

The Bulletin



Electric Railroaders' Association, Incorporated

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The Bulletin

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UNIFICATION ACCOMPLISHED 75 YEARS AGO (Continued from June, 2015 issue)

Unification was a big event. We were unable to publish all the ceremonies, schedule changes, and last trains in the previous issue. We are furnishing additional information in this issue.

The Board of Transportation started operating BMT on June 1, 1940, but did not start operating IRT lines until June 12, when the sale was consummated at City Hall. The city saved \$7 million from the estimated price of \$326,248,187 by buying securities at less than those offered in unification plans and inviting security holders to sell direct to the city rather than deposit them with bondholders' committees.

To accommodate the displaced Ninth Avenue "L" riders, paper transfers were issued at 161st Street to passengers transferring between Jerome Avenue 4 trains and Concourse CC locals. Paper transfers were also issued at 155th Street for a free transfer between the shuttle and CC locals. On June 12, the first day the shuttle operated, extra cars were added to the CC locals, but the platform was overcrowded and many passengers were unable to board the trains. Gates replaced composites on rush hour Freeman Street expresses, which were rerouted from Second Avenue to Third Avenue. There were several major schedule changes because of abandoned lines.

Description of service on the back of the 1939 BMT map is as follows:

CULVER LINE—SUBWAY SERVICE: Operates daily, except Sunday and holidays, and is scheduled to leave Chambers Street from 7:03 AM to 7:40 PM. During rush hours, except Saturday PM, trains operate between Kings Highway and Chambers Street via Manhattan Bridge to Chambers Street, re-

turning to Brooklyn via Nassau Street and Montague Street Tunnel, using express tracks in the Fourth Avenue Subway, making no station stops at DeKalb Avenue or Myrtle Avenue. During non-rush hours and on Saturday PM, trains operate between Coney Island and Chambers Street (except during July and August, when trains operate between Kings Highway and Chambers Street) via Montague Street Tunnel and Nassau Street, returning over the same route and making all station stops. Normal operation of "L" service is between Coney Island and Sands Street. "L" service terminates at Ninth Avenue during midday on weekdays, except during July and August, when trains run to Coney Island. Trains operate express along Fifth Avenue, stopping only at 36th Street, 9th Street, and Atlantic Avenue during rush hours except Saturday PM.

FULTON STREET LINE express trains starting from Lefferts Avenue and Grant Avenue in AM rush hours make no stops between Atlantic Avenue and Franklin Avenue. Local trains starting from Lefferts Avenue or Grant Avenue make all stops to Sands Street or Fulton Ferry. In PM rush hours some express trains from Park Row for Lefferts Avenue make no stops from Franklin Avenue to Atlantic Avenue and others make no stops from Sands Street to Franklin Avenue. Local trains leaving Park Row make all stops to Grant Avenue or Lefferts Avenue. Trains leaving Fulton Ferry operate as locals. Additional express service in PM rush hours is operated from Sands Street, trains in this service making no stops from Franklin Avenue to Atlantic Avenue. During rush hours, except Saturday PM, additional service is

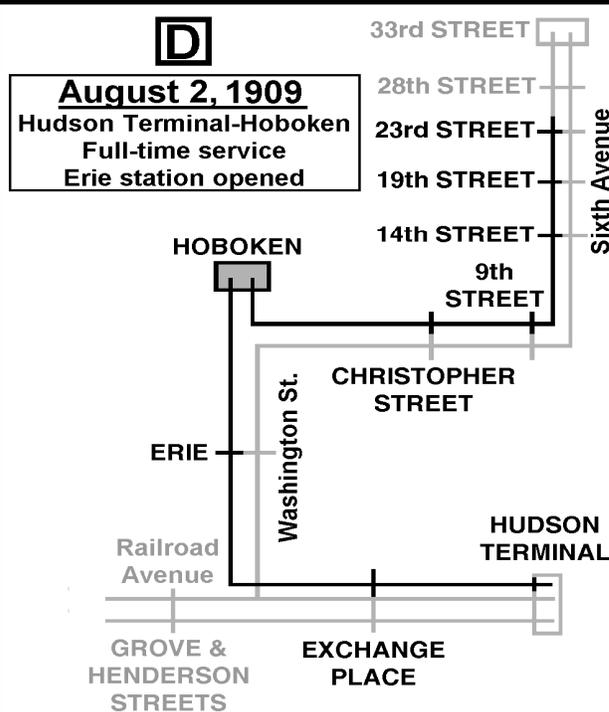
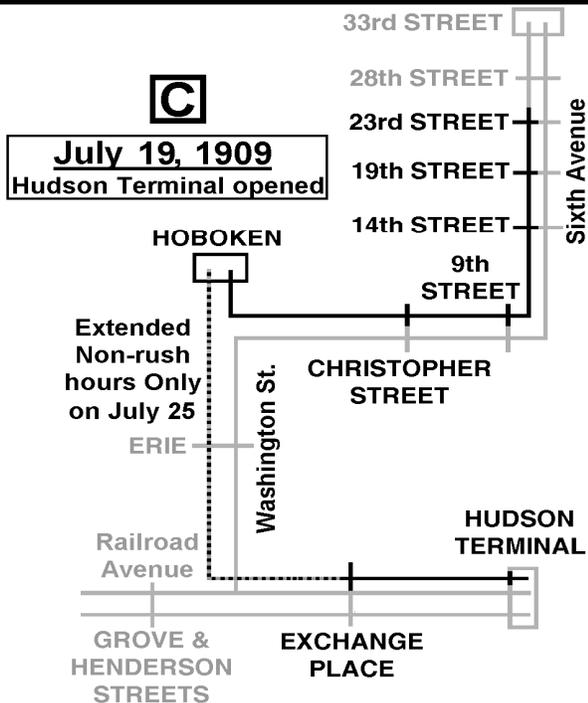
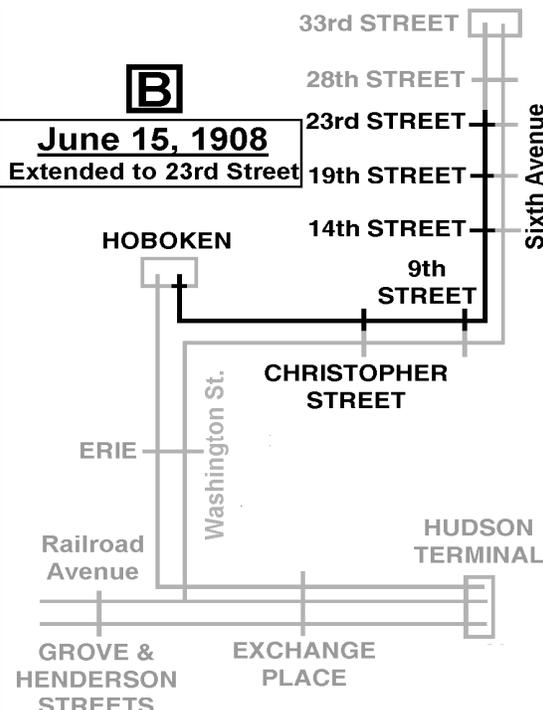
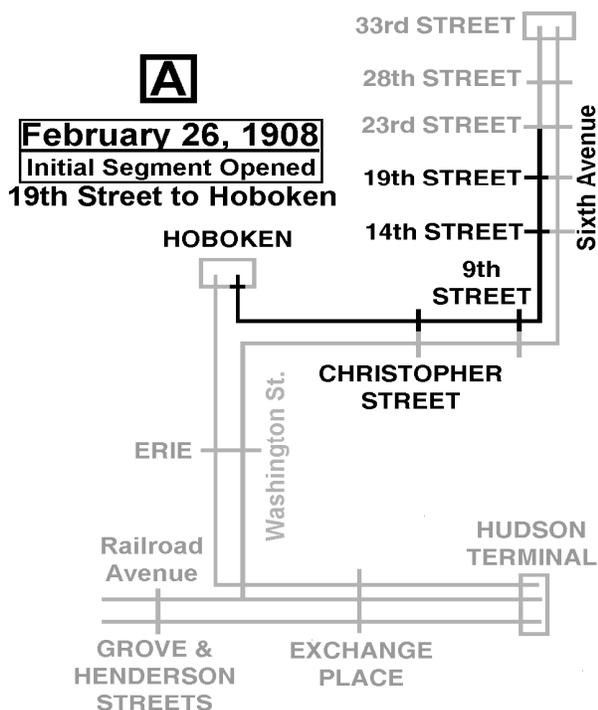
(Continued on page 4)

