

PennDOT Traveler Information and Traffic Management Systems
Opportunities for Public Private Partnerships

January 9, 2013

Objective is to establish a public-private partnership with one or more contractors to provide the following critical traffic operations services:

1. Design, develop, implement, test, operate, maintain and/or transition support for all facets of the 511PA service, including the interactive voice response (IVR) telephone system, public and mobile websites, traveler alerts (email and SMS text message), Twitter feeds and smartphone mobile applications.
2. Provision of real-time and archived traffic speed and travel time data (a.k.a. Traffic Flow Data) for use in 511PA and other traffic operations applications.
3. Design, develop, implement, test, operate, maintain and support a statewide Video Sharing Solution (VSS) that enables video sharing between Traffic Management Centers (TMCs) and with emergency management partners and the media, and provides streaming video to 511PA web services.
4. Staffing for the operations and management of the planned Statewide Traffic Management Center (STMC) and a new Regional Traffic Management Center (RTMC) in Engineering District 2-0.
5. Manage, operate, and sponsor the Freeway Service Patrol (FSP) currently serving D 5-0, 6-0, 8-0, and 11-0 and sponsor the PennDOT owned FSP vehicles operating at the D-11 tunnels. Program can be expanded to other state routes.
6. Deployment and operation of a Road Weather Information System (RWIS).
7. Sponsorship Opportunities at Department rest areas and welcome centers.
8. Administration of the Department's Sponsor-A-Highway Program.
9. Administration of the Outdoor Advertising program.
10. Sponsorship opportunities associated with the Yellow Dot Program.

The purpose of this effort is to solicit P3 proposals for the continued hosting and operation of 511PA, as well as traffic operations and other services that offer a potential for sponsorship opportunities. The individual subject areas are described below:

1. 511PA

The selected contractor must conduct all necessary activities to ensure continuity for this high-priority, public-facing service. This includes the 511PA website, IVR system, and the future management of the mobile application (currently in development). 511PA has grown to become a key component of PennDOT's statewide traffic operations program. Although the PA Turnpike Commission operates its own Turnpike Roadway Information Program (TRIP), 511PA also includes information on turnpike traffic and road conditions. If deemed feasible and beneficial, these services could be combined through this P3 contract.

Sponsorship / Cost Offset:

By benchmarking similar services in other states, PennDOT has determined that the 511PA services (website, IVR service, and mobile application, 511 signing) can be supported in whole or part through a contractor-managed sponsorship model. Revenues generated through sponsorship

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activities can be used to offset development, maintenance and support costs. In advance, PennDOT has developed a 511PA Sponsorship Policy which establishes what sponsorship activities will be acceptable to the Department.

2. Traffic Flow Data

PennDOT currently purchases licensed traffic flow data from a private contractor (INRIX) to provide real time traffic condition information for a portion of roadways covered in 511PA. Based on the cost/benefit of the private data versus department-owned traffic sensors, PennDOT plans to expand the coverage area to all limited access roadways and purchase four years of archived traffic flow data.

Sponsorship / Cost Offset:

By combining this service with other traffic operations services, the P3 vendor may be able to leverage their infrastructure, software, or other capabilities to offset cost.

3. Video Sharing Solution (VSS)

PennDOT requires a secure, scalable, reliable, redundant, flexible, easy-to-maintain, easy-to-support and cost-effective video solution that meets the Department's business and technical needs. These needs have been developed by an Intelligent Transportation Program Project Team which has identified a recommended solution and associated costs.

Sponsorship / Cost Offset:

There are various options for offsetting the cost of a VSS. These include sponsorship of video and licensing the use of PennDOT video to media partners. Through the Department's VSS project, it was recommended that PennDOT continue to provide video to partners at no cost. Doing so would support our goal of widespread dissemination of traveler information and would prevent inconsistencies with existing media partners that currently have a no-cost direct connection to a local traffic management center. This approach would not preclude a P3 vendor from redistributing PennDOT video for a fee to third parties with value-added content or services beyond the base VSS service.

