

BULLETIN

Volume 67, Number 2 | February 2024

Derailments Plague NYC Transit

Two derailments, less than one week apart, occurred on the subway at the beginning of January. The first was on Thursday, January 4, and took place north of 96 Street Station **1 2 3**. The second one was on Wednesday, January 10, north of the West 8 Street-NY Aquarium Station **5**.

The first incident occurred at 2:59 PM when a northbound 1 train, the 14:27 from South Ferry to 242 Street (N-2411-2412-2413-2414-2415+2275-2274-2273-2272-2271-S), which had been rerouted via the express track from south of 72 Street to north of 96 Street and was carrying around 200 passengers, was run into by another northbound 1 train that was proceeding on the local track, causing both trains to derail.

Luckily, there were no deaths or major injuries involved. The train on the local track, the 13:45 from South Ferry to 242 Street (N-2176-2177-2178-2179-2180+2206-2207-2208-2209-2210-S) had been taken out of service at 79 Street after multiple emergency brake cords had been pulled. The brakes on the first five cars had been cut out and the train proceeded out of service with a supervisor operating from the sixth car. The train operator and conductor were stationed at the head end of the first car and were flagging.

Since the brakes on the first five cars had been cut out, the train would not have been tripped by the home signal at the leaving end of the station, nor by the several approach signals in advance of that home signal.

This scene was strangely reminiscent of the May 20, 1970 collision south of Roosevelt Av-Jackson Heights Station **E F M R**, when an out-of service GG slammed into another GG that had been rerouted around it on the express track. Sadly, that collision resulted in the deaths of two passengers, with many more injuries.

The Control Center had started rerouting the northbound trains to the express track from north of 66 Street to 96 Street, around the vandalized train at 79 Street, just before *Continued on page 3*



Electric Railroaders Association

Founded August 15, 1934 by E.J. Quinby P.O. Box 3323 New York, N.Y. 10163 https://erausa.org

Editorial Staff

Editor-in-Chief Jeff Erlitz

Associate Editor Subutay Musluoglu

Circulation Managers

Robert Colorafi (Electronic) David Ross (Print)

Contact

erausa.org/contact

Subscriptions

The *Bulletin* is published monthly and sent free to all ERA members.

Back Issues

PDFs of previous issues can be downloaded at erausa.org/bulletin

In This Issue

Worldwide Electric Railway, Metro and Tramway Openings	
Rail News in Review	6
History Corner	20
Book Review	21
Travels with Jack May	22

Trip Notices

April 18-21, 2024: Motor Bus Society Spring 2024 Convention in Toronto, Ontario, Canada.

May 10-25, 2024: International tour to Belgium, the Netherlands and Luxembourg. Visit https://erausa.org/international-tours/2024/ for all the details.

September 6-9, 2024: ERA convention in Edmonton and Calgary, Alberta, Canada. Note! The convention is now four instead of five days. All planned activities will still occur. The convention flyer will be sent out next month and posted online.

Cover Photo

The scene on Friday, January 5, north of 96 Street Station (123), looking south with the out of service train on the left and the train that had been in service on the right. Marc A. Hermann / MTA photo

Donations

The ERA Board of Directors express their deepest appreciation for these member donations in December 2023.

\$500 to \$999

Dale Rothenberger

\$200 to \$499

Leslie Sugai

\$100 to \$199

```
Richard Allman, Graeme Birchall, Fred Eisenger, David Horwitz
```

\$50 to \$99

John Cocco, Paul Krevy, Kenneth Leonardi, Anthony Reid, Lee Vinson

Up to \$49

Gary Dobek, Guy Martin, Henry Posner, Steven Rosenberg, Anthony Scoca, James Sparkman, Christopher Zearfoss

ERA is a 501(c)(3) tax exempt corporation. Your donations are fully tax deductible and can be made either with your membership renewal or using our donation form on our website: www.erausa.org/donate. Your donation helps to maintain ERA's 89-year long tradition of traction education and entertainment!

Monthly Zoom Meeting

Friday, February 16, 2024 at 7:30 PM.

Presenting This Month: Eric Oszustowicz

Eric will be showing videos and stills taken in 2023 in the New York City area, Cumbres & Toltec steam railway, BNSF Railway's transcontinental line in New Mexico, various freight railroads, Chicago's commuter system, Boston, including the 2022 farewell to the trackless system fantrip, behind the scenes views of the New York subway system and vintage photographs taken during the 1980s. Of particular interest will be a preview of Volume 3 of the "Elevated Railways of Brooklyn" will be shown. Eric's presentations typically run three to four hours, so get a comfortable chair and enjoy the show!

