The Bulletin

Electric Railroaders' Association, Incorporated

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The Bulletin

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THIRD AVENUE BUILT ITS LAST TROLLEY CAR 75 YEARS AGO

After the company was reorganized on January 1, 1912, it always had difficulty making a profit. In the early 1930s, the company was operating a fleet of slow, obsolete wooden two-motor cars and 100 newer single-truck cars. But the company could not afford new equipment because the city insisted on maintaining the five-cent fare with universal transfer privileges. Therefore the company decided to modernize its fleet by buying ten-year-old second-hand cars, rebuilding its single-truck cars, and building new cars. A few years later, most of the modern cars were in service. But New York City's Mayor LaGuardia, who favored buses, refused to renew the franchise unless Third Avenue agreed to convert to buses. The company complied and stopped building new cars. On February 11, 1940, we observed the last new car, 685, in service. On November 9, 1940, the company was forced to accept a franchise that required it to substitute buses for streetcars on one-fifth of the lines in each four-year period.

Car 1201 on Melrose Avenue at E. 149th Street, February 23, 1942.
Bernard Linder collection

The ten-year modernization program began with the purchase of 1701, a single-truck convertible built by Brill in 1929. It was placed in service on the long, straight Webster and White Plains Avenue Line, with only two right-angle turns. It derailed frequently on the curves and was soon taken out of service.

In 1930, the company bought the first ten-year-old car, 1702, a high-speed interurban with blue plush seats. Because the car had narrow front and rear doors, it was a slow loader and was not suitable for heavy city service. From July, 1933 to August, 1934, we observed the car in service on the Webster and White Plains Avenue Line. The car was returned to the shop, where the platforms were rebuilt with wider doors and the plush seats were replaced with rattan seats. The car was rebuilt with equipment similar to the equipment in all the company's cars. In 1934, it was renumbered to 1250.

From 1933 to 1935, Third Avenue was busy buying modern second-hand cars that were in good condition. A January 15, 1934 newspaper photo shows a Richmond Railways Staten Island car being loaded on a Baltimore & Ohio Railroad barge at Proctor and Gamble's Port Ivory Dock. The car was un-

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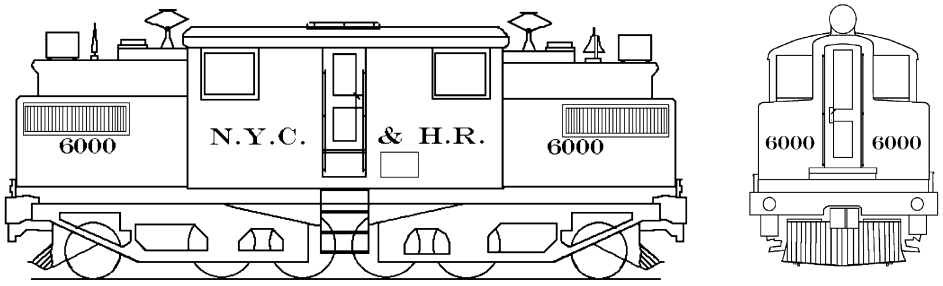
TOWARD UNDERGROUND (AND UNDERWATER) ROLLING STOCK: THE ALL-STEEL REVOLUTION
by George Chiasson
(Continued from December, 2014 issue)

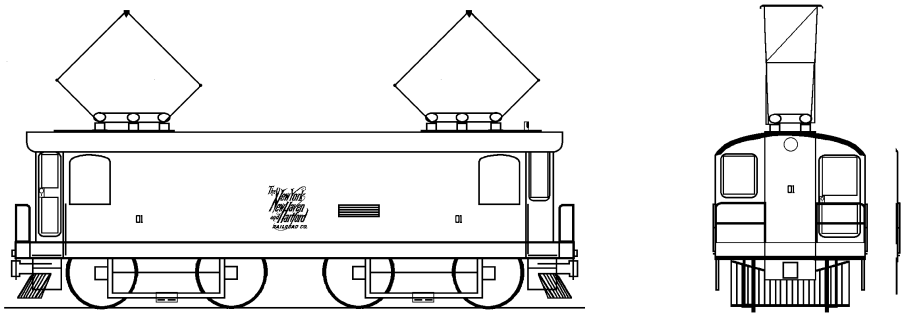
NEW YORK CENTRAL, T-1* Prototype

*-Reclassified S-1 in 1913.



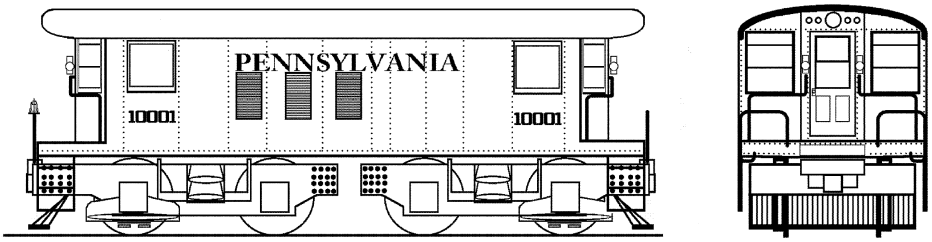
Builder: Alco-G.E.
Equipment: General Electric (Sprague)
Power Source: DC Third Rail
Date: October 1904
Top Speed: 60 mph
Horsepower: 2,200
Wheel arrangement: 1-D-1
Length: 39 feet
Drivers: 44-inch
Drive: Gearless

NEW HAVEN RAILROAD, EP-1 Prototype 01



Builder: Baldwin-Westinghouse
Equipment: Westinghouse
Power Source: DC Third Rail & AC catenary
Date: Late 1905
Top Speed: 85 mph
Horsepower: 1,420
Wheel arrangement: B+B
Length: 37 feet, 6 inches
Drivers: 62-inch
Drive: Quill Gearless

PENNSYLVANIA RAILROAD, AA-1 Prototype



Builder: Baldwin-Westinghouse
Equipment: Westinghouse
Power Source: DC Third Rail
Date: November 1905
Top Speed: 55 mph (design)
75 mph (Test)
Horsepower: 1,400
Wheel arrangement: B+B
Length: 31 feet
Drivers: 52-inch
Drive: Quill Gearless

(Continued on page 3)

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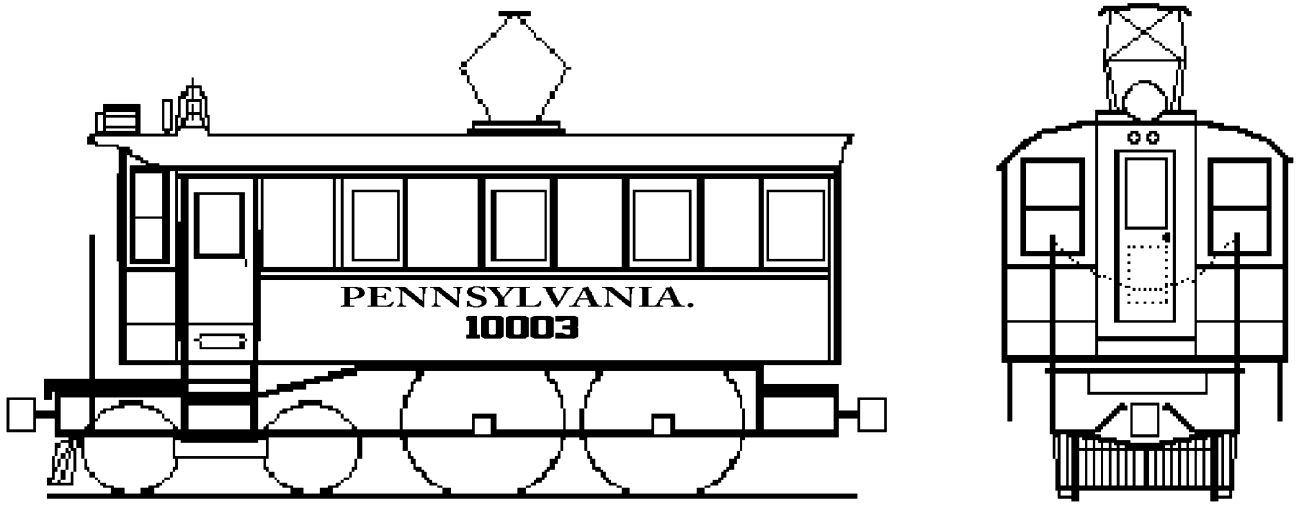
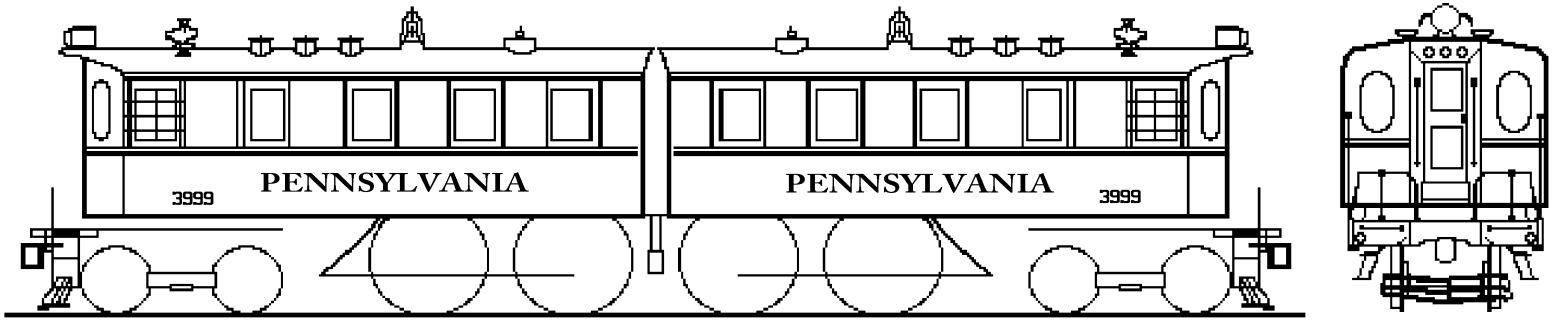
PENNSYLVANIA RAILROAD, odd-D Prototype



