

Kentucky Division

December 1, 2021

330 West Broadway Frankfort, KY 40601 PH (502) 223-6720 FAX (502) 223 6735 http://www.fhwa.dot.gov/kydiv

> In Reply Refer To: HDA-KY

Mr. Jarrett Haley, Executive Director Louisville Area Metropolitan Planning Organization c/o Kentuckiana Regional Planning and Development Agency 11520 Commonwealth Drive Louisville, KY 40299

Dear Mr. Haley:

The Kentucky Division Office of the Federal Highway Administration (FHWA) and Region 4 of the Federal Transit Administration (FTA), in consultation with the Indiana Division Office of the Federal Highway Administration and Regions 4 and 5 of the United States Environmental Protection Agency (EPA), have reviewed the following documents:

Amendment 4 to the 2020-2025 Transportation Improvement Program (TIP) and Amendment 4 to the 2040 Metropolitan Transportation Plan (MTP) for the Louisville Area Metropolitan Planning Organization (MPO) (MPO approval date October 28, 2021)

The Kentucky Energy and Environment Cabinet's Division for Air Quality, the Kentucky Transportation Cabinet's Division of Planning, the Kentucky Transportation Cabinet's Office of Transportation Delivery, the Louisville Metro Air Pollution Control District, and the Transit Authority of River City also had an opportunity to review and comment on the aforementioned documents.

We found that these documents meet the five primary criteria of the Transportation Conformity Rule (40 CFR Part 93):

- use of the latest planning assumptions,
- use of the latest emissions model,
- use of appropriate consultation procedures,
- consistency with the mobile vehicle emission budgets in the State Implementation Plan (SIP), and
- provisions for timely implementation of transportation control measures in the SIP.

Page 2 Mr. Haley

We found that these documents met the criteria outlined in the July 1, 2004 Transportation Conformity Rule Amendments for New 8-hr Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS), Response to March 1999 Court Decision and Additional Rule Changes (69 FR 40004). We therefore find that these amendments conform to the 2015 8-hour Ozone NAAQS.

Sincerely,



Boday Borres Deputy Division Administrator

via Email

cc: Aviance Webb, FTA-R4 Erica Tait, FHWA-IN Sarah LaRocca, USEPA-R4 Melissa Duff, KEEC-DAQ Rachael Hamilton, Louisville Metro APCD Carrie Butler, TARC Ron Rigney, KYTC-Program Management Mikael Pelfrey, KYTC-Planning Andy Rush, LOU MPO



Agenda Item #5

#### MEMORANDUM

TO: Transportation Policy Committee

FROM: Nick Vail

**DATE:** October 21, 2021

SUBJECT:Amendment 4 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan<br/>(MTP) and FY 2020-2025 Transportation Improvement Program (TIP)

KIPDA staff is ready to present Amendment 4 to the committees for consideration. Sponsors were given until June 28<sup>th</sup> to submit project changes. The air quality conformity analysis and the public comment period have been completed. Greg Burress sent all public comments to the Transportation Policy Committee (TPC) members as part of their 15-day review.

Two actions are requested for TPC:

- 1) Approval of Amendment 4 to the Connecting Kentuckiana 2040 MTP, and
- 2) Approval of Amendment 4 to the FY 2020-2025 TIP.

11520 Commonwealth Drive Louisville, KY 40299 Phone: 502.266.6084 Fax: 502.266.5047 TDD: 800.648.6056

www.kipda.org

#### A Resolution of the

## Kentuckiana Regional Planning and Development Agency Transportation Policy Committee adopting Amendment #4 of the *Connecting Kentuckiana 2040 Metropolitan Transportation Plan*

Whereas, the Kentuckiana Regional Planning and Development Agency (KIPDA) Transportation Policy Committee is designated by the governors of the State of Indiana and the Commonwealth of Kentucky under state and federal laws as the Metropolitan Planning Organization (MPO) for the Louisville/Jefferson County KY-IN Metropolitan Planning Area encompassing Clark and Floyd counties and a portion of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and a portion of Shelby County in Kentucky; and,

Whereas, Federal laws require the Transportation Policy Committee periodically review and update its Metropolitan Transportation Plan to reflect progress and changes regarding its implementation using the latest forecasts of regional demographic and socioeconomic data; and,

Whereas, pursuant to 23 CFR Section 450.322, the Metropolitan Transportation Plan is based on the latest available estimates and assumptions with regard to population, land use, travel, employment, congestion, and economic activity developed in conjunction with local jurisdictions; and,

Whereas, consistent with Federal and state mandates, states' environmental requirements, and with the KIPDA Transportation Policy Committee's Memorandum of Agreement, *Participation Plan, Title VI: Environmental Justice Plan,* and other operating procedures, the KIPDA Transportation Policy Committee has worked with local, state, and Federal jurisdictions and agencies in a continuing, cooperative, and comprehensive planning process; has made draft documents available for public review, has held public meetings and other efforts including providing data and information related to the Metropolitan Transportation Plan update on the KIPDA website, to involve citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation, representatives of users of public transportation, representatives of users of public transportation, representatives of users of public transportation, and other interested parties in order to facilitate their ability to provide input, discussion, and review of *Connecting Kentuckiana 2040*, and has incorporated the work of local governments, and the suggestions of citizens, businesses, and interests throughout the MPA in this document; and,

**Be it further resolved**, that the KIPDA staff is authorized to transmit Amendment #4 of the *Connecting Kentuckiana 2040 Metropolitan Transportation Plan for the Louisville/Jefferson County KY-IN Metropolitan Planning Area* to the governors of the State of Indiana and the Commonwealth of Kentucky, and to the Indiana Department of Transportation and the Kentucky Transportation Cabinet in compliance with Federal and state requirements.

Adopted by the KIPDA Transportation Policy Committee on the 28th day of October 2021.

Kevin Baity, Chair Transportation Policy Committee

Andy Rush KIPDA Transportation Division Director

#### A Resolution of the

## Kentuckiana Regional Planning and Development Agency Transportation Policy Committee adopting Amendment #4 of the FY 2020 - FY 2025 Transportation Improvement Program

Whereas, the Kentuckiana Regional Planning and Development Agency (KIPDA) Transportation Policy Committee is designated by the governors of the State of Indiana and the Commonwealth of Kentucky under state and federal laws as the Metropolitan Planning Organization (MPO) for the Louisville/Jefferson County KY-IN Planning Area encompassing Clark and Floyd counties and a portion of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and a portion of Shelby County in Kentucky; and,

Whereas, consistent with federal and state mandates, states' environmental requirements, and with the KIPDA Transportation Policy Committee's Memorandum of Agreement, *Participation Plan, Title VI: Environmental Justice Plan,* and other operating procedures, the KIPDA Transportation Policy Committee has worked with local, state, and federal jurisdictions and agencies in a continuing, cooperative, and comprehensive planning process; and has incorporated the work of local governments, and the suggestions of citizens, businesses, and interests throughout the MPA in this document; and

Whereas, the FY 2020 - FY 2025 Transportation Improvement Program for the Louisville/Jefferson County KY-IN Metropolitan Planning Area is a subset of Connecting Kentuckiana 2040, the Louisville/Jefferson County KY-IN Metropolitan Transportation Plan, which has been determined to conform to the State Implementation Plans of Indiana and Kentucky; and,

Whereas, the FY2020 -FY 2025 Transportation Improvement Program for the Louisville/Jefferson County KY-IN Metropolitan Planning Area is fiscally constrained. The Kentucky and Indiana non-- dedicated funded projects identified in this TIP have been requested by the Indiana Department of Transportation (INDOT) and the Kentucky Transportation Cabinet (KYTC). The required funds will become part of the Kentucky FY 2019 - 2022 Statewide Transportation Improvement Program (STIP), and the Indiana FY 2020 - 2024 STIP, respectively , and will become part of the end of fiscal year "fiscal constraint" recalculations; and,

**Now, therefore be it resolved,** by the Transportation Policy Committee of KIPDA that this amendment of the *FY 2020 - FY 2025 Transportation Improvement Program for the Louisville/Jefferson County KY-IN Metropolitan Planning Area* is adopted by official action at the October 28, 2021 meeting. This action is contingent upon and effective when a planning conformity finding is made by the appropriate federal agencies; and,

**Whereas**, the KIPDA Transportation Policy Committee is to certify that *Connecting Kentuckiana* 2040 complies with all of the applicable requirements of the Federal Transit Act, Clean Air Act, Americans with Disabilities Act, Civil Rights Act, Federal Transportation Act, and all other applicable state and Federal laws; and,

**Whereas,** *Connecting Kentuckiana 2040,* as amended, will serve as the KIPDA Metropolitan Transportation Plan under Federal law contingent upon and effective when a conformity finding is made by the appropriate Federal agencies; and,

**Now, therefore let it be resolved,** that the KIPDA Transportation Policy Committee adopts Amendment #4 of the *Connecting Kentuckiana 2040 Metropolitan Transportation Plan* to serve as the KIPDA MPO official Metropolitan Transportation Plan; and,

Let it be further resolved that KIPDA staff is authorized to transmit this amendment of the *Connecting Kentuckiana 2040* to the Governors of the State of Indiana and the Commonwealth of Kentucky, and to the Indiana Department of Transportation and the Kentucky Transportation Cabinet in compliance with Federal and state requirements.

Adopted by the KIPDA Transportation Policy Committee on the 28th day of October 2021.

Kevin Baity, Chair Transportation Policy Committee

Andy Rush KIPDA Transportation Division Director



#### Connecting Kentuckiana 2040 Metropolitan Transportation Plan and FY 2020-2025 Transportation Improvement Plan

The Kentuckiana Regional Planning and Development Agency (KIPDA) is the Metropolitan Planning Organization (MPO) for the five-county region covering Jefferson, Bullitt and Oldham Counties in Kentucky and Clark and Floyd Counties in Indiana. The MPO's responsibilities include producing a long-range transportation document, Connecting Kentuckiana 2040 Metropolitan Transportation Plan (MTP) and a short-range planning document, the Fiscal Year (FY) 2020-2025 Transportation Improvement Program (TIP)

Changes have been proposed to the MTP and TIP. The MTP, with the proposed changes, is fiscally reasonable and the TIP remains fiscally constrained. This packet includes the following documents:

- A listing of all projects being added, removed and/or modified
- Air Quality conformation documentation
- Meeting minutes from the Interagency Consultation (IAC) conference call

Providing comments for the proposed changes can be submitted by any of the following methods:

- Visiting <u>https://kipdatransportation.org/amendment4/</u> and click on the Amendment 4 Map link
- Emailing <u>kipda.trans@kipda.org</u>
- Mail to the following address
  - TIP and MTP Amendment, KIPDA 11520 Commonwealth Drive, Louisville, KY 40299
- Attend the virtual open house on September 30<sup>th</sup> from 5:00-6:00 pm via Zoom. Members of the public are encouraged to aske questions and leave comments. A link to the virtual public meeting can be found at https://kipdatransportation.org/amendment4/

Please contact Community and Committee Engagement Specialist Greg Burress at 502-562-6144 ext. 123 or via email at <u>greg.burress@kipda.org</u> for additional questions or information.

