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SUPPORT SYSTEM TRANSPORTATION MANAGEMENT IMPROVEMENTS

TRANSPORTATION MANAGEMENT IMPROVEMENTS

PROJECT SCOPE/DESCRIPTION: DelTrac is an Integrated Transportation Management System - a multi-modal approach to improving the movement of people and goods. DelTrac uses modern technology and a Transportation Management Center (TMC) to monitor travel and adjust signals, signage, transit, etc. to lessen congestion. Some benefits include:

- Safer Travel – New traffic control systems can reduce the number of vehicle stops, minimize changes in vehicle speeds, and improve traffic flow - all of which help reduce the number of accidents.

- Less Traffic Congestion – DelTrac reduces traffic jams and travel time by continuously monitoring current conditions and automatically adjusting traffic signals, freeway ramp access, lane use, and transit schedules in response to real-time demand. Less traffic congestion results in safer, less stressful driving conditions.

- Better Travel Information – At home, en route, or at work, travelers will have access to real-time, accurate information about transit, train, and flight schedules, roadway conditions, and other travel information via radio, kiosks, cable TV, internet access, and variable message signs on the bus or highway.

- Improved Multi-modal Coordination – With the help of better travel information, travelers can make better decisions as to mode choice. For example, if a traveler is aware that his or her regular route to work is congested, he or she may opt for taking transit that particular day. Schedule and fare information provided in real-time makes train and bus transfers more convenient. Transportation managers benefit as well, as they can maximize the system's efficiency by coordinating their activities across travel modes. For example, through the automatic vehicle locator system on buses, the TMC can provide buses traveling behind schedule with longer "green time" at signalized intersections to help them get back on schedule.

- Quicker Emergency Response – With monitoring equipment, the TMC may detect, verify, and respond more quickly to incidents on the state's transportation system. Together with its emergency response partners (i.e. Department of Public Safety, Volunteer Firemen's Association, and Department of Natural Resources and Environmental Control), the TMC can act to ensure that incidents are cleared more quickly, reducing congestion and increasing safety. In the future, travelers in need of aid can benefit from communication and information technology which, among other things, can automatically send "mayday signals" to dispatch centers so trained emergency staff may locate an incident more quickly. Cellular call-in programs such as #77 and motorist call boxes are also used to facilitate emergency responses.

- Improved Efficiency – DelTrac technology allows DelDOT to make more efficient use of its existing resources by automating functions, sharing real-time information, and improving safety. It also helps private companies through improved freight delivery. Consumers save money through more efficient travel.

- Variable Message and Speed Limit Signs: To promote safe driving conditions, the department will install variable message boards and variable speed signs on limited-access and heavily traveled roads (I-95, I-295, I-495 and SR 1) throughout the state. These signs will help notify motorists in the event of unsafe driving conditions as a result of excessive traffic, or on Ozone Action Days when speed limits will be reduced, as necessary, to improve air quality. A prototype has been operational along southbound SR 1 near Smyrna since July 2002.

TRANSPORTATION MANAGEMENT IMPROVEMENTS (CONTINUED)

Delaware's transportation system, like so many others around the nation, is experiencing a number of competing pressures and demands. DelDOT customers prefer a transportation system that supports, not impedes, their high standards for quality of life, including employment opportunities, a sense of community, quality education, and the protection of its cultural and natural resources. Funding constraints and the need for transportation to become more seamless and integrated, along with the rapid development of technology to provide or enhance critical transportation improvements, have made traditional approaches to transportation awkward, difficult, costly, and in some cases obsolete. Proven transportation management strategies using control, monitoring, information and communication technology can provide real solutions to these challenging problems – saving time, saving lives, and saving money.

PROJECT JUSTIFICATION: Benefits of transportation management include better travel information, improved intermodal coordination, quicker emergency response, and less traffic congestion.

County: Statewide
Municipality:
Funding Program: Support System – Transportation Management Improvements
Functional Category: Management
Representative District: Statewide
Senatorial District: Statewide

Transportation Management Center in Smyrna

Live Traffic Photograph from a DelTRAC Camera

TRANSPORTATION MANAGEMENT IMPROVEMENTS (CONTINUED)

PROJECT FUNDING INFORMATION

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/04	Expended as of 12/31/04	Committed Unexpended as of 12/31/04	Authorization Available
Transportation Management Improvements		**$ 114,875.0**						
Prior Years	**State**			**$ 25,972.0**	**$ 14,530.1**	**$ 6,483.1**	**$ 8,047.0**	**$ 11,441.9**
	Federal			**$ 46,452.7**	**$ 46,452.7**	**$ 34,641.9**	**$ 11,810.8**	**$ 0.0**
	Other			**$ 0.0**	**$ 0.0**	**$ 0.0**	**$ 0.0**	**$ 0.0**
FY 2005	**State**		**$ 114,875.0**	**$ 2,544.3**	**$ 340.2**	**$ 0.0**	**$ 340.2**	**$ 13,646.0**
	Federal			**$ 10,177.0**	**$ 10,177.0**	**$ 0.0**	**$ 10,177.0**	**$ 0.0**
	Other			**$ 0.0**	**$ 0.0**	**$ 0.0**	**$ 0.0**	**$ 0.0**
FY 2006 Request	**State**			**$ 1,219.8**				**$ 14,865.8**
	Federal			**$ 4,479.2**				**$ 4,479.2**
	Other			**$ 0.0**				**$ 0.0**
FY 2007 Projected	**State**			**$ 1,206.8**				**$ 16,072.6**
	Federal			**$ 5,827.2**				**$ 10,306.4**
	Other			**$ 0.0**				**$ 0.0**
FY 2008 Projected	**State**			**$ 849.8**				**$ 16,922.4**
	Federal			**$ 3,399.2**				**$ 13,705.6**
	Other			**$ 0.0**				**$ 0.0**
FY 2009-2011 Projected	**State**			**$ 2,549.4**				**$ 19,471.8**
	Federal			**$ 10,197.6**				**$ 23,903.2**
	Other			**$ 0.0**				**$ 0.0**
Total Projected	**State**			**$ 34,342.1**	**$ 14,870.3**			**$ 19,471.8**
	Federal			**$ 80,532.9**	**$ 56,629.7**			**$ 23,903.2**
	Other			**$ 0.0**	**$ 0.0**			**$ 0.0**
Total All Funds		**$ 114,875.0**	**$ 114,875.0**	**$ 114,875.0**	**$ 71,500.0**	**$ 41,125.0**	**$ 30,375.0**	**$ 43,375.0**

