# The Bulletin

**Electric Railroaders' Association, Incorporated**

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***The Bulletin***

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For general inquiries, or *Bulletin* submissions, contact us at **bulletin@erausa. org** or on our website at **erausa. org/contact**

Editorial Staff:

**Jeffrey Erlitz**
*Editor-in-Chief*

**Ronald Yee**
*Tri-State News and Commuter Rail Editor*

**Alexander Ivanoff**
*North American and World News Editor*

**David Ross**
*Production Manager*



**This Month's Cover Photo:**
Berliner Verkehrsbetriebe 1076-1 leads a southbound U2 train down the ramp and into the subway from the elevated Eberswalder Straße station (in the distance). These cars were built in 1989 for the, at the time, East Berlin subway by LEW (Lokomotivbau-Elektrotechnische Werke Hennigsdorf). Jeff Erlitz photo at high noon on May 5, 2019.

**The Genesis of Dashing Dan — Rockaway Beach Division …Page 2**

## SANDY RECOVERY WORK ON THE SEA BEACH LINE
### by Jeffrey Erlitz

Starting on Monday, October 21, Ⓝ Sea Beach service has once again been curtailed from Coney Island-Stillwell Av to 86 St, at all times. This service cutback is to permit flood mitigation work around the Coney Island Creek bridge, used by both Sea Beach and West End Line services. Previously, on November 4, 2001, Ⓝ service was cut back to 86 St to enable two tracks to be taken out of service for the Stillwell Av station reconstruction project. Service was restored to Coney Island-Stillwell Av on May 29, 2005.

STV, Incorporated was the firm that performed the design work and Tully Construction Company is the prime contractor. TAP Electrical Contracting Service Incorporated is the subcontractor doing, obviously, the electrical work.

Contract C-34836 (Coney Island Yard Complex Long Term Flood Mitigation) was advertised to bidders in the Fall of 2017 and was awarded in February, 2018. The project is slated to last 54 months.

The scope of this contract is quite extensive, as follows:

- Construction of a perimeter flood protection wall
- Drainage system improvements
- Two new sump pits and associated dry discharge lines with manifolds
- Engine driven deployable pumps
- Passive tie down of the Sea Beach and West End Line bridges along Coney Island Creek
- Installation of a debris shield from the north end of the creek bridges up to Neptune Avenue extension
- Hardening of bridge abutments on both sides of the creek for both bridges
- Installation of flood gate at north end of creek bridge
- Construction of new traction power and communication cable at Coney Island Yard

The work also includes: approximately 12,000 linear feet of perimeter protection wall, nine watertight vehicular gates, structural reinforcement of exterior building walls of the traction motor shop, new track underdrainage system, track replacement in affected areas, new signal work, two new drainage outfalls to Coney Island Creek, backflow valves and tide gates, and upgrading the pumping capacity of existing Tower A, B and C pump rooms. The new flood gate includes columns and their foundations, framework for a gate system, and seepage cutoff. The new power and communication work include new duct bank and manholes, installation of new traction power, control, battery cables and negative bus on the bridge, new poles, messenger cables and communication cables, and emergency alarm/emergency telephone. In addition, there is the requirement to inspect the perimeter protection system and materials stored for emergency deployment after any storm event and on a quarterly basis as well whether or not there has been a storm event in the preceding quarter. Also, there is the requirement to provide all labor, fill material, and tools to deploy and seal various gates at the Coney Island Yard complex as well as remove deployed gates promptly after a storm event. The remaining deployment location is the railroad crossings at the Coney Island Creek bridge.

# THE GENESIS OF "DASHING DAN," PART SIX— ROUNDING OUT THE 'TEENS ON THE LIRR
## by George Chiasson

### EVENTS ON THE ROCKAWAY BEACH DIVISION AND FAR ROCKAWAY BRANCH

The site currently known as Howard Beach, mainly recognized as a major touchpoint between MTA New York City Transit's Ⓐ train, the Port Authority's AirTrain, and JFK International Airport in 2019, has literally risen from the sea across the past century. It began as "Ramblersville," a scattered, seaward collection of houses gathered about Hawtree Creek by Brooklyn developer and glove manufacturer William H. Howard, who filled in several acres of natural tidal marsh to bring it to life shortly after the New York, Woodhaven & Rockaway Railroad was established, then marketed the perfunctory village in support of his previously-described "Howard House" resort (1898-1907). This entertainment center in turn was an outgrowth of the railroad line across Jamaica Bay, but it was not until June 15, 1899 that the Long Island Rail Road finally established its first station stop at Ramblersville (possibly as an employee base for the Howard House). Ironically, that initial station was sited on the banks of Hawtree Creek, where it was crossed by the Rockaway Beach Division on a very short, fixed bridge which was directly adjacent to the "summer resort" of none other than the recently-deceased Austin Corbin. In succeeding years the original scattering of homes blossomed into a full-blown suburban neighborhood, aided by even more creation of artificially-originated land, thanks in great part to the use of spoils from the Pennsylvania Tunnel & Terminal project following the Hotel Howard fire of 1907.

As the LIRR came to terms with its uplifted transportation status after 1910, the ease of access it offered from "Ramblersville" to commercial centers in Manhattan and Brooklyn, as attained after the Rockaway Line's electrification and its extension to Penn Station, did not take long to work its inimitable magic and development was intensified even further. Nevertheless, local preference was clearly in favor of the fulsome (if not occasionally ostentatious) residential and recreational versus the gaudy commercial and the community's identity as a smallish, homely village ultimately gave way to the pseudo-grandiosity of "Howard Estates." A new and larger Long Island Rail Road station, including relocation of the existing depot (which still carried the original Ramblersville name), was opened one block to the north of the original at the present 159th Avenue (then merely a projected alignment labeled "Egan Avenue") in April, 1913. The area was once again graced by a casino, beach, and fishing pier by the summer of 1915, along with their attendant maritime peripherals (marina, barroom, hotel). Consisting of outside low platforms on the edge of the four-track right-of-way heading toward Jamaica Bay, it was officially re-titled "Howard Beach" when the greatly-enhanced version of formerly humble Ramblersville was renamed with a touch of élan in honor of founder William Howard on April 6, 1916. Undoubtedly, the standing of this new "resort" (actually summertime amusement zone) was adversely impacted when the Volstead Act, which brought about "Prohibition," was passed in October, 1919. This combined with the diminishing prominence of public fishing in Jamaica Bay's increasingly polluted waters after 1920 and an equally-dubious legal connotation on public gambling to make the area even more residential in nature across the longer term. Subsequent access to Howard Beach was greatly improved when Cross Bay Boulevard was opened to motor traffic in 1923, but the area's one-time rebellious appeal was never really to return. As for the LIRR station, it was secondarily utilized as a relay and storage point for both summertime beach specials and dedicated trains to the nearby Aqueduct Racetrack, having an adjacent set of universal crossovers dubbed "HB" to move equipment between all four tracks for several decades.

