



Signals Project



Block 37



Brown Line



Howard



CTA Capital Construction Update

May 17, 2007



Capital Construction Update Agenda

- Howard Station Reconstruction
- Brown Line Capacity Expansion Project
- Block 37 Tunnel Connections Project
- Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements
- Loop Signals Project



Howard Station Reconstruction Project Summary

BUDGET

- Total CTA budget: \$87 million

SCHEDULE

- NTP: February 27, 2006
- Completion: Spring 2009

PROJECT GOALS

- Key station to be made accessible in compliance with the Americans with Disabilities Act Accessibility Guidelines by July 26, 2010
- Reconstruct Howard station, Rail Operations and Facilities Maintenance facilities
- Infrastructure upgrades will include newly-installed precast concrete platforms, viaduct repairs, track work, new elevators, and escalators



Howard Station Reconstruction

Project Activities

- Began platform renovation at the south end of the station
- Began caisson installation for the new south entrance of the station
- Continue repairs at viaduct columns and parapet

Three Month Look Ahead

- Install grade beams and storm sewers
- Continue platform and canopy construction
- Continue foundation and caisson work
- Install structural steel for new south entrance building



Howard Station Reconstruction



Caisson installation



Howard Station Reconstruction



Concrete platform section at Howard Station



Howard Station Reconstruction



Side view of new concrete platform



Brown Line Capacity Expansion Project Project Summary

BUDGET

- Total project budget: \$529.9 million

SCHEDULE

- Project Completion: December 31, 2009

PROJECT GOALS

- Extend platforms to allow 8-car operations
- Make stations ADA compliant
- Add elevators to 13 stations
- Rehabilitate 18 stations
- Restore 8 historic stations
- Upgrade signal, communications and power delivery system



Brown Line Capacity Expansion Project

Project Activities

- Continued demolition of old Track 3, old Track 4 and the old northbound platform at Fullerton. The second of three caisson phase installations commenced at Fullerton on April 26, 2007.
- Continued structural steel installation and commenced concrete pours at Belmont for the new northbound track and platform.
- Relocated historic station house at Belmont on April 29, 2007 and at Fullerton on May 10, 2007
- Commenced foundation work and steel erection for the new secondary entrance and exit at Chicago
- Continued installation of new platform decking and structural steel at the south end of the Armitage Station
- Installed the first of two elevator towers at Armitage during the weekend of May 4, 2007
- Completed installation of all new platform decking and installation of both elevator towers at Sedgwick during the weekend of May 4, 2007
- Commenced installation of station house foundations at Addison and advanced underground utility relocations at Montrose
- Continued stair and platform demolition at Southport and began restoration of canopy structure.



Brown Line Capacity Expansion Project Three Month Look Ahead

- Continue to construct the new track 4 and northbound platform at Belmont
- Continue installation of second phase caissons at Fullerton
- Complete demolition of Southport station and begin foundation work
- Temporarily close Diversey Station in early summer 2007 for 12 months.
- Shift main entrance at Chicago to the temporary station house located on Superior Street
- Install second elevator tower at Armitage and place temporary station house in service. The temporary station house is currently located across the street from the present entrance
- Continue installations of new station house foundations at Montrose and Addison
- Begin foundation work at Southport and Diversey



Brown Line Capacity Expansion Project



Steel work for new secondary entrance/exit at Chicago



Brown Line Capacity Expansion Project



Fullerton historic station house move



Brown Line Capacity Expansion Project



Fullerton Station old platform and old track 3 and 4 demolition



Brown Line Capacity Expansion Project



Belmont historic station house move (looking south)



Brown Line Capacity Expansion Project



Belmont historic station house move (looking north)



Brown Line Capacity Expansion Project



Concrete track bed pour at Belmont



Brown Line Capacity Expansion Project



Demolition of Southport Station



Block 37 Tunnel Connections Project Project Summary

BUDGET

- Total project budget: \$213.3 million

SCHEDULE

- Project Completion: September 2008

PROJECT GOALS

- Construct two short tunnels, one connecting to the Dearborn Street subway and one connecting to the State Street subway
- Install new track, signal and power components in the new tunnels
- Developer will construct a new subway station below the Block 37 development
- Station will be designed to eventually function as a downtown terminal for express trains to O'Hare and Midway



Block 37 Tunnel Connections Project Project Activities

Project Activities

- Kiewit-Reyes is relocating utilities in conflict with tunnel connections locations.

Three Month Look Ahead

- Protect existing utilities that must remain within the limits of the tunnel connections excavations
- Construct slurry wall at the intersection of State/Washington and Dearborn/Randolph Streets
- Continue to replace existing half-ties in the Blue Line and Red Line subway tunnels at identified locations



Block 37 Tunnel Connections Project



Block 37 work site



Block 37 Tunnel Connections Project



Block 37 retail office space



Block 37 Tunnel Connections Project



Washington Station (Red Line) subway platform removed for Block 37 track crossover



Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements

Project Summary

BUDGET

- \$251 million

SCHEDULE

- Construction NTP: December 1, 2005
- Project completion: Summer 2009

PROJECT GOALS

- Replace approximately 20 miles of the existing train control systems on the Blue Line that are between 35 and 54 years old
- Install new interlockings and train controls for Block 37
- Installation of new fiber communication backbone with copper backup on the Congress Line and in the Dearborn Subway
- Traction Power upgrades in the State and Dearborn Subways



Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements

Project Activities

- Continued installation of local hand holes, conduit and signal foundations on the Congress Line and O'Hare Line
- Continued installation of signal cable and traction power cable in the Dearborn Subway
- New cab signals were put in service on the Congress Line between the Lombard crossover and the east end of Forest Park Station.
- Began the signal cutover via the new Lavergne Relay House. Once the cut-over is complete, cab signal operation will be in place between Lavergne interlocking to the east end of the platform at Forest Park.
- Continued subway lighting fixture replacement in the Dearborn and State Street Subways
- Installed the Pulaski and Kedzie relay houses on the Congress Line



Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements

Three Month Look Ahead

- Continue installation of local hand holes, conduit and signal foundations on the Congress Branch and O'Hare Branch
- Continue installation of traction power cable in the State Street and Dearborn Subways
- Continue installation of signal cable in the Dearborn Subway
- Deliver and install the new relay house at Forest Park
- Continue lighting installation in the State Street and Dearborn Subways
- Begin the signal cutover via Pulaski Relay House



Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements



Installation of Pulaski relay house (Congress Line)



Loop Signals Project

PROJECT BUDGET

- \$78.8 million

SCHEDULE

- Contractor: Divane Brothers Electric Company
- Construction NTP: February 21, 2007
- Completion: Summer 2009

PROJECT GOALS

- Provide new train control system for the Loop elevated structure, replacing a system that is more than 30 years old. The new signal system will help to improve reliability of CTA rail service by regulating train movement, speed and intervals at these junctions.
- Construct new control tower at Lake and Wells to replace the current Tower 18, and new interlockings at Towers 18 and 12.



Loop Signals Project

Project Activities

- Divane Brothers has submitted their construction schedule, safety and quality plans.
- Began signal block design

Three Month Look Ahead

- Approve Contractor's construction schedule
- Approve Contractor's safety and quality plans
- Begin field surveys



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