



Northern Region Operations (NRO)

FY-10 Strategic Investment Program Plan (SIPP)



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
2 THE PLANNING AND PROGRAM DELIVERY (PPD) PROCESS	3
3.1 Background.....	3
3.2 The Planning and Program Delivery (PPD) Process.....	3
3 PPD PROCESS: FY-10 OUTCOME	5
3.1 The Planning Phase	5
3.3 The Program Development Phase	7
3.1.1 Annual Strategic Focus.....	7
3.1.2 Project and Program Identification.....	11
3.1.3 Project and Program Prioritization	12
3.1.4 Post-Prioritization Analysis.....	13
3.4 The Fiscal Programming Phase	16
3.2 Program Delivery	21
3.3 Program Evaluation	23
4 ANALYSIS.....	27
5 SUMMARY	33
APPENDIX A – VDOT NRO FY-10 WORK PLAN.....	34
APPENDIX B – VDOT NRO FY-10 FUNDING PLAN.....	35
Appendix C – NRO FY-10 Unfunded Projects List.....	36

EXECUTIVE SUMMARY

In February 2009, VDOT Commissioner David Ekern said, "The significant overall reductions in revenue require a long-term structural change in the way we manage our business. This conclusion was clear last October, was reinforced in the economic forecasts last December and was established as our direction in the governor's speech to the General Assembly in January." — Excerpt from the Commissioner's speech to the Commonwealth Transportation Board (CTB) (Feb 19, 2009).

In this manner, the "Blueprint for the Future" was unveiled as one element of a comprehensive plan designed to address Virginia's projected \$2.6 billion shortfall in transportation revenues during the next six years. These budget shortfalls have significantly impacted the Commonwealth's transportation budget, causing the Virginia Department of Transportation (VDOT) to focus its limited state dollars on maintenance, operations, and emergency response. As a result, VDOT is becoming a smaller organization; focused solely on core services and commitments.

The reductions in state operating funds reached down to Northern Region Operations (NRO) and obliged NRO to refocus its FY-09 efforts to the preservation and maintenance of existing operations and services.

These fiscal conditions continue into FY-10 where NRO will continue to focus on maintaining and preserving the delivery of core services. The ability to deploy new technologies will be limited to those opportunities provided by grants or earmarks from outside of VDOT.

Since transportation needs will continue to outpace available resources, NRO will continue to evaluate and implement business practices that ensure the most economical and efficient methods are used to deliver and maintain Operations' services. NRO's Planning and Program Delivery (PPD) Process is just such a practice; recognizing the value and importance of "planning your work and working your plan."

NRO's PPD Process unifies strategic and tactical planning, project development, investment analysis, budgeting, performance tracking, and program evaluation. The PPD Process links NRO's funding allocations with strategic goals and objectives to ensure that NRO maximizes the efficient and effective use of its allocated resources.

This document, the FY-10 Strategic Investment Program Plan (SIPP), serves as NRO's road map for FY-10, and it recounts the PPD Process performed to develop fiscal year 2010's program. In addition to the Process, the FY-10 SIPP documents FY-10's Strategic Focus, allocations received in FY-10, planned FY-10 activities, and projects / initiatives cancelled / deferred in FY-10 due to funding constraints.

Within the confines of its fiscal constraints, NRO is committed to delivering an operations program that ensures roadway travel in VDOT's Northern Region will remain safe, efficient, and reliable.

1 INTRODUCTION

In 2005, an Operations Directorate was formed in VDOT's NoVA District. The organizational structure was set-up such that it supported the operations business process and included establishing an Operations Planning and Programming Section. As its name implies, its principal duties were / are to plan, fiscally program, and advocate and facilitate the development of an integrated Transportation Operations system. This was and is accomplished by guiding NRO through the Planning and Program Delivery (PPD) Process, an integrated business process that links project development with available funding.

In 2006, NoVA Operations became Northern Region Operations (NRO) with the inclusion of some of the counties in the Fredericksburg and Culpeper Districts into the Directorate. Much of 2006 was spent attempting to successfully form an integrated organization. In 2007, NRO's Planning and Programming Section (NROPP) focused on integrating the Systems Engineering Process into NRO's business process, and 2008 was the first year that the entire business process was followed from start to finish.

The following Vision and Mission statements from VDOT NRO's "Strategic Plan" best explain the intent and purpose of the Directorate.

"VDOT NRO's Vision is to make roadway travel safe, efficient, and reliable."

"Our Mission is to:

Serve the public by providing them with the information they need to make good travel decisions, including using multiple travel modes, and by responding quickly and effectively to their questions and concerns

Monitor real-time traffic conditions and the condition of our infrastructure throughout the system

Proactively and rapidly identify problems, including traffic congestion, crashes and other incidents and infrastructure maintenance needs

Take rapid and effective action to address current and developing problems, appropriately applying a range of methods including physical improvements, traffic signal strategies, incident and emergency management strategies, enhanced maintenance, and various advanced technology strategies

Share information, coordinate responses, and plan jointly with our partner organizations."

2 THE PLANNING AND PROGRAM DELIVERY (PPD) PROCESS

3.1 Background

Prior to 2005, the organization that evolved into Northern Region Operations (NRO) lacked a business process that linked the allocation of funding (fiscal programming) with the planning and delivery of Intelligent Transportation Systems (ITS) / Operations projects and programs. Instead, the previous organization allocated funding to its Sections without common strategic goals and objectives; either as individual sections or as a single organizational unit.

When NRO was formed, it became apparent that the challenge was to devise a sound, strategic game plan that was within its fiscal capacity to deliver. In response to this challenge, NROPP developed a business process – the *Planning and Program Delivery (PPD) Process* - that unified strategic and tactical planning, project identification, investment analysis, budgeting, performance tracking, and reporting / feedback to the management team.

In addition to linking the organizations' fiscal programming process to its strategic and tactical planning efforts, the PPD Process also incorporates the Systems Engineering technical process into project delivery. As such, the process assists NRO's project managers in conforming to the Federal Highway Administration's (FHWA) Rule 940, for not only federally-funded ITS projects, but for all ITS projects.

This report, the FY-10 Strategic Investment Program Plan (the FY-10 SIPP), documents the PPD Process performed for FY-10, with particular attention paid to the fiscal programming aspects of the PPD Process.

3.2 The Planning and Program Delivery (PPD) Process

FY-10 is a year of declining resources on one hand, and growing mobility and safety needs on the other. Declining resources - On August 18, 2009, Transportation Secretary Pierce Homer announced an additional \$900 million cut in transportation revenues. This was in addition to the \$3.7 billion previously cut from VDOT's budget.

At the same time, Virginia has growing mobility needs. The "2009 Urban Mobility Report," produced by the Texas Transportation Institute, identified the Washington, D.C. metropolitan area as the second most congested in the nation.

Consequently, it is more important than ever that VDOT-NRO make sound investment decisions about core services and the allocation of fiscal resources between various projects with competing priorities. Increased emphasis by VDOT's upper management on accountability, transparency, and objective decision-making further underscores the need for sound investment decisions.

As a result, NRO continued to use and evolve its unique methodology for the planning and delivery of NRO's FY-10 Operations Program. As noted previously, the PPD Process unifies strategic and tactical planning, project identification, investment analysis, budgeting, performance tracking, and program evaluation.

NRO's PPD Process consists of five phases:

- Phase 1 – Planning
- Phase 2 – Program Development
- Phase 3 – Fiscal Programming
- Phase 4 – Program Delivery
- Phase 5 – Program Evaluation

Figure 1, below, illustrates the phases followed for the development of the FY-10 program. As the figure implies, the PPD Process is cyclical, and it was designed to correspond roughly to VDOT's fiscal year.

Planning and Program Delivery Process



FY-10 Key Milestones

- Planning: *Lay the Foundation***
 - Develop the NRO Strategic Plan - Aug. thru Nov., 2008
- Program Development: *Prioritize Projects***
 - Identify Potential Projects - Prior to Oct. 15, 2008
 - Develop Annual Strategic Priority - Prior to Oct. 15, 2008
 - Conduct Planning Workshop - Oct. 29 & 30, 2008
- Fiscal Programming: *Match Funds to Needs***
 - Submit Funding Requests - Dec., 2008 thru Mar., 2009
 - Receive information on funding allocations
 - 603 - Draft in Mar., 2009; Final in Jun., 2009
 - 604 - May, 2009
 - Conduct NRO Strategic Budget Meetings with:
 - Fredericksburg District - May, 2009
 - NRO - Jul. 23, 2009 (originally scheduled in May)
 - Release Draft Funding & Program Work Plans - Jun., 2009
- Program Delivery: *Begin the Work***
 - Initiate / Kickoff Strategic Investment Program Plan - Jun. 23 thru Jul. 23, 2009
 - Finalize the FY-10 Funding Plan and Release the Final Program Work Plan Baseline - Aug. 14, 2009
- Program Evaluation: *Assess Progress***
 - Evaluate and Develop FY-09 Year-End Report - Sep., 2009
- Planning: *Update the Foundation***

Figure 1: PPD Process – FY-10 Key Milestones

As depicted in the figure, the five phases have milestone dates for each activity within each phase. While these milestone dates can vary from fiscal year to fiscal year, the start of an activity in one phase is dependent upon the completion (or at least the start) of an activity in a preceding phase. The overall VDOT budgeting schedule can also alter the PPD process schedule.

3 PPD PROCESS: FY-10 OUTCOME

The following sections describe the purpose / intent of each PPD phase, the deliverables that are the products of each phase, the activities used to accomplish the deliverables, and how each phase relates to the phase on either side of it.

3.1 The Planning Phase

The Planning Phase is identified as the first step in the PPD Process. For NRO, planning is an ongoing effort; primarily focused on updating the existing strategic and tactical plans to reflect changes that have taken place in the current environment. Identifying it as the first step in the Process is akin to identifying a particular spot on a rolling tire as the start of the tire.

The Planning Phase addresses NRO’s need to have “long-range” plans to guide the strategic direction and delivery of the region’s operations program over a 4- to 6-year planning horizon. While this timeframe may seem short when compared to the more conventional long-range, transportation planning horizons of 20-years or more, it was set to accommodate the rapid changes typical of operations technology and to coincide with the terms of elected officials (newly elected officials, quite often, have different agendas than their predecessors) and VDOT’s construction budgeting cycle (Six-Year Plan). Operations’ long-range plans include the following products:



Figure 2: PPD Process – Planning

- VDOT NRO Strategic Plan – This document identifies the vision, goals, and objectives that NRO should address over the next 4 - 6 years, as well as the strategies that the region plans to implement to achieve its goals and objectives. This plan charts the direction for the NRO Directorate and keeps it focused. It is important to measure progress in achieving one’s objectives; consequently, 25 objective tracking measures were identified. In addition to the tracking measures, which are intended for internal use, five performance measures were also identified that NRO uses to communicate its performance to the general public. In short, NRO Administration collects these measures to ensure that progress is being made towards the goals and objectives and are documented in the Year-End report at the Program Evaluation phase. NRO’s Strategic Plan last underwent a major revision in 2008. A copy of the document is available at [2008 NRO Strategic Plan](#).
- Northern Virginia ITS Architecture – ITS Architecture provides a common framework for planning, defining, and integrating intelligent transportation systems. By documenting ITS interrelationships, the Architecture provides a framework for systematically identifying and evaluating prospective solutions to transportation problems in the region. The Architecture also encourages efficient investment. As prospective new ITS projects are identified in the region, they can be “plotted” on the Architecture, and their interrelationships with existing and planned components assessed. This reduces the probability that a particular project will result in a “dead-end” investment.

VDOT-NRO's ITS Architecture was updated in 2009. Updated features incorporate VDOT's newly opened (*mid 2009*) Public Safety and Transportation Operations Center (PSTOC), including associated interface updates, and the broadening of the architecture's scope to include more than VDOT-centric interfaces. In fact, the architecture's scope was broadened so extensively that it no longer references VDOT in the title. Northern Virginia ITS Architecture is available at www.vdot-itsarch.com.

- VDOT NRO ITS Device Master Plans – NRO developed inter-related Master Plans for three core ITS devices: dynamic message signs (DMS), closed-circuit television (CCTV) cameras, and vehicle detectors. The Master Plans lay the groundwork and provide a roadmap for prioritized, systematic ITS device upgrades and expansions in the Northern Region. The output is a Master Concept of Operations (ConOps) for the Northern Region and a GIS-based map of prioritized roadway corridors and segments for the implementation of these three core devices. The Master ConOps can be used for future ITS projects' Validation Plans, High-Level Requirements, and Traceability Matrices. Since all of the devices' preliminary locations are mapped in GIS format, NRO is able to identify the top priority devices within a corridor or segment, based on the level of available funding.

All three NRO's ITS Device Master Plans were developed in 2008; and the GIS data was updated in 2009. These master plans are also available at the Architecture website and the GIS data sets are available at NROPP's intranet teamsite, which is http://insidevdot/sites/NOVA_Team_Sites/NROPP/Master%20Plans/Forms/AllItems.aspx.

All three of the ITS Device Master Plans along with the Strategic Plan, ITS Architecture, the ITS Decision Support Tool, and input from NRO's managers were used to identify program and project needs for FY-10. During the Program Development Phase, the long-range vision, goals, and objectives in NRO's Strategic Plan led directly to the development of NRO's strategic focus and priorities for FY-10. More information on how these Planning products provide input to the Program Development Phase is described in the next Section of this document.

During the Program Evaluation Phase, NRO staff evaluates, for the previous fiscal year, NRO's performance, progress made to-date, and ability to maintain focus and achieve priorities. These evaluations are taken into account when the Planning products are developed or updated during the Planning Phase. The Program Evaluation Phase (described later in this document) provides the Planning Phase with an answer(s) to the question – “Are we on the right track, or do we need to make a course correction?”

3.3 The Program Development Phase



Figure 3: PPD Process – Program Development

The Program Development Phase is the second step in the PPD process; typically occurring from August to October of each fiscal year. The intent of the Program Development Phase is to: (1) develop NRO’s annual strategic focus, (2) identify programs and projects consistent with the annual strategic focus, and (3) prioritize the programs and projects.

3.1.1 Annual Strategic Focus

Similarly, the Strategic Plan identifies goals and objectives over a 4-6 year planning horizon; but with greater specificity, the Annual Strategic Focus defines the direction NRO will follow and concentrate upon in the forthcoming fiscal year. Table 1 illustrates all the goals and objectives and expected benefits:

Table 1: NRO Strategic Goals, Objectives, and Expected Benefits

GOALS AND OBJECTIVES	EXPECTED BENEFITS
Goal 1: Reduce Congestion	<ul style="list-style-type: none"> • Reduction in travel times • Reduction in delay (vehicle hours) • Reduction in incident duration • Improved travel time reliability
1.1 Reduce travel times and delays for all modes along identified major corridors	
1.2 Improve travel time reliability on major corridors	
1.3 Actively manage travel demand on NRO facilities	
1.4 Reduce delays due to work zones and planned special events	
1.5 Reduce incident clearance times	
Goal 2: Improve Safety	<ul style="list-style-type: none"> • Reduction in incidents
2.1 Reduce vehicular crashes	
2.2 Reduce pedestrian and bicyclist crashes	

GOALS AND OBJECTIVES	EXPECTED BENEFITS
<p>Goal 3: Enhance Communications with Travelers</p> <p>3.1 Provide proactive, timely, and accurate information and responses to the traveling public</p>	<ul style="list-style-type: none"> • Improved customer satisfaction
<p>Goal 4: Promote Environmental Responsibility</p> <p>4.1 Reduce energy consumption and environmental costs of transport operations</p>	<ul style="list-style-type: none"> • Reduction in fuel consumption
<p>Goal 5: Preserve and Manage an Integrated Traffic Management System</p> <p>5.1 Maintain field infrastructure so that it operations reliably</p> <p>5.2 Improve information gathering on freeways and arterials</p>	<ul style="list-style-type: none"> • Improved field infrastructure reliability • Improved data availability to support operations and performance monitoring
<p>Goal 6: Improve Emergency Management</p> <p>6.1 Enhance coordination of regional emergency management</p> <p>6.2 Reduce NRO critical asset vulnerability</p>	<ul style="list-style-type: none"> • Improved emergency management coordination • Reduction in critical asset vulnerability
<p>Goal 7: Improve the NRO Business Process</p> <p>7.1 Optimize operations planning, programming and project delivery time</p> <p>7.2 Make the rationale for all NRO investments clear and consistent</p> <p>7.3 Make performance-based decisions</p> <p>7.4 Utilize equal employment opportunity practices in hiring and</p> <p>7.5 Minimize project cost and schedule overruns</p>	<ul style="list-style-type: none"> • Reduction in project delivery time • Enhanced relationship between NRO investments and strategic goals and objectives • Increased SWAM business utilization • Improved percentage of projects completed on-time and within-budget
<p>Goal 8: Improve Regional Operations Coordination and Efficiency</p> <p>8.1 Encourage application of technology-based operations solutions in all relevant construction projects</p> <p>8.2 Improve operations planning with regional operations partners</p> <p>8.3 Improve information exchange with regional operations partners</p>	<ul style="list-style-type: none"> • Improved day-to-day regional operations coordination • Increased application of operations solutions to regional transportation problems
<p>Goal 9: Enhance and Develop NRO Workforce Capabilities</p> <p>9.1 Enhance Workforce needs planning to prepare for the future operations</p> <p>9.2 Support and sustain a learning environment for NRO staff</p> <p>9.3 Attract and retain a diverse talented workforce</p> <p>9.4 Reduce workplace accidents</p>	<ul style="list-style-type: none"> • Improved NRO workforce knowledge-base • Improved NRO workforce retention • Reduction in workforce accidents

The Annual Strategic Focus is achieved by assigning weights to the goals and objectives identified in NRO’s Strategic Plan. During the Annual Program Planning Workshop, NRO Section Managers, plus the Director, allocated 100 points between the various Strategic Plan goals. A similar exercise was conducted for each objective under each of the eight goals. NRO staff distributed these points based on their experience, advances in ITS technology, direction received from administrators in the District and Central Office, and other factors.

By summing the points allocated to each goal and objective, a rank order of goals and objectives was established for the forthcoming fiscal year. Figure 4, below, identifies the weighting assigned to NRO’s strategic plan goals for FY-10. Table 2, on the following page, displays the weighting assigned to the objectives for each of the eight goals. As can be seen, the top three goals for VDOT-NRO in FY-10 are:

- Goal 5: Preserve and Manage an Integrated Traffic Management System
- Goal 2: Improve Safety
- Goal 1: Reduce Congestion

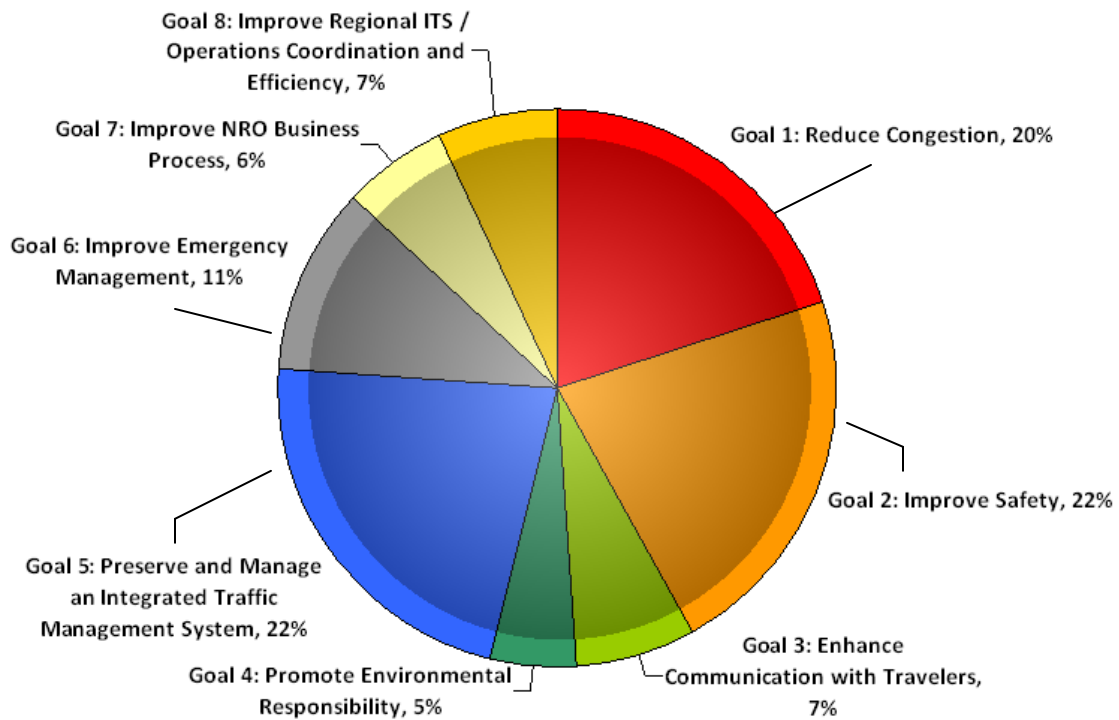


Figure 4: FY-10’s Annual Strategic Focus – Weighting of NRO’s Strategic Plan Goals

Table 2. FY-10's Annual Strategic Focus – Weighting of NRO Strategic Objectives

Goal	Objective	Weights
Goal 1: Reduce Congestion	1.1 Reduce travel times and delays for all modes along identified major corridors	25%
	1.2 Improve travel time reliability on major corridors	23%
	1.3 Manage travel demand on NRO facilities	11%
	1.4 Reduce delays due to work-zones and planned special events	19%
	1.5 Reduce incident clearance times	21%
Goal 2: Improve Safety	2.1 Reduce vehicular accidents	59%
	2.2 Reduce pedestrian and bicyclist accidents	41%
Goal 3: Enhance Communication with Travelers	3.1 Improve roadway network information dissemination	44%
	3.2 Enhance customer service by providing proactive, efficient, and accurate information and responses to the traveling public	57%
Goal 4: Promote Environmental Responsibility	4.1 Reduce energy consumption and environmental costs of transport operations	100%
Goal 5: Preserve and Manage an Integrated Traffic Management System	5.1 Maintain a reliable ITS/Operations field infrastructure	55%
	5.2 Improve information gathering on NRO facilities including freeways and arterials	27%
	5.3 Develop an annual operations performance management framework for NRO	18%
Goal 6: Improve Emergency Management	6.1 Improve coordination of regional emergency management	55%
	6.2 Reduce NRO critical asset vulnerability	45%
Goal 7: Improve the NRO Business Process	7.1 Minimize operations planning, programming, and project delivery time	35%
	7.2 Develop a coordinated framework for NRO investments	23%
	7.3 Encourage SWAM participation on NRO projects	12%
	7.4 Minimize project cost and schedule overruns	30%
Goal 8: Improve Regional ITS/Operations Coordination and Efficiency	8.1 Include ITS/Operations in all relevant construction projects	52%
	8.2 Improve regional coordination	48%

The weightings in the proceeding table were used in the Program Development Phase to not only distinguish the strategic focus for the forthcoming fiscal year, but also to improve objectivity in the identification of projects and programs that NRO will initiate or continue to advance in that forthcoming fiscal year. Logically, projects and programs that are “consistent” with NRO’s higher priority Strategic Plan goals are the projects and programs that are more likely to advance the annual goals and objectives. These “consistent” programs and projects should, therefore, receive funding, to the limit available, in the forthcoming fiscal year, as these projects will be the projects most likely to advance NRO’s FY-10 goals and objectives.

3.1.2 Project and Program Identification

The title of this phase of the PPD Process, “Program Development,” refers to the identification / development of a slate of candidate programs and projects that should be considered for funding / fiscal programming in the forthcoming fiscal year. Annual program and project needs are identified from multiple sources. Existing ongoing and incomplete FY-09 projects and programs served as the baseline for the FY-10 candidate programs and projects. As it might be expected, existing projects and programs comprised a major component of the projects and programs considered for funding in FY-10. Another large component of FY-10’s slate of candidate projects was projects from NRO’s FY-09 unfunded projects list. The primary source for new ITS projects and programs added to the FY-10 slate was NRO’s long-range plans. Finally, some projects were included in the slate of candidate projects based on direction received from upper management.

NROPP consolidated an initial list of FY-10 candidate strategic projects and programs, and developed supporting documentation, including fiscal needs, for each project and program. Supporting documentation included mapping the candidate projects and programs to NRO’s strategic goals and objectives. For example, a project to rebuild traffic signals would support NRO’s goals to reduce congestion, improve safety, and preserve and manage an integrated traffic management system.

Another part of the documentation process was the categorization of the projects and programs on the candidate list into the following groupings:

- Core Activities – mandated by code or law; matched funds; maintenance on field equipment and software, and dedicated funding sources
- Core Projects – on-going initiatives / projects from FY-09, or earlier, with funding levels open for discussion
- Strategic Projects – new projects (not identified as core projects) which support NRO’s Strategic Plan.

The list of candidate projects; including their mapping to goals and objectives, and their categorization was then discussed individually with NRO’s Managers. The purpose of this discussion was to achieve concurrence on the candidate project list, to gather additional information on the candidate projects, and to add projects and programs to the list, should a Manager desire to do so. This process resulted in the identification of approximately 250 candidate projects and programs; including core activities and projects.

It should be noted that NRO’s list of 250 candidate projects does not exhaust the list of projects that could be / should be on the list. The list is a function of those projects upon which NRO is

currently working, issues that have arisen, projects brought to NRO’s attention, and available funding. The fiscal reality of limited funding has constrained the addition of projects from an almost infinite universe of projects to NRO’s candidate projects list.

3.1.3 Project and Program Prioritization

Prior to the Planning Workshop, the candidate projects were input into NRO’s project prioritization model. The prioritization model used for FY-10 Planning was:

$$\text{Prioritization Score} = [\sum G_i * (\sum O_{ij})] / 100 + RF$$

where:

G_i = Goal Score (weighted value assigned at the Planning Workshop)

O_{ij} = Objective Score (weighted value assigned at the Planning Workshop)

RF = Regional Operations Director (ROD) Factor

The ROD factor in the prioritization score takes into account the position of leadership, responsibility, and ownership that is ascribed to the Regional Operations Director as leader of the Northern Region. Prior to the Planning Workshop, the ROD reviewed the list of candidate projects and gave his assessment of each project’s ability to facilitate NRO’s achievement of its goals and objectives for the forthcoming fiscal year. The assessment was given in general terms ranging from high to low and resulted in points being assigned to the candidate projects in the following manner:

High	30 pts
Medium-High	20 pts
Medium	10 pts
Medium-Low	5 pts
Low	0 pts

During the Planning Workshop, the NRO Managers and the Director established the weights for the goals and objectives of the Annual Strategic Focus. This information was fed into the prioritization model and resulted in the prioritization of NRO’s FY-10 candidate project / program list.

Figure 5 depicts a sample of the Excel spreadsheet that was an output from the prioritization model. This figure depicts the mapping of projects back to the Strategic Plan’s objectives. The prioritization score is shown in blue on the right.