Believed to be heavily damaged by fire during early 1913, the unpretentious Rockaway Beach Division station at Matawok was closed, but a replacement was installed on the curved track near White Pot Junction about a mile north of the original site. Located next to the Fleet Street overpass, its diminutive low platforms were linked by a wooden overhead bridge and sized just big enough for one train door to use. Still intended to ease access from the developing residential properties nearby, it "reopened" on May 25 along with a number of other schedule changes, but only lasted through the summer and had disappeared into eternity by that September, eventually to be replaced by a completely new stop at another site many years later. In an early effort to reduce physical plant expense, and as a sign of the significant traffic shift away from Long Island City following the opening of Penn Station, the direct link between Track 1 of the Rockaway Beach Division and Track 1 of the Montauk Division at Glendale Junction was removed sometime in 1916, with all moves between the two in both directions then making connection via Track 2 only. In May, 1912, incremental improvements were made at Olde Arverne (Gaston), where a new depot building opened at Clarence Avenue (B. 68th Street) and a high platform for LIRR trains erected between the southerly and middle tracks. Meanwhile, at the remote Goose Creek station, a simple passenger shelter was finally added. New buildings were also installed at Cedarhurst on the Far Rockaway Branch during 1913 and at the Holland station on the Rockaway Park Branch in 1914, while a larger terminal building also opened at the Rockaway Park terminal in 1917, though its trackside facilities (including the upper level

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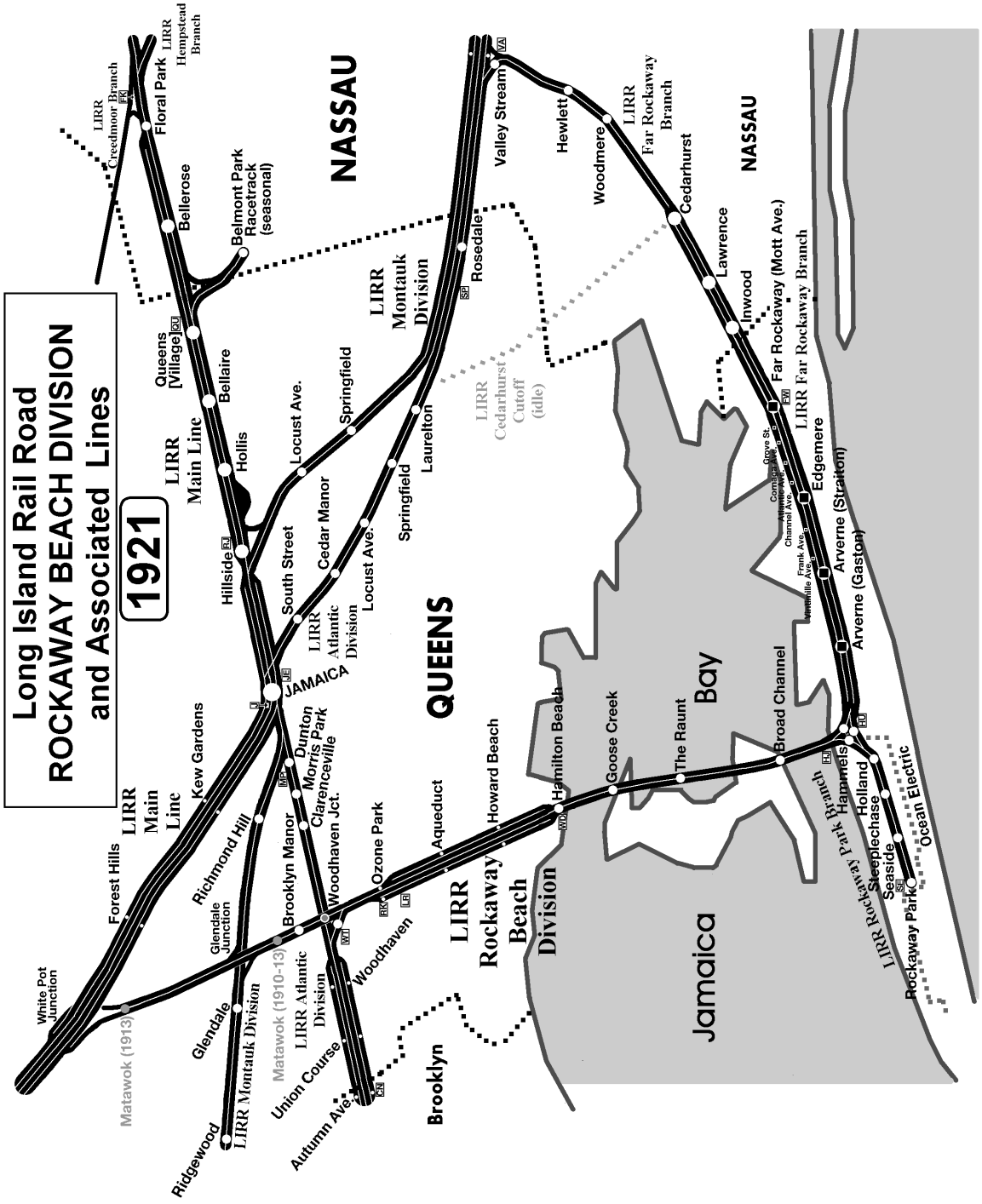
loop) were as yet unchanged, with the Ocean Electric trolley then still clanging past its frontage. Finally, yet another brand new station was added to the Rockaway Beach line-up in 1919 called "Hamilton Beach," being laid as Howard Beach was on an artificially-filled tidal basin at what was then a projected survey for Hackensack Avenue (now 104th Street), next to "WD" Tower. This was the point where the four tracks as built in 1903-4 merged to the original two for the line's passage across Jamaica Bay and at that time was a fast-growing residential zone; essentially a thinly-separated extension of the enlarged Howard Beach neighborhood. By 1919 this area had become totally devoid of its previous association with the Howard House resort but was very accommodating to what were then the simple pleasures of summer: "Bathing (as swimming was then known), Beer. and Breeze."