11520 Commonwealth Drive Louisville, KY 40299 Phone: 502.266.6084 Fax: 502.266.5047 TDD: 800.648.6056

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	N/A - Not in TIP						
MTP Action:	Revise Project Description and Update Open to Public Date						
Exempt/ Non-Exempt:	Non-exempt	Model Impact:	Remove from 2025 scenario. Ac existence of KYTC ID 5-80101.00 in				
Project Sponsor:	Bullitt County	KIPDA ID:	2758	State ID:			
County	Bullitt	Parent ID:	N/A	Group ID:	N/A		
Project Name:	KY 1450 Blue Lick Road Widen	(i.e. CK 2040):			\$8,000,000		
-		-	Total Cost Programmed in TIP to Date:		N/A		
Funding Source:	N/A		Open to Public Date:		2027 <del>2024</del>		
Description:	Widen KY 1450 (Blue Lick Road) from 2 t <del>Harper Way</del> .	o 4 lanes fron	n Bullitt/Jefferson County line to CR	1512A (Jeffie La	ne) <del>KY 1526 John</del>		
Purpose & Need:	Congestion, visibility, intersection realign for this project.	nment, and sa	fety are all issues needing to be add	ressed that hav	e created the need		
FY 20-25 TIP Funding:	N/A						
	N/A Remove Project						
Funding:		-		-			
Funding: TIP Action:	Remove Project	Model Impact:	No change	e to model			
Funding: TIP Action: MTP Action: Exempt/Non-	Remove Project N/A - not in MTP		No change 2489	e to model State ID:	1701215		
Funding: TIP Action: MTP Action: Exempt/Non- Exempt:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation	Impact:			1701215 2676		
Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd	Impact: KIPDA ID:	2489 N/A Total Estimated Cost in MTP (i.e. CK 2040):	State ID:			
Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor:	Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT)	Impact: KIPDA ID:	2489 N/A Total Estimated Cost in MTP	State ID: Group ID:	2676		
Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd	Impact: KIPDA ID: Parent ID:	2489 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	State ID: Group ID:	2676 N/A		
Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd         IN 111	Impact: KIPDA ID: Parent ID:	2489 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	State ID: Group ID:	2676 N/A 180,420		
Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name: Funding Source:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd         IN 111         National Highway Performance Program	Impact: KIPDA ID: Parent ID:	2489 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	State ID: Group ID:	2676 N/A 180,420		

TIP Action:	Remove Project					
MTP Action:	Remove Project					
Exempt/Non- Exempt:	Exempt	Impact:				
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2279	<b>State ID:</b> 159218		
County	Floyd	Parent ID:	N/A	Group ID:	N/A	
Project Name:	1-64		Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date:	\$23,500,000		
Funding Source:	National Highway Performance Progra	m (NHPP)	Open to Public Date:		2021	
Description:	Bridge painting of the Sherman Minton E	Bridge over th	ne Ohio River.			
Purpose & Need:	Bridge painting of the Sherman Minton E	Bridge over th	ne Ohio River to maintain the integrity	y of the bridge.		
FY 20-25 TIP Funding:	FY 2021 Construction phase with the foll \$20,700,000 (Federal) + \$2,300,000 (Oth	-				
TIP Action:	Remove Project					
MTP Action:	N/A - not in MTP					
Exempt/Non- Exempt:	Exempt	Model Impact:	No change	to model		
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2649	State ID:	1702260	
County	Jefferson	Parent ID:	N/A	Group ID:	2676	
Project Name:	I-64 Bridge Deck Replacement on Sherman Minton KY Approach		Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date:	N/A \$12,095,501		
Funding Source:	National Highway Performance Progra	m (NHPP)	Open to Public Date:	2021		
Description:	Bridge deck replacement on the I-64 Ken	tucky approa	ach to the Sherman Minton Bridge over	er the Ohio Riv	er.	
Purpose & Need:	Bridge deck replacement on I-64 at the K	entucky appr	roach to the Sherman Minton Bridge.			
FY 20-25 TIP	Bridge deck replacement on I-64 at the Kentucky approach to the Sherman Minton Bridge. FY 2021 Construction phase with the following NHPP funds: \$10,885,951 (Federal) + \$1,209,550 (Other) = \$12,095,501 (Total)					

TIP Action:	Remove Project					
MTP Action:	N/A - not in MTP					
Exempt/Non- Exempt:	Exempt	Model Impact:	No change to model			
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2647	<b>State ID:</b> 170225		
County	Floyd	Parent ID:	N/A	<b>Group ID:</b> 2676		
Project Name:	I-64 Sherman Minton Bridge EB Indiana Approach (i.e. CK 2040):		N/A			
	(1) Deck Overlay		Total Cost Programmed in TIP to Date:	\$	226,084	
Funding Source:	National Highway Performance Progra	am (NHPP)	Open to Public Date:		2021	
Description:	Bridge deck overlay on the I-64 Indiana B	B approach	(1 of 2) to the Sherman Minton Bridge	e over the Ohio	River.	
	Bridge deck overlay on I-64 at the Indian	a FB approad	ch (1 of 2) to the Sherman Minton Brid	lge.		
Purpose & Need:			( , , , , , , , , , , , , , , , , , , ,			
Purpose & Need: FY 20-25 TIP Funding:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$	lowing NHPP	funds:	~~~~		
FY 20-25 TIP	FY 2021 Construction phase with the foll	lowing NHPP	funds:			
FY 20-25 TIP Funding:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$	lowing NHPP	funds:			
FY 20-25 TIP Funding: TIP Action:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project	lowing NHPP	funds:			
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non-	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP	lowing NHPP 5226,084 (Tot Model	funds: tal)		1702259	
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation	owing NHPP 5226,084 (Tot Model Impact:	funds: tal) No change 2648 N/A	to model	1702259 2676	
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT)	Model Impact: KIPDA ID: Parent ID:	funds: :al) No change 2648	to model State ID:		
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT) Floyd	Model Impact: KIPDA ID: Parent ID:	funds: tal) No change 2648 N/A Total Estimated Cost in MTP	to model State ID: Group ID:	2676	
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT) Floyd I-64 Sherman Minton Bridge EB Indiana	Model Impact: KIPDA ID: Parent ID:	funds: cal) No change 2648 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	to model State ID: Group ID:	2676 N/A	
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT) Floyd I-64 Sherman Minton Bridge EB Indiana (2) Deck Overlay	Model Impact: KIPDA ID: Parent ID: a Approach am (NHPP)	funds: (al) No change 2648 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	to model State ID: Group ID: \$	2676 N/A 339,126 2021	
FY 20-25 TIP Funding: TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name: Funding Source:	FY 2021 Construction phase with the foll \$203,476 (Federal) + \$22,608 (Other) = \$ Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT) Floyd I-64 Sherman Minton Bridge EB Indiana (2) Deck Overlay National Highway Performance Progra	Model Impact: KIPDA ID: Parent ID: Approach am (NHPP) EB approach	funds: (al) No change 2648 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date: (2 of 2) to the Sherman Minton Bridge	to model State ID: Group ID: \$ over the Ohio	2676 N/A 339,126 2021	

TIP Action:	Remove Project					
MTP Action:	N/A - not in MTP					
Exempt/Non- Exempt:	Exempt	Model Impact:	No change to model			
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2645	State ID: 17022		
County	Floyd	Parent ID:	N/A	Group ID:	2676	
Project Name:	I-64 Sherman Minton Bridge Painting		Total Estimated Cost in MTP (i.e. CK 2040):	N/A		
			Total Cost Programmed in TIP to Date:	\$1:	1,270,214	
Funding Source:	National Highway Performance Progra	am (NHPP)	Open to Public Date:		2021	
Description:	I-64 bridge painting on the Kentucky ap	proach to the	Sherman Minton Bridge over the Oh	nio River.		
Purpose & Need:	Sherman Minton bridge painting					
FY 20-25 TIP Funding:	FY 2021 Construction phase with the foll \$10,143,193 (Federal) + \$1,127,021 (Oth	-				
		er) = \$11,270	),214 (Total)			
TIP Action:	Remove Project	ler) = \$11,270	1,214 (Total)			
-		ler) = \$11,270	,,214 (Total)			
TIP Action:	Remove Project	Model Impact:	,214 (Total) No change	to model		
TIP Action: MTP Action: Exempt/Non-	Remove Project N/A - not in MTP	Model		to model	1702257	
TIP Action: MTP Action: Exempt/Non- Exempt:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation	Model Impact:	No change		1702257 2676	
TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT)	Model Impact: KIPDA ID: Parent ID:	No change 2646	State ID:		
TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor:	Remove Project N/A - not in MTP Exempt Indiana Department of Transportation (INDOT) Floyd	Model Impact: KIPDA ID: Parent ID:	No change 2646 N/A Total Estimated Cost in MTP	State ID: Group ID:	2676	
TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd         I-64 Sherman Minton Bridge WB Indian	Model Impact: KIPDA ID: Parent ID: a Approach	No change 2646 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	State ID: Group ID:	2676 N/A	
TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd         I-64 Sherman Minton Bridge WB Indian Deck Overlay	Model Impact: KIPDA ID: Parent ID: a Approach am (NHPP)	No change 2646 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	State ID: Group ID: \$	2676 N/A 678,252	
TIP Action: MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name: Funding Source:	Remove Project         N/A - not in MTP         Exempt         Indiana Department of Transportation (INDOT)         Floyd         I-64 Sherman Minton Bridge WB Indian Deck Overlay         National Highway Performance Program	Model Impact: KIPDA ID: Parent ID: a Approach Im (NHPP) WB approach	No change 2646 N/A Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	State ID: Group ID: \$ \$ the Ohio River.	2676 N/A 678,252	

