Forward Four: Leading us Forward to a Sustainable Future

To ensure that NYSDOT is making good decisions in the efforts to preserve, maintain, operate and enhance the safety and condition of our transportation system, we have identified four guiding principles to meet the needs of our customers. The guidance given and questions asked in this Comprehensive Program Update (CPU) have been crafted around the four forward looking principles: Preservation First; System Not Projects; Maximize Return on Investment; and Make It Sustainable. A common theme integrated into these four principles and inherent in all of our investment decisions is stewardship of safety for the traveling public. Transportation facilities and services must be safe. Our safety policies and activities help to minimize risk across all modes.

By adhering to these principles we can strive to keep our system safe and maximize the life of our existing infrastructure while working to improve livability and promote economic development within the context of limited financial resources. It is important that we ask the right questions and we make decisions based on how well we can preserve our existing investments and assets, how we can provide the best transportation system to our customers, and how we can do it in a fiscally responsible manner. NYSDOT must also consider the concerns of our customers, stakeholders, Regional Economic Development Councils and associated communities as we develop our program and provide for open and transparent communication with the public.

Preservation First

The primary focus of this CPU is on system preservation and safety. Expected resources will not support a “build new” or “worst first” approach but must have a “preserve what we have” approach. A preservation first strategy focuses on preventive, corrective and demand work using Asset Management principles and data driven decision making. The highest priority is to preserve the functionality of the existing highway system. It is very important to recognize that a preservation first strategy is a long term commitment and will take years before we fully achieve the desired results. Inherent in this approach is a short term decline in conditions as resources are concentrated on stabilizing the backlog of preservation candidates. Once these assets are in the lower-cost preservation cycle, the future year

savings are applied to other candidates to bring them into a state of good repair. We must have patience to hold the course.

System not Projects

Our system-wide problem requires a system-driven and program-driven, rather than a project-driven, solution. That means, when we look at an individual project, we must look at it in the context of the larger transportation system: who does this asset serve? Is it on a corridor that is essential to move people or goods? Where does it fit into the regional and state priorities? Inherent in these decisions is the need to identify better ways to manage and operate the transportation system as a whole to most effectively use the capacity of the system we currently have.

Our facilities on critical links must remain safe, functional and provide the uninterrupted connectivity our customers require as they work and live in our state. To do this, we need to consider and prioritize our projects in a manner that treats them as key components or critical links within our larger transportation system. Where warranted, we must also strategically advance a limited number of system replacement and expansion projects that promote economic development, livability,and system connectivity.

Maximize Return on Investments

Funding for transportation infrastructure and services has been and will continue to be significantly less than the amount required to address all of the State's recognized needs. Insufficient investments have resulted in declining system conditions and a growing backlog of needs in order to bring our system to a state of good repair. Simply stated, we have more needs than money--both our federal and state resources are constrained. Given the significant needs of our transportation system, it is essential that we establish a strategy to invest in a way that produces the greatest possible return on investment.

We must develop an approach that allows us to make good decisions and spend our funds in a manner that not only preserves our most important assets but that best meets the needs of those who rely on our transportation system. A large part of this approach will emphasize proper management of assets with appropriate treatments, at appropriate times, and at the appropriate locations.

We will replace bridges and highways only when absolutely necessary. We will perform focused rehabilitation work, fixing only those elements in need of repair, when we determine we can buy significant life with limited investment. We will do preservation work timed appropriately within the "window of opportunity". We will target safety improvements based on accident data that identifies locations where the largest reduction in accident can be achieved for the least dollars. We will constrain the scope of work to what is required to achieve the full remaining life of the asset and include mobility and modernization projects only when it makes strategic and economic sense.

Make It Sustainable

A sustainable approach to programming considers the relative and cumulative value of our assets as they benefit the public, economy and environment. In this way we can enhance our decision-making process in terms of looking broadly at the wider benefits of the work we do with each Comprehensive Program. As part of this CPU, we will focus on ways to preserve our existing transportation system;

incorporate sustainability considerations into our decisions and actions; and support opportunities for innovation, economic growth and development. This must be done in a fiscally responsible manner by considering life cycle cost as well as fiscal cycles

We will adopt a strategy that allows us to develop a sustainable program, one that maximizes our return on investment, extends the life of our assets, and provides our customers a safe, reliable, balanced and environmentally sound transportation system. A sustainable program also incorporates strategies to minimize transportation system disruptions resulting from routine incidents, planned events such as the State Fair and non-routine events such as natural disasters or security related events. NYSDOT will seek and implement creative and low-cost ways to leverage funding to minimize costs over the life of the investments while fostering:

Economic competitiveness: improve efficiencies in work/business travel and freight movement; improve tourism access and inter-modal connectivity; develop investments which complement or enhance the strategic investments proposed by Regional Economic Development Councils.

Social equity/community: improve accessibility for transit; recreation; education; health care; support smart growth, complete streets and livability; increase safety; weigh climate associated risk to transportation infrastructure.

Environmental stewardship: increase energy efficiency and reduce greenhouse gas emissions; reduce resource consumption; limit impacts that encroach on the environmental footprint, and not deplete, and where practicable, enhance resources for future generations; improve air quality.

Sustainability considerations described above should be directly integrated into the Regions' decision making processes and not under separate considerations. However, as sustainability principles are now being introduced into the CPU, they are discussed in greater detail to help integrate sustainability principles into decision-making processes over the coming years.

Hierarchy of Priorities

To keep our current transportation system functioning in a safe and reliable manner, while at the same time recognizing our current fiscal constraints, it is essential that we follow a deliberate and strategic approach to best manage our assets. By necessity, that includes setting priorities -- priorities that will allow us to meet our long-term goals and short-term objectives. As we move forward, the following "hierarchy of priorities" will guide our actions and influence the decisions we must make as part of this Comprehensive Update effort.

Within each priority listed below there is the overarching need to consider Sustainability. When selecting projects within the same priority one should consider which projects are more important to a sustainable transportation system.

1. Hierarchy of Priorities

   In general, all actions should satisfy the following "Hierarchy of Priorities":

   a) Demand response
      - Safety of the system is the key component. Keep the system safe and reliable through: demand and corrective maintenance to structures; demand maintenance

to pavement and roadside appurtenances; and response and restitution of system closures/restrictions due to human and/or natural emergencies.

b) Preservation
   - Preserve the system through preventive maintenance and additional corrective maintenance actions.

c) Enhance Safety
   - Enhance the safety of the system through nominal and substantive safety countermeasures, including "systematic" improvements and spot locations.

d) System renewal
   - Strategically address system critical bridge replacements/major rehabs, pavement rehabs and reconstructions. System Renewal projects are considered "Beyond Preservation" projects.

e) Modernization
   - Improve the system through strategic added capacity projects (e.g., HOV lanes), major widening, addition of lanes, rest areas, or other enhancements to existing facilities. Modernization projects are considered "Beyond Preservation" projects.