Agenda Item No. 6.1

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Chicago Metropolitan Agency for Planning

MEMORANDUM

To: **CMAP Transportation Committee**

From: CMAP Staff

Date: March 27, 2020

Re: Proposed Amendment to ON TO 2050 – I-55 at Airport/Lockport and at IL 126

The Illinois Department of Transportation (IDOT) has requested to amend the ON TO 2050 regional comprehensive plan to add the I-55 at Airport/Lockport and at IL 126 project ("the project") to the list of fiscally constrained regionally significant projects (RSPs). RSPs are capital investments in the region's expressways, transit system, and arterials with impacts and benefits that are large enough to warrant additional discussion through the regional planning process. This memo represents the initial staff analysis, and will be provided for public comment from April 10 to May 11, 2020. The amendment process itself and the thresholds defining RSPs are described in a November 9, 2018, memo to the CMAP Transportation Committee.[1]

Amendments to ON TO 2050 address RSPs with significant changes in funding or status since the plan's development, thus warranting a new evaluation. Plan amendments undergo the same analysis and public process as projects identified in the plan development process. Proposed plan amendments should substantially implement ON TO 2050 by addressing current needs, improving travel over the long term, and having positive impacts on plan priorities, such as investing in existing communities, enhancing environmental quality, and improving quality of life. An amendment must also meet fiscal constraint requirements, described further below.