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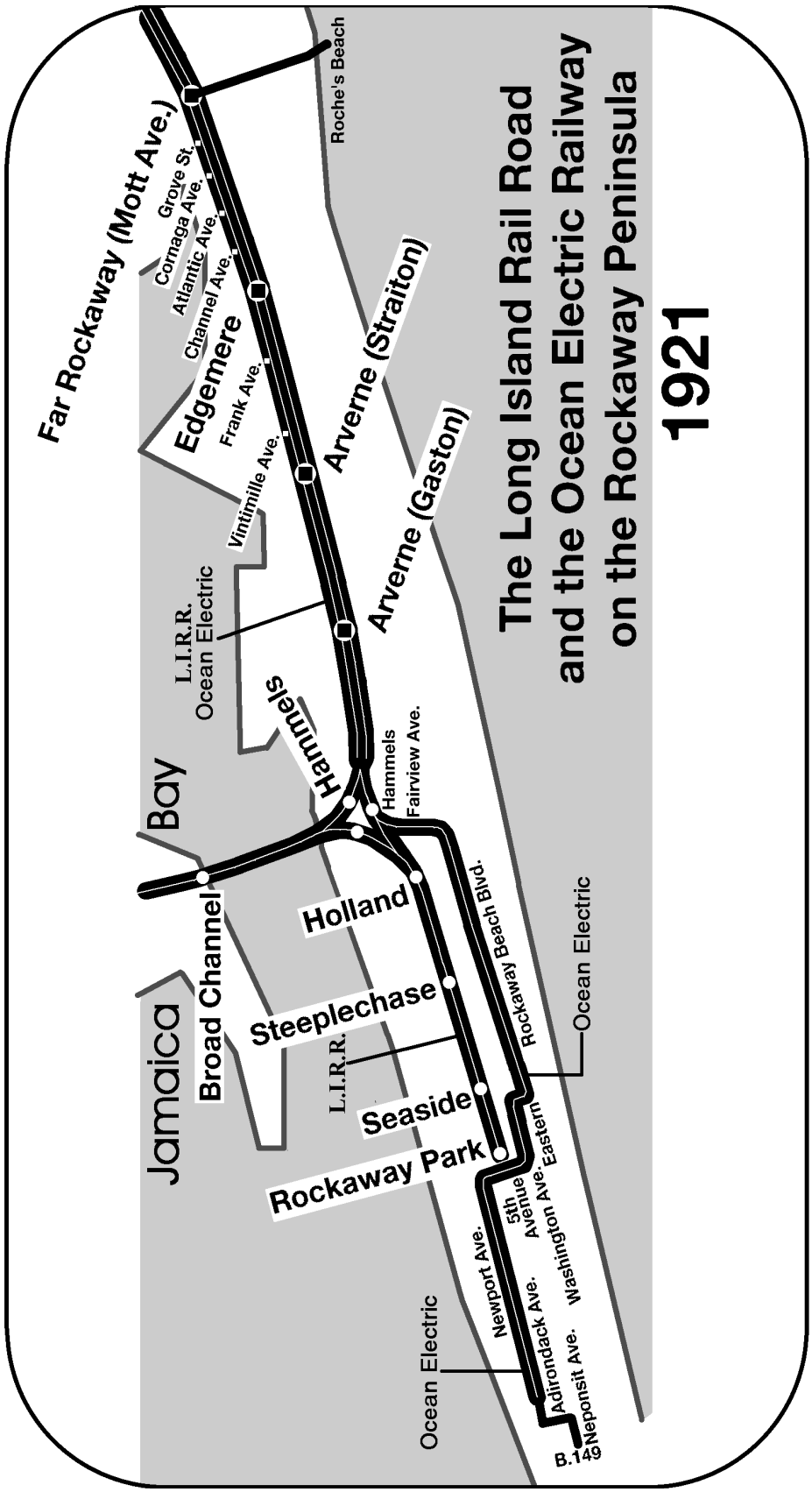

# A VISIT TO BERLIN'S MUSEUM TRAMWAY DEPOT
## by Jeffrey Erlitz
## (Photographs by the author)

This past May 8, I had the opportunity to visit the tramway depot in Berlin, Germany where the entire museum collection is housed. This is at the Köpenick depot, which is on the southeast side of Berlin. Köpenick used to be an independent town, with its own tramway system, but was merged into Berlin in 1920 at which time it became a borough of the larger city.

The historic tramway collection is not operated by the BVG-Berliner Verkehrsbetriebe (Berlin Transport Services). A separate group, the Denkmalpflege-Verein Nahverkehr Berlin (Historic Preservation Association of Berlin) operates them.

What follows is a portion of the collection:


**Horse car 573 (Waggonfabrik P. Herbrand & Co., 1883).**


**Single-truck motor 10 (P. Herbrand & Co., 1901).**
**Single-truck trailer 808 (Große Berliner Straßenbahn, 1908).**


**U3L single-truck motor 3110 (Nationale Automobil, 1899).**
**TD single-truck motor 2990 (P. Herbrand & Co., 1910).**


**T24/49 motor #5984 (Hannoversche Waggonfabrik, 1925).**
**TM34 motor #3802 (Gebrüder Schöndorff, 1934).**
**B 06/27 trailer #984 (Große Berliner Straßenbahn, 1906).**

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## A Visit to Berlin's Museum Tramway Depot

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**TF26 single-truck motor 4362 (Orenstein & Koppel, 1926).**


**BDM26 double-truck trailer 1525 (Orenstein & Koppel, 1926).**


**TM 34 single-truck motor 3802 (Gebrüder Schöndorff, 1934).**


**TDE58 double-truck motor 218 001-2 (Gotha, 1958).**
**BZ69 single-truck trailer 3711 (Reichsbahnausbesserungswerk Schöneweide, 1969).**


**TE59 single-truck motor 217 055-8 (Lokomotivbau-Elektrotechnische Werke/Reichsbahnausbesserungswerk Schöneweide, 1960).**
**BE 59/1 single-truck trailer 267 006-1 (Reichsbahnausbesserungswerk Schöneweide, 1960).**
**BE 64 single-truck trailer 267 428-2 (Reichsbahnausbesserungswerk Schöneweide, 1965).**


**KT4DM 6100 (CKD, 1984) + KT4DM 6129 (CKD, 1980).**

# Commuter and Transit Notes

No. 370

by Ronald Yee and Alexander Ivanoff

### MTA Metro-North Railroad

As part of the September 29 timetable revision, Metro-North mistakenly indicated that three Saturday-only Harlem Line trains also operated on Sundays. Those three Saturday-only trains are the 9:16 AM from Grand Central Terminal to North White Plains, the 10:16 AM from Grand Central Terminal to North White Plains, and the 11:16AM from Grand Central Terminal to North White Plains. (MTA service alert via Randy Glucksman, October 1)

### NJ Transit

As part of NJ Transit's 40th anniversary, the agency's Rail Operations maintenance crews have applied special wrapping to a pair of locomotives, turning them into Heritage units. ALP-46A 4636 is now in the Pennsylvania Railroad Tuscan red scheme while work is almost finished, turning ALP45-DP 4519 into an Erie Lackawanna locomotive. The units will be unveiled at a NJ Transit employee day at the Meadows Maintenance Complex and will soon thereafter be placed into revenue service. In addition, NJ Transit crews repainted GP-40-PH-2 4109 into its as-delivered Central Railroad of New Jersey colors. It is rumored that 4109 will have its HEP generator rebuilt, allowing it to be used in revenue service. The locomotives were scheduled to debut on October 8. (Al Holtz, October 1; ***Trains*** Magazine, October 5)

Trains on one NJ Transit route that had been curtailed last year as the agency scrambled to finish installing Positive Train Control will finally be restored.

Transit officials and New Jersey Governor Phil Murphy said on October 14 that off-peak direct service on the Raritan Valley Line to New York will resume in three weeks. The trains serve towns in Essex, Union, Somerset, and Hunterdon Counties. The service was halted last fall to accommodate the system-wide installation.

The work caused delays and cancellations on other rail lines and prompted NJ Transit to suspend service to Atlantic City. (NBC New York, October 14)

Coming on the heels of the Raritan Valley Line news, Governor Murphy announced on October 15 that NJ Transit and Amtrak are about to begin repair and rehabilitation work at a handful of rail stations across the state. Work on the stations would begin this fall and continue through early 2020. The projects are slated for Elizabeth, New Brunswick, Princeton Junction, and Trenton.

The work will include improvements to the elevator system at New Brunswick and an extension of a platform to increase boarding capacity.

