



**Metropolitan Transportation Authority**

# **Capital Program Oversight Committee Meeting**

## **November 2009**

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### **Committee Members**

J. Walder, Chair

A. Albert

J. Blair

A. Cappelli

D. Frasca

M. Page

M. Pally

N. Seabrook

J. Sedore, Jr.

E. Watt

C. Wortendyke



## MEETING AGENDA

### MTA CPOC COMMITTEE

November 16, 2009 – 12:00 noon

347 Madison Avenue  
Fifth Floor Board Room  
New York, NY

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#### AGENDA ITEMS

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#### PUBLIC COMMENTS PERIOD

- |   |              |
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| 2. COMMITTEE WORK PLAN  | 1-5          |
| 3. ANNUAL REVIEW OF CPOC CHARTER  | TAB 2        |
| 4. COMMITMENTS/COMPLETIONS UPDATE   | TAB 3        |
| 5. NEW YORK CITY TRANSIT<br>Acting Senior Vice President and Chief Engineer's Semi-Annual Update<br>on the Signal and Systems Program | TAB 4<br>4-1 |
| <i>McKissack+Delcan Regular Monitoring Reports on:</i>  |              |
| <i>Signal Modernization Program</i>   | 4-11         |
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| 6. NEW YORK CITY TRANSIT<br>Senior Vice President's Semi-Annual Update on the Bus Procurement Program                                 | TAB 5<br>5-1 |
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**MINUTES OF MEETING**  
**MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE**  
**October 26, 2009**  
**New York, New York**  
**12:00 noon**

MTA CPOC members present

Hon. Jay Walder, Chairman  
Hon. Andrew Albert  
Hon. James Blair  
Hon. Allen Cappelli  
Hon. Mark Page  
Hon. Mitchell Pally  
Hon. James Sedore  
Hon. Carl Wortendyke

MTA CPOC members not present

Hon. Doreen Frasca  
Hon. Norman Seabrook  
Hon. James Sedore  
Hon. Ed Watt  
Hon. Carl Wortendyke

MTA staff present

Linda Kleinbaum  
Ron Saporita

Long Island Rail Road staff present

Albert Consenza  
Kevin Tomlinson

Capital Construction staff present

Michael Horodniceanu

McKissack+Delcan staff present

Mike Kaleda  
James Castle  
Kurt Egger  
Gerry Gardrvits

Note: Board Members Bickford, Greenberg and Metzger also attended the meeting.

\* \* \*

Mr. Walder called the October 26, 2009 meeting of the Capital Program Oversight Committee to order at 12:00 noon.

Public Comments Period

There were no speakers in the public comments portion of the meeting.

Meeting Minutes

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on September 21, 2009.

## Committee Work Plan

There were no changes to the Committee's work plan.

## Commitments and Completions Update

Mr. Saporita reported that as of September 30, 2009, the MTA agencies committed \$4.04 billion, or 96% of the planned commitments of \$4.2 billion for the period. NYCT committed \$1.73 billion, or 89% of its plan of \$1.95 billion. LIRR committed \$306 million, or 140% of its plan of \$219 million. MNR committed \$203 million, or 95% of its plan of \$214 million. CCC committed \$1.71 billion, or 108% of its plan of \$1.58 billion. B&T committed \$19 million, or 16% of its plan of \$117 million. MTA Bus has committed \$17 million, or 28% of its plan of \$61.8 million. MTA PD has committed \$1.6 million, or 16% of its plan of \$10 million.

MTA completed \$2.89 billion through September 2009, or 98% of the planned completions of \$2.95 billion. NYCT completed \$1.41 billion, or 85% of its plan of \$1.66 billion. LIRR completed \$134 million, or 60% of its plan of \$222 million. MNR completed \$434 million, or 505% of its plan of \$86 million. CCC completed \$506 million, or 92% of its plan of \$553 million. B&T completed \$406 million, or 95% of its plan of \$426 million.

Mr. Walder asked Mr. Saporita to assess whether the agencies will achieve commitments currently scheduled for the fourth quarter. Mr. Saporita responded that over the past four years agencies have generally achieved approximately 80% of planned commitments. In addition, Mr. Saporita said that the Flushing CBTC project, valued at \$347 million, originally scheduled to be committed this year, is now slated for an early 2010 award, and the \$299 million Clara Hale Depot may also be awarded in early 2010, rather than 2009, as originally scheduled. Mr. Saporita concluded that, generally, the large projects from the other agencies that are currently scheduled for fourth quarter 2009 awards are on track to meet their commitment goals. Ms. Kleinbaum added that the agencies will soon identify those projects from the '05-'09 Capital Plan that have slipped beyond 2009. Mr. Walder cited the new Capital Program Dashboard as an effective and transparent means of tracking the progress of the Capital Program, starting in 2010.

More detail on the information reported in this section is found in the CPOC committee materials.

## LIRR Presentation on Morris Park Facility Upgrade Risk-Based Workshop

Mr. Tomlinson presented a project overview and discussion of the risk assessment associated with the design and construction of the Morris Park Facility Upgrade Project. This project, which is included in the LIRR's 2010-2014 Capital Program, was selected for a risk assessment because of its significant cost and complexity.

The Morris Park Facility, consisting of a Locomotive Shop and Yard, is located one mile west of LIRR's Jamaica Station and encompasses approximately 23 acres. It is the primary location for the LIRR's repair operations for its 45 diesel passenger locomotives and 22 work locomotives. LIRR's current locomotive repair facilities are inadequate for efficient heavy duty locomotive repairs, resulting in high overtime costs and reduced locomotive availability.

The scope of this project includes a new larger locomotive repair and overhaul shop with an enclosed component storage area to support shop operations, administrative space, and locker and rest rooms to accommodate approximately 105 personnel. The total facility will be approximately 47,000 sq-ft in size. The scope of work also includes the reconfiguration of existing yard tracks and the construction of new tracks to support this facility.

This facility will be designed and constructed to meet the criteria for certification issued by the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) and includes the following sustainable initiatives: natural day lighting and ventilation; rain water harvesting, which allows for washing of locomotive parts and flushing of toilets; and energy-efficient lighting. These initiatives were found by LIRR to be cost effective and were selected after due diligence that included lessons learned meetings with the NYCT regarding its recently

constructed LEED-Certified Corona Subway Car Maintenance Shop.

The risk assessment process was a collaborative effort among LIRR, MTA Office of Construction Oversight and the IEC. The major elements are: identifying, quantifying and prioritizing cost and schedule risks; developing related risk mitigation plans; and establishing contingencies proportional with risks in order to increase confidence in the budget and schedule.

Mr. Walder cited two elements of the project's design strategy as being critically important and which should be expected to result in reduced operating costs: the interior configuration maximizes efficiency and worker productivity; equipment has been specified that optimizes functionality, maintainability, and reliability. LIRR will provide a follow-up presentation to CPOC on the productivity benefits expected from the investment in the new facility.

Mr. Pally asked if consideration was being given to the increased productivity related to differences in labor agreements established in the current (100 year-old) facility and new labor agreements and work rules that would be developed in light of the new facility. Mr. Walder responded that this is one of the many factors that must be taken into account when contemplating building new facilities.

Mr. Palley pointed out that improved diesel service to customers should also result from the new facility. Mr. Greenberg added that while this facility is scheduled to be completed beyond when the diesel fleet will require upgrades, he hopes this new facility comes on line as soon as possible, given the concerns of customers regarding diesel fleet reliability.

Mr. Blair asked if a process of cost-benefit analysis of capital expenditures as a means of prioritizing capital projects would be utilized in the future. Ms. Kleinbaum responded by saying that such a process has been reinvigorated for projects in the 2010-2014 Capital Plan, wherein agencies will be required to provide cost-benefit analyses at an initial approval "gate" before projects can progress through the MTA's funding and project approval process.

Citing the sustainability initiatives being undertaken at the Morris Park Facility, Mr. Walder requested that consistent cost-effectiveness standards sustainability investments be established across the agencies.

Mr. Cappelli asked about the location of the facility relative to surrounding residences and Mr. Tomlinson responded that the new facility will be further from homes than the existing facility.

#### Independent Engineering Consultant's Observations and Recommendations on LIRR Capital Program

Mr. Kaleda commended LIRR for its notable success on the Atlantic Avenue Viaduct Project, citing the following about the project: it is expected to finish two months ahead of schedule with the estimate at completion (EAC) remaining in line with original budget; the contractor consistently returned the track to revenue service for Monday morning peak period; and an exemplary contractor safety record was maintained throughout the project.

Turning to the MTA Police Central Islip Facility, Mr. Kaleda noted that design modifications have impeded construction progress and a four-month delay is now expected. LIRR will continue its senior management meetings with the Designer and the Contractor to maintain and possibly reduce the Project's schedule. Mr. Pally asked about the possibility for schedule recovery on this project, given this project's importance to, not only the MTA Police, but to the community. Mr. Kaleda responded that an analysis would first have to be made of the schedule and then of the cost and benefits of acceleration by the contractor. Mr. Walder observed, that while a schedule delay is noted in the IEC Report on this project, no budget impact is cited; Mr. Kaleda will follow-up on this issue.

With respect to Fiber Optic Network, Mr. Kaleda recommended that LIRR evaluates interoperability between the original supplier and alternate vendors, and evaluates warranty implications and product support of the original supplier's equipment by the successor firm. LIRR

is continuing its work on the alternative option as well as exploring the procurement of product support service from other vendors. Mr. Greenberg asked if delays to this project would cause a delay to other projects. Mr. Gardvits responded that these delays would, in fact, not result in delays to other signal or communications projects.

#### Independent Engineering Consultant's Observations and Recommendations on MTACC Projects

Mr. Kaleda presented observations and recommendations along with the agency comments for several projects monitored by the Independent Engineer: Second Avenue Subway; Fulton Street Transit Center; and East Side Access.

Citing real estate issues on Second Avenue Subway, Mr. Blair asked if there was an institutionalized process to ensure that lessons learned are captured, organized and shared across agencies to ensure that benefits are realized from earlier experience with a given issue. Mr. Saporita responded by saying that meetings among the Chief Engineers are convened regularly and the sharing of lessons learned constitutes a significant part of these discussions.

With respect to Fulton Street Transit Center, Mr. Albert asked if the PANYNJ's work on the E Connector was progressing on schedule. Mr. Horodniceanu said he would report on that in his next appearance at CPOC.

Citing a budget shortfall on the South Ferry project, Mr. Walder recommended that a joint agreement with the City of New York be developed in which MTA should make clear that there is no additional funding available for this project and that if scope reductions are necessary to keep this project within budget, then such reductions be made. While agreeing with Mr. Walder from a fiscal standpoint, Mr. Cappelli cautioned that scope reductions ought not to be made that could cause a hardship for Staten Island Ferry users as they seek to enter the subway.

In the interest of time, Mr. Walder asked that the scheduled presentation by Bridges and Tunnels be postponed to a later meeting, to which the Committee concurred.

#### Adjournment

Upon motion duly made and seconded, Mr. Walder adjourned the October 26, 2009 meeting of the Capital Program Oversight Committee.

Respectfully submitted,

Michael Jew-Geralds  
MTA Office of Construction Oversight





## 2009 - 2010 CPOC Committee Work Plan

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### I. RECURRING AGENDA ITEMS

Approval of Minutes  
 Committee Work Plan  
 Commitments/Completions Update  
 Risk Assessment Presentation  
 Program/Project Monitoring Reports

#### Responsibility

Committee Chair & Members  
 Committee Chair & Members  
 MTA  
 MTA Agencies  
 MTA Independent Engineering Consultant

### II. SPECIFIC AGENDA ITEMS

#### November 2009

Annual Review of CPOC Charter  
 Semi-Annual Update on NYCT Signals and Systems Division  
 Semi-Annual Update on NYCT Buses Program  
 Semi-Annual Update on NYCT Bus Procurement Program

#### Responsibility

Committee  
 V.P. and Deputy Chief Engineer, NYCT CPM  
 Program Manager, NYCT CPM  
 Sr. Vice President, NYCT DOB

#### December 2009

Quarterly Update on MTA Capital Construction Projects  
 Semi-Annual Update on NYCT Car Procurement Program  
 Quarterly Update on Minority and Women-Owned Business Participation

President, MTACC  
 Sr. V.P., NYCT Subways  
 MTA Chief Diversity Officer

#### January 2010

Semi-Annual Update on MNR Capital Program  
 Annual Update on LIRR & MNR Rolling Stock Programs

Senior Director, Capital Programs, MNR  
 Vice Presidents, LIRR and MNR

#### February 2010

Semi-Annual Update on NYCT Stations Division

Program Officer, NYCT CPM

#### March 2010

Quarterly Update on MTA Capital Construction Projects  
 Semi-Annual Update on NYCT Infrastructure & Facilities Division  
 Quarterly Update on Minority and Women-Owned Business Participation

President, MTACC  
 Program Officer, NYCT CPM  
 MTA Chief Diversity Officer

#### April 2010

Semi-Annual Update on LIRR Capital Program  
 Semi-Annual Update on B&T Capital Program

Chief Program Officer, LIRR  
 Chief Engineer, B&T

#### May 2010

Semi-Annual Update on NYCT Signals and Systems Division  
 Semi-Annual Update on NYCT Buses Program

V.P. and Deputy Chief Engineer, NYCT CPM  
 Program Manager, NYCT CPM

#### June 2010

Quarterly Update on MTA Capital Construction Projects  
 Semi-Annual Update on NYCT Car Procurement Program  
 Quarterly Update on Minority and Women-Owned Business Participation

President, MTACC  
 Sr. V.P., NYCT Subways  
 MTA Chief Diversity Officer

July 2010

Semi-Annual Update on MNR Capital Program

Sr. Director, Capital Programs, MNR

August 2010

No CPOC

September 2010

Semi-Annual Update on NYCT Stations Division

Program Officer, NYCT CPM

October 2010

Quarterly Update on MTA Capital Construction Projects

Semi-Annual Update on NYCT Infrastructure & Facilities Division

Quarterly Update on Minority and Women-Owned Business Participation

President, MTACC

Program Officer, NYCT CPM

MTA Chief Diversity Officer



## **The Metropolitan Transportation Authority**

### **CAPITAL PROGRAM OVERSIGHT COMMITTEE**

This Charter for the Capital Program Oversight Committee was adopted by the Board Chair and a majority of the members of Board of the Metropolitan Transportation Authority, a public benefit corporation established under the laws of the State of New York (together with any other entity or corporation for which the members of the Metropolitan Transportation Authority serve as a board of directors, the "MTA"), on the 29th day of July, 2004. This charter was amended on the 17<sup>th</sup> day of December, 2008 and further amended on December \_\_\_\_\_, 2009.

#### **I. PURPOSE**

The Capital Program Oversight Committee (the "Committee") shall assist the Board Chair and the Board in fulfilling their responsibility to monitor the implementation of the MTA's five-year capital program.

#### **II. COMMITTEE AUTHORITY**

In discharging its role, the Committee is empowered to investigate any matter brought to its attention. To facilitate any such investigation, the chairperson and/or vice-chairperson of the Committee shall have access to all books, records, facilities and staff of the MTA (including any of its subsidiary corporations or affiliates). The foregoing is not intended to alter or curtail existing rights of individual Board members to access books, records or staff in connection with the performance of their fiduciary duties as Board members.

#### **III. COMMITTEE MEMBERSHIP**

The Committee shall consist of 6 or more members of the Board, and shall include the Board Chair; the Chair of the Committee on Operations of the New York City Transit Authority, the Manhattan and Bronx Surface Transit Operating Authority and the Staten Island Rapid Transit Operating Authority; the Chair of the Committee on Operations of the Triborough Bridge and Tunnel Authority; the Chair of the Committee on Operations of the MetroNorth Commuter Railroad; the Chair of the Committee on Operations of the Long Island Rail Road and Metropolitan Suburban Bus Authority; and the Chair of the MTA Capital Construction Committee. All other members of the Committee shall be appointed by the Board Chair. If not otherwise a member of the Committee, each Vice-Chair of the Board shall be an *ex officio* member of the Committee. The Board Chair shall serve as the chairperson of the Committee and shall appoint the vice-chairperson of the Committee. In the absence of the chairperson or vice-chairperson at a meeting of the Committee, the Board Chair shall appoint a temporary chairperson to chair such meeting. A member of the Committee may be removed, for cause or without cause, by the Board Chair.

#### **IV. COMMITTEE MEETINGS**

The Committee shall meet on a regularly-scheduled basis at least 11 times per year, and more frequently as circumstances dictate. The Committee shall cause to be kept adequate minutes of all its proceedings and records of any action taken. Committee members will be furnished with copies of the minutes of each meeting. Meetings of the Committee shall be open to the public, and the Committee shall be governed by the rules regarding public meetings set forth in the applicable provisions of the Public Authorities Law and Article 7 of the Public Officers Law that relate to public notice, public speaking and the conduct of executive session. The Committee may form and assign responsibilities to subcommittees when appropriate.

The Committee may request that any member of the Board, the Auditor General, any officer or staff of the MTA, or any other person whose advice and counsel are sought by the Committee, attend any meeting of the Committee to provide such pertinent information at the Committee requests. The Director of the Office of Construction Oversight and the Deputy Executive Director of Administration, and/or his or her designee, shall (1) furnish the Committee with all material information pertinent to matters appearing on the Committee agenda, (2) provide the chairperson of the Committee with all information regarding the MTA's five year capital program that is material to the Committee's monitoring and oversight of the MTA's five year capital program, and (3) inform the chairperson of the Committee of any matters not already on the Committee agenda that should be added to the agenda in order for the Committee to be adequately monitoring and overseeing the MTA's five year capital program.

#### **V. COMMITTEE REPORTS**

The chairperson of the Committee shall report on the Committee's proceedings, and any recommendations made.

#### **VI. KEY RESPONSIBILITIES**

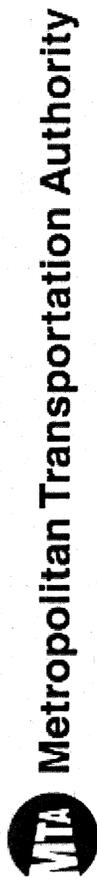
The following responsibilities are set forth as a guide with the understanding that the Committee may diverge as appropriate given the circumstances. The Committee is authorized to carry out these and such other responsibilities assigned by the Board Chair or the Board from time to time, and take any actions reasonably related to the mandate of this Charter.

To fulfill its purpose, the Committee shall:

1. Monitor the current and future availability of funds to be utilized for such capital improvement programs and plans;
2. Monitor the contracts awards of the MTA to insure that such awards are consistent with:
  - a. provisions of law authorizing United States content and New York State content;
  - b. any collective bargaining agreements;

- c. provisions of law providing for participation by minority and women-owned businesses;
  - d. New York State labor laws;
  - e. competitive bidding requirements including those regarding sole source contracts; and
  - f. any other relevant requirements established by law.
3. Monitor the award of contracts to determine if such awards are consistent with the manner in which the work was traditionally performed in the past;
4. Review the relationship between capital expenditures pursuant to each such capital program plan and current and future operating budget requirements;
5. Monitor the progress of capital elements described in each approved capital program plan;
6. Monitor the expenditures incurred and to be incurred for each such element;
7. Identify capital elements not progressing on schedule, ascertain responsibility therefor and recommend those actions required or appropriate to accelerate their implementation;
8. Consult as necessary with other New York State departments, agencies and divisions with respect to the foregoing;
9. Provide guidance to the Board Chair and the Board with respect to the appointment (and if appropriate dismissal), evaluation, and compensation of an independent engineering firm to provide an independent review with respect to the foregoing;
10. In consultation with the Office of Construction Oversight, oversee the work of such independent engineering firm;
11. Together with the Office of Construction Oversight, review the periodic reports provided by such independent engineering firm; and
12. Conduct an annual self-evaluation of the performance of the Committee, including its effectiveness and compliance with this Charter;
13. Review and assess the adequacy of this Charter annually; and
14. Report regularly to the Board Chair and the Board on Committee findings and recommendations and any other matters the Committee deems appropriate or the Board Chair or the Board requests.





**MTA Capital Program  
Milestone Performance**

**through**

**October 31, 2009**

**November Finance Committee**

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**MTA Capital Program  
Status Report**

**through**

**October 31, 2009**

**November CPOC Monthly Report**

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- **2005-2009 Capital Program Historical Progress**
- **Status of Overall MTA Capital Programs**
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- **Status of MTA Capital Program Funding**
  - 2005-2009
  - 2000-2004
  - 1992-1999

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# 2005-2009 Capital Program Historical Progress

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## **Historical Progress Since 2005**

Charts apply to all projects committed or completed for a five year period and funded in multiple capital programs.

Commitment and completion charts reflect full-year for all amounts, except 2009, which reflects both full-year and year-to-date amounts.

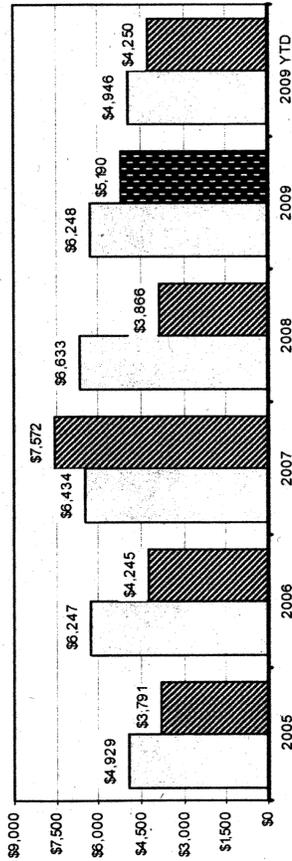
Rolling stock commitments and completions are included within NYC Transit, LIRR, MNR and Bus Company amounts.

Rolling stock completions are reported on a prorated basis that reflects the value of vehicles that have been accepted for revenue service. Therefore, the full value of a specific rolling stock project may be reported over the course of more than one year.

