

The Bulletin



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STATEN ISLAND'S 157-YEAR-OLD RAILROAD (Continued from December, 2017 issue)

July 4, 1997 must have been a gala day on Staten Island. In addition to Independence Day, Staten Island riders rejoiced that the ferry was free and passengers could ride free on Staten Island Railway (SIR) trains between Tompkinsville and Tottenville. Fares were collected only from passengers entering or leaving St. George.

SIR fares are the same as NYCT subway and bus fares. Passengers who travel to Manhattan and use a *MetroCard* can make a free transfer from a Staten Island bus to a SIR train and a second free transfer to a NYCT train or bus near the ferry in Manhattan. The second transfer must be made less than two hours after the first *MetroCard* swipe. On their return trip, they were also allowed two free transfers. They could make only one transfer if they paid their fare with cash or a token, which was no longer available in Manhattan after May, 2003.

Until July 4, 1997, passengers on weekday trains arriving at St. George between 5:50 AM and 10:50 AM were required to pay their fare with a token, special fare ticket, or valid transfer when they would exit at St. George or any other station. Fares were also collected from passengers boarding at St. George, where *MetroCards* were accepted. At all other stations Conductors accepted tokens, special fare tickets, transfers, or cash as payment of the fare.

During the transition period, the R-44s provided reliable service. The mean distance between failures (MDBF) improved from 13,200 miles in 1984 to 21,400 in 1988 and trains were 95% on time for several years beginning in 1986. Ridership increased 40 percent between 1975 and 1984, but revenue miles increased only 20 percent. On October 22, 1986, midday service was reduced

from a 20- to a 30-minute headway, probably due to a reduction in ferry service. Weekday trains were reduced from 124 to 109 and weekend service was reduced from 93 to 78 trains. Ridership also declined from 6.47 million in 1986 to 6.23 million in 1988.

Fare collection also changed gradually. Ticket collection began at St. George in 1986 and tokens, which were accepted starting April 20, 1988, were used by 80 percent of the riders a month later until they were discontinued in May, 2003. When fares were no longer collected on the trains, they were collected at St. George, but not at Tompkinsville, which is only a half-mile from St. George. To reduce fare evasion, AM rush hour trains arriving and PM rush hour trains leaving St. George stopped at Tompkinsville and Stapleton every hour while all other rush hour trains bypassed the above stations. But the revenue loss was still an estimated \$3.4 million annually. To correct this situation, MTA built a \$6.9 million station house at Tompkinsville with low turnstiles, cameras, fare vending machines, and communications equipment. On January 20, 2010, the new station house opened and passengers were required to swipe their *MetroCards* entering and leaving the station. Fare collection at this station produced \$702 additional revenue, 15 percent of SIR revenue. Schedules were revised. Locals and most non-rush hour trains stopped at the above stations.

The new Arthur Kill station, which accommodates full-length trains, opened on January 21, 2017. It is located between Nassau and Atlantic, which closed at the same time. At these stations, trains opened doors in the last car only at all times.

Following is a summary of the current

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THE GENESIS OF DASHING DAN — ENTER THE NORTH SIDE DIVISION by George Chiasson (Continued from December, 2017 issue)

Its freshly-built service extension aside, Flushing's railroad was a mistrusted if not outright despised institution in the late 1860s, which resulted in some organizational foibles as competing parties sought ways to either pry the property loose from its (presumably) ambivalent owners or establish an alternative. The upshot of this interaction was formation of the Woodside & Flushing Railroad in 1864, which proposed the formation of a new railroad between Long Island City and Flushing via an entirely different route, all the while courting favor with Long Island Rail Road magnate Oliver Charlick. Backed by a different group of wealthy Flushingites than had been the Flushing Railroad, the Woodside & Flushing's proposal was to build an entirely new "road" in company with the Long Island Rail Road's Main Line opened through Woodside in 1861, there to diverge along a course roughly parallel to Jackson Avenue, cross the tidal basin of Flushing Bay as its predecessor did, and terminate in a different commercial center of Flushing along Bridge Street (now Northern Boulevard). Though its original proposal actually had two alignment alternatives to circumvent the Fashion Race Course, by the time of construction in 1866 the Woodside & Flushing's developers were granted rights across the facility's property, which some in the (West Flushing) community were anxious to erase for reasons owing to its "lascivious" nature. So went the railroad's construction crews as a result, and so was the disposition of the Fashion Race Course. While the general vicinity of West Flushing and (soon) Corona that it occupied would quickly evolve into one of Queens' densest residential neighborhoods, the concept of adapting the difficult-to-tame (and utilize) tidal "meadows" along the edge of Flushing Bay to general, urban recreation purposes would re-emerge seven decades later in the form of New York's first World's Fair, which eventually led to its employment for the Shea Stadium sports venue beginning in 1964. Shea's replacement in 2017 is Citi Field (the home of baseball's New York Mets), while the adjacent Arthur Ashe Stadium of the United States Tennis Association hosts the annual, very high-profile U.S. Open Championship.

Unfortunately, despite its multiplicity of good intentions, the Woodside & Flushing apparently came together too slowly to suit LIRR's Charlick, who instead submitted to overtures from the New York & Flushing (playing the role of spoiler) and he took possession of that entire company in July, 1867, simultaneously withdrawing his support of the newer venture. Furthermore, where the New York & Flushing had been anticipating an eventual ability to use the new Woodside & Flushing route into Hunter's Point, it had separately opened a dialogue with the South Side Railroad about convey-

ance of its original alignment along Newtown Creek, enabling that company to also reach the terminal area. This new, unexpected alliance threw all such plans into immediate and irrevocable disarray and it was several months before W&F was able to identify and adopt yet another alternative strategy. Such an opportunity came calling in the form of yet another local group of businessmen and potential investors who sought an altogether different purpose for the railroad: diversion to the populous Queens villages of College Point and Whitestone.

Embraced with great dispatch by the Woodside & Flushing in early 1868, this change of vision also provided an entry point for College Point rubber entrepreneur Conrad T. Poppenhusen, who would develop into one of LIRR's most important executives a decade later. At any rate, even as work on its original project entered stasis, the Woodside & Flushing was quickly reinvigorated under the name Flushing & North Side Railroad in April, 1868, and major alterations made to its existing franchises which set up the desired geographic corridor from Flushing to Whitestone (later realized) as well as Long Island City to Roslyn (never executed). Not only that, but when he became aware that the New York & Flushing wasn't exactly the "up and coming" operation he truly needed to dominate the Flushing railroad market, Oliver Charlick relinquished his ownership to the Flushing & North Side concern for a surprisingly nominal sum (\$500,000) on August 11. As it turned out later, Charlick preferred to establish his own, entirely independent, and ultimately unsuccessful railroad to Flushing (the so-called "White Line"), while F&NS suddenly found a ready-made corridor from Flushing Bay to Hunter's Point in its possession (that of the original Flushing Railroad through Maspeth) and quickly re-focused all new construction on the outward portions of its new line. This was not done at the total expense of its original endeavor, however, as work was simultaneously pressed forward on that portion of its new trackage alongside the Long Island Rail Road between Hunter's Point and Woodside, which was now to be extended to a union with the old Flushing Railroad at Winfield, while the laying of track on the already-graded increment between Woodside and Flushing Bay would be deferred.

All through the following year, construction of the Flushing & North Side's new trackage was pursued relentlessly and on August 14, 1869 regular passenger service, to the tune of two trains per day, was initiated from the Hunter's Point LIRR terminal to the College Point station. This used the existing 1854 alignment of the Flushing Railroad through Haberman and Maspeth,

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The Genesis of Dashing Dan

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which itself at that time retained just three stops at Calvary Cemetery, Penny Bridge and Winfield. After rattling across the Long Island Rail Road at Winfield Junction, the Flushing & North Side's new trains to College Point shared the existing stops at Newtown and West Flushing with those of the Flushing Line before taking a connecting switch at "Whitestone Junction" on the edge of Flushing Creek. From there they rumbled across trestlework that paralleled its westerly bank and turned again onto a newly-built drawbridge which marked their entrance to Flushing proper. Though some six blocks north of the original Flushing Railroad depot at Main Street, F&NS' grade-level station at Bridge Street was situated in a similarly level and built-up streetscape, located immediately past a 90° curve (now at Northern Boulevard) between Collins and Prince Streets where the line assumed its revised, northerly heading toward College Point. This portion consisted of one main track and one siding as it passed across the tidal marsh of Flushing Bay, then consolidated back to a single iron as it crossed a short bridge over the Mill Creek into College Point and ran on another long, straight trestle that ended at 20th (130th) Street. Briefly using the middle of this narrow thoroughfare, the line made a diagonal, northerly adjustment across three blocks and finally entered the College Point station (which also contained a passing siding), located at North 18th (126th) Street & Fourth (18th) Avenue. Though it was admittedly serving as a temporary terminus, College Point was duly outfitted with a turntable for motive power and sidings for coach storage, largely thanks to the resources of Conrad Poppenhusen. It then later received a car storage shed (by 1885) and remained active for the duration of its life as the site of the Flushing & North Side's main shops. The latter location also had a full-blown depot from the start which lasted until its ultimate abandonment in 1932 (and was finally torn down in September, 1934), while a building was not added at the Bridge Street station in Flushing until November 1870, more than a year past its opening.