NEXT TRIP: CONNECTICUT DAY TRIP, SUNDAY, AUGUST 30

RAILS UNDER THE RIVER REVISITED — THE HUDSON & MANHATTAN

by George Chiasson
(Continued from June, 2015 issue)

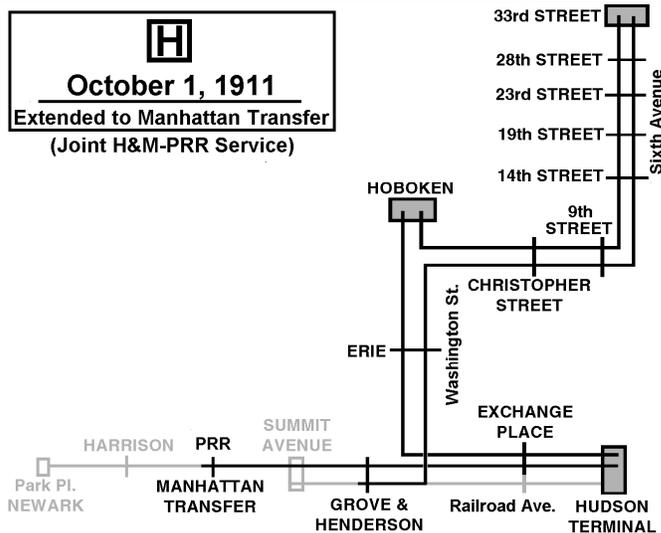
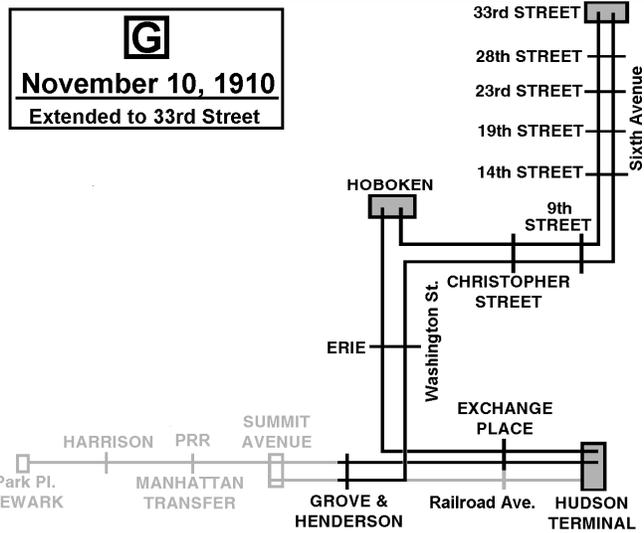
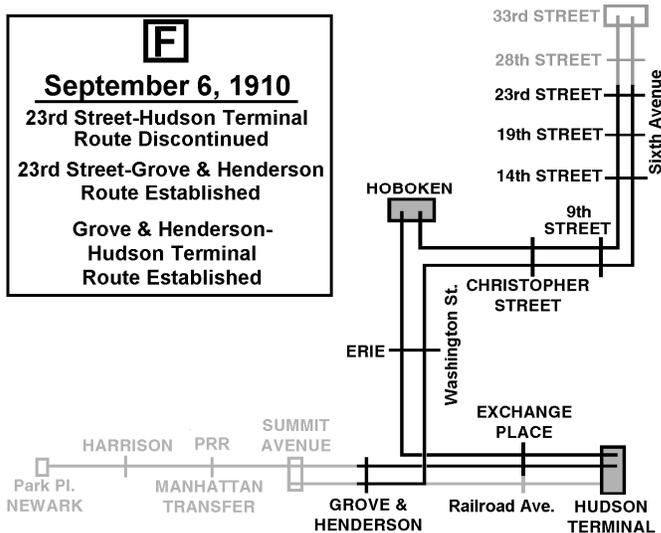
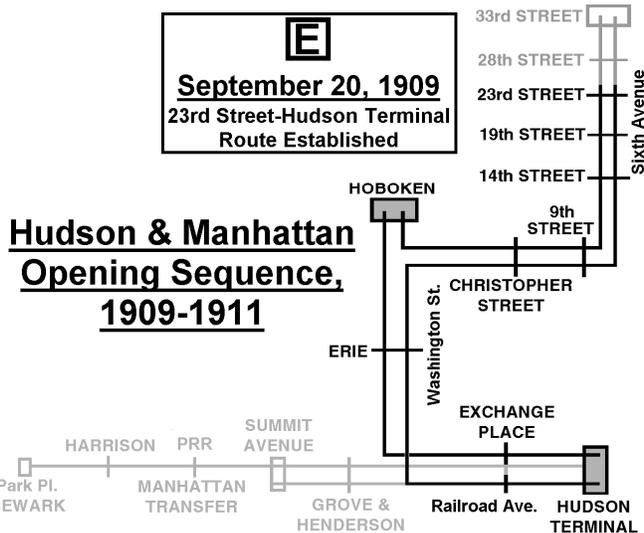
Hudson & Manhattan Opening Sequence



(Continued on page 3)

Rails Under the River Revisited

(Continued from page 2)



(Continued on page 6)

**EXPRESSION OF APPRECIATION:
STEPHEN L. MEYERS, 1925-2015**

Steve Meyers, an occasional contributor to the Bulletin, passed away on April 8. We were asked to publish the following message.

The family of Stephen L. Meyers gratefully wishes to thank railfan friends for their kind expressions of sympathy at his passing on April 8.

We know Stephen especially would have appreciated the many tributes from trolley fans acknowledging his

contributions to his beloved hobby through the books he wrote and his enthusiastic support of electric railfan and traction modeling organizations.