TIP Action:	Modify TIP Funding and Project Descript	ion					
MTP Action:	Modify TIP Funding and Project Description						
Exempt/Non- Exempt:	Exempt	Model No change to model					
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2533	State ID:	1702255		
County	Floyd	Parent ID:	N/A	Group ID:	N/A		
Project Name:	I-64 Sherman Minton Corridor Main	tenance	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	\$48 \$62	5,895,844 3 <del>,675,000</del> 2,106,247		
			in TIP to Date:	<del>\$4</del> (	) <del>,382,079</del>		
Funding Source:	Bridge National Highway Performance Progra	<del>am (NHPP)</del>	Open to Public Date:		2024		
Description:	Bridge Rehabilitation Or Repair: I 64 She Interchanges and Pavement NBI 034520 65 NBI 034520, HMA Overlay, Preventive (KY)-IN, Bridge Painting: I 64 Kentucky A 034523, Bridge Deck Overlay: I 64 Indiar 65NBI 034515, Bridge Deck Overlay: I 64 65 NBI 034510, Bridge Deck Overlay: I 64 65 NBI 034513, Bridge Deck Overlay: I 64 65 NBI 034513, Bridge Deck Replacemer W of I-65 NBI 034523, Bridge Painting: I	, Bridge Paint e Maintenanc pproach to Sh a WB Approa Indiana EB A 1 Indiana EB A 1 Indiana EB A 1t: I 64 Kentuc 64 00.11 mile	ing: I 64 Sherman Minton Bridge ove ee: SR 111 Old SR-62 (Elm Street) from herman Minton Bridge over the Ohio ach to the Sherman Minton Bridge ov pproach (1 of 2) Sherman Minton Bri Approach (2 of 2) Sherman Minton Bri cky Approach to the Sherman Minton es W of SR 111 over Market Street NB	r the Ohio River n I-64 Off Ramp River 3.6 miles er Ohio River 3. dge over Ohio R idge over Ohio I Bridge over Ohio I I 034490.	3.95 miles W of I- to State Street NBI W of I-65 NBI 93 miles W of I- River 4 miles W of I- River 4 miles W of I- nio River 3.61 miles		
					oproden bridge.		

#### Amendment 4

#### Connecting Kentuckiana 2040 Metropolitan Transportation Plan

#### FY 2020 - FY 2025 Transportation Improvement Program

	FY 2020 Preliminary Engineering phase with the following NHPP funds:
	\$3,467,430 (Federal) + \$385,270 (Other) = \$3,852,700 (Total)
	FY 2020 Utilities Construction phase with the following NHPP funds:
	\$18,000 (Federal) + \$2,000 (Other) = \$20,000 (Total)
	\$1,431,000 (Federal) + \$159,000 (Other) = \$1,590,000 (Total)
	FY 2021 Preliminary Engineering phase with the following NHPP Bridge funds:
	3,806,496 (Federal) + $422,944$ (Other) = $4,229,439$ (Total)
	<del>\$2,250,000 (Federal) + \$250,000 (Other) = \$2,500,000 (Total)</del>
FY 20-25 TIP	EX 2022 Hill Marked States and the Collection District Collection
Funding:	FY 2022 Utilities phase with the following Bridge funds:
-	\$1,098,000 (Federal) + \$122,000 (Other) = \$1,220,000 (Total)
	FY 2021 Construction phase with the following NHPP Bridge funds:
	\$5,625,000 (Federal) + \$625,000 (Other) = \$6,250,000 (Total)
	\$23,795,441 (Federal) + \$2,643,938 (Other) = \$26,439,379 (Total)
	FY 2022 Construction phase with the following Bridge funds:
	\$18,688,802 (Federal) + \$2,076,534 (Other) = \$20,765,336 (Total)
	FY 2023 Construction phase with the following Bridge funds:
	\$18,889,894 (Federal) + \$2,098,877 (Other) = \$20,988,771 (Total)

TIP Action:	Add Project				
MTP Action:	Add Project				
Exempt/Non- Exempt:	Exempt	Model Impact:	No change	to model	
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	NEW State ID: 210		2100048
County	Clark	Parent ID:	N/A	Group ID:	N/A
Project Name:	SR 60 Intersection Improvement, Roundabout Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed				321,839
			in TIP to Date:	\$9	25,000
Funding Source:	National Highway Performance Progra	am (NHPP)	Open to Public Date:		2026
Description:	Intersection improvement going to a rou	indabout at S	R 60 and CR 311.		
Purpose & Need:	end, left turn, and right-angle crashes. U value. The crash frequency value (Icf) is 6 intersection which will provide sufficient to allow this intersection to operate at a FY 2023 Preliminary Engineering phase v	6.68. The nee capacity and more accept	d for this project is to provide a geom I reduce these rear end, left turn and able overall safety operating conditio	netric improveme right angle crash	ent to the
FY 20-25 TIP Funding:	\$382,500 (Federal) + \$42,500 (Other) = \$		-		
TIP Action:	Add Project				
MTP Action:	Add Project				
Exempt/Non-	Non-Exempt	Model	Add an additional travel lane in the	e 2030, 2035, and	d 2040 scenarios
Exempt: Project Sponsor:	Indiana Department of Transportation (INDOT)	Impact: KIPDA ID:	NEW	State ID:	2100036
County	Floyd	Parent ID:	N/A	Creation ID:	
-				Group ID:	
Design of the second			Total Estimated Cost in MTP (i.e. CK 2040):	Group ID: \$13,	N/A 735,051
Project Name:	SR 64 Added Travel Lane		Total Estimated Cost in MTP	\$13,	N/A
Project Name: Funding Source:	SR 64 Added Travel Lane Surface Transportation Block Grant (ST	BG) - State	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	\$13,	N/A 735,051
		-	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	\$13, \$2,7	N/A 735,051 270,000 2026
Funding Source:	Surface Transportation Block Grant (ST Added travel lane on SR 64 from 2,150' v	west of the ex e throughput Is and mainlir	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date: disting Oakes Road intersection to Edv on SR 64 by improving intersection of the SR 64 in the design year. The added	\$13, \$2,2 vardsville-Galena perations. Addin d lanes to SR 64 v	N/A 735,051 270,000 2026 a Road in Floyd g these travel lan
Funding Source: Description:	Surface Transportation Block Grant (ST Added travel lane on SR 64 from 2,150' v County. The purpose of this project is to improve will reduce driver delay for the side road	west of the ex throughput Is and mainlir vards George vith the follow	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date: disting Oakes Road intersection to Edv on SR 64 by improving intersection of the SR 64 in the design year. The added town to benefit commuter trips to an wing STBG-ST funds:	\$13, \$2,2 vardsville-Galena perations. Addin d lanes to SR 64 v	N/A 735,051 270,000 2026 a Road in Floyd g these travel lan

TIP Action:	Remove Project					
MTP Action:	Remove Project					
Exempt/Non- Exempt:	Exempt	Model Impact:	No change	No change to model		
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2902	<b>State ID:</b> 2000220		
County	Clark, Floyd	Parent ID:	N/A	Group ID:	N/A	
Project Name:	Total Estimated Cost in MTP				,450,000	
Project Name.	Traffic Signal Mods     Total Cost Programmed     \$1,450       in TIP to Date:     \$1,450					
Funding Source:	National Highway Performance Progra	ım (NHPP)	Open to Public Date:		2021	
Description:	Traffic signal modernization in various lo KIPDA MPO area are: SR 60 @ Old 311 (S SR 60 @ I-65 SB (Sellersburg); and US 15	Sellersburg); S	SR 60 @ Payne Kohler Road (Sellersbu			
Purpose & Need:	To modernize the signals in order to mee span/tether/catenary/overhead signage need upgraded signal cabinet and new fo	, conduit, and		•		
FY 20-25 TIP Funding:	FY 2021 Construction phase with the foll \$1,305,000 (Federal) + \$145,000 (Other)	-				
TIP Action:	Add Project					
MTP Action:	Add Project					
Exempt/Non- Exempt:	Exempt	Model Impact:	No change	to model		
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	NEW	State ID:	2100047	
County	Floyd	Parent ID:	N/A	Group ID:	N/A	
Project Name:	US 150 Intersection Improvement of Old	d Vincennes	Total Estimated Cost in MTP (i.e. CK 2040):	\$5	,226,000	
Project Name.	Road / Lawrence Banet Roac	I	Total Cost Programmed in TIP to Date:	\$1,334,000		
Funding Source:	Surface Transportation Block Grant (ST	BG) - MPO	Open to Public Date:	2026		
Description:	Intersection improvement at the interse	ction of Old V	/incennes Road/Lawrence Banet Road	d.		
	An intersection improvement project is recommended for US 150 and Lawrence Banet Road in Floyds Knobs, Floyd County IN. This location has experienced higher than anticipated crash frequency and cost. The recommended alternative would reconfigure US 150 and Lawrence Banet Road as a median U-turn intersection, eliminating left turns at the intersection and					
Purpose & Need:	reconfigure US 150 and Lawrence Banet Road as a median U-turn intersection, eliminating left turns at the intersection and installing U-turn access points on US 150. FY 2023 Preliminary Engineering phase with the following STBG-ST funds:					

TIP Action:	Add Project					
MTP Action:	Add Project					
Exempt/Non-	Exempt	Model	Reflect a 3-lane section in 2030, 2035, and 2040 scenarios. (Changes a			
Exempt:	Exempt	Impact:	related to KIP	DA ID 2758)		
Project Sponsor:	Kentucky Transportation Cabinet (KYTC)	KIPDA ID:	NEW	State ID:	05-80101.00	
County	Bullitt	Parent ID:	N/A	Group ID:	N/A	
Project Name:	KY 1450		Total Estimated Cost in MTP (i.e. CK 2040):	\$8	3,630,000	
Project Name.	KT 1450		Total Cost Programmed in TIP to Date:	\$8	8,630,000	
Funding Source:	State		Open to Public Date:		2027	
Description:	Improve safety and reduce congestion or and CR 1512A (Jeffie Lane). (2020CCN) Provide the second sec				5 (John Harper Way)	
Purpose & Need:	The following needs have been identified residential growth in the area: 1) To imposi- standards, 3) To enhance network conne	rove capacity	, 2) To provide an improved highway	that meets cur	rent safety design	
FY 20-25 TIP Funding:	standards, 3) To enhance network connections, 4) To increase freight capacity, 5) To address recent and planned growth. FY 2022 Design phase with the following State funds: \$0 (Federal) + \$1,045,000 (Other) = \$1,045,000 (Total) FY 2023 Right of Way phase with the following State funds: \$0 (Federal) + \$1,125,000 (Other) = \$1,125,000 (Total) *FY 2024 Utility phase with the following State funds: \$0 (Federal) + \$2,300,000 (Other) = \$2,300,000 (Total) *FY 2025 Construction phase with the following State funds: \$0 (Federal) + \$4,160,000 (Other) = \$4,160,000 (Total)					

