FY–08
Strategic Investment Program Plan (SIPP)

October, 2007

Northern Region Operations

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1. Executive Summary

The FY-08 Strategic Investment Program Plan (SIPP) is the end product for the Virginia Department of Transportation's Northern Region Operations' (NRO) annual planning and programming process. The process develops the strategic goals, identifies project / program needs, prioritizes the needs, and allocates funding resources for the forthcoming Fiscal Year's work efforts. The FY-08 SIPP documents the planning and programming process completed by the NRO for fiscal 2008 and, by reference, includes the FY-08 Funding Plan and the FY-08 Work Plan.

The SIPP is the principal strategic planning document among a series of strategic planning activities and documents that provide the framework for the effective management and operations of the transportation systems in the Northern Region. An overall, strategic guiding framework is absolutely necessary to successfully meet the complex challenges faced by the NRO in the diverse and expansive environment of the Northern Region. The annual SIPP; together with the Smart Travel Program Plan, Regional Architecture, Regional Incident Management Plan, Regional Transportation Emergency Evacuation Plan, and other documents; provides the framework to carry out the vision and mission of the NRO.

The SIPP must have a balanced budget (Funding Plan), and the Work Plan should be defined prior to the start of the fiscal year. The Funding Plan, the Work Plan, and supporting documents form the Strategic Investment Program Plan and are used by the NRO's Section Managers and Project Managers to manage their projects and activities for the upcoming fiscal year.

The FY-08 SIPP is the result of a cumulative and cooperative effort that began in the fall of 2006. Projects and programs included in the Work Plan support the four goals identified as FY-08's strategic foci:

1. Enhance Public Safety
2. Enhance Mobility / Efficiency
3. Enhance Traveler Information
4. Enhance Operations Management and Support

The Work Plan is sustained by a balanced budget for FY-08 as defined in the FY-08 Funding Plan. The sources of funds for the balanced budget are derived from a number of sources; State Operating Funds (SoSYP - 604 funds) including Federal matching dollars, Six-Year Improvement Program (SYIP - 603 funds), State Planning and Research (SPR) funds, Highway Safety Improvement Program (HSIP) funds, grants (UASI, TCSP, congestion pricing), earmarks, local funding and other sources.

The FY-08 Work Plan must continue to support on-going activities and programs, and projects begun in prior years. In addition, a number of strategic, new projects

supporting the FY-08 goals will get underway or continue. Some of the many projects include: managing the ATMS replacement software contract; maintaining, and further enhancing and integrating the incident management system; developing an ITS field device management system; replacing rusticated high-mast light poles and sign structures, developing tools to assess integrated ITS and Traffic Engineering solutions to corridors and zones; expanding the ITS Architecture and Strategic Plan from the NoVA District to the NRO; developing a concept of operations for Dynamic Message Signs (DMS) System upgrade; implementing a Systems Engineering Source for ITS Technology Systems (SESITS); developing a Telecommunications Master Plan; implementing a safety improvement program on Route 1; installing audible pedestrian signals; implementing a traffic signal optimization program in the Fredericksburg District; and facilitating consensus building within the Northern Region.

FY-08 will be a year of changes and challenges as the NRO continues to implement and expand regional operations. The SIPP will provide the NRO with sufficient flexibility to address the changes, and, yet, it will serve as a strong framework that will allow the NRO to withstand the challenges that will be forthcoming in FY-08.

2. Introduction

The FY-08 Strategic Investment Program Plan (SIPP) is the end product for Northern Region Operations' (NRO) annual planning and programming process. An integrated planning and programming process facilitates the development of a fully-integrated operational program. A fully-integrated operational program will facilitate effective and efficient management of the region's transportation systems. This integrated process flows from initial strategic program-level planning and leads to a full circle of: (1) tactically planning and prioritizing projects; (2) making investment decisions; (3) developing and maintaining ITS Architecture (at the agency, regional and statewide levels); (4) assuring compliance with FHWA Rule 940 through systems engineering, project design, construction and inspection, implementation / operation, evaluation, maintenance, and replacement; and (5) providing feedback to the ongoing strategic planning process.

An overall, strategic guiding framework is absolutely necessary to successfully address the changes and meet the complex challenges faced by the NRO in the diverse and expansive environment of the Northern Region. The annual SIPP; together with the Smart Travel Program Plan, Regional Architecture, Regional Incident Management Plan, Regional Transportation Emergency Evacuation Plan, and other documents; provides the framework to carry out the vision and mission of the NRO. The SIPP represents the tactical application of the strategic focus.