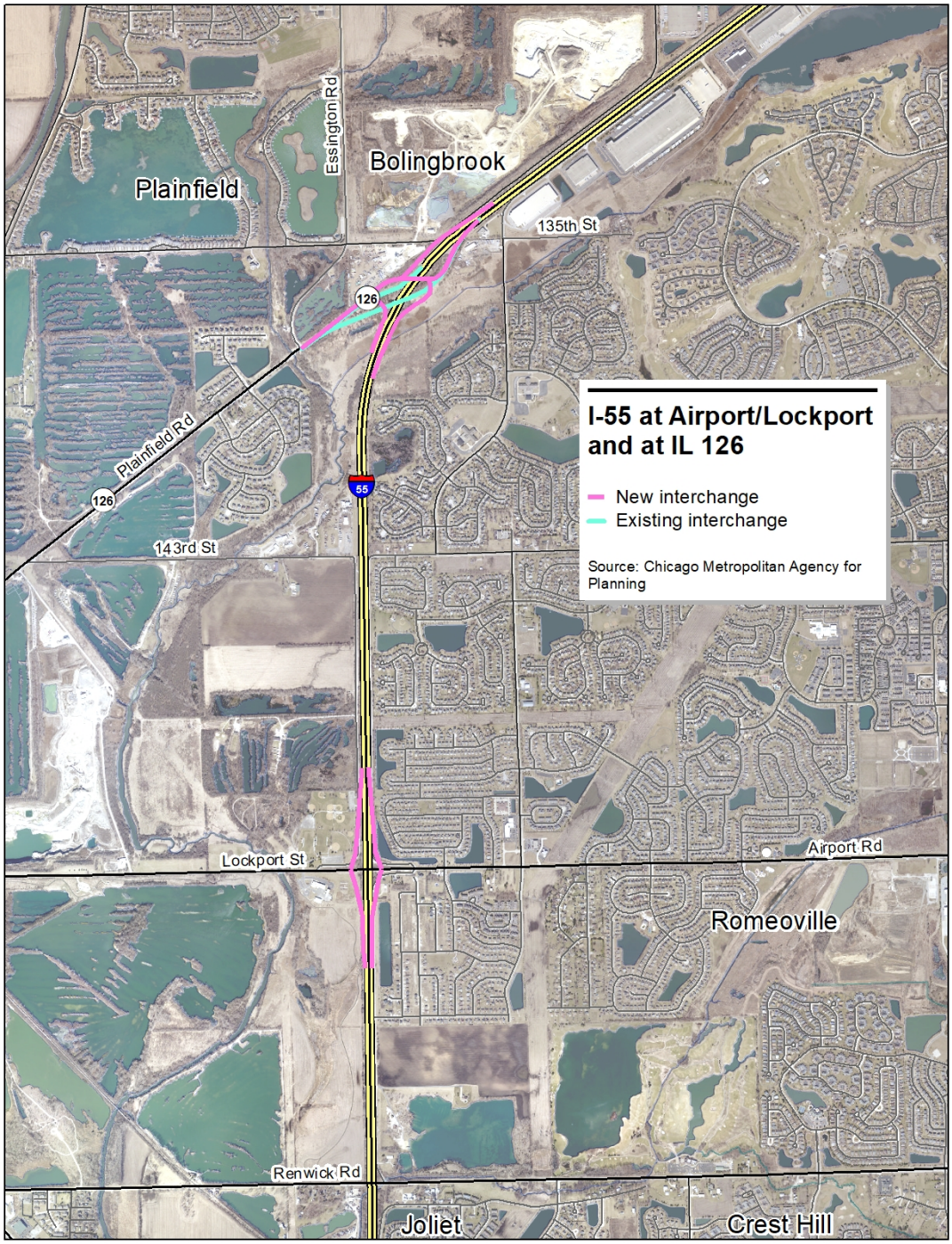
PROJECT DESCRIPTION

The purpose of this project is to provide improved access to I-55 by reconstructing and reconfiguring the interchange at IL 126 (partial interchange to full), constructing a new interchange at Airport Rd/Lockport St, and making ancillary improvements. The IL 126 and Airport/Lockport interchanges are separated by approximately two miles. Because this project is on the National Highway System and costs more than $100 million, it meets the threshold to

[1] Chicago Metropolitan Agency for Planning, "ON TO 2050 Regionally Significant Projects: Proposed amendment process," November 2018, https://www.cmap.illinois.gov/documents/10180/944935/CmteMemo_RSPAmendmentProcess.pdf

be considered a regionally significant project.[2] Figure 1 shows the location and extent of the project.

Figure 1. Location map for I-55 at Airport/Lockport and at IL 126



[2] http://www.airportand126study.org/index.html

Project history

Planning for access improvements to I-55 in the project area began in 1999. The current planning effort began in 2010, when the Villages of Romeoville and Bolingbrook – along with IDOT – began a study of potential access improvements in the I-55 corridor between US 30 and Weber Road.[3] The Village of Plainfield later joined the project study team.[4] A total of three public meetings and six Community Advisory Group meetings have been held between February 2011 and the present. The project also received an earmark for phase 1 engineering in SAFETEA-LU.

The project is supported in several municipal comprehensive plans. Romeoville's 2001 Comprehensive Plan[5], as well as its 2017 update[6], call for an interchange at I-55 and Airport Road. Plainfield's Comprehensive Plan calls for a full interchange at I-55 and IL 126. The Plainfield plan also notes that an interchange at Airport/Lockport and I-55 "could be beneficial but would require extension of 143rd St. to move traffic to and from the west".[7] The 143rd St. extension project has been funded through several different sources, including the STP Shared Fund. Of note, the Village of Plainfield has also conducted a feasibility study for a Lockport Street Bypass that would provide a new connection between Lockport St. and 143rd St.[8]

The 2017 Will County Long Range Transportation Plan[9] includes both projects in a list of partner agency projects. I-55 at IL 126 is listed as an "investment priority", and I-55 at Airport/Lockport is included in lower priority list of projects. The 2017 Will County Community Friendly Freight Mobility plan[10] includes both the Airport/Lockport and IL 126 interchanges as Tier 2 priorities.

Project status

The project received concurrence on the preferred alternative in September 2016. The study team is preparing an Environmental Assessment. A public hearing is anticipated later in 2020, with the study expected to be complete in spring 2021.

Project costs and revenues

[3] http://www.airportand126study.org/presentations/Mtg1-Presentation.pdf
[4] http://www.airportand126study.org/presentations/Meeting2/Mtg2-PresentationSlides-Notes.pdf
[5] https://www.romeoville.org/DocumentCenter/View/5049/Comprehensive-Plan-PDF-existing
[6] https://www.romeoville.org/DocumentCenter/View/5052/romeoville-comprehensive-plan
[7] https://public.plainfield-il.org/weblink/0/edoc/200319/Comprehensive%20Plan.pdf
[8] https://www.plainfield-il.org/pages/documents/LockportStreetBypass.pdf
[9] https://www.willcountyillinois.com/County-Offices/Economic-Development/Division-of-Transportation/Transportation-Plans-Programs
[10] https://www.willcountyfreight.org/

Capital costs

The Project is anticipated to cost $156.2 million in year of expenditure dollars. IDOT has indicated that approximately $20.2 million of the total $156.2 million cost is attributable to new capacity, including new movements at the interchanges, added lanes, auxiliary lanes, and additional bridge deck width. In addition, investments for system enhancements like additional turn lanes and pedestrian and bicycle facilities will total $6.5 million.

