

Massachusetts Department of Transportation's Fleet Vehicle Operations

July 2014

2014



**Internal Special Audit Unit
Office of the Inspector General
Commonwealth of Massachusetts**

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I. Executive Summary

In late 2013, the Internal Special Audit Unit (ISAU) of the Office of the Inspector General began an audit of the official state vehicles that the Massachusetts Department of Transportation (MassDOT) owns and operates. The objective was to determine whether MassDOT is using its light-duty passenger vehicles¹ appropriately and efficiently.

Most Executive Branch agencies follow the fleet vehicle management policies developed by the Office of Vehicle Management (OVM). MassDOT does not.² In 2012, MassDOT drafted an agency-specific policy for the use and maintenance of fleet vehicles; however, MassDOT has never adopted that policy.

The ISAU used both OVM's policy for Executive Branch agencies and MassDOT's draft policy as benchmarks to measure MassDOT's vehicle management practices. The ISAU found an overall lack of governance, oversight and effective management within the fleet program, including a lack of formal vehicle management policies. These shortcomings have created a haphazard system with limited accountability, questionable vehicle purchases and assignments, violations of state laws and incomplete records.

Specifically, the ISAU found:

- MassDOT used \$3.4 million in federal funds designated for vehicle-emissions reduction to increase the size of its fleet, buying 107 new alternative fuel vehicles but only taking 38 vehicles off the road (25 of which were alternative fuel vehicles). In order to secure the air-quality funding, MassDOT had promised the Federal Highway Administration (FHWA) that it would retire 107 Crown Victoria sedans. Of the 107 vehicles MassDOT pledged to replace, the agency has retired only six.
- MassDOT purchased six 2014 Ford Explorers outfitted with the Massachusetts State Police Emergency Equipment Package - including emergency lights and sirens - and assigned them to senior MassDOT managers, despite the fact that the purchasing documents asserted that the vehicles would be used by the

¹ "Light-duty passenger vehicles" refers to all passenger vehicles in MassDOT's fleet, ranging from Ford F-350 pickup trucks to sedans. The audit did not examine the MBTA's separate management processes for its vehicles. The audit also did not assess MassDOT's heavy-duty vehicles, which include all equipment (plows, sign boards, dump trucks, etc.) and larger pickup trucks.

² Until Chapter 25 of the Acts of 2009 created MassDOT as the state's single transportation agency, many of its component parts were independent authorities that were not required to follow Executive Branch policies. Although MassDOT is now an Executive Branch agency, it does not follow all Executive Branch policies.

State Police to patrol state highways.³ One of the senior officials who received a Ford Explorer also signed the purchasing documents.

- Approximately one out of every five MassDOT employees has an assigned state vehicle.⁴ Based on their job functions, an analysis of vehicle records, a review of other data, and discussions with a sample of employees, some of these vehicle assignments appear unwarranted. For example, the drivers do not need the vehicles to regularly travel to meetings or to perform other aspects of their jobs.
- More than 140 MassDOT employees are permitted to drive their state cars home at night, purportedly to make it easier for them to respond to emergencies during off-duty hours. However, some of these individuals do not appear to regularly respond to off-duty emergencies.
- Some MassDOT employees who are not authorized to drive their state cars home circumvent that restriction by parking near their homes in lots that are owned by MassDOT or another public entity, thus improperly using their state vehicles for personal commuting.
- At the same time that numerous MassDOT vehicles are sitting idle, MassDOT continues to buy new state cars.
- One hundred and eighty (180) MassDOT vehicles did not have current, valid vehicle safety and emissions stickers, in violation of state law. Until the ISAU brought this issue to MassDOT's attention, numerous MassDOT employees and State Police troopers drove their state vehicles without valid inspection stickers. After the ISAU informed MassDOT of the problem, the agency ordered all vehicles without current inspection stickers to be taken out of service until inspections are completed.
- Dozens of MassDOT vehicles display commercial or passenger license plates rather than official state license plates. This practice violates Executive Branch policies. Additionally, most of these vehicles lack markings identifying them as MassDOT vehicles. Without state license plates or MassDOT signage, the public cannot identify the cars as state vehicles. This makes it easier to use the cars for personal business, thus exposing MassDOT to fraud and abuse.
- MassDOT made its own license plates to replace missing or damaged state license plates, in violation of state law. These plates were manufactured at

³ MassDOT funds Troop E, a division of the Massachusetts State Police responsible for law enforcement on the Massachusetts Turnpike and parts of Interstate 93.

⁴ This audit did not include MBTA vehicles or employees.

the Medford Sign Shop, a MassDOT facility that makes roadway signs. MassDOT halted this practice after the ISAU alerted senior officials.

- Several employees who work at MassDOT's headquarters regularly park their state vehicles at parking meters all day, for free. This practice takes much-needed parking away from the public and deprives the city of Boston of parking revenue. The use of a metered parking spot for free, daily parking also is a significant privilege that is not available to the general public.
- The lack of effective oversight and uniform policies has led to systemic weaknesses and vulnerabilities. For instance:
 - a. MassDOT does not require employees to maintain driver logs or other records to demonstrate that they are using their state vehicles solely for state business.⁵
 - b. MassDOT does not analyze each highway district's vehicle and equipment needs before allocating its vehicle and equipment budget to the districts. Rather, a portion of the annual budget for vehicle and equipment purchases is allocated evenly among the six districts, regardless of each district's relative size or individual need.
 - c. One individual performs key functions that should be segregated to prevent fraud and misuse: the individual approves vehicle requisition forms, receives the vehicles from the vendor, and approves the vehicle invoices for payment.
- The lack of effective management, oversight and recordkeeping also has led to specific instances of potential fraud, waste or misuse of transportation funds:
 - a. A senior manager approved her own vehicle purchase.
 - b. During the period reviewed, five MassDOT employees appeared to have more than one state vehicle available for their exclusive use.
 - c. MassDOT paid \$375,840 for vehicle accessories (such as Bluetooth capability and two-way radios) without first assessing the need for the equipment.
 - d. In 2012 and 2013, MassDOT chose the highest-priced vendor to install computer equipment in police cruisers. MassDOT could have hired two other state-approved vendors that offered lower prices.

⁵ Nonetheless, some divisions and districts within MassDOT have, on their own, required their employees to maintain driver logs.

- MassDOT's acquisition and implementation of an electronic vehicle management system (called FleetWave) is an improvement from the manual process that had been in place. However, MassDOT's official fleet records remain incomplete and inaccurate. For instance, FleetWave had no record of numerous vehicles that the Registry of Motor Vehicles (RMV) shows are registered to MassDOT.

MassDOT needs to significantly improve the management of its light-duty vehicle fleet. It needs to actively oversee its fleet, including its purchase, assignment and use of light-duty vehicles. Further, many of the problems identified in this report stem from the lack of written vehicle management policies. As an Executive Branch agency MassDOT has an obligation to abide by the Executive Branch's policies (unless there is a specific legislative exemption); MassDOT should immediately begin following OVM's fleet management policies.

In addition, the ISAU recommends the following:

1. MassDOT must follow through on the commitments the state made to the FHWA when MassDOT applied for \$3.4 million in air-quality funding. Because MassDOT has retired only six Crown Victoria sedans under the CMAQ program, MassDOT needs to take 101 more sedans out of service. If the agency does not have enough Crown Victoria sedans in the Highway Division fleet to meet its 107-vehicle commitment, MassDOT needs to report this discrepancy to the FHWA.
2. MassDOT should reassign the six 2014 Ford Explorers currently being driven by managers to its State Police unit.
3. MassDOT should investigate the vehicle procurement process that led to the purchase of the six Ford Explorers, determine if any wrongdoing occurred and take action accordingly.
4. MassDOT should immediately assess all current vehicle assignments using the standards and guidelines outlined in OVM's vehicle policy, and it should rescind all unwarranted assignments. As part of this process, MassDOT should make sure that the individuals who are allowed to take state cars home at night need those vehicles to respond to off-duty emergencies.
5. MassDOT should enforce its prohibition against driving state cars home without prior approval. As part of this effort, MassDOT should maintain a current list of where each vehicle must be parked overnight. The agency should then conduct regular audits to ensure that vehicles are parked overnight in the correct MassDOT facility.

6. MassDOT must institute robust procedures for purchasing and replacing vehicles. Purchases and replacements must be justified based on a documented business need that takes into account the mileage and condition of the employee's current vehicle. Similarly, when an employee receives a new vehicle, the agency must require the employee to immediately return his previous vehicle.
7. MassDOT should consider reducing the overall size of its fleet, and it should reassign or auction vehicles that it is not fully utilizing.
8. Having pulled all uninspected vehicles off the road in response to the ISAU, MassDOT should create an automated and centralized process for keeping vehicle inspections up to date.
9. MassDOT should replace all commercial and passenger license plates on its vehicles with official state license plates and ensure that all vehicles have appropriate state markings.
10. Having discontinued the manufacture of license plates at the Medford Sign Shop, MassDOT should conduct a full review to identify all vehicles with fabricated license plates and then obtain replacement plates from the RMV. MassDOT should also investigate whether any employees misused the fabricated or original license plates.
11. MassDOT should prohibit employees from using free parking at metered parking spaces, except in emergency situations.
12. MassDOT should discipline the employees who currently park all day at the meters outside of MassDOT's headquarters.
13. MassDOT should determine whether any employees are using two state vehicles, and should take appropriate disciplinary action.
14. MassDOT should update FleetWave records to include all of the agency's vehicles. Going forward, the agency should consider importing data from the RMV to eliminate manual entry. MassDOT also should periodically reconcile or audit its electronic records to ensure that they are accurate and complete.
15. When MassDOT implements its new asset management system this fall, it should utilize the system's audit trail feature so it can track and review users' activity. This would help MassDOT ensure that users do not improperly modify or delete vehicle records.

As part of its audit, the ISAU briefed MassDOT management on the issues raised by its audit. MassDOT responded in part:

We believe that the majority of the findings could, should, and will be addressed by strengthening our record keeping, reporting and accountability. The long awaited hiring of the District Equipment Coordinators, the move to Maximo for our fleet management needs, better communication with HR on employee status, and finally the long awaited institution of a MassDOT vehicle policy, will address many if not all of the issues illuminated in your findings.

Rest assured that all items identified will be investigated and appropriate changes to policy made.

The ISAU would like to thank MassDOT for its cooperation with this audit.

II. Background

A. MassDOT

Created in 2009, MassDOT is responsible for managing the Commonwealth's roadways, public transit systems, and transportation licensing and registration. It is made up of four divisions: the Highway Division, the Registry of Motor Vehicles (RMV), the Aeronautics Division and Rail and Transit. As part of Transportation Reform in 2009, the Highway Division took responsibility for the roadways, bridges and tunnels of the former Massachusetts Highway Department and the former Massachusetts Turnpike Authority. The Rail and Transit Division includes the Massachusetts Bay Transportation Authority (MBTA). The Aeronautics Division coordinates aviation policy and oversees the safety, security and infrastructure of 37 public airports across Massachusetts.

The Highway Division is comprised of MassDOT's executive and administrative offices (commonly referred to as District 0), as well as six regional districts across the state, each managed by a District Highway Director. The six districts (Districts 1-6) supervise all road, bridge and tunnel construction within their respective jurisdictions, perform on-site engineering, implement regular and preventive maintenance programs, generate proposals for maintenance and construction work and provide engineering support to cities and towns.

MassDOT also funds Troop E, a division of the Massachusetts State Police. Troop E is responsible for traffic management and law enforcement on the Massachusetts Turnpike, as well as on parts of Interstate 93 North and South.

MassDOT has approximately 4,500 employees (excluding MBTA employees).⁶

B. MassDOT's Light-Duty Vehicle Fleet

As of April 2014, MassDOT had approximately 1,500⁷ light-duty vehicles, comprised of the following vehicle types:

⁶ Unless otherwise noted, all data is as of April 2014. Further, because the MBTA manages its own fleet, this audit does not include MBTA employees or vehicles.

⁷ This includes Troop E vehicles.

Vehicle Type	Count
PICKUP	793
SEDAN	238
VAN	199
SUV	86
POLICE CRUISER	248
Total	1,564

Of these, 910 are assigned to specific individuals for their exclusive use. Of those, 143 have year-round “domicile privileges,” which means that they are permitted to take their state cars home at night as well as use them to commute to and from work. An additional 223 employees have domicile privileges from December to April in connection with snow and ice roadway maintenance duties.

As noted above, 248 of the vehicles are cruisers used by State Police-Troop E (Troop E). The remaining 406 vehicles in MassDOT’s fleet are assigned to the motor pool at MassDOT’s headquarters, to a regional MassDOT depot, or to a specific MassDOT department. These vehicles are generally available to MassDOT employees who need to travel on state business but who do not have an assigned vehicle.

C. Fleet Management

Operations and Maintenance (commonly referred to as Statewide Operations) is the subdivision within MassDOT’s Highway Division that is responsible for managing all aspects of the agency’s fleet vehicles and equipment. This includes vehicle and equipment procurement, disposal, budget allocation, maintenance, fuel management and recordkeeping.

Because MassDOT funds Troop E, Statewide Operations also manages Troop E’s fleet, except that it does not assign vehicles to specific individuals within Troop E.

Most Executive Branch agencies follow the fleet vehicle management policies developed by the Office of Vehicle Management (OVM).⁸ MassDOT does not. In 2012, MassDOT drafted an agency-specific policy for the use and maintenance of fleet vehicles; MassDOT has not, however, adopted the policy. As a result, MassDOT does not have a vehicle management policy that sets standards or procedures for purchasing, requesting, assigning or using a vehicle.

⁸ OVM’s vehicle policy is discussed in Section I.

D. Vehicle Procurement

1. The Procurement Process

MassDOT buys its own vehicles using statewide contracts that the Operational Services Division (OSD) manages.⁹ Generally, once a year the Maintenance Engineer in each highway district prepares a list of the light-duty vehicles to purchase for the district. The District Highway Director approves (or modifies and approves) the request and the District Maintenance Engineer sends the approved list to Statewide Operations. The Chief of Statewide Operations then reviews each district's list of requested purchases.

During this process, MassDOT does not require the districts or Statewide Operations to demonstrate a need for the vehicles. For instance, districts do not have to identify who would use the vehicles or for what purposes; nor are they required to identify which vehicles (if any) they would turn in and retire when they receive their new vehicles. Similarly, Statewide Operations is not required to use any standards to evaluate whether the purchases are necessary or whether current fleet vehicles actually warrant replacement.

After the Chief of Statewide Operations approves the purchases, the Motor Equipment and Maintenance Supervisor - a senior manager within Statewide Operations - fills out the requisition forms and other paperwork to initiate the purchases. The Chief Procurement Officer then processes the paperwork.