#### Amendment 4

# Connecting Kentuckiana 2040 Metropolitan Transportation Plan

# FY 2020 - FY 2025 Transportation Improvement Program

TIP Action:	Modify TIP funding to add a project phase	in the first f	our years of the TIP		
MTP Action:	None				
Exempt/Non- Exempt:	Exempt	Model Impact:	No change	e to model	
Project Sponsor:	Louisville Metro	KIPDA ID:	2624	State ID:	05-03709.00
County	Jefferson	Parent ID:	1273	Group ID:	N/A
Project Name:	Olmsted Parkways Multi-Use Path System	Soction 2	Total Estimated Cost in MTP (i.e. CK 2040):		N/A
Project Name.	Omisted Farkways Multi-Ose Fath System		Total Cost Programmed in TIP to Date:		,550,494 <del>,427,994</del>
Funding Source:	Surface Transportation Block Grant (STB	G) - MPO	Open to Public Date:		2025
Description:	Construction of a 0.30 mile shared use pat	th system alc	ong Algonquin Parkway between Be	ech Street and C	Sypress Street.
Purpose & Need:	To improve and enhance bicycle and pede proposed Louisville Loop.	estrian access	s opportunities along parkways that	extend and link	to existing and
	FY 2022 Design phase with the following S \$100,000 (Federal) + \$22,500 (Other) = \$1		nds:		

#### Amendment 4

## Connecting Kentuckiana 2040 Metropolitan Transportation Plan FY 2020 - FY 2025 Transportation Improvement Program

	Modify TIP funding to add a project phase	se in the first	four years of the TIP		
MTP Action:	None				
Exempt/Non- Exempt:	Exempt	Model Impact:	No changes to model. Project chan on		to funding changes
Project Sponsor:	Louisville Metro	KIPDA ID:	2630	State ID:	TBD
County	Jefferson	Parent ID:	1273	Group ID:	N/A
Project Name:	Olmsted Parkways Multi-Use Path Syste	m Section 9	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed		N/A ,812,814
			in TIP to Date:	<del>\$2</del>	<del>,690,314</del>
Funding Source:	Surface Transportation Block Grant (ST	BG) - MPO	Open to Public Date:		2025
Description:	Construction of a 3.55 mile road diet sys	tem along Al	gonquin Parkway between 41st Stree	et and Winkler A	venue.
Purpose & Need:	To improve and enhance bicycle and peo proposed Louisville Loop.	destrian acce	ss opportunities along parkways that	extend and link	to existing and
FY 20-25 TIP Funding:	FY 2022 Design phase with the following \$100,000 (Federal) + \$22,500 (Other) = \$ *FY 2025 Design phase with the followin \$152,251 (Federal) + \$38,063 (Other) = \$	g STBG-MPO	tal) funds:		
	*FY 2025 Construction phase with the fo \$2,000,000 (Federal) + \$500,000 (Other)	-			
	\$2,000,000 (Federal) + \$500,000 (Other)	-			
TIP Action:	\$2,000,000 (Federal) + \$500,000 (Other) Remove Project	-			
TIP Action: MTP Action: Exempt/Non- Exempt:	\$2,000,000 (Federal) + \$500,000 (Other)	-		e to model	
MTP Action: Exempt/Non-	\$2,000,000 (Federal) + \$500,000 (Other)           Remove Project           N/A - not in MTP	= \$2,500,000 Model	) (Total)	e to model State ID:	 
MTP Action: Exempt/Non- Exempt:	\$2,000,000 (Federal) + \$500,000 (Other) Remove Project N/A - not in MTP Exempt	= \$2,500,000 Model Impact:	) (Total) No change		N/A N/A
MTP Action: Exempt/Non- Exempt: Project Sponsor: County	\$2,000,000 (Federal) + \$500,000 (Other)          Remove Project         N/A - not in MTP         Exempt         Transit Authority of River City (TARC)         Jefferson	= \$2,500,000 Model Impact: KIPDA ID: Parent ID:	D (Total) No change 2454 585 Total Estimated Cost in MTP (i.e. CK 2040):	State ID:	
MTP Action: Exempt/Non- Exempt: Project Sponsor:	\$2,000,000 (Federal) + \$500,000 (Other) Remove Project N/A - not in MTP Exempt Transit Authority of River City (TARC)	= \$2,500,000 Model Impact: KIPDA ID: Parent ID:	D (Total) No change 2454 585 Total Estimated Cost in MTP	State ID: Group ID:	N/A
MTP Action: Exempt/Non- Exempt: Project Sponsor: County	\$2,000,000 (Federal) + \$500,000 (Other)          Remove Project         N/A - not in MTP         Exempt         Transit Authority of River City (TARC)         Jefferson	= \$2,500,000 Model Impact: KIPDA ID: Parent ID: Ses	D (Total) No change 2454 585 Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed	State ID: Group ID:	N/A N/A
MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name:	\$2,000,000 (Federal) + \$500,000 (Other)          Remove Project         N/A - not in MTP         Exempt         Transit Authority of River City (TARC)         Jefferson         TARC Purchase Two (2) 40' Bus         Grants for Buses and Bus Facilities Form	= \$2,500,000 Model Impact: KIPDA ID: Parent ID: Ses ula Program	D (Total) No change 2454 585 Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date:	State ID: Group ID:	N/A N/A 994,399
MTP Action: Exempt/Non- Exempt: Project Sponsor: County Project Name: Funding Source:	\$2,000,000 (Federal) + \$500,000 (Other)          Remove Project         N/A - not in MTP         Exempt         Transit Authority of River City (TARC)         Jefferson         TARC Purchase Two (2) 40' Bus         Grants for Buses and Bus Facilities Form (Section 5339)	= \$2,500,000 Model Impact: KIPDA ID: Parent ID: Ses ula Program esel buses.	O (Total) No change 2454 585 Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date: Open to Public Date:	State ID: Group ID: \$	N/A N/A 994,399 2021

TIP Action:	Remove Project					
MTP Action:	N/A - not in MTP					
Exempt/Non- Exempt:	Exempt Model No change to model					
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	2462	State ID:	N/A	
County	Jefferson	Parent ID:	585	Group ID:	N/A	
Project Name:	TARC Rehab Administrative Buil	ding -	Total Estimated Cost in MTP (i.e. CK 2040): Total Cost Programmed in TIP to Date:	N/A \$500,000		
Funding Source:	Grants for Buses and Bus Facilities Form	ula Program	Open to Public Date:		2021	
Description:	Rehabilitate an administrative facility with the goal of reducing operating costs by maintaining a state of good repair.					
Purpose & Need:	TARC will apply these funds to a rehabilitation project for an existing administrative building.					
FY 20-25 TIP Funding:	FY 2021 Transit Capital phase with the fo \$400,000 (Federal) + \$100,000 (Other) =	0				

# **AIR QUALITY CONFORMITY**

The Louisville, KY-IN transportation planning study area consists of Clark and Floyd counties and 0.1 square miles of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles of Shelby County in Kentucky. Much of this area coincides with the local ozone nonattainment area. In the past, a portion of the planning study area also coincided with a local PM 2.5 nonattainment area, but that standard was revoked in April, 2015. The Louisville, KY-IN maintenance area for the 1997 8-hour ozone standard consisted of Clark and Floyd counties, IN, and Bullitt, Jefferson, and Oldham counties, KY. It was designated as a basic nonattainment area in June, 2004 and redesignated as an attainment area with a maintenance status in July, 2007. The 1997 8-hour ozone standard was revoked for the local area in April, 2015, and at that time, it was not necessary for the local area to determine conformity. (However, the local area was still eligible to receive Congestion Mitigation/Air Quality funding). In June 2018, the former Louisville, KY-IN 1997 ozone maintenance area was designated as a marginal nonattainment area for the 2015 8-hour ozone standard. One of the requirements of this designation as a nonattainment area is that it will once again be necessary to determine conformity for the local area.

KIPDA is amending *Connecting Kentuckiana 2040,* the metropolitan transportation plan (MTP) and the FY 2021 – FY 2025 Transportation Improvement Program (TIP). This conformity analysis will support conformity determinations by the metropolitan planning organization and the U. S. Department of Transportation agencies for both documents. This analysis is intended to support determinations of conformity under both the 1997 and 2015 8-hour ozone standards.

## CONFORMITY UNDER THE 1997 AND 2015 8-HOUR OZONE STANDARDS

When an area such as the Louisville area becomes nonattainment, the area must undertake a process known as conformity. This process provides a linkage between transportation planning and air quality planning. One of the key activities of conformity is to quantify the level of emissions of the air pollutant(s) and/or precursor(s) for certain analysis years and compare those levels to the motor vehicle emission budgets (MVEBs)—if they exist. The MVEBs limit the amount of a pollutant or precursor that can be emitted. If MVEBs do not exist, the area must rely on interim tests, such as comparing the emissions to the level of emissions in a baseyear, to determine conformity. The baseyear would be set by US EPA when the standard is promulgated.

Subsequent to being designated as nonattainment of the 1997 8-hour ozone standard and prior to being redesignated as attainment of the standard, the Louisville area

relied on the use of interim tests to demonstrate conformity. These tests had been established during a 2004 update to the federal conformity rule. When the Louisville area was designated as nonattainment of the 2015 8-hour ozone standard, there were no MVEBs for that standard. However, there were MVEBs for the 1997 8-hour ozone standard, and they were used in the process of determining conformity to both the 1997 and 2015 standards.

When the local area was designated as nonattainment of the 1997 8-hour ozone standard, the air quality agencies with responsibility for the local area were charged with the additional responsibility to develop a set of actions that could be taken to reduce pollutant/precursor emissions. These actions were to be included in air quality plans known as State Implementation Plans (SIPs). Since the Louisville nonattainment area is a bi-state area, these sets of the actions to reduce precursor emissions were to be incorporated into the Indiana and Kentucky SIPs. It was during this process that MVEBs were established. Originally, the SIPs were to include sets of actions to bring the local area into attainment of the ozone standard. This type of SIP is known as an attainment demonstration. However, while these SIPs were being developed, the data from the air quality monitors in the area indicated that the 1997 8hour ozone standard had been met. With this data in hand, the air quality agencies were able to submit a SIP known as a redesignation request instead. The establishment of the MVEBs was one of the components of the redesignation request. Since the SIPs were redesignation requests for ozone, the MVEBs were established for the precursors of ozone -- volatile organic compounds and oxides of Nitrogen.