During the development of the FY-08 Strategic Investment Program Plan, the NRO further refined the structured SIPP development process that it had first implemented in the previous year. Refinements included educating managers and operational employees new to the Northern Region Operations group on the process, refining and further developing the prioritization model, conducting facilitated workshops for prioritizing the regions' operating activities and projects to be included in the FY-08 Work Plan, and conducting instructional sessions to "kickoff" the projects included in the FY-08 Work Plan.

The FY-08 SIPP process and resulting, balanced Funding Plan and Work Plan are documented in this report.

3. Strategic Investment Planning Process

Prior to the beginning of each fiscal year, NRO's Planning and Programming (OPP) Section develops a SIPP to define the goals, activities, procedures, and performance measures for the Region's work efforts for the forthcoming fiscal year. The SIPP must have a balanced budget (Funding Plan) and Work Plan defined prior to the start of the fiscal year. The Funding Plan, the Work Plan, and supporting documents form the

Strategic Investment Program Plan and are used by the NRO's Section Managers and Project Managers to manage their projects and activities for the upcoming fiscal year. In FY-07, a process was developed to help identify project needs, to prioritize needs / activities, and to equitably distribute resources within the Operations Group. The process included the development of a quantitative prioritization model and a series of facilitated workshops with Section Managers to identify projects and activities to be funded with the monies expected to be available.

During FY-07, OPP further established and refined the framework for a structured process for developing the FY-08 Strategic Investment Program Plan. The process included educating managers and operational employees within Northern Region Operations on the process, refining and further developing the prioritization model, conducting facilitated workshops for prioritizing the regions' operating activities and projects to be included in the FY-08 Work Plan, and conducting instructional sessions to "kickoff" the projects included in the FY-08 Work Plan.

The step-by-step planning and programming process is depicted in Figure 1. The subsequent sections attempt to explain how each one the "boxes" in Figure 1 impacts, and is impacted by, the SIPP development process.

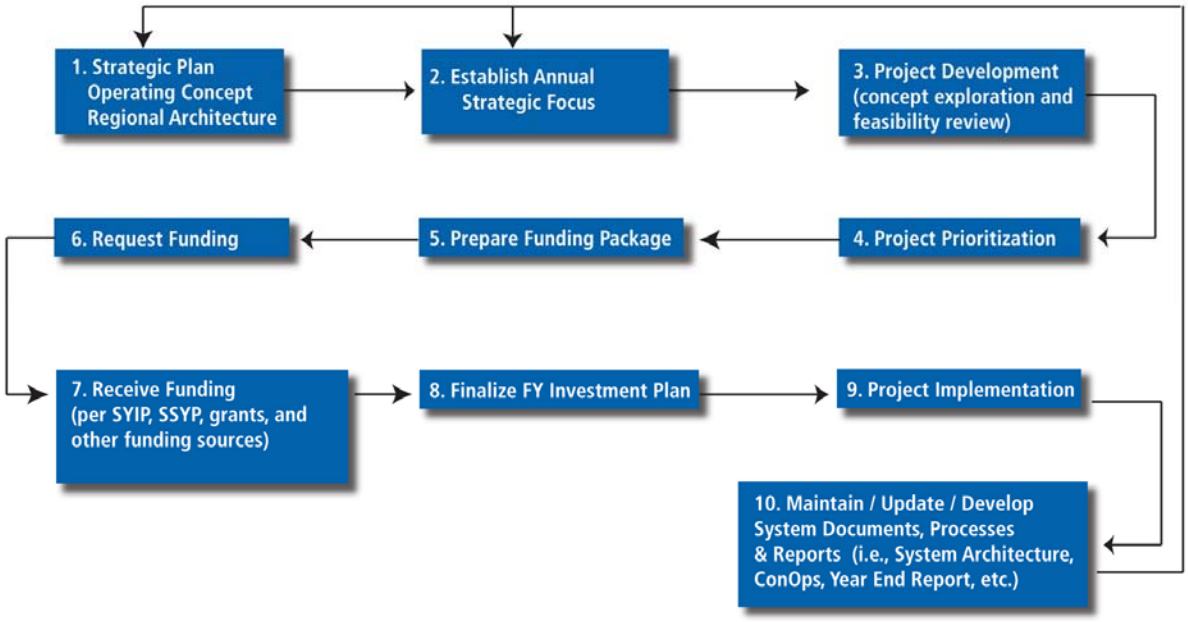

Figure 1. NRO Planning and Programming Process

3.1 The Existing Environment (Box 1)

Investment programs are not developed in an organizational vacuum. Unless it is a start-up organization, there should be an existing strategic plan for the organization that broadly defines the mission of the organization and broadly identifies goals and

objectives for the organization that will assist the organization to achieve its mission. Similarly, at the organization level, there should be broad rules and regulations, operating concepts and guidelines, and other broad precepts for the organization. At the organizational level, the strategic plan and other guiding principles and precepts should remain relatively constant; varying little over time.