Also continued across the summer of 1869 was construction of the former Woodside & Flushing Main Line from Hunters Point to Woodside, as extended to meet the Flushing Railroad alignment at Winfield. Thanks at least in part to the positive relationship the company had earlier enjoyed with Oliver Charlick, its trackage exactly mimicked that of the Long Island Rail Road Main Line but for its own new terminal at Hunters Point, which was closer to the East River than either the LIRR or former Flushing Railroad sites owing to property acquired and committed by F&NS corporate officer and Flushing resident Orange Judd. Opened as part of the Flushing & North Side's new Main Line on November 15, 1869 the terminal building was located at a vacant industrial site on the west side of Front (2nd) Street and Borden Avenue, the terminal tracks and freight dock positioned in north-to-south fashion on the river side of

that structure and directly across the street (Borden Avenue) from the larger LIRR terminal that opened in 1861. From its origin at Hunters Point the new F&NS main line swerved east across Front Street between 5th and 6th Streets (49th and 48th Avenues), then swung northeast at Van Alst Avenue (21st Street) to snuggle against the Long Island Rail Road's existing Main Line. There was as yet no connection between the two at that point, nor was there a crossing of any kind along the way. This turned out to be an inadvertent yet wise strategy given the potential rivalry that now existed between Charlick and F&NS, whose single track then exactly paralleled that of LIRR eastward through Long Island City and the Court House Square area, Sunnyside, Woodside, and Winfield before it diverged to join the pre-existing Flushing Railroad alignment and made its way to both Great Neck and College Point.

The Flushing & North Side's stations on the new main line also pantomimed those of its presumed competitor with low, wooden platforms placed exactly across from those of the Long Island Rail Road at "Woodside" (Riker Avenue between 4th and 5th Streets) and at "Winfield" (Madison Avenue & Henry Street, now 70th Street & 48th Avenue), with a medium-sized and rather handsome wooden depot building included at the former. 157 years after the fact it is unclear what if any track connection there was between the Flushing and Long Island Railroads at Winfield Junction after May of 1861 aside from the at-grade crossing. But given that the Flushing & North Side redirected all of its rail traffic onto its new line through Woodside when it opened in November, 1869 and had no operational intentions for its older main line through Maspeth after that time (other than disposition to the South Side Railroad), it is very likely that the crossing itself and whatever track connection might have existed were soon removed. When the South Side did finally commence its ill-fated shuttle service from Hunter's Point to the "old" Winfield station in August of 1870 (that at 70th Street and 50th Avenue), its tracks (including what remained of the original passing siding) were evidently truncated shy of LIRR and that was as close as it probably got until completely erased by the late 1870s. As previously stated there was no known occasion when trains of either the Flushing Railroad or its corporate successors physically used the Long Island Rail Road Main Line (that is, the south track) to access Hunters Point. In a peripheral development, the original Winfield depot building of the Flushing Railroad was relocated about two blocks north to Henry Street (48th Avenue) in August, 1876 and used to support the North Side's newer (1869) station there. This was later replaced by a second building (perhaps during the 1880s), which lasted until construction of the Woodside-Winfield cut-off several decades later. The Flushing & North Side effectively concluded its construction phase with its first grade crossing elimination, a steel bridge across Junction Boulevard in West Flushing (i.e. Corona), and replacement of the spindly, wooden 1854-vintage ex-Flushing Railroad drawbridge across Flush-

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Staten Island's 157-Year-Old Railroad

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Jefferson Avenue, looking north, August 30, 1968.
Larry Linder photograph



Jefferson Avenue, looking south, August 30, 1968.
Larry Linder photograph



Grant City.
Larry Linder photograph



Rose Avenue, looking south, south of New Dorp station, September 10, 1966.



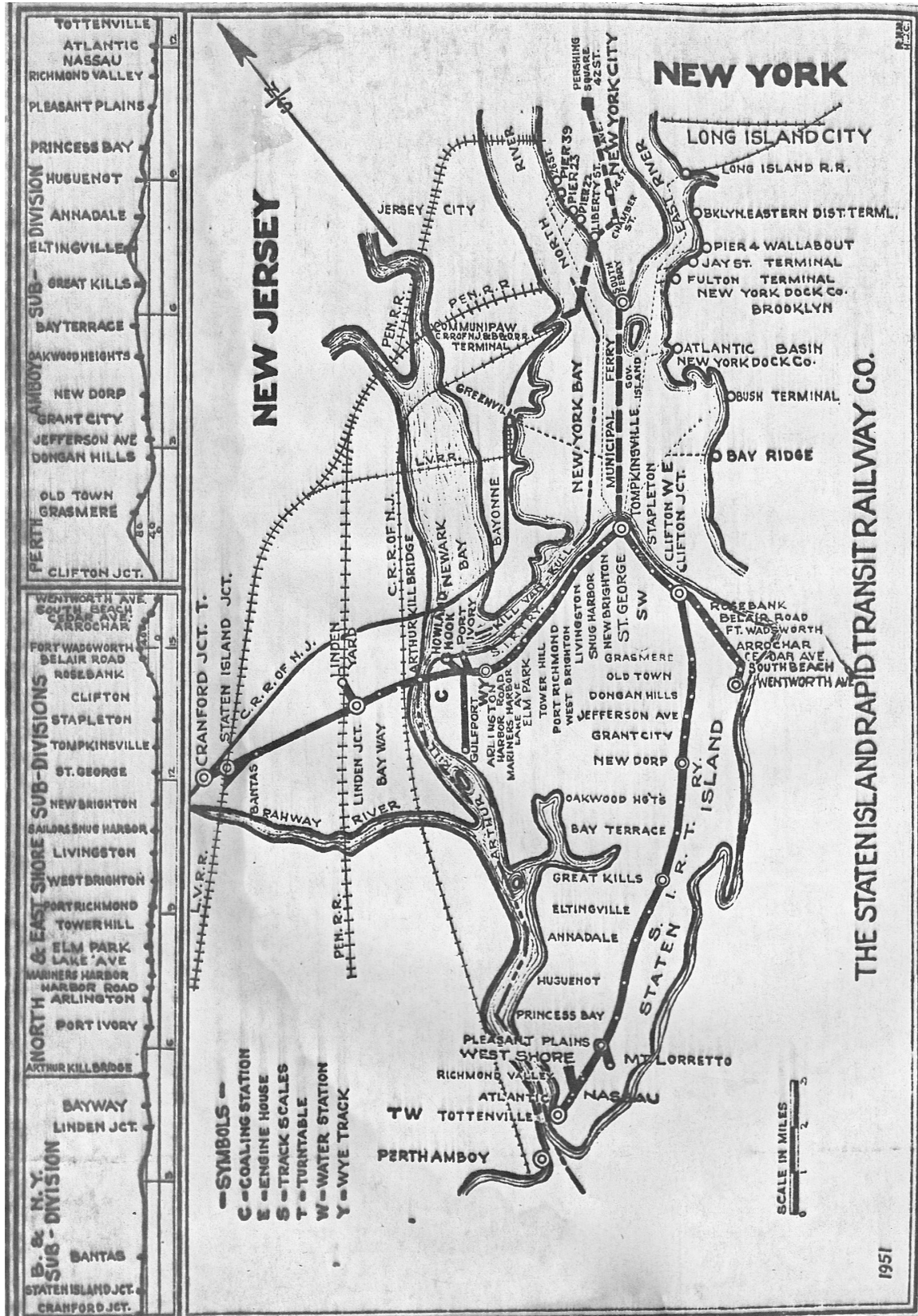
Tysens Lane, looking north, south of New Dorp station, September 1, 1967.
Larry Linder photograph



New Dorp station vicinity.
Larry Linder photograph
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Staten Island's 157-Year-Old Railroad

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The Genesis of Dashing Dan

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ing Creek with a steel structure, both in 1870. At any rate, scheduled service was almost doubled from the outset upon opening of the Flushing & North Side's newer main line to Hunter's Point, with ten trips marked up for College Point (later Whitestone) and five for the terminal at Great Neck across the day, the latter's allotment including an express train or two inside Main Street during commutation hours. In contrast there had been five daily trips to Flushing and four to Great Neck by the time the newer branch was added, which demonstrates how swayed the railroad was by the patronage of its benefactors in College Point and Whitestone.

The final increment of track opened by the Flushing & North Side Railroad was 1.7 miles from College Point to Whitestone on November 27, 1869. This extension originated northward from College Point station, passed through a narrow underpass at Third (14th) Avenue and swung eastward, more or less paralleling 21st Street (11th Avenue) to the Van Nostrand property on the edge of Whitestone. There it curled back to the southeast and entered a cut into the village center, ending at an interim terminal station located beside 16th Street, between 7th and 8th Avenues (later 15th Avenue between 149th and 150th Streets, and now almost right in the middle of the Cross Island Parkway). As at the other termini, a turntable, freight house, and equipment sidings were squeezed into the narrow, low-lying space hewn out of the town center for the railway, whose track was bound in by natural (and costly to remove) barriers at Whitestone much as the earlier Flushing Railroad had been at Main Street. Nevertheless a permanent two-story depot was opened at the Whitestone terminal on January 30, 1871 to replace its original, temporary facility while a separate company (the Whitestone & Westchester) was formed in November, two years after this extension opened, to undertake the furtherance of trackage to the mouth of the East River. By the following May this extension had been surveyed, the town dock at Whitestone Landing procured, construction contracts let, and excavation of the open cut emerging from

Whitestone Village underway, all as work on new bridges to carry the existing street grid across the railroad also progressed. Whatever its cause (perhaps the company's unsteady market and financial conditions in the 1870s, later exacerbated by the specter of Charlick's competing White Line operation), work on the extension was curiously suspended by early 1873 and not resumed.

