



MEMORANDUM

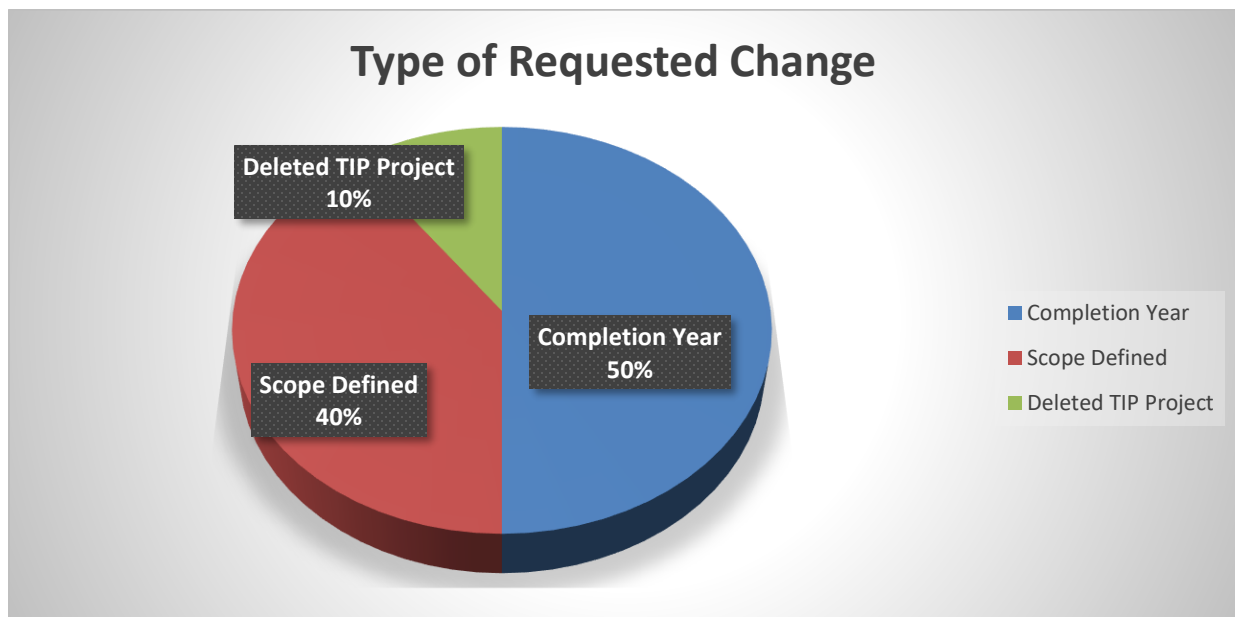
To: CMAP Transportation Committee

From: CMAP Staff

Date: November 2, 2020

Re: ON TO 2050/TIP Conformity Analysis & TIP Amendment

In accordance with the semi-annual conformity analysis policy, CMAP staff asked programmers to submit changes, additions, or deletions to non-exempt projects for inclusion in the regional air quality analysis of the FFY 2021-25 Transportation Improvement Program (TIP) and ON TO 2050. Of the changes requested, ten projects require air quality conformity analysis. Below is a summary by type of requested changes.



If the TIP amendment is approved, one non-exempt project will be removed from the TIP and the nine existing non-exempt projects will be included in the TIP. These types of projects are included in the conformity analysis because funding for phases beyond preliminary engineering has been identified in the TIP. Non-exempt projects with only preliminary engineering funding and exempt tested projects are excluded from conformity analysis.

Changes to existing projects are described below.

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 established base year is now 2020, with the analysis years set at 2025, 2030, 2040 and 2050. If a change in completion year results in moving a project across an analysis year, the project must be revised in the conformity analysis.

These non-exempt projects crossed an analysis year and are included in the conformity analysis:

- TIP ID [03-03-0102](#): IL 62 Algonquin Rd from Plum Grove Rd to IL Route 53
- TIP ID [09-09-0039](#): IL 47 from IL 71 Stagecoach Trail to CH 23 Caton Farm Road
- TIP ID [09-09-0040](#): IL 47 from Cross Street to FAU 3793 Kennedy Road
- TIP ID [09-16-0016](#): Anderson Road from CH 41 Keslinger Road to Freedom Road

The following not exempt Regionally Significant Project (RSP) crossed an analysis year:

- TIP ID [03-18-0006](#): I-90 WB Improvements from IL 43 to I-190. RSP 32

The scope of a project is determined by the [work types](#) associated with the project.