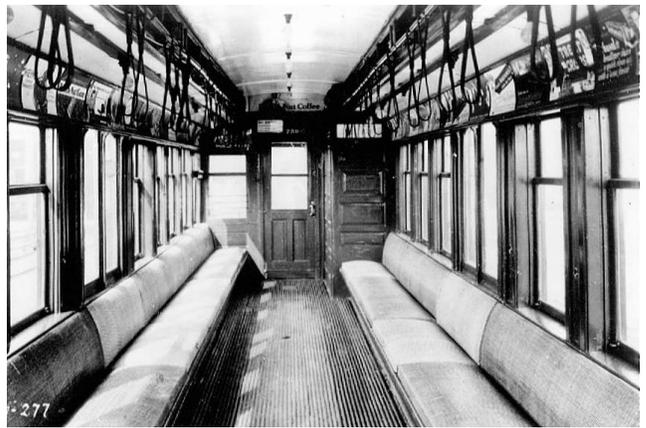
Due to illness, Stephen's wife Sandy is unable at this time to individually thank all those who attended his service or sent flowers, cards, and memorial gifts. This outpouring of support offers the comfort of knowing that Stephen will be missed by many.

Unification Accomplished 75 Years Ago

(Continued from page 1)



BMT car 754 at 20th Avenue, West End Line, November 11, 1948.
Bernard Linder photograph



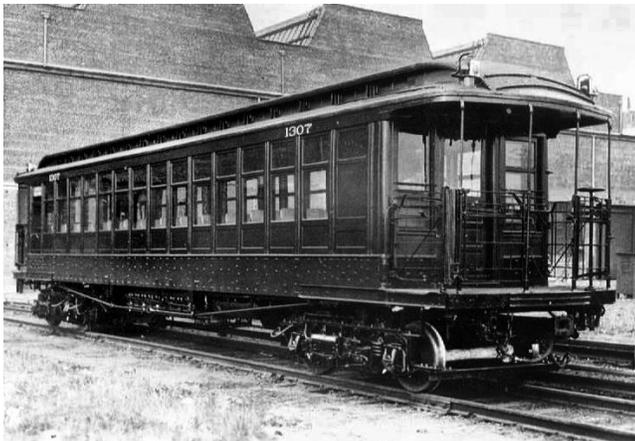
Interior of BMT car 759.
Bernard Linder collection



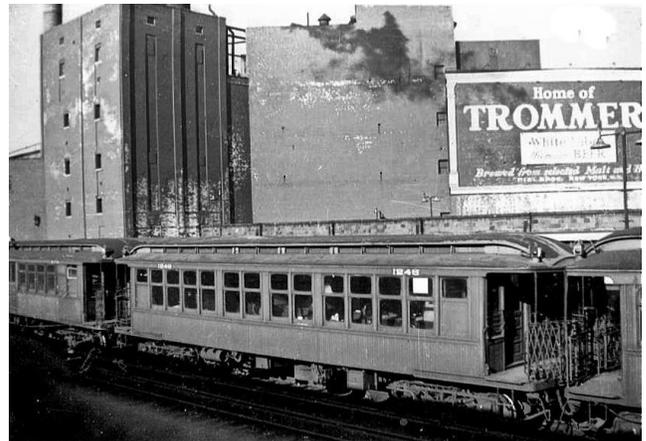
Interior of BMT 1000-series car.
Bernard Linder collection



BMT convertible 1063 in Coney Island Yard.
Bernard Linder collection



BMT convertible 1307 in Coney Island Yard.
Bernard Linder collection

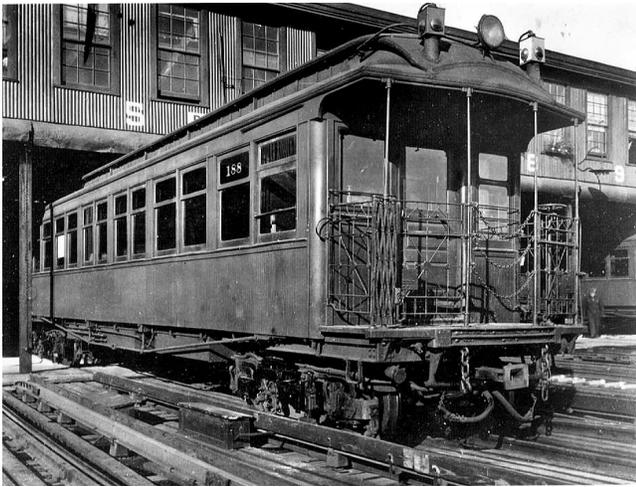


BMT East New York Yard, January 11, 1952.
Bernard Linder photograph

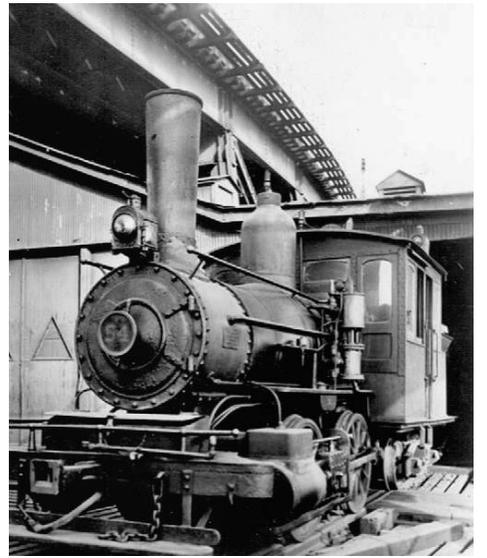
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Unification Accomplished 75 Years Ago

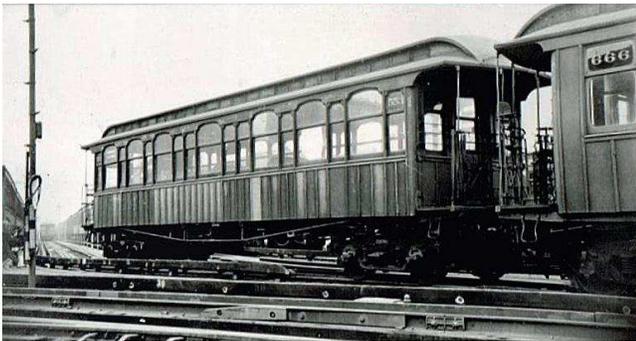
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IRT "L" car 188.
Bernard Linder collection



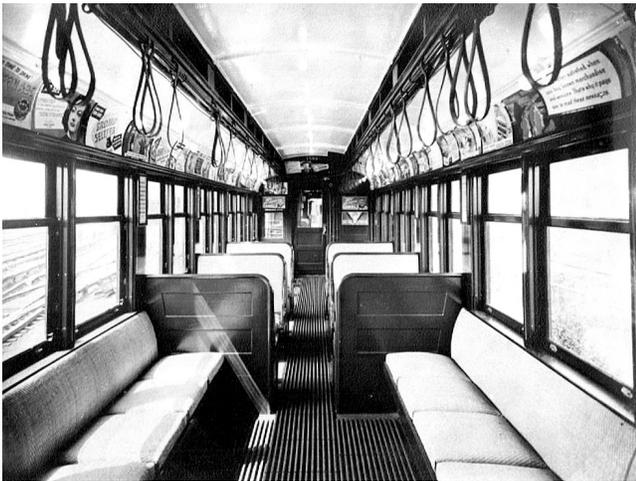
IRT "L" engine in 133rd Street Yard.
Bernard Linder collection



IRT "L" car in 159th Street Yard.
Bernard Linder collection



IRT gate car.
Bernard Linder collection



Interior of IRT "L" car 1584.
Bernard Linder collection



IRT Third Avenue "L," north of Tremont Avenue.
Bernard Linder collection

(Continued on page 6)

Unification Accomplished 75 Years Ago

(Continued from page 5)

operated between Lefferts Avenue and Atlantic Avenue. FIFTH AVENUE LINE trains operate from 65th Street to 36th Street in non-rush hours and to Sands Street in rush hours.