## CONSULTATION FOR CONNECTING KENTUCKIANA 2040

The first step in determining conformity of *Connecting Kentuckiana 2040* was to consult with the interagency consultation (IAC) group concerning matters not explicitly determined by the conformity rule. Conformity under the 1997 8-hour ozone standard had been previously determined. Therefore, many of the issues normally arising in conformity had undergone consultation previously. Since these issues were not raised during consultation this time, the portions of the analysis involving those issues were accomplished consistent with established practice.

A consultation zoom meeting was held on July 27 to discuss issues relative to amendment 4 of the MTP. It involved a review and discussion of the following items:

(a)	important dates in the schedule for the amendment;		
	September 17	Regional Emissions (Air Quality) Analysis completed	
	September 20	Public Review begins	
	October 13	Action by the Transportation Technical Coordinating Committee	
	October 28	Action by the Transportation Policy Committee	

October 29 -- Documentation sent to review agencies for the federal conformity determination;

- (b) a draft list of projects—sent to the IAC with consultation notice—included in accompanying documentation;
- (c) the horizon year of the transportation plan-2040;
- (d) the proposed conformity test methodology/ies and analysis years—see the discussion of issues and ESTABLISHED PRACTICE sections below;
- (e) the pollutant(s)/precursor(s) of concern and the motor vehicle emissions budget(s), if applicable—see table 2 at the end of the report;
- (f) information concerning the inputs for the travel demand model and the approved emissions model—see the issues section below, the list of projects included in accompanying documentation, and the items concerning the travel demand model and emissions model under Other Planning Issues; and
- (g) a listing of any transportation control measures (TCMs) in SIPs, if applicable—there are none.

## <u>Issues</u>

## Discussion of Projects

KIPDA staff had provided the IAC with a list of 17 projects that will be amended in *Connecting Kentuckiana 2040.* The projects are a mix of new projects and projects already in the MTP that were being amended. Key details about the projects were presented in the list, including recommendations on whether each project was exempt or non-exempt and how the projects were included in or excluded from the regional travel demand model.

Points of discussion of the projects included:

• KY 1450 projects in Bullitt County, KIPDA ID 2758 and KYTC 80101.00 projects: These projects were created by the division of an older project on KY 1450 from the Bullitt County/Jefferson County line to John Harper Highway. It was noted that KIPDA ID 2758 (sponsored by Bullitt County) covers the northern portion of the older project (from the Bullitt/Jefferson County line to Jeffie Lane) and will remain a 4-lane project. The KYTC project (from Jeffie Lane to John Harper Highway) will be a 3-lane project.

- INDOT I-64 Sherman Minton bridge projects, KIPDA IDs 2489, 2279, 2649, 2647, 2648, 2645, and 2646: The second topic of discussion concerned a series of INDOT projects involving the I-64 Sherman Minton bridge and its approaches. There are a number of projects which represented parts of the overall project. Those projects are being removed and will be consolidated into a single overall project to replace them. FHWA-IN staff made the comment that KIPDA staff should consult with INDOT staff to be sure that the overall project includes information about the various improvements that were to be included in the projects being removed. In addition, information concerning funding for FY2024 was to be removed since it was not part of this TIP.
- **INDOT intersection projects, INDOT DES 2000220 and 2100048**: The next pair of projects to be discussed were INDOT DES 2000220, which is being removed, and INDOT DES 2100048, which is being added. The first project was to improve the traffic signals at a series of intersections. The latter is to construct a roundabout at the intersection of SR 60 and CR 311, one of the intersections which was to have its traffic signal improved under the first project. There were no questions or comments.
- **INDOT SR 64 project, INDOT DES 2100036**: The next project is to add travel lanes to SR 64 near the Georgetown community. This is considered to be a very straightforward project from the standpoint of modeling. There were no questions or comments.
- **INDOT US 150 and Lawrence Banet Rd intersection project, DES 2100047:** The next project is to improve the intersection of US 150 with Old Vincennes Road and Lawrence Banet Road. It was noted that there was no way to reflect this project in the modeling of Amendment 4. There were no questions or comments.
- Louisville Metro Olmstead Parkways projects, KIPDA IDs 2624 and 2630: The next two projects concern the Olmstead Parkways: Multi-use Path System. The projects are to modify the TIP funding to add a project phase in the first four years of the TIP. There were no questions or comments.
- TARC Bus and Administration Building projects, KIPDA IDs 2454 and 2462: The final two projects are sponsored by the Transit Authority of River City (TARC), the local transit provider. Both of these projects are being removed from the TIP. One of the projects involved the purchase of two full-size buses, and the other involved rehabilitation of TARC's administration building.

Conclusion: The IAC members, after discussing the details of the projects listed above, accepted the recommendations concerning the incorporation of these project as described in the documentation into the regional emissions analysis.

## Discussion of the Conformity Analysis

The following items of the conformity analysis were discussed.

- (1) KIPDA staff discussed the key components of the conformity analysis that are expected to be presented to the KIPDA TPC in May. The analysis years will be the ones that were used when the existing MTP was previously amended. The analysis years will be 2025, 2030, 2035, and 2040.
- (2) The Budget Test utilizing the Year 2020 Motor Vehicle Emissions Budgets created for the 1997 8-Hour Ozone Standard will continue to be used until a new set of budgets are established. By not exceeding these budgets in the year 2025, 2030, 2035, and 2040 travel model scenarios, *Connecting Kentuckiana 2040* will demonstrate conformity to both the 1997 and 2015 8-Hour Ozone Standards.
- (3) The pollutants of concern for the analysis are the precursors of Ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx). The emission budgets for these pollutants are 20,793 kg/day and 26,726 kg/day, respectively.
- (4) The newest version of the MOVES emissions model, MOVES 3.0, will be used for the analysis.

NOTE: (See also the "Analysis Years and Conformity Tests" portion of the "ESTABLISHED PRACTICE" section below for more information on these issues.)

## SIP Status Discussion

A topic which had been raised during consultation for Amendment 3 was the status the two new State Implementation Plans (SIPs). These SIPs are being or about to be developed to address the need for a new maintenance plan for the 1997 Ozone standard and for the 2015 Ozone standard. The consultation meeting for Amendment 4 was an opportunity to hear an update concerning the status for the two new SIPs.

LMAPCD staff provided a presentation concerning the two SIPs which are presently under development. One of these SIPs is the second maintenance SIP for the 1997 Ozone standard. (The first maintenance SIP was developed years ago when the 1997 Ozone standard was first achieved.) The second maintenance SIP was originally scheduled to be completed some years ago but was not because EPA rescinded the 1997 ozone standard, and at that time that happened, it seemed that it would not be necessary to develop the second maintenance SIP. However, the courts overturned some of EPA's actions concerning the 1997 Ozone standard (the case known as South Coast II). So, the second maintenance SIP is now under development and should be finished soon. The other SIP is being developed to meet the requirements relative to the 2015 Ozone standard. At this time, air monitoring data has indicated that the 2015 standard has not been met. The steps that need to be undertaken in the future may depend partially on whether the monitoring data for the remainder of the "ozone season" for this year is sufficiently "clean" to justify a clean air finding. Regardless of that situation, the local area is likely to have its nonattainment status changed from marginal to moderate. This change, along with the results of the monitoring data, will affect the steps to be taken to address the needs for the 2015 ozone standard SIP.

#### Other items for discussion

KIPDA staff offered the opportunity for any other business or questions to be brought to the IAC. There was no other business discussed.

## ESTABLISHED PRACTICE

In addition to the issues discussed during consultation, there were several issues which were not explicitly discussed or received little discussion during the consultation zoom meeting of March 4, but which had impacts on the analysis. Many of these issues had been discussed during previous consultations. These issues were handled in a manner consistent with the previous established practice. The more prominent issues are discussed below.

#### Relationship of MTP and TIP for Conformity Purposes

The Transportation Improvement Program (TIP) is maintained as a subset of the Metropolitan Transportation Plan (MTP). Therefore, the conformity determination for the MTP will serve as the conformity determination for the TIP.

# Conclusion: The IAC members are informed of this from time to time in order to clarify the conformity determination for the MTP also serves as the conformity determination for the TIP.

## Issues related to the KIPDA travel demand forecasting model

During recent changes to the MTP, there were two changes of note to the KIPDA travel demand forecasting model.

 (1) First, the proposed toll structure for the Louisville Southern Indiana Ohio River Bridges project changed in the last few years. Changes were made to the KIPDA travel demand forecasting model to reflect the changes in the toll structure.
 (2) During 2017 and 2018, KIPDA staff have updated and calibrated the travel demand forecasting model. This activity involved updating the inputs to the model was considered calibrated when the model outputs matched observed data (e.g., HPMS VMT), within reason, for the baseyear. This update established 2015 as the baseyear (the year on which calibration was based) for the model.

# Conclusion: The IAC members have been informed that the KIPDA travel demand forecasting model has been updated and calibrated and that 2015 is now the baseyear for the model.

#### Analysis Years and Conformity Tests

Motor Vehicle Emissions Budgets (MVEBs) for the 1997 8-hour ozone standard were approved by EPA in July, 2007. The MVEBs were for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx), The Federal Register notice can be found at 72 FR 36601. The budgets are shown in Table 2 at the end of this document. Since there are MVEBs for the ozone precursors, the conformity rule requires that ozone analyses be done for the attainment year and the last year of the transportation plan. In addition, other intermittent year(s) are required such that no two analysis years are more than ten years apart. The maintenance plan established when the local area was redesignated established MVEBs for VOCs and NOx for 2003 (the attainment year) and 2020 (the last year of the maintenance plan). Since the attainment year and the last year of the analysis.

In order to have the required analysis years, several changes were made in recent years. Years have been added to the list of analysis years, and later, when those years were passed, they were removed. When the MTP was updated in 2020, the horizon year of the plan was changed to 2040, and that year had to be added to the analysis years. At the same time, in order to allow for more orderly transition as time progressed, 2025 and 2035 have been added as analysis years, allowing for analysis years every five years. By having the analysis years five years apart throughout the life of the MTP, it was noted that there would always be an analysis year within five years of the time of the analysis. Further, when the horizon year of the MTP is extended, that year will be added as an analysis year. Otherwise, the analysis years can remain constant except for the removal of an analysis year when it moves to the past. This year 2020 moved to the past, and it was removed from the list of analysis years. This left the years 2025, 2030, 2035, and 2040 as analysis years.

