Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

MEMORANDUM

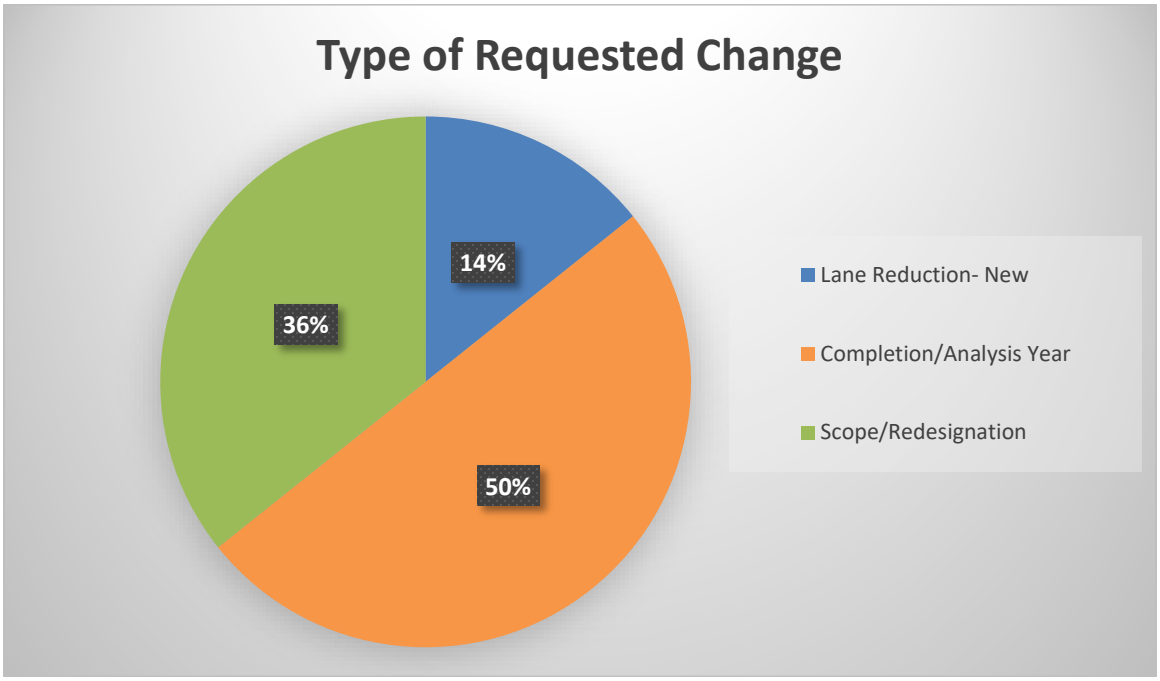
To: **CMAP Transportation Committee and MPO Policy Committee**

From: **CMAP Staff**

Date: **April 26, 2024**

Re: **ON TO 2050/2024-2028 TIP Conformity Analysis & TIP Amendment 24-08 release for public comment**

In accordance with the required plan update conformity analysis policy, CMAP staff asked programmers to submit changes, additions, or deletions to projects that are currently included or are being submitted for inclusion in the FFY 2024-28 TIP/ON TO 2050 plan that are Not Exempt from air quality emissions analysis and are required to being included in the regional emissions analysis. Fourteen projects submitted TIP changes, shown on conformity amendment 24-08. These changes will be included in CMAP's regional emissions analysis. Below is a summary by type of requested changes.



If the 2024-28 TIP conformity amendment is approved, two new Not Exempt projects and twelve previously conformed projects will be included in the fiscally constrained and conformed TIP.