Train service on the branch to Whitestone was soon expanded from ten daily trains to fifteen by 1871, when traffic grew to the point that an abortive effort was initiated to lay a "relief" track on the vacant-but-complete right-of-way of the former Woodside & Flushing that would enable Whitestone Branch trains to by-pass the route through Winfield. Instead, F&NS double-tracked its main line from Hunter's Point to Winfield (completed on March 29, 1872) and by the end of that year there were some 22 daily trains making their way to Whitestone and still just five to Great Neck. After January 8, 1873 the Flushing & North Side's tracks inside "Great Neck Junction" (just past Flushing Creek) were further strained by the Central Railroad of Long Island's trains to Hempstead and later to Babylon, which in turn spurred a delayed completion of the relief line via the Woodside & Flushing route. This was connected to the Flushing & North Side and Central Railroad at either end (the main line at the Woodside station and the Central and Whitestone Branches adjacent to the latter's drawbridge across Flushing Creek) and opened at last under the auspices of the "Flushing & Woodside" on April 27, 1874. At that time all Whitestone service was routed through Woodside; all Central trains via Great Neck Junction onto the old Flushing Railroad through Winfield; and all service from Great Neck shortened to a shuttle connecting with the station at Central Junction, across from Great Neck Junction. The Flushing & Woodside by-pass also included one new stop of its own, known as "Grinnell," which was situated at the approximate intersection of Junction (Boulevard) and Prometchka (35th) Avenues. Effective on August 1 of that year the Flushing & North Side was merged with the Central Railroad of Long Island to form the Flushing, North Shore & Central.

(Continued next issue)

**STATUS OF NORTH AMERICAN TRANSIT PROJECT OPENINGS
SCHEDULED FOR 2018
by Randy Glucksman**

2017					
DATE	AGENCY	CITY	TYPE	LINE	DETAILS
December 6, 2017	Southern California Regional Rail Authority	San Bernardino, California	CR	San Bernardino Line	Extension to Downtown San Bernardino 1 mile, 1 station

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Status of North American Transit Projects

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2018					
DATE	AGENCY	CITY	TYPE	LINE	DETAILS
Using the latest available information at time of publication, eighteen projects are scheduled to be placed into service this year. Ten projects are holdovers from the years 2014 to 2017, which I have noted in the first column. The opening dates will be published in the December, 2018 Bulletin.					
Holdover (From 2016)	Florida East Coast Industries (All Aboard Florida)	Miami, Florida	LD	Brightline Phase I	Miami to West Palm Beach 70 miles, 3 stations
Holdover (From 2016)	Amtrak	Miami, Florida	LD	Tri-Rail	Trains begin serving Miami International Airport Station
Early	Florida East Coast Industries (All Aboard Florida)	South Florida	LD	Phase II	West Palm Beach to Orlando 165 miles, 2 stations
Mid-January to Mid-February (From 2014)	Loop Trolley Transportation Development District	St. Louis, Missouri	SC	Delmar Loop Trolley	Forest Park to University City 2.2 mile loop, 10 stations
March (From 2017)	Charlotte Area Transit System	Charlotte, North Carolina	LR	Blue Line Extension	7 th Street to UNC Charlotte Main 9.3 miles, 11 stations
Spring (From 2017)	Region of Waterloo	Kitchener-Waterloo, Ontario	LR	K-W LRT (ION) Phase I	Fairview Park Mall to Conestoga Mall 11.8 miles, 19 or 22 stations
May	CTDOT	New Haven, Connecticut to Springfield, Massachusetts	CR	CT rail Hartford	New Haven to Springfield 62 miles, 8 stations
May (From 2016)	Bay Area Rapid Transit	San Francisco, California	DMU	eBART	Pittsburg/Bay Point to Antioch 10 miles, 2 stations
May	OC Transpo (O-Train)	Ottawa, Ontario	LR	Confederation Line	Tunney's Pasture to Blair Road 7.75 miles, 13 stations
June (From 2017)	Bay Area Rapid Transit/Valley Transportation Authority	San Jose, California	HR	Berryessa Extension Phase I	Warm Springs to Berryessa 10 miles, 2 stations
Summer	Florida DOT (SunRail)	Orlando, Florida	CR	Phase II (South)	Sand Lake Road to Poinciana 17.2 miles, 4 stations
Fall	City of Milwaukee	Milwaukee, Wisconsin	SC	The Milwaukee Streetcar Connector	Intermodal station to Burns Commons 2.5 miles, 22 stations
December	City of Oklahoma City	Oklahoma City, Oklahoma	SC	OKC Streetcar	Downtown TC to Midtown 6.9 miles, 22 stops
December	MTA NY City Transit	New York, New York	HR	1 Broadway	Cortlandt Street station re-opens
Late	Sun Metro Camino Real Regional Mobility Authority	El Paso, Texas	LR	El Paso Streetcar Project	International Bridges to UT-El Paso 4.8 miles, 27 stations
Late (From 2017)	Bi-State Transit	St. Louis, Missouri	LR	Red Line/Blue Line	Cortex Station (fill-in station) between Central West End and Grand stations
? (From 2017)	Virginia Railway Express	Potomac Shores, Virginia	CR	Fredericksburg Line	Potomac Shores station opens (Woodbridge and Rippon Landing)
Delayed till further notice (From 2016)	Denver RTD	Denver, Colorado	CR	G (Gold) Line	Union Station to Wheat Ridge-Ward 11.2 miles, 8 stations

Legend:
 CR: Commuter Rail HR: Heavy Rail SC: Streetcar
 DMU: Diesel Multiple Unit LD: Long Distance

R-211 MOCKUPS DISPLAYED AT HUDSON YARDS STATION

by Ronald Yee

(Photographs by the author)

From November 30-December 6, 2017, MTA New York City Transit (NYCT) held an “Open House” at the Flushing Line’s 34th Street-Hudson Yards terminus seeking public input and reaction to the upcoming R-211 new subway car order that is expected to go out for competitive bid with the first of the new cars expected to be delivered in 2020. Concepts MTA and NYCT are putting out to public opinion with these full size mockups include four 58-inch-wide side doors to improve passenger flow into and out of the cars at station stops (8 inches wider than present cars), open gangway design with no doors between unitized sets of subway cars (which could increase passenger capacity by up to 10 percent), and new double hand-hold stanchions with double poles to provide more hand-holds for standees as well as “resting pads” along a wall for standees to lean upon in the absence of seats in a particular section of the car. Some resting pads are innovatively located on the bottom of the flip-up seats, becoming available for use by standees when the seats are in the up position to maximize passenger carrying capacity during peak hours. The mockup also simulated the brighter interior lighting and an improved real-time means of communication. The R-211 may be equipped with an advanced version of the Flexible Information and Notice Display (FIND) passenger information systems providing riders with LCD displays of the route and the next ten upcoming stations plus five consecutive “further stops” down the line with expected travel times, as well as the ability to convey messages that the train will skip particular stations. The enhanced FIND may also be capable of portraying detailed information for each station stop; a listing of all subway and bus connections; locations of stairways, escalators, and elevators on the platforms; as well as public service and passenger safety advice announcements and advertisements.

Members of the public were permitted to inspect and

try out the amenities of these proposed subway cars and offer feedback on Facebook, Twitter, the mta.info website, and on survey cards handed out by MTA staff who were on location from 11 AM to 7 PM on weekdays and 10 AM to 5 PM on weekends. MTA will evaluate rider input from the survey results as it finalizes the specifications and features that will be incorporated into the R-211 subway cars, all of which are slated for assignment to the lettered lines of NYCT’s Subdivision “B” as well as the MTA Staten Island Railway.

The planned R-211 order has been subject to several changes in the past two years. One of the plans from 2016 called for 1,175 60-foot cars in the initial order to be split into three subclasses: 450 R-211A replacing the R-32 class cars not retired by the R-179 as well as a portion of the aging R-46 fleet; 75 R-211S replacing the 63 1972-vintage R-44 Staten Island cars; and 650 R-211T featuring open gangways that will allow riders to walk from car to car without needing to pass through doors and out between cars. The first R-211s would have been delivered in 2023, with the final cars to be delivered being the 75 R-211S cars by December, 2026. There was an option for up to 525 additional cars for fleet expansion to handle ridership growth, bringing the potential total order up to 1,695 cars. The most recent plan, dated April 24, 2017, now calls for a base order 535 cars: 75 R-211S to the MTA Staten Island Railway, 450 R-211A standard 60-foot cars, and just 10 R-211T open gangway cars as a demonstrator prototype. This revision would allow the first R-211 to be delivered by 2020 with the entire order on an accelerated schedule, enabling a faster paced retirement of the 1975-vintage R-46 class cars than the earlier plans that included large numbers of open gangway R-211Ts but would have resulted in the open gangway portion of the order not being delivered until 2023 and a completion date of 2026.



