

Transportation Systems Management & Operations: Operating Cost Eligibility Under the Federal-Aid Highway Program

This page was revised in November 2015 to:

1. Replace references to the National Highway System program with the National Highway Performance Program that was established by MAP-21.
2. To update references to TEA-21 with MAP-21.
3. To reflect updates to related guidance for CMAQ and the FHWA Strategic Plan.
4. To include and refresh references and links to other policies or guidelines and to new links.

Attachment

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Federal-aid Eligibility Policy Guide

The operating costs for traffic monitoring, management, and control systems, such as integrated traffic control systems, incident management programs, and traffic control centers, are eligible for Federal reimbursement from National Highway Performance Program (NHPP)([1](#)) and Surface Transportation Program funding (STP)([2](#)). For projects located in air quality non-attainment and maintenance areas, and in accordance with the eligibility requirements of 23 USC 149(b), three-years of Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds may be used for operating costs across a 5-year period, so long as those systems measurably demonstrate reductions in traffic delays. ([3](#)) Operating costs include labor costs, administrative costs, costs of utilities and rent, and other costs, including system maintenance costs, associated with the continuous operation of the system.

Introduction

The movement of people, goods, and vehicles on the nation's surface transportation system is critically dependent on how effectively that system is managed and operated. Adding to the roadway system is necessary in some key locations and corridors to serve the demands for this movement, and in some cases, provide for economic development in the area. However, the construction of new lanes will never alleviate the need for effective management and operations of the system - on existing as well as new segments. Well planned, cost-effective transportation operations and management actions can improve mobility, safety, and productivity of the system for transportation users in urban and rural areas.

Background - Legislative

The Moving Ahead for Progress in the 21st Century (MAP-21), signed into law on July 6, 2012, reinforces the Federal commitment to manage and operate the nation's transportation system. Under MAP-21, the Federal-aid Highway Program continues eligibility of operating costs for traffic monitoring, management, and control. The legislation defines operating costs as including labor costs, administrative costs, costs of utilities and rent, and other costs associated with the continuous operation of traffic systems, such as integrated traffic control systems, incident management programs, and traffic control centers.([4](#)) An "operational improvement" continues to mean a capital improvement for installation of traffic surveillance and control equipment; computerized signal systems; motorist information systems; integrated traffic control systems; incident management programs; transportation demand management facilities; strategies, and programs; and such other capital improvements to public roads as the Secretary may designate, by regulation.([5](#)) By definition, an operational improvement still does not include restoration or rehabilitating improvements; construction of additional lanes, interchanges, and grade separations; and construction of a new facility on a new location.

For both NHPP and STP, MAP-21 continues the eligibility of capital and operating costs for traffic monitoring, management, and control facilities and programs.(6) Also, MAP-21 clarifies the eligibility of NHPP and STP funds for Intelligent Transportation Systems (ITS) capital improvements to specifically allow funds to be spent for infrastructure-based ITS capital improvements.(7)

For the Congestion Mitigation and Air Quality Improvement Program, MAP-21 continues to include the establishment or operation of a traffic monitoring, management, and control facility or program as potentially eligible projects.(8) MAP-21 also explicitly continues, as an eligible condition for funding, programs or projects that improve traffic flow, including projects to improve signalization, construct high occupancy vehicle lanes, improve intersections, and implement ITS strategies.(9)

Interpretation / Rationale

Examples of typical eligible operating cost and expenses for traffic monitoring, management, and control include those costs mentioned in the legislative definition for operating costs.(4) In order to assure continuous operation, costs associated with maintaining these systems are necessary operating expenses so that traffic monitoring, management, and control facilities or programs provide their intended functions. Examples of these maintenance costs include system maintenance activities to assure peak performance (preventive computer maintenance) and replacement of defective or damaged computer components and other traffic management system hardware (including street-side hardware). Specific eligibility determinations related to traffic control operational costs and maintenance expenses are the discretion of the FHWA Division Office in a particular State.

This interpretation is consistent with the FHWA Strategic Plan, specifically related to System Performance and the Strategic Objective to "make significant improvements to critical aspects of highway system performance and condition." In light of MAP-21, which reaffirms and increases the Federal commitment to manage and operate the nation's surface transportation system, this interpretation is also consistent with the intent of Congress.

