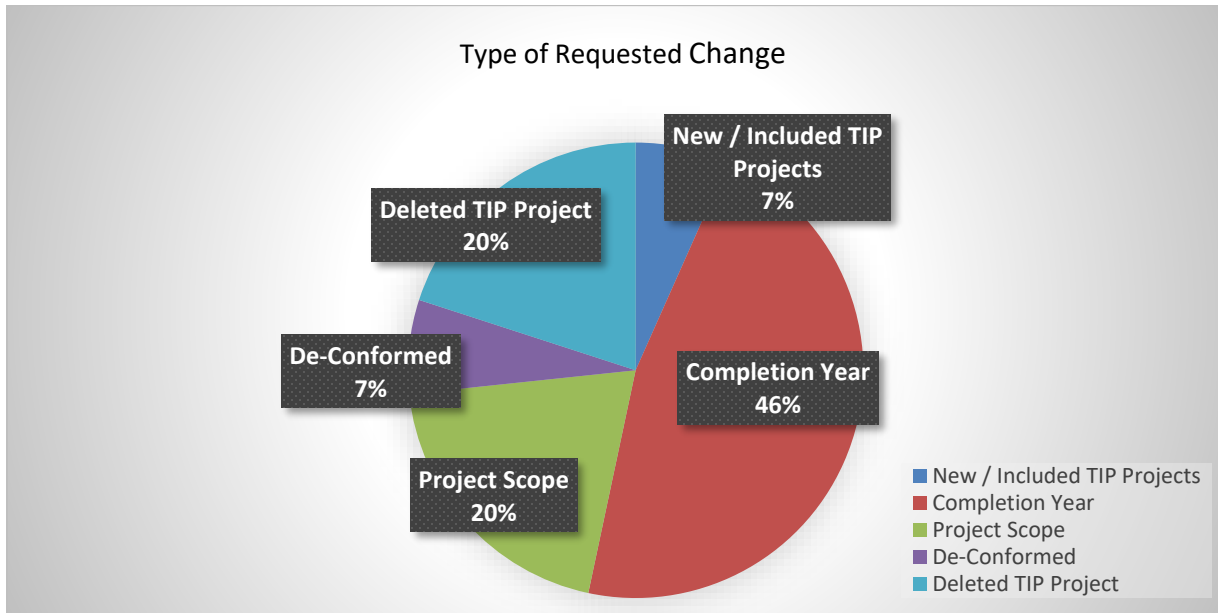




MEMORANDUM

To: CMAP Transportation Committee
From: CMAP Staff
Date: January 11, 2019
Re: ON TO 2050/TIP Conformity Analysis & TIP Amendment 19-04

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 2019-24 Transportation Improvement Program (TIP) and ON TO 2050. Of the changes requested, fifteen projects require air quality conformity analysis. Below is a summary by type of requested changes.



If the TIP amendment is approved, eleven 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.

Due to a change in scope, this formerly exempt project became a new not exempt addition:

- TIP ID **10-08-0028**: Wadsworth Road (CH A9) at US 41 Skokie Hwy (B-737)

Sponsor indicated status change to a recently de-conformed project that is no longer delayed:

- TIP ID **02-09-0003**: Willow Rd from E of I-294 to E of IL 43, from IL 43 to I-94, and over Middle Fork of N Branch of Chicago River to W of Sunset Ridge Rd

Other changes to existing projects are described below.

Limits are the cross-streets, mileposts or other boundaries which define the extent of a project.

The following project indicated a significant reduction in limits:

- TIP ID **10-96-0006**: Buffalo Grove Rd (CH W14) from IL 22 Half Day Road to Deerfield Parkway

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 2020, 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.