Builder: Baldwin-Westinghouse
Equipment: Westinghouse
Power Source: AC catenary
Date: April 1907
Top Speed: 85 mph
Horsepower: 750
Wheel arrangement: 2-B
Length: 29 feet, 2 inches
Drivers: 72-inch
Drive: Quill Gearless

PENNSYLVANIA RAILROAD, DD-1 Pilot

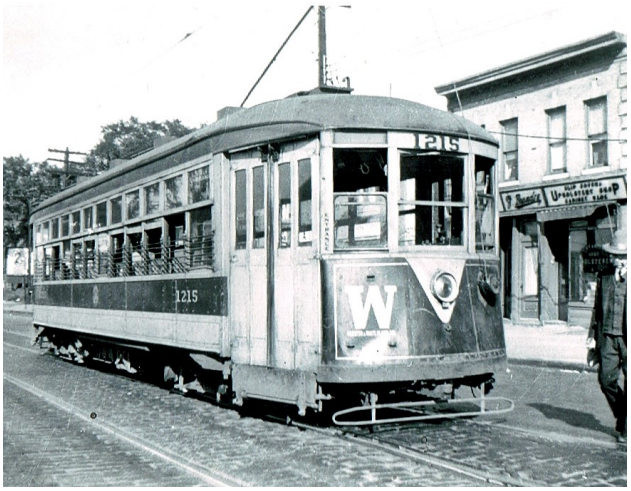


Builder: PRR-Altoona (Baldwin)
Equipment: Westinghouse
Power Source: DC Third Rail
Date: August 1909
Top Speed: 85 mph
Horsepower: 4,620
Wheel arrangement: 2-B+B-2
Length: 64 feet, 11 inches
Drivers: 72-inch
Drive: Jackshaft, side rods

This diagram courtesy of the PRR Technical & Historical Society

Third Avenue Built Its Last Trolley Car 75 Years Ago

(Continued from page 1)



Car 1215 at E. 243rd Street and White Plains Road, September 15, 1946. Note the rebuilt front end .
Bernard Linder collection

Car 1216 at Burnside and University Avenues.
Bernard Linder collection

Car 1228 on University Avenue, 1936.
Bernard Linder collection

Car 1229 at E. 161st Street and Park Avenue, 1942.
Bernard Linder collection

Car 1230 on Bailey Avenue enroute to Fordham Road and Webster Avenue, 1943.
Bernard Linder collection

Car 1234 on University Avenue Line, July 21, 1934.
Bernard Linder collection

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Third Avenue Built Its Last Trolley Car 75 Years Ago

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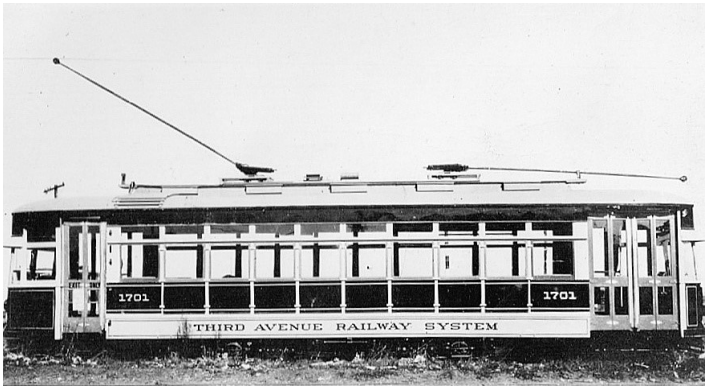
Car 1253 at E. 242nd Street and White Plains Road.
Bernard Linder collection

Car 1256 at Fordham Road and Third Avenue.
Bernard Linder collection



Experimental car 1701.
Bernard Linder collection

Another view of car 1701.
Bernard Linder collection

Car 1702 at E. 243rd Street and White Plains Road, April 3, 1934.
Bernard Linder collection

Car 1702 at Tremont and Webster Avenues, Winter 1934-5.
Bernard Linder collection

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Third Avenue Built Its Last Trolley Car 75 Years Ago

(Continued from page 1)

loaded at E. 125th Street and the East River and was transferred to the 65th Street Shops for rebuilding. We do not know how cars were transported from distant cities.

The rebuilt cars were equipped with full safety car straight air brake equipment. Instead of the standard safety car controller handle, cars were equipped with a self-lapping brake valve housed in a spring-loaded pedestal-operated mechanism. Brakes were released by depressing the foot pedal, which served as a "dead man" control and also closed the entrance door. Also installed were rear exit door treadles, which were interlocked with the brakes.

The rebuilt cars were placed in service in 1934, 1935, and 1936. Roster is as follows:

CAR NUMBERS	BUILDER	YEAR BUILT	PREVIOUS OWNER
1201-25	Osgood Bradley	1924	Richmond Railways, Staten Island, New York
1226-7	Osgood Bradley	N/A	Northern States Power Company, Eau Claire, Wisconsin
1228-9	Wason	1922	Androscoggin & Kennebec Railway, Lewiston, Maine
1230-9 (A)	American Car Company	N/A	San Antonio Public Service, San Antonio, Texas
1240-9 (A)	St. Louis Car Company	1925	San Antonio Public Service, San Antonio, Texas
1250 (ex-1702) (B)	St. Louis Car Company	1924	Kankakee & Urbana Traction Company, Kankakee, Illinois
1251-6	American Car Company	1923-5	Lake Superior District Power Company, Ironwood, Michigan
1257-8 (C)	Wason	1925	Interstate Street Railway, Attleboro, Massachusetts
1260-2	Brill	1926	Sunbury & Selingrove Railway, Sunbury, Pennsylvania

(A) San Antonio's 3 foot 6 inch narrow-gauge trucks replaced by Third Avenue standard-gauge trucks
(B) This 13-window car was the same length as all the other 12-window cars
(C) These 11-window cars were the same length as all the other 12-window cars. Cars 1201-58 were placed in service gradually in 1934. We observed the first car on March 2 and the last car on December 1. Cars 1260-2 appeared in April, 1936

FROM MY VANTAGE POINT: ROCKAWAY PARKWAY INTERLOCKING
by Michael Ditkoff

Vantage Point: a position or place that allows one a wide or favorable overall view of a scene or situation

I participated in the ERA August 2, 2014 Catskills trip that included the Trolley Museum of New York. A very interesting artifact on display was the interlocking tower control board that controls the switches and signals at New York City's Rockaway Parkway subway station in Canarsie.

There are two main tracks, P1 (southbound into the station) and P2 (northbound to Manhattan) at the top of the board. Both tracks are signaled in both directions between the E. 105th Street and Rockaway Parkway stations to facilitate train movements. The first row of controls is odd numbered toggle levers, which are used for the switches. There are two positions. **N** (normal) is for straight through movements. **R** (reverse) is for cross over movements. A train to Manhattan leaving on P1 will cross over to P2 at the 51 switch. The 51 switch lever will be set in the **R** position. (The route is always set first.) The 51 switch lever will be set in the **N** position for trains leaving on P2 because the train is already on the Manhattan bound track. Trains on P1 can also use the 3 switch to cross to P2 when the 3 switch is in the **R** position.

A train leaving E. 105th Street to Canarsie on P1 will go straight into Rockaway Parkway if the track is open. If not, the train will cross over to P2 at the 5 switch (set in the **R** position). (The 51 switch isn't available. The 51 switch can only be used for trains crossing from P1 to P2 *leaving* the station.)