Mo	Project Name	ROD Scoring	NRO Strategic Plan Objectives																		Prioritization Score		
			1.a	1.b	1.c	1.d	1.e	2.a	2.b	3.a	3.b	4.a	5.a	5.b	5.c	6.a	6.b	7.a	7.b	7.c		7.d	8.a
1	I & C Overhead/Supplies		**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	200.0
2	I & C Equipment - (Trucks Acct 1335)		**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	200.0
3	I & C Admin Labor		**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	200.0
4	I & C Staff Labor		**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	200.0
5	Technical Inspection - Dewberry and Davis	Low-Medium												54.8			45.2	35.2	23.2		29.7		26.4
6	Traffic Signal Rehab & Maintenance	Medium	25.2	23.2	1.3			58.6	414					54.8									57.0
7	Traffic Signal Installation / Modification - NRO Counties in Frederickburg District	High	25.2	23.2	1.3			58.6	414					54.8									77.0
8	Traffic Signal Installation / Modification - Fairfax County	High	25.2	23.2	1.3			58.6	414					54.8									77.0
9	Traffic Signal Installation / Modification - Prince William & Loudoun Counties	High	25.2	23.2	1.3			58.6	414					54.8									77.0
10	Traffic Signal Loop Replacement and Installation	High	25.2	23.2	1.3									54.8									53.6
12	Bridge Parapet Mounted Sign Removal Program - Implementation	Medium						58.6	43.5	56.5				54.8									43.0
16	Install UPS at various locations	High	25.2	23.2		19.0		58.6	414					54.8			45.2						33.2
20	DMS Upgrade, Phase I (Primary, Leading to Interstate)	High	25.2	23.2	1.3					43.5	56.5			54.8			54.8						56.9
23	I-66 / US 29 to VA 234 Bypass - ITS Relocation, Replacement & Installation	High	25.2	23.2	1.3		213			43.5	56.5			54.8	27.0						52.2		30.5
24	I-66 / US 29 Gainesville Interchange ITS Installation	High	25.2	23.2	1.3		213			43.5	56.5			54.8	27.0						52.2		30.5
25	ITS Infrastructure Deployment Project - I-66 from US 50 to US 29	High	25.2	23.2	1.3		213			43.5	56.5			54.8	27.0						52.2		30.5
26	ITS Infrastructure Deployment Project - 95 from	High	25.2	23.2	1.3		213			43.5	56.5			54.8	27.0						52.2		30.5

Figure 5: Example of Project Mapping and Prioritization Results

It should be noted that the prioritization model used in FY-10 was fiscally unconstrained. NRO is planning to incorporate a cost / benefit factor in the model for upcoming fiscal years. A performance measure factor was used in previous years, but the FY-09 data collection for the performance measures was incomplete. Consequently, the performance measure factor was dropped from the FY-10 model, as it was not possible to apply a performance measure factor to all of the candidate projects. When the performance measure baseline is established, NRO is planning to reintroduce the performance measure factor back into the model.

3.1.4 Post-Prioritization Analysis

Immediately following the scoring exercise, NRO managers reviewed and discussed the prioritization outcome – were the results logical / did the outcome make sense. Further input was received after the workshop, as well. In general, there was no issue with the prioritization process, and the ranking results were commonly accepted by NRO’s managers.

One can observe from the tables on the following pages, which display the top ten prioritization outcomes for each category that, with few exceptions, a project or activity’s final ranking is highly consistent with / dependent upon the ROD Factor.

Table 2: NRO's Top 10 Candidate Projects and Activities for FY-10

Rank	Project / Activity	ROD Factor
1	Operations Management - ATMS Replacement (Lane Closure Software & Process Development)	High
2	Operations Management - ATMS Replacement	High
3	Preventative Maintenance on ITS Field Devices	High
4	ATMS On-going Support	High
5	Labor - TMC Temporary Services	High
6	Labor - TMC Temporary	High
7	TOC/SSP Labor Contract	High
8	ITS Field Equipment (Lot 1) HOV Gates, LCS, DMS	Medium-High
9	ITS Field Equipment (Lot 2) CCTV, Communications	Medium-High
10	ITS Field Equipment (Lot 3) IDS, Ramp Metering, HAR, Tunnel, Detection, Truck Rollover	Medium-High

Table 3: NRO's Top 10 Core Projects and Activities for FY-10

Rank	Core Project	ROD Factor
1	Operations Management - ATMS Replacement (Lane Closure Software & Process Development)	High
2	Operation Management – ATMS Replacement	High
3	Metropolitan Area Transportation Operations Coordination (MATOC) Program	High
4	CapWIN and RITIS Integration - Continuous Support	High
5	I-66 Shoulder Travel Lanes System Upgrade, US 50 to I-495	High
6	UPS for Traffic Signals	High
7	Install UPS at various locations	High
8	NRO DMS, CCTV, and Detection COO's & Master Plans - Maintain and Assist w/ Next Phase of Project Development	High
9	ITS Infrastructure Deployment: I-66 - US 50 to US 29	High
10	ITS Infrastructure Deployment: I-95 - I-495 to VA 123	High

Table 4: NRO's Top 10 Strategic Projects for FY-10

Rank	Strategic Project	ROD Factor
1	Fairfax County CAD Integration	High
2	ITS-TE Solution Development (Planning, Design, and Implementation)	High
3	I-66, US 29 to VA 234 Business - ITS Relocation, Replacement & Installation	High
4	I-66 / US 29 Gainesville Interchange - ITS Installation	High
5	Replace / Upgrade the NRO Incident Management Mobile Command Unit	Medium
6	Implement AVL in Safety Service Patrol Vehicles	Medium
7	VDOT-NRO SSP Expansion - Interstates & Arterials	Low
8	Standardize the Configuration of ITS Cabinets	High
9	Evaluate the Next Generation of Traffic Management Tools (VSL, Queue Warning)	Low-Medium
10	PSTOC to Fredericksburg TOC Fiber Connection	Low-Medium

In summary, NRO's FY-10 prioritization results focus on:

- Further enhancing the ATMS (the operating system for the Transportation Operations Center)
- Upgrading, preserving and maintaining existing infrastructure, including enabling ITS infrastructure (e.g., cabinets and telecommunications)
- Regional / statewide transportation systems management and operations coordination
- Coordinated deployment of ITS field devices (e.g., DMS, CCTV cameras, and detection) to address transportation system safety or management, or operational deficiencies at selected locations

NRO's FY-10 Program Development Phase resulted in:

- The development of a strategic focus for FY-10
- The identification of 375 +/- projects and activities that were deemed worthy of funding allocation consideration in FY-10
- The prioritization of the list of candidate projects and programs, including the identification of estimated funding needs

In the Fiscal Programming Phase, which follows the Program Development Phase, the prioritized list of candidate projects and programs were used to respond to inquiries regarding funding needs, to proactively search and advocate for grants and other sources of non-VDOT funding, and to match programmed allocations to funding needs. The following section of this report examines the dependency of the Fiscal Programming Phase upon the product of the Program Development Phase in greater detail.

3.4 The Fiscal Programming Phase

The Fiscal Programming Phase is the third step in the PPD process. It, typically, takes place from December of one fiscal year to July of the following fiscal year. The intent of the Fiscal Programming Phase is to: (1) based on the prioritized, candidate list of projects and programs, prepare various funding needs packages; (2) request those responsible for, or capable of influencing, funding allocation decisions to consider providing or advocating for funding allocations to fund NRO’s package of needs and (3) make a best-fit match between the allocations received and NRO’s prioritized list of candidate programs and projects.



Figure 6: PPD Process - Fiscal Programming

In an input / output context, the Fiscal Programming Phase is the process that matches input from the Program Development Phase - NRO’s candidate list of prioritized projects and activities - to NRO’s funding allocations (input) received from the environment and produces, as output, NRO’s annual Strategic Investment Program Plan (SIPP). The SIPP documents the Planning and Program Delivery Process, identifies NRO’s Work Plan for the forthcoming fiscal year, details NRO’s Funding Plan for the forthcoming fiscal year, and tabulates NRO’s unmet funding needs.

For FY-10, NRO’s prioritized list of candidate projects and activities had an estimated total funding need of \$280 million. The list of candidate projects was in spreadsheet format with the candidate projects organized along the y-axis. The next task is to enter potential sources of funding across the top of the spreadsheet, x-axis. Whenever a project on the y-axis intersected a funding source for which it was eligible to receive funding, that cell was highlighted in the spreadsheet. Later on when funding was allocated to a funding source, one could look for the highlighted cells to see which projects were eligible for the funding and the funding for a particular funding source could be allocated to the projects eligible to receive that funding based on the projects’ respective priorities.

Identifying funding source early in the Fiscal Programming Phase allowed NRO staff to quickly and efficiently respond to requests from various sources for the NRO to identify their funding needs for FY-10 – in three words, “prepare funding packages.” In this context, the term, “packages,” refers to unfunded needs linked by a common thread; for example, projects eligible for a specific class of funding - interstate, primary, CMAQ, SPR, etc.

These requests typically come to NRO between December and March, and can be generated by a number of sources; identified in Table 6 on the following page. The ability to respond nimbly and with accuracy can be a primary facilitator in receiving funding, *when funding is available*.

Table 6: Sources of Requests to NRO to Identify Funding Needs

Requestor	Funding Type	Allocator
NoVA District ADE for PE	SYIP* (603) Interstate	603 Funds are managed and allocated by Central Office's (CO) Programming Division. Final approval rests with the Commonwealth Transportation Board (CTB), as part of the development of VDOT's Six-Year Improvement Program (SYIP).
	SYIP* (603) Primary	
FRBG District ADE for PE	SYIP* (603) Interstate	
	SYIP* (603) Primary	
CO's Operations Planning Division (OPD)	604 funds - Funds provided by NRO's "parent" division. Primarily, state funds used for administrative purposes – staff salaries, overhead, asset maintenance, purchase of equipment & supplies, etc.	604 Funds are managed and allocated by OPD. The moneys are allocated as lump sums to each of VDOT's Districts for maintenance and operations activities and projects. With the DA's approval, allocations for the District are divided between maintenance and operations. Once NRO receives its portion of NoVA's 604 funding, NRO's Business Admn. Section allocates the funding to NRO's Sections, and to the projects and programs managed by NRO's Sections.
NoVA District's Transportation Planning Section (NoVA TP)	State Planning & Research funds (SPR) - Federal funds for planning & research-type projects.	CO's Transportation & Mobility Planning Div. – T&MPD did not issue a request for FY-10 funding needs; however, NRO proactively submitted a list of FY-10 needs to NoVA TP.
FHWA's VA Regional Office	Technology Deployment Funds (T2) - Fund research, development, technology, innovation transfer, and outreach and communication activities.	FHWA's Director of Field Services Offices. Central Office OSD coordinates the statewide submission.
Virginia Transportation Research Council (VTRC)	Research funds - Allocated to the entity identifying the need or to the VTRC so that the VTRC can conduct research.	VTRC did not issue a request for FY-10 funding needs; however, NRO proactively submitted a list of FY-10 needs to VTRC.
NCR's RESF-1 (National Capital Region's Regional Emergency Support Function 1 – Transportation Committee)	Urban Areas Security Initiative (UASI) - Funds provided for enhancing regional security and emergency evacuation preparedness in major-metropolitan areas.	<p>Funds are managed and allocated by the National Capital Region's (NCR) Senior Policy Group (SPG) and the CAO Homeland Security Executive Committee (HSEC). The U.S. Department of Homeland Security is the original source of UASI funds.</p> <p>Transportation projects are submitted by the RESF-1 committee. Each RESF committee forwards top priority projects to the NCR's SPG and HSEC, who, in turn, allocate the region's UASI funding to individual jurisdictions and entities in the NCR.</p>

Requestor	Funding Type	Allocator
Commonwealth Transportation Board (CTB) and the Governor of Virginia	American Recovery and Reinvestment Act (ARRA) - Federal funding made available to states for infrastructure projects meeting specific criteria.	Federal Highway Administration / Federal Government

It should be noted that many requests for funding needs are limiting. Programming staff are often given some criteria (funding type, highway system, jurisdictional location, etc.) For example, staff may be asked to:

- Identify their top three (five or ten) funding needs, or
- What can you do with “X” number of a specified-type of dollar?

Possessing a prioritized list of candidate projects with pre-identified funding eligibility is very helpful in responding to these types of requests. NRO’s prioritized list of candidate projects is a useful tool to have when talking to those – CTB members, MPO members, elected officials, VDOT administrators, etc. – who might be able to influence the allocation of funding towards NRO’s projects. NRO recognizes that, even in the best of economic times, it is unlikely that all of its needs would be funded. On the other hand, NRO believes that it is important to have its more pressing needs tabulated so that VDOT’s administrators, CTB members, and Virginia’s elected officials, at all jurisdictional levels, are aware of NRO’s funding needs.

Having prepared a funding needs package in response to a request to do so, NRO’s action of forwarding this package to the requestor is essentially a request to fund the projects and programs included in the needs package.

Matching NRO’s prioritized needs to the forthcoming fiscal year’s allocations typically starts in February when NRO reviews and comments upon the draft version of the forthcoming fiscal year’s SYIP. The matching ends in June with the announcements of the final 603 and 604 allocations for the forthcoming fiscal year. However, the receipt of “off-cycle” allocations, such as grants and bonus Obligation Authority (OA) funds, will necessitate revisions to the Funding Plan and to the Work Plan.

NRO’s FY-10 Funding Plan is spreadsheet based. It matches and displays all of FY-10’s potential funding sources (about 100) to NRO’s proposed activities / projects (about 375) for the upcoming fiscal year. While this may sound like a Herculean task – match 100 sources of funds to 375 activities and projects, it is, fortunately, not as complex as it sounds. Most of the funding sources are dedicated to specific projects; funding source XYZ can only be used for project XYZ. Additionally, many of the funding sources that are not linked to a specific project are dedicated to a specific project need. For example, there is a funding source dedicated to the installation of traffic signals on the region’s primary system. This funding can only be used for that purpose.

Figure 7, on the following page, depicts a sample of the Funding Plan / spreadsheet. Various funding sources are arrayed horizontally across the top of the page, and the candidate projects and programs to receive funds are arrayed vertically along the left side of the page. As discussed earlier, the white (highlighted) spaces in the field of gray indicate a potential match

between a project / activity and a funding source(s). The prioritization scores are included in the far right column to assist in the analysis and allocation of dollars to a particular project.

Project Name	Funding Information	Replace O/H Sign Structures on Interstate 95 GDL	803 NOVA DW Signs Primary	803 Freeway DW Signs Interstate	803 Freeway DW Signs Primary	Install Crosswalks with Flashing Warning Signs	NoVA DW Traffic Signals & ITS (HSIP) (Fed \$\$\$)	Design & Environmental Work for Installation of New Signals	Replacement of Traffic High Mast Structures	Replacement of O/H Traffic Sign Structures Categories 1 & 2	Sign Inventory Plan Development	Install Various Traffic Signs (Interstate)	NoVA Interstate Signs DW	Design & Environmental Work for Installation of Primary Guardrail	New Signal: Rte 193 & River Bend Rd	(Unfunded Need)	Prioritization Score
	Total NRO Allocation FY-10 Funds	\$363,698	\$53,508	\$1,363,010	\$1,055,000	\$82,510	\$100,000	(\$4,446)	\$505,555	\$1,448,107	\$230,686	\$444,489	\$106,312	\$105,000			
Replacement T-Topps Improvements at various locations in Prince William County (I-95 NB- Left shoulder widening (MP 152 to MP 157))	\$1,685,000															(\$1,055,000)	77.0
NoVA Interstate Signals DW	\$300,000															\$0	77.0
Install New Primary Signals (Econ Stim)	\$3,000,000	\$2,500,000														(\$500,000)	67.0
Various Projects to be Funded by UPC 70641, Freeway Interstate Signals DW	\$300,000															\$0	67.0
Install LED Traffic Signal Heads (Economic Stim)	\$3,200,000															(\$3,200,000)	46.7
Freeway Primary Signals DW	\$600,000															(\$600,000)	67.0
Traffic Signal - Operational & Safety Improvements / Modifications (Geometric Improvement)	\$1,000,000															(\$1,000,000)	67.0
Various Signs & Environmental Work for Installation of New Signals	\$100,000						\$100,000									\$0	77.0
Signal Modifications to Traffic Signals	\$600,000	\$500,000														(\$100,000)	77.0
Various Projects to be Funded by UPC 70656, NoVA Interstate Signs DW	\$100,000											\$100,000				\$0	65.2
Various Projects to be Funded by UPC 70663, NoVA Primary Signs DW	\$200,000															(\$200,000)	65.2
Various Projects to be Funded by UPC 70642, Freeway Interstate Signals DW	\$50,000		\$50,000													\$0	65.2
Various Projects to be Funded by UPC 70647, Freeway Primary Signs DW	\$100,000			\$100,000												\$0	65.2
Install Various Traffic Signs (Primary)	\$0															\$0	65.2
Install Various Traffic Signs (Interstate)	\$200,000											\$200,000				\$0	65.2
Interstate Guardrail Design and Survey	\$166,312												\$166,312			\$0	65.2
Sign Inventory Plan Development	\$230,686										\$230,686					\$0	0.0
Integrated Directional Signage (IDS) Program	\$10,000															(\$10,000)	47.4
Replace O/H Sign Structure on Interstate 95 SB	\$327,166	\$327,166														\$0	0.0
Replacement of Traffic High Mast Str.	\$604,395								\$505,555							(\$10,440)	45.2
Replacement of O/H Traffic Sign Structures, Priority 3 & 4	\$5,820,000															(\$2,448,795)	45.2
Install Guardrail District wide on Primary System (Econ Stim)	\$2,600,000															(\$2,600,000)	65.2
Various Projects to be Funded by UPC 70656, NoVA Interstate Guardrail DW	\$200,000															(\$200,000)	65.2
Various Projects to be Funded by UPC 70653, Freeway Interstate Guardrail DW	\$400,000															(\$400,000)	65.2
Various Projects to be Funded by UPC 70643, Freeway Primary Guardrail DW	\$400,000															(\$400,000)	65.2
Install Guardrail - Leeberg Rte. 3	\$185,654															(\$18,556)	0.0

Figure 7: Example from the Funding Plan Spreadsheet

The Funding Plan / spreadsheet includes not only the financial information and descriptive data for the funded projects, but also records the prioritization scores for all of the projects on the original project candidates' list, and each project's goals and objective scoring. The Funding Plan also identifies / includes an Unfunded Projects' List comprised of the projects that were not funded or were partially funded (see Appendix C).

Figure 8, on the following page, depicts a sample of the Work Plan / spreadsheet. Once again, projects and activities are aligned along the left side of the page. As one proceeds across the page from left to right, the following information is displayed:

- Project information (under the tan heading on the left) – project UPC or OPC, project title, project manager, section responsible for managing the project, etc.
- Financial information (under the green heading) – FY-10 allocations and expenditures, expenditures to date, etc.
- Process information (under the yellow heading) – the various steps / processes that a project must complete
- Status information (under the tan heading on the right) – presents the latest activity for the project and a history and description of the project

The Work Plan is updated quarterly and identifies the accomplishments of the active, funded projects and what tasks are underway. NRO's ROD uses the Work Plan as an information resource when he is asked about the status about a particular NRO project or projects within a corridor. Section Managers use the Work Plan as a tool to manage their Sections' implementation progress and on-time / within-budget performance.

To recapitulate, the candidate list of projects and programs developed during the Program Development Phase is matched with the funding allocations received during the Fiscal Programming Phase; resulting in the development of the SIPP, the Work and Funding Plans, and the Unfunded List. The Work and Funding Plans, accompanied by the funding allocations, guide the project development and operational activities undertaken in the subsequent phase, the Program Delivery Phase.

3.2 Program Delivery

The Program Delivery Phase is the fourth step in the PPD process. It begins with Kick-Off Meetings prior to or around July 1st – the beginning of the state’s fiscal year. The intent of the Program Delivery Phase is to: (1) kick-off the Investment Plan for the new fiscal year by bringing NRO’s Section Managers up-to-date as regards the amount of funds available to NRO, in general, and their section, specifically, and to inform the Project Managers in each section of the funding available for their ongoing projects and to introduce them to any new projects to which they may have been assigned; (2) complete the programmatic steps necessary to obtain funding authorization; and (3) begin the implementation of new projects and activities while continuing the implementation of ongoing projects and activities.



Figure 9: PPD Process – Program Delivery

In an input / output context, the Program Delivery Phase is the phase where the work, from the public’s perspective, gets done. The Fiscal Programming Phase provides funding and planning inputs to the Program Delivery Phase. Using these inputs, NRO creates output in the Program Delivery Phase in the form of completed capital and safety improvements, maintained assets, and provision of transportation operational services.

The Program Delivery Phase begins with Kick-Off Meetings around July 1st – the beginning of the state’s fiscal year. The purpose of this series of meetings is to inform each of NRO’s individual sections - Section Manager and Project Managers within that section - of the amount of funding that they will have available for each project and program, the status of the funding (where it is in the authorization process), the limitations on the funding, what processes must be followed (environmental, Rule 940, etc.), other considerations, and to respond to any questions that the Project Managers or Section Manager might have. The Kick-Off Meetings have come to symbolize the official beginning of the new fiscal year for NRO.

Prior to the start of a project, the Programming Team is responsible for obtaining, or at least initiating, the funding authorizations for the Project Managers. Once the funding is authorized and the project begins, the Programming Team, along with the Project Manager, actively monitors the project’s spending to ensure that the project is: (1) not overspending or (2) spending at a rate less than anticipated. The Programming Team is also responsible for transferring funds between projects to ensure that NRO’s budget is being spent in a fiscally responsible manner. This includes transferring funds to new projects that may arise throughout the fiscal year, either because of new opportunities or guidance from upper management.

Technical delivery of projects is led by the Project Manager. All of NRO’s capital ITS projects follow the Systems Engineering Process. Each ITS project begins with the development of a Concept of Operations and follows the Systems Engineering “Vee” Diagram (See Figure 9 on the following page.) Following the development processes identified in the “Vee” Diagram has been shown to improve a project’s prospects for a successful implementation. For further information on the Systems Engineering Process as it relates to Intelligent Transportation Systems, please refer to the following website maintained by the FHWA:

<http://ops.fhwa.dot.gov/publications/seitsguide/index.htm>.

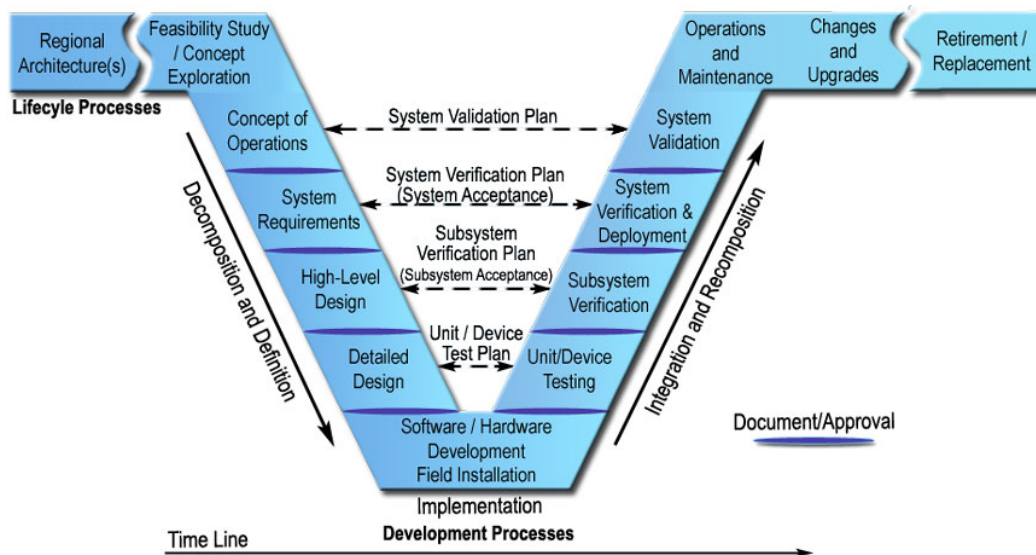


Figure 10: Systems Engineering’s “Vee” Diagram

With the exception of its administrative sections, each NRO Section is responsible for a specific step within the Systems Engineering Process. In this manner, accountability for the completion of each step in the project development process is assigned. Specifically, the Concept of Operations and high-level requirements are normally developed by the NROPP planners, working in concert with various internal and external stakeholders. Upon completion, NROPP conducts a project transition meeting with the Systems Engineering (SE) engineers who continue development of the system requirements, complete the design, and prepare the procurement package. When the contractor is selected, Operations Inspection & Construction (OIC) along with the ITS – IT technology manager direct the field installation, integrate the completed project into the Traffic Operations Center’s (TOC) software, and ensure that the deployed system meets the project’s intent through testing, system verification, and validation.

Following this process ensures conformity with FHWA Rule 940. To help guide the Systems Engineering Process, NRO developed the Rule 940 User’s Guide (and checklist) and Concept of Operations Templates, which are available online at <http://www.vdot-itsarch.com/>.

To facilitate program delivery, NROPP hosts and facilitates a bi-monthly Project Management Forum (PM Forum). The purpose of the Forum is to provide an open medium for project coordination. More specifically, the objectives of the Forum are to:

- Identify relevant issues as part of a project’s scoping process
- Provide a forum to discuss projects during pre-advertisement, that is, before a Request for Proposal (RFP) is issued
- Facilitate the Systems Engineering Process and Rule 940 conformity
- Ensure a smooth project transition from one NRO section to another (e.g., Planning to Systems Engineering, Systems Engineering to Construction, etc.)
- Enhance cross-project coordination
- Discuss technical issues for selected projects.
- Discuss technical issues and receive mini-seminars on technical advances in the field of operations

In summary, the preceding phase, the Fiscal Programming Phase, is the principal source of funding for the projects, maintenance efforts, and traffic and safety-operations improvements undertaken in the Program Delivery Phase. It is within the previous phase that a dispassionate effort is made to identify what activities will be funded with NRO’s limited financial resources. Obviously, funding decisions are also made during the Program Delivery Phase in response to the dynamic environment within which NRO exists. NRO creates output in the Program Delivery Phase in the form of completed capital and safety improvements, maintained assets, and provision of transportation operational services; and the subsequent phase, the Program Evaluation Phase, uses measures of effectiveness (MOE’s) to objectively quantify the progress made / achievements accomplished by the NRO during the Program Delivery Phase.

3.3 Program Evaluation

The Program Evaluation Phase is the fifth step in the PPD process. It is an ongoing effort with a major step-up of activity beginning around June 30th – the ending of the state’s fiscal year. The intent of the Program Evaluation Phase is to: (1) evaluate the status of the projects and activities for the current fiscal year on an on-going basis and (2) develop, between June 30th and September, a year end report to document the successes and shortcomings of the previous fiscal year.

The on-going evaluation is used to identify needed adjustments to NRO’s projects and activities during the Program Delivery Phase of the current fiscal year. Table 5, on the following page, displays the tracking measures used by NRO to gauge its success in attaining its objectives.