2. Funding

MassDOT uses a combination of funding sources to purchase vehicles and equipment, including light-duty passenger vehicles. The table below details each funding source:

Fiscal Year 2013 Funding for All Motor Equipment	
Bond	\$12,932,502
Metropolitan Highway System (Toll)	\$5,570,789
Western Turnpike (Toll)	\$3,206,749
Tobin Bridge (Toll)	\$262,017
Total	\$21,972,057

Since 2012, moreover, MassDOT has participated in the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, sponsored by the Federal Highway Administration (FHWA), to purchase light-duty vehicles.

⁹ OSD is discussed in Section I.

In fiscal year (FY) 2013 and the first seven months of FY 2014, MassDOT bought 377 light-duty vehicles costing a total of \$12.2 million:

MassDOT Light-Duty Vehicle Procurements		
State Fiscal Year	Vehicles Purchased	Cost
2013	206	\$6,709,145
2014	171	\$5,517,991
Total	377	\$12,227,136

Of the 206 light-duty vehicles MassDOT acquired in FY 2013, 107 were purchased with CMAQ funds.

E. Vehicle Assignment

MassDOT does not have uniform procedures or forms for assigning a vehicle to an employee. Generally, each District Highway Director has ultimate responsibility for assigning vehicles to the employees in her district. The District Highway Director determines (sometimes with input from supervisors) which employees need a vehicle, and vehicles are assigned when they become available. District Highway Directors are not required to fill out a written request or demonstrate a business need before assigning a vehicle to an employee; nor are employees required to complete any paperwork or otherwise justify the assignment.

Similarly, vehicle requests for employees not assigned to a particular district are sometimes informal and may be in the form of a telephone call or email to Statewide Operations. Some managers reported to the ISAU that sometimes they have no input into whether their employees receive a state vehicle. Rather, managers learn from their employees (or from Statewide Operations) that the employees had been assigned a vehicle.

F. Fuel Program

MassDOT purchases bulk fuel at a discount through statewide contracts that OSD manages. In order to maintain accountability for fuel purchases, Statewide Operations issues unique Personal Identification Numbers (PINs) to employees who drive MassDOT vehicles. The PINs provide eligible users with access to fuel at 65 state-owned fuel sites, using a chip-key access system (equipped and serviced by Petro Vend). In addition, some vehicles are issued Wright Express fuel credit cards for use at retail gas stations in the event that MassDOT fueling sites are not available.

Employees are required, however, to use MassDOT fueling sites unless extenuating circumstances prevent their use.

G. Vehicle Disposal

In October 2012, MassDOT adopted its own policy for disposing of surplus property. Under the policy, the Chief Procurement Officer is authorized to dispose of surplus vehicle inventory. District Maintenance Engineers are supposed to coordinate with Statewide Operations to conduct an ongoing vehicle inventory to determine the current condition of the vehicle fleet. Statewide Operations generally schedules vehicle disposals based on this inventory process, targeting vehicles that have been driven more than 100,000 miles or are more than five years old. Statewide Operations strips vehicles targeted for disposal of any functional equipment and then sends the vehicles to a third-party company (Adesa) for auction. In 2013 MassDOT auctioned 159 vehicles for a total of \$163,925.

H. Recordkeeping

MassDOT uses FleetWave, a web-based software application as its primary recordkeeping system for all of its equipment and vehicles. FleetWave contains all vehicle information for MassDOT's fleet, including vehicle make, model, year, vehicle identification number (VIN), employee assignment history, fueling records and cost information. Statewide Operations staff manually enters most of the information in FleetWave. Additionally, designated employees within each district have access to FleetWave for the purposes of updating vehicle assignments.

MassDOT is in the process of replacing FleetWave with IBM's Maximo application, a comprehensive asset management system that will include a fleet management module. The Maximo system is currently in the beta testing phase and the expected system conversion date is the fall of 2014.

Finally, since MassDOT has not issued its own vehicle policy and does not follow the OVM's vehicle management policies, highway districts and departments have different standards and practices for documenting vehicle use. For example, some districts and departments maintain daily driver logs that are prescribed by OVM, while others do not require employees to maintain any records of daily usage.

I. The Executive Branch's Vehicle Policies

As a Commonwealth Executive Branch agency, MassDOT is subject to all Executive Branch policies (unless a legislative exemption applies). OSD, a division of the Executive Office of Administration and Finance (ANF), is the Commonwealth's central procurement office responsible for establishing statewide contracts for goods and services. OSD also oversees multiple operational functions, including state vehicle management.

The Office of Vehicle Management (OVM) is the division within OSD that establishes policies and procedures related to the use of Commonwealth vehicles. The goal of OVM is to provide vehicles and services that offer the best value for the Commonwealth. All Executive Branch agencies are mandated to use OVM's vehicle program. The OVM policies and procedures manual (OVM Policy), entitled "Employee Use of Commonwealth Provided Vehicles," governs the procurement, maintenance, marking and use of all vehicles that Executive Branch agencies own, lease or rent.¹⁰ Executive Branch agencies must lease vehicles through OVM and must comply with the OVM Policy to ensure that state vehicles are procured, allocated, operated, marked, repaired and maintained in an effective, economical fashion consistent with state and federal laws.

Citing its enabling statute, M.G.L. c. 6C, MassDOT maintains that it is not required to follow ANF policies, including the OVM Policy. Because MassDOT has not adopted its own vehicle policy, however, the ISAU used the OVM Policy and MassDOT's draft vehicle policy to evaluate the agency's management of its light-duty vehicle fleet. Specific provisions of the OVM Policy therefore are discussed in the Findings section.

J. The ISAU

The Internal Special Audit Unit (ISAU) of the Office of the Inspector General is responsible for monitoring the quality, efficiency and integrity of MassDOT's operating and capital programs. As part of its statutory mandate, the ISAU seeks to prevent, detect and correct fraud, waste and abuse in the expenditure of public and private transportation funds. The ISAU is also responsible for examining and evaluating the adequacy and effectiveness of MassDOT's operations, including its governance, risk-

¹⁰ The OVM Policy states:

These policies and procedures shall apply to all State vehicles, as defined, owned, leased, rented or received as gifts contracted by the Commonwealth of Massachusetts, excluding those under the jurisdiction of the Commonwealth's Constitutional, Legislative and Judicial Offices, the public institutions of higher learning and independent authorities which are exempt by statute from these Policies and Procedures, sworn State Police Troopers and Environmental Police.

management practices and internal processes. The ISAU performed this audit as part of its regular, ongoing activities in accordance with its statutory mandate.

III. Findings

1. MassDOT used \$3.4 million in federal funds designated for vehicle-emissions reduction to increase the size of its fleet.

During federal fiscal year 2013¹¹ Massachusetts received \$76 million from the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, a federal program that annually funds transportation projects across the nation that are designed to assist states and municipalities in attaining or maintaining national air quality standards.

Of that \$76 million, \$3.4 million went to MassDOT to replace higher-emission fleet vehicles with alternative fuel models. The ISAU's analysis of the replacement program found that MassDOT purchased 107 new alternative fuel vehicles but only took 38 vehicles off the road, just six of which were the higher-emission vehicles the FHWA had approved for replacement.

MassDOT's vehicle replacement project received preliminary approval from the CMAQ Consultation Committee, the group charged with determining whether CMAQ projects meet federal funding requirements, in 2011. In March 2013, prior to the federal government releasing its funding, MassDOT submitted a proposal to the FHWA, specifying which fleet vehicles it had selected for replacement.¹² The proposal included an analysis of the emissions reduction gained by replacing 107 Crown Victoria sedans (model years 2006 and older).

In order to demonstrate that the replacement of these vehicles met CMAQ requirements, MassDOT hired an external consultant to analyze the expected emissions reductions gained by replacing the Crown Victoria sedans with alternative fuel vehicles. The consultant's report stated:

Vehicle data was provided by MassDOT. A total of 101 vehicles are to be replaced. The existing vehicles included 100¹³ Crown Victoria sedans, and 1 Ford L8000 heavy duty diesel truck. They are replaced with various vehicle types, including cargo vans, pickup trucks, and smaller sedans.

¹¹ Federal fiscal year 2013 ran from October 1, 2012 to September 30, 2013.

¹² See Appendix A for the vehicles that MassDOT said it would replace in federal fiscal year 2013.

¹³ MassDOT subsequently adjusted this estimate to 107, based on the amount of funding received.

The analysis sought to demonstrate how this fleet conversion would improve air quality in the region.¹⁴ In April 2013, the FHWA approved this specific fleet conversion project and released the funding.¹⁵

In May 2013, MassDOT procured 107 new alternative fuel vehicles; of the 107, 47 were Ford Fusion hybrids, 40 were Ford CMAX hybrids and 20 were Ford Compressed Natural Gas (CNG) vehicles. MassDOT began receiving the new vehicles in August 2013.

MassDOT FY 2013 CMAQ-Funded Vehicle Purchases			
Vehicle	Unit Cost	Quantity	Total Cost
Ford Fusion Hybrid SE AFV	\$28,428	47	\$1,336,116
Ford CMAX SE AFV	\$26,623	40	\$1,064,920
Ford F-250 CNG	\$51,396	15	\$770,940
Ford E-250 CNG Cargo Van	\$45,336	5	\$226,680
Totals		107	\$3,398,656

The ISAU analyzed whether MassDOT had met its obligation to remove 107 Crown Victoria sedans from its fleet. The ISAU found that only 38 light-duty vehicles had been turned in to Statewide Operations, taken off the road and sent to auction.

Twenty-five of the cars that MassDOT replaced and sent to auction were hybrids or alternative fuel vehicles. Further, only six were Crown Victoria sedans that met the original criteria for replacement. Although 14 Crown Victoria sedans were turned in to Statewide Operations at the time of replacement, only six were actually retired from service, taken off of the road and sent for auction; eight were reassigned to other employees or are being used as motor pool vehicles.

In the remaining 69 instances, MassDOT assigned the CMAQ vehicles to employees or departments, but did not remove any cars from service. Of these 69, 18 CMAQ cars went to employees who had not previously been assigned any state vehicle. The other 51 were assigned to the motor pool, a regional depot, or a specific MassDOT department.

¹⁴ See excerpts from MassDOT's consultant's report at Appendix B.

¹⁵ See Appendix C for the approval letter.

MassDOT FY 2013 CMAQ Vehicle Replacement Analysis	
CMAQ Vehicles Purchased	107
Crown Victoria Sedans Turned In, Retired and Auctioned	-6¹⁶
Remaining Crown Victoria Sedans That MassDOT Must Retire and Auction	101

MassDOT FY 2013 CMAQ Vehicle Replacement Analysis	
CMAQ Vehicles Purchased	107
Total Vehicles Turned In, Retired and Auctioned	-38
Total MassDOT Fleet Increase	69

Based on the ISAU's review, it appears that MassDOT did not comply with its obligation to replace 107 Crown Victoria sedans with alternative fuel vehicles. Since MassDOT increased the overall size of its light-duty fleet by 69 vehicles, moreover, any emission-reduction goals of the program were negated.

Further, it is unclear whether MassDOT had 107 Crown Victoria sedans in its non-State Police fleet at the time it presented its FY 2013 plan to the FHWA. As of August 2013,¹⁷ MassDOT only had 60 Crown Victoria sedans in its non-State Police fleet. Only MassDOT's non-State Police fleet is relevant because none of the vehicles purchased with CMAQ funding replaced Troop E vehicles.

During its audit, the ISAU asked MassDOT for records demonstrating that the agency had fulfilled the federal CMAQ funding requirements by replacing 107 Crown Victoria sedans. However, MassDOT did not provide the ISAU with any records of the specific vehicles it replaced.

Instead, MassDOT maintained that it retired 107 Crown Victoria sedans in the aggregate and that a one-for-one replacement analysis could not be performed based on which employees received new CMAQ-funded vehicles. MassDOT cited Crown Victoria sedans that it auctioned in 2011 as examples of the vehicles it replaced with the 107 alternative fuel vehicles purchased in 2013 with CMAQ funding. In the application it submitted to the FHWA in 2013, however, MassDOT proposed replacing 100 Crown Victorias in FY 2013. In fact, MassDOT selected different vehicles for

¹⁶ Between April 2013 - when the FHWA approved the CMAQ funding - and March 2014, MassDOT auctioned an additional fourteen Crown Victoria sedans. However, these cars should not be counted towards the CMAQ totals because they were not replaced with CMAQ cars.

¹⁷ This is the first month in which the ISAU obtained data from FleetWave. FleetWave does not have historical reporting capabilities; a user can only review the current status of the fleet.

replacement during each of the fiscal years in which it participated in the CMAQ program. MassDOT first identified the Crown Victoria sedans for replacement in March 2013.

Further, the FHWA approved MassDOT's request in 2013. CMAQ funding is not intended to pay for vehicles that an agency has already taken off the road. It is to help convert an existing fleet at the time the funds are approved.

2. **MassDOT purchased six 2014 Ford Explorers outfitted with part of the Massachusetts State Police Emergency Equipment Package and assigned them to senior MassDOT managers, even though the purchasing documents asserted that the vehicles would be used by Troop E.**

In 2013 and 2014, MassDOT purchased seven 2014 Ford Explorers from State Police Contract SP-13-F64. Unlike OSD contracts, which any state agency may use, the State Police specified in its bid documents that the vehicle contract would be used by the State Police and other law enforcement agencies.

The ISAU reviewed the procurement documents and internal approval process associated with the 2014 Ford Explorers and found that MassDOT employees repeatedly stated that all of the vehicles were being purchased for use by Troop E.¹⁸

However, only one of these vehicles was assigned to Troop E. The remaining six vehicles were assigned to senior Highway Division employees, including one of the managers who approved the procurement.

Each Ford Explorer cost more than \$34,000. Upgrades, which cost more than \$8,000 for each vehicle, included leather interior, rear view cameras, advanced sync systems for voice-activated entertainment and communication, upgraded air conditioning systems and four-wheel drive. Also, by using State Police Contract SP-13-F64, MassDOT obtained vehicles designed for law enforcement personnel and outfitted with the Massachusetts State Police (MSP) Emergency Equipment Package. The MSP Emergency package, which includes hand-held sirens and front and rear emergency lighting, cost an additional \$1,665 per vehicle.¹⁹ Additionally, all six vehicles are

¹⁸ See Appendix D for the procurement documents.