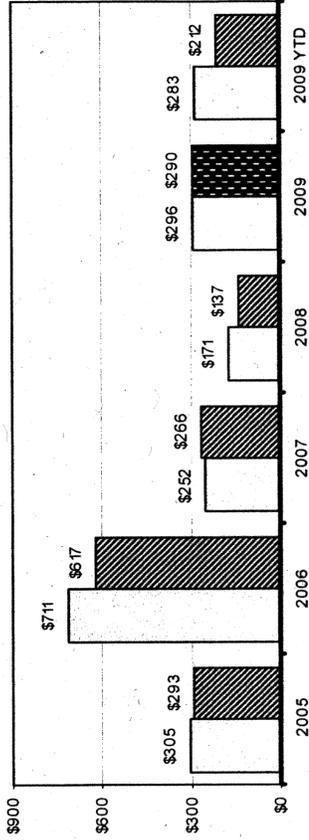
# MTA Capital Program Commitments: 2005 Through October 2009

\$ in Millions

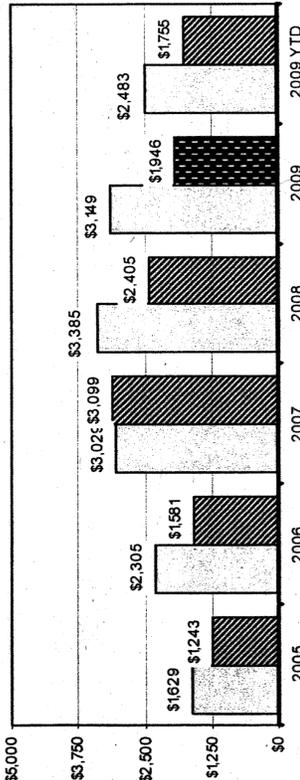
All Agencies



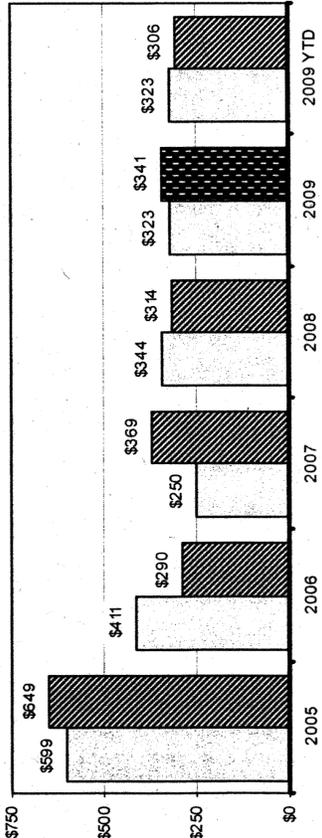
Metro-North Railroad



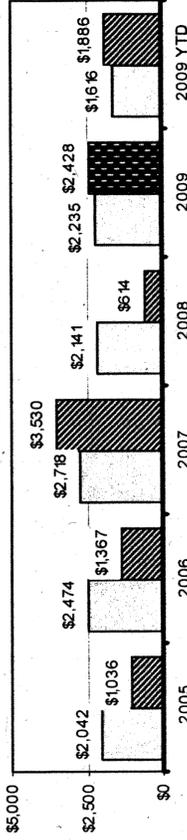
NYC Transit



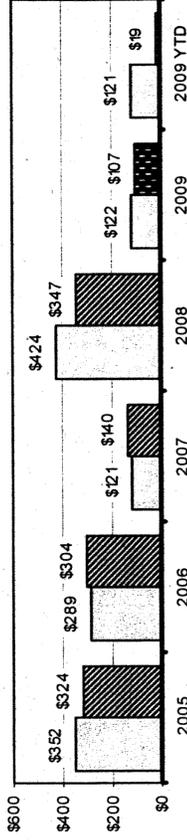
Long Island Rail Road



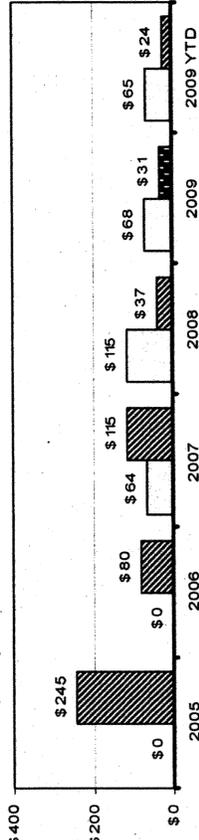
Capital Construction



Bridges and Tunnels



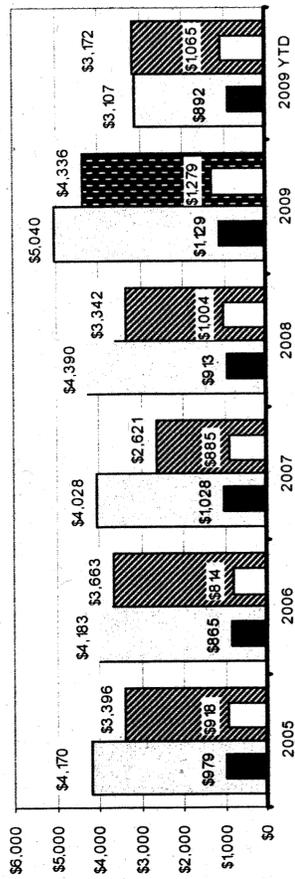
Bus Company



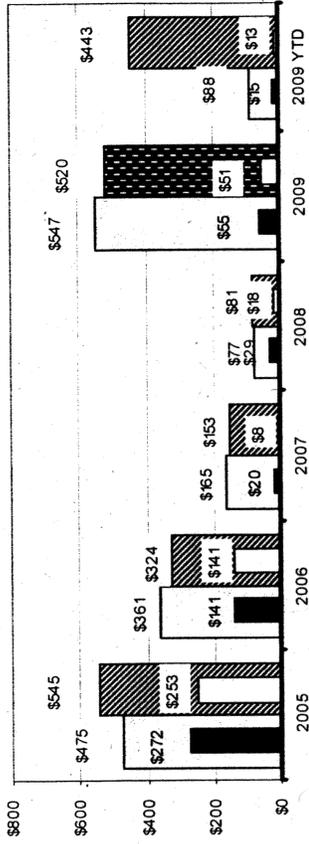
# MTA Capital Program Completions: 2005 Through October 2009

\$ in Millions

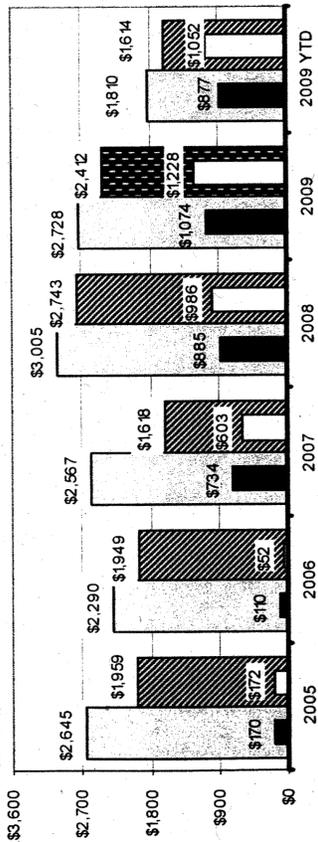
All Agencies



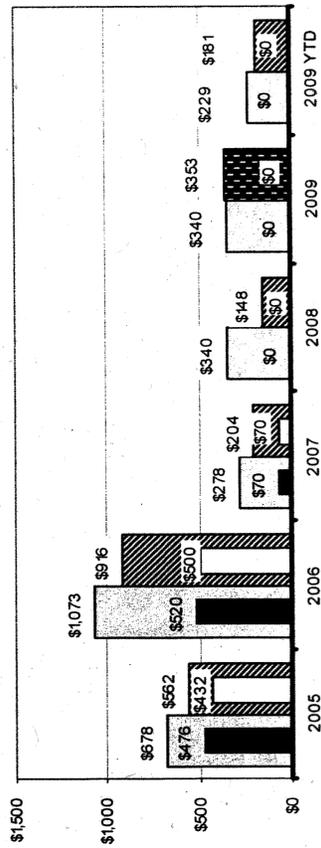
Metro-North Railroad



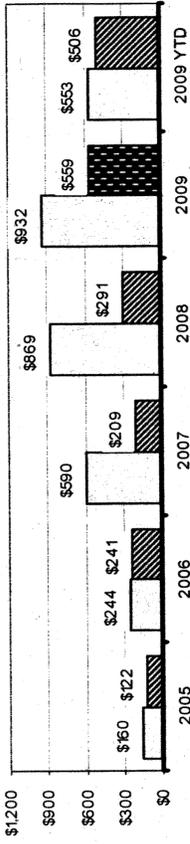
NYC Transit



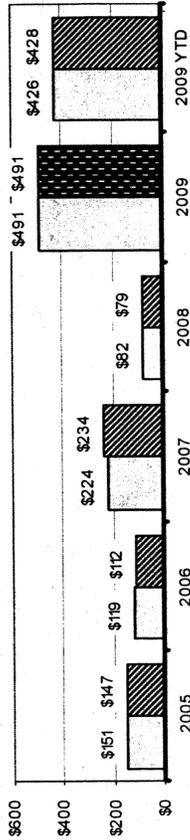
Long Island Rail Road



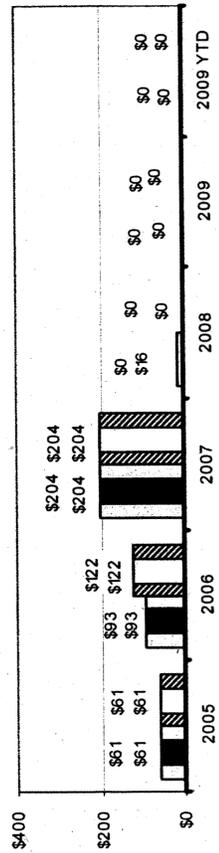
Capital Construction



Bridges and Tunnels



Bus Company



Metropolitan Transportation Authority



Current Yr Forecast

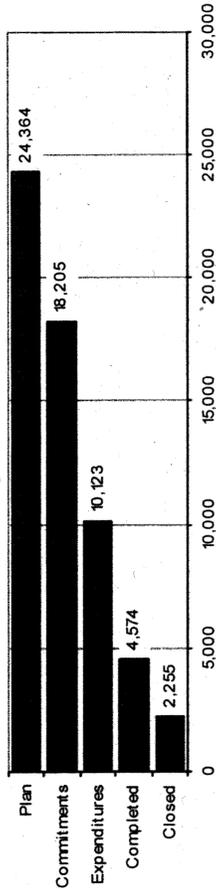
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# **Status of Overall MTA Capital Programs**

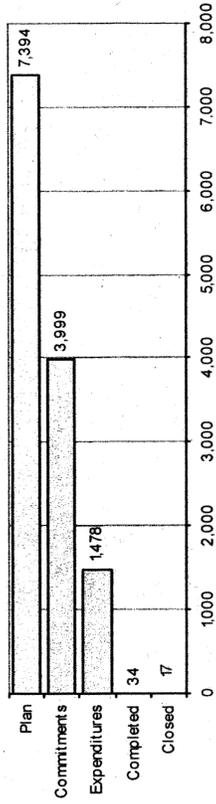
# Status of MTA 2005-2009 Capital Program Thru October 2009

\$ in Millions

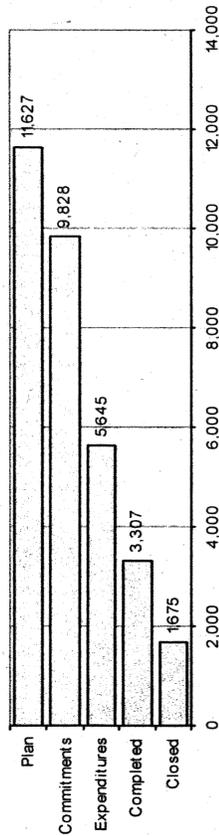
## TOTAL 2005-2009 PROGRAM



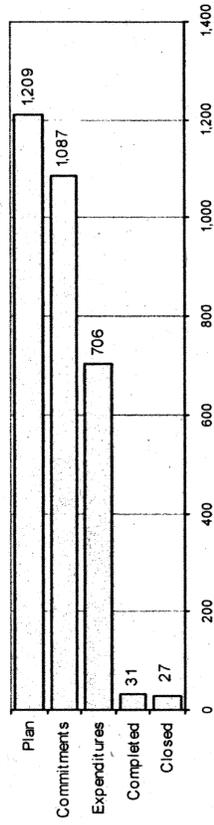
## Capital Construction



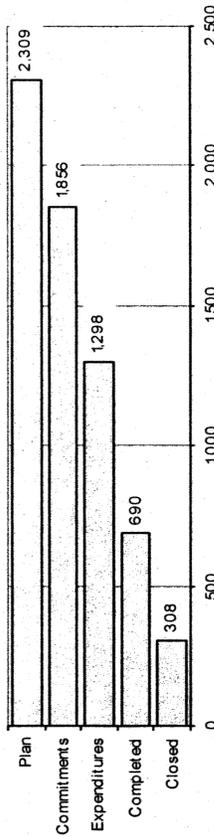
## NYC Transit



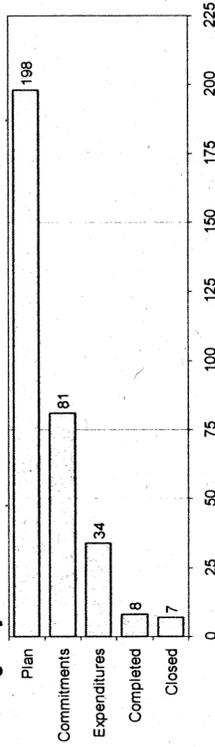
## Bridges and Tunnels



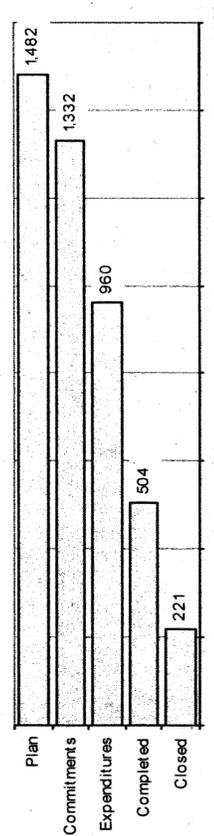
## Long Island Rail Road



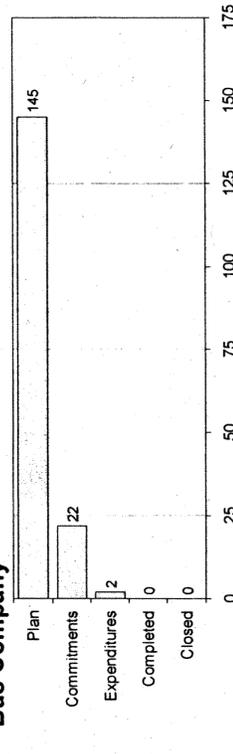
## Interagency



## Metro-North Railroad



## Bus Company



\* Plan totals adjusted to reflect addition of ARRA stimulus funding.

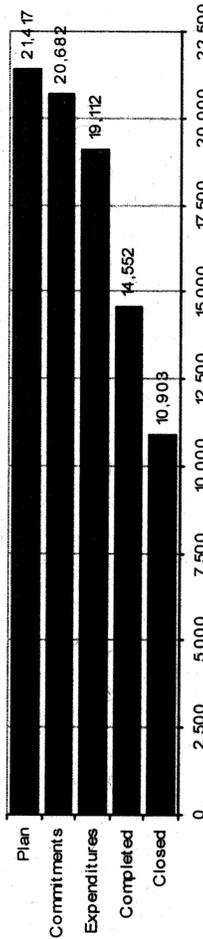


Metropolitan Transportation Authority

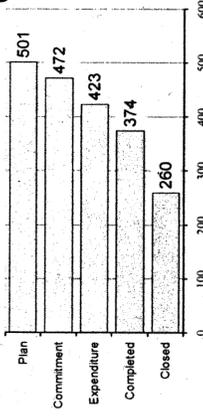
# Status of MTA 2000-2004 Capital Program Thru October 2009

\$ in Millions

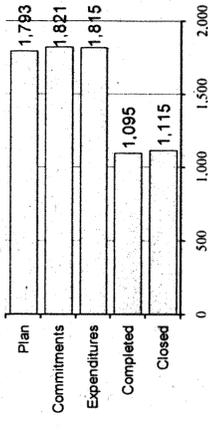
## TOTAL 2000-2004 PROGRAM



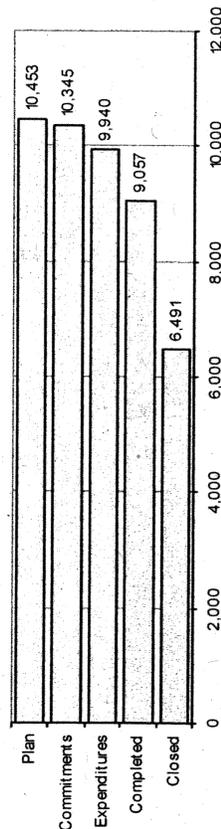
## Bus Company



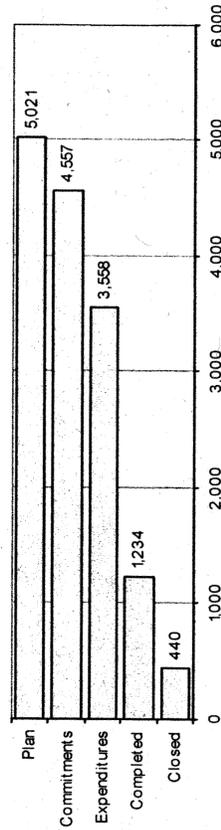
## Commuter Rolling Stock



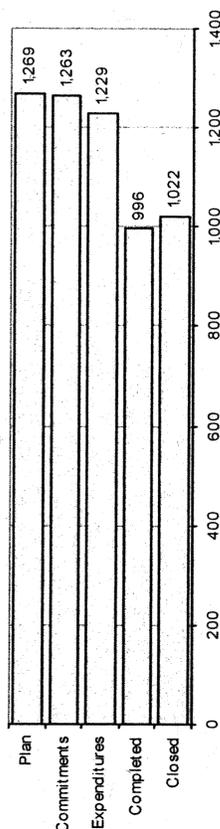
## NYC Transit



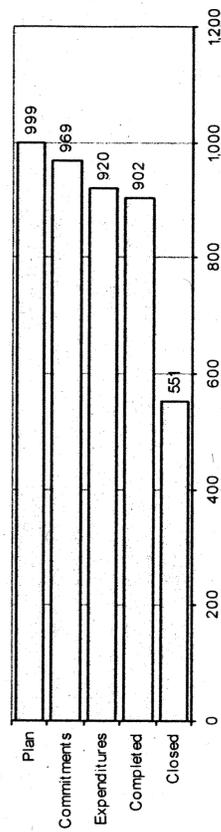
## Capital Construction



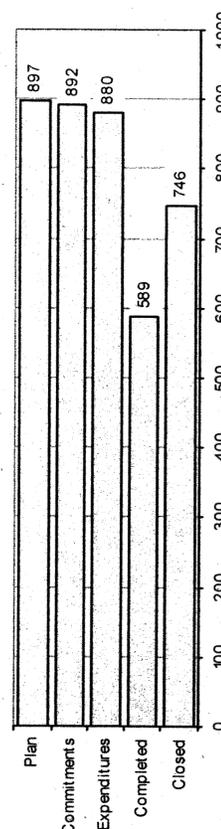
## Long Island Rail Road



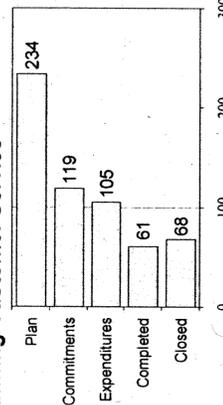
## Bridges and Tunnels



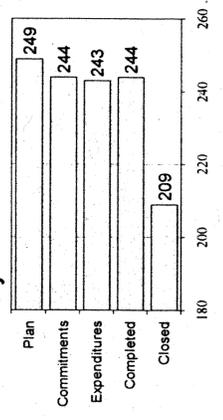
## Metro-North Railroad



## Planning/Customer Service



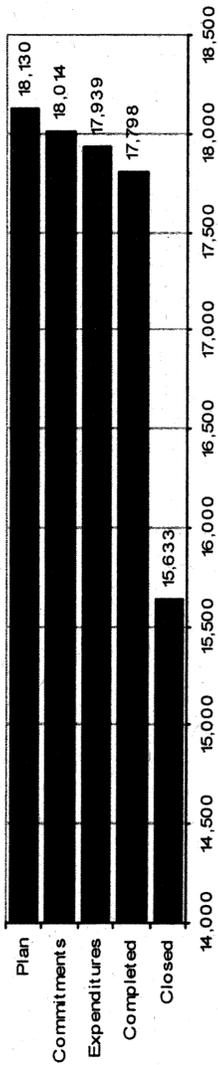
## WTC Recovery



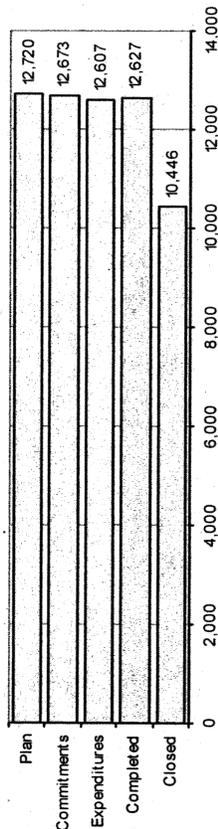
# Status of MTA 1992-1999 Capital Program Thru October 2009

\$ in Millions

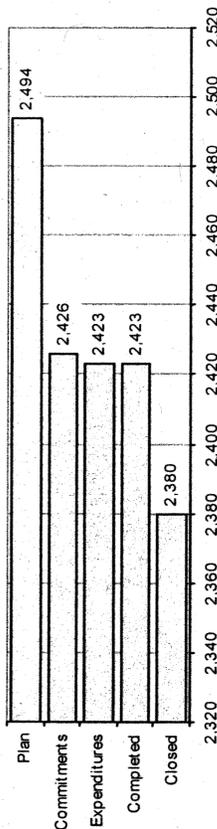
## TOTAL 1992-1999 PROGRAM



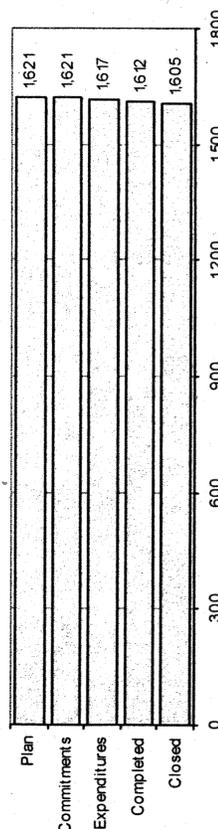
## NYC Transit



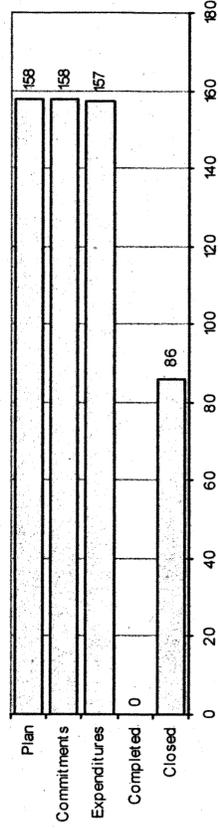
## Long Island Rail Road



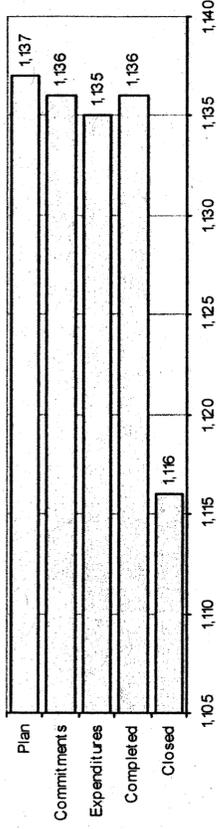
## Metro-North Railroad



## Capital Construction



## Bridges and Tunnels



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# **Status of 2009 Commitments and Completions**

## **Summary of Capital Program Performance Through October 2009**

This report shows overall and individual agency progress against goals in the areas of commitments and completions. Agency sections also include the highlights of major commitments and completions achieved or slipped. A summary follows.

**Commitments** In the first Ten months of 2009, the MTA as a whole committed over \$4 billion worth of work. This is 86% of planned commitments of \$4.9 billion. Agency progress against their goals is as follows:

NYCT awarded 71% of their plan. The following awards are rescheduled or delayed: Communication based Train Control Installation, 23 "A" Division Subway Cars Purchase, Clara Hale Depot Reconstruction, and 151 Express Buses Purchase. LIRR awarded 95% of their plan.

MNR awarded 75% of their plan. Award for Bronx Stations/Capacity Improvements slips from October 2009 to November 2009 to allow more time for design review. M4 Remanufacturing Program slips from December 2009 to March 2010 to wait for CDOT funding of its share.

CCC awarded 117% of their plan. ESA: Award for Queens Bored-Tunnels and Structures was greater than the budgeted amount. Award for Northern Boulevard Crossing has slipped to November 2009 due to continuing contract award negotiations.

B&T awarded 16% of their plan. Robert F. Kennedy Bridge Rehabilitation of Building 104 award slips to December 2009.

**Completions** In the first Ten months of 2009, the MTA completed over \$3.1 billion in projects, which is 102% of planned completion of \$3.1 billion. Progress against the goal, by agency, follows.

NYCT completed 89% of their plan. Completion of Charleston Annex Depot slips to May 2010 (original projected completion: December 2009). Completion of Data Network slips to September 2010 (last month's projected completion: December 2009) due to continued claim settlement discussions.

LIRR completed 79% of their plan. Completion of Atlantic Terminal slips to November 2009 (original projected completion: July 2009).

MNR completed 504% of their plan. Harmon Shop Replacement was completed four months ahead of schedule.

CCC completed 92% of their plan.

B&T completed 100% of their plan.



