MTA 2010-2014 CAPITAL PROGRAM QUESTIONS AND ANSWERS

Investment Summary

- **How was the size of the 2010-2014 Program determined?**

  The proposed plan is composed of two key pieces: core infrastructure maintenance and the completion of expansion projects. The expansion portion covers cost of completing Second Avenue Subway and East Side Access. The core program is determined by escalating costs from the previous plan as follows:

  - **Rolling Stock projects: 2005-2009 value inflated to the 2010-2014 timeframe based on the material and currency exchange cost growth indices typically included in railcar and bus contracts.**
  - **Non-Rolling Stock 3rd party projects, including planning studies, designs, etc: 05-09 value inflated to the 10-14 timeframe based on the 2008 forecasts for Construction of Industrial Buildings escalation issued by Global Insights.**
  - **In-house projects: 05-09 value inflated to the 10-14 timeframe based on the 2008 forecasts available for labor increases.**

  For Bridges and Tunnels, the proposed program was sized to accommodate the extraordinary level of deck repair/replacement required in the 2010-2014 timeframe, while providing additional funding to address priority needs elsewhere in the system.

- **Why is this program smaller than the 2008-2013 Capital Program proposed during the Congestion Pricing discussions?**

  The size of the core operating agency programs in the proposed 10-14 Program is comparable to the 08-13 program. However, since this program does not benefit from the revenues that were anticipated as a result of congestion pricing, it does not include "tier 3" investments for additional expansion, which included Phase II of Second Avenue Subway (Phase I will be completed with funds proposed in this program), the first half of the Penn Station Access investment, and additional CBTC signal investments outside of NYC Transit's core program. However, a recent FTA report suggested that the next three reauthorization periods should include a special allocation for catch up state of good repair for the older urban transit systems, a recommendation similar to the state of good repair allocation suggested in NYC's PlaNYC. MTA will pursue these opportunities as this plan moves forward.

- **The program indicates that some assets are in a State of Good Repair (SGR) that appear not to be in very good condition. Why?**

  The current labels no longer adequately describe the condition of the MTA's infrastructure. This is because assets are comprised of many components, which have varying normal replacement requirements. These components must be regularly replaced for the total asset to remain in good repair. Future plans will evaluate the repair needs of the components in establishing the assets overall state of good repair. This approach was recently introduced in NYC Transit's Station's Program as discussed in that section of this plan. The SGR discussion in the 10-14 program will be reworked to reflect this new approach.

- **Shouldn't LI Bus' capital program be included in the proposed plan like all the other MTA agencies?**

  Long Island Bus' rolling stock and facilities are not MTA assets that can be statutorily funded by the five-year capital plans. These assets belong to and are funded by Nassau County. This is different than Bridges and Tunnels and MTA Bus, which are MTA owned or controlled assets. As part of the 2010-2014 capital program, the MTA will perform a study of all the bus providers in the region to assess and recommend the best region-wide operating and funding scheme for these services.

- **The Capital Program calls for the development of a new "smart card". What is the plan for this initiative?**

  A total of $220 million is proposed for the 2010-2014 Capital Plan to implement new smart card fare payment technologies and processes for the MTA family. This system will accept contactless credit, debit, and prepaid cards at the fare array (e.g., subway turnstiles, bus fareboxes, rail platforms). This system will speed payment, improve access to the system and provide opportunities for more seamless fare policy throughout the MTA region.

  NYC Transit plans to fully implement this new fare payment approach by 2014. The two commuter railroads will invest $10 million each to conduct two pilot studies and other analyses of contactless payment infrastructure to progress implementation on the railroads.

Program Funding

- **Is there uncommitted funding from the 2005-2009 plan that can be used to fund some of the 2010-2014 plan?**

  At the end of each five year program, including the 2005-2009 program, an analysis is done to identify any funding not needed to meet existing project needs. These funds will then be carried over and dedicated to the next program. This analysis will be done at the end of the current program. It is important to note that we will continue to work on and expend funds for projects in the 2005-2009 capital program for approximately seven years after the program expires.

- **What are the debt service assumptions for the 10-14 plan and how much debt remains from previous plans?**

	Forecast ($ in millions)				
	2009	2010	2011	2012	2013
MTA Net Existing Capital Programs Debt Service *	$1,499.2	$1,913.8	$2,030.0	$2,154.9	$2,215.7
MTA Debt Service Associated with 2010-2014 Capital Programs	$0.0	$6.1	$29.2	$101.6	$260.5

- **What makes up the $600 million in internal funding?**

  The $600 million to be available in the first two years includes projections of $150 million from Pay As You Go Capital as reflected in the Financial Plan for 2010-2011. The remainder will come from the other sources; the allocation has not yet been determined.

- **How does the $10 billion funding gap in the proposed plan compare to the prior plan?**

  The 2005-2009 capital program was submitted in October 2004 with an $11 billion funding gap.

- **How were the selections prioritized between the first 2 years vs. the last 3 years?**

  Program funding assumptions currently cover only about two of the five years of projects. Once the program is submitted to the CPRB, we will work with the legislature and other funding partners to secure the full funding for this program. Projects in the first two years largely include those with designs

that permit early award, time sensitive investments, and the annual infrastructure maintenance programs (track and signals).

MTA New York City Transit

Subway Cars

- **Which lines will be receiving new subway cars?**

  A total of 146 new A Division cars are being purchased (including 23 purchased in the 2005-2009 program) which will be assigned to the Flushing Line (#7 train). These latest-generation cars are necessary for compatibility with Communications-Based Train Control (CBTC) signals that will be installed on the line and to support extension of the #7 line.

  Existing Flushing cars being replaced by this purchase will be assigned to other A Division lines - principally the West Side IRT.

  The 420 new B division cars being purchased will replace the existing R-44 fleet which primarily operates on the A line and the Staten Island Railway.