The Transportation Improvement Program (TIP) is required under federal regulations to be both fiscally constraint and conformed. As a Metropolitan Planning Organization (MPO) CMAP is responsible for insuring that the TIP is fiscally constrained by determining that sufficient resources will be available to construct projects shown in the TIP. Careful selection of these projects must meet the federal standard of fiscal constraint, while also helping to achieve regional goals. These types of projects are included in the conformity analysis because funding for phases beyond preliminary engineering has been identified in the TIP or within the planning horizon of ON TO 2050. Not exempt projects with only preliminary engineering funding and exempt tested projects are excluded from conformity analysis. Transportation Conformity is a requirement of the Clean Air Act section 176(c).

The newly Not Exempt projects to be conformed are:

- TIP ID 03-18-0014: resurfacing of Busse Highway from US 14 to Touhy Ave to remove a travel lane in each direction to accommodate the addition of on street bicycle lanes and intersection improvements.
- TIP ID 07-21-0022: resurfacing of Dixie Highway from Sycamore Dr to Harwood Ave to remove a travel lane in each direction to accommodate the addition of on street bicycle lanes and intersection improvements.

The previously conformed projects included in the amendment are:

- TIP ID 01-02-0020: road expansion on Burley Avenue from 106th St to 126th Place adding lanes and extending the road.
- TIP ID 01-17-0003: road diet that will reduce the number of motorized vehicle lanes on Chicago Avenue from Latrobe Ave to Kedzie Ave from four to three and install a center left turn lane with pedestrian refuge islands. The project will also include bicycle lanes and improved pedestrian safety improvements.
- TIP ID 01-94-0006: Red Line Extension (RLE) project to extend the Red Line from the existing terminal at 95th Street/Dan Ryan to the vicinity of 132nd Street.
- TIP ID 02-97-0006: road modernization on Old Orchard Road from Woods Drive to Skokie Blvd including intersection improvements, lane widening, and signal timing updates.
- TIP ID 07-94-0027: extension of Joe Orr Road from Stony Island Ave to Burnham Ave by constructing a new four-Lane roadway with urban cross-section and median, on a new alignment, including channelization and traffic signal installation at Glenwood-Dyer Road and Burnham Avenue.
- TIP ID 07-96-0013: road expansion of Joe Orr Rd Main from Burnham Ave to the IL/IN State Line, adding a new roadway.
- TIP ID 09-03-0002: widening of Huntley Road between Sleepy Hollow Rd to Elm Ave from two lanes to four lanes, and adding bike/ped facilities adjacent to the roadway.
- TIP ID 09-16-0013: road expansion of Wolfs Crossing Road from US 34 Chicago Road to Eola Road, adding new ADA infrastructure and bicycle facilities, new travel lanes, and intersection improvements including updated lighting, medians, curbs, and markings.

DRAFT

- TIP ID 09-22-0042: widening lanes on Liberty Street from Sartor Lane and County Line Road, and installing sidewalks, curbs, gutters and storm sewers. Additional resurfacing improvements will occur at the west end of the project from Crane Street to Sartor Lane.
- TIP ID 09-23-0024: widening of Galligan Road with continuous bi-directional turn lane and adding a shelf for a multi-use path and traffic signals at Freeman Rd and Binnie Rd.
- TIP ID 11-18-0005: reconstruction and widening of Randall Road from Ackman Road in Crystal Lake to Acorn Lane/Polaris Drive, including bridge replacement, adding lanes, and improve signal timing interconnects.
- TIP ID 18-14-0004: new station on the Rock Island line between 35th/Bronzeville and Gresham stations.

Changes to existing projects are described below.

Analysis Year changes:
The completion year indicates when a project is anticipated to be in service to users. The conformity analysis is conducted for selected analysis years between now and 2050. The analysis years are currently 2025, 2030, 2035, 2040 and 2050. If a change in completion year results in moving a project across an analysis year, that needs to be reflected in the emissions modeling. This information is captured through the conformity amendment process.