How to Join Our Zoom Meeting

The Zoom registration link for this meeting is: https:// us02web.zoom.us/meeting/register/tZ0rc-6vrDwqHdMfVmVhU5ZD-6iOM0fuxIRg. You can sign in at 7:15 PM. The show begins at 7:30 PM. If you have any problems, email Bob Newhouser at bnnyc1955@aol.com, or on the night of the meeting, text or call Bob at 917-482-4235.

In Memoriam: Edward "Sandy" Campbell, 1956-2024, ERA #5228



It is with profound sadness that we must announce the untimely passing of the ERA's First Vice President, Edward "Sandy" Campbell, on January 29. Sandy had been in a coma since August 2023.

A member of the ERA since December 13, 1976, Sandy was first elected to the board of directors in 2005 and had served as first vice president since 2019. In 1996, Sandy took over as editor and designer of *Headlights* and had produced 30 issues since, plus all three Elevated Railways books by Eric Oszustowicz. Sandy developed and maintained the ERA website and had been a co-administrator of the ERA Facebook page since it was started by Philip Hom in 2011. A graduate of Parsons School of Design, he headed a graphic design consulting practice.

Sandy was instrumental in helping to transition the *Bulletin* from being produced in Microsoft Publisher to Adobe InDesign. With that accomplished, the ERA website, *Headlights* magazine and the *Bulletin* all then had a uniform "look and feel." After the *Bulletin* went to InDesign, whenever your Editor-in-Chief had any question about what to do when putting it together, all it took was a quick phone call to Sandy and all would be right.

We intend to have a more complete obituary in the next issue of the *Bulletin*. We also intend to have a memorial dinner in Sandy's honor sometime later this year, perhaps in the summer. We will miss you, Sandy.

Sandy at Donovan's Pub in Woodside, Queens on January 13, 2023. Lily Yee photo

2:24 PM. The incident train in passenger service, the 14:27, had been the fifth northbound local train thus rerouted via the express track. There was one northbound local stuck behind the vandalized train, the 13:51 from South Ferry to 242 Street, and it was holding at 72 Street for the duration of the problems with the 13:45 at 79 Street. After the bad-order incident train left 79 Street, the 13:51 only made it one more stop, to 79 Street, before all service was shut down in the area.

On the southbound side, the last southbound 1 train through the area, the 14:42 from 242 Street to South Ferry, left 96 Street at 3:10 PM. After that trip, service was suspended between 137 Street and Times Square. Interestingly, the first nine intervals from 242 Street that terminated at 137 Street or 145 Street were all still shown in the Automatic Train Supervision (ATS) system as destined to South Ferry. Those trips were abandoned at those locations, after which they turned for northbound service. Starting with the tenth southbound, the intervals were in ATS as having 137 Street terminals. During the course of Thursday evening, alternate southbound trains terminated at 145 Street. Except for five trains early in the evening that started their northbound trips at 145 Street, all the others started, as advertised, at 137 Street. The last northbound and southbound 2 trains by 96 Street

left at 2:55 and 3:03 PM while the last northbound and southbound 3 trains by 96 Street left at 2:52 and 3:10 PM.

One northbound 2 was trapped at 72 Street. Later that evening, this train may have been wrong-railed back down to Times Square and put back into service. The two 2 trains behind the one at 72 Street were far enough down line to be able to be turned for southbound service at Times Square. Following those two trains, the northbound service was far enough south to enable service to be rerouted up the Lexington Avenue Line. Southbound, three trains proceeded down the Lenox Avenue Line and were turned for northbound service at 110 Street. One train was discharged at 149 Street-Grand Concourse and relayed in the middle at 135 Street for northbound service, which it entered back at 149 Street-Grand Concourse. Southbound 2 trains started to be rerouted down Lexington Avenue from 149 Street-Grand Concourse at 3:21 PM. A northbound 3 that had left already Times Square was brought in to 72 Street so that passengers could be discharged through the front car onto the platform. The following northbound





View north from the revenue train that was crossing back over to the local track from the express track. The out-of-service train that ran into it is on the right. Tim Minton/MTA photo

trains, like the 2, were turned south at Times Square. Four southbound 3 trains were turned at 110 Street, after which the 3 just shuttled between 148 and 135 Streets.