¹⁹ See Appendix E for details. Note that the emergency lighting on the vehicles is amber and not the standard police red and blue.

unmarked; they have a black exterior,²⁰ have no MassDOT decals or signage, and have commercial license plates.²¹

Furthermore, five of the six employees' prior vehicles were less than two years old and had low mileage. In addition, all of the employees' previous vehicles were given to other MassDOT employees or designated as motor pool vehicles, and continue to be in use, indicating that they were functional at the time they were replaced. The table below provides details regarding each employee's previous state vehicle at the time he received the new Ford Explorer:

Employee Title	Previous Model Vehicle	Approximate Mileage at Replacement ²²
Chief Engineer	2013 Ford Taurus	30,000
Deputy Chief of Operations and Maintenance	2012 Ford Escape	6,800
District 5 Highway Director	2012 Ford Escape	7,800
Chief of Operations and Maintenance	2012 Ford Taurus	8,000
Registrar of Motor Vehicles	2012 Ford Escape	8,900
District 4 Highway Director	2008 Ford Escape	102,000

In addition to procuring the Explorers with untruthful paperwork, the procurement deviated from both MassDOT's vehicle purchases during the audit period and OVM's vehicle policies. First, no other MassDOT employee received a new Ford Explorer during the audit period. While MassDOT could purchase Ford Explorers - without sirens or lights - from an OSD contract open to all state agencies, it did not do so during the audit period. Typical models of light-duty state vehicles that MassDOT purchased in 2012 and 2013 included the Ford Escape, Ford Fusion, Ford CMAX, Chevrolet Volt and Chevrolet Silverado, all of which are hybrid vehicles. The median cost of a state vehicle that MassDOT purchased in 2013 was approximately \$28,000.

Further, OVM restricts the purchase of sport-utility vehicles to instances when they are necessary to meet the agency's mission. Administrative Bulletin #10, "Use of State Vehicles by Executive Agencies" (December 2009), states:

²⁰ Standard MassDOT vehicle colors for non-State Police vehicles are white and safety yellow.

²¹ See Finding 9.

²² As represented in FleetWave.

The goals of the Administration are ... (2) to improve the overall fuel efficiency of the state motor vehicle fleet, [and] (3) to decrease the pollution emissions of the state... [Therefore,] 1. All new acquisitions (including purchases and leases) of any light-duty vehicle (sedan, van, SUV, crossover or truck) by any Executive Agency will be subject to approval by OVM and the State Purchasing Agent as to the operational needs of the vehicle and the agency. It will be expected that each new vehicle will replace at least one existing vehicle in the agency's fleet.

After the ISAU identified the procurement issues associated with the Ford Explorers, MassDOT recalled two of the Explorers from individual employees and reclassified them as "Department Assignments" or unassigned vehicles. MassDOT senior management maintains that the remaining vehicle assignments are appropriate and necessary in order to perform the functions of the employees' jobs. However, employees with similar job functions who work in western Massachusetts (where winter weather conditions are typically more severe) are able to perform their job functions with Ford Escape SUVs, pickup trucks, sedans, and other standard MassDOT vehicles.

3. Fifty-one percent of MassDOT employees sampled did not appear to warrant the assignment of a state vehicle.

Approximately one out of every five MassDOT employees has an assigned state vehicle for his exclusive use.²³ MassDOT does not have uniform procedures or forms for assigning a vehicle to an employee.

According to the OVM Policy, employees may warrant the assignment of a state vehicle if they demonstrate a clear need for the full-time use of a vehicle and if their estimated annual usage exceeds 15,000 miles per year. The OVM Policy requires employees to provide a written statement justifying the need for a vehicle, along with a cost-benefit analysis demonstrating the financial advantage to the agency.²⁴ Similarly, MassDOT's own draft vehicle policy provides that only those employees who are required to travel daily on MassDOT business warrant the assignment of a state vehicle. Additionally, the draft policy uses 10,000 annual state business miles as a benchmark for domiciled vehicle privileges.

The ISAU identified several MassDOT employees who do not appear to warrant the assignment of a state vehicle under either the OVM Policy or MassDOT's draft policy. Of 35 employees sampled, 51% reported that they used their state vehicles for official

²³ This does not include state troopers in Troop E.

²⁴ See Appendix F for an example of the state vehicle request form.

state business less frequently than the standards specified in the MassDOT draft policy (daily use). When asked, the employees' most-common explanation for receiving a vehicle assignment was for traveling to meetings. These employees do not use their vehicles daily for official state business, however, and using a motor pool vehicle would be more appropriate for their minimal travel needs.

Some supervisors and managers also reported that they automatically received a state vehicle when they became a supervisor or manager. They stated that they believed it was standard practice to give a state vehicle to supervisory level employees.

Finally, requests for state vehicles are sometimes in the form of a telephone call or email directly to Statewide Operations. Statewide Operations then decides whether to approve the request. The ISAU found that for many vehicles assigned in 2013, Statewide Operations did not provide any formal evidence of vehicle requests, approvals or assignment. Additionally, none of the employees who requested state vehicles in 2013 submitted a cost-benefit analysis with their request.

Based on the ISAU's audit, it is likely that many MassDOT employees would not qualify for a state vehicle under either the OVM Policy or MassDOT's draft vehicle policy. The ability to identify all such individuals is limited, however, because of MassDOT's lack of policies and procedures. For instance, there may be many employees who drive less than 10,000 miles each year on MassDOT business. However, this is very difficult to determine because MassDOT does not require employees to keep mileage logs that separate miles traveled on MassDOT business from miles traveled commuting. (MassDOT does not mandate the use of any driver logs for light-duty vehicles.²⁵)

In the absence of an official governing vehicle policy, MassDOT employees are not required to complete a cost-benefit analysis, or demonstrate the financial advantage to the agency, before getting a state vehicle. Outside of the Highway District vehicle assignments, Statewide Operations has significant discretion in assigning vehicles to employees. There are virtually no checks and balances to ensure that assignments are appropriate. Due to the lack of standards, employees receive state vehicles without a demonstrated justification or need.

²⁵ However, some divisions and districts within MassDOT have, on their own, required their employees to maintain driver logs.

4. MassDOT employees received new vehicles even though they already had relatively new vehicles with low mileage.

Like initial vehicle assignments, MassDOT does not have a formal or uniform process for requesting a replacement vehicle. In addition to the Ford Explorers discussed earlier (see Finding 2), the ISAU identified 23 other employees who received new vehicles in 2013 and 2014 even though their assigned vehicle did not appear to need replacement.²⁶ Most of the replaced vehicles were less than three years old and had been driven less than 30,000 miles.

In one extreme example, an employee who had a 2012 Ford F-250 pickup truck with 308 miles on it received a 2014 Ford F-150 pickup truck. In another example, an audit manager who had a 2012 Ford Fusion with 60 miles on it received a 2014 Ford Fusion. All of the employees' prior vehicles were reassigned to other employees, departments or districts, and continue to be in use, indicating that they were functional at the time they were replaced.

This often occurs because, typically, the most senior employees receive the newest vehicles when new vehicles are purchased. Their former vehicles are then given to more junior employees, whose cars are then reassigned to lower ranking staff. For example, if a district requests new vehicles based on the addition of new staff, the new employees would not necessarily receive the new vehicles. More senior employees in the same district or department would likely receive the newest vehicles and their prior vehicles would be reassigned to less-senior employees. Thus, while there may be a legitimate need for the new vehicle purchase in a particular department or district, the recipient of the new vehicle is not necessarily the employee for whom the vehicle was purchased.

This practice adds to the perception that vehicle assignment is a perk rather than an operational tool to carry out MassDOT business. Additionally, the practice creates a domino effect of vehicle reassessments that makes it very difficult to determine which vehicles were originally designated to be replaced and whether the vehicle purchases were necessary.

²⁶ See Appendix G for details.

5. MassDOT allows more than 140 MassDOT employees to drive their state cars home at night, but the agency does not require the employees to demonstrate that they need this privilege.

MassDOT employees, like other state officials, are sometimes permitted to take state vehicles home overnight. Under the OVM Policy, state vehicles must be used solely for state business and so-called domiciled vehicle privileges are restricted to employees whose duties require a regular emergency response to work-related situations during off-duty hours. MassDOT's draft vehicle policy also states that employees may only be considered for domicile privileges if they frequently respond to emergencies during off-duty hours.

Based on the ISAU's review, some MassDOT employees with domiciled vehicle assignments do not appear to need this privilege.

MassDOT maintains a manual list of employees with approved domiciled vehicle privileges. Generally, each District Highway Director communicates to Statewide Operations which employees require domiciled vehicles. Employees are not required to provide or maintain documentation of the need for domiciled vehicle privileges.

In 2013, 366 MassDOT employees had domiciled vehicle privileges, of which 143 had year-round privileges and the remainder had seasonal snow and ice privileges between December and April.

The ISAU sampled 125 MassDOT employees who had year-round domiciled vehicles during 2013. Of 125 employees sampled, 53 employees did not respond to the ISAU after multiple inquiries. Of the 72 employees who did respond, it appears that at least 25 (35%) of these employees did not have a valid need for a domiciled vehicle as defined by OVM.

The employees either did not frequently respond to off-duty emergencies, or did not substantiate the number and types of emergencies to which they responded. Many said they needed a domiciled vehicle because they participated in snow and ice operations. However, many snow and ice shifts do not involve either actual roadway maintenance operations or frequently reporting to different locations. Further, the surveyed employees have year-round domicile privileges, which cannot be justified by seasonal snow and ice duties.

Other respondents said they needed a state vehicle at home regardless of how often they actually responded to emergencies because their jobs required them to be on

call during off-duty hours. This contradicts Administrative Bulletin #10, “Use of State Vehicles by Executive Agencies” (December 2009), which states:

For purposes of authorizing domiciled travel, the possibility of a state employee being called out after hours for state business will no longer be a factor unless a special purpose vehicle is required, i.e. state police cruiser, haz-mat vehicle, etc.

The OVM Policy further requires that domicile assignments be reported to ANF annually and approved by the Secretary of Administration and Finance. The ISAU did not identify any evidence that MassDOT followed this reporting and approval process for its 2013 or 2014 domicile assignments.

Finally, the ISAU found that the 2014 list of domiciled vehicles was inaccurate. It included the names of former employees and outdated vehicle information.

Overall, MassDOT’s management of domiciled vehicles is lax and vulnerable to misuse. The lack of documentation also makes it difficult to determine whether all MassDOT employees who are permitted to take their cars home at night meet the state’s requirements for domiciled vehicle assignments.

In response to this issue, MassDOT management maintains that the 25 domicile assignments the ISAU identified in its sample as questionable are necessary since the employees’ job functions require them to be on call.

6. MassDOT employees who do not have domiciled vehicle privileges are using their state cars to commute.

State employees who do not have domiciled vehicle privileges are prohibited from using their state vehicles for their daily commute. The ISAU found numerous instances of MassDOT employees circumventing that restriction by driving their state vehicle a majority of the way home but parking it at a lot owned by MassDOT or another public entity.

The OVM Policy prohibits this practice. The policy states:

The use of a state vehicle to commute between work-site and personal residence will only be allowed in those situations outlined in the section on “Overnight Travel/Domicile Travel,” of these Policies and Procedures.

The ISAU reviewed three months of driver logs for 37 MassDOT employees with assigned state vehicles and determined that 20 (54%) frequently used their state vehicle to facilitate their daily commute.²⁷

In one extreme example, a MassDOT employee who lives in Vermont regularly parked her MassDOT vehicle at the Williamstown Department of Public Works, which is the closest in-state location to the Massachusetts/Vermont border. In other instances, employees with MassDOT vehicles were also giving rides to fellow MassDOT employees who did not have their own state vehicle.

By driving MassDOT vehicles to and from locations close to their homes, employees avoid personal commuting costs, including tolls, parking, gas and overall wear and tear on their personal vehicles. Stated conversely, MassDOT is paying for these employees' commuting costs. The ISAU analyzed the toll costs for six state vehicles that MassDOT employees use for commuting. For these six vehicles, MassDOT paid approximately \$500 in personal commuting tolls over a three-month period.

Further, by parking near their residences (rather than driving all the way home) these employees may also be avoiding the income tax associated with the personal use of an employer-provided vehicle. Federal and state tax codes indicate domiciled employer-provided vehicles that are used for all or a portion of an employee's personal commute constitute a taxable fringe benefit.²⁸ By not parking at their homes, however, these employees are not technically meeting the "domiciled" criteria used for tax purposes.

Additionally, parking state vehicles at municipal parking lots not associated with MassDOT may present security risks and hinder effective fleet management. Since the vehicles are not assets of the respective municipality and each individual location may have varying degrees of security, it is unclear whether these MassDOT assets are being properly safeguarded. All MassDOT vehicles should be maintained at MassDOT facilities overnight, unless domiciled.

Finally, since MassDOT (1) does not require employees to maintain driver logs; and (2) does not have an accurate central inventory of the overnight parking location for each vehicle assignment, it is likely that many other employees who do not have domicile privileges bring their vehicles home (or close to home) overnight.²⁹

²⁷ See Appendix H for details.

²⁸ See Internal Revenue Service Publication 15-b, "Employer's Tax Guide to Fringe Benefits" (2014).

²⁹ For instance, the ISAU performed a random check of two senior employees who do not have domicile privileges; both employees took their vehicles home for the weekend.

7. More than 400 MassDOT vehicles are unassigned; many sit idle for long periods of time.

As of April 2014, MassDOT had 406 vehicles in its light-duty fleet that were not assigned to a specific employee. These vehicles - commonly referred to as “unassigned vehicles” - are listed in FleetWave as “Motor Pool,” “Department Assignment,” “Depot Assignment,” or have no operator assigned.³⁰ MassDOT General Services manages the approximately 25 motor pool vehicles used by employees in the State Transportation Building (where MassDOT is headquartered). The remaining unassigned vehicles are informally managed by the districts or departments that house them.

The ISAU found that MassDOT does not closely manage its unassigned vehicles. It does not have a process for determining how many vehicles a particular district, department or depot needs. It does not monitor the use of its unassigned vehicles to determine how often they are driven, or by whom. As a result, depots, districts and departments get unassigned vehicles in an informal, haphazard manner.

Often, when an employee with an assigned vehicle receives a new vehicle, he is not required to turn in his old vehicle to Statewide Operations. Rather, the vehicle frequently remains at the employee’s regional district or with his department as an “unassigned vehicle” for anyone in the district or department to drive.

In some instances, these second-hand vehicles are listed as unassigned in MassDOT’s official records but are driven by only one employee; that is, the employee has a state vehicle that was not officially assigned to him.

More frequently, however, these unassigned vehicles remain idle at district locations for extended periods of time. As of May 2014, 128 (31%) of MassDOT’s unassigned vehicles had not been fueled in more than two months, indicating that they had not been driven during that time period.