**Metropolitan Transportation Authority**

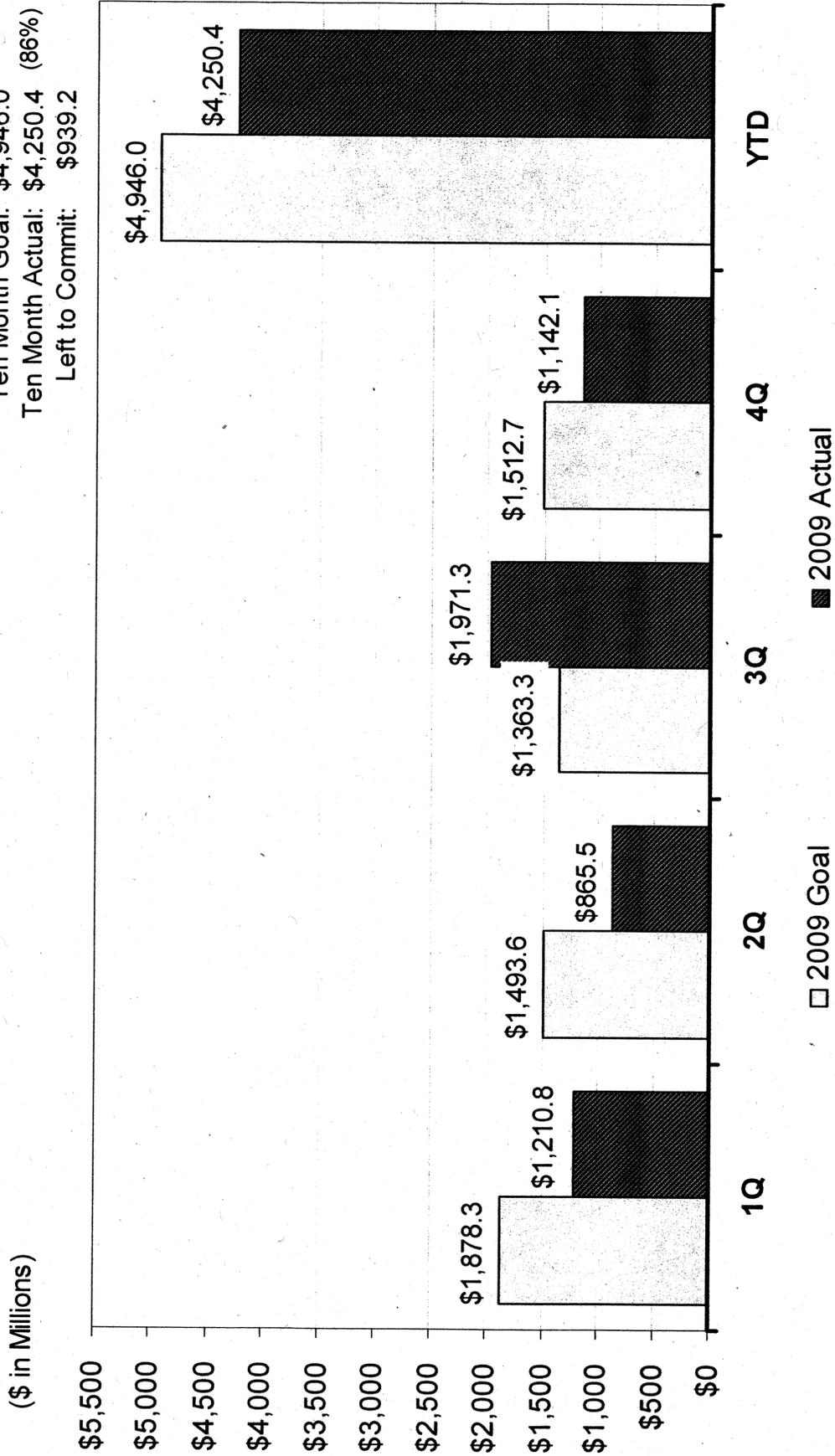
*Note: Commitment figures for NYCT, LIRR and MNR changed from October CPOC due to inclusion of ARRA funding in the plan values.*

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# 2009 Commitments

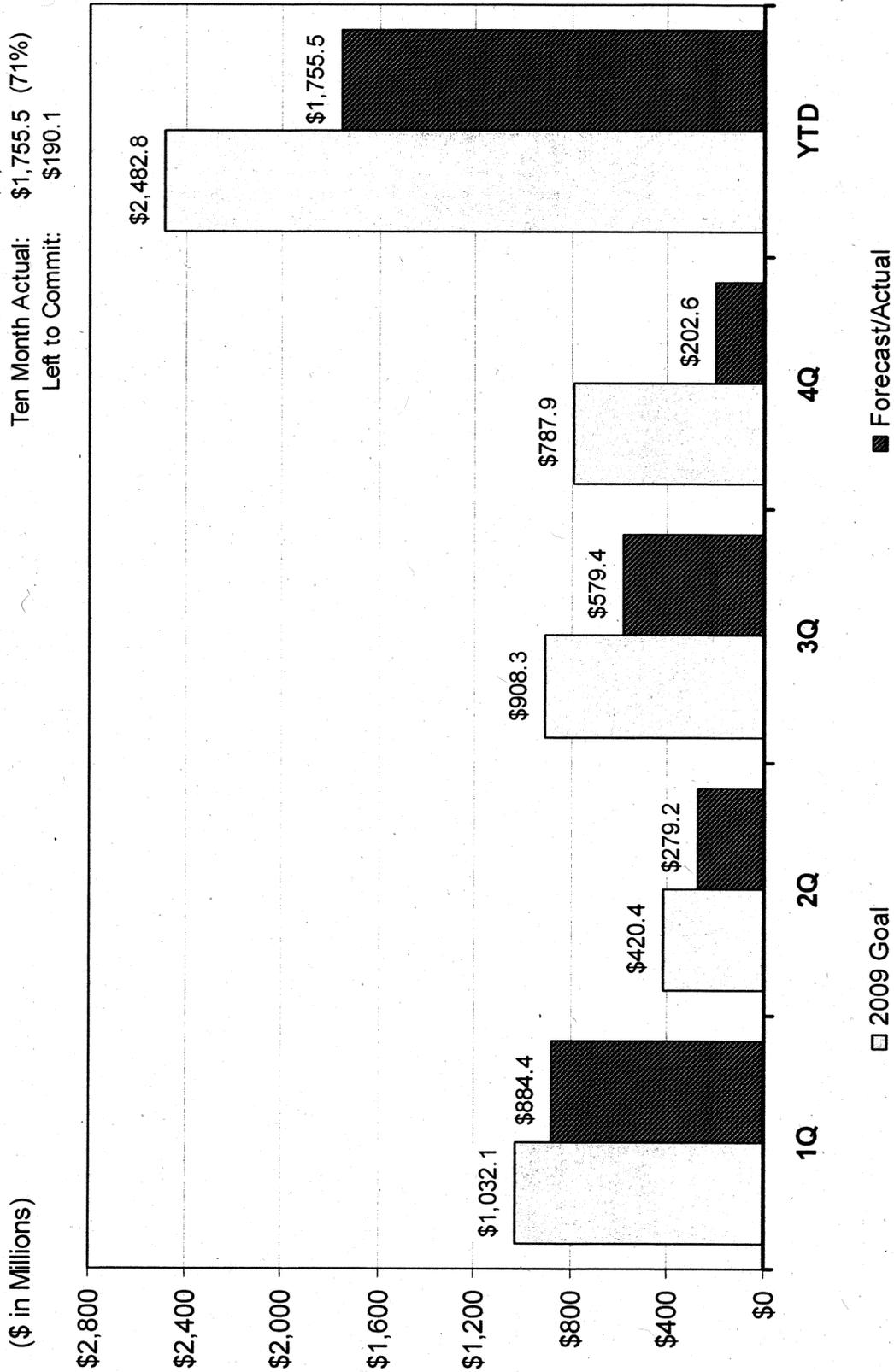
# MTA All Agencies: Commitments as of October 31, 2009

2009 Annual Goal: \$6,248.0  
 2009 Annual Forecast: \$5,189.6  
 Ten Month Goal: \$4,946.0  
 Ten Month Actual: \$4,250.4 (86%)  
 Left to Commit: \$939.2



# MTA NYC Transit: Commitments as of October 31, 2009

2009 Annual Goal: \$3,148.6  
 2009 Annual Forecast: \$1,945.6  
 Ten Month Goal: \$2,482.8  
 Ten Month Actual: \$1,755.5 (71%)  
 Left to Commit: \$190.1



Note: The figures above include ARRA funding

# MTA NYC Transit: Status of Major Commitments as of October 31, 2009

Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Actual/Forecast *	2009 Goal	Forecast/Actual	
Track and Switch Replacement Program (2009)	\$258.0	\$258.0	Jan-09	Jan-09	A
Rehab (6) Far Rockaway Line Stations	\$84.7	\$84.0	Jan-09	Jan-09	A
Modernize Interlockings: Lex Av, 5Av/ QBL	\$155.3	\$155.3	Jan-09	Jan-09	A
Rehab (3) Rockaway Park Branch Stations	\$51.5	\$51.5	Jan-09	Jan-09	A
Culver Viaduct Phase II & Interlocking	\$313.0	\$257.5	Mar-09	Mar-09	A
Vent Plant: Jackson Ave - QBL	\$76.0	\$76.0	Jun-09	Jun-09	A
Jay St Substation: DC Feeders / CBH #579	\$31.7	\$31.7	Jul-09	Jul-09	A
Rehab 3 IRT Power Substation Enclosures	\$11.7	\$11.7	Jul-09	Jul-09	A
Rehab (5) Peiham Line Stations - Parkchester to Whitlock	\$121.8	\$130.7	Apr-09	Aug-09	A
Rehab (7) West End Line Stations and Structure	\$136.1	\$136.1	Aug-09	Aug-09	A
Gap Fillers Union Sq Ph 3: Local Platform	\$23.8	\$23.8	Aug-09	Aug-09	A
Rehab (6) West End Line Stations and Structure	\$99.9	\$99.9	Aug-09	Aug-09	A
Induction Loops: 642 Booths	\$13.4	\$13.4	Aug-09	Aug-09	A
E. 180th Station Rehab & ADA: Wpr Line	\$81.2	\$61.4	Apr-09	Sep-09	A
Yard Fencing: Priority I: 2 Locations	\$12.2	\$12.2	Sep-09	Sep-09	A
Purchase 90 Low Floor CNG Buses	\$61.8	\$51.6	Sep-09	Dec-09	
Purchase 23 "A" Division Subway Cars	\$75.4	\$75.4	Jul-09	Jan-10	b
CBTC: Install CBTC: Flushing Line	\$347.5	\$347.5	Jul-09	Feb-10	b
Purchase 151 Express Buses	\$110.9	\$94.4	Dec-09	Mar-10	c
Reconstruct Clara Hale Depot	\$299.4	\$299.4	Dec-09	Apr-10	d
VHF Radio System Upgrade (Phase1)	\$74.0	\$73.2	Dec-09	Jul-10	

**Notes:**

- (a) New Project. Funded with American Recovery and Reinvestment Act (ARRA); Reflected in Goal and Actual at award.
- (b) Award is re-scheduled due to an arbitration issue involving one of the potential bidders, a bid protest by another potential bidder, and to coordinate with car procurement contract scheduled to be awarded in January 2010.
- (c) Award schedule was extended mostly due to issues related to the availability of engines as well as structural warranties of potential new vendors.
- (d) Project award is delayed pending approval of conceptual design, Legal review of specifications, and completion of value engineering. All these activities are expected to be completed in November prior to issuance of Request For Proposals (RFP).

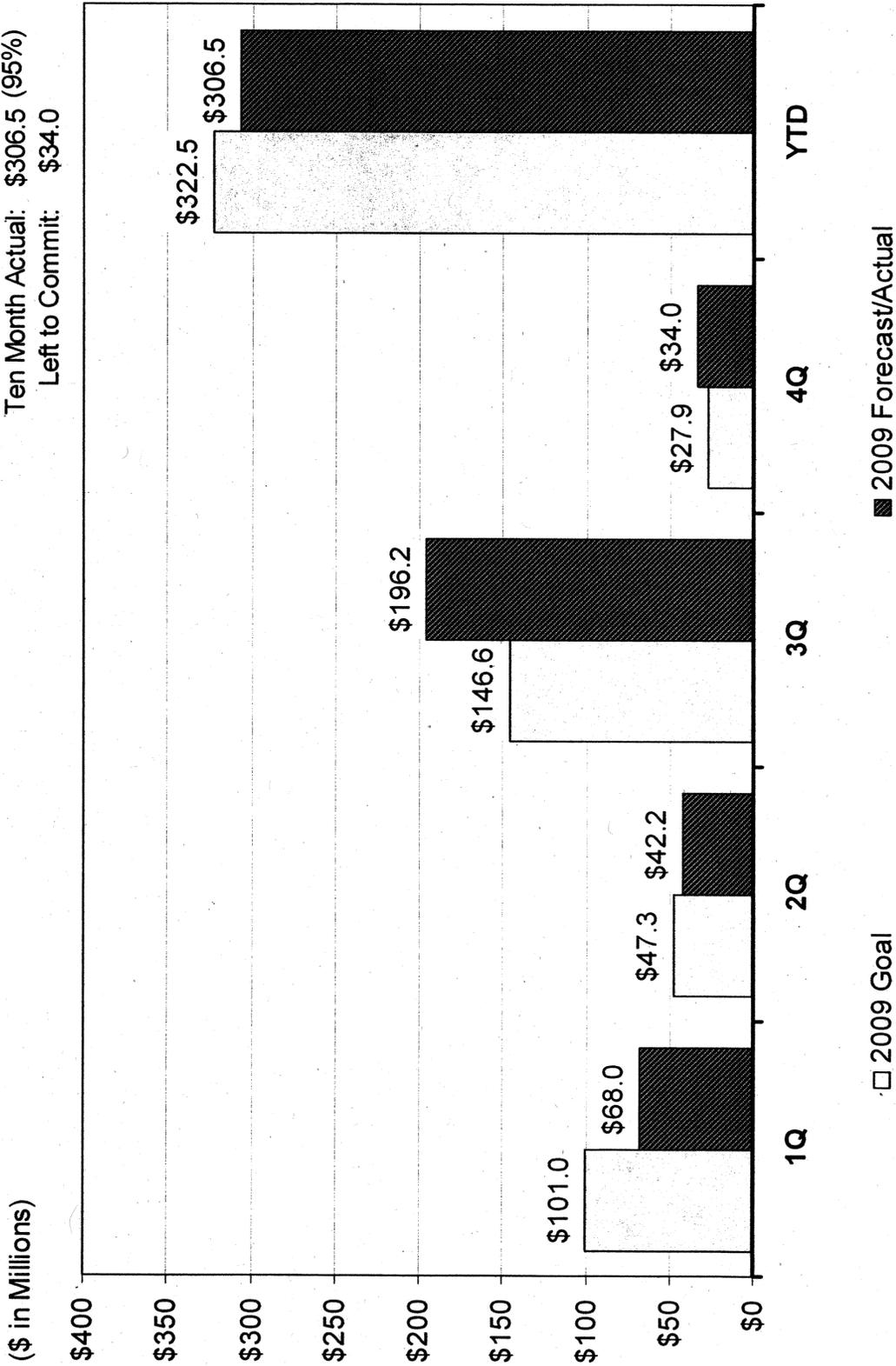
\* Represents the latest approved current construction budget (excludes design budget).



**Metropolitan Transportation Authority**

# MTA Long Island Rail Road: Commitments as of October 31, 2009

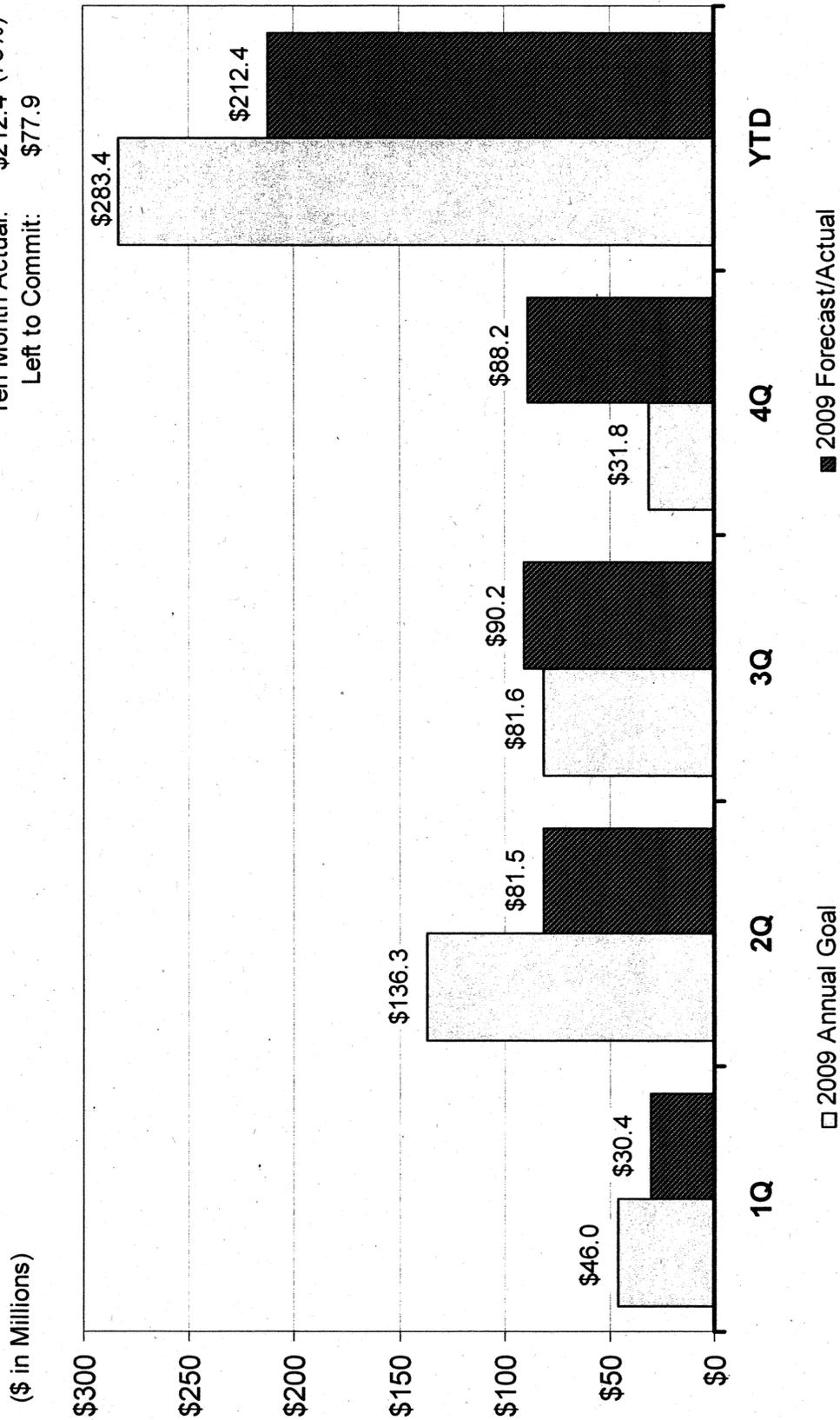
2009 Annual Goal: \$322.9  
 2009 Annual Forecast: \$340.5  
 Ten Month Goal: \$322.5  
 Ten Month Actual: \$306.5 (95%)  
 Left to Commit: \$34.0





# MTA Metro-North Railroad: Commitments as of October 31, 2009

2009 Annual Goal: \$295.7  
 2009 Annual Forecast: \$290.3  
 Ten Month Goal: \$283.4  
 Ten Month Actual: \$212.4 (75%)  
 Left to Commit: \$77.9



# MTA Metro-North Railroad: Status of Major Commitments as of October 31, 2009

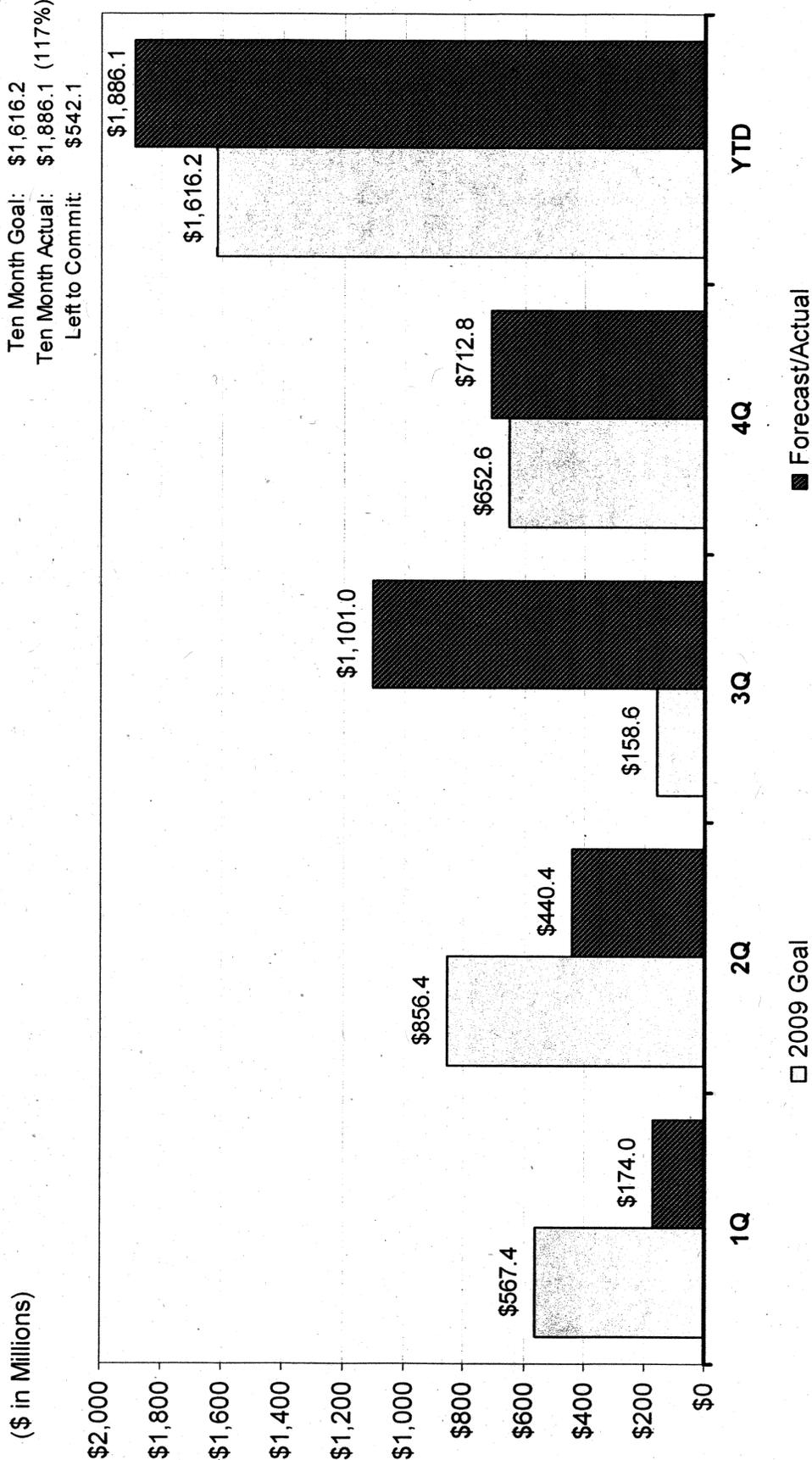
Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Forecast/Actual	2009 Goal	Forecast/Actual	
2009 Cyclical Track Program	\$11.3	\$11.3	Mar-09	Jun-09	A
NHL Station Improvements - Port Chester/Rye	\$28.7	\$16.9	May-09	Jun-09	A
West of Hudson Locomotives	\$7.2	\$6.1	Jun-09	Aug-09	A
GCT Facility Rehabilitation	\$17.8	\$23.5	Jun-09	Aug-09	A
Harlem and Hudson Lines Power Improvements	\$42.1	\$44.8	Jul-09 (*)	Dec-09	A
Cortlandt Parking and Access Improvements	\$30.4	\$28.6	Sep-09	Aug-09	A
Turnouts Main Line/High Speed	\$7.2	\$3.4	Sep-09 (*)	Sep-09	A
Bronx Stations/Capacity Improvements	\$9.4	\$8.1	Oct-09 (*)	Nov-09	b
Drainage and Undercutting Program	\$7.0	\$7.0	Oct-09 (*)	Dec-09	
Signal System Replacement (MN Share)	\$25.1	\$25.1	Oct-09 (*)	Dec-09	
M4 Remanufacture Program	\$7.8	\$0.0	Dec-09	Mar-10	c
Tarrytown Station Improvements	\$37.8	\$37.8	Jun-09	Jun-09	A
GCT Elevators	\$7.7	\$7.7	Jun-09	Jun-09	A
Poughkeepsie Station Improvements - Windows/Doors	\$4.1	\$4.1	Aug-09	Aug-09	A
(*) date represents last month of multi commitments					

**Notes:**

- (a) Project funded through the American Recovery and Reinvestment Act (ARRA); reflected into Goal and Actual at award.
- (b) Bronx Stations/Capacity Improvements - MNR review for selection of consultant for design of CP109 interlocking is nearing completion. The planned award of October 2009, slips to November 2009.
- (c) M4 Remanufacture Program - Awaiting CDOT funding. Full share of CDOT funding has not yet been approved.