Revenues

The projects are funded in IDOT's FY 2020-2025 Proposed Multi-Year Highway Improvement Program. The projects are anticipated to utilize federal National Highway Performance Program (NHPP) funding with a 10 percent state match.

ON TO 2050 fiscal constraint

ON TO 2050 includes a financial plan for transportation investments, which is a requirement under federal regulation. This compares the estimated revenue from existing and proposed funding sources with the estimated costs of constructing, maintaining, and operating the total transportation system. This process is known as "fiscal constraint". Constraint for plans is important because it reminds regional decision makers to set priorities and make trade-offs rather than including an extensive list of projects and activities that may not be affordable relative to projected revenues. In order for ON TO 2050 to be amended, costs for new capacity associated with the project would need to be included within the plan's fiscal constraint. Projects often contain a blend of reconstructing existing infrastructure and adding new capacity to serve new markets or improve service. The plan focuses on new capacity elements of RSPs because they are discretionary investments and create ongoing maintenance needs.

The State plans to use federal and state dollars for all project costs, including the $20.2 million allocated to constructing new interchange movements and other new capacity. While some of this funding is newly available through Rebuild Illinois, the ON TO 2050 financial plan already assumes increased transportation revenues, so Rebuild Illinois does not represent "new money" over and above what is included in the financial plan. However, the cost of new capacity in this project is small in the context of the financial plan, which constrains $518 billion of investments through 2050. Within the financial plan, $4.9 billion is allocated toward the new capacity elements of RSPs. The System Enhancement funding category is allocated $17.5 billion and specifically allows for various smaller project types including smaller lane additions.[11] Given the focus of this project on the existing system and adding missing movements to interchanges, it may be appropriate to reallocate the new capacity cost of the project to the RSP category from the System Enhancements category.

[11] Chicago Metropolitan Agency for Planning, "ON TO 2050 Financial Plan for Transportation," 14. https://www.cmap.illinois.gov/documents/10180/911391/FINAL+Financial+Plan+for+Transportation+Appendix.pdf/80791482-09e6-e7e3-fe51-fd32e653f35b

PROJECT EVALUATION

The following section contains the CMAP staff evaluation of the project. It has been evaluated, to the extent possible, using the same metrics that were evaluated for all RSPs in the ON TO 2050 development process. This section also discusses the project's fit with the principles and goals of the plan.

ON TO 2050 principles

Three principles guide the goals and recommendations of the ON TO 2050 plan: Inclusive Growth, Resilience, and Prioritized Investment.

The Inclusive Growth principle emphasizes that we must grow our economy through growing opportunity for all residents, particularly minority and low income residents. Quantitative evaluation suggests use of these roadways by residents of economically disconnected areas is likely to be low. On the other hand, no negative impacts to economically disconnected areas are anticipated.

The Resilience principle emphasizes the need to prepare for change, both known and unknown. The project addresses this principle to a limited degree. While it aims to improve interstate access, the project does contain bicycle and pedestrian improvements that may adapt to growing demand for walking and biking. The project is also being designed to anticipate the eventual extension of managed lanes along I-55.

The Prioritized Investment principle emphasizes the need to carefully target limited resources to maximize benefits. The project addresses existing needs in the I-55 corridor, particularly aiding freight movement, congestion, and potentially improving safety performance. The project adds missing interchange movements in an already developed area.

ON TO 2050 Goals and Recommendations

Building on its principles, ON TO 2050 provides a comprehensive set of recommendations to guide decisions relating to community, prosperity, the environment, governance, and mobility. The following table shows whether the project impacts relevant goals and recommendations of ON TO 2050. ON TO 2050 is divided into five chapters that are, in turn, comprised of 12 goal areas. If a goal area is potentially impacted, the text that follows the table provides detail.

