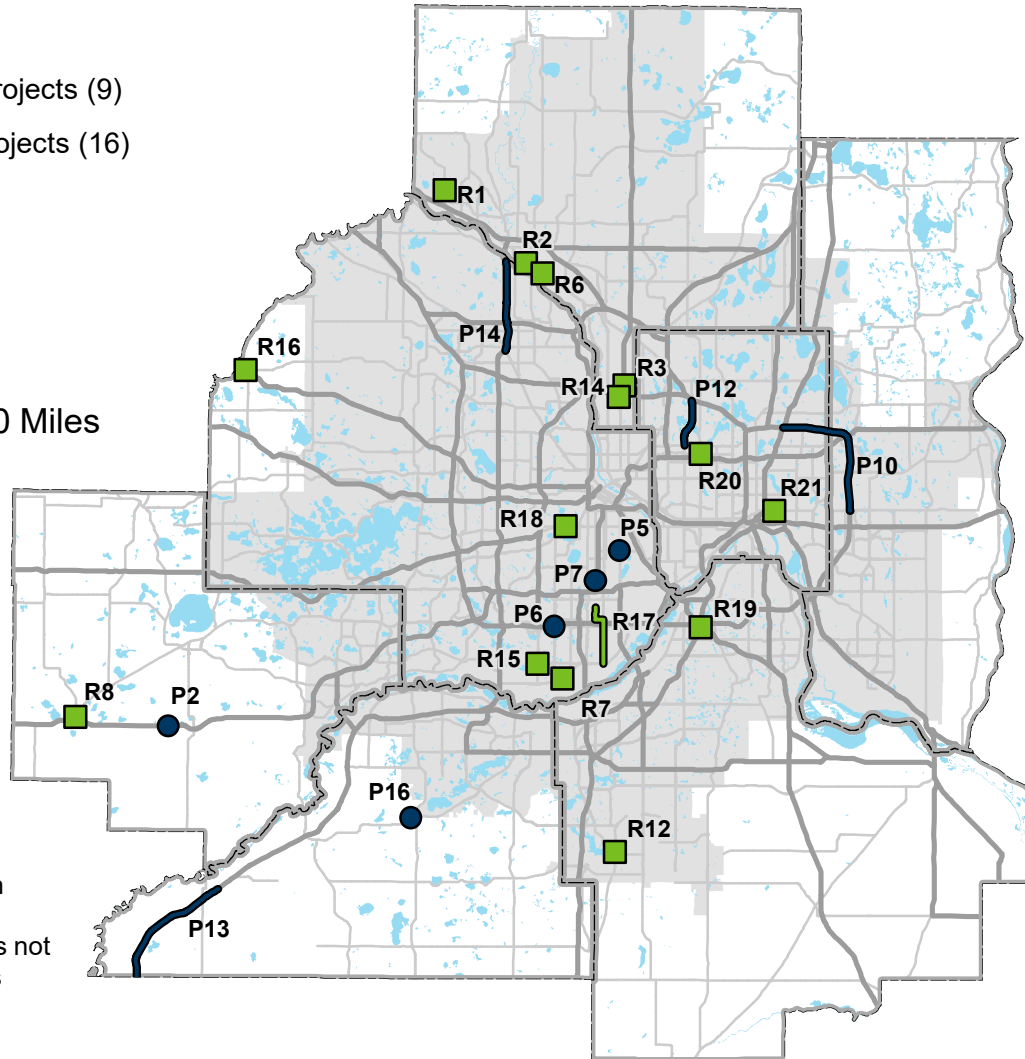
Reference Items:

- Proactive Safety Projects (9)
- Reactive Safety Projects (16)
- Principal Arterials
- A-Minor Arterials
- Lakes And Rivers
- Urbanized Area

0 5 10 15 20 Miles



Projects with an asterisk are countywide projects. Location noted is the county highway department location and does not represent all project locations included in the application.



Proactive Projects

- P2.* Carver County - Rural intersection lighting improvements at 30-40 intersections
- P5. CSAH 3 (Lake St) at CSAH 42 (42nd St) - Pedestrian crossing safety improvements
- P6. CSAH 17 (France Ave) - Safety improvements
- P7. Nicollet Ave - Signal system and ped ramp improvements
- P10. I-694 - Install continuous freeway lighting
- P12. TH 51 - Safety improvements including installing cable median barriers
- P13. TH 169 - Install cable median barrier and median access modification
- P14. TH 169 - Install cable median barrier
- P16.* Scott County - Install 40-50 miles of ground in reflective lane lines and 10 street lights at rural intersections

Reactive Projects

- R1. CSAH 83 (Armstrong Blvd) at Alpine Dr - Construct roundabout
- R2. CSAH 1 (Coon Rapids Blvd) at Blackfoot St - Install additional signal heads
- R3. CSAH 35 (Old Central) at Gardena Ave - Construct roundabout

- R6. CSAH 1 (Coon Rapids Blvd) at Mississippi Blvd - Install additional signal heads
- R7. CSAH 1 (Old Shakopee Rd) at Xerxes Ave - Lane modifications and signal upgrades
- R8. TH 5 at CSAH 33 (Reform St) - Construct roundabout
- R9. CSAH 23 (Chisago Blvd) at CSAH 24 (Lofton Ave) - Construct roundabout (approved separately by MnDOT)
- R12. CSAH 9 (Dodd Blvd) at Icenic Trail / Heritage Dr - Construct center median
- R14. 53rd Ave - Extend center median; construct turnabout
- R15. CSAH 34 (Normandale Blvd) at 98th Street - Replace signal system; bike/ped/ADA accommodations
- R16. CSAH 50 Rebecca Park Trl - Lane modifications and intersection lighting
- R17. CSAH 35 (Portland Ave) and CSAH 52 (Nicollet Ave) - Signal and ped improvements
- R18. Lake St and Minnehaha Pkwy - Replace 3 signal systems
- R19. Multiple locations - Apply high friction treatment on 4 ramps
- R20. CSAH 51 (Lexington Ave) at CSAH 78 (County Road B2) - Provide dedicated right and left turn lanes; Replace signal system.
- R21. Minnehaha Ave - Rebuild signal systems

2018 Funding Cycle for 2022/2023 HSIP Projects (Reactive)

11/1/2018

Project #	Submitting Agency	Roadway	Location	Project Description	Funding Year Requested			HSIP FUNDING			Local Match (10%)	TOTAL PROJECT COST	B/C Ratio	POINTS		TOTAL POINTS (1,000)
					Any	2022	2023	Original HSIP Amount Requested	2022 HSIP \$ Awarded	2023 HSIP \$ Awarded				B/C Points (750)	Meets Intent of HSIP Program Points (250)	
R21	St. Paul	Minnehaha Ave	at Forest St, at Earl St, at Johnson Pkwy, at Ruth St	Rebuild signal systems at each intersection including adding mast arms, countdown timers, APS, upgrade from 8" to 12" indications		X		\$1,080,000	\$1,080,000		\$120,000	\$1,200,000	7.75	712	180	892
R18	Minneapolis	Lake Street	at Dean Pkwy, at Thomas Ave, at Minnehaha Pkwy	Replace 3 signal systems, add mast arms, countdown timers, APS, increase from 8" signal lenses to 12"	X			\$990,000	\$990,000		\$110,000	\$1,100,000	8.16	750	130	880
R7	Bloomington	CSAH 1	at Xerxes Avenue	Install left turn lanes on each approach; convert thru lane to right turn lane on both Xerxes approaches; signal upgrades to include FYA and retroreflective pavement markings		X		\$469,800	\$469,800		\$52,200	\$522,000	7.77	714	120	834
R1	Anoka County	CSAH 83	at Alpine Drive	Construct roundabout	X			\$1,350,000		\$1,350,000	\$150,000	\$1,500,000	5.20	478	200	678
R12	Dakota County	CSAH 9 (Dodd Blvd)	at Icenic Trail / Heritage Drive	Construct center median to allow Dodd left turns and restrict east/west thru and lefts		X		\$360,000	\$360,000		\$40,000	\$400,000	5.57	512	150	662
R15	Hennepin County	CSAH 34	at 98th Street	Remove channelized right turn islands; Replace signal system; install blue enforcement lights; bike/ped/ADA		X		\$1,170,000	\$1,170,000		\$130,000	\$1,300,000	4.76	438	190	628
R8	Carver County	TH 5	at CSAH 33 / Reform Street	Construct roundabout	X			\$1,346,400		\$1,346,400	\$149,600	\$1,496,000	4.30	395	200	595
R14	Columbia Heights	53rd Ave	from TH 65 to 1,100' west	Extend center median; construct Turnabout	X			\$730,800		\$730,800	\$81,200	\$812,000	4.75	437	140	577
R9*	Chisago County	CSAH 23	at CSAH 24 (Lofton Avenue)	Construct roundabout; flatten horizontal curve	X			\$1,512,000	\$1,512,000		\$168,000	\$1,680,000	3.96	364	210	574
R17	Hennepin County	CSAH 35 (Portland Ave) CSAH 52	CSAH 35 within City of Bloomington CSAH 52 within City of Richfield	Signal improvements including signal head replacement, retiming, additional signal heads, enforcement lights, left turn phasing; Ped improvements including curb extensions, ADA, APS, countdown timers		X		\$846,000	\$846,000		\$94,000	\$940,000	5.06	465	80	545
R16	Hennepin County	CSAH 50 Rebecca ParkTrl	from west of Koala Street to east of CSAH 92 (Dogwood St)	Eliminate bypass lanes, restripe to introduce left turn lanes at Koala and Sterling; widen to construct WB LTL at CSAH 92; install intersection lighting; raised center median			X	\$405,000		\$405,000	\$45,000	\$450,000	3.74	344	130	474
R20	Ramsey County	CSAH 51 (Lexington Ave)	at CSAH 78 (County Road B2)	Widen CR B2 to provide dedicated right and left turn lanes; Replace signal system, FYA, ADA, APS, ped ramps, countdown timers	X			\$746,690		\$746,690	\$82,965	\$829,655	3.75	345	90	435
R2	Anoka County	CSAH 1	at Blackfoot Street	Install additional signal heads; change from protected only to FYA	X			\$405,000	\$405,000		\$45,000	\$450,000	2.82	259	140	399
R19	MnDOT	Multiple	WB TH 55 to EB TH 5, WB 694 to SB TH 100, SB TH 77 to EB Killebrew, WB 494 to SB I-35E	Apply high friction treatment on 4 ramps	X			\$410,130	\$410,130		\$45,570	\$455,700	3.04	279	90	369
R6	Anoka County	CSAH 1	at Mississippi Blvd	Install additional signal heads; change from protected only to FYA	X			\$450,000		\$450,000	\$450,000	\$500,000	2.51	231	120	351
R3	Anoka County	CSAH 35	at Gardena Avenue	Construct roundabout	X			\$1,350,000		\$1,350,000	\$150,000	\$1,500,000	2.55	234	80	314
R13	Dakota County	CSAH 62 (190th St)	at County Road 47 (Northfield Blvd)	Reconstruct intersection by removing skew; construct left and right turn lanes		X		\$1,350,000			\$150,000	\$1,500,000	1.55	142	170	312
R11	Dakota County	CSAH 73	at County Road 6	Construct roundabout		X		\$1,395,000			\$155,000	\$1,550,000	2.01	185	120	305
R4	Anoka County	CSAH 22	at County Road 66	Construct roundabout	X			\$1,350,000			\$150,000	\$1,500,000	1.57	144	100	244
R10	Columbia Heights	TH 65	from 43rd Ave to 47th Ave	Install ped-level and vehicle-level lighting; reconstruct sidewalk and ped ramps	X			\$1,117,710			\$124,190	\$1,241,900	1.33	122	100	222
R5	Anoka County	CSAH 17	at CSAH 23 (Lake Drive)	Install additional signal heads; change from protected only to FYA	X			\$450,000			\$50,000	\$500,000	1.22	112	80	192
Projects above the red line are recommended for funding. R9 approved separately by MnDOT.								\$16,744,730	\$7,242,930	\$6,378,890	\$2,542,725	\$21,427,255				

2018 Funding Cycle for 2022/2023 HSIP Projects (Proactive)

11/1/2018

					Funding Year Requested		HSIP FUNDING							POINTS									
Project #	Submitting Agency	Roadway	Location	Project Description	Any	2022	2023	Original HSIP Amount Requested	Available 2020 HSIP \$ Awarded	Available 2021 HSIP \$ Awarded	2022 HSIP \$ Awarded	2023 HSIP \$ Awarded	Local Match (10%)	TOTAL PROJECT COST	Connection to SHSP (100)	Cost per mile or Intersection (200)	Wide Strategy vs Single Spot (200)	AADT (50)	Fatal and A injury crashes (50)	Crash Reduction Factor (250)	Part of a Plan (150)	TOTAL POINTS (1,000)	
P16	Scott County	Multiple locations	County wide	Install 40-50 miles of ground in reflective lane lines and pavement markings; install street lights at at least 10 rural intersections			X	\$1,017,000				\$1,017,000	\$113,000	\$1,130,000	100	200	200	4	8	120	150	782	
P2	Carver County	County Wide	County Wide	Rural intersection lighting improvements at 30-40 intersections	X			\$292,500		\$292,500			\$32,500	\$325,000	100	200	200	4	21	99	150	774	
P14	MnDOT	TH 169 N	from 85th St to West River Road	Install cable median barrier	X			\$963,000				\$963,000	\$107,000	\$1,070,000	100	26	200	50	5	250	75	706	
P12	MnDOT	TH 51	from County Road C to I-694	Install cable median barrier, close median at Hamline Ave,restrict median at Glenhill Rd, lengthen SB LTL's at CR C, CR C2, Lydia Ave		X		\$585,000			\$585,000		\$65,000	\$650,000	100	21	200	32	13	250	75	691	
P13	MnDOT	TH 169	from TH 19 to TH 25	Install cable median barrier, close or modify access or median for up to 12 access/medians	X			\$1,800,000				\$1,800,000	\$200,000	\$2,000,000	100	20	200	17	16	250	75	678	
P7	Minneapolis	Nicollet Ave	Minnehaha Parkway to 60th Street	Signal system and ped ramp improvements at 8 intersections, install overhead signals on mast arms and curb extensions	X			\$1,755,000			\$1,755,000		\$195,000	\$1,950,000	100	8	150	11	3	193	75	540	
P5	Hennepin County	CSAH 3 (Lake St)	CSAH 42 (42nd St)	Ped Crossing Safety Improvements: Curb extensions, raised medians, crossing beacons, ADA, pavement markings, signage		X		\$828,000			\$828,000		\$92,000	\$920,000	60	10	100	14	18	182	150	534	
P10	MnDOT	I-694	from TH 61 to CSAH 10	Install continuous freeway lighting	X			\$1,800,000	\$1,800,000				\$200,000	\$2,000,000	60	22	200	39	50	83	75	529	
P6	Hennepin County	CSAH 17 (France Ave)	American Blvd to 76th Street	Safety Improvements: remove raised right turn islands, upgrade ped ramps, APS, off road facilities, enhance medians, signal upgrades including additional signal heads, improved timing, wayward signing, revised pavement markings			X	\$1,800,000				\$1,800,000	\$200,000	\$2,000,000	60	2	200	31	5	73	150	521	
P9	MnDOT	I-494	from Minnesota River to TH 3	Install continuous freeway lighting	X			\$1,620,000					\$180,000	\$1,800,000	60	2	200	50	29	83	75	499	
P1	Andover	CSAH 18	Nightingale Street	Construct roundabout, and possibly 2 ped underpasses	X			\$2,000,000					\$853,000	\$2,853,000	100	1	50	9	0	188	150	498	
P8	Minneapolis	Park Ave Portland Ave	34th St to Diamond Lake Road	Signal system and ped ramp improvements at 5 intersections, install overhead signals on mast arms and curb extensions			X	\$1,485,000					\$165,000	\$1,650,000	100	6	100	7	11	193	75	492	
P15	Ramsey County	University Ave	from Curfew St to Farrington St	Install RRFB's at 15 locations on University; also 2 on Grotto St at Concordia and at St. Anthony Av; and 2 on Chatsworth St at Concordia and at St. Anthony Ave	X			\$665,042					\$73,894	\$738,936	60	48	200	15	0	138	0	461	
P18	Washington County	CSAH 15 (Manning)	at 124th St, at CSAH 7 (122nd), and at Lynch Road	Construct left turn lanes at 3 intersections	X			\$1,575,000					\$175,000	\$1,750,000	100	3	100	6	0	70	150	429	
P3	Carver County	TH 25	CSAH 20	Realign TH 25 / CSAH 20 intersection to remove skew, widen shoulders, add turn lanes, improve sight lines	X			\$1,073,700					\$119,300	\$1,193,000	100	2	50	4	0	99	150	405	
P4	East Bethel	TH 65	187th Lane to Viking Blvd	Construct new east side frontage road	X			\$1,765,800					\$196,200	\$1,962,000	60	2	50	1	16	0	150	279	
P17	St. Francis	TH 47	Pederson Drive	Insall a new signal	X			\$378,000					\$42,000	\$420,000	100	4	50	11	0	0	75	240	
Projects above the red line are recommended for funding.								\$21,403,042	\$1,800,000	\$292,500	\$3,168,000	\$5,580,000	\$3,008,894	\$24,411,936									

SHSP = Minnesota Strategic Highway Safety Plan

Information Item

DATE: November 30, 2018
TO: TAB, TAC, and Funding & Programming Committees
PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)
Steve Peterson, Manager of TAB/TAC Process (651-602-1819)
SUBJECT: Developing Funding Alternatives for the Regional Solicitation

With scoring appeals process completed and the final scores for the 2018 Regional Solicitation tabulated, the TAB, TAC, and Funding & Programming Committees will turn toward development of the attached draft funding alternatives. In order to enable TAB to approve final funding options at its January 16, 2019, meeting, Funding & Programming will need to provide input to TAB at its December 20, 2018, meeting and TAC at its January 3, 2019, meeting.

At the October 17, 2018, TAB meeting, the Committee provided feedback to Council staff on the general themes that should be developed as part of the funding scenarios. An additional funding scenario/general theme (Modernization-Heavy Scenario) was requested by TAB at the November 21, 2018, TAB meeting.

Preliminary Funding Scenarios:

1. Base Scenario (Blue): This was the funding scenario selected by TAB in the 2014 and 2016 Regional Solicitations. It focuses on the mid-points of the TAB-approved funding ranges (58% for Roadways, 27% for Transit/TDM, and 15% for Bicycle/Pedestrian) and then, as a starting point, divides the funding within each mode based approximately on the number of applications received in each category compared to the other categories within the same mode.
2. Expansion-Heavy Scenario (Orange): Funds more heavily in the roadway expansion and transit expansion categories to meet the needs of a growing region and economy. Same modal splits as the Base Scenario, but funds three additional roadway expansion projects and one additional transit expansion project. Funding for the four new projects comes from removing four projects (two roadway modernization projects, one traffic management technology project, and one transit modernization project) from the Base Scenario.
3. Modernization-Heavy Scenario (Pink): Funds more heavily in the roadway reconstruction/modernization and transit modernization categories, providing a contrast to the Expansion-Heavy scenario. Same modal splits as the Base Scenario, but funds two additional roadway expansion projects and two additional transit expansion projects. Funding for the four new projects comes from removing three projects (two roadway expansion projects and one transit expansion project) from the Base Scenario.
4. Bicycle/Pedestrian-Heavy Scenario (Green): Funds an additional seven bicycle and pedestrian projects to reflect the 60 applications and high amount of dollars requested in this funding cycle. This scenario goes to the top end of the TAB-established modal funding range at 20% of total funds (modal range is 10% to 20%). Funding for the seven additional projects comes from shifting \$9 million

from roadways and transit (i.e., removes one roadway expansion project and one transit expansion project from the Base Scenario).

The projects funded in each scenario are shown in the attachments (tabular and map formats). The scores displayed represent the final scores and account for all changes made as part of the scoring appeals process at the November 15, 2018, TAC Funding & Programming meeting. Recommended Highway Safety Improvement Program (HSIP) projects are also shown on the maps. These recommended projects will also go before TAB for approval at the January 16, 2019, meeting.

Other Assumptions or Observations:

TAB has not yet decided on the \$6,667,000 unique project request submitted by the City of Saint Paul for HourCar vehicles and electric vehicle charging stations. As such, the funding scenarios are shown with and without funding for this project until further direction is provided by TAB.

All funding scenarios assume that \$585,000 is allocated off the top to the Regional Model/Travel Behavior Inventory as this request is years 7 and 8 of the 10-year program discussed by TAB as part of the 2016 funding cycle.

The draft scenarios assume 8% overprogramming to account for selected projects that withdraw or change their scopes and give funds back to the region (in the 2016 funding cycle, 8% overprogramming was approved by TAB). This level of over-programming increases the total federal funds available from \$175 million to \$194 million. An additional \$2 million is being made available from underbudget transit bus purchases funded previously through the Regional Solicitation. Therefore, a total of \$196 million is available for projects.

The 2018 TAB-approved application states: Within Roadways Including Multimodal Elements, at least one project will be funded from each of the five eligible functional classifications: A-Minor Arterial Augmentors, Connectors, Expanders, and Relievers, as well as Non-Freeway Principal Arterials. The A-Minor Connector project shown as funded in the draft scenarios is a bridge project that requires skipping over higher-ranked projects. However, funding this lower-cost project at \$1.4 million helps satisfy the \$10 million minimum requirement in the bridge application category.

Committee Feedback:

At the November 29, 2018, Funding & Programming meeting, the following general comments were provided:

1. The 327-point scoring gap between the fourth and fifth highest-ranked transit modernization projects creates a clear distinction between projects and is a good funding line. However, the fifth-place project is shown as funded in the modernization-heavy scenario. If funded, the committee also provided input to fund the sixth-ranked project, which is only \$616,000 should be funded.
2. In addition to identifying projects that have been awarded partial funding from one or more MnDOT/DEED competitive grant programs (National Highway Freight Program, Corridors of Commerce, Transportation and Economic Development/Infrastructure), the group requested that Council staff identify

projects in all modes that have applied for funding in the past funding cycles. Both pieces of information are shown on the ranked number list on the far left of the tables with footnotes.

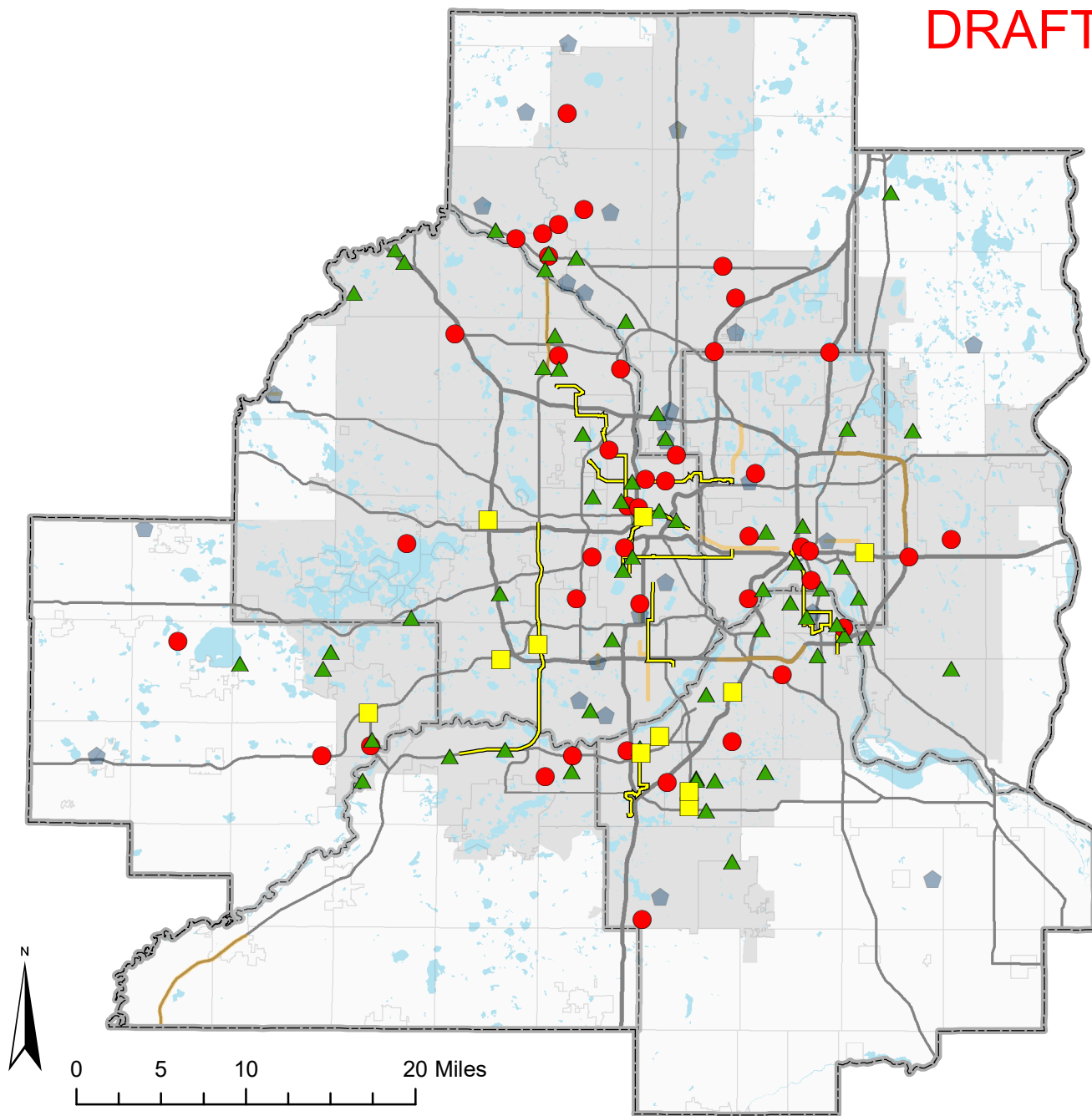
3. The Committee also requested that the \$2.2 million of returned extra transit funds be shown in the total funding tables. These returned funds were added to transit expansion projects since the returned funds were for new bus purchases. In calculating the modal percentages out of the \$194 million available, the \$2.2 million was excluded.
4. The Committee noted that one of the negative outcomes of a \$5.5 million maximum federal award in the multiuse trails category is that fewer projects are funded. It also impacted the number of funded pedestrian and Safe Routes to School projects where only two projects are shown as funded in the base scenario in each application category. Another element that impacted the categorical balance in this mode is that Washington County may only receive one project; the 11th-ranked multiuse trails project. This also resulted in several high scoring projects not being shown as funded.
5. The Committee questioned why funding the unique project request would result in fewer pedestrian projects when the electric vehicle charging stations and carsharing project has little to do with pedestrian projects. Council staff made this recommended change in the updated tables and noted that the draft approach was to attempt to take some of the \$6.67 million from more than one mode. Staff said that they need further direction from TAB as to which projects would be eliminated from receiving funding if TAB decides to fund part of all the Unique project request. It was suggested that the pedestrian projects could be retained by reducing the award to the unique project by \$1 million.
6. The Committee requested a table showing the total project cost by mode (see Table 1). It was noted that many of the roadway projects submitted are leveraging large amounts of outside funds. In some cases, the roadway projects are seeking the remaining gap funding, whereas for many of the other projects, this will be the first funding dedicated to the project. Members also noted that historically about 3% of the roadway project budgets were for bicycle and pedestrian improvements, so consideration for going slightly above the mid-point (58%) for roadways should be discussed. The Committee commented that Roadways is currently underfunded in all the draft scenarios. This occurs because the current approach is to fully fund project requests and lower-cost bicycle and pedestrian projects can accept the remaining budgets in other modes.
7. The concept of overprogramming was discussed. The group generally was in favor of overprogramming at the same level as last funding cycle, but to be clearer with applicants that the lowest-scoring projects that are funded will be the first projects to be delayed if there are not volunteers to delay their projects or not enough projects drop out of the program.

Table 1: Funding Requests by Mode

	Applications	Federal Request	%	Range Midpoint	Total Project Cost	%
Roadway	43 (32%)	\$220,677,812	53%	58%	\$492,148,742	65%
Transit/TDM	32 (24%)	\$87,837,695	21%	27%	\$111,436,778	15%
Bike/Ped	60 (44%)	\$110,404,307	26%	15%	\$152,224,081	20%
TOTAL	135	\$418,919,814			\$755,809,601	

Locations of 2018 Submitted Applications for Regional Solicitation and Highway Safety Improvement Program Projects

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Legend

- Interstate Highways
- State, US Highways and County Roads
- ▭ County Boundaries
- ▭ City Boundaries
- ▭ Lakes and Rivers
- ▭ Urbanized Area

Modal Funding Category

- Roadways
- Transit and Travel Demand Management
- ▲ Bicycle and Pedestrian
- Transit Project Corridors
- ▭ HSIP Projects
- HSIP Project Corridors

Regional Solicitation Funding by County (2003-2016)

2016 Census Estimate									
County	Population	Pop %	Jobs %	2003-2013		2014-2016		Total	
Anoka	345,957	11%	7.0%	\$ 84,493,281	11%	\$ 25,445,022	6%	\$109,938,303	9%
Carver	100,262	3%	2.0%	\$ 46,739,804	6%	\$ 10,769,728	3%	\$57,509,532	5%
Dakota	417,486	14%	11.0%	\$ 97,050,235	13%	\$ 36,220,700	9%	\$133,270,935	11%
Hennepin	1,232,483	41%	53.0%	\$ 308,185,317	40%	\$ 230,107,133	54%	\$538,292,450	45%
Ramsey	540,649	18%	19.0%	\$ 134,020,012	18%	\$ 73,264,151	17%	\$207,284,163	17%
Scott	143,680	5%	3.0%	\$ 52,293,396	7%	\$ 29,739,649	7%	\$82,033,045	7%
Washington	253,117	8%	5.0%	\$ 43,018,036	6%	\$ 20,554,656	5%	\$63,572,692	5%
3,033,634				\$765,800,080		\$426,101,039		\$1,191,901,119	

Data for population and employment based on Metropolitan Council 2016 estimates.

Regional Solicitation Funding by County (2003-2016 and Draft 2018 Base Senario)

2016 Census Estimate										Total	
County	Population	Pop %	Jobs %	2003-2013		2014-2016		2018		2003-2018	Percent
Anoka	345,957	11%	7%	\$ 84,493,281	11%	\$ 25,445,022	6%	\$17,304,296	9%	\$127,242,599	9%
Carver	100,262	3%	2%	\$ 46,739,804	6%	\$ 10,769,728	3%	\$8,836,400	5%	\$66,345,932	5%
Dakota	417,486	14%	11%	\$ 97,050,235	13%	\$ 36,220,700	9%	\$27,850,955	15%	\$161,121,890	12%
Hennepin	1,232,483	41%	53%	\$ 308,185,317	40%	\$ 230,107,133	54%	\$110,709,034	59%	\$649,001,483	47%
Ramsey	540,649	18%	19%	\$ 134,020,012	18%	\$ 73,264,151	17%	\$17,284,175	9%	\$224,568,338	16%
Scott	143,680	5%	3%	\$ 52,293,396	7%	\$ 29,739,649	7%	\$6,700,080	4%	\$88,733,125	6%
Washington	253,117	8%	5%	\$ 43,018,036	6%	\$ 20,554,656	5%	\$460,800	0.2%	\$64,033,492	5%
3,033,634				\$765,800,080		\$426,101,039		\$189,147,757		\$1,381,046,858	
										\$615,246,778	

Data for population and employment based on Metropolitan Council 2016 estimates.

Regional Solicitation Funding by County (2003-2016 and Draft 2018 Expansion-Heavy Scenario)

2016 Census Estimate										Total	
County	Population	Pop %	Jobs %	2003-2013		2014-2016		2018		2003-2018	Percent
Anoka	345,957	11%	7%	\$ 84,493,281	11.0%	\$ 25,445,022	6%	\$23,424,976	12%	\$133,363,279	10%
Carver	100,262	3%	2%	\$ 46,739,804	6%	\$ 10,769,728	3%	\$8,836,400	5%	\$66,345,932	5%
Dakota	417,486	14%	11%	\$ 97,050,235	13%	\$ 36,220,700	9%	\$25,218,955	13%	\$158,489,890	11%
Hennepin	1,232,483	41%	53%	\$ 308,185,317	40%	\$ 230,107,133	54%	\$100,189,034	53%	\$638,481,483	46%
Ramsey	540,649	18%	19%	\$ 134,020,012	18%	\$ 73,264,151	17%	\$19,524,175	10%	\$226,808,338	16%
Scott	143,680	5%	3%	\$ 52,293,396	7%	\$ 29,739,649	7%	\$6,700,080	4%	\$88,733,125	6%
Washington	253,117	8%	5%	\$ 43,018,036	6%	\$ 20,554,656	5%	\$4,860,800	3%	\$68,433,492	5%
3,033,634				\$765,800,080		\$426,101,039		\$188,756,437		\$1,380,655,538	
										\$614,855,458	

Data for population and employment based on Metropolitan Council 2016 estimates.