R-211 mockups at 34th Street-Hudson Yards station mezzanine.



Operating cab car module.

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R-211 Mockups Displayed

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Open gangway module.



Open gangway with side door and seats.



Interior.



ADA flip seats and leaning pads.



FIND line map.



FIND station information mode.

Staten Island's 157-Year-Old Railroad

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schedule: AM rush hour trains from Tottenville run non-stop from New Dorp to St. George, then non-stop to Great Kills in the opposite direction. Locals make all stops from Huguenot or Great Kills to St. George and return to Great Kills. PM rush hour trains to Tottenville run non-stop to Great Kills, but make all stops in the opposite direction. Locals from St. George make all

stops to Great Kills and run light to an unknown destination. During rush hours, an express and a local leaving two minutes later meet each ferry. At other times most trains provide convenient connections to the ferry. Running time is 42 minutes for locals and 36 minutes for expresses.

Unfortunately, this will be Bernard Linder's last article. He passed away on December 12, 2017, as this issue was going to press. We plan to have a tribute to our long-time Editor-in-Chief in the February issue.

Commuter and Transit Notes

No. 348

by Ronald Yee, James Giovan, and Alexander Ivanoff

MTA LONG ISLAND RAIL ROAD

Beginning January 8, 2018, to accommodate the loss of at least one track at New York's Penn Station during phase two of the Penn Station reconstruction project, new schedules will be issued to reflect the service changes under which LIRR will reroute five morning peak and three evening peak period trains from Penn Station and combine two evening peak trains into one train that will stop at all of the stations within 6-11 minutes of the schedules of the two trains it replaces. To mitigate the effects of this reduction in service to Manhattan, LIRR will add five trains (two morning and three evening) during the "shoulder" periods just before or after both peak periods and add cars to select peak period trains in an attempt to accommodate displaced riders. During the morning peak, on the Babylon Branch LIRR will add a new train departing Freeport at 5:43 AM and stopping at Baldwin, Rockville Centre, and Jamaica and arriving at Penn Station at 6:24 AM. The 6:56 AM train from Wantagh, which currently stops at Bellmore and Merrick before running express to Penn Station, will add a stop at Jamaica to allow for connecting service to Penn Station, then will continue to Atlantic Terminal, where it will arrive at 7:45 AM. Two cars will be added to the 7:35 AM train from Babylon, lengthening it from the current 10 cars to 12, making all stops to Seaford and then running express to Jamaica and Penn Station. The 7:41 AM train from Merrick, which currently stops at Freeport and Baldwin before running express to Penn Station, will add a stop at Jamaica to allow customers to change for connecting service to Penn Station, then will continue to Hunterspoint Avenue, where it will arrive at 8:25 AM. For the evening peak, LIRR will add two cars to the 4:34 PM train from Penn Station, running express to Seaford then making all stops to Babylon, lengthening the train to 12 cars from the usual 10, adding more than 200 extra seats. To provide a later departure time for customers using Hunterspoint Avenue and traveling on the Babylon, Hempstead, Long Beach, and Ronkonkoma Branches, LIRR will add a new train departing Hunterspoint Avenue at 7:02 PM and stopping at Rockville Centre and Baldwin en route to arriving at Freeport at 7:42 PM. This train makes connections at Jamaica for trains bound for Babylon, Hempstead, Long Beach, and Ronkonkoma. On the Far Rockaway Branch, the 8:10 AM train from Far Rockaway, which currently makes all local stops to Valley Stream, then Jamaica, Kew Gardens, Forest Hills, and Penn Station, will be rerouted to Hunterspoint Avenue, where it will arrive at 9:04 AM. This train will not stop at Kew Gardens or Forest Hills. Connecting service is available at Jamaica. The train that currently originates at 5:32 PM at Penn Station and terminates at Far Rockaway at 6:24 PM will instead originate at Jamaica at 5:52 PM. Customers at Penn Station can connect with this train by

boarding the 5:23 PM Long Beach Branch train or the 5:24 PM train to Freeport and changing at Jamaica. On the Hempstead Branch, the 5:38 PM train from Penn Station, due into Hempstead at 6:36 PM, will originate at Atlantic Terminal at 5:47 PM. Customers from Penn Station can connect with this train by boarding the 5:33 PM train to Hicksville and changing at Jamaica. The 7:05 PM train from Penn Station, due into Hempstead at 7:56 PM, will originate at Atlantic Terminal at 7:10 PM. Customers from Penn Station can connect with this train by boarding the 7:08 PM Babylon Branch train and changing at Jamaica. On the Long Beach Branch, the 8:03 AM train from Long Beach, making all local stops to Lynbrook before running express to Penn Station, will add a stop at Jamaica to allow for connecting service to Penn Station, then will continue to Atlantic Terminal, where it will arrive at 8:54 AM. The 8:08 AM train from Long Beach will have 2 cars added to the train, lengthening it to 12 cars, and make all local stops to Jamaica, then Woodside and Penn Station. On the Port Jefferson Branch the 5:06 PM train from Penn Station, which runs express to Syosset and then stops at Cold Spring Harbor and Huntington, will not operate. Customers will be able to board the 5:17 PM train from Penn Station, which runs express to Westbury, then stops at Hicksville, Syosset, Cold Spring Harbor, and Huntington. On the Port Washington Branch, LIRR will add a new afternoon train departing Penn Station at 3:40 PM, stopping at Woodside, then making all stops to Great Neck, where it will arrive at 4:15 PM. The 5:50 PM train from Penn Station, which runs express to Bayside, then stops at Douglaston, Little Neck and Great Neck, will not operate. Customers will be able to board the 5:56 PM train from Penn Station, which makes all local stops to Great Neck. The 5:56 PM train will have four cars added, lengthening the train to 12 cars from the usual 8, adding more than 400 seats. The 7:27 PM train from Penn Station, due into Port Washington at 8:04 PM, is lengthened 2 cars to 12 cars from the usual 10. On the Ronkonkoma Branch, a new early morning train departs Farmingdale at 5:05 AM making local stops along the Main Line, and arriving at Penn Station at 6:00 AM. A new early afternoon train departs Penn Station at 1:49 PM, then stops at Woodside, Jamaica, Mineola, Hicksville, Bethpage, and all stops to Ronkonkoma, where it will arrive at 3:07 PM. (LIRR website, December 8, 2017)

On December 13, 2017, the MTA Board awarded construction contracts for two significantly important projects that are critical to the future of LIRR. The first is a \$107,950,000 contract for the Mid-Suffolk Electric Yard Project, which is an expansion of the existing Ronkonkoma Yard. The current yard has 12 tracks, each capable of storing a single 12-car train. The pro-

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Commuter and Transit Notes*(Continued from page 10)*

ject will add 11 new tracks, each also holding a single 12-car train, essentially doubling the yard's capacity to store 33 trains.

The Mid-Suffolk Electric Yard is just one of a series of projects collectively known as ESA Readiness to prepare the entire railroad network for the 2023 opening of the East Side Access connection to Grand Central Terminal. To provide the additional service that ESA will offer, several capacity enhancement projects are being constructed throughout the LIRR network. The LIRR E.M.U. fleet is also being expanded with new M-9 and M-9A car procurements underway. The capacity projects include completely reconfiguring the approaches to Jamaica Station; new pocket tracks and sidings at strategic locations; yard expansions; and the laying of additional trackage to long stretches of existing lines. One example of this is the ongoing double-tracking of the Ronkonkoma Branch between Farmingdale and Ronkonkoma, currently slated for completion in late 2018 or early 2019. The expanded yard will accommodate the increase in fleet size and support the additional trains that will run on the branch once the double tracking is finished.

The second contract that was awarded on December 13 is another track expansion effort that is not only important for LIRR and the ESA service plan, it is arguably vital to the future of Long Island itself — the Main Line Expansion Project, more commonly referred to as the Third Track. Discussed and planned for decades, and coming close to fruition about 10 years ago, this project will add a third track to the Main Line along a 9.8-mile-long stretch between Floral Park in Queens and Hicksville in Nassau County. It will allow LIRR to meet existing service demand and accommodate the additional trains that will be heading to Grand Central Terminal in the future. It will greatly enhance the railroad's ability to recover from service disruptions, and for the first time enable LIRR to offer true bi-directional service during the peak hours, providing a viable reverse commuting option for customers living in the western territory of the LIRR service area who travel east to jobs in Nassau and Suffolk Counties. Providing NYC residents who do not drive better access to the Long Island job market is an economic game-changer.

Besides the additional track, a critical component of the project is the elimination of seven grade crossings, achieved with a combination of outright closings, new road underpasses, and overhead bridges. Platforms at six stations, inclusive from Floral Park through Westbury, will be reconstructed, and up to five new parking garages will be added.