Fulton Street service to Downtown Brooklyn and Park Row, which was discontinued at Unification, was replaced by Fulton-Lexington service operating via Fulton Street, Broadway, Lexington Avenue, and Myrtle Avenue. Weekday trains from Park Row operated to Lefferts Avenue in rush hours and Grant Avenue during midday. Saturday trains from Park Row ran to Lefferts

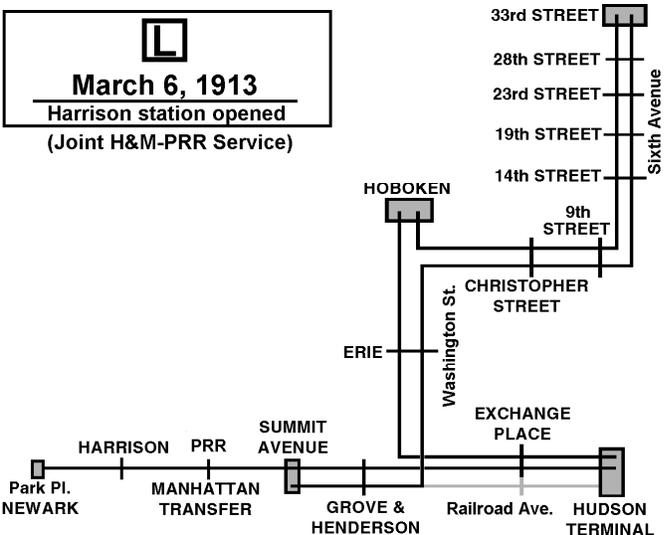
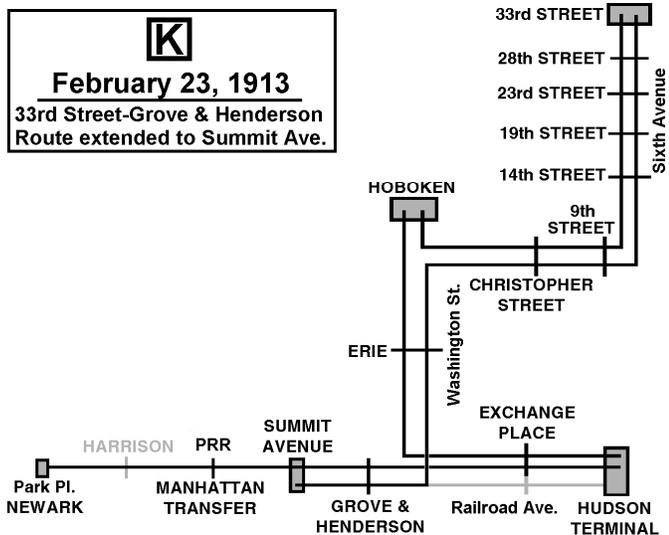
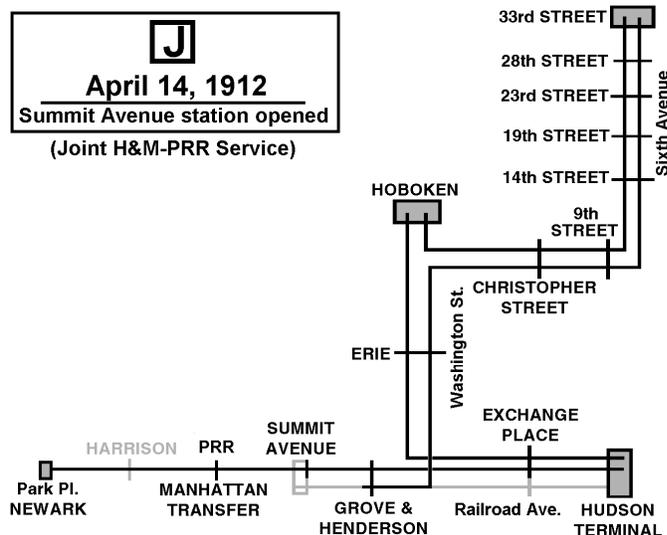
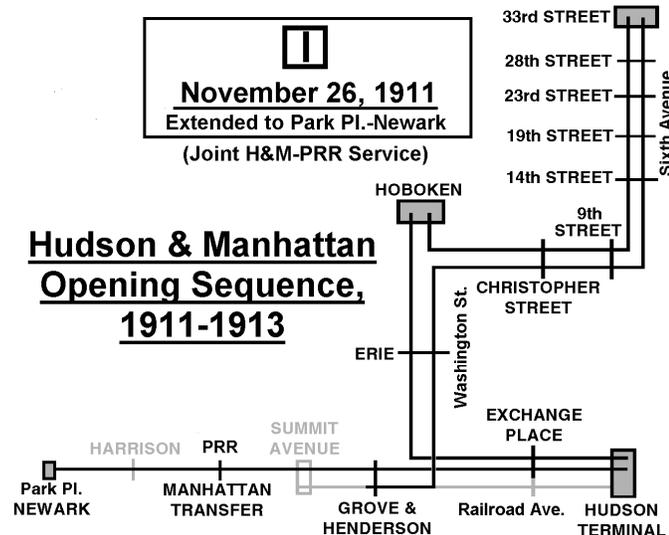
Avenue in the AM rush and Grant Avenue during the morning and afternoon. There was no evening, mid-night, or Sunday service.

In 1945, Culver subway trains operated from Nassau Street at all times via tunnel to Coney Island in non-rush hours and Kings Highway in rush hours, except Saturday PM, via the same route as previously. Culver "L" trains operated between Coney Island and Ninth Avenue during AM rush hours on weekdays and Saturday and weekday PM rush hours.

After Unification, 1000-series BMT gate trains were taken out of service. Gate trains continued running to Dyre Avenue and gate trains appeared occasionally after June, 1942 on Third Avenue in rush hours.