# MTA Capital Construction: Commitments as of October 31, 2009

2009 Annual Goal: \$2,234.9  
 2009 Annual Forecast: \$2,428.2  
 Ten Month Goal: \$1,616.2  
 Ten Month Actual: \$1,886.1 (117%)  
 Left to Commit: \$542.1



# MTA Capital Construction: Major 2009 Commitments as of October 31, 2009

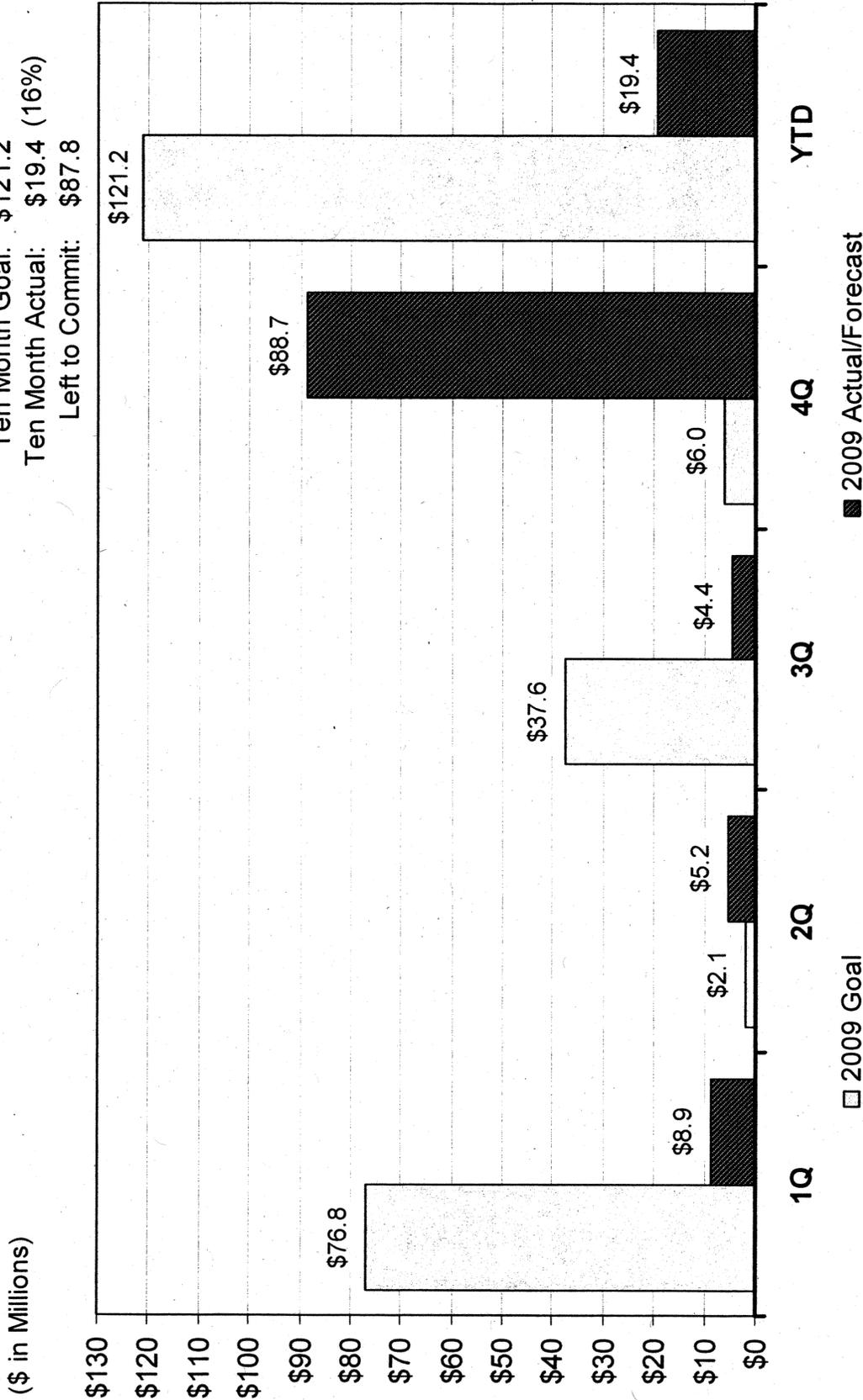
Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Forecast/Actual	2009 Goal	Forecast/Actual	
<b>East Side Access</b>					
Harold CILs (VH051A)	\$30.9	\$30.9	Mar-09	Mar-09	A
44th St Demolition & 245 Park Ave Entrance(CM004)	\$43.6	\$42.8	Apr-09	Jul-09	A
Queens Bored-Tunnels & Structures (CQ031)	\$489.9	\$694.1	Apr-09	Sep-09	A a
Harold Structures Part 2 (CH054A)	\$51.0	\$22.9	Apr-09	Jul-09	A b
Northern Boulevard Crossing (CQ039)	\$61.1	\$90.5	Jun-09	Nov-09	c
Systemwide Materials (VS099)	\$100.0	\$37.9	Dec-09	Nov-09	d
<b>Second Avenue Subway</b>					
96th Street Station - Site Work and Heavy Civil	\$328.8	\$348.2	Feb-09	May-09	A
86th Street Station - Open Cuts and Utilities Relocation	\$50.8	\$42.8	Jun-09	Jul-09	A
<b>Fulton Street Transit Center</b>					
FSTC - A/C Mezz & JM/Z Vertical Circulation	\$211.9	\$159.0	Nov-09	Jul-09	A e
<b>South Ferry Terminal Station</b>					
Peter Minuit Plaza, Bollards, and Sewer Work	\$20.6	\$22.7	Mar-09	Apr-09	A

**Notes:**

- (a) The MTA Board approved contract award in June and MTACC made the actual award in September following the resolution of a bid protest filed with the FTA.
- (b) Decrease due to favorable market conditions, reflecting efficiencies realized by the winner bidder already performing similar work in the vicinity, and a change in how force account support is budgeted and committed.
- (c) Negotiations continue for the award of this contract through the request for proposal process. The budget forecast is significantly higher than plan because of market conditions and risk as reflected in contractor contingencies applied to excavation and temporary support activities.
- (d) Partial commitment for material to be procured through the use of ARRA funds; balance of commitment has been moved to 2010.
- (e) The A/C package was advanced and procured through a low bid rather than a request-for-proposal process to take advantage of available federal stimulus funds. MTACC awarded the contract in July. MTACC also awarded the 4/5 Station Rehabilitation contract over the summer (August) to take advantage of stimulus funding.

# MTA Bridges and Tunnels: Commitments as of October 31, 2009

2009 Annual Goal: \$122.5  
 2009 Annual Forecast: \$107.2  
 Ten Month Goal: \$121.2  
 Ten Month Actual: \$19.4 (16%)  
 Left to Commit: \$87.8



## MTA Bridges and Tunnels: Status of Major Commitments as of October 31, 2009

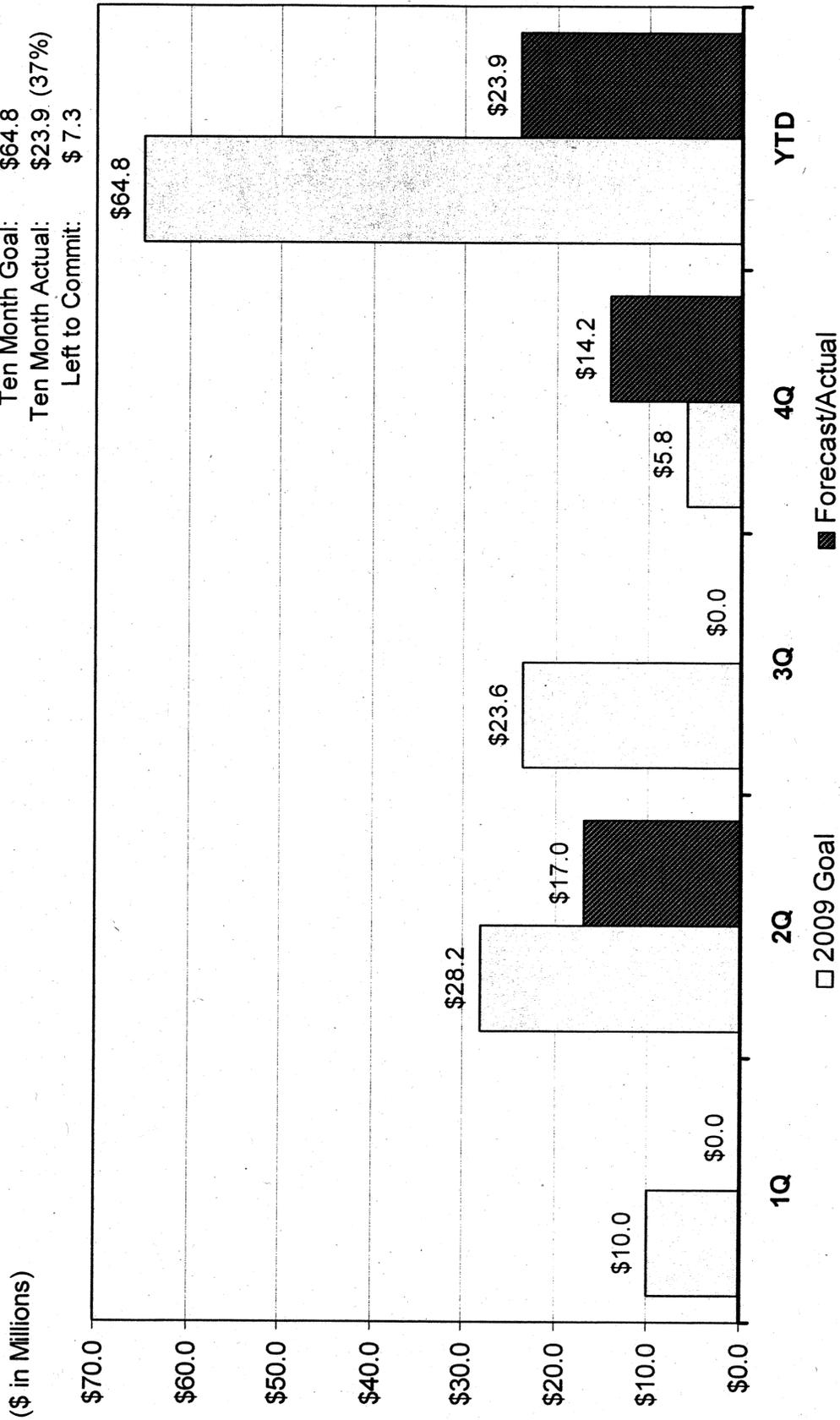
Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Forecast/Actual	2009 Goal	Forecast/Actual	
TB59 Robert F. Kennedy Bridge: Rehab of Building 104 - Construction	\$67.3	\$67.3	Mar-09	Dec-09	(a)
BW97 Bronx Whitestone Bridge: Concrete Anchorage Repairs - Construction	\$6.8	\$6.8	Aug-09	Nov-09	(b)
TB64 Robert F. Kennedy Bridge: Misc Steel and Concrete (TB64C) - Construction	\$6.0	\$5.1	Sep-09	May-Dec-09	A (c)
QM01 Queens Midtown Tunnel: Service & FE Building Rehab - Construction	\$11.3	\$0.0	Sep-09	2010	(d)

**Notes:**

- (a) In the December 2008 report, the award for TB59 was forecast for February 2009. Subsequently the prospective bidders have requested and were granted a time extension for submittal of bids. Budget also revised to reflect 100% design estimate for construction. Bids were received in February, however the low bidder has responsibility issues. Award is now forecast for December.
- (b) BW97 is forecast for November. Design is being finalized.
- (c) TB64C broken into several tasks to be awarded between May and December 2009. Actual to date is \$3.8M.
- (d) QM01 scope has been revised to a design-build pre-engineered building to be constructed in 2010.

# MTA Bus Company: Commitments as of October 31, 2009

2009 Annual Goal: \$67.6  
 2009 Annual Forecast: \$31.2  
 Ten Month Goal: \$64.8  
 Ten Month Actual: \$23.9 (37%)  
 Left to Commit: \$ 7.3



## MTA Bus Company: Status of Major Commitments as of October 31, 2009

Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Forecast/Actual	2009 Goal	Forecast/Actual	
Misc Design Consultant Services	\$5.0	\$5.0	Feb-09	May-09	A
Engineering Construction Management Services	\$5.0	\$5.0	Feb-09	May-09	A
New Roof and Ventilation System at LGA	\$10.2	\$7.0	Jun-09	May-09	A
New Roof and Ventilation System at FR	\$4.7	\$6.9	Jun-09	Oct-09	A
New Roof and Ventilation at Baisley Park	\$7.3	\$7.3	Aug-09	Dec-09	F
Electrical Upgrade Emergency Generators 6 Depots	\$13.9	\$13.9	Aug-09	Feb-10	F
New Roof and Ventilation at Eastchester Maintenance Bldg	\$3.1	\$3.1	Jun-09	Mar-10	F a
Upgrade Parking Lot at JFK & Baisley Park	\$10.2	\$10.2	Jun-09	Mar-10	F a
Facility & Fleet Assessment	\$2.5	\$2.5	Jul-09	Jun-10	F a
Security Upgrade: College PT, Eastchester & Yonkers	\$2.8	\$2.8	Dec-09	Oct-10	F
Additional Fuel Capacity: BP, JFK & LG	\$3.0	\$3.0	Oct-09	Dec-10	F

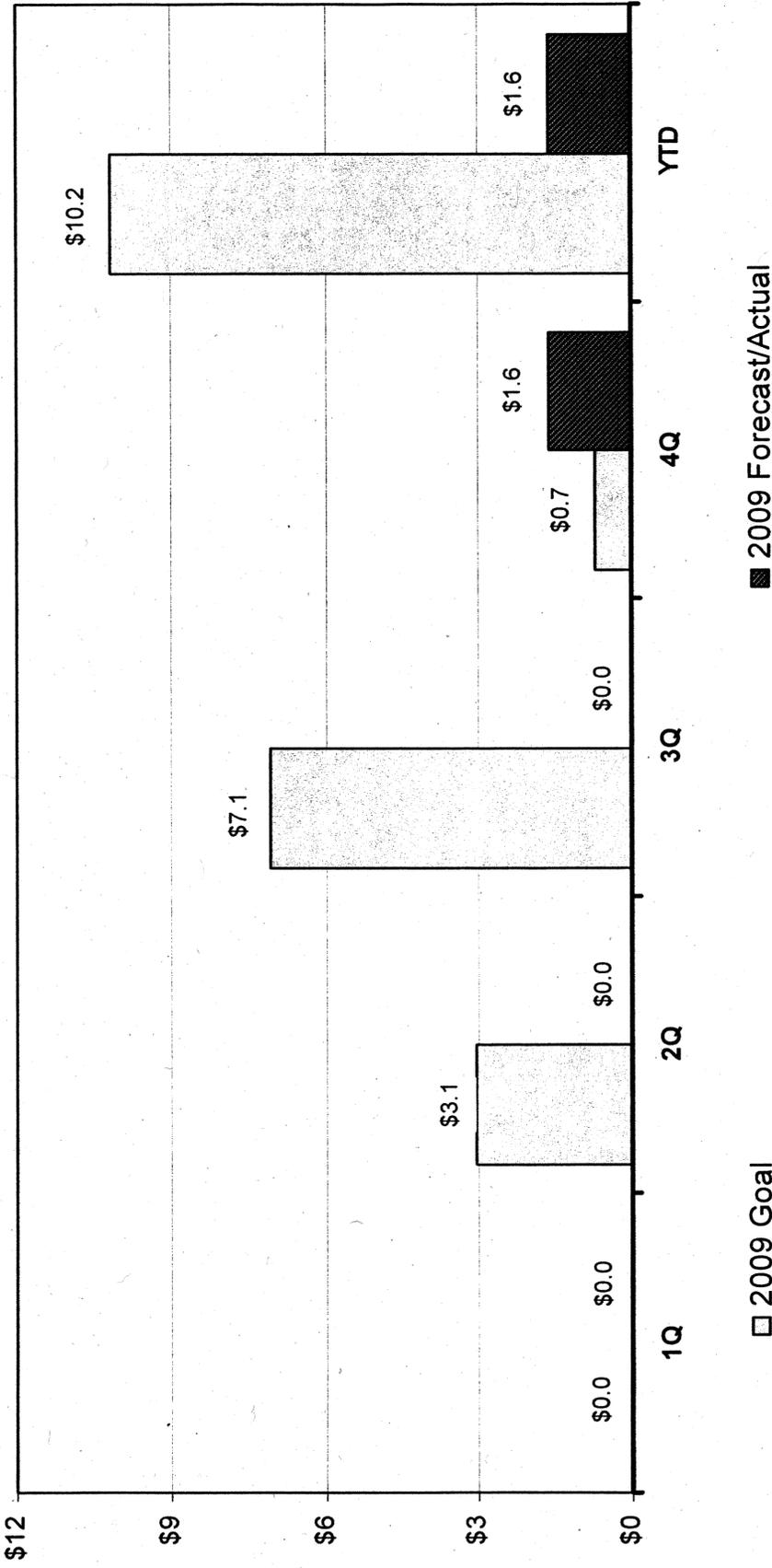
**Notes:**

(a) Schedules have been adjusted as the result of delays in hiring personnel, in part due to the hiring freeze from earlier in the year.

# MTA Police Department: Commitments as of October 31, 2009

2009 Annual Goal: \$10.9  
 2009 Annual Forecast: \$1.6  
 Ten Month Goal: \$10.1  
 Ten Month Actual: \$1.6 (16%)  
 Left to Commit: \$0.0

(\$ in Millions)



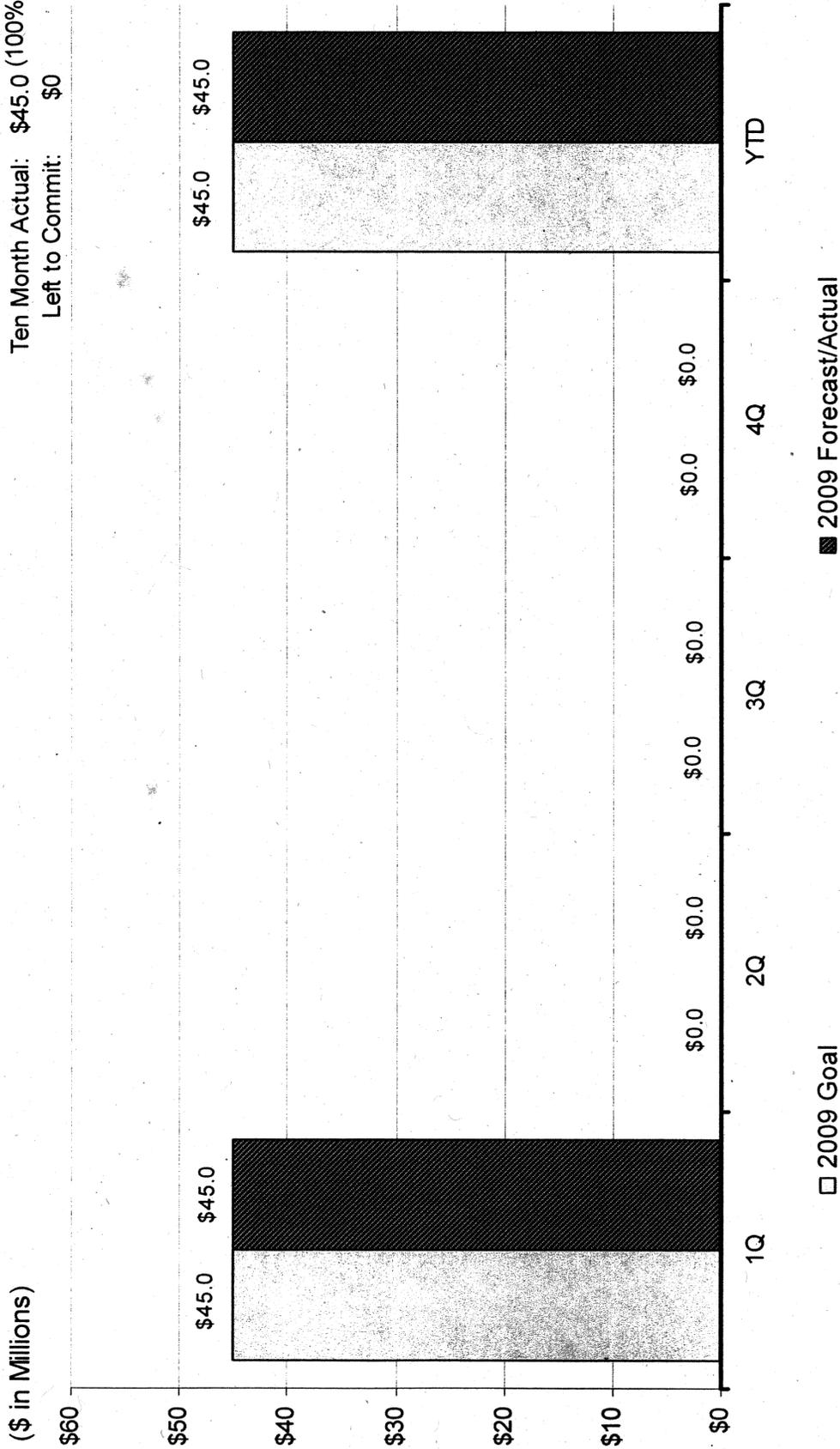
**MTA Police Department: Status of Major Commitments as of October 31, 2009**

Project	Budget (\$ in Millions)		Award Date			Notes
	2009 Goal	Forecast/Actual	Original Goal	2009 Goal	Forecast/Actual	
Merrick Facility-Construction	\$0.6	\$0.0	Jun-09	Jun-09	2010	
Public Safety Radio Consultants-Specs & Design	\$7.1	\$1.6	Jul-08	Sep-09	Sep-09	A
K9 Facility Property Acquisition	\$2.5	\$0.0	Dec-08	Apr-09	2010	
K-9 Facility Design	\$0.7	\$0.0	Nov-09	Nov-09	2010	

Notes:

**MTA Interagency Financial Systems Upgrade: Commitments as of September 30, 2009**

2009 Annual Goal: \$45.0  
 2009 Annual Forecast: \$45.0  
 Ten Month Goal: \$45.0  
 Ten Month Actual: \$45.0 (100%)  
 Left to Commit: \$0



**MTA Interagency Financial Systems Upgrade: Major Commitments as of October 31, 2009**

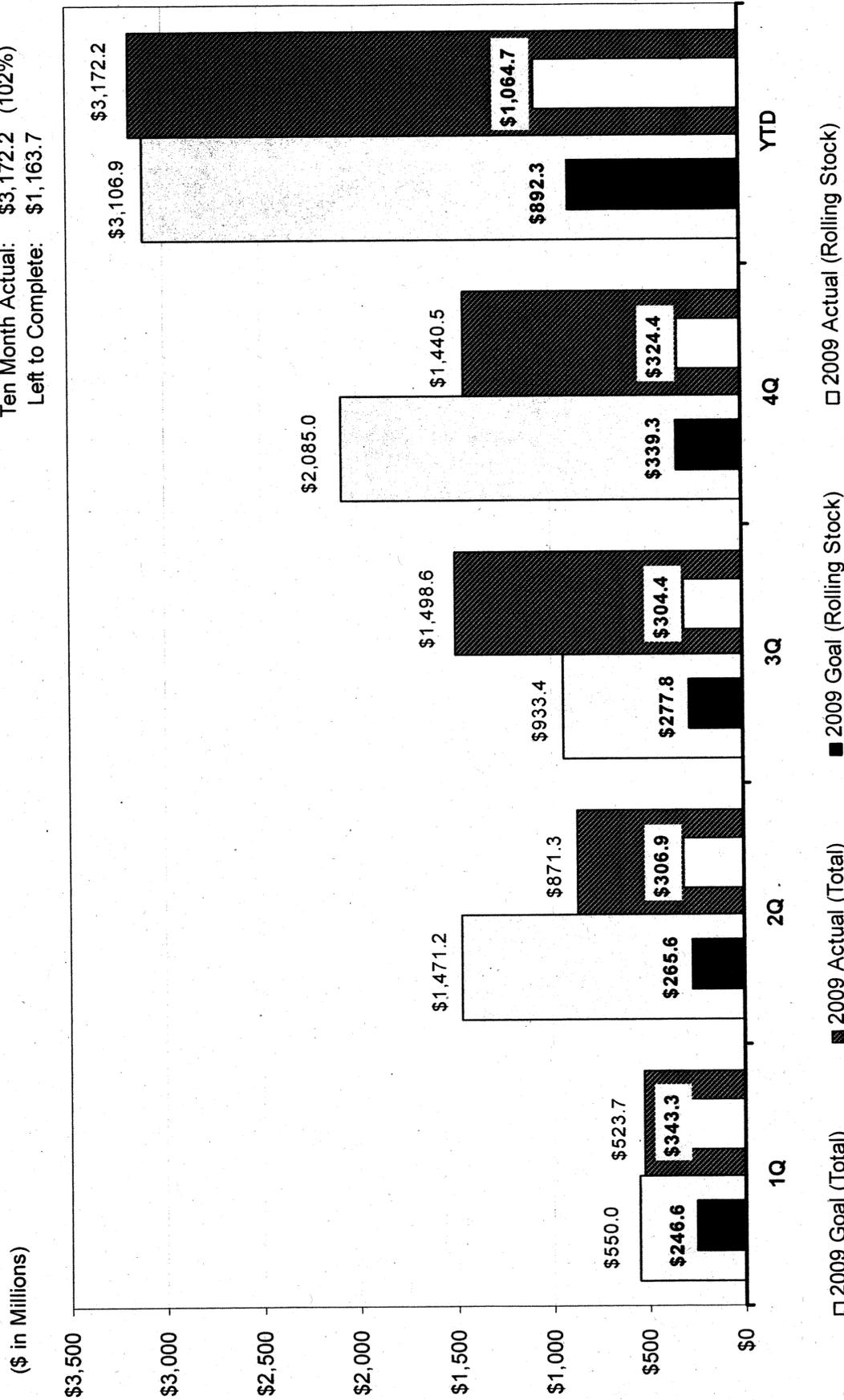
Project	Budget (\$ in Millions)		Award Date		Notes
	2009 Goal	Forecast/Actual	Original Goal	2009 Goal	
Business Service Center	\$42.0	\$42.0	Mar-09	Mar-09	A
Consultant QA / QC	\$3.0	\$3.0	Mar-09	Mar-09	A