The ISAU also identified an additional 42 unassigned vehicles that had been driven less than 10,000 miles per year, indicating that they were being driven infrequently.³¹

As an example of the inefficiency associated with MassDOT’s fleet management, the ISAU identified four vehicles that MassDOT did not reassign or auction in a timely manner after the employees received new vehicles. The table below provides details on these vehicles:

³⁰ “No operator assigned” means that the assignment field was left blank in FleetWave.

³¹ See Appendix I for a full list of vehicles that the ISAU identified as having low annual mileage.

Vehicle	Date Replaced ³²	Date Reassigned	Average Monthly Miles Driven Between Replacement and Reassignment ³³
2012 Ford Taurus	May 2013	February 2014	210
2001 Chevy Van	February 2013	N/A – not reassigned	92
2010 Ford F-150	May 2013	October 2013	0
2013 Chevy Silverado	December 2013	N/A - not reassigned	0

The two vehicles above that were not reassigned to other employees became “department” or “depot” assignments in FleetWave, and are available as motor pool vehicles to any employee in that department or district. Following are the fuel records for the above vehicles during the period following their replacement:³⁴

- The 2012 Ford Taurus was only fueled once between May 2013 and February 2014.
- The 2001 Chevy van was not fueled at all from June 2012 to December 2013.
- The 2010 Ford F-150 was not fueled at all from May 2013 to December 2013.
- The 2013 Chevy Silverado has not been fueled since November 2013.

Note that this is an example of idle vehicles, and is not representative of the total population.

MassDOT’s failure to monitor vehicle usage and the lack of a formal turn-in process upon vehicle replacement contribute to the mismanagement of MassDOT’s fleet. These lapses also may result in employees receiving state vehicles without proper justification or need. MassDOT should formalize the vehicle replacement and assignment process to avoid underutilization of state vehicles. Furthermore, MassDOT should evaluate its unassigned vehicles and either auction or reassign vehicles that are not being used.

³² “Date replaced” refers to the date the employee received his new vehicle.

³³ As recorded in FleetWave.

³⁴ According to fuel records in FleetWave.

8. 180 MassDOT vehicles did not have current, valid vehicle safety and emissions inspection stickers.

The ISAU examined RMV records and determined that of the 1,564 light-duty vehicles registered to MassDOT and listed as “in service” in FleetWave, 180 (11%) vehicles did not have current vehicle inspection stickers as of May 7, 2014. This includes 41 Troop E vehicles. Of the 180 vehicles identified, 60 MassDOT vehicles and nine Troop E vehicles continued to be driven following the expiration of their inspection stickers.³⁵ Three MassDOT vehicles were driven a combined 57,000 miles following sticker expiration.

The lack of current inspection stickers is a violation of state law, which requires all vehicles registered in Massachusetts to receive an annual safety inspection and to pass an annual emissions test.³⁶

MassDOT does not have a centralized, proactive process to ensure that all of its vehicles have current safety and emissions inspections. This is true even though MassDOT maintenance garages can perform safety and emissions inspections at no cost to the agency.



MassDOT vehicle inspection sticker photographed 5/14/14; vehicle was driven approximately 5,000 miles post-expiration.



Troop E police vehicle inspection sticker photographed 5/9/14.

programs in ensuring that all of its vehicles have inspection and emission stickers.

³⁵ For the remaining 111 vehicles, some had not been fueled or use could not be determined due to a lack of fuel records.

³⁶ The emissions test only applies to light-duty vehicles that are model years 1999 and newer.

9. Dozens of MassDOT vehicles display commercial or passenger license plates, instead of official state plates.

The ISAU found that, as of May 2014, MassDOT had 50 light-duty vehicles that have commercial license plates and two state vehicles with passenger license plates - rather than the official state license plates required by OVM.

The OVM Policy states that all Massachusetts state vehicles must have official state license plates unless the vehicles are used by law enforcement personnel or have been issued a waiver by ANF under special circumstances.³⁷ Examples of these circumstances include state employees who perform undercover or investigatory work and instances where it is necessary to protect the safety of the employee. In these cases, the RMV issues confidential registrations in the form of passenger or commercial license plates.



To date, MassDOT has not followed the OVM Policy; instead, the Chief of Statewide Operations has assigned commercial plates for certain vehicles. MassDOT obtained these license plates directly from the RMV, without applying for and obtaining a waiver from ANF, or demonstrating any specific need for non-state registrations.

Further, the assignment of a commercial or passenger license plate does not appear to be related to particular job functions within MassDOT. Of the MassDOT vehicles with commercial plates, 33 are assigned to specific employees, ranging from motor pool drivers to senior management.³⁸ None of these employees have law enforcement or official investigative duties.

Many of these vehicles do not have any state markings or logos, and are not distinguishable as state vehicles to the general public. Therefore, the vehicles lack the transparency of state vehicles and facilitate the avoidance of public scrutiny associated with any potential misuse. The majority of employees who are assigned these vehicles also have domiciled vehicle privileges.³⁹



MassDOT vehicle with proper state plates and markings

³⁷ See Appendix J for an example of a Confidential Registration Request Form.

³⁸ See Appendix K for details of each employee's job function.

³⁹ See Finding 5.

Employees at all levels should be subject to the same strict guidelines surrounding the appropriate use of state vehicles and should maintain transparency when using MassDOT assets. Therefore, all MassDOT light-duty vehicles (with the exception of Troop E vehicles) should have official state license plates, regardless of the employee's title or seniority.

After the ISAU notified MassDOT of this issue, MassDOT indicated that 32 of these vehicles are assigned to senior staff in the organization and that at this level of management, MassDOT trusts these employees to use their vehicles appropriately.

10. Some MassDOT vehicles had unofficial license plates manufactured by the Medford Sign Shop, in violation of state laws.

The ISAU identified multiple state vehicles with fabricated front license plates. The plates were on both MassDOT vehicles and Troop E police cruisers.

These plates were not official license plates issued by the RMV; rather they were made at MassDOT's Medford Sign Shop.⁴⁰ These license plates resemble official state plates, but are not embossed and are missing features standard with official plates. Until the ISAU brought this issue to MassDOT officials, it was common practice for

MassDOT employees to request fabricated plates from the Medford Sign Shop to replace damaged or missing license plates. MassDOT told the ISAU that acquiring replacement license plates from the Medford Sign Shop was easier and less time-consuming than requesting replacement plates from the RMV.



A fabricated license plate found on the front of a state vehicle

MassDOT began tracking plates made at the Medford Sign Shop in 2010. Since then, the sign shop has fabricated 55 license plates, five of which were for Troop E cruisers. Although the tracking is recent, the practice has been going on for decades, according to MassDOT officials.



MassDOT unmarked state vehicle with commercial plates and missing front plate

⁴⁰ The Medford Sign Shop manufactures roadway signs for the state.

By Massachusetts law, registered vehicles must display front and back license plates. Additionally, permanent license plates must be issued by the RMV and cannot be recreated in any form.⁴¹

By driving these vehicles throughout the state, MassDOT employees are in violation of state laws.

After the ISAU notified MassDOT of this issue, MassDOT immediately ceased producing unofficial license plates, and ordered all employees with these license plates to remove and replace them with official plates issued by the RMV. MassDOT management also removed materials used to make these license plates from the Medford Sign Shop. Because the practice has been occurring for years, but MassDOT only started tracking the fabrication of license plates in 2010, the agency should conduct a thorough review to ensure that it has identified all vehicles with fabricated plates.



A license plate fabricated in the Medford Sign Shop

11. MassDOT employees regularly park state vehicles at Boston parking meters all day for free.

On a daily basis, vehicles assigned to MassDOT employees line the metered parking spaces outside of MassDOT's headquarters, located in the State Transportation Building in Boston's downtown theatre district. Unlike other motorists, these drivers do not pay for the parking spots and are not



⁴¹ Massachusetts law states:

Every motor vehicle or trailer registered under this chapter when operated in or on any way in this commonwealth shall have its register number displayed conspicuously thereon by the number plates furnished by the registrar.... No number plates other than such as are procured from the registrar or such as may be authorized by him for temporary use ... shall be displayed on any motor vehicle or trailer so operated.... If any number plate supplied by the registrar is lost or mutilated or if the register number thereon becomes illegible, the owner or person in control of the vehicle for which said number plate was furnished shall make application for a new number plate, and thereupon the registrar shall issue to such applicant a permit allowing him to place a temporary number plate bearing his register number on said vehicle until a number plate of the regular design is made and delivered to said applicant.

ticketed by the city of Boston for exceeding the two-hour maximum time limit.

The ISAU observed MassDOT vehicles regularly parked near the State Transportation Building between November 2013 and May 2014. On each occasion, generally the same seven to eighteen vehicles were parked on the street in the same locations for full workdays.

These individuals are taking advantage of their positions as state employees in order to receive a valuable benefit that is not available to the general public. Parking for free at a meter can amount to significant annual savings. Based on a survey of parking rates, the cost to park in a garage in the theatre district ranges from \$4,500 to \$5,300 a year. And while state vehicles are exempt from paying for meters in Boston,⁴² full-time daily use likely is not within the spirit of the city's exemption. The lost city revenue caused by the employees' use of the metered spaces could reach up to \$27,000 annually, based on daily weekday parking of twelve cars. In addition to lost meter revenue for the city of Boston, these state vehicles take up valuable short-term parking spaces, which can impact local businesses.

Although state vehicles are not required to pay for meter parking, these employees' recurring and regular use of this benefit for ongoing weekday parking is not appropriate. The general public cannot park for free, all day, at metered parking spaces, and state employees should not either.

12. Five MassDOT employees appeared to have more than one state vehicle available for their exclusive use.

The ISAU identified five MassDOT employees who appeared to have more than one state vehicle available for their exclusive use for extended periods of time between 2010 and 2014. While these employees were not officially assigned two state vehicles in FleetWave, the fueling records⁴³ indicate that each of these five employees regularly fueled two vehicles during the period reviewed. Furthermore, fueling records and FleetWave records indicate that no other employee was driving these vehicles for the period reviewed.

MassDOT should more closely manage its fleet to ensure that no employee has two vehicles. Currently, for instance, employees are not always required to turn in their old vehicles when they receive new ones. Additionally, MassDOT management does

⁴² The city of Boston exempts state government vehicles with official markings from paying parking meter fees. See City of Boston, "Traffic Rules and Regulations, City of Boston" at Article IV, Section 4 (2012).

⁴³ As represented in FleetWave.

not monitor the use of unassigned vehicles, making it more difficult to detect employees who regularly drive more than one state vehicle.

13. MassDOT does not analyze district vehicle needs prior to allocating budget amounts to each district.

Statewide Operations allocates the annual vehicle and equipment budget across the six Highway Division districts. Districts vary in size, number of employees and construction projects. For instance, District 6 has the most employees and active projects, whereas District 1 has the fewest employees and projects.

The table below highlights how districts vary:

Active Projects , Number of Employees and Equipment					
District	Construction Projects	Design Projects	Total Projects (as of 4/1/14)	# of Employees (as of 1/8/14)	Vehicles and Equipment (as of 4/1/14)
District 1	48	157	205	176	390
District 2	114	261	375	258	575
District 3	123	285	408	336	657
District 4	107	195	302	387	594
District 5	138	269	407	369	681
District 6	108	363	471	410	815

Statewide Operations does not analyze district needs prior to allocating a portion of the budget to each district. Rather, Statewide Operations divides the annual budget for vehicle and equipment purchases evenly among the six Highway Division districts, regardless of each district's size or needs. During the initial round of FY 2014 funding, for example, Statewide Operations received \$4.8 million. Statewide Operations allocated this funding evenly across Districts 1 through 6, with each district allotted \$800,000 to spend on vehicles and equipment.

The lack of any analysis before allocating vehicle and equipment funding may result in some districts receiving too little funding and other districts receiving excessive amounts. MassDOT should perform an appropriate analysis of fleet inventory and individual district needs before distributing annual funding.

14. MassDOT spent \$375,000 on vehicle accessories that may not be necessary.

MassDOT does not evaluate the need for accessories when it buys light-duty vehicles. Rather, MassDOT automatically purchases a standard set of accessories for every

vehicle. In 2013, MassDOT purchased 87 new light-duty vehicles that were outfitted with equipment costing more than \$375,000. This equipment included emergency lighting, two-way radios, navigation equipment and Bluetooth systems.⁴⁴ Each vehicle was equipped with the same accessories regardless of the vehicle body type or the intended use of the vehicle. Individual equipment costs are detailed below:

Vehicle Accessory	Cost Per Unit	Total (87 Sedans)
Emergency Lighting	\$1,765	\$153,555
Motorola 2-Way Radio	\$1,635	\$142,245
GPS*	\$520	\$45,240
Bluetooth	\$400	\$34,800
Total	\$4,320	\$375,840

*not installed

Employees assigned these vehicles include right-of-way agents, diversity officers, toll collection managers, administrators and environmental analysts, most of whom do not have job functions that require the accessories noted. For instance, they do not need emergency lights or two-way radios because they do not respond to emergencies or provide road-side assistance to drivers. Many of the employees surveyed who are assigned these vehicles indicated they do not regularly use most of the equipment.

15. MassDOT routinely chooses the highest-priced technology vendor for Troop E vehicle accessories, although two other vendors are available.

In 2012 and 2013, MassDOT spent more than \$727,000 for 86 laptop computers and docking stations for Troop E police vehicles. Although OSD has approved three vendors to supply this equipment, MassDOT historically has only used one vendor: the most expensive of the three. The table below outlines specific charges by this vendor:

Cost Breakdown (FY 2014 Price*):		
	Explorer	Expedition
Laptop	\$6,078	\$6,078
Mounts	\$1,705	\$1,763
Install	\$655	\$1,166
Printer	-	\$1,128
TOTAL	\$8,438	\$10,135

*Source: Vendor invoice

⁴⁴ The ISAU also discovered that MassDOT never received the navigation equipment included in this procurement. MassDOT has subsequently requested a refund from the vendor for \$45,240.

The other two approved vendors for this equipment list lower prices overall. Specifically, overall prices for laptops and docking stations the other vendors are \$1,235 (vendor 2) and \$722 less (vendor 3), per laptop and docking station, than MassDOT's chosen vendor.

Additionally, there was a significant delay in the installation of the docking stations by the selected vendor, as a much larger client took priority over MassDOT. This contributed to significant delays in deploying the new vehicles to state troopers.

16. MassDOT's vehicle procurement practices contain weaknesses.

MassDOT's procurement policy states that the agency will comply with procurement practices set forth by OSD and the State Comptroller's Office. According to the State Comptroller's policy, a request for goods or services must be approved by an individual with the appropriate level of authority.