The bottom row levers are even numbered and control the home and distant signals connected to the switches. A home signal is the signal right before the switch. The distant signal is the signal before the home signal. All other signals are automatics and will display a signal based on traffic conditions. **L** indicates that the lever can only be moved to the left for trains entering the station. **R** indicates that the lever can only be moved to the right for trains leaving the station. For a train on P1, after the 51 switch is set in the **R** position, the levers for signals 8 and 50 will be thrown to the right and the Train Operator will get the lineup and signal to leave the station. (The signals and the switch are now interlocked.) However, the signal indication is not permission to leave. Below the "THROW SWITCH AT EACH INTERVAL" sign, there are controls for "starting" and "next train" lights on each track. "Next train" lights notify passengers of the next departing train. (It can be difficult to know the next departing train if the doors on both tracks

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Commuter and Transit Notes

No. 314

by Ronald Yee and Alexander Ivanoff

Metropolitan Transportation Authority

The MTA Reinvention Commission issued a report November 25, 2014 urging an aggressive expansion of the transit system, including the option of light rail, which can operate over existing but unused rights-of-way. Seen as a means to relieve overcrowding on the existing subway system and address population growth, one example would be the former Long Island Rail Road Rockaway Beach line that could connect Rego Park, Queens to the Rockaways. (***New York Daily News,*** November 26, 2014***)***

Public attendance and participation at the MTA's public hearings regarding the upcoming fare increase slated for March, 2015 has been comparatively light. The modest 4% hike, the first in two years, has drawn few complaints, being more in line with the pace of inflation. This was in sharp contrast to past fare hikes of 10% in 2009 and 17% in 2010, which generated large public outcries. (***New York Daily News,*** December 7, 2014***)***

MTA Long Island Rail Road

Beginning with the weekend of December 6-7, 2014, the Long Island Rail Road (LIRR) has closed two of its four tunnels under the East River to Penn Station in order to begin installing the new signal systems that will be required for the East Side Access project linking LIRR with Grand Central Terminal. Passengers were advised to expect some delays in service due to congestion in and out of Penn Station. The first stage of this signal project involves Harold Interlocking. (***Progressive Railroading,*** December 4, 2014***)***

Adding to the signal work delays mentioned above, a detailed engineering study of the two East River tunnels damaged by Hurricane Sandy will likely require a year-long period of preparatory work requiring intermittent closures leading to a continuous closure of each tunnel lasting for one year. Fortunately, the hurricane did not impact the other two tunnels under the East River. *(Editor's Note by Ron Yee: The full-time closure of each of the two tunnels, one at a time, will have some impacts on LIRR services but also affect Amtrak and New Jersey Transit equipment moves to and from the Sunnyside Yards.)* (NBC News, October 2, 2014)

MTA Metro-North Railroad

A 1% fare increase is set to go into effect on the Connecticut portion of the New Haven Line on January 1, 2015. It is the fourth of seven fare increases requested by the Connecticut Department of Transportation to help pay for the purchase of 405 new M-8 EMU commuter railcars. (MTA.info, December 10, 2014)

Connecticut Department of Transportation

CDOT's Shoreline East (SLE) commuter rail service, linking New Haven with Old Saybrook and New London, reported that ridership levels will meet and probably exceed 2013 levels. In the first nine months of 2014, 499,249 passengers rode SLE. Ridership numbers received a bump up from the ridership almost doubling to and from New London during the winter and early spring as well as an extension of weekend services to that easternmost terminal starting in June, 2013. New London now accounts for 20-25% of the overall weekend SLE ridership. (Al Holtz, November 19, 2014)

NJ Transit

NJ Transit approved $1.89 million for the purchase of ten buses to transport commuters to ferryboats operated by New York Waterway. It also approved funding for power connections for the ferry dock so that it would no longer use generators for power. Citing overcrowding on the NJ Transit trains and buses crossing the Hudson River in tunnels out of Penn Station and the Port Authority Bus Terminal, especially in the evening peak period, this option would allow people who rode one of three bus routes from New Jersey to Manhattan to be able to ride a ferry back to Weehawken. Currently, the ferries are less than half full and are seen as an underutilized asset in the New York City area commuter scene. It is seen as a win-win for the commuters as well as for NJ Transit, which would continue to be allowed to report ferry ridership as part of its overall ridership numbers to the Federal Transit Administration which utilizes such figures when allocating federal funding of transit agencies nationwide. *(Editor's Note by Ron Yee: Perhaps this could be construed as the first step in creating alternative trans-Hudson transport plans, should one or both of the Hudson River rail tunnels have to be closed continuously to repair flood damage from Hurricane Sandy in October, 2012 before the proposed Gateway Tunnels can be completed.)* (nj.com, December 10, 2014)

Hoboken's planning board approved proposed development plans that could cover over the New Jersey Transit rail yards in the future. The board approved a revised version of the plan, which would limit the height of any building in the development to 22 stories (24 if the buildings are granted LEED Certification for environmental and energy efficiency) for office towers and 13 stories for residential buildings. The original plans, dating back to 2008, included a 70-story office tower, resulting in an outcry from Hoboken residents who feared it would destroy the ambiance of the city known for low rise buildings in the historic area downtown. There remain voices of opposition in the city to the 22-story office buildings, citing that they would still be totally out of step with the downtown area. *(Editor's Note by Ron Yee: A review of the development plan map appears to include the trainshed at Hoboken Terminal which means that it, too, could be covered over. Some provision for adequate ventilation must be provided for the entire trainshed and yard complex as many of the trains at Hoboken are powered by relatively new PL-42-AC diesel locomotives serving non-electrified lines. A covered trainshed and yard area could*

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Commuter and Transit Notes

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require all NJ Transit trains serving Hoboken to be electrically powered, creating an enormous expenses for the rail operator, which would have to purchase more dual-mode locomotives similar to the ALP-45-DP.) (Nj.com, December 2, 2014)

Port Authority Trans-Hudson Railroad

After almost one year of weekend closures to facilitate repairs of damage wreaked by Hurricane Sandy, the tunnel serving the Newark-World Trade Center Line reopened on the weekend of December 20, 2014. However, during the first six months of 2015, riders can expect some additional scattered weekend closures of this tunnel as well as the one serving the Journal Square-33rd Street Line, which had a signal cable fire earlier this year and requires additional repair work. (***Wall Street Journal,*** December 9, 2014)

The Port Authority of New York & New Jersey awarded a three year, $6 million contract to study a proposed $1.5 billion extension of PATH beyond Newark to Newark Liberty International Airport. Depending on the findings of this study, construction of this line could commence as early as 2018 and provide a direct one-seat link from the World Trade Center to the airport. *(Editor's Note by Ron Yee: The $1.5 billion would probably be better used on helping to fund a now desperately needed pair of tunnels to supplement and possibly replace the existing tunnels linking Penn Station with New Jersey, currently the only means by which NJ Transit commuter trains and Amtrak Northeast Corridor services can access New York City.)* (***Progressive Railroading,*** December 12, 2014)

Amtrak

A total of 30 comments representing community concerns were received after a public hearing was held on the plans to address the 140-year-old Baltimore and Potomac tunnels winding under the city of Baltimore, which have proven to be a chokepoint for the 85 Amtrak, 57 MARC, and two freight trains that pass through it almost every day. Two options call for a new tunnel to be constructed beginning at a rail yard just west of the existing Baltimore Penn Station and stretching for between 1.8 miles and 2 miles before rejoining the Northeast Corridor south of the city. The other two options are to rehabilitate the existing tunnel or to do nothing. Concerns over the new tunnel options are vibration and its effects on over 100-year-old homes above it, stemming from the tunnel's construction as well as from the trains that would be traveling though it when it opens. The fate of the old tunnel, should it be abandoned, was also discussed in the comments, one stating that there is a colony of bats living in it that consume mosquitoes in the neighborhood. (***Baltimore Sun,*** December 9, 2014)

The Federal Railroad Administration said on December 3, 2014 it intends to grant both Amtrak and the California High-Speed Rail Authority waivers from its "Buy America" requirement for the non-domestic final assembly of up to four prototype Tier III high-speed rail train sets.

CHSRA is advancing a 700-mile intrastate HSR network beginning in the Central Valley, with projected top speeds of 220 mph, while Amtrak is at work on the "New Jersey Raceway" portion of its Northeast Corridor to increase top speeds to 160 mph.

FRA was to accept public comment on the matter through December 17.

The waivers apply only to the final assembly of up to two prototype HSR train sets each for Amtrak and California. However, the rolling stock and components need to be built in the United States. Numerous global suppliers, including but not limited to the likes of Bombardier (which announced in early December that it would not go after the train sets), CAF, Kawasaki, Siemens, and Sumitomo, have established and/or recently expanded their U.S. manufacturing presence to comply with the requirement and due to major contracts with commuter agencies and "FRA believes a waiver is appropriate ... because domestically-produced HSR trainsets meeting the specific technical, design, and schedule needs of Amtrak and the Authority are not currently available in the United States," FRA said in a notice. "There is no assembly or testing facility for HSR trainsets operating at speeds greater than 160 mph in the United States. Moreover, FRA estimates that it could take HSR trainset manufacturers a minimum of one-and-a-half to two years to establish the required facilities to support a domestic HSR trainset assembly capability."

Since March, 2014, FRA has received 13 online comments and one mailed response. None of the commenters identified a domestic source for HSR train sets, FRA said.