Figure 11: PPD Process – Program Evaluation

Table 7: NRO Tracking Measures / Measures of Effectiveness

Goal	Objectives	Tracking Measures
<p>Goal 1: Reduce Congestion</p> <p><i>(Strategic Focus #3, 20% weight)</i></p>	1.1 Reduce travel times and delays for all modes along identified major corridors	Travel times on key commuter routes (during peak commuter hours) Vehicle-hours of recurring delay along key corridors in Northern Region
	1.2 Improve travel time reliability on major corridors	Travel time reliability (buffer time) for identified corridors in Northern Region
	Actively manage travel demand on NRO facilities	Person throughput (persons traveling through a roadway section per hour) measured for both general purpose and HOV lanes Park-n-Ride utilization rate
	1.3 Reduce delays due to work-zones and planned special events	Vehicle-hours of delay
	1.4 Reduce incident clearance times	Average incident duration
<p>Goal 2: Improve Safety</p> <p><i>(Strategic Focus #2, 22% weight)</i></p>	2.1 Reduce vehicular crashes	Total number of crashes and breakdown of injury, fatal and work zone crashes
	2.2 Reduce pedestrian and bicyclist crashes	Number of pedestrian and bicyclist incidents
<p>Goal 3: Enhance Communication w/ Travelers</p> <p><i>(Strategic Focus #5, 7% weight)</i></p>	3.1 Provide proactive, timely, and accurate information and responses to the traveling public	Citizen survey results Number of unique 511 and website users within the Northern Region
<p>Goal 4: Promote Environmental Responsibility</p> <p><i>(Strategic Focus #8, 5% weight)</i></p>	4.1 Reduce energy consumption and environmental costs of transport operations	Percentage of projects compliant w/ VDOT environmental requirements Wasted fuel per traveler (gallons)
<p>Goal 5: Preserve and Manage an Integrated Traffic Management System</p> <p><i>(Strategic Focus #1, 22% weight)</i></p>	5.1 Maintain field infrastructure so that it operates reliably	Daily percentage of “active” detectors, dynamic message signs (DMS) and closed-circuit television cameras (CCTV) (averaged over each month)
	5.2 Improve information gathering on freeways and arterials	Percentage of lane-miles by functional class covered by vehicle detectors, environmental sensors, and CCTV

Goal	Objectives	Tracking Measures
<p>Goal 6: Improve Emergency Management</p> <p><i>(Strategic Focus #4, 11% weight)</i></p>	6.1 Enhance coordination of regional emergency management	Percentage of emergency management stakeholders (identified in NRO architecture) who have participated in NRO emergency management planning exercises
	6.2 Reduce NRO critical asset vulnerability	Number of intrusions / security breaches of critical assets
<p>Goal 7: Improve NRO's Business Process</p> <p><i>(Strategic Focus #7, 6% weight)</i></p>	7.1 Optimize operations planning, programming, and project delivery time	Average duration between when a project is programmed to when it is fully operational
	7.2 Make the rationale for all NRO investments clear and consistent	Percentage of projects in each fiscal year's funding plan that are selected by the prioritization model
	7.3 Make performance-based decisions	Percentage of projects in each fiscal year's funding plan that are selected by the prioritization model Percentage of objective-tracking measures for which performance targets have been defined Percentage of project proposals that include estimated impacts on performance targets Inclusion of estimated project performance impacts in annual prioritization process
	7.4 Utilize equal employment opportunity practices in hiring and procurement decisions	Percentage of project funding allocated to Small, Women, or Minority Owned (SWAM) businesses
	7.5 Minimize project costs and schedule overruns	Percentage of projects on-time Percentage of projects on-budget
<p>Goal 8: Improve Regional ITS / Operations Coordination and Efficiency</p> <p><i>(Strategic Focus #6, 7% weight)</i></p>	8.1 Encourage the application of technology-based operations solutions in all relevant construction projects	Percentage of construction projects which have technology-based operations strategies in their transportation management plans and in final construction
	8.2 Improve operations planning with regional operations partners	Percentage of regional operations stakeholders (identified in NRO architecture) expressing satisfaction with NRO participation in regional planning coordination
	Improve day-to-day information exchange with regional operations partners	Percentage of regional operations stakeholders (identified in NRO architecture) expressing satisfaction with NRO participation in day-to-day information sharing

The Year End Report documents the progress towards achieving last year's strategic goals and objectives. The Year End Report analyzes NRO's progress in meeting strategic goals, identifies the successes and lessons learned in the just-completed fiscal year, and provides a summary comparison of system-wide performance measures from the fiscal year's beginning to its end. By measuring project outputs and outcomes, the Year End Report provides input into the Planning Phase; providing a tool by which NRO can update its strategic priorities, keep its regional architecture current for the next fiscal year, and fine tune the direction in which it is heading in the forthcoming fiscal years.

To reiterate, the Program Evaluation Phase measures the progress and achievements of the Program Delivery Phase, and that information is used to make course corrections to NRO's ongoing programs and projects, and to provide direction to Planning Phase for the forthcoming fiscal year. The conclusion of the Program Evaluation Phase brings us back to the Planning Phase and the start of the Program Planning and Delivery (PPD) Process for the forthcoming fiscal year. This wheel just keeps rolling.

4 ANALYSIS

As noted in Section 3.5, NRO's prioritized list of candidate projects and activities had an estimated total funding need of almost \$240 million for FY-10. FY-10's actual allocations were \$84.4 million, from all funding sources – 603 Program, 604 Program, HSIP, CMAQ, etc. including funds rolled over from previous years.

This Section of the SIPP attempts to identify what the \$84 million allocation will allow NRO to do in FY-10, to compare the allocations versus the prioritized needs, and to analyze the implications to NRO of the 3 to 1 differential between identified needs and actual funding allocations.

For FY-09, NRO received \$88.3 million. Simple math tells us that NRO suffered a \$3.9 million funding reduction (a 4.4% percentage reduction), from FY-09 to FY-10. The reduction would have been even greater had it not been for NRO's receipt of funding from non-VDOT sources; specifically, \$3.1 million in American Recovery and Reinvestment Act (ARRA) funds for four projects in Loudoun County and \$1.9 million in Department of Homeland Security (UASI) funds for detector placement on evacuation routes in NoVA. Without the infusion of these non-VDOT funds, NRO's FY-10 allocations would have totaled \$81.1 million, for a total \$7.2 million reduction (8.1% reduction, from FY-09 to FY-10).

NRO is grateful to receive "non-VDOT" funding, and the funding will always be put to good use to address on-going needs. However, it should be recognized that non-VDOT funding almost always comes with strings attached, and it is intended to be dedicated to one specific purpose. That is, NRO has very little discretion as to what projects / programs the funding will be applied. In other words, non-VDOT funding with its dedication to specific purposes is good, but it is not as good or beneficial as funding that allows NRO the discretion to apply the funding to its highest priority needs, whether the needs be projects or programs. NRO's application for the Homeland Security grant was based on NRO's needs for data gathering through detector deployment; while the granting of the ARRA funds was based on an application from Loudoun County's government that matched the government's perceived operational needs to NRO's ability to deliver services / improvements that met those needs.

Another consideration – not all of NRO's FY-10 funding is "new" money. That is, some types of funds; particularly, 603 funds – funds allocated by VDOT's Programming Division and listed in VDOT's Six Year Improvement Program – are capable of rolling over from one year to the next. NRO's Planning and Program Delivery (PPD) Process attempts to identify program and project needs on an annual basis, and match available funds to those needs. However, should a project have a delayed start, should work not progress as quickly as it was originally projected, or if the funds are for multi-year projects, some of NRO's funding has the capability of rolling over into the subsequent fiscal years. The reason to bring fund roll-over to the reader's attention is to clarify that NRO did not received all new funds in FY-10, nor completely spend \$88.3 million in FY-09, and will not completely spend \$84.4 million by the end of FY-10.

4.1 Anticipated Services from NRO in FY-10

Of the \$84 million allocated, approximately \$25.7 million was applied to staff salaries, equipment, supplies, utility bills, and other overhead items. Northern Region Operations must have staff to man the Traffic Operations Center (TOC); drive the Safety Service Patrol (SSP) trucks; maintain its assets; plan, design, install, and operate its ITS devices; perform traffic

engineering studies; manage consultants and contractors; respond to inquiries from citizens; and perform administrative services for staff on the front lines.

The remaining funds are allocated to projects and programs. The following NRO projects / programs received at least one million dollars in funding for FY-10 and represents the majority of the services that NRO could deliver with the available funds. One can anticipate that, in FY-10, NRO will continue to provide basic core services and deploy a minimal amount of capital improvements.

4.1.1 [Traffic Signal Program](#)

Approximately \$10 M was designated for maintaining and improving the operations of existing traffic signals and \$6 M was allocated for new traffic signal installations, modifications, and upgrades.

- Traffic Signal Integration & Timing Optimization for NRO Counties (\$3,342,147)
- Traffic Signal Maintenance, Rehab & Rebuild for NRO Counties (\$3,900,000)
- Lease of Communication Lines for NRO Signal Systems (\$2,150,000)
- 21 projects for Traffic Signal Installations, Modifications or Upgrades (\$5,951,727)
- 4 projects / programs to support Traffic Signals, such as, signal design, loop replacements & installations, and control cabinet maintenance (\$1,045,889)

4.1.2 [Pavement Marking Program](#)

Nearly \$4 M was allocated to pavement marking maintenance. This level of funding can only sustain the minimum level of service in the Northern Region. Should a major snow event occur and result in damage to NRO's pavement markings, NRO will not have sufficient resources for system-wide replacement.

- NRO Pavement Marking Contracts (\$2,674,824)
- 9 projects / programs to support Pavement Marking, such as, marking eradication, marking modifications, materials acquisition, and upgrading gore area pavement markings, (\$1,079,500)

4.1.3 [Sign Program](#)

VDOT structure engineers identified a large number of sign structures as being structurally deficient and categorized them into four priorities for replacement. However, the funding allocated to NRO was only sufficient to allow for the replacement of the top two priority groups of signs.

- Replace Overhead Traffic Sign Structures, Priorities 1 & 2 (\$1,364,012)
- 11 projects / programs to repair, replace, modify, or maintain static highway signs or develop a sign inventory (\$2,155,019)

4.1.4 [Dynamic Message Sign \(DMS\) Program](#)

Many years ago, VDOT was a leader in the deployment of Dynamic Message Signs (DMS), with nearly two hundred DMS signs deployed in Northern Virginia. Significant time has passed, most of the DMS signs are out of their life cycle, and a large number of them can not receive manufacturer support, because their manufacturers are no longer in business. Additionally, time has revealed that some of the sign locations are not ideal to serve operational needs. Consequently, NRO developed a multi-year DMS Master Plan to guide the replacement, upgrade, and relocation, if need be, of these signs to meet specific operational needs. While the unit cost for each sign is significant and the potential exists for newer ITS technology to minimize the effectiveness of these signs in about 10 to 20 years; as of today; DMS signs are

the most effective way for NRO to convey information to drivers on roadway conditions; thereby, enabling the drivers to make informed decisions about their travel options. NRO allocated limited funds to maximize the life span of the existing signs and to start the implementation of the master plan with one small step.

- Retrofit of NoVA DMS (\$1,500,000)
- Dynamic Message Sign (DMS) Upgrade, Phase 1A (Interstate), I-66 between I-495 & Arlington Co Line (\$1,000,000)
- Dynamic Message Sign (DMS) Upgrade, Phase 1A (Primary, Leading to Interstate), Primary Routes Interchanging with I-66 between US 50 @ Fair Oaks and the Arlington Co Line (\$2,529,714)

4.1.5 Operations Asset Maintenance Program

Most of NRO's maintenance and operation funds (604) in FY-10 were allocated to maintaining existing operational asset. In addition to signs, pavement marking, and DMS signs mentioned about, over \$8 M was allocated to sustaining these assets:

- 12 projects to Install or Replace Highway Lighting (\$3,915,200)
- TAMS Maintenance Contracts for I-66, I-95, I-395, I-495 (\$1,500,000)
- Maintenance of ITS Field Equipment – HOV Gates, Lane Control Signals, Variable Message Signs, CCTV, Communication Cables and Links, Detectors, Ramp Meters, Highway Advisory Radios, and Truck Rollover Signs and Detectors (\$2,952,473)

4.1.6 Traffic Operations Program

The core of NRO's business is to operate the highway system so as to provide its customers (the traveling public) with an efficient roadway network. In addition to the personnel designated to the 24-7 Transportation Operation Center (TOC) control room and the safety service patrols, NRO joined with Maryland, District of Columbia, and WMATA to improve inter-regional coordination and regional incident management. NRO launched the new software tool for operations, OpenTMS, in FY-09 and has subsequently been focusing on migrating operation-system modules from the old ASSIST system into OpenTMS and on upgrading ITS device communications into the IP network.

- Metropolitan Area Transportation Operations Coordination (MATOC) Program (\$1,220,508)
- OpenTMS Software Development and Integration (\$1,500,000)
- 5 projects / programs to support the OpenTMS, ASSIST, or MIST systems or to facilitate the migration of systems from ASSIST to OpenTMS (\$1,140,000)

4.1.7 ITS Deployment

In addition to the minimum DMS deployment discussed in 4.1.4, NRO received a Homeland Security grant to deploy detectors on key locations to facilitate evacuation route monitoring. Limited funds were allocated for the installation of unlimited power supplies (UPS) to prevent interruption of ITS device service due to electric power interruptions in the field.

- Install UPS and Surge Protection at Various Locations on the Interstate System (\$1,599,321)
- Detector Placement for Evacuation Route Monitoring (\$1,860,514)

4.1.8 Traffic Safety Program

Since the inception of NRO, the Traffic Engineering Section has proactively assessed and identified traffic problems and solutions. The Loudoun County Board of Supervisors supported Traffic Engineering's assessments in Loudoun County and subsequently requested and, subsequently, received American Recovery and Reinvestment Act (ARRA) funds. In the current US transportation legislation, the Highway Safety Improvement Program (HSIP) is one of the funding focuses. This program is managed by Central Office Traffic Engineering Division (TED), which allocates HSIP to VDOT's nine districts. The allocation of HSIP funds to specific projects requires extensive analysis and is a time-consuming process. NRO Traffic Engineering (TE) continuously looks for projects to which the HSIP funds can be applied. While NRO received bottleneck mitigation funds due to CTB members' support and TE identified many locations with bottleneck and safety issues, most of them are not on NHS routes, which is a criterion for the mitigation fund usage.

- 20 projects / programs to Assess and Implement Roadway and Intersection Safety Improvements (includes guardrail and rumble strips) in the Northern Region (\$4,886,889)
- ARRA Projects in Loudoun County - LED Signal Head & PED Countdown, Installation of UPS on Major Signals, Pavement Markings, and Queue Warning at Route 28 and Waxpool (\$3,100,000)
- Bottleneck Mitigation (\$1,000,000)

4.2 **Impact of Funding Shortage**

The following major projects / programs (cost estimates of at least \$1,000,000) were identified by NRO as candidates for funding in FY-10, but, unfortunately, they were not funded or only partially funded (less than half). Some of these unfunded services are crucial for NRO's successful operation of the region's highway network. The lack of funding could result in the worsening of operational problems experienced by the region. Some unfunding or underfunding may delay needed maintenance into later years, which may result in increased costs as assets deteriorate to the point where they need replacement rather than maintenance. The capital improvement such as DMS installation would replace hundreds of signs that are out of their life cycle. Lacking the capital improvement funds could likely increase the annual ITS device maintenance budget and have significant impact on TOC operators' ability to manage traffic effectively.

4.2.1 Traffic Signal Program

Nearly \$4 M for traffic signal rehabilitation and rebuild is unfunded. In addition, NRO lost the dedicated new traffic signal deployment funds that were used to be included in the SYIP. Due to the safety concern, Central Office allocated funds for new signals. However, it was a one-time arrangement not sustainable for NRO to develop a mid- or long-range plan.

- NoVA Traffic Signal Rehab & Rebuild – Priority 2 (\$3,681,166 estimate): no funds allocated

4.2.2 Pavement Marking Program

Although nearly \$4 M was allocated to pavement marking maintenance, NRO would need additional \$6 M to provide acceptable level of service to our customers.

- Pavement Marking Contracts for Fairfax, Arlington, PW, Loudoun - NoVA Only (\$6,200,000 estimate): allocated \$2,252,049; shortfall = \$3,947,951

4.2.3 Dynamic Message Sign (DMS) Program

While NRO's DMS Master Plan identified a long-range deployment plan, approximately \$11 M worth of deployment is considered short-term need.

- I-95 Dynamic Message Sign (DMS) Installation from Rte 644 (Franconia Road) to Rte 642 (Lorton Road) for the N-S Safety Evacuation Corridor (\$1,950,000 estimate): no funds allocated
- I-95 Dynamic Message Sign (DMS) Installation in Prince William County for the N-S Safety Evacuation Corridor (\$2,720,000 estimate): no funds allocated
- I-95 Dynamic Message Sign (DMS) Installation in Stafford County for the N-S Safety Evacuation Corridor (\$2,000,000 estimate): no funds allocated
- I-395 Dynamic Message Sign (DMS) Installation in Arlington County for the N-S Safety Evacuation Corridor (\$2,110,000 estimate): no funds allocated
- I-395 Dynamic Message Sign (DMS) Installation in the City of Alexandria for the N-S Safety Evacuation Corridor (\$1,200,000 estimate): no funds allocated
- I-395 Dynamic Message Sign (DMS) Installation in Fairfax County for the N-S Safety Evacuation Corridor (\$1,230,000 estimate): no funds allocated

4.2.4 Operations Asset Maintenance Program

NRO's asset maintenance program is scalable. The less funds NRO allocates to the maintenance program, it delays the service need to future years. One example is the interstate lighting maintenance.

- NoVA Interstate Lighting Maintenance (\$2,200,000 estimate): allocated \$415,000; shortfall = \$1,785,000

4.2.5 ITS Deployment

NRO used to have a small dedicated fund in SYIP for ITS deployment. While that dedicated funds were removed and replaced resource has not been identified, NRO has a huge unfunded need on ITS device deployment. Following are identified short-term needs from the ITS Device Master Plans:

- Install UPS and Surge Protection – Priority 2 (\$13,520,000 estimate): no funds allocated
- I-66 Upgrade Shoulder Lane Control System, US 50 to I-495 (\$8,263,000 estimate): allocated \$400,000; shortfall = \$7,863,000
- I-66 ITS Infrastructure Deployment, Rte 29 Gainesville to Rte 234 Business (\$2,625,000 estimate): no funds allocated
- I-95 ITS Infrastructure Deployment / Upgrade, Rte 123 to I-495 (\$3,412,500 estimate): no funds allocated
- ITS Infrastructure Deployment on Three Primary Routes in NoVA, US 1, US 50 & Rte 110 (\$11,000,000 estimate): no funds allocated
- ITS Infrastructure Deployment on Two Primary Routes in FRBG, US 1, & US 17 (\$1,938,000 estimate): no funds allocated
- ITS Infrastructure Deployment on Three Primary Routes in NoVA, US 1, US 50 & Rte 110 (\$11,000,000 estimate): no funds allocated
- PSTOC to FRBG Traffic Operations Center, Fiber Installation (\$10,000,000 estimate): no funds allocated

The high correlation between those projects that receive a high Rod Factor, which is applied in the project / program prioritization scoring, and the relative ranking of projects and activities calls into question the prioritization process. Why not let NRO's Director simply rank the projects? It is within his area of responsibility to provide leadership to NRO by selecting the

projects and activities that will be continued and initiated in the forthcoming fiscal year. The vetting of existing and candidate projects could continue in a manner similar to the Planning Workshop so that all of NRO’s Section Managers could advocate for projects and activities in the forthcoming fiscal year.

4.3 Allocations vs. Priority

When NRO programming team allocates funds to prioritized projects and programs, the biggest challenge they face is the eligibility and restriction of various funds that NRO receive. As such, the allocation process begins with one funding source at the time to allocate to eligible projects in their priority. The allocation process repeats until all funding sources are allocated to specific needs. Upon the completion of initial allocation, the programming team crosses reference the outcome and the priority to examine any opportunities for re-allocation to meet the priority. Due to the funding restriction, most likely the change on allocation is minimum. The following figure illustrates how NRO’s “discretionary” budget was allocated to NRO Goals. With the exception of Goals 4 and 7, NRO’s discretionary funding appears to have been allocated to projects in proportions consistent with the weights assigned to NRO’s Strategic Goals.

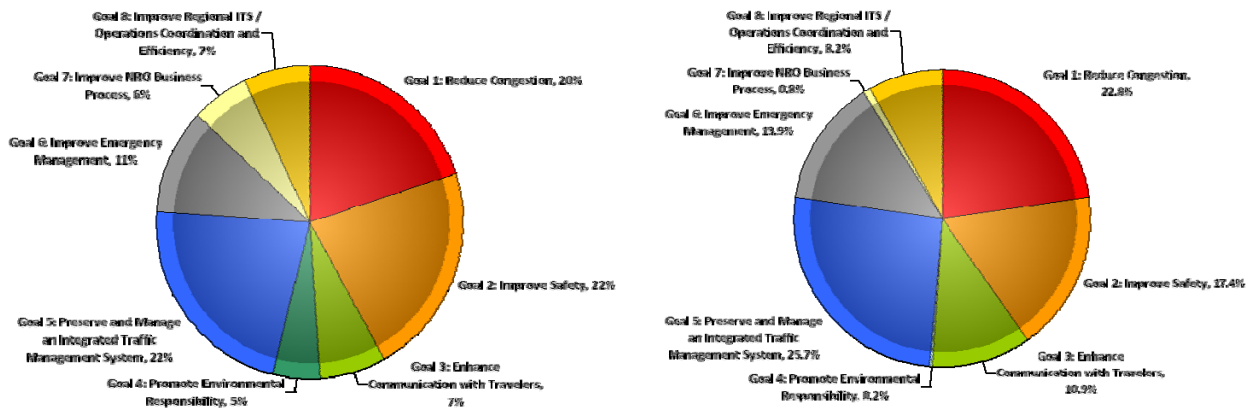


Figure 12: Goal Weights from Planning Workshop (left) and Percentage of Discretionary Budget Allocated to NRO Goals (right)

Goals 4 and 7’s underfunding may be attributed to several factors:

- They have no champions in NRO. These goals are not directly related to any one section manager’s job description.
- They were added to the goals by the Section Managers as “nice-to-haves / worthy of consideration,” not as, “got-to-haves.”
- No funding dedicated for their causes.

Overall, the allocations and the FY-10 priorities are matched quite well. This outcome provides NRO managers an assurance that the process they went through was worth while and the common goals and objectives can be achieved.

5 SUMMARY

Northern Region Operations (NRO) has developed, implemented, and continues to improve its Planning and Program Delivery (PPD) Process with the intent of maximizing the efficient and effective use of its fiscal allocations. Maximizing the efficient and effective use of NRO's fiscal allocations – obtaining “the most bang for the buck” – is the primary objective of the PPD Process. NRO's fiscal allocations fund the delivery and maintenance of Operations' assets, services, and projects.

Developing a unified management team with a common set of strategic goals and objectives is another reason for implementing the PPD Process, and the extension of this common sense of purpose to NRO's project managers and other NRO staff members is a third reason for implementing the PPD Process.

While the FY-10 funding allocations for NRO is far beyond meeting its needs, with the common priorities on goals and objectives, NRO is determined to deliver the core service to customers.

APPENDIX A – VDOT NRO FY-10 WORK PLAN

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										Project Information														
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10				Project to Date		VDOT Process			Federal Process				Both		FHWA Oversight? (Y/N)	STATUS	History	Attention Needed	Completed / Xferred Local	ITS Project			
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist							Amount Authorized		
Org 30932 Total \$ for I&C									\$3,700,000	\$0	\$2,523,862	\$6,223,862																					
Business									\$250,000	\$0	\$0	\$250,000																					
30932				IC-1004		Meet Regularly w/ System Contractors	Dave Evans	Dave Evans	I&C	Salary			Salary										N	07/09 Added to Work Plan	FY-10 NRO Business Strategic Initiative #13 - Meet regularly w/ system contractors to address contract status, performance, and funding. (Lead: OIC).								
30932				IC-73		Technical Inspection - Dewberry and Davis (con 24518)	Dave Evans	Dave Evans	I&C	\$250,000			\$250,000										N	06/09 See history.	07/09 - Added to Work Plan. 06/09 - Contract renewed in October '08; will renew again in October '09. Partially funded - Total need of \$425,000.								
TE									\$0	\$0	\$1,117,127	\$1,117,127																					
30932				CIC-1012	UPC 89662	Route 20 Centerline Rumble Strip Project in Orange County	Dave Evans	Dave Evans	I&C		\$116,000		\$116,000	\$0	0%								N	07/09 Project added to the Work Plan; Project is in NWR; however, NRO is administering this project as a part of the Regional split agreement.	07/09 - Project added to the Work Plan; Project is in NWR; however, NRO is administering this project as a part of the Regional split agreement.								
30932				CIC-1013	UPC 89667	Route 211 Centerline Rumble Strip Project in Rappahannock County	Dave Evans	Dave Evans	I&C		\$44,000		\$44,000	\$0	0%								N	07/09 Project added to the Work Plan; Project is in NWR; however, NRO is administering this project as a part of the Regional split agreement.	07/09 - Project added to the Work Plan; Project is in NWR; however, NRO is administering this project as a part of the Regional split agreement.								
30932	50907			IC-305	UPC 78792	Retrofit / Upgrade of Overhead Signs / Structure on the I-95 - District wide (Midisco VA LLC)	Dave Evans	Dave Evans	I&C		\$957,127		\$957,127	\$0	\$0	\$3,617,257	78%	R-STEC	TBD	C	R	I	PCE 11/06/06	R	\$4,633,385	N	08/09 Signs are being manufactured; striving for a completion on I-395 by October.	10/18/07 - Contract Awarded. Midisco VA LLC. Expires 10-13-09, no renewals. 06/17/09 - Total budget is \$4,633,384.59; total expenditures through FY-09 equal \$3,617,257. 07/09 - Will restart Contractor in July. 07/09 - Revised est to reflect actual expenditures & addition of safety funding to project. CO programming submitted to FHWA an agreement modification & received approval of same. 08/09 - Signs are being manufactured; striving for a completion on I-395 by October.					
Signals									\$3,450,000	\$0	\$156,735	\$3,606,735																					
30932				IC-69	OPC 82972	Traffic Signal Loop Replacement and Installation (Act 73399 Con 25649)	Jerry Gray	Dave Evans	I&C	\$450,000			\$450,000	\$0	0%								N	06/09 See history.	3/3/08 - Some of the intersections can cost around \$40 K due to installation of road bores and junction bores. 06/09 - Existing Loop Contract will be allowed to expire on 08/31/09. Work will be accomplished via Regional Maintenance Signal Contractors.								
30932				IC-68 (See T-68 & IC-331)	OPC 82976	NoVA Traffic Signal Maintenance, Rehab & Rebuild Contract - TS7E	Jerry Gray	Dave Evans	I&C	\$3,000,000			\$3,000,000	\$0	0%								N	6/29/09 See History.	This entry is a source of funding for projects implemented by the regional signal installation contracts associated w/ IC-331, IC-332, & FIC-333. It may be a source of funds for signal design or for signal design work, itself. 06/29/09 - 3 Active signal rebuilds & 7 active Count Down Peds.								
30932				IC-331	UPC 88275	Install and Modify Traffic Signals and ITS Plant NRO Counties in NoVA - TS04	Jerry Gray	Dave Evans	I&C				Funded by Others										N	6/29/09 15 Active projects.	TS04 -96A-013, N501 - Prime Is B&B. 06/29/09 - 15 Active projects.								
30932				FIC-333	UPC 88276	Install and Modify Traffic Signals and ITS Plant NRO Counties in FRBG - TS05	Jerry Gray	Dave Evans	I&C				Funded by Others										N	6/29/09 5 Active projects.	TS05-96A-014,N501 - Prime Is Clarke Elect. 06/29/09 - 5 Active projects.								
30932				IC-1002	UPC 89866	Traffic Signal Head Upgrade to LED's & Install UPS Equipment	Jerry Gray	Dave Evans	I&C		\$156,735		\$156,735	\$0	0%	\$243,265	61%	N/A	N/A	C	Already Federal	R	PCE 09/26/08	N/A	\$400,000	N	Ongoing See history.	Supportive of FY-10 NRO Business Strategic Initiative #10. Linked to Parent UPC 81414 . TE will id signals to which the upgrade will be applied. 06/17/09 - Total budget is \$400,000; total expenditures through FY-09 equal \$243,265. 06/09 - Recently identified two new intersections at \$12 K / intersection.					
ITS									\$0	\$0	\$1,250,000	\$1,250,000																					
30932				IC-1AI (See S-1AI)	UPC 90113	DMS Upgrade, Phase 1 (Interstate) I-66 between I-495 & Arlington Co Line Install new (2) / upgrade existing (1) DMS on 66 between I-95 & Arl Co. Line	Dave Evans	Dave Evans	I&C				Funding listed in SE										Y	6/06/09 PE Authorized	Supportive of FY-10 NRO System Strategic Initiative #14. See Notes on S-1AI. 06/09/09 - Received Notification that PE had been Authorized for UPC 90113.								
30932				IC-1AP (See S-1AP)	UPC 90114	DMS Upgrade, Phase 1 (Primary, Leading to Interstate) 7 DMS Installations at arterial interchanges on I-66 between VA 123 and VA 267 (DTR)	Dave Evans	Dave Evans	I&C				Funding listed in SE										Y	07/20/09 PE auth.	Supportive of FY-10 NRO System Strategic Initiative #14. See Notes on S-1AP. 07/20/09 - PE auth.								
30932				IC-1000	UPC 89535	Relocate Fiber on I-66 (Rte 650 to Rte 110)	Dave Evans	Dave Evans	I&C	Salary			Salary										N	06/09 Project is 75% complete. Estimated completion date is 12/09.	Relocate Fiber on I-66 within WMATA's R/W within the specified limits. Project will be managed by WMATA and installed by their contractor. UPC 70670 is parent UPC. 10/05/08 - \$2.5 M Expenditure has Posted in FMS. Project to remain open until CN complete. If funds are available at end of CN phase, they will be transferred back to this UPC. Missing activity dates 80 and 81. 06/09 - Project is 75% complete. Estimated completion date is 12/09.								
30932				IC-1001	UPC 89757	Install UPS and Surge Protection at Various Locations on the Interstate System	Dave Evans	Dave Evans	I&C		\$1,250,000		\$1,250,000	\$679	0%	\$679	0%	R-STEC	TBD	4/14/09 C (from 90113)	Already Federal	Included under the parent project, UPC 70649.	I	12/8/08 PCE includes surge protection.	R	\$250,000	Y	08/09 Project is being scoped.	Supportive of FY-10 NRO Business Strategic Initiative #11 Install Uninterrupted Power Supply (UPS) and Surge Protection @ Various Locations District wide provide uninterrupted power to signals, signs, CCTV, DMS, etc. on the interstate system. Project will be On-going and implemented as funding becomes available. Funding source: UPC 70649, DW Interstate ITS. 12/12/08 - Expanded scope to include surge protection. PE est increased from \$1M to \$1.6M 04/09 - \$1M Funds authorization requested. \$750 K for UPS, \$250 K for Surge Protection. 06/09 - CO VIPSEF ITS Maintenance Contract to perform. Leslie Parnell to develop task order #2 #1 is for DMS Upgrade as part of UPC 90448. Partially funded - Need of \$1,599,321. 07/09 - Mtg 7/24 w/ Dick Steeg & TOC staff to determine what critical field equip needs UPS. 08/09 - Project is being scoped				
30932				FIC-8000	UPC 64195	Rte. 17 - Over Height Vehicle Detectors	Scott Shropshire	Dave Evans	I&C	Salary			Salary										N	08/09 Requested a 30 day extension; expected to complete in September	04/09 - Dave Evans will be NRO's ONLY point of contact for this project. 6/17/2009 - CN underway. 7/15/09 - The ground work (conduit, JB's etc) is in. Starting on the foundations. The shop drawings for the poles have been approved and are in fabrication. 08/09 - Requested a 30 day extension; expected to complete in September.								
Total \$ for I&C									\$3,700,000	\$0	\$2,523,862	\$6,223,862																					