Buses

- **How come there isn't a BRT route identified in Queens?**

  MTA and NYC DOT have been working cooperatively to advance Bus Rapid Transit in New York City. One corridor was selected in each borough, but the corridor selected in Queens – Merrick Boulevard – was subsequently dropped at the request of Queens elected officials.

  MTA and NYCDOT are progressing a Phase II Bus Rapid Transit Screening process. Seven public workshops -- two in Queens -- were held this past spring to present initial staff findings and to solicit public input and comment. At this time several candidate corridors are being evaluated. These corridors include:

  - **Flushing to Jamaica**
  - **LaGuardia Airport**
  - **Northern Boulvard**
  - **Queens Boulevard subway congestion relief**
  - **Woodhaven Boulevard**
  - **Middle Village**
  - **Long Island Expressway**
  - **Long Island City Waterfront**
  - **Southeast Queens**
  - **Hillside Avenue-Jamaica Avenue**
  - **Utopia Parkway-Fresh Meadows**

In addition, MTA and NYCDOT are just beginning a transit study for Downtown Jamaica which has the goal of identifying ways to improve bus operations in and out of Jamaica. Numerous actions are under consideration including new bus lanes and traffic signal priority.

- What is the average age of the bus fleet now and what will it be after the new plan is implemented?

  Currently, the average age of the NYCT bus fleet is 8.6 years and the average age of the MTA Bus fleet is 6.6 years. Once all buses purchased in the 2005-09 program have been delivered (year end 2010), the average age of the NYCT fleet will be 7.9 years and the average age of the MTA bus fleet will be 5.8 years. The NYCT bus fleet age would drop to 6.0 years and the MTA Bus fleet age would rise to 7.5 years once all buses to be awarded in the 2010-2014 plan are delivered (year end 2015). (The increase in the average age for the MTA Bus fleet, which consists of over 1,300 buses, reflects the purchases of over 900 new buses (approximately 70 percent of its total fleet) since 2004; these will be between five to ten years old by the end of the 2010-2014 program.)

- Explain the relationship between bus age and state of good repair.

  State of Good Repair for a bus is defined as having an age of 12 years or less. Age is used as a proxy for the general condition and structural integrity of the vehicle. Many factors ultimately determine a bus' physical state including miles driven, road condition, driving patterns, and passenger load. It has been found that after approximately 12 years it is more cost effective to replace a bus than to rehabilitate or continue the increasingly expensive maintenance cycle.

- Given that the costs for Access-A-Ride service are increasing, what cost saving strategies are being progressed?

  NYCT is trying to maximize the use of taxis and, in particular, livery car services as one cost saving strategy. In doing so, NYCT will only contract with livery services that meet acceptable standards for reliability, vehicle maintenance, and other standards. Next year's operating budget assumes that 15% of all paratransit trips will be made by taxi or car service. This initiative does not entail any capital cost and, as such, has no funding allocated in the proposed 2010-14 capital program.

  In addition, in 2006 NYCT began introducing sedans into the fleet much more aggressively. A recent analysis of actual peak trip demand data indicated that only 30% of the daily routes required lift-equipped vehicles. The proposed 2010-2014 capital program supports an equal number of sedans and vans. It is expected that the mix of vehicle types will continue to evolve as new, more efficient types of lift-equipped vehicles become available.

- **The Plan calls for the purchase of 37 high capacity express buses. Where will these buses be deployed? Has the MTA considered purchasing smaller buses for use on less crowded routes, or during less crowded times of the day?**

  The high capacity express bus purchase provides for the in-kind replacement of overage buses. The new buses will be distributed among routes where overage buses are currently deployed. The specific route assignments are to be determined, and will also change over time.

  The NYCT and MTA Bus fleets currently include three basic vehicle types: 40-foot standard buses, 45-foot "over-the-road" express buses, and 60-foot articulated buses. Nearly all NYCT and MTA Bus routes require 40-foot (or larger) buses during peak periods, to handle existing ridership. Even on less-crowded routes, the use of smaller buses would require an increase in the quantity of buses needed for peak service. The cost of purchasing and operating additional buses would offset any fuel savings from the use of smaller buses.

  Many bus routes are not crowded during off-peak hours, but it would not be cost-effective to use smaller buses only in the off-peak, while still using larger buses during peak hours. Separate fleets of large and small buses would be required for peak and off-peak service, and the cost of purchasing and maintaining extra buses would more than offset any fuel savings from the use of smaller buses.

Passenger Stations

- **Please provide an explanation of the new state of good repair program for stations.**

  Past investment in stations was based on a strategy of comprehensive rehabilitations, performed station by station, each with an assumed useful life of 35 years. The goal was to rehabilitate all 468 stations by 2019, but this strategy has proved to be unsustainable. As construction costs have risen, the pace of station rehabilitations has slowed, pushing the schedule for addressing all 468 stations to well beyond 2019. As of 2009, there remain more than 200 stations that have had no major capital work completed since the first capital program began in 1982 and some stations that were rehabilitated in earlier capital programs have components that require repair. Since a station is not a single asset, but rather an amalgam of individual components, some components have useful lives less than the assumed 35 years. As a result, the strategy is now to address those components throughout the NYCT system that are in need of repair.

  To this end, a comprehensive data collection review of stations, conducted by independent engineering consultants, was completed in 2008. Over 14,500 components were rated on a five point scale (where 1 is best and 5 is worst condition), including the following:

Interior Stairs	Platform Floors, Walls, and Ceilings
Street Stairs	Platform Columns and Thru-Spans
Platform Edges	Mezzanine Floors, Walls, and Ceilings
Windscreens	Vent Bays
Canopies	Other (e.g., ramps, overpasses, piers, embankments)

NYCT's new strategy to address these station component repair needs is to pursue three distinct tiers of investment:

- Station Rehabilitations: Traditional comprehensive rehabilitation projects.

