

Appendix B: Previous ROP Project Status

Focus Area	Project ID	Project Name	Lead	Priority	Status (completed projects highlighted in green)
Freeway Arterial Operations	FA.1	Freeway Operations Plans	PennDOT Districts	High	Ongoing program
Freeway Arterial Operations	FA.2	Bottleneck Program	SPC	Normal	No longer relevant Being incorporated as part of the ROP Operations & Safety Assessment process and is done as part of normal business in the Districts.
Freeway Arterial Operations	FA.3	Ramp Management Pilot	PennDOT District 11-0	Normal	Ongoing program (pilot completed on Union Ave on-ramp to I-279 SB)
Freeway Arterial Operations	FA.4	HOT Lane Study	SPC	Normal	Not started
Freeway Arterial Operations	FA.5	Integrated Corridor Management	PennDOT Districts	High	In development PennDOT pilot project on Schuylkill Expressway
Freight Management	FM.1	Freight Mobility and Contingency Analysis	SPC	High	Completed Regional Freight Plan completed by SPC
Freight Management	FM.2	511 Trucks	PennDOT Central Office, Freight Forum and PMTA	Normal	In development
Freight Management	FM.3	Truck Parking Study	SPC	Normal	Not started
Freight Management	FM.4	Inland Waterways ITS Commercialization Strategy	CMU Traffic 21	Normal	Complete
Freight Management	FM.5	Inland Waterways ITS Deployment	Port of Pittsburgh Commission / U.S. Army Corps of Engineers	Normal	Ongoing program
Intermodal Connectivity	IC.1	Active Traffic Demand Management	SPC	Normal	Started
Intermodal Connectivity	IC.10	Passenger Rail Assessment	PennDOT	Normal	Completed
Intermodal Connectivity	IC.11	Trail Operations and Maintenance Plan	SPC	Normal	Not started
Intermodal Connectivity	IC.2	Bus Rapid Transit Project	Port Authority of Allegheny County/City of Pittsburgh	On-going	Ongoing program

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Intermodal Connectivity	IC.3	NCATA Transit Radio Upgrade	New Castle Transit Authority	High	No longer relevant
Intermodal Connectivity	IC.4	Regional Park and Ride Program	SPC	Normal	Ongoing program
Intermodal Connectivity	IC.5	Port Authority Bus Data Information	CMU Traffic 21	High	Complete
Intermodal Connectivity	IC.6	Universal Pedestrian Warning Module	CMU Traffic 21	Normal	Ongoing program now part of adaptive signals
Intermodal Connectivity	IC.7	Innovation in Carpooling	CMU Traffic 21	Normal	No longer relevant
Intermodal Connectivity	IC.8	Personal Car Sharing	CMU Traffic 21	Normal	No longer relevant
Intermodal Connectivity	IC.9	Oakland and Downtown Bike Sharing	CMU Traffic 21	Normal	Complete - now Healthy Ride
Incident & Emergency Management	IEM.1	Traffic Incident and Emergency Management (TIM) Team(s)	PennDOT Districts	High	Ongoing program
Incident & Emergency Management	IEM.10	Expand Freeway Service Patrols	TIM Teams/PennDOT Districts	High	Not started
Incident & Emergency Management	IEM.11	Develop Quick Clearance Program	PennDOT Central Office	Normal	Not started
Incident & Emergency Management	IEM.12	Surveillance Camera Motion Intelligence for Detecting Traffic Incidents	CMU Traffic 21	TBD	Complete
Incident & Emergency Management	IEM.13	Crash Avoidance	CMU Traffic 21	TBD	Ongoing program Part of CV/AV research at CMU
Incident & Emergency Management	IEM.2	Multimodal Incident and Emergency Management Planning	Region 13	High	Ongoing
Incident & Emergency Management	IEM.3	TIM Outreach	TIM Teams	High	Ongoing program