Regional Solicitation Funding by County (2003-2016 and Draft 2018 Modernizatn-Heavy Scenario)

2016 Census Estimate										Total	
County	Population	Pop %	Jobs %	2003-2013		2014-2016		2018		2003-2018	Percent
Anoka	345,957	11%	7%	\$ 84,493,281	11.0%	\$ 25,445,022	6%	\$17,820,416	9%	\$127,758,719	9%
Carver	100,262	3%	2%	\$ 46,739,804	6%	\$ 10,769,728	3%	\$8,836,400	5%	\$66,345,932	5%
Dakota	417,486	14%	11%	\$ 97,050,235	13%	\$ 36,220,700	9%	\$21,626,995	11%	\$154,897,930	11%
Hennepin	1,232,483	41%	53%	\$ 308,185,317	40%	\$ 230,107,133	54%	\$116,796,914	62%	\$655,089,364	47%
Ramsey	540,649	18%	19%	\$ 134,020,012	18%	\$ 73,264,151	17%	\$17,284,216	9%	\$224,568,379	16%
Scott	143,680	5%	3%	\$ 52,293,396	7%	\$ 29,739,649	7%	\$6,700,080	4%	\$88,733,125	6%
Washington	253,117	8%	5%	\$ 43,018,036	6%	\$ 20,554,656	5%	\$460,800	0%	\$64,033,492	5%
3,033,634				\$765,800,080		\$426,101,039		\$189,527,839		\$1,381,426,940	
										\$615,626,860	

Data for population and employment based on Metropolitan Council 2016 estimates.

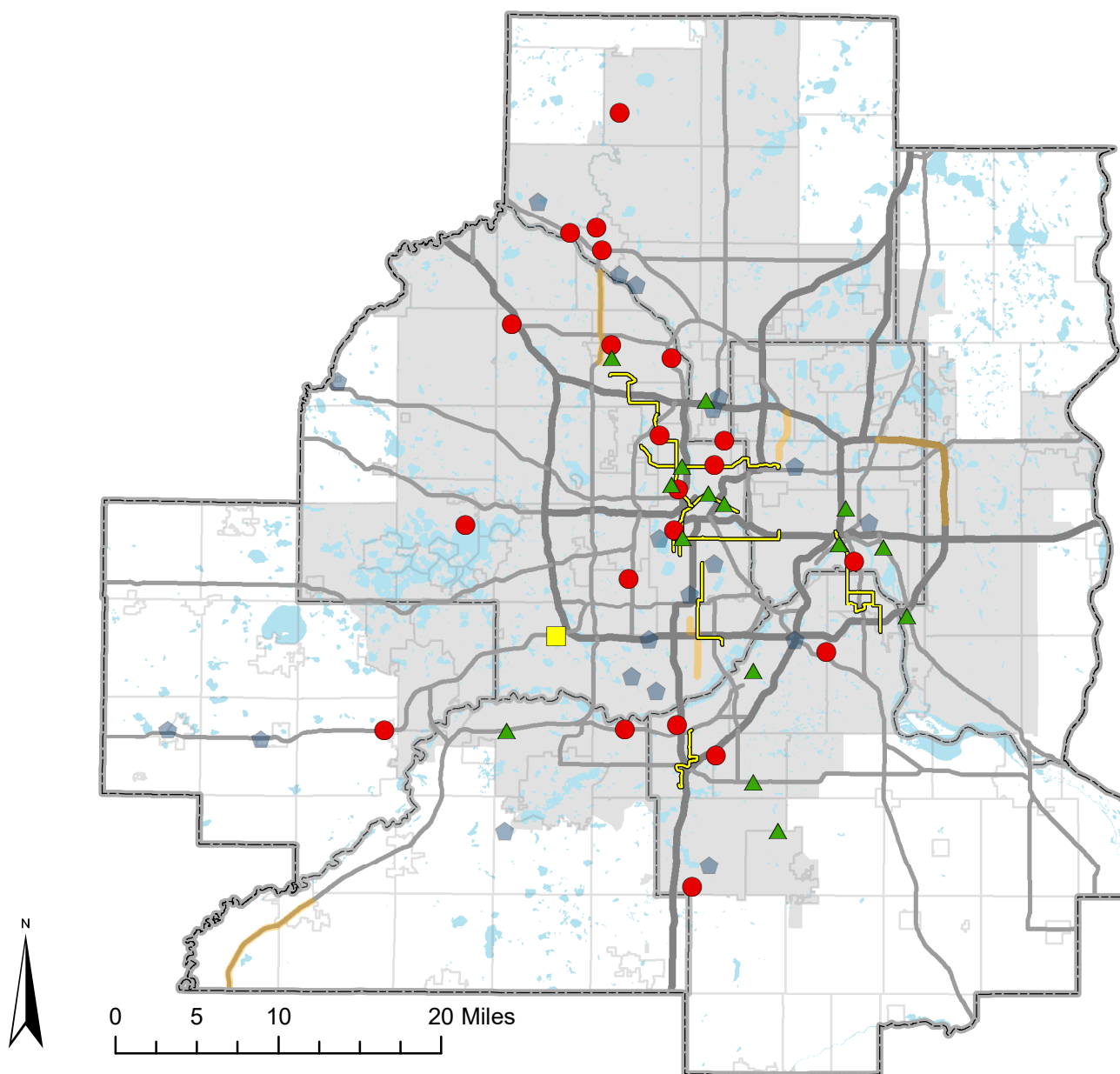
Regional Solicitation Funding by County (2003-2016 and Draft 2018 Bike/Ped-Heavy Scenario)

2016 Census Estimate										Total	
County	Population	Pop %	Jobs %	2003-2013		2014-2016		2018		2003-2018	Percent
Anoka	345,957	11%	7%	\$ 84,493,281	11%	\$ 25,445,022	6%	\$17,304,296	9%	\$127,242,599	9%
Carver	100,262	3%	2%	\$ 46,739,804	6%	\$ 10,769,728	3%	\$8,836,400	5%	\$66,345,932	5%
Dakota	417,486	14%	11%	\$ 97,050,235	13%	\$ 36,220,700	9%	\$19,120,839	10%	\$152,391,774	11%
Hennepin	1,232,483	41%	53%	\$ 308,185,317	40%	\$ 230,107,133	54%	\$112,468,036	59%	\$650,760,485	47%
Ramsey	540,649	18%	19%	\$ 134,020,012	18%	\$ 73,264,151	17%	\$23,564,853	12%	\$230,849,016	17%
Scott	143,680	5%	3%	\$ 52,293,396	7%	\$ 29,739,649	7%	\$6,700,080	4%	\$88,733,125	6%
Washington	253,117	8%	5%	\$ 43,018,036	6%	\$ 20,554,656	5%	\$460,800	0.2%	\$64,033,492	5%
3,033,634				\$765,800,080		\$426,101,039		\$188,457,321		\$1,380,356,422	
										\$614,556,342	

Data for population and employment based on Metropolitan Council 2016 estimates.

Locations of 2018 Regional Solicitation Projects: Base Funding Scenario

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Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

Type

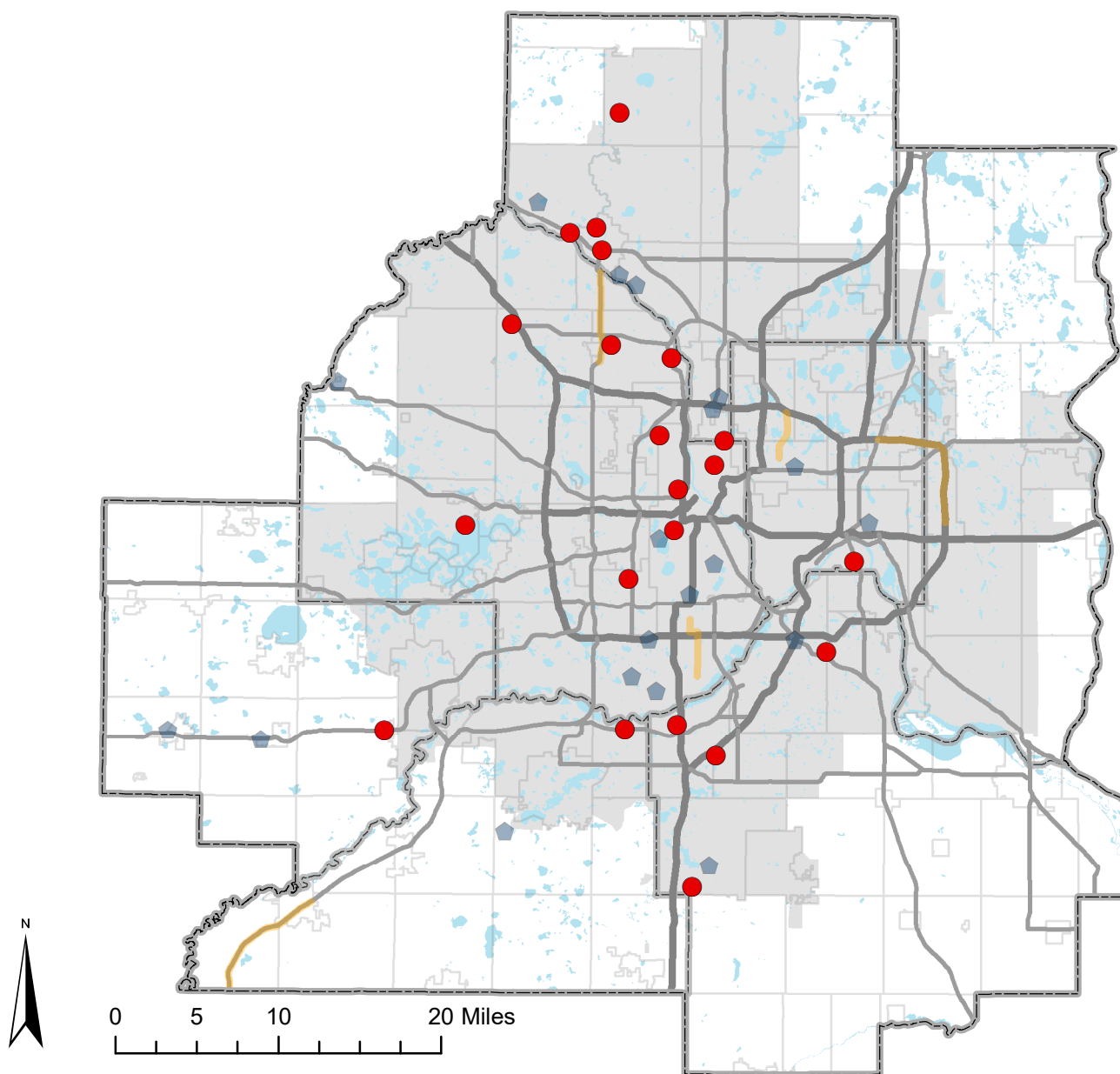
- Roadways
- Bicycle and Pedestrian
- Transit
- Transit Project Corridors
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 48

**Total Highway Safety Improvement Program
Projects: 25**

Locations of 2018 Regional Solicitation Projects: Base Funding Scenario - Roadways

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Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

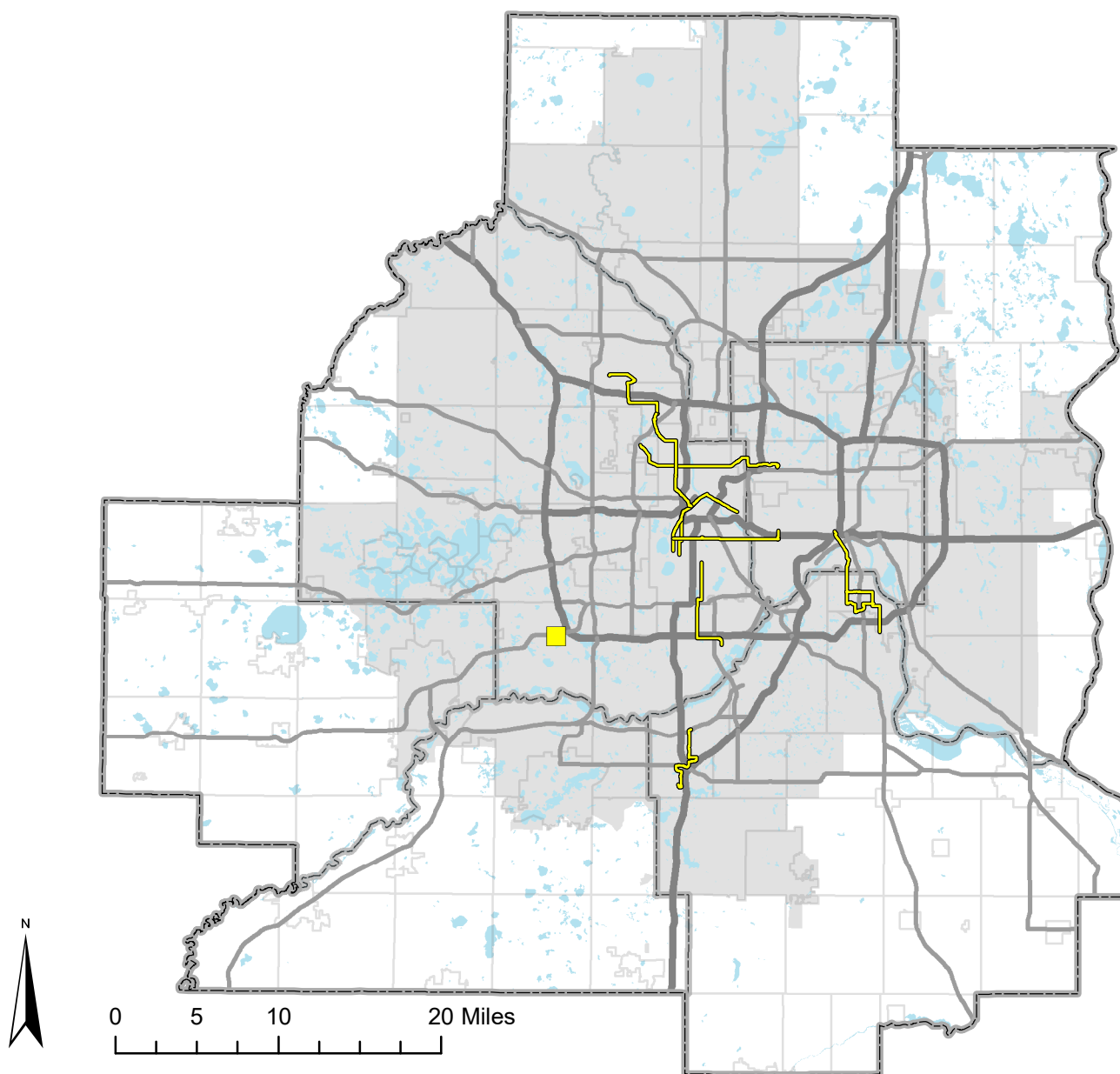
- Roadways
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 48

**Total Highway Safety Improvement Program
Projects: 25**

Locations of 2018 Regional Solicitation Projects: Base Funding Scenario - Transit

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Reference Items

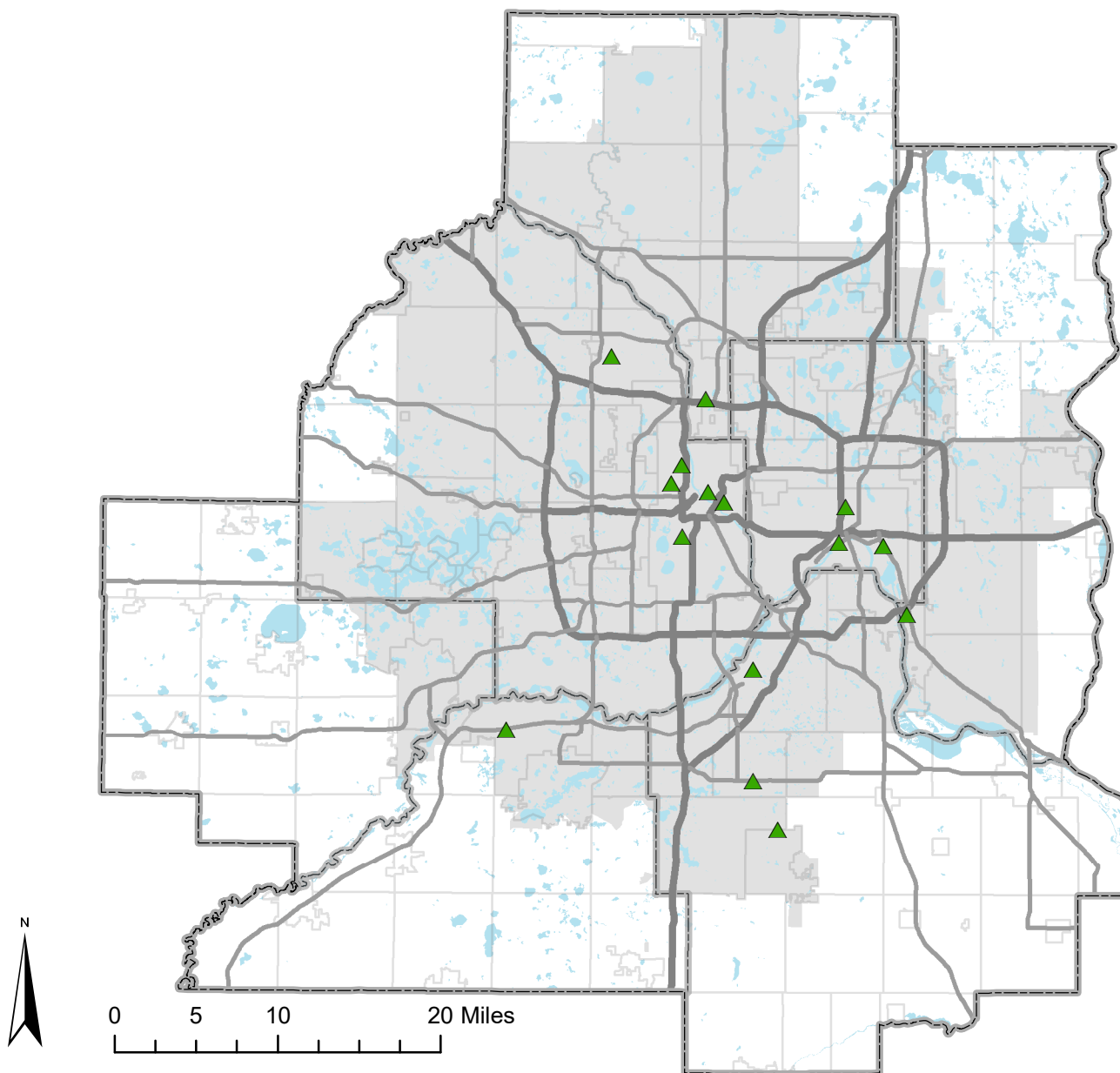
- Interstate Highways
- State, US Highways and County Roads
- ▭ County Boundaries
- ▭ City Boundaries
- ▭ Lakes and Rivers
- ▭ Urbanized Area

Modal Funding Category

- ▭ Transit
- Transit Project Corridors

Total Regional Solicitation Projects: 48

Locations of 2018 Regional Solicitation Projects: Base Funding Scenario - Bicycle and Pedestrian **DRAFT**



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- ▭ County Boundaries
- ▭ City Boundaries
- ▭ Lakes and Rivers
- ▭ Urbanized Area

Modal Funding Category

- ▲ Bicycle and Pedestrian

Total Regional Solicitation Projects: 48

COUNTY DISTRIBUTION (BASE SCENARIO)

County	Submitted Apps	Funded					% of Total Funded Apps	Total \$ Funded	% of Total Funding	% of Reg. Population	% of Reg. Jobs
		Roadway	Transit/TDM	Bike/Ped	Unique	Total Funded Apps					
Anoka	15.50	4	0	1	0	5	11%	\$17,304,296	9%	11%	7%
Carver	8.50	1	0.5	0	0	1.5	3%	\$8,836,400	5%	3%	2%
Dakota	26.50	4	1.5	3	0	8.5	18%	\$27,850,955	15%	14%	11%
Hennepin	43.00	10	6.5	6	0	22.5	49%	\$110,709,034	59%	41%	53%
Ramsey	15.50	1	1.5	3	0	5.5	12%	\$17,284,175	9%	18%	19%
Scott	6.50	1	0	1	0	2	4%	\$6,700,080	4%	5%	3%
Washington	6.50	0	0	1	0	1	2%	\$460,800	0.2%	8%	5%
Region-wide*	2.00	0	1	0	1	2	4%	\$7,585,000			
TOTAL	124	21	11	15	1	48	100%	\$196,730,739	100%	100%	100%

*Regional Travel Behavior Inventory (\$585,000) and TDM/TMO set-aside (\$7M). Funding for the St. Paul unique project still being discussed by TAB. Population and jobs data from 2016 Met Council estimates. Project funding totals include the \$2.2 of returned transit funds.

CITY DISTRIBUTION (BASE SCENARIO)

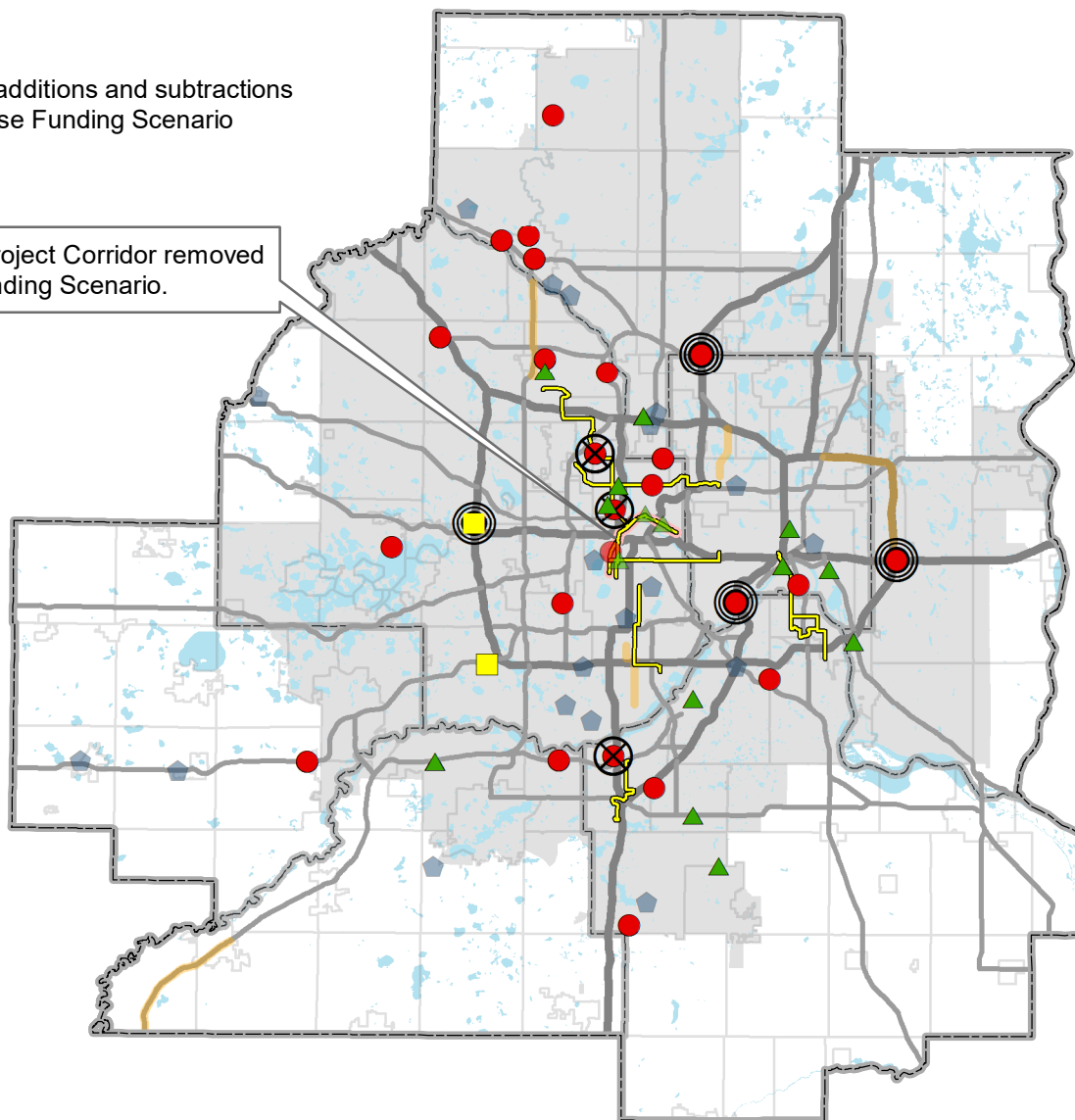
County	City	Projects	County	City	Projects	County	City	Projects
Anoka		5	Hennepin		21	Ramsey		4
	Anoka	2		Brooklyn Park	2		St. Paul	1
	Oak Grove	1		Maple Grove	1		St. Paul	3
	Ramsey/Anoka	1		Minneapolis	4	Multiple Counties		6
	Fridley	1		St. Anthony/Columbia Hts./Minneapolis	1	Dakota/Ramsey	St. Paul, W. St. Paul, S. St. Paul	1
		1		Edina	1		Minneapolis, St. Paul, Robbinsdale, St. Anthony, Roseville	2
Carver				Orono	1		Eden Prairie, Chaska, Chanhassen, Carver, Victoria	1
	Dahlgren Twp.	1		Minneapolis	3		Region-wide	2
Dakota		8		Minneapolis, Richfield, Bloomington	1	TOTAL		48
	Eagan/ Inver Grove Heights	1		Brooklyn Center/Brooklyn Park	1			
	Lakeville	1		Minneapolis	5			
	Burnsville	1		Brooklyn Park	1			
	Apple Valley/Burnsville	1						
	Burnsville	1						
	Farmington/Lakeville	1						
	Apple Valley	1						
	Eagan	1						
Scott		2						
	Savage	1						
	Shakopee	1						
Washington		1						
	Newport	1						

Locations of 2018 Regional Solicitation Projects: Expansion-Heavy Funding Scenario

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Map shows project additions and subtractions compared to the Base Funding Scenario

One Transit Project Corridor removed from Base Funding Scenario.



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

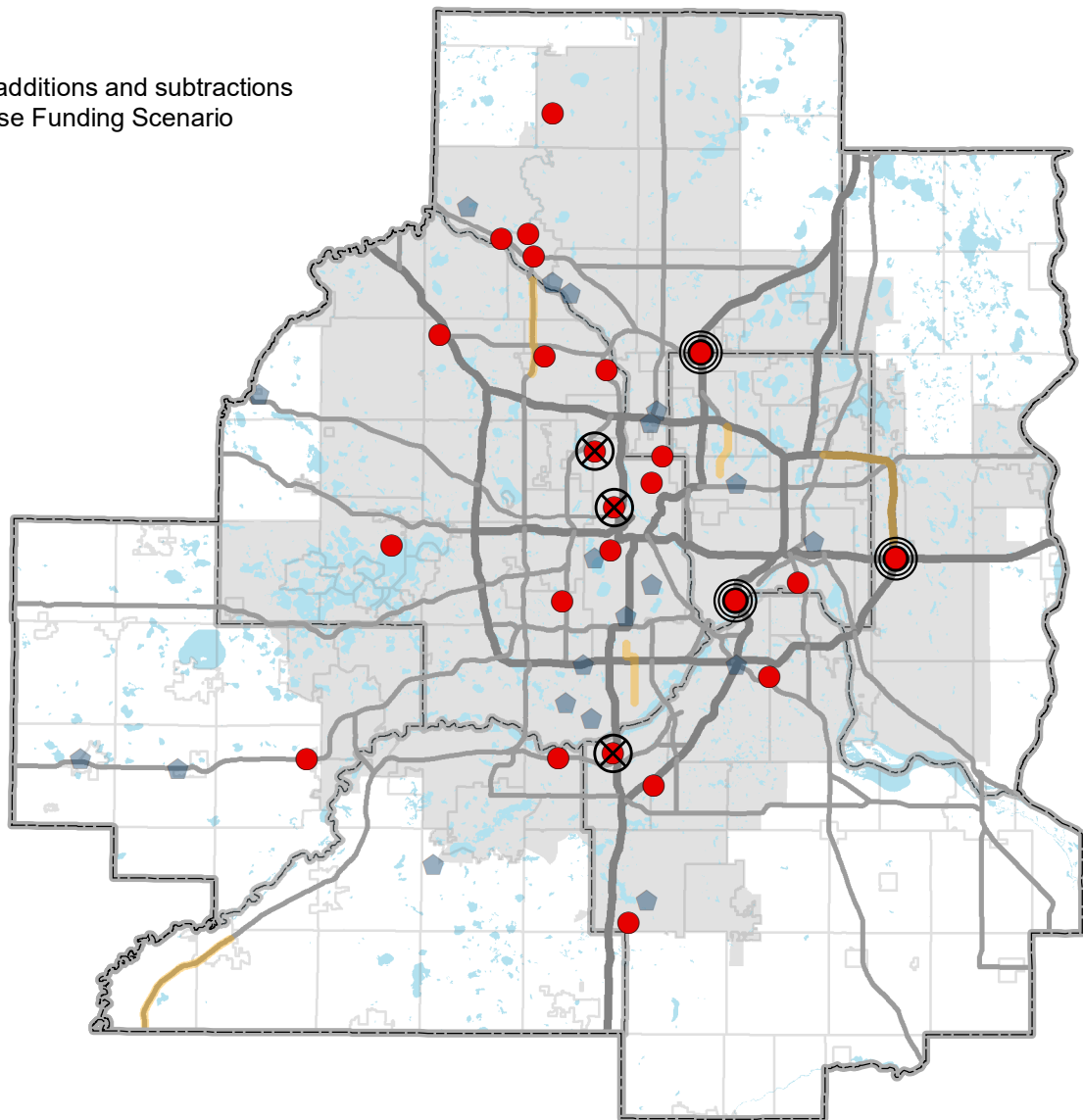
Modal Funding Category

- Roadways
- Roadway Additions
- Roadway Subtractions
- Bicycle and Pedestrian
- Transit
- Transit Addition
- Transit Project Corridor
- Transit Project Corridor Subtraction
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 48
Total Highway Safety Improvement Program Projects: 25

Locations of 2018 Regional Solicitation Projects: Expansion-Heavy Funding Scenario - Roadways **DRAFT**

Map shows project additions and subtractions compared to the Base Funding Scenario



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

- Roadways
- Roadway Additions
- Roadway Subtractions
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 48
Total Highway Safety Improvement Program Projects: 25

Locations of 2018 Regional Solicitation Projects: Expansion-Heavy Funding Scenario - Transit

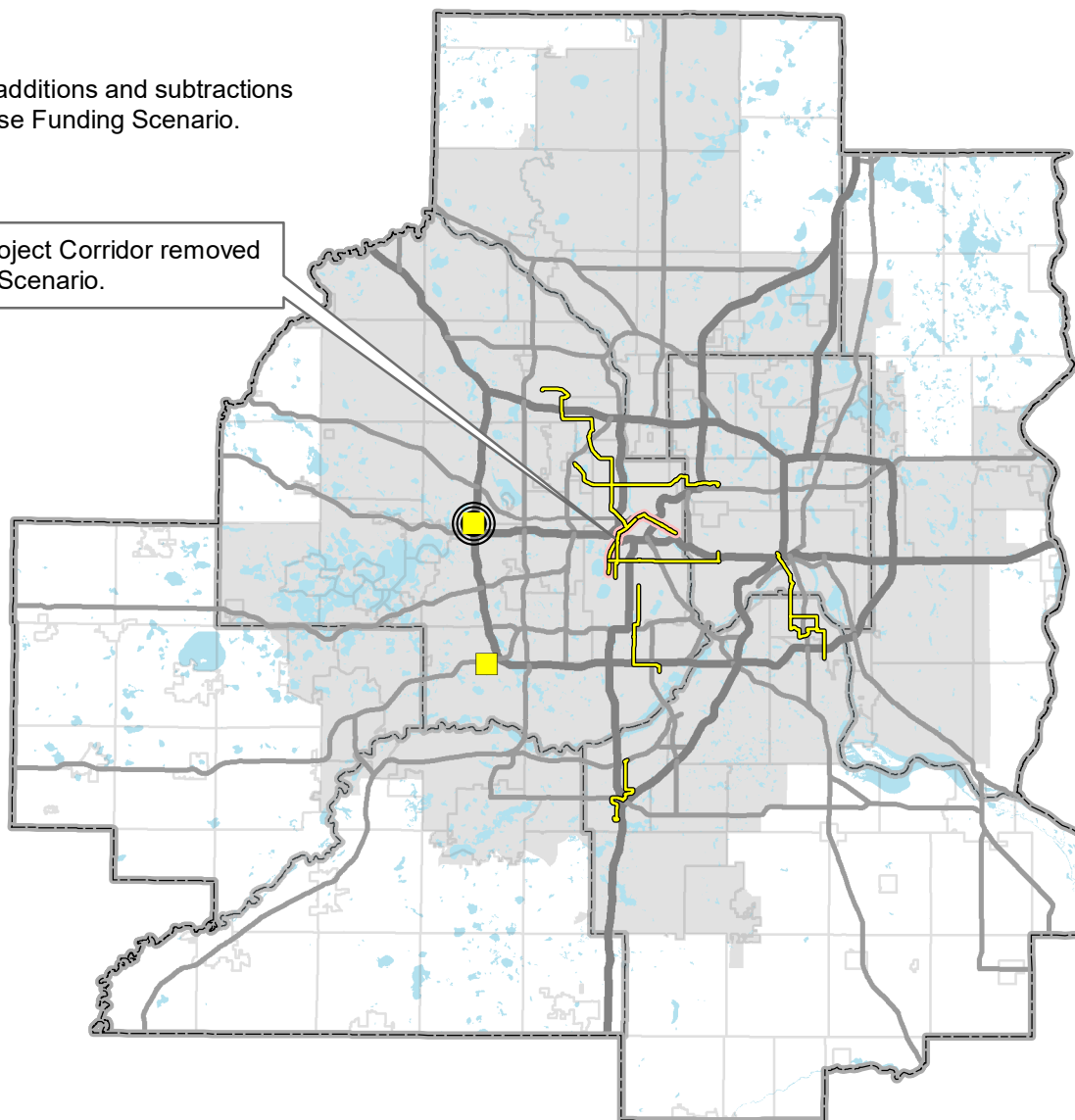
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Map shows project additions and subtractions compared to the Base Funding Scenario.