The \$1,813,174,918 contract for the Main Line Expansion is quite possibly the largest single award by LIRR in its 183-year history. Accounting for additional internal LIRR expenses, the total anticipated project cost is \$2.6 billion, with the bulk, \$2.05 billion coming from the current MTA 2015-9 Capital Program. An additional \$538

million will be allocated in the future 2020-4 Capital Program to finish up the project by late 2022, in time for opening contemporaneously with ESA.

Both of these projects, as well as the others for ESA Readiness, will be described in greater detail in upcoming issues of the *Bulletin*. (Subutay Musluoglu, December 13, 2017)

MTA METRO-NORTH RAILROAD

Following an October 8 pilot program whereby service to the Melrose and Tremont stations was increased to hourly during off-peak and weekend periods, ridership increased to these two stations by 81%, a 67% increase on weekdays and 101% on weekends. With such positive results, Metro-North will make these service enhancements permanent and extend service to cover the early morning and late evening hours. Weekday inbound service is now available from 5:51 AM to 12:47 AM, weekday outbound service from 5:38 AM to 1:20 AM, weekend inbound service from 6:44 AM to 12:44 AM, and weekend outbound service from 6:25 AM to 1:20 AM. (Metro-North website, October 18, 2017)

NJ TRANSIT

After an engineering review of its GP-40 and F-40-class locomotives, NJ Transit has concluded that these units have reached the end of their service lives and should be replaced. With ridership demand increasing and a policy of addressing these increases through use of longer consists of multilevel push-pull commuter coaches, NJ Transit has decided to begin the process of acquiring 17 dual-mode locomotives at a cost of \$167.7 million, nearly \$10 million per engine. NJ Transit has an option under its existing contract with Bombardier for these additional locomotives. (NJ Transit, December 6, 2017)

PORT AUTHORITY TRANS-HUDSON CORPORATION

As part of the Port Authority of New York and New Jersey's (PANYNJ) 10-year capital plan that was approved in 2017, the Board approved a \$3.2 billion operating and \$3.4 billion capital budget for 2018 that will include funding for the Newark Airport *AirTrain* project, which will replace the low-capacity monorail that has served the airport for over two decades. Included in the budget is a \$150 million allocation to fund the purchase 50 new railcars for the PATH system and perform a \$79.5 million overhaul of critical components of the current fleet of 350 PA-5-class cars. The 50 cars will be manufactured by Kawasaki Rail Car with an option for 22 additional cars pending future Board approval. With ridership levels passing 78.6 million in 2016 and expected to surpass 80 million for 2017 and weekday ridership approaching 300,000, the ability of the current fleet to handle these increases will soon be exceeded. The increase in fleet size will also enable PATH to service its new extension to Newark Liberty International Airport. The capital plan will also fund the repair of the tracks and interlocking leading to Hoboken Terminal (\$29.9 million) and the replacement and upgrade of power Substation #14 at the Harrison maintenance facility (\$70.6 million), both of which were damaged during

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

Hurricane Sandy, as well as insure that the system meets the December 31, 2018 deadline to install a functioning Positive Train Control (PTC) system, which will be achieved with Communication-Based Train Control (CBTC). (*Progressive Railroading*, December 8, 2017)

AMTRAK

Amtrak has placed into passenger service, the first of its new Siemens Charger locomotives on the Cascades corridor in Oregon and Washington. (National Association of Railroad Passengers News, November 22, 2017)

MISCELLANEOUS

Siemens has released the first ACS-64 electric locomotives built for SEPTA (901) and three SC-44 Charger diesel-powered commuter locomotives for MARC (80, 81, and 82). All four units were seen on December 1, 2017 departing Siemens' Sacramento factory on a special Union Pacific train with a freight train symbol SFLES. SEPTA has 13 ACS-64 locomotives on order with options for five more as well as eight SC-44 Charger diesel locomotives. MARC has eight SC-44 Chargers on order. (Trains Magazine, December 3, 2017)

OTHER TRANSIT SYSTEMS**MIAMI, FLORIDA**

Brightline anticipated that the initial portion of its rail line between Fort Lauderdale and West Palm Beach would commence service with 16 round trips daily (hourly headways) in December, 2017. Service will be extended to Miami in early 2018 when the station there is completed and ready for passenger activity. During the week of December 6, 2017, simulated service with ten round trips commenced as final preparations prior to service start-up. As of press time, the start date had not yet been determined. Brightline projects that its trains will carry almost 3 million riders by the year 2020 and generate over \$107 million in gross fare revenues. Another \$34 million is expected from parking fees as well as on-board sales of food and drink. Parking is set at \$1 per hour for Brightline customers and \$3 per hour for non-riders, generating \$16.53 per parking space per day. Financially, Brightline expects to break even if the actual ridership levels surpass 56% of its goal of 7 million annual riders and \$400 million in revenues. All of this is based on a report from Fitch Ratings, a New York-based credit reporting agency that is part of the financial process of setting up a \$600 million bond issue. An extension of service northward to Orlando is being still in the planning phase and will be financed separately. (Sun Sentinel.com, November 28, 2017; Al Holtz, December 6, 2017)

Miami-Dade Transit placed the first 4 cars of its 136-car order with Hitachi into passenger service on Thursday, November 30, 2017. The \$313 million order with Hitachi Rail Italy (formerly Breda) was financed by a half-penny transportation surtax approved by local voters back in 2002. The balance of this order is expected

to be completed by the end of 2019, replacing all 136 of the current car fleet built by Transit America (Budd) that has served the Metrorail system since 1984 but, due to advancing age, has been breaking down on an increasing frequency. It is also expected that half of the requirement for peak period train consists will be covered by the new cars by July, 2018. The new cars feature high-speed, high capacity on-board Wi-Fi capable of handling the simultaneous internet needs of up to 252 passengers, interior bicycle racks, automated announcements with upgraded sound systems, digital signs announcing the next station, four digital monitors for media displays, security cameras, energy-efficient and bright LED lighting, and ergonomic seating cantilevered from the walls to facilitate cleaning. (*Miami Herald*, December 1, 2017)

NASHVILLE, TENNESSEE

Nashville Mayor Megan Barry's transit proposal might be turning into an expensive boondoggle, but for all the right reasons: residents in the West Nashville neighborhood balked at the initial length of the light rail line proposed for Charlotte Avenue because it did not reach the booming Sylvan Park and The Nations neighborhoods.

Their efforts, aided by Councilmembers and state lawmakers, worked. During the week of November 20, 2017, the plans were updated to extend the Charlotte Avenue Line. Now, a similar case is being made in Madison, where some residents say the light rail route proposed for Gallatin Pike in East Nashville should be pushed farther north to their neighborhood.

Barry intends to seek Metro Council approval for a referendum in May to raise four taxes, including a new surcharge on the sales tax, to pay for a \$5.4 billion transit plan. The centerpiece would be light rail lines on five corridors extending from downtown, totaling more than 26 miles. The Gallatin Line, which would begin on East Nashville's Main Street, would be the first constructed.

The nMotion plan is Nashville's long-term transit road map — the foundation of Barry's transit plan that was adopted by Metro Transit Authority and Regional Transportation Authority last year. Under nMotion's timeline, a Gallatin Pike light rail extension from Madison to Rivergate is slated for a second phase.

The light rail line on Gallatin Pike in Barry's transit plan is already longer and more expensive than the revamped Charlotte Avenue proposal.

In the plan's first draft, the Charlotte Avenue route extended just 2.5 miles from downtown, making it the shortest of the light rail lines targeted for Nashville roads. With its extension, Charlotte is now slated to run 5.2 miles, which is still shorter than Gallatin Road's proposed light rail line.

At 6.4 miles long, the proposed Gallatin Pike Line is surpassed only by the route targeted for Murfreesboro Pike, which is 8 miles.

The Gallatin Pike light rail route is projected to cost \$789 million, topping all corridors that would receive light rail.

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Commuter and Transit Notes*(Continued from page 12)*

Although MTA bus ridership has dipped countywide over the past three years, ridership on Madison's three express and connector routes — 35, 36 and 76 — has increased over that time. Last year, 188,879 rides were taken collectively.

Long-term, the Mayor has said her hope is to expand the network "even further to the Davidson County line." Barry's plan represents a 15-year build out. Phase two would follow. (*The Tennessean* (Nashville, Tennessee), December 1, 2017)

SEATTLE, WASHINGTON

Terms have been agreed upon for Brookville Equipment Corp to supply Seattle's Sound Transit with five Liberty light rail vehicles for \$26.5 million plus tax, the manufacturer announced on December 4, 2017.

The LRVs are required as part of the project to build a 2.4-mile extension of the 1.6-mile Tacoma Link Line. There are options for Sound Transit to order a further five vehicles, and also for the City of Portland, Oregon, to order five vehicles.

The Tacoma Link LRVs will have 34 seats and a capacity of more than 100 passengers. The 70% low-floor vehicles will be ADA-compliant, with deployable bridge plates for easy boarding.