Of the 14 comments, 10 opposed granting any waiver, while four favored such a move. Six of those opposed asserted that Amtrak and California could simply wait for domestic assembly to be available. Rail advocates argue such an argument is tantamount to an outright attempt to thwart HSR development in the U.S. (***Railway Age***, December 4, 2014)

Other Transit Systems

Boston, Massachusetts

The above-ground sections of the Green Line were added to the train tracking system that is already in place on the Red, Orange, and Blue rapid transit lines, providing users with a smart-phone "app" to know how many stops away the next train or trolley is located. It was expected that by the end of December, 2014, the train tracking system would also provide a reliable estimated time of arrival of the next trolley. Phase II, expected to be complete in 2015, will expand this capability to the underground portions of the Green Line and enable the system to reliably estimate of the arrival time of the next trolley at any of the 66 stations on the B, C, D, and E routes. This work is already underway. (***Boston Magazine,*** October 23, 2014)

Keolis Commuter Services, the contract operator for Boston's commuter rail service, was fined a total of $804,000 for poor performance issues, including a sub-

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Commuter and Transit Notes

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par 85% on-time performance as well as substandard cleanliness of its railcars and stations and inadequate fare collection rates. Just four months into its eight-year, $2.68 billion contract with MBTA, Keolis is striving to make improvements while fighting an uphill battle against aging railcars and locomotives coupled with delays in the testing and acceptance of new locomotives and coaches. As of mid-November, 2014, 50 of 75 new coaches but only eight of the 40 new locomotives on order from MotivePower, Incorporated have been placed in service. The remaining 25 coaches are undergoing acceptance testing as are 11 locomotives with 21 more locomotives still to be delivered. Many of the current locomotives date back to the 1970s and are increasingly unreliable. Keolis also cited vacancies in key management positions as well as issues with line employees resistant to change from the previous contractor, MBCR, for the poorer-than-expected performance. (***Boston Globe,*** November 19, 2014)

MBTA reported that its systemwide ridership exceeded 37 million in October, 2014, despite a fare increase of 5% just three months earlier. Ridership on the commuter rail grew by 1.6%, heavy rail by 5.6%, and ferry services by 8%. The only dim spot was bus ridership, which slipped by almost 9%. (Associated Press, November 28, 2014)

MBTA is planning to start a commuter rail service to Foxborough, the location of Gillette Stadium, home of the National Football League's New England Patriots by purchasing the Framingham Secondary, a freight line currently owned by CSX Transportation for around $23 million. Proposed services would consist of five weekday trips, with two in the AM peak and two in the PM peak periods. Service would originate at South Station and run along the Fairmont Line, then to Readville on the Franklin Line, and then run non-stop between Walpole and Foxborough. The Framingham Secondary would physically link the Worcester, Framingham, and Providence commuter lines, providing a valuable resource in flexibility and redundancy should one of the lines become blocked. While some of the local politicians expressed their displeasure with MBTA making such plans and announcing it publically only now, all seemed on-board with the idea of running a commuter rail service to Boston out of their home town. (***Boston Globe,*** November 20, 2014)

The federal government has formally pledged $1 billion toward financing 43% of the six-station, 4.7 mile extension of the Green Line light rail transit line from a relocated Lechmere station into Somerville and Medford. The line is scheduled to open on June 29, 2021. *(Editor's Note by Ron Yee: With MBTA announcing such a specific date, it will be interesting to see where the project is 6½ years from now.)* (***Boston Globe,*** December 2, 2014)

Plans for the *"first"* privately funded commuter rail service in the U.S.A. were announced by the Boston Surface Commuter Railroad Company. The line would operate along the Providence & Worcester Railroad between Worcester, Massachusetts and Providence, Rhode Island, offering a 70-75 minute travel time for the 45-mile run, competitive with current commuting times by automobile along the congested roads. Equipment for this service would be acquired from a large pool of available commuter equipment that can be refurbished and powered by leased F-40 locomotives. *(Editor's Note by Ron Yee: The word "first" was highlighted because the Florida East Coast Railway high speed rail line's phase one between Miami and West Palm Beach is already under construction and can be classified as a commuter rail line paralleling the existing TriRail commuter line until Phase Two extends it to Orlando, which will then officially define it as an intercity rail line.)* (***Railway Gazette International,*** December 3, 2014)

Philadelphia, Pennsylvania

In response to continued delays in the $194 million rebuilding of the 120-car PATCO Lindenwold Line car fleet, a number of PATCO officials visited the Alstom plant in New York where the cars are being rebuilt. Thus far, the eight pilot cars have been failing their acceptance test on the line. The acceptance test only requires the cars to operate for 500 miles without failure. Issues involve the software controlling automatic train control, braking and propulsion, and communications. (***Philadelphia Inquirer,*** November 18, 2014)

Member Bob Wright reports that for quite possibly the first time in SEPTA regional rail history, a special train schedule has been issued to accommodate ridership needs for the Christmas Eve "early getaway" rush from downtown. One PM Peak train during the 4:50 PM to 6:03 PM period on the Trenton, Warminister, Norristown, Thorndale, Newark, West Trenton, Elwyn, Doylestown, and Malvern Lines will not operate, replaced by a new train operating during the 11:57 AM to 12:35 PM period out of 30th Street Station. In addition to providing much-needed relief for the holiday getaway, this schedule can be used in case of a severe storm or other event that would be expected to cause people to leave downtown earlier than usual. (SEPTA.org ***Mileposts***, December, 2014 edition)

Washington, D.C. area

The Washington Metro (WMATA) is seeking a ten percent increase in subsidies from the eight counties and cities in its service area to make up a financial shortfall, or it expects to be forced to reduce service to reduce costs. Increasing fare revenue is not an option this year as WMATA adheres to a policy of never increasing fares in consecutive years, the most recent fare increase occurred in 2014. (***The Washington Post,*** November 30, 2014)

An agreement was hammered out between Washington Metro and an independent safety overseer to pave the way for the first eight of the 7000-series cars to go into service in early 2015, possibly as early as January. A dispute between WMATA and the Tri-State Oversight Committee threatened to delay the debut of these cars. It is hoped that the entire fleet of 748 cars will be in ser-

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Commuter and Transit Notes

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vice by 2018, replacing the original 1976-vintage 1000-series cars and providing for service expansion on the Silver Line as well as an increase in train lengths to eight cars on most lines. (***The Washington Post,*** December 8, 2014)

Atlanta, Georgia

Atlanta Streetcar did not open to riders on the city's latest targeted launch date of December 6, 2014. The date was selected after the downtown streetcar project missed other targeted start dates.

Mostly recently, the city missed a planned mid-November, 2014 launch due to safety concerns by the Federal Transit Administration. In early November, the Federal Transit Administration flagged "outstanding safety and hazard mitigation issues," WABE reported.

FTA has not yet signed off on passenger service, which meant Atlanta Streetcar would not, as city officials had hoped, be available to visitors to Atlanta during the SEC Football Championship Game on December 6, WSB-TV reported. City officials were still hopeful the streetcar will open by the end of the year, the station said.

The project, which is about $6 million over budget, was originally expected to be completed in the summer of 2013. City officials previously attributed delays to issues related to moving utility lines and bad weather, WABE recently reported.

Atlanta Streetcar was involved in a crash with a car on November 23, 2014, marking the second accident for the system during its testing phase. A car tried to pass the streetcar during a test run near Centennial Olympic Park. A week earlier a car hit the streetcar on Ellis Street.

The Atlanta Streetcar will operate on a 2.7-mile loop with 12 stops. The route stretches from Centennial Olympic Park to the Martin Luther King Jr. Historical Site. The east-west route represents Phase One for the Atlanta Streetcar project. Additional routes and phases are in design and planning stages, according to the Atlanta Streetcar website. (AtlantaBizJournals.com, December 4, 2014)

Oklahoma City, Oklahoma

Four companies are vying for a contract with Oklahoma City to advance the city's MAPS 3 streetcar proposal by supplying five streetcars for the initial 4.6-mile, 22-station project. The companies include Brookville Equipment Corporation, CAF U.S.A., Inekon Group a.s., and China's XEMC.

The contract could include an option for eight additional streetcars.

Last September the City Council approved advancing the $130 million plan as part of the city's MAPS 3 project addressing numerous transport issues. City engineers last August expected up to 10 bids for the project.

The lower number of bids, though certainly adequate competition, may reflect the city's desire to secure dual-mode streetcars, or Onboard Energy Storage Systems (OESS), a still largely untested technology within the U.S., though in use elsewhere, but in growing demand as U.S. municipalities evaluate the rail mode.

The City Council may select a finalist as early as the end of next month, and the Council could choose a supplier by the end of January. Once streetcar route designs are finalized, in about a year, the city would issue authorization for the manufacturer to begin building the streetcars. (***Railway Age***, December 5, 2014)

Houston, Texas

An updated report from the Houston Metro confirmed April 4, 2015 as the opening date of the Green line running east along Harrisburg and the Purple Line running southeast from downtown. The four-month delay will provide the time needed to get a sufficient number of the new light rail cars into service and eliminate the need to reassign some of the existing Red Line cars to provide service on the new lines. As of November 21, 2014, it was expected that 14 of the 39 cars ordered from CAF will be ready by April 1, 2015, which will be sufficient for Metro to operate two-car trains on the Red line and operate single cars on the Green and Purple lines. (***Houston Chronicle,*** November 21, 2014)

Denver, Colorado

The first four of 66 electric multiple unit (EMU) commuter rail cars for Denver's FasTracks were officially introduced to the city on December 2, 2014 at Union Station and were available for four days for the public to walk through between December 3 and 6. Road testing of the cars is expected to commence in May, 2015. Costing $300 million, the fleet of EMU cars will commence operations on three of the four planned commuter rail lines in 2016, the East Rail line to Denver International Airport, Gold Line to Arvada/Wheat Ridge, and Northwest Rail to Westminster. A fourth line, the North Metro Rail line, is scheduled to open in 2018. The cars are similar to Philadelphia's SEPTA Silverliner Vs, with some differences. Top speed for FasTracks cars will be 79 mph and the cars will not have low-level platform capability. (***The Denver Post,*** December 3, 2014)

California Department of Transportation

Caltrans allocated one of the final portions of money funded by Proposition 1B, a transportation bond act approved by California voters in 2006. Among the biggest beneficiaries of this disbursement are $106 million for Phase II of the Los Angeles Exposition light rail line, $81 million to San Francisco's MUNI to complete the Central Subway project from Market Street to Chinatown, $58 million for the Los Angeles Metro for the regional connector light rail subway that will link the Gold, Blue, and Expo lines, $36 million to San Diego for light rail vehicles, and $43 million to Orange County for a grade separation project at Raymond Avenue on a rail line used by Metrolink and BNSF trains. (StreetsBlog SF, December 5, 2014)

San Francisco, California

CalTrain released an environmental impact report regarding its planned electrification project for the commuter corridor between San Francisco and San Jose.