Conclusion: The established practice is that the analysis years and conformity tests for the regional emissions analysis are as shown in the table below. Years prior to the present year have been removed from the list.

1997 8-hour Ozone Standard		
Analysis Year	Conformity Test(s)	
2025	Budget test using the 2020 MVEBs for the 1997 8-hour standard	
2030	Budget test using the 2020 MVEBs for the 1997 8-hour standard	
2035	Budget test using the 2020 MVEBs for the 1997 8-hour standard	
2040	Budget test using the 2020 MVEBs for the 1997 8-hour standard	

## Vehicle Registration (Fleet Mix) Data

At various times in the past, new vehicle registration data has been provided for use in developing pollutant emissions. This vehicle registration data has been reviewed and accepted by the IAC. The data being used for the Indiana counties has been updated to 2017, and the data being used for the Kentucky counties is for 2018. These data represent the most recent information available for this issue.

# Conclusion: Based on a consensus of the IAC members, vehicle registration data for 2017 for the Indiana counties and for 2018 for the Kentucky counties is now being used in developing emission estimates.

## CONFORMITY OF CONNECTING KENTUCKIANA 2040

The MTP, *Connecting Kentuckiana 2040*, was examined to determine if it met the requirements of the conformity rule under the 1997 and 2015 8-hour ozone standards. In general, the process leading to a conformity determination has two major components:

- a regional emissions (air quality) analysis to determine that air pollutant emissions do not exceed the budgets set in the SIPs, if applicable, or the emission levels for a given base year; and
- (2) a monitoring of the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs.

In the past, consultation with the state and local air quality agencies and EPA had determined that there are no approved TCMs in the SIPs of Indiana and Kentucky. Therefore, it is possible to show conformity of *Connecting Kentuckiana 2040* simply by determining that the air pollutant emissions do not exceed the budgets in the SIPs or the base year emissions.

#### ANALYSIS PROCESS

The process of calculating the regional emissions for *Connecting Kentuckiana 2040* involved three main procedures. The first procedure was a review of the projects to determine which projects needed to be included in the regional emissions analysis. The second procedure was to perform the calculations necessary to quantify the certain measures of travel behavior. The third procedure was to calculate the pollutant / precursor emissions. These activities are discussed below in greater detail.

## Project Review

The first procedure was to review the projects to determine which projects were exempt or non-exempt and which projects were "regionally significant." The combination of these two considerations was the basis for determining which projects were recommended for inclusion in the regional emissions analysis. During the amendment of *Connecting Kentuckiana 2040*, a group of projects had been proposed for the plan. These projects were reviewed by KIPDA staff, who prepared a list of the projects with information about the projects and a staff recommendation concerning the project's status relative to being exempt, non-exempt, etc. There is usually a straightforward explanation for why projects are included in or excluded from the analysis and why they are analyzed as they are. Most of the projects which were excluded were exempt projects as defined in the Code of Federal Regulations in 40 CFR 93.126 and 40 CFR 93.127.

During consultation, this list was reviewed and accepted by the IAC as described under the section entitled "CONSULTATION FOR *CONNECTING KENTUCKIANA 2040.*" (please see above.) Those projects in *Connecting Kentuckiana 2040* which were not changed were analyzed as they had been previously. The projects which were newly added to the MTP or had been changed in *Connecting Kentuckiana 2040* were analyzed as indicated on the list provided to IAC.

In addition, there were several projects which could not be analyzed using the travel model. In the past, most of these projects had been evaluated using spreadsheet methods factors. Since the MOVES emissions model was being used in the inventory mode, emission factors were not available for this analysis. However, experience had shown that the emission impacts for these projects were always small and positive (i.e., emission reducing). Therefore, it is reasonable to predict that the emission impacts of these projects—if they could be quantified—would decrease the emissions shown in the tables at the end of this document.

Also, there was one project affecting Bullitt County that could not be included in the travel model. Unlike the projects described in the paragraph above, this project could have the potential to increase emissions. Therefore, a special effort was made to

include its impacts in the analysis of travel behavior impacts and, consequently, in the regional emissions analysis. This project is the relocated (southern) section of US 31E. This project, which had been discussed during consultation in the past, involves the relocation of a small (approximately 0.2 mile) section of US 31E from Nelson County (outside of the nonattainment area) to Bullitt County (inside the ozone nonattainment area) during the reconstruction of that road. Estimates of the VMT for this project were developed using a spreadsheet approach. The VMT estimates were the product of the estimated traffic volumes for each of the analysis years and the length of the relocated section in Bullitt County. The VMT estimates for this project were then added to other Bullitt County VMT estimates of the same functional class. Consequently, the VMT estimates from this project were included with the other Bullitt County VMT, and the emissions in Bullitt County associated with this project were included in the overall emission estimates for Bullitt County.

## Calculation of Travel-Related Information

The analysis of the travel behavior impacts for the nonattainment area primarily involved using the KIPDA travel demand forecasting model to determine measures of travel such as vehicle-miles-traveled (VMT) and speed. The method for determining these measures was to input the appropriate roadway and transit information into the model and to run the model using the appropriate socioeconomic information for a given analysis year. This analysis is explained below in further detail in the sections concerning the KIPDA travel demand forecasting model and adjustment factors for travel model output.

## KIPDA Travel Demand Forecasting Model

The KIPDA travel demand forecasting model is a mathematical model which relates travel to the transportation system and basic socioeconomic information. The domain of the model is a study area which includes the Louisville (KY-IN) Metropolitan Planning Area. The Louisville (KY-IN) Metropolitan Planning Area consists of Clark and Floyd counties, and 0.1 square miles in Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles in Shelby County in Kentucky. This area is divided into 984 smaller units called traffic analysis zones.

As previously mentioned, the KIPDA regional travel demand forecasting model was updated and calibrated recently. This update established 2015 as the new base year for the model. The model update utilized the information incorporated into the travel model during previous updates. In particular, information from the 2000 KIPDA Household Travel Survey had been previously incorporated. Information from 2010 Census, the 2012-2016 American Community Survey, the 1990 and 1995 National Personal Transportation Surveys, and the 2001 and 2009 National Household Travel Surveys was incorporated to update the previous source data, particularly the 2000 KIPDA Household Travel Survey. During the update, the model parameters were adjusted such that the model output matched—within reason—three main calibration criteria based on measured data. These criteria were: (1) the total daily VMT for all highway facilities except local roads for the region; (2) the distribution of trip lengths (duration in time) for each of the main trip purposes used in the model; and (3) highway traffic volumes crossing the Ohio River screenline. The result of the update was a travel model which generally replicated travel in the Louisville area for 2015. The updated travel model was used in the regional emissions analysis.

The KIPDA travel demand forecasting model uses the standard four steps of modeling: trip generation, trip distribution, mode choice, and trip assignment. In addition, it considers travel by vehicles entering, leaving, and crossing the study area. These types of trips are known as external-internal, internal-external, and external-external, respectively. The internal ends of these trips are determined by the methods described below for internal-internal travel. The external ends are determined from the volume of traffic crossing the study area boundary at any of the 46 external stations.

Trip generation is the process of determining the number of unlinked trip ends--called productions and attractions--and their spatial distribution based on socioeconomic variables such as households and employment. Trip rates used to define these relationships were derived from the travel data collection efforts described above. This information was supplemented by use of the *National Cooperative Highway Research Program Report #365* and the Institute of Transportation Engineers' *Trip Generation Report.* The KIPDA travel demand model uses three internal-internal trip purposes and utilizes different trip rates for each. Internal-internal trips are those which have both ends inside the modeling domain. The three purposes are home-based work, home-based other, and non home-based.

Trip distribution is the process of linking the trip ends thereby creating trips which traverse the area. The KIPDA travel model uses a gravity model to link all trips except the external-external ones. The gravity model is based on the principle that productions are linked to attractions as a direct function of the number of attractions of a zone and as an inverse function of the travel time between zones. This inverse function of travel time is used to generate parameters called friction factors which, in turn, direct the gravity model. The friction factors used in the gravity model were developed as part of the calibration effort performed during the model update. In addition, information from a study which investigated the behavior of travelers crossing the Ohio River and traffic count information from years near 2015 were utilized to develop additional parameters called K-factors. The K-factors are used by the model to ensure that it is predicting the correct volume of traffic crossing the Ohio River.

Mode choice is the process used to separate the trips which use transit from those which use automobiles. It is also used to separate the auto drive-alone trips from auto shared-ride trips. In some previous KIPDA travel demand models, mode choice was based primarily on information provided by the *TARC Travel Forecasting Study* from some time ago. In that model, the user's benefit or utility was calculated for each mode based on zonal socioeconomic characteristics and the cost and time of the trip using the various modes. A nested logit model was used to determine the probability of the trip being made by each of the modes. This probability was then multiplied by the number of trips between zones to determine the number of trips by each mode.

As previously stated, the conformity analysis for *Connecting Kentuckiana 2040* utilizes transit information from the previous travel demand model. The results of the 2004 TARC on-board survey had been used to factor the data in the previous transit files. This was deemed acceptable for several reasons. The primary reason was that the transit network envisioned by *Connecting Kentuckiana 2040* is essentially the same as the existing one. In addition, the number of total trips from the two models was similar. Therefore, the use of the factored transit trip information from previous travel models did not significantly change the proportion of trips allocated to transit. Finally, the proportion of trips utilizing transit is less than 2% of the total trips. So small differences in the number of transit trips should provide a negligible effect on overall travel.

Trip assignment is the process used to determine which links of the network a trip will use. There are several assignment schemes which may be used. Two of the more common schemes are All-or-Nothing (AON)--in which all trips between two zones follow the shortest time path--and Stochastic--in which trips between two zones may be assigned to several paths based on their impedances or travel times. It is not uncommon for travel models to use several assignment schemes in sequence to converge to a better assignment. A sequence commonly used involves using several AONs with the traffic volumes reported at the end of each scheme being a weighted average of the volumes from the most recent scheme and the volumes from the previous schemes. A capacity restraint provision is used to adjust travel times between assignment schemes. This sequence is called an equilibrium assignment. The KIPDA travel model uses an equilibrium assignment which converges when the change in system-wide travel time over successive iterations is estimated to be within 0.0001 or less.