MassDOT uses standard requisition and encumbrance forms⁴⁵ to purchase new vehicles and its budget office approves the available funding for vehicle procurements. However, the ISAU identified weaknesses and a lack of controls in MassDOT's procurement practices for vehicles.

In general, each district gives Statewide Operations a list of the vehicles it wants to purchase. After the Chief of Statewide Operations approves the request (or a portion of it), a manager in Statewide Operations completes a standard requisition form and other paperwork to initiate the purchase. MassDOT management does not require the district to demonstrate that it needs the vehicles; nor does it require Statewide Operations to use any standards to evaluate or justify the request.

The ISAU reviewed a sample of requisition forms used to buy vehicles in 2012 and 2013 and found that they did not contain a justification for the purchases or the necessary approvals. For each requisition form reviewed, the field intended to capture a reason for the purchase was left blank. In addition, while the requisition form has a separate "Requested by" and "Approved by" field, in most cases, the same employee - the Statewide Operations manager discussed above - completed both fields.

Finally, the same Statewide Operations manager who prepares and approves MassDOT's vehicle requisition forms also accepts delivery of the vehicles and approves

⁴⁵ The forms used for vehicle procurements are entitled "Purchase Requisition \$5,000.00+" and "Request for Allocation of Funds Prior to Encumbrance." See Appendix L for an example of procurement documentation.

the invoices that are used to process payments. In February 2013, MassDOT approved a purchase order to buy three 2013 Ford F-150 trucks totaling more than \$83,000. Due to a transposition error on the requisition form, all subsequent documents - the purchase order, invoice and payment - contained the wrong purchase price, resulting in a total overpayment to the vendor of \$810. While the amount of the overpayment was nominal, the error demonstrates ineffective controls and the need to segregate vehicle-purchasing duties.

The vehicle requisition and funds allocation forms drive the entire vehicle procurement process and therefore are critical to MassDOT's internal controls. Requisition forms should be completed by the employee requesting the vehicle, and then approved by the employee's district or division head. The entire form - including the justification for the request - must be completed. Statewide Operations should reject forms that are not completed properly or that do not contain an adequate justification.

17. MassDOT's official vehicle records are incomplete and contain numerous errors.

MassDOT uses the FleetWave system to maintain electronic records of all MassDOT's equipment, including its light-duty vehicles. The system serves as the official record of the MassDOT fleet and includes all pertinent vehicle information: registration, current assignment, unique vehicle identification number (VIN), fuel records, assignment history and maintenance records.

MassDOT completed an initial vehicle and equipment data transfer into FleetWave when it converted to the system in 2008. All new data is input manually by Statewide Operations and select district employees.

However, the information in FleetWave is often inaccurate or outdated. The ISAU identified numerous instances of inaccurate VINs, employee assignments and vehicle records. The ISAU also found instances in which the assignment field was blank, meaning FleetWave had no record of which employee, district or department was assigned the vehicle.

MassDOT is in the process of converting to a new asset management system (Maximo). The current inaccurate recordkeeping may make that transition more difficult. Specifically, at the time of its review the ISAU found:

- 32 employees were assigned more than one vehicle in FleetWave.
- 2 vehicles were assigned to former MassDOT employees, although they were likely being driven by current employees.

- 25 vehicles had incorrect information in FleetWave, such as the wrong VIN.
- 22 vehicles were missing registration information.
- Numerous vehicles had the wrong employee assignment.

The ISAU also reviewed RMV records to identify all vehicles registered to MassDOT and then compared that list of vehicles to MassDOT's FleetWave records. FleetWave had no records for 45 vehicles with active RMV registrations. Following are details on these vehicles:

- Forty vehicles may no longer be in service: they are older vehicles with model years dating back to 1981 or do not have current inspection stickers.
- MassDOT employees are driving three of the vehicles.
- Two vehicles belong to other state agencies.

MassDOT files all of its hard-copy vehicle records (*e.g.*, title and purchase invoice) by the vehicle's unique FleetWave equipment number. Since none of the vehicles the ISAU identified were in FleetWave, MassDOT could not locate the hard-copy records for two of the vehicles being driven by MassDOT employees.

Following the ISAU's inquiry, MassDOT identified the origin of the missing vehicles, added them to FleetWave, and either located the original titles or requested duplicate titles from the RMV. For the out-of-service vehicles, MassDOT began the process of cancelling the vehicle registrations with the RMV.

In addition to filing records according to the FleetWave equipment number, the following factors also contribute to inaccurate recordkeeping:

- Vehicle data is entered by users from many different units and district offices.
- MassDOT has not communicated clear rules and policies regarding vehicle usage reporting (for example, overnight parking locations and driver logs).
- Statewide Operations does not keep maintenance and repair data for light-duty vehicles electronically or centrally. Instead, each Highway District garage



Unrecorded MassDOT vehicle located by the ISAU in MassDOT's Weston depot (photographed in February 2014)

keeps its own maintenance and repair records in its own spreadsheets or other recordkeeping system.

In preparation for the implementation of Maximo, Statewide Operations has made ongoing efforts to reach out to vehicle drivers to confirm the accuracy of driver data, including operator assignments and overnight parking locations. However, Statewide Operations indicated that many vehicle operators did not respond to requests for vehicle information, which has made improving the accuracy of FleetWave data challenging.

18. Enhanced access to FleetWave is not well restricted or monitored.

MassDOT does not have a process to monitor system administrators' user activity in FleetWave. System administrators have the highest level of FleetWave access, which enables them (among all other functions) to delete vehicle records. However, at the time of the ISAU's review, Statewide Operations could not provide any audit trail of FleetWave user activity, including use by system administrators. The lack of an audit trail or other monitoring capabilities makes FleetWave vulnerable to data manipulation. If, for instance, a system administrator deleted all records relating to a particular vehicle from FleetWave, it would be difficult (if not impossible) for MassDOT to discover the wrongdoing.

Further, five employees have system administrator access but only one has job duties typically required of a system administrator, including adding and removing users. Four of these employees have assigned state vehicles, and one is responsible for disposing of surplus fleet vehicles.

MassDOT should restrict administrator and user access rights according to the rule of least privilege; that is, MassDOT should provide a user with the least privilege needed to fulfill his or her job duties. The role of a system administrator should also be separated from other non-compatible functions to avoid unnecessary risk. For example, the same individual should not both control the fleet inventory and have the ability to delete system records because this increases the risk that fleet inventory could be misused without detection.

IV. Recommendations

MassDOT needs to significantly strengthen the management of its light-duty vehicles. This includes adopting and following uniform policies and procedures, instituting internal controls, separating conflicting job functions, and ensuring that senior MassDOT officials actively oversee fleet management. MassDOT also should address and correct the questionable purchases and practices identified in this report.

Specifically, MassDOT should:

1. Meet its obligation to the FHWA and retire 107 Crown Victoria sedans. If MassDOT does not have enough Crown Victoria sedans in the Highway Division fleet to satisfy its commitment, the agency needs to report this discrepancy to the FHWA.
2. Turn over the six 2014 Ford Explorers to Troop E. Investigate the vehicle procurement process that led to the purchase of the six Ford Explorers. Determine if any wrongdoing occurred and take action accordingly.
3. Follow OVM's vehicle policy or adopt a robust vehicle policy that is at least as rigorous as OVM's policy. The policy should address the purchase, assignment, use and replacement of a vehicle.

The policy should be directly in line with the OVM Policy, and should not be any less restrictive. The current draft of MassDOT's vehicle policy lacks many key aspects of proper fleet management, and is less restrictive than the OVM Policy. In some instances, critical approval requirements were stricken from the draft policy.

The policy should limit or remove Statewide Operations' authority to make assignment decisions independently, without input or approval from the affected district or department. The policy also should include recordkeeping requirements. Daily driver logs should be completed and retained for each vehicle. Consideration should be given to automating this process in order to streamline overall management of the fleet, facilitate review and approval of logs, maintain consistency among all districts, and minimize paper recordkeeping.

4. Evaluate all current vehicle assignments using the criteria in the OVM Policy (or MassDOT's vehicle policy if one is adopted). For instance, vehicle assignments should not rely on the assumption that certain job titles or functions warrant the automatic assignment of a vehicle; rather, each vehicle assignment should be individually assessed regardless of title or job function.

5. Each employee who is currently assigned a state vehicle should immediately complete a vehicle request form that outlines the business need for the vehicle assignment, as well as a cost-benefit analysis demonstrating the financial advantage to MassDOT of providing the vehicle. Each vehicle request should be approved by an individual with the appropriate level of authority within MassDOT, outside of Statewide Operations. After this initial assessment, Statewide Operations or MassDOT management should evaluate whether the assignment is warranted. During this process, MassDOT should carefully review the following assignments:
 - a. Employees who regularly park all day in the metered spots in front of MassDOT's headquarters.
 - b. Employees whose annual mileage pertaining to official state business is below the OVM Policy threshold for a vehicle assignment.
 - c. Employees who use their state vehicles primarily for commuting purposes.
 - d. Employees who use their state vehicle infrequently, such as for occasional travel to meetings.
 - e. Employees with domiciled vehicle privileges.
 - f. Employees who do not have domiciled vehicle privileges but who regularly use their MassDOT car to commute.

Based on this analysis, MassDOT should rescind all vehicle assignments that do not meet the criteria in the OVM Policy (or MassDOT's vehicle policy if one is adopted).

6. Annually review all vehicle assignments to ensure that every employee has a demonstrated business need for a state vehicle. Reassign or auction vehicles that are minimally used.
7. Formalize the approval process for granting domiciled vehicle privileges to employees.

MassDOT should immediately review the current list of domiciled vehicles and remove every assignment that does not meet domiciled criteria, regardless of job function or the length of time that the employee has had domiciled vehicle privileges.

The agency also should require all employees with this privilege to submit an annual application demonstrating their regular response to off-duty emergencies. MassDOT should critically review each application and

determine whether the domiciled assignment complies with OVM and ANF policies.

8. Review all unassigned state vehicles to analyze the actual use of the vehicles.

Vehicles that are driven infrequently (e.g., less than 10,000 miles a year) should be returned to Statewide Operations and reassigned or auctioned to maximize the efficiency of the fleet. Vehicles that are frequently driven by the same employee or are “unofficially” assigned to an employee should follow the formal application process for vehicle assignment recommended earlier in this report.

MassDOT also should establish uniform procedures for the use of an unassigned vehicle; the procedures should include a vehicle sign-out process and daily driver logs. MassDOT should also designate one person within each district to manage the district’s motor pool.

9. Prohibit employees who do not have domiciled vehicle privileges from using their state vehicles to drive home, or even part of the way home.
10. Create and maintain a current and accurate list of where each state vehicle must be parked overnight. Conduct periodic audits to ensure that each vehicle is parked overnight in the approved location.
11. More closely monitor vehicle assignments to ensure that multiple vehicles are not assigned to one employee. This can be achieved by formalizing the vehicle turn-in process.
12. Discontinue the use of commercial and passenger license plates for non-law enforcement personnel. Replace all commercial and passenger plates with official state license plates.
13. Strengthen the vehicle procurement and replacement process; segregate duties and institute other internal controls.

MassDOT needs to formalize and enhance its procurement process. All vehicle procurements should be processed through the MassDOT Procurement Office and purchased from the appropriate statewide contracts. MassDOT should document the business need and justification for all vehicle purchases. Vehicle purchases on non-OSD contracts should receive multiple levels of senior management review and approval. The agency should also segregate procurement and replacement duties, so that no one division or individual can request, approve, purchase and assign a vehicle.

14. Ensure that vehicle replacements are justified based on a documented business need. The business need should take into account the mileage and condition of the employee's current vehicle.
15. Change the process of reassigning vehicles so that it follows the same formal vehicle request process recommended earlier in this report. This will assist Statewide Operations to maintain accurate fleet assignment records and to maximize the efficiency of the fleet.
16. Ensure that all state vehicles have current, valid vehicle safety and emissions inspections. Institute a proactive process to centrally track inspection sticker expiration dates for all vehicles. Utilize an automated system that schedules vehicle inspections at MassDOT garages based on inspection expiration.
17. Prohibit employees from parking their state vehicles for free at metered spaces, except in emergencies. Discipline the employees who routinely use the metered parking in front of MassDOT's headquarters to park free of charge for all (or most) of the workday.
18. Confirm that all employees have removed the fabricated license plates and replaced them with appropriate license plates created and issued by the RMV. Investigate whether any employees misused the original or fabricated license plates.
19. Discontinue automatically purchasing accessories for new vehicles. Statewide Operations should evaluate the need for specific accessories prior to purchase, and make informed decisions on ancillary equipment based on expected use.
20. Utilize a more analytical approach to allocating the annual equipment and vehicle budget to districts. At a minimum, assess each district's actual vehicle and equipment needs to ensure a more fiscally appropriate budget allocation.
21. Consider using the other two approved technology vendors when purchasing laptops and accessories for Troop E police vehicles. The cost of equipment and timing of installation should be factored into MassDOT's procurement decision in order to make the best use of MassDOT funds and to avoid excessive equipment and vehicle deployment delays.
22. Notify the RMV and cancel the registrations for vehicles that are no longer in service.
23. Update FleetWave to include all of MassDOT's vehicles. Periodically reconcile the records in FleetWave (or Maximo) with the RMV's records to ensure the accuracy of its electronic recordkeeping system. Once the Maximo system is

implemented, consider an automated data import from RMV's systems to update MassDOT's vehicle records.

24. Restrict system administrator access to FleetWave and periodically review user activity. Once Maximo is implemented, utilize the audit trail feature to record user activity.