Appendix I provides detailed findings of the quantitative analysis of the project.

ON TO 2050 Chapter	Goal Area	I-55 at Airport/Lockport and at IL 126 Proposal Impact
Community	Strategic and sustainable development	Potential impact

ON TO 2050 Chapter	Goal Area	I-55 at Airport/Lockport and at IL 126 Proposal Impact
	Reinvestment for vibrant communities	Negligible Impact
	Development that supports local and regional economic strength	Negligible impact
Prosperity	Robust economic growth that reduces inequality	Impact
	Responsive, strategic workforce and economic development	Negligible impact
Environment	A region prepared for climate change	Potential impact
	Integrated approach to water resources	Potential Impact
	Development practices that protect natural resources	Potential Impact
Governance	Collaboration at all levels of government	Negligible impact
	Capacity to provide a strong quality of life	Negligible impact
	Data driven and transparent investment decisions	Negligible impact
Mobility	A modern, multimodal system that adapts to changing travel demand	Impact
	A system that works better for everyone	Impact
	Making transformative investments	Impact

Community

The Community chapter touches on many issues relevant to creating vibrant places and communities. This includes reinvestment in existing places and developing communities that offer housing choice, easy access to jobs and amenities, and a strong quality of life.

Strategic and sustainable development

ON TO 2050 provides recommendations to target investment in existing communities as well as promote careful, fiscally and environmentally sustainable growth. The I-55 at Airport/Lockport and at IL 126 project is meant to convert existing partial interchanges into full interchanges, investing in developed areas. The project improves access to downtown Plainfield. The remaining developable land near the project is within existing communities, but is generally within an area where conservation design or other sensitive development techniques are particularly appropriate.