- Non-exempt work types are expected to affect air quality and must be included in the conformity analysis. Examples of non-exempt work types are adding lanes to a road, interchange expansion, new bridge, and the major expansion of bus route service.
- 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, rolling stock replacement, 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 intersection improvements and rail station modernization.

Three recently introduced not exempt projects are included here, due to a change of scope either through a roadway conversion or for multiple intersection improvements:

- TIP ID [07-20-0072](#): Richton Park: Richton Road/Poplar Avenue- Sauk Trail to Karlov Ave
- TIP ID [12-20-0021](#): 135th Street Complete Street
- TIP ID [08-20-0026](#): Lemont Rd from 87th St to 83rd St / 87th Street from Lemont Rd to Havens Dr.

The project sponsor indicated a highway extension to this roundabout / new roadway project for conformity analysis:

- TIP ID [09-15-0019](#): Collins Road from Minkler Road to Grove Road (Collins Road Extension)

The following project is now being deleted and will be removed from the travel demand model:

- TIP ID [10-08-0028](#): CH A9 Wadsworth Road at US 41 at Skokie Hwy

Seventeen signal timing and progression projects are being introduced within the travel demand model, and staff addressed a model network update to the Hook Drive Extension project.

The public website of the [eTIP database](#) is available through the hyperlink for current project information. Newly submitted changes are found in the [21-02 Conformity Amendments](#) report.

The conformity analysis is conducted for selected analysis years between now and 2050. The analysis years are currently 2020, 2025, 2030, 2040 and 2050. 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 the US Environmental Protection Agency’s MOVES 2014a model. The model generated on-road emission estimates for each precursor or direct pollutant in each analysis year.

For ozone precursors volatile organic compounds (VOC) and nitrogen oxides (NOx), the resulting emissions inventories estimates fell below the Motor Vehicle Emissions Budget (MVEB) for NEIL nonattainment area used to demonstrate transportation conformity for the 1997 ozone maintenance State Implementation Plan (SIP), and the 2008 and 2015 Ozone National Ambient Air Quality Standards (NAAQS) as shown in the table below.

Transportation conformity in the CMAP region only applies to the ozone precursors stated above at this time. However, CMAP is providing mobile source emissions data for PM_{2.5} and for greenhouse gases (GHG) as informational items too. The region is in attainment of the PM_{2.5} NAAQS. The budget shown in the table for PM_{2.5} is the budget the region had prior to being classified as being in attainment. There is no equivalent to a MVEB for GHG. Instead what is being shown for information purposes are GHG mobile source emissions estimates along with reduction goals for GHG that are the byproduct of previous GHG work CMAP has conducted. CMAP is working on GHG mitigation efforts and anticipates revising the goals shown in the table below.

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

Year	Volatile Organic Compounds		Nitrogen Oxides	
	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2020	71.67	117.23	146.15	373.52
2025	53.35	60.13	84.77	150.27
2030	43.57	60.13	60.51	150.27
2040	34.11	60.13	51.26	150.27
2050	34.23	60.13	53.54	150.27

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 October 27, 2020

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

Year	Fine Particulate Matter		Nitrogen Oxides	
	Northeastern Illinois	Historical SIP Budget	Northeastern Illinois	Historical SIP Budget
2020	2,058.90	5,100.00	55,349.78	127,951.00
2025	1,309.34	2,377.00	32,503.07	44,224.00
2030	967.69	2,377.00	23,609.60	44,224.00
2040	867.94	2,377.00	20,563.33	44,224.00
2050	917.73	2,377.00	21,448.60	44,224.00

Greenhouse Gas Mobile Source Emissions (Informational Only)

Year	CO ₂ Equivalent in Tons per Year	
	Northeastern Illinois	GHG Reduction Goal
2020	30,544,901.72	30,275,578.93
2025	28,165,247.74	25,474,808.14
2030	26,072,116.89	21,794,683.73
2040	25,400,151.20	17,888,864.40
2050	26,705,366.74	15,409,555.01

ACTION REQUESTED: Staff request Transportation Committee approval to recommend a finding of conformity and approval of TIP amendment 21-02 to the CMAP Board and MPO Policy Committee.