- Station Renewals: A renewal will provide a comprehensive improvement to the customer experience. Projects will address all remaining components rated 3 or worse at individual stations, plus aesthetic treatments such as painting and artwork to refresh the appearance of the station. Unlike in station rehabilitations, components that still have useful life will be maintained.

- Component Campaigns: Repair or replacement of individual station components in need of repair (rated 3 or worse), such as street stairs, platform edges, and windscreens. These investments will be based on the appropriate replacement cycles for individual components, and will be performed in a manner that is minimally intrusive to the customer experience.

Overall, the new strategy will address more stations in a shorter period of time, while continuing to maintain high standards. The overall goal is to eliminate components rated 3.5 or worse within 15 years and thereafter to maintain a state of good repair at all NYCT stations, with a 20-year cycle for major (renewal-level) investments.

- Which stations will be rehabilitated, which renewed and which will get component improvements?

The proposed 2010-14 program includes 14 traditional station rehabilitation projects, including nine stations on the Sea Beach line, four stations on the Pelham line, and the Smith-9th Sts Station on the Culver line. These locations were chosen for rehabilitation prior to the completion of the station condition survey; they were reprogrammed from the 2005-09 program to 2010-14. Essentially these projects are a legacy of the prior investment strategy.

The Station Renewal program will target stations with a high concentration of components rated 3.5 or worse. The Station Condition Survey database has been used to identify a pool of stations that are priority candidates for

renewal. This pool is comprised of the 50 stations with the highest percentage of components rated 3.5 or worse. (At each of these stations, at least 32% of the station's components are rated 3.5 or worse).

These stations are now entering the project scoping process, and site-specific investigations may yield further refinements to the list. The current goal for the 2010-14 program is to complete renewal projects at 25 of the 50 priority locations, with the exact number of projects to be determined based on funding constraints. A list of the pool of 50 stations from which the 25 stations will be selected is attached below.

The component improvement program will be targeted at those components that most affect safety and the customer experience. Platform edges and stairs, for example, are high-priority areas to be addressed. There is an overall goal to eliminate all components rated 3.5 or worse within 15 years, recognizing that condition ratings are subject to change as the database is updated. Targeted work on components rated 3.0 will also be necessary to prevent their worsening. It is expected that the 2010-14 program will focus on the components rated 4 or worse, although some components rated 3 or 3.5 may also be included to take advantage of construction efficiencies.

Priority Candidates for the Proposed 25 Station Renewal Projects

Count	Station	Line	Route	Boro	% Components 3.5 or worse
1	9th Street	4th Ave	M,R	BK	38%
2	86th Street	4th Ave	R	BK	33%
3	Grand Street	6th Ave	B,D	M	32%
4	Ditmars Boulevard	Astoria	N,W	Q	53%
5	Broadway	Astoria	N,W	Q	32%
6	Washington Ave-36 Ave	Astoria	N,W	Q	59%
7	Beebe Ave-39 Ave	Astoria	N,W	Q	43%
8	7th Avenue	Brighton	B,Q	BK	43%
9	Court Street	Broadway/4th Av	M,R	BK	44%
10	Bedford Avenue	Canarsie	L	BK	33%
11	Grand Street	Canarsie	L	BK	35%
12	Montrose Avenue	Canarsie	L	BK	52%
13	Wilson Avenue	Canarsie	L	BK	47%
14	Atlantic Avenue	Canarsie	L	BK	47%
15	Rockaway Parkway	Canarsie	L	BK	55%
16	21st Street	Crosstown	G	Q	37%
17	Ditmas Avenue	Culver	F	BK	32%
18	18th Avenue	Culver	F	BK	43%
19	Avenue I	Culver	F	BK	35%
20	Bay Pkwy (22nd Ave)	Culver	F	BK	32%
21	Avenue P	Culver	F	BK	43%
22	Avenue U	Culver	F	BK	35%

23	Avenue X	Culver	F	BK	52%
24	Dyre Avenue	Dyre Ave	5	BX	38%
25	111th Street	Flushing	7	Q	50%
26	90th Street Elmhurst	Flushing	7	Q	32%
27	Hunters Point	Flushing	7	Q	74%
28	121st Street	Jamaica	J,Z	Q	35%
29	104th St - 102nd St	Jamaica	J,Z	Q	37%
30	Cypress Hills	Jamaica	J	BK	52%
31	80th Street (Hudson St)	Liberty Ave	A	Q	35%
32	88th Street (Boyd Ave)	Liberty Ave	A	Q	46%
33	Rockaway Blvd	Liberty Ave	A	Q	50%
34	104th Street (Oxford Ave)	Liberty Ave	A	Q	65%
35	111th Street (Greenwood Av)	Liberty Ave	A	Q	38%
36	Lefferts Blvd	Liberty Ave	A	Q	47%
37	Fresh Pond Road	Myrtle Ave	M	Q	64%
38	Forest Avenue	Myrtle Ave	M	Q	73%
39	Seneca Avenue	Myrtle Ave	M	Q	86%
40	Knickerbocker Avenue	Myrtle Ave	M	BK	45%
41	Central Avenue	Myrtle Ave	M	BK	76%
42	Sutter Avenue	New Lots	3	BK	41%
43	Saratoga Avenue	New Lots	3	BK	52%
44	Rockaway Avenue	New Lots	3	BK	52%
45	Junius Street	New Lots	3	BK	46%
46	Pennsylvania Avenue	New Lots	3	BK	58%
47	Van Siclen Avenue	New Lots	3	BK	58%
48	Sterling Street	Nostrand	2,5	BK	32%
49	Newkirk Avenue	Nostrand	2,5	BK	40%
50	Longwood Avenue	Pelham	6	BX	33%

Note: Stations are listed in order of line/location, not in priority order. All 50 stations are high-priority candidates for station renewal. See "Selection of Station Renewals," above.