Tolls are being used as a means of providing for a portion of the cost of the Louisville Southern Indiana Ohio River Bridges project. To reflect the effect of the tolls in the KIPDA travel model, time penalties have been used in the model on the bridges where tolls are being collected. As mentioned above, the toll structure was recently changed. To reflect this in the MTP update, the time penalties used in the KIPDA travel model were likewise changed to reflect the effect of the new toll structure. The output from the KIPDA travel model is in the form of a series of links with each link having certain associated data such as number of lanes, capacity, facility type, area type, functional class, and volume. This data allows for the calculation of other link information such as vehicle-miles-traveled (VMT). The VMT can be calculated as the product of the volume of traffic using a link times the distance (length) of the link.

#### Adjustment Factors for Travel Model Output

The VMT and speeds from the travel demand model were adjusted before being used in the calculation of regional emissions. The purpose of these adjustments was to reconcile the model output with travel estimates from other sources, such as the Highway Performance Monitoring System (HPMS) estimates of VMT. To perform this adjustment, factors were developed for the baseyear of the model using HPMS or other estimates and applied to model output for other years.

The development of the VMT adjustment factors involved comparing the VMT outputs of the travel demand model to the HPMS VMT estimates for 2015. Factors were developed to adjust the model output to account for variation between the model and HPMS within each of the counties. To do this, the VMT from the 2015 model run was tabulated by county and functional classification. The VMT estimates derived from the model were then compared to the HPMS VMT estimates for 2015 to develop adjustment factors to be applied to the model output for subsequent years. The 8-hour ozone analysis is based on a level of traffic and the accompanying emissions expected on a typical summer weekday. For that analysis, the adjustment factors were increased by 2.9% to reflect the higher volume of traffic that can be expected on a typical summer weekday relative to the annual average daily traffic. The adjustment factors for VMT were developed on a functional classification basis for each county.

The development of the speed adjustment factors involved a similar process. The outputs of the travel demand model were compared to estimates of speed based on the equations of the Highway Economic Reporting System (HERS).

The HERS equations were used to estimate speeds on 6239 sections for five functional classifications of urban roadways and 2278 sections for five functional classifications of rural roadways. The speeds from these roadway sections were used to determine the average speed for each of five rural and urban functional classes. The speeds used in the travel model were also averaged for each of the five rural and urban functional classes for which HERS estimates had been developed. The speed adjustment factor for each of these functional classes was calculated as the ratio of the average speed using the HERS equations to the average speed using the travel model data.

There were not many HPMS minor collector and local roadway sections with data that allowed for the calculation of adjustment factors. Since the model contained the minor collector roadways in the area and these roadways were similar to the major collector roadways in the area, the adjustment factor for the rural major collectors was used for the rural minor collector roadways, and the adjustment factor for the urban major collectors was used for the urban minor collector roadways.

The procedures described above produced speed adjustment factors for all functional classes except rural and urban local roads and ramps. (Ramps are not officially a separate functional class, but the speed behavior of traffic on ramps is not expected to be like that of any other functional class. Therefore, the ramps were treated as a separate "functional class.") There was not sufficient data to estimate speeds for the roadways of these classes. For rural and urban local roads and ramps, the speeds in the travel model were used without adjustment (i.e., the speed adjustment factor for rural and urban local roads and for ramps = 1).

## Calculation of Pollutant/Precursor Emissions

The calculation of the pollutant/precursor emissions for the nonattainment area involved using the adjusted output data from the KIPDA travel demand forecasting model as input to the MOVES model. KIPDA staff provided adjusted travel model output data in the form of vehicle-miles-traveled (VMT), VMT by speed bin, and VMT fractions by speed bin by county and by MOBILE 6 facility type to the staff of the Louisville Metro Air Pollution Control District (LMAPCD). LMAPCD staff utilized this data along with other necessary inputs to run the MOVES model and develop emission estimates for volatile organic compounds (VOCs) and oxides of Nitrogen (NOx). They then provided these estimates to KIPDA staff. This analysis is explained below in further detail in the section below.

## **MOVES Emissions Model**

As previously mentioned, the Louisville region is a nonattainment area for the pollutant ozone and must therefore control the precursors of ozone, VOCs and NOx. The emission estimates for VOCs and NOx were determined using the MOVES 3.0 emissions model. The staff of the Louisville Metro Air Pollution Control District (LMAPCD) produced the emissions for all of the counties in the nonattainment area. The methodology used in calculating these emission estimates is discussed below.

There are a number of factors affecting the emission estimates developed from the MOVES model. In the past, these factors included the presence of inspection/ maintenance (I/M) programs in some of the counties. During that time period, the VMT generated in Clark, Floyd, and Jefferson (KY) counties came from some vehicles subject to an I/M program and from some vehicles not subject to an I/M program.

The I/M program in Clark and Floyd counties was discontinued at the end of 2006. The I/M program in Jefferson County (KY) was discontinued in 2003. Therefore, these programs are no longer a factor in estimating emissions.

One of the other factors is the fuel used by the vehicles in the various counties. The fuels which are used in Clark, Floyd, and Jefferson counties include reduced Reid vapor pressure gasoline (RVP) and reformulated gasoline (RFG). While RFG is used in some portions of Bullitt and Oldham counties, unregulated gasoline is used in the other portions of those counties as well as the areas adjacent to the nonattainment area. Vehicles from these other areas can be expected to travel in the Clark, Floyd, and Jefferson (KY) counties also. In the past, the emission factors (from the MOBILE 6 model) for Clark, Floyd, and Jefferson (KY) counties used in the air quality analysis varied by county because they represent a VMT-weighted composite based on an estimate of travel in each county by vehicles from the various portions of the region. For this analysis, the MOVES model was used in what is known as the inventory mode. Using the inventory mode, it is possible to define the fuel characteristics and the presence of an I/M program for each county, but it is not possible to represent the effect of travel in a county by vehicles from other counties. Therefore, the use of composite emission factors was not possible. Other than that, the assumptions used in the analysis were consistent with those of the appropriate air quality agency for each of the counties. For Clark and Floyd counties, the assumptions of the Indiana Department of Environmental Management (IDEM) were used. Some assumptions of LMAPCD were also used for Clark and Floyd counties. For Jefferson County (KY), the assumptions of the LMAPCD were used. These assumptions had been previously reviewed and accepted by the IAC partners.

The assumptions used in developing the emissions for Clark, Floyd, and Jefferson (KY) counties were the same as those that were used in developing the ozone budget update (for VOCs and NOx) in 2003 with a few exceptions where newer data was incorporated. The changes which affected the VOC and NOx emissions included:

- improved consistency and completeness of gasoline data provided with the new MOVES model,
- (2) the incorporation of newer vehicle registration data (for 2017) for Clark and Floyd counties (provided by INDOT),
- (3) the development and use of newer vehicle registration data (for 2018) for Jefferson County (KY), and
- (4) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

The emissions for Bullitt and Oldham counties were also developed by LMAPCD. Most of the inputs to the MOVES model were defaults and/or data used that was consistent with previous SIPs. As mentioned above, RFG is used in some portions (the "original" portions) of Bullitt and Oldham counties, and unregulated gasoline is used in the other portions (the "new" portions) of those counties as well as the areas adjacent to the nonattainment area. The "original" portions and "new" portions refer to whether a portion of these counties had originally designated as a nonattainment/ maintenance status for the 1-hour ozone standard or had only been designated under the 8-hour ozone standard. Neither portion of either county had an I/M program. So it was not necessary to have I/M input information for MOVES. However, it was possible that the gasoline formulation in the different portions of these counties could be different.

It was determined—based on data provided by US EPA for the MOVES model—that the gasoline formulation for Bullitt and Oldham counties is essentially the same as that for Jefferson County with respect to the use of RFG. Since the use of the MOVES model in the inventory mode does not allow for the characteristics of different blends of gasoline within the same county, the gasoline formulations of Bullitt and Oldham counties was modeled the same as for Jefferson County.

The assumptions used for Bullitt and Oldham counties were consistent with those for the 2003 ozone budget update with the following exceptions:

- (1) improved consistency and completeness of gasoline data provided with the new MOVES model,
- (2) the characterization of gasolines described in the previous paragraph
- (3) new 2018 vehicle registration data for Bullitt and Oldham counties, and
- (4) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

LMAPCD developed emission estimates of VOCs and NOx using the MOVES model. To review, the following steps were undertaken.

- (1) LMAPCD staff received (from KIPDA staff) the adjusted travel model output in the form of VMT, VMT by speed bin, and VMT fractions by speed bin, all by county and by MOBILE facility type by analysis year.
- (2) LMAPCD reformatted the data from KIPDA to prepare it as input to the MOVES model. Other necessary data was also prepared.
- (3) The MOVES model was run in inventory mode to determine emission estimates of each precursor for each county for each analysis year.
- (4) LMAPCD staff provided the emission estimates to KIPDA staff.

## **RESULTS OF THE ANALYSIS**

The transportation plan, *Connecting Kentuckiana 2040,* has been examined to determine if it is in conformity with the SIPs of Indiana and Kentucky and fulfills the criteria in the federal conformity rule (found in 40 CFR 93). The examination has been based on an air quality analysis to determine that air pollutant emissions of the appropriate areas did not exceed the VOC and NOx motor vehicle emission budgets.

As previously mentioned, the other criterion for determining conformity would have been the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs. However, since previous consultation had determined that there were no approved TCMs, that criterion did not affect the determination of conformity. The results of the regional emissions analyses for ozone precursors are discussed below.

#### 8-hour Ozone Analysis

The eight-hour ozone maintenance SIPs of Indiana and Kentucky contain emission budgets for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx). The regional emissions analysis was conducted to provide estimates of the levels of emissions of VOCs and NOx for the various analysis years. These emission levels were then compared to the budgets in the SIPs to determine if the conformity tests were passed.

The results of the regional emissions analysis are summarized in Tables 1 and 2. Table 1 shows the summer weekday vehicle-miles-traveled from the analysis. Table 2 shows that for 2025, 2030, 2035 and 2040, the summer weekday VOC and NOx emission levels for the 2015 8-hour nonattainment area are less than the emission budgets established in the 1997 8-hour ozone maintenance SIP.

#### Conclusions – 8-hour Ozone

The regional emissions analysis of *Connecting Kentuckiana 2040* indicates that the Metropolitan Transportation Plan is consistent with the goals and emission budgets established in the State Implementation Plans of Indiana and Kentucky. The cumulative effect of the results shown in Table 2 indicates that *Connecting Kentuckiana 2040* has met the requirements of conformity under the 1997 and 2015 8-hour ozone standards. In summary, it can be concluded that *Connecting Kentuckiana 2040* conforms to the SIPs and meets the requirements of the federal conformity rule.