Rails Under the River Revisited

(Continued from page 3)



(Continued next issue)

SUBDIVISION "A" CAR ASSIGNMENTS
CARS REQUIRED JUNE 14, 2015

LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH
1	10 R-62, 310 R-62A	10 R-62, 290 R-62A	5	340 R-142	340 R-142
2	340 R-142	320 R-142	6	230 R-62A, 160 R-142A	230 R-62A, 170 R-142A
3	250 R-62	250 R-62	7	121 R-62A, 231 R-188	110 R-62A, 220 R-188
4	220 R-142, 130 R-142A	210 R-142, 120 R-142A	S (42 nd Street)	10 R-62A	10 R-62A

SUBDIVISION "B" CAR ASSIGNMENTS
CARS REQUIRED JUNE 14, 2015

LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH
A	304 R-46	10 R-32, 304 R-46, 8 R-68A	L	152 R-143, 40 R-160A	144 R-143, 24 R-160A
B	48 R-68, 152 R-68A	48 R-68, 136 R-68A	M	184 R-160A	160 R-160A
C	64 R-32, 80 R-160A	56 R-32, 80 R-160A	N	240 R-160B	220 R-160B
D	240 R-68	224 R-68	O	30 R-160A, 200 R-160B	20 R-160A, 200 R-160B
E	260 R-160A	260 R-160A	R	232 R-46	232 R-46
F	32 R-46, 260 R-160A, 140 R-160B	24 R-46, 260 R-160A, 130 R-160B	S (Franklin Avenue)	4 R-68	4 R-68
G	52 R-68	48 R-68	S (Rockaway)	12 R-46	12 R-46
H/Z	96 R-32, 40 R-42, 24 R-160A	96 R-32, 32 R-42, 24 R-160A			

NEW YORK CITY TRANSIT AND THE NEW YORK TRANSIT MUSEUM CELEBRATE 100 YEARS OF BRT/BMT SUBWAY SERVICE

On June 20, 2015, the New York Transit Museum held a breakfast party in honor of the 100th anniversary of BRT/BMT subway service. D-Type cars operated in shuttle service between the museum and Hoyt-Schermerhorn.

Transit held a ceremony in the museum. This was followed, on the weekend of June 27-28, by NYC Transit operating the D-Types, the R-1 to R-9s, and the BMT/IND "SMEE" train in service on the Brighton Line's express tracks.

On June 22, 2015, the actual 100th anniversary, NYC



The D-Type train, with special "BMT Centennial" signs, sits in the Transit Museum on June 22, 2015.
Randy Glucksman photograph



NYC Transit President Carmen Bianco and NYC Transit Museum Director Gabrielle Schubert listen as historian Joseph Cunningham speaks during the ceremony on June 22, 2015. President Bianco and Director Schubert are both retiring this year.
Randy Glucksman photograph

FROM MY VANTAGE POINT: GET A GRIP by Michael Ditkoff

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

This month's article deals with the New York Transit Museum in Brooklyn, which is in the former Court Street subway station. (It was in operation from April, 1936 to June, 1946. Route HH connected the station with the Hoyt-Schermerhorn station.) The upper level has exhibits on building the subway, turnstiles, and buses. The lower level has vintage equipment on display. One special exhibit is the Nicholas Pantelides Memorial Signal Tower, named for a former museum trustee. The tower controlled a double crossover between Court Street and Hoyt-Schermerhorn where **A C G** trains stop. There are two operating platforms at Hoyt-Schermerhorn, though the station was built with four platforms. The outer platforms that connected the two stations are abandoned. Leaving the station towards Manhattan, **A C** trains make a right turn and continue to Jay Street-MetroTech to join the **F** train. The **G** train turns left and goes to Bergen Street where it meets the **F** train.

The switch and signal controls are more like the controls at the South Norwalk Tower Museum than the Rockaway Parkway control. Signals were "left" or "right"

depending on the direction the signal lever was turned. At South Norwalk Tower, an "Armstrong" lever was pulled. The museum's tower operates like South Norwalk Tower, but without the need for physical strength. The levers are numerically numbered without a "left" or "right" designation. But these levers operate differently. The operator "grips" the handle and pulls it out.

The city's subway system's W. 4th Street Supervisory Tower uses pistol grip controls. The tower is on the downtown platform where the first car of **B D F M** trains stops. Photos are on the NYRRE website at <http://www.nyrre.org/Gallery/index.php/Vantage-Point/2015-Articles/Get-a-Grip>.

NYRRE Website Photo Gallery Update: LIRR West Hempstead Branch photos are located at <http://www.nyrre.org/Gallery/index.php/Vantage-Point/2013-Articles/Montauk-Branch-01/West-Hempstead-Branch>. Metro North Harlem Line photos are located at <http://www.nyrre.org/Gallery/index.php/Member-s-Gallery/Electric/Metro-North/Harlem-Line>.

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. This article originally appeared in the May, 2015 NYRRE Bulletin.



Commuter and Transit Notes

No. 320

by Ronald Yee and Alexander Ivanoff

MTA METRO-NORTH RAILROAD

Bulletin editor Alexander Ivanoff took a trip to visit his brother in Vermont via the Vermonter (northbound on June 5, southbound on June 7) and found that the Metro-North M-8 singles (the 9500-series) were in use but in between pairs, and not in the middle of triplet sets like the M-4/M-6 series. Co-editor Ron Yee explained that 1) the shops are designed to handle pairs and not triplets (lifts, maintenance bays, etc.) — even the newest shop at New Haven will be set up for pairs, 2) one defective car does not result in having to take out all three cars from the triplet, and 3) Fleet flexibility: the ability to place the blind coach anywhere in the consist (as long as it is never at the lead or rear of the consist) rather than having to go find a triplet to make up an odd car consist. While practical, the setup is by no means ascetically appealing. (*Editor's note by Sasha Ivanoff: in this issue is a trip report.*)

MTA LONG ISLAND RAIL ROAD

LIRR unveiled its refurbished station at Belmont Park on June 4, just in time for American Pharoah to win the Triple Crown of Thoroughbred Racing at the Belmont Stakes on June 6. The refurbished station features two high-level platforms serving four tracks, alleviating a problem with the station being the only one on LIRR to feature low-level platforms (with steps to access the high-level doors on the M-3 and M-7 railcars).

According to LIRR, final ridership figures showed that 25,583 racing fans took the train to the track and, in a surprising turn of events, 28,947 used the railroad to return home. The unexpected increased post-race ridership indicated customers believed LIRR could get them home efficiently even after last year's well-publicized difficulties. Very similar to last year, one-third of all race fans on hand relied on LIRR for their return. (LIRR press release and Flickr page, June 9)

MTA says the East Side Access project, the nation's largest rail project, which will give LIRR customers a shorter commute to Grand Central, will open in 2022, though the federal government says at this point that is uncertain. The cost for the East Side Access project is expected to be \$10.8 billion.

AMTRAK

As Amtrak's Cities Sprinter ACS-64 electric locomotives take to the rails, another class of locomotives — the AEM-7 — is being retired. On June 12 AEM-7 915 arrived and joined the Railroad Museum of Pennsylvania's world-class collection of more than 100 historic American locomotives and railroad cars.

The museum has frequently been a home for retired Amtrak equipment and the newly acquired AEM-7, built in 1981, takes the place of Amtrak E-60 603 as the Museum's "youngest" locomotive.

54 of the AEM-7 locomotives, the design of which was inspired by the Rc-4 locomotive built by the General

Swedish Electric Company, were produced from 1978 to 1988. Amtrak contracted with General Motors Corporation's Electro-Motive Division (EMD) to design and manufacture the AEM-7, and the first units had car bodies built by Budd. Each had 7,000 horsepower and measured roughly 51.5 feet long and 12.5 feet high. Considered lightweight at 101 tons and built to achieve top speeds of 125 mph, the dual-cab AEM-7 became the mainstay of the Northeast Corridor.