One Transit Project Corridor removed
Base Funding Scenario.



0 5 10 20 Miles



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

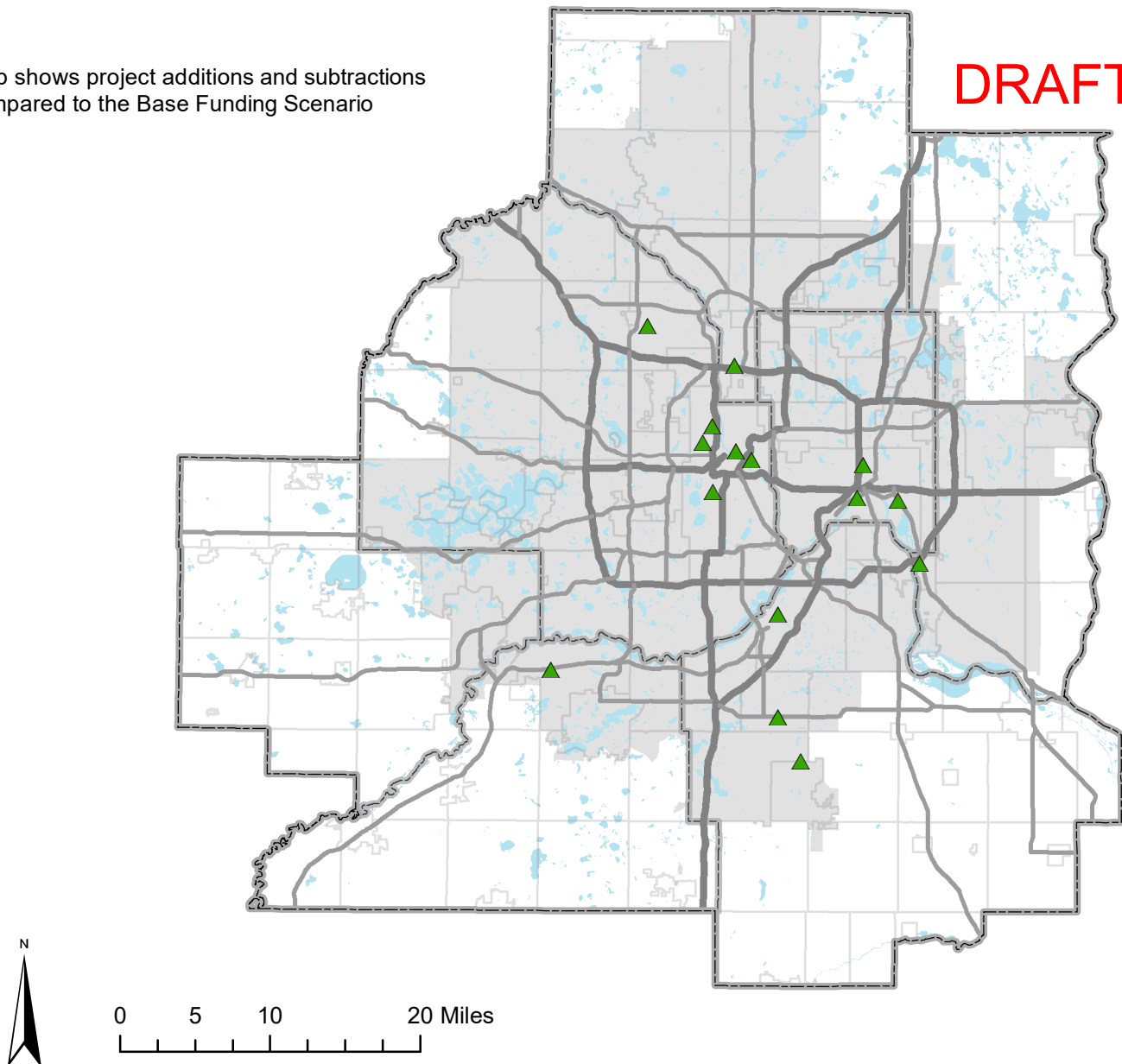
- Transit
- Transit Addition
- Transit Project Corridor
- Transit Project Corridor Subtraction

Total Regional Solicitation Projects: 48

Locations of 2018 Regional Solicitation Projects: Expansion-Heavy Funding Scenario - Bicycle and Pedestrian

Map shows project additions and subtractions compared to the Base Funding Scenario

DRAFT



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- ▭ County Boundaries
- ▭ City Boundaries
- ▭ Lakes and Rivers
- ▭ Urbanized Area

Modal Funding Category

- ▲ Bicycle and Pedestrian

Total Regional Solicitation Projects: 48

COUNTY DISTRIBUTION (EXPANSION-HEAVY SCENARIO)

County	Submitted Apps	Funded				Total Funded Apps	% of Total Funded Apps	Total \$ Funded	% of Total Funding	% of Reg. Population	% of Reg. Jobs
		Roadway	Transit/ TDM	Bike/ Ped	Unique						
Anoka	15.50	4.5	0	1	0	5.5	12%	\$23,424,976	12%	11%	7%
Carver	8.50	1	0.5	0	0	1.5	3%	\$8,836,400	5%	3%	2%
Dakota	26.50	3	1.5	3	0	7.5	16%	\$25,218,955	13%	14%	11%
Hennepin	43.00	8	6.5	6	0	20.5	45%	\$100,189,034	53%	41%	53%
Ramsey	15.50	2.5	1.5	3	0	7	15%	\$19,524,175	10%	18%	19%
Scott	6.50	1	0	1	0	2	4%	\$6,700,080	4%	5%	3%
Washington	6.50	1	0	1	0	2	4%	\$4,860,800	3%	8%	5%
Region-wide*	2.00	0	1	0	1	2	4%	\$7,585,000			
TOTAL	124	21	11	15	1	48	100%	\$196,339,419	100%	100%	100%

*Regional Travel Behavior Inventory (\$585,000) and TDM/TMO set-aside (\$7M). Funding for the St. Paul unique project still being discussed by TAB.

Population and jobs data from 2016 Met Council estimates. Project funding totals include the \$2.2 of returned transit funds.

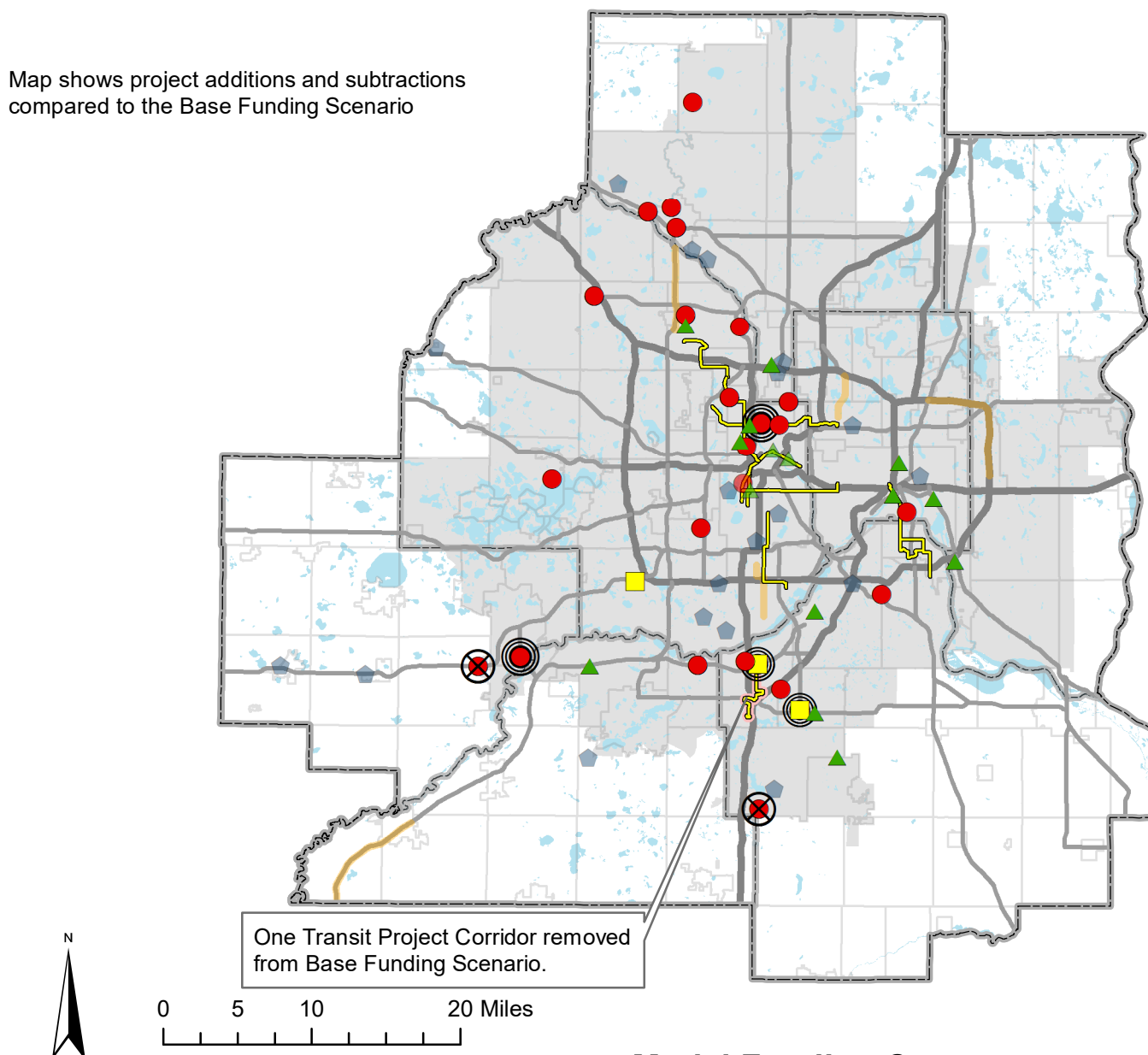
CITY DISTRIBUTION (EXPANSION-HEAVY SCENARIO)

County	City	Projects	County	City	Projects	County	City	Projects
Anoka		5.0	Hennepin		19	Ramsey		5.0
	Anoka	2		Brooklyn Park	2		St. Paul	2.0
	Ramsey/Anoka	1		Maple Grove	1		St. Paul	3
	Oak Grove	1		Minneapolis	2	Multiple Counties		7
	Fridley	1		St. Anthony/ Columbia Hts. Minneapolis	1	Dakota/ Ramsey	St. Paul, W. St. Paul, S. St. Paul	1
		1		Edina	1		Minneapolis, St. Paul, Robbinsdale, St. Anthony, Roseville	2
Carver				Orono	1	Hennepin/ Ramsey	Eden Prairie, Chaska, Chanhassen, Carver, Victoria	1
	Dahlgren Twp.	1		Eden Prairie, Maple Grove, Plymouth, Minnetonka	1	Carver/ Hennepin	Blaine, Shoreview	1
		7		Minneapolis	2	Anoka/ Ramsey	Region-wide	2
Dakota	Eagan/IGH	1		Minneapolis, Richfield, Bloomington	1			48
	Lakeville	1		Brooklyn Center/ Park	1	TOTAL		
	Apple Valley/ Burnsville	1		Minneapolis	5			
	Burnsville	1		Brooklyn Park	1			
	Farmington/ Lakeville	1						
	Apple Valley	1						
	Eagan	1						
Scott		2						
	Savage	1						
	Shakopee	1						
Washington		2						
	Woodbury/ Oakdale	1						
	Newport	1						

Locations of 2018 Regional Solicitation Projects: Modernization-Heavy Funding Scenario

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

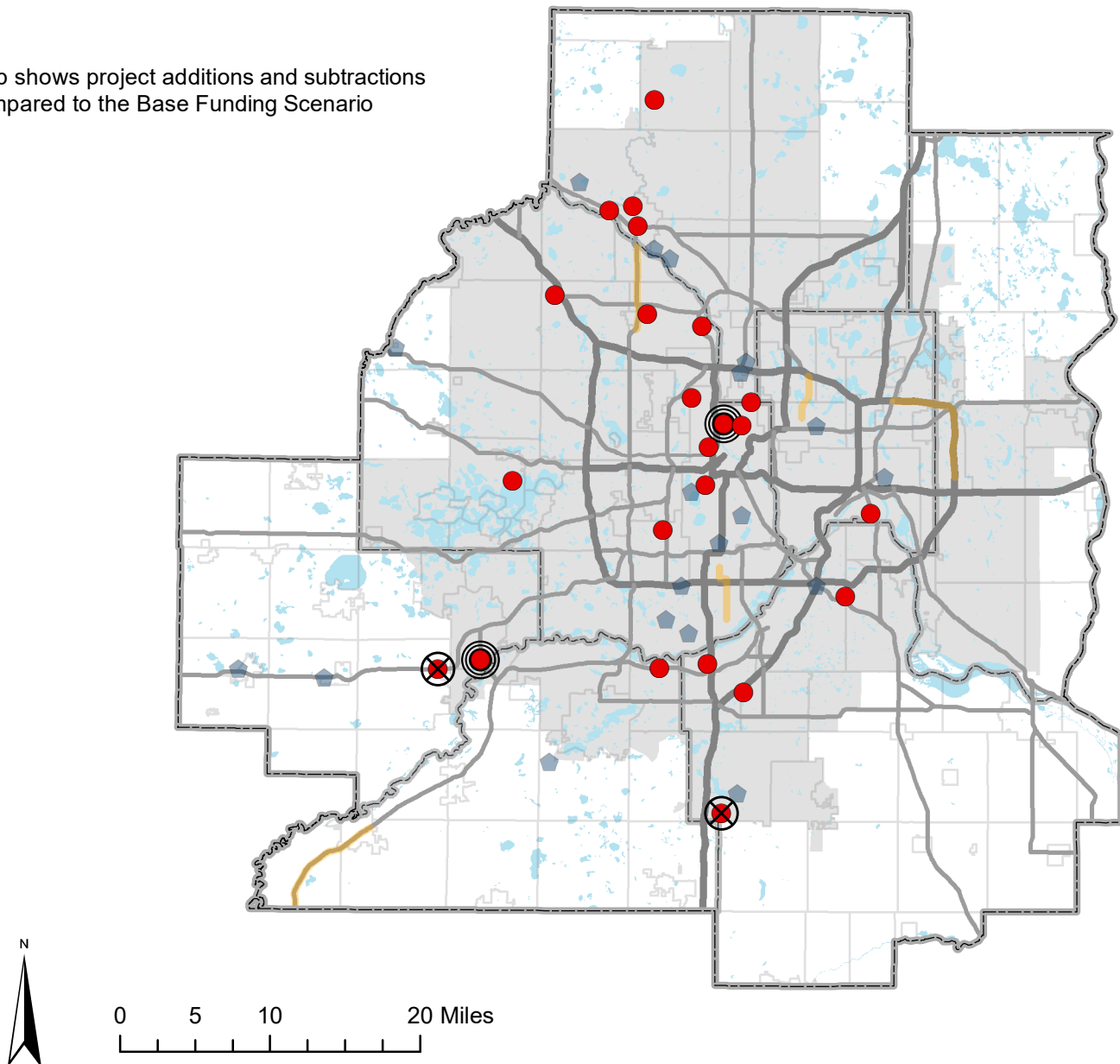
- Roadways
- ⊙ Roadway Additions
- ⊗ Roadway Subtraction
- ▲ Bicycle and Pedestrian
- Transit
- ⊙ Transit Addition
- Transit Project Corridor
- Transit Project Corridor Subtraction
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 49
Total Highway Safety Improvement Program Projects: 25

Locations of 2018 Regional Solicitation Projects: Modernization-Heavy Funding Scenario - Roadways

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Category

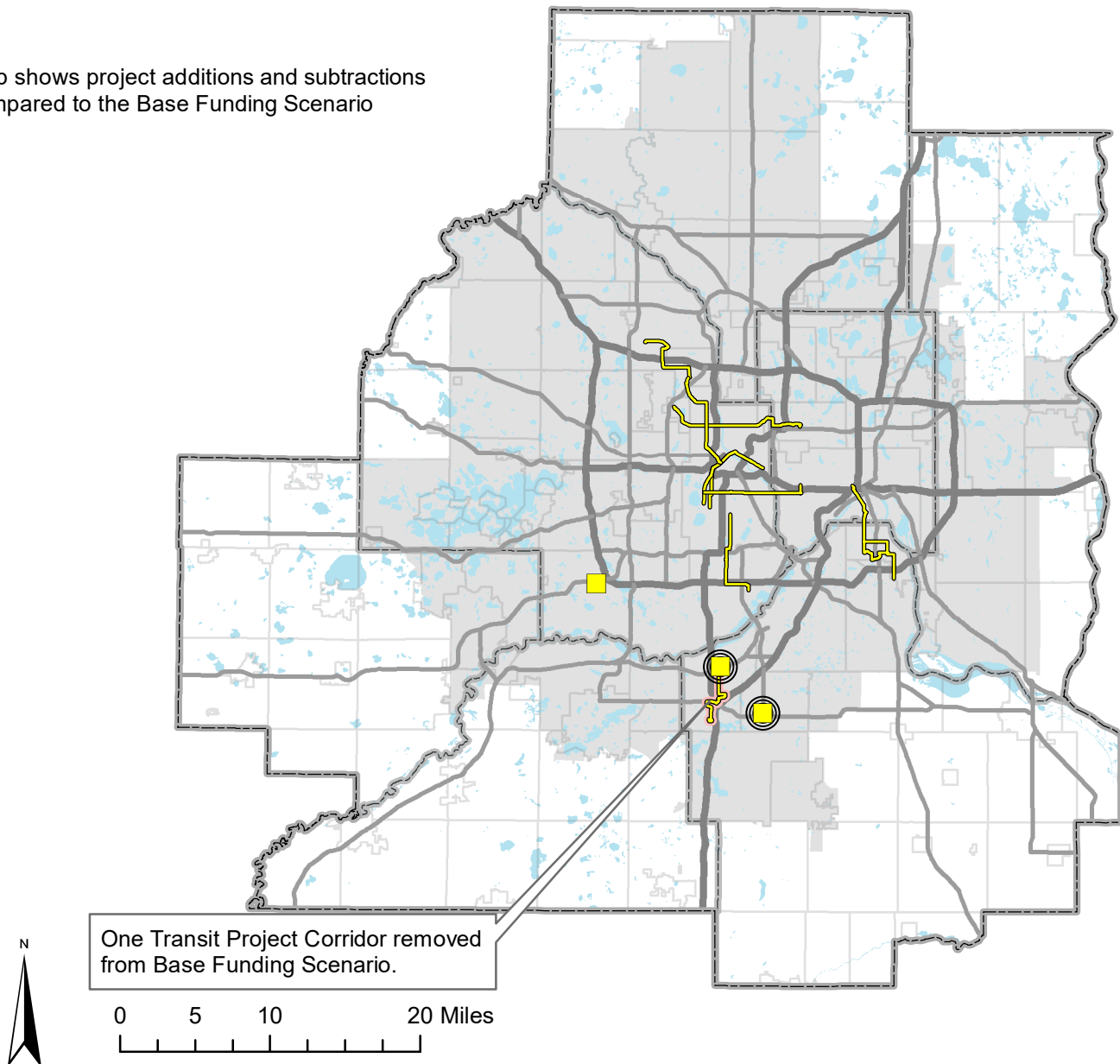
- Roadways
- ⊙ Roadway Additions
- ⊗ Roadway Subtractions
- ◆ HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 49
Total Highway Safety Improvement Program
Projects: 25

Locations of 2018 Regional Solicitation Projects: Modernization-Heavy Funding Scenario - Transit

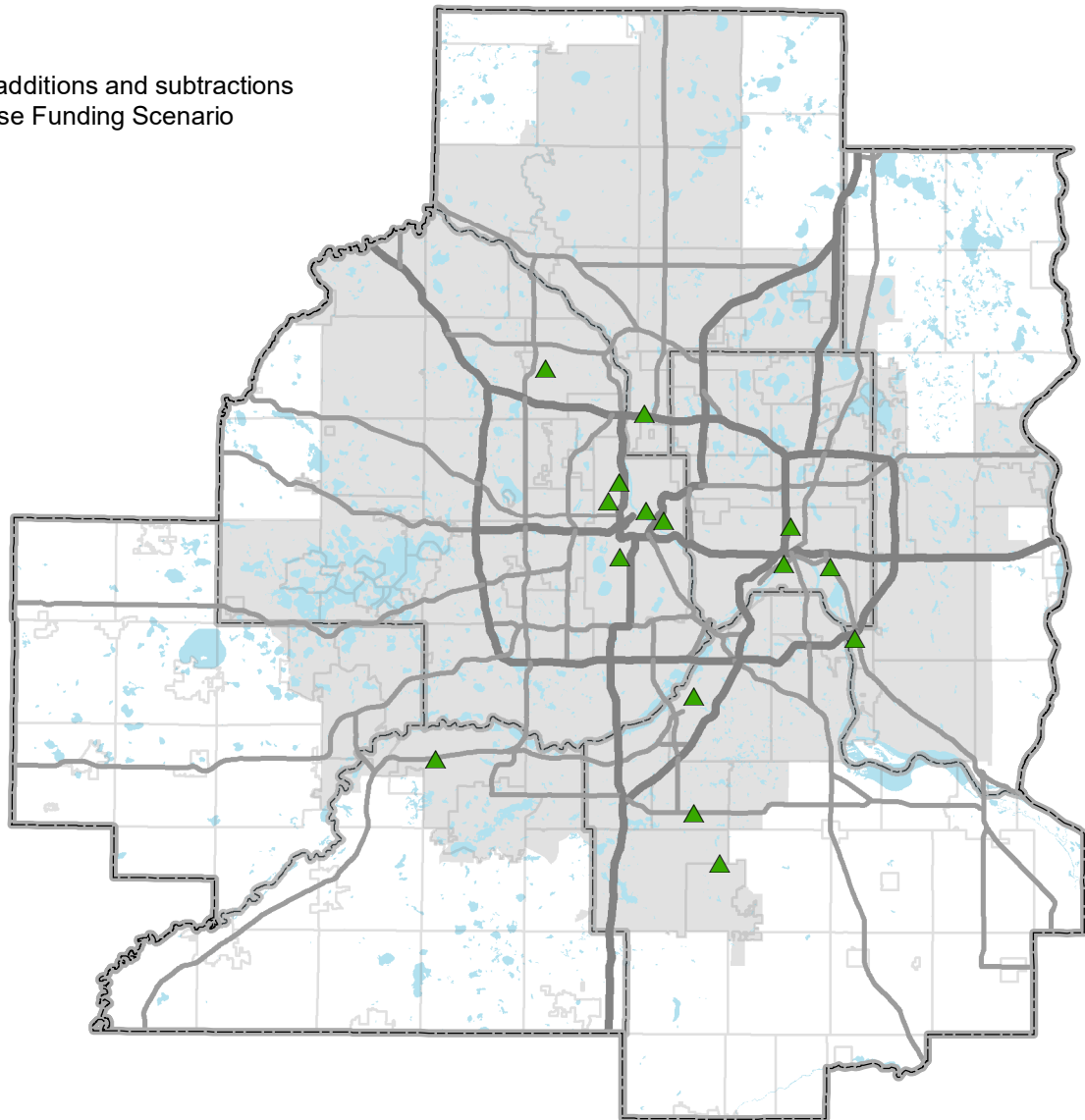
DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



Locations of 2018 Regional Solicitation Projects: **DRAFT** Modernization-Heavy Funding Scenario - Bicycle and Pedestrian

Map shows project additions and subtractions compared to the Base Funding Scenario



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- ▭ County Boundaries
- ▭ City Boundaries
- ▭ Lakes and Rivers
- ▭ Urbanized Area

Modal Funding Category

- ▲ Bicycle and Pedestrian

Total Regional Solicitation Projects: 49

COUNTY DISTRIBUTION (MODERNIZATION-HEAVY SCENARIO)

County	Submitted Apps	Funded					% of Total Funded Apps	Total \$ Funded	% of Total Funding	% of Reg. Population	% of Reg. Jobs
		Roadway	Transit/ TDM	Bike/ Ped	Unique	Total Funded Apps					
Anoka	15.50	4	0	1	0	5	11%	\$17,820,416	9%	11%	7%
Carver	8.50	1	0.5	0	0	1.5	3%	\$8,836,400	5%	3%	2%
Dakota	26.50	3	2.5	3	0	8.5	16%	\$22,242,995	12%	14%	11%
Hennepin	43.00	11	6.5	6	0	23.5	51%	\$116,796,914	61%	41%	53%
Ramsey	15.50	1	1.5	3	0	5.5	12%	\$17,284,216	9%	18%	19%
Scott	6.50	1	0	1	0	2	4%	\$6,700,080	4%	5%	3%
Washington	6.50	0	0	1	0	1	2%	\$460,800	0.2%	8%	5%
Region-wide*	2.00	0	1	0	1	2	4%	\$7,585,000			
TOTAL	124	21	12	15	1	48	100%	\$197,726,821	100%	100%	100%

*Regional Travel Behavior Inventory (\$585,000) and TDM/TMO set-aside (\$7M). Funding for the St. Paul unique project still being discussed by TAB.

Population and jobs data from 2016 Met Council estimates. Project funding totals include the \$2.2 of returned transit funds.

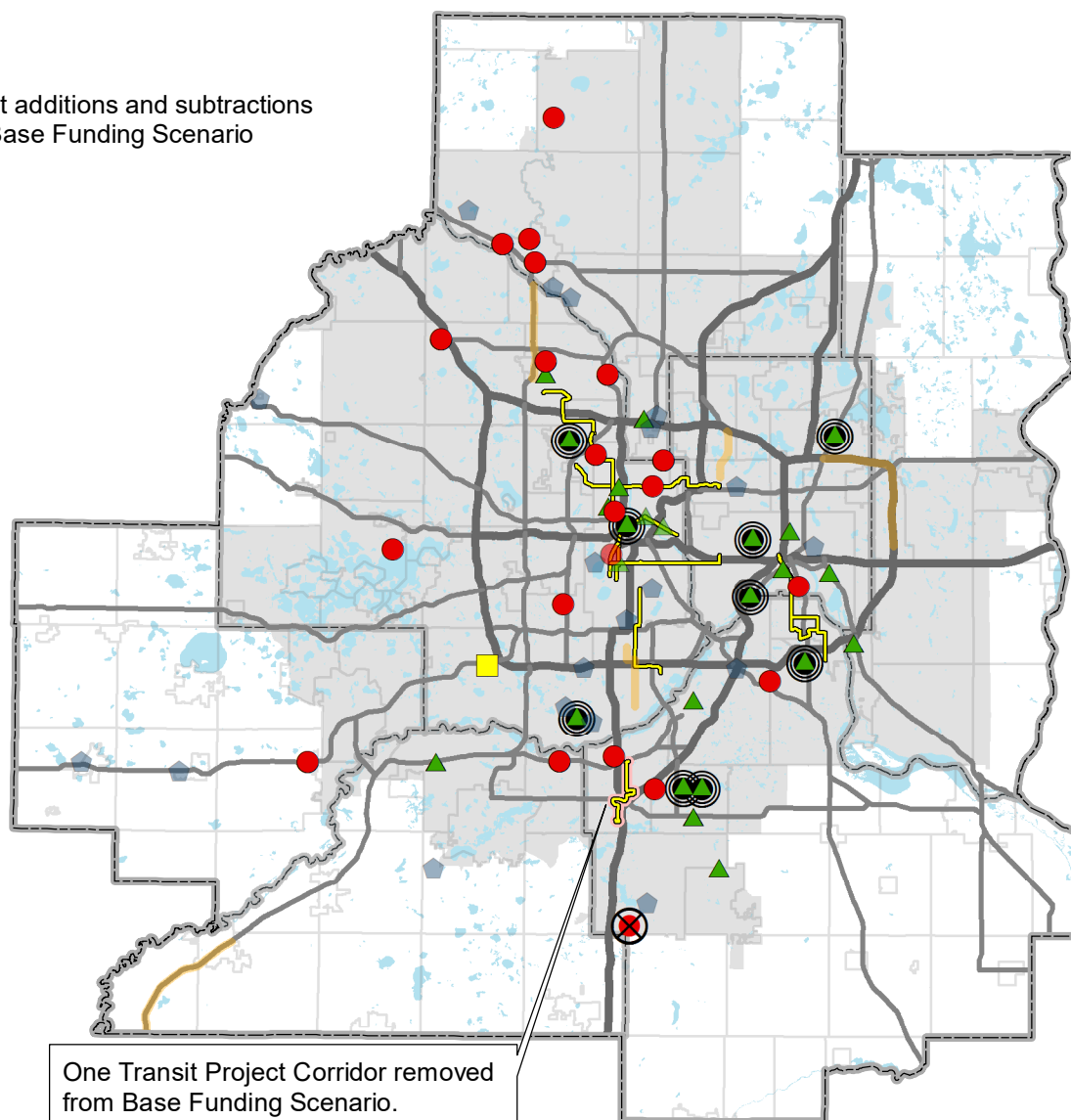
CITY DISTRIBUTION (MODERNIZATION-HEAVY SCENARIO)

County	City	Projects	County	City	Projects	County	City	Projects
Anoka		5.0	Hennepin		22	Ramsey		4.0
	Anoka	2		Brooklyn Park	2		St. Paul	1
	Oak Grove	1		Maple Grove	1		St. Paul	3
	Ramsey/Anoka	1		Minneapolis	5			
	Fridley	1		St. Anthony/ Columbia Hts. Minneapolis	1			
Carver		1		Edina	1			
	Chaska	1		Orono	1			
Dakota		8		Minneapolis	3	Multiple Counties		6
	Eagan/ Inver Grove Heights	1		Minneapolis, Richfield, Bloomington	1	Dakota/ Ramsey	St. Paul, W. St. Paul, S. St. Paul	1
	Apple Valley/ Burnsville	1		Brooklyn Center/ Park	1		Eden Prairie, Chaska, Chanhassen, Carver, Victoria	1
	Burnsville	1		Minneapolis	5		Robbinsdale, Minneapolis, St. Anthony, Roseville	1
	Apple Valley	1		Brooklyn Park	1		Minneapolis, St. Paul	1
	Burnsville	1					Region-wide	2
	Apple Valley	1				TOTAL		49
	Farmington/ Lakeville	1						
	Eagan	1						
Scott		2						
	Savage	1						
	Shakopee	1						
Washington		1						
	Newport	1						

Locations of 2018 Regional Solicitation Projects: Bike/Ped Heavy Funding Scenario

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Total Regional Solicitation Projects: 55
Total Highway Safety Improvement Program Projects: 25