Other work includes Elizabeth getting two new elevators as well as a new ramp to comply with the Americans with Disabilities Act. Timber boards on platforms will be replaced in Trenton, and in Princeton Junction, there will be general platform repairs. (NBC New York, October 15)

### Other Transit Systems

#### *Boston, Massachusetts*

The Massachusetts Bay Transportation Authority (MBTA) has taken all its new CRRC (China Railway Rolling Stock Corporation) Orange Line cars out of service to install replacement door bump stops after one door leaf opened on one car while its six-car trainset was in motion. The trainset went into emergency braking automatically and stopped, according to the MBTA. No injuries were reported.

According to the MBTA, the initial trainset operated 7,000 miles during routine and qualification testing, and also completed a 40-hour reliability demonstration in which they operated in simulated revenue service. Following that, they were subjected to a 500-mile "burn-in test."

#### *New Orleans, Louisiana*

Following the tragic collapse on October 12 of the under-construction Hard Rock Hotel in New Orleans, the New Orleans Regional Transit Authority (NORTA) had to make service changes.

Crews were working on the hotel when a portion of the building collapsed, killing at least two and injuring more than 19 people. One person remained missing at press time. The cause of the building collapse is under investigation, local media reported.

Streetcar service has been suspended along the Riverfront and Rampart-St.Claude routes, and on portions of the Canal-Cemeteries and Canal-City Park/Museum routes. Bus service is available along the impacted lines, NORTA officials said in a press release. NORTA has temporarily relocated central operations to an emergency transit center on Canal Street. (***Progressive Railroading*** via Randy Glucksman, October 14)

#### *Los Angeles, California*

Metrolink began operating a new train schedule on October 14 to improve frequency and connections between its commuter lines in California. The agency added more midday trains to its Orange County Line, which connects Orange County to Los Angeles, as well as added a westbound and eastbound train on its 91/Perris Valley Line between Perris and Los Angeles.

Additionally, Train #682 will depart L.A. Union Station 20 minutes earlier and arrive at the Laguna Niguel/Mission Viejo station at 7:50 AM to help commuters get to work by 8 AM, Metrolink officials said in a press release. The new schedule also includes minor adjustments on the Riverside, San Bernardino, and Inland Empire-Orange County lines to improve connections and reduce delays. (***Progressive Railroading***, October 11)

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***San Francisco, California***

Caltrain was expected to host a community meeting on October 10 to discuss the continued construction activities in Sunnyvale, California, as it prepares to electrify its rail corridor from the San Francisco Caltrain Station to the Tamien station in San Jose by 2022.

In the coming months, Caltrain crews will continue foundation installation and begin the installation of poles along the rail corridor in Sunnyvale. Construction on the paralleling station facility near the Sunnyvale Caltrain station is still on-going.

Replacing diesel-hauled trains with electric trains will improve Caltrain's system performance, enable more frequent or faster train service, and minimize long-term environmental impacts by reducing noise, improving regional air quality, and decreasing greenhouse gas emissions, Caltrain officials said in a press release. (***Progressive Railroading***, October 9)

***Cuba***

Cuban and Russian officials signed a US$1.88 billion 10-year contract on October 3 for Russian Railways (RZD) to upgrade more than 600 miles of the Cuban rail network. The plan calls for upgrading the Havana Central-Santa Clara-Camaguey-Santiago de Cuba main line along with two other lines. A traffic control center would be built as part of the project. (***International Railway Journal*** via Randy Glucksman, October 4)

***London, England***

Crossrail published a new plan on October 21 to complete the outstanding works on the heavily delayed Elizabeth Line and says the core section through central London will open between October, 2020 and March, 2021.

This means the opening period for the central London section has now been extended to six months, compared to the previous plan announced in April to open it between the end of 2020 and the start of 2021. Crossrail says this is "due to the complexity of the remaining work."

The 21-kilometer underground section through central London from Paddington to Stratford and Abbey Wood was originally scheduled to open in December, 2018.

Crossrail says the central section is "the most difficult and challenging phase of the program with significant integration and testing to complete," and it is focusing on three critical aspects:

- train and signaling software
- tunnel systems and stations
- shafts and portals

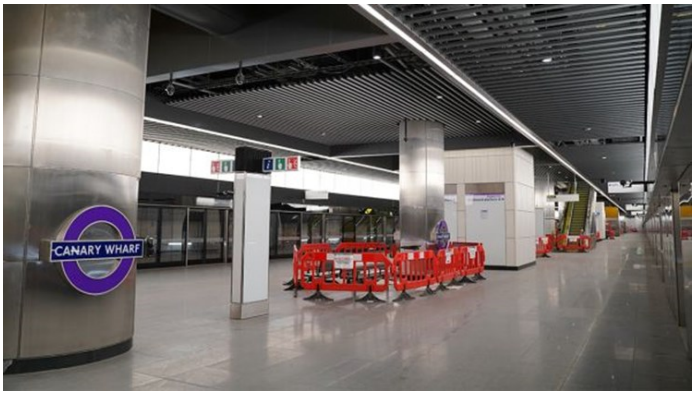
Crossrail says around 120 key milestones have been identified and are being tracked. "By the end of the year, final fit-out and testing and commissioning is due to be completed at many stations," Crossrail says. "We are on track to complete fit-out and testing of the tunnels by January, 2020. This will allow the new stations and rail infrastructure to be integrated with the rest of the railway.

"During 2020 we will undertake testing of the completed railway including an extensive period of trial running and trial operations to build absolute confidence in the safety and reliability of the whole system before opening to the public."

Crossrail says that as the program to complete and test the Elizabeth Line progresses, it will be able to provide increasing certainty about when the line will open.

Crossrail trains are already operating on the mainline network from London Liverpool Street to Shenfield, and from London Paddington to Hayes & Harlington and are due to be extended west to Reading in December. (***International Railway Journal***, October 23)

**Fitting out is ongoing at the Elizabeth Line's (Crossrail) Paddington station.**
***International Railway Journal*** photograph




**Canary Wharf station on the new Elizabeth Line.**
International Railway Journal photograph

***Amsterdam, The Netherlands***

Coming on the heels of the airline's centennial, KLM Royal Dutch Airlines is to replace one of its five daily flights between Brussels and Amsterdam Schiphol with reserved seat capacity on a Thalys high-speed train service effective March 29, 2020.

This is the first step in a process to cut the number of flights between Brussels and Amsterdam, with passengers using rail to connect with intercontinental flights at Schiphol. This would support the airline's sustainability

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**Commuter and Transit Notes**

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initiatives and enable airport slots to be used for flights to long-haul destinations. (***Railway Gazette***, September 27)

***Augsburg, Germany***

Stadtwerke Augsburg has awarded Stadler a €57 million contract to supply 11 low-floor trams.

The contract announced on October 1 includes options for 16 more vehicles, as well as 16 years of maintenance. Stadler says that this is its first tram maintenance contract in Germany. Stadtwerke Augsburg staff will carry out maintenance work at the operator's workshops on behalf of Stadler.

The unidirectional seven-section Tramlink vehicles will be 42 meters long with capacity for 231 passengers including 86 seated. They are expected to enter passenger service starting in 2022 and will be needed for the planned extension of Route 3. (***Metro Report International***, October 2)

***Wuppertal, Germany***

ETCS Level 3 train control has been successfully commissioned on the Schwebebahn suspension monorail in Wuppertal, which reopened in August following a nine-month closure for infrastructure renewals.