4. Staffing for Statewide Traffic Management Center (STMC) and Engineering District 2-0 Regional Traffic Management Center (RTMC)

PennDOT plans to establish a Statewide Traffic Management Center (STMC) by December 2014. This facility will be located in the new PA Emergency Management Agency (PEMA) operations center in Harrisburg and will be responsible to oversee and coordinate traffic operations throughout the state. Similarly, a new Regional Traffic Management Center (RTMC) is being planned for Engineering District 2-0 to manage roadways in the center portion of the state as well as the entire I-80 corridor.

Sponsorship / Cost Offset:

By combining this service with other traffic operations services, the P3 vendor may be able to leverage their infrastructure, software, or other capabilities to offset cost.

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5. Freeway Service Patrols (FSPs)

The selected contractor would be responsible for the Freeway Service Patrols (FSP) currently serving Districts 5-0, 6-0, 8-0, and 11-0 and sponsor the PennDOT owned FSP vehicles operating at the D-11 tunnels. Existing contracts with FSP operators could be extended and utilized with the selected contractor providing sponsorship or the selected contractor could seek new FSP operators along with sponsorship opportunities. Program can be expanded to other state routes.

Sponsorship / Cost Offset:

By benchmarking similar services in other states and most notably with the Pennsylvania Turnpike Commission, PennDOT has determined that the Freeway Service Patrol services can be supported in part through a contractor-managed sponsorship model. This model could utilize the existing FSP contracts or allow for new contracts to be established with the contracted manager once existing contracts expire. Revenues generated through sponsorship activities can be used to offset the supporting costs of the program. In advance, PennDOT has developed a FSP Sponsorship policy which establishes what sponsorship activities will be acceptable to the Department.

6. Road Weather Information System (RWIS)

Past weather emergencies have highlighted the critical need for timely and localized weather information as part of the operational decision making process. The Bureau of Maintenance and Operations anticipates updating and integrating Road Weather Information System (RWIS) data (84 devices) with other Intelligent Transportation Systems to improve situational awareness, operational decision making and providing an external data feed to support and improve the ability of weather service providers to make tailored road weather forecasts for use by PennDOT and other emergency service agencies. Additionally, an updated RWIS would make the Department compliant with FHWA rules concerning real-time information sharing (SAFETEA-LU, Subtitle B, Section 1201) which requires roadway weather observation updates every 20 minutes with 90% availability and 85% accuracy.

Sponsorship / Cost Offset:

By combining this service with other traffic operations services, the P3 vendor may be able to leverage their infrastructure, software, or other capabilities to offset cost.

7. Sponsorship Opportunities at Welcome Centers and Rest Areas

Sponsorship programs are now fully authorized for rest areas/ welcome centers under federal law and guidance and are allowed under state law. Guidance from the Federal Highway Administration ("FHWA") provides a roadmap for generating and implementing a rest area sponsorship program. Sponsorship opportunities benefit the traveling public with an improved transportation system by providing flexibility for public agencies to pursue innovative sources of financing for maintenance and construction activities and other highway-related services.

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Sponsorship / Cost Offset:

FHWA Order 5160.1, dated March 13, 2012, provides guidelines on implementing a sponsorship program through acknowledgment signs at rest areas and on rest area/welcome center approaches. Federal law has long provided that a State may not permit automotive service stations or other commercial establishments for serving motor vehicle users to be constructed or located on the rights of ways of the Interstate System. The federal Moving Ahead for Progress in the 21st Century legislation ("MAP-21") expanded allowable uses at rest areas/ welcome centers, providing for restricted commercial activities within a rest area if the activities are available only to customers using the rest area/ welcome center.