Appendices

Appendix A: FY 2013 Fleet Vehicles Targeted for Replacement with CMAQ Funding

Alternative Fuel Vehicle Replacement Proposal for FFY 2013

Proposal 2013	Year	Make	Model	Fuel	Price	Unit	Cost	Replacing
	2013	Ford	E-250 Cargo Van	CNG	\$45,336.00	5	\$226,680.00	Crown Vic
	2013	Ford	F-250 4x4 Extended Cab Pickup	CNG	\$51,396.00	25	\$1,284,900.00	Crown Vic
	2013	Ford	Fusion Hybrid-FWD	Gas/Electric	\$28,268.00	40	\$1,130,720.00	Crown Vic
	2013	Ford	C-Max-Sel Base Model	Gas/Electric	\$26,463.00	30	\$793,890.00	Crown Vic
	2013	Freightliner	64,000 LB Ten Wheel/Wing	CNG	\$320,317.00	1	\$320,317.00	04 Ford L8000
					Total	101	\$3,756,507.00	

Appendix B: Excerpt from CMAQ Report Prepared by MassDOT's Consultant

MassDOT CMAQ Emissions Estimates
(pounds per day)

Replacement Vehicles

Year	Make	Model	Fuel	Units	Idle Emission Factor (g/hr)	Idle Emissions (lb/day)	Mobile Emission Factor (g/mi)	Mobile Emissions (lb/day)	Total Emissions (lb/day)
2013	Ford	E-250 Cargo Van	CNG	5	0.4750	7.85E-03	0.0555	3.35E-02	4.14E-02
2013	Ford	F-250 4x2 Extended Cab Pickup	CNG	25	0.4750	3.93E-02	0.0555	1.68E-01	2.07E-01
2013	Ford	Fusion Hybrid-FWD	Gas/Electric	40	0.0000	0.00E+00	0.2690	1.30E+00	1.30E+00
2013	Ford	C-Max Sel Base Model	Gas/Electric	30	0.0000	0.00E+00	0.2690	9.75E-01	9.75E-01
2013	Freightliner	64,000 Lbs. Ten Wheel/Wing	CNG	1	3.6213	1.20E-02	0.2975	2.16E-02	3.35E-02
				101		5.91E-02		2.50E+00	2.56E+00

Existing Vehicles

Year	Make	Model	Fuel	Units	Idle Emission Factor (g/hr)	Idle Emissions (lb/day)	Mobile Emission Factor (g/mi)	Mobile Emissions (lb/day)	Total Emissions (lb/day)
pre-2003	Ford	Crown Victoria	Gas	40	17.9263	2.37E+00	0.8525	4.12E+00	6.49E+00
2003	Ford	Crown Victoria	Gas	20	17.9263	1.19E+00	0.8525	2.06E+00	3.25E+00
2005	Ford	Crown Victoria	Gas	20	15.3600	1.02E+00	0.6550	1.58E+00	2.60E+00
2006	Ford	Crown Victoria	Gas	20	13.7788	9.11E-01	0.5700	1.38E+00	2.29E+00
2004	Ford	L8000	Diesel	1	4,1575	1.37E-02	0.3420	2.48E-02	3.85E-02
				101		5.50E+00		9.16E+00	1.47E+01

Attachment Page 4

	Idle Emissions (lb/day)
Reductions	-5.439
%	-99%

Mobile Emissions (lb/day)	Total Emissions (lb/day)
-6.666	-12.105
-73%	-43%

MassDOT CMAQ Emissions Estimates
(pounds per day)

Replacement Vehicles

Year	Make	Model	Fuel	Units	Idle Emission Factor (g/hr)	Idle Emissions (lb/day)	Mobile Emission Factor (g/mi)	Mobile Emissions (lb/day)	Total Emissions (lb/day)
2013	Ford	E-250 Cargo Van	CNG	5	20.5750	3.40E-01	4.2700	2.58E+00	2.92E+00
2013	Ford	F-250 4x2 Extended Cab Pickup	CNG	25	20.5750	1.70E+00	4.2700	1.29E+01	1.46E+01
2013	Ford	Fusion Hybrid-FWD	Gas/Electric	40	0.0000	0.00E+00	8.4000	4.06E+01	4.06E+01
2013	Ford	C-Max Sel Base Model	Gas/Electric	30	0.0000	0.00E+00	8.4000	3.04E+01	3.04E+01
2013	Freightliner	64,000 Lbs. Ten Wheel/Wing	CNG	1	14.3288	4.74E-02	1.0885	7.89E-02	1.26E-01
				101		2.05E+00		8.66E+01	8.87E+01

Existing Vehicles

Year	Make	Model	Fuel	Units	Idle Emission Factor (g/hr)	Idle Emissions (lb/day)	Mobile Emission Factor (g/mi)	Mobile Emissions (lb/day)	Total Emissions (lb/day)
pre-2003	Ford	Crown Victoria	Gas	40	98.1750	1.30E+01	18.2450	8.82E+01	1.01E+02
2003	Ford	Crown Victoria	Gas	20	98.1750	6.49E+00	18.2450	4.41E+01	5.06E+01
2005	Ford	Crown Victoria	Gas	20	79.3625	5.25E+00	15.4500	3.73E+01	4.26E+01
2006	Ford	Crown Victoria	Gas	20	61.7125	4.08E+00	11.5000	2.78E+01	3.19E+01
2004	Ford	L8000	Diesel	1	42.5975	1.41E-01	2.3820	1.73E-01	3.14E-01
				101		2.90E+01		1.98E+02	2.26E+02

	Idle Emissions (lb/day)
Reductions	-26.862
%	-93%

Mobile Emissions (lb/day)	Total Emissions (lb/day)
-110.942	-137.804
-56%	-61%

Attachment Page 5

Appendix C: FHWA Approval of MassDOT's Vehicle Replacement Program



Deval L. Patrick, Governor
Timothy P. Murray, Lt. Governor
Richard A. Davey, Secretary & CEO

massDOT
Massachusetts Department of Transportation

R APPROVED BY FHWA J.D. # 3396

March 27, 2013

[REDACTED]
Division Administrator
Federal Highway Administration
55 Broadway, 10th Floor
Cambridge, MA 02142

Attention: [REDACTED]

Dear [REDACTED]:

On behalf of Secretary Richard A. Davey, I request approval for the scope and budget for year two of the MassDOT Fleet Purchase project.

This project is included in the Federal Fiscal Year 2013 Massachusetts Statewide Transportation Improvement Program (STIP), and is funded by the federal Congestion Mitigation and Air Quality Improvement Program.

Thank you for your attention to this matter. If you have any questions or need additional information, please contact [REDACTED] at [REDACTED] or [REDACTED]@state.ma.us.

Sincerely,

[REDACTED]
Office of Transportation Planning

Approved [REDACTED]

for: [REDACTED]
Division Administrator

4/17/2013

Appendix D: Procurement Documentation for Ford Explorers

**Massachusetts Department of Transportation - Highway Division
Goods And Services Award Amount Range: \$500,000 and up**

Originating Office: Highway Operations Contract #: intf00002014m0079668

Contract Type: award for purchase of goods Project ID: sp13-vehicles-f64

Project/Location: MassDOT Highway Operations State Police Troop E

Vendor/Party Name: Natick Auto Sales, dba MHQ

Vendor/Party Address: 401 Elm Street
Marlborough, MA 01752

Original Max. Obligation: \$138660.00 Completion Date/Duration: 6/30/2014

NTP Date: 10-1-2013 Federal Aid Number:

Description:

Contract being executed from State Police Contract #SP13-vehicles-F64 for the purchase of 4 Ford Explorers for use by State Police Troop E, (MassDOT Highway Operations).

Submitted By:

Buyer

9/25/13

Date

10/1/13

Date

Chief Procurement Officer

9/25/13

Date

General Counsel

Date

Budget/C.E.P.O.

9/26/13

Date

Highway Administrator

Date

Director/Contracts & Records

10/2/2013

Date

Secretary/CEO

Date

DOT AWARD 03-25-2010

Item Number:

14

Appendix D Continued: Procurement Documentation for Ford Explorers

MASSDOT STANDARD CONTRACT FORM	
<p>This form is issued and published by the Massachusetts Department of Transportation (MassDOT or Department). Any changes to the official printed language of this form shall be void. Additional non-conflicting terms may be added by Attachment. Contractors may not require any additional agreements, engagement letters, contract forms or other additional terms as part of this Contract without prior Department approval.</p>	
CONTRACTOR LEGAL NAME: Natick Auto Sales (and db/a): MHQ Legal Address: W-9, W-4,T&C: 401 Elm Street, Marlborough, MA 01752 Contract Manager: [REDACTED] E-Mail: [REDACTED] Phone: [REDACTED] Fax: [REDACTED] Contractor Vendor Code: VC6000158713 Vendor Code Address ID (e.g. "AD001"): AD_001 <small>(Note: The Address ID Must be set up for EFT payments.)</small>	DEPARTMENT NAME: MassDOT MMARS Department Code: DOT Business Mailing Address: 668 South Ave., Weston, MA 02493 Billing Address (if different): Contract Manager: [REDACTED] E-Mail: [REDACTED] Phone: [REDACTED] Fax: [REDACTED] MMARS Doc ID(s): INTF0002014M0080808 RFR/Procurement or Other ID Number: SP-13-F64
<p><input checked="" type="checkbox"/> NEW CONTRACT</p> <p>PROCUREMENT OR EXCEPTION TYPE: (Check one option only)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Statewide Contract (OSD or an OSD-designated Department) <input type="checkbox"/> Collective Purchase (Attach OSD approval, scope, budget) <input checked="" type="checkbox"/> Department Procurement (Includes State or Federal grants 815 CMR 2.00) (Attach RFR and Response or other procurement supporting documentation) <input type="checkbox"/> Emergency Contract (Attach justification for emergency, scope, budget) <input type="checkbox"/> Contract Employee (Attach Employment Status Form, scope, budget) <input type="checkbox"/> Legislative/Legal Exemption or Other (Attach authorizing language/justification, scope and budget) 	
<p>The MassDOT TERMS AND CONDITIONS form (T&C) has been executed, filed with CTR and is incorporated by reference into this Contract.</p>	
<p>COMPENSATION: (Check ONE option): The Department certifies that payments for authorized performance accepted in accordance with the terms of this Contract will be supported in the state accounting system by sufficient appropriations or other non-appropriated funds, subject to intercept for MassDOT/Commonwealth owed debts under 815 CMR 9.00.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rate Contract (No Maximum Obligation. Attach details of all rates, units, calculations, conditions or terms and any changes if rates or terms are being amended.) <input checked="" type="checkbox"/> Maximum Obligation Contract Enter Total Maximum Obligation for total duration of this Contract (or new Total if Contract is being amended) \$- 105,900.00 	
<p>PROMPT PAYMENT DISCOUNTS (PPD): Commonwealth payments are issued through EFT 45 days from invoice receipt. Contractors requesting accelerated payments must identify a PPD as follows: Payment issued within 10 days ____ % PPD; Payment issued within 15 days ____ % PPD; Payment issued within 20 days ____ % PPD; Payment issued within 30 days ____ % PPD. If PPD percentages are left blank, identify exemption: ____ statutory/legal or Ready Payments (G.L. c. 28, § 23A); ____ federal grant/trust; <input checked="" type="checkbox"/> initial payment (subsequent payments must be scheduled to support payee cash flow needs and standard EFT 45 day payment cycle. See Prompt Pay Discounts Policy.)</p>	
<p>BRIEF DESCRIPTION OF CONTRACT PERFORMANCE or REASON FOR AMENDMENT: (Enter the Contract title, purpose and a detailed description of the scope of performance or what is being amended for a Contract Amendment. Attach all supporting documentation.) Purchase of (3) Ford Explorers for State Police Troop E</p>	
<p>ANTICIPATED START DATE: (Complete ONE option only) The Department and Contractor certify for this Contract, or Contract Amendment, that Contract obligations:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> 1. may be incurred as of the Effective Date (latest signature date below subject to any required approvals) and no obligations have been incurred prior to the Effective Date. <input type="checkbox"/> 2. may be incurred as of ____ 20____, a date LATER than the Effective Date below and no obligations have been incurred prior to the Effective Date. <input type="checkbox"/> 3. were incurred as of ____ 20____, a date PRIOR to the Effective Date below, and the parties agree that payments for any obligations incurred prior to the Effective Date are authorized to be made either as settlement payments or as authorized reimbursement payments, and that the details and circumstances of all obligations under this Contract are attached and incorporated into this Contract. Acceptance of payments forever releases the Commonwealth and MassDOT from further claims related to these obligations. 	
<p>CONTRACT END DATE: Contract performance shall terminate as of ____ June 30____, 2014____, with no new obligations being incurred after this date unless the Contract is properly amended, provided that the terms of this Contract and performance expectations and obligations shall survive its termination for the purpose of resolving any claim or dispute, for completing any negotiated terms and warranties, to allow any close out or transition performance, reporting, invoicing or final payments, or during any lapse between amendments.</p>	
<p>CERTIFICATIONS: Notwithstanding verbal or other representations by the parties, the "Effective Date" of this Contract or Amendment shall be the latest date that this Contract or Amendment has been executed by an authorized signatory of the Contractor, the Department, or a later Contract or Amendment Start Date specified above, subject to any required approvals. The Contractor makes all certifications required under the attached Contractor Certifications (incorporated by reference if not attached hereto) under the pains and penalties of perjury, agrees to provide any required documentation upon request to support compliance, and agrees that all terms governing performance of this Contract and doing business in Massachusetts are attached or incorporated by reference herein according to the following hierarchy of document precedence, the MassDOT Terms and Conditions, this Standard Contract Form including the Instructions and Contractor Certifications, the Request for Response (RFR) or other solicitation, the Contractor's Response, and additional negotiated terms, provided that additional negotiated terms will take precedence over the relevant terms in the RFR and the Contractor's Response only if made using the process outlined in 801 CMR 21.07, incorporated herein, provided that any amended RFR or Response terms resulted in a lower cost or a more cost effective Contract.</p>	
<p>AUTHORIZING SIGNATORY FOR THE CONTRACTOR:</p> <p>X: [REDACTED] Date: 02/26/13 <small>(Signature and Date must be handwritten at time of signature)</small></p> <p>Print Name: [REDACTED]</p> <p>Print Title: [REDACTED]</p>	
<p>X: [REDACTED] Date: 11/16/14 <small>(Signature and Date must be handwritten at time of signature)</small></p> <p>Print Name: [REDACTED]</p> <p>Print Title: [REDACTED]</p>	

Appendix D Continued: Procurement Documentation for Ford Explorers



Deval L. Patrick, Governor
Richard A. Davey, Secretary & CEO
Frank DePaola, Administrator



NOTICE TO PROCEED

January 17, 2014

Natick Auto Sales dba MHQ
401 Elm Street
Marlborough, MA 01752

Contract Number: 80808
Action Item Date: January 22, 2014
Action Item Number: # 2

Dear [REDACTED]

Enclosed is a signed copy of your contract with the Massachusetts Department of Transportation, Highway Division.

This contract is relative to the purchase of (3) Ford Explorers for State Police Troop E.

The duration of this contract shall be from January 16, 2014 until June 30, 2014 and in the amount of \$105,900.00.

Sincerely,

A large rectangular area of the document has been completely blacked out, obscuring a handwritten signature.

