

5.3 Transportation Conformity

All regions designated as nonattainment or maintenance areas for the National Ambient Air Quality Standards (NAAQS) related to mobile emissions – specifically ozone (O₃), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and carbon monoxide (CO) – are required to demonstrate that emissions resulting from planned transportation system improvements will not exceed an area's motor vehicle emissions budgets (MVEBs). This requirement is known as transportation conformity. The US Department of Transportation (US DOT) issues nonattainment areas formal transportation conformity determinations following a quantitative analysis demonstrating that emissions from vehicles traveling on the planned transportation system are less than the area's MVEBs (or other emission target in the absence of an approved budget). Transportation conformity determinations ensure that the transportation sector is contributing to an area's progress toward meeting national air quality standards.

The Metropolitan Planning Organizations (MPOs) and the Ohio Department of Transportation (ODOT) must establish conformity for the 2006 and 2012 PM_{2.5} NAAQS and the 1997 and 2008 8-hour O₃ NAAQS when adopting new plans and/or TIPs. Because conformity is determined at the level of the nonattainment/maintenance area, and not at the sub-area level, each of the area's planning partners must approve a new conformity finding for the area based on these updates.

The analyses for O₃ and the 2006 PM_{2.5} NAAQS cover the pertinent portions of the counties of Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage and Summit. In contrast, the analysis for the 2012 PM_{2.5} NAAQS only includes Cuyahoga and Lorain Counties, as they were the only counties included in the region's moderate nonattainment area for this standard. The analysis for the 1997 and 2008 O₃ NAAQS is based upon the MVEB developed for the 1997 NAAQS. The analyses for the 2006 and 2012 PM_{2.5} NAAQS are based on the budgets outlined for the 1997 and 2006 PM_{2.5} maintenance plans, which the Ohio Environmental Protection Agency (Ohio EPA) developed. The current analyses reflect a comparison of projected transportation emissions against the approved or submitted budgets for each standard. All analyses utilized the MOVES2014, an approved emissions modeling tool from US EPA.

The projects identified in Table X were considered in the conformity analyses for Aim Forward 2040. The summary of the analyses follows the table.

These tests are required because all areas with a current or former designation of nonattainment must maintain conformity findings for the designated pollutants. The tests ensure that transportation planning efforts are not hindering efforts to bring the area into attainment of the standards or maintain attainment of the standards.

For all tests, projected emission levels are beneath the respective MVEBs, demonstrating conformance with the goals of the Clean Air Act.

Aim Forward 2040 Transportation Conformity Highway Networks Summary

2020:	In addition to the existing system, and the projects identified in the network, the 2020 network contains the following additional capacity projects that will be open by 2020.	
County	Project Description	PID
Cuyahoga	Bagley/Pleasant Valley Rd: From Pearl Rd to York Road	10900
Cuyahoga	CCG2 EB BRIDGE: IR90 From IR90/490 to E 9th St overhead	82119
Cuyahoga	Clemens Rd: Construct a Clemens Rd by-pass and a exclusive southbound right turn lane for the IR90 WB ramp	85297
Cuyahoga	IR271: From Cuyahoga CL to Columbus Rd	80418
Cuyahoga	SR82 (East Royalton Rd): W 130 th St to York Rd	80961
Cuyahoga	GGC6A: IR77 widening and replacing the IR77 bridge over IR490	13567
Cuyahoga	CCG6B Broadway - IR77: Remove and build a new longer bridge for SR14 over IR77. Reconstruct ramps. New frontage road from Broadway to Pershing Ave to access to IR77 SB.	82388
Cuyahoga	SR010-20.98: Cleveland: (Opp. Corr. Sec. 2A) New Construction from E 93rd St to Quebec Ave (Construct new bridge over N & S RR and GCRTA. Extend platform and install ADA compliant stair elevator core at GCRTA E 105th St and Quincy Red Line Station (Design Build). PROJECT SPLIT FROM PID No. 96833: CUY IR 490/SR 010-02.09/19.19 (Related PID No. 77333)	98695
Cuyahoga	SR010-21.49: Cleveland: Quebec Ave to US 322 (Chester Ave) Widen and reconstruct East 105 th St (SR-10) from Quebec Avenue to Chester Avenue in the City of Cleveland. Section 1 of the Opportunity Corridor. PE and RW under PID 77333; related PIDs 7733, 96833 and 98695.	96832