Among railroad fans, the locomotive is affectionately known as a "Swedish meatball" or a "toaster," due to its country of origin and compact, boxy design. The first AEM-7s bore the Amtrak Phase III livery unveiled in 1979 — joined red, white and blue stripes of equal width — and became the face of a rebuilt and enhanced Northeast Corridor. Many railfans, while believing that the GG-1 is the grander of the locomotives, concur that the AEM-7 was a worthy successor for a new era. Today, as the locomotives are decommissioned, the AEM-7 fleet has logged in excess of 200 million miles in service. There is no word on whether or not the AEM-7 will remain operable, as the museum's two GG-1s are not operable due to the ban on PCBs in their transformers and the questionable soundness of the frames. (Railroad Museum of Pennsylvania press release, June 12; *Railway Age*, June 12)

OTHER TRANSIT SYSTEMS

PHILADELPHIA, PENNSYLVANIA

SEPTA plans to spend up to \$154 million for 18 new Regional Rail locomotives, the authority's biggest railroad acquisition in a decade.

The electric locomotives would replace eight aging engines operating on the Lansdale-Doylestown, Paoli-Thorndale, Trenton, and Wilmington-Newark lines, and add capacity to other regional lines.

The SEPTA Board was expected to approve the purchase at a June meeting, with the locomotives to be delivered in 2018.

SEPTA is buying 13 "Cities Sprinter" ACS-64 locomotives to be built by Siemens Industry Incorporated, the German conglomerate, at its factory in Sacramento, California. The price includes an option for five additional locomotives.

The ACS-64 is the same locomotive Amtrak is buying for use on the Northeast Corridor (see above). One of the first new Amtrak locomotives, which was put into service in early 2014, was involved in the deadly derailment on May 12 at Frankford Junction in Port Richmond. The train wreck killed eight people and injured 200 passengers.

The new SEPTA locomotives are part of the transit authority's increased spending on new vehicles and major construction enabled by a boost in state transportation funding in 2013.

(Continued on page 10)

Commuter and Transit Notes*(Continued from page 9)*

SEPTA plans to spend \$535 million in the fiscal year that starts July 1 to buy new vehicles, replace and repair rail bridges, upgrade train stations, and begin overhauling its Center City subway concourse.

In addition to the new locomotives, SEPTA will buy 525 hybrid buses over five years. And it will soon begin the process of procuring 45 bi-level railcars to increase capacity on the Regional Rail lines.

The new locomotives are an adaptation of Siemens' Eurosprinter locomotive, adapted to fit the needs of the North American passenger rail market for speeds up to 125 miles per hour.

The locomotives are the biggest rail purchase by SEPTA since the authority bought 120 new Silverliner V railcars for \$274 million in 2006. They were delivered from 2010-3. (philly.com, May 29)

DETROIT, MICHIGAN

Detroit-based M-1 Rail and Brookville Equipment Corporation agreed to terms on June 5 for the supply of six off-wire-capable Liberty Modern Streetcars for the 3.3-mile Woodward Avenue line, set for delivery to begin in the fourth quarter of 2016, with a contract valued at \$32 million.

The M-1 Rail Liberty Modern Streetcars will travel without the aid of an overhead catenary system (OCS) for 60 percent of the 3.3 mile corridor. While operating off-wire, the streetcars will instead draw power from the vehicles' onboard energy storage systems (OESS), which utilize 750-volt rechargeable lithium-ion batteries. In addition, the M-1 Rail streetcars will access the vehicle maintenance facility without the use of OCS via one-tenth of a mile of additional track.

The M-1 Rail Liberty Modern Streetcars will measure 66.5 feet long and include over 70 percent low-floor area, with seating for up to 32 passengers and an average of up to 125 total passengers. Running on standard 56.5-inch track gauge, the vehicles will utilize Brookville's industry-proven soft-ride trucks and be powered by four 99-kilowatt a.c. traction motors while traveling at speeds of up to 35 mph. The streetcars will be ADA-compliant.

The streetcars will operate in a 6.6-mile loop on Woodward Avenue to connect the business, shopping, entertainment, and dining centers from Campus Martius Park downtown through Midtown to Grand Boulevard in the City's New Center and North End neighborhoods. A total of 12 stops in each direction will provide easy passenger access to the Detroit Amtrak station, Wayne State University, Comerica Park, Ford Field, and several theaters, among other attractions, while also integrating with the Downtown People Mover and bus system.

M-1 Rail is a public-private venture that marks the first major transit project led and funded through collaboration between private businesses and philanthropic organizations working in partnership from the public sector, including local government, the State of Michigan, and the United States Department of Transportation

(USDOT). In 2014, the project received a \$12.2 million Transportation Investment Generating Economic Recovery (TIGER) Grant from USDOT. (Brookville Equipment Corporation press release, June 5)

HOUSTON, TEXAS

The Metropolitan Transit Authority of Harris County (METRO) opened two new light rail lines, the Green (East End) and Purple (Southeast) Lines, May 23 with events including community pep rallies, a free concert, and fireworks. Later this year a revamped bus network will be introduced as well.

Agency officials and staff, residents, community stakeholders, and city and national elected leaders took part in pep rallies in the East End, Southeast Houston, and the Theater District. Guests then boarded light-rail trains to travel to a huge rally that connected all communities at BBVA Compass Stadium, featuring fireworks and a concert headlined by Ne-Yo and Frankie J. METRORail rides were free throughout the day.

Two days after the lines opened, severe flooding and tornadoes throughout the Houston area and elsewhere caused several fatalities, resulted in significant property damage, and forced METRO to shut down all operations. METRORail resumed service by mid-morning May 26, with major bus routes returning to limited operation that afternoon. Normal service throughout the agency resumed May 27.

Margaret O'Brien Molina, Senior Media Specialist with METRO, said the agency's experience with flooding and other severe weather during Tropical Storm Allison in 2001 enabled agency officials to respond quickly to the emergency. She also noted the importance of Houston TranStar, the regional transportation and emergency management center, in which METRO partners with the city, Harris County, and Texas DOT. (*Passenger Transport Magazine*, May 29)

The Fort Worth Transportation Authority (The T) on June 9, 2015 signed a \$106.7 million contract with Stadler Bussnang AG (Stadler) for eight four-car articulated GTW DMUs for the TEX Rail commuter line in a ceremony at The T's Intermodal Transportation Center.

The contract includes component supply for 10 years plus an option for up to 24 additional DMUs. Final assembly will take place in Texas, with a site at nearby Lewisville under consideration. The 27-mile, 10-station line from Fort Worth's city center to Grapevine and Dallas-Fort Worth International Airport Terminal B is due to open in late 2018 and is initially forecast to carry around 10,000 passengers per day, increasing to 14,500 by 2035. On June 2 the Federal Transit Administration gave Fort Worth Transportation Authority the go-ahead to take the \$1 billion project to the engineering phase, which included authorization to order rolling stock. Spokeswoman Joan Hunter said The T began the procurement process for DMU vehicles in 2014 due to the three-year lead time for developing specifications, production, delivery, and operations training for staff. (*Railway Age*, June 10)

(Continued on page 11)

Commuter and Transit Notes*(Continued from page 10)***SANTA FE, NEW MEXICO**

There has been some movement in the process to open the Zia Rail Runner station in Santa Fe. The Santa Fe Metropolitan Planning Commission completed a study earlier this year, which found that traffic would continue to operate at acceptable levels with the station in operation.