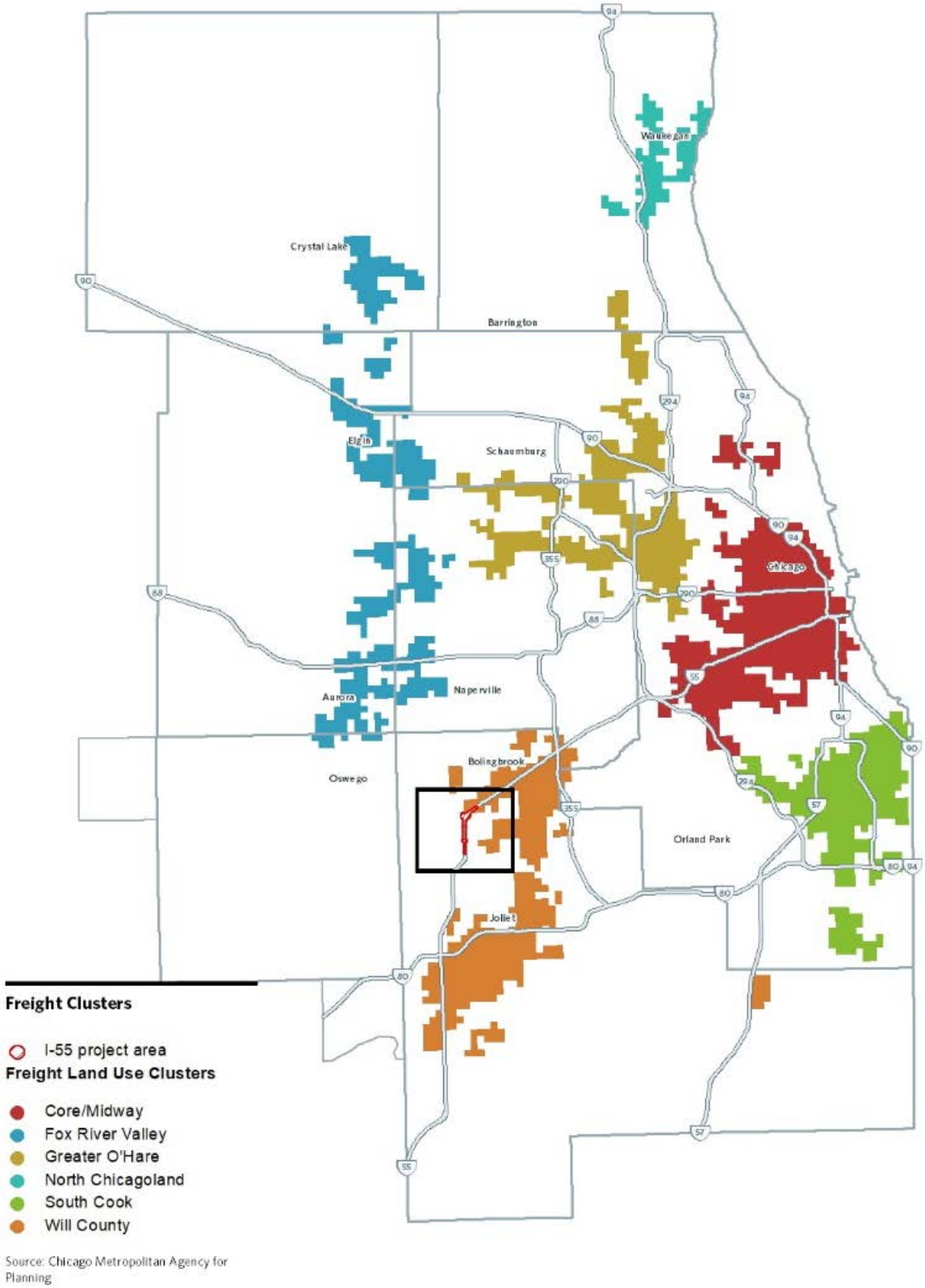
Prosperity

The Prosperity chapter offers recommendations on economic development and workforce to help the region thrive. Its recommendations highlight the need to coordinate across governments to provide the infrastructure, human capital, and support needed to retain businesses and attract growth.

Robust economic growth that reduces inequality

This goal of ON TO 2050 recognizes that the region has extensive assets, including its people, industries, educational and research institutions, infrastructure, and location. It also encourages support for the region's traded clusters -- those that sell products and services in markets outside the region. The project serves the Will County freight cluster as defined by CMAP (Figure 2), and it offers potential to improve or expand existing operations of some of the region's traded clusters, particularly in the area of transportation, distribution, and logistics. In particular the project will significantly improve interstate access for 1.6 million square feet of industrial space immediately to the west in Plainfield and 10 million square feet of industrial space just to the east in Romeoville.

Figure 2. Freight clusters in ON TO 2050



Environment

ON TO 2050 has several goals and recommendations related to improving natural resources and green infrastructure throughout the region.

Development practices that protect natural resources

This ON TO 2050 goal recommends preserving high-priority natural areas and enhancing impaired areas during development and redevelopment processes. Much of the project area is located within or adjacent to areas CMAP has identified as regional conservation priorities, including wetlands and riparian corridors. During the construction of the projects, these areas may be vulnerable to contamination from sediment, oils, and debris. IDOT anticipates using best management practices to control runoff during construction and post-construction. The project may provide an opportunity for these natural areas to be expanded and enhanced. The design for the Airport/Lockport interchange was chosen in part to avoid impacts to the nearby Lake Renwick East Land and Water Reserve. However, the IL 126 interchange will have moderate wetland and floodplain impacts, per the IDOT project evaluation.[12]

Integrated approach to water resources

This ON TO 2050 goal includes recommendations for stormwater management, water quality, and water supply. Because much of the project area is in close proximity to high-quality aquatic ecosystems, it will be important for construction, maintenance, and operations to be managed in a way that minimizes the impact of stormwater runoff entering the surrounding areas.

A region prepared for climate change

This ON TO 2050 goal includes recommendations for climate change mitigation and adaptation. Some portions of the project area are near the existing 100-year floodplain, which is expected to see more frequent and more severe flooding during the coming decades, though future floodplain maps are not available.

The effects of the proposed project on greenhouse gas emissions are not clear. The reduction in congestion and reduction in out-of-direction travel by adding missing interchange movements will reduce emissions, but this could be offset somewhat by an increase in vehicle miles traveled in the longer term.

Mobility

The Mobility chapter focuses on achieving a safe and reliable transportation system for the future. It calls for careful investment to meet today's needs, while preparing the transportation system for changes in demand, technology, and the economy.