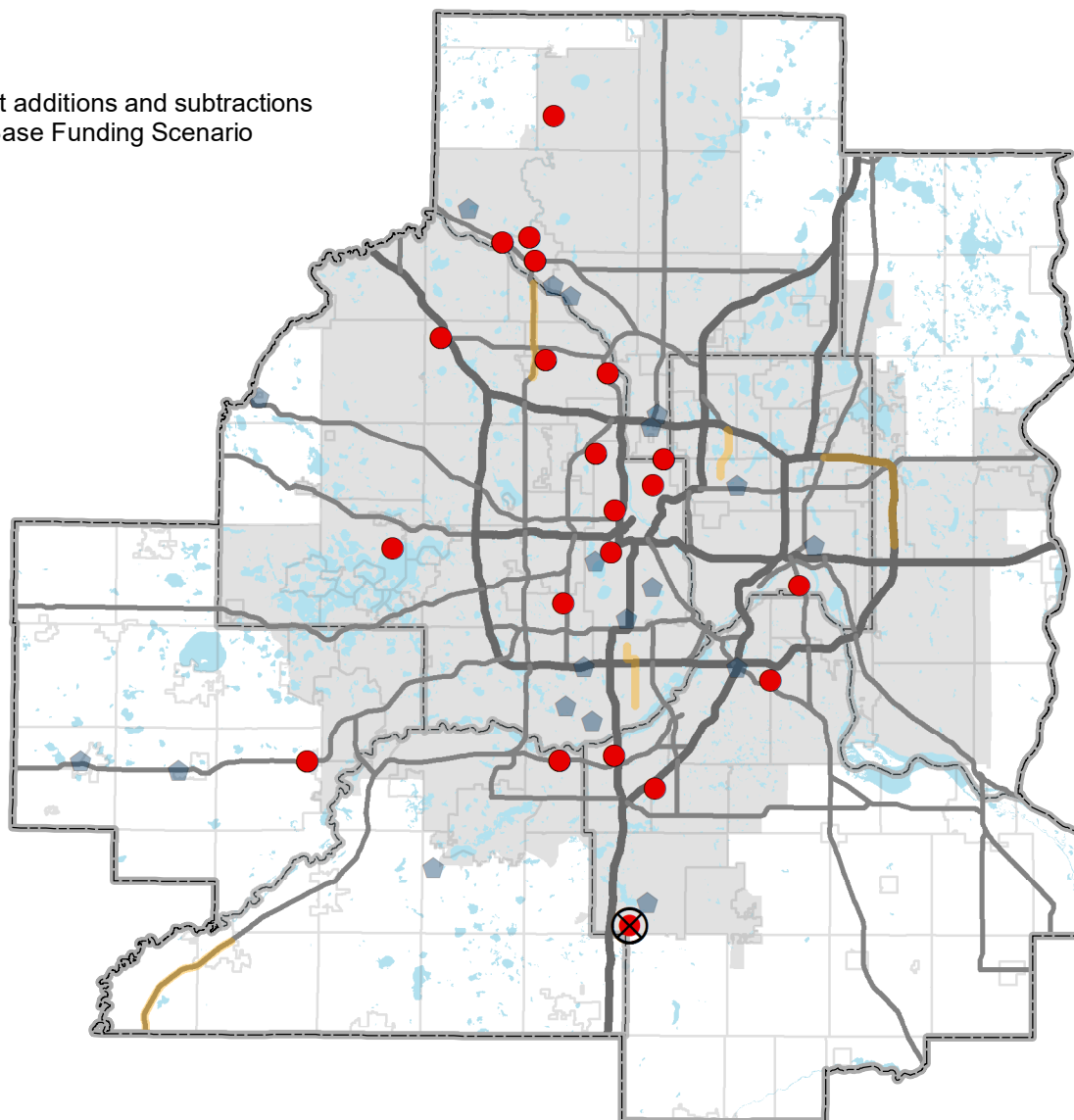
Modal Funding Categories

- Roadways
- ⊗ Roadway Subtraction
- ▲ Bicycle and Pedestrian
- ⊙ Bicycle and Pedestrian Additions
- Transit
- Transit Project Corridor
- Transit Project Corridor Subtraction
- HSIP Projects
- HSIP Project Corridors

Locations of 2018 Regional Solicitation Projects: Bike/Ped Heavy Funding Scenario - Roadways

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Categories

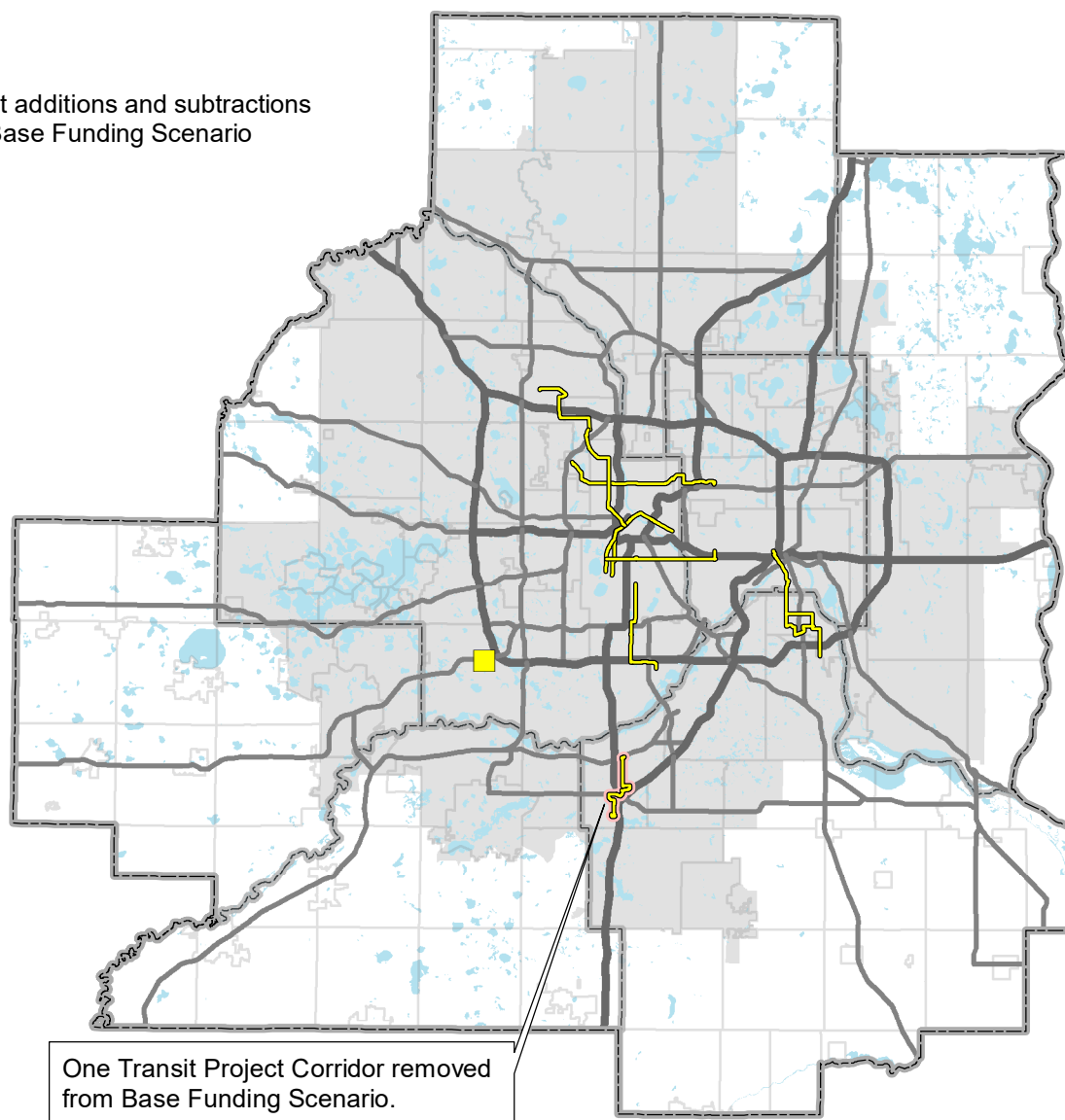
- Roadways
- Roadway Subtraction
- HSIP Projects
- HSIP Project Corridors

Total Regional Solicitation Projects: 55
Total Highway Safety Improvement Program Projects: 25

Locations of 2018 Regional Solicitation Projects: Bike/Ped Heavy Funding Scenario - Transit

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Categories

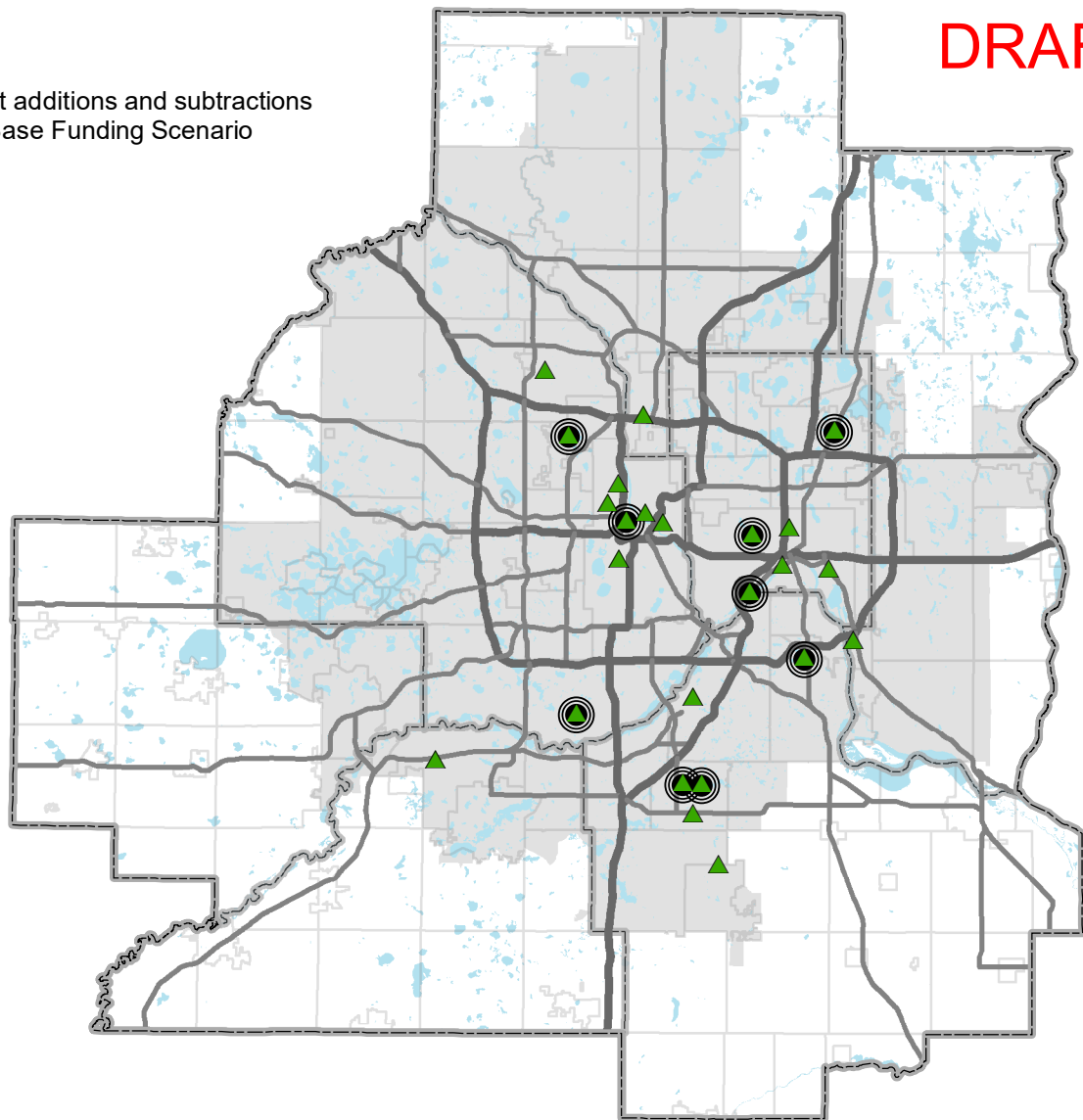
- Transit
- Transit Project Corridor
- Transit Project Corridor Subtraction

Total Regional Solicitation Projects: 55

Locations of 2018 Regional Solicitation Projects: Bike/Ped Heavy Funding Scenario - Bike/Ped Projects

DRAFT

Map shows project additions and subtractions compared to the Base Funding Scenario



0 5 10 20 Miles

Reference Items

- Interstate Highways
- State, US Highways and County Roads
- County Boundaries
- City Boundaries
- Lakes and Rivers
- Urbanized Area

Modal Funding Categories

- Bicycle and Pedestrian
- Bicycle and Pedestrian Additions

Total Regional Solicitation Projects: 55

COUNTY DISTRIBUTION (BIKE/PEDESTRIAN-HEAVY SCENARIO)

County	Submitted Apps	Funded				Total Funded Apps	% of Total Funded Apps	Total \$ Funded	% of Total Funding	% of Reg. Population	% of Reg. Jobs
		Roadway	Transit/ TDM	Bike/ Ped	Unique						
Anoka	15.50	4	0	1	0	5	9%	\$17,304,296	9%	11%	7%
Carver	8.50	1	0.5	0	0	1.5	3%	\$8,836,400	5%	3%	2%
Dakota	26.50	3	0.5	6	0	9.5	18%	\$19,120,839	10%	14%	11%
Hennepin	43.00	10	6.5	9	0	25.5	48%	\$112,468,036	60%	41%	53%
Ramsey	15.50	1	1.5	6	0	8.5	16%	\$23,564,853	13%	18%	19%
Scott	6.50	1	0	1	0	2	4%	\$6,700,080	4%	5%	3%
Washington	6.50	0	0	1	0	1	2%	\$460,800	0.2%	8%	5%
Region-wide*	2.00	0	1	0	1	2	4%	\$7,585,000			
TOTAL	124	20	10	24	1	55	100%	\$196,040,303	100%	100%	100%

*Regional Travel Behavior Inventory (\$585,000) and TDM/TMO set-aside (\$7M). Funding for the St. Paul unique project still being discussed by TAB. Population and jobs data from 2016 Met Council estimates. Project funding totals include the \$2.2 of returned transit funds.

CITY DISTRIBUTION (BIKE/PEDESTRIAN-HEAVY SCENARIO)

County	City	Projects	County	City	Projects	County	City	Projects
Anoka		5.0	Hennepin		24	Ramsey		7.0
	Anoka	2		Brooklyn Park	2		St. Paul	1
	Oak Grove	1		Maple Grove	1		St. Paul	5
	Ramsey/Anoka	1		Minneapolis	4		White Bear Lake/ Twp / Vadnais Hts	1
	Fridley	1		St. Anthony/ Columbia Hts. Minneapolis	1	Multiple Counties		6
Carver		1		Edina	1	Dakota/ Ramsey	St. Paul, W. St. Paul, S. St. Paul	1
	Dahlgren Twp.	1		Orono	1		Eden Prairie, Chaska, Chanhassen, Carver, Victoria	1
		9		Minneapolis	3		Minneapolis, St. Paul, Robbinsdale, St. Anthony, Roseville	2
Dakota				Minneapolis, Richfield, Bloomington	1	Hennepin/ Ramsey	Region-wide	2
	Eagan/ Inver Grove Heights	1		Brooklyn Center/ Park	1	TOTAL		55
	Apple Valley/ Burnsville	1		Minneapolis	5			
	Burnsville	1		Brooklyn Park	1			
	Apple Valley	3		Cities along Blue/Green Line Extensions	1			
	Farmington/ Lakeville	1		Bloomington	1			
	Eagan	1		Crystal	1			
	Inver Grove Heights	1						
Scott		2						
	Savage	1						
	Shakopee	1						
Washington		1						
	Newport	1						

DRAFT FUNDING SCENARIO

Total Funds with 8% Overprogramming

\$194M

ROADWAY PROJECTS INCLUDING MULTIMODAL ELEMENTS

Funding Range - 48-68% (\$93M - \$132M)

Roadway Expansion

Midpoint - \$112M

Rank	ID	Applicant	County	City	Project Name	Funct Class	Base (8 Projects)	Expansion-Heavy (11 Projects)	Modernization- Heavy (6 Projects)	Bike/Ped-Heavy (7 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1*	10639	Anoka (City)	Anoka	Anoka	Hwy 10 and Thurston Ave/Cutters Grove Ave Interchange	Principal Arterial					No	2022	\$7,000,000	\$23,782,800	\$7,000,000	812
2*	11045	Scott County	Scott	Savage	TH 13 and Dakota Avenue Freight Access and Mobility Project	Principal Arterial					No	2022	\$5,750,000	\$5,188,000	\$12,750,000	800
3*	10830	Hennepin County	Hennepin	Brooklyn Park	85th Avenue Roadway Expansion Project	Principal Arterial/ Expander					No	2022	\$7,000,000	\$19,307,000	\$19,750,000	682
4	10914	Maple Grove	Hennepin	Maple Grove	CSAH 610/I-94 Interchange	Expander					2020	2022	\$7,000,000	\$13,477,000	\$26,750,000	526
5	10832	Brooklyn Park	Hennepin	Brooklyn Park	West Broadway Avenue Roadway Expansion	Reliever					No	2022	\$7,000,000	\$6,965,399	\$33,750,000	467
6	10936	Dakota County	Dakota	Eagan, Inver Grove Hts	Lone Oak Road/70th Street West Expansion	Reliever					2021	2022	\$7,000,000	\$9,840,000	\$40,750,000	460
7*	10883	Carver County	Carver	Dahlgren Twp	US Highway 212 Expansion from Cologne to Carver	Principal Arterial					2021	2022	\$7,000,000	\$32,340,000	\$47,750,000	455
8*	10919	Dakota County	Dakota	Lakeville	CSAH 70 Expansion	Expander					2021	2022	\$7,000,000	\$10,500,000	\$54,750,000	454
9	10764	Ramsey County	Ramsey	St. Paul	Lexington Parkway Connection	Augmentor					2021	2022	\$2,240,000	\$560,000	\$56,990,000	444
10*	11001	Washington County	Washington	Oakdale, Woodbury	Helmo/Bielenberg Bridge	Reliever					No	2023	\$4,400,000	\$1,100,000	\$61,390,000	426
11	10824	Anoka County	Anoka, Ramsey	Blaine, Shoreview	I-35W and 85th Avenue Interchange	Expander					No	2023	\$6,120,680	\$1,530,170	\$67,510,680	387
12	10972	St. Paul	Ramsey	St. Paul	Troutbrook Road in St. Paul	Principal Arterial					No	2023	\$4,500,000	\$1,200,000	\$72,010,680	382
13	10822	Anoka County	Anoka	Blaine	125th Ave Expansion in Blaine	Principal Arterial					No	2023	\$3,604,000	\$901,000	\$75,614,680	373
14	10823	Anoka County	Anoka	Blaine	Lexington Ave NE Expansion in Blaine	Expander					No	2023	\$5,132,000	\$1,283,000	\$80,746,680	356
15	10821	Anoka County	Anoka	Andover	7th Avenue Expansion in Andover	Expander					No	2022	\$6,593,600	\$1,648,400	\$87,340,280	347
16	10818	Anoka County	Anoka	Andover	Round Lake Blvd Roadway Expansion in Andover	Expander					No	2023	\$2,898,400	\$724,600	\$90,238,680	330
17	10873	Ramsey County	Ramsey, Anoka	Various	I-35E/County Road J Interchange	Expander					2021	2023	\$7,000,000	\$2,818,294	\$97,238,680	284

Roadway Reconstruction/Modernization

Rank	ID	Applicant	County	City	Project Name	Funct Class	Base (7 Projects)	Expansion-Heavy (5 Projects)	Modernization- Heavy (9 Projects)	Bike/Ped-Heavy (7 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	11039	State of MN	Anoka	Anoka	Highway 169/47/10 Interchange	PA/PA/Connector					No	2022	\$7,000,000	\$20,337,654	\$7,000,000	841
2	10828	Minneapolis	Hennepin	Minneapolis	Hennepin Ave Reconstruction	Augmentor					No	2023	\$7,000,000	\$10,440,816	\$14,000,000	839
3	10614	Hennepin County	Hennepin	Minneapolis	Lowry Ave NE Reconstruction	Augmentor					No	2023	\$7,000,000	\$3,490,000	\$21,000,000	594
4	10777	Minneapolis	Hennepin	St. Anthony, MPLS, Columbia Hts	37th Ave NE Reconstruction	Augmentor					No	2022	\$7,000,000	\$1,830,000	\$28,000,000	580
5	10817	Anoka County	Anoka	Anoka, Ramsey	Bunker Lake Blvd and Ferry St Intersection	Reliever/Connector					No	2022	\$1,868,000	\$467,000	\$29,868,000	568
6	10969	Burnsville	Dakota	Burnsville	Cliff Road at I-35W South Ramps Improvement Project	Reliever					2019	2022	\$2,632,000	\$658,200	\$32,500,000	560
7	10831	Hennepin County	Hennepin	Minneapolis	Osseo Road Reconstruction	Reliever					No	2022	\$6,120,000	\$1,530,000	\$38,620,000	554
8*	10971	Chaska	Carver	Chaska	Highway 41 Improvements	Princ. Arterial					2021	2022	\$7,000,000	\$6,180,000	\$45,620,000	543
9	10937	Hennepin County	Hennepin	Minneapolis	Marshall Street NE Reconstruction	Reliever					No	2023	\$6,604,000	\$1,651,000	\$52,224,000	522
10	10741	South St Paul	Dakota	S. St. Paul, Newport	Concord Street (TH 156) Improvements	Reliever					2020	2022	\$5,000,000	\$5,557,500	\$57,224,000	514
11	10906	Dakota County	Dakota	Eagan	Pilot Knob Rd and Cliff Rd Intersection	2 Expanders					2020	2022	\$3,134,000	\$784,700	\$60,358,000	499
12	10887	Scott County	Scott	Savage, Shakopee	McColl Drive Reconstruction	Reliever					No	2023	\$6,394,400	\$1,598,600	\$66,752,400	491
13	10615	Hennepin County	Hennepin	St. Louis Park	Minnetonka Blvd Reconstruction Project	Augmentor					No	2022	\$7,000,000	\$1,913,000	\$73,752,400	488
14	11002	Washington County	Washington	Lake Elmo	10th St and Keats Ave Roundabout	Expander/Reliever					No	2022	\$1,809,200	\$452,300	\$75,561,600	384
15	10884	Carver County	Carver	Mayer and Waconia Twp	70th Street Reconstruction from Ash Ave. S to CSAH 10	Connector					No	2023	\$2,413,920	\$603,480	\$77,975,520	311

Traffic Management Technologies

Rank	ID	Applicant	County	City	Project Name	Base (3 Projects)	Expansion-Heavy (2 Projects)	Modernization- Heavy (3 Projects)	Bike/Ped-Heavy (3 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10587	St Paul	Ramsey	St. Paul	West Side Signalized Intersection Control Enhancements					No	2023	\$1,465,600	\$366,400	\$1,465,600	941
2	11034	Dakota County	Dakota	Apple Valley, Burnsville	CSAH 38 Roadway System Management					No	2022	\$1,440,000	\$360,000	\$2,905,600	883
3	10907	Minneapolis	Hennepin	Minneapolis	ITS Upgrades and Enhancements					2020	2022	\$3,000,000	\$750,000	\$5,905,600	866

Bridges

Rank	ID	Applicant	County	City	Project Name	Funct Class	Base (3 Projects)	Expansion-Heavy (3 Projects)	Modernization- Heavy (3 Projects)	Bike/Ped-Heavy (3 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10676	Hennepin County	Hennepin	Edina	Vernon Ave Bridge	Reliever					No	2023	\$7,000,000	\$2,150,000	\$7,000,000	819
2	10650	Hennepin County	Hennepin	Orono	Shoreline Dr Bridge	Expander					2020	2022	\$2,200,000	\$550,000	\$9,200,000	703
3	10910	Ramsey County	Ramsey	St. Paul	Lexington Parkway Bridges	Augmentor					2020	2022	\$7,000,000	\$2,192,114	\$16,200,000	676
4	10992	St. Paul	Ramsey	St. Paul	Kellogg Blvd Bridge	Reliever					No	2022	\$7,000,000	\$56,903,000	\$23,200,000	676
5	10926	Hennepin County	Hennepin	Minneapolis	Washington Ave N Bridge	Reliever					No	2023	\$2,312,000	\$578,000	\$25,512,000	550
6	10900	Ramsey County	Ramsey	Roseville	County Road C Bridge	Augmentor					2020	2022	\$5,609,716	\$1,402,429	\$31,121,716	550
7	10816	Anoka County	Anoka	Oak Grove	Viking Boulevard Bridge	Connector					2021	2022	\$1,436,296	\$359,074	\$32,558,012	545
8	11019	Minneapolis	Hennepin	Minneapolis	Nicollet Avenue Bridge	Reliever					2021	2022	\$7,000,000	\$15,200,000	\$39,558,012	373

Total Modal Funding for Each Scenario

\$109,911,896 \$110,920,576 \$109,515,896 \$102,911,896

- * Project has been awarded partial funding from one or more MnDOT/DEED competitive grant programs (National Highway Freight Program, Corridors of Commerce, Transportation and Economic Development/Infrastructure).
- Shading indicates projects in each funding scenario that would not be funded if \$6,667,000 is approved by TAB for the St. Paul/HourCar Unique Project request.
- Blue shading indicates projects funded in the Base Funding Scenario.
- Orange shading indicates projects funded in the Expansion-Heavy Funding Scenario.
- Pink shading indicates projects funded in the Modernization-Heavy Funding Scenario.
- Green shading indicates projects funded in the Bike/Ped-Heavy Funding Scenario.

DRAFT FUNDING SCENARIO

TRANSIT AND TRAVEL DEMAND MANAGEMENT PROJECTS

Transit Expansion

Total Funds with 8% Overprogramming Returned Extra Transit Funds															
\$194M															
\$2.2M															
Funding Range - 22-32% (\$43M - \$62M) Midpoint - \$52M															
Rank	ID	Applicant	County	City	Project Name	Base (6 Projects)	Expansion-Heavy (7 Projects)	Modernization- Heavy (5 Projects)	Bike/Ped-Heavy (5 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10932	Metro Transit	Hennepin	Brooklyn Park, Brooklyn Center	Route 724 Transit Service Expansion					2019	2022	\$4,169,408	\$1,042,352	\$4,169,408	865
2	10930	Metro Transit	Ramsey, Dakota	St. Paul, W. St. Paul, S. St. Paul	Route 68 Transit Service Expansion					2019	2022	\$3,581,910	\$895,478	\$7,751,318	851
3	10928	Metro Transit	Hennepin, Ramsey	Robbinsdale, Minneapolis, St. Anthony, Roseville	Route 32 Transit Service Expansion					2019	2022	\$4,312,583	\$1,078,146	\$12,063,901	741
4	10923	Metro Transit	Hennepin	Minneapolis	Route 4 Transit Service Expansion					2019	2022	\$2,090,814	\$522,704	\$14,154,716	617
5	11024	SouthWest Transit	Hennepin, Carver	Eden Prairie, Chaska, Chanhassen, Carver, Victoria	SouthWest Transit Mobility Hub at SouthWest Station					No	2022	\$3,672,800	\$918,200	\$17,827,516	510
6	10870	MVTA	Dakota	Burnsville	Orange Line Connector Bus Service					2020	2022	\$2,744,000	\$686,000	\$20,571,516	471
7	10994	SouthWest Transit	Hennepin	Eden Prairie, Maple Grove, Plymouth, Minnetonka	I-494 SW Prime Service Expansion					2021	2022	\$5,600,000	\$1,400,000	\$26,171,516	458
8	10843	Scott County	Scott, Hennepin	Shakopee, Bloomington, Hopkins, Golden Valley	Highway 169 Interim Bus Service					No	2023	\$6,962,538	\$1,740,634	\$33,134,054	421
9	11032	SouthWest Transit	Hennepin	Eden Prairie	Golden Triangle Area Bus Transfer Station					2020	2022	\$1,600,000	\$400,000	\$34,734,054	363

Transit Modernization

Rank	ID	Applicant	County	City	Project Name	Base (4 Projects)	Expansion-Heavy (3 Projects)	Modernization- Heavy (5 Projects)	Bike/Ped-Heavy (4 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10980	Metro Transit	Hennepin	Minneapolis, Richfield, Bloomington	Chicago-Portland Avenue Corridor Bus Stop Modernization					2019	2022	\$7,000,000	\$1,750,000	\$7,000,000	893
2	10649	Metro Transit	Hennepin	Minneapolis	Emerson and Fremont Avenue Bus Stop Modernization					2019	2022	\$7,000,000	\$1,750,000	\$14,000,000	888
3	10648	Metro Transit	Hennepin, Ramsey	Minneapolis, St. Paul	Lake Street-Marshall Avenue Corridor Bus Stop Modernization					2020	2022	\$7,000,000	\$1,750,000	\$21,000,000	854
4	10647	Metro Transit	Hennepin	Minneapolis	Route 6 Corridor Bus and Stop Modernization					2021	2022	\$7,000,000	\$1,750,000	\$28,000,000	749
5#	10918	Apple Valley	Dakota	Apple Valley	147th St. Skyway for Red Line in Apple Valley					2021	2022	\$3,520,000	\$880,000	\$31,520,000	422
6	10990	MVTA	Dakota	Burnsville	Burnsville Transit Station Modernization					2020	2022	\$616,000	\$154,000	\$32,136,000	412
7	10890	MVTA	Dakota	Burnsville	Burnsville Bus Garage Modernization					2019	2022	\$5,417,306	\$1,354,327	\$37,553,306	375
8	10991	MVTA	Dakota	Eagan	Eagan Transit Station Modernization					2020	2022	\$412,000	\$103,000	\$37,965,306	370
9	10963	Dakota County	Dakota	Apple Valley	140th St. Pedestrian Bridge for Red Line					No	2022	\$2,350,000	\$587,500	\$40,315,306	354
10	10999	SW Transit	Carver	Chaska	Solar Array at East Creek Station					2020	2022	\$2,960,000	\$740,000	\$43,275,306	305

TMO/TDM

Rank	ID	Applicant	County	City	Project Name	Base (7 Projects)	Expansion-Heavy (7 Projects)	Modernization- Heavy (7 Projects)	Bike/Ped-Heavy (7 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
0	-	-			TMO Set-aside for 2023-2024*					No	Both	\$5,800,000	\$1,450,000	\$5,800,000	-
0	-	-			TDM Set-aside for 2023-2024*					No	Both	\$1,200,000	\$300,000	\$7,000,000	-

1	10804	Car Free Life	Hennepin, Anoka, Ramsey, Dakota	Various	Closed Network Carshare in Minneapolis and St. Paul					No	2020	\$160,000	\$40,000	\$160,000	810
2	10998	MOVE Minnesota	Hennepin	Minneapolis, Brooklyn Center	TDM Cultural Ambassadors in MPLS and Brooklyn Center					No	2020	\$308,166	\$77,042	\$468,166	696
3	11030	Metro Transit	Hennepin, Ramsey, Dakota	Various	Shared Mobility Integration for the Metro Transit Mobile App					No	2020	\$300,000	\$400,000	\$768,166	650
4	11022	University of MN	Hennepin	Minneapolis	Parking FlexPass at ABC Ramps					No	2020	\$500,000	\$125,000	\$1,268,166	620
5	10913	MOVE Minnesota	Hennepin, Ramsey	Minneapolis, St. Paul	Transforming Renters' Transportation Choices, Green Line					No	2020	\$296,614	\$77,092	\$1,564,780	616
6	10834	Cycles for Change	Ramsey, Hennepin	St. Paul, Minneapolis	Bicycle Access & Safety Education Initiative in MPLS and St. Paul					No	2020	\$319,200	\$79,800	\$1,883,980	598
7	10961	HourCar	Hennepin, Ramsey	Various	HOURLCAR Community Engagement and Outreach Initiative					No	2020	\$244,355	\$61,089	\$2,128,335	537
8	10860	Scott County	Scott, Carver	Various	Scott County Travel Demand Management					No	2020	\$120,000	\$30,000	\$2,248,335	527
9	11048	MPLS Bicycle Coalition	Hennepin	Various	Commuter and Community Bicycle Access in Minneapolis					No	2020	\$230,000	\$57,500	\$2,478,335	482
10	11031	Metro Transit	Anoka, Hennepin	Various	Bike Rack Sensors for Metro Transit buses					No	2020	\$280,000	\$70,000	\$2,758,335	473
11	10942	Metro Transit	Washington, Hennepin, Anoka, Ramsey	Various	East Metro First-Last Mile Job Access Project					No	2020	\$500,000	\$774,200	\$3,258,335	438
12	11029	University of MN	Hennepin, Dakota	Various	eWorkplace Phase 4 for Downtown Minneapolis					No	2020	\$500,000	\$125,000	\$3,758,335	427
13	11046	Nice Ride Minnesota	Hennepin	Minneapolis	Bike Share Integration, Inclusion, and Expansion					No	2020	\$300,000	\$700,020	\$4,058,335	397
Total Modal Funding for Each Scenario (includes \$2.2M of returned extra transit funds)						\$55,571,516	\$54,171,516	\$56,963,516	\$52,827,516						

*\$5.8 million for base-level travel demand management (TDM) funding for Metro Transit and the Transportation Management Organizations (TMOs); \$1.2 Million for competitive TDM selection in 2022/2023 to be distributed as part of 2020 Regional Solicitation.