The agreement is the sixth order for the Liberty family, with fleets now operating in Dallas and Detroit and vehicles on order for Oklahoma City, Milwaukee, and Phoenix's Valley Metro Tempe Streetcar. (*Metro Report International*, December 5, 2017)

SAN FRANCISCO, CALIFORNIA

MUNI F line double-ended PCC 1015 (Illinois Terminal colors) was involved in a rear-end collision when it slid into the back of a MUNI trolley coach (unit number unknown) operating on the 6/Ferry Plaza route while on Market Street between 8th and 9th Streets. Nine injuries were reported, none serious, and both vehicles sustained moderate damage, although a press photo showed the front end and anticlimber of the PCC to appear relatively undamaged and the rear bumper of the trolley coach may have been pushed in a few inches but with no other apparent body damage. As of press time, no cause was given. (*San Francisco Chronicle*, December 6, 2017)

LOS ANGELES, CALIFORNIA

Metro (Los Angeles County Metropolitan Transportation Authority) announced on November 30, 2017 that it is working on a "Twenty-Eight by '28" initiative that would aim to complete 28 key road, transit and bicycle/pedestrian projects in time for the 2028 Summer Olympics in Los Angeles.

Many of the projects are scheduled to be finished by 2028, but others would need accelerated funding to make the goal, Metro said. In a statement, LA Mayor Eric Garcetti (also a LACMTA Board member) cited the awarding of the Olympic Games as an urgency to accelerate the proposed projects.

Seventeen of the projects are already scheduled for

completion before 2028 — four funded by Measure R and 13 funded by Measure M. County voters approved both ballot measures to raise billions for transportation projects via half-cent sales tax increases. Measure R was approved in 2009 and is expected to raise \$40 billion for transportation projects over 30 years. Measure M is a 2016 ballot initiative estimated to raise \$120 billion over the next 40 years. (*Editor's Note by Alexander Ivanoff: The entire list of projects that Metro plans to accelerate can be found via following URL, which will take you to LA Metro's news page: <http://thesource.metro.net/2017/11/27/plan-seeks-to-complete-28-transpo-projects-by-2028-olympics-and-paralympics/>*) (CBS Los Angeles, November 30, 2017)

CANADA (NATIONWIDE)

VIA Rail Canada published its third quarter results of 2017 on November 30, 2017 and reported on another successful quarter. As the positive trend continued, ridership increased by 11.7% compared to the same period in 2016 while revenues increased by 13.9%, including a passenger revenue increase of 14.8%. With more travelers aboard, a total of 296 million miles were journeyed on its trains all across the country over the quarter, up 15% from 2016. In August, VIA Rail posted record passenger revenues of close to \$38 million, which is the highest revenue month on record. Also, over Labour Day weekend, VIA Rail experienced double-digit growth, compared to last year. Taking part in the festivities July 1 marked Canada's official 150th birthday, and VIA Rail was there, participating in many of the festivities across the country. In fact, in July, over 4,000 young Canadians travelled aboard its trains to explore the nation's incredible sights, thanks to VIA Rail's Canada 150 Youth Pass. The pass, which offered unlimited travel from coast to coast over the month, was an overwhelming success, and passengers proudly shared their memories online (using the hashtag #VIACanada150). (Al Holtz via VIA Rail press release, November 30, 2017)

TORONTO, ONTARIO, CANADA

In anticipation of the planned December 17, 2017 opening day, full service simulation testing commenced on Sunday, November 26, 2017 on the Toronto Transit Commission (TTC) Line 1 extension to the Vaughan Metropolitan Centre terminal. All passengers are ushered off all northbound trains arriving at the Sheppard West station and once empty, the trains were operated "light" (no passengers) making all six new station stops to the new terminus where they performed a normal turnaround and operated light making stops at the same six new stations to Sheppard West, returning to public passenger service at that location. This three-week testing period was also to serve to familiarize Train Operators and crews with the new 8.6-kilometer line extension with its new Automatic Train Control (ATC) system and allow managers to analyze the new operation and perform final adjustments to the train schedules and operating plan. (TTC Website, November 24, 2017)

In an effort to reduce the severe delays to streetcars on Route 504/King Street, a pilot program to restrict

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INTERBOROUGH RAPID TRANSIT POWERHOUSE DESIGNATED A NEW YORK CITY LANDMARK

by Subutay Musluoglu
(Photographs by the author)

In a significant victory for historic preservationists, and for followers of electrical engineering and transportation history alike, on December 5, 2017 the New York City Landmarks Preservation Commission designated the Interborough Rapid Transit (IRT) Powerhouse as a New York City Landmark. Opened in 1904 as the primary source of electricity for the city's first subway line, the massive edifice occupies a full city block bounded by 11th Avenue, W. 58th Street, 12th Avenue, and W. 59th Street. It is the largest extant structure associated with the original IRT.

At the time of its completion, the IRT Powerhouse was the largest electrical generation plant in the world, and represented a pinnacle in electrical technology for the era. Under the leadership of Chief Engineer William Barclay Parsons, a team of distinguished electrical and mechanical engineers directed by Lewis B. Stillwell and John Van Vleck were responsible for the design of the plant's boiler/turbine/generator arrangement, which was considered state-of-the-art for its time. The boilers were fed by coal, which arrived by barge at a Hudson River dock directly across from the plant and then conveyed by tunnel under 12th Avenue. The IRT Powerhouse possessed an initial rated generating capacity of 50,000 kilowatts, and supplied 11,000 volts of alternating current to 8 substations, where it was stepped down and converted to 625 volts direct current at the third rail, powering the IRT's original opening day route from City Hall to 145th Street in Harlem, as well as the later Bronx extensions to West Farms and 242nd Street-Van Cortlandt Park.

The Powerhouse's Beaux-Arts exterior was designed by Stanford White, the accomplished architect and partner in the famous New York firm of McKim, Mead & White. White has left his mark all over the city, having designed several easily recognized structures such as the Washington Arch in Washington Square Park; a number of buildings on New York University's Bronx campus (today's CUNY Bronx Community College), including the domed Gould Memorial Library and the Hall of Fame of Great Americans; the Metropolitan Club; as well as the interiors of the 7th Regiment Armory on Park Avenue and the Villard Houses in Midtown. All of these are designated NYC Landmarks.

White also designed the Cable Building at 611 Broadway (once a cable car power station), the Prison Ship Martyrs Monument in Brooklyn's Fort Greene Park, and the second Madison Square Garden, which stood in Madison Square Park until its demolition in 1925. Incidentally, he is also remembered for being murdered by the husband of a woman with whom he had been involved. His murder occurred in June, 1906, less than two years after the completion of the Powerhouse.

In 1959 the Powerhouse was sold to Consolidated Edison of New York (Con Ed), part of an overall effort by the New York City Transit Authority to divest itself of power generation and instead purchase electricity directly from a utility. Today, the bulk of the subway's electricity is supplied by the New York Power Authority, transmitted over Con Ed's infrastructure, and delivered directly to New York City Transit's 224 substations. Meanwhile, Con Ed continued to use the Powerhouse for electrical generation, eventually transitioning it to serve as a steam generating plant, a function it still performs today as a key element of one of the world's largest urban steam networks.

While the bulk of the brick and terra cotta façade is intact, along with various ornamental features such as terra cotta moldings, pilasters, wreaths, and keystones, several alterations did occur over the last several decades. With the subway system's unification in 1940, the NYC Board of Transportation assumed responsibility for the plant. While the original building did not quite extend all the way to 12th Avenue, a more modern-style addition was built in 1952, extending the plant to occupy the full block. The New York City Transit Authority was created the following year to control the subways, and then six years later in 1959 the plant passed to Con Ed, which then initiated a series of upgrades. The Powerhouse was converted from coal to a combination of oil- and gas-fired engines, and the original boilers were retired. The turbines and generators were modernized and the original six chimneys were dismantled, while a single, taller smokestack was constructed which survives today. A number of large openings were punched through both the north and south façades, the terra cotta roof tiles and upper roof cornice were removed, and a couple of the monumental windows were partially bricked over. With the exception of these changes, the plant looks very much the same today as it did in 1904.

The landmark designation did not come easily. The IRT Powerhouse had been on the Landmarks Preservation Commission's backlog for close to 40 years. It had been first proposed for designation in 1979 on the occasion of the IRT subway's 75th anniversary. At the time, the entire original IRT Contract 1 and 2 routes were surveyed, an effort which led to the landmarking of several of the 1904 passenger stations, the 1908 Borough Hall station in Brooklyn, the 72nd Street station control house, and the Manhattan Valley Viaduct over 125th Street. The Battery Park control house at the Bowling Green station had been previously landmarked in 1973. Con Ed strongly opposed landmarking the Powerhouse, arguing that the plant did not possess architectural significance, and that a designation could hamper its ability

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Interborough Rapid Transit Powerhouse

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to make any necessary alterations to meet future energy and business needs. The proposal was shelved until 1990, when another hearing was held, with Con Ed raising the same objections, and then the Powerhouse was put on the back burner again.