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Incident & Emergency Management	IEM.4	Develop Evacuation Plans & Procedures	Region 13	Normal	Ongoing
Incident & Emergency Management	IEM.5	Detour Planning	PennDOT Districts	Normal	Ongoing program
Incident & Emergency Management	IEM.6	Prepare Special Event Traffic Management	TIM Teams	Normal	Ongoing program
Incident & Emergency Management	IEM.7	Regional ITS Equipment Gaps	PennDOT Central Office & Districts	High	Ongoing Program Statewide Mobility Program, Phases A and B identified ITS gaps at interstate to interstate and interstate to limited access connections. Cameras, DMS, and HAR were included at each interchange, as needed. [Tomlinson]
Incident & Emergency Management	IEM.8	I-70 DMS & CCTV Expansion	PennDOT District 12-0	On-going	Complete
Incident & Emergency Management	IEM.9	US 22 DMS Expansion	PennDOT	Normal	Ongoing
Operational Teamwork	OT.1	Create a Regional Operations Organizational Structure	SPC	High	Ongoing program
Operational Teamwork	OT.10	Surveillance Cameras Motion Intelligence for Collecting Traffic Data	CMU Traffic 21	Normal	No longer relevant
Operational Teamwork	OT.11	CitiWiki	CMU Traffic 21	Normal	No longer relevant
Operational Teamwork	OT.12	Enhanced Information for Transportation Planning	CMU Traffic 21	Normal	In development
Operational Teamwork	OT.2	Promote Operations within PennDOT	PennDOT Central Office	High	Completed Statewide TSMO guideline
Operational Teamwork	OT.3	Operational Collaborative Space	SPC and PennDOT	High	Ongoing program SharePoint sites for ROP, TIM & RSA

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Operational Teamwork	OT.4	Operations Quarterly Updates and Annual Summit	SPC	On-going	On-going/Not started
Operational Teamwork	OT.5	Operations Outreach Program	SPC and PennDOT	Normal	Ongoing program JOTS, before-after project summaries, speaking engagements, etc.
Operational Teamwork	OT.6	ATMS Software Deployment and Multiagency Data Sharing	PennDOT Central Office	High	Complete
Operational Teamwork	OT.7	Operations Funding	SPC and PennDOT	High	Ongoing program
Operational Teamwork	OT.8	Data-Driven Approach Assessing Damage to Bridge Structures	CMU Traffic 21	High	Ongoing program
Operational Teamwork	OT.9	Low Cost Road Surface Monitoring	CMU Traffic 21	High	Complete - now spin off company Robotics. New research in detecting road signs and landslides
Traveler Information	TI.1	Develop "Next Gen" Regional Traveler Information Plan	SPC and PennDOT	High	Not started
Traveler Information	TI.10	Innovation Oakland	CMU Traffic 21	Normal	Complete
Traveler Information	TI.11	Dynamic Real-time Scheduling for the Pittsburgh ACCESS Program	CMU Traffic 21	Normal	Complete
Traveler Information	TI.12	Learning Driver Preferences	CMU Traffic 21	Normal	Complete
Traveler Information	TI.13	Virtual Driving Experience	CMU Traffic 21	Normal	Complete
Traveler Information	TI.14	Let's Go for PennDOT's 511	CMU Traffic 21	Normal	Complete
Traveler Information	TI.15	Let's Go Expansion for Port Authority of Allegheny County	CMU Traffic 21	Normal	No longer relevant
Traveler Information	TI.16	Automated 3-D Environment Modeling for In-Car Navigation	CMU Traffic 21	Normal	Complete
Traveler Information	TI.17	Regional Transit Trip Planner	Transit Operators Committee	On-going	No longer relevant
Traveler Information	TI.2	Expand Traveler Information Communications Network	PennDOT Central Office	High	Complete