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# 2009 Completions

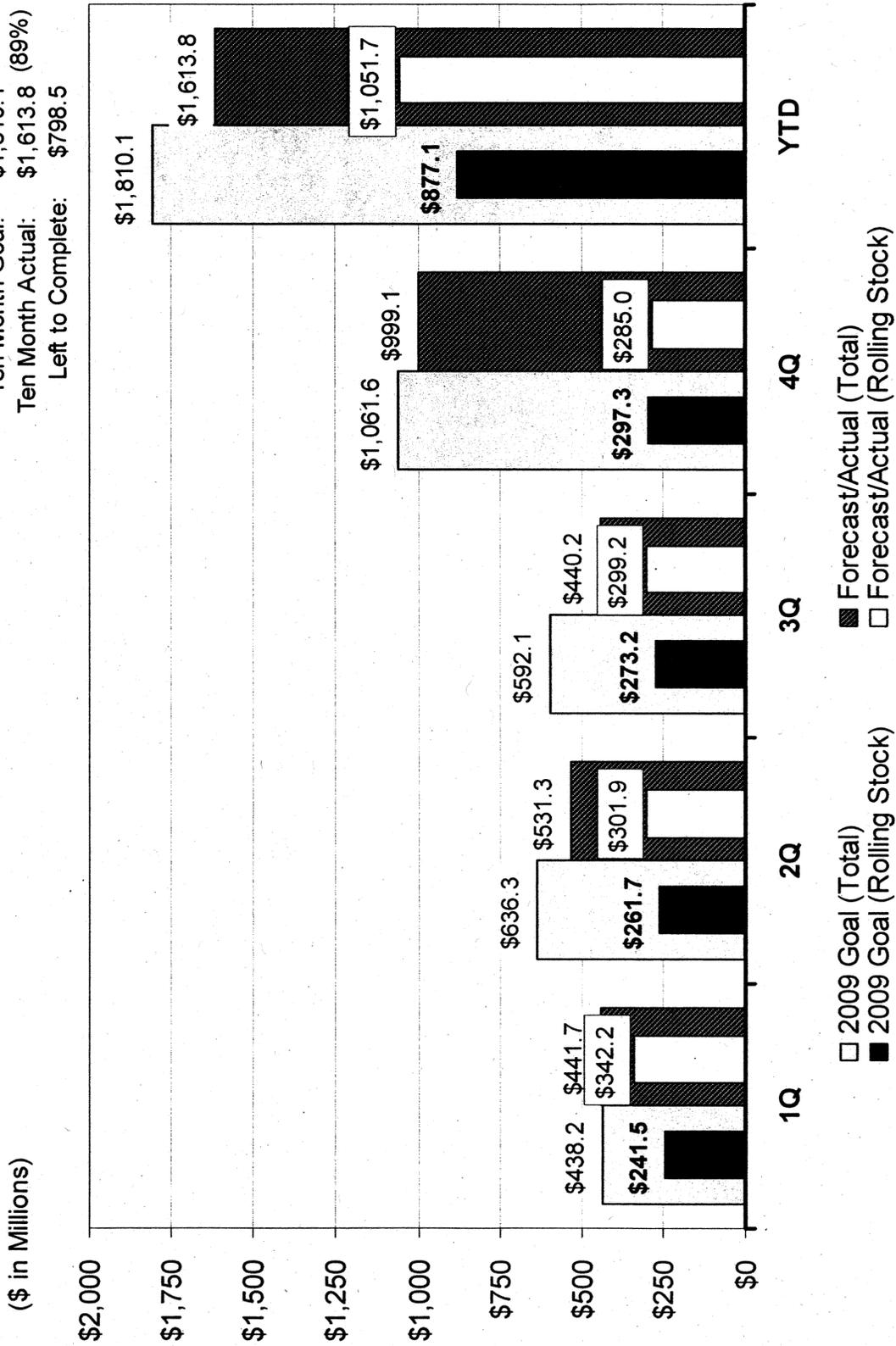
# MTA All Agencies: Completions as of October 31, 2009

2009 Annual Goal: \$5,039.5  
 2009 Annual Forecast: \$4,335.9  
 Ten Month Goal: \$3,106.9  
 Ten Month Actual: \$3,172.2 (102%)  
 Left to Complete: \$1,163.7



# MTA NYC Transit: Completions as of October 31, 2009

2009 Annual Goal: \$2,728.2  
 2009 Annual Forecast: \$2,412.3  
 Ten Month Goal: \$1,810.1  
 Ten Month Actual: \$1,613.8 (89%)  
 Left to Complete: \$798.5



# MTA NYC Transit: Status of Major Completions as of October 31, 2009

Project	Budget (\$ in Millions)		Actual/Forecast *	Original	Completion Date		Notes
	2009 Goal	2009 Goal			2009 Goal	Forecast/Actual	
Purchase 620 R160 "B" Div Cars: (YTD plan = 430; accepted = 430)	\$885.6	\$885.6	\$885.6	Various	Various	Various	A
Purchase 382 R160 "B" Div Cars: (YTD plan = 0; accepted = 70)	\$176.6	\$176.6	\$176.6	Various	Various	Various	
Station Rehab & ADA: Chambers Street / Broadway/7	\$35.7	\$35.7	\$35.7	Jun-08	Mar-09	Apr-09	A
Replace 10 Escalators: Parsons Blvd - Archer Av	\$33.7	\$33.7	\$33.7	Feb-09	May-09	May-09	A
Subway Tunnel Rehab: Whitehall St - Canal St / Broadway	\$31.4	\$31.4	\$31.4	Mar-09	May-09	May-09	A
Pumping Facilities: 10 Locations / Queens Boulevard	\$41.0	\$44.9	\$44.9	Jul-09	Aug-09	Jul-09	A
Tunnel Lighting & Subway Rehab: 207 St - 168 St / 8th Ave	\$71.7	\$71.4	\$71.4	Apr-09	May-09	Oct-09	A
Tunnel Lighting Rehab: 42 St - 96 St / Broadway/7	\$39.7	\$39.7	\$39.7	Nov-09	Nov-09	Dec-09	b
Antenna Cable Replacement Phase II NR	\$49.4	\$49.4	\$49.4	Dec-07	Dec-09	Dec-09	
Track and Switch Replacement Program (2009)	\$258.0	\$258.0	\$258.0	Dec-09	Dec-09	Dec-09	
Columbus Circle Stations Complex	\$100.5	\$110.8	\$110.8	Jun-09	Nov-09	Mar-10	
Charleston Annex Depot	\$133.1	\$133.1	\$133.1	Dec-09	Dec-09	May-10	c
Data Network (Sonet & IRT-ATM)	\$201.1	\$209.3	\$209.3	Feb-04	Jul-09	TBD	d

**Notes:**

- (a) All 620 cars have been accepted.
- (b) Project was delayed due to reduced and/or canceled weeknight and weekend G.O.s.
- (c) Contractor's slow progress in enclosing the building was a major cause of the delay. The contractor has since accelerated the construction but can not meet the original schedule. In addition, obtaining easement rights and DEP's final approval for the installation of the sanitary and storm sewer lines caused delays. Easements have been obtained and all changes required by DEP have been completed.
- (d) Continued claim settlement discussions.

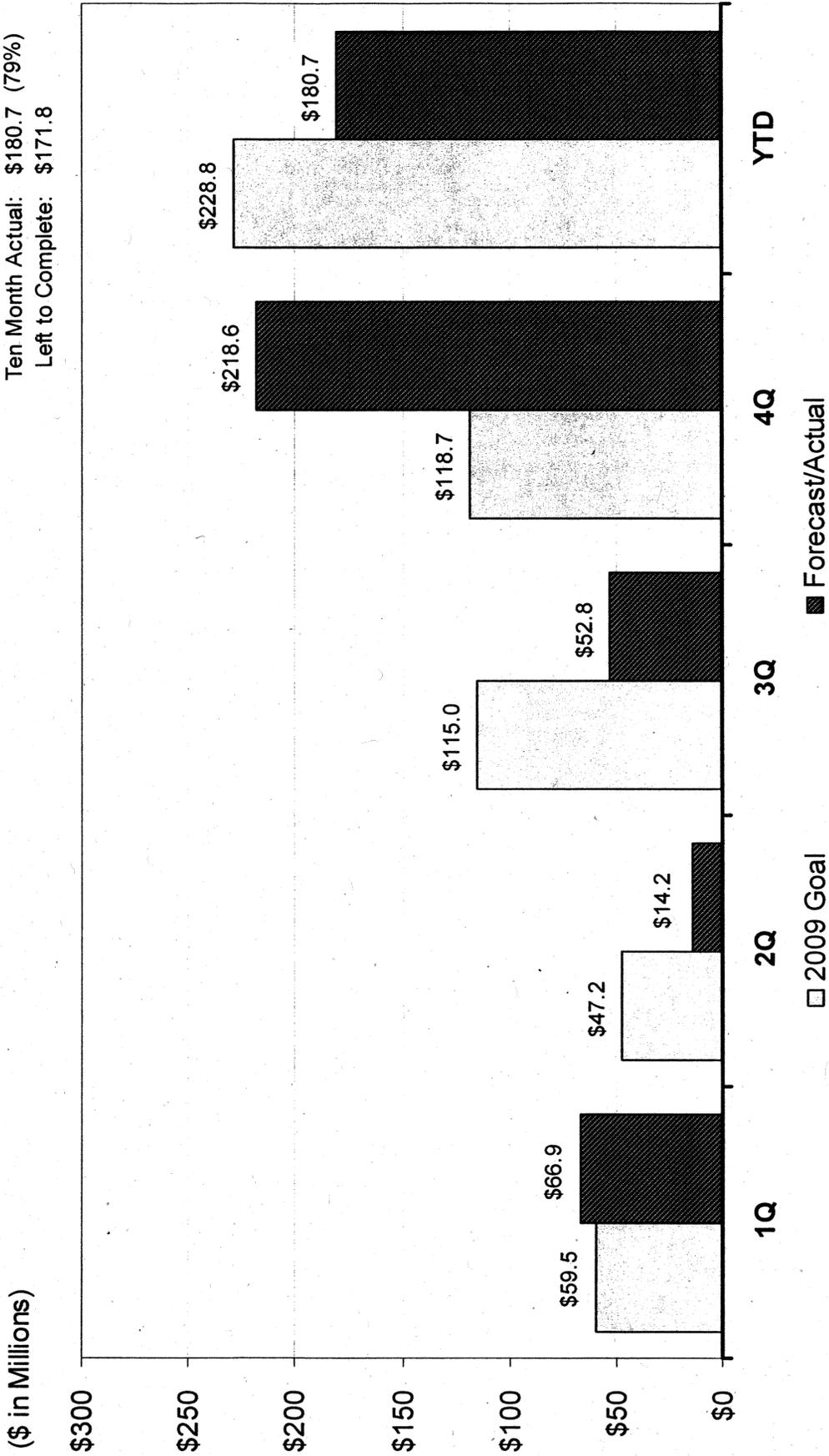
\* Represents the latest approved current construction budget (Excludes design budget).



**Metropolitan Transportation Authority**

# MTA Long Island Rail Road: Completions as of October 31, 2009

2009 Annual Goal: \$340.3  
 2009 Annual Forecast: \$352.5  
 Ten Month Goal: \$228.8  
 Ten Month Actual: \$180.7 (79%)  
 Left to Complete: \$171.8



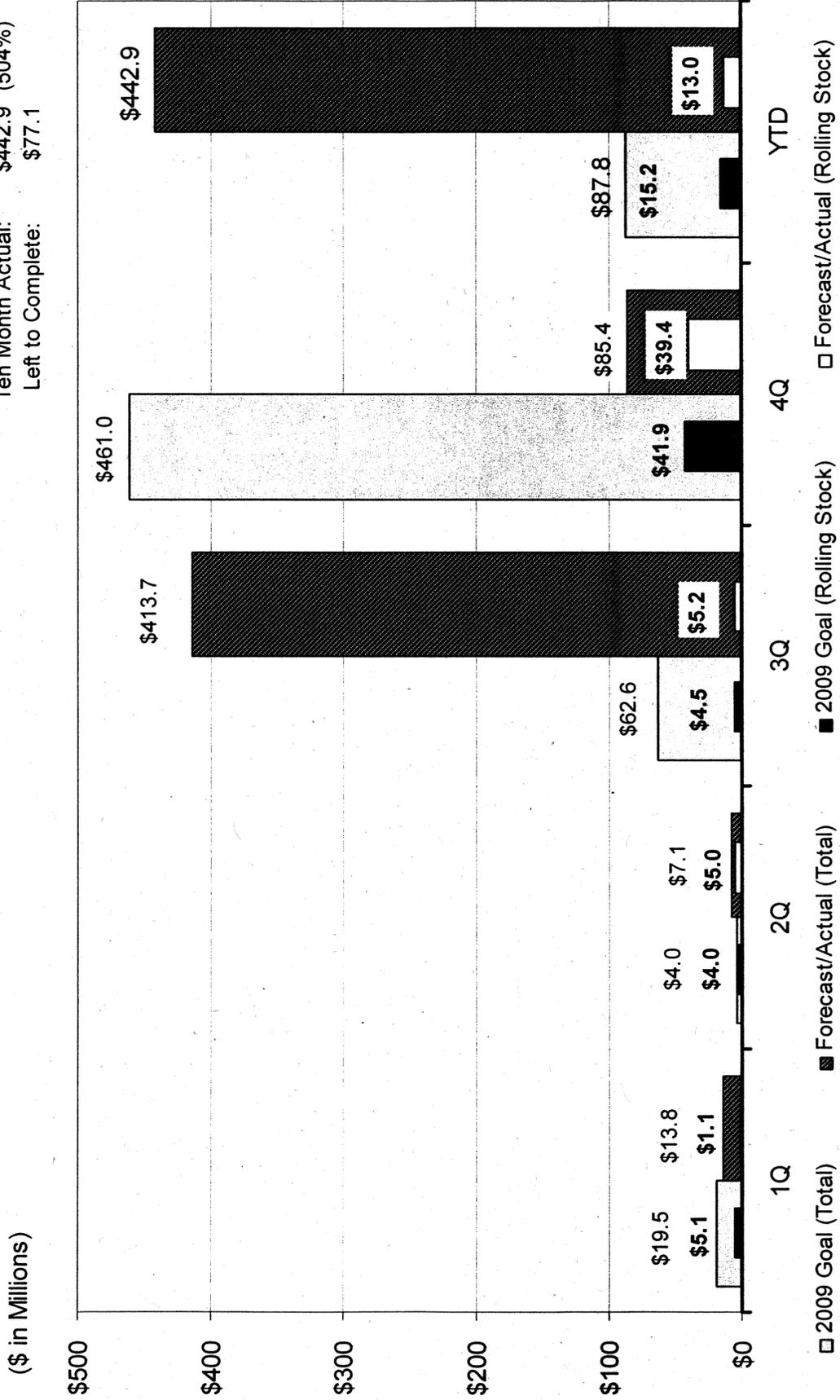
# MTA Long Island Rail Road: Status of Major Completions as of October 31, 2009

Project	Budget (\$ in Millions)		Completion Date				Notes
	2009 Goal	Forecast/Actual	Original	2009 Goal	Forecast/Actual		
Jamaica Interlockings	\$13.5	\$13.5	Sep-05	Jan-09	Jan-09	A	
Third Rail Cable Replacement	\$5.4	\$5.9	Dec-09	Jan-09	Jan-09	A	
Richmond Hill Improvements	\$22.9	\$23.0	Apr-07	Mar-09	Mar-09	A	
Long Island City Yard - Phase 2	\$17.6	\$18.0	Jul-08	Mar-09	Mar-09	A	
Broadway Station Platform Rehabilitation	\$13.6	\$12.5	Sep-08	May-09	Jun-09	A	
Valley Stream Station Rehabilitation	\$6.2	\$6.8	Oct-08	Jun-09	Oct-09	A	
Third Rail System - Composite Rail	\$20.4	\$20.4	Dec-09	Jun-09	Sep-09	A	
Seaford Station Platform Replacement	\$13.2	\$13.9	Apr-09	Jul-09	Jul-09	A	
Atlantic Terminal	\$101.2	\$105.5	Dec-06	Jul-09	Nov-09	F	
Communications Pole Line Replacement	\$7.2	\$7.2	Dec-09	Oct-09	Sep-09	A	
Babylon Branch Stair Replacement	\$4.2	\$3.6	Dec-09	Dec-09	Dec-09	F	
ROW - Drainage Control	\$5.5	\$0.0	Sep-11	Dec-09	Jun-10	F	
Amott Culvert	\$7.1	\$7.1	Dec-09	Dec-09	Dec-09	F	
Valley Stream Interlocking	\$36.0	\$34.6	May-09	Dec-09	Oct-09	A	
2009 Annual Track Program	\$53.1	\$53.9	Dec-09	Dec-09	Dec-09	F	

Notes:

**MTA Metro-North Railroad: Completions as of October 31, 2009**

2009 Annual Goal: \$547.1  
 2009 Annual Forecast: \$520.0  
 Ten Month Goal: \$87.8  
 Ten Month Actual: \$442.9 (504%)  
 Left to Complete: \$77.1



# MTA Metro-North Railroad: Status of Major Completions as of October 31, 2009

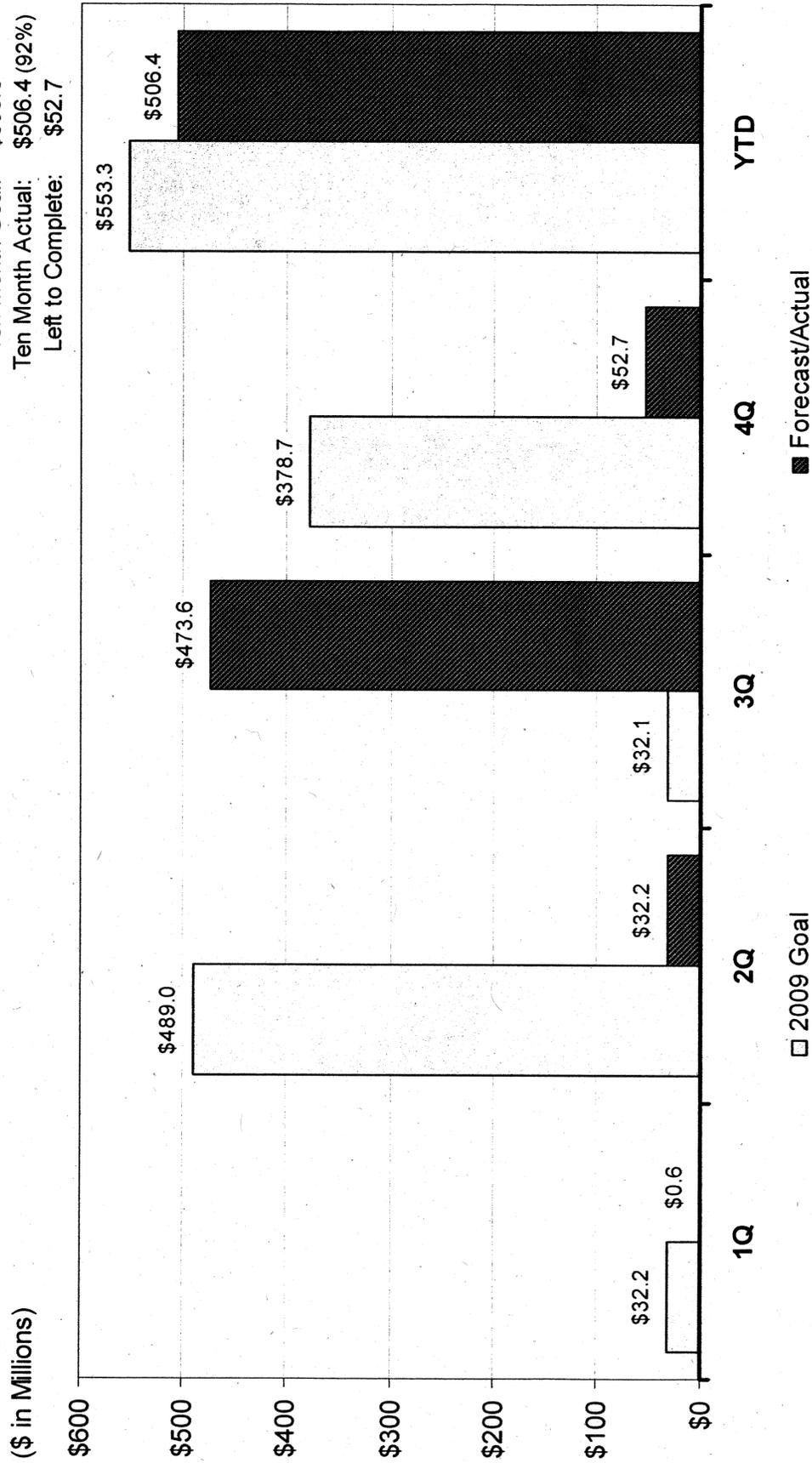
Project	Budget (\$ in Millions)		Completion Date			Notes
	2009 Goal	Forecast/Actual	Original	2009 Goal	Forecast/Actual	
2008 Cyclical Track Program	\$10.9	\$10.9	Mar-09	Mar-09	Mar-09	A
Yankee-E. 153rd Street Station (MN Share)	\$53.0	\$53.0	Aug-09	Aug-09	Aug-09	A
Vital Processor System GCT	\$6.5	\$0.0	Nov-09	Nov-09	Mar-10	a
CTC Systems	\$30.0	\$30.0	Dec-09	Dec-09	Dec-09	
M2 Car Remanufacture (MN Share)	\$36.0	\$36.0	Dec-09	Dec-09	Dec-09	
Harmon Shop Replacement (MN Share)	\$357.3	\$350.3	Dec-09	Dec-09	Aug-09	A

Notes:

(a) Vital Processor System GCT - Unanticipated extended factory testing of the of touch screen local panels has delayed shipment. As a result, project completion slips from November 2009 to March 2010.

# MTA Capital Construction: Completions as of October 31, 2009

2009 Annual Goal: \$932.0  
 2009 Annual Forecast: \$559.1  
 Ten Month Goal: \$553.3  
 Ten Month Actual: \$506.4 (92%)  
 Left to Complete: \$52.7



## MTA Capital Construction: Status of Major Completions as of October 31, 2009

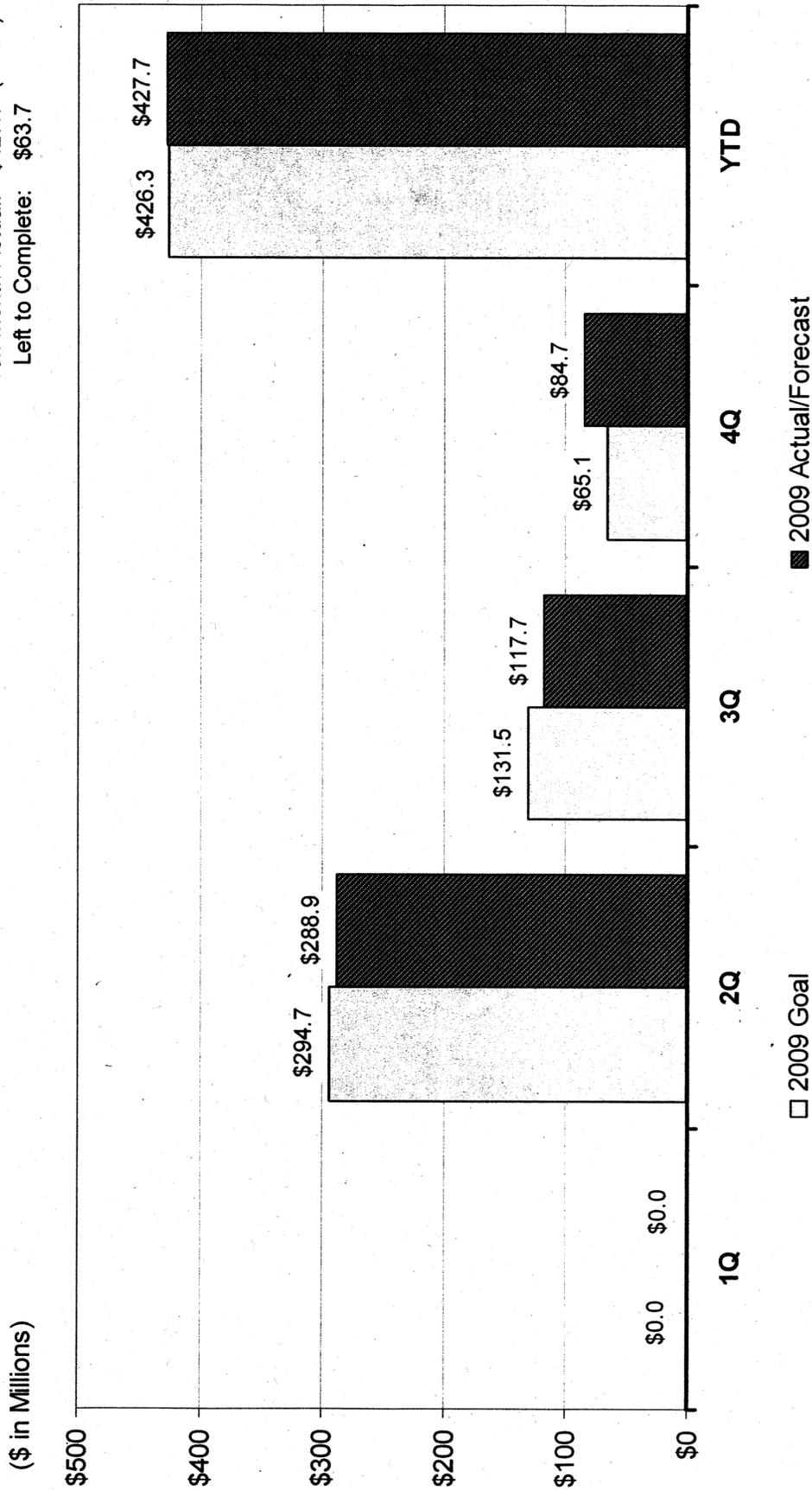
Project	Budget (\$ in Millions)		Completion Date		Notes
	2009 Goal	Forecast/Actual	2009 Goal	Forecast/Actual	
<b>South Ferry</b>					
South Ferry Terminal Structure	\$291.2	\$291.2	Apr-09	Sep-09	A a
Battery Place Vent Plant: Enclosure	\$25.0	\$25.0	Apr-09	Sep-09	A a
South Ferry Terminal Finishes/System	\$147.4	\$147.4	Apr-09	Sep-09	A b
Battery Place Vent Plant: Equipment/Finishes	\$10.0	\$10.0	Apr-09	Sep-09	A b
Peter Minuit Plaza and Bollards	\$20.6	\$22.7	Dec-09	May-10	c

**Note:**

- (a) MTACC delayed substantial completion to develop a comprehensive settlement of open issues with the contractor and a long-term leak remediation plan.
- (b) The new South Ferry Terminal Station opened to customer service on March 16. Work between that time and September included only items that did not affect customer service.
- (c) MTACC has pushed out the substantial completion date due the impact of unexpected site conditions, changes in design plans, and the seasonal timing requirements of the landscaping work.