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One of the issues addressed is the impact of erecting catenary and its support structures on the trees surrounding the current right-of-way and the aesthetic impact of the support structures on the visual environment as well as the location of traction power support structures and facilities along the line. One of the mitigating measures to reduce the impact of the poles would be to place them between the tracks instead of alongside, requiring fewer trees to be removed. The cost of the electrification project has increased from $1.22 billion to around $1.5 billion and it is projected to be completed by the Spring of 2021. (Al Holtz, December 6, 2014)

Los Angeles, California

Los Angeles County reached an agreement with Kinkisharyo International, LLC, resolving an impasse involving the International Brotherhood of Electrical Workers (IBEW) that threatened to move a manufacturing plant that was to manufacture 175 light rail cars for the upcoming Crenshaw, Exposition, and (extensions to the) Gold Lines out of the county. As a result of the agreement, the Palmdale, California plant will be expanded from simply assembly and testing to the manufacturing of light rail cars. (***The Source,*** Los Angeles County Metropolitan Transportation Authority, November 25, 2014)

Pasadena, California

Initial train testing was conducted on the 11.5-mile Foothill Gold Line between Pasadena and Azusa during December 8 thru December 19, 2014. Testing will include verifying train clearances, wheel/rail interface, rail switches and catenary systems. Trains were initially pulled along the line before being allowed to operate under their own power from the catenary. (LAMTA Public Affairs, December 8, 2014)

San Diego, California

San Diego Metropolitan Transit System (MTS) set a new ridership record in October, 2014, recording over nine million trips on its trolley and bus services, an increase of three percent over the same four-month period when compared with last year. (***Progressive Railroading,*** December 1, 2014)

Honolulu, Hawaii

Track construction has started on the $5.16 billion HART (Honolulu Authority for Rapid Transportation) 20-mile, 21-station Honolulu Rail Transit rapid transit system on the island of Oahu, with initial work focusing on the area around the Hoopili station in Ewa. HART's initial operating segment from East Kapolei to Aloha Stadium is expected to open in 2017, with the remainder of the line to Ala Moana Center scheduled for commissioning in 2019. Services will operate between 4 AM and 12 AM seven days a week, with trains running at five-minute intervals during the peak and every 11 minutes at other times. AnsaldoBreda has begun production of rolling stock for the line at its Pistoia plant in Italy, with deliveries scheduled to start in mid-2016. Each trainset will accommodate up to 800 passengers. (***Railway Age***, December 9, 2014)

VIA Rail Canada

VIA announced its third quarter, 2014 results documenting ridership increases of 1.8% on the Montreal-Toronto corridor and 6.2% on the cross-country *Canadian*. Operating losses were reduced by 12.1%, amounting to $9.1 million. Other noteworthy highlights include placing the first Prestige Park Observation-Dome car into service on the *Canadian*, two additional train sets allocated to the Quebec City-Windsor corridor (providing over 5,000 seats daily and permitting one more round trip on the Ottawa-Toronto corridor), the overhaul of 26 business class and renovation of 22 economy class LRC (Light, Rapid, Comfortable) cars expected to be completed by the end of 2014, and the introduction of a GPS-based train tracking system that will provide automated notification of locomotive Engineers to speed restrictions or changes, changes in applicable, rules and upcoming visual landmarks enroute. (VIA Rail Canada, November 28, 2014)

Montreal, Quebec, Canada

Montreal commuter rail operator Agence Métropolitaine de Transport (AMT) finally began revenue service on its 52-kilometer Train de l'Est route from Montréal Central to Mascouche on December 1, 2014, around three years later than previously anticipated. Serving a region with around 700,000 inhabitants, the route had been expected to open during 2012. The C$435 million project ended up costing over C$200 million more.

The route incorporates 9 kilometers of AMT's existing 25,000-volt 60-Hz electrified Deux-Montagnes line from Montreal Central through the Mount Royal Tunnel, before diverging to the east. The trains then follow an existing Canadian National freight line across the north of Montreal Island, paralleling the Riviere des Prairies through Anjou to Point-aux-Trembles. After crossing the river to Repentigny, the commuter trains use 11.6 kilometers of new railway built along the median strip of Quebec Route 640, before joining Genesee & Wyoming's Quebec-Gatineau Railway on the approach to Mascouche.

The line currently serves 11 stations, plus three existing stops on the Deux-Montagnes route. Feeder bus services connect with the trains at several stations, while the new stop at Ahuntsic adjoins the Chabanel station on AMT's St-Jerome commuter route. Two more stations are expected to open in the spring of 2015, at Pointe-aux-Trembles and at Sauve, which will provide interchange to the Orange Line of the city's metro network.

The line is operated using five ALP-45 electro-diesel locomotives and 30 double-deck coaches drawn from a larger fleet supplied by Bombardier in 2010-1. AMT is initially providing eight trains each way per day, mainly at peak times. Offering an end-to-end journey time of 65 minutes, the service is expected to attract around 11,000 passengers per day. (***Railway Gazette***, December 1, 2014)

Toronto, Ontario, Canada

Alstom was awarded a $250+ million contract to re-

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place the 80-year-old signal system in the Toronto Union Station corridor between Strachan Avenue to the west and the Don River to the east. 25 miles of track, 228 signals, and 221 switching points will be modernized with an advanced wayside signal system capable of handling a major increase in train traffic that will be required to handle passenger volumes greater than today's 250,000 GO Transit and VIA Rail Canada daily riders in and out of Union Station. (Al Holtz, December 1, 2014)

The Toronto Transit Commission (TTC) closed the Dufferin station on the Bloor-Danforth (#2) Line during the weekend of November 22-23, 2014 as the final stage of the rebuilding of that station facility to bring it up to 21st century standards of full accessibility with three elevators and put the finishing touches on the station. It was reopened at 6 AM on Monday, November 24. During that weekend TTC trains skipped that station and shuttle buses provided substitute service between the Lansdowne and Ossington stations. (CBC News, November 21, 2014)

Chile

President Michelle Bachelet has announced plans for U.S. $4.2 billion in public transport investment, including a new metro line in Santiago.

The government has requested a feasibility study from Metro de Santiago for metro Line 7, with a view to construction starting by 2019. Intended to relieve the east-west Line 1, which currently carries 43% of all metro passengers, Line 7 would be built under a PPP concession.

Bachelet has also outlined plans to extend the north-south Line 2 by 5 kilometers, and the 22-kilometer Line 3 currently under construction by 3.8 kilometers, with a combined investment of U.S. $1.2 billion. A further U.S. $317 million is to go towards procurement of new trainsets to increase capacity. (***Railway Gazette***, December 2, 2014)

Germany

Deutsche Bahn announced a €28 billion five-year spending plan for 2015-9 on December 8, 2014. It aims to be the biggest modernization of the German network in history.

The announcement follows federal government approval of the LuFV II agreement, which sets out state and DB funding for the network over the next five years. Under LuFV II the government has allocated an average of more than €3.3 billion annually, and all state dividends from DB's infrastructure activities are to be reinvested in the network.

The five-year program includes €12 billion for renewing 17,000 km of track, and €3 billion for the renewal of 875 bridges. Around €4 billion is allocated for signalling and control systems and €1 billion for tunnel modernization.

Spending in 2015 is put at €5.3 billion, including the renewal of 3,800 kilometers of track, 2,000 turnouts, 2.5 million sleepers, 4 million tons of ballast, and 125 bridges. In an effort to minimize closures, the works will be grouped into 500 projects undertaken on 80 specific corridors.

Key renewal projects in 2015 will focus on the north-south S-Bahn tunnel in Berlin, sections of the Hannover -Göttingen, Köln-Aachen (22 kilometers), Köln-Siegen (35 kilometers), and Nürnberg-Ansbach (10 kilometers) routes and the Mannheim-Stuttgart and Köln-Frankfurt (44 kilometers) high-speed lines, and upgrading the München-Ingolstadt route for 200 kilometers per hour operation. (***Railway Gazette***, December 9, 2014)

China/Spain

The first direct rail freight service to operate between China and Spain arrived at ADIF's Madrid Abroñigal intermodal terminal on December 9, 2014, welcomed by Spanish Development Minister Ana Pastor. Carrying a total of 30 containers, the train had left Yiwu in China on November 18, covering 13,000 kilometers in 21 days.

The route via Kazakhstan, Russia, Belarus, Poland, Germany, and France involved a change of gauge at three border crossings, as well as locomotive changes approximately every 800 kilometers. The service was operated by InterRail Services and DB Schenker Rail, with DB's Spanish subsidiary Transfesa providing traction on the final leg to Madrid.

The through service is the result of initiatives agreed to by the governments of China and Spain in September, 2014 to develop closer trading relations. The Spanish Ministry of Development points out that the trial has demonstrated the "reliable, versatile, and competitive" nature of rail freight, the overland journey having saved over 10 days of transit time compared to sea freight. (***Railway Age***, December 9, 2014)

Belarus

A passenger service between the Minsk Pasažyrski station and Minsk National Airport was launched by Belarus Railways on November 7, 2014. The trains call at Smaliavičy to provide interchange opportunities for passengers from regional destinations. The service is operated using Pesa DP-3 three-car diesel multiple-units, which offer a capacity of 143 passengers, low-floor entrances and modern amenities, including wheelchair access.