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Traveler Information	TI.3	Implement Real-time Transit Information Systems	Transit Agencies	High	Ongoing program
Traveler Information	TI.4	Travel Information Networks and Portals	CMU Traffic 21	Normal	Ongoing research in CMU's Mobility Data Analytics Center
Traveler Information	TI.5	Institute Travel Time Postings on DMS Signs and Increase DMS Utilization	PennDOT Districts	High	Ongoing program
Traveler Information	TI.6	<u>FIX ROADS@STATE.PA.US</u>	PennDOT Central Office	Normal	Completed - PennDOT now has a 1-800-fix roads pothole hotline
Traveler Information	TI.7	Smart Parking in Downtown and Oakland	CMU Traffic 21	On-going	Complete
Traveler Information	TI.8	Real Time Transit Rider Information	CMU Traffic 21	High	Complete - Tiramisu
Traveler Information	TI.9	Personalized Transportation and Mobility Aid	CMU Traffic 21	Normal	Complete - Nav Pal
Traffic Signal	TS.1	Regional Traffic Signal Program	SPC	High	Ongoing program
Traffic Signal	TS.2	Regional Traffic Signal Funding Plan	PennDOT/SPC	High	Ongoing program (ARLE and Green Light Go)
Traffic Signal	TS.3	City of Pittsburgh Traffic Signal Enhancement Project	City of Pittsburgh	Normal	Ongoing program
Traffic Signal	TS.4	Red-light Running Initiative	SPC/PennDOT/City of Pittsburgh	Normal	Not started – city was evaluating intersections for this at the time of the last ROP (Dom D'Andrea)
Traffic Signal	TS.5	Adaptive Traffic Signalization Strategies	CMU Traffic 21	High	Ongoing program CMU still doing multimodal research but this project evolved into a start-up company called Rapid Flow technologies.
Initiatives					
Freeway Arterial Operations	FA	Proactive Management of Mobility impact of Interdependent Subsurface utility and roadway construction through incentives	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Freeway Arterial Operations	FA	Aerial Contact Sensing for Improved Inspection of Transportation Infrastructure	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019

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Freight Management	FM	Vehicle-based Panhandle Bridge Monitoring	CMU Traffic 21		Ongoing Program Anticipated end date: August 2019
Freight Management	FM	Platooning for Improved Safety and Efficiency of Semi-trucks	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Intermodal Connectivity	IC	Can Ridesharing help the disadvantaged to get Moving	CMU Traffic 21		Ongoing program Anticipated end date: June 2020
Intermodal Connectivity	IC	Estimating Changes in Parking Capacity and Urban Form from Vehicle Automation	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Intermodal Connectivity	IC	Incentive Design in Ride Sharing Platforms	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Intermodal Connectivity	IC	Incentivizing Participation in Peer-to-Peer Ride-Sharing Platform	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Intermodal Connectivity	IC	Actuation System for City-wide sensing and ride distribution using managed vehicular fleets	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Intermodal Connectivity	IC	Proposal for a Before and After Impact Assessment of the Forbes Avenue Reconfiguration Project	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Incident & Emergency Management	IEM	Real Time Traffic Congestion Prediction and Mitigation at the City Scale	CMU Traffic 21		Ongoing Program Anticipated end date: September 2019
Incident & Emergency Management	IEM	Low-Cost 3D Model Acquisition for Rapid Accident Investigation	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Traveler Information	TI	Personalized Trip Planner for Seniors (PTPS)	CMU Traffic 21		Ongoing Program Anticipated end date: August 2020
Traveler Information	TI	A Scenario-based Database for connected and autonomous driving in a smart city	CMU Traffic 21		Ongoing Program Anticipated end date: December 2019
Traveler Information	TI	Perception for Transportation Service Robots	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Traveler Information	TI	Latest Generation Data Portal for the Intelligent Mobility Meter	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019