# MTA Bridges and Tunnels: Completions as of October 31, 2009

2009 Annual Goal: \$491.3  
 2009 Annual Forecast: \$491.3  
 Ten Month Goal: \$426.3  
 Ten Month Actual: \$427.7 (100%)  
 Left to Complete: \$63.7

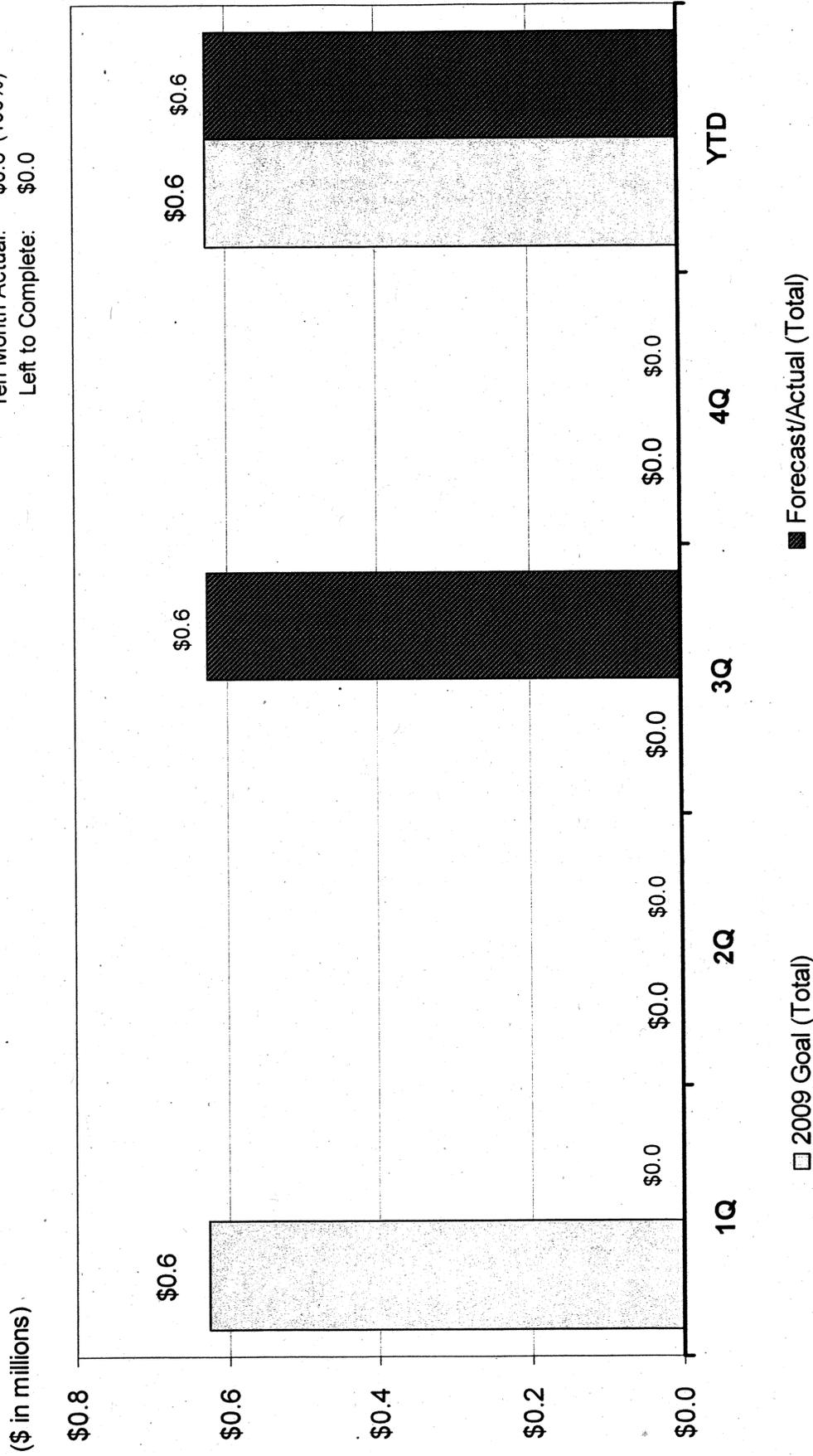


### MTA Bridges and Tunnels: Status of Major Completions as of October 31, 2009

Project	Budget (\$ in Millions)		Original	Completion Date		Notes
	2009 Goal	Forecast/Actual		2009 Goal	Forecast/Actual	
MP02	\$22.0	\$22.0	Mar-09	Apr-09	Apr-09	A
AW41	\$9.1	\$9.1	Dec-08	Jun-09	Jun-09	A
TB64	\$257.8	\$257.8	Sep-08	Jun-09	Jun-09	A
TB66	\$21.1	\$21.1	May-09	Jul-09	Oct-09	A
TN85	\$15.6	\$15.6	Oct-10	Aug-09	Aug-09	A
VN17	\$90.2	\$90.2	Aug-09	Aug-09	Aug-09	A
BW85	\$6.7	\$6.7	Dec-09	Nov-09	Jul-09	A
BB80	\$32.5	\$32.5	Jun-09	Dec-09	Dec-09	
TB65	\$24.7	\$24.7	Dec-06	Dec-09	Dec-09	

# MTA Police Department: Completions as of October 31, 2009

2009 Annual Goal: \$0.6  
 2009 Annual Forecast: \$0.6  
 Ten Month Goal: \$0.6  
 Ten Month Actual: \$0.6 (100%)  
 Left to Complete: \$0.0



**MTA Police Department: Status of Major Completions as of October 31, 2009**

Project	Budget (\$ in Millions)		Original	Completion Date		Notes
	2009 Goal	Forecast/Actual		2009 Goal	Forecast/Actual	
Emergency Service Units (3)	\$0.6	\$0.6	Nov-08	Feb-09	Aug-09	A

Notes:

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# **Status of MTA Capital Program Funding**

# Status of MTA 2005-2009 Funding Capital Program Funding Thru October 2009

\$ in Millions

	Funding Receipts			
	2005-2009 <u>Plan</u>	Through <u>Sep-2009</u>	In <u>Oct-2009</u>	Through <u>Oct-2009</u>
<b>MTA WIDE (Does not include B&amp;T)</b>				
Federal Formula and Flexible Funds	\$5,251.5	\$4,627.6	\$0.0	\$4,627.6
Federal New Start	3,286.2	726.6	0.0	726.6
Federal Security	352.3	85.9	0.0	85.9
Federal Other	2.0	4.7	0.0	4.7
Federal ARRA - Stimulus	647.8	647.8	0.0	647.8
City of New York	407.3	316.3	0.0	316.3
City #7 Line Extension Funds	2,100.0	672.9	18.2	691.2
City Match for Buses	27.6	12.4	0.0	12.4
Operating to Capital	32.1	10.8	0.0	10.8
Asset Sales, Carryover, and Program Income *	1,091.8	738.6	0.3	738.9
LaGuardia Airport - Board Approved	69.7	0.0	0.0	0.0
LaGuardia Airport - New Initiatives	134.8	0.0	0.0	0.0
State Transportation Bond Act	1,450.0	284.5	0.0	284.5
MTA Bonds	3,162.2	1,865.8	400.3	2,266.1
Bonds from New Sources	5,100.0	1,042.4	0.0	1,042.4
Other **	40.1	21.9	0.0	21.9
<b>Total 2005-2009 Program Funding</b>	<b>\$ 23,155.3</b>	<b>\$ 11,058.2</b>	<b>\$ 418.8</b>	<b>\$ 11,477.0</b>
<b>Total 2005-2009 Program Budget</b>	<b>\$ 23,155.3</b>			

\* Program Income includes receipts thru October 2009.

# Status of MTA 2000-2004 Funding Capital Program Funding Thru October 2009

\$ in Millions

	Funding Receipts			
	2000-2004 Plan	Through	In	Through
		Sep-2009	Oct-2009	Oct-2009
<b>MTA WIDE (Does not include B&amp;T)</b>				
Federal Title III	\$4,127.7	\$4,121.0	\$0.0	\$4,121.0
Federal Title I	291.7	291.7	0.0	291.7
Federal New Start	600.0	575.5	0.0	575.5
Federal Other	1,498.6	1,498.6	0.0	1,498.6
Federal ARRA - Stimulus	266.9	266.9	0.0	266.9
City of New York	450.9	450.9	11.5	462.4
City Match for Buses	46.1	46.1	0.0	46.1
Coliseum	140.4	140.4	0.0	140.4
Program Income	312.8	312.8	0.0	312.8
TBTA Investment Income	88.8	88.8	0.0	88.8
CDOT Admin Assets Reimbursement	18.3	18.3	0.0	18.3
MNR Operating Savings Transfer	10.3	10.3	0.0	10.3
LIRR Operating	16.5	0.0	0.0	0.0
Operating to Capital PAYG	194.1	147.1	0.0	147.1
Debt Restructuring	4,523.2	4,523.2	0.0	4,523.2
* MTA Bonds	7,061.2	6,994.0	35.0	7,029.0
Insurance Recovery for WTC Damage	248.9	248.9	0.0	248.9
Asset Leasing	172.7	173.4	0.0	173.4
Other (includes Carryover)	349.2	349.3	0.0	349.3
<b>Total 2000-2004 Program Funding</b>	<b>\$ 20,418.2</b>	<b>\$ 20,257.2</b>	<b>\$ 46.5</b>	<b>\$ 20,303.7</b>
<b>Total 2000-2004 Program Budget</b>	<b>\$ 20,418.2</b>			

\* Note: Through September 2009 figures have been reconciled to reflect actual MTA Bonds sold. In October bonds were sold (\$35M) to benefit the MTA Bus, with \$32.2M remaining against 2000-2004 plan.



Metropolitan Transportation Authority

# Status of MTA 1992-1999 Funding Capital Program Funding Thru October 2009

\$ in Millions

	Funding Receipts		
	Through Sep-2009	In Oct-2009	Through Oct-2009
<b>MTA WIDE (Does not include B&amp;T)</b>			
Federal Title III	\$4,466.7	\$0.0	\$4,466.7
Federal Title I	528.2	0.0	528.2
Federal New Start	45.7	0.0	45.7
Route 9A/ Westway Trade-in	524.7	0.0	524.7
State of New York	104.5	0.0	104.5
City of New York	1,472.8	0.0	1,472.8
Municipal Assistance Corporation	649.9	0.0	649.9
MTA Bonds	6,500.0	0.0	6,500.0
Investment Income	1,106.1	0.0	1,106.1
Pay-As-You-Go Capital	696.2	0.0	696.2
Asset Sales & Leasing	258.2	0.0	258.2
Operating to Capital	229.2	0.0	229.2
Nassau County	237.5	0.0	237.5
Other (includes Carryover)	173.3	0.0	173.3
<b>Total 1992-1999 Program Funding</b>	<b>\$ 16,993.0</b>	<b>\$ -</b>	<b>\$ 16,993.0</b>
<b>Total 1992-1999 Program Budget</b>	<b>\$16,993.0</b>		





# **Signals and Systems Program**

**Frederick Smith, P.E.  
Vice President and Deputy Chief Engineer**

**November 2009  
Capital Program Oversight Committee**



## **Mission Statement**

The **Division of Signals and Systems'** mission is to provide safe, reliable, and cost effective train control and communications systems based on operating and maintenance requirements that satisfy the needs of our riding public.



**Open Project Summary**  
\$ in Millions

Phase	Number	Current Budget	Current EAC	(Savings) Over
<b>Signals</b>				
Design	5	\$20	\$20	\$0
Construction	15	\$743	\$743	\$0
Closeout	2	\$136	\$136	\$0
<b>Subtotal</b>	<b>22</b>	<b>\$899</b>	<b>\$899</b>	<b>\$0</b>
<b>Systems</b>				
Design	5	\$390	\$547	\$157
Construction	8	\$185	\$186	\$1
Closeout	4	\$202	\$202	\$0
<b>Subtotal</b>	<b>17</b>	<b>\$777</b>	<b>\$935</b>	<b>\$158</b>
<b>Communications</b>				
Design	14	\$144	\$203	\$59
Construction	27	\$1,094	\$1,167	\$73
Closeout	3	\$20	\$21	\$1
<b>Subtotal</b>	<b>44</b>	<b>\$1,258</b>	<b>\$1,391</b>	<b>\$133</b>
<b>Totals</b>				
Design	24	\$554	\$767	\$213
Construction	50	\$2,022	\$2,079	\$57
Closeout	9	\$358	\$359	\$1
<b>Grand Total</b>	<b>83</b>	<b>\$2,934</b>	<b>\$3,205</b>	<b>\$291</b>



### Commitments \*

\$ in millions

Projects	Original Budget	Current Budget	Change	Original Date	2009 Plan	Forecast/Actual
<b>Actual</b>						
Copper Cable Replacement: Steinway Tube - Ph 1	3.8	3.8	0.0	10/2008	01/2009	1/3/09
Fire Protection: Sprinklers: Concourse Shop & Hoyt-Scherm	9.4	9.4	0.0	10/2006	01/2009	1/9/09
Tunnel Lighting: 7 Av and 47-50 Sts to Lex Av / QBL	12.0	12.0	0.0	12/2008	01/2009	1/30/09
Tunnel Lighting: Removals: Lex Av-Queens Plz / 53 St Tube	2.8	2.8	0.0	12/2008	01/2009	1/30/09
Signal Systems: Interlockings: Lex Ave, 5th Ave / QBL	134.5	134.5	0.0	06/2008	01/2009	1/30/09
Signal Systems: Times Sq to N. of Hunters Pt - Wrap-up	3.8	3.8	0.0	12/2008	01/2009	1/30/09
Stillwell Terminal: Place Switch #977	2.1	2.1	0.0	12/2008	01/2009	1/30/09
Fire Alarm: 130 Livingston & Power Ctr	12.2	12.2	0.0	10/2008	03/2009	3/26/09
Yard Rehab: Yard CCTV	8.2	8.2	0.0	08/2008	04/2009	5/7/09
Stop Cable Replacement: Phase 3	27.9	27.9	0.0	10/2008	04/2009	5/26/09
Signal Room Fire Suppression - Phase 1	16.5	16.5	0.0	07/2008	04/2009	6/18/09
ADA: Induction Loops: 642 Booths	13.4	13.4	0.0	06/2009	+	8/31/09
Communication Rooms HVAC: 6 Locs / On-Call	3.3	3.3	0.0	09/2009	+	9/29/09
	<b>249.9</b>	<b>249.9</b>	<b>0.0</b>			
<b>Forecast</b>						
Fire Alarm: Jamaica Railcar Maint. Shop	7.3	7.3	0.0	07/2009	07/2009	11/2009
Police: PRS: Time Domain Interference Solution	9.6	9.6	0.0	06/2009	06/2009	12/2009
PA/CIS: 44 Stations - Furnish & Install Cabinets	9.8	9.8	0.0	12/2009	12/2009	12/2009
	<b>26.7</b>	<b>26.7</b>	<b>0.0</b>			
<b>Total 2009</b>	<b>276.6</b>	<b>276.6</b>	<b>0.0</b>			
<b>Deferred</b>						
CBTC Flushing Line	347.5	347.5	0.0	09/2008	07/2009	02/2010
CBTC Test Track Pilot / Culver Line	12.7	12.7	0.0	12/2009	12/2009	03/2010
VHF Radio System Upgrade (Phase1)	73.2	73.2	0.0	10/2008	12/2009	07/2010
	<b>433.4</b>	<b>433.4</b>	<b>0.0</b>			

\* Original Budgets for Construction are reset at the time of award. Some of the above original budgets may vary from previous presentations when the projects were in design.



### Substantial Completions \*

\$ in millions

Projects Actual	Original Budget	Current Budget	Change	Original Date	2009 Plan	Forecast/ Actual
Asbestos Abatement: Data Network B Option	8.7	11.0	2.3	03/2009	03/2009	3/31/09
System Application Migration - 52 Locations	19.3	19.6	0.3	06/2009	06/2009	5/31/09
2003 ODP Access Control/Detection System	14.1	14.3	0.2	11/2008	04/2009	6/30/09
Concourse Line Signals Wrap-up	1.2	1.6	0.4	03/2009	09/2009	8/21/09
<b>Forecast</b>	<b>43.3</b>	<b>46.5</b>	<b>3.2</b>			
CCTV For Passenger ID - Phase 2	18.7	19.9	1.2	10/2007	04/2009	11/2009
Information Technology: Rehab: 7 Node Site Facilities	8.3	8.5	0.2	12/2009	12/2009	12/2009
SlR: Station Security Initiatives	17.9	17.9	0.0	10/2009	10/2009	12/2009
CCTV For Passenger ID - Phase 1	20.4	19.2	-1.2	07/2006	04/2009	12/2009
Antenna Cable Replacement Phase II NR	36.2	49.4	13.2	12/2007	12/2009	12/2009
	<b>101.5</b>	<b>114.9</b>	<b>13.4</b>			
<b>Total 2009</b>	<b>144.8</b>	<b>161.4</b>	<b>16.6</b>			
<b>Deferred</b>						
Station Time Signal Enhancement / Lex	4.1	4.4	0.3	11/2009	11/2009	02/2010
Data Network (SONET & IRT-ATM)	146.3	207.4	61.1	02/2004	07/2009	TBD**
Metrocard IP Network	2.0	2.0	0.0	02/2005	07/2009	TBD**
	<b>152.4</b>	<b>213.8</b>	<b>61.4</b>			

\* In all cases after construction award, original budget and completion dates are consistent with data provided in the most recent prior report.

\*\* Continued claim settlement discussions.



## Construction Closeouts \*\*

\$ in millions

Projects Actual	Original Budget	Current Budget	Change	Original Date	2009 Plan	Forecast/ Actual
PA/CIS: 24 Stations - Canarsie Line	13.9	22.5	8.6	06/2008	03/2009	6/30/09
PA/CIS at 2 Stations	1.0	1.0	0.0	03/2009	03/2009	6/30/09
<b>Forecast</b>	<b>14.9</b>	<b>23.5</b>	<b>8.6</b>			
Security Program: 2003 ODP - Access Ctl/ Detection System	14.1	17.7	3.6	11/2009	09/2009	11/2009
System Application Migration - 52 Locations	19.3	19.6	0.3	11/2009	11/2009	11/2009
SSI Pilot: Bergen Street Interlocking	71.8	74.0	2.2	06/2009	06/2009	11/2009
Signal Systems: Qnsboro Plz Interlocking & s/o 33 to 82st - FLS Ln	74.1	85.7	11.6	05/2009	05/2009	11/2009
Jerome Line Middle Track Signalization	45.8	49.9	4.1	05/2009	05/2009	11/2009
	<b>225.1</b>	<b>246.9</b>	<b>21.8</b>			
<b>Total 2009</b>	<b>225.1</b>	<b>246.9</b>	<b>21.8</b>			
<b>Deferred</b>						
Security Program: CCTV for Passenger Id - Phase 2	18.7	20.9	2.2		09/2009	03/2010
SIR: Signal System Mod: St. George - Tottenville	103.2	109.0	5.8	09/2006	10/2009	03/2010
Security Program: CCTV for Passenger ID - Phase 1	20.4	19.8	-0.6		09/2009	05/2010
MetroCard IP Network	2.0	2.0	0.0		12/2009	05/2010
Expand Fiber Network: Livingston Plz	4.9	4.9	0.0	02/2007	07/2009	05/2010
Asbestos Abatement: Data Network B Option	8.7	11.0	2.3	08/2009	08/2009	07/2011
	<b>157.9</b>	<b>167.6</b>	<b>9.7</b>			

\*\* In all cases after construction award, original budget and completion dates are consistent with data provided in the most recent prior report.



## Exception Reports

This section indicates the number of projects that have exceeded the standard criteria of CPOC for either schedule delays or budget overruns or both.

Projects that were previously reported as exceptions are not included in this report unless they have experienced additional schedule delays or budget overruns.

### CPOC Criteria:

For projects in design: a new schedule delay of more than three months or a new budget overrun of 15% of last reported current budget.

For projects in construction: a new schedule delay of more than three months or a new budget overrun of 10% of last reported budget.

Only projects with total value of \$5 million or more are reported.



## Exception Reports/Construction

(\$ in millions)

<u>Project</u>	<u>Budget</u>		<u>Schedule</u>		<u>Problem and What is Being Done</u>
	<u>Original</u>	<u>Current</u>	<u>Original</u>	<u>Current</u>	
CCTV For Passenger ID Phase I	\$20	\$20	07/06	12/09	<p>Construction completion delay of 8 months from (04/09 to 12/09). Cumulative completion delay of 39 months from (07/06 to 12/09).</p> <p>Several factors have contributed to the delay of receiving final acceptance on this project. In the course of the project, numerous punch list items were identified and resolved during the Factory and Site Acceptance Testing.</p> <p>During Final Inspections, additional performance and maintenance concerns were raised that precluded the user and maintenance groups from issuing Final Acceptance Certificates.</p> <p>Due to the urgent nature of this initiative, the work was not awarded as a contract but as two additional work orders under W32658. Because of this, the normal contractual maintenance and standard manufacturer's warranty provisions, which are usually associated with an awarded contract, did not exist.</p> <p>Due to the lack of contractual provisions for maintenance and warranty on this project, a Memorandum of Understanding (MOU) was signed off on February 20, 2009 that outlined the terms and agreements between all Stakeholders to facilitate the acceptance of these systems by NYCT. This MOU addressed all the End-User concerns that subsequently lead to EMD/SEM accepting the responsibility of maintaining these systems immediately upon passing Final Acceptance Testing at each location.</p>



**Exception Reports/Construction (continued)**

(\$ in millions)

<u>Project</u>	<u>Budget</u>		<u>Schedule</u>		<u>Problem and What is Being Done</u>
	<u>Original</u>	<u>Current</u>	<u>Original</u>	<u>Current</u>	
Data Network (SONET)	\$154	\$215	02/04	TBD	Construction completion delay from (06/09 to TBD). Cumulative completion delay from (02/04 to TBD). Continued claim settlement discussions.

CCTV 32 Locations For Passenger ID, Phase II

\$19 \$21 10/07 11/09

Construction completion delay of 7 months from (04/09 to 11/09).  
Cumulative completion delay of 25 months from (10/07 to 11/09).

The project completion has been delayed because in the course of the project, several additional work orders that required time extension were requested and deemed necessary by the user department. In addition, in Fall of 2008, the specified manufacturer for the video recording equipment ceased operations. Equipment performance concerns were left unresolved while completion / replacement options were investigated by NYCT and the contractor. Recently, a solution involving a new software product was successfully tested to resolve some of the performance issues. There remain issues of stability and reliability that will be resolved as part of maintenance operations, including if necessary the swapping of equipment for individual locations.

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## November 2009 CPOC Report

### NYC Transit Signal Modernization Program

#### Program Description:

The purpose of the Signal Modernization Program is to bring signal system elements to a state of good repair. Major activities include replacement of exiting signal equipment with current technology and consolidation of local signal towers into master locations.

In McKissack+Delcan's opinion, these projects are currently demonstrating notable success:	Phase	% Phase Complete
NA		

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
Install Signal Equipment-Union Turnpike & 71 <sup>st</sup> -Continental-Queens Blvd	Design	0%
71 <sup>st</sup> -Roosevelt Avenue-Queens Blvd	Design	60%
71 <sup>st</sup> -Continental Avenue & Union Turnpike-Queens Blvd	Design	90%
Church Avenue Interlocking – Culver Line	Design	98%
5 <sup>th</sup> Avenue & Lexington Avenue Interlockings	Construction	8%
E180th Street Yard and Interlocking : White Plains Road Phase 3 & CBH 213	Construction	53%
Corona Yard	Construction	76%
Modernize 3 Interlockings – 8th Avenue	Construction	89%

In McKissack+Delcan's opinion, these projects currently have one or more areas of concern:	Phase	% Phase Complete
NA		

A summary of budget and schedule status for the projects included in this program follow in the Appendix.

#### Discussion:

This program has eight projects, five of which warrant comment:

- **71<sup>st</sup>-Continental Avenue & Union Turnpike& Roosevelt Blvd-Queens Blvd. (S32738/S32749/S32754) (in design):** This project's initial design concept was to upgrade three interlockings in one contract. A decision was made to separate work into three separate contracts to open up the bid opportunity for more competition as a similar strategy was used with success on another signal project. This repackaging increased the design cost and a budget modification is being processed to cover these costs. The repackaging also pushed the contract advertisement and contract end dates past their originally forecasted dates. Funding for construction was moved to the 2010-1014 Capital Program.