It is appropriate for FHWA to adopt policies that encourage efficient management and operation of surface transportation. With a greater shift toward applying technology to addressing transportation needs, a broader life-cycle view of transportation operations is warranted that includes all activities related to sustaining system performance.

Questions and Answers

Q: What are some examples of typical operating costs and expenses for traffic and traveler information monitoring, management, and control that would be considered eligible?

A: Some examples of typical operating cost and expenses include:

- Labor Costs
- Administrative costs
- Costs of Utilities and Rent
- Other costs associated with the continuous operation of traffic and traveler information monitoring, management, and control facilities and systems
- System Maintenance activities to assure peak performance, including computer hardware and software upgrades
- Replacement of defective or damaged computer components and other traffic management system hardware (including street-side hardware).

Q: What would not be considered eligible as an operating cost?

A: The discretion and flexibility afforded FHWA Division Offices in determining the eligibility of specific activities under this guidance, the allowances for preventive maintenance in Title 23(10), and other Federal-aid policies can allow for virtually any activity to be eligible. However, routine maintenance items that are not critical to the successful operation of the system, such as the painting of traffic signal controller cabinets or the maintenance of the exterior of transportation management center buildings, would normally fall outside of eligible operating costs.

Q: What are some typical activities associated with transportation management center computers whose costs could be eligible under Federal-aid?

A: Besides the costs associated with designing and procuring the computer system, other eligible activities could include regular checking of the computer components to make sure they are fully functional. Any corrective measures or upgrades (software or hardware) that are necessary would be eligible activities.

Q: Can "spare parts" be eligible for federal-aid?

A: System-critical parts (i.e., ones that are essential for the successful operation of the system) that are susceptible to failure, regardless of reason - acts of God, crashes, electronic "infant mortality" - have been determined by some FHWA Division Offices as eligible for federal-aid reimbursement.

Q: What documentation do States or local governments need to submit (or present upon request) for approval or authorization of operating costs?

A: The amount and specific nature of documentation are left to the judgement of the FHWA Division Office, but the documentation should be sufficient to determine that the proposed expenditures would be eligible for Federal-aid reimbursement.

Q: Besides MAP-21 and Title 23, what overall rules govern the eligible operating costs and procurement method?

A: For cost principles, see Subpart E of 2 CFR 200 "Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards." For procurement methods, see 2 CFR 200.317 through 200.326 and 2 CFR Part 1201.

Q: Where can I find out more about the National Highway Performance Program (NHPP), the Surface Transportation Program (STP), and the Congestion Mitigation and Air Quality Improvement (CMAQ) programs?

A: The latest information and guidance on the Federal-aid programs is available from FHWA Division offices. Additional information about the NHPP is available on the internet at <https://www.fhwa.dot.gov/specialfunding/nhpp/>; additional information about the STP is available at <https://www.fhwa.dot.gov/specialfunding/stp/>; and more CMAQ Program information, is available at https://www.fhwa.dot.gov/environment/air_quality/cmaq/index.cfm.

Q: What are some examples of infrastructure-based Intelligent Transportation Systems (ITS) projects?

A: Projects that may incorporate the installation and integration of ITS infrastructure include:

- Traffic Signal Control Systems
- Freeway Management Systems
- Incident Management Systems
- Multimodal Traveler Information Systems
- Transit Management Systems
- Electronic Toll Collection Systems
- Electronic Fare Payment Systems
- Advanced Truck Stop Electrification Systems
- Railroad Grade Crossing Systems
- Emergency Management Systems

Q: Where can I find out more about deploying ITS?

A: Information about deploying ITS is available on the internet at http://www.ops.fhwa.dot.gov/int_its_deployment/, and more general information about the ITS program is available at <http://www.its.dot.gov/>.

1. National Highway Performance Program (NHPP) Implementation Guidance:

<https://www.fhwa.dot.gov/map21/guidance/guidenhpp.cfm>

2. Surface Transportation Program (STP) Implementation Guidance:

<https://www.fhwa.dot.gov/map21/guidance/guidestprev.cfm>

3. CMAQ Policy and Guidance; https://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/

4. 23 USC 101(a)(16)

5. 23 USC 101(a)(17)(A)

6. 23 USC 119(d)(2)(J) and 23 USC 133(b)(9)

7. 23 USC 119(d)(2)(L) and 23 USC 133(b)(16)

8. 23 USC 149(b)(4)

9. 23 USC 149(b)(5)

10. 23 USC 116(e)