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Traveler Information	TI	Mesoscopic car-truck flow modeling and simulation	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Traffic Signal	TS	A Video Analytics Infrastructure Platform for Connected Vehicles and Transportation Planning	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Traffic Signal	TS	Connected Vehicle Infrastructure for a Smart City	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Studies					
Studies	Studies	ALCO & BECO – S.R. 65 Ohio River corridor between Rochester/Monaca and McKees Rocks Bridges (ECP)	PennDOT		Pilot Study Complete
Studies	Studies	ALCO – I-376 Parkway East Study (ECP)*	PennDOT		Completed
Studies	Studies	ALCO – South Hills Traffic Study (Traffic)*	PennDOT District 11-0		Completed
Studies	Studies	ALCO – South Hills Study (Traffic)*	PennDOT District 11-0		Completed
Studies	Studies	WECO – Laurel Valley Transportation Improvement (ECP)	PennDOT District 12-0		In progress
Studies	Studies	ALCO & WECO – U.S. 30 from I-76 (Irwin) to S.R. 1053 (Greensburg) (OSA)	PennDOT District 12-0		In progress Portion studied by PennDOT District 12-0 (Route 30 Study)
Studies	Studies	PITT – Downtown to Oakland Bus Rapid Transit Study (ECP)*	Port Authority of Allegheny County		Completed
Studies	Studies	PA Turnpike All Electronic Tolling Study (Special)	SPC		Completed
Studies	Studies	ALCO/BECO/WACO/LACO – Emerging Industries Corridor Study (Special)*	SPC		Completed
Studies	Studies	BUCO – S.R. 68 between Butler and U.S. 19 (Jackson Township) (OSA)	SPC		Completed - Corridor Planning Study
Studies	Studies	ALCO/BECO/WACO/LACO – Emerging Industries Corridor Study (Special)*	SPC		Completed

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Studies	Studies	WACO – I-79 from I-70 North Junction to S.R. 50 Bridgeville Interchange (ECP)	SPC		In progress Northern Washington County Study
Studies	Studies	LACO – S.R. 388/65 from U.S. 422 (Shenango Twp.) to S.R. 2003/2014 (Wayne Twp.) (OSA)			Not Completed
Studies	Studies	ALCO – I-79/S.R. 910 interchange (ECP)			Beginning Regional TDM plan
Studies	Studies	BUCO – S.R. 356 (Buffalo Township) (OSA)			Not Completed
Studies	Studies	INCO – S.R.422 between U.S. 119 / Indiana Bypass and Cambria County (RSA)			Not Completed
Studies	Studies	ALCO & WECO – S.R. 356/66 from S.R. 28 to S.R. 22 (OSA)			Not Completed
Studies	Studies	GRCO – S.R. 21 (Waynesburg Area) (OSA)			Not completed
Studies	Studies	FACO – S.R. 21 (ECP)*			In progress
Studies	Studies	FACO – U.S. 119 from Mount Pleasant to Uniontown (ECP)			Not sure if PennDOT studied this or not [Dom D'Andrea]
Studies	Studies	Bellefield Ave (Oakland, City of Pgh) (RSA)	SPC		Completed
Studies	Studies	WACO - Morganza Rd (Canonsburg) (RSA)	SPC		Completed
Studies	Studies	ALCO - S.R 30 (North Versailles) (RSA)	SPC		Completed
Studies	Studies	ARCO - S.R. 66/56 from Leechburg to Apollo (RSA)	SPC		Completed
Studies	Studies	ALCO - S.R. 2040 Lebanon Church Rd (RSA)	SPC		Completed
Studies	Studies	WECO - S.R. 119 in Youngwood (RSA)	SPC		Completed
Studies	Studies	ARCO - SR 1038 in Kittanning (RSA)	SPC		Completed

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Studies	Studies	ALCO - S.R. 791 (Rodi Rd) in Penn Hills (RSA)	SPC		Completed
Studies	Studies	INCO - S.R. 217 in Blairsville (RSA)	SPC		Completed
Studies	Studies	ALCO - Baum Blvd/Centre Ave (City of Pgh) (RSA)	SPC		Completed
Studies	Studies	WACO - S.R. 40 (City of Washington) (RSA)	SPC		Completed
Studies	Studies	WECO - S.R. 30 (Hempfield Twp.) (COPS)	SPC		To be completed in January 2019
Studies	Studies	Do Vehicle Safety Inspection Programs Lead to Lower Fatality Rates?	CMU Traffic 21		Ongoing Program Anticipated end date: December 2019
Studies	Studies	Synthesis of Research Results and Technology Trends to Inform Policies for Smart Mobility of People and Goods	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Studies	Studies	Regional Highway Corridor Benefit Research Study	CMU Traffic 21		Ongoing Program Anticipated end date: June 2019
Studies	Studies	LACO - S.R. 18 (New Castle) (COPS)	SPC		Completed