As one descends the organizational ladder, the more specific the strategic plan and the other guiding principles and precepts become. Additionally, the lower the organizational sub-unit is on the organizational ladder, the higher the likelihood that the level of change is greater. Implementation of the organization's mission typically occurs at the lower levels, and it is at these levels that the organization has its greatest contact with the outside environment. Consequently, to respond effectively, the implementing sub-units must be able to change their mission statement in order to effectively deliver their projects and programs in a changing, outside-the-organization environment.

It takes a long time and a lot of energy to change the course of an aircraft carrier. However, the aircraft that are based on that carrier must be able to respond to changes in their environment quickly in order to complete their missions safely.

NRO's SIPP is developed within the larger VDOT and Systems Operations' environments. These environments and the mission statements, strategic focus, and guiding principles and precepts of the overall organizations impacted the development of NRO's FY-08 SIPP. NRO's FY-07 SIPP (or its equivalent) impacted the development of its FY-08 SIPP, as did the existing regional ITS architecture and NRO's FY-07 strategic focus, operating concept, etc.

In summary, NRO's FY-08 SIPP reflects the environment within which it was formulated; it was not developed in a vacuum.

3.2 Establish Annual Strategic Focus (Box 2)

As noted in the preceding description of Box 1, NRO's SIPP is not developed in a vacuum. It is, in part, a product of the environment in which it was developed.

The formal start of the overall process for developing the SIPP begins with defining the strategic focus for the upcoming fiscal year. The NRO faces the challenge of effectively managing one of the most congested transportation systems in the country with a limited budget and limited resources. Defining the strategic focus for the upcoming fiscal year, allows the NRO to target its limited budget and resources upon specific projects, programs, and assets; assuring those projects and programs come to fruition and assets are maintained.

A comparable analogy would be that of the orchardist (tree farmer) who could plant an orchard with an unlimited number of trees, but who has a limited supply of water. If the orchardist were to plant an unlimited number of trees and were then to distribute his limited water across these trees, all of the trees would die.

Another applicable analogy would be, the orchardist plants an unlimited number of trees and then recognizes that he only has sufficient water to assure the fruition of X number of trees and the survival of an additional Y number of trees. The remaining trees must be allowed to wither due to a lack of water / resources. Expended in vain were the labor, time, and resources used to plant the trees that had to be allowed to wither.

The optimal situation is the one where the orchardist quantifies the limitation of his resources, identifies the number of trees that he can plant and expect to come to fruition or to maintain, and then plants that exact number of trees. (Maintained trees are alive, but do not bear fruit. If given sufficient water / resources in a subsequent growing season, they can be expected to produce fruit.)

Similarly, applying NRO's limited resources to projects, programs, and assets that support focused strategic goals and objectives helps to ensure that the NRO (and the Commonwealth of VA) receives the optimum return on these resources. Once the strategic goals and objectives are identified, programs and projects can then be defined that will help achieve the goals and objectives.

Ideally, NRO's strategic focus for FY-08 would have been refinements of the Department's, / System Operations' strategic focus for FY-08. However, the Department's strategic focus had not been explicitly stated by the Department or by Systems Operations, when NRO was ready to begin the development of its strategic focus for FY-08. Consequently, NRO developed its FY-08 strategic focus based on intuition, conversations and documents exchanged with upper management, etc.

Without having the benefit of an in-place, Departmental FY-08 strategic focus, the OPP Section, working with the NRO's Regional Operations Director (ROD), developed a strategic focus to direct NRO's efforts in FY-08. The Strategic Focus placed emphasis upon ***people***, ***process***, and ***technology*** and can be further categorized into four key objectives: (1) Enhance Public Safety, (2) Enhance Mobility / Efficiency, (3) Enhance Traveler Information and (4) Enhance Operations Management and Support. With the exception of (1) Enhance Public Safety, the numbers do not indicate a priority for these key objectives.

Later, the Department specifically identified its strategic focus for FY-08 as:

(1) Reshaping the Transportation System;
(2) Reshaping the Way We Do Business; and
(3) Reshaping the Workforce.

NRO mapped its key objectives back to the Department's strategic focus for FY-08. The results of that mapping are presented in Table 1.

Table 1.