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										Project Information														
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10				Project to Date		VDOT Process			Federal Process				Both		FHWA Oversight? (Y/N)	STATUS	History	Attention Needed	Completed / Xferred Local	ITS Project			
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist							Amount Authorized		
Maintenance									\$14,367,228	\$1,148,775	\$9,427,730	\$24,943,733																					
Org 50907 Signals, Lighting & ITS Devices									\$3,227,000	\$150,000	\$0	\$3,377,000																					
	50907		300	M-72		Signal/ Ops/Maint in Arlington County. (Arlington)	Mark Hagan	Mark Hagan	Maint	\$991,000			\$991,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$991,000	N		This project and funding, w/ the exception of primary signals, should be moved under the Urban Program (Dic Burke) for management. Hari, Ling, and Mark should review the agreement and discuss with Dic Burke our requirements for managing the operations and maintenance of Arlington County's Signals.				
	50907		300	M-2060		Utility - Electricity Cost - NOVEC	Mark Hagan	Mark Hagan	Maint	\$396,000			\$396,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$396,000	N		07/09 - Added to the work plan				
	50907		300	M-2061		Utility - Electricity Cost - Dominion Power - NoVA Only	Mark Hagan	Mark Hagan	Maint	\$1,115,000			\$1,115,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$1,115,000	N		07/09 - Added to the work plan				
	50907		300	FM-2061		Utility - Electricity Cost - Dominion Power - FRBG Only	Mark Hagan	Mark Hagan	Maint		\$150,000		\$150,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$150,000	N		07/09 - Added to the work plan. Funded by FRBG.				
	50907		300	M-71		Traffic Signal Conflict Monitors (Control Technologies) (con 28561)	E Smith	Mark Hagan	Maint	\$25,000			\$25,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$25,000	N		07/07/08 - Contract 28561 replaces contract 25971				
	50907		300	M-70		Traffic Signal Control Cabinets (Control Technologies) (con 28561)	E Smith	Mark Hagan	Maint	\$400,000			\$400,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$400,000	N		STSS Control cabinets and equipment 07/07/08 - Contract 28561 replaces contract 25971 Partially funded - need of \$800,000.				
	50907		300	M-2025		Pedestrian Countdown Signal Program		Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N		Partially funded - need of \$300,000.				
	50907		300	M-2004		LED Upgrade / Replacement Program	T. Wharton	Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N		Partially funded - need of \$200,000.				
	50907		300	M-513		Traffic Signal Upgrade UPS	T. Wharton	Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N		Partially funded - need of \$300,000.				
	50907			M-8015A (See AT-8015A)	UPC TBD	Vehicle Detection Upgrade - I-66 & I-395		Mark Hagan	Maint				Salary					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	07/09 See History.	07/09 - Maintenance to install RTMS detectors at locations identified by Operations Engineering, as part of their normal course of business. ATMS will integrate new detectors into Open TMS.			<input checked="" type="checkbox"/>	
Org 50908 / 56908 Pavement Markings									\$2,565,049	\$583,775	\$6,998,500	\$10,147,324																					
	50908		321	M-2057		Reflective Metering	Mark Hagan	Mark Hagan	Maint	\$45,000			\$45,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$45,000	N						
	50908		321	M-84		Glass Beads Supply (Potters) (con 22261)	Steve Settle	Mark Hagan	Maint									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N		Pavement marking - glass beads supplier by Potters Industries. Statewide contract #22261				
	50908		321	M-85		Thermoplastic Yellow & White Material (Crown Technologies) (con 25329)	Steve Settle	Mark Hagan	Maint	\$168,000			\$168,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$168,000	N		Pavement marking - thermoplastic yellow & white material contract to be awarded. 01/03/08 - Contract awarded to Crown Technology. Expires 06/18/08, 1 renewal left.				
	50908		321	M-87		Thermoplastic Markings (Flint Trading) (con 22248)	Steve Settle	Mark Hagan	Maint									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N		Pavement marking - performed thermoplastic markings by Flint Trading. Statewide contract #22248				
	39662		321	FM-84, 85, & 87		Pavement Marking Materials - FRBG Only	Steve Settle	Mark Hagan	Maint		\$161,000		\$161,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$161,000	N		07/09 - Added to the work plan. Funded by FRBG.				
	50908		321	M-2005 / M-2000		Pavement Markings Contract (Fairfax, Arlington, P. Wm., & Loudoun)	Steve Settle	Mark Hagan	Maint	\$2,252,049			\$2,252,049	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$2,252,049	N	07/09 Contracts won't be renewed; follow Fed process when re-ad	09/08 - A. Annandale low bidder. 10/08 - Oct. execution. 05/09 - Federalizing to replace existing SAAP - after 1st term. 06/09 - Partially funded - need of \$6,200,000 07/09 - Contracts will not be renewed; Will follow Federal process when re-advertising.				
	39662		321	FM-303 / FM-304		Pavement Markings Contract - (Fred) (con CM707TPC39675)	Steve Settle	Mark Hagan	Maint		\$422,775		\$422,775	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$422,775	N	05/09 Federalizing to replace existing SAAP - after 1st term.	08/08 - Contract to be renewed per Joe Gray's matrix on 7/30/08 05/09 - Federalizing to replace existing SAAP - after 1st term.				
	50908		321	M-2005A	UPC 92638	All Systems Pavement Markings Maintain & Install Pavement Markings NoVA	Mark Hagan	Mark Hagan	Maint		\$6,287,820		\$6,287,820	\$0	0%			N/A	N/A	R	Already Federal	R	R	N/A	\$0	Y	06/09 Back on as Econ Stim Project.	03/09 - Proposed Economic Stimulus Project. New UPC assigned. 05/09 - Working with DOPMO / CO to get project established in SYIP. No longer Economic Stim project. To be part of statewide federally funded contract. Ad date not known. 06/09 - Back on as Econ Stim Project. This project will be used as prototype to get all 10 Markers Markings projects to ad. Dee Audet is leading the charge. Child project of T7640.					
	39662		321	FM-2005A	UPC 93511	All Systems Pavement Markings Maintain & Install Pavement Marking KG, SP, ST	Mark Hagan	Mark Hagan	Maint		\$710,680		\$710,680	\$0	0%			N/A	N/A	R	Already Federal	R	R	N/A	\$0	N	06/09 Back on as Econ Stim Project.	03/09 - Proposed Economic Stimulus Project. New UPC assigned. 05/09 - Working with DOPMO / CO to get project established in SYIP. No longer Economic Stim project, contract in development to include performance provisions. 06/09 - Back on as Econ Stim Project. Child project of T7640 Pavement Marking Eradication - statewide contract. The \$100,000 estimate is for Northern Region Operations.					
	50908		321	M-88		Eradication - Pavement Marking Removal (Paynes) (con 25385)	Steve Settle	Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N						
Org 50909 Signs									\$260,000	\$0	\$0	\$260,000																					
	50909		310	M-78 / M-79		Wood & Steel Post (con 18608)	Robert Weakly	Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N						
	50909		310	M-2015		Signs: Panel Replacement	Robert Weakly	Mark Hagan	Maint	\$10,000			\$10,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$10,000	N		Partially funded - need of \$200,000.				
	50909		310	M-7034B		O/H Sign Structures Maintenance Contract	Robert Weakly	Mark Hagan	Maint	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N		Related to T-7034A - Removal or replacement of damaged signs by the contractor.				
	50909		310	M-2016		Signs: Interstate: Maintenance Life-Cycle Preventative Maintenance - NoVA	Robert Weakly	Mark Hagan	Maint	\$25,000			\$25,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$25,000	N		Partially funded - need of \$100,000. 08/08 - DA approved 6/30, DP to ASD 07/01 - Buyer assigned 10/08 - To ASD 07/01; commence 8/29 or later 07/09 - Yearly Maintenance by state forces				
	50909		310	M-2018		Signs: Primary: Maintenance Life-Cycle Preventative Maintenance - NoVA	Robert Weakly	Mark Hagan	Maint	\$25,000			\$25,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$25,000	N		Partially funded - need of \$200,000.				

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										VDOT Process				Federal Process				Both		Project Information				Attention Needed	Completed / Xferred Local	ITS Project				
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10					Project to Date		ITS Internal Review N/A Required Pending Completed Date	BARB N/A Required Pending Completed Date	PD Forms N/A Required Completed	Advance Construction N/A Required Completed	TIP (R) / STIP N/A Required Included	CEDAR (R) N/A Required Approved Pending	Rule 940 Checklist N/A Required Submitted Date Approved	Amount Authorized	FHWA Oversight? (Y/N)	STATUS	History												
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date												Total Expend. vs. Total Auth.											
Org 50923 Communications & Highway Lighting Total \$ for 50923 - Maint									\$8,315,179	\$415,000	\$2,429,230	\$11,159,409																											
	30962	1119007	M-2055			Deploy and Manage a Reliability-Focused Operations Maintenance Program for ITS Power and Telecomm	Mark Hagan	Mark Hagan	Maint	Salary			Salary									Salary	N	07/09 Added to Work Plan	FY-10 NRO Business Strategic Initiative #10 - Deploy and manage a reliability-focused operations maintenance program for the ITS core systems of power and telecommunications focused on grounding, surge protection, and system fault management. Components of the program should include UPS for critical location CCTV, traffic signals, and fixed variable message signs. (Lead: Ops Mnt with SE). 07/09 - Added to Work Plan.														
	50923	1119007	M-2022			Storage Container Rental William Scottsman	D. Bailey	Mark Hagan	Maint	\$1,000			\$1,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$1,000	N	06/09 Storage container returned; awaiting final bill	06/09 - Storage container returned; awaiting final bill													
	50923	660	M-61			TMC Utility Locating and Marking (Mid-Atlantic) (con 25047)	St. Clair	Mark Hagan	Maint	\$75,936			\$75,936	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$75,936	N	05/09 Bids closed on 5/11/09.	Mark Hagan indicated that Maint is a small user of this contract led by Leslie Parnell. TMC utility locating and markings by Mid-Atlantic Utility Locating. 05/09 - Bids closed on 5/11/09. No award yet. 07/09 - Partially funded - need of \$100,000													
	50923	1117018	M-2047			TAMS (I-66, I-95, I-395, I-495)	St. Clair	Mark Hagan	Maint	\$1,500,000			\$1,500,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$1,500,000	N		07/01/09 - Reduced \$800 K per Morteza													
	50923	380	M-2061IL			Utility - Electricity Cost - Interstate Lighting Dominion Power - NoVA Only	Mark Hagan	Mark Hagan	Maint	\$1,300,000			\$1,300,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$1,300,000	N		07/09 - Added to the work plan													
	50923	380	M-66			Roadway Lighting Interstate (Lighting Maintenance) (con 23001) NoVA Only	D. Bailey / Mike St. Clair	Mark Hagan	Maint	\$415,000			\$415,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$415,000	N															
	50923	380	FM-66			Roadway Lighting Interstate (Lighting Maintenance) (con 23001) FRBG Only	D. Bailey / Mike St. Clair	Mark Hagan	Maint		\$15,000		\$15,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$15,000	N	Funded by FRBG.	10/08 - To DP 7/30/08, DP awaiting approval T&M auth. Partially funded - NoVA need of \$2,200,000													
	50923	667	M-2006A			ITS Field Equipment (Lot 1) HOV Gates, LSC VMS - Transcore	D. Bailey	Mark Hagan	Maint	\$1,000,000			\$1,000,000	\$0	0%	\$0	0%	N/A	N/A	N/A	R	N/A	\$1,000,000	N		10/08 - Contract awarded to Transcore 9/19 for three years, kick-off on 10/2. 12/08 - Dick indicated that the contractor will take down DMS signs no longer working and beyond repair.													
	50923	631	M-2006B M-2023	UPC 90448		ITS Field Equipment (Lot 2) CCTV, Communications - NoVA Only	Mark Hagan	Mark Hagan	Maint	\$661,243		\$929,230	\$1,590,473	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	A	N/A	\$1,526,473	Y	06/30/09 Funding alert issued. 90448's Expan. = 94% of allocations.	Partially funded. Unmet need of \$900 K. 10/08 - Contract awarded to Transcore 9/19 for three years, kick-off on 10/2 12/08 - Dick indicated that the contractor will take down DMS signs no longer working and beyond repair. 06/30/09 - Funding alert issued. UPC 90448's Expenditures are at 94% of allocation											
	50923		M-1BI	UPC 90448		Retrofit DMS in NoVA	D. Bailey	Mark Hagan	Maint			\$1,500,000	\$1,500,000	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	P	R	\$1,500,000	Y	08/09 Testing on the lab sign was successful. Next step is testing in the field.	FY-10 NRO Strategic Initiative #14 - Implement Design - Build DMS replacements or additional units projects per the DMS Master Plan. 04/09 - Retrofit of existing DMS signs will be done by SES. Retrofit involves removing existing module and inserting SES LED, which weigh half of the normal weight. Modules attach by a ribbon cable and a small power supply in the rear of the sign. 06/03/09 - NRO Maint. held mtg w/ Structure and Bridge 06/08/09 - Additional \$1.5 M authorized. This funding is specifically designated for DMS upgrade and will be used for no other purpose. 06/09 - Revised title; Testing on the lab sign was successful; Next step is testing in the field.											
	56923	56923	FM-2006B			ITS Field Equipment (Lot 2) CCTV, Communications - FRBG Only	Mark Hagan	Mark Hagan	Maint		\$50,000		\$50,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	\$50,000	N		Funded by FRBG.													
	50923	634	M-2006C			ITS Field Equipment (Lot 3) IDS, Ramp Metering, HAR, Tunnel Detection, Truck Rollover - Transcore	Mark Hagan	Mark Hagan	Maint	\$1,012,000			\$1,012,000	\$0	0%	\$0	0%	N/A	N/A	N/A	R	N/A	\$1,000,000	N		10/08 - Contract awarded to Transcore 9/19 for three years, kick-off on 10/2. 07/09 - Increase in original allocation; added \$12K from Rosslyn Tunnel Ventilation 604 funding													
	50923	300	M-2024A			TMC Communication Support (WestCorp)	D. Bailey	Mark Hagan	Maint	\$550,000			\$550,000	\$0	0%	\$0	0%	R-STEC	TBD	N/A	In Process	R	PCE 05/01/08	R	\$550,000	N		UPC 90448 set-up in PCES for this project. No funding in FY-10 SYIP. 04/24/08 - This project / program will be funded with state funds. It should be entered in the TIP / STIP as "AC," so that we can federalize this project / program. 05/22/08 - Per Nutan Pande, "PE Data sheets (maintenance phase) and detailed estimates have been placed on the shared server for your (Emma Robinson's) review. Please let me know when the agreements have been signed so I can Open/authorize Maintenance phase." 05/22/08 - Federalization of this project continues. 08/08 - Publication imminent contingent on Federal/Programming. Per Leslie Parnell, new security measures in place for PSTOC are holding up FHWA approval/authorization. 09/09 - FHWA Reviewing; pre-bid 9/18.											
	50923	300	M-2032			Signal Systems Lease Lines (Verizon Phone Lines) NoVA Only	Mark Hagan	Mark Hagan	Maint	\$1,800,000			\$1,800,000	\$0	0%	\$0	0%	N/A	N/A	N/A	R	N/A	\$1,800,000	N															
	50923	300	FM-2032			Signal Systems Lease Lines (Verizon Phone Lines) FRBG Only	Mark Hagan	Mark Hagan	Maint		\$350,000		\$350,000	\$0	0%	\$0	0%	N/A	N/A	N/A	R	N/A	\$350,000	N		Funded by FRBG.													
Total \$ for Maint									\$14,367,228	\$1,148,775	\$9,427,730	\$24,943,733																											

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										Project Information													
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10					Project to Date		VDOT Process			Federal Process			Both		FHWA Oversight? (Y/N)	STATUS	History	Attention Needed	Completed / Xferred / Local	ITS Project		
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist							Amount Authorized	
Program Delivery									\$0	\$0	\$0	\$0																				
OPERATIONS PLANNING & PROGRAMMING (OPP)	30931		1109006	P-3016 (See E-3016)	TBD	Detector Deployment Supporting Evacuation RESF-1 (FY-08 and FY-09 UASI)	Alvin Marquess	Amy McElwain	NROPP	Salary			Funding listed in OE				R-STEC	TBD	R	Already Federal	N/A	N/A	R	Funding listed in OE	N	4/09 Transitioned NRO's coordination role to OE.	Project funding from UASI grant. Regional project - VA, MD and DC. Backup POC is JD Schneeberger. FY-08's \$225K is just VA's portion of this project, this amount is not guaranteed, finalized numbers coming. This is for the planning phase. I-95 - Telegraph Rd. to Springfield Interchange to Franconia Rd. & I-495 - ALB to Old Dominion Drive 4/09 - Transitioned NRO's coordination role to OE. OPP to continue developing project ConOps.					
	30931		1109006	P-3048		Bluetooth-based Sensors FHWA Research Project	Cathy McGhee	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	Y	08/09 Added to the WP; see history	08/09 - Added to the WP; FHWA Research Project; Phase 1 of the project is nearly complete (rep pending) to verify the validity of the technology. FHWA will fund a Phase II soon, which will involve real-time demo deployment with the sole-source vendor, Traffax.					
	30931		1109006	P-3004	N/A	Central Office Traveler Information Program (Coordination)	Scott Silva	James Witherspoon	NROPP	Salary			Salary				R-STEC	TBD	N/A	N/A	N/A	N/A	TBD	Salary	N	3/09 CO has assumed the lead role for NRO DMS Travel Time Pilot	02/22/08 - New Project identified project / program. 5/20/08 - Brian Smith provided an update. 3/09 - CO has assumed the lead role for NRO DMS Travel Time Pilot. The pilot project will use I-95 CC Probe (Inrix) Data. Scott Silva has been identified as the new lead for statewide traveler information initiatives; Project includes Travel Time Probe					
	30931		1109006	P-198	UPC 90446	Central Office - Tyson's Corner Accelerated Traveler Information Systems Project (Coordination)	JD Schneeberger / Scott Cowherd	JD Schneeberger	NROPP	Salary			Salary				R-STEC	TBD	C	Already Federal	I	N/A	Possibly	\$400,000	N	6/09 Design is near completion	2004 - Congress allocated Earmark funding to TYTRAN 3/08 - Congress rescinded the earmark fund. 03/17/08 - Working with VDOT Central Office, Mega Projects, and Tysons Corner Mall to identify funding for the project. 6/09 - Design is near completion for implementation.					
	30931		1109006	P-3003	N/A	WMATA Parking Information Feasibility Study (Coordination)	WMATA	James Witherspoon	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	N	3/23/09 Project meeting.	Serve as an NRO liaison /representative to the identified project / program. 3/23/09 - Project meeting to review final deliverables.			L		
	30931		1109006	P-3015	N/A	VDOT Roadway Construction Projects - ITS Review and Input (Coordination)	NoVA - JD Schneeberger / FRBG - J. Witherspoon	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	N	On-going	Serve as an NRO liaison /representative to the identified project / program. 3/09 - Organizing construction project ITS elements into GIS database.					
	30931		1109006	P-3014	N/A	Base Realignment And Closure (BRAC) (Coordination)	JD Schneeberger	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	N	On-going	Serve as an NRO liaison /representative to the identified project / program.					
	30931		1109006	P-3013	N/A	I-95/395 HOT Lane ITS Devices - NROPP Coordination	Larry Cloyd	Amy McElwain / JD Schneeberger	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	N	07/09 Reviewed Technical Requirements	Serve as an NRO liaison /representative to the identified project / program. 10/08 - No change since last report. 05/09 - Reviewed concept of operations 07/09 - Reviewed Technical Requirements					
	30931		1109006	P-3012	UPC 68805	I-495 HOT Lane ITS Devices - NROPP Coordination	T. Defore	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	TBD	Salary	N	6/09 - Planning and budgeting effort complete.	FY-10 focus is on implementation. JD's role is to track progress / performance w/ min coord. 05/09 - Reviewed plan set & SE participated in meetings 6/09 - Planning and budgeting effort complete.					
	30931		1109006	P-502 (see O - 60)	UPC 87396	NoVA Transportation Management Plan (TMP) - NROPP Liaison with NoVA TMP (not for NROPP time)	Nick Nicholson	JD Schneeberger	NROPP	Salary			Salary				N/A	N/A	C	Already Federal	I	A PCE 10/14/08	TBD	Salary	N	6/09 TMP planning for I-495 HOT and Dulles Rail complete	JD chairs the TMP - ITS / Incident Management Committee to develop and implement the traffic mitigation strategies. Every major projects (I-495 HOT, Dulles Rail, I-95 4th Lane Widening) has a set of strategy, budget, and issues for coordination. In addition, a Regional TMP also requires planning, budgeting, and coordination. 1/09 - Fx. Fire signed MOU. Developing ITS portable device procurement scope. 6/09 - TMP planning for I-495 HOT and Dulles Rail complete. Focus on implementation.					
	30931		1109006	P-146D (see O-146D)	OPC 86905	Dulles Rail TMP, ITS (Coordination)	JD Schneeberger	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	6/09 Planning and budgeting effort complete.	FY-10 focus is on implementation. JD's role is to track progress / performance w/ min coord. 10/08 - Waiting for Overarching MOU between VDOT, Fairfax County, & MWA to be signed. 6/09 - Planning and budgeting effort complete. JD is NRO's representative.					
	Program Evaluation									\$0	\$0	\$0	\$0																			
	30931		1109006	P-3046	N/A	NRO FY-09 Year End Report	Amy McElwain	Amy McElwain	NROPP	Salary			Salary				N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary		06/09 Drafted Outline	06/09 - Drafted Outline, FY-09 Year-End Report will not be published with professional graphic lay and design like previous years due to the release of Liz Liverman. The report will be released electronically.					
Total \$ for NROPP									\$0	\$0	\$99,956	\$99,956																				
ITS Projects Coordinating w/ NROPP																																
ITS PROJECTS COORDINATING W/ OPP				L-177	UPC 70580	City of Alexandria ITS Integration	Ravindra Raut	Teresa Butler	NROPP			\$2,352,860	\$2,352,860	\$0	0%	\$1,982	0%	R-STEC	TBD	C (71769 to 70580) 3/6/09	Already Federal	I	PCE 6/24/09	Y	\$857,000	Y	6/24/09 Project id'ed as a Programmatic Categorical Exclusion (PCE).	09/08 - Combining UPC's 71769 and 70580. 08/08 - FY-02 Earmark (\$620,489) & FY-05 Earmark (\$422,330) rescinded. FY-03 Earmark (\$745,125), originally allocated to UPC 71769, reallocated to UPC 70580 in February, 2009. 02/09 - Authorization obtained for \$857 K. Kickoff Meeting with City of Alexandria held on 2/17/09. Kickoff meeting summary: • Project will install video monitoring cameras around the City in 11 areas • Real time video is preferred. • Existing conduits will be used where feasible but some new runs will be needed. • An RFP will be issued to get survey and do some minimal design work. • There are no anticipated ROW impacts. There may be some utility conflicts. • The use of wireless may be explored as technology has advanced. 6/24/09 - Project id'ed as a Programmatic Categorical Exclusion (PCE).			L	
				L-9000	UPC 87493 91310	Transportation Systems Management and Communications Plant Upgrade - Arlington County	Khalid Gandhi	James Witherspoon	NROPP			\$4,440,000	\$4,440,000	\$721	0%	\$5,677	1%	R-STEC	TBD	C	Already Federal	I	PCE 10/16/07	R	\$500,000	Y	06/05/09 Arlington PM is Amit Sidhaye.	DMS and queue warning system on Route 50. The fiber optics portion of the project will upgrade the comm. system to support future ITS applications and existing signal controller and CCTV functionality. Project to be accomplished in several phases. PE for all phases will be accomplished under UPC 87493, breakout projects will be established for CN phases. UPC 91310 - Phase 1 installation of fiber optic cable run for 54 signals. 12/05/08 - Agreement signed by Ar. Co. Board & forwarded to Commissioner for signature. Connie Sorrell has requested NRO provide written (by Kathie) support of the project to be performed by Ar. Co. and to acknowledge that Rule 940 regulations will be addressed. 06/05/09 - Arlington PM is Amit Sidhaye. Kimley-Horn and Associates, Inc. doing the conops. It will be done over the next few weeks.			L	
				L-9004	UPC 85378	Install Video Traffic Monitoring Cameras -City of Fairfax	Dic Burke	James Witherspoon	NROPP			\$120,000	\$120,000	\$0	0%	\$2,210	11%	N/A	N/A	C	Already Federal	I	PCE 8/28/07	N/A	\$20,000	N	3/09 No update	01/08 Per Dic Burke email, agreement needed before STIP mod and project kick-off 12/08 - City is developing an RFP for the purchase of cameras. Not 940 eligible because it is just for purchase of cameras.			L	
				L-9003	UPC 82843	Manassas Incident Management Variable Message Boards	Dic Burke	James Witherspoon	NROPP			\$200,000	\$200,000	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$20,000	N	3/09 No update	12/5/07 - New Project, identified in PCES as a new FY07 RSTP project. 12/08 - Funding aut'd. Agreement is being worked on to start the development of this proj.			L	