TMB/lrd

cc:

Contracts & Records

Appendix D Continued: Procurement Documentation for Ford Explorers

**Massachusetts Department of Transportation - Highway Division
Goods And Services Award Amount Range: \$500,000 and up**

Originating Office: Highway Operations Contract #: intf00002014m0080808
Contract Type: Award for purchase of goods Project ID: sp-13-f64
Project/Location: MassDOT Highway Operations-Motor Equipment
Vendor/Party Name: Natick Auto Sales, dba MHQ
Vendor/Party Address: 401 Elm Street
Marlborough, MA 01752
Original Max. Obligation: \$105900.00 Completion Date/Duration: 6/30/2014
NTP Date: 1-16-2014 Federal Aid Number: _____

Description:

Contract award based on execution from State Police Contract #sp-13-f64 for the purchase of three (3) Ford Explorers

Submitted By:

[REDACTED]

1-2-2014
Buyer Date

Approved By:

[REDACTED]

1/6/14
Date

Chief Procurement Officer

1-2-2014
Date

Chief Engineer

[REDACTED]
1/17/14
General Counsel Date

Budget/CFO/POL

1/7/14
Date

Highway Administrator

Date

Director of Contracts & Records

1/17/2014
Date

Secretary/CEO

Date

DOT AWARD 03-25-2010

Item Number:

2
Date: JAN 22 2014

Appendix E: Equipment Documentation for Ford Explorers



July 29, 2013

[REDACTED]
Mass DOT
 658 South Avenue
 Weston, MA 02493

Please find below a quote for a Ford Explorer per the Commonwealth of Massachusetts SP-13-F64 Contract:

2014 Ford Explorer Base 4x2	\$ 24,780.00
Color: Tuxedo Black	NC
Four Wheel Drive	2,495.00
202A XLT Equipment Group: Includes Sync System, Rear View Camera, Dual Auto AC, MY Ford Touch	8,195.00
Color: Sterling Gray	Included
3.5L V6 Gas Engine	Included
Automatic Transmission	Included
Center Mounted Floor Console	Included
Front Bucket Seats	Included
2nd Row 60/40 Split Bench Seat	Included
Air Conditioning	Included
AM/FM Stereo/CD	Included
18" Aluminum Wheels	Included
Heavy Duty 175 amp Alternator	Included
Remote Entry	Included
Advance Trac w/ Stability Control	Included
Power Windows and Door Locks	Included
MSP Admin Emergency Equipment Package:	Included
Federal 850 Hand Held Siren/PA	Included
Siren Speaker Behind Mounted Grille	Included
(4) Hideaway LEDs, Blue Front, Red Rear	Included
Credit for flashlight charger, Tremco and Grille Lights	(450.00)
Whelen Blue Twin Avenger in Windshield	Included
(4) Whelen Flat Lighter series LEDs, @ 260 ea	1,000.00
Whelen Blue 8 LED Dominator (Rear Window)	855.00

Total Contract Price:

\$ 34,865.00

Appendix F: OSD Standard Vehicle Request Form



OPERATIONAL SERVICES DIVISION

The Commonwealth of Massachusetts
Operational Services Division
Office of Vehicle Management

VEHICLE ASSIGNMENT REQUEST
(Replaces FORM OVM-R)

Agency:			
Org Code:		Appropriation:	
Address:			
Agency Fleet Manager: Name & Title		Telephone & Email:	
Agency CFO: Name & Title		Telephone & Email:	

Agency's Estimate of Annual Funds Available to Cover Monthly Vehicle Costs

Estimated Monthly Costs:		Account No./ Subsidiary:	
--------------------------	--	--------------------------	--

By signing below, I attest that funding is available for the vehicle for the life of the assignment.

Agency CFO: _____ Date: _____

Justification for Vehicle

Must include a **Cost Benefit Analysis**, demonstrating the financial advantage to the Agency through the use of the vehicle; where the vehicle will be driven, approximate expected daily mileage; and how frequently the vehicle will be driven. *(If typing in Word, this text box will expand – Please attach additional documentation if necessary).*

Vehicle will meet 15,000 mile a year usage requirement: Yes No – If No, provide justification:

Special Requests

Special or Additional Equipment Needed for the Vehicle, If checked please list equipment needed as well as a justification for needed equipment. *(If typing in Word, this text box will expand – Please attach additional documentation if necessary).*

Employee Responsible for Vehicle:			
This Employee is (check all that apply):	<input type="checkbox"/> Agency Fleet Manager <input type="checkbox"/> Primary User	Driver's License Number:	
Proposed Vehicle Location:	(Complete Address):		

Current Vehicle Being Traded-in for a "One-for-One" Swap (If applicable).

State Vehicle License Plate No.:		Current Mileage:	
Year and Make:		Model:	
Type - Choose One:	<input type="checkbox"/> Passenger <input type="checkbox"/> Light Duty <input type="checkbox"/> Van	VIN:	

By signing below, we agree to the terms of the Office of Vehicle Management Policies and Procedures Manual.

Agency _____
Fleet Manager: _____ Date: _____

Agency Head: _____ Date: _____

FOR OVM USE ONLY	Approved <input type="checkbox"/>	Denied <input type="checkbox"/>	Special Requests:	Approved <input type="checkbox"/>	Denied <input type="checkbox"/>	Other <input type="checkbox"/>
OVM File #			Comments:			

OVM Fleet Administrator: _____ Date: _____

VEHICLE ASSIGNMENT REQUEST Revised 5/12

Appendix G: Unnecessary Vehicle Replacements

Employee Title	District	Prior Vehicle Assignment					Current Vehicle Assignment			
		Year	Make	Model	Mileage at Time of Replacement	Reassigned to	Year	Make	Model	Vehicle Cost
Field Control Civil Engineer III	0	2013	Chevy	Silverado Hybrid	23,798	Another employee in same dept.	2014	Ford	F250	\$53,675
Deputy Administrator, Chief of Operations	0	2012	Ford	Taurus	3,200	Another employee in same dept.	2013	Ford	F150	\$31,326
		2010	Ford	F150	67,700	Aeronautics				
Audit Manager	0	2012	Ford	Fusion Hybrid	60	Another employee in same dept.	2014	Ford	Fusion Hybrid	\$28,428
Audit Supervisor	0	2012	Ford	Fusion Hybrid	26,450	Another employee in same dept.	2014	Ford	Fusion Hybrid	\$28,428
Audit Supervisor	0	2012	Ford	Fusion Hybrid	23,828	Another employee in same dept.	2014	Ford	Fusion Hybrid	\$28,428
Manager of Toll Collection	0	2011	Ford	Fusion	18,181	Depot Assignment	2014	Ford	Fusion Hybrid	\$28,428
Manager of Toll Collection	0	2011	Ford	Fusion	48,666	Depot Assignment	2014	Ford	Fusion Hybrid	\$28,428
Director of Roadway Operations	0	2010	Ford	F150	24,553	Depot Assignment	2013	Ford	F150	\$31,326
Manager of Asset Management and Traffic Data Collection	0	2008	Ford	Escape Hybrid	59,639	Another employee in same dept.	2014	Ford	Fusion Hybrid	\$28,428
Field Control Civil Engineer III	0	2008	Ford	Ranger	32,191	Another employee in same dept.	2013	Chevy	Silverado Hybrid	\$34,202
Contract Specialist III	2	2012	Ford	F350	16,602	Another employee in same dept.	2013	Ford	F150	\$32,691
Construction Civil Engineer VI	2	2010	Ford	Ranger	51,737	Another employee in same dept.	2013	Ford	CMAX Hybrid	\$26,623
Construction Civil Engineer V	2	2009	Ford	Escape	48,804	Another employee in same dept.	2013	Ford	CMAX Hybrid	\$26,623

Appendix G Continued: Unnecessary Vehicle Replacements

Employee Title	District	Prior Vehicle Assignment					Current Vehicle Assignment			
		Year	Make	Model	Mileage at Time of Replacement	Reassigned to	Year	Make	Model	Vehicle Cost
Contract Specialist III	3	2012	Ford	F150	36,386	Another employee in same dept.	2013	Ford	F150	\$29,386
Construction Civil Engineer III	3	2012	Ford	F250	308	Another employee in same dept.	2014	Ford	F150 EC	\$30,992
Construction Civil Engineer IV	3	2010	Ford	Ranger	38,899	Depot Assignment	2014	Ford	F150 EC	\$30,992
Highway Maintenance Foreman IV	5	2012	Ford	F250	20,875	Another employee in same dept.	2013	Ford	F250	\$31,294
Highway Maintenance Foreman IV	5	2012	Ford	F250	23,442	Another employee in same dept.	2013	Ford	F250	\$31,294
Highway Repair Foreman	5	2012	Ford	F250	16,100	Another employee in same dept.	2014	Ford	F250	\$53,675
Highway Repair Foreman	5	2012	Ford	F250	19,420	Another employee in same dept.	2014	Ford	F250	\$53,675
Civil Engineer VI	5	2010	Ford	Escape Hybrid	42,689	Another employee in same dept.	2014	Ford	Fusion Hybrid	\$28,428
Civil Engineer III	6	2012	Ford	E350	7,110	Another employee in same dept.	2013	Ford	E350	\$20,938
Civil Engineer III	6	2012	Ford	E350	14,115	Motor Pool	2013	Ford	E350	\$20,938
									Total	\$738,646

Appendix H: Sample of State Vehicles Often Used For Daily Commuting

Employee Dept.	Overnight Parking Location of MassDOT Vehicle	Employee Town of Residence	Distance in Miles Between Overnight Parking/Home	Employee Worksite Location	Distance Between Home and Worksite	Approximate Commuting Miles Using State Vehicle	Vehicle Purchase Price
Research and Materials	MassDOT Stoughton Depot	Bridgewater	10	Boston	24	14 (58%)	\$40,049
Research and Materials	MassDOT Millbury Depot	Auburn	6	Boston	45	40 (89%)	\$40,049
Research and Materials	MassDOT Middleboro Depot	Middleboro	6	Boston	45	39 (87%)	\$40,049
Research and Materials	MassDOT District 3 Office - Worcester	Worcester	5	Boston	53	48 (91%)	\$16,957
Research and Materials	MassDOT Stoughton Depot	North Easton	8	Boston	28	20 (71%)	\$22,388
Research and Materials	MassDOT Stoughton Depot	Bridgewater	16	Boston	35	19 (51%)	\$28,470
Research and Materials	MassDOT Millbury Depot	Worcester	9	Boston	50	41 (82%)	\$29,586
District 1	Sullivan School in North Adams*	North Adams	<1	Lenox	28	27 (96%)	\$29,586
District 1	MassDOT Dalton Depot	Dalton	3	Lenox/Northampton	13	10 (77%)	\$29,586
District 1	Holyoke Soldiers Home*	Granby	8	Lenox	46	38 (83%)	\$19,056
Right of Way	MassDOT Medford Sign Shop	Medford	3	Boston	7	4 (57%)	\$28,428
Right of Way	Worcester Park'n Ride*	Brimfield	29	Boston	65	36 (55%)	\$28,428
Right of Way	MassDOT Peabody Depot	Peabody	4	Boston	20	16 (80%)	\$28,428
Highway Safety	MassDOT Andover Depot	Andover	3	Boston	24	21 (88%)	\$26,623
Highway Safety	MassDOT Charlton Barracks	Charlton	4	Boston	54	50 (93%)	\$26,623
Facilities	Dracut Department of Public Works*	Dracut	2	Boston	33	31 (94%)	\$27,649
Right of Way	MassDOT Chicopee Depot	Springfield	12	Northampton	29	17 (59%)	\$16,957
Statewide Operations	Wilmington Police Department*	Wilmington	3	Boston	16	13 (81%)	\$28,470
Project Controls	Holyoke Fire Department*	Holyoke	2	Charlton	43	41 (95%)	\$28,428
District 1	Williamstown Department of Public Works*	Sunderland, VT	30	Buckland	65	35 (46%)	\$29,586
							\$565,396

* Not a MassDOT facility

Appendix I: Underutilized Vehicles in MassDOT's Motor Pool⁴⁶

District	Model Year	Make	Model	Odometer*	Average Annual Mileage	Vehicle Purchase Price**
6	2004	FORD	FREESTAR	8,700	870	\$15,217
0	2008	FORD	E350***	6,581	1,097	\$24,866
6	2007	FORD	E250	10,018	1,431	\$21,848
6	2007	FORD	E250	11,010	1,573	\$21,848
4	2012	FORD	E350****	3,176	1,588	\$49,805
6	2003	FORD	F350***	19,443	1,768	\$39,823
6	2011	FORD	F150***	6,070	2,023	\$29,335
6	2007	FORD	E250	15,494	2,213	\$21,848
6	2008	FORD	F350***	13,681	2,280	\$27,663
0	2012	FORD	FUSION (HYBRID)	4,777	2,389	\$30,115
6	2008	FORD	F250***	14,851	2,475	\$26,935
6	2003	FORD	F350****	27,502	2,500	\$24,104
0	2012	FORD	E350***	5,656	2,828	\$30,699
6	2007	FORD	E250	19,950	2,850	\$21,848
6	2007	FORD	F150	20,186	2,884	\$22,798
6	2001	FORD	TAURUS	38,934	2,995	\$18,279
5	2012	FORD	E250	6,056	3,028	\$46,679
6	2004	FORD	RANGER****	30,767	3,077	\$14,509
2	2011	FORD	F350***	9,416	3,139	\$50,097
6	2007	FORD	E250	22,956	3,279	\$21,848
6	2008	FORD	F150	21,027	3,505	\$22,798
6	2007	FORD	E250	25,994	3,713	\$21,848
6	2011	FORD	E250***	11,340	3,780	\$46,679
6	2011	FORD	E250***	11,627	3,876	\$46,679
6	2002	FORD	E350***	47,316	3,943	\$19,576
0	2001	FORD	TAURUS***	51,942	3,996	\$18,279
6	2007	FORD	E250	30,056	4,294	\$21,848
6	2007	FORD	E250	30,155	4,308	\$21,848
1	2003	FORD	E350***	48,144	4,377	\$39,823
6	2007	FORD	E250	30,755	4,394	\$21,848
6	2004	FORD	F350***	44,845	4,485	\$21,304
6	2007	FORD	E250	31,423	4,489	\$21,848
0	2008	CHEVY	IMPALA***	26,939	4,490	unknown
6	2011	FORD	E250***	13,590	4,530	\$46,679

* As of December 2013 or based on RMV records at most recent inspection date.

** Based on FleetWave records or estimated based on vehicle year, make and model.

*** Depot Assignment.

**** Depot Assignment with no current inspection sticker as of May 1, 2014.

⁴⁶ As used in this table, "Motor Pool" refers to vehicles assigned to MassDOT's motor pool, or to a district, department or depot.