NRO's Key Objectives Mapped to the Department's Focus

VDOT Strategic Focus	*NRO* Key Objectives
Reshape the Transportation System	Enhance Public Safety Enhance Mobility / Efficiency Enhance Traveler Information Enhance Operations Management & Support
Reshape the Way We Do Business	Enhance Operations Management & Support
Reshape the Workforce	Enhance Operations Management & Support

Having identified NRO's FY-08 strategic focus, OPP staff then identified goals that were consistent with the focus. If achieved, these goals would help to bring to fruition FY-08's strategic focus. The goals are described in the following.

Foci #1: Goals to Enhance Public Safety

1. Restore Safety Service Patrol (SSP) resources to I-66, I-395, and I-95. The objective will be to increase the density of coverage by reducing route miles covered by each SSP member; and focus on safety and high incident locations with targeted response as noted above.
2. Develop a Disaster / Emergency Management and Evacuation Strategic Plan that meshes with other regional disaster / emergency management plans.
3. Continue the development of a proactive arterial corridor analysis and safety-flow improvement function for the region's congested arterials. The focus will be on quick delivery improvements through a combination of signal phasing, signal timing, signage, pavement marking, and select traffic management measures.
4. Deploy portable DMS at Interstate High Hazard locations that provide awareness messaging for recurring congestion and high accident locations. Fourteen portable DMS will be deployed.
5. Develop and implement remote deployment at existing VDOT facilities for SSP, Operations First Responders (OFP), Sign / Pavement Marking crews, and Traffic Signal Technicians to enable prompt, efficient, and effective responses to safety and incident management issues. This effort will require the development of operating procedures and management tools.

Foci #2: Goals to Enhance Mobility / Efficiency

1. Continue to move forward with the replacement of ATMS software. This effort should be coordinated with the Operations Directorate, Smart Travel Oversight Board (STOB), and the oversight steering committee, as required.
2. Continue to enhance and integrate Incident Management (IM) Software, Virginia Operational Information System (VOIS), and Regional Integrated Transportation Information System (RITIS).
3. Deploy integrated ITS technologies at select locations or major arterial intersections and / or arterial and interchange intersections to include the integration of CCTV, DMS, and detection technologies. This effort will primarily be aimed at more effectively managing safety, mitigating congestion, and improving travel time – routing decisions at choke points.
4. Reduce the length of the signal-system optimization cycle from 4 years to 2 years for the Northern Region. This will allow for quicker responses to the continually changing travel patterns and traffic growth in the region.
5. Implement, with appropriate analysis tools, the operations freeway engineering function to monitor real-time traffic, to mitigate recurring congestion, and to address non-recurring, safety improvement opportunities, specifically for the interstate highway system, including HOV facilities.
6. Investigate adaptive signal control as a tool for arterial congestion mitigation.

Foci #3: Goals to Enhance Traveler Information

1. Resolve VDOT NRO's DMS replacement dilemma. That is, maintain and upgrade DMS assets conterminously and in concert with PPTA projects to provide broad coverage while balancing capital costs across public and private interests.
2. Leverage existing VDOT NRO infrastructure and initiatives in order to collect and fuse real-time traffic condition data and post travel-time information on DMS.

Foci #4: Goals to Enhance Operations Management and Support

1. Integrate the operations and traffic engineering functions of the Culpeper and Fredericksburg Districts into the operations framework of the Northern Region. This includes personnel, administrative processes, procedures, and systems including budget and cost management; and technical systems interface or integration – signals, signs, pavement marking, and ITS devices.
2. Plan, design, and implement a new telecommunications' architecture that supports the current and future needs of VDOT-NRO.
3. Expand and enhance the Regional ITS Architecture to include a true regional (not VDOT NoVA-centric) ITS Architecture. This includes geographic expansion of the ITS Architecture to include Fredericksburg and Culpeper. The VDOT-NRO Program Plan and ITS Architecture also need to be updated to include new SOPs, Incident / Emergency Management Plans, and HOT Lanes.
4. Develop and implement a project management process for operations install / construct projects to include schedule and cost management. This effort should identify SOPs and coordinate with District Construction to ensure consistency in approach and methodology. An internal monitoring process should also be developed to help ensure that projects are on-time and on-budget.
5. Interface regional operations objectives, plans, programs, and projects with major construction projects, including the I-395/I-95 and I-495 HOT Lane projects, Dulles Metrorail, and Mega CMP projects. VDOT shall facilitate issues identification and resolution.
6. Continue to enhance customer service in VDOT-NRO.