Under Level 3, track occupancy is determined solely by the vehicles communicating their positions to the central computer via radio. This obviates the need for conventional trackside train detection components such as axle counters, which have now been removed.

Alstom has supplied its Atlas ETCS technology under a contract signed with WSW Mobil in 2012. This covered the onboard equipment for all 31 vehicles in the new Schwebebahn fleet, as well as the heritage Kaiserwagen. It also included lineside equipment, such as the radio block center, replacement interlockings and an interface to the operation control system.

Wuppertal is the first city in Germany to adopt ETCS for an urban rail application, according to Alstom's Managing Director for Germany and Austria Jörg Nikutta. Alstom supplied the components from its factories in Villeurbanne and Bologna, with installation and commissioning carried out by Alstom staff from Charleroi, Salzgitter and Berlin. (***Metro Report International***, September 6)

***Avignon, France***

The initial section of the Avignon tramway was inaugurated on October 19 with a day of free travel.

The 5.2-kilometer route T1 runs east from Saint-Roch Université des Métiers to Gare Centre, then south along Avenue Saint-Ruf and Avenue de Tarascon, before turning east again to reach Saint-Chamand Plaine des Sports, where the depot is located. There are 10 stops and the end-to-end journey time is 15 minutes.

The city's first-generation metre-gauge tramway closed in 1932. In September, 2010 the city authorities approved a plan to build a standard-gauge tramway, but this was cancelled in 2014. A scaled-back version was approved in January, 2015 and preliminary works began in October, 2016. In May, 2017 a contract was signed with a TSO-led consortium including Alstom, Guintoli, EHTP, and Agilis.

The total value of the project is €135 million. The tramway is owned by the Grand Avignon local authority, and managed and operated by Orizo. Services run every 6 minutes.

Alstom is suppling a fleet of Citadis X05 trams, the first of which was delivered in December, 2018, ahead of test running that started the following month. Four vehicles are being delivered for the future route T2, with the remaining 10 to be used on route T1.

The bidirectional three-section trams are 24 meters long with capacity for 140 passengers. The 100% low-floor vehicles are equipped with LED lighting, air-conditioning and CCTV. The fleet is being assembled at Alstom's La Rochelle factory, with components coming from other Alstom sites in France.

The initial section of the Avignon tramway was inaugurated on October 19. (***Metro Report International***, October 21)


***Metro Report International*** photograph

***Paris, France***

The first of 255 double-deck EMUs being built by Alstom and Bombardier for Paris RER lines D and E has been completed, and is expected to start testing shortly, Île-de-France Mobilités announced on October 18.

The regional transport authority has committed to a complete replacement of the fleets used on both routes, with the first trains expected to enter service in 2021. Five pre-series trainsets are due to be completed this year for the testing program.

Designated X'trapolis Cityduplex by Alstom, the RER Nouvelle Génération EMUs will be delivered in two variants. On behalf of IDF Mobilités, SNCF placed a framework contract in January 2017 valued at €3.75 billion, covering the supply of 125 six-car sets of 112 meters for RER Line D and 130 seven-car units of 130 meters for Line E. An initial firm order worth €1.55 billion covered the first 71 trainsets to replace the current Z2N EMUs on Line D.

The contract provides for the four motor vehicles in each EMU to be assembled by Alstom and the intermediate cars by Bombardier. The trains are being manu-

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factured at the companies' Petit-Fôret and Crespin plants in Valenciennes.

All of the RER NG units will be equipped with the NExTEO communications-based train control system that will initially be installed on the central section of Line E. The fleet renewal is being coordinated with construction of the western extension of Line E, which is expected to reach Nanterre in 2022 and Mantes-la-Jolie in 2024. (Railway Gazette International, October 18)

***Sarajevo, Bosnia***

The Sarajevo Canton government approved €69.5 million of transport funding for the capital on October 17.

The largest project by value is the purchase of 20 trams, which has been allocated €41 million. A further €23.5 million is being put towards a 6.4-kilometer tramway extension from the current western terminus of Ilidža to Hrasnica, which would add 11 stops.

According to the canton's transport minister, Adnan Šteta, the project documentation is ready, and the government expects to obtain a building permit shortly. The extension is expected to spur the development of new housing that would accommodate at least 20,000 people.

In April a feasibility study was launched for the construction of a cable car from Hrasnica to Bjelašnica mountain and the Bosna Spring.

The government has also allocated €5 million for the reconstruction of the trolleybus wires and substations on the route between Vogošća and the railway station. This route has been abandoned since the war of the 1990s. (***Metro Report International***, October 18)


**Satra III 603 (Pars nova, 2009) is a rebuild of K2YU 223 (Tatra, 1975). In 10/2017 this car was renumbered to 548.**
***Metro Report International*** photograph

***St. Petersburg, Russia***

A southern extension of St. Petersburg metro Line 5 was inaugurated on October 3, adding three stations to the line.

The 6.4-kilometer extension from Mezhdunarodnaya to Shushary has been built at a cost of 34 billion rubles. Most of the extension runs in double-track cut-and-cover tunnels, with twin bore tunnels at the northern end and a short surface section at the southern end. The Prospekt Slavy station is 59 meters below ground, Dunayskaya is 19 meters underground, and Shushary is at grade.

Line 5 has a capacity of 40 trains per hour per direction, and initial ridership at the three new stations is forecast at 997,000 passengers a day.

The Yuzhnoe depot, east of the Shushary station, opened on September 5. Built at a cost of 10.6 billion rubles, the depot has enabled trains on Line 5 to be lengthened from six to eight cars. Trains on Line 4 have been lengthened to seven cars. (***Metro Report International***, October 4)

***Port Louis, Mauritius***

Stephen Spark photograph, ***Metro Report International***.

The first phase of the Metro Express light rail project was officially inaugurated by Prime Minister Pravind Kumar Jugnauth at a ceremony on October 3.

The 13-kilometer north-south route serves nine stops between Immigration Square in Port Louis and Rose Hill. The second phase, due to be completed in 2021, will add another 13 kilometers from Rose Hill to Curepipe with 10 stops.

The route largely follows the alignment of the former Mauritius Government Railways' Midland Line, which was abandoned in 1964. Once the whole route is completed, ridership is expected to be 55,000 passengers a day, with an end-to-end journey time of 40 minutes.

The project is being funded through a US$275 million grant and a US$250 million loan from the Indian government. In July, 2017 Larsen & Toubro was awarded a Rs18.8 billion turnkey contract to build the line and procure rolling stock.

In December, 2017 CAF won a €100 million contract to supply 18 low-floor light rail vehicles together with depot equipment, vehicle location technology, a driver training simulator, and signaling. Six of the seven-section bidirectional vehicles have so far been delivered. (***Metro Report International***, October 17)

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**Commuter and Transit Notes**

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***Tokyo, Japan***

East Japan Railway announced on October 8 that Automatic Train Operation is to be introduced on Tokyo's Joban Line (Local) services next year.

The ATO project forms part of JR East's "smart train" program, which covers various aspects of operations, maintenance service, and safety. It is intended to give the operator more experience and data to inform the future introduction of driverless trains. The announcement follows experiments with automated train operation on the Yamanote Line earlier this year.