<b>Agency:</b> New York City Transit	
<b>Design Performance</b>	
On target: 4	Total: 4
<b>Procurement Performance</b>	
On target: 0	Total: 0
<b>Construction Performance</b>	
On target: 4	Total: 4
<b>McKissack+Delcan Team:</b>	
Calvin A. Gordon – Project Manager	
Gerald Gardrvits – Sr. Project Manager	

## November 2009 CPOC Report

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### NYC Transit Signal Modernization Program

- **Corona Yard (S32726) (in construction):** This contract contains the first building being constructed with a full commissioning plan. The plan was added during the bid process. It was not part of the original design and, it took longer to develop an agreed upon commissioning plan than anticipated which increased the in-house force account costs (EFA). In addition there were extensive change orders associated with the building construction. The building is located next to the track and newly revised flagging rules for work near tracks were followed. This increased the forecast for NYC Transit labor costs. NYC Transit is in the process of developing a budget modification to cover these additional costs. McKissack+Delcan forecasts a \$6M increase in the EAC.

McKissack+Delcan note NYC Transit is moving unfinished work from the Queensboro Plaza Interlocking Contract (S32719) to this contract in order to close out the former contract. NYC Transit has used the practice of using ongoing contracts to close out other signal work occasionally in the past. McKissack+Delcan cautions the use of this practice, especially on those projects nearing their substantial completion date.

- **E180th Street Yard and Interlocking: White Plains Road Phase 3 (S32725) & CBH 213 (in construction):** Because of the revised flagging rules, this contract has experienced increases to its forecast for NYC Transit labor cost. The contract is 53% complete to date and has used approximately 76% of the NYC Transit labor budget. The new rules were unforeseen at time of award. At this rate of expenditure, the budget will be exhausted in three months. NYC Transit has commenced steps to mitigate charges. A budget modification is in circulation to cover the costs to the end of the project. McKissack+Delcan forecast a \$10M increase in the EAC.
- **Modernize 3 Interlockings – 8th Avenue (S32730) (in construction):** This project consist of the modernization of three interlockings by installing a new fixed block signaling system with the capability of implementing CBTC and automatic train control in future contracts. To date the project has proceeded on target except for a few General Order (GO) cancellations. If the cancellations continue, especially with the GOs scheduled in January 2010, the forecast completion will likely exceed scheduled finish in April 2010.
- **5<sup>th</sup> Avenue & Lexington Avenue Interlockings (S32731) (in construction):** This project is experiencing changes to contract agreed-upon GOs. This may become a serious problem because the baseline schedule incorporates work predicated upon obtaining GOs. McKissack+Delcan suggest a mitigation strategy should be investigated while the contract is in the early stages to prevent the potential slippage of major milestones and substantial completion. This project also contains the Time Square Facility upgrade which is experiencing continued scope changes. This construction work has been moved from prior projects twice. McKissack+Delcan are concerned that this work could potentially affect this project's schedule if the scope is not finalized early.

**Safety:** There were four lost time incidents in this program since McKissack+Delcan's last report in April 2009 with one causing 1.5 days of lost work time.

# November 2009 CPOC Report

## Appendix: NYC Transit Signal Modernization Program

Current Program Contracts:				Budget						Schedule					
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Constr. Award (\$M)	Current Approved Budget	Contingency Used (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
<b>DESIGN</b>															
71st-Continental Avenue & Union Turnpike-Queens Blvd (S32738)	NYC Transit	N/A	90%	140	N/A	9.6	N/A	139.6	N/A	NA	Jul-06	Jul-08	Nov-09	Nov-09	117%
71st-Roosevelt Avenue-Queens Blvd (S32749)	NYC Transit	N/A	60%	0.8	N/A	0.8	N/A	TBD	N/A	N/A	Feb-08	Oct-09	Dec-09	Dec-09	110%
Install Signal Equipment-Union Turnpike & 71st-Continental-Queens Blvd (S32754) <sup>(1)</sup>	NYC Transit	N/A	0%	N/A	N/A	TBD <sup>(2)</sup>	N/A	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Church Avenue Interlocking - Culver Line (32742)	NYC Transit	N/A	98%	222	N/A	222	N/A	238.6	N/A	N/A	Mar-07	Jul-09	Oct-09	Oct-09	110%
<b>PROCUREMENT</b>															
None															
<b>CONSTRUCTION</b>															
E180th Street Yard and Interlocking - White Plains Road Phase 3 (S32725)	NYC Transit	L.K. Comstock	53%	190.4	289.7	279.2	26	279.2	289.2	104%	Nov-07	Nov-11	Nov-11	Nov-11	100%
Circuit Breaker House-E180th (P36408)	NYC Transit	L.K. Comstock	53%	14.3	14.3	14.3	65	14.3	14.3	100%	Nov-07	Nov-11	Nov-11	Nov-11	100%
Corona Yard (S32726)	NYC Transit	L.K. Comstock	76%	116.3	100.5	100.1	42	102.1	112	102%	Sep-06	Sep-10	Sep-10	Sep-10	100%
Modernize three interlockings on 8th Avenue line (S32730)	US&S/NYC Transit	L.K. Comstock	89%	138.8	137.2	138.8	10	138.8	138.8	101%	Oct-06	Apr-10	Apr-10	Apr-10	100%
5th Avenue & Lexington Avenue Interlockings (S32731)	NYC Transit	T.C. ELECTRIC	8%	106.2	142.5	142.7	(1)	142.7	142.7	100%	Jan-09	Oct-12	Oct-12	Oct-12	100%

**TABLE NOTES:**

Cost Index = Agency EAC/Budget at Construction Award (projects in construction)

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

(A) = Actual value.

**NUMBERED NOTES:**

- (1) NYC Transit has not made an official PSR for this project to date. It is anticipated this will follow four months after S32738.
- (2) No PSR currently available. Budget is under review.



## November 2009 CPOC Report

### NYC Transit Communications Based Train Control

#### Program Description:

The Communication Based Train Control (CBTC) program will modernize the subway train control system and will significantly improve the operational control of the subway trains. The CBTC system uses radio frequency-based communications to provide two-way communications between the trains and the wayside equipment and; requires new and upgraded equipment for the trains, the wayside, and the control center. The program is currently completing installation on the Canarsie L line and is starting procurement for the No. 7 line and the Culver Test track. Equipment suppliers will use the Culver Test Track as a test bed for safety certification and interoperability demonstrations.

In McKissack+Delcan's opinion, these projects are currently demonstrating notable success:	Phase	% Phase Complete
NA		

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
CBTC Test Track Pilot/Culver Line	Procurement	25%
CBTC Flushing Line	Procurement	50%
Removal of Signaling Equipment From the Canarsie line.	Construction	1%
CBTC Canarsie: Equip 64 - R160 Cars & 2 Track Geometry Cars w/ CBTC and Complete Cutover	Construction	20%
Independent Safety Assessor for Canarsie	Construction	100%

In McKissack+Delcan's opinion, these projects currently have one or more areas of concern:	Phase	% Phase Complete
NA		

A summary of budget and schedule status for the projects included in this program is found in the Appendix.

#### Discussion:

There are three projects in this program which warrant comment:

- CBTC Canarsie Equip 64-R160 Cars (in construction):** The R160 cars are currently being fitted with CBTC equipment, 13 of the 16 4-car units have been installed with CBTC equipment. Final cutover and removal of obsolete signal equipment is scheduled for 2010. Substantial Completion is scheduled for February 2011.
- CBTC Flushing Line (in procurement):** An invitation to bid (IFB) for this contract has been issued to the two qualified suppliers. Pre-bid conference and walk throughs took place in August 2009. The bid return date for the IFB has been delayed to December 2009 due to the large number of questions received from the bidders and a protest by a bidder. The procurement stage for the Flushing project included a risk analysis and review of the procurement strategy after completion of the design. After these reviews, the RFP process was changed to an IFB process with a single award.
- CBTC Test Track Pilot/Culver Line (in procurement):** The RFP for Phase 1 & 2 has been issued and the pre-proposal conference is scheduled for November. Phase 2 of the project is scheduled to be completed by the Proposed 2010-2014 Capital Program.

<b>Agency:</b> New York City Transit	
<b>Design Performance</b>	
On target: 0	Total: 0
<b>Procurement Performance</b>	
On target: 2	Total: 2
<b>Construction Performance</b>	
On target: 3	Total: 3
<b>McKissack+Delcan Team:</b>	
Peter Harrison – Project Manager	
Gerald Gardrvits – Sr. Project Manager	

**Safety:** There were no lost time incidents in this program since McKissack+Delcan's last report in April 2009.

# November 2009 CPOC Report

## Appendix: NYC Transit Communications Based Train Control

Current Program Contracts:				Budget						Schedule					
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Award (\$M)	Current Approved Budget	Contingency Used (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
<b>DESIGN</b>															
None											Design Start		Design Complete		
<b>PROCUREMENT</b>															
CBTC for the Flushing Line (S32723)	NYC Transit	TBA	50%	265.5	NA	NA		521.2	521.2	NA	Dec-07	Sep-08	Feb-10	Mar-10	288% <sup>(1)</sup>
Culver Line CBTC test track (S32748)	NYC Transit	NA	25%	15.0	NA	NA		15.8	15.8	NA	Apr-09	Dec-09	Mar-10	Mar-10	138% <sup>(2)</sup>
<b>CONSTRUCTION</b>															
CBTC for Canarsie (S32740)	NYC Transit	STS/ Railworks	20%	45.4	50.3	50.3		49.5	49.5	98%	Oct-08	Feb-11	Feb-11	Feb-11	100%
Canarsie Signal removals (S32741)	NYC Transit	STS/ Railworks	1%	6.0	4.7	4.7		5.1	5.1	109%	Oct-08	Feb-11	Feb-11	Feb-11	100%
Independent Safety Assessor for Canarsie (S32703)	NA	Battelle	100%	NA	5.0	5.0		6.6	7.0 <sup>(3)</sup>	132%	Jan-05	Feb-11	Feb-11	Feb-11	100%

**TABLE NOTES:**

Cost Index = Agency EAC/Budget at Construction Award (projects in construction.)

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

(A) = Actual value.

**NUMBERED NOTES:**

- (1) Procurement duration includes risk assessment and procurement strategy review completed after the design review.
- (2) Procurement duration includes review of procurement strategy completed after the design review.
- (3) Estimate to cover costs for supporting Canarsie Project S32740 to completion.

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

**Program Description:**

The Communication Network Systems will carry voice, video and data signals throughout the NYC Transit subway system. Once complete, it will consolidate current NYC Transit systems for communicating with passengers, maintenance facilities and operations personnel. Projects in this program are classified as either core communications network infrastructure or communications applications. Infrastructure projects are network systems that will carry or consolidate voice, video and data signals and include the Data Network Installation (SONET and ATM), Communication Rooms Expansion and the VHF Radio System Upgrade. Application projects are systems to improve customer service, improve efficiency and/or enhance safety and include the Police Radio System Expansion and the Public Address/Customer Information System (PA/CIS).

In McKissack+Delcan's opinion, these projects are currently demonstrating notable success:	Phase	% Phase Complete
NA		

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
VHF Radio System Upgrade	Design	100 %
Police Radio System	Construction	99%

In McKissack+Delcan's opinion, these projects currently have one or more areas of concern:	Phase	% Phase Complete
Data Network SONET & IRT-ATM	Construction	98%
ATM-Network System: B Div	Construction	95%
Data Network II-IND/BMT ATM-Option	Construction	86%
PA/CIS 156 Stations	Construction	64%

A summary of budget and schedule status for the projects included in this program is found in the Appendix.

**Discussion:**

The following projects have specific areas of concern and are the subject of more detailed profiles on the following pages:

**Data Network SONET & IRT - ATM (W32648) (in construction):** NYC Transit is not forecasting a substantial completion date due to continued claims settlement discussions. Upon settlement, McKissack+Delcan will undertake to forecast new date for substantial complete. In any case, McKissack+Delcan believe additional funding will be required.

**ATM-Network System: B Div. (W32652)/(W32679) (in construction):** The current risk informed schedule has July 2011 as the substantial completion date. This is an eight month slip since last reported in March 2009. NYC Transit is now in the process of requesting a budget modification of \$39.9M to cover additional work and other costs. McKissack+Delcan believes this budget modification will not be sufficient given that the risk informed schedule extends beyond the current forecast substantial completion date.

**PA/CIS 156 Stations (W32658) (in construction):** NYC Transit has increased its EAC from \$184.4M to \$199.6M. NYC Transit's most recent forecast of December 2010 for substantial completion is expected to be revised upon acceptance of the Contractor's schedule submitted in October. The Contractor's October schedule submission shows a completion date of March 2011. Due to the recent loss of the electrical subcontractor, McKissack+Delcan cannot forecast what, if any, impact this will have on the schedule until a replacement is made. Consequently the McKissack+Delcan forecast completion in April 2011 remains unchanged at this time.

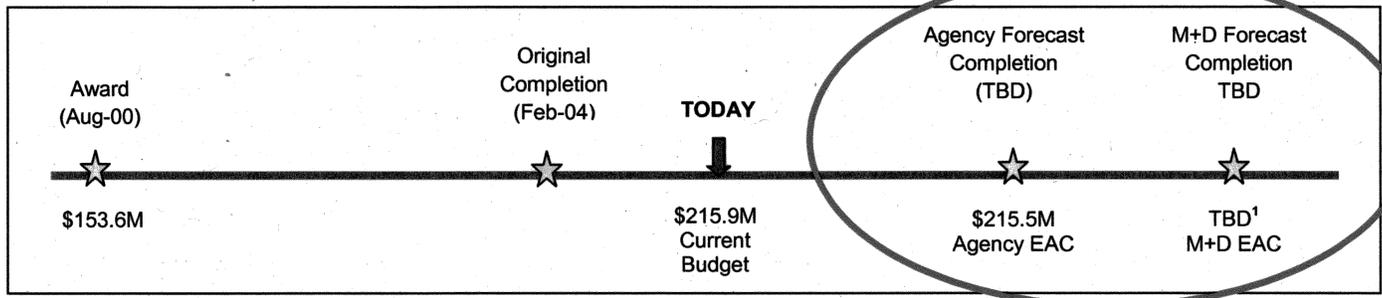
<b>Agency:</b> New York City Transit	
<b>Design Performance</b>	
On target: 1	Total: 1
<b>Procurement Performance</b>	
On target: 0	Total: 0
<b>Construction Performance</b>	
On target: 1	Total: 5
<b>McKissack+Delcan Team:</b>	
Calvin Gordon – Project Manager	
Virginia Logan – Project Manager	
Gerald Gardrvits – Sr. Project Manager	

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

#### DATA NETWORK SONET & IRT ATM (W32648)

**Construction progress: 98%**



¹ McKissack+Delcan will forecast a Completion Date and EAC once the terms of a settlement with the Contractor are known and an independent analysis has been performed.

#### Capital Plan Approved Scope:

This project provides initial implementation of a multi-phased effort to equip NYC Transit with a high performance SONET/ATM communication system capable of supporting data, voice and video. SONET (Synchronous Optical Network) will serve as the fiber optic network backbone of NYC Transit's communication network and the Asynchronous Transfer Mode (ATM) equipment will handle transmissions at stations. ATM equipment is installed at 177 "A" division (IRT) stations and 10 "B" division (BMT & IND) stations.

#### Scope Modifications:

A modification, which cost \$13.4M, was made to upgrade the network switches to increase the network bandwidth following the September 11 attacks. There has been an additional modification in the amount of \$2.9M to purchase spare parts because parts are being discontinued by the manufacturer. Due to existing deteriorated fiber conditions, several modifications totaling approximately \$5M were made to correct field problems. The original Network Management System was deleted from this contract due to the contractor's inability to timely deliver what was specified and, was added to the successor contract W32652 (ATM-B).

#### Areas of Concern (▼):

- **Schedule:** NYC Transit is not forecasting a substantial completion date due to continued claims settlement discussions. Upon settlement, McKissack+Delcan will undertake to forecast new date for substantial complete.

#### Agency Comments:

NYCT and the Contractor are negotiating a settlement to mutual claims. The terms of the settlement include the remaining work and the timeframes required to complete the work.

- **Budget:** Based on the rate of production to activate the remaining branch loops and fiber connectivity issues that have occurred during testing of the loops, McKissack+Delcan believes additional funding will be required. The extent of necessary funding cannot be evaluated until the terms of the settlement are finalized.

## **November 2009 CPOC Report**

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### **NYC Transit Communications Network Systems**

#### **Comments:**

- **Project Management:** Since the last report dated April 2009, NYC Transit has achieved Beneficial Use for 8 of 25 loops ATM Branch Loops and associated element management systems. Requests for Beneficial Use of another 7 loops have been submitted to the User Department. These are contractual milestones and provide a measure of progress.
- **Safety:** There were no lost time incidents in this project since McKissack+Delcan's last report in April 2009.

#### **McKissack+Delcan currently have no additional comments in the following categories:**

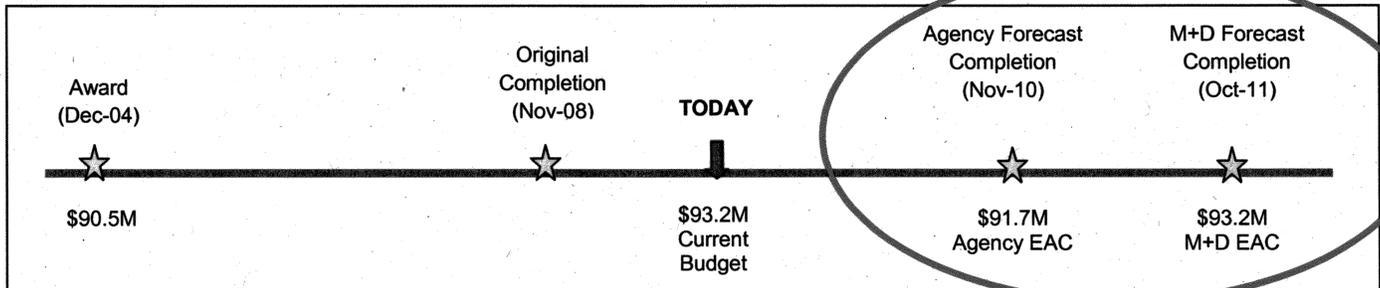
- Risk Management
- Quality

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

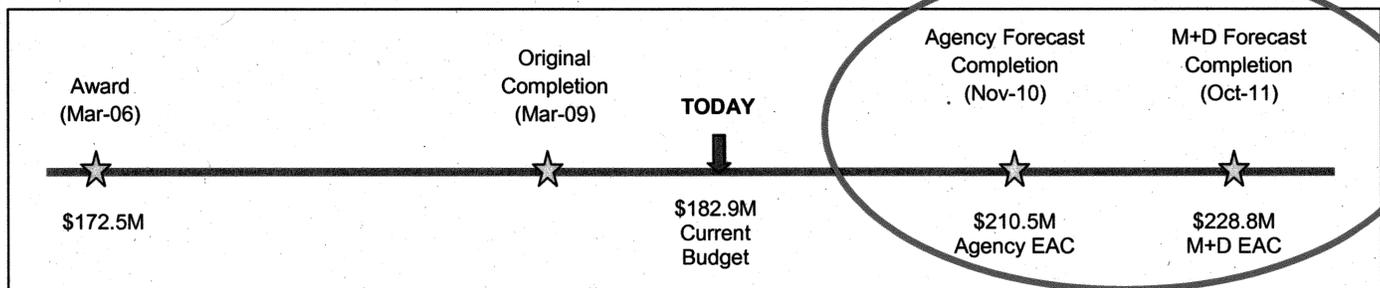
#### ATM DATA NETWORK SYSTEM-B BASE (W32652)

**Construction Progress: 95%**



#### ATM DATA NETWORK SYSTEM-B Option (W32679)

**Construction progress: 86%**



#### Capital Plan Approved Scope:

These projects will complete the multi-phase effort of providing NYC Transit with a SONET/ATM communications network by furnishing ATM data equipment at 36 stations on the "B" division. Additional work is to be performed at 31 locations including the Rail Control Center (RCC), Power Control Center (PCC), 8 PBX rooms, 2 Broadway Data Center, and other key sites on both the "A" & "B" divisions. This contract also has an option portion which is to furnish and install ATM data equipment at 245 stations on the "B" division, 8 stations on the "A" division, as well as, perform work at 31 other locations. This work includes installing/reconfiguring cable for the SONET rings; replacing biconic connectors at 10 PBX sites and other sites; and furnishing and installing a network management system (NMS) to manage the new and existing data equipment for the communications network.

#### Scope Modifications:

NYC Transit exercised the option contract on March 31, 2006 to STT. Based on the recommendation of MTA Capital Construction's Design Consultant, NYC Transit made a decision to design and implement a DWDM based MTA security interconnection network (\$21.2M) to provide additional bandwidth to accommodate video. In order to provide a dedicated network for interconnection of the C3 centers and the MTA agencies. NYC Transit selected this technology as the most cost effective solution. In order to accommodate the additional power demand to support PACIS, IESS, and ATM-B, several

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

power plant modifications and upgrades were needed totaling approximately \$4.6M. There were various fiber optic cable replacements, re-routes, and fixes due to field conditions resulting in approximately \$5.7M additional.

#### Areas of Concern (▼):

- **Schedule:** The current risk informed schedule has been revised to show substantial completion in July 2011. This is an eight month slip since last reported. This slip is driven by the lack of progress in testing the network branch loops. Additionally, there is pending work associated with power plant upgrades; potential deteriorated cable areas, unresolved field conditions and environmental issues at communication rooms. McKissack+Delcan believe this date may slip further due to unresolved field conditions.
- **Budget:** The EAC obtained from the risk analysis calculated a \$31.2M shortfall as last reported in March 2009. NYC Transit is now in the process of requesting a budget modification in the amount of \$39.9M to cover additional work orders; in-house construction administration cost, TA labor, IQ consultant tasks needs, and construction contingency. In addition, there is approximately \$1.5M in DWDM (dense wave digital multiplexing) related AWO's pending that this budget modification will not cover. However, NYC Transit is seeking to cover these cost from a separate security budget if possible, otherwise additional monies will be required. McKissack+Delcan believes this budget modification will not be sufficient given that the risk informed schedule extends beyond the current forecast substantial completion date.

#### Agency Comments:

NYCT is evaluating the budget given the shortfall in the security program funding and the extended contract duration shown in the Contractor's latest schedule submission. Once the analysis is complete, a budget modification request will be submitted.

- **Safety:** There were three lost time incidents in this project since McKissack+Delcan's last report in April 2009, two of which resulted in lost time.

#### McKissack+Delcan currently have no additional comments in the following categories:

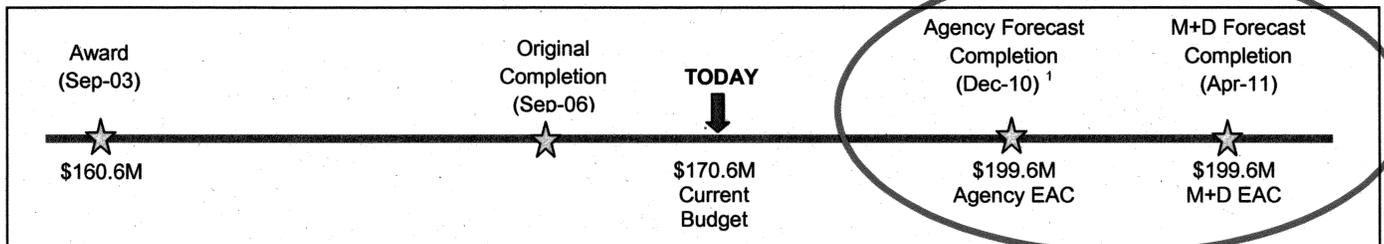
- Project Management
- Risk Management
- Customer Impact
- Quality

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

#### PA/CIS-156 Stations (W32658)

Construction progress: 64%



<sup>1</sup> NYCT current estimate and should be revised once the contractor's schedule is accepted.

#### Capital Plan Approved Scope:

The purpose of this project is to provide an Integrated Application Platform (IAP) for a new Public Address and Customer Information Screens (PA/CIS), Closed Circuit Television (CCTV), Help-Point Intercom (HPI) and Station Device Management (SDM) functionality, which provides control and status of equipment at 156 IRT Stations. All stations in this contract will have PA/CIS equipment including speakers, microphones, visual displays, PA/CIS communication cabinets and connectivity to the Rail Control Center (RCC) utilizing the SONET/ATM network. In addition to the PA/CIS equipment, CCTV, HPI and SDM equipment is to be installed at 10 stations as a pilot. The system will provide real-time train arrival information via audio/visual announcements, as well as pre-recorded and live audio announcements from the station agent booth and the RCC.

#### Scope Modifications:

Due to software problems during the first two years of the contract, NYC Transit issued a default/opportunity-to-cure letter on June 30, 2006 and a Cure Agreement (Agreement) was signed on January 31, 2007. This Agreement outlined steps required to achieve a revised substantial completion date of January 2009 utilizing a new application development platform, PVSS, for PA/CIS. The revised substantial completion date was not achieved. The risk informed schedule projects a substantial completion of April 2011. NYC Transit recently requested that Siemens Transit Technology (STT) revise the scope of the project to remove the installation work associated with the CCTV, HPI and SDM components in an effort to focus on the current implementation of PA/CIS functionality. The related software development for this functionality will not be affected.