3.3 Project Proposal Development (Box 3)

Gathering input from NRO Section Managers and their staffs, OPP identified candidate (new) projects that could achieve the goals identified in the Strategic Focus. For each candidate project, a Project Proposal template was completed by the proposer, with assistance from OPP staff, which provided the following information:

1. Project Title
2. Project Scope
   - 2.1 Problem / Need Statement
   - 2.2 Background Information
   - 2.3 Description of problems caused by existing systems
   - 2.4 Justification – Expected improvements to be gained by implementation

2.5 Map to NoVA Smart Travel Program Plan

Table 2.5 Mapping to NoVA Smart Travel Goals and Objectives

	NOVA Smart Travel Goal.Objective										
Action	1.A	1.B	1.C	2.A	2.B	2.C	3.A	3.B	4.A	4.B	4.C
<Insert Project Title>											

3. Implementation Strategy
   - 3.1 Tasks Identification
   - 3.2 Time Line
   - 3.3 Cost
4. Roles and Responsibilities
5. Interdependencies
6. Evaluation Plan
7. Outcome of the Prioritization Plan

The completed templates provided information during the project prioritization (discussed in the next section of this document) and, as might be expected, the results of the prioritization process were recorded on line 7 of the template.

3.4 Project Prioritization (Box 4)

The next step in the development of the FY-08 SIPP was the assignment of priority rankings to NRO's existing and proposed projects and programs. This was accomplished via a series of work sessions attended by NRO's Section Managers and OPP Programming staff, and facilitated by on-call consulting staff.

In the first meeting / work session, the attendees were presented with a list of existing and proposed FY-08 projects and programs, organized by Section responsible for their implementation. The attendees were asked to identify core and non-core projects and budget items necessary for the basic functions of the NRO. Core projects are defined as projects that are mandated or directed by the Department or by another government body (*e.g.*, the Federal Government), carry-over projects or programs from the previous fiscal year, projects with dedicated funding sources (SYIP, HSIP, Secondary Six-Year Improvement Program, etc.), or projects requiring matching funds in order to access funds provided by another source (earmarks and grants). Additionally, once a proposed or existing project was identified as core, it was essentially guaranteed to be included in the list of projects recommended for funding in FY-08, at the level of funding recommended by the project's sponsor.

The FY-08 Project Proposals and their respective statuses, as determined by the attendees at the first prioritization meeting, are listed in Table 3, on the following pages.

Table 3.

FY-08 Project Proposal Summary

#	Project Proposal	Status
	Strategic	
1	Adaptive Signal Control (Phase 1 - Research)	Non-core
2	High Priority CCTV & VMS Implementation	Non-core
3	CCTV Migration Plan to an all IP-Based Video Transport Network	Non-core
4	High Mast Pole and Sign Structure Replacement	Non-core
5	Regional Team Building & Integration	Non-core
6	Technology Evaluation Process	Non-core
7	Telecommunications Master Plan	Non-core
8	IMS (Incident Management System) Maintenance, Integration, and Enhancement	Non-core
9	Field Device Management System	Non-core
10	Sign Inventory and Condition Assessment	Non-core
11	CCTV Video Content Analysis for Incident and Alarm Management (Video Incident Detection)	Non-core
	Administration	
12	A-403 Go-Forward Performance Tracking	Core
	Planning & Programming	
13	Smart Travel Outreach Material Development	Core
14	DMS Travel Time Project	Core
15	Smart Travel Program Plan Update	Core
16	Corridor / Zone Strategy - Integrated ITS & TE Solutions	Core
17	Prepare and Maintain NRO Evacuation Plan	Core
18	Mega CMP - Operations Component	Core
19	Local and Regional Incident Management Coordination and Procedures	Core
20	NRO ITS Architecture Expansion, Maintenance, and Support	Core
21	P-137 FY-09 Program Development	Core
22	VII Feasibility Study	Un-funded
23	PPTA Coordination	Un-funded
	Construction	
24		
	Systems Engineering	
25	S-218 I-66 Trunk Network Extension	Core
	System Operations	
26	O-42 STSS MIST Support	Core
27	O-51A Portable DMS Deployment	Core
28	O-35 Increase SSP Density	Core
29	O-25C VTTI Database	Core
30	O-52 Signal Timing Optimization	Core
31	NOVA ATMS Central Software/Hardware Replacement and Transition to PSTOC	Core
	Maintenance	
32		

Traffic Engineering		
33	Intersection Condition Assessment	Core
34	Corridor Safety Capacity Assessment and Implementation	Core
35	Bottleneck Mitigation & Safety Improvements Program	Core

Work Session 2 was a collaborative effort by the NRO Section Managers to prioritize the non-core projects. The new projects and programs were discussed and further defined. From a process standpoint, one of the purposes of this discussion is to eliminate projects that are considered infeasible from technical and institutional perspective. None of the new projects or programs proposed for FY-08 was considered to be infeasible.