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										Project Information											
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10				Project to Date		VDOT Process			Federal Process				Both		FHWA Oversight? (Y/N)	STATUS	History	Attention Needed	Completed / Xferred Local	ITS Project
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP / STIP	CEDAR (R)	Rule 940 Checklist						
OPERATIONS ENGINEERING (OE)	Operations Engineering									\$0	\$30,000	\$1,567,147	\$1,597,147																	
	30936		Other	E-8024	TBD	Assess 3-5 locations / year w/ recurring congestion on the interstate system	Ling Li	Ling Li	OE	Salary			Salary										N	07/09 Added to Work Plan	FY-10 NRO System Strategic Initiative #1 - Assess 3-5 locations w/ recurring congestion on the interstate system. Identify cause and corrective action alternatives to include the application of Active traffic management. Initiate corrective action(s). (Lead: OE)					
	30936		Other	E-8025	TBD	Advance the growth of a defined freeway Operations Engineering function	Ling Li	Ling Li	OE	Salary			Salary										N	07/09 Added to Work Plan	FY-10 NRO System Strategic Initiative #10A & 10C - 10. Advance the growth of a defined freeway operations engineering function, including weather systems interface, as a decision support tool for TOCs' real and near-term operating decision-making. Identify and assess potential active traffic management initiatives including VSL, Queue Warning, Dynamic Merge, and possibly managed lanes. (Lead: OE)					
	30936		Other	E-52A	UPC 77184	Ramp Metering Assessment	Nhan Vu	Ling Li	OE														Y	07/15/09 Analysis Underway	FY-10 NRO System Strategic Initiative #10B - Re-assess the use of ramp metering as an effective traffic management tool but including integration of the 'delivering' arterial road system. (Lead: OE) As noted below, this task was initiated in 04/09. 04/09 - Initiated task to evaluate / assess, from network perspective, whether or not the coordination of ramp meters on the Interstate sys w/ adjacent traffic signals on the primary is appropriate for NoVA. Determination will impact decision regarding the interface of ramp meter system w/OPEN-TMS(current sys). Per Danny Jenkins, this task is reasonable and should follow Rule 940. 07/09 - Added to Work Plan as separate project. Originally, included under E-52. 07/15/09 - Analysis Underway, running VISSIM simulation.					
	30936		Other	E-8023	TBD	I-66 HOV Lane Operational Study (Rte 234 to Rte 7)	Ling Li	Ling Li	OE		\$30,000		\$30,000	\$0	0%	\$70,000	70%						N	06/09 OSD provided \$100 K in state funds	02/09 - Study to ID potential solutions that can be implemented in the near term (1-2 yrs) to improve operations and reduce congestion on I-66 HOV lanes. Study limit - Rte 234 interchange outside the Beltway to Rte 7 interchange inside the Beltway. 03/06/09 - PM changed to Ling Li w/ Sunil's departure. 06/09 - OSD provided \$100K in state funds.					
	30936		Other	E-3016 (See P-3016)	TBD	Detector Operations Engineering I-95 - Telegraph Rd. to Springfield Interchange & I-495 - ALB to Old Dominion Drive RESF-1 (FY-08 UASI)	MD SHA Staff	Ling Li	OE			\$225,000	\$225,000		0%								N	06/09 Attended mtg to discuss preliminary information	08/08 - Project added to WP. Project funding from UASI grant. Regional project between VA, MD and DC. \$225K is just VA's portion of this project, this amount is not guaranteed, finalized numbers coming. Project is also listed in NROPP as they are doing the planning. 06/09 - Attended meeting to discuss preliminary information; contracting approach TBD. FY-09 allocation is \$1,500,000.			L		
	30936		Other	E-52B	UPC 77184	Deploy the Monty Abbas adaptive-like signal operating protocol for evaluation on an appropriate section of arterial.	Nhan Vu	Ling Li	OE														Y	07/09 Added to Work Plan	FY-10 NRO System Strategic Initiative #9C - Deploy the Monty Abbas adaptive-like signal operating protocol for evaluation on an appropriate section of arterial. (Lead: OE)					
	30936		Other	E-52	UPC 77184	Traffic Signal Timing Optimization - NoVA (AECOM) (Con 28257)	Nhan Vu	Ling Li	OE														N	08/09 JE processed	10/19/06 FY-10 NRO System Strategic Initiative #9A - Dick requested reducing optimization cycle from 4 to 2 years on average. This means some corridors should be assessed annually or even more frequently. (Lead: OE) 08/04/08 - Total auth. amt is for 6yrs - \$12M. \$2M allocated per year. 03/09-The contract has been approved for renew until April 15, 2010 06/09 - Ongoing; anticipating 2nd contract renewal in April, 2010. \$4,361,123 in total expenditures in FY-09. 08/09 - JE processed to transfer 604 expenditures to Program 603. The split was removed and all future charges will be 100% to Program 603.					
	39636		Other	FE-4	UPC 77061	Signal Integration & Timing Optimization in Stafford, Spot, KG Counties	Rick Spurlock	Nhan Vu	OE			\$1,342,147	\$1,342,147	\$0	0%	\$897	4%							Y	05/09 Funding transferred from UPCs 77062, 76912 & 76914	10/19/06 FY-10 NRO System Strategic Initiative #9A - Dick requested reducing optimization cycle from 4 to 2 years on average. This means some corridors should be assessed annually or even more frequently. (Lead: OE) MPO CMAQ / RSTP funds - Install signal coordination equipment and optimize signal timing for existing and future traffic signals on routes 1, 2/17, 3, 17, 208, 218, 301, 610 and 630 in Stafford, Spotsylvania, and King George. \$897 in total expenditures in FY-09. 05/09 - Funding transferred from UPCs 77062, 76912 & 76914. See revised description.			L	
	30936 & 39636	Total \$ for OE									\$0	\$30,000	\$1,567,147	\$1,597,147																
Projects Coordinating w/ OE	Org 30936 Projects Coordinating with OE																													
				RR-9013		Next Generation Traffic Control Systems for existing NRO Infrastructure	Cathy McGhee	Ling Li	OE	Salary			Salary										N	07/09 Reassigned to OE from Maint.	FY-10 NRO System Strategic Initiative #9B - OE is support the research intended to understand the limits of the existing traffic signal system under the growing traffic demands and needs, and to determine when/if the existing system should be replaced with a larger and more expensive migration, or re-used and retro-fitted to a certain extent. (Lead: Operations Engineering) This project will start by solving challenges related to NRO Systems (focus on NRO hardware and software needs in relation to existing levels of traffic demands), and then transfer the insights and lessons learned to the rest of the state. 09/08 - TE arranged a demo on adaptive signal control.			L		
				L-182	UPC 70586	City of Alexandria Signal Synchronization	Dic Burke	Nhan Vu	OE			\$193,000	\$193,000	\$0	0%	\$883	0%						N		Local. Analyze and design coordinated signal timings for key regionally interconnected intersections/arterials at the City's boundary with adjacent traffic signal systems. 11/19/07 Agreement done, project underway, PE only			L		
				L-176	UPC 70625	Arlington County Traffic Signal Optimization	Carol Bondurant	Nhan Vu	OE			\$890,538	\$890,538	\$376	0%	\$272,838	78%						Y		11/29/07 - On-going as long as County provides additional funding - PH1.2,3,4 are completed PH5 is nearing completion and PH6 is starting up soon.			L		
				L-9001	UPC 79275	Lee Highway Emergency Vehicle Preemption - Arlington County	Carol Bondurant	Nhan Vu	OE			\$873,439	\$873,439	\$0	0%	\$126,561	42%						N		12/6/07 - New project. 12/7/07 - Per Carol, Rule 940 req. already coordinated with ITS 08/08 - Only PE auth.			L		
				L-9007	UPC 82838	City of Fairfax - Traffic Signal Controller Upgrades	Carol Bondurant	Nhan Vu	OE			\$270,000	\$270,000	\$0	0%	\$1,101	4%						N					L		
				L-9008	UPC 84554	Traffic Signal Management System - Falls Church	Dic Burke	Nhan Vu	OE			\$300,000	\$300,000	\$0	0%	\$640	1%						N					L		
				L-185	UPC 70583	Town of Herndon Traffic Signalization	Dic Burke	Nhan Vu	OE			\$80,000	\$80,000	\$290	0%	\$3,188	4%						N		Local 11/19/07 - Agreement being executed			L		
			L-9011	UPC 70581	Town of Vienna - Traffic Signal Synchronization	Dic Burke	Nhan Vu	OE			\$75,000	\$75,000	\$0	0%	\$4,240	85%						N		04/18/08 - Added project to WP. MPO initiated and is funded from CMAQ. 06/01/09 - PCE Re-evaluation completed.			L			

**FY-10 NRO Operations Work Plan
Baseline - July 09**

Program Information									Financial Information										Project Information					Attention Needed	Completed / Xferred Local	ITS Project						
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10				Project to Date		VDOT Process			Federal Process			Both					FHWA Oversight? (Y/N)	STATUS	History			
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist	Amount Authorized							
Org 30949 Total \$ for Ops Admin									\$155,000	\$0	\$450,000	\$605,000																				
Business									\$0	\$0	\$450,000	\$450,000																				
	30949	1119007	A-403			Audit the Implementation of NR Operations Go-Forward Plan	J. Lindquist	M. Bhatia	Ops Admin	Salary			Salary											N	Ongoing	FY-10 NRO Business Strategic Initiative #3 - Audit the implementation of NR Operations Go Forward Plan by functional section to ensure that focus and direction are on track and continue to provide a planning framework for problem resolution and possible solutions enabling safe and efficient travel. Develop audit plan; engage on-call support as necessary. (Lead: Administration with Planning).						
	30949	1119007	A-404			Audit NRO Business Processes and Procedures	J. Lindquist	M. Bhatia	Ops Admin	Salary			Salary											N	08/09 Audit will include "project close-out procedures."	FY-10 NRO Business Strategic Initiative #4 - Audit NRO business processes and procedures, especially as related to effective controls. (Lead OPS ADM). 07/09 - Added to Work Plan 08/09 - Audit will include "project close-out procedures."						
	30949	1119007	A-405			Develop and Implement a Stand-Alone 604 Budget for the Northern Regional Operations	M. Bhatia	M. Bhatia	Ops Admin	Salary			Salary											N	On-going	In coordination with CO, develop and implement a stand-alone budget for the Regional Operation includes / defines the budget process, required preparation procedures, training, monitoring protocol, and revised projections. Coordinate funding mechanisms / sources with Planning. Move to fully federalized budget program as goal.						
	30949	1119007	A-408	UPC 72835		HOV Lane Enforcement and Database Development	G. Anderson	G. Anderson	Ops Admin			\$450,000	\$450,000	\$0	0%	\$1,350,000	75%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	07/14/09	Auth increased to \$1,800,000	On an annual basis, the PM is to: - Facilitate the extension of the MOU w/ the VA State Police (VSP) and the re-allocation of 603 funds to the VSP - Review the reports submitted by the State Police Database is to be developed with 604 program fund. UPC fund is solely for reimbursing VSP's HOV enforcement activities. 8/28/2007 - Per Cpt Michael Counts, increased estimate to \$450 K per year through 2014. 10/30/2008 - The MOU was extended by the Commissioner for the next six years. 07/14/09 - Auth increased to \$1,800,000.				
Performance Tracking									\$0	\$0	\$0	\$0																				
	30949	1119007	A-126			Develop and Deploy NRO Performance Measures	J. Lindquist	M. Bhatia	Ops Admin	Salary			Salary											N	07/09	Description revised to reflect FY-10 Initiatives	FY-10 NRO Business Strategic Initiative #6 - Deploy three to five key metrics for NRO to assess performance. Metrics to include: device availability (including signal system) - owner Operations Maintenance, road system reliability (period density / historic density) for I-66, I-395 - owner Operations Engineering; I-95 corridor peak period travel time DC-FBRG / FBRG-DC via INRIX - owner Operations Engineering, arterial delay - owner Operations Engineering, incident response / incident clearance - owner TOC, and intersection and corridor crash rates for NRO - owner TE. (Lead: OPS ADM). Tracking accomplished under A-127. 07/09 - Description revised to reflect FY-10 Initiatives					
	30949	1119007	A-127	OPC 88009		Track NRO Performance Measures	J. Lindquist	M. Bhatia	Ops Admin	Salary			Salary											N	07/09	Description revised to reflect FY-10 Initiatives	Supportive of FY-10 NRO Business Strategic Initiative #6. Track NRO's performance based on deployed metrics. Metric development accomplished under A-126. 12/08 - Data has been pushed to RITIS from VATraffic and Open TMS. Incident Clearing performance is getting worse - possibly because of small sample size. Comparison needs to be made between NOV 07 and NOV 08 data. 07/09 - Description revised to reflect FY-10 Initiatives					
Mega Project Coordination									\$0	\$0	\$0	\$0																				
	30949	1119007	A-413	UPC 68805		Coordinate with HOT Lane On I-495 for Integration	T. Defore	J. Lindquist	Ops Admin	Salary			Salary											No (but maintaining close coordination w/FHWA)	08/09	7 of 8 sections at 100% design.	Coordinate with I-495 HOT Lane PPTA to seek leverage opportunity for ITS / Operations investment Interface Regional Operations' objectives, plans, programs, and projects with the Fluor-Transurban I-495 PPTA to include all Regional Operations' sections. 11/20/07 - Key Milestones Concept of Operations - July 2008 Technical Specifications - September 2009 Interface Specifications - July 2008 Process Definition Deliverable (component of the ITS Architecture) - July 2009 Test Strategy - September 2009 Security Plan - July 2010 Disaster Recovery Plan - July 2010 03/09 - 3 of 8 sections at 100% design. CN under way, DMS change order still pending. 08/09 - 7 of 8 sections at 100% design.					
	30949	1119007	A-4002	UPC 70849		Coordinate with HOT Lane on I-95/395 for Integration	L. Cloyd	J. Lindquist	Ops Admin	Salary			Salary											No (but maintaining close coordination w/FHWA)	04/09	ConOps Draft submitted. Review in process.	Coordinate with I-95 HOT Lane PPTA to seek leverage opportunity for ITS / Operations investment. Interface Regional Operations' objectives, plans, programs, and projects with the Fluor-Transurban I-395 / 95 PPTA to include all Regional Operations' sections. Establish Operations PPTA working group to facilitate issue identification and resolution. 11/25/06 Working to develop a concept of operations. Meeting with subject experts. 12/19/06 Concept of Operations to be developed first quarter 2007. 04/2/09 - ConOps draft submitted. Review in process.					
Project Deployment									\$155,000	\$0	\$0	\$155,000																				
	30949	1119007	A-517	OPC 88012		IMMS Software Maintenance	J. Lindquist		Ops Admin	\$30,000			\$30,000	0%		0%	\$0	0%	R-CCB & STOB	TBD	N/A	N/A	N/A	N/A	R	08/09	In the process of being deployed this month; VDOT Techs will be using in full capacity by Sept. 1st; Transcore Techs will be using in full capacity by Oct. 1st.	Work Management System was incorporated into the VDOT NRO Field Device Management System Project Proposal. Basically, Traffic Engineering (and Maintenance) are looking to develop a process where field units can utilize PDA's uploaded with asset and work information... similar to what a UPS delivery staff uses. The Work Management System would identify the locations of devices and what needs to be maintained, installed, etc. 02/05/08 - Project Management Team established - John Lindquist, Joe Pugh, & Mark Hagan. 03/04/08 - On Feb. 26, approved by IT investment committee 08/08 - Software agreement exec. 11/08 - Data hierarchy build continues. Handhelds received, currently being configured. Waiting for SSL certificate. 03/09 - Project is ongoing. 08/09 - In the process of being deployed this month; VDOT Technicians will be using in full capacity by September 1st; Transcore Technicians will be using in full capacity by October 1st.				
	30949	1119007	A-517A			IMMS Upgrade, Phase 1 (Not paid in FY-09)	J. Lindquist		Ops Admin	\$125,000			\$125,000	0%		0%	\$0	0%	R-CCB & STOB	TBD	N/A	N/A	N/A	N/A	R	08/09	Briefing on functionality suggested by Dick Steeg at the PM Forum.	11/08 - Added back into Workplan. Funding to be provided by Maint not available. See note on A-517B. 03/09 - System in user acceptance testing 08/09 - Briefing on functionality suggested by Dick Steeg at the PM Forum.				
Org 30949 Total \$ for Ops Admin									\$155,000	\$0	\$450,000	\$605,000																				

FY-10 NRO Operations Work Plan
Baseline - July 09

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										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist	Amount Authorized							
Org 30942 Total \$ for SE									\$50,000	\$420,910	\$3,503,286	\$3,974,196																				
ITS Project Design									\$0	\$420,910	\$3,503,286	\$3,924,196																				
	30942	AG-660	S-1AI (See IC-1AI)	UPC 90113		DMS Upgrade, Phase 1 (Interstate) I-66 between I-495 & Arlington Co Line Install new (2) / upgrade existing (1) DMS on I-66 between I-95 & Arl Co. Line	Kathe Jefferson	Kathe Jefferson	SE			\$999,484	\$999,484	\$0	0%	\$516	0%	R-STEC	TBD	C	Already Federal	I	9/26/08 PCE	R	\$150,516	N	06/09/09 PE Authorized	FY-10 NRO System Strategic Initiative #14 - Implement the DMS repair program for Lake signs; Implement design-build DMS replacements or additional units projects per the DMS master plan (funding constrained); coordinate with HOT PPTA projects and other NOVA highway design projects as appropriate to avoid duplication; provide interface for traveler information system. Develop contract, and facilitate deployment. (Lead: SE and OPP). 06/09/09 - Received Notification that PE had been Authorized.				
	30942	AG-660	S-1AP (See IC-1AP)	UPC 90114		DMS Upgrade, Phase 1 (Primary, Leading to Interstate) 7 DMS Installations at arterial interchanges on I-66 between VA 123 and VA 267 (Dulles Toll Road)	Kathe Jefferson	Kathe Jefferson	SE		\$420,910	\$2,108,804	\$2,529,714	\$0	0%			R-STEC	TBD	4/15/08 C	Already Federal	R	R	R	\$0	Y	07/20/09 PE auth.	FY-10 NRO System Strategic Initiative #14 - Implement the DMS repair program for Lake signs; Implement design-build DMS replacements or additional units projects per the DMS master plan (funding constrained); coordinate with HOT PPTA projects and other NOVA highway design projects as appropriate to avoid duplication; provide interface for traveler information system. Develop contract, and facilitate deployment. (Lead: SE and OPP). 03/31/08 - Project entered into PCES. To be funded, initially, with remainder of UPC 70670's Bonus OA Funds - \$2,108,804. 06/04/08 - Funds have been allocated to this project. Working on authorization. 10/29/08 - Temporarily Deferred pending further study on UPC 86487 11/04/08 - Changing project strategy from corridor-based upgrade to spot / zone approach. Will use \$8,491 from UPC 86487 to re-plan project scope. 03/04/09 - Requested PE authorization. 07/20/09 - PE auth.				
	30942	1119006	S-7008 (See T-7008)	UPC 89880		I-66 ITS Upgrade / Installation, US 50 to I-495	Makan Abousaeedi	Kathe Jefferson	SE			\$394,998	\$394,998	\$0	0%	\$5,002	1%	R-CCB & STOB	TBD	C	Already Federal	I	PCE 8/14/08	TBD	\$400,000	N	08/09 SE provided a scaled-down project estimate. See history.	09/18/08 - Project transitioned from NROPP to SE. SE to coordinate with TE (Tom Folsie) on re- static signs and on issuing a design task order, and Open TMS (Tom Phillips) regarding the software module design and integration. 01/09 - Project on Dick's "advance" list. 04/09 - 06/09: A scaled-down version of project will be developed using previously allocated funds. SE has met with, but has not made a decision on which VIPSEP contractor will perform the work. 06/09 - NROPP worked with SE to develop a revised scope that is 100% funded by UPC 89880. This scope revision received Dick's approval: SLCS signal head upgrade, 8 new poles for SLCS and 5 CCTVs. NROPP submitted project for Bonus OA consideration to add \$200K to UPC for PE. SE is discussing the feasibility of installing the upgraded SLCS signal heads on the existing mast arms. Revised the project title.				
Telecommunications & SE Analysis									\$50,000	\$0	\$0	\$50,000																				
	30942	119006	S-506			Review and Update the NRO Telecom Master Plan	Makan Abousaeedi	Kathe Jefferson	SE	Salary			Salary					R-STEC	TBD	N/A	N/A	N/A	N/A	R	Salary	N	07/09 Description revised to reflect FY-10 Initiatives	FY-10 NRO System Strategic Initiative #15 - Review and update the telecommunications master plan for NRO, including concept of operations, architecture, and system requirements. Ensure a planned and orderly approach to telecommunications system growth, and emerging / applicable technologies. (Lead: SE and OPP). Based on DMS, CCTV, and Detection COO's and Master Plan developed by NROPP in FY-06, SE will develop and begin implementation for these assets. 12/01/08 - Makan will prepare the Telecomm Master Plan version 1.0 document by March '09. 06/09 - A draft report that chronicles the evolution and outlines the implemented design has been distributed for review. 07/09 - Description revised to reflect FY-10 Initiatives.				
	30942		S-508	UPC 80438		Installation of Closed Circuit Television Technology Evaluation Process (Tysons Corner Wireless Equipment)	Kathe Jefferson	Kathe Jefferson	SE	\$50,000		\$0	\$50,000	\$0	0%	\$445,601	100%	R-CCB & STOB	TBD	R	Already Federal	N/A	N/A	N/A	\$445,601	N	06/09 See History. 06/29/09 Auth. Increased to \$445,601	04/09 - Project is closed, but equipment is not working. SE met with TransCore to determine if the company retains the core competencies to repair the wireless equipment that is installed in Tysons Corner. In addition to funding availability, guidance is required regarding task order limits. Ops Admin releasing \$50 K to this project from A-511, Consultant Support to Admin Contracting Team. Funding was formerly NRO Contingency funding. 06/09 - A kickoff meeting with the contractor who will repair/install and configure wireless equipment in Tysons Corner was held on May 29. 604 funds were made available for the contract. Field work began in June 10. 06/22/09 - Requested Auth. increase to \$445,601. Cameras are working; however, SE will continue to fine tune them; funded by \$50 K in FY-10 604 funds. 06/29/09 - Auth. Increased to \$445,601.				
	30942	1119006	S-215			SESITS - Systems Engineering Source for ITS Technology System	Kathe Jefferson	Kathe Jefferson	SE	Salary			Salary					N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	07/09 Description revised to reflect FY-10 Initiatives	FY-10 NRO Business Strategic Initiative #8 - Advance SESITES as a technical resource (technical issues tracking process, development of appropriate procedures and query system, and team site) with the MC Dean IMMS work management tracking system to manage / address issues associated with failed system components (hardware) and the potential impact on system operation and / or replacement requirements; as well as to provide technical resource support. (Lead: SE). This initiative is the corollary to the FY-06 project development function of System Engineering. 06/09 - Unfunded need of \$150,000. 07/09 - Description revised to reflect FY-10 Initiatives.				
Org 30942 Total \$ for SE									\$50,000	\$420,910	\$3,503,286	\$3,974,196																				
Projects Coordinating with SE																																
			L-9002	UPC 79276		Signal System Grounding @ Various Locations in Arlington County	Carol Bondurant	Kathe Jefferson	SE			\$1,000,000	\$1,000,000	\$0	0%	\$6,712		R-STEC	TBD	N/A	R	R	PCE 8/29/07	S	\$75,000	Y	5/09 Project Status - Temp Deferred	12/6/07 - New project. 12/7/07 - Per Carol, Rule 940 req. already coordinated with ITS 5/09 - Project Status - Temp Deferred (Decision)			L	