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- **Provide a List and Location of Proposed 2010-2014 Station Elevator Projects**

ASSET ID	ASSET	Boro	Line	Division
11 Hydraulic Elevators (2012) (T6040704):				
EL121	Pelham Bay Park	Bx	PEL	IRT
EL122	Pelham Bay Park	Bx	PEL	IRT
EL127	Simpson St (nb)	Bx	WPR	IRT
EL128	Simpson St (sb)	Bx	WPR	IRT
EL213	34 St (street)	M	6AV	IND
EL401	Lex Av - 63 St (sb)	M	E63	IND
EL405	21 St (street)	Q	E63	IND
EL406	21 St (sb)	Q	E63	IND
EL407	21 St (nb)	Q	E63	IND
EL408	Van Wyck (nb & sb)	Q	ARC	IND
EL409	Van Wyck (street)	Q	ARC	IND
10 Hydraulic Elevators (2013) (T6040705)				
EL125	125 St (street)	M	LEX	IRT
EL126	125 St (platform)	M	LEX	IRT
EL201	51 St Passageway	M	LEX	IRT
EL202	51 St Passageway	M	LEX	IRT
EL204	Grand Central (street)	M	LEX	IRT
EL205	Grand Central (sb)	M	LEX	IRT
EL206	Grand Central (nb)	M	LEX	IRT
EL314	Brooklyn Bridge (street)	M	LEX	IRT
EL315	Brooklyn Bridge (sb)	M	LEX	IRT
EL316	Brooklyn Bridge (nb)	M	LEX	IRT

Signals

- **$327 million is allocated for CBTC on the Flushing and Queens Boulevard lines. What is the total cost of full CBTC installation on these lines, what is the current schedule, and how will this affect plans to relieve overcrowding?**

  Flushing Line:

  Cost **The total cost of CBTC installation on the Flushing line is estimated at $585.9 million, of which $384.8 million was provided in the 2005-09 program and $201.1 million is proposed in the 2010-14 program.**

  Schedule **The project is currently forecast for award in November 2009 and completion in April 2016. This schedule reflects coordination with the upcoming purchase of new cars for the A-Division (R-188 contract), as these new cars will be equipped for CBTC operation on the Flushing line.**

  Relief of Overcrowding **Service on the Flushing line is currently limited to 27 trains per hour, due to constraints imposed by the existing signal system and the existing terminal at Times Square. The combination of CBTC and the 7 West extension will enable a service increase of two additional trains per hour, a 7% increase in capacity.**

  Queens Blvd Line:

  CBTC will be installed on the Queens Blvd line in five phases with a total cost of more than $900 million. The 2010-14 program will focus exclusively on the Queens Blvd West segment, from 50 St / 8 Av in Manhattan to 71-Continental Av in Queens. The cost of installing CBTC on this segment is $483.7 million. The proposed 2010-14 program includes $125.0 million to begin this project (award in 2013), with the balance of funding to be provided in a subsequent capital program.

  Additional segments of the Queens Blvd line will be addressed after 2014. The 20 Year Needs Assessment calls for all segments to be awarded by 2020, but this schedule will depend on funding levels.

  Relief of Overcrowding **Express trains on the Queens Blvd line (E and F trains) are overcrowded in peak periods, and the existing signal system limits service to 29-30 trains per hour. CBTC will enable a service increase of approximately three additional trains per hour, a 10% increase in capacity. It may be possible to achieve this increase at a lower cost just by installing CBTC on the more heavily utilized Queens Blvd West segment (west of 71st-Continental Ave) – an option that will be examined during project development.**

- **$84.6M is allocated for developing a test track on a non-revenue segment of the Culver line for integration testing of new technology CBTC signal equipment. As this is funding for phase 2 of the project, when will phase 1 be completed? Will this test track be permanent, and will it interfere with or possibly delay an F express?**

  Since CBTC equipment can be provided by multiple suppliers, the CBTC test track provides a site to demonstrate system equipment interoperability in a revenue environment to ensure safety and performance. Phase 1 of the CBTC Test Track project is currently forecast for award in March 2010 and Phase 2 is forecast for award in January 2011. The project phasing is solely based on funding availability ($15 million for Phase 1 is in 2005-09 and $84.6 million for Phase 2 is in 2010-14), and both phases are required to complete the project. As such, Phase 1 does not have a distinct completion date prior to the award of Phase 2. Overall completion (both phases) is forecast for March 2015.

  The project will install CBTC equipment on one of the Culver express tracks, between 4 Av and Church Av. This equipment will be permanent, but will not delay or interfere with the operation of an F express service. If an F express is instituted, CBTC installation and testing would be limited to the hours when the express service is not scheduled to operate (e.g., nights and weekends).

Communications

- **Please provide a discussion of the status of real time subway information and the investments included in the 2010-2014 Program.**

  To provide automated real-time information to subway customers, including train arrival "countdown clocks," two distinct systems are being implemented:

  1. **An advanced-technology train control system to identify the location of trains – either Communications-Based Train Control (CBTC), which is a state-of-the-art computerized signal system; or Automatic Train Supervision (ATS), which is an enhancement to existing, conventional signal systems.**

  2. **Public Address and Customer Information Screens (PA/CIS) to broadcast digital audio announcements and display digital text-based announcements.**

  These technologies are being rolled out throughout the NYCT system, with the eventual goal of providing real-time information on all subway lines. The following is an explanation of how and when the rollout will occur in different areas of the system.

Canarsie Line (24 Stations) **Real-time information is currently provided with investments in previous programs. This line features CBTC signals (completed 2006) and upgraded PA/CIS (completed 2007).**

A-Division (156 Stations, all but Flushing Line; these investments were included in previous programs) **An ATS system was successfully completed in 2008 ($213 million) and PA/CIS installation is now underway ($171 million). Completion of the PA/CIS project is currently forecast for December 2010, subject to the successful resolution of contractual issues.**

Real-time information will be provided once the PA/CIS project is complete, except on the White Plains Road line (19 stations) and the Dyre Avenue line (5 stations), where ATS will not be enabled until signal modernization work is completed. On the White Plains Road line, signal work is now underway, with completion forecast for November 2011. On the Dyre Avenue line, signal work is planned for award in 2012, with completion in 2016.