In May, 2015, Santa Fe City Manager Brian Snyder said the city is interested in moving forward with the station opening and it has found a developer who will post a \$150,000 bond to cover the design and construction of a mixed-use development next to the station. Planned construction includes parking, a passenger drop-off area, and improvements to be sure the station is compliant with the Americans with Disabilities Act.

Rio Metro officials stated that during the last schedule change, time was added for the Zia station into the train schedule.

A timeline for construction or completion of the work has not yet been set. (Rio Metro via Randy Glucksman, June 2)

SEATTLE, WASHINGTON

Testing of Seattle's new streetcar project is underway. The multi-million dollar project is more than year behind schedule. The sound of one of the new streetcars chugging was heard along at low speed on the new two-and-a-half mile route recently.

It is a project called the First Hill Streetcar, but, despite its name, it will actually connect parts of several neighborhoods, including First Hill, the International District, Pioneer Square, the Central Area, and Capitol Hill.

The streetcar project will help riders connect to Sound Transit's light rail system. The northern end of the route is close to the planned light rail stop in Capitol Hill.

Years ago Sound Transit once considered putting a light rail stop in First Hill, but that plan was shelved. In 2008, voters approved a ballot measure to expand transit service and that paved the way for the new streetcar project.

The First Hill Streetcar was originally expected to be operating almost a year and a half ago. But the project has had delays, partly because the company building the streetcars was not able to deliver the vehicles to the city on time.

Seattle officials have not given a specific opening date for the route. (KUOW-FM, May 26)

TORONTO, ONTARIO, CANADA

The UP Express service between Toronto's Union Station and Pearson International Airport was launched on June 6, in time for Toronto to host the 2015 Pan Am Games this summer.

Trains run every 15 minutes, calling at Bloor and Weston, with a 25-minute end-to-end journey time. Premium fares are charged. The service is expected to remove 1.2 million car trips from the roads in its first year, and ridership is forecast to reach 2.35 million passengers per year by 2018.

UP Express trains use a dedicated platform on the west side of Union Station, built by EllisDon Corporation under a C\$23.8 million contract. They then run over a 22-kilometer upgraded section of GO Transit's Kitchener Line, before running on a 3-kilometer spur into the airport's Terminal 1, which was built by the AirLINX Transit Partners consortium at a cost of C\$128.6 million. The tallest pier on the spur viaduct is 25 meters high, which regional transport agency Metrolinx says is "approximately half the height of Niagara Falls."

Sumitomo supplied 18 diesel multiple-unit cars under a US\$75 million contract. These comply with EPA Tier 4 emissions standards, and are designed for conversion into EMUs if electrification goes ahead. Nomad Digital supplied station and on-train wi-fi, which is sponsored by bank CIBC. (*Railway Gazette*, June 8)

Ontario's Minister of Transportation, Steven Del Duca visited GO Transit's Willowbrook Depot on June 2 to unveil the first of 67 double-deck driving cars ordered by regional transport authority Metrolinx to increase capacity on Toronto commuter services. Metrolinx has ordered a total of 127 coaches to an updated version of Bombardier's BiLevel design since June, 2012. They are being built at the manufacturer's Thunder Bay plant.

The driving cars incorporate crash energy management crumple zones as well as a revised cab intended to provide better visibility, improved ergonomics, and enhanced train monitoring capabilities, much like the Guardian Fleet operated by Metrolink in Los Angeles.

Metrolinx says the seats have more leg room and space underneath for bags, with improved cushioning on seats and head rests and moveable arm rests. The toilets have electric hand dryers and touchless water and soap dispensers. There floors have more sound proofing, and are heated to maintain warmer temperatures in winter. The doors are designed for easier access with pushchairs and bicycles, with no center pole. (*Railway Gazette*, June 6)

LONDON, ENGLAND

Transport for London announced on June 19 that it had selected Bombardier Transportation to supply 45 four-car electric multiple units to operate London Overground services. The order includes an option for up to 249 additional cars, to be used for train lengthening and possible future extensions of the Overground network. The £260 million contract is subject to the statutory 10-day standstill period before signing. CAF, Hitachi, and Siemens had also been shortlisted for the contract.

The high-density air-conditioned trains with wide gangways are to be built at Bombardier's Derby factory for entry into service starting in 2018; 31 will run only on 25,000-volt overhead electrification and the rest will be dual-voltage to enable them to run on third-rail power supply too.

Eight trainsets would be used to operate the Gospel Oak-Barking route, currently operated with two-car diesel multiple-units. Electrification of this route is due to be completed in 2017. A further 30 would replace the fleet of Class 315 and Class 317 EMUs on the West

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Commuter and Transit Notes*(Continued from page 11)*

Anglia routes from Liverpool Street, which were transferred to the Overground operating concession on May 31, and one would be used on the Romford-Upminster Line. Six EMUs are to be put into service on the remaining Overground routes.

TfL is to spend £2 million on refurbishment of the existing West Anglia fleet, which is 30 years old, until the new trains arrive. (*Railway Gazette*, June 19)

SAMARA, RUSSIA

Stadler's Metelica tram has started six months of testing in Samara. The city is planning to buy 30 trams ahead of the 2018 FIFA World Cup, in which it will be a host city. Testing of the Metelica tram in Moscow ended in June. The tram has covered 10,000 kilometers since February, including test running with passengers. The prototype 100% low-floor 1,524-millimeter gauge tram built by Stadler Minsk was unveiled last year. (*Railway Gazette*, June 22)

KIEV, UKRAINE

Kiev Mayor Vitali Klitschko has signed a memorandum with Pesa for the supply of trams to the Ukrainian capital and the possible opening of a factory in the city.

The memorandum was signed with Pesa President Tomasz Zaboklicki when Klitschko visited Pesa's factory at Bydgoszcz in Poland on June 17. Klitschko also rode on a 1,524 mm gauge Twist tram at the factory.

Kiev is planning to purchase 50 Twist trams to replace the oldest cars in its fleet of around 450. The order would be worth around €70 million, with the financing model to be decided in the next few months. The memorandum also details the construction of a Pesa factory in Kiev. (*Railway Gazette*, June 22)

SYDNEY, AUSTRALIA

The glossy images of the Sydney central business district (CBD) light rail look good and the \$4 billion long-term economic benefits sound great.

But the government's plan to drive a train line through the central business district's beating heart is set to deal sections of George Street up to 318 days of closures in a major blow to a city center worth \$101 billion a year to the national economy — 6.7 per cent of Australia's gross domestic product.

Very similar to the construction of the Second Avenue Subway in New York City, CBD businesses face huge losses as construction of the light rail drags on outside their shop fronts for the next three years while commuters are expected to suffer gridlock conditions as buses take alternative routes through the city, forcing them on to already heavily congested roads.

Cars — already struggling to use city roads after years of cycle path building and the loss of parking spaces — will be barred from one kilometer of George Street and likely face major delays at light rail intersections across the city.

Former Transport Minister Gladys Berejiklian signed the government up to the CBD and South East Light Rail project last year, locking in a \$2.1 billion contract

with the Altrac consortium in December — despite serious concerns about the impact.