Following the discussion of the proposed projects, they were ranked / prioritized based on FY-08's Project Prioritization Model (PPM). The methodology for prioritizing non-core projects for FY-08 is a model that ranks projects based on how well they achieve the NRO Strategic Objectives, and how closely the projects mesh with NRO's guiding documents such as the NoVA Smart Travel Program, NoVA Operations Plan, and the Regional Core Functions and Requirements. The PPM renders a weighted-average score comprised of six common evaluation factors and is embedded in a spreadsheet program that scores and ranks the projects in real-time. The model was first used in FY-07, and it was refined for FY-08.

The FY-08 prioritization methodology is represented by the following formula**:**

Project prioritization score = [X*Y*Z]*(C+S+O)

[Performance] * (Cost + Strategic + Opportunity)

Where:

X = performance measure indicator
Y = performance measure goal indicator
Z = project's relevance to performance measure indicator
C = cost factor
S = strategic indicator
O = opportunity indicator

A complete description of the PPM will be provided in a document that has yet to be developed.

The results of the prioritization work session are shown in Table 4 on the following page.

Table 4.

Results of NRO's FY-08 Prioritization of Non-Core Projects

Priority	Project
1	Establish IM Maintenance, Integration and Enhancement Project
2	VDOT NRO Signal Pole and Sign Structure Replacement
3	VDOT Northern Region Operations Telecommunications Master Plan
4	Northern Operations Region CCTV Migration Plan to an all IP-Based Video Transport Network
5	Northern Operations Region CCTV Video Content Analysis for Incident and Alarm Management
6	VDOT NRO Field Device Management System
7	NRO High Priority CCTV & VMS Implementation
8	Technology Evaluation Process
9	Adaptive Signal Control System – Pilot Test
10	Northern Region Operations Planning: Regional Team Building & Integration
11	Sign Inventory and Asset Condition

The remaining non-core projects are then prioritized and allocated funds, if and when funds become available.

3.5 Prepare FY-08 Funding Package (Box 5, on page 4)

The funding package must have a balanced budget funded by State Operating Funds (SoSYP(604 funds)), Federal matching dollars included in the SoSYP, Six-Year Improvement Program (SYIP (603 funds)), State Planning and Research (SPR) funds, Highway Safety Improvement Program (HSIP) funds, grants (UASI, TCSP, congestion pricing), earmarks, local funding, and other funding sources.

To achieve a proposed balanced budget, the NRO Section Managers must estimate their administrative costs (a core project / program) – salaries, supplies, equipment, etc. – for the forthcoming year with assistance from NRO's Operations Administration Section. Typically, administrative costs are funded by 604 funds or, rarely, by 619 funds (administrative funds – state dollars). Assuming 604 funds are in excess of the core costs, the excess funds are discretionary and can be applied to the non-core projects, in prioritized order, until the excess funds are fully allocated / committed.

In mid-March 2007, the Commonwealth Transportation Board released the Draft FY-08 SYIP for public comment. The SYIP allocates 603 funds to projects and programs. The funding source can be Federal, State, or a mixture of both. With respect to Northern Region Operations, the SYIP principally funds TE improvement projects and ITS capital

projects on the interstate and primary systems. Knowing what NRO's ITS, congestion mitigation, and safety needs were; it was relatively easy to identify areas where we had sufficient funding and areas where we had shortfalls.

In early May, having processed statewide funding requests, VDOT's Central Office provided a preliminary SoSYP funding allocation. Based on the preliminary numbers, the NRO Section Managers met for the final FY-08 SIPP work session, Work Session 3, to develop a balanced operating budget for FY-08. The balancing process was a collaborative effort that adjusted preliminary funding requests, and examined project time lines and dependencies to reach a consensus for a balanced budget.

Since 604 funds appeared to be in excess of the money needed to fund the core projects and programs, the Section Managers were able to allocate the excess funds to non-core projects and programs as indicated in the following table.

Table 5.