Partial service resumed the following day, Friday, January 5. The first southbound 1 arrived at 96 Street at 5:13 PM. A few more southbound trains still needed to be turned at 137 Street to maintain northbound service before the first trips down to 96 Street had a chance to return to 137 Street. The first northbound train left 96 Street at 5:42 PM from Track 1, on the southbound side. Northbound 1 service had to operate express from 96 Street to 137 Street because, north of 96 Street, trains can only cross into the center express track at 100 Street, where the middle track begins. The first southbound 3 arrived at 96 Street at 5:21 PM. This train left at 5:32 PM to head back north. 2 service continued to operate via Lexington Avenue in both directions until 6:13 PM when the first southbound one left 149 Street-Grand Concourse via Lenox Avenue. It departed 96 Street on the local track at 6:36 PM. Roughly every other southbound **2** operated via the West Side (operating local from 96 Street to Chambers Street) and East Side until 10:20 PM when all 2 trains operated south via the West Side. Technically, you could say this was the beginning of a somewhat-normal southbound service.

This service pattern basically continued through Saturday, January 6. During the day, a couple of southbound 2 trains



View south on the northbound local track. R-62A 2414 (Bombardier Transportation, 8/1987), on the right, was the fourth car of the in-service train. Marc A Hermann/MTA photo

were rerouted via the East Side, probably to alleviate congestion on the West Side local track from 96 Street south.

Normal service resumed Sunday morning, January 7, with a northbound 3 leaving Times Square at 5:31 AM, 1 at 5:42 and a 2 at 5:53. Southbound, the first through 1 left 96 Street at 5:33 AM and a 3 at 5:44. Southbound 2 trains continued operating local on Seventh Avenue until 7:06 AM. The first six southbound through 3 trains terminated at Times Square to enable northbound service to get up there from Brooklyn.

Shuttle buses operated between Times Square and 96 Street during the period of no service.

The train that had been in passenger service was re-railed and removed on Friday. The bad-order train was re-railed and removed early on Saturday. Crews then made all necessary repairs to the tracks and infrastructure of the tunnel north of 96 Street. Power was restored to all tracks, and test trains were operated without issues, by 10:00 PM Saturday night.

An investigation by the National Transportation Safety Board is currently in progress. A preliminary report, however, was released to the public on January 25 and may be accessed at https://www.ntsb.gov/investigations/Pages/ RRD24MR004.aspx.

The second incident, north of West 8 Street-NY Aquarium, involved a single train, the 12:16 PM ^[] departure from Stillwell Avenue to 179 Street (N-9342-9341-9340-9339-9338+8703-8704-8705-8706-8707-S). The train derailed on Track B2 on a segment that is essentially tangent, about midway between West 8 Street and Neptune Avenue Stations.

Luckily, the train derailed on the side of the track opposite to where the third rail was located so the third rail was not damaged or displaced at all. This enabled two rescue trains to close up to the incident train on either end to evacuate the passengers on board.

(F) service was suspended leaving Stillwell Avenue but southbound service continued to operate, terminating at





View south of the 🕞 train derailment. Marc A. Hermann/MTA photo

either Kings Highway or Avenue X. At first, those trains into Avenue X terminated on southbound Track B1 and changed ends for northbound service there. This necessitated bypassing Avenue U since trains can only get from Track B1 into the middle track north of Avenue X station.

Sometime later, the Avenue X trains relayed on Track B6 south of the station, one of the lead tracks into Culver Yard. This enabled northbound service to stop at Avenue U. Meanwhile, some trains continued to turn at Kings Highway.

Service resumed south of Avenue X to Stillwell Avenue at about 11:25 PM at Avenue X, with a single-track operation between those two points. After the incident train was re-railed and everything was cleaned up, a test train left Stillwell at 11:30 PM on Track B2. The first regular northbound ^[2] train left Stillwell Avenue at 4:39 AM the following morning.

(Right) Close-up of the derailed lead truck of the second car. Marc A. Hermann/MTA photo



Looking north at the scene of the 🕞 train derailment north of West 8 Street Station on Wednesday, January 10. R-160A 9339 (Alstom 2/2009) was the second car of the train. Marc A. Hermann/MTA photo