In 2013, JR East selected Thales to design a communications-based train control system with a view to replacing its ATC train protection system on the Ayase-Toride section of the Joban Line. (***Metro Report International***, October 9)

***Beijing, China***

Two rail links to Beijing's second international airport were opened for revenue services on September 26, the same day that commercial passenger flights began using Beijing Daxing Airport. This followed official inauguration of the airport by President Xi Jinping the previous day.

The airport is served by a 47-kilometer high-speed line from Beijing Xi, which includes 28 kilometers of viaduct. The line has one elevated intermediate station at Daxing, while the airport station is underground. Trains can run at up to 250 kilometers per hour, giving a journey time of 20 minutes. Service is operated using a fleet of CR400AF trainsets with modified interiors to provide a large luggage storage area and 2+2 rather than 3+2 seating.

A 41.4-kilometer suburban metro line, branded as Daxing Airport Express, connects the airport with the Caoqiao station on orbital metro Line 10, and has one intermediate station at Daxing Xincheng. The line is elevated for 17.7 kilometers, with the remainder being underground. Test running has been underway since June. The metro line is worked by a CRRC Qingdao Sifang-built fleet of 12 eight-car Type D trainsets, which include a dedicated luggage vehicle. (***Metro Report International***, September 27)

***Changzhou, China***

Changzhou became the fourth city in Jiangsu Province to gain a metro when Line 1 opened on September 21.

The line runs for 34.2 kilometers north-south between Senlin Gongyuan and Nanxiashu, serving three administrative districts, residential and business areas, and connecting to the high-speed rail and local bus networks. There are 29 stations, with 27 being underground and two at the southern end being on a 2.2-kilometer elevated section.

The line is equipped with the Cityflo 650 communications-based train control supplied by Bombardier NUG Signalling Solutions Company. This supports automatic train operation at speeds of up to 80 kilometers per hour.

The 36 six-car Type B trainsets have a capacity of 2,062 passengers and are equipped with MITRAC traction and control systems supplied by Bombardier NUG Propulsion System Company.

Service operates between 6:25 AM and 9:45 PM, with tickets available on smart cards and mobile phone apps.

Construction of Line 1 was launched in 2014, with the first tunnel boring machine beginning work in September, 2015. Tunneling, tracklaying, and the installation of electrical equipment was completed at the end of 2018, and non-passenger carrying test running started in May of this year.

The Wenfugong station in the city center has provision for an interchange with the 19.9-kilometer east-west Line 2, which is under construction for opening in 2021. Long-term plans envisage six lines totaling 208 kilometers. (***Metro Report International***, September 23)

***Xuzhou, China***

The first metro line in Xuzhou opened on September 28. This gives Jiangsu Province five metro networks, surpassing Guangdong's four, to make it the province with the most.

The east-west Line 1 links Xuzhou Dong Railway Station with Luwo, serving 18 stations. Most of the 21.9-kilometer route is underground, with the western 900 meters and the Luwo station on an elevated alignment.

CRRC Nanjing has supplied a fleet of six-car Type B trainsets with a crush-load capacity of 2,146 passengers. Service operates at peak headways of 8 minutes and off-peak frequencies of 9 minutes 40 seconds. The end-to-end journey time is 40 minutes.

Construction started in February, 2014 and cost 16.3 billion yuan. Two more metro lines with a combined length of 42.5 kilometers are due to open next year, and in the longer term three more lines would bring the city's metro network to 169.2 kilometers with 127 stations. (***Metro Report International***, September 30)

***Xi'an, China***

The Xi'an Airport Intercity Line opened to passengers at 12:30 PM on September 29.

The 29.3-kilometer route connects Beikezhan with Airport West, which serves Terminals 1, 2, and 3. Most of the route is elevated, with a total of 8.5 kilometers at both ends of the line underground. In addition to the two termini, the Airport T5 station is underground, although this station is still to open. Once it does, the line will have 10 stations.

Service is operated by Shaanxi Intercity Railway Company using a fleet of six-car Type B trainsets. Passengers can travel between 6 AM and 11:30 PM, with the end-to-end journey taking 33 minutes.

Interchange is provided with metro Line 4 at Beikezhan. In the future, this will also be an interchange for metro Line 14, a 13.8-kilometer route that will run east from Beikezhan to Heshaocun, serving seven stations.

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# TORONTO TRANSPORTATION SOCIETY'S "FAREWELL TO THE CLRV" FANTRIP by Alexander Ivanoff (with notes provided by Ron Yee)

The Toronto Transportation Society sponsored a "Farewell to the CLRV" charter excursion on Sunday, September 22, 2019. I joined ERA President Bob Newhouser and ERA Second Vice President Ron Yee along with over seventy other transit enthusiasts for a ride through Toronto on several different streetcar lines.

The three of us rode Amtrak's westbound *Maple Leaf* from New York to Toronto but had to transfer to a charter bus in Niagara Falls as the Whirlpool Rapids Bridge is out of service for long-term maintenance work that is scheduled to wrap up at the beginning of November. One result of this truncation of the train to operate only as far as Niagara Falls, New York was the continued operation of Amtrak's P-32-AC-DM (unit 707) from New York Penn Station through to Niagara Falls, New York. In recent years, dual-mode locomotives rarely venture west of Rensselaer, with most western NY trains hauled by P-42-DC locomotives after an engine change.

Because of the high demand for tickets for the charter, the TTS had two CLRVs on the excursion, cars 4094 and 4098. Both were clean and free of "wrap-ads" covering the windows. A nice touch to the charter was that our streetcar operators were both TTS members. The trip started with the two cars picking up the attendees on Church Street just south of Queen Street. The cars arrived around 10 AM, 30 minutes before the official commencement of the trip at 10:30 AM. The two CLRVs apparently originated out of Russell Carhouse, located a few kilometers east of downtown on Queen Street East. Except for the St. Clair Line, which has been converted to catenary, the trip covered portions of many of the TTC streetcar lines. While the St. Clair Line can technically still accommodate CLRVs and other trolley pole-equipped streetcars, the catenary on the St. Clair streetcar loop precludes the ability to handle those vehicles and requires equipment with pantographs.

Our group made several photo stops along the way. Due to operational issues, TTC only permitted photo stops wherever the cars could be posed on loops at the end of several lines. Our stops were the loops at Distillery on the Route 504A, Queen and Coxwell, McCaul off Bathurst on Route 511, Fleet Street on Routes 509 and 511, High Park at the end of Route 506/Carlton, and Humber and Long Branch on Route 501. Because the charter ran late, we were told that the planned photo stop at Kipling Loop was being cancelled to avoid any further delay in returning the cars to Russell Carhouse.

While the fantrip was scheduled to end at 2:30 PM, it ended running over an hour late before the cars returned to Church Street and dropped everyone off. In the end, the three of us rode GO Transit from Long Branch to Union Station and took the UP Express to Pearson Airport in time to clear customs and board our respective flights back to New York City. Because of trackwork, the UPX was operating every half hour and necessitated us backing out of Union Station before changing ends and proceeding west to the airport, adding to our travel time. Because of the two-car consists observed for all three trains out on the line, our train was crush-loaded after the stop was made at Bloor Street.

The TTS CLRV charter was a fitting farewell to these cars as their final days are upon them. An ALRV (unit 4204) has been delivered to the Halton County Radial Railway and it is safe to assume that a CLRV will join the ALRV in the collection.