NRO's Allocation of "Excess" FY-08 604 Funds to Non-Core Projects

Priority	Project	Allocation
1	Establish IM Maintenance, Integration and Enhancement Project	$ 120,000
2	VDOT NRO Signal Pole and Sign Structure Replacement	Note 1
3	VDOT NRO Telecommunications Master Plan (Combined w/ Integrated Corridor Support Tool)	$ 200,000
4	Northern Operations Region CCTV Migration Plan to an all IP-Based Video Transport Network	Note 2
5	Northern Operations Region CCTV Video Content Analysis for Incident and Alarm Management	Note 3
6	VDOT NRO Field Device Management System	$ 150,000 Note 4
	Excess Funds Exhausted	
7	NRO High Priority CCTV & VMS Implementation	
8	Technology Evaluation Process	
9	Adaptive Signal Control System – Pilot Test	
10	Northern Region Operations Planning: Regional Team Building & Integration	
11	Sign Inventory and Asset Condition	

Note 1 – It is believed that this project will be incorporated into a statewide project.
Note 2 – To be funded with funds from UPC 70649, ITS NoVA District Interstate Technology.
Note 3 – Funded w/ Central Office Federal funds.
Note 4 – Received additional $50,000 in FY-07 Carry-Over Funds.

Once the projected funds were allocated to NRO's estimated needs, we were able to develop NRO's preliminary funding plan / work plan for FY-08 and to identify those areas where NRO had funding shortfalls.

3.6 Request Funding (Box 6)

Within the process diagram on Page 4, Box 6 – "Request Funding" is implied to occur in the last quarter of the fiscal year preceding the fiscal year for which the SIPP is being developed. This is the time when draft and final allocation documents are published.

However, throughout the fiscal year, one is aware of the funding shortfalls within one's fiscal program, and one should seize every opportunity to educate those who control the purse strings as to existing shortfalls and their implications and to advocate for additional funding to initiate new projects and programs.

To reiterate, "Request funding" should be an ongoing activity. There are times within VDOT's annual fiscal programming cycle, when input is actively sought from VDOT's District headquarters as to their funding needs for the forthcoming fiscal year. Those times are as follows:

CTB's Fall Transportation Meetings	September – October
Programming requests Districts' needs	December – January
Programming requests comments on draft SYIP	March –April
District briefings to CTB members prior to SYIP approval	May – June

During the development of the FY-08 SYIP, the NRO was not invited to provide input to the Fall Transportation Meetings, and we were not asked to provide our Interstate needs to any of our Districts – NoVA, Culpeper, and Fredericksburg. We attribute this to the newness of our organization and a lack of clarity at the District and Central Office levels as to where and how we fit into the process. We believe that this issue has been addressed and that we will be given every opportunity to provide the District / Central Office / CTB members with our funding needs.

NRO management was able to speak to NoVA's CTB members about the absence of funding in the STOSIP entry in the preliminary draft of the FY-08 SYIP. Subsequent to that conversation, a Bottleneck Relief project for the NoVA District, with $1,000,000 in funding, was added to the draft FY-08 SYIP.

3.7 Receive Funding (Box 7)

The process diagram on Page 4 implies that funding is delivered in one box at one point in time. Wouldn't that be nice and easy? Unfortunately, it's not reality.

The Commonwealth Transportation Board did approve the FY-08 SYIP (603 funds) at the June CTB meeting. However, NRO did not know its FY-08 604 allocation until mid-July, and we were not informed of our FY-07-carryover-into-FY-08 604 funds until mid-September. We also received $7.1 million in bonus obligation authority for our NoVA Signal Timing Optimization project in mid-September.

Once funding has been formally received / allocated, one can begin to finalize the investment plan for the forthcoming fiscal year; this leads into the next box.

3.8 Finalize FY-08 Investment Plan (Box 8)

As the documents allocating FY-08 funding are approved, the funding that was allocated to the NRO can be identified and allocated to projects and programs within the NRO's FY-08 Investment Plan. The intent of this section of the FY-08 SIPP is to discuss the process whereby the Investment Plan is funded. The actual content of the Investment Plan is described in a later section of the SIPP.

The Investment Plan may be considered to be "finalized" at some point in time in mid-July. Ideally, the funding plan should be finalized prior to the start of the State's fiscal year on July 1. It is unlikely that sufficient final funding allocation information will be made available to allow for development of a final Investment Plan prior to July 1.

If the final funding request is not completely accommodated in the SYIP or via the allocation of State administrative funds, Operations' Programming Staff works with NRO's Section Managers to modify the plan to reflect fiscal reality.

The Investment Plan is, in fact, a living document. It records the birth of new projects and programs as they receive funds allocated from new sources or reallocated from other sources. It records the reallocation of:

- Funds to completed projects, or stopped projects, to cover their deficits (hopefully, this will be the exception),
- Surplus funds from completed projects and programs,
- Excess funds from projects and programs that are not spending funds as quickly as they had expected, and
- Excess funds from projects and programs that have been stopped, for whatever reason.