In February, 2015, LPC initiated an effort to address its backlog, which was starting to come under some political pressure. The backlog had grown to 95 properties, 80 of which had been on the calendar for at least 20 years. Once again, the Powerhouse was up for discussion, and this time favorable support was more organized. In recent years, as high-rise housing began to sprout up on the blocks around the plant, neighborhood residents expressed great worry that the plant would meet a similar fate if Con Ed were to sell off the property. Several civic organizations and a number of elected officials also lent their support. The possibility of losing a significant piece of the city's architectural and transportation history, and of early electrical technological achievement, became a cause of great concern. Thanks to the collective effort of the advocates, and to LPC itself, we now have the latest New York City landmark. It is the first such designation for an active power plant in New York City, and possibly in the entire coun-

try.

With the designation, Con Ed can continue to use the building in its current form but is forbidden from making any further exterior alterations, and any proposed interior changes would trigger a review by LPC. As for the future, the local community activists who advocated for the landmarking have some ideas for adaptive reuse in case Con Ed were to ever divest itself from the building. Some of the concepts that have been floated include a large fresh food market, a community event/meeting space, or an art gallery/museum, a successful example of which is London's Bankside Power Station, which functions today as a branch of the Tate Modern Art Museum.

The landmark designation must still pass muster in the New York City Council. It is not known what opposition, if any, might be raised prior to a vote. Although most designations are typically upheld, there have been occasional instances of the Council turning down a designation. Let us hope that is not the case here. The IRT Powerhouse has an important place in the subway's legacy and in our city's history. It deserves to be saved.

Subutay Musluoglu is a longtime ERA member and a recurring contributor to the Bulletin. He is a manager with MTA Metro-North Railroad.



IRT Powerhouse, 11th Avenue elevation eastern façade, December 3, 2011.



IRT Powerhouse, terra cotta nameplate detail at the top of the eastern façade, December 3, 2011.

Commuter and Transit Notes

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automobile traffic on King Street and restrict drivers to making right turns only to exit that road, has resulted in an average reduction of travel times through the 2.6-kilometer section of 20 percent for eastbound streetcars (20.6 minutes reduced to 16.4 minutes) and 24 percent for westbound streetcars (22.8 minutes reduced to 17.3 minutes). The resulting travel time reductions have increased ridership demand on the King Street route, re-

quiring TTC to place two additional CLRVs onto the route, which already has 44 CLRVs assigned to it. Ten Flexity LRVs are assigned to the new Route 514/Cherry Street, which operates over the King Street rails between Dufferin on the west side of Downtown and Cherry Street on the east side. With just 51 Flexity LRVs now in service (there should have been almost 150 in service in the original contract with Bombardier) and burgeoning ridership on Route 504, plans for Route 512/St. Clair to be the next route re-equipped with the

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SWITZERLAND IN THE LATE SUMMER

by Jack May
(Photographs by the author)
(Continued from December, 2017 issue)

Today was the first of two days to be devoted to revisiting some of my favorite Swiss interurbans. Institutionally similar to Japan's Third-Sector Railways in that they are independent both financially and operationally of the national railway system, they generally date back to a period before large-scale road building. They were constructed either as a conduit for residents of small towns to reach regional centers (and their mainline railway stations), or for connecting certain regional centers with each other through rural areas. Like the country's tramways, with few exceptions their gauge is narrow — one meter or less — and many of them travel at the sides of roads. I would cover two of them today, while Clare would go back to Zurich to visit additional museums.

We rode the 9:07 Inter-City to Zurich, arriving at 9:58 (10:00). I saw Clare off at the entrance to the National Museum, which is across the street from the station, and then walked across a bridge over the Limmat River for some photos of the Polybahn. Zurich's other funicular is a very short automated incline that crosses above tram Route 3. Sponsored by UBS, the two cars tastefully advertise the financial institution. I did not want to spend any time waiting for a meet between the two modes, as the skies were overcast and I had gotten a photo of a streetcar and cable car together on a previous trip; I had a full day on tap and needed to get going.

I rode the 10:37 Inter-Regional to Frauenfeld, arriving a couple of minutes early at 11:14 (16). The skies were now clear, but I had to hurry to get photos, as the interurban car for Wil was scheduled to leave from the station's forecourt at 11:19. With that accomplished I rode the 11-mile, 1,200-volt d.c.-powered meter-gauge line all the way through to its southern terminal. It runs for a short distance on the street in Frauenfeld, but then becomes a side-of-the road operation almost all the way to Wil, ending at a two-track stub terminal on Bahnhof Platz adjacent to the SBB station. Frequency is every half hour with a 28-minute running time. Three modern Stadler-built 3-section 70-percent low-floor cars in a very bright and stylized — perhaps better described as ostentatious — red and white livery hold down the service. Very close to the end of the line the train passed the yards and I saw some of the older cars spotted beautifully in sunlight. Thus after an on-time arrival at 11:47 I wandered into the complex for a few photos. With only five new cars on the roster and the need to equip rush hour short turns on the Wil end, many of the railway's older units have been retained. And they will become all the more valuable if the company decides to upgrade to an all-day 15-minute headway. After some photos in the terminal I rode the 12:12 back to Frauenfeld, planning to get a photo of its next trip at 12:49 in street traffic. I did, but by that time the sky had turned

overcast — and it stayed that way for the rest of the day. This was my first day without a preponderance of sunshine.

Local rail routes serving the suburban areas of large Swiss cities are given numbers, just the opposite of SEPTA's recent actions in Philadelphia. The Frauenfeld-Wil line, for example, is Route S15. I rode the 12:57 S30 train to Winterthur (arriving 13:15), where I changed platforms to board the 13:22 S12 for Dietikon, arriving at that point on time at 13:59. Both of these trains run on circumferential routes, connecting points that also have direct radial service to and from the Zurich Hbf. (This is something we in the U.S. generally do not have, although Nassau County and many rail advocates have at times suggested a line mostly using Long Island Rail Road rights-of-way from Oyster Bay to Far Rockaway via Mineola, Hempstead, and Valley Stream, and Metra has proposed its Star Line, which would use the Elgin, Joliet & Eastern Railroad, one of Chicago's belt lines.)

The Dietikon-Bremgarten-Wohlen interurban is Route S17. It starts at a double-track stub-end terminal alongside the SBB Dietikon station and operates over single track along a few streets before leaving the pavement and striking out on its own right-of-way. With a Monday to Saturday headway of 15 minutes, it is an easy line to ride, walk, and photograph. However, the dark skies put a slight damper on that for me. But you gotta do what you gotta do, and I did get my share of photos, specifically at two locations, the highest point on the line and in the village of Bremgarten.

The meter-gauge line's rolling stock consists of 14 three-section 70-percent low-floor railcars manufactured by Stadler around 2010, possibly of the exact same design as those I just rode between Frauenfeld and Wil (although Stadler calls these "Diamonds" and the FW cars "Zebras"). Also similar, and typical of Swiss interurbans, much of the line to Bremgarten runs at the side of a road. But that does not mean the terrain is not demanding, as the railway's grades run as steep as 5.6 percent with three very tight, almost U-turns, crossing Mutschellen Pass. I alighted at the Widen-Heinruti and Zufikon-Belvedere stops for photos, but there are other stations in the pass that are equally good. Like the Frauenfeld-Wil Line, most of the stations are flag stops, and the sign, Halt auf Verlangen, appears in both cars and shelters. On the single track the shelters have two buttons, one for each direction, that can be pressed to alert operators that a passenger is waiting to board. I met some fare-control personnel at one of the stops and they suggested other good photo locations, specifically the bridge at Bremgarten. Clearly they had met railfans

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before (or were part of the fraternity).

Thus I continued on to that village, whose prosperous, pedestrianized, and preserved old town looks like a medieval community, with spires of every shape reaching toward the sky. I got off at the Obertor station, at the eastern end of the rail bridge across the Reuss River, where the charming Bijou restaurant along the waterway was very inviting (but I had work to do). There is a pedestrian crossing downriver and a covered bridge on the upward side (see http://colnect.com/en/postcards/postcard/54288-Bremgarten_covered_bridge-Bremgarten-Switzerland). I walked in a clockwise circle crossing both, and found some excellent views of the town and, more importantly, of the interurban bridge, which I duly photographed. Back at Obertor I continued my ride westward to the end of the line at Wohlen. Once outside the boundary of Bremgarten the interurban becomes dual-gauge in order to interchange freight with the national railway network. From that point forward the line is graded like an SBB branch (meaning like an American mainline), and it traverses a beautiful wooded

park-like area before terminating in front of the SBB Wohlen station.

I reversed direction and returned on the 15:50 from Wohlen, the turn for my 15:38 arrival, and got to Dietikon at 16:26. Checking the posted schedule for Basel, I found that I had just missed the 16:22, and while Dietikon is on the Zurich-Basel mainline, only one train per hour, an Inter-Regional, stops there, with all others whizzing past. So with the 17:22 being next, I spent some time photographing the interurban on the street.

I duly boarded the 17:22 and arrived at the SBB Bahnhof in Basel at 18:22, where I rode a Route 1 car back to the hotel. Clare had arrived about an hour earlier. We were both reasonably rested, so we decided to find a typical Swiss bistro for dinner.

One of my favorite routes in Basel is actually a pair, the 15/16, which circumscribes a hill (minor mountain) through an upscale residential area in the Bruderholz and Jakobsberg corner of the city. It reminds me a bit of the old 10 and 15 routes in Pittsburgh, where a change of the rollsign proclaimed the end of one route and the beginning of the other. We rode out and had an enjoyable meal in a neighborhood outdoor cafe (no English spoken).