Flushing Line (21 Stations) **CBTC signals will be installed (2009 award) and PA/CIS systems will be upgraded (2013 award) to provide real-time information. Completion is forecast for 2016.**

- **$201.1 million is budgeted for Flushing CBTC in 2010-14 (in addition to $384.8 million already budgeted in 2005-09).**

- **$37.8 million is budgeted for Flushing PA/CIS in 2010-14.**

Balance of B-Division (267 Stations) **ATS and PA/CIS systems will receive investment in the 2010-14 program, but these systems will not be completed until a later program; real time information will be provided at that time.**

- **$25.0 million is budgeted in 2012 for design/piloting of an ATS system for train monitoring on the B-Division. Full rollout on the entire B-Division will cost approximately $175 million, with the balance of the cost to be funded in 2015-19.**

- **$46.0 million is budgeted in 2010 for installation of PA/CIS at the final 43 stations that currently have no public address capabilities. This investment will ensure that all NYCT stations have at least some form of public address. However, older systems at 180 stations will require upgrades or replacement for compatibility with ATS; this work will be funded in 2015-19 or beyond.**

- **Please provide a discussion of the status of real time bus information and the investments included in the 2010-2014 Program.**

NYCT and MTA Bus are committed to pursuing an Automatic Vehicle Location (AVL) system, which will be used to provide automated real-time bus location and arrival information to bus customers. This technology will

be rolled out initially along existing and planned Select Bus Service (SBS) routes, with the eventual goal of providing real-time information on all bus lines.

The following is a discussion of current plans for AVL rollout, including funding allocated for this purpose:

Procurement Strategy In order to define requirements that will result in an overall successful project, NYC Transit is evaluating the technologies that are presently available in the market place. One technology is currently being evaluated on the 34th Street crosstown (future SBS) bus corridor, as part of a vendor demonstration by Clever Devices. The demonstration began in August 2009 and is expected to be complete by February 2010. This pilot initiative is being undertaken at no capital cost to NYCT.

A Request for Information (RFI) to AVL technology vendors is presently in circulation. Extensive market outreach is also being conducted to identify all suppliers who can competitively provide this technology. The goal of this effort will be the development of specifications that can be successfully met by existing, proven and competitively available technologies.

Upon development of a complete product specification and an accompanying scope of work, a competitive procurement in the form of a Request For Proposal (RFP) will be solicited; the current target date for award(s) is late 2010.

Current Funding **Funding of $30.7 million for AVL rollout is currently available in the 2005-09 capital program. Additional funding of $50 million is proposed in the 2010-14 capital program (including $42 million for NYCT and $8 million for MTA Bus). Together, this funding is expected to pay for the full deployment of AVL on all planned SBS routes, as well as the initial phases of a systemwide rollout. The systemwide rollout would be completed in the 2015-19 capital program period.**

In rolling out the program, NYC Transit's implementation will be complemented by and coordinated with NYC DOT's investment in electronic count down information signs in the bus shelters as well as streetscape enhancements. NYC Transit and NYC DOT are working together to develop the appropriate timetable for key locations, notably First/Second Avenue.

As to cost, a systemwide estimate is not currently available; once we have gone through the RFP process and made a selection, the cost can be better defined. A variable in the rollout strategy and technology selection will be the cost to retrofit the existing bus fleet, particularly older buses.

Potential Operating Impacts AVL is expected to result in improved customer service by providing a comprehensive history of running time data that can be used to update bus schedules to better reflect actual conditions, resulting in more reliable service. AVL will also improve the ability to dispatch services, particularly in response to congestion or other unplanned events, resulting in a more efficient use of NYCT and MTA Bus resources.

Yards and Depots

- **Where are the new cars (including Flushing) and buses going to be stored?**

  All of the 146 new A Division cars will run on the Flushing line. These new trains will be stored in two places. Most will be stored in the Corona Yard; however, some will at times be stored on the new tail tracks that are being built at the far western end of the 7 Line in Manhattan.

  The purchase of the new A Division railcars for the Flushing Line will allow for fleet expansion on other IRT routes; these additional cars would be stored in some combination of the 240 St, 137 St, 239 St, Lenox, and Unionport/E 180 St yards. The specific yard assignments have not yet been determined, but NYCT does have the yard capacity to store these growth cars.

  It has not yet been determined where the new buses will be stored. Those decisions will be based on ridership demand and other operational considerations. The new bus depot at Charleston will add to NYCT's overall bus storage capacity.

MTA Long Island Rail Road

Overview

- **Provide a discrete list of ESA Readiness projects in the LIRR core.**

  The 2010-2014 capital investments needed to support ESA opening day service in 2016 (ESA Readiness projects) include:

  Stations
  ESA / GCT Support - $15.5 million

  Track
  Massapequa Pocket Track - $19.6 million
  Great Neck Pocket Track Extension - $26.1 million
  Jamaica Capacity Improvements - Phase 1 - $400.0 million
  Double Track Main Line - Phase 1 - $137.9 million

Line Structures
Colonial Road Bridge Replacement - $10.0 million

Yards
Port Washington Yard Reconfiguration - $12.1 million
Mid-Suffolk Yard - $79.2 million
New Huntington / Port Jefferson Yard - $85.5 million

Power
New traction power substations in Queens - $22.1 million

Total ESA Readiness Investment - $808.0 million

- **Please provide a review of Oyster Bay Branch service improvement options.**

  The LIRR is in the early stages of evaluating the possibility of improving the frequency of service along the Oyster Bay Branch by separating the Oyster Bay Branch service (diesel locomotives and coaches) from the Main Line. Shuttle service would be provided at 20 minute frequency along the Oyster Bay Branch to Mineola, requiring a transfer at Mineola to Main Line "electric" trains. Currently, ridership on the Oyster Bay Branch is approximately 2,000 customers westbound in the four hour AM Peak period, only 2% of system-wide ridership.