Aim Forward 2040 Transportation Conformity Highway Networks Summary

2020 (continued):	In addition to the existing system, and the projects identified in the 2015 network, the 2020 network contains the following additional capacity projects that will be open by 2020.	
County	Project Description	PID
Cuyahoga	IR-77 Widening: Add a lane from CUY SCL to S of Oakes Rd	79671
Cuyahoga	IR 490/SR 010-02.09/19.19: (Opp. Corr. Sec. 2B) West of E 55th St to Quebec Ave (Related PID No. 77333)	96833
Lake	Heisley Road Phase III: Jackson St to US20 (Mentor Ave)	89047
Lake	Crile Rd Connector: From Auburn Rd to Crile Rd	89046
Lorain	US20 (Center Ridge Rd): From Stony Ridge Rd to Lear Nagel Rd	82632
Lorain	SR57: From IR90 to Ohio Turn Pike IR80 ramps	82645
Medina	US42 (Pearl Rd) 19.33: Intersection improvement at US 42 and Fenn Rd (related PID 75995)	86893
Medina	US42 (Pearl Rd) 17.68: Reconstruction and add lanes on US 42 Harding St to Fenn Rd (related PID 75995)	92954
Medina	MED SR018-13.54: Medina Twp., Montville Twp.: SR 18-13.54 (Foote Rd) to 15.15 (Nettleton Rd) Widen to 5 lanes from Foote Rd to River Styx and 7 lanes from River Styx to Nettleton Rd (Project is related to PID No. 76946 MED SR-18 MED SR 0018 13.00)	92953

Aim Forward 2040 Transportation Conformity Highway Networks Summary

2022:	In addition to the existing system, and the projects identified in the 2020 network, the 2022 network contains the following additional capacity projects that will be open by 2022.	
County	Project Description	PID
Cuyahoga	Transportation Blvd Extension: From I-480 to Rockside Road	85395
Cuyahoga	SR 82-10.17: Broadview Hts: East of SR-176 (Broadview Rd) to Treeworth Blvd. Widen a section SR-82, from three lanes to five lanes, from east of Broadview Road (SR-176) to Treeworth Boulevard.	96947

2030:	In addition to the existing system, and the projects identified in the 2020 and 2021 networks, the 2030 network contains the following additional capacity projects that will be open by 2030.	
County	Project Description	PID
Cuyahoga	SR237/Hopkins Airport: Upgrade Berea freeway ramp access to Cleveland Hopkins Airport	23051
Cuyahoga	CCG3A E 22ND ST: Innerbelt CCG3: Improve I-90 in the “Central Interchange” area between E 9th Street and E 22nd Street; improve E 22nd Street using part-width construction; remove the Cedar Avenue bridge over I-90; improve I-77 north of the Kingsbury Run Bridge; and replace the Carnegie Avenue bridge over I90 using part-width construction. This project includes all work previously contained in PID No. 82382 (CUY INNERBELT CCG3C Carnegie) and PID No. 80406 (CUY INNERBELT CCG3B IR-77).	82380
Cuyahoga	CUY IR 480 18.42 L&R Deck: Replace the decks of the twin I-480 bridges and construct a new four lane structure, between the existing bridges, over the Cuyahoga River Valley in Valley View and Independence.	90591

Aim Forward 2040 Transportation Conformity Highway Networks Summary

2040:	In addition to the existing system, and the projects identified in the 2015, 2020, 2022 and 2030 networks, the 2040 network contains the following additional capacity projects.	
County	Project Description	PID
Cuyahoga	CCG4E CURVE: Innerbelt Trench to E Shoreway, relocation of the innerbelt curve	77413
Cuyahoga	CCG5B EB PAVEMENT: EB Innerbelt Trench From E 22nd St to Superior Ave	25795
Cuyahoga	CCG5C WB PAVEMENT: WB Innerbelt Trench From E 22nd St to Superior Ave	86746
Cuyahoga	INNERBELT CCG4C NS RR: South of the Innerbelt Curve A new overhead Norfolk Southern RR Bridge at a new location to accommodate the realignment of the Innerbelt Curve. This structure will replace the existing structure. PROJECT SPLIT FROM CUY INNERBELT RAILROAD BRIDGES GRP5: PID No. 80408	86744