Following months of uncertainty Transport Minister Andrew Constance on May 28 confirmed construction of the George Street light rail will begin on October 23 between Market and King streets — and move progressively along the route in 31 stages until mid-2018. The project will enter a nightmare 10-month phase as 17 construction stages are carried out simultaneously between August, 2016 and May, 2017. Sections of George Street are facing up to 318 days of closures.

The George Street Line is part of the broader \$2.1 billion, 12-kilometer CBD and South East Light Rail project, with tracks running from Circular Quay to Central, then on to Moore Park and Randwick.

The initial cost of the project, which is being jointly funded by the City of Sydney, was estimated at \$1.6 billion, but a cost blowout was revealed last year.

The government said the light rail will provide a \$4 billion economic boost and is needed because an extra 1.6 million people will live and work in Sydney by 2035 and the CBD's existing transport system will not cope.

Alternative bus timetables will be in place as of October 4 — though the state government was able to offer little detail.

Businesses said they had received little detail about how deliveries will continue during the construction phase. The government has not ruled out compensation, and is being urged to pay hundreds of millions of dollars in compensation to axe its George Street light rail system, which has been described by Opposition Leader Luke Foley as Sydney's "Berlin Wall" that will divide the CBD into east and west.

Buses will be unable to run along George Street once construction begins, potentially piling huge pressure on to other major arteries across the city, including Elizabeth, Castlereagh, Park, Druiett, and York Streets.

Cars will be able to drive on certain parts of George Street once the light rail is completed, but a 1-kilometer stretch of George Street between Wynyard and Town Hall will be pedestrianized.

The government has also not ruled out reducing or removing tolls from roads around inner Sydney to mitigate the massive upheaval in the CBD.

It comes as former state government architect Chris Johnson became the latest expert to cast doubt on the wisdom and economics of building train tracks through the heart of the city.

The Urban Taskforce boss said having "masses" of commuters changing transport modes at Central Station and then travelling down George Street to their final destination would be a "real confusion".

Mr. Foley urged the government to tear up that deal and scrap the line from Central to Circular Quay but keep the track out to the eastern suburbs.

That would trigger compensation payments worth "hundreds of millions of dollars", according to government sources — and potentially damage New South Wales' reputation with investors. (*Daily Telegraph* (Sydney, New South Wales), May 29)

TRACTION TOUR TO SOUTHERN EUROPE

by Jack May

(Photographs by the author)

(Continued from June, 2015 issue)

I rode the 14:47 train from Padova to Brescia, which left 10 minutes late, but made up the time and arrived at 16:07. Only a month before my visit, a brand new automated Metro opened in this city of 450,000. The mostly underground 8-mile long steel-wheeled line has 17 stations, with 4 on the eastern end out in the open (see <http://www.urbanrail.net/eu/it/bre/brescia.htm>). But all the stops have enclosed platforms with elevator-like platform doors that open only when a train stops, making it difficult to photograph the trains from those locations. Not to worry, though: since the rail line is totally automated, the ends of the cars have huge windows, allowing the opportunity to clearly photograph passing trains from within the vehicle.

The attractive three-car driverless trains were built by Ansaldo Breda. I am told the six on the roster are much like those running on the similar Copenhagen Metro.

The weather remained dark and threatening. I did not see a left luggage office, so I carried (rolled) my suitcase with me while I rode and photographed the line, starting at the Stazione F. S. stop, just a few feet from the outside of the railroad terminal. It was easy to buy a smart card from a machine, which was valid for 75 minutes after entering through a turnstile. A series of escalators then brought me from the surface to the

deep platforms. Ridership was light on the eastern end, but better on the all-underground northern portion. I rode back and forth within the open section several times to get my photos out the front window while passing other trains. Service was quite frequent.

My work was complete by 17:45, so I rode the 18:00 train to Bergamo, which arrived in that city two minutes early at 18:53. I had reserved a room in a nearby budget B&B for the night, which turned out to be on the fifth floor of a quiet office building. I was greeted by the owner and her entourage, who showed me my room and then explained how I would have to make my own breakfast the following morning and where to leave the key when I depart. The kitchen and its refrigerator were well stocked with fruit, juice, pastries, bread, butter, and jam, with a toaster and a kettle for tea and coffee. I paid her for the room and while I was settling in, another guest arrived, and he and I decided to have dinner together. It turned out he was from Belarus and his English was quite good. He was a rather young person, probably in his upper 20s, and was Sales Manager for a firm of electric equipment manufacturers in Minsk. I explained what I was doing and he shrugged his shoulders (implying "crazy American"). We had a nice meal and it soon was time to retire.



The street entrance to the Metro in the forecourt of the railroad station.



The interior of the Stazione F.S. Metro stop is quite impressive and modern.

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Around New York's Transit System

7 Extension May Open Later This Summer

NYC Transit has started training Tower Operators, Train Dispatchers, and Train Operators, who will route and operate trains on the 7 extension to and from the newly constructed 34th Street-Hudson Yards station. Tower Operators and Dispatchers attended two-day training courses between May 26 and June 4. During morning and afternoon shifts, starting May 28 and continuing for several weeks, Train Operators received training. By the end of June, 12 Tower Operators, 8 Dispatchers, and 672 Train Operators were to have been trained on this extension, which will bring rapid transit to the far West Side for the first time. The additional tail tracks south of the station will improve 7 service.

Work on this extension is progressing well. Integrated testing of communication systems and the mobile radio system has been completed and the fire alarm system is progressing according to schedule.

Work is approximately 45% complete on a secondary entrance on Eleventh Avenue between W. 34th and W. 35th Streets. This entrance is not required to begin revenue service on the extension, but will serve thousands of passengers when the Hudson Yards area is developed completely.

MTA expects to announce an opening date for the extension in the next several weeks.

Second Avenue Subway Update

MTA officials are still sticking with their 2016 date for

the opening of Phase I of the Second Avenue Subway, a line nearly a century in the making. However, the federal government is saying MTA's projections are too optimistic.

At a hearing at MTA offices on June 8, representatives from the federal government predicted the new line would not open until February, 2018, though MTA continues to say it will open by the end of 2016. The cost for the new line will total \$5.5 billion.

Cranberry Street Tunnel to Close for Rehabilitation

As the *Bulletin* was going to press, it was announced that major weekend closures of the tunnel bringing A C trains under the East River will begin July 11 and stretch over 16 months. The Cranberry Street Tunnel, flooded with corrosive saltwater during Hurricane Sandy in October, 2012, will close on 40 non-consecutive weekends. This year there will be 12 weekend closures through November 14, diverting the trains to the F tracks between the Jay Street-MetroTech and W. 4th Street stations. The damage from the hurricane has required MTA to close some tunnels for long stretches of time so crews could make extensive repairs. The Montague Street Tunnel (R) had to undergo a 24/7 closure for more than a year, reopening in September, 2014, while the G train tunnel underwent weekend repairs last year. MTA has been doing work on the Steinway Tunnel on 7 as well.

Traction Tour to Southern Europe

(Continued from page 13)



Two photos of the Ansaldo Breda cars on the third rail-equipped automated Metro. The outdoor stations are rather spartan and the line is fenced in.

(Continued next issue)