The following Not Exempt projects crossed an analysis year:
- TIP ID 01-02-0020: road expansion on Burley Avenue from 106th St to 126th Place adding lanes and extending the road.
- TIP ID 01-17-0003: road diet to reduce the number of travel lanes on Chicago Avenue from Latrobe Ave to Kedzie Ave from four to three and install a center left turn lane with pedestrian refuge islands. The project will also include bicycle lanes and improved pedestrian safety improvements.
- TIP ID 02-97-0006: road modernization on Old Orchard Road from Woods Drive to Skokie Blvd including intersection improvements, lane widening, and signal timing updates.
- TIP ID 07-94-0027: extension of Joe Orr Road from Stony Island Ave to Burnham Ave by constructing a new four-Lane roadway with urban cross-section and median, on a new alignment, including channelization and traffic signal installation at Glenwood-Dyer Road and Burnham Avenue.
- TIP ID 07-96-0013: road expansion of Joe Orr Rd Main from Burnham Ave to the IL/IN State Line, adding a new roadway.
- TIP ID 11-18-0005: reconstruction and widening of Randall Road from Ackman Road in Crystal Lake to Acorn Lane/Polaris Drive, including bridge replacement, adding lanes, and improve signal timing interconnects. The speed limit will be reduced from 50 mph to 45 mph after this project.
- TIP ID 18-14-0004: new station on the Rock Island line between 35th/Bronzeville and Gresham stations.

DRAFT

Scope Changes:

The scope of a project is determined by the work types associated with the project.

- Not Exempt work types are expected to affect air quality and must be included in the conformity analysis. Examples of Not Exempt work types are adding lanes to a road, removing lanes from road, interchange expansion, a major expansion of bus route service, etc.
- Exempt Tested work types do not require an air quality conformity analysis, but the region has chosen to include the impacts of these types of projects in the travel demand model. Exempt tested projects include new commuter parking lots, road (diet) reconfiguration of lanes to improve safety, and road reconstruction with lane widening to standard widths (e.g., 10 feet to 12 feet).
- Exempt work types do not require an air quality conformity analysis. Examples of exempt work types are resurfacing, intersection improvements, and rail station modernization.

These new, formerly exempt projects are changing the scope of the project to include removing a travel lane in each direction to accommodate new on road bicycle facilities. The removal of a travel lane is a Not Exempt work type in the TIP.

- TIP ID 03-18-0014: resurfacing of Busse Highway to remove a travel lane in each direction to accommodate the addition of on street bicycle lanes and intersection improvements. Funds were moved from TBD status to FY 2025 with updated limits.
- TIP ID 07-21-0022: resurfacing of Dixie Highway to remove a travel lane in each direction to accommodate the addition of on street bicycle lanes and intersection improvements. Funds were moved from TBD status to FY 2026 with updated limits.

The scope of the project had included adding travel lanes. This is no longer the case and the add lanes work type has been removed from this project. The project will be classified as Exempt Tested based on the current work types and scope. The project will remain in the TIP and included within the model.

- TIP ID 09-22-0042: widening of Liberty Street had included adding lanes, but the project scope has changed and adding lanes is no longer part of the project, which will instead include the addition of bidirectional turn lanes. The add lanes work type has been removed.

The scope of the project has changed by the removal of the add lanes work type. Additionally, the locations of new traffic signals (a Not Exempt work type) was added to the TIP for this project.

- TIP ID 09-23-0024: Galligan Road will include continuous bi-directional turn lanes and a multi-use path and traffic signals, however, the add lanes portion of the project has been cancelled. Modeling locations for the new traffic signals have been added.

Information regarding the new stations that are part of the project was added to the TIP.

- TIP ID 01-94-0006: Red Line Extension (RLE) project to extend the Red Line from the existing terminal at 95th Street/Dan Ryan added the new station work type in addition to the line expansion. The 5.6-mile extension is planned to include four new, with parking lots at 103rd Street, 111th Street, Michigan Avenue, and 130th Street.

DRAFT

These projects had a change in plans.