A modern, multimodal system that adapts to changing travel demand

[12] http://www.airportand126study.org/pdf/CAG-Mtg6/CAG6EvaluationMatrix.pdf

The project will improve access to I-55 and allow more fluid vehicle movement in the northern Will County subregion. New and improved interchanges will reduce out of direction travel. These aspects support ON TO 2050's emphasis on seamless, efficient travel in the region. Overall, the arterials immediately around the interchanges have moderately high congestion and travel time unreliability relative to other locations where RSPs are planned.

The project does not have a significant effect on state of good repair since the existing structures of Airport Rd/Lockport St and IL 126 over I-55 were reconstructed over the past 20 years and are in satisfactory condition. However, neither structure is designed to current standards for underclearance. Both structures have 4-span designs with piers in the center as well as at the edge of shoulder, which prevents any future widening of I-55 with the existing structures in place. As part of the proposed improvement, both structures would be replaced with 2-span structures which would accommodate the planned future facility widening/managed lanes.

A system that works better for everyone

This ON TO 2050 goal emphasizes safety, resilience, and equitable access to the transportation system. The project's Purpose and Need statement is related to improving access. The quantitative analysis shows high safety needs on arterial links in the area compared to other RSPs, which may be partly addressed by improved design near the interchanges. The current interchange at IL 126 is classified as a 5 percent safety location by IDOT, meaning that it is among the 5 percent most unsafe locations in the state. Redesigning the interchange would help address this.

This ON TO 2050 goal also emphasizes investing in safe bike and pedestrian pathways to desired destinations. The project will provide sidewalks/paths in areas where none exist today: along IL 126 and Essington Rd, as well as at the Airport/Lockport interchange across I-55 -- providing for the first time safe bicycle and pedestrian access to Four Seasons Park just west of I-55 for residents who live east of the interchange. Furthermore, the project will provide improved access to the popular downtown Plainfield Pace park-and-ride lot.

Making transformative investments

This section of ON TO 2050 contains many of the plan's revenue recommendations, as well as recommendations related to performance based programming and implementing value capture. The plan encourages IDOT and other implementers to use a transparent process for ranking and selecting projects.

This section also recommends further implementing value capture or otherwise including local contributions to reflect the local benefits of many state-led projects. According to IDOT's TIP amendment request, the project's interchanges do not have any local contribution.

NEXT STEPS

CMAP has analyzed the impacts of this project based on available information. The public comment period for amending the ON TO 2050 plan to include the I-55 at Airport/Lockport and at IL 126 project runs from April 10 to May 11, 2020.

Public comment can be submitted by:

- Emailing i55projects@cmap.illinois.gov
- Mailing a comment to:
  Chicago Metropolitan Agency for Planning
  Attn: Jane Grover
  233 South Wacker Drive, Suite 800
  Chicago, IL 60606

Additional information can be found at https://www.cmap.illinois.gov/updates/proposed-amendments.

Following the public comment period, CMAP staff will make a recommendation on whether the Plan should be amended to include the project. The CMAP Board and MPO Policy Committee will consider this recommendation in June 2020.

APPENDIX I: EVALUATION OF IMPACT ON CURRENT NEEDS AND PLANNING PRIORITIES

The following tables contain the results of the quantitative evaluation of the project. The evaluation replicates the "current needs" and "planning priorities" assessment used in the ON TO 2050 process, which are described in more detail in an appendix to ON TO 2050.[13] The current needs assessment scores the existing congestion, safety, etc. problems at the project location based on a 0 – 100 index of how that location compares against the entire arterial or expressway National Highway System (NHS), with 100 representing the most severe problems and highest possible need. In the tables below, comparisons are also given against other RSPs included in ON TO 2050 to aid interpretation. In some cases, the project may seem to have a relatively low score against the entire NHS, yet still address more significant needs than other constrained RSPs. Because the project is providing better access to the expressway from the adjacent arterial network, the congestion, safety, etc. problems on the affected arterials are also assessed. Arterial and expressway results are presented in separate tables.

The planning priorities assessment examines the degree to which a project at a given location could address the priorities in ON TO 2050, such as avoiding impacts to conservation areas or improving freight movement. Generally these scores are also provided as a 0 – 100 index, with 100 indicating that a project at that location is more desirable. For a few factors, providing the value itself is more appropriate than an index. A travel model analysis was not undertaken because the project makes primarily operational improvements which the regional travel model is less suited to evaluating.