The service has started with just five daily trains with a total journey time of around 70 minutes, including 55 minutes on the train and a 5-minute bus transfer to the airport terminal. Train crew will alert airport staff to the number of passengers on a particular service, to enable the appropriate number of buses to be provided. The fare is 25,000 rubles, (U.S. $2.30) including the bus transfer, with tickets sold at the airport and on the trains as well as at railway ticket offices.

The airport rail link makes use of existing infrastructure, which has been modernized at cost of 105 billion rubles (U.S. $9.6 million), funded by Belarus Railways with an 11 billion ruble (U.S. $1.01 million) contribution from the Ministry of Transport. These works included resignaling, construction of a platform on a freight line

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NORTH AMERICAN TRANSIT PROJECT OPENINGS SCHEDULED FOR 2015
by Randy Glucksman

As you can see in the table below, three projects, the Atlanta and D.C. Streetcars, and the Chicago Transit Authority's Cermak-McCormick station, all scheduled to be completed in 2014, were not. They have been added to the already-planned 2015 projects list. Even without those aforementioned projects, 2015 will be a busy year. The information is accurate as of mid-December, 2014.

DATE	AGENCY	CITY	TYPE	LINE	DETAILS
Holdover from 2014	District DOT	Washington, D.C.	SC	H Street/Benning Road	2.4 miles, 8 stations
Holdover from 2014	City of Atlanta/ Atlanta Downtown Improvement Project/MARTA	Atlanta, Georgia	SC	Atlanta Streetcar Project Phase I	2.7 mile loop, 12 stations
Early	Edmonton Transit	Edmonton, Alberta	LR	North	Churchill to Nait 2 miles, 3 stations
1st Quarter	Sound Transit	Seattle, Washington	SC	First Hill Streetcar	Occidental/South Jackson to Broadway/East Denny Way 2.5 miles, 10 stations
March	Charlotte Area Transit System	Charlotte, North Carolina	LR	Gold Phase I	Charlotte TC to Hawthorne Lane & 5th Street 1.5 miles, 6 stations
March	Dallas Area Regional Transit	Dallas, Texas	SC	Oak Cliff Streetcar	Dallas Union Station to Oak Cliff 1.6 miles, 4 stations

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Commuter and Transit Notes

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serving the airport, and the provision of a bus turning circle. (***Railway Gazette***, November 10, 2014)

TURKEY

Prime Minister Ahmet Davutoğlu attended the opening of the Istanbul Metro's latest extension on November 9, 2014.

The southeastern extension of light metro line M1 from Aksaray to Yenikapı is not even a half mile. Interchange is provided at Yenikapı with metro line M2 and Marmaray suburban services.

Services from Yenikapı designated M1A run to Atatürk Airport with a journey time of 36 minutes, whereas M1B services diverge at Otogar to serve the other western branch, which terminates at Kirazlı. (***Railway Gazette***, November 10, 2014)

SPECIAL SECTION

Sasha Ivanoff attended Andrew Sparberg's presentation on his new book "From a Nickel to a Token." Sparberg's book is a broad microhistory of the changes of New York City transportation during from 1940 to 1968. Sasha learned a few interesting tidbits that he (surprisingly) did not know before: Mayor LaGuardia's disgust of streetcars and his what might be considered ignorant views on public transportation and even a fact lost on many diehard transit enthusiasts: buses that could be converted into ambulances. The book is divided into twenty significant moments in the post-private ownership but pre-MTA days, including the unification of not only the subway, but the creation of MaBSTOA and the consolidation of some private bus operators into the New York City Transit Authority. Sparberg closes the book by making the case that the biggest change post-1940 on the subways was the introduction of air conditioning on subway cars delivered after 1968 *(Editor's Note by Sasha Ivanoff: the last ten R38s and last 200 R40s were factory equipped with air conditioning).*

Sasha gives the book high praise, noting its readability (it is a book that both diehard railfans and even just casual transit enthusiasts will like), its depth of content (the book could be considered a broad microhistory), and even its broadness of content (bus fans will also enjoy the book). However, what interested him the most was the political side of transit: the relations TWU head Mike Quill had with several New York politicians, contrasting his dealings with both mayors Wagner and "Linsley" Lindsay. However, his only main complaint about the book was how the MTA formation was summarized and in not enough detail. Famed New York governor Nelson Rockefeller and even the famed Robert Moses received barely more than passing mentions.

There is a consensus among ERA's top brass that a second book covering the evolution of MTA (a sort of "From a Token to a *MetroCard*" overview) should be a future project. By the time this review hits the ***Bulletin*** the Christmas season will be through, but I would still highly recommend it as a gift.

North American Transit Project Openings Scheduled for 2015

(Continued from page 13)

DATE	AGENCY	CITY	TYPE	LINE	DETAILS
2nd Quarter?	MTA New York City Transit	New York, New York	HR	❼ Extension	Times Square to Hudson Yards 1.4 miles, 1 station
April 4	MTA Houston	Houston, Texas	LR	East End (Green) Phase I	Theater District to Altic/Howard Hughes 3.3 miles, 3 stations
April 4	MTA Houston	Houston, Texas	LR	Southeast (Purple)	Convention District to Palm Center 6.6 miles, 11 stations
Spring	Metrolinx	Toronto, Canada	DMU	Union Pearson Express	Union Station to Pearson Airport, 1.86 miles, 1 station
Holdover from 2014 Late Spring	Chicago Transit Authority	Chicago, Illinois	HR	Green	Cermak-McCormick station opens
Mid-year	Kansas City Streetcar Authority	Kansas City, Missouri	SC	KC Downtown Streetcar Project	Union Station to River Market
July	VRE	Spotsylvania, Virginia	CR	Fredericksburg	Spotsylvania station opens
September 15	TriMet	Portland, Oregon	LR	Portland-Milwaukie	PSU South/SW 5th & Jackson St. to SE Park Avenue 7.3 miles, 10 stations
September	Sacramento RTD	Sacramento, California	LR	Blue Phase II	Extension from Meadowview Road to Cosumnes River College 4.3 miles, 4 stations
Fall	NJ Transit	Wood-Ridge, New Jersey	CR	Bergen County	Avalon-Westmont Station opens
Fall	Bay Area Rapid Transit	San Francisco, California	HR	Warm Springs Extension	Warm Springs to Warm Springs South Fremont 5.4 miles, 1 station
Late Fall	NY City Transit	Staten Island, New York	HR	Arthur Kill Station	Replaces Nassau and Atlantic stations
Late	Metrorail	Los Angeles, California	CR	91	Extension from Riverside to Perris 24 miles, 4 stations
Late	Valley Metro Rail	Phoenix, Arizona	LR	Central Mesa	Sycamore Road to Mesa Drive 3.1 miles, 4 stations
Late 2015 to early 2016	Valley Metro Rail	Phoenix, Arizona	LR	Northwest Extension Phase 1	Montebello Ave. to Dunlap Avenue 3.2 miles, 3 stations

LEGEND	
CR	Commuter Rail
DMU	Diesel Multiple Unit
HR	Heavy Rail
LR	Light Rail
SC	Streetcar