Appendix I Continued: Underutilized Vehicles in MassDOT's Motor Pool

District	Model Year	Make	Model	Odometer*	Average Annual Mileage	Vehicle Purchase Price**
6	2011	FORD	F150	13,996	4,665	\$28,411
6	2011	FORD	E250***	14,000	4,667	\$46,679
0	2003	FORD	CROWN VICTORIA***	51,669	4,697	\$25,471
6	2008	FORD	F350***	28,460	4,743	\$27,663
0	2007	FORD	E250	37,946	5,421	\$21,848
6	2003	FORD	CROWN VICTORIA***	61,385	5,580	\$25,471
6	2001	FORD	F250***	73,087	5,622	\$21,723
6	2004	FORD	RANGER***	56,800	5,680	\$14,509
0	2005	FORD	CROWN VICTORIA****	53,098	5,900	\$25,773
6	2004	FORD	RANGER***	59,847	5,985	\$14,509
0	2003	FORD	WINDSTAR***	65,942	5,995	\$16,217
3	2001	FORD	E350***	79,325	6,102	\$19,576
6	2009	FORD	ESCAPE HYB	30,625	6,125	\$28,470
6	2007	FORD	E250***	43,158	6,165	\$21,848
6	2006	FORD	F350***	49,500	6,188	\$41,312
0	2004	HONDA	CIVIC***	74,876	6,465	\$21,574
6	2007	FORD	E250	53,257	6,500	\$21,848
6	2003	FORD	E350	71,504	6,500	\$16,311
6	2011	FORD	F150***	19,556	6,519	\$29,335
6	2006	FORD	F350***	52,555	6,569	\$27,663
0	2011	FORD	FUSION***	19,777	6,592	\$30,115
6	2004	FORD	FREESTAR***	68,349	6,835	\$15,217
4	2004	FORD	F150***	68,984	6,898	\$22,388
6	2004	FORD	RANGER***	69,048	6,905	\$14,509
6	1999	FORD	F250****	103,688	6,913	\$21,723
6	2004	FORD	F350****	69,184	6,918	\$21,304
3	2004	HONDA	CIVIC***	71,413	7,141	\$21,574
6	2005	FORD	E150***	65,041	7,227	\$15,162
5	2004	FORD	F150***	72,974	7,297	\$22,388
0	2004	FORD	E350***	74,800	7,480	\$21,304
3	2001	FORD	CROWN VICTORIA***	97,784	7,522	\$25,471
0	2012	FORD	FUSION (HYBRID)***	15,111	7,556	\$30,115
6	2011	FORD	F150***	22,737	7,579	\$29,335
6	2004	FORD	TAURUS****	76,540	7,654	\$14,878

* As of December 2013 or based on RMV records at most recent inspection date.

** Based on FleetWave records or estimated based on vehicle year, make and model.

*** Depot Assignment.

**** Depot Assignment with no current inspection sticker as of May 1, 2014.

Appendix I Continued: Underutilized Vehicles in MassDOT's Motor Pool

District	Model Year	Make	Model	Odometer*	Average Annual Mileage	Vehicle Purchase Price**
0	2003	FORD	WINDSTAR***	85,202	7,746	\$16,217
4	2004	FORD	F150***	77,899	7,790	\$22,388
0	2004	FORD	TAURUS*	78,022	7,802	\$14,878
0	2004	FORD	TAURUS****	78,838	7,884	\$14,878
6	2003	FORD	E350***	87,650	7,968	\$37,000
0	2004	FORD	FREESTAR***	82,064	8,206	\$15,217
3	2004	FORD	F350***	82,472	8,247	\$40,000
0	2003	FORD	CROWN VICTORIA***	90,783	8,253	\$25,471
0	2001	FORD	CROWN VICTORIA***	107,856	8,297	\$25,471
1	2005	FORD	F350***	75,024	8,336	\$41,312
0	2004	FORD	F150***	84,033	8,403	\$22,388
0	2011	FORD	CROWN VICTORIA****	25,526	8,509	\$32,952
6	2007	FORD	E250	59,736	8,534	\$21,848
0	2008	FORD	ESCAPE HYB***	51,250	8,542	\$28,470
3	2003	FORD	CROWN VICTORIA***	94,006	8,546	\$25,471
0	2007	FORD	CROWN VICTORIA***	62,771	8,967	\$32,562
0	2008	FORD	RANGER***	54,048	9,008	\$16,401
6	2001	FORD	RANGER***	117,460	9,035	\$13,786
6	2005	FORD	E150	81,433	9,048	\$15,162
0	2010	FORD	F150***	36,566	9,142	\$28,411
0	2006	FORD	CROWN VICTORIA***	73,541	9,193	\$29,608
0	2001	FORD	F150****	120,355	9,258	\$17,821
4	2004	FORD	F150***	92,639	9,264	\$22,388
6	2003	FORD	CROWN VICTORIA***	102,410	9,310	\$25,471
6	2011	FORD	F150****	28,430	9,477	\$29,335
2	2008	FORD	E350***	57,500	9,583	\$24,866
2	2001	CHEVROLET	3500***	127,903	9,839	\$23,280
6	2003	FORD	E350***	108,907	9,901	\$16,311
5	2004	FORD	F150****	99,317	9,932	\$22,388
Total:						\$2,434,666

* As of December 2013 or based on RMV records at most recent inspection date.

** Based on FleetWave records or estimated based on vehicle year, make and model.

*** Depot Assignment.

**** Depot Assignment with no current inspection sticker as of May 1, 2014.

Appendix J: Confidential Registration Request Form



The Commonwealth of Massachusetts
Operational Services Division
Office of Vehicle Management

Confidential Registration Request
(Replaces FORM OVM-CRR)
Must be renewed every two years

Agency:		Org Code:
Address:		
Agency Fleet Manager: Name & Title		Phone & Email:

Employee - Confidential registrations are issued on an individual basis for the sole use of the approved employee.

Name & Title of Employee		Phone & Email:
Choose One:	<input type="checkbox"/> Law Enforcement Use <input type="checkbox"/> Non-Law Enforcement Use*	

Confidential Registration

Request for:	<input type="checkbox"/> New <input type="checkbox"/> Renewal <input type="checkbox"/> Transfer (Vehicle) <input type="checkbox"/> Transfer (Employee)
Dates requested From (M/D/Y):	To (M/D/Y):
Vehicle Identification Number (VIN):	Make:
Model:	Year:

Justification for Confidential Registration:

This text box will expand – (attached additional documentation if necessary.)

Required Signatures:

Agency Fleet Manager: _____ Date: _____

Agency Head: _____ Date: _____

Cabinet Secretary: _____ Date: _____

FOR OVM USE ONLY - Received on:

<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	Comments:
-----------------------------------	---------------------------------	-----------

OVM Fleet Administrator: _____ Date: _____

OVM File No: _____ OVM Plate No.: _____

*ANF Approval Needed for Non Enforcement Vehicles

ANF Approval

Date: _____

CONFIDENTIAL REGISTRATION REQUEST - Revised 04/12

Appendix J Continued: Confidential Registration Request Form

From Office of Vehicle Management - Policy & Procedures:

Confidential Registration

State vehicles may be issued a confidential registration if such vehicles are in the possession of law enforcement personnel or have received a waiver through the Executive Office of Administration and Finance and such registration is necessary either for undercover investigatory work or to protect the physical safety of law enforcement personnel using the vehicle. Such registrations will be issued on an individual basis for the sole use of the approved employee.

- a) Each request for a confidential registration must be submitted on an OVM-Confidential Registration Form at least thirty days before the proposed effective date of the registration. The form must be filled out in its entirety and signed by the Cabinet Secretary and Agency Head, and must be approved by the OVM Fleet Administrator.
- b) Once submitted, OVM will review the request. If a request is denied, OVM will return the application to the requesting Agency with the reason for denial. An Agency may resubmit a denied request for reconsideration if the re-submission responds to the issues raised in the OVM denial.
- c) The confidential registration will be valid for a two-year period from the date of the original registration. If the Agency wishes to renew the confidential registration, it must submit a new request to OVM at least thirty (30) days prior to the expiration date. If the Agency does not renew the confidential registration, it must immediately return the license plate to OVM; request a new registration and attach a State license plate.

Instructions:

Agency - Provide the complete name of the Agency possessing the vehicle confidential registration is being requested for.

Org Code - Provide the Organizational Code for the Agency listed.

Address - Provide complete address of the Agency listed, including city and zip code.

Agency Fleet Manager - Provide the first and last name, and title of the Employee designated as Fleet Manager for the Agency.

Telephone and Email - Provide phone number (including area code) and email address of Agency Fleet Manager.

Employee

Confidential registrations are issued on an individual basis for the sole use of the approved employee.

- **Name and Title of Employee:** Provide the name and title of the employee who will be using the confidential registration
- **Telephone & Email:** Provide Telephone number and email for the employee who will be using the confidential registration

Choose One: Check box to indicate if Confidential Registration is requested for a *Law Enforcement Use* or a *Non-Law Enforcement Use*. If *Non Enforcement Use* box is checked, OSD will need to secure ANF Approval.

Confidential Plate

- **Request for:** Check one:
 - **New:** if request is for a new, previously unassigned confidential registration
 - **Renewal:** if request is for the renewal of an existing confidential registration. Renewal request must be submitted at least thirty days prior to the expiration date
 - **Transfer (Vehicle):** if request is for the transfer of an existing confidential registration to a different vehicle from the one on which it is currently in use.
 - **Transfer (Employee):** if request is for the transfer of an existing confidential registration to a different employee from the individual to whom it was originally assigned.
- **Dates requested:**
 - **From** - Provide requested start date (month/day/year) of the two year period confidential registration will be needed.
 - **To** - Provide the end date (month/day/year) (with a maximum of two years) the confidential registration will be needed.
- **Vehicle Identification Number (VIN):** Provide the VIN for the vehicle the Confidential Registration will be assigned to.
- **Make:** Provide the make (such as Ford) of the vehicle the Confidential Registration will be assigned to.
- **Model:** Provide the model of the vehicle (such as Taurus) the Confidential Registration will be assigned to.
- **Year:** Provide the year of the vehicle the Confidential Registration will be assigned to.

Required Signatures: Signatures and dates are needed for the following:

- **Agency Fleet Manager**
- **Agency Head**
- **Cabinet Secretary**

Appendix K: MassDOT Employees with Commercial License Plates

Employee Title	Domicile Privileges	Unmarked*
Aeronautics Division Administrator	No	Yes
Chief Engineer	Yes	Yes
Chief of Operations and Maintenance	No	Yes
Deputy Administrator, Chief of Operations	Yes	Yes
Deputy Administrator, Project Controls and Performance Oversight	Yes	Yes
Deputy Chief of Operations and Maintenance	Yes	Yes
Director of Communications and Electronics	No	Yes
District 6 Director of Environmental Engineering	Yes	Yes
Director of Roadway Operations	Yes	Yes
Director of Statewide Tolling	No	Yes
District 6 Highway Director	Yes	Yes
District 6 Design Services Engineer	Yes	unknown
District 6 Work Access Coordinator**/**	Yes	Yes
District 6 Supervisor of Maintenance	Yes	unknown
District 6 Supervisor of Maintenance	Yes	Yes
District 6 Maintenance Engineer	Yes	Yes
District 6 Construction Engineer**	Yes	Yes
District 6 Senior Electrical Engineer	Yes	Yes
District 6 Operations and Maintenance Engineer	Yes	Yes
District 6 Traffic Operations Engineer	Yes	Yes
District 5 Highway Director	Yes	Yes
District 4 Highway Director	Yes	Yes
District 3 Highway Director	Yes	unknown
District 3 Civil Engineer IV	Yes	unknown
Highway Division Administrator	Yes	Yes
Maintenance Engineer	No	unknown
Manager of Toll Collection	No	Yes
Manager of Toll Collection**	Yes	Yes
Manager of Toll Collection	Yes	Yes
Motor Pool Driver/ Mail Courier	No	No
Motor Equipment and Maintenance Supervisor	Yes	Yes
Registrar of Motor Vehicles	No	Yes
Telecommunications Supervisor	Yes	Yes
Toll Courier II	No	unknown

*“Unmarked” means that the vehicle has no decals, signage or any other indications that it is a state vehicle.

**Employee does not have a personal vehicle registered in Massachusetts (employee resides in Massachusetts).

*** Employee received a new vehicle, with official state plates, on 4/28/14.

Appendix L: Vehicle Purchase Requisition Documentation

Operations Division	Massachusetts Department of Transportation Purchase Requisition \$5,000.00 +																																
Submit to:		Total Cost Estimate:	\$20,168.95																														
DELIVERY INFORMATION:																																	
Need by date:	ASAP																																
Delivery Location:	Weston																																
Delivery Contact:		Phone:																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Qty</th> <th style="width: 10%;">UOM</th> <th>Description (Include attachments if applicable)</th> <th style="width: 15%;">Unit Price</th> <th style="width: 15%;">Total Price</th> </tr> </thead> <tbody> <tr> <td>1 ea</td> <td></td> <td>Ford Transit Van- cargo van</td> <td>\$20,168.95</td> <td>\$20,168.95</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>\$0.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>\$0.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>\$0.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>\$20,168.95</td> </tr> </tbody> </table>				Qty	UOM	Description (Include attachments if applicable)	Unit Price	Total Price	1 ea		Ford Transit Van- cargo van	\$20,168.95	\$20,168.95					\$0.00					\$0.00					\$0.00					\$20,168.95
Qty	UOM	Description (Include attachments if applicable)	Unit Price	Total Price																													
1 ea		Ford Transit Van- cargo van	\$20,168.95	\$20,168.95																													
				\$0.00																													
				\$0.00																													
				\$0.00																													
				\$20,168.95																													
Order to be placed by:	Purchasing: <input checked="" type="checkbox"/>	Requestor: _____	(If left blank, Purchasing will be instructed to place the order)																														
Notes/Special Instructions: <div style="border: 1px solid black; padding: 5px; width: 100%;">This order is in accordance with state contract OVM10</div>																																	
Coding:	MHS- Capital																																
Purchase Justification:	<hr/> <hr/> <hr/>																																
Recommended Vendor <i>Attach all quotes and product literature – Attach list of recommended vendors, if applicable</i> Vendor Name: Imperial Municipal Partners Vendor Address: Vendor Contact: _____ Phone: _____ _____ Fax: _____																																	
Requested by:	<div style="border: 1px solid black; width: 100px; height: 30px;"></div>	Date:	<u>3/15/13</u>																														
Approved:	<div style="border: 1px solid black; width: 100px; height: 30px;"></div>	Date:	<u>3/15/13</u>																														
(Department Head Signature) <small>(Operations Division Head and all other approvals are obtained on-line)</small>																																	