TRANSPORTATION MANAGEMENT IMPROVEMENTS (CONTINUED)

PROJECT TIMELINE INFORMATION

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009 -2011
	Transportation Management Improvements									
21-106-01	Blue Ball (SR141 / US202 Area) DelTrac Improvements	PE, C	80% FHWA	$ 886.7	$ 400.0	$ 486.7	$ 0.0	$ 0.0	$ 0.0	$ 0.0
94-098-01	City of Wilmington Signalization	PE, C	100% FHWA	10,063.0	8,063.0	0.0	1,000.0	1,000.0	0.0	0.0
22-047-04	Churchman's Crossing DelTrac Improvements	PE	100% ST	150.0	150.0	0.0	0.0	0.0	0.0	0.0
99-092-13		C	80% FHWA	2,878.0	2,878.0	0.0	0.0	0.0	0.0	0.0
23-047-03	DelDOT Radio Automatic Vehicle Locator	PRO	80% FHWA	1,980.0	495.0	0.0	0.0	1,485.0	0.0	0.0
22-047-03	DelTrac Statewide Initiatives, 2003-2008	PE, C	80% FHWA	31,538.0	1,795.0	4,249.0	4,249.0	4,249.0	4,249.0	12,747.0
23-047-01	DelTrac Training Initiatives	MGT	80% FHWA	600.0	100.0	100.0	100.0	300.0	0.0	0.0
	Dover to Georgetown - Fiber Backbone	PE, C	80% FHWA	2,300.0	0.0	2,300.0	0.0	0.0	0.0	0.0
23-047-07	Dover Phase II, DelTrac	PE, C	80% FHWA	1,200.0	1,200.0	0.0	0.0	0.0	0.0	0.0
24-093-01	Dover Signal Improvements	PE, C	100% ST	2,850.0	2,500.0	0.0	350.0	0.0	0.0	0.0
99-092-10	I-95 DelTrac Improvements	C	80% FHWA	4,030.0	4,030.0	0.0	0.0	0.0	0.0	0.0
	Integrated Transportation Management Systems	PLAN	80% DISC FHWA	1,280.0	1,280.0	1,701.3	0.0	0.0	0.0	0.0
97-093-02	Kent County DelTrac Implementation	PE, C	80% FHWA	3,799.0	3,799.0	0.0	0.0	0.0	0.0	0.0
	National Electric Safety Code (NESC) Upgrades	PE, C	80% FHWA	3,005.0	3,005.0	0.0	0.0	0.0	0.0	0.0
99-092-02	New Castle County DelTrac Implementation	PE, C	80% FHWA	4,032.5	4,030.0	2.5	0.0	0.0	0.0	0.0
22-047-02	SR 4, Stanton to Newport	C	80% FHWA	939.8	902.5	37.3	0.0	0.0	0.0	0.0

TRANSPORTATION MANAGEMENT IMPROVEMENTS (CONTINUED)

PROJECT TIMELINE INFORMATION

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009 -2011
	Transportation Management Improvements, Continued									
23-047-06	SR 48, SR 41 to DuPont Road	PE, C	80% FHWA	660.0	660.0	0.0	0.0	0.0	0.0	0.0
21-047-01	Statewide DelTrac Integration	PE, C	80% FHWA	4,935.1	4,815.0	120.1	0.0	0.0	0.0	0.0
22-047-01 23-047-09 24-047-01		PE, C	80% DISC FHWA	4,815.0	4,815.0	0.0	0.0	0.0	0.0	0.0
99-094-01	Sussex County DelTrac Implementation	PE, C	80% FHWA	2,801.0	2,801.0	0.0	0.0	0.0	0.0	0.0
99-093-01	Statewide Traffic Management	PE, C	80% FHWA	5,266.0	2,801.0	2,465.0	0.0	0.0	0.0	0.0
23-047-08	Traffic Control Systems (TCS) Conversion	PE, C	80% FHWA	747.3	700.0	47.3	0.0	0.0	0.0	0.0
20-504-01	Transit/Radio Automatic Vehicle Locator	PE, C	100% ST	13,104.0	13,104.0	0.0	0.0	0.0	0.0	0.0
23-047-02	Transportation Management Center 2002-2003	PE, C	80% FHWA	1,668.2	995.0	673.2	0.0	0.0	0.0	0.0
23-047-04	US 13, Smyrna to SR 1, North of Smyrna	PE, C	80% FHWA	1,431.9	893.0	538.9	0.0	0.0	0.0	0.0
22-083-05	Variable Message and Speed Limit Signs	C	80% FHWA	6,213.2	6,213.2	0.0	0.0	0.0	0.0	0.0
	Total All Funds			$ 114,875.0	$ 72,424.7	$ 12,721.3	$ 5,699.0	$ 7,034.0	$ 4,249.0	$ 12,747.0