From My Vantage Point

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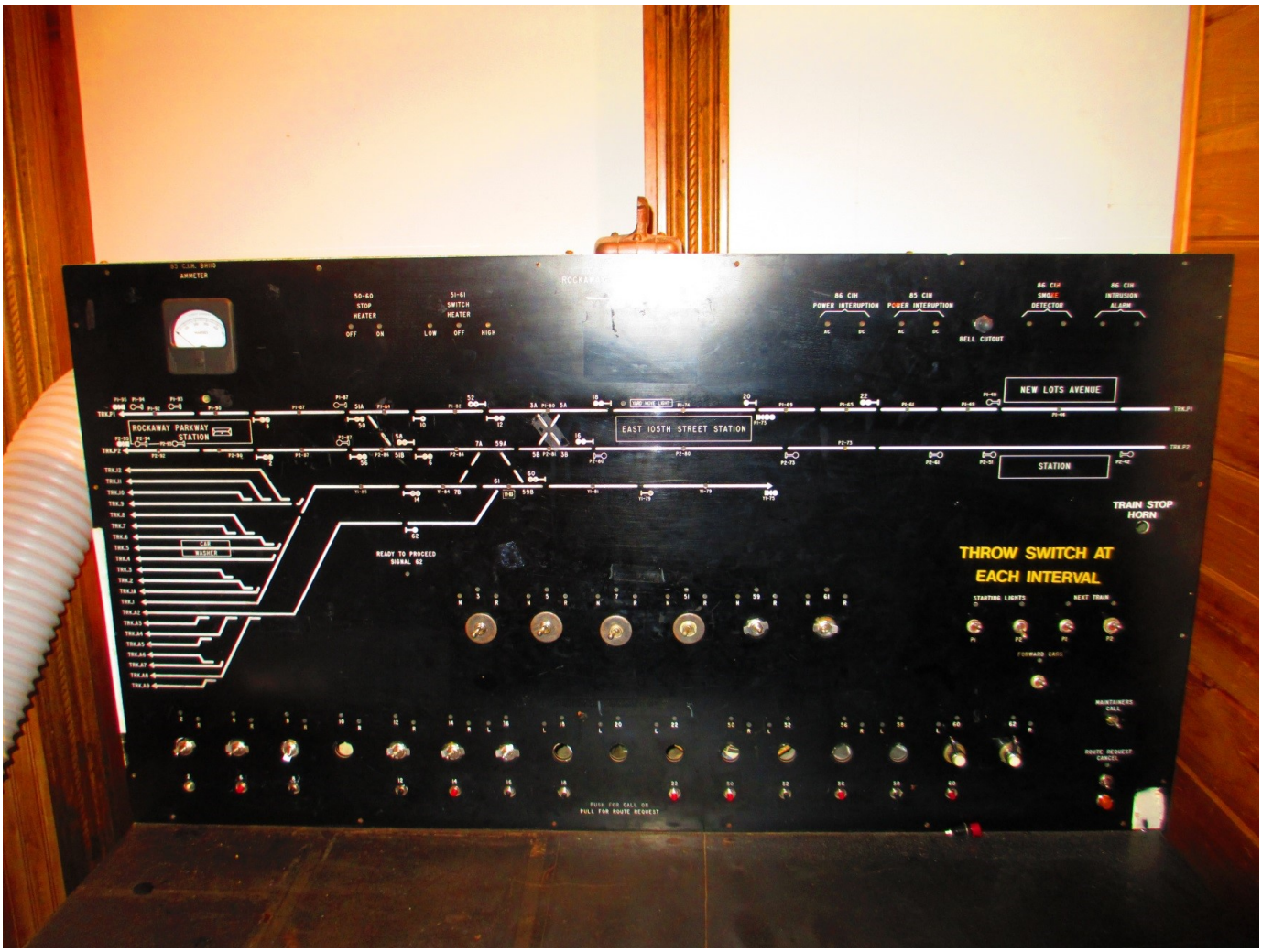
are open.) The "starting lights" are positioned on the platform adjacent to the Conductor's position. When the starting lights toggle switch is thrown "on the advertised," green lights illuminate and a gong rings notifying the Conductor to "close and go."

As part of the interlocking safety mechanism, signal 52 cannot be thrown for a train to enter the station on P1 if switch 51 is in the reverse position. This would cause a derailment. There are similar safety interlocks to prevent collisions, e.g. having eastbound and westbound signals being displayed on the same track.

Yard tracks A2 through A9 and 1 to 12 are under the control of the Yardmaster. Unfortunately, the yard is positioned so that trains cannot go directly into the station. Trains on yard tracks 1 to 12 connect to Track Y1 and cross to P2 at the 7 switch and then reverse direction into the station. Trains on Tracks A2 through A9 connect with Track Y1 beyond the 7 switch and reverse into the station using the 59 switch. Trains from any yard track can go into the pocket track adjacent to the E. 105th Street station and wait for an opportunity to enter the Rockaway Parkway station.

A review of the subway schedule at http://web.mta.info/nyct/service/pdf/tlcur.pdf shows some AM rush hour trains from the yard go directly into service at E. 105 Street without reversing into Rockaway Parkway. All southbound trains terminate at Rockaway Parkway and then have to pull out and then reverse into the yard.

Michael Ditkoff (trip@nyrre.org) writes the **Vantage Point** *column in the New York Railroad Enthusiasts'* **Bulletin** *newsletter. NYRRE's website is www.nyrre.org. The Enthusiasts'* new *photo gallery can be found at www.nyrre.org/Gallery. This article originally appeared in the December, 2014 NYRRE* **Bulletin**.



TRACTION TOUR TO SOUTHERN EUROPE
by Jack May
(Photographs by the author)
(Continued from December, 2014 issue)

As the *Eurodam* was transporting Clare and me from Barcelona to the island of Mallorca, Phil Stevenson was taking the overnight ferry to Palma. He would also spend the following night there, so with a very early morning arrival, he planned to check in at the Hotel Terminus, just opposite the Soller railway station and the new intermodal transit facility. We decided to meet at 9:00, as the cruise was scheduled to arrive at 8:00 and we wanted to ride part of the metro before the 10:10 departure of the electric train to Soller.

But the best laid plans . . . the *Eurodam* did not dock until 9 AM. When I finally reached the hotel by taxi, around 9:35, the desk clerk told me that Phil had "just left." I looked around the area to no avail and then figured I would meet him aboard the Soller train. Since I am saving the history of the railways on Mallorca until the end of this installment's narrative, I will just say that the F. C. de Soller, with its tramway from Soller to Porto de Soller, is a gem of a line and remains privately operated, while all other rail transportation on the island has now been concentrated in the hands of the government. That includes the regional railway to Inca (which was operating DMUs the last time I was in Palma) and the brand new 2-line metro. In fact the Inca line is now electrified, has been extended, and runs through the metro tunnel to the Estacio Intermodal at Placa d'Espanya, opposite the hotel. See http://www.urbanrail.net/eu/es/palma/palma.htm, http://www.tib.org/portal/web/ctm/tren, and http://www.tib.org/portal/web/ctm/metro. I will describe the metro and railways further after my narrative of the day's activities.

I knew the 10:10 Soller train's first stop would be Son Sardina at 10:20, so I decided to ride metro line M1 to that point. That station is the only above-ground facility on that line, and so I took a few photos in this relatively undeveloped area before exiting through the turnstiles and walking to the nearby station of the single-track Soller railway. The train arrived promptly at 10:20 and I boarded, but could not find Phil. There were several empty coaches marked "reservado" and all the other passengers were concentrated in two cars, or so I thought. At Bunyola, another way station on the line, a large number of tourists alit from buses and boarded. Virtually every seat was now taken.

After exiting a long tunnel under the Sierra de Alfabia, we stopped at Mirador de Pujol, so passengers could get a view of Soller from a platform high above the town, and to allow an inbound train to pass on the second track. As I set myself up in front of our electric motor to photograph the other train (the daisy pickers [tourists] were taking pictures of the scenery), I was accosted by this woman who told me to be careful, as I was walking on the right-of-way. Of course it was Clare who gave me this admonition. She had boarded with the other cruise passengers at Bunyola, as the train ride was part of their tour of the island.

Upon detraining in Soller at 11:15 (11:10) I saw Phil get out of the locomotive. Apparently there are passenger seats in the train's motor car, and Phil had chosen to ride where he could absorb all the great traction sounds. So now we were reunited and could cover the streetcar line to the port together, which is exactly what we did. I will describe that further on.

The 3-foot gauge Soller railway was built in 1912 and electrified at 1200v d.c. in 1929 (see http://www.trendesoller.com/en/cms.php/the_company/History). Five round trips are operated on the 17-mile-long line year-round, with a few more added in the tourist season. The original electric equipment still runs. The railway has some outstanding scenery after first traveling in the center of Carrer Eusebi Estada in Palma and then running cross-country on a straightaway up to the looming Sierra de Alfabia. After some steep grades and sharp curves, it enters a 1.75-mile-long tunnel. On the other side of the mountain, the line twists and turns, traversing many bridges and short tunnels, providing some great views. Although it is only a one-hour ride, I believe it is one of the most scenic adhesion train rides in the world.

On a previous trip, Clare and I rented a car to tour the entire island, which included traveling on the road that parallels the line, crossing the mountain without a tunnel. It was a little harrowing, with steep grades and sharp curves on very narrow pavement. A tunnel for motor traffic was finally constructed and the road improved at the end of the 20th century.

For me to get back by rail to the *Eurodam* on time for its 18:00 departure, it was imperative that I ride the 14:10 train, which meant I couldn't miss the 13:50 streetcar. (My backup was one of several buses through the mountain, but obviously I prefer rail.) Thus I ended up spending about 3 hours on the tramway, which was quite adequate, and even had a little time for a bite to eat. Phil decided to continue his exploration of the streetcar line when I headed back to Palma.

Having returned to the Palma terminal at 15:05 (15:10) I still had plenty of time to get to the ship. Thus I first photographed the motor car running around the train and a few minutes later, its 15:15 return to Soller. Then I spent the next hour riding and photographing line M2 of the metro and the regional trains that share its tracks.

The metro was inaugurated in 2007 along with the

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Traction Tour to Southern Europe

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opening of the intermodal station at Pl. d'Espanya. Line M1 is about 5 miles long and has a total of 9 stations on its route to UIB, the Universitat de les Illes Balears. In March of 2013 line M2 was introduced to provide local service along the inner 5 miles of track of the regional service to Manacor and Sa Pobla. Running as far as Marratxí, it also has 9 stops. All metro stations have high-level platforms with the terminal and the first two stops serving both lines in a 4-track tunnel, after which the joint regional railway and the M2 line emerge from underground. The intermodal terminal is huge, with 10 tracks ending at bumper blocks. It also contains a ticket office and a large number of ticket vending machines. A bus terminal and car park are above the tracks and their lengthy platforms. One could say it is overbuilt.

CAF has supplied the rolling stock used on both metro lines, as well as the eMUs used on the regional service.

Service on Line M1 is provided every 15 minutes in rush hours, and every 30 minutes during the off-peak and on Saturdays. There are no trains on Sundays. M2 metro trains run every 20 minutes on weekdays, but with regional express trains interspersed between them, there are 6 trains an hour in both directions along the inner section of the line. On weekends all M2 service is supplied by regional trains on a half-hour headway making all stops. Also, three “super expresses” run in morning rush hours with new low-floor LRVs purchased from Vossloh for future extensions. The last one arrives at 9:15, so I did not get to see or photograph the new equipment.