3.9 Initiate Project Implementation (Box 9)

OPP and Administration staff held fiscal year initiation meetings with each of NRO's Sections in early July to review final funding numbers and to identify adjustments and revisions, as needed. The results of these adjustments are provided in the Final FY-08 Baseline Funding spreadsheet.

Another intent of these meetings was to get the projects off on the right foot; to remind the project managers of many things needed to successfully manage a project:

- Depending upon the funding sources, different processes need to be followed before a project can get underway.
- For Federally funded projects, the project must be included in the TIP / STIP, the funding must be authorized, and an environmental review must be completed.
- **DO NOT** charge time to a project until you have authorization to do so from Monica or from Programming in the Central Office.
- Federal funding for new FY-08 projects is not available until October 1 **(the start of the Federal fiscal year).**
- Projects funded with funds from the SYIP must be included in the PCES system, so they must be set-up in PCES if they don't already exist in that environment.
- Projects in the PCES system must have cost estimates uploaded and these estimates must be reselected or updated, at a minimum, every 90 days.
- Projects in the PCES system must have schedules completed, and the schedules should be updated, as appropriate.
- If a project is to receive funding reallocated from a parent project / OPC, a PD-24 must be completed and submitted to the appropriate person.
- **All Federally-funded ITS projects must follow the Rule 940 Process,** and it is **highly** recommended that all state funded ITS projects follow same process.
- Regardless of funding source, all projects that affect the Smart Traffic Center (STC) must be approved by the Change Configuration Board (CCB).
- All Operations Projects over $20 K need STOB approval (based on latest draft STOB Charter).
- Letting / renewal of a contract requires funding availability and approval from Joe Gray / Ops Administrative Section.
- Close projects out when they are completed.
- Use the appropriate charge codes and make sure that your staff does so, also.

3.10 Maintain / Update / Develop System Documents, Processes, and Reports (Box 10)

In the dynamic environment within which the NRO operates; System Documents, Processes, and Reports must be maintained and updated, and, when necessary, new documents, processes, and reports must be created. Additionally, because these documents, processes, and reports are inter-related; a change in one will cascade into a chain of changes throughout NRO. This is true of the NRO's Funding Plan, Work Plan, and SIPP.

4. FY-08 Funding Plan

By this reference, the most, current FY-08 Funding Plan is included in this SIPP.

The FY-08 Funding Plan is a living document that lists all of NRO's activities and identifies the sources and amounts of funding allocated to the activities. Partially funded and unfunded NRO activities which are candidates to receive funds are also included in the Funding Plan. Reallocation of funds to and from projects during the fiscal year is tracked in the Funding Plan.

It should be noted that the purpose of budget tracking is to maximize the efficiency of the money allocated to Operations, to make sure that funding is not left on the table at the end of the fiscal year, and to make sure that budgets are not overspent.

5. FY-08 Work Plan

By this reference, the most, current FY-08 Work Plan is included in this SIPP.

While the FY-08 Work Plan includes financial information for completeness's sake, it's primary purposes are:

- To identify and track, for the benefit of the project manager, the various steps and processes that must be completed during the life of project / program,
- To provide the current status of NRO's programs and projects for the benefit of NRO's managers.

The FY-08 Work Plan lists projects begun in prior years. In addition, a number of strategic new projects supporting the FY-08 goals will get underway. Some of the many projects include: the ATMS replacement software contract; establishing an incident management maintenance, integration and enhancement program; developing a ITS field device management system; replacing rusticated high-mast poles and sign structures, developing tools for assessing integrated ITS and Traffic Engineering

solutions to corridors and zones; expanding the ITS Architecture and Strategic Plan to the NRO; developing a concept of operations for DMS System upgrade; implementing a Systems Engineering Source for ITS Technology Systems (SESITS); developing a Telecommunications Master Plan; implementing a safety improvement project on Route 1; installing audible pedestrian signals; implementing a traffic signal optimization program in the Fredericksburg District; and facilitating consensus building for the new Northern Region.

6. Summary

The SIPP is a living document; as are the FY-08 Funding Plan and the FY-08 Work Plan, which were generated by the SIPP process. The process to develop the SIPP is alive and changing, as well, and, as may be expected of a process that is only two-years old, the process changes can be rapid and significant. Other factors driving the change in the SIPP process and associated SIPP documents is the inherent, dynamic nature of the Northern Region; the newness of the NRO as a functioning organization; and the recent ascendancy of Operations within the VDOT organization as a viable source of strategies to improve the safety, efficiency, and effectiveness of the Commonwealth's highway network.

The products of the SIPP process are important in that they provide NRO with a strategic focus and maximize the utility of the resources allocated to NRO.