  The reconfiguration of the Oyster Bay tracks in the vicinity of Mineola would also eliminate the cross-over to the Main Line, which creates congestion and constrains operations as Oyster Bay trains are required to operate at 15 mph when crossing over to the Main Line, due to the geometry of switches and curves. Multiple fleet options for this shuttle service concept are in review at the LIRR. Under this proposal, platform modifications would need to be made in Mineola to facilitate this new scoot service.

  The reconfiguration at Mineola and a passing siding east of Locust Valley would need to be constructed in order to provide a service frequency of 20 minutes during peak periods. The present schedule provides for frequency of 45 minutes or longer.

  In addition to increasing service frequency on the Oyster Bay Branch, this proposal would also improve operations by freeing up capacity on the Main Line, which could operate more electric trains.

Stations and Parking

- **This program includes funding for intermodal parking. What is it? Where is it? How else will LIRR improve station access?**

  The proposed 2010-2014 Capital Program includes a $65 million dollar project for the development and expansion of commuter parking through the construction of a multistory parking garage in order to increase the

availability of commuter parking. The LIRR currently has a commuter parking space deficit at its busiest stations, and the need for commuter parking will grow in the future, particularly after direct LIRR service to Manhattan's East Side becomes available. While parking deck locations have not been determined yet, candidates are Level 1 stations (having more than 6,000 passenger trips per weekday) and Level 2 stations (having between 2,000 and 6,000 passenger trips per weekday) on the busiest electric branches. Priority consideration will be given to stations which are also served by multiple bus routes and other transit connections, in order to provide multi-modal transit opportunities.

In addition, in conjunction with MTA's Transit Oriented Development (TOD) initiative, the LIRR will, in collaboration with communities and stakeholders, identify feasible development opportunities near stations meeting the above criteria. Properly scaled and designed retail and residential uses near transit can enhance existing communities, providing many benefits including reduced auto-dependency and improved transit convenience. In determining investment priorities, LIRR will evaluate where structured parking could facilitate redevelopment of surface parking lots or other undeveloped sites near transit. This review would be undertaken in the context of station area planning to improve station access including intermodal connections, "kiss and ride" and pedestrian/cycling improvements. In addition, LIRR will identify partnership opportunities such as joint parking, and will evaluate where its investments can best coordinate with local land use initiatives that support TOD and where they can provide the greatest leverage of other public and private sources. LIRR will support the efforts of municipalities in competitive planning grants and undertaking comprehensive station area/downtown planning and zoning studies as part of coordinating local land use with LIRR parking and intermodal investments.

Track and Structures

- **Are there any property takings for the Great Neck Pocket Track extension?**

  Early conceptual analysis indicates that there are not any property takings required for this project.

- **The Ellison Avenue Bridge needs to be addressed. What is the status?**

  The MTA has been in discussions with the New York State Department of Transportation (NYSDOT) and the Governor's Office, regarding potential use of Tiger Funds (Federal American Recovery and Reinvestment Act Funds) to replace this bridge.

- **Please provide a discussion of the relationship of this program to Main Line Third Track.**

The Long Island Rail Road remains committed to the Third Track - Main Line Corridor project to provide greater service reliability, flexibility to increase service for westbound traffic, and most importantly, the ability to greatly increase options for reverse commutation. The project offers clear and direct economic benefits to the Long Island region by ensuring access to and from housing, employment and recreational opportunities. However, the railroad must first complete the projects needed to support and maximize the benefits of the LIRR's East Side Access. The ESA readiness investments proposed in this program will secure the promised ESA service levels; future capital programs will include investments to secure the benefits promised by third track.

Using funds included in the 2005-2009 Program, however, LIRR is currently exploring approximately $200 million in short-term Main Line Corridor initiatives that offer additional capacity and reliability benefits, without compromising the strategic Third Track initiative. LIRR plans to pursue short-term alternatives that have the potential to:

- **Add capacity and enable some service augmentation.**
- **Speed recovery time from disruptions along the corridor.**
- **Reduce congestion on the corridor.**

Any short-term improvement made in the Main Line Corridor will be consistent with the longer range plan to eventually build the Third Track, plus any actual construction on infrastructure associated with the corridor will incorporate all third track elements. Short-term improvements must provide independent utility to the LIRR's operation so as not to cause segmentation of the environmental impacts in the overall Main Line Corridor – Third Track Project.

- **As the LIRR Third Track Project is not in the plan, what other Main Line improvements are being implemented that will benefit New York City residents who reverse commute?**

As Long Island Rail Road reverse-peak and intra-island ridership continues to grow, the railroad continues to look at ways to strengthen service from New York City to employment centers across Long Island. The proposed 2010 – 2014 Capital Program includes phase 1 of the Jamaica Capacity Improvements project. Phase 1 provides for the construction of a new platform at Jamaica Station along with associated track, signal and switches. This new infrastructure will create a dedicated location within Jamaica Station to operate the new Cross-Borough Scoot service between Jamaica and Flatbush Avenue, to be initiated as part of the East Side Access operating plan. This new infrastructure and new type of operation will allow the LIRR to greatly increase the frequency of train service in both directions between Jamaica and Flatbush Avenue, both during the peak and off-peak periods.

More frequent train service between these two New York City boroughs will foster greater regional mobility, providing Brooklyn residents with access to

jobs in central Queens, including the major employers in and around JFK International Airport, and access to jobs in Nassau and Suffolk Counties. The increased frequency of train service that is made possible by Jamaica Capacity investments will be of particular benefit to Brooklyn residents who work non-traditional hours, such as hospital or airport employees, by greatly increasing the frequency of service during weekend and evening periods.