8. Sponsor-A-Highway Program

Through the Sponsor-A-Highway Program (SAH), Pennsylvania businesses, organizations or individuals are afforded the opportunity to sponsor (pay) a professional maintenance company to perform the clean-up of litter and other roadside debris and to offer other highway beautification services (e.g., sweeping, graffiti removal, planting of flowers and shrubs and mowing). The program is administered through a contract with Adopt-A-Highway Maintenance Corporation. In recognition of participation, a sign is erected in the sponsored area. Proceeds from the sponsorship are used to pay vendor forces to perform the clean-up services. Our current vendor contract is set to expire on April 7, 2014.

Sponsorship / Cost Offset:

Since no revenue is generated by this program; savings are realized by not expending department resources for litter pick up. PennDOT estimates these savings as approximately \$89,000 per year (salary only).

9. Outdoor Advertising Program

The inventory of outdoor advertising is currently accomplished through biennial surveillance done by District Right-of-Way staff, who also process applications for new signs, meet with applicants, field inspect new sign sites, and manage sign violation activity. PennDOT plans to outsource the Outdoor Advertising Program so that District personnel can be re-assigned to Project Delivery duties.

Sponsorship/Cost Offset

In order to make outsourcing the OAD Program viable for a private partner, a P3 vendor may be able to leverage their equipment, software and other capabilities to offset costs.

10. Yellow Dot Program

Pennsylvania's Yellow Dot Program was created to assist citizens in the "golden hour" of emergency care following a traffic accident when they may not be able to communicate their needs themselves. Placing a yellow dot in your vehicle's rear window alerts first responders to check your glove compartment for vital information to ensure you receive the medical attention you need.

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Sponsorship/Cost Offset

Yellow Dot and the materials being made available to citizens are funded through a state and federal partnership based other states' programs and the demand since the program launched. Since the program has just begun it is not clear yet what the annual costs will be on an ongoing basis. To help offset them however there may be opportunities for private sponsorship of the materials being provided to ensure the program's continued success for years to come.

Total Estimated Project Costs

511PA:

- Implementation = \$2,135,000
- Annual Hosting & Maintenance Cost = \$1,350,000

Traffic Flow Data:

- Mobilization = \$375,000
- Annual Real Time Traffic Flow Data Cost (2500 miles) = \$1,875,000
- Annual Historical Traffic Flow Data Cost (15,000 miles) = \$100,000

Video Sharing Solution (VSS):

- Hardware Cost = \$2,778,000
- Annual Maintenance Cost = \$1,014,000
- Annual Bandwidth Cost = \$205,200

Staffing for Statewide Traffic Management Center (STMC) and Engineering District 2-0 Regional Traffic Management Center (RTMC):

- Annual staffing cost for the STMC = \$1,772,000
- Annual staffing cost for the D2 RTMC = \$1,772,000

Freeway Service Patrol (FSP):

- Annual Cost of Existing FSP Contracts = \$3,250,000

Road Weather Information System (RWIS):

- Initial Cost = \$2,000,000
- Annual Maintenance Cost = \$400,000

Sponsorship Opportunities at Rest Areas and Welcome Centers:

- No direct costs beyond nominal staff time to manage the contract.

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Sponsor-A-Highway Program:

- No direct costs beyond nominal staff time to manage the SAH contract.

Outdoor Advertising Program:

- Annual administration cost of roughly \$500,000 (\$850,000 offset by \$350,000 in associated fee revenue).

Yellow Dot Program:

- Annual costs still to be determined currently funded based on demand to the extent state and federal resources are available.

TOTAL ESTIMATED COST FOR 5-YEAR CONTRACT = \$68,479,000

Note: Estimated costs are based on current expenditures, as well as assumptions and experience with traditional procurements. Actual costs for tasks/services procured through the P3 project may vary from these estimates pending contractor approach, revenue generation opportunities, cost sharing, etc.

PennDOT will fund all costs to implement, operate and maintain these services less any revenue generated through the P3, including but not limited to sponsorships, license fees, or other initiative proposed by the contractor and accepted by the Department.