A few final notes about the regional rail line. A large network of 3-foot gauge steam railway lines were privately built in Mallorca starting in 1875, reaching as far as Arta, some 60 miles from Palma. After World War II the system was taken over by the government and dieselized, with DMUs acquired to provide most of the service. But vast declines in patronage, high maintenance costs, and neglect resulted in the abandonment of most of the branches and the eventual cutback of service to Inca (18 miles).

A change of public policy resulted in a decision to revitalize the operation. Since 1983 the line has been converted to meter gauge, electrified at 1,500 volts d.c., and re-extended to Manacor and Sa Pobla. The former yards and terminal were converted to a park and the Intermodal Center was built underneath.

By the way, the island of Mallorca has a population of about 850,000, while Palma, its capital, has just over 400,000 residents.

The entrance to Palma’s Intermodal Station on Pl. Espanya.

A two-car train of CAF eMUs operating along the M2 line pauses at the Pont d’Inca station.

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THE VANISHING DAYLIGHT, NOW GONE
by Randy Glucksman

Since the opening of Secaucus Junction in December ,2003, I have been commuting into New York City via NJ Transit. Eastbound, after the train has cleared what are called the North River Tunnels, there was a large open area known as “A” Interlocking (Dyer Avenue to Tenth Avenue) where before entering Penn Station, in the daytime, there was light. Well, that began to change and very quickly starting in September, 2014 with reduced amounts of daylight as construction of the Manhattan West project proceeded.

During the past year, this area has had dozens of concrete columns of various sizes and shapes inserted into the ground, while above, additional concrete slabs have virtually eliminated the natural light that was part of this area since New York Penn Station opened in 1910. Over the years the streets overlooking this site have provided a great vantage point for photographers to

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Traction Tour to Southern Europe

(Continued from page 17)

A train of CAF-built metro cars approaches the Son Sardina station of the M1 line. The Sierra de Alfabia looms in the distance. Note the graffiti on the rear car.

The unstaffed Son Sardina station of the Soller railway.

Electric motor 1 on an inbound run will pass its opposite number at the Mirador de Pujol, where outbound trains stop to provide their passengers with a panoramic view of Soller.

The 15:15 Palma-Soller train pulls out of the Placa d'Espanya terminal onto the center reservation of Carrer Eusebi Estada.

Now for the tramway between Soller and Port de Soller: Upon our arrival in Soller, Phil and I photographed some switching operations and then rode in an open trailer behind original motor 1 to Port de Soller. Half-hour headways are scheduled in the tourist season (as opposed to hourly), and some of the scheduled trips seemed to be running in two sections to meet the demand arising from the influx of cruise boat passengers. Of course trailer operation is also necessary to handle the crowds, with some consists having the trailers sandwiched between motor cars at either end, while single motors on other trips have to run around the trailers at terminals. After operating on the streets of Soller, which includes trackage through the town's main square, the single track cuts through the countryside to the Port, and then circumscribes a large portion of the beach along a palm-lined pedestrian street. There are three passing sidings along the route, but it seems that the only one used is about halfway along the line.

We walked and photographed an ample number of trips from one end of the beach to the other. There were two obstacles to our photography, the sun darting behind clouds at inopportune moments, and what appeared to be an important bicycle race, with two-wheeled machines darting in front of our cameras when least desired. But all in all, we did fine. At about a quarter to two I said goodbye to Phil, wished him a good trip back to the U.S., and boarded the 13:50 tram back to Soller. The connecting train to Palma was crowded with tourists, and I got one of the last seats.

The 3-mile long, 3-foot gauge, 600-volt d.c. tramway was built by the railway company in 1913. For the first 40 years It operated with 3 single-truck motors and 2 trailers, but in 1954 four more trailers were acquired from the Palma tramway (which was converted to buses in 1958). As tourist traffic grew, five additional motors were acquired from Lisbon and were regauged from

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Traction Tour to Southern Europe

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900 mm to 914 (3 feet). On this visit I saw 11 of the 14-car fleet in service.

Original motor car 1 pulls two trailers through Soller's town square on an outbound run to the Port.

Another view of one of the three 1911-built motors pulling two trailers along the palm-lined beachfront. The Port is becoming quite a resort area.

A view of Holland America's *Eurodam* docked at Palma, taken in the late afternoon from the access road at the end of bus route #1.

After a brief sojourn on the metro and regional railway, I was able to get back to the *Eurodam* by riding the #1 bus from the intermodal terminal to the end of the line, followed by a 10-minute walk. I boarded well before the 18:00 departure. It was a good day.

Two trailers are sandwiched between ex-Lisbon car 20 and a matching motor. The "train" has just left the terminal at Port de Soller for the run back to the town and its railroad station.

Ex-Lisbon motor car 24 with two trailers and another motor on the final leg of the run to the Port de Soller terminal. Note the bicyclists racing to get between the train and the front of my camera.

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Around New York's Transit System

Mail 'n Ride Snafu

Mail 'n Ride subscribers of monthly commutation passes on the Long Island Rail Road and Metro-North Railroad who have a built-in 30-day *MetroCard* added to their passes received a rude awakening on December 1, 2014. Due to a technical issue, the *MetroCard* portion of the railroad passes was not properly programmed for the 30 days of unlimited subway and city bus rides. As a result, passes were honored free of charge system-wide on New York City Transit on December 1 and all pass holders were directed to purchase a 30-day *MetroCard* separately. The $119 fee for the 30-day *MetroCard* feature would be credited back to their monthly commutation accounts as well as any *MetroCard* they may have purchased for December 1. As reported on the television news, the honoring of the December commutation passes by station agents and bus drivers was spotty at best.

Cranberry Street Tunnel to be Closed for Sandy-Related Repairs

The Cranberry Street Tunnel, carrying A C under the East River, will be the next tunnel to be closed for Hurricane Sandy-related repairs. As there are no viable alternative routes for passengers using these two lines to travel between Lower Manhattan and Brooklyn, the tunnel closures will not be continuous and will be limited to 40 weekend periods in 2015. NYCT engineers have determined that the flood damage in this tunnel as well as the Rutgers Street Tunnel carrying F under the East River was not as extensive as was the case for the recently reopened Montague Street Tunnel, which had required a continuous closure for 13 months. Most of the work will involve the replacement of electrical, signal, communication and antenna cables and not structural work.

South Ferry Station Rebuilding Contract Awarded

MTA awarded a $194 million contract to Judlau Contracting, Incorporated to rebuild the "new" South Ferry station, which was rendered unusable following its total inundation by 80 feet and 15 million gallons of sea water during Hurricane Sandy. Following that flood, the old South Ferry station was reactivated. But, as was the case prior to its retirement from passenger service in 2009, it is not wheelchair-accessible and can only accommodate the first five cars of 1 trains stopping there on a sharp curve, requiring mechanically driven "gap fillers" to enable passengers to reach the platform. The rehabilitation of the "new" station will include built-in flood protection measures such as retractable flood doors at all station entrances as well as flood resistance measures at all other potential water entry points to the tunnel and station such as manholes, vents, hatches, conduits, and ducts. The work is expected to be complete in 2017.

Federal Funding Sought for Canarsie Line Projects

MTA is seeking $300 million in federal funding for projects designed to lead to an increase in capacity on the Canarsie Line, which has seen a 98% increase in ridership since 1998. Three additional power substations would permit the operation of two more trains per hour. The 10% increase in service would provide the ability to accommodate 2,200 more riders per hour. The remainder of the money would be used to improve access to the Bedford Avenue station with two new seven-foot-wide stairways from street level to the mezzanine as well as two seven-foot-wide stairways leading to the platform. New elevators would bring the station into compliance with Americans with Disabilities Act (ADA) requirements. Ridership at Bedford Avenue has increased 250% since 1998 and the neighborhood surrounding the station has been rezoned to allow the construction of 10,000 additional residential units. Most of the new residents of the area are "millennials," an up-and-coming generation of young professionals who are more likely to utilize public transit for all of their transport needs than any generation preceding them. The First Avenue station on this line would receive a new street and fare control access point at Avenue A, eliminating the current 500-foot walk from First Avenue.

Manhole Fire Disrupts Service

A fire in a manhole south of the W. 4th Street station on Thursday evening, December 11, 2014, damaged signal power cables, crippling much of the subway services over the former IND lines. Press reports regarding the affected lines were scattered and confusing but it appears that trains on A B C D E F M were significantly delayed with some trains stuck between stations for extended periods as they awaited signal clearance or permission from the Rail Control Center or local signal personnel responding to the scene to proceed. Service was restored by 6:50 PM but with major delays and reroutes for the duration of the evening. Normal service was restored for the Friday morning rush hour.

The Vanishing Daylight, Now Gone

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capture the ever-changing railroad scene. A ceremony to mark the installation of the final (concrete) platform took place on November 18, 2014.

According to the Brookfield Properties website, http://www.manhattanwestnyc.com/, there will be "200,000 square feet of retail featuring a mix of hip, NY-authentic fashion, cafés and restaurants." There is also to be a mixed-use component with two large office towers and a pair of smaller residential towers. A 1.5-acre public park will also be built.