#	Project applied for funding in past funding cycles.
	Shading indicates projects in each funding scenario that would not be funded if \$6,667,000 is approved by TAB for the St. Paul/HourCar Unique Project request.
	Blue shading indicates projects funded in the Base Funding Scenario.
	Orange shading indicates projects funded in the Expansion-Heavy Funding Scenario.
	Pink shading indicates projects funded in the Modernization-Heavy Funding Scenario.
	Green shading indicates projects funded in the Bike/Ped-Heavy Funding Scenario.

DRAFT FUNDING SCENARIO

BICYCLE AND PEDESTRIAN FACILITIES

Multiuse Trails and Bicycle Facilities

Total Funds with 8% Overprogramming

\$194M

Funding Range - 10-20% (\$19M - \$39M)

Midpoint - \$29M

Rank	ID	Applicant	County	City	Project Name	Base (11 Projects)	Expansion-Heavy (11 Projects)	Modernization- Heavy (11 Projects)	Bike/Ped-Heavy (16 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10929	St Paul	Ramsey	St. Paul	Kellogg Boulevard Capital City Bikeway Phase I in St. Paul					No	2023	\$5,312,000	\$1,328,000	\$5,312,000	932
2	10791	Hennepin County	Hennepin	Minneapolis	University Ave and 4th St SE Protected Bikeways in Minneapolis					No	2022	\$5,500,000	\$4,075,146	\$10,812,000	858
3	10973	Hennepin County	Hennepin	Minneapolis	Hennepin Ave and 1st Ave NE Bicycle and Pedestrian Facilities					No	2022	\$5,500,000	\$2,372,486	\$16,312,000	854
4	11040	St Paul	Ramsey	St. Paul	Fish Hatchery Trail Stabilization and Reconstruction in St. Paul					No	2023	\$2,216,800	\$554,200	\$18,528,800	819
5	10896	Dakota County	Dakota	Farmington, Lakeville	North Creek Greenway in Lakeville and Farmington					2019	2022	\$480,000	\$120,000	\$19,008,800	814
6	10899	Fridley	Anoka	Fridley	Fridley 7th Street and 57th Ave Trail Connections					2021	2022	\$516,120	\$129,030	\$19,524,920	801
7	11050	Hennepin County	Hennepin	Minneapolis	Midtown Greenway Accessible Connections in Minneapolis					No	2023	\$1,120,000	\$280,000	\$20,644,920	795
8	10895	Dakota County	Dakota	Apple Valley	CSAH 42 Multiuse Trail and Crossing in Apple Valley					2019	2022	\$1,256,000	\$314,000	\$21,900,920	795
9	10894	Dakota County	Dakota	Eagan	Minnesota River Greenway in Eagan					2019	2022	\$3,508,000	\$877,000	\$25,408,920	794
10	10718	Scott County	Scott	Shakopee	CSAH 17 Bicycle and Pedestrian Bridge over US 169					2021	2022	\$950,080	\$237,520	\$26,359,000	786
11	11004	Washington Co	Washington	Newport	CSAH 38 Multi-Use Trail in Washington County					2020	2022	\$460,800	\$115,200	\$26,819,800	783
12	10744	Ramsey County	Ramsey	White Bear Lake & Twp, Vadnais Hts	Bruce Vento Regional Trail Extension in Ramsey County					2021	2022	\$4,026,278	\$1,006,570	\$30,846,078	782
13	10917	Apple Valley	Dakota	Apple Valley	Apple Valley Johnny Cake Ridge Road Trail					2019	2022	\$515,484	\$128,871	\$31,361,562	777
14	11025	St Paul	Ramsey	St. Paul	Sam Morgan Regional Trail Segment 1 Reconstruction in St. Paul					No	2023	\$1,877,600	\$469,400	\$33,239,162	776
15	10898	Inver Grove Heights	Dakota	Inver Grove Hts	Inver Grove Heights Babcock Trail					2019	2022	\$300,160	\$75,040	\$33,539,322	769
16	10848	Hennepin County	Hennepin	Crystal	Bass Lake Road Multi-Use Trail in Crystal					No	2022	\$457,220	\$114,305	\$33,996,542	762
17	10849	Hennepin County	Hennepin	Osseo, BP	Bottineau Boulevard Multi-Use Trail in Osseo and Brooklyn Park					No	2023	\$1,562,348	\$390,587	\$35,558,890	759
18	10653	Ramsey (City)	Anoka	Ramsey	Regional Mississippi Skyway Multiuse Trail Bridge in Ramsey					2019	2022	\$3,240,000	\$810,000	\$38,798,890	756
19	10970	Chaska	Carver	Chaska	Circle the Brick Trail Connection in Chaska					2021	2022	\$1,197,792	\$299,448	\$39,996,682	750
20	10854	Three Rivers Park District	Hennepin	Golden Valley	Bassett Creek Regional Trail in Golden Valley					2019	2022	\$1,635,600	\$408,900	\$41,632,282	749
21	11041	St Paul	Ramsey, Wash	St. Paul, Newport	Point Douglas Regional Trail Phase 1 Construction in St. Paul					No	2023	\$5,152,000	\$1,288,000	\$46,784,282	746
22	10866	Minneapolis	Hennepin	Minneapolis	36th St W Pedestrian and Bicycle Connection in Minneapolis					2022	2022	\$1,978,316	\$494,579	\$48,762,598	742
23	10701	Brooklyn Park	Hennepin	Brooklyn Park	Rush Creek Regional Trail Grade Separation in Brooklyn Park					No	2022	\$930,400	\$232,600	\$49,692,998	730
24	10941	Burnsville	Dakota	Burnsville	Highway 13 and Nicollet Avenue Pedestrian Crossing					No	2022	\$2,224,000	\$556,000	\$51,916,998	728
25	10885	Carver County	Carver	Victoria	Lake Minnetonka Regional Trail in Carver County					No	2022	\$555,280	\$138,820	\$52,472,278	724
26	10915	Apple Valley	Dakota	Apple Valley	Apple Valley CSAH 38 Trail					No	2023	\$4,160,288	\$1,040,072	\$56,632,566	721
27	10897	Dakota County	Dakota	Mendota Hts	River to River Greenway in Mendota Heights					2019	2022	\$1,152,000	\$288,000	\$57,784,566	713
28	10938	Coon Rapids	Anoka	Coon Rapids	Coon Creek Regional Trail and Pedestrian Bridge in Coon Rapids					2020	2022	\$3,360,000	\$840,000	\$61,144,566	701
29	10850	Minnetonka	Hennepin	Minnetonka	Excelsior Blvd Multi-Use Trail in Minnetonka					No	2022	\$2,956,000	\$739,000	\$64,100,566	695
30	10778	Washington Co	Washington	Mahtomedi	CSAH 12 Multi-Use Trail in Washington County					2019	2022	\$756,979	\$189,245	\$64,857,545	678
31	10591	Shakopee	Scott	Shakopee	US 169 Bicycle and Pedestrian Bridge in Shakopee					2021	2022	\$2,752,000	\$688,000	\$67,609,545	673
32	10909	Anoka (City)	Anoka	Anoka	Anoka 4th Ave Trail Connection Rum River Trail					2019	2022	\$450,000	\$135,000	\$68,059,545	669
33	10886	Carver County	Carver	Laketown Twp	Lake Waconia Regional Trail in Carver County					No	2023	\$1,498,320	\$374,580	\$69,557,865	650
34	11003	Washington Co	Washington	Cottage Grove	Central Greenway Multi-Use Trail Segments in Cottage Grove and Woodbury					No	2022	\$5,273,120	\$1,318,280	\$74,830,985	649
35	10908	Anoka (City)	Anoka	Anoka	Anoka Riverwalk West Rum River Trail					2020	2022	\$5,000,000	\$1,309,600	\$79,830,985	644
36	11036	Scott County	Scott	Louisville Twp	Merriam Junction Trail in Scott County					No	2023	\$5,500,000	\$4,900,000	\$85,330,985	640
37	11042	St Paul	Ramsey	St. Paul	Robert Piram Regional Trail Grade Separation in St. Paul					No	2022	\$5,500,000	\$1,607,130	\$90,830,985	633
38	11033	Rosemount	Dakota	Rosemount	Rosemount Greenway Downtown Trail					2019	2022	\$1,360,000	\$340,000	\$92,190,985	593
39	10836	Three Rivers PD	Hennepin	Rogers	Crow Hassan Park Reserve to Lake Independence Regional Trail Connection in					2021	2023	\$1,069,404	\$267,351	\$93,260,389	489
40	11049	Rogers	Hennepin	Rogers	Rogers I-94 Pedestrian Bridge					2020	2023	\$2,800,000	\$1,000,000	\$96,060,389	461

Pedestrian Facilities

Rank	ID	Applicant	County	City	Project Name	Base (2 Projects)	Expansion-Heavy (2 Projects)	Modernization- Heavy (2 Projects)	Bike/Ped-Heavy (4 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10776	Minneapolis	Hennepin	Minneapolis	Lyndale Avenue North Pedestrian Safety Improvements in Minneapolis					2020 Only	2022	\$1,000,000	\$250,000	\$1,000,000	878
2	10833	Brooklyn Park	Hennepin	Brooklyn Park	West Broadway Avenue BLRT Streetscape Improvements					2020	2023	\$1,000,000	\$3,103,935	\$2,000,000	815
3	10995	Hennepin County	Hennepin	Various	ADA Retrofits at Blue and Green Line Extension Station Areas					2020	2022	\$1,000,000	\$250,000	\$3,000,000	796
4	11012	St. Paul	Ramsey	St. Paul	Front Ave Sidewalk Gap Infill in St. Paul					2021	2023	\$376,800	\$94,200	\$3,376,800	723
5	10903	Columbia Heights	Anoka	Columbia Heights	Central Avenue Pedestrian Enhancement Project in Columbia Heights					No	2022	\$1,000,000	\$830,000	\$4,376,800	721
6	10979	Richfield	Hennepin	Richfield	69th Street West Pedestrian Improvements in Richfield					2020	2022	\$250,000	\$250,000	\$4,626,800	676
7	11047	Scott County	Scott	Savage	CH 16 ADA Pedestrian Improvement in Savage					2019	2022	\$428,000	\$107,000	\$5,054,800	674
8	10902	W. St. Paul	Dakota	W. St. Paul	West St. Paul Wentworth Sidewalk Construction					No	2022	\$263,848	\$65,962	\$5,318,648	623
9	10996	Anoka County	Anoka	Coon Rapids	Round Lake Blvd Pedestrian Accommodations over US 10 in Coon Rapids					No	2022	\$1,000,000	\$758,400	\$6,318,648	596
10	10966	S. St. Paul	Dakota	S. St. Paul	Concord Exchange Pedestrian Improvements in South St. Paul					No	2022	\$1,000,000	\$1,800,000	\$7,318,648	594
11	11043	Carver County	Carver	Victoria	CSAH 11 Pedestrian Crossing Improvements in Victoria					No	2022	\$470,720	\$117,680	\$7,789,368	504
12	10948	Shorewood	Hennepin	Shorewood	Galpin Lake Pedestrian Improvements in Shorewood					2020	2022	\$1,000,000	\$250,000	\$8,789,368	453

Safe Routes to School

Rank	ID	Applicant	County	City	Project Name	Base (2 Projects)	Expansion-Heavy (2 Projects)	Modernization- Heavy (2 Projects)	Bike/Ped-Heavy (4 Projects)	Early?	Year	Federal Requested	Local Match	Federal Cumulative	Total Scores
1	10921	Minneapolis	Hennepin	Minneapolis	Near North Safe Routes to School in Minneapolis					No	2022	\$1,000,000	\$250,000	\$1,000,000	839
2	10934	St. Paul	Ramsey	St. Paul	Bruce Vento Elementary Safe Routes to School in St. Paul					No	2023	\$842,528	\$210,632	\$1,842,528	787
3	10916	Apple Valley	Dakota	Apple Valley	Greenleaf Elementary Galaxie Crossing in Apple Valley					2019	2022	\$198,240	\$49,560	\$2,040,768	742
4	10807	Bloomington	Hennepin	Bloomington	Bloomington 102nd Street SRTS Improvements					No	2023	\$301,782	\$75,445	\$2,342,550	720
5	10869	S. St Paul	Dakota	S. St Paul	South St. Paul Secondary Safe Routes to School					2020	2022	\$1,000,000	\$780,000	\$3,342,550	666
6	10901	W. St. Paul	Dakota	W. St. Paul	West St. Paul Bidwell Street Sidewalk Improvements					No	2022	\$560,000	\$140,000	\$3,902,550	657
7	10964	Forest Lake	Washington	Forest Lake	Goodview Ave Pedestrian Underpass in Forest Lake					2020	2022	\$1,000,000	\$260,000	\$4,902,550	613
8	10724	Rogers	Hennepin	Rogers	Hassan Elementary School Trail in Rogers					2019	2022	\$652,000	\$325,000	\$5,554,550	562

	Total Modal Funding for Each Scenario	\$30,662,328	\$30,662,328	\$30,662,328	\$39,715,892
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- Shading indicates projects in each funding scenario that would not be funded if \$6,667,000 is approved by TAB for the St. Paul/HourCar Unique Project request.
- Blue shading indicates projects funded in the Base Funding Scenario.
- Orange shading indicates projects funded in the Expansion-Heavy Funding Scenario.
- Pink shading indicates projects funded in the Modernization-Heavy Funding Scenario.
- Green shading indicates projects funded in the Bike/Ped-Heavy Funding Scenario.

DRAFT FUNDING SCENARIO

Unique Projects

Applicant	Project Name	Base	Expansion-Heavy	Modernization-Heavy	Bike/Ped Heavy	Year	Federal Requested	Local Match
Met Council	Regional Model/Travel Behavior Inventory					Any	\$585,000	\$1,170,000
St Paul	Carsharing/Electric Vehicle Charging Stations	TBD	TBD	TBD	TBD	Any	\$6,667,000	\$4,000,000

	Blue shading indicates projects funded in the Base Funding Scenario.
	Orange shading indicates projects funded in the Expansion-Heavy Funding Scenario.
	Pink shading indicates projects funded in the Modernization-Heavy Funding Scenario.
	Green shading indicates projects funded in the Bike/Ped-Heavy Funding Scenario.

SCENARIO SUMMARIES

Mode	Mid-Point of Funding Range	Base	% of Total \$	# of Projects	Expansion-Heavy	% of Total \$	# of Projects	Modernization-Heavy	% of Total \$	# of Projects	Bike/Ped Heavy	% of Total \$	# of Projects
Roadways	58%	\$109,911,896	57%	21	\$110,920,576	57%	21	\$109,515,896	56%	21	\$102,911,896	53%	20
Transit/TDM	27%	\$53,342,029	27%	11	\$51,942,029	27%	11	\$54,734,029	28%	12	\$50,598,029	26%	10
Bike/Ped	15%	\$30,662,328	16%	15	\$30,662,328	16%	15	\$30,662,328	16%	15	\$39,715,892	20%	24
Unique*	N/A	\$585,000	0.3%	1	\$585,000	0.3%	1	\$585,000	0.3%	1	\$585,000	0.3%	1
Total	100%	\$194,501,253	100%	48	\$194,109,933	100%	48	\$195,497,253	100%	49	\$193,810,816	100%	55
Returned Extra Transit		\$2,229,487			\$2,229,487			\$2,229,487			\$2,229,487		
Grand Total		\$196,730,740			\$196,339,420			\$197,726,740			\$196,040,303		

Includes the Regional Travel Behavior Inventory (\$585,000). Funding for the St. Paul unique project still being discussed by TAB.

Grand Total includes \$2.2M of returned extra transit funds that are added to transit expansion projects.

INFORMATION ITEM

DATE: June 20, 2018

TO: Technical Advisory Committee

PREPARED BY: Steve Peterson, Highway Planning and TAB/TAC Process Manager
David Burns, Senior Planner (651-602-1887)
Nicole Sullivan, Data Scientist (651-602-1385)
Patrick Haney, Intern (651-602-1580)

SUBJECT: Update to Geographic Balance in the Regional Solicitation and Employment Flows

BACKGROUND: At the June 20, 2018, TAB meeting, Council staff presented a series of maps and tables on the topic of geographic balance. TAB members requested that the data tables be split to show trends before and after the major program evaluation (prior to the 2014 funding cycle). Figures 1-3 now shows a table that splits the 2003-2013 funding cycles and the 2014-2016 funding cycles. Due to the small sample size of using just two funding cycles (2014 and 2016), it may be difficult to draw meaningful conclusions from the data. Council staff will add 2018 projects once TAB approves a list of projects in January.

TAB also requested that funding be shown relative to vehicle miles travelled (VMT). This change is shown on Figure 1 (VMT data is only available at the county level, so it cannot be added to the other maps). Figure 1 includes funding for all three modes; staff then compared the relationship between each county's VMT to just the roadway funding application categories. There was a stronger correlation between VMT and roadway funding distribution than to funding for all three modes combined.

Lastly, TAB requested additional information on where people are traveling to work, including one specific question on the number of workers from St. Croix County, Wisconsin traveling through Washington County to employment sites in Ramsey and Hennepin Counties. The broader topic of where people live, work, and travel has been of interest to TAB for over 20 years. In fact, in 1996, the State Legislature directed the Council to analyze the impact on the regional highway system of commuters and the results were included in the 2001 Transportation Policy Plan.

To provide some context on the work trip, the 2010 MSP Region Travel Behavior Inventory (TBI) Report reported that work commutes account for approximately 17% of all trips, and an even higher percentage during the peak periods when roads are the most congested (approximately 33% of trips during the morning commute and 22% during the evening commute). The work trip only accounts for 6% of the total travel during the middle of the day.

Figures 4-22 and Tables 1-3 display 2015 Longitudinal Employer-Household Dynamics (LEHD) data from the U.S. Census Bureau. Some of the key highlights from the data include the following:

1. People are traveling throughout the metro area for work. This suggests that investments made on key regional facilities will benefit people beyond those people living in the immediate area.

- 16% of workers in the 7-county metro area stay their home city for work, while the remaining 84% travel to another city.
- 51% workers in the 7-county metro stay in their home county for work, while the remaining 49% travel to another county. For most counties, less than one-third of the workers living in a county stay within their home county for work. The most notable exception is Hennepin County where 74% of workers stay within Hennepin County.

Live and Work in Same County		
Hennepin	424,000	74%
Ramsey	102,000	43%
Dakota	75,000	36%
Anoka	51,000	29%
Carver	13,000	28%
Washington	28,000	23%
Scott	16,000	23%
Total	710,000	51%

2. There are a large number of workers who live outside the 7-county metro who are traveling to the region for work.

- Approximately 14%, or 221,000 out of the 1,575,000 people who work in the 7-county metro live outside of it.
 - Approximately 86,000 people who live in the 7-county metro work outside of the metro area.
 - In 2015, 33,000 more people worked in the 7-county metro and lived outside of the region than in 2002.
- Wright, Sherburne, Isanti, and St. Croix Counties all have over 40% of their workers coming to the 7-county metro area for employment.
 - As an example, 5,000 St. Croix County residents are traveling to Washington County for work, 5,000 St. Croix County residents to Hennepin County, and 6,000 St. Croix County residents to Ramsey County. It can be assumed that the vast majority of those 16,000 workers (32,000 daily trips) are using Highway 36 or I-94 as these are the only two St. Croix River crossings from St. Croix County to the metro area. These increased traffic volumes result in additional impact to pavement quality, congestion, and safety.

Council staff developed an online tool to be shared with the TAB where users can select a particular city or county and the tool will output employment flows.

Figure 1: Location of Awarded 2003 - 2016 Regional Solicitation Funded Projects by County

County	2003-2016 Federal Dollars %	Population %	Jobs %	Vehicle Miles Travelled %
Anoka	#4 (10%)	#4 (11%)	#4 (7%)	#4 (13%)
Carver	#7 (5%)	#7 (3%)	#7 (2%)	#7 (5%)
Dakota	#3 (12%)	#3 (14%)	#3 (11%)	#2 (17%)
Hennepin	#1 (43%)	#1 (41%)	#1 (53%)	#1 (34%)
Ramsey	#2 (17%)	#2 (18%)	#2 (19%)	#3 (14%)
Scott	#6 (7%)	#6 (5%)	#6 (3%)	#6 (8%)
Washington	#5 (7%)	#5 (8%)	#5 (5%)	#5 (10%)
Total	100%	100%	100%	100%

Notes: # = Rank

Notes: Years used in the table (2003-2016) indicate the year of the project selection.

Funds from 2003-2016 will be expended in approximately 2007-2021.

Federal Funding refers to Regional Solicitation funds only and includes funds for all three modal categories (Roadways, Transit/Travel Demand Management, and Bicycle/Pedestrian).

Data for population and employment based on Metropolitan Council 2016 estimates.

Approximately \$200 million of Regional Solicitation funds are awarded every two years by the Transportation Advisory Board (TAB).

VMT more closely corresponds with roadway projects.

County	2003-2013 Federal Funding %	2014-2016 Federal Funding %
Anoka	#4 (11%)	#5 (6%)
Carver	#7 (6%)	#7 (3%)
Dakota	#3 (13%)	#3 (9%)
Hennepin	#1 (38%)	#1 (53%)
Ramsey	#2 (18%)	#2 (16%)
Scott	#6 (7%)	#4 (8%)
Washington	#5 (8%)	#6 (5%)
Total	100%	100%

Note: A major restructuring of the Regional Solicitation took place prior to the 2014 funding cycle.

County



Anoka



Carver



Dakota



Hennepin



Ramsey



Scott



Washington

● 2003-2013 Projects

● 2014-2016 Projects

~ Interstate Highways

~ US, State, and County Highways

~ A-Minor Arterials



County Boundary

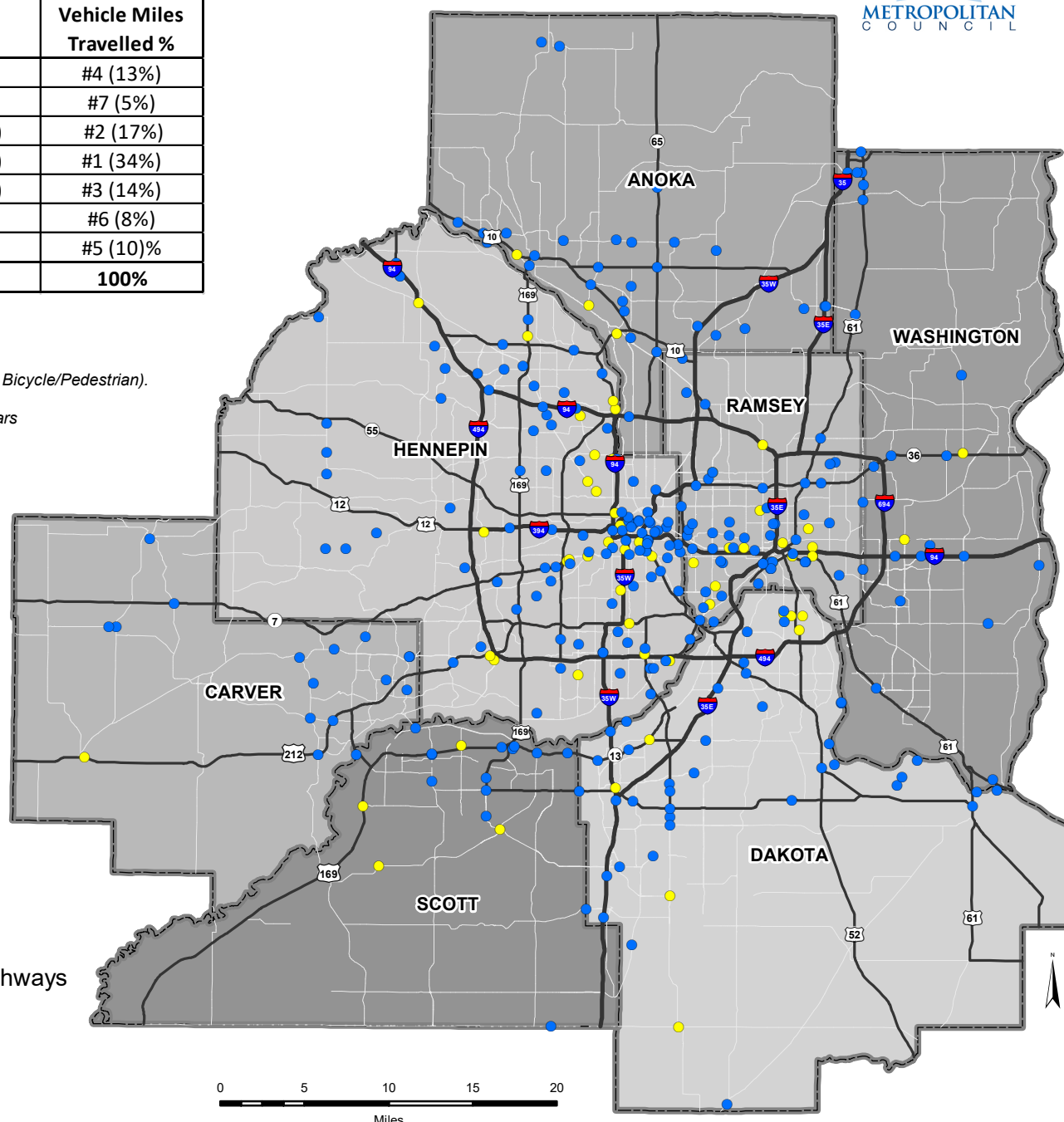


Figure 2: Location of Awarded 2003 - 2016 Regional Solicitation Funded Projects by Land Use Designation




Region	2003-2016 Federal Dollars %	Population %	Jobs %
Urban Center/Urban	47%	43%	53%
Suburban	23%	25%	23%
Suburban Edge/Emerging Suburban Edge	22%	26%	18%
Rural/Rural Center	8%	6%	6%
Total	100%	100%	100%

Notes: Years used in the table (2003-2016) indicate the year of the project selection. Funds from 2003-2016 will be expended in approximately 2007-2021. Federal Funding refers to Regional Solicitation funds only and includes funds for all three modal categories (Roadways, Transit/Travel Demand Management, and Bicycle/Pedestrian). Data for population and employment based on Metropolitan Council 2016 estimates. Approximately \$200 million of Regional Solicitation funds are awarded every two years by the Transportation Advisory Board (TAB).

Designation Summary	2003-2013 Federal Dollars %	2014-2016 Federal Dollars %
Urban Center/Urban	42%	57%
Suburban	22%	24%
Suburban Edge/Emerging Suburban Edge	26%	13%
Rural/Rural Center	10%	6%
Total	100%	100%

Note: A major restructuring of the Regional Solicitation took place prior to the 2014 funding cycle.

Thrive MSP 2040 Community Designations

- Urban Center/Urban
- Suburban
- Suburban Edge/Emerging Suburban Edge
- Rural/Rural Center
- 2003-2013 Projects
- 2014-2016 Projects
-  Interstate Highway
-  US, State, and County Highways
-  A-Minor Arterials

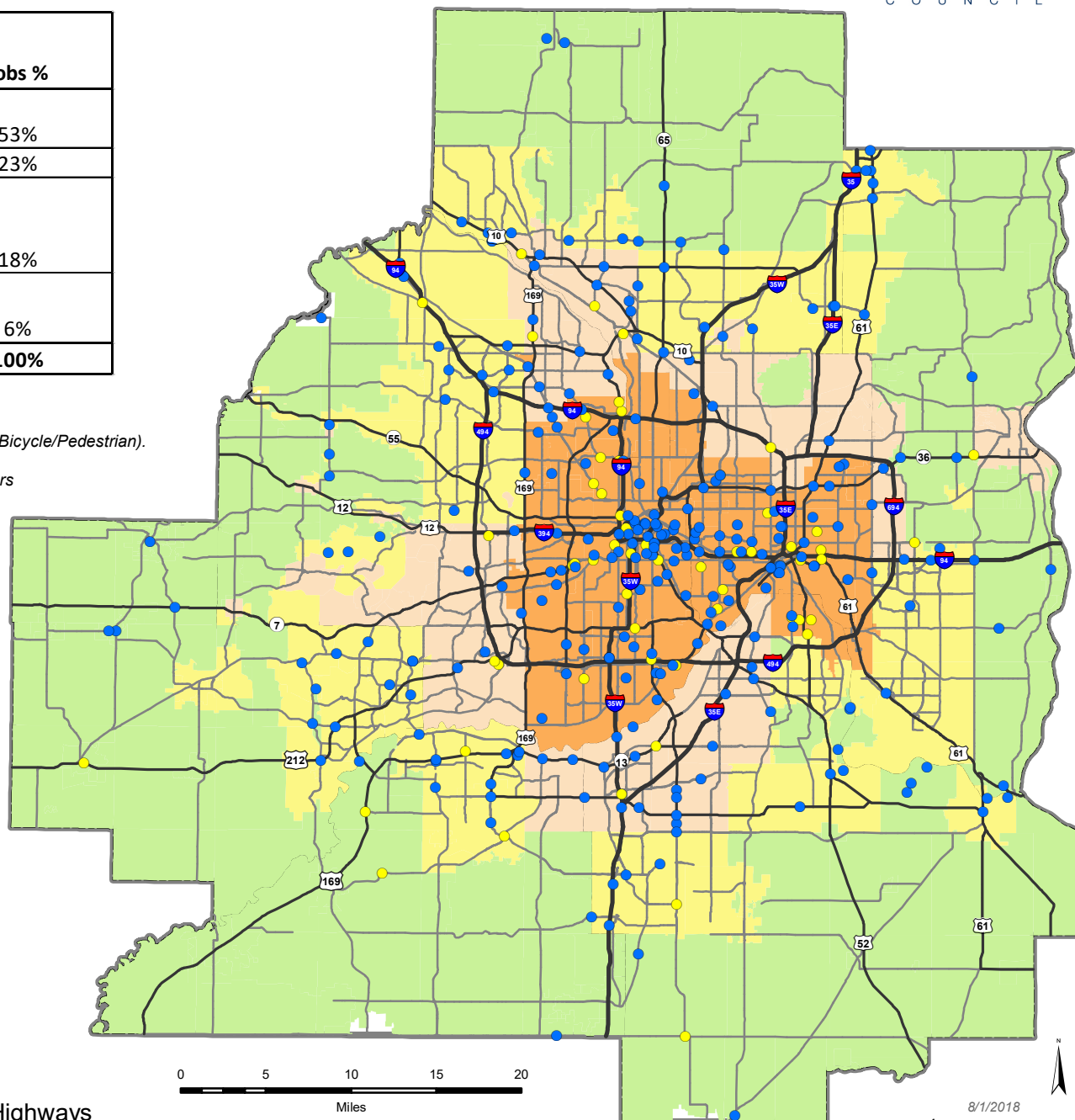


Figure 3: Location of Awarded 2003 - 2016 Regional Solicitation Funded Projects by Quadrant of the Region

Region	2003-2016 Federal Dollars %	Population %	Jobs %
Northwest	28%	25%	28%
Northeast	19%	23%	22%
Southeast	27%	22%	21%
Southwest	26%	30%	29%
Total	100%	100%	100%

Notes: Years used in the table (2003-2016) indicate the year of the project selection. Funds from 2003-2016 will be expended in approximately 2007-2021. Federal Funding refers to Regional Solicitation funds only and includes funds for all three modal categories (Roadways, Transit/Travel Demand Management, and Bicycle/Pedestrian). Data for population and employment based on Metropolitan Council 2016 estimates. Approximately \$200 million of Regional Solicitation funds are awarded every two years by the Transportation Advisory Board (TAB).

Region	2003-2013 Federal Dollars %	2014-2016 Federal Dollars %
Northwest	25%	34%
Northeast	21%	15%
Southeast	29%	23%
Southwest	25%	28%
Total	100%	100%

Note: A major restructuring of the Regional Solicitation took place prior to the 2014 funding cycle.