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requesting feedback from customers to refine the station accessibility program. To provide feedback on the Accessible Station Lab, customers can use the web form and select Subways and Compliment from the drop-down menus on the MTA's website at MTA.info. (MTA press release, visited on October 24; WABC-TV, October 16) (Editor's note: While the additions are a nice touch, the deployment seems a little too experimental and something I would not expect to see in the future. I would aim for improvements that can be added to every station and focus on upgrading existing signage, pathways, etc. to the latest accessibility design guidelines and industry standards. Accessibility should be seamless and not just an afterthought, which is almost what the station lab does).

### NYC Transit's Save Safe Seconds Program Update

MTA subways are getting the green light to go full steam ahead and increase speeds — 10 months after initially getting permission to do so.

Trains along the ❶❷❸ and ❼ lines were studied, and the MTA ruled that all trains in the system could see as much as a 50 percent increase in speeds. The MTA actually raised the speed limits nearly a year ago after transit executives said they had been too low for decades, the result of a deadly 1995 crash on the Williamsburg Bridge.

Officials finally raised the speed limit from 15 up to 30 miles per hour in some areas, which the agency insists is safe — but the Train Operators who drive the trains have been worried about getting in trouble for going too fast.

The MTA essentially admitted that those fears were

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warranted, as they found that there were hundreds of speed signals that were incorrectly calibrated. That would mean the trains' automatic brakes would be activated, and the Operators would be punished.

But the transit agency says that 200 of those incorrect signals have been fixed, and they will be doing checks on 2,000 more.

New York State Governor Andrew Cuomo insisted at an MTA press conference that once the workers trust the signals, then everyone's commutes will get better.

Meanwhile, additional speed improvements have been made on various subway lines since the October ***Bulletin***.

Shown below are the additional locations of speed restrictions that have been modified:

| DATE | LOCATION | TRACK | FROM (MPH) | TO (MPH) |
|---|---|---|---|---|
| 10/2-3/2019 | s/o Myrtle Av J M | J2 | 25 | 30 |
| " | n/o Van Siclen Av J Z | J1 | 30 | 35 |
| " | n/o 121 St J Z | J2 | 25 | Removed |
| 10/10-11/2019 | n/o Utica Av 4 | 3 | 10[1] | 19 |
| " | n/o Utica Av 3 | 4 | 10[1] | 19 |
| " | n/o Franklin Av 2 3 | 4 | 15 | 20 |
| " | n/o Chambers St 1 | 1 | 15 | 29 |
| " | s/o Franklin St 1 | 1 | 25 | 36 |
| " | n/o Times Sq-42 St 2 3 | 3 | 18 | 29 |
| " | s/o Central Park North (110 St) 2 3[2] | 2 | 15 | 21 |
| " | s/o 135 St 2 3 | 3 | 20 | 30 |
| " | s/o 135 St 2 3[3] | 3 | 20 | 20 |
| 10/15-16/2019 | s/o Canal St 6 | 1 | 20 | 25 |
| " | 14 St-Union Sq 4 5 | 2 | 20 | 28 |
| " | s/o 138 St-Grand Concourse 4 | 4 | 20 | 24 |
| " | s/o Burnside Av 4 | 4 | 25 | Removed |
| " | s/o 3 Av-138 St 6 | 2 | 25 | 28 |
| 10/17/2019 | n/o Myrtle-Wyckoff Avs M | M1 | 20 | 22 |
| " | s/o Fresh Pond Rd M | M2 | 25 | 30 |
| " | n/o Fresh Pond Rd M | M2 | 25 | 30 |

Notes:
[1] At this location, there previously had been no speed restriction sign(s) in place. Where there are no speed restriction signs posted, diverging moves over switches are restricted to 10 mph so this is an implied increase from 10 mph for the diverging moves.
[2]There are signs for train operation in both directions at this point.
[3]For southbound moves.

# THREE ISLANDS OF ITALY
## by Jack May
## (Continued from October, 2019 issue)
## (Photographs by the author, except where noted)

We were awakened by the public address system speaker in our room and soon prepared for our 8 o'clock arrival in Genoa. As it happened we did not come to a halt until 8:20, and it was a good 10 minutes more before we were allowed off the boat and back onto the mainland. This was the beginning of the home stretch of our trip, as we would be flying back to the U. S. on the next day. However we had some time in Genoa for some of our favorite activities before our afternoon train to Milan.

Genoa has a population of about 650,000 and lies between the Mediterranean Sea and some steep hills. Its legacy tramway was abandoned in 1966, leaving just a combination of bus and trackless trolley routes. However, that was deemed insufficient to serve Genoa's residents and a short light metro system was opened in 1990. The mostly underground line has been extended since and now is four miles long and has eight stations. Only the two terminals are above ground (see http://www.urbanrail.net/eu/it/gen/genova.htm).

Because of the city's topography there are also two funiculars, a rack railway and ten(!) public elevators. And, there is also an electric interurban that runs from Genoa to Casella, a distance of some 15 miles. None of the lines connect with each other. Since 2014 the 3,000-volt d.c. rail route has been closed for renovation, but fortunately I rode the scenic operation on a previous visit. Apparently it reopened on May 21, some 6 weeks after our visit to the city.

On the next page is a photo of the Casella line from the internet.

Anyway, we dragged our carry-ons across a busy roadway to a bus stop, and found rubber-tired transportation to Genova-Principe, the city's main railway station. A large statue of Christopher Columbus, who was born in Genoa, stands in the plaza adjacent to the facility. We soon found the left luggage office and stowed our bags, and then bought one-way tickets for the 14:18 departure to Milan, a 90-minute run (service operates every two hours, with the occasional extra train in between during busy hours).

Clare rode a bus to the art museum while I headed for the light metro, a few blocks away, but down a steep hill. As mentioned earlier only the two terminals of the rapid transit line are in daylight. The AnsaldoBreda-built rolling stock is now over 25 years old and new cars have been ordered from the same manufacturer (now Hitachi Rail Italy). Actually, news reports indicated that some have been delivered but I failed to see any. On the next page is a photo from ***International Railway Journal***, which is followed by some of my pictures.

After I navigated the hill back to the railroad station I continued further, to Genoa's Principe-Granarolo rack railway. Headways vary between every 40 and 50 minutes, and I had just missed the only car operating on the single-track line, so I had to linger for quite awhile. One-way running times are just under 15 minutes, so the passing siding midway along the route is rarely used. But my wait was worth it, as the line is very scenic, climbing high above the city's rooftops. But there was no way I could afford to consume an additional headway to stop over for photos at any of the seven intermediate stops. The 1,200-millimeter gauge line is seven-tenths of a mile long, but rises 640 feet in that distance, with a maximum grade of 21 percent and an average of 16. The two cars on the roster are original equipment, constructed to coincide with the line's opening in 1901. They were rebuilt in 1929 and again in 1993, and travel at a maximum speed of just under 4½ miles per hour under 550-volt d.c. overhead.