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information								VDOT Process				Federal Process				Both			Project Information				
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10				Project to Date		ITS Internal Review	BARB	PD Forms	Advance Construction	TIP ⁽¹⁶⁾ / STIP	CEDAR ⁽⁸⁾	Rule 940 Checklist	Amount Authorized	FHWA Oversight ⁽⁹⁾ Y / N	STATUS	History	Attention Needed	Completed / Xferred Local	ITS Project			
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations															Total Expenditures to Date	Total Expend. vs. Total Auth.	
Traffic Engineering									\$1,461,184	\$651,194	\$16,758,822	\$18,871,200																				
Org 30934 TE Initiatives and Admn									\$183,584	\$277,739	\$0	\$461,323																				
	30934		1109008	T-7095		Identify and Communicate w/ Stakeholders; Manage Expectations, As Appropriate	Hari Sripathi	Hari Sripathi	TE	Salary			Salary											N	07/09 Added to Work Plan	FY-10 NRO Business Strategic Initiative #12 - Develop and implement a defined step in the Traffic Engineering, and Operations Planning and Programming studies / project development processes that clearly identify stakeholder input or notification requirements, especially with elected officials, to facilitate effective communication and manage expectations as appropriate. (Lead: TE with OPP). 07/09 - Added to Work Plan.						
	30934		1109017	T-7049	OPC TBD	Land Use Permits / Street Acceptance - NoVA Only		Hari Sripathi	TE	\$33,584			\$33,584	\$0	0%	\$0	0%							N	On-going	Partially funded - need of \$75,000.						
	30934		1109003	T-7051	OPC TBD	TED Traffic Counts (con 28742) NoVA Only		Hari Sripathi	TE		\$250,779		\$250,779	\$0	0%	\$0	0%							N	On-going	Funded by TED / CO.						
	30934	39613	1109003	FT-7051	OPC TBD	TED Traffic Counts (con 28742) FRBG Only		Hari Sripathi	TE		\$26,960		\$26,960	\$0	0%	\$0	0%							N	On-going	Funded by TED / CO.						
	30934		1109008	T-7010	OPC 82459	TE Studies- Utilize Consultant Services to perform traffic signal, speed studies	Randy Dittberner	Randy Dittberner	TE	\$150,000			\$150,000	\$0	0%	\$0	0%							N	On-going	Supportive of FY-10 NRO System Strategic Initiatives #'s 6 and 7. Utilize consultant services to perform traffic signal, speed studies and other traffic engineering studies, on an as needed basis. Partially funded - need of \$400,000.						
	30934		1109008	T-7008 (See S-7008)	UPC 89880	I-66 ITS Upgrade / Installation, US 50 to I-495	Kathe Jefferson	Hari Sripathi	TE	Salary			Funding listed in SE S-7008											N	See S-7008 for current status.	Morning operating hours are 5:30 am to 11 am and the evening hours are 2 pm to 8 pm. 09/18/08 - Project transitioned from NROPP to SE. SE to coordinate with TE (Tom Folse) on related static signs and ATMS (Tom Phillips) regarding the software module design and integration.						
Org 30934 Projects Managed by Kamal Suliman									\$800,000	\$373,455	\$3,730,765	\$4,904,220																				
	30934		1109008	T-68 (See IC-68, 331)	OPC 82978	Signals: Modifications to Traffic Signals - NoVA Only	Mary Lou Pagano	Kamal Suliman	TE	\$500,000			\$500,000	\$0	0%	\$0	0%							N	On-going, as Needed	T-68 may be a source of funds for signal design or for signal design work. itself, for projects implemented by signal installation contracts associated w/ IC-331, IC-332, & FIC-333. IC-68 may be a source of funding for the implementation phase. Partially funded - need of \$800,000.						
	39613	Asset 300		FT-68	OPC TBD	Signals: Modifications to Traffic Signals - FRBG Only	Mary Lou Pagano	Kamal Suliman	TE		\$26,040		\$26,040	\$0	0%	\$0	0%							N	7/1/09 New project	New project in FY-10. Partially funded - need of \$168,100						
	30934	Asset 310		T-105A	OPC TBD	Primary Sign Modifications - NoVA	Kamal Suliman	Kamal Suliman	TE	\$100,000			\$100,000	\$0	0%	\$0	0%							N	7/1/09	Control of funding moved from Maint to TE. TE will reallocate \$ as needed to NRO Maint for each sign mod. By managing the funding, TE will know when the upset limit for sign modifications is reached.						
	39613	Asset 310		FT-105A	OPC TBD	Primary Sign Modifications - FRBG	Kamal Suliman	Kamal Suliman	TE		\$50,000		\$50,000	\$0	0%	\$0	0%							N	See History							
	30934		1119008	T-7032	UPC 71164	Signals: Design & Environmental Work for Installation of New Signals	Mary Lou Pagano	Kamal Suliman	TE		\$39,154		\$39,154	\$0	0%	\$329,846	89%							N	02/09 Add'l funds allocated	Child project of UPC 70661 - DW NOVA Primary Signals. \$329,846 total expenditures in FY-09. 02/09 - Additional funds allocated to UPC.						
	30934		1109008	T-108B	UPC 82197	Signal: Arlington County Route 309 @ N. 26th Street	Kamal Suliman	Kamal Suliman	TE			\$141,884	\$141,884	\$0	0%	\$813	5%							N	5/20/09 Waiting on agreement with county	Child project of UPC 87354 (NRO Regional Primary Signal) \$813 in expenditures in FY-09. 3/30/09 - FHWA authorizes PE phase. 5/20/09 - Waiting on agreement with county to proceed.						
	30934		1109008	T-520	UPC 87561	Signal: Rte 244 & Bailey's Crossroads Shopping Center Entrance	Kamal Suliman	Kamal Suliman	TE			\$318,731	\$318,731	\$0	0%	\$6,269	2%							N	06/09 CN has begun.	Child project of UPC 87354 (NRO Regional Signal) \$6,269 in expenditures in FY-09. 04/17/09 - PE Authorization approved. 06/09 - CN has begun.						
	30962	Other		FT-7023	UPC 88613	Signal: Rte 3 & Ladies Corner Rd (King George) (Developer Funded)	Paul Balderson	Kamal Suliman	TE		\$35,052	To cover deficit	\$35,052	\$0	0%	\$215,052	119%							N	07/09 See History.	01/30/08 - Developer providing funding. 07/09 - Developer needs to cover deficit.						
	30934		1109008	T-7019	UPC 88670	Signal: US 1 & Route 1202 (Janna Lee Avenue) (Fairfax County)	Kamal Suliman	Kamal Suliman	TE			\$349,827	\$349,827	\$0	0%	\$173	0%							N	07/09 Project has R/W issues, L&D Engineer assigned	Child project of UPC 87354, No. Region Primary Signals. \$173 in expenditures in FY-09. 03/06/09 - Bill C. requested CO approval to construct w/ state funds due to R/W impacts. 04/17/09 - PE Authorization approved. 06/16/09 - Project on track for July, '10 ad. No response to Bill C.'s 03/06/09 request to CO. 07/09 - Project has R/W issues, L&D Engineer assigned.						
	30934		1109008	T-7020	UPC 88671	Signal: US 1 & Route 764 (Roseade Court) (P. Wm. County)	Kamal Suliman	Kamal Suliman	TE			\$325,000	\$325,000	\$0	0%	\$0	0%							N	07/09 Project has R/W issues, L&D Eng. assigned	Child project of UPC 87354, No. Region Primary Signals. \$0 in expenditures in FY-09. 06/16/09 - Project on track for July, 2010 ad. 07/09 - Project has R/W issues, L&D Engineer assigned.						
	30934		1119008	T-7021	UPC 92642	Signal: PED Improvements/Signals @ US 1 & Cherry Hill Road / Allen Dent Road (P. Wm. County)	Kamal Suliman	Kamal Suliman	TE			\$248,859	\$248,859	\$0	0%	\$1,141	2%							N	07/16/09 Expect to begin CN in Jan., 2010.	Child project of UPC 87354, Northern Region Primary Signals. \$1,141 in expenditures in FY-09. 4/24/09 - PE Auth. 7/16/09 - Expect to begin CN (Regional contractor) in Jan., 2010.						
	30934		1119008	T-7060	UPC 92643	Signal: Rte 193 @ River Bend Rd.	Kamal Suliman	Kamal Suliman	TE			\$218,212	\$218,212	\$0	0%	\$1,788	1%							N	07/13/09 CN auth.	Child project of UPC 87354, Northern Region Primary Signals. \$1,788 total expenditures in FY-09. 03/27/09 - PE phase authorized. 04/13/09 - Additional funds were allocated to the project to cover the cost increase. 07/09 - Plans completed. CN authorized.						
	30934		1109008	T-7072	UPC 92742	Signal: US 1 & Celestial Dr.	Kamal Suliman	Kamal Suliman	TE			\$324,579	\$324,579	\$0	0%	\$421	1%							N	07/06/09 PE Underway	Child project of UPC 87354, Northern Region Primary Signals. \$421 total expenditures in FY-09. 03/27/09 - PE phase authorized by FHWA. 07/06/09 - PE Underway.						
	30934		1109008	T-7071	UPC 92743	Signal: US 15 & US 15 Business	Kamal Suliman	Kamal Suliman	TE			\$94,747	\$94,747	\$0	0%	\$253	3%							N	07/06/09 PE Underway	Child project of UPC 87354, Northern Region Primary Signals. \$253 total expenditures in FY-09. 03/27/09 - PE phase authorized by FHWA. 07/06/09 - PE Underway.						
	30934		1109008	T-7070	UPC 92744	Signal: US 15 & Harmony Church Rd	Kamal Suliman	Kamal Suliman	TE			\$208,236	\$208,236	\$0	0%	\$954	8%							N	07/06/09 PE Underway	Child project of UPC 87354, Northern Region Primary Signals. \$954 total expenditures in FY-09. 03/27/09 - PE phase authorized by FHWA. 07/06/09 - PE Underway.						
	30934		1119008	T-7022	UPC 94225	Signal: PED Improvements / Signals @ US 1 & Gunston Road / Gunston Cove Road (Fairfax County)	Kamal Suliman	Kamal Suliman	TE			\$110,569	\$110,569	\$0	0%									N	7/06/09 New project.	Child project of UPC 81414, NoVA DW Traffic Signals & ITS. \$0 in expenditures in FY-09. 7/06/09 - New project. Requested Programming to begin authorization process.						
	30934		1109008	T-7028	UPC 73469	Install Various Traffic Signs (Interstate)	Kamal Suliman	Kamal Suliman	TE			\$200,000	\$200,000	\$0	0%									N	On-going	This is an active project w/ unscheduled, as-needed construction. Child Project of UPC 70656, DW NOVA Interstate Signs. 6/19/09 - \$241,491 in expenditures through FY-09.						
	30934		1109008	T-7028A	UPC TBD	Operations Modifications to Stringfellow and Monument Dr. HOV Ramps to Support non-HOV Mobility	Kamal Suliman	Kamal Suliman	TE				Funding included in UPC 73469	\$0	0%	\$241,491	37%							N	05/09 SE proposed this location / project to be a test site for DMS reconditioning.	04/09 - Project funded by UPC 73469, Install Various Traffic Signs. Kamal is pursuing sign modification funding; working with FHWA, project status is pending. 05/09 - At staff meeting, Kamal provided information on the Stringfellow Road/Monument Drive/HCV Lane project. After a discussion of technologies and presentation of plans for managing traffic at these locations, we determined that the most prudent course of action is to get the existing DMS working. Proposed this location/project as a test site for DMS reconditioning.						
	30934		1109008	T-105	UPC 73868	Install Various Traffic Signs (Primary)	Kamal Suliman	Kamal Suliman	TE		\$4,838		\$4,838	\$0	0%	\$685,382	99%							N	06/09 Closed to further expenditures.	Child project of 70663, NOVA DW Primary Signs. Estimated annual need of \$130,000. 06/09 - Project is closed to further expenditures. \$685,382 in expenditures through FY-09. Project is seriously underfunded.						
	30934		1109008	T-7026	UPC 89759	Sign Inventory Plan Development	Kamal Suliman	Kamal Suliman	TE			\$226,709	\$226,709	\$0	0%	\$23,291	9%							N	07/09 Assessment completed	02/08 - New Project. Funding comes from UPC 70649, DW Interstate ITS. 10/08 - Missing activity date 22 in PCEs. 6/19/09 - \$23,291 in expenditures through FY-09. 07/09 - Assessment completed. Need to decide how to use remaining funds.						

FY-10 NRO Operations Work Plan
Baseline - July 09

Program Information									Financial Information										VDOT Process				Federal Process				Both		Project Information				
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	FY-10					Project to Date		ITS Internal Review	BARB	PD Forms	Advance Construction	TIP (R) / STIP	CEDAR (R)	Rule 940 Checklist	Amount Authorized	FHWA Oversight? (Y/N)	STATUS	History	Attention Needed	Completed / Xferred Local	ITS Project			
										SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date															Total Expend. vs. Total Auth.	N/A Required Pending Completed Date	N/A Required Pending Completed Date
	30934	Asset 321	T-7089	OPC TBD	Primary Pavement Marking Modifications - NoVA	Kamal Suliman	Kamal Suliman	TE	\$200,000			\$200,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	\$200,000	N									
	30934	Asset 321	FT-7089	OPC TBD	Primary Pavement Marking Modifications - FRBG	Kamal Suliman	Kamal Suliman	TE		\$45,000		\$45,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	\$45,000	N									
	30934	1109008	T-7054	UPC 89657	Statewide Upgrade of Pavement Markings to B6 Tape on I-495 (Rte 611 Fairfax Cty to Rte 613 Fairfax Cty)	Kamal Suliman	Kamal Suliman	TE			\$16,500	\$16,500	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	N/A	\$1,600	N									
	30934	1109008	T-7055	UPC 89663	Statewide Upgrade of Pavement Markings to B6 Tape on I-395 (Rte 648 Fairfax Cty to VA/DC State Line)	Kamal Suliman	Kamal Suliman	TE			\$91,000	\$91,000	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	N/A	\$6,000	N	07/09								
	30934	1109008	T-7056	UPC 89664	Statewide Upgrade of Pavement Markings to B6 Tape on I-95 (Russell Rd Pr Wm Cty Line to Rte 7100 Fairfax Cty Line)	Kamal Suliman	Kamal Suliman	TE			\$118,000	\$118,000	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	4/29/09	\$8,000	N	07/09								
	30934	1109008	T-7057	UPC 89666	Upgrade of Pavement Markings at I-66 Gore Areas (Rte 110 Arlington Cty Line to Rte 15 Pr Wm Cty Line)	Kamal Suliman	Kamal Suliman	TE			\$180,000	\$180,000	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	N/A	\$10,000	N	07/09								
	30934	1109008	T-7059	UPC 89658	Statewide Upgrade to Centerline Rumble Strip (Rte 1 - Caroline County Line to Fairfax County Line)	Kamal Suliman	Kamal Suliman	TE			\$182,000	\$182,000	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	N/A	\$17,000	N	07/09								
	30934	1109008	T-7087	UPC 89661	Statewide Upgrade to Centerline Rumble Strip (Rte 15 - SR 721 Orange Cty to SR 657 Loudoun Cty)	Kamal Suliman	Kamal Suliman	TE			\$189,000	\$189,000	\$0	0%	\$0	0%	N/A	N/A	C	N/A	R	6/29/09	\$19,000	N	07/09								
	30934	1109008	T-115A	UPC 71165 OPC 90121	Guardrail - Primary Design & Environmental Work for Installation of New Guardrail	Kamal Suliman	Kamal Suliman	TE		\$4,011		\$4,011	\$0	0%	\$186	4%	N/A	N/A	05/09 C	N/A	N/A	A 7/6/04	\$4,197	N	04/09								
	30934	1109008	T-115B	UPC 79984	Install Guardrail Districtwide on Primary System	Kamal Suliman	Kamal Suliman	TE		\$169,360		\$169,360	\$0	0%	\$252,586	77%	N/A	N/A	05/09 C	N/A	N/A	N/A	\$328,000	N	05/09								
	30934	1109008	T-7027	UPC 89760	Interstate Guardrail Design and Survey	Kamal Suliman	Kamal Suliman	TE			\$186,912	\$186,912	\$0	0%	\$13,088	7%	N/A	N/A	04/23/08 C	Already Federal	R	PCE 7/8/08	\$200,000	N	07/09								
					Org 30934 Projects Managed by Tom Folse				\$0	\$0	\$10,403,992	\$10,403,992																					
TRAFFIC ENGINEERING (TE)	30934	Other	FT-7029	UPC 80531	Replace Three O/H Sign Structures on Interstate 95 SBL	Tom Folse	Tom Folse	TE			\$351,795	\$351,795	\$0	0%	\$23,205	31%	N/A	N/A	C	Already Federal	N/A	PCE 4/07/06	\$75,000	N	07/09								
	30934	1119008	T-7033	UPC 86924	Replacement of Traffic High Mast Str.	Tom Folse	Tom Folse	TE			\$584,818	\$584,818	\$0	0%	\$31,862	64%	N/A	N/A	C	Already Federal	I STIP #T-4152	SERP Exemption Notification 6/30/08	N/A	\$50,000	N	07/09							
	30934	1119008	T-7034A	UPC 86925	Replacement of O/H Traffic Sign Structures, Priority 1 & 2	Tom Folse	Tom Folse	TE			\$1,364,012	\$1,364,012	\$0	0%	\$97,748	122%	N/A	N/A	C	Already Federal	I STIP #T-4152	Env. certification checklist verified as complete.	N/A	\$80,000	Y	07/09							
	30934	1109008	T-523	UPC 86523	Install Guardrail - Rte 9 Vicinity of VA 687 (Sagle Road)	Tom Folse	Tom Folse	TE			\$164,740	\$164,740	\$0	0%	\$16,122	54%	N/A	N/A	C	Already Federal	I 7/8/08	A 7/21/08	N/A	\$30,000	N	10/08							
	30934	1109008	T-7086	UPC 86526	Route 124 - Crosswalk Safety Improvements	Tom Folse	Tom Folse	TE			\$227,083	\$227,083	\$0	0%	\$2,450	3%	N/A	N/A	C	Already Federal	I	R	N/A	\$93,000	N	07/09							
	30934	1109008	T-7042	UPC 86511	Signal: US 1 @ Frye Road - Install Crosswalk with Flashing Warning Signs	Tom Folse	Tom Folse	TE			\$257,053	\$257,053	\$0	0%	\$32,947	37%	N/A	N/A	C	Already Federal	I	PCE 4/28/08	N/A	\$88,000	N	06/16/09							
	30934	1109008	T-7114	UPC 94637	ARRA Flashing Beacon Warning System at Waxpool & Rte. 28	Tom Folse	Tom Folse	TE			\$500,000	\$500,000	\$0	0%			N/A	N/A	R	Already Federal	R	R	R	\$0	Y	08/09							
	30934	1109008	T-7115	UPC 94638	ARRA LED Signal Head & PED Countdown in Loudoun County	Tom Folse	Tom Folse	TE			\$1,000,000	\$1,000,000	\$0	0%			N/A	N/A	R	Already Federal	R	R	R	\$0	Y	08/09							
	30934	1109008	T-7116	UPC 94640	ARRA Installation of UPS on Major Signals in Loudoun County	Tom Folse	Tom Folse	TE			\$1,200,000	\$1,200,000	\$0	0%			N/A	N/A	R	Already Federal	R	R	R	\$0	Y	08/09							
	30934	1109008	T-7117	UPC 94641	ARRA Pavement Markings in Loudoun County	Tom Folse	Tom Folse	TE			\$400,000	\$400,000	\$0	0%			N/A	N/A	R	Already Federal	R	R	R	\$0	Y	08/09							
30934	1109008	T-7053	UPC 91946	Improve VA 28 @ Old Centreville Road & Blooms Quarry Lane	Tom Folse	Tom Folse	TE			\$597,000	\$597,000	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$150,000	N	07/09								
30934	1109008	T-525	UPC 86333	LTL Extension from SB Rt 28 to I-66 EB	Tom Folse	Tom Folse	TE			\$427,109	\$427,109	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$98,000	N	6/04/09								

**FY-10 NRO Operations Work Plan
Baseline - July 09**

Program Information									Financial Information										VDOT Process				Federal Process				Both		Project Information					
									FY-10					Project to Date					ITS Internal Review	BARB	PD Forms	Advance Construction	TIP / STIP	CEDAR (R)	Rule 940 Checklist	Amount Authorized	FHWA Oversight? (Y/N)	STATUS	History			Attention Needed	Completed / Xferred Local	ITS Project
Section	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Project Manager	NRO Contact	Section	SoSYP (State)	Other State & Local	Federal + Match	Total Funding	FY-10 Expenditures	FY-10 Spent vs. FY-10 Allocations	Total Expenditures to Date	Total Expend. vs. Total Auth.	N/A Required Pending Completed Date	N/A Required Pending Completed Date	N/A Required Completed	N/A Required Completed	N/A Required Included	N/A Required Approved Pending	N/A Required Submitted Date Approved	Amount Authorized	FHWA Oversight? (Y/N)	STATUS	History			Attention Needed	Completed / Xferred Local	ITS Project	
	30934		1109008	T-7091	UPC 90199	Install Roadway Lighting on Columbia Pike From S. Dinwiddie St. to S. Buchanan St.	Tom Folse	Tom Folse	TE			\$165,450	\$165,450	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$55,150	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7092	UPC 90200	Install Roadway Lighting on Columbia Pike From George Mason Dr to Glebe Rd	Tom Folse	Tom Folse	TE			\$364,665	\$364,665	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$121,555	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7093	UPC 90202	Install Roadway Lighting on Columbia Pike From Glebe Rd to S. Wayne St	Tom Folse	Tom Folse	TE			\$364,665	\$364,665	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$121,555	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7094	UPC 90203	Install Roadway Lighting on Arlington Blvd At Patrick Henry Blvd	Tom Folse	Tom Folse	TE			\$137,312	\$137,312	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$46,146	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7095	UPC 90204	Install Roadway Lighting on Richmond Hwy. From Engleside St to Brevard Crt	Tom Folse	Tom Folse	TE			\$451,329	\$451,329	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$150,818	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7096	UPC 90205	Install Roadway Lighting on Richmond Hwy. From Dawn Dr to Shields Ave	Tom Folse	Tom Folse	TE			\$364,665	\$364,665	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$121,555	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7097	UPC 90207	Install Roadway Lighting on Little River Turnpike @ Hummer Road	Tom Folse	Tom Folse	TE			\$563,880	\$563,880	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$187,960	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7098	UPC 90209	Install Roadway Lighting on Little River Turnpike @ Beauregard St	Tom Folse	Tom Folse	TE			\$336,527	\$336,527	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$112,551	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7099	UPC 90210	Install Roadway Lighting on Leesburg Pike @ Glen Carlyn Drive	Tom Folse	Tom Folse	TE			\$121,555	\$121,555	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$40,518	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7100	UPC 90212	Install Roadway Lighting on Arlington Blvd @ Graham Rd	Tom Folse	Tom Folse	TE			\$194,714	\$194,714	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$65,280	N	07/09 New project	07/09 - New project						
	30934		1109008	T-7101	UPC 90254	Install Roadway Lighting on Richmond Hwy. From Janna Lee, Rte 120, to Ladson Lane, Rte 621	Tom Folse	Tom Folse	TE			\$265,620	\$265,620	\$0	0%	\$0	0%	N/A	N/A	C	Already Federal	I	R	N/A	\$88,915	N	07/09 New project	07/09 - New project						
				Org 30934		Projects Managed by Randy Dittberner			TE	\$477,600	\$0	\$2,624,065	\$3,101,665																					
TRAFFIC ENGINEERING (TE)	30934		1109008	T-7012	OPC TBD	Corridor Assessment of Capacity and Safety	Randy Dittberner	Randy Dittberner	TE	\$150,000			\$150,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$150,000	N	07/09 Description revised to reflect FY-10 Initiatives	FY-10 NRO System Strategic Initiative #6 - Institutionalize the proactive arterial corridor assessment process focused on safety, mobility, and access management for the region's congested arterials with a focus on quick delivery improvements through a combination of signal phasing, signal timing, signage, pavement marking, select traffic management measures and related incidental construction Program, develop, and implement recommendations. (Lead: Traffic Engineering with Operations). The following corridors have been identified as needing assessment: Waxpool Road (T-7004), Van Dorn Street (T-7005), US 29 / Vint Hill Road (T-7006). Partially funded - need of \$200,000. 07/09 - Description revised to reflect FY-10 Initiatives						
	30934		1109008	T-382	OPC TBD	Intersection Safety Assessment & Implementation Program	Randy Dittberner	Randy Dittberner	TE	\$100,000			\$100,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100,000	N	07/09 Description revised to reflect FY-10 Initiatives	FY-10 NRO System Strategic Initiative #7 - Institutionalize the proactive intersection condition assessment process to identify quick improvement opportunities through more effective signage, pavement marking, and pavement messaging to improve flow and safety; develop a similar assessment process for area interstate sections (whole or part) as appropriate; concurrently, support recommendations and develop solutions regarding the Statewide Strategic Safety Plan as applicable to NRO. (Lead: Traffic Engineering) Partially funded - need of \$250,000. 07/09 - Description revised to reflect FY-10 Initiatives						
	30934		1109008	T-7013		Develop and Maintain an Incidental Construction Services Contract	Randy Dittberner	Randy Dittberner	TE	Salary			Salary					N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	07/09 Added to Work Plan	FY-10 NRO System Strategic Initiative #8 - Develop and implement an incidental construction services contract to support the implementation of recommendations from the proactive corridor assessment process, and proactive intersection assessment process to improve delivery of safety and mobility solutions. (Lead: Traffic Engineering with Operations Admn.) 07/09 - Added to Work Plan.						
	30934		1109008	T-7010	OPC 82459	TE Studies- Utilize Consultant Services to perform traffic signal, speed studies	Randy Dittberner	Randy Dittberner	TE	\$150,000			\$150,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$150,000	N	07/09 On-going	Supportive of FY-10 NRO System Strategic Initiatives #s 6 and 7. Utilize consultant services to perform traffic signal, speed studies and other traffic engineering studies, on an as needed basis. Partially funded - need of \$400,000.						
	30934	20901	1109008	T-7079	OPC 91116	Study: Rte 236 @ Prosperity & Woodburn	Al Padgett	Randy Dittberner	TE	\$18,200			\$18,200	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$18,200	N	07/09 Deliverables nearly completed.	Supportive of FY-10 NRO System Strategic Initiative #7. PB Contract #27256, Task Order# 42 07/09 - Deliverables nearly completed.						
	30934		1109008	T-7077	OPC 91117	Study: Braddock & Backlick	Robert Jastrzebski	Randy Dittberner	TE	\$23,400			\$23,400	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$23,400	N	07/09 Deliverables received	Supportive of FY-10 NRO System Strategic Initiative #7. PB Contract #27256, Task Order# 35 07/09 - Deliverables received and under review by TE.						
	30934		1109008	T-7080	OPC 92133	Safety Study: Logmill & Parnell Crt.	Robert Jastrzebski	Randy Dittberner	TE	\$36,000			\$36,000	\$0	0%	\$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$36,000	N	07/09 Underway; consultant working on phase II	Supportive of FY-10 NRO System Strategic Initiative #7. PB Contract #27256, Task Order# 46 07/09 - Underway; consultant working on phase II, being funded by the Residency						
	30934		1109008	T-7069	UPC TBD	TE Study on I-66 Shoulder Lane Operations	Randy Dittberner	Randy Dittberner	TE	Salary			Salary					N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	02/09 Added New Project	02/09 - Added Project to Work Plan. Project purpose - Study to look into strategies.						
	30962		1109008	FT - 7083	OPC TBD	Study: Rte 3 Corridor	Randy Dittberner	Randy Dittberner	TE	Salary			Salary					N/A	N/A	N/A	N/A	N/A	N/A	N/A	Salary	N	07/09 Underway; study should be completed in the next couple of months.	Supportive of FY-10 NRO System Strategic Initiative #6. VDOT's Traffic Engineering Section is embarking on a study of Route 3 west of Fredericksburg. The study limits extend from the intersection with Carl D. Silver Parkway to the intersection of Andora Drive (Route 626) and Center Avenue (Route 760). 07/09 - Underway; study should be completed in the next couple of months.						
	30934		1109008	T-7078	UPC 81410	Districtwide Roadway Safety Assessment - NoVA	Randy Dittberner	Randy Dittberner	TE			\$1,366,490	\$1,366,490	\$0	0%	\$30,048	2%	N/A	N/A	C	Already Federal	I	Y	N/A	\$1,396,538	Y	07/09 Ongoing	Supportive of FY-10 NRO System Strategic Initiative #6. PB Contract #27256, Task Order# 37 FY-07 HSIP Funding. From CEDAR's Additional Project Description, "To provide safety countermeasures at high crash locations in candidate Highway Safety Corridor roadway segments as CN will need to follow Environmental processes individually." 8/05/08 - Per Kamal, "... I envision some expenditures charged to UPC 81410 for the development of projects once specific locations and scope are identified." 6/19/09 - \$30,048 in expenditures through FY-09.						
	30962		1109008	FT-7078	UPC 81378	Districtwide Roadway Safety Assessment - FRBG	Rick Spurlock	Randy Dittberner	TE			\$145,955	\$145,955	\$0	0%	\$138,379	43%	N/A	N/A	C	Already Federal	I	Y	N/A	\$320,111	N	07/09 Ongoing	Supportive of FY-10 NRO System Strategic Initiative #6. FY-07 HSIP Funding. From the POOL's Project Purpose, "Provide safety countermeasures at high crash locations in candidate Highway Safety Corridor roadway segments." Rick Spurlock is the PM. NRO TE involvement may be minimal. 6/19/09 - \$138,379 in expenditures through FY-09.						
	30934		1119008	T-524	UPC's to be Assigned	Various Projects to be Funded by UPC 86659, High Risk Rural Roads in NoVA (HSIP Funding)	Randy Dittberner	Randy Dittberner	TE			\$538,729	\$538,729	\$0	0%			N/A	N/A	R	Already Federal	R	R	N/A		N		Various Projects to be Funded by UPC 86659, High Risk Rural Roads in NoVA. Each project must be set-up in PCES and funds must be allocated to it from the parent UPC, 86659.						
	30934		1119008	T-7045	UPC's to be Assigned	Various Projects to be Funded by UPC 88639, Bottleneck Mitigation & Safety Improvement Program	Randy Dittberner	Randy Dittberner	TE			\$572,891	\$572,891	\$0	0%			N/A	N/A	R	Already Federal	R	R	N/A		N		Various Projects to be Funded by UPC 88639, Bottleneck Mitigation & Safety Improvement Program. Each project must be set-up in PCES and funds must be allocated to it from the parent UPC, 88639. 01/09 - PE Authorization Requested (\$98 k)						
							Total \$ TE			\$1,461,184	\$651,194	\$16,758,822	\$18,871,200																					

APPENDIX B – VDOT NRO FY-10 FUNDING PLAN

*(Excluding Traffic Engineering funding plan due to the large size.
Contact NROPP for more information.)*