The 2010 - 2014 Capital Program also includes a project which will increase train storage capacity on one of the LIRR's busiest branches – the Port Washington Branch. The Port Washington Yard Reconfiguration will increase train storage capacity, which will allow for more train starts on the branch. Since this in turn provides more trains making the reverse trip, opportunity will now exist for more of those trains to make station stops along the branch that were often skipped to expedite the trains' return to peak direction service.

Please provide more details on the "Cross Borough Scoot" service between Jamaica and Brooklyn.

The initiation of Cross Borough Scoot service between Jamaica and Brooklyn will coincide with the opening of East Side Access Service to Grand Central Terminal, so it will not begin operating during the 2010-2014 Capital Program time period. The Jamaica Capacity Improvements project will construct a new platform at Jamaica Station, along with track, signal and switch infrastructure, which will allow for dedicated Brooklyn to Jamaica train routing. The LIRR Cross Borough Scoot will operate between Jamaica and Flatbush Avenue, making all stops (Jamaica, East New York, Nostrand Avenue, and Flatbush Avenue). LIRR multiple-unit electric cars (anticipated to be six car consists) will be used for this service. All Brooklyn Flatbush services will require a transfer at Jamaica to the new Cross Borough Scoot. The fare for service between Jamaica and Brooklyn will remain the same (Brooklyn stations in Zone 1 and Jamaica in Zone 3). Cross Borough Scoot service frequencies between Jamaica and Brooklyn will be greatly increased as compared with current levels of service:

- **Peak-direction rush hour service would continue to operate every 7 ½ minutes**
- **Reverse-peak rush hour service would go from every 20 minutes today to every 10 minutes**
- **Mid-day off-peak service would go from every 30 minutes today to every 15 minutes**
- **Late night (midnight to 6 AM) frequency would remain the same – every 30 minutes.**

Signals and Communications

- **Please provide a discussion of the status of real time information at railroad stations and the investments included in the 2010-2014 Program.**

LIRR's Audio-Visual Paging System (AVPS) initiative works to provide station-based audio and visual customer information at branch line stations. All 121 branch line stations will be part of the AVPS system when it is completely built out. AVPS utilizes electronic message signs on station platforms along with audio announcements, to provide train status information and other customer information. The AVPS system is controlled from the Movement Bureau in Jamaica.

Funding was split between the 2000-2004 Program ($12.5 million) and the 2005-2009 Program ($34.9 million). The 2000-2004 Capital Program included system design/head-end and installation at 41 stations. The 2005-2009 Capital Program included installation at 80 stations and design/construction of a back-up head-end system. (This initiative has been fully funded in these prior programs.)

As part of the 2000-2004 Capital Program, AVPS was installed at the LIRR's Key ADA stations, stations which previously did not have any public address system, as well as at stations which had the most deteriorated public address systems. The 2005-2009 installation effort was progressed on a branch-by-branch basis, based upon branch-wide levels of ridership.

Babylon Branch - Completed December 2007 ***(except Seaford where AVPS installation was coordinated with the station rehabilitation project)***

Ronkonkoma Branch - Completed July 2008

Long Beach Branch - Completed November 2008

Port Washington Branch - Completed January 2009

Port Jefferson Branch - Scheduled for Completion by September 2009

- **New Hyde Park - Completed June 2009**
- **Merillon Avenue - Completed June 2009**
- **Carle Place - Schedule for August 2009**
- **Westbury - Scheduled for September 2009**
- **Cold Spring Harbor - Completed June 2009**
- **Greenlawn - Completed April 2009**
- **Smithtown - Completed June 2009**
- **St James - Completed April 2009**
- **Stony Brook - Completed April 2009**

Floral Park - Scheduled for September 2009

Far Rockaway Branch - Scheduled for Completion by March 2010

- **Gibson - Scheduled for November 2009**
- **Hewlett - Scheduled for August 2009**
- **Woodmere - Scheduled for September 2009**

- **Cedarhurst - Scheduled for November 2009**
- **Lawrence - Scheduled for November 2009**
- **Inwood - Scheduled for October 2009**
- **Far Rockaway - Scheduled for December 2009**
- **Locust Manor - Scheduled for March 2010**
- **Laurelton - Scheduled for March 2010**
- **Rosedale - Scheduled for March 2010**

Hempstead Branch - Scheduled for Completion June 2010
- **Hollis - Scheduled for June 2010**
- **Queens Village - Scheduled for June 2010**
- **Bellerose - Scheduled for June 2010**
- **Stewart Manor - Scheduled for June 2010**
- **Nassau Boulevard - Scheduled for June 2010**
- **Garden City - Scheduled for June 2010**
- **Country Life Press - Scheduled for June 2010**

Montauk Branch - Remaining Scheduled for Completion September 2010
- **Bay Shore - Scheduled for September 2010**
- **Islip - Scheduled for September 2010**
- **Great River - Scheduled for September 2010**

West Hempstead Branch - Scheduled for Completion December 2010
- **St Albans - Scheduled for December 2010**
- **Westwood - Scheduled for December 2010**
- **Malverne - Scheduled for December 2010**
- **Lakeview - Scheduled for December 2010**
- **Hempstead Gardens - Scheduled for December 2010**
- **West Hempstead - Scheduled for December 2010**

City Terminal Stations - Scheduled for Completion March 2011
- **East New York - Scheduled for March 2011**
- **Nostrand Avenue – May adjust schedule to coordinate with station rehabilitation (part of Atlantic Avenue Viaduct Phase IIb project)**
- **Kew Gardens - Scheduled for March 2011**
- **Forest Hills - Scheduled for March 2011**
- **Hunterspoint Avenue - Scheduled for March 2011**
- **Long Island City - Scheduled for March 2011**

Oyster Bay Branch - Scheduled for Completion June 2011
- **Albertson - Scheduled for June 2011**
- **Greenvale - Scheduled for June 2011**
- **Glen Head - Scheduled for June 2011**
- **Sea Cliff - Scheduled for June 2011**
- **Glen Street - Scheduled for June 2011**
- **Glen Cove - Scheduled for June 2011**
- **Locust Valley - Scheduled for June 2011**

- **Oyster Bay - Scheduled for June 2011**

MTA Metro-North Railroad

Signals and Communications

- **Please provide a discussion of the status of real time information at railroad stations and the investments included in the 2010-2014 Program.**

  The provision of real-time information to our customers is critical to the improvement of customer service and customer satisfaction. The purpose of this initiative is to install at all 108 East of Hudson Stations (70 in New York State and 38 in the State of Connecticut) the latest customer information technology. This will allow MNR to provide real-time information including departure time and destination, status, and track, and to upgrade the existing Visual Information system at Grand Central Terminal. Under earlier approved capital programs, Metro-North has already provided real-time train status information with great success at: Harlem-125th Street; Yankees-E. 153rd Street; White Plains; Fordham; and Larchmont Stations.