- TIP ID 09-03-0002: Huntley Road from Sleepy Hollow Rd to Elm Ave. The limits have been changed. The limits had been Huntley Road from Randall Rd to Elm Ave. The TIP change is to reduce the limits to, Huntley Road from Sleepy Hollow Rd to Elm Ave and remove the Huntley Rd from Randall Road to Sleepy Hollow portion of the project. Huntley Rd from Sleepy Hollow Rd to Elm Ave was completed in 2021. Locations and the title of the project have been clarified for conformity analysis.
- TIP ID 09-16-0013: the road expansion Wolfs Crossing Road was updated to include locations for Segments 2 and 3 with revised completion years. The updates of those segments include the addition of lanes. Segment 2 includes signal interconnects and Segment 3 includes the construction of a roundabout. The changes to the target lettings, modeling information, and schedule were incorporated into the TIP.

Newly submitted changes are found in the 24-08 Conformity Amendments report.

The regional travel demand model was run using the updated networks. The resultant vehicle miles traveled (VMT) by vehicle class, speed, time of day, and facility type were entered into U.S. Environmental Protection Agency's (U.S. EPA) MOVES3 model. MOVES4 has been released by U.S. EPA (88 FR 62567) and will be used in future conformity determinations as MPO's have until 9/12/2025 before they are required to use MOVES4. Updated vehicle data was also used in the emissions analysis as CMAP was able to incorporate 2022 Illinois Secretary of State vehicle registration data for the CMAP region.

Using MOVES3, model on-road emission estimates for each precursor or direct pollutant in each analysis year were produced. The MVEB for the NEIL nonattainment area for 2035 and beyond reflect federal register notice on May 20, 2022 (87 FR 30828) and is part of the 2008 ozone maintenance SIP that was approved in that noticed by U.S. EPA. The result is that the MVEB changes to 65 tons/day of VOCs and 110 tons/day of NOx in 2035. Prior year MVEB remain unchanged. For ozone precursors volatile organic compounds (VOC) and nitrogen oxides (NOx), the resulting mobile source emissions estimates fell below the motor vehicle emissions budgets for ozone as shown in the table below. The emission analysis shown below demonstrates that 2024-2028 TIP and the ON TO 2050 plan conform to the Motor Vehicle Emissions Budget for volatile organic compounds (VOC) and nitrogen oxides (NOx) as required.

DRAFT

VOC and NOx Emissions in Tons per Summer Day for Ozone Conformity

	Volatile Organic Compounds		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2025	**44.99**	60.13	**126.32**	150.27
2030	**39.04**	60.13	**97.91**	150.27
2035	**35.07**	65.00	**88.72**	110.00
2040	**31.71**	65.00	**87.62**	110.00
2050	**29.75**	65.00	**93.66**	110.00

Conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

Notes:

Off-model benefits are not included in the total emissions estimates

Results updated as of April 2024

Direct $PM_{2.5}$ and NOx Emissions in Tons per Year for $PM_{2.5}$ (Informational Only)

	Fine Particulate Matter		Nitrogen Oxides	
Year	Northeastern Illinois	Historical SIP Budget	Northeastern Illinois	Historical SIP Budget
2025	**1,516.91**	5,100.00	**42,579.86**	127,951.00
2030	**1,194.57**	2,377.00	**32,871.87**	44,224.00
2035	**1,037.65**	2,377.00	**29,463.01**	44,224.00
2040	**1,027.80**	2,377.00	**29,037.55**	44,224.00
2050	**1,069.54**	2,377.00	**30,675.91**	44,224.00

Greenhouse Gas Mobile Source Emissions (Informational Only)

CO_2 Equivalent in Tons per Year	
Year	Northeastern Illinois
2025	35,902,658.46
2030	33,676,313.21
2035	32,765,570.60
2040	32,870,119.57
2050	34,089,081.57

ACTION REQUESTED: Approval of the ON TO 2050/2024-2028 TIP Conformity Analysis & TIP Amendment 24-08 by the MPO Policy Committee.