FY-10 NRO Funding Plan for ATMS

No	Category	Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Section	Project / Activity Category	FY-10 Funding Need	604 SoSYP NoVA	ATMS Replacement (Advanced Transportation Management System)	PSTOC (Software & Hardware) Transition Planning	TOC Ongoing Operations - ASSIST (Telvent Farradyne)	(Unfunded Need)
												UPC 84368	UPC 82668	UPC 61247	
												\$1,535,948	\$1,630,000	\$2,798,940	
ATMS															
	ATMS	30933		1118007	n/a	n/a	Labor - ATMS Tech Support	ATMS	1 - Salary & Overhead	\$582,984	\$582,984				\$0
	ATMS	30933		1118007	n/a	n/a	Misc Overhead / Supplies	ATMS	1 - Salary & Overhead	\$30,000	\$30,000				\$0
	ATMS	30933		1118007	n/a	n/a	Support Contracts, Computer Refresh, Network Supplies & Replacement Parts	ATMS	1 - Salary & Overhead	\$100,000	\$100,000				\$0
	ATMS	30933		1118007	n/a	n/a	Equipment Trucks (1355)	ATMS	1 - Salary & Overhead	\$15,000	\$15,000				\$0
	ATMS	30933		Fed UPC 84368	AT-26A	UPC 84368	Operation Management - Open TMS Development and Integration (Con 27095)	ATMS	3 - Core Project	\$1,300,000		\$1,300,000			\$0
	ATMS	30933			AT-8004		Maintenance of Database Structure, Dataset, and Interface for the NoVA Freeway Sys by VA Tech	ATMS	4 - Strategic Project	Salary					Salary
	ATMS	30933		1118007	AT-26C(2)		NoVA District Lane Closure System	ATMS	4 - Strategic Project	Salary					Salary
	ATMS	30933		1118007	AT-8015A (See M-8015A)		Vehicle Detection Upgrade - I-66 & I-395	ATMS	3 - Core Project	Salary					Salary
	ATMS	30933		1118007	AT-8	UPC 84368	Fairfax County CAD Integration with Open TMS	ATMS	4 - Strategic Project	\$200,000		\$200,000			\$0
	ATMS	30933		1118007	AT-7		LCAMS - Phase II (VA Traffic and Open TMS Integration) - Coordinate with Central Office	ATMS	4 - Strategic Project	Salary					Salary
	ATMS	30933		1118007	AT-10		CO Integration of Open TMS with VA Traffic - Coordinate with Central Office	ATMS	4 - Strategic Project	Salary					Salary
	ITS Project Engineering	30931		1109006	AT-506B		IP Migration Phase II: DMS & Other ITS Devices	ATMS	3 - Core Project	\$100,000	\$0				(\$100,000)
	ATMS	30933		1118007	AT-42	n/a	Signal MIST Support (Telvent) Con 21284	ATMS	3 - Core Project	\$80,000	\$80,000				\$0
	ATMS	30933		Other	AT-30	UPC 61247	ATMS / Assist System Administration and Maintenance (Open Roads) (Con 27095)	ATMS	2 - Core Activity	\$500,000				\$500,000	\$0
	ATMS	30933		Other	AT-30A	UPC 61247	Assist Support (Telvent)	ATMS	2 - Core Activity	\$300,000				\$300,000	\$0
	ATMS	30933		Other	AT-30B	UPC 61247	Recondition and Migrate the Gate Subsystem to Window Server and Open TMS PE - ConOps, Requirements, and System Mock-Up	ATMS	2 - Core Activity	\$60,000				\$60,000	\$0
	ATMS	30933		Other	AT-30C	UPC 61247	Migrate Lane Control Signal System to Open TMS	ATMS	2 - Core Activity	\$200,000				\$200,000	\$0
	ATMS	30933		Other	AT-30D	UPC 61247	Migrate Ramp Metering System to Open TMS	ATMS	2 - Core Activity	Funding covered by UPC 61247					Funding covered by UPC 61247
	ATMS	30933		Other	AT-15	UPC 82668	PSTOC SW/HW Transition Planning & Moving (Kimley-Horn Associates)	ATMS	2 - Core Activity	\$1,571,366			\$1,571,366		\$58,634

FY-10 NRO Funding Plan - Maintenance

APPENDIX B

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	604 (SoSYP) Federal	Preventative Maintenance ITS Field Devices (Includes Field Equipment for Lots 1, 2, & 3)	(Unfunded Need)
									UPC (TBD)	UPC 90448	
Maintenance											
30962		1119007			Labor - Main Admin (1123)	\$701,615	\$701,615				\$0
30962		1109007	M-75O		Overhead / Office Supplies (1312)	\$30,000	\$30,000				\$0
30962		1109007			TFO Operating Cost (1312)	\$102,000	\$102,000				\$0
30962		1109007			Equipment - Maint Admin (1355)	\$15,000	\$15,000				\$0
50907		Asset 300			Labor Signals - NoVA Only	\$907,256	\$907,256				\$0
39662		Asset 300			Labor Signals - FRBG Only	\$258,066		\$258,066			\$0
50907		1119007			Overhead / Office Supplies - NoVA Only	\$30,000	\$30,000				\$0
39662		Asset 300			Overhead / Office Supplies - FRBG Only	\$25,000		\$25,000			\$0
50907		Asset 300	M-67TE		Test Equipment	\$20,000	\$20,000				\$0
50907		Asset 300			Equipment - Trucks (1355) NoVA Only	\$649,254	\$649,254				\$0
39662		Asset 300			Equipment - Trucks (1355) FRBG Only	\$150,000		\$150,000			\$0
50907		1119006			IMSA Training	\$6,000	\$6,000				\$0
50907		1119006			Electronic Tech Certification	\$10,000	\$10,000				\$0
39662		Asset 300			Materials / Parts - FRBG Only	\$125,000		\$125,000			\$0
50907		Asset 300	M-72		Traffic Signal / Ops/ Maint Arlington	\$991,000	\$991,000				\$0
50907		Asset 300	M-2060		Utility - Electricity Cost - NOVEC	\$396,000	\$396,000				\$0
50907		Asset 300	M-2061		Utility - Electricity Cost - Dominion Power - NoVA Only	\$1,115,000	\$1,115,000				\$0
39662		Asset 300	FM-2061		Utility - Electricity Cost - Dominion Power - FRBG Only	\$150,000		\$150,000			\$0
50907		Asset 300	M-71		Traffic Signals Conflict Monitoring - NoVA	\$25,000	\$25,000				\$0
50907		Asset 300	M-70		Traffic Signal Control Cabinets - NoVA	\$800,000	\$400,000				(\$400,000)
39662		Asset 300	FM-70		Traffic Signal Control Cabinets (FRBG)	\$50,000	\$0				(\$50,000)
39662		Asset 300	FM-2027		Traffic Signal Controllers (FRBG)	\$10,000	\$0				(\$10,000)
50907		Asset 300	M-2025		Pedestrian Countdown Signal Program	\$300,000	\$100,000				(\$200,000)
50907		Asset 300	M-2004		LED Upgrade	\$200,000	\$100,000				(\$100,000)
50907		Asset 300	M-513		Traffic Signal Upgrade UPS	\$300,000	\$100,000				(\$200,000)
50907			M-2026		Furnish Accessible Pedestrian Push Buttons (American Lighting Technologies) (con 27265)	\$2,000	\$0				(\$2,000)
39662		Asset 300	FM-2034		Communication Items (FRBG) Cable Plant Install, Modem & IC Prom Chip	\$250,000	\$0				(\$250,000)
50907		1118007	M-8015A (See AT-8015A)		Vehicle Detection Upgrade - I-66 & I-395	Salary	Salary				Salary
50907			M-2062		Correct Utility Conduit Flooding	TBD					TBD
50908		Asset 321			Labor - Pavement - NoVA Only	\$492,756	\$492,756				\$0
39662		Asset 321			Labor - Pavement - FRBG Only	\$123,189		\$123,189			\$0
50908		Asset 321	M-2057		Reflective Metering	\$45,000	\$45,000				\$0
50908		1119007			Miscellaneous Overhead / Office Supplies	\$30,000	\$30,000				\$0
50908		Asset 321			Maintenance Equipment - Trucks (1355) NoVA Only	\$256,032	\$256,032				\$0
39662		Asset 321			Maintenance Equipment - Trucks (1355) FRBG Only	\$30,000		\$30,000			\$0
50908		Asset 321	M-84, 85, & 87		Pavement Marking - Thermoplastic, Latex, Perform Marking, Glass Beads - NoVA Only	\$168,000	\$168,000				\$0
39662		Asset 321	FM-84, 85, & 87		Pavement Marking Materials - FRBG Only	\$161,000		\$161,000			\$0
50908		Asset 321	M-2005 / M-2000		Pavement Marking Contracts for Fairfax, Arlington, PW, Loudoun - NoVA Only	\$6,200,000	\$2,252,049				(\$3,947,951)
50908		Asset 321	M-2005A	UPC 92638	All Systems Pavement Markings Maintain & Install Pavement Markings - NoVA	\$6,287,820					(\$6,287,820)
39662		Asset 321	FM-303 / FM-304		Pavement Marking Contracts for FRBG Only	\$422,775		\$422,775			\$0
39662		Asset 321	FM-2005A	UPC 93511	All Systems Pavement Markings Maintain & Install Pavement Markings - FRBG	\$710,680					(\$710,680)
50908		Asset 321	M-88		Eradication - Remove Pavement Markings	\$100,000	\$100,000				\$0
50908			M-2044		RWIS Utilities	\$5,000	\$0				(\$5,000)
50909		Asset 310			Labor - Signs - NoVA Only	\$1,243,353	\$1,243,353				\$0
39662		Asset 310			Labor - Signs - FRBG Only	\$20,808		\$20,808			\$0
50909		Asset 310			Maint Sign Equipment - Trucks 1355 - NoVA Only	\$393,000	\$393,000				\$0
39662		Asset 310			Maint Sign Equipment - Trucks 1355 - FRBG Only	\$30,000		\$30,000			\$0
50909		50909			Miscellaneous Overhead / Office Supplies	\$30,000	\$30,000				\$0

FY-10 NRO Funding Plan - Maintenance

APPENDIX B

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	604 (SoSYP) Federal	Preventative Maintenance ITS Field Devices (Includes Field Equipment for Lots 1, 2, & 3)	(Unfunded Need)
									UPC (TBD)	UPC 90448	
										\$1,590,473	
39662		Asset 310			Materials - FRBG Only	\$97,192		\$97,192			\$0
50909		Asset 310	M-78 & M-79		Wood & Steel Post	\$100,000	\$100,000				\$0
50909		Asset 310	M-2015		Signs: Panel Replacements	\$200,000	\$10,000				(\$190,000)
50909		Asset 310	M-7034B		O/H Sign Structures Maintenance Contract	\$100,000	\$100,000				\$0
50909		Asset 310	M-2016		Signs: Interstate Maintenance Life Cycle Repair - NoVA	\$100,000	\$25,000				(\$75,000)
50909		Asset 310	FM-2017		Signs: Interstate: Maintenance Life-Cycle Preventative Maintenance - FRBG	\$20,000	\$0				(\$20,000)
50909		Asset 310	M-2018		Signs: Primary Maintenance Life Cycle Repair - NoVA	\$200,000	\$25,000				(\$175,000)
50909		Asset 310	FM-2019		Signs: Primary: Maintenance Life-Cycle Preventative Maintenance - FRBG	\$40,000	\$0				(\$40,000)
50909		Asset 310	M-2028		Sign Inventory and Condition Assessment	TBD	\$0				TBD
50909		Asset 300	M-2056		Comm Line for Portable DMS Signs	\$9,600	\$0				(\$9,600)
50923		Asset/Rte or UPC			Labor - Maint. (Comm & Highway Lighting F.F.)	\$890,960	\$823,266	\$67,694			\$0
50923		1119007			Miscellaneous Overhead / Office Supplies	\$36,478	\$36,478				\$0
50923		Asset/Rte or UPC			Maintenance Equipment (Trucks Acct. 1355)	\$300,240	\$300,240				\$0
50923		1119007	M-2022		Storage Container Rental William Scottsman	\$1,000	\$1,000				\$0
50923		660	M-61		TMC Utility Locating and Marking	\$175,936	\$75,936				(\$100,000)
50923		1117018	M-2047		TAMS (I-66, I-95, I-395, I-495)	\$1,500,000	\$1,500,000				\$0
50923		Asset 380	M-2061IL		Utilities Interstate Lighting (Dominion)	\$1,300,000	\$1,300,000				\$0
50923		Asset 380	M-66		Roadway Lighting Interstate (Lighting Maintenance) (con 23001) NoVA Only	\$2,200,000	\$415,000				(\$1,785,000)
39662		Asset 380	FM-66		Roadway Lighting Interstate (Lighting Maintenance) FRBG Only	\$15,000		\$15,000			\$0
50923		667	M-2006A		ITS Field Equipment (Lot 1) HOV Gates, LSC VMS - Transcore	\$1,000,000	\$1,000,000				\$0
50923			M-206BD		Remove DMS Infrastructure By Lot 1 Contractor	\$300,000	\$0				(\$300,000)
50923		631	M-2006B		ITS Field Equipment (Lot 2) CCTV, Comm - Transcore - NoVA Only	\$2,490,895	\$661,243	\$838,757	\$90,473		(\$900,422)
50923			M-2023	UPC 90448	NRO - Preventative Maintenance Services for ITS Systems						
50923			M-1B1	UPC 90448	Retrofit DMS in NoVA	\$1,500,000			\$1,500,000		\$0
39662		631	FM-2006B		ITS Field Equipment (Lot 2) CCTV, Comm - Transcore - FRBG Only	\$50,000		\$50,000			\$0
50923		664	M-2006C		ITS Field Equipment (Lot 3) IDS, Ramp Metering, HAR, Tunnel Detection, Truck Rollover - Transcore	\$1,012,000	\$1,012,000				\$0
50923		300	M-2024A		STSS Communication Support WES Corp	\$550,000	\$550,000				\$0
50923		1119007	M-8010		Temp Labor - HOV Gate Repair	\$20,000	\$0				(\$20,000)
50923		Asset 300	M-2032		Signal Systems Lease Lines (Verizon Phone Lines) NoVA Only	\$1,800,000	\$1,800,000				\$0
39662		Asset 300	FM-2032		Signal Systems Lease Lines (Verizon Phone Lines) FRBG Only	\$350,000		\$350,000			\$0
30942		1118007	M-100		Trunk Cable Network Improvements, as needed	\$50,000	\$0				(\$50,000)
39662			M-2046		Arlington County- Lighting Pole Life-Cycle Replacement	\$200,000	\$0				(\$200,000)

FY-10 NRO Funding Plan - Planning Programming

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	DMS Upgrade - Districtwide Interstate - Con Op	NRO Architecture Expansion, Maintenance, and Enhancement	NRO Strategic Program Plan	Research Funds	T2 Federal Funds	TOC Ongoing Operations - ASSIST (Telvent Farradyne)	Regional Evacuation Traffic Monitoring Mgmt Tool- UASI Grant	(Unfunded Need)
									UPC 86487	UPC 72979	UPC 72980			UPC 61247	UPC TBD	
									\$8,272	\$91,684	\$0	\$0	\$0	\$2,798,940	\$225,000	
Planning & Programming																
30931		1119007	P-4110		Labor - OPP / Operations Planning Staff - Entire staff NoVA only	\$145,047	\$145,047									\$0
39612		1119007			Labor - OPP / Operations Planning Staff - FRBG only FRBG Only	\$7,634		\$7,634								\$0
30931		1119007 & 1119006			Labor - OPP / Operations Planning Staff - Entire Staff - NoVA only	\$432,462	\$432,462									\$0
39612		1109006			Labor - OPP / Operations Planning Staff - Entire Staff - FRBG only	\$22,761		\$22,761								\$0
30931		1119007			OH/Supplies/OPP Equipment (Pool Car) - NoVA only	\$23,495	\$23,495									\$0
30931		1119007			OH/Supplies/OPP Equipment (Pool Car) - FRBG only	\$6,505		\$6,505								\$0
30931		1109006	P-503(11)		Develop Future NRO Strategic Investment Program Plan (SIPP) - FY-11	Salary	Salary									Salary
30931		1109006	P-417		Develop Operations Project Tracking Database and Team Site Interface	Salary	Salary									Salary
30931		1109006	P-3046		NRO FY-09 Year-End Report	Salary	Salary									Salary
30931		1109006	P-3005	N/A	Central Office Planning - SOPP Development (Coordination)	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3026	TBD	MOITS Strategic Plan	Salary	Salary									Salary
30931		1109006	P-3024		DRPT ITS Strategic Plan (Coordination with DRPT)	Salary	Salary									Salary/Staff Aug
30931		1109006	P-3007	N/A	Central Office Statewide ITS Architecture Development	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3006	N/A	Central Office Long-Term ITS Planning (Coordination)	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3008		VTrans2035 Development (Coordination)	Salary	Salary									Salary
30931		1109006	P-506D	UPC 89883	Develop Master Plan and ConOps for Active Traffic Management	\$500,000	\$0									(\$500,000)
30931		1109006	P-506C	UPC 86487	Review, Update & Harmonize NRO's Master Plans for ITS Infrastructure	\$68,272			\$8,272							(\$60,000)
30931		1109006	P-3017		ITS Project Development: Technology Corridor Bundle & ATM Strategy	Salary	Salary									Salary
30931		1109006	P-3016 (See E-3016)	TBD	RESF-1 (FY-08 & 09 UASI) Detection Devices on (Location TBD)	Funding listed in OE									Funding listed in OE	Funded listed in OE
30931		1109006	P-3004	n/a	Central Office - Traveler Information Program (Coordination)	Salary	Salary									Salary
30931		1109006	P-198	UPC 90446	Central Office - Tyson's Corner Accelerated Traveler Information Systems Project (Coordination)	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3003	N/A	WMATA Parking Information Feasibility Study (Coordination)	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3015	n/a	VDOT Roadway Construction Projects ITS Review and Input (Coordination)	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3013	n/a	I-95/395 HOT Lane ITS Devices NROPP Coordination	Salary	Salary									Salary / Staff Aug
30931		1109006	P-3012	n/a	I-495 HOT Lane ITS Devices NROPP Coordination	Salary	Salary									Salary / Staff Aug
30931		1109006	P-504	OPC 87737	Prepare for Federalizing Ops Program (non-NRO Reviews)	\$8,000	\$0									(\$8,000)
30931		1109006	P-140	OPC 83088	NRO Outreach Program	\$15,000	\$0									(\$15,000)
30931		1109006	P-411L9(10)	OPC 91212	Staff Augmentation for Communication Team	\$105,000	\$0									(\$105,000)
30931		1109006	P-411L6(10)	OPC 91212	Staff Augmentation for Planning Team	\$410,000	\$0									(\$410,000)
30931		1109006	P-411L8(10)		Staff Augmentation for Programming Team	\$142,000	\$0									(\$142,000)
30931		1109006	P-133	OPC 87412 UPC 72980	NRO Strategic Program Plan	\$50,000	\$0				\$0					(\$50,000)
30931		1109006	P-3027	OPC 83084 UPC 72979	Architecture Systems Engineering Training	\$10,000	\$0			\$0			\$0			(\$10,000)
30931		1109006	P-130	UPC 72979	NRO Architecture Maintenance & Enhancement	\$91,684	\$0			\$91,684						\$0
30931		1109006	P-3028		Technology Transfer Operations Scan Tour	\$10,000	\$0						\$0			(\$10,000)
30931		1109006	P-3021		Critical Infrastructure Study	\$70,000	\$0									(\$70,000)
30931		1109006	P-3029		Education Material on Benefits of ITS & Operations	\$10,000	\$0						\$0			(\$10,000)

FY-10 NRO Funding Plan - Operations Engineering

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Section	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	Signal Optimization & Timing in Stafford, Spot, KG Counties	Ramp Metering Assessment	(Unfunded Need)
										UPC 77061	UPC 77184	
										\$1,342,147	\$8,688,877	
Operations Engineering												
30936		1118008			Labor - Signal Freeway Systems Ops - NoVA	Operations Engineering	\$535,475	\$535,475				\$0
39636		1119007			Labor - Signal Freeway Systems Ops - FRBG	Operations Engineering	\$44,030		\$44,030			\$0
30936		1118008			Miscellaneous Overhead / Supplies	Operations Engineering	\$30,000	\$30,000				\$0
30936		1118008			Rental Equipment for 3 pool vehicles & 4 new trucks	Operations Engineering	\$22,500	\$22,500				\$0
30936		Other	E-8023	TBD	I-66 HOV Lane Operational Study (Rte 234 to Rte 7)	Operations Engineering	\$30,000					(\$30,000)
39636			FE-4	UPC 77061	Signal Integration & Timing Optimization in Stafford, Spot, KG Counties	Operations Engineering	\$1,342,147			\$1,342,147		\$0
30936		Other	E-52A	UPC 77184	Ramp Metering Assessment	Operations Engineering	\$2,000,000				\$2,000,000	\$0
30936			E-3016 (See P-3016)		RESF-1 (FY-08& 09 UASI) Detection Devices on (Location TBD)		\$225,000					(\$225,000)
30936			FE-8024	TBD	Signal Network Planning		\$200,000					(\$200,000)

FY-10 NRO Funding Plan - Operations Administration

APPENDIX B

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	HOV Lane Enforcement and Database Development	(Unfunded Need)
									UPC 72835	
									\$450,000	
Operations Administration										
30949		1119007	A-510L		Labor - Ops Management - NoVA charge	\$546,994	\$546,994			\$0
39610		1119007			Labor - Ops Management - FRBG charge	\$28,789		\$28,789		\$0
30949		1119007			O/H - Misc Supplies	\$30,000	\$30,000			\$0
30949		1119007			Equipment (1355)	\$11,584	\$11,584			\$0
30949		1119007	A-405		Develop and Implement a Stand-Alone 604 Budget for the Northern Regional Operations	Salary	Salary			Salary
30949		1119007	A-517	OPC 88012	IMMS Software Maintenance	\$30,000	\$30,000			\$0
30949		1119007	A-408	UPC 72835	HOV Lane Enforcement and Database Development	\$450,000			\$450,000	\$0
30949		1119007	A-413	UPC 68805	Coordinate with HOT Lane On I-495 for Integration	Salary	Salary			Salary
30949		1119007	A-403		Audit the Implementation of NR Operations Go-Forward Plan	Salary	Salary			Salary
30949		1119007	A-4002	UPC 70849	Coordinate with HOT Lane on I-95/395 for Integration	Salary	Salary			Salary
30949		1119007	A-127		Develop and Track NRO Performance Measures	Salary	Salary			Salary
30949		1119007	A-517A		IMMS Upgrade, Phase 1	\$125,000	\$125,000			\$0
30949		1119007	A-126	OPC 88009	Develop and Deploy NRO Performance Measures	Salary	Salary			Salary

FY-10 NRO Funding Plan - Systems Engineering

CSC	ID	Tracking Code	Project Name	Section	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	Upgrade / Install ITS Devices on I-66 between US 50 & I-495	DMS Upgrade, Phase 1A (Interstate) I-66 between I-495 & Arlington Co Line	DMS Upgrade, Phase 1 (Primary, Leading to Interstate) I-66 from US 50 @ Fair Oaks to DC Line	(Unfunded Need)
								UPC 89880	UPC 90113	UPC 90114	
								\$394,571	\$999,484	\$2,529,714	
Systems Engineering											
1109006	S-509E		SE Equipment (Trucks 1355)	SE	\$20,000	\$20,000					\$0
1109006	n/a		Lab Equipment	SE	\$25,000	\$25,000					\$0
1109006	S-509S		Miscellaneous Overhead / SE Supplies	SE	\$30,000	\$30,000					\$0
1109006			Computer Software	SE	\$5,000	\$5,000					\$0
1119007			Labor - SE - Staff Plus SE Manager Salary	SE	\$179,629	\$179,629					\$0
1109006	S-509L		Labor - SE - Staff & Mgmt NoVA Charge	SE	\$527,408	\$527,408					\$0
1109006			Labor - SE - Staff & Mgmt FRBG Charge	SE	\$37,216		\$37,216				\$0
1109006	Other	S-6001B	IP Network Maintenance	SE	\$20,000	\$0					(\$20,000)
1118007	FS-9	TBD	Upgrade / Improve Cameras in FRBG	SE	\$100,000	\$0					(\$100,000)
1109006	S-506		Develop & Implement NRO Telecom Plan for Remaining NRO Assets	SE	Salary	Salary					Salary
1109006	S-10 (See FO-10)	UPC 73693	PSTOC - FRBG TOC Fiber Connection	SE	\$10,000,000	\$0					(\$10,000,000)
1109006	S-3001	UPC 89883	I-66 - Evaluate Deployment of the Next Generation Traffic Management Tools (VSL, Queue Warning) US 50 to I-495 - Planning	SE	\$50,000	\$0					(\$50,000)
1109006	S-6017		Standardize the Configuration of ITS Cabinets	SE	\$150,000	\$0					(\$150,000)
1119006	S-7008 (See T-7008)	UPC 89880	I-66 ITS Upgrade / Installation, US 50 to I-495 (SLCS)	SE	\$394,571		\$394,571				\$0
AG-660	S-1AP	UPC 90114	DMS Upgrade, Phase 1 (Primary, Leading to Interstate) - I-66 from US 50 @ Fair Oaks to DC Line	SE	\$2,529,714					\$2,529,714	\$0
AG-660	S-1AI (See IC-1AI)	UPC 90113	DMS Upgrade, Phase 1A (Interstate) - I-66 between I-495 & Arlington Co Line	SE	\$999,484			\$999,484			\$0
1109006	S-508	UPC 80438	Installation of Closed Circuit Television: Technology Evaluation Process (Tysons Corner Wireless Equipment)	SE	\$50,000	\$50,000					\$0
1109006	S-6018	TBD	Demonstrate Video Incident Detection along I-66 Shoulder	SE	\$1,537,200	\$0					(\$1,537,200)
1109006	S-6002	UPC 92826	I-66 Shoulder-Lane Control Sys (SLS) Upgrade US 50 to I-495: 5 CCTV, 40 VEH Det, 122 Video Det, 56 SLCS	SE	\$7,863,000						(\$7,863,000)
1109006	FS-6014	UPC 92818	DMS for the N-S Safety Evacuation Corridor I-95 PW Co Line - Spotsylvania Co Line: 3 DMS Upgrade, 13 CCTV	SE	\$2,000,000						(\$2,000,000)
1109006	FS-6015	UPC 92855	DMS for the N-S Safety Evacuation Corridor I-95 Stafford Co Line to Caroline Co Line: 2 DMS (incl 1 upgrade), 7 CCTV	SE	\$1,455,000						(\$1,455,000)
1109006	S-6010	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 495 to Rte 644 / Franconia: 1 DMS Upgrade	SE	\$487,500	\$0					(\$487,500)
1109006	S-6011	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 644 / Franconia to Rte 642 / Lorton: 4 DMS Upgrade	SE	\$1,950,000	\$0					(\$1,950,000)
1109006	S-6012	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 642 / Lorton to Prince William Co Line: 2 DMS Upgrade	SE	\$975,000	\$0					(\$975,000)
1109006	S-6013	UPC 92828	DMS for the N-S Safety Evacuation Corridor I-95, Ffx Co Line to Rte 3000 / PW Pkwy: 2 DMS Upgrade, 1 CCTV I-95, Rte 3000 / PW Pkwy to Rt. 234: 3 DMS Upgrade, 1 CCTV I-95, Rte 234 to Stafford Co. Line: 1 DMS Upgrade, 2 CCTV	SE	\$2,720,000						(\$2,720,000)
1109006	S-6009	UPC 92831	DMS for the N-S Safety Evacuation Corridor I-395, Rte 236 / Alex City Line - I-495	SE	\$1,230,000						(\$1,230,000)
1109006	S-6008	UPC 92829	DMS for the N-S Safety Evacuation Corridor I-395, Rte 7 / Arl Co. Line to Rte 236 / Fairfax Co Line	SE	\$1,200,000						(\$1,200,000)
1109006	S-6007	UPC 92830	DMS for the N-S Safety Evacuation Corridor I-395, DC Line to Rte 120 I-395, Rte 120 to Rte 7 / Alexandria City Line	SE	\$2,110,000						(\$2,110,000)
1109006	S-6006	UPC 92833	DMS for the N-S Safety Evacuation Corridor US 110, I-66 to I-395: 1 DMS (upgrade), 1 CCTV	SE	\$480,000						(\$480,000)
1109006	S-6005	UPC 92825	I-66 Technology Corridor FFX Co Line to 234 Business: 2 DMS (both upgrade, 6 veh det)	SE	\$800,000						(\$800,000)
1109006	S-6004	UPC 92832	I-66 Technology Corridor Arl. Co Line to I-495: 2 DMS (incl 1 upgrade) I-495 to Rte 50: 5 DMS (incl 1 upgrade) Rte 50 to Prince William Co Line: 6 DMS (all upgrade)	SE	\$5,675,000						(\$5,675,000)
1109006	FS-6016	UPC 92857	Stafford & Spotsylvania Add 30 miles of communication fiber along I-95 to support ITS	SE	\$9,000,000						(\$9,000,000)
1109006	S-6003	UPC 92823	I-66 Technology Corridor DC Line to Fairfax Co. Line: 4 DMS (incl 2 upgrade)	SE	\$2,475,000						(\$2,475,000)
1109006	S-217A	N/A	Trunk Cable Network Improvements, as needed	SE	\$50,000	\$0					(\$50,000)
1109006	S-215		SESITS - Systems Engineering Source for ITS Technology System	SE	\$150,000	\$0					(\$150,000)
1109006	S-6019		Workforce Development Program - Technology Research	SE	\$50,000	\$0					(\$50,000)