Table X: 2008 Daily 8-Hour Ozone Standard

Attainment status: 2008 8-Hour Ozone standard – maintenance area (Federal Register / Vol. 82, No. 4 / Friday, January 6, 2017)
 1997 8-Hour Ozone Standard – maintenance area (Federal Register Notice Final Rule 9/15/09)

SIP Status: **Federal Register** /Vol. 78, No. 53 /Tuesday, March 19, 2013 – direct final rule adequacy finding for MOVES based 1997 Ozone standard MVEBs
 No submittals required under 2008 8-Hour Ozone standard until approved budgets are received. The budgets found adequate for the 1997 standard will satisfy both 1997 and 2008 tests for the time being per US EPA.

8-Hour Geography: ATB, CUY, GEA, LAK, LOR, MED, POR, SUM Counties, OH

Conformity Tests: 1997 Standard 8-Hour budget tests

Analysis Years: 2015 1st Analysis year (a year in the current TIP)
 2020 Interim year
 2030 Interim year
 2040 Plan(s) horizon year

8-Hour Ozone Test	2020 8-Hour Budget	2020 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions
AMATS					
VOC		6.22		4.20	3.74
NOx		9.37		5.24	4.17
NOACA					
VOC		21.13		13.57	7.57
NOx		26.09		11.71	7.88
Ashtabula Co.					
VOC		0.93		0.58	0.54
NOx		1.56		0.84	0.72
Totals					
VOC	38.85	28.28	30.80	18.35	11.86
NOx	61.56	37.03	43.82	17.80	12.77

Table X: 1997 and 2006 Annual PM_{2.5} Standard

Attainment/
SIP Status:
Geography:
Conformity Tests:
Analysis Years:

Federal Register / Vol. 78, No. 144 / Friday, July 26, 2013 – Proposal to redesignate Cleveland Area to attainment for 1997 and 2006 PM_{2.5} Standards – FR notice included an adequacy finding for the MOVES based MVEBs CUY, LAK, LOR, MED, POR, & SUM Counties & Ashtabula Twp., ATB County, OH

Budget tests
2015 PM_{2.5} Budget Year and year in current TIP
2022 PM_{2.5} Budget Year
2030 Interim year
2040 Plan(s) horizon year

PM _{2.5} Test	2015 Budget	2020 Emissions	2022 Budget	2022 Emissions	2030 Emissions	2040 Emission
AMATS						
tons / year						
Direct PM		155.61		133.40	106.37	107.20
NOx		3,189.25		2,730.52	1,864.41	1,657.69
NOACA						
Direct PM		586.88		506.00	367.70	321.49
NOx		13,606.14		11,532.80	6,329.25	4,107.97
Ashtabula Twp.						
Direct PM		2.59		2.19	1.68	1.68
NOx		60.48		50.33	35.26	32.81
Area Totals						
Direct PM	1,371.35	745.08	880.89	641.59	475.75	430.37
NO	35,094.70	16,855.87	17,263.65	14,313.64	8,228.92	5,798.47

Table X: Annual PM_{2.5} 2012 Standard

Attainment status:
SIP Status:
Geography:
Conformity Tests:
Analysis Years:

PM_{2.5} Moderate Nonattainment Area (80 FR 2205 / January 14, 2015 – Cuyahoga and Lorain Counties designated moderate nonattainment area for 2012 Standards)

Attainment demonstration not due at this time

Cuyahoga and Lorain County, OH

1997/2006 SIP Maintenance Plan Budget - CUY & LOR subset - tests

2021 Attainment year – 1st Analysis year
2022 Budget year
2030 Interim year
2040 Plan(s) horizon year

PM _{2.5} Test	2015* Budget	2021 Emissions	2022* Budget	2022 Emissions	2030 Emissions	2040 Emissions
NOACA						
Direct PM	659.35	378.36	463.02	376.10	267.11	233.09
NOx	18,202.07	9,119.20	8,957.18	8,463.95	4,544.80	2,888.83
*Cuyahoga and Lorain County budget totals from the 1997/2006 PM _{2.5} SIP Maintenance Plan						