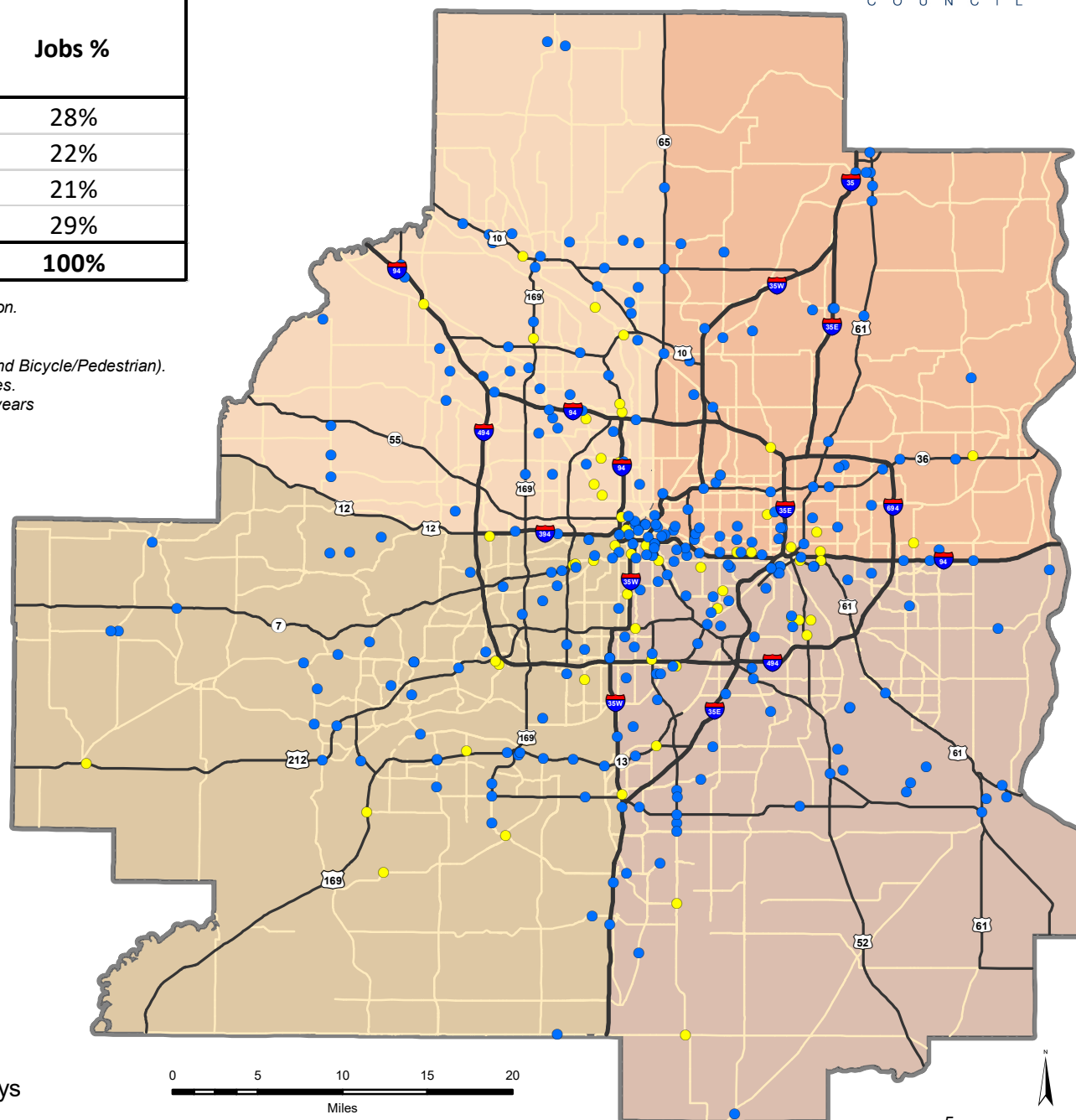
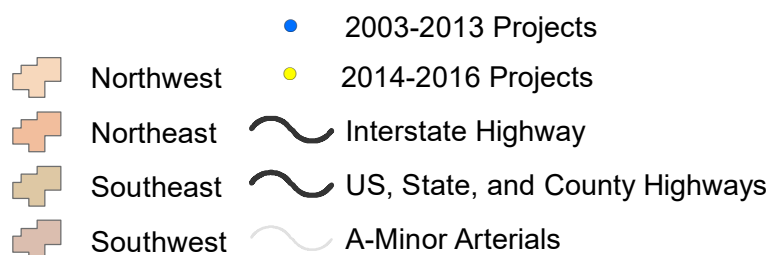
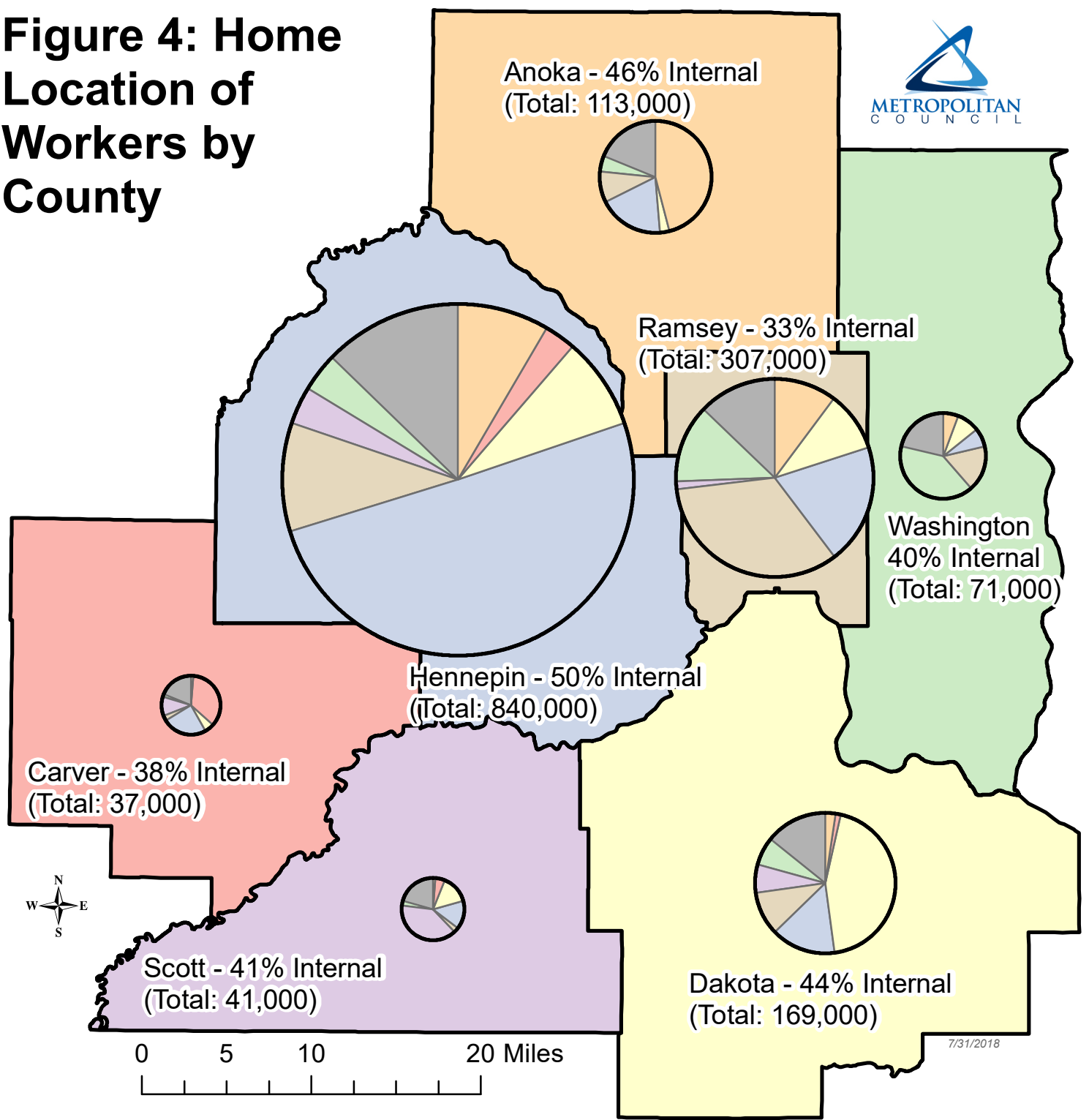


Figure 4: Home Location of Workers by County



% of Workforce by County

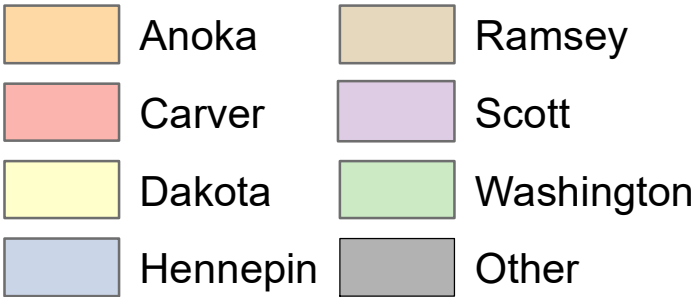
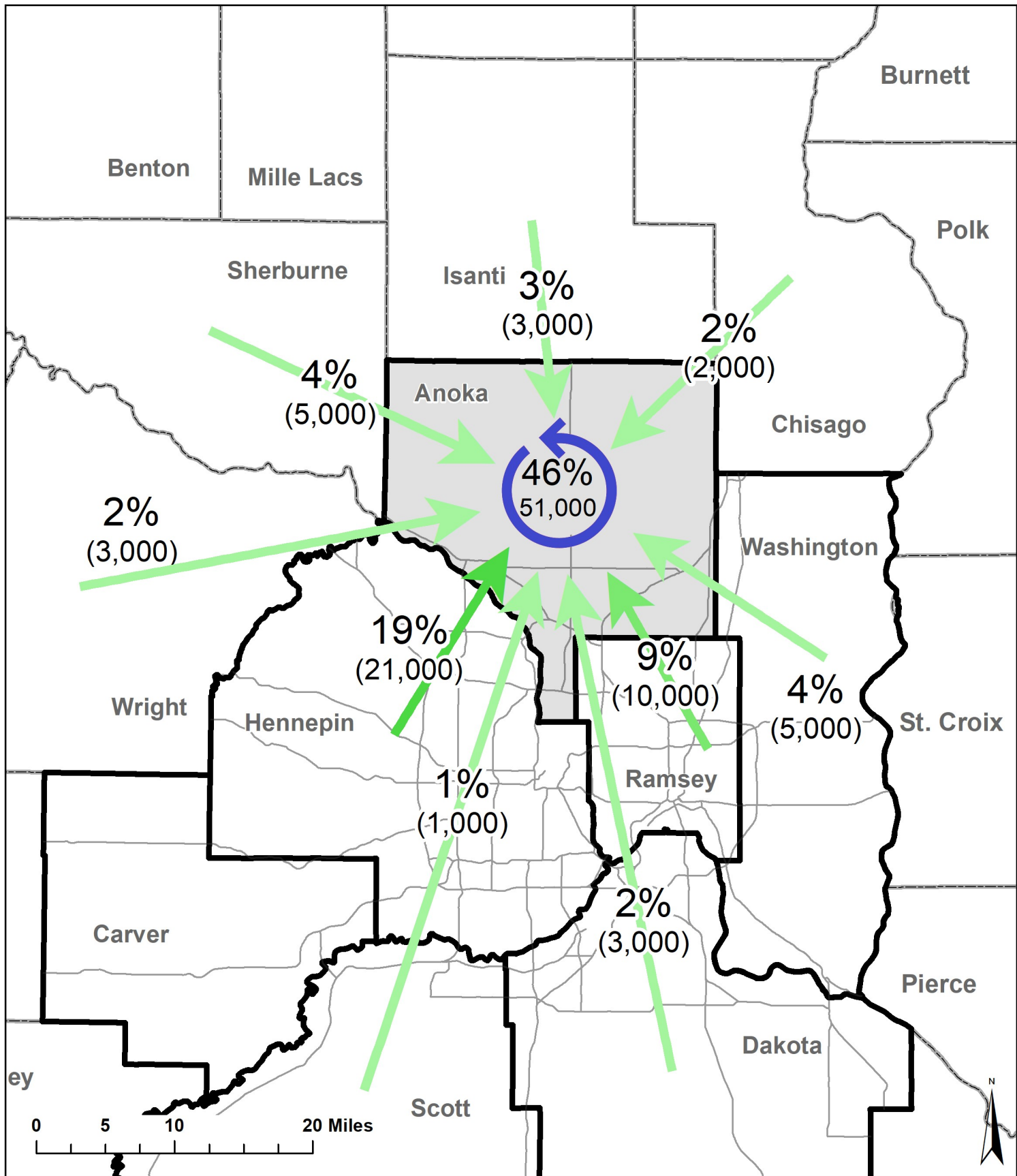
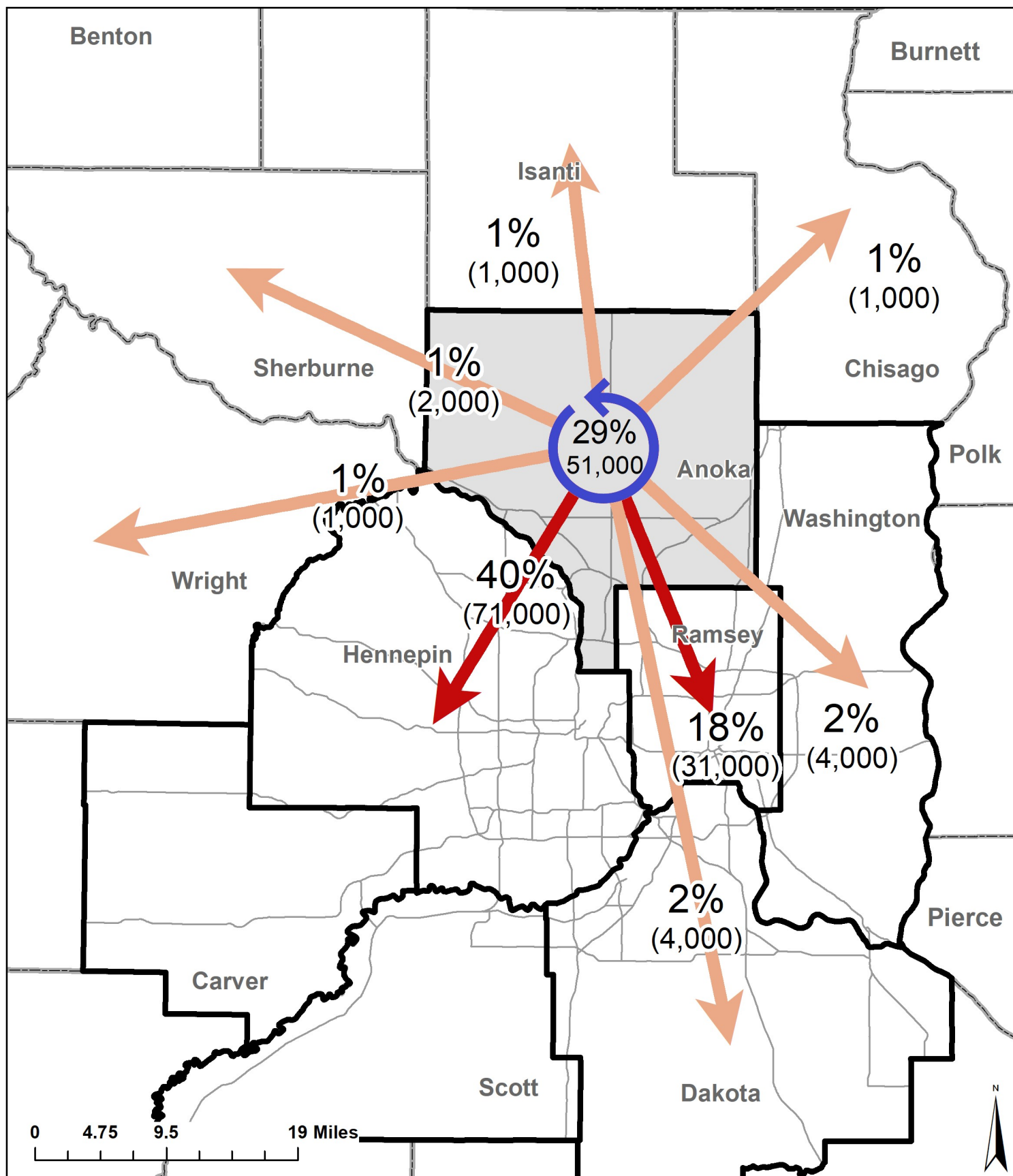


Figure 5: Anoka County Employment Inflow



Total of 113,000 workers employed in Anoka County.
Data is 2015 LEHD data from the U.S. Census Bureau.

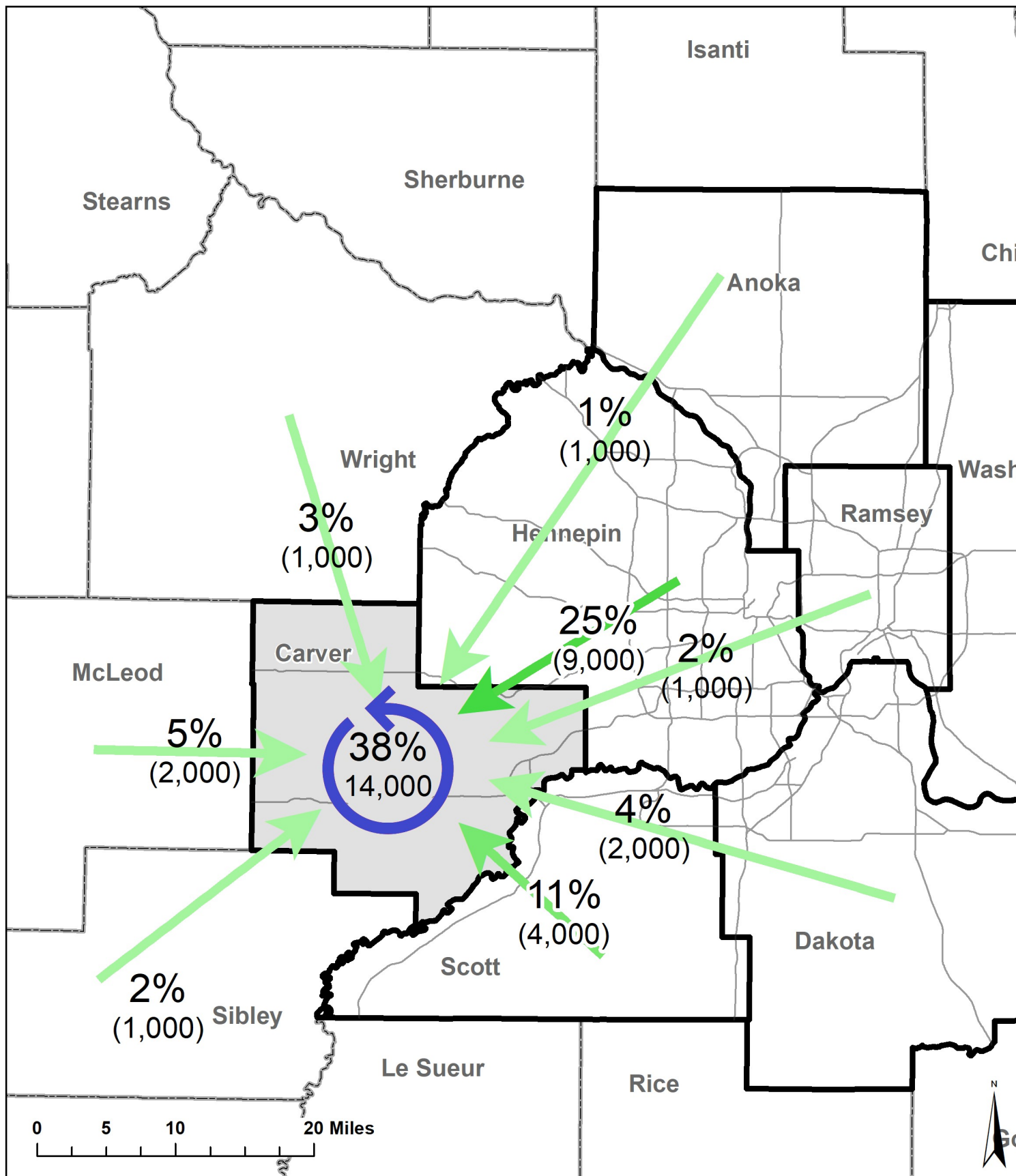
Figure 6: Anoka County Employment Outflow



7/25/2018

Total of 176,000 workers living in Anoka County.
Data is 2015 LEHD data from the U.S. Census Bureau.

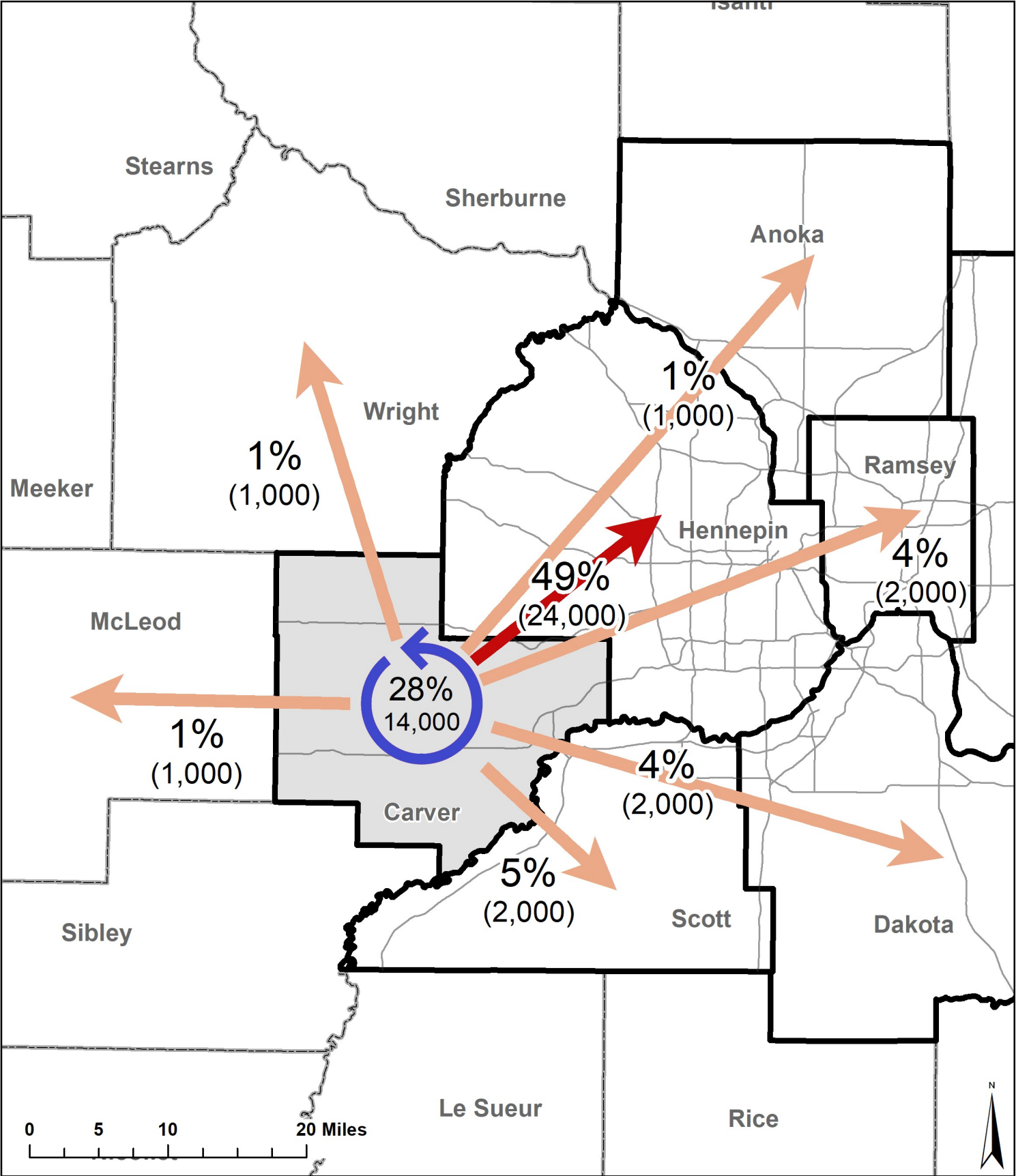
Figure 7: Carver County Employment Inflow



7/27/2018

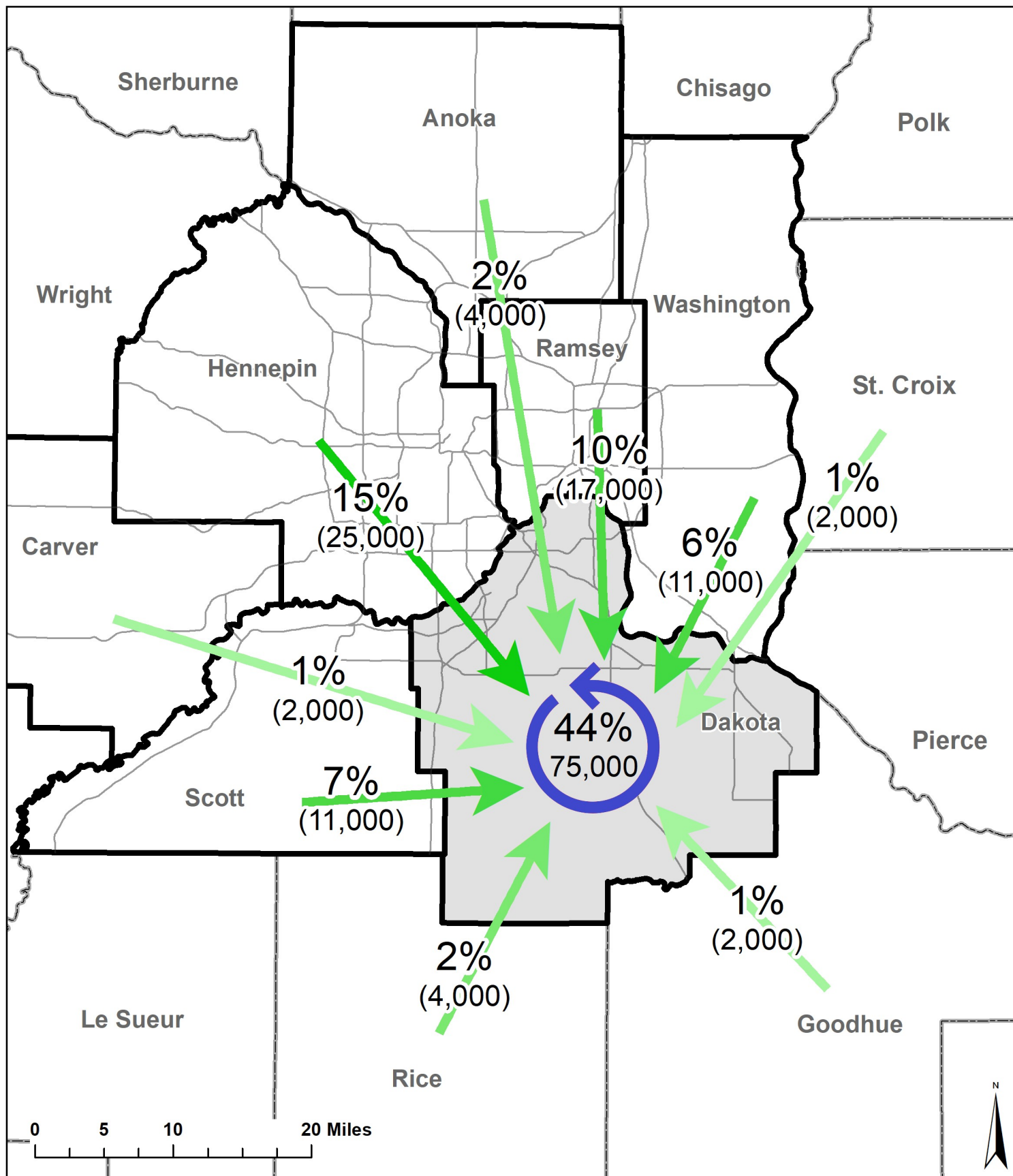
Total of 36,000 workers employed in Carver County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 8: Carver County Employment Outflow



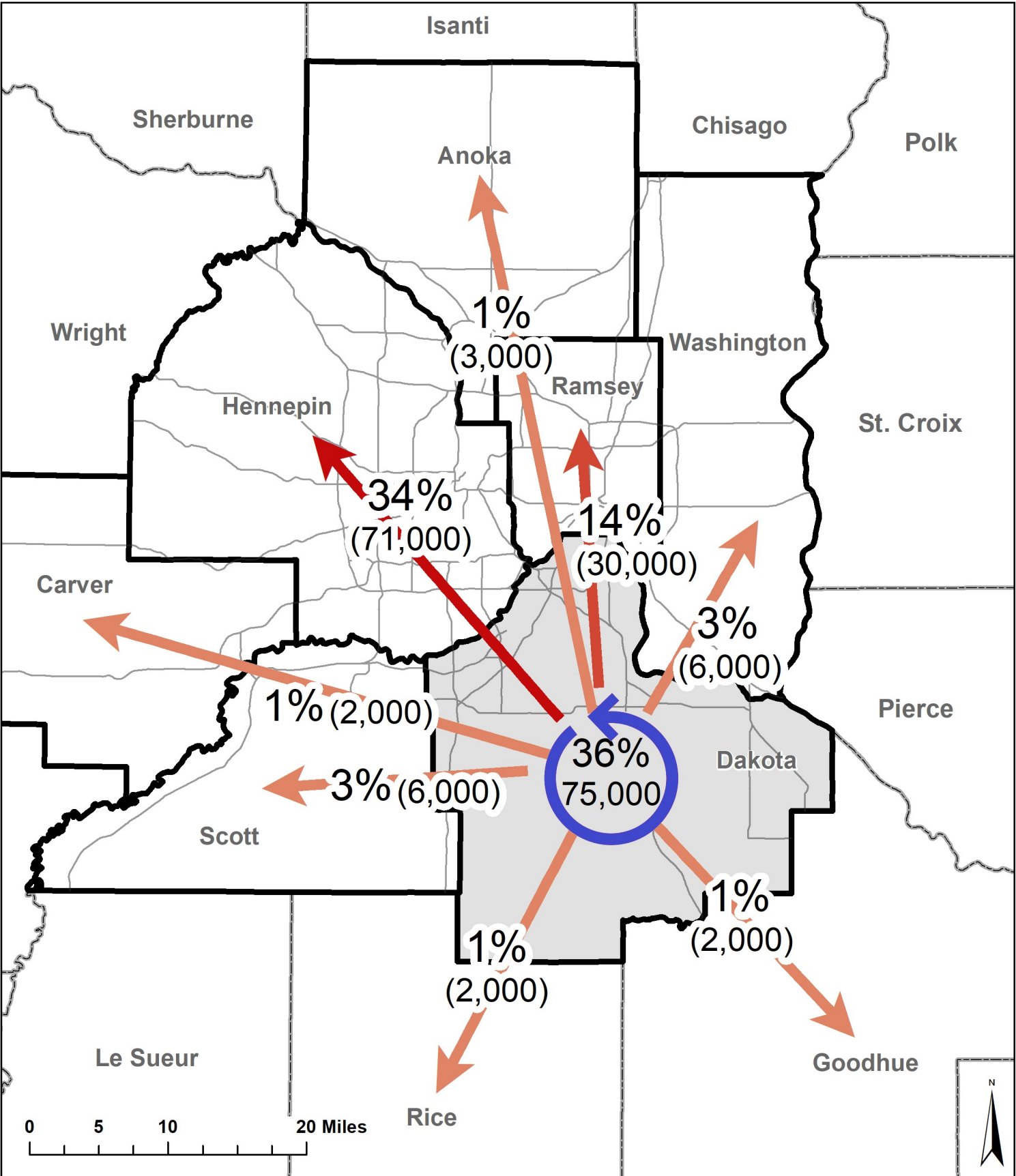
Total of 49,000 workers living in Carver County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 9: Dakota County Employment Inflow



Total of 169,318 workers employed in Dakota County.
Data is 2015 LEHD data from the U.S. Census Bureau.