The project sponsor indicated an earlier completion year for the following two projects:

- TIP ID **09-14-0010**: IL 47 at I-88 Ronald Reagan Memorial Tollway
- TIP ID **09-16-0041**: I-90 at Il 23 New Interchange

The project sponsor indicated a later completion year for the following three projects:

- TIP ID **12-06-0005**: Corridor improvement along Laraway Road from US 52 to IL 43 Harlem Ave
- TIP ID **12-10-0008**: 143rd Street (CH37) from State Street (Lemont Road) to Bell Road (CH 16)
- TIP ID **12-12-0033**: Weber Road (CH 88) from 135th Street (Romeo Road) to Airport Road (Lockport Road)

The Rail-Highway Grade Separation phase has been delayed, indefinitely:

- TIP ID **03-14-0010**: US 14 Northwest Highway @ CN Railroad

The project sponsor indicated a later completion year for the following not exempt Regionally Significant Project (RSP):

- TIP ID **01-12-0019**: I-90 I-94 Jane Byrne Interchange from I-290 Congress Parkway to Adams Street (Circle Interchange Reconstruction), Under Van Buren St. - RSP 33

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, signal timing 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.

The project sponsor indicated the addition of the “add lanes” work type to this previously conformed reconstruction, intersection improvement, and signal timing project, requiring a new conformity analysis:

- TIP ID [02-97-0001](#): IL 21 Milwaukee Ave from N of Sanders Rd to S of Euclid Ave.

A status change to not conformed, after the sponsor indicated earlier in the year the following project is delayed, and removed all funding beyond phase 1 engineering:

- TIP ID [12-00-0035](#): Caton Farm - Bruce Road Corridor from W of US 30 to IL 7 (159th Street)

The following projects are now being deleted and will be removed from the travel demand model:

- TIP ID [10-00-0119](#), Cedar Lake Road from Hart Road to Townline Road
- TIP ID [10-03-0001](#), Delany Road from IL 173 to 21st Street
- TIP ID [10-08-0029](#), Washington Street from Sheridan Road to Pershing Road

The public website of the [eTIP database](#) is available through the hyperlink for current project information. Newly submitted changes are found in the [19-04 Conformity Amendment](#) report.

The regional travel demand model was run using updated networks. The resultant vehicle miles traveled (VMT) by vehicle class, speed, time of day, and facility type were entered into the U.S. Environmental Protection Agency’s MOVES 2014a model. In addition to data from the travel demand model, MOVES also requires a vehicle population file. CMAP updated this information recently with new data supplied by the Illinois Secretary of State. The new data was significantly different in both the number and types of vehicles. The net result was a decrease of more than 10% in the total number of vehicles. CMAP, in consultation with various Tier II Consultation Team partners, chose to do the emission modeling for the 2025 analysis year twice, once with the previous vehicle population file and again with the new vehicle population file. CMAP was able to demonstrate conformity, as emissions estimates were below the Motor Vehicle Emission Budget (MVEB) in the SIP for the CMAP area, using either vehicle population file. The results shown in the table below used the new vehicle registration data.

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 applicable budgets for the ozone maintenance State Implementation Plan (SIP), as shown in the table below.

Direct PM_{2.5} and NO_x Emissions in Tons per Year for PM_{2.5} Conformity

Year	Fine Particulate Matter		Nitrogen Oxides	
	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2020	2,027.31	5,100.00	56,252.71	127,951.00
2025	1,279.50	2,377.00	33,047.11	44,224.00
2030	948.16	2,377.00	24,110.81	44,224.00
2040	846.93	2,377.00	20,964.40	44,224.00
2050	899.45	2,377.00	21,963.38	44,224.00

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

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

Year	Volatile Organic Compounds		Nitrogen Oxides	
	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2020	71.74	117.23	148.31	373.52
2025	53.28	60.13	86.10	150.27
2030	43.49	60.13	61.76	150.27
2040	33.98	60.13	52.24	150.27
2050	34.24	60.13	54.82	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 December 20, 2018

Staff requests that the Transportation Committee approve the release of the ON TO 2050/TIP Conformity Analysis & TIP Amendment 19-04 for a 30 day public comment period from January 18 to February 18, 2019.

ACTION REQUESTED: Approval

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