  Metro-North has set aside funding $77.8 million in the proposed 2010-2014 Capital Program to install these improvements at all East of Hudson stations in New York State. Installation at stations in the State of Connecticut has been recommended to and is being reviewed by CDOT.

  A comprehensive design for all of these East of Hudson stations will take place in 2010. Implementation will begin in 2012 with completion expected by December 2015. Real time customer information for Metro-North's west of Hudson territory will be pursued with New Jersey Transit, the operator of the service.

MTA Interagency/Security and Safety

- **The MTA Interagency Safety and Security section of the Plan includes $400M to support implementation of federally-mandated Positive Train Control. How much, if any, is required to go towards NYCT?**

  Positive Train Control is an unfunded Federal mandate for the railroads only; it is not mandated for NYC Transit.

- **The Capital Program includes $184 million to rehabilitate the MTA's facility at 370 Jay Street, which will largely be used to house the new Business Service**

Center (BSC). Does the savings generated by the BSC warrant this investment?

An MTA cost benefit analysis showed that the BSC could be expected to save on average approximately $22 million per year by consolidating back office human resources and financial transactional services resulting. The initial investment will break even in a little over five years. This analysis is not affected by the investment decision regarding Jay Street.

The rehabilitation of Jay Street is supported by an independent analysis. A cost benefit was performed for Jay Street in conjunction with the proposed congestion pricing program, which showed it to be a cost-effective choice for housing the BSC and eliminating other current NYC Transit leaseholds. The cost for the rehabilitation of Jay Street in the 2010-2014 program added inflation and a contingency to that earlier estimate. That earlier analysis is currently being updated with a more comprehensive cost analysis and rental rates in today's market.

- **What planning studies are being proposed in the 2010-2014 plan?**

  The 2010-2014 Program includes the following planning studies:
  - **Queens Blvd. Corridor Study**
  - **Staten Island North Shore Corridor Study**
  - **Staten Island West Shore Corridor Study**
  - **Regional Bus Study**
  - **Tappen Zee EIS**
  - **Modeling and Surveys for compliance federal planning guidelines and upgrading MTA's travel model**

- **When will Queens Blvd Corridor study begin and when will specific scope items be identified ?**

  Upon approval of the 2010-14 program, the study will commence in 2010 and will take two to three years to identify potential investment alternatives.

- **What is the MTA's role in replacement of the Tappan Zee Bridge and why does the Plan include $30M for a Tappan Zee study?**

  As the region addresses the replacement of the Tappan Zee Bridge (TZ), a 100+ year decision, it is considering transit options to ensure that the bridge carries more people not just more vehicles. The TZ corridor is one of the largest trans-Hudson travel corridors in the State. MTA already has a major role serving trans-Hudson travel in this corridor with Metro North's Hudson line, which serves thousands of west of Hudson customers daily. A new TZ crossing with a new transit dimension is a project in which MTA has an integral role. The investment in this program funds the final EIS and

Preliminary Engineering for a corridor-wide transit solution including a transit ready bridge.

- **The MTA Police Program includes funds for an MTA Police radio system. Will the MTA Police radio system be able to communicate with NYPD, particularly in cases of emergency?**

  This inititiative funds a a radio system for the MTA PD's service territory, which includes LIRR, MNR and SIR. (This system is distinct from the system in the subway for NYPD.) Currently, the MTAPD has communication with NYPD through their dispatch. It is intended that this be enhanced with field radio capabilities in the new system. This will be confirmed pending completion of the Alternatives Assessment currently underway.

- **The Plan specifies that MTA will undertake a study to learn about the challenges and opportunities of a unified regional bus system. What is the scope of this study and how much will it cost?**

  The study responds to continued interest in regional bus by counties in the MTA region, stemming from the earlier public consideration of the recommendations of the Ravitch Commission. The study is aimed at providing essential information to MTA to judge the potential features, benefits and costs of regional bus. The scope of the study includes a review of: the public systems' routes and service levels; costs and revenues; capital assets; subsidy sources; contracts and potential improvements. The costs of the study will be determined through the RFP process expected to begin in September.

Capital Expansion Projects

- **There is a rolling stock reserve of $463 million and a liability reserve of $234 million in the Plan. What will these reserves be used for?**

  The rolling stock reserve is for new trains needed for East Side Access, pending the completion of an opening day simulation to confirm the full fleet need. The liability reserve is designated to support all of MTA CC's projects, including East Side Access and Second Avenue Subway.

MTA Bridges and Tunnels

- **The Bridges and Tunnels Capital Program is increasing to $2.508 billion from $1.209 billion in the previous 2005-2009 Capital Plan. Were the increased needs for this Plan cycle identified in the previous Twenty Year Needs Assessment from 2005?**

Yes. The 2005-2024 twenty year needs (TYNs) identified an investment value of $2.3 billion in today's dollars for the 2010-2014 period. That same TYNs analysis valued the 2005-2009 period at $600 million more than was actually funded in 2005-2009. Adding this to the amount that had been identified for the 2010-2014 period results in a need of $2.9 billion.