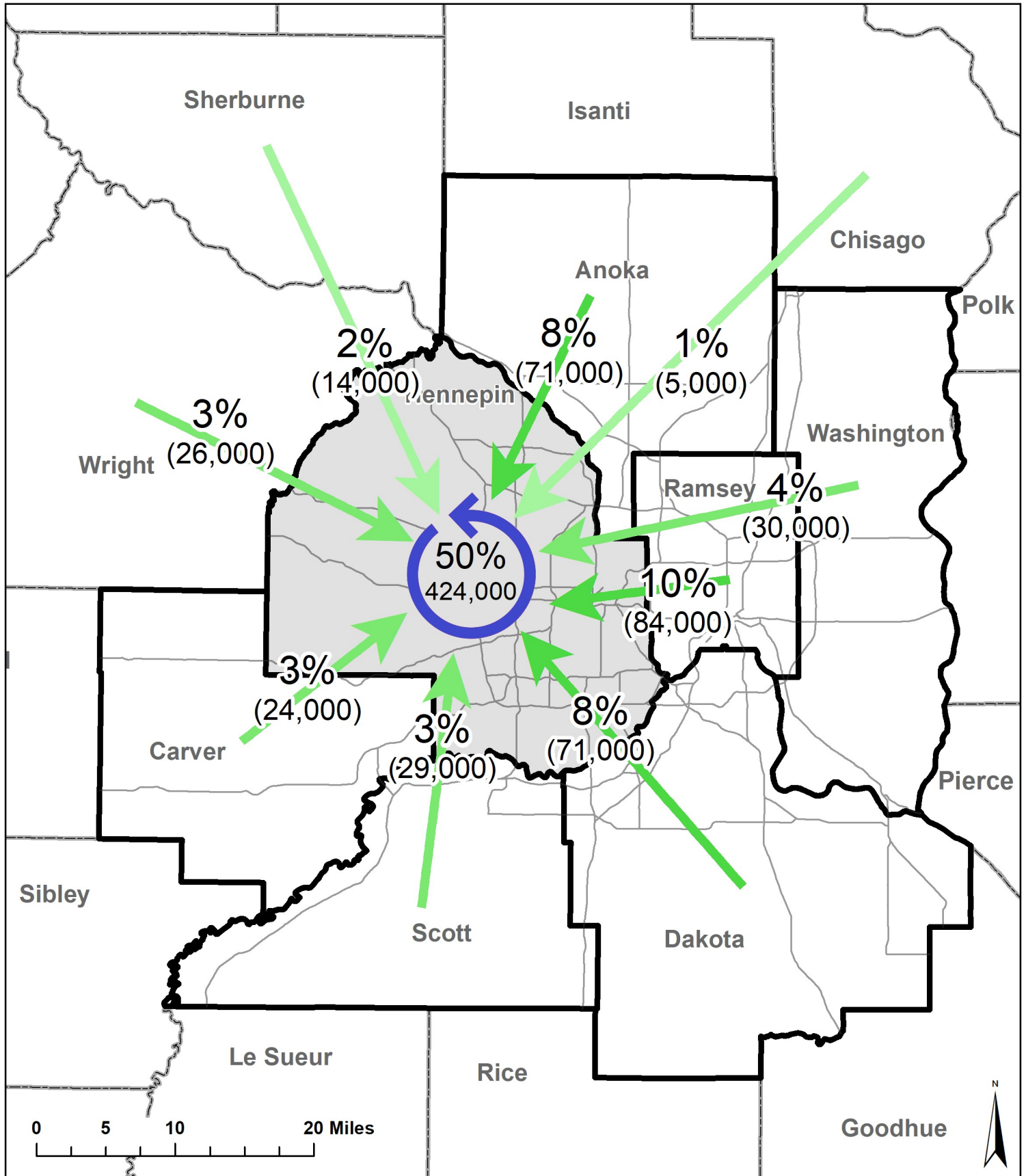
Figure 10: Dakota County Employment Outflow



7/26/2018

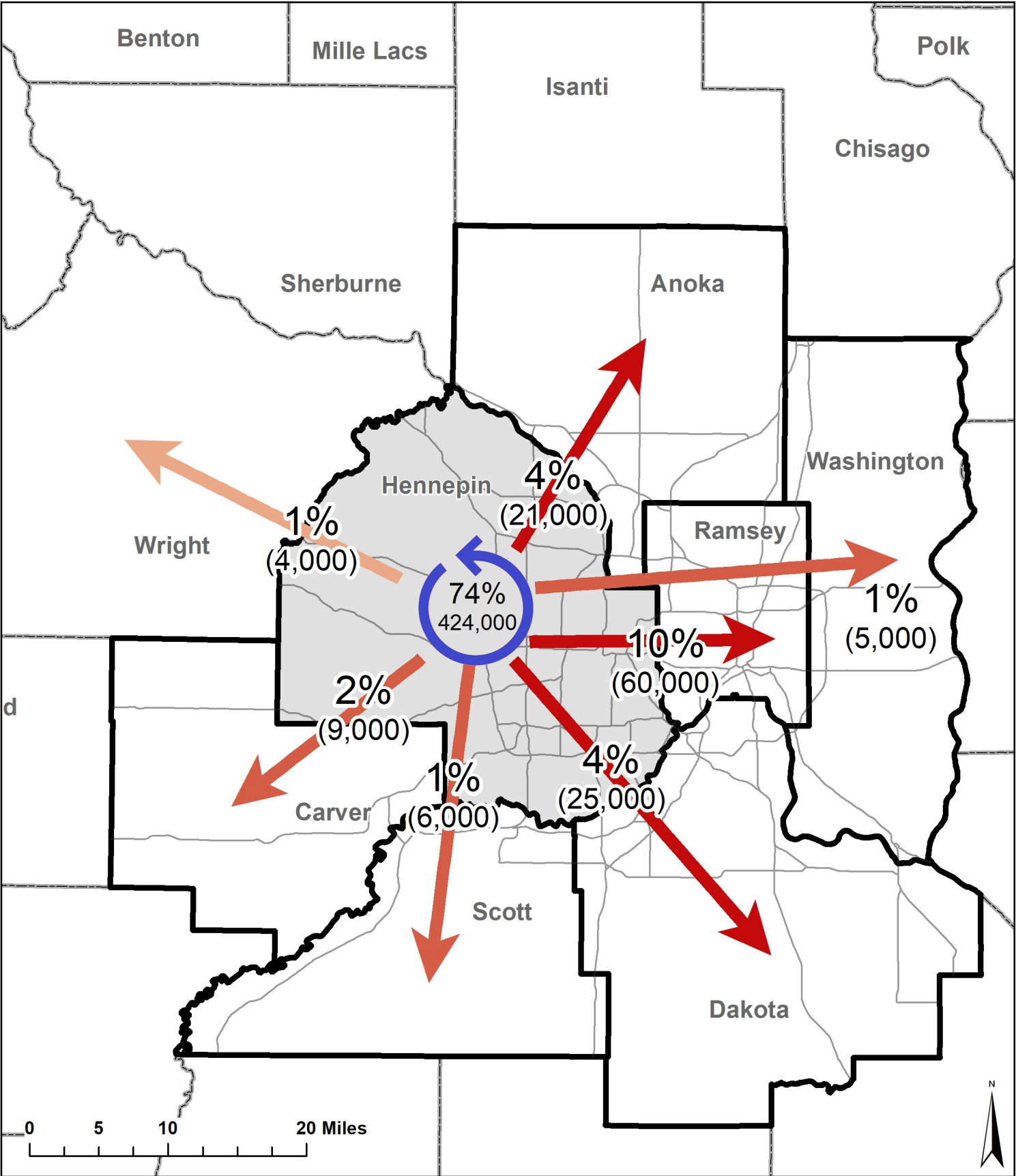
Total of 206,000 workers living in Dakota County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 11: Hennepin County Employment Inflow



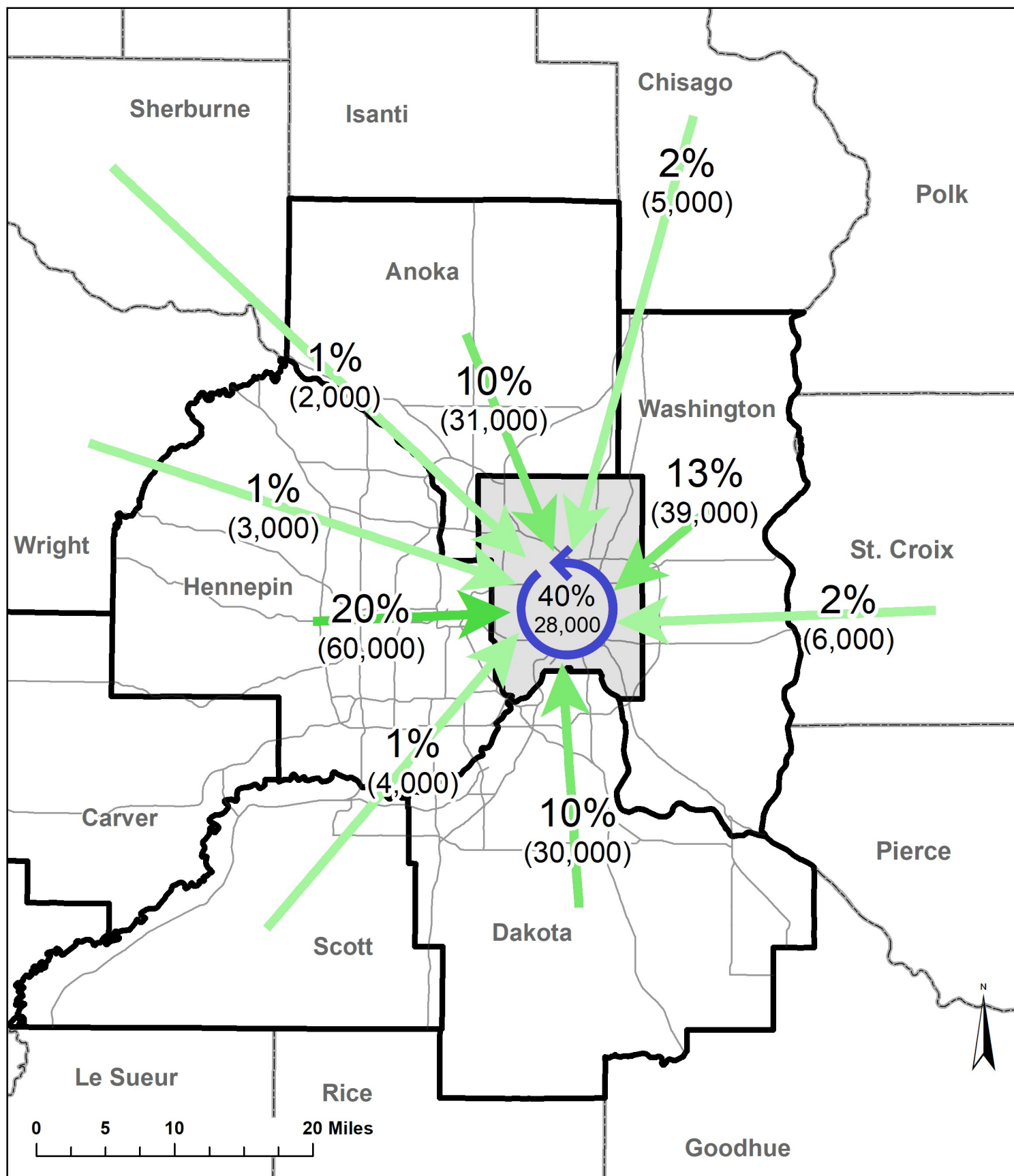
Total of 839,000 workers employed in Hennepin County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 12: Hennepin County Employment Outflow



Total of 577,000 workers living in HennepinCounty.
Data is 2015 LEHD data from the U.S. Census Bureau.

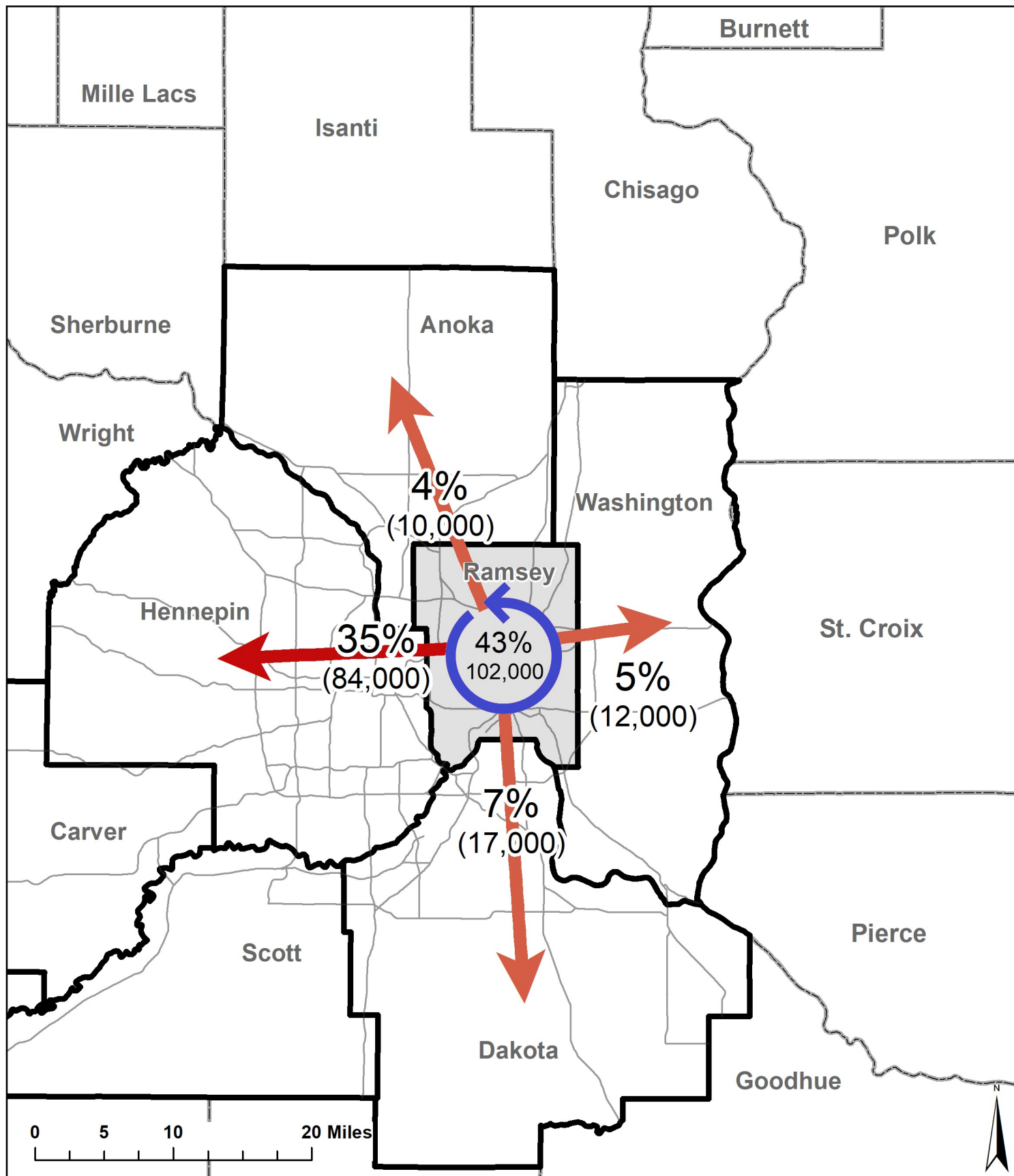
Figure 13: Ramsey County Employment Inflow



7/27/2018

Total of 307,000 workers employed in Ramsey County.
Data is 2015 LEHD data from the U.S. Census Bureau.

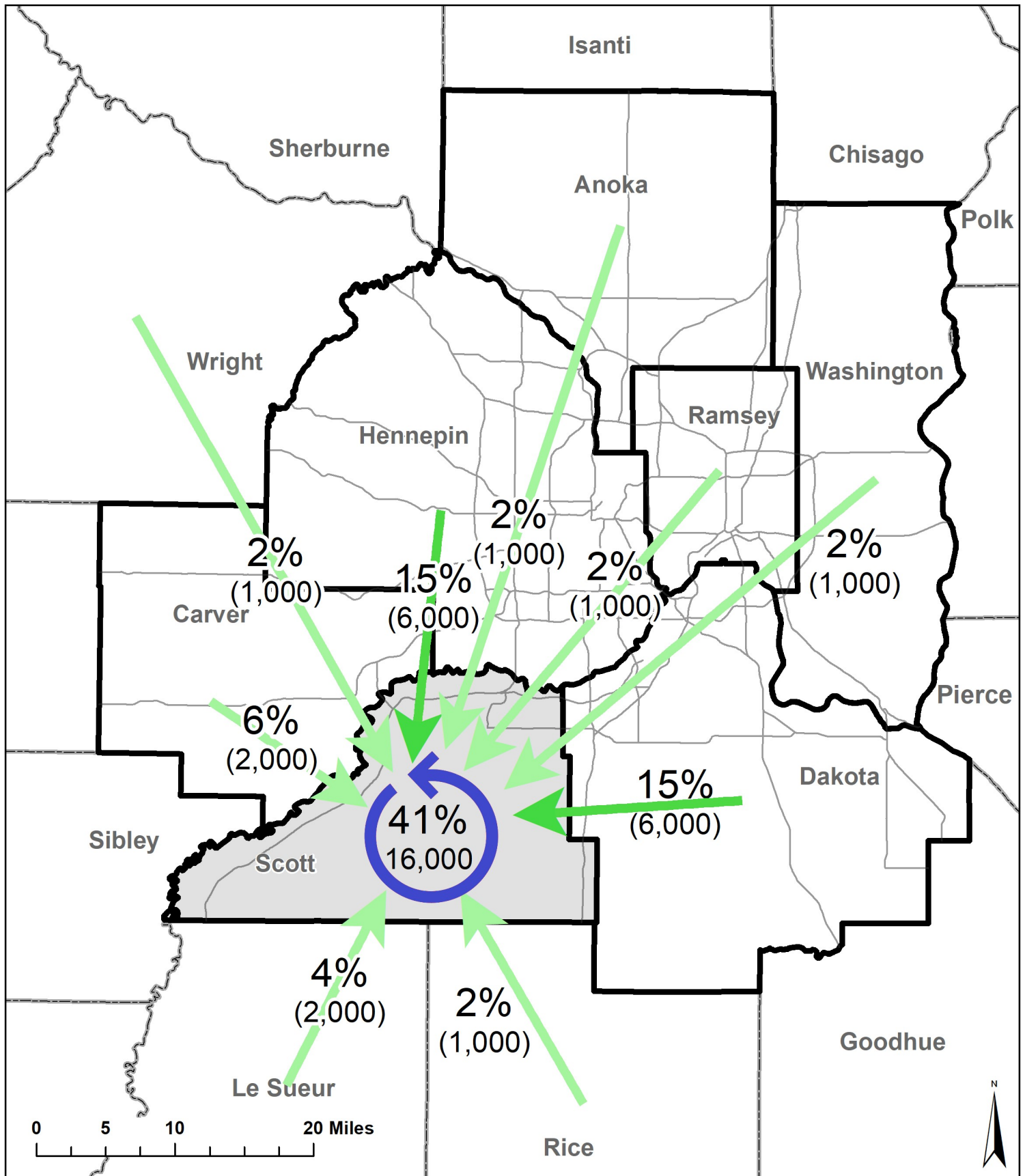
Figure 14: Ramsey Count Employment Outflow



7/26/2018

Total of 239,000 workers living in Ramsey County.
Data is 2015 LEHD data from the U.S. Census Bureau.

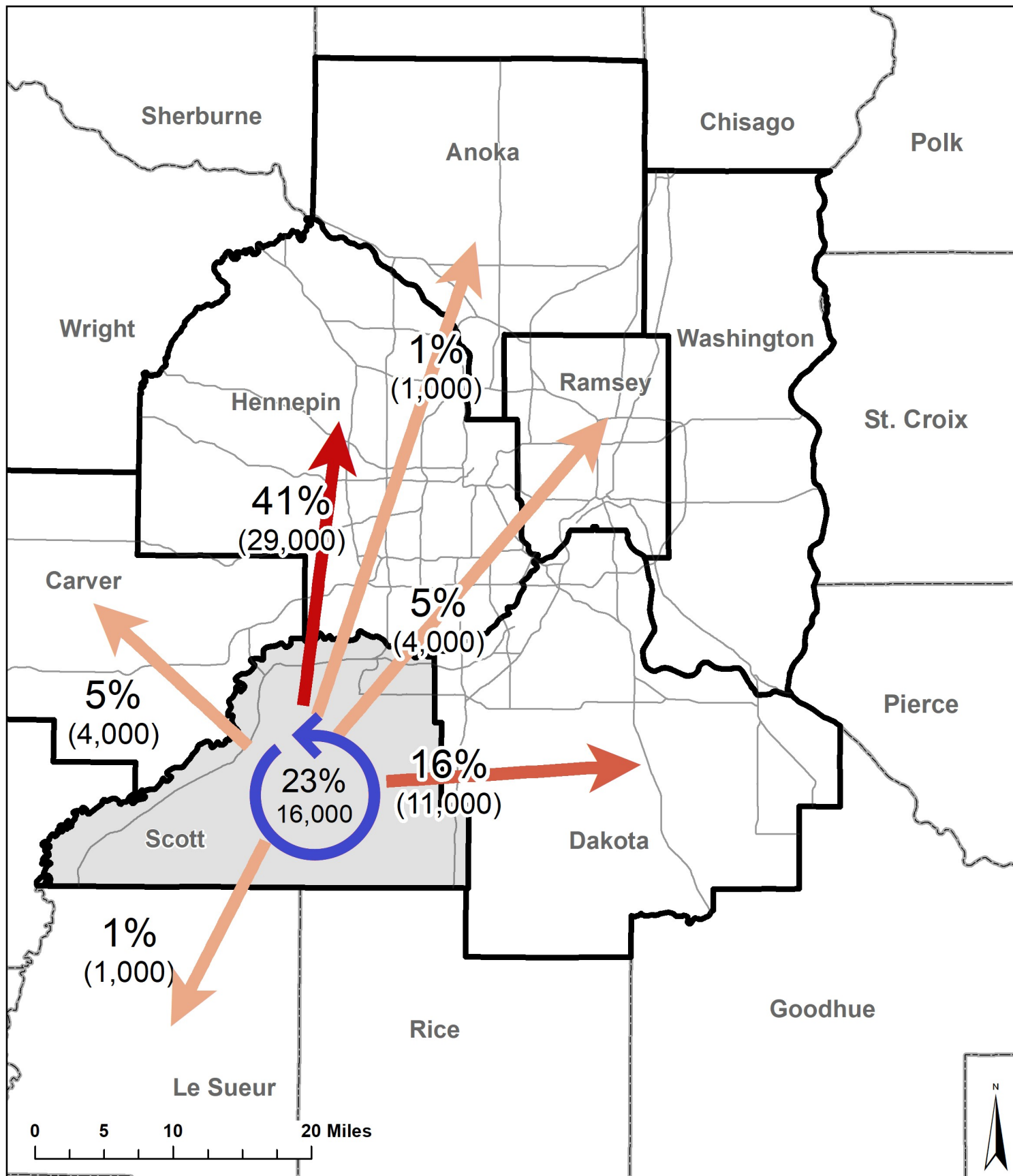
Figure 15: Scott County Employment Inflow



7/27/2018

Total of 39,000 workers employed in Scott County.
Data is 2015 LEHD data from the U.S. Census Bureau.

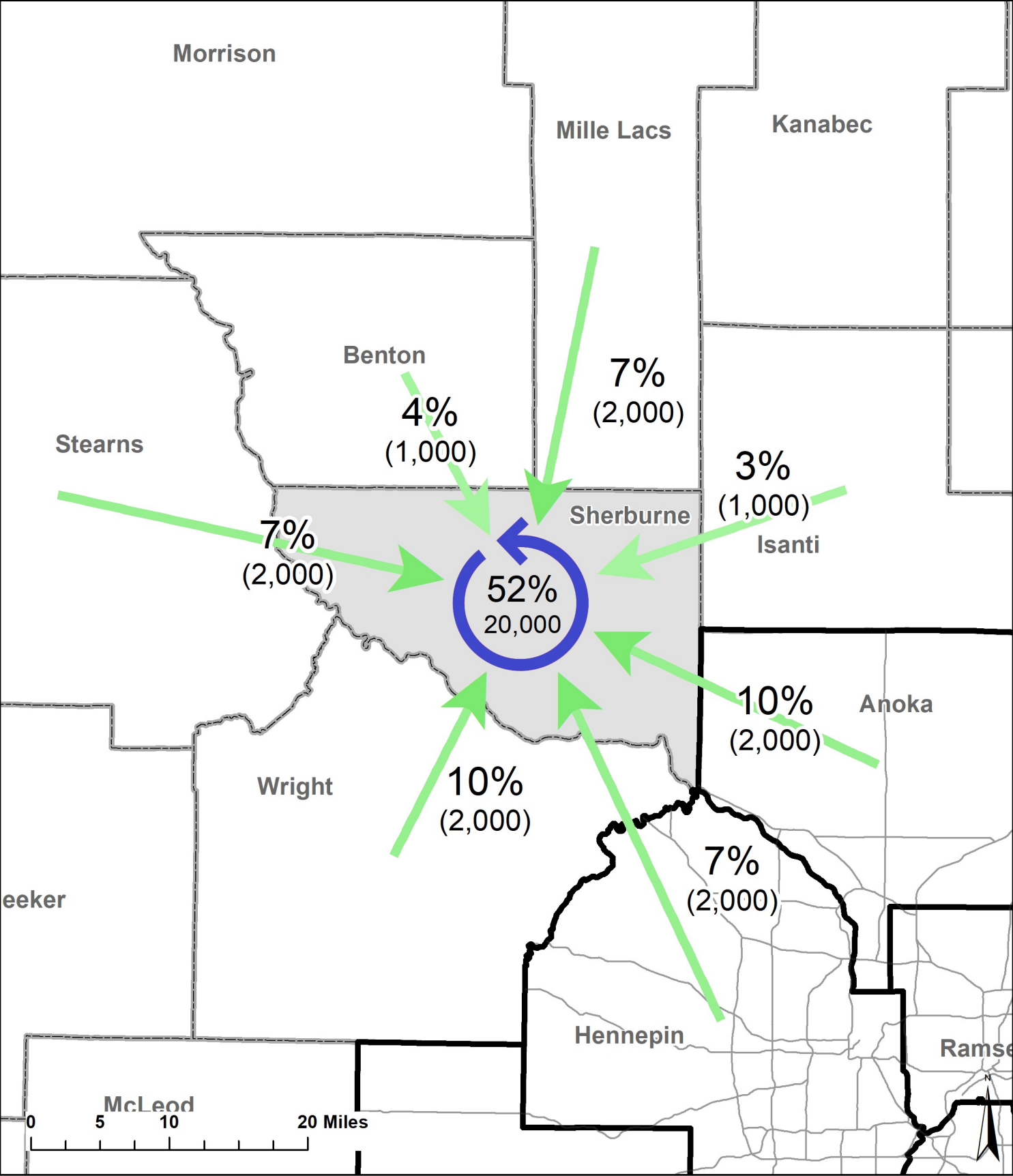
Figure 16: Scott County Employment Outflow



7/26/2018

Total of 69,000 workers living in Scott County.
Data is 2015 LEHD data from the U.S. Census Bureau.

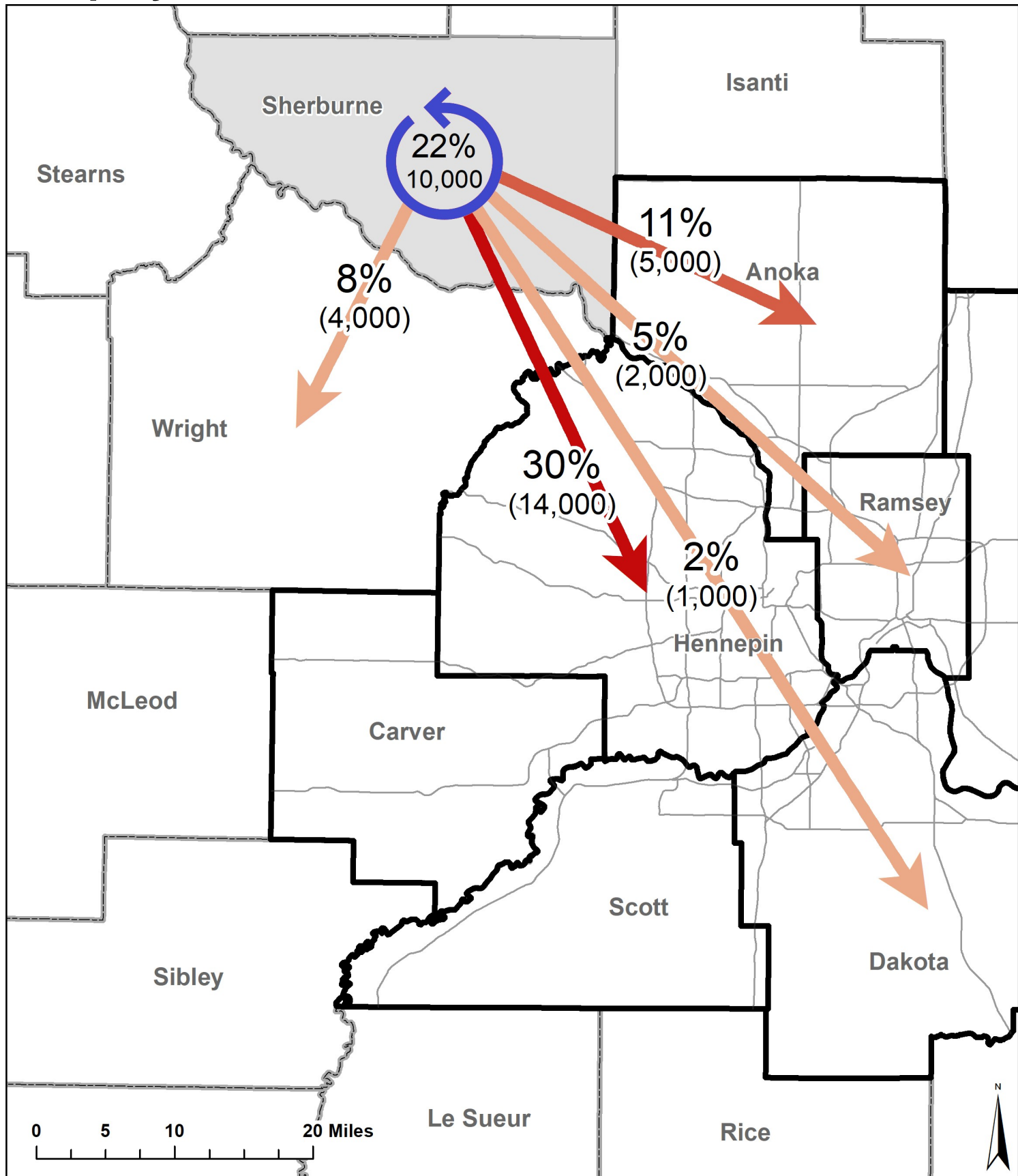
Figure 17: Sherburne County
Employment Inflow



7/27/2018

Total of 24,000 workers employed in Sherburne County.
Data is 2015 LEHD data from the U.S. Census Bureau.

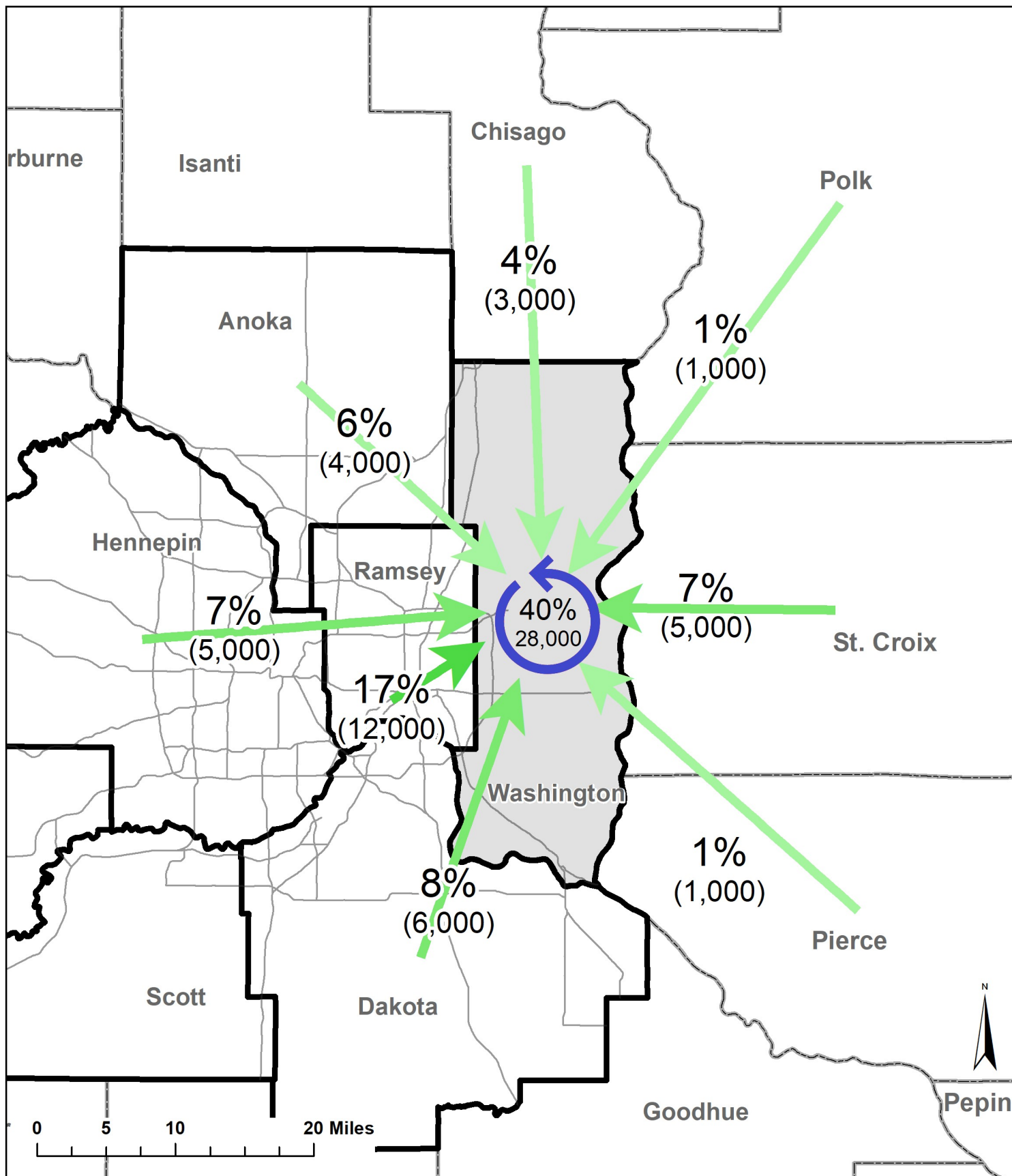
Figure 18: Sherburne County Employment Outflow



7/26/2018

Total of 45,000 workers living in Sherburne County.
Data is 2015 LEHD data from the U.S. Census Bureau.