#### TABLE 1

SUMMER WEEKDAY VEHICLE-MILES-TRAVELED (VMT) ESTIMATED FOR			
THE 8-HOUR OZONE NONATTAINMENT AREA			
(in 1000′s of vmt/day)			
YEAR	INDIANA	KENTUCKY	TOTAL
2025	7894	27297	35191
2030	8425	28719	37144
2035	8953	30053	39006
2040	9440	31183	40623

#### TABLE 2

SUMMER WEEKDAY EMISSIONS FOR THE 8-HOUR NONATTAINMENT AREA (kg/day)				
EMISSION LEVELS FOR VARIOUS YEARS				
YEAR	Area	VOCs	NOx	PASS
2025		6968	18524	YES
2030	Regional	4942	14492	YES
2035		4342	13553	YES
2040		4174	13821	YES

NOTE: The criteria for conformity are as follows:

2025, 2030, 2035, and 2040 Regional emission levels for VOCs must be below the maintenance plan emission budget of 22.92 tons/day or 20,793 kg/day.

2025, 2030, 2035, and 2040 Regional emission levels for NOx must be below the maintenance plan emission budget of 29.46 tons/day or 26,726 kg/day.



# Connecting Kentuckiana 2040 Metropolitan Transportation Plan Amendment 4 FY 2020-2025 Transportation Improvement Program Amendment 4 Interagency Consultation Group Conference Call Meeting Minutes July 27, 2021 10:00 AM EDT

#### **Participants:**

EPA – Dianna Myers, Richard Wong, Will Carpenter, & Anthony Maietta FHWA – Bernadette Dupont & Erica Tait INDOT – Jay Mitchell IDEM – Shawn Seals KYTC – Tom Hall, Larry Chaney, & Grant Williams LMAPCD – Michelle King, Byron Gary, & Craig Butler TARC – Aida Copic KIPDA – Andy Rush, Greg Burress, Randy Simon, & Nick Vail

#### Welcome/Roll Call:

A total of 19 participants, representing eight local, state, regional, and federal agencies participated in the IAC Conference Call for Amendment 4 of KIPDA's *Connecting Kentuckiana 2040* Metropolitan Transportation Plan and the FY 2020-2025 Transportation Improvement Program. The meeting began shortly after 10:00 AM EDT on July 27, 2021.

#### Schedule Discussion:

KIPDA staff discussed key dates (shown below) of the anticipated schedule for the amendment. It was mentioned that there will be multiple activities (including the travel demand modeling and MOVES

modeling) as part of the conformity analysis. Also, there will be a public meeting (in-person or zoom) during the public review period.

#### Key Dates for the schedule for Amendment 4

Project applications due from sponsors	June 28
KIPDA staff reviews projects	June 29 – July 16
Air Quality conformity activities	July 19 – Sept. 17
Public Comment period	Sept. 20 – Oct. 4
Comments sent to the Transportation Policy Committee	Oct. 7
Transportation Technical Coordinating Committee recommendation	Oct. 13
Transportation Policy Committee action	Oct. 28
Federal review	Oct. 29 – Nov. 29

#### **Project Discussion:**

KIPDA Staff presented the list of seventeen (17) projects that are included in Amendment 4. The following projects were highlighted.

The discussion started with the KIPDA ID 2758 and KYTC ID 80101.00 projects. These projects were created by the division of an older project on KY 1450 from the Bullitt/Jefferson County line to John Harper Highway. It was noted that KIPDA ID 2758 (sponsored by Bullitt County) covers the northern portion of the older project (from the Bullitt/Jefferson County line to Jeffie Lane) and will remain a 4-lane project. The KYTC project (from Jeffie Lane to John Harper Highway) will be a 3-lane project.

The second topic of discussion concerned a series of INDOT projects involving the I-64 Sherman Minton bridge and its approaches. There are a number of projects which represented parts of the overall project. Those projects are being removed and will be consolidated into a single overall project to replace them. Erica Tait (FHWA-IN) made the comment that KIPDA staff should consult with INDOT staff to be sure that the overall project includes information about the various improvements that were to be included in the projects being removed. In addition, information concerning funding for FY2024 was to be removed since it was not part of this TIP. The next pair of projects to be discussed were INDOT DES 2000220, which is being removed, and INDOT DES 2100048, which is being added. The first project was to improve the traffic signals at a series of intersections. The latter is to construct a roundabout at the intersection of SR 60 and CR 311, one of the intersections which was to have its traffic signal improved under the first project. There were no questions or comments.

The next project is to add travel lanes to SR 64 near the Georgetown community. This is considered to be a very straightforward project from the standpoint of modeling. There were no questions or comments.

The next project is to improve the intersection of US 150 with Old Vincennes Road and Lawrence Banet Road. It was noted that there was no way to reflect this project in the modeling of Amendment 4. There were no questions or comments.

The next two projects concern the Olmstead Parkways: Multi-use Path System. The projects are to modify the TIP funding to add a project phase in the first four years of the TIP. There were no questions or comments.

The final two projects are sponsored by the Transit Authority of River City (TARC), the local transit provider. Both of these projects are being removed from the TIP. One of the projects involved the purchase of two full-size buses, and the other involved rehabilitation of TARC's administration building.

#### **Conformity Analysis Discussion:**

KIPDA Staff discussed the key components of the conformity analysis that is expected to be presented to the KIPDA TPC in October. The analysis years for the regional emissions analysis will be 2025, 2030, 2035, and 2040 (the horizon year of the MTP). The regional emissions estimates for all scenarios will be compared to Year 2020 Budgets established for the ozone precursors. Further, there are no TCMs in a SIP for the local area.

It was noted that MOVES 3 was used for the previous MTP/TIP amendment. It will also be used for this amendment.

#### SIP Status Discussion:

LMAPCD staff provided a presentation concerning the two SIPs which are presently under development. One of these SIPs is the second maintenance SIP for the 1997 Ozone standard. (The first maintenance SIP was developed years ago when the 1997 Ozone standard was first achieved.) The second maintenance SIP was originally scheduled to be completed some years ago but was not because EPA rescinded the 1997 ozone standard, and at that time that happened, it seemed that it would not be necessary to develop the second maintenance SIP. However, the courts overturned some of EPA's actions concerning the 1997 Ozone standard (the case known as South Coast II). So, the second maintenance SIP is now under development and should be finished soon.

The other SIP is being developed to meet the requirements relative to the 2015 Ozone standard. At this time, air monitoring data has indicated that the 2015 standard has not been met. The steps that need to be undertaken in the future may depend partially on whether the monitoring data for the remainder of the "ozone season" for this year is sufficiently "clean" to justify a clean air finding. Regardless of that situation, the local area is likely to have its nonattainment status changed from marginal to moderate. This change, along the results of the monitoring data, will affect the steps to be taken to address the needs for the 2015 ozone standard SIP.

#### **Other Discussion:**

KIPDA staff offered the opportunity for any other business or questions to be brought before the IAC. There was no other business discussed. The conference call adjourned at approximately 10:30 AM EDT.

#### Amendment 4 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan; FY 2020-2025 Transportation Improvement Program Public Comments

Project Name: KIPDA ID: Project Sponsor:	SR 60 Intersection Improvement, Roundabout 2964 INDOT
Comments:	"Generally I approve of roundabouts – but the devil is in the details, so please make sure this design accommodates walkers and bikers."
Project Name: KIPDA ID: Project Sponsor:	SR 64 Added Travel Lane 2967 INDOT
Comments:	"13 million for a road expansion project here is a waste. Instead it should be to build safe ways to allow better walking and e-bike access for nearby neighborhoods to get where they need to without adding to the car traffic."
	"I strongly disapprove of this project – it is fiscally irresponsible and environmentally irresponsible. It will induce more car traffic and encourage development to spread to undeveloped land – instead of encouraging infill of existing developed land."
Project Name: KIPDA ID: Project Sponsor:	KY 1450 2966 KYTC
Comments:	"Disapprove of this. This is a waste of millions of dollars that could instead go to making this road slower, more reliable, and safer for those nearby. Improving sidewalks and making a multi-use path would be much better for residents.
	"I do not support this project. It will simply induce MORE demand for travel and bring more cars and development here and further out. Do not waste our money to erode development in the core city and further develop green space, which we need to conserve."
Project Name: KIPDA ID: Project Sponsor:	TARC Rehab Administration Building 2462 TARC
Comments:	"Cannot comment on this until we know the reason for the removal, which is not visible in this map nor the amendment 4 information packet. Is it because TARC does not need this funding, or has found another solution? Or because KYTC has shifted goals?

Project Name: KIPDA ID: Project Sponsor:	TARC Purchase Two (2) 40' Buses 2454 TARC
Comments:	"Cannot comment on this until we know the reason for the removal, which is not visible in this map nor the amendment 4 information packet. Is it because TARC does not need this funding, or has found another solution? Or because KYTC has shifted goals?
Project Name: KIPDA ID:	KY 1450 Blue Lick Road 2758 Bullith Country
Project Sponsor:	Bullitt County
Comments:	"Disapprove. This is a lot of money to be spent on a road widening for cars that is not needed and negatively impact low income and minorities and others living nearby."
	"Please do not widen this road. Widening this road will cause further development to spread outward – and will discourage investment in the city that already has infrastructure. We need to save green space and save undeveloped parcels from development."
Project Name: KIPDA ID: Project Sponsor:	I-64 Sherman Minton Corridor Maintenance 2533 INDOT
Comments:	"Can this huge amount of funding include 1-2% on other modes (bikes, ebikes, scooters, walking) of getting across this vital west end bridge for those in west Louisville who can't afford cars? Would help with job and retail access for low income residents.
	"This project should be revised to include multi modes – this is a LOT of money to be spending only on car travel. Do not approve of this project unless there is accommodation in the design for bikes and walking."
Project Name: KIPDA ID: Project Sponsor:	Olmstead Parkways Multi-Use Path System 2630 Louisville Metro
Comments:	"Strongly support this idea to make this parkway, instead of the expressway it is! This multi-use path will improve job, retail, and recreation access for low-income residents all along the parkway who can't afford a car."
	"Wonderful! Let's bump this one up to the top of the list."
	"Strongly support this project – as long as there is a SEPERATED lane and space for cyclists and bicyclists."
Project Name:	Olmstead Parkways Multi-Use Path System Section 3

KIPDA ID:2624Project Sponsor:Louisville Metro

Comments:"Strongly support this idea to make this parkway, instead of the expressway it is!This multi-use path will improve job, retail, and recreation access for low-income<br/>residents all along the parkway who can't afford a car."