A Stadler low-floor interurban car boards passengers from the forecourt of SBB's Frauenfeld station for its 11:19 trip to Wil. Base service on the Frauenfeld-Wil-Bahn (FWB) operates every half hour.



The Wil terminal of the Frauenfeld-Wil-Bahn, a few steps from the town's SBB station.

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new cars have been postponed; the next arrivals of new Flexity LRVs will now be headed for Route 504/King Street. On the down side are reports from local small businesses that walk-in foot traffic had suffered precipitous drops. (*Toronto Star*, December 4, 2017)

NAUMBURG, GERMANY

What claims to be Germany's smallest tramway grew by 440 meters to reach a total of 2.9 kilometers on December 1, 2017, with the opening of a one-stop extension from Vogelwiese to Salztor in Naumburg.

The extension returns trams to a further section of

what was once a circular route around the city. Reconstruction was funded by the city and the Land of Sachsen-Anhalt, as well as by sponsorship of electrification masts and sleepers by the public and local businesses which raised more than €100,000.

Naumburg's meter-gauge tramway dates from 1892 and although reduced from its former extent it has survived numerous closure proposals. The half-hourly service on the single-track route linking the old town with the city's main station is operated using a fleet of historic East German trams dating from the 1950s to the 1970s, and according to operator Naumburger Strassenbahn, the line is "as much a part of the identity of

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FWB's yard at Wil was relatively empty, but driving trailer 111 from 1985 was perfectly spotted for my camera.



A Stadler interurban has just left the FWB terminal in Frauenfeld and is traversing single track on Rheinstrasse on its 11-mile return trip to Wil. Most of the trip will be on trackage at the side of the road.



The Dietikon-Wohlen interurban traverses mostly side-of-the road trackage between Dietikon and Bremgarten, but that does not mean it does not climb and descend heavy grades. This photo, taken between the Widen-Heinruti and Zufikon-Belvedere Hammergeut stops, shows only one of the line's almost 180-degree turns through Mutschellen Pass.



The medieval town of Bremgarten on the Reuss River is one of the major traffic generators on the 12-mile long Dietikon-Wohlen interurban.

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the municipality as the famous cathedral.” (*Metro Report International*, December 6, 2017)

DOHA, QATAR

Public transport authority Qatar Rail has awarded the RKH Qitarat joint venture between a consortium of RATP Dev and Keolis (49%) and local construction, property, and trading business Hamad Group (51%) a contract to operate and maintain the Doha metro and Lusail light rail networks.

The contract awarded on December 7, 2017 is expected to be worth €3 billion over its 20-year duration.

Service is scheduled to be launched in stages from the end of 2018 to 2020.

The 75-kilometer driverless metro will serve 37 stations on three lines. The first part of the network will be largely underground and is expected to open at the end of 2018, with traffic expected to reach 640,000 passengers/day from 2021.

The 18-kilometer first phase of the Lusail light rail network will have four lines serving 25 stops. Half of the network will be underground. The first section is scheduled to open in January, 2019, with completion planned for 2020.

RKH Qitarat said the pre-launch mobilization phase

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Two views of Bremgarten, a quaint village of about 5,500 residents, which dates from the 12th century. While quite prosperous with little unemployment, it is apparently rather insular to say the least.



An inbound Stadler unit approaches Kirchplatz in Dietikon on Bremgartnerstrasse, one stop before the terminal at the side of the SBB railway station.

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was an “extremely short timeframe compared to the 18

months usually accorded.” As a result it would have to recruit and train employees in less than 12 months, with 1,500 staff being needed within two years. (**Metro Report International**, December 7, 2017)

SUBDIVISION “A” CAR ASSIGNMENTS

CARS REQUIRED DECEMBER 4, 2017

LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH
①	10 R-62, 300 R-62A	10 R-62, 300 R-62A	⑤	340 R-142	360 R-142
②	360 R-142	350 R-142	⑥	340 R-62A, 10 R-142A	340 R-62A, 10 R-142A
③	260 R-62	260 R-62	⑦	33 R-62A, 363 R-188	22 R-62A, 352 R-188
④	180 R-142, 170 R-142A	170 R-142, 160 R-142A	⑧ (42 nd Street)	10 R-62A	10 R-62A

Around New York's Transit System

RPA Issues Fourth Regional Plan

The Regional Plan Association (RPA) released its fourth report outlining concepts and recommendations on how to address the transportation issues confronting the New York City region including streets, highways, bridges, and mass transit. In the 95 years since its formation, it has issued just three prior reports of this magnitude, depth, and scope, in 1929, 1968, and 1996. Details are at <http://fourthplan.org/>. The most controversial recommendation is the proposed closure of the entire subway system during the overnight hours on Mondays through Thursdays, putting an end to New York City's famous 24/7 operation in "The City That Never Sleeps." This radical step was put forth as a means to facilitate the more rapid (as "short" as 15 years vs decades at the current pace) overhaul and modernization of the system to 21st Century standards. This particular recommendation was immediately rejected by NYC Mayor Bill de Blasio as well as by MTA Chair Joe Lhota. *(Editor's Note by Ronald Yee: Further examination of this proposal to close the subways overnight will probably show it to be counterproductive. It would burden the lower economic classes who disproportionately need the subway system during these hours to travel to or from their jobs, discourage mass transit ridership, encourage those with access to private automobiles to drive, provide a boon to taxis and Uber/Lyft-type car services adding far more traffic to city streets and siphoning off mass transit ridership, force overnight period passengers to wait under all weather conditions for "night buses" which will not be as fast (and slowed down even more by the increased traffic), add to urban air pollution, and be far more inefficient from energy consumption and labor (10+ Bus Operators instead of a two-person train crew) standpoints.*

The lure of the benefits of uninterrupted time windows to perform needed work may not be as beneficial as expected. A system shutdown where the last trains of the night depart midtown at around 12:30 AM would not take full effect until around 1:30 AM, when they arrive at their outlying terminals. The window would probably end 3 or so hours later, around 4:30 AM, as the tracks have to be made ready for train service by 5 AM. With today's staggered work hours, a 5 AM service resumption is almost too late — substitute buses would be hard-pressed to accommodate the uptick in ridership that begins around 4:30 AM. From my career at Metro-North Railroad, I can personally attest to the fact that an 11-car 7 train is at full seated load before reaching Queensboro Plaza and has standees arriving into Grand Central at 5 AM. Since my retirement over four years ago, Long Island City has had massive increases in population. Bus service for this level of ridership would be indeed difficult. The dwell times at bus stops would also be long unless an SBS type of fare pre-payment on all of the night bus routes were implemented (adding more infrastructure). And finally, to fully utilize this relatively short 3-4-hour work window, work crews and equipment must be staged and prepositioned "on-site," all set to start work immediately.)

Holiday Train Notes

NYCT operated the 2017 edition of its Holiday Train using its 1930s-vintage R-1 to R-9 cars. The eight-car consist was N-381-401-484-100-1575-1300-1000-1802-S and was based out of 207th Street Yard for the Sunday, November 26 run and based out of Pitkin Yard for the December 3, 10, 17, and 24, 2017 runs due to weekend track work on **A**. This year, instead of operating to Queens Plaza as it had in previous years, the train celebrated the first year of the Second Avenue Subway by operating over **F** from Second Avenue-Houston Street to 57th Street-Sixth Avenue, whereupon it crossed over to **C** at Lexington Avenue-63rd Street and headed up the Second Avenue Subway to 96th Street.

R-179 Teething Pains

As of publication of the January, 2018 *Bulletin*, the R-179 train is still being tested for acceptance, having been out of service at least once for door control issues. The first day of testing (November 19, 2017, a Sunday) was nothing short of frustrating as around 12:15 PM, the train ran over a blue bucket (some sources have claimed the train ran over a milk crate) at around 121st Street. The train was later taken out of service at 7:30 PM when a display-screen console onboard showed the doors were open in one of the cars as it pulled into the 111th Street **J** station. Bombardier personnel on board at the time reported that it was a faulty message, but the set was sidelined for the rest of the week.

World Trade Center-Cortlandt Street Transfer To Open

It was reported that on December 29, 2017, a long awaited paid transfer connection was to open between the World Trade Center **E** station and the Cortlandt Street **R W** station, allowing for the first time, transfers between these routes at this location. This also means that transfers can also be made to the adjacent Chambers Street **A C** station. The connection is from the south end of the **E** station to the north end of the southbound platform of the **R W** station. On the same day, additional access to the subways at the World Trade Center was to open, including a new street stair on the west side of Church Street between Fulton and Vesey Streets. Partially contained within the base of what will one day be 2 World Trade Center, the stairs provide access to the south end of the World Trade Center station for **E**. In addition, the southbound **R W** platform will be accessible from two new locations; one at approximately Dey Street from the upper concourse level of the World Trade Center Transportation Hub, and another further south approximately at Cortlandt Street from the retail concourse underneath 3 and 4 World Trade Center. Assuming these openings do indeed occur, additional details will be reported in the February, 2018 *Bulletin*.