#### Areas of Concern (▼):

- Schedule:** Since the cure agreement was issued in January 2007, NYC Transit has not accepted/approved any of the contractor's monthly schedule submissions. NYC Transit and STT have held periodic meetings over the last two months to work towards a schedule for acceptance. The current contractor's schedule was submitted at the end of October and is currently under review by NYC Transit for acceptance. The Contractor's schedule shows a revised estimate of substantial completion of March 2011. The lack of an accepted schedule has made measuring overall progress as well as forecasting completion challenging. Each month, changes to logic and activity durations resulted in the schedule not being accepted by NYC Transit. The risk assessed schedule forecasts substantial completion to occur in April 2011. NYC Transit continues to report a December 2010 date for substantial completion; however, the date is expected to be revised upon acceptance of the contractor's schedule.
- Budget:** NYC Transit has revised the current EAC to \$199.6M as a result of a budget modification of \$29.9M due to increased TA and EFA Labor costs, in-house construction, consultant services and additional work orders. McKissack+Delcan believe this estimate is sufficient for current work in schedule barring any unforeseen developments.

## November 2009 CPOC Report

### NYC Transit Communications Network Systems

- **Project Management:** Although construction activity has been ongoing, project progress has been reported at 64% since no milestone payments have been made. Without an accepted project schedule, the tracking of the remaining work as well as updating the overall progress of the project is challenging. McKissack+Delcan recommend in the absence of an accepted schedule, NYC Transit provide a separate project progress metric to reflect work performed. When an accepted schedule is in place and milestone payments made, the standard project progress metric should be updated.
- **Risk Management:** The following project risks were identified in the Risk Assessment performed in July 2008 and are updated as follows:
  - **Multicast** – NYC Transit has accepted STT’s design for implementing Multicast functionality on the SONET/ATM network to provide live audio announcements from the RCC as contractually required. NYC Transit and STT are jointly developing an implementation plan in an effort to mitigate the potential disruption of the SONET/ATM network and applications due to the necessary upgrades of key network elements required for multicast functionality. NYC Transit estimates that multicast will be implemented at the RCC and the first three stations in November 2009. Once this initial effort is implemented and validated, multicast will be implemented at the remaining stations.
  - **SONET Availability** - Deteriorated NYC Transit optic fiber cable affecting several of the first ten stations was discovered in August 2009. An AWO to repair the cable was negotiated and this work has been completed in October. McKissack+Delcan recommend that steps be taken to minimize a recurrence of this situation by developing a mitigation plan to minimize delays to the schedule and the possible need for additional AWOs. A proactive effort to assess the condition of optic fiber cable should be incorporated into the monitoring of SONET availability.

#### Agency Comments:

NYC Transit will expeditiously repair deteriorated fiber as it is discovered using both in-house and contractor forces. The SONET/ATM Contractor is commissioning the passenger station branch loops and they are made available to PA/CIS shortly thereafter. Once the network is placed in operation, real time monitoring of the fiber cable will be initiated.

- **Software Development/Testing** – Field Acceptance Testing (FAT) is underway at the RCC and three stations. NYC Transit forecasts completion of FAT in December 2009. Continued deployment to additional stations is contingent on the successful completion of FAT testing and all variances closed out.
- **Safety:** There was one lost time incident in this project since McKissack+Delcan’s last report in April 2009.

## November 2009 CPOC Report

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# NYC Transit Communications Network Systems

**There are two other projects in the program which warrant comment:**

- **VHF Radio System Upgrade Phase 1 (W32686) (in design):** This project will replace the VHF radio system used by the Department of Subways and the NYPD Transit Bureau. The analog Radio System will be migrated from its current wide band frequency to narrow band frequency to provide more capacity. The specifications package was given to NYC Transit Legal department in May 2009 for review, which was completed at the end of October 2009. The revised specification package is expected to be released for advertising by the end of the year. NYC Transit is planning to award in July 2010. A Risk Assessment for the Radio System Upgrade was performed from July through September 2009 and the final report is currently in circulation for review.
- **Police Radio System – (W32622) (in construction):** The original contract was completed in October 2006. This report update explains work remaining after a research and development effort looked at signal interference problems, known as Time Domain Interference (TDI), in subways and underground stations. Work on TDI was started last summer and testing proposed solutions shows that equipment modifications and changes in operating procedures will reduce the interference. NYC Transit has developed a scope of work for system-wide implementation of a solution for TDI. A wrap-up project may follow to address additional enhancements requested by NYPD and FDNY and work related to these enhancements will be performed under a separate project in the next capital program.

# November 2009 CPOC Report

## NYC Transit Communications Network Systems

Current Program Contracts:				Budget					Schedule						
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Constr. Award (\$M)	Current Board Approved Budget	Contingency Used (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
<b>DESIGN</b>															
VHF Radio System Upgrade PHASE 1 (W32686)	NYC Transit	TBD	100%	135.4	N/A	84.9	N/A	109.8	N/A	N/A	Design Award		Design Complete		
<b>PROCUREMENT</b>															
<b>CONSTRUCTION</b>															
Data Network SONET & IRT-ATM (W32648)	S TT	S TT	98%	142.7	153.6	215.9	90	215.5	TBD	140%	Aug-00	Feb-04	TBD	TBD	310%
ATM-Network System: B Base (W32652)	S TT	S TT	95%	170	93.4	93.2	101.5	91.7	93.2	101%	Dec-04	Nov-06	Nov-10	Oct-11	158%
Data Network II-IND/BMT ATM-Option-253 Stations (W32679)	S TT	S TT	86%	134.2	181.0	182.9	242.8	210.5	228.8	122%	Mar-06	Mar-09	Nov-10	Oct-11	158%
PA/CIS 156 Stations (W32658)	S TT	S TT	64%	77	160.6	170.6	43.9	199.6	199.6	124%	Sep-03	Sep-06	Dec-10	Apr-11	242%
Police Radio System (W32622)	RCC	EAT	99%	115.3	115.3	129.7	100	139.9	139.9	121%	Dec-99	Aug-04	Oct-06 A	Oct-06 A	146%

**TABLE NOTES:**

Cost Index = Agency EAC/Budget at Construction Award (projects in construction.)

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

(A) = Actual value.



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# **NYCT Bus Procurement Program Status Update**

**Joseph J. Smith  
Senior Vice President, MTA NYCT DOB  
President, MTA Bus / LI Bus  
November 2009**

## **Remaining Bus Buys:**

### **Existing Capital Program Funding**

- 850 Orion Next Generation (NG) Hybrid Standards for TA and MTA Bus: \$499 Million
- 90 DesignLine Turbine Hybrid Standards for TA: \$60 Million
- 90 Nova Artics for TA SBS Routes: \$71 Million
- 135 Compressed Natural Gas (CNG) Standards for TA and MTA Bus: \$77 Million
- 151 Express Buses for TA: \$94 Million

# Orion Next Generation (NG) Hybrids

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- Contract for 850 buses was awarded December 2007
  - 745 for TA: \$435 Million
  - 105 for MTA Bus: \$64 Million
- Orion is behind schedule by approximately 21 buses
- Orion has incurred \$1.57 million in liquidated damages to date
- Recovery schedule is in place to receive all buses by the original end date of March 2010

## **DesignLine Turbine Hybrids**

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- Contract for up to 90 buses was awarded November 2008: \$60 Million
- 3 buses have been accepted and in service
- The shaker table test of one bus was completed; the official report is due by the end of November
- If all testing benchmarks are met, we expect to receive all 90 buses by the end of 2010

## **Nova Low Floor Artics**

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- Contract for 90 buses was awarded May 2009: \$71 Million
- 2 buses have completed the Configuration Audit; delivery of all 90 buses is scheduled to be completed by mid-2010
- Required for SBS service
  - To replace older buses on the BX12 SBS route in the Bronx, and
  - To initiate the M15 SBS route in Manhattan, scheduled for the Fall of 2010

# Compressed Natural Gas Standards

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- Pending Contract for 135 Buses:
  - 90 for TA: \$51 Million
  - 45 for MTA Bus: \$26 Million
- Specification and procurement package has been released
- Proposers' questions have been answered
- Project to be awarded in December or January



## November 2009 CPOC Report

### Bus Procurement Program

#### Program Description:

This bus procurement program is on-going to maintain the NYC Transit and MTA Bus fleets by replacing buses that are past their expected life and adjust fleet sizes and mix of bus types to meet anticipated passenger and service demands.

In McKissack+Delcan's opinion, these projects are currently demonstrating notable success:	Phase *	% Phase Complete
NA		

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
135 Standard 40 ft. Buses (CNG fueled)	Procurement	50%
90 Articulated 60 ft. Buses	Construction	8%
90 Standard 40 ft. Buses (hybrid-powered)	Construction	9%
850 Standard 40 ft. Buses (hybrid-powered)	Construction	67% (NYCT) 51% (MTAB)
41 Express Buses	Construction	99% (NYCT) 99% (MTAB)

In McKissack+Delcan's opinion, these projects currently have one or more areas of concern:	Phase	% Phase Complete
NA		

Summary of budget and schedule status for the projects included in this program are found in the appendix.

#### Introduction:

There are five active bus procurement projects and one engineering evaluation project in this program. As this is McKissack+Delcan's initial report on the bus procurement program, a short description for each bus project is included below:

- **135 Standard 40 ft. Buses (CNG fueled), Contract #B40641 (in procurement):** Bids are being reviewed for 135 buses which are designed to use CNG (compressed natural gas) fuel. Award of the contract is anticipated before the end of the year. There are 90 buses allocated to NYC Transit and 45 buses to MTA Bus from this contract. The CNG buses are allocated to two NYC Transit depots and two MTA depots that have been modified for CNG operational support.
- **90 Articulated 60 ft. Buses, Contract #B40639 (in construction):** This contract is for 90 low floor, articulated buses supplied by Nova. The

<b>Agency:</b> NYC Transit DOB / MTA Bus	
<b>Design Performance</b>	
On target: 0	Total: 0
<b>Procurement Performance</b>	
On target: 1	Total: 1
<b>Construction Performance</b>	
On target: 4	Total: 4
<b>McKissack+Delcan Team:</b>	
Peter Harrison – Project Manager	
Virginia Logan – Project Manager	
Gerald Gardrvits – Sr. Project Manager	

\* Note: For the bus procurement projects, project phases are defined as follows:

- Design is the stage when the specification and contract documents are drafted and finalized.
- Procurement is the stage for final approvals, bidding and negotiation of the contract.
- Construction is the contract implementation stage from Notice of Award to contract closeout including manufacture, delivery, testing and acceptance.

## November 2009 CPOC Report

### Bus Procurement Program

articulated bus supplied under this contract is low floor and will have three passenger doors. The existing articulated bus fleet consists of high floor buses supplied by NewFlyer with two passenger doors.

- **90 Standard 40 ft. Buses (hybrid-powered), Contract #B40632 (in construction):** This contract is for 90 hybrid electric buses supplied by Design Line. The procurement is structured for an initial supply of eight pilot buses that will undergo qualification testing and evaluation on various service routes. After successful completion of the pilot bus stage, an NTP will be issued for 22 Evaluation buses that will be used for in-service evaluation. On successful completion of the Evaluation bus stage a further NTP for the balance of the buses will be issued giving a total of 90 buses for this contract.
- **850 Standard 40 ft. Buses (hybrid-powered), Contract #B31195 (in construction):** These buses are being supplied by Orion and the contract is over half-way complete with about 500 buses delivered for NYC Transit and 100 buses delivered for MTAB.
- **41 Express Buses, Contract #B40642 (in close-out):** The deliveries associated with this last contract for express buses were completed around the middle of 2009. The next express bus procurement is scheduled for third quarter of 2010.

#### Discussion

- **90 Standard 40 ft. Buses (hybrid-powered), Contract #B40632 (in construction):** The propulsion system for this hybrid electric bus uses a micro turbine to charge the batteries. Review of the propulsion system indicated that the power rating of the turbine may not be sufficient for duty in New York City. A bus with a higher power turbine has been included in the pilot stage testing. The choice of the turbine for the production buses will be made at the end of the pilot stage testing. A contract modification for inclusion of the Intelligent Vehicle Network (IVN) system from Clever Devices is being negotiated with Design Line - these are not included in the pilot bus evaluation. Currently one bus has been supplied and is undergoing evaluation on various routes while three buses are undergoing qualification testing.
- **850 Standard 40 ft. Buses (hybrid-powered), Contract #B31195 (in construction):** There are 745 buses allocated to NYC Transit and 105 buses to MTA Bus from this contract. As of the end of September, the Contractor is behind scheduled deliveries by approximately 60 buses and incurred about \$1.3M in liquidated damages. A recovery schedule is in place such that the last bus delivered will meet the contract schedule of March 2010. Supply of an Intelligent Vehicle Network (IVN) and associated depot equipment was included by a contract modification in 2008 at a cost of around \$28M. This bus-mounted IVN equipment prevents Diesel Particulate Filter active regeneration (a safety issue) in the depots and captures mechanical operating data.
- **Customer Information System (in demonstration):** Currently, a real time customer information system that provides bus arrival information at the bus stop and on-board next stop announcements is under evaluation on the 34<sup>th</sup> Street cross town service. The system has been in trial operation since August 10<sup>th</sup> and is planned to run for six months. The project is being undertaken at no capital cost to NYC Transit by the supplier.

**Safety:** Safety statistics on lost time incidents in this program related to on-site testing and acceptance of vehicles are not now tracked by NYC Transit. Starting in November 2009, these statistics will be tracked and reported in the next CPOC Report on this program.

# November 2009 CPOC Report

## Appendix: Bus Procurement Program

Current Program Contracts:				Budget					Schedule						
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Constr. Award (\$M)	Current Board Approved Budget	Contingency Used (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
<b>DESIGN</b>															
None											Design Award		Design Complete		
<b>PROCUREMENT</b>															
135 Standard bus using CNG (B40641)		TBD	50%	61.77	NA	51.57		51.57			Sep-09	Dec-09	Dec-09	Dec-09	100%
90 Buses for NYC Transit		NA	NA												
45 Buses for MTA		NA	NA			19.24 <sup>(2)</sup>		25.60							
<b>CONSTRUCTION</b>															
850 Standard Hybrid bus (B31195)		Orion	67%	125.35	419.89	435.23		435.23			Dec-07	Mar-10	Mar-10	Mar-10	100%
745 Buses for NYC Transit			51%												
105 Buses for MTA			9%	61.02	55.94	59.62		60.72			Nov-08	May-10 <sup>(1)</sup>	Nov-10	Nov-10	133%
90 Standard Hybrid bus (B40632)		Design Line	8%	69.36	71.44	71.74		72.14			May-09	Jul-09	Jul-09	Jul-09	100
90 Articulated Low Floor bus (B40639)		Nova													

**TABLE NOTES:**

Cost Index = Agency EAC/Budget at Construction Award (projects in construction)

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

**NUMBERED NOTES:**

- (1) Baseline date for Substantial completion.
- (2) Budget being revised to \$25.6M.



## November 2009 CPOC Report

### NYC Transit Bus Depot Program

#### Program Description:

The New York City Transit (NYC Transit) Bus Depot Program addresses the planning, design and construction of new depots as well as the rehabilitation of existing depots, all in order to meet the storage, operating and maintenance needs of the Department of Buses.

In McKissack+Delcan's opinion, these projects are currently demonstrating notable success:	Phase	% Phase Complete
NA		

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
Charleston-Storm Water Sewer	Design	95%
Mother Clara Hale Bus Depot	Procurement	0%
Mother Clara Hale Existing Bus Depot Demolition	Construction	99%

In McKissack+Delcan's opinion, these projects currently have one or more areas of concern:	Phase	% Phase Complete
Charleston Annex Bus Depot	Construction	74%

A summary of budget and schedule status for the projects included in this program follows in the Appendix.

#### Discussion:

**Charleston Annex Bus Depot:** NYC Transit now anticipates achieving substantial completion on this project in May 2010 or approximately five months later than the December 30, 2009 date originally scheduled. Project completion has been delayed by the Contractor's slow progress in completing the bus depot's structural shell, elevator and bus washer and by pending approval of the New York City Department of Environmental Protection (NYCDEP) for the location and installation of the sanitary and storm water lines. The design of a temporary retention basin, which is required until the storm sewer (a separate NYC Transit project) is in place, had also been delaying completion of this project but was approved by NYCDEP on September 18, 2009. The **specific areas of concern** with this project are detailed on the following pages.

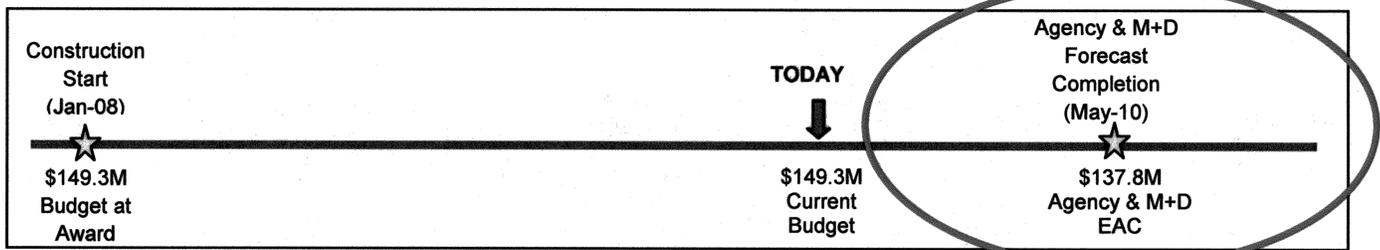
<b>Agency:</b> New York City Transit	
<b>Design Performance</b>	
On target: 1	Total: 1
<b>Procurement Performance</b>	
On target: 1	Total: 1
<b>Construction Performance</b>	
On target: 1	Total: 2
<b>McKissack+Delcan Team:</b>	
Amy Laurence – Project Manager	
James Castle – Sr. Project Manager	

## November 2009 CPOC Report

### NYC Transit Bus Depot Program

#### Charleston Annex Bus Depot (C40419)

**Construction progress: 74%**



#### Capital Plan Approved Scope:

The Charleston Annex will be a new bus facility located in Staten Island and is a high priority project for the bus depot program. The facility will be a two-story structure of approximately 108,500 square feet. The first floor will house 2 fueling lanes, 2 bus washers, 15 maintenance positions and 1 chassis wash lift. The first floor mezzanine and the second floor will be used for administrative space and locker rooms. Employee parking will be at grade adjacent to the building while bus parking will be behind the facility at an elevated grade.

#### Scope Modifications:

No significant modifications have been made to the Capital Plan approved scope.

#### Areas of Concern (▼):

- **Schedule:** Progress continues to be hampered by the Contractor's slow pace in completing the annex's structural shell including roofing, masonry and façade panels. While the Contractor attributes the holdup to an initial delay by NYC Transit in obtaining the necessary building permits, NYC Transit attributes the delay to the Contractor's failure to staff and manage the project appropriately as well as the Contractor's late submittal of an approved elevator and difficulty in obtaining a subcontractor to install the bus washer. It is also the Contractor's position that substantial completion has been further delayed by the difficulty NYC Transit continues to experience with gaining NYCDEP approval of the storm water sewer design along with NYCDEP approval of the construction of a retention basin. This basin is to be used while the facility is in service but before the new storm water sewer is in place and the relocation of the original "temporary" construction retention basin on the site is relocated in order to install required gas and water lines. Based on the construction progress, NYC Transit has determined, and McKissack+Delcan is in agreement, that substantial completion will not be achieved until May 2010 or approximately five months later than the December 30, 2009 date originally specified.

The contractor's approved baseline schedule indicates six months for commissioning activities. At this time, a tentative date of December 1, 2009 has been established by NYC Transit and the Contractor for the start of commissioning activities leaving approximately five months to complete all commissioning activities. McKissack+Delcan recommend that NYC Transit review the Contractor's commissioning plan to ascertain that all commissioning activities can be completed within the abbreviated time frame especially since delivery and installation of the elevator is not expected to take place before February 2010.

#### Agency Comments:

Weekly executive meetings are held at the site. In addition, weekly commissioning meetings are held to ensure commissioning activities are coordinated and equipment and systems are commissioned as soon as they are brought online. These meetings have proved successful in mitigating issues. The contractor is working double shifts and Saturdays to complete the work. Resources will be added to the commissioning effort as needed.

## November 2009 CPOC Report

### NYC Transit Bus Depot Program

- **Budget:** Preliminary estimates for the retention basin indicate that the costs will be significant and will require MTA Board approval. The NYCDEP has now added a requirement that NYC Transit install 136 feet of permanent sheeting between the sanitary and storm lines when the sanitary sewer is installed. The sheeting was added because of the elevation difference between the sanitary and storm sewer and will remain in place until the storm sewer is installed.

McKissack+Delcan is concerned that, based on delays associated with obtaining the necessary construction permits and delays associated with the storm water sewer, the project's Estimate at Completion (EAC) will exceed the original budget. McKissack+Delcan recommend that NYC Transit review the budgeted in-house construction administration costs (EFA), based on the five month increase to the project duration, as well as all anticipated Additional Work Orders to determine if the current EAC of \$137.8M is sufficient to complete this facility.

McKissack+Delcan also recommend that NYC Transit perform a cost benefit analysis to determine if the sequencing of the scheduled completion dates for the Annex (May 2010) and sewer installation (January 2011) justify the significant costs associated with the issuance of an AWO for the temporary retention basin which will be in use for eight months based on the best case scenario presented above.

#### Agency Comments:

An AWO, approved by the Board, was issued for the sheeting (material only) for the retention basin. NYC Transit is in the process of reviewing the estimate at completion including all AWO's and in-house EFA requirements. NYC Transit continues to receive NYCDEP comments on the storm sewer design, delaying the completion of the storm sewer. NYC Transit is aware of the cost involved with the temporary retention basin and will analyze those costs with the need to open the Annex before committing to the installation of the retention basin. The incremental cost of the temporary retention basin allows the quickest opening of the facility which increases the bus maintenance space on Staten Island.

- **Project Management:** NYC Transit senior management has been closely monitoring the project, holding biweekly meetings in the field with contractor and construction management staff in order to resolve construction issues affecting the schedule and budget.

#### McKissack+Delcan currently have no additional comments in the following categories:

- Risk Management
- Quality
- Customer Impact

Status as of October 2009

## November 2009 CPOC Report

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### NYC Transit Bus Depot Program

**There are two other projects in this program which warrant comment:**

- ***Mother Clara Hale Bus Depot (in procurement):*** In September 2009, NYC Transit selected a construction manager, Shaw Environmental & Infrastructure Engineering, to manage the construction of the new depot. Six firms were shortlisted for the design/build contract. The design/build documents are currently still under review within NYC Transit with a release date anticipated in the fourth quarter of 2009. If the Request for Proposal (RFP) goes out in the fourth quarter of 2009 to the shortlisted contractors, NYC Transit expects to receive completed proposals back in the first quarter of 2010 with award of the contract shortly thereafter. A Risk Assessment Kick-off Meeting took place on October 19, 2009.
- ***Charleston-Storm Water Sewer (in design):*** Verbal approval of the storm water sewer design with written approval to follow was given by NYCDEP. NYC Transit is now projecting completion of the storm water sewer installation in January 2011 as opposed to the June 2010 date that was previously detailed in McKissack+Delcan's April 2009 report. However, additional demands by NYCDEP prior to formal written approval continue, including the new requirement that 136 feet of sheet metal be installed between the storm and sanitary lines. These additional requirements may jeopardize the January 2011 completion date and increase costs as well.

**Safety:** There were five lost time incidents in this program since McKissack+Delcan's last report in April 2009. Even though none of these accidents could be characterized as serious or life threatening, the contractor's safety engineer on the Charleston Annex Bus Depot project was replaced after these incidents occurred.

# November 2009 CPOC Report

## Appendix: NYC Transit Bus Depot Program

Current Program Contracts:					Budget					Schedule					
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Constr. Award (\$M)	Current Approved Budget	Contingency Used (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
<b>DESIGN</b>															
Charleston-Storm Water Sewer (C40458)	Stantec Consulting Services, Inc.	NA	95%	10.7	NA	10.0	NA	8.2	8.2	NA	Jul-06	Oct-09	Oct-09	Oct-09	100
<b>PROCUREMENT</b>															
Mother Clara Hale Bus Depot (C40455)	NYC Transit	NA	NA	63.2	NA	327.0	NA	304.8	304.8	NA	Oct-09	Apr-09	Apr-09	Apr-09	100
<b>CONSTRUCTION</b>															
Charleston Annex Bus Depot (C40419)	PB Americas	Tully Construction	70%	25.0	149.3	149.3 <sup>(1)</sup>	5	137.8	137.8	100	Jan-08	Dec-09	May-10	May-10	122
Mother Clara Hale Existing Bus Depot Demolition (C40452)	NYC Transit	MPCC Corp	99	4.7	4.7	5.5	1	5.4	5.4	100	Jan-09	Sep-09	Sep-09	Sep-09	100

**TABLE NOTES:**

Cost Index = Agency EAC/Current Board Approved Budget  
 Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)  
 Percent Completion = Funds Spent/Current Board Approved Budget

**NUMBERED NOTES:**

- (1) Actual figure pending confirmation from CP Budget group.