FY-10 NRO Funding Plan - Traffic Operations

Org Code	Sub Org Code	CSC	ID	Tracking Code	Project Name	Section	FY-10 Funding Need	604 SoSYP NoVA	604 SoSYP FRBG	604 (SoSYP) Federal UPC (TBD)	NoVA TMC & SSP Labor-Staffing Services UPC 84224	FRBG TMC SSP Labor Staffing Services UPC 94575	SSP: 14th Street Bridge UPC 69132	(Unfunded Need)
											\$6,028,098	\$585,372	\$1,403,942	
Traffic Operations														
30935	30935	660 UPC 84224	n/a		Labor - All Traffic Ops; Admin. Salaries, included OPS Manager's Salary	Traffic Ops	\$420,215	\$0		\$420,215				\$0
30935	30935	1118007	n/a		Miscellaneous Overhead / Office Supplies & Toner	Traffic Ops	\$30,000	\$30,000						\$0
30935	30935	1118007			Phones - landline, cell, data lines (\$26,000/mo)	Traffic Ops	\$312,000	\$312,000						\$0
30935	30935	1118007			TOC Copier at PSTOC	Traffic Ops	\$3,100	\$3,100						\$0
30935	30935	1118007			Overhead - PSTOC Annual & Telephones (billed separately)	Traffic Ops	\$400,000	\$400,000						\$0
30935	30935	1118007			Overhead -PSTOC IT Expenses (begin FY10)	Traffic Ops	\$100,000	\$100,000						\$0
30935	30935	1118007			Equipment (Truck 1355)	Traffic Ops	\$5,000	\$0		\$5,000				\$0
50913			O-35	UPC 84224	In-House TOC Control Room Labor - NoVA Only (UPC 84224)	Control Room	\$515,961	\$0			\$515,961			\$0
50913			O-35E	UPC 84224	TOC Control Room Equipment - (1355) NoVA Charge (UPC 84224)	Control Room	\$7,200	\$0			\$7,200			\$0
59613			FO-35	UPC 94575	In-House TOC Control Room Labor - FRBG Charge	Control Room	\$26,666		\$0			\$26,666		\$0
59613			FO-35E	UPC 94575	TOC Control Room Equipment - (1355) FRBG Charge	Control Room	\$3,600		\$0			\$3,600		\$0
50913		1118007	O-36		TOC Control Room Contract Labor - NoVA Charge	Control Room	\$1,665,487	\$1,665,487						\$0
59613		1118007	FO-36	UPC 94575	TOC Control Room Contract Labor - FRBG Charge	Control Room	\$187,510		\$0			\$187,510		\$0
50913		1118007	n/a		TOC Control Room Overhead / Office Supplies	Control Room	\$30,000	\$30,000						\$0
50914		1118023	O-48C		SSP Contract Labor - NoVA	SSP	\$1,269,639	\$0						(\$1,269,639)
50914		1118023	O-48L	UPC 84224	In-House SSP Labor - NoVA Only (UPC 84224)	SSP	\$1,406,693	\$0			\$1,406,693			\$0
50914		1118023	O-48E	UPC 84224	Equipment - NoVA SSP Trucks (charged to UPC 84224) NoVA Charge	SSP	\$933,975	\$0			\$539,631			(\$394,344)
56914		1118023	FO-48L	UPC 94575	In House SSP Labor - FRBG Only	SSP	\$209,249		\$0			\$209,249		\$0
59614		1118023	FO-48E		Equipment - FRBG SSP Trucks (Asset 1355) - Fredericksburg Charge	SSP	\$108,347		\$0			\$108,347		\$0
50914		1118023			Buildings & Grounds Costs - Arlington Facility (\$1050/mo)	SSP	\$12,600	\$12,600						\$0
50914		1118023			Utilities- Arlington Facility (\$4670/mo)	SSP	\$56,000	\$56,000						\$0
50914		1118023			Overhead / Supplies - SSP Phones, Utilities, SSP Fuel	SSP	\$273,676	\$273,676						\$0
59614		1118023		UPC 94575	Overhead / Supplies - SSP Phones, Utilities, SSP Fuel - FRBG charge	SSP	\$30,000		\$0			\$30,000		\$0
50914		1118023			SSP Uniforms (clothing & jackets) - NoVA	SSP	\$16,008	\$16,008						\$0
59614		1118023		UPC 94575	SSP Uniforms (clothing & jackets) - FRBG	SSP	\$20,000		\$0			\$20,000		\$0
50914		1118023			Equipment - Outfitting 6 additional trucks for SSP - NoVA	SSP	\$40,000	\$40,000						\$0
50914		1118023			Equipment used for Special Events	SSP	\$114,960	\$114,960						\$0
50914		1118023			SSP Copy Machine Rental (Xerox)	SSP	\$5,019	\$5,019						\$0
50914		1118023			SSP Bldg- Janitorial Services	SSP	\$18,000	\$18,000						\$0
50914		1118023			HVAC Building A/C Services	SSP	\$36,000	\$36,000						\$0
TBD			O-60 (See P-502)	UPC 87396	NoVA Transportation Management Plan - Operations Liaison	SSP	Salary	Salary						Salary
50914		1118007	O-251		Safety Meeting (monthly)	SSP	Salary	Salary						Salary
50914		1118003	O-8007	UPC 69132	Safety Service Patrol: 14th Street Bridge	SSP	\$324,000	\$0					\$ 324,000	\$0
50914		1118003	O-8030		Update NRO Incident Management Team Operating Guide	SSP	Salary	Salary						Salary

Appendix C – NRO FY-10 Unfunded Projects List

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
O-48E	UPC 84224	Equipment - NoVA SSP Trucks (charged to UPC 84224) NoVA Charge	TO	\$933,975	(\$394,344)
S-6018	TBD	Demonstrate Video Incident Detection along I-66 Shoulder	SE	\$1,537,200	(\$1,537,200)
M-2006B	n/a	ITS Field Equipment (Lot 2) CCTV, Comm - Transcore - NoVA Only	Maintenance	\$2,490,895	(\$900,422)
M-2023	UPC 90448	NRO - Preventative Maintenance Services for ITS Systems			
P-3038		ITS-TE Solution Development (Planning, Design, and Implementation for top 5 solutions)	NROPP	\$60,000	(\$60,000)
P-3034A		ITS Infrastructure Deployment US 50: I-495 to I-66 (Bundle G) & from I-66 to US 15 (Bundle W)	NROPP	\$2,700,000	(\$2,700,000)
P-3035A		ITS Infrastructure Deployment Route 1 in Prince William County (Bundle C)	NROPP	\$2,400,000	(\$2,400,000)
P-3037	TBD	ITS Infrastructure Project Development Rte 1 from I-495 to Rte 123 (Bundle B)	NROPP	\$10,000	(\$10,000)
IC-1001	UPC 89757	Install Auxiliary Power Supply & Surge Protection	Install & Const	\$1,599,321	(\$350,000)
IC-1010	UPC T7561	Install Uninterrupted Power Supplies (UPS) in NRO (Econ Stim)	Install & Const	\$13,520,000	(\$13,520,000)
M-513	n/a	Traffic Signal Upgrade UPS	Maintenance	\$300,000	(\$200,000)
P-3034	TBD	ITS Infrastructure Project Development US 50 from I-66 to I-495 & Rte 123 from I-66 to US 15 (Bundle G) Rte 123 from Rte 236 to Rte 7 (Bundle W)	NROPP	\$10,000	(\$10,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
P-3035	TBD	ITS Infrastructure Project Development Rte 1 in Prince William County (Bundle C)	NROPP	\$10,000	(\$10,000)
P-55C	UPC 92370	I-66 ITS in Prince William Rte 234 Business to Rte 29 Gainesville (Bundle H)	NROPP	\$2,625,000	(\$2,625,000)
P-3036	TBD	ITS Infrastructure Project Development SR 110 from Rte 1 to I-66 (Bundle A)	NROPP	\$10,000	(\$10,000)
P-3036A	TBD	ITS Infrastructure Deployment SR 110 from Rte 1 to I-66 (Bundle A)	NROPP	\$1,800,000	(\$1,800,000)
P-3037A		ITS Infrastructure Deployment I-95: Fairfax Co. DMS Upgrade/Expansion (Bundle B)	NROPP	\$3,412,500	(\$3,412,500)
P-3032	TBD	Develop Various ITS Master Plans and ConOps	NROPP	\$700,000	(\$700,000)
P-3041		ITS Infrastructure Project Development Rte 1 in Stafford County (Bundle D)	NROPP	\$10,000	(\$10,000)
P-3041A		ITS Infrastructure Deployment Rte 1 in Stafford County (Bundle D)	NROPP	\$4,143,750	(\$4,143,750)
P-3043		ITS Infrastructure Project Development Rte 1 & 17 in Stafford County (Bundle D)	NROPP	\$10,000	(\$10,000)
P-3043A		ITS Infrastructure Deployment Rte 1 & 17 in Stafford County (Bundle D)	NROPP	\$1,938,000	(\$1,938,000)
FS-9	TBD	Upgrade / Improve Cameras in FRBG	SE	\$100,000	(\$100,000)
P-3039		Implement AVL in Safety Service Patrol Vehicles Planning & Project Development	NROPP	\$120,000	(\$120,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
S-6002	UPC 92826	I-66 Shoulder-Lane Control Sys (SLCS) Upgrade US 50 to I-495 5 CCTV, 40 VEH Det, 122 Video Det, 56 SLCS	SE	\$7,863,000	(\$7,863,000)
IC-7066	UPC 92635	Traffic Signal Rebuilds in NRO - (Economic Stimulus)	Install & Const	\$3,681,166	(\$3,681,166)
FM-70	n/a	Traffic Signal Control Cabinets (FRBG)	Maintenance	\$50,000	(\$50,000)
FM-2027	n/a	Traffic Signal Controllers (FRBG)	Maintenance	\$10,000	(\$10,000)
T-68 (See IC-68, IC-331)	OPC 82978	Signals: Modifications to Traffic Signals - NoVA Only	TE	\$800,000	(\$300,000)
FT-68	OPC TBD	Signals: Modifications to Traffic Signals - FRBG Only	TE	\$168,100	(\$142,060)
AT-506B		IP Migration Phase II: DMS & Other ITS Devices	ATMS	\$100,000	(\$100,000)
FM-2034	n/a	Communication Items (FRBG) Cable Plant Install, Modem & IC Prom Chip	Maintenance	\$250,000	(\$250,000)
S-6007	UPC 92830	DMS for the N-S Safety Evacuation Corridor I-395, DC Line to Rte 120 I-395, Rte 120 to Rte 7 / Alexandria City Line	SE	\$2,110,000	(\$2,110,000)
S-6008	UPC 92829	DMS for the N-S Safety Evacuation Corridor I-395, Rte 7 / Arl Co. Line to Rte 236 / Fairfax Co Line	SE	\$1,200,000	(\$1,200,000)
S-6009	UPC 92831	DMS for the N-S Safety Evacuation Corridor I-395, Rte 236 / Alex City Line to I-495	SE	\$1,230,000	(\$1,230,000)
S-6010	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 495 to Rte 644 / Franconia 1 DMS Upgrade	SE	\$487,500	(\$487,500)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
S-6011	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 644 / Franconia to Rte 642 / Lorton 4 DMS Upgrade	SE	\$1,950,000	(\$1,950,000)
S-6012	UPC TBD	DMS for the N-S Safety Evacuation Corridor I-95, Rte 642 / Lorton to Prince William Co. Line 2 DMS Upgrade	SE	\$975,000	(\$975,000)
S-6013	UPC 92828	DMS for the N-S Safety Evacuation Corridor I-95, Fairfax Co Line to Rte 3000 / PW Pkwy 2 DMS Upgrade, 1 CCTV I-95, Rte 3000 / PW Pkwy to Rt. 234 3 DMS Upgrade, 1 CCTV I-95, Rte 234 to Stafford Co. Line 1 DMS Upgrade, 2 CCTV	SE	\$2,720,000	(\$2,720,000)
FS-6014	UPC 92818	DMS for the N-S Safety Evacuation Corridor I-95 Prince William Co Line - Spotsylvania Co Line 3 DMS Upgrade, 13 CCTV	SE	\$2,000,000	(\$2,000,000)
FS-6015	UPC 92855	DMS for the N-S Safety Evacuation Corridor I-95 Stafford Co Line to Caroline Co Line 2 DMS (incl 1 upgrade), 7 CCTV	SE	\$1,455,000	(\$1,455,000)
S-6006	UPC 92833	DMS for the N-S Safety Evacuation Corridor US 110, I-66 to I-395 1 DMS (upgrade), 1 CCTV	SE	\$480,000	(\$480,000)
P-506D	UPC 89883	Develop Master Plan and ConOps for Active Traffic Management	NROPP	\$500,000	(\$500,000)
P-506C		Review, Update, and Harmonize NRO's Master Plans for ITS Infrastructure & Develop Technology Bundles	NROPP	\$60,000	(\$60,000)
M-2044		RWIS Utilities	Maintenance	\$5,000	(\$5,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
T-7113	UPC TBD	Install New Interstate Signals in NRO Previously Funded by UPCs 70654 (NoVA) & 70641 (FRBG)	TE	\$2,700,000	(\$2,700,000)
T-7061	UPC 92628	Install New Primary Signals (Econ Stim) Previously Funded by UPCs 70661 (NoVA) & 70646 (FRBG)	TE	\$3,100,000	(\$3,100,000)
T-7082	UPC TBD	Traffic Signal - Operational & Safety Improvements / Modifications (Geometric Improvements)	TE	\$1,000,000	(\$1,000,000)
S-6017		Standardize the Configuration of ITS Cabinets	SE	\$150,000	(\$150,000)
O-49	OPC 87280	NRO Incident Management Plan	TO	\$50,000	(\$50,000)
M-2005 / M-2000	n/a	Pavement Marking Contracts for Fairfax, Arlington, PW, Loudoun - NoVA Only	Maintenance	\$6,200,000	(\$3,947,951)
M-2046		Arlington County- Lighting Pole Life-Cycle Replacement	Maintenance	\$200,000	(\$200,000)
T-105	UPC 73868	Install Various Traffic Signs (Primary)	TE	\$30,000	(\$30,000)
T-7106	UPC TBD	NoVA Interstate Signs DW, Previously Funded by UPC 70656	TE	\$100,000	(\$100,000)
T-7107	UPC TBD	NoVA Primary Signs DW, Previously Funded by UPC 70663	TE	\$200,000	(\$200,000)
FT-7106	UPC TBD	FRBG Interstate Signs DW, Previously Funded by UPC 70642	TE	\$50,000	(\$50,000)
T-7110	OPC TBD	NoVA Interstate Pavement Markers DW, Previously Funded by UPC 70651	TE	\$50,000	(\$50,000)
FT-7111	UPC TBD	FRBG Interstate Pavement Markers DW, Previously Funded by UPC 70640	TE	\$50,000	(\$50,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
FT-7112	UPC TBD	FRBG Primary Pavement Markers DW, Previously Funded by UPC 70645	TE	\$50,000	(\$50,000)
T-7108	UPC to be Assigned	NoVA Interstate Guardrail DW, Previously funded by UPC 70638	TE	\$200,000	(\$200,000)
T-7064	UPC 92633	NoVA Primary Guardrail DW - (Econ Stim), Previously funded by UPC 70657	TE	\$2,600,000	(\$2,600,000)
FT-7108	UPC to be Assigned	FRBG Interstate Guardrail DW, Previously funded by UPC 70633	TE	\$400,000	(\$400,000)
FT-7109	UPC to be Assigned	FRBG Primary Guardrail DW, Previously funded by UPC 70643	TE	\$400,000	(\$400,000)
T-7085	TBD	Demonstrate small scale safety related ITS applications at locations with identified problems	TE	\$250,000	(\$250,000)
T-7102	TBD	Implement TE-type improvements at various locations in Fairfax County	TE	\$4,400,000	(\$4,400,000)
T-7103	TBD	Implement TE-type improvements at various locations in Loudoun County	TE	\$1,200,000	(\$1,200,000)
T-7104	TBD	Implement TE-type improvements at various locations in Prince William County	TE	\$1,055,000	(\$1,055,000)
FIC-68		Traffic Signal Rehab & Rebuild - FRBG	Install & Const	\$900,000	(\$900,000)
T-7012	OPC TBD	Corridor Assessment on Capacity and Safety	TE	\$200,000	(\$50,000)
T-382	OPC 84768	Intersection Safety Assessment & Implementation Program	TE	\$250,000	(\$150,000)
S-3001	UPC 89883	I-66 - Evaluate Deployment of the Next Generation Traffic Management Tools (VSL, Queue Warning) US 50 to I-495 - Planning	SE	\$50,000	(\$50,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
T-7010	OPC 82459	TE Studies- Utilize Consultant Services to perform traffic signal, speed studies	TE	\$400,000	(\$250,000)
FIC-69	OPC 82972 Act 73399 Con 25649	Traffic Signal Loop Replacement and Installation - FRBG only	Install & Const	\$70,000	(\$70,000)
M-70	n/a	Traffic Signal Control Cabinets - NoVA	Maintenance	\$800,000	(\$400,000)
T-7038	UPC 92239	I-66 @ Rte 234 Business - Signal & Lane Use Sign Modifications	TE	\$80,000	(\$80,000)
P-3025	TBD	Integrated Network Management Concept of Operations	NROPP	\$250,000	(\$250,000)
P-3033	TBD	Develop Migration Plan to Next Generation of Traffic-Signal Control Systems	NROPP	\$300,000	(\$300,000)
M-2004	n/a	LED Upgrade	Maintenance	\$200,000	(\$100,000)
T-7065	UPC 92634	Install LED Traffic Signal Heads (Economic Stim)	TE	\$5,500,000	(\$5,500,000)
P-3018	TBD	VDOT NRO Rural ITS Program	NROPP	\$100,000	(\$100,000)
FT-7107	UPC TBD	FRBG Primary Signs DW, Previously Funded by UPC 70647	TE	\$100,000	(\$100,000)
T-7041	UPC 91956	Springfield O/H Guide Signs Improvement Study and Implementation	TE	\$820,000	(\$820,000)
T-7062 (See IC-7062)	UPC 92629	Interstate Bridge Parapet Mounted Sign R & R (Econ Stim)	TE	\$10,000,000	(\$10,000,000)
T-7063 (See IC-7063)	UPC 92631	Primary Bridge Parapet Mounted Sign R & R (Econ Stim)	TE	\$5,000,000	(\$5,000,000)
T-7067	UPC 92637	Upgrade Overhead Signs on Interstate System (Econ Stim)	TE	\$800,000	(\$800,000)
T-7068	UPC 92636	Upgrade Overhead Signs on Primary System (Econ Stim)	TE	\$400,000	(\$400,000)
P-3030		NRO Annual Planning Workshop: Develop FY-11 Strategic Focus & Prioritize Projects	NROPP	\$10,000	(\$10,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
FM-2017	n/a	Signs: Interstate: Maintenance Life-Cycle Preventative Maintenance - FRBG	Maintenance	\$20,000	(\$20,000)
S-6003	UPC 92823	I-66 Technology Corridor DC Line to Fairfax Co. Line 4 DMS (incl 2 upgrade)	SE	\$2,475,000	(\$2,475,000)
S-6004	UPC 92832	I-66 Technology Corridor Arl. Co Line to I-495 2 DMS (incl 1 upgrade) I-495 to Rte 50 5 DMS (incl 1 upgrade) Rte 50 to Prince William County Line 6 DMS (all upgrade)	SE	\$5,675,000	(\$5,675,000)
S-6005	UPC 92825	I-66 Technology Corridor FFX Co Line to 234 Business 2 DMS (both upgrade, 6 veh det)	SE	\$800,000	(\$800,000)
FS-6016	UPC 92857	Stafford & Spotsylvania Add 30 miles of communication fiber along I-95 to support ITS	SE	\$9,000,000	(\$9,000,000)
M-2025	n/a	Pedestrian Countdown Signal Program	Maintenance	\$300,000	(\$200,000)
M-2015	n/a	Signs: Panel Replacements	Maintenance	\$200,000	(\$190,000)
M-2016	n/a	Signs: Interstate Maintenance Life Cycle Repair - NoVA	Maintenance	\$100,000	(\$75,000)
M-2018	n/a	Signs: Primary Maintenance Life Cycle Repair - NoVA	Maintenance	\$200,000	(\$175,000)
FM-2019	n/a	Signs: Primary: Maintenance Life-Cycle Preventative Maintenance - FRBG	Maintenance	\$40,000	(\$40,000)
IC-73		Technical Inspection - Dewberry and Davis	Install & Const	\$425,000	(\$175,000)
P-3045		Web-based Project Development Tool	NROPP	\$50,000	(\$50,000)
T-7049	OPC TBD	Land Use Permits / Street Acceptance - NoVA	TE	\$75,000	(\$41,416)
P-415	OPC 83779	Integrated Corridor Decision Support Tool Enhancement for FY-10	NROPP	\$50,000	(\$50,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
M-2033	n/a	Remove DMS Infrastructure By Lot 1 Contractor	Maintenance	\$300,000	(\$300,000)
P-411L6(10)	OPC 91212	Staff Augmentation for Planning Team	NROPP	\$410,000	(\$410,000)
P-3027		Architecture Systems Engineering Training	NROPP	\$10,000	(\$10,000)
P-3028		Technology Transfer Operations Scan Tour	NROPP	\$10,000	(\$10,000)
P-3029		Education Material on Benefits of ITS & Operations	NROPP	\$10,000	(\$10,000)
S- 215		SESITS - Systems Engineering Source for ITS Technology System	SE	\$150,000	(\$150,000)
S-6019		Workforce Development Program - Technology Research	SE	\$50,000	(\$50,000)
P-504	OPC 87737	Prepare for Federalizing Ops Program (non-NRO Reviews)	NROPP	\$8,000	(\$8,000)
P-411L8(10)		Staff Augmentation for Programming Team	NROPP	\$142,000	(\$142,000)
P-140	OPC 83088	NRO Outreach Program	NROPP	\$15,000	(\$15,000)
P-411L9(10)	OPC 91212	Staff Augmentation for Communication Team	NROPP	\$105,000	(\$105,000)
IC-1010	UPC T7561	Install Uninterrupted Power Supplies (UPS) in NRO (Econ Stim)	Install & Const	\$13,520,000	(\$13,520,000)
IC-506AI		Northern Region Operations CCTV - NoVA Interstate	Install & Const	\$2,500,000	(\$2,500,000)
IC-506AP		Northern Region Operations CCTV - NoVA Primary	Install & Const	\$1,500,000	(\$1,500,000)
M-2026	n/a	Furnish Accessible Pedestrian Push Buttons (American Lighting Technologies) (con 27265)	Maintenance	\$2,000	(\$2,000)
M-2062		Correct Utility Conduit Flooding	Maintenance	\$TBD,000,000	(\$TBD,000,000)
M-2005A	UPC 92638	All Systems Pavement Markings Maintain & Install Pavement Markings NoVA	Maintenance	\$6,287,820	(\$6,287,820)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
FM-2005A	UPC 93511	All Systems Pavement Markings Maintain & Install Pavement Marking KG, SP, ST	Maintenance	\$710,680	(\$710,680)
M-2028	n/a	Sign Inventory and Condition Assessment	Maintenance	TBD	TBD
M-61		TMC Utility Locating and Marking	Maintenance	\$175,396	\$100,000
M-2056	n/a	Comm Line for Portable DMS Signs	Maintenance	\$9,600	(\$9,600)
M-66	n/a	Roadway Lighting Interstate (Lighting Maintenance) (con 23001) NoVA Only	Maintenance	\$2,200,000	(\$1,785,000)
M-100		Trunk Cable Network Improvements, as needed	Maintenance	\$50,000	(\$50,000)
M-8010	n/a	Temp Labor - HOV Gate Repair	Maintenance	\$20,000	(\$20,000)
P-133	OPC 87412 UPC 72980	NRO Strategic Program Plan	NROPP	\$50,000	(\$50,000)
P-3021		Critical Infrastructure Protection Study	NROPP	\$70,000	(\$70,000)
S-10 (See FO-10)	UPC 73693	PSTOC - FRBG TOC Fiber Connection	SE	\$10,000,000	(\$10,000,000)
S-6001B		IP Network Maintenance	SE	\$20,000	(\$20,000)
T-7039	UPC 92240	I-66 EB off ramp @ Rt 7 - Signal Rebuild	TE	\$165,000	(\$165,000)
T-7040	UPC 92242	I-495 Outer Loop Off Ramp @ Gallows Rd Signal Rebuild	TE	\$265,000	(\$265,000)
T-7034B	UPC 91955	Replacement of O/H Traffic Sign Structures, Priority 3 & 4	TE	\$4,140,000	(\$4,140,000)
T-7035	UPC 92236	Guardrail Needs Assessment Study & Installation - I-66 WB From Nutley St to Rte 123	TE	\$435,000	(\$435,000)
T-7047	UPC 86329	VA 620 (Braddock Road) @ VA 123 (Chain Bridge Road) – Operational Improvement	TE	\$825,000	(\$825,000)
T-526	UPC 86336	VA 606 (Loudoun County Pkwy) @ VA 621 (Evergreen Mills Road) - Operational Improvement	TE	\$230,000	(\$230,000)

ID	Tracking Code	Project Name	Section	FY-10 Funding Need	(Unfunded Need)
T-7017	OPC 87621	Rte 50 EB at Stonecroft - extend right / thru lane	TE	\$300,000	(\$300,000)
T-519	OPC 87624	Rte 120 at I-395 - Construct sidewalk and curb cuts	TE	\$40,000	(\$40,000)
T-7058	UPC T7362	I-95 NB- Left shoulder widening (MP 152 to MP 157) Joplin Rd to PW Pkwy	TE	\$4,800,000	(\$4,800,000)
O-48C		SSP Contract Labor - NoVA	TO	\$1,269,639	(\$1,269,639)
FE-8024	TBD	Signal Network Planning	OE	\$200,000	(\$200,000)
TOTAL FY-10 UNFUNDED NEED					(\$181,324,048)