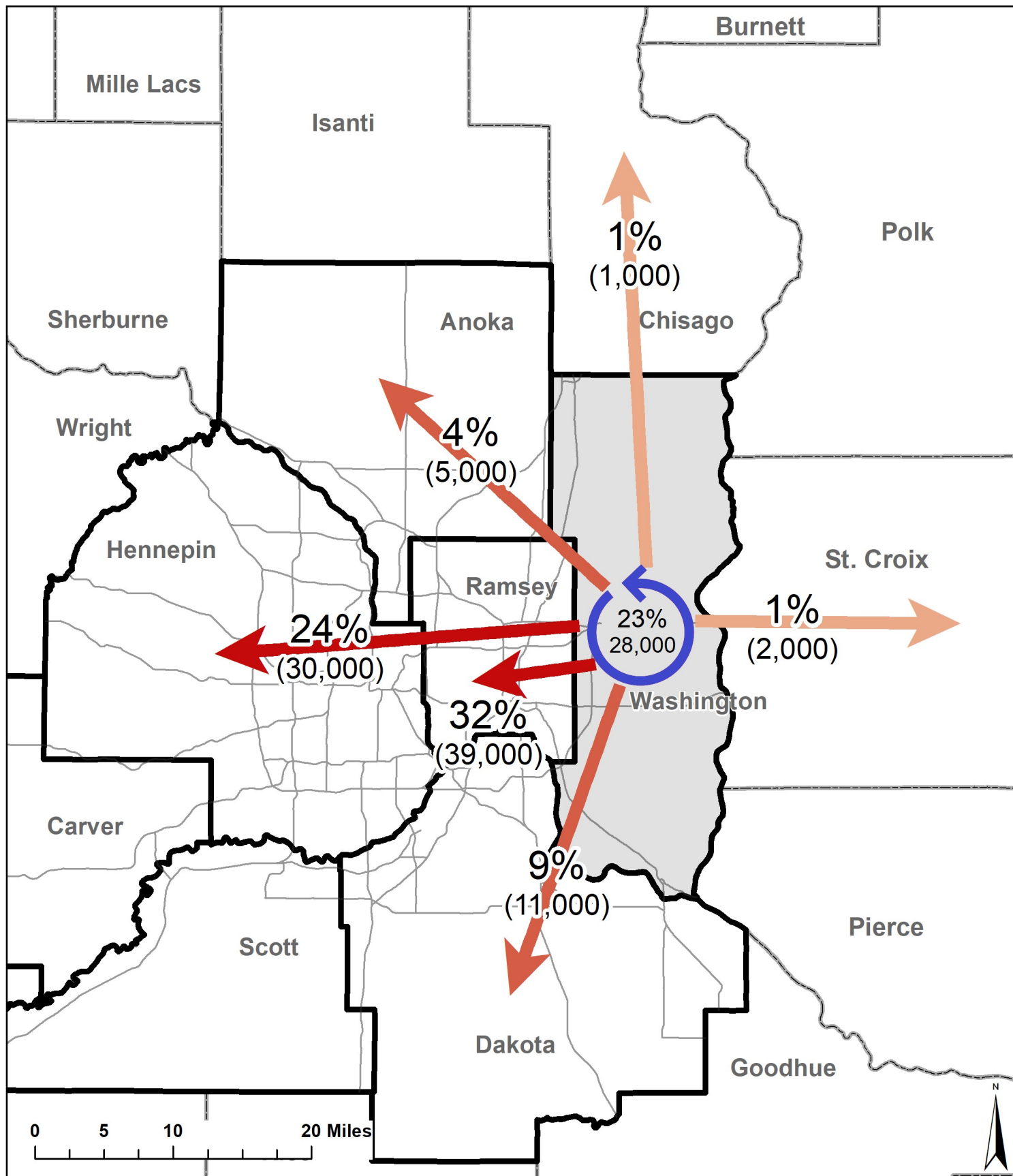
Figure 19: Washington County Employment Inflow



7/27/2018

Total of 71,000 workers employed in Washington County.
Data is 2015 LEHD data from the U.S. Census Bureau.

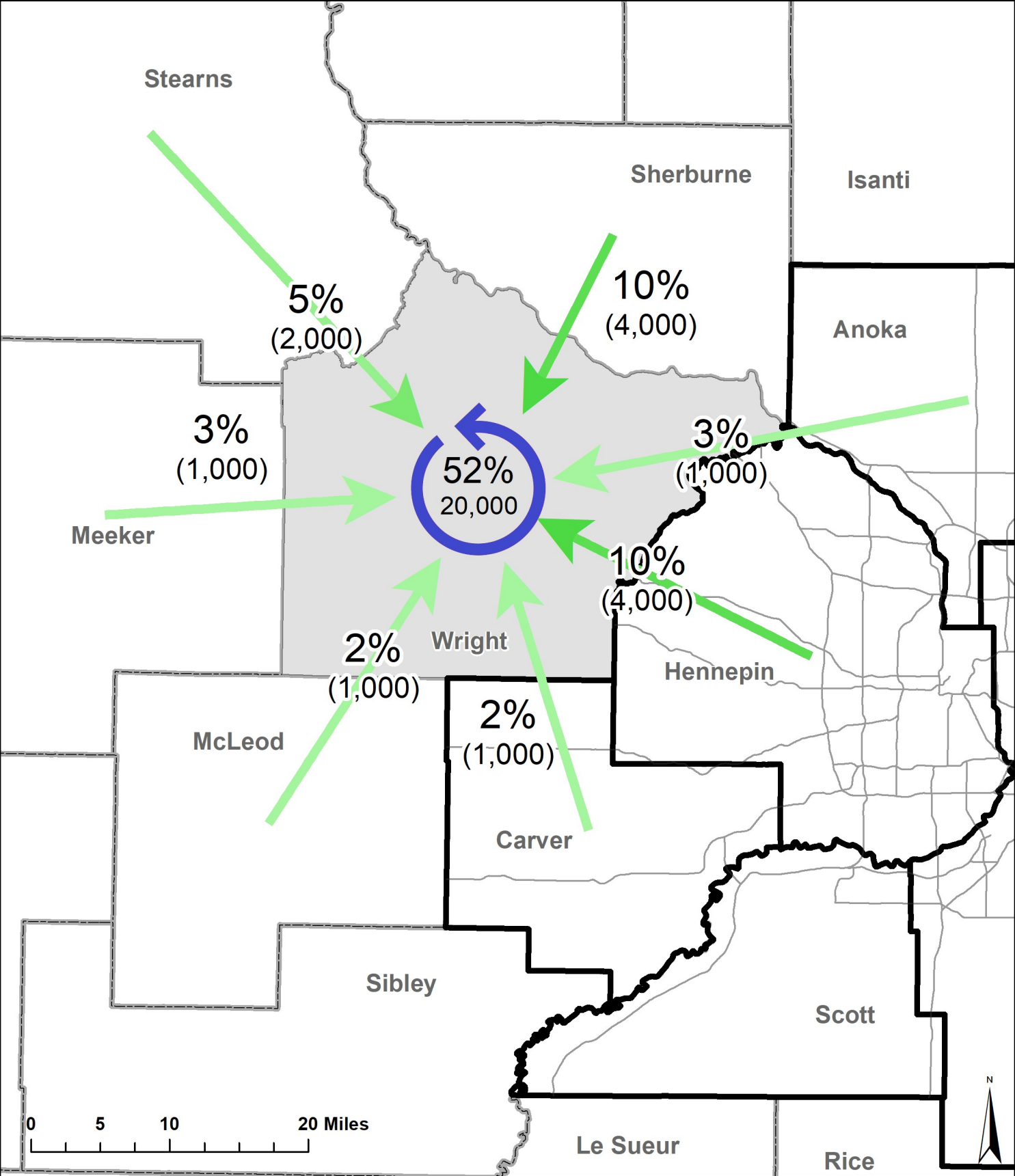
Figure 20: Washington County Employment Outflow



7/26/2018

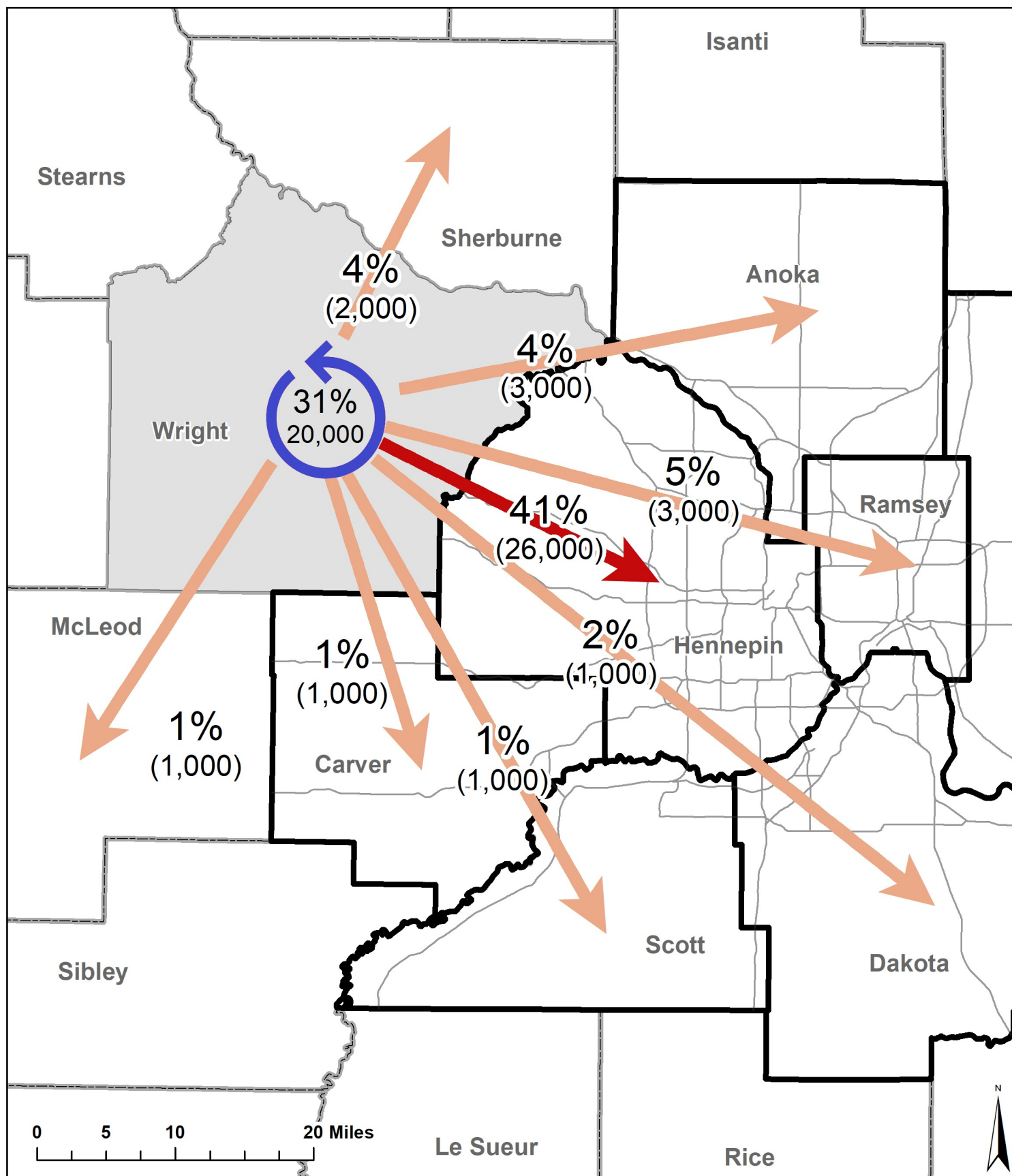
Total of 123,000 workers living in Washington County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 21: Wright County Employment Inflow



Total of 37,000 workers employed in Wright County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Figure 22: Wright County Employment Outflow



7/26/2018

Total of 63,000 workers living in Wright County.
Data is 2015 LEHD data from the U.S. Census Bureau.

Table 1: Home and Work Locations Matrix

Live in this county:

Work in this county:							
	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington
Anoka	51,000	less than 500	4,000	71,000	31,000	less than 500	4,000
Carver	1,000	13,000	2,000	24,000	2,000	2,000	less than 500
Dakota	3,000	2,000	75,000	71,000	30,000	6,000	6,000
Hennepin	21,000	9,000	25,000	424,000	60,000	6,000	5,000
Ramsey	10,000	1,000	17,000	84,000	102,000	1,000	12,000
Scott	1,000	4,000	11,000	29,000	4,000	16,000	less than 500
Washington	5,000	less than 500	11,000	30,000	39,000	1,000	28,000

Tables 2:**Live in Anoka and work in:**

Hennepin County	71,000	40%
Anoka County	51,000	29%
Ramsey County	31,000	18%
Washington County	4,000	2%
Dakota County	4,000	2%
Sherburne County	2,000	1%
Chisago County	1,000	1%
Wright County	1,000	1%
Isanti County	1,000	1%
St. Louis County	1,000	1%
All Other Locations	8,000	4%

Total # of workers who live in Anoka: 175,000

Work in Anoka and live in:

Anoka County	51,000	46%
Hennepin County	21,000	19%
Ramsey County	10,000	9%
Sherburne County	5,000	4%
Washington County	5,000	4%
Isanti County	3,000	3%
Wright County	3,000	2%
Dakota County	3,000	2%
Chisago County	2,000	2%
Scott County	1,000	1%
All Other Locations	9,000	8%

Total # of people who work in Anoka: 113,000

Live in Carver and work in:

Hennepin County	24,000	49%
Carver County	13,000	28%
Scott County	2,000	5%
Dakota County	2,000	4%
Ramsey County	2,000	4%
Wright County	1,000	1%
Anoka County	1,000	1%
McLeod County	1,000	1%
Washington County	0	1%
St. Louis County	0	1%
All Other Locations	3,000	5%

Total # of workers who live in Carver: 49,000

Work in Carver and live in:

Carver County	13,000	38%
Hennepin County	9,000	25%
Scott County	4,000	11%
McLeod County	2,000	5%
Dakota County	2,000	4%
Wright County	1,000	3%
Sibley County	1,000	2%
Ramsey County	1,000	2%
Anoka County	1,000	1%
Le Sueur County	0	1%
All Other Locations	3,000	7%

Total # of people who work in Carver: 37,000

Live in Dakota and work in:

Dakota County	75,000	36%
Hennepin County	71,000	34%
Ramsey County	30,000	14%
Scott County	6,000	3%
Washington County	6,000	3%
Anoka County	3,000	1%
Rice County	2,000	1%
Goodhue County	2,000	1%
Carver County	2,000	1%
St. Louis County	1,000	1%
All Other Locations	10,000	5%

Total # of workers who live in Dakota: 208,000

Work in Dakota and live in:

Dakota County	75,000	44%
Hennepin County	25,000	15%
Ramsey County	17,000	10%
Scott County	11,000	7%
Washington County	11,000	6%
Anoka County	4,000	2%
Rice County	4,000	2%
Goodhue County	2,000	1%
Carver County	2,000	1%
St. Croix County, WI	2,000	1%
All Other Locations	16,000	10%

Total # of people who work in Dakota: 169,000

7-County Metro and Collar County Raw Data - 2

Live in Hennepin and work in:

Hennepin County	424,000	74%
Ramsey County	60,000	10%
Dakota County	25,000	4%
Anoka County	21,000	4%
Carver County	9,000	2%
Scott County	6,000	1%
Washington County	5,000	1%
Wright County	4,000	1%
Stearns County	2,000	0%
St. Louis County	2,000	0%
All Other Locations	19,000	3%

Total # of workers who live in Hennepin: 577,000

Work in Hennepin and live in:

Hennepin County	424,000	51%
Ramsey County	84,000	10%
Dakota County	71,000	9%
Anoka County	71,000	8%
Washington County	30,000	4%
Scott County	29,000	3%
Wright County	26,000	3%
Carver County	24,000	3%
Sherburne County	14,000	2%
Chisago County	5,000	1%
All Other Locations	62,000	7%

Total # of people who work in Hennepin: 840,000

Live in Ramsey and work in:

Ramsey County	102,000	43%
Hennepin County	84,000	35%
Dakota County	17,000	7%
Washington County	12,000	5%
Anoka County	10,000	4%
Scott County	1,000	0%
St. Louis County	1,000	0%
Stearns County	1,000	0%
Carver County	1,000	0%
St. Croix County, WI	1,000	0%
All Other Locations	9,000	4%

Total # of workers who live in Ramsey: 239,000

Work in Ramsey and live in:

Ramsey County	102,000	33%
Hennepin County	60,000	20%
Washington County	39,000	13%
Anoka County	31,000	10%
Dakota County	30,000	10%
St. Croix County, WI	6,000	2%
Chisago County	5,000	2%
Scott County	4,000	1%
Wright County	3,000	1%
Sherburne County	2,000	1%
All Other Locations	25,000	8%

Total # of people who work in Ramsey: 307,000

Live in Scott and work in:

Hennepin County	29,000	41%
Scott County	16,000	23%
Dakota County	11,000	16%
Carver County	4,000	5%
Ramsey County	4,000	5%
Anoka County	1,000	1%
Le Sueur County	1,000	1%
Washington County	< 500	1%
Rice County	< 500	1%
St. Louis County	< 500	1%
All Other Locations	4,000	5%

Total # of workers who live in Scott: 70,000

Work in Scott and live in:

Scott County	16,000	41%
Dakota County	6,000	15%
Hennepin County	6,000	15%
Carver County	2,000	6%
Le Sueur County	2,000	4%
Ramsey County	1,000	3%
Rice County	1,000	2%
Anoka County	1,000	2%
Washington County	1,000	1%
Wright County	1,000	1%
All Other Locations	4,000	9%

Total # of people who work in Scott: 41,000

Live in Washington and work in:

Ramsey County	39,000	32%
Hennepin County	30,000	24%
Washington County	28,000	23%
Dakota County	11,000	9%
Anoka County	5,000	4%
St. Croix County, WI	2,000	1%
Chisago County	1,000	1%
St. Louis County	1,000	1%
Scott County	1,000	1%
Goodhue County	1,000	0%
All Other Locations	6,000	5%

Total # of workers who live in Washington: 125,000

Work in Washington and live in:

Washington County	28,000	40%
Ramsey County	12,000	17%
Dakota County	6,000	8%
St. Croix County, WI	5,000	7%
Hennepin County	5,000	7%
Anoka County	4,000	6%
Chisago County	3,000	4%
Polk County, WI	1,000	2%
Pierce County, WI	1,000	1%
Wright County	< 500	1%
All Other Locations	6,000	8%

Total # of people who work in Washington: 71,000

7-County Metro and Collar County Raw Data - 3

Live in Chisago and work in:

Chisago County	6,000	48%
Anoka County	1,000	10%
Washington County	1,000	8%
Isanti County	1,000	8%
Pine County	1,000	6%
Polk County, WI	1,000	4%
Ramsey County	< 500	3%
Hennepin County	< 500	2%
Kanabec County	< 500	2%
Burnett County, WI	< 500	1%
All Other Locations	1,000	7%

Total # of workers who live in Chisago: 12,000

Work in Chisago and live in:

Chisago County	6,000	24%
Hennepin County	5,000	19%
Ramsey County	5,000	19%
Washington County	3,000	10%
Anoka County	2,000	9%
Isanti County	1,000	4%
Dakota County	1,000	4%
Polk County, WI	1,000	2%
Pine County	< 500	1%
Stearns County	< 500	1%
All Other Locations	2,000	8%

Total # of people who work in Chisago: 26,000

Live in Polk (WI) and work in:

Polk County, WI	9,000	42%
St. Croix County, WI	2,000	9%
Hennepin County	1,000	6%
Washington County	1,000	6%
Ramsey County	1,000	5%
Barron County, WI	1,000	5%
Chisago County	1,000	3%
Burnett County, WI	1,000	3%
Anoka County	< 500	2%
Eau Claire County, WI	< 500	2%
All Other Locations	4,000	17%

Total # of workers who live in Polk: 21,000

Work in Polk (WI) and live in:

Polk County, WI	9,000	59%
St. Croix County, WI	1,000	9%
Barron County, WI	1,000	5%
Burnett County, WI	1,000	4%
Chisago County	1,000	4%
Washington County	< 500	2%
Dunn County, WI	< 500	2%
Milwaukee County, WI	< 500	1%
Eau Claire County, WI	< 500	1%
Ramsey County	< 500	1%
All Other Locations	2,000	12%

Total # of people who work in Polk: 15,000

Live in St. Croix (WI) and work in:

St. Croix County, WI	15,000	35%
Ramsey County	6,000	14%
Washington County	5,000	11%
Hennepin County	5,000	11%
Dakota County	2,000	4%
Pierce County, WI	1,000	3%
Polk County, WI	1,000	3%
Eau Claire County, WI	1,000	2%
Dunn County, WI	1,000	2%
Anoka County	1,000	2%
All Other Locations	6,000	13%

Total # of workers who live in St. Croix: 44,000

Work in St. Croix (WI) and live in:

St. Croix County, WI	15,000	53%
Pierce County, WI	3,000	10%
Polk County, WI	2,000	6%
Washington County	2,000	6%
Dunn County, WI	1,000	4%
Ramsey County	1,000	3%
Barron County, WI	< 500	2%
Eau Claire County, WI	< 500	1%
Dakota County	< 500	1%
Hennepin County	< 500	1%
All Other Locations	4,000	13%

Total # of people who work in St. Croix: 28,000

Live in Pierce (WI) and work in:

Pierce County, WI	5,000	30%
St. Croix County, WI	3,000	19%
Goodhue County	2,000	11%
Dakota County	1,000	7%
Washington County	1,000	4%
Eau Claire County, WI	< 500	3%
Dunn County, WI	< 500	3%
Dane County, WI	< 500	2%
Ramsey County	< 500	2%
La Crosse County, WI	< 500	2%
All Other Locations	3,000	19%

Total # of workers who live in Pierce: 15,000

Work in Pierce (WI) and live in:

Pierce County, WI	5,000	53%
St. Croix County, WI	1,000	17%
Dunn County, WI	< 500	4%
Washington County	< 500	3%
Dakota County	< 500	3%
Goodhue County	< 500	3%
Pepin County, WI	< 500	3%
Ramsey County	< 500	1%
Polk County, WI	< 500	1%
Hennepin County	< 500	1%
All Other Locations	1,000	10%

Total # of people who work in Pierce: 7,000

7-County Metro and Collar County Raw Data - 4

Live in Goodhue and work in:

Goodhue County	10,000	45%
Olmsted County	3,000	12%
Dakota County	2,000	10%
Hennepin County	2,000	9%
Ramsey County	1,000	5%
Rice County	1,000	4%
Wabasha County	1,000	3%
Washington County	< 500	1%
Pierce County, WI	< 500	1%
Steele County	< 500	1%
All Other Locations	2,000	9%

Total # of workers who live in Goodhue: 22,000

Work in Goodhue and live in:

Goodhue County	10,000	52%
Pierce County, WI	2,000	8%
Dakota County	2,000	8%
Wabasha County	1,000	5%
Olmsted County	1,000	5%
Washington County	1,000	3%
Hennepin County	< 500	2%
Ramsey County	< 500	2%
Rice County	< 500	2%
Dodge County	< 500	1%
All Other Locations	2,000	12%

Total # of people who work in Goodhue: 19,000

Live in Rice and work in:

Rice County	14,000	47%
Hennepin County	4,000	14%
Dakota County	4,000	12%
Steele County	2,000	5%
Ramsey County	1,000	4%
Scott County	1,000	3%
Olmsted County	< 500	2%
Le Sueur County	< 500	1%
Blue Earth County	< 500	1%
Goodhue County	< 500	1%
All Other Locations	3,000	9%

Total # of workers who live in Rice: 29,000

Work in Rice and live in:

Rice County	14,000	59%
Dakota County	2,000	9%
Steele County	1,000	6%
Goodhue County	1,000	4%
Hennepin County	1,000	3%
Le Sueur County	1,000	3%
Scott County	< 500	2%
Ramsey County	< 500	2%
Waseca County	< 500	1%
Anoka County	< 500	1%
All Other Locations	2,000	11%

Total # of people who work in Rice: 22,000

Live in Le Sueur and work in:

Le Sueur County	4,000	27%
Scott County	2,000	12%
Hennepin County	2,000	11%
Blue Earth County	1,000	10%
Nicollet County	1,000	10%
Dakota County	1,000	7%
Rice County	1,000	5%
Ramsey County	< 500	3%
Waseca County	< 500	3%
Carver County	< 500	2%
All Other Locations	1,000	10%

Total # of workers who live in Le Seur: 13,000

Work in Le Sueur and live in:

Le Sueur County	4,000	49%
Scott County	1,000	10%
Nicollet County	1,000	8%
Blue Earth County	1,000	7%
Sibley County	< 500	5%
Rice County	< 500	5%
Hennepin County	< 500	3%
Waseca County	< 500	2%
Carver County	< 500	2%
Dakota County	< 500	2%
All Other Locations	1,000	9%

Total # of people who work in Le Sueur: 8,000

Live in Sibley and work in:

Sibley County	2,000	31%
Carver County	1,000	11%
Hennepin County	1,000	10%
McLeod County	1,000	9%
Scott County	1,000	7%
Le Sueur County	< 500	6%
Brown County	< 500	5%
Nicollet County	< 500	4%
Ramsey County	< 500	3%
Renville County	< 500	2%
All Other Locations	1,000	13%

Total # of workers who live in Sibley: 7,000

Work in Sibley and live in:

Sibley County	2,000	54%
McLeod County	< 500	8%
Nicollet County	< 500	5%
Carver County	< 500	4%
Hennepin County	< 500	3%
Brown County	< 500	3%
Scott County	< 500	3%
Le Sueur County	< 500	3%
Renville County	< 500	2%
Blue Earth County	< 500	2%
All Other Locations	1,000	14%

Total # of people who work in Sibley: 3,000

7-County Metro and Collar County Raw Data - 5

Live in McLeod and work in:

McLeod County	9,000	52%
Hennepin County	2,000	11%
Carver County	2,000	10%
Wright County	1,000	4%
Ramsey County	< 500	3%
Meeker County	< 500	2%
Sibley County	< 500	2%
Renville County	< 500	2%
Kandiyohi County	< 500	2%
Stearns County	< 500	2%
All Other Locations	2,000	11%

Total # of workers who live in McLeod: 16,000

Work in McLeod and live in:

McLeod County	9,000	56%
Meeker County	1,000	7%
Sibley County	1,000	4%
Carver County	1,000	4%
Wright County	1,000	3%
Renville County	< 500	3%
Hennepin County	< 500	3%
Scott County	< 500	2%
Stearns County	< 500	1%
Brown County	< 500	1%
All Other Locations	2,000	16%

Total # of people who work in McLeod: 15,000

Live in Wright and work in:

Hennepin County	26,000	41%
Wright County	20,000	31%
Ramsey County	3,000	5%
Anoka County	3,000	4%
Stearns County	3,000	4%
Sherburne County	2,000	4%
Dakota County	1,000	2%
Carver County	1,000	2%
Scott County	1,000	1%
McLeod County	1,000	1%
All Other Locations	4,000	7%

Total # of workers who live in Wright: 65,000

Work in Wright and live in:

Wright County	20,000	53%
Hennepin County	4,000	10%
Sherburne County	4,000	10%
Stearns County	2,000	5%
Anoka County	1,000	3%
Meeker County	1,000	3%
McLeod County	1,000	2%
Carver County	1,000	2%
Dakota County	< 500	1%
Ramsey County	< 500	1%
All Other Locations	4,000	10%

Total # of people who work in Wright: 38,000

Live in Sherburne and work in:

Hennepin County	14,000	30%
Sherburne County	10,000	22%
Anoka County	5,000	11%
Stearns County	4,000	10%
Wright County	4,000	8%
Ramsey County	2,000	5%
Benton County	1,000	3%
Dakota County	1,000	2%
Mille Lacs County	1,000	2%
Washington County	< 500	1%
All Other Locations	3,000	7%

Total # of workers who live in Sherburne: 45,000

Work in Sherburne and live in:

Sherburne County	10,000	41%
Anoka County	2,000	10%
Wright County	2,000	10%
Mille Lacs County	2,000	7%
Hennepin County	2,000	7%
Stearns County	2,000	7%
Benton County	1,000	4%
Isanti County	1,000	3%
Ramsey County	< 500	1%
Dakota County	< 500	1%
All Other Locations	2,000	10%

Total # of people who work in Sherburne: 24,000

Live in Isanti and work in:

Isanti County	5,000	27%
Hennepin County	4,000	20%
Anoka County	3,000	18%
Ramsey County	2,000	9%
Chisago County	1,000	5%
Sherburne County	1,000	3%
Dakota County	< 500	3%
Washington County	< 500	2%
Mille Lacs County	< 500	2%
Stearns County	< 500	1%
All Other Locations	2,000	10%

Total # of workers who live in Isanti: 18,000

Work in Isanti and live in:

Isanti County	5,000	48%
Chisago County	1,000	10%
Anoka County	1,000	9%
Kanabec County	1,000	7%
Pine County	< 500	5%
Mille Lacs County	< 500	3%
Sherburne County	< 500	3%
Hennepin County	< 500	2%
Ramsey County	< 500	2%
Wright County	< 500	1%
All Other Locations	1,000	11%

Total # of people who work in Isanti: 9,000

Tables 3:**Live in Minneapolis and work in:**

Minneapolis city	80,000	44%
St. Paul city	17,000	9%
Bloomington city	10,000	6%
Edina city	5,000	3%
St. Louis Park city	4,000	2%
Eden Prairie city	4,000	2%
Golden Valley city	4,000	2%
Minnetonka city	4,000	2%
Plymouth city	4,000	2%
Eagan city	3,000	2%
All Other Locations	47,000	26%

Total # of workers who live in Minneapolis: 182,000

Work in Minneapolis and live in:

Minneapolis city	80,000	26%
St. Paul city	25,000	8%
Brooklyn Park city	8,000	3%
Plymouth city	8,000	3%
St. Louis Park city	7,000	2%
Bloomington city	7,000	2%
Maple Grove city	6,000	2%
Blaine city	6,000	2%
Edina city	6,000	2%
Eagan city	6,000	2%
All Other Locations	153,000	49%

Total # of people who work in Minneapolis: 312,000

Live in St. Paul and work in:

St. Paul city	40,000	31%
Minneapolis city	25,000	20%
Bloomington city	5,000	4%
Eagan city	4,000	3%
Roseville city	4,000	3%
Maplewood city	3,000	2%
Woodbury city	2,000	2%
Edina city	2,000	2%
Eden Prairie city	1,000	1%
Golden Valley city	1,000	1%
All Other Locations	40,000	31%

Total # of workers who live in St. Paul: 127,000

Work in St. Paul and live in:

St. Paul city	40,000	23%
Minneapolis city	17,000	10%
Woodbury city	8,000	5%
Maplewood city	5,000	3%
Eagan city	4,000	2%
Cottage Grove city	4,000	2%
Oakdale city	3,000	2%
Roseville city	3,000	2%
Inver Grove Heights city	3,000	2%
Bloomington city	2,000	1%
All Other Locations	87,000	49%

Total # of people who work in St. Paul: 176,000