Arterial

Overall, the arterial network interacting with the project displays comparatively high need among other arterial RSPs in terms of safety and mobility. The project displays moderate to low need on other factors.

Current Need	**Score** (compared to the entire NHS)	**Notes** (Comparison is made to other constrained RSPs where relevant)
Structurally deficient bridge (square feet of deck)	0	No structurally deficient bridges.
Pavement condition (condition rating and pavement roughness)	28	Moderately low score among the NHS overall, indicating lower proportion of pavement in deficient condition. Comparable to US 20/Lake Street.

[13] Chicago Metropolitan Agency for Planning, "ON TO 2050 Regionally Significant Projects Benefit Report," October 2018. https://www.cmap.illinois.gov/documents/10180/911391/FINAL+Regionally+Significant+Projects+Benefit+Report+Appendix.pdf/612e47c8-5038-c3f7-035e-22959ffb0c51

Current Need	**Score** (compared to the entire NHS)	**Notes** (Comparison is made to other constrained RSPs where relevant)
Safety (fatal crashes per VMT)	46	High score among arterial projects (comparable to IL 31), and compared to the NHS overall.
Mobility (intensity and duration of congestion)	66	Moderately high score among the NHS overall.
Reliability (planning time index)	60	Moderate score among arterials and the NHS overall.

Note: these scores are scaled 1-100, and indicate how a project performs relative to all expressways and arterials in the entire NHS. A score of 100 indicates the highest need, i.e. poorest current performance.

The following table depicts the results of the project on the ON TO 2050 planning priority assessment. The arterial portions of the project display moderate to moderately high impact on conservation areas, benefits to key industries, and freight improvement.

Planning Priority	**Score** (compared to the entire NHS)	**Notes** (Comparison is made to other constrained RSPs where relevant)
Conservation Area Impact (sq ft of CA within 500 ft, per mile of road)	54	Moderate score. Comparable to IL 83 and Laraway Road.
Economic impact due to industry clustering	9	Moderately low score, comparable to US 20/Lake Street.
Benefits to key industries	52	Moderate score.
Freight Improvement	31	Moderately high impact on freight, comparable to IL 83 and Randall Road.
Planning Priority	**Value**	**Notes**
Expected traffic growth (percent by 2050)	23%	Moderate increase. Comparable to US 20/Lake Street and IL 173.
Project use by residents of economically disconnected areas (percent of VMT)	4.4%	Moderately low usage by EDA residents compared to arterial RSPs.

Expressway

The expressway portions of the project display moderate to low need among other RSPs for the Need Factors below.

Current Need	**Score** (compared to the entire NHS)	**Notes** (Comparison is made to other constrained RSPs where relevant)
Structurally deficient bridge (square feet of deck)	0	No structurally deficient bridges.
Pavement condition (condition rating and pavement roughness)	32	Moderate score among the NHS overall.
Safety (fatal crashes per VMT)	2	Low score among expressways and the NHS overall.
Mobility (intensity and duration of congestion)	34	Low score among the NHS overall.
Reliability (planning time index)	26	Low score among expressways and the NHS overall.

Note: these scores are scaled 1-100, and indicate how a project performs relative to all expressways and arterials in the entire NHS. A score of 100 indicates the highest need, i.e. poorest current performance.

The expressway portions of the project display high impact freight improvement and moderate to low impact on other factors.

Planning Priority	**Score**	**Notes** (Comparison is made to other constrained RSPs where relevant)
Conservation Area Impact (sq ft of CA within 500 ft, per mile of road, indexed to RSP expressway set)	25	Moderately low impact compared to other expressway RSPs.
Economic impact due to industry clustering	23	Moderate impact compared to expressway RSPs.
Freight Improvement	93	High impact among expressway projects.
Planning Priority	**Value**	**Notes**

Expected traffic growth (percent by 2050)	8%	Moderately low increase.
Project use by residents of economically disconnected areas (percent of VMT)	2%	Low usage by EDA residents compared to expressway RSPs.
Benefits to areas with industrial vacancy (current vacant space)	1.1 M	Low score among expressway RSPs.