Since I still had some time before meeting Clare back at the railway station, I decided to ride an even steeper line, the Zecca-Righi funicular. This is a typical counterweight incline, running for a length of just under $^{9}/_{10}$ of a mile. The meter-gauge line opened in 1895 and is rather precipitous, rising some 915 feet from end to end. Grades average 20 percent and an especially arduous section climbs at a rate of 35 percent. There are five intermediate stops and service operates every 15 or 20 minutes. The lower end of the line from San Nicolo, where the two cars pass, to Zecca, is in a tunnel. The funicular has been rebuilt twice over its lifetime and the travel time from end to end is 12 minutes. I rode the entire line, boarding at San Nicolo, but had time to stop over for photos at only one station. To get to San Nicolo I rode the 36 bus, which traversed a steep twisting street from the Principe railway station.

I got back to Principe at 14:00, just in time to meet Clare, pick up our luggage, and board Trenitalia's 14:18 express to Milan. We had reserved seats and our compartment was full. We left three minutes late and arrived at Milan Centrale at 15:57 (50). It was an uneventful journey, and we dozed off a few times.

It was quite warm in Milan, and the walk to our B&B, located along a street parallel to the railway station's throat, seemed overly long, but we eventually made it. We normally stay within a few blocks of Centrale, but when planning this trip I hadn't realized that today would mark the end of Milan's Design Week, a huge exposition of the newest in furniture, lighting, interiors, and the like. So when I went online to find a hotel room for our last night in Italy way back in January, I saw prices running in the range of $250 to $500, rather exorbitant for at least those lodgings that had not yet sold out. Of course I did not want to pay that high an amount, and

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## Three Islands of Italy

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after much more surfing, I was lucky to find a highly-rated B&B somewhat near the station for about $200 for the night.

Our accommodations were on the third floor of a mid-rise mixed use building and consisted of a large loft-like area surrounded by bedrooms. The interior "bullpen" was decorated with works of art, including paintings and sculptures of all sizes, and art books were stuffed into numerous bookcases. Fascinating, but more important, we were only two short blocks from Milan's Route 1 tram line. So while Clare rested I walked over and got a few slides before the shadows became too long (photos next month).

We had passed a few restaurants en route to the B&B, and our two proprietors recommended one of them for dinner. We ended up having one of the best meals of the trip in this neighborhood home-style cafe.

**A view of Genoa from our ferry as it docked at the pier.**

**The Casella Line.**


**I did not observe anyone laughing at Christopher Columbus at the railway station's busy plaza, but then I was pretty sure neither of the Gershwin brothers were in the vicinity.**

**The fence along a walkway above the tracks at Trenitalia's Principe station was not high enough to dissuade me from taking a photo of an express train. The streamlined electric unit was probably loading passengers for Milan or Rome.**

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## Commuter and Transit Notes

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The opening of the Airport Intercity Line came three days after the inauguration of a 6.1-kilometer extension of metro Line 1. The western extension from Houweizhai to Fenghesenlingongyuan adds four stations. Construction started in October, 2014, and a further westward extension from Fenghesenlingongyuan has been approved. (***Metro Report International***, September 30)

## Three Islands of Italy

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**New rolling stock for Principe's light metro.**
***International Railway Journal*** photograph

**A terminating train of articulated metro cars enters Brignole. The operator will change ends beyond the station. Genoa's platforms are sufficiently long to permit the operation of three-car trains. Transdev operates the standard-gauge line for AMT Genova. Both local buses and Trenitalia feed passengers to the metro at this point.**


**Two views from the arrival platform at the elevated Brin terminal of Genoa's light metro. With passengers congregating only on the other platform for departing trains, No. 14 would have to make a complicated move to enter service. Plans are afoot to extend the line beyond this point, and nine new cars (see above) are presently being delivered to supplement the current roster's 18 two-section AnsaldoBreda units from 1990.**


**Two views of car 1 of the Granarolo rack railway approaching Principio, the lower terminal of the line. No. 1 is one of two cars built for the railway's opening in 1901. The line has a maximum grade of 21 percent. Note that pedestrians have a choice between a slanted walkway and steps.**

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# Around New York's Transit System

**MTA Board Approves $51 Billion Capital Program**

The MTA Board has unanimously approved the agency's historic $51.5 billion capital spending proposal for 2020-4.

The plan marks a 70 percent increase over the transit agency's previous five-year plan, and its largest one ever by far, as part of an aggressive effort to repair the agency's aging infrastructure and accelerate service enhancements for the millions of New Yorkers who use its public transit system daily.

New York City Mayor Bill de Blasio said, just before the vote, that he would kick in $3 billion in city funds if the MTA promises not to use that cash until it has spent the congestion pricing revenue. He also wants the agency to put unspecified city priorities first.

The MTA said that its plan includes more than $40 billion for NYC Transit, $15 billion of which will come from congestion pricing. It has earmarked $7 billion of that to resignal 11 subway lines, starting with the often delay-plagued Lexington Avenue Line, and $6.1 billion to add 1,900 new subway cars — with the goal of easing delays by 10 percent.

**L Tunnel Reconstruction Project Ahead of Schedule**

The L train rehabilitation project is three months ahead of schedule, Governor Andrew Cuomo and MTA officials announced.

The MTA now expects to complete the entire project in April, 2020, Cuomo said in a release.

Earlier this year, the MTA began rehabbing the Hurricane Sandy-damaged Canarsie Tunnels — a project that was anticipated to take until the summer of 2020 to finish.

**Accessible Stations Lab at Jay Street-Metrotech**

As part of MTA New York City Transit's move to improve station access to individuals with physical challenges, the agency is testing over a dozen new features, including both physical infrastructure and smartphone apps that are designed to make subway travel more accessible for riders of all abilities, including those with vision, hearing, mobility or cognitive disabilities. Member Alexander Ivanoff found the station lab setup while waiting on a friend at Jay St on October 16 and found it a wonderful addition to the station.

Two aspects of the Accessible Station Lab include floor treatments and tactile signs and maps. While primarily intended to assist people with disabilities, he found the features handy and in the long-term could benefit both visitors to the city, new residents to the city, or people who do not frequent the subway. One of the features that the MTA has highlighted with the improved signage is accessible route diagrams for navigating the station and alternate route maps to be used in case of an elevator outage.

The MTA is also partnering with developers of several smartphone applications to further enhance the station experience, regardless of whether someone is boarding, disembarking or transferring through. There are signs and logos that correspond with the apps that can be found on the platform level and through the station.

Throughout the pilot, New York City Transit will be evaluating the features for operational performance and

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**Three Islands of Italy**

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**Car 1 at the Granorolo terminal of the 1,200-mm gauge rack railway. Arriving passengers are protected from the elements at the road's ancient shop, but departing ones have to use an unsheltered platform behind the photographer. The company's second car is inside the shed.**


**The Via Preve station on the Zecca-Righi funicular, one of two inclines in Genoa. Platforms consist of steps, and the cars have compartments with level floors that line up horizontally. The two vehicles, built in 1990, travel at a speed of 13.5 miles per hour.**

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# LIRR ROCKAWAY BEACH BRANCH

**Considering how the LIRR's former Rockaway Beach Branch has been in the news lately, we thought our readers would like to see "the old days on the branch." This photo was taken by the late William J (Bill) Rugen on October 31, 1948 at The Raunt (a fishing village in the middle of Jamaica Bay at milepost 13.53) and was a photo stop on an excursion train. Literally brand-new MP70B 1294 (PRR-Juniata Shops, 10/1948) led an unspecified MP54 and an open gondola car.**
William J. Rugen photograph