Worldwide Suburban Electric Railway, Metro and Tramway Openings in January 2024

Date	Country	City	Segment	Distance (miles)	Rail/ Metro/ Tram
1/1	Taiwan	Kaohsiung	Heart of Love River to Kaisyuan Park	3.0	Т
"	Egypt	Cairo	Line 3: Kit-Kat to Rod El Farag Corridor	4.3	М
1/8	Poland	Krakow	Lines 18/50: Papierni Pradnickich to Gorka Narodowa	0.4	Т
1/25	Latvia	Daugavpils	Lines 3/5: Butlerova iela to Stropi ezers	1.1	Т
1/27	U.S.A.	Phoenix	19th Ave/Dunlap – Metro Parkway	1.6	Т
"	Turkey	İzmir	Çevre Yolu to Katip Çelebi Üniversitesi	6.2	Т
1/29	"	İstanbul	M11: Kağithane to Gayrettepe	2.2	М
1/31	China	Wuxi	S1: Yanqiao to Jiangyin Bund	18.9	R

URBAN RAIL NEWS, JANUARY 31

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

New Subway Car Assignments

This past December 23, new car assignments were put into effect systemwide. This was done in conjunction with the subway timetable change and crew pick.

On the IRT, car unavailability and fleet size were unchanged from the July 2, 2023 car assignment.

Line	AM Cars Assigned	PM Cars Assigned
1	10 R-62, 300 R-62A	10 R-62, 300 R-62A
2	350 R-142	350 R-142
3	250 R-62	240 R-62
4	180 R-142, 170 R-142A	170 R-142, 160 R-142A
5	340 R-142	350 R-142
6	370 R-62A	370 R-62A
7	418 R-188	385 R-188
S	12 R-62A	12 R-62A

On the BMT and IND, delivery of R211A production cars is ongoing. This assignment reflects the conditional acceptance of six additional 10-car trains, maintained at Pitkin Shop and in operation on the (A). As a result, fleet size has increased by an additional 60 cars from the July 2, 2023, car assignment, to 3,649 cars. Peak requirements on the (C) have increased from 17 to 18 trains in the PM peak. Unavailability is unchanged from the previous assignment.

Line	AM Cars Assigned	PM Cars Assigned
A	200 R-46, 100 R-179, 30 R-211A	208 R-46, 8 R-68A, 100 R-179, 30 R-211A
в	48 R-68, 152 R-68A	40 R-68, 144 R-68A
C	64 R-46, 80 R-179	64 R-46, 80 R-179
D	232 R-68	224 R-68
8	110 R-160A, 80 R-160B1, 70 R-160B2	110 R-160A, 80 R-160B1, 70 R-160B2
6	260 R-160A, 100 R-160B1, 90 R-160B2	270 R-160A, 100 R-160B1, 90 R-160B2
G	65 R-160B2	65 R-160B2
H *	8 R-46, 5 R-179	8 R-46, 5 R-179
02	88 R-160A, 72 R-179	80 R-160A, 72 R-179

Line	AM Cars Assigned	PM Cars Assigned
C	176 R-143, 16 R-160A	176 R-143, 16 R-160A
M	192 R-160A	184 R-160A
NW	176 R-46, 72 R-68, 16 R-68A	176 R-46, 72 R-68, 16 R-68A
0	168 R-46	168 R-46, 8 R-68
R	160 R-160A, 90 R-160B1, 60 R-160B2	160 R-160A, 90 R-160B1, 60 R-160B2
S	4 R-68	4 R-68

BMT Jamaica Line Station Renovation Progress

On February 26, 2023, the Jamaica-bound platforms at 75 Street-Elderts Lane and Woodhaven Boulevard Stations were removed from passenger service 24/7 to enable major renovation work to proceed. The work at 75 Street-Elderts Lane is being done by Gramercy Group, under contract A-35305, while the work at Woodhaven Boulevard is being performed by MLJ Contracting, under Contract A-37135.

On December 4, 2023, the completed platform at Woodhaven Boulevard was returned to service and the Manhattan-bound platform was taken out of service. This switch in platform work was done on January 15 at 75 Street-Elderts Lane.

During this construction work, **1**/**2** skip-stop service is suspended and all trains make all stops between Myrtle Avenue and Jamaica Center-Parsons/Archer Stations. This work will continue through to this coming summer.

Speed Increase for Adjacent Track Flagging

For five weekends, between January 20 and February 18, NYCT is once again testing the concept of increasing the maximum speed for trains operating adjacent to work zones, from 10 to 15 mph.

This particular test will take place on the IND Eighth Avenue Line between 59 Street-Columbus Circle and 125 Street Stations. Northbound (A) and (D) trains will be rerouted via local Track A2 between those points while trackwork is being done on express Track A4.

Beach 67 Street \Lambda Now Accessible

The elevator project at the Beach 67 Street Station (A) was completed, making the station fully accessible. The project included the installation of two new elevators, a new staircase and new ADA platform edges.

The installed elevators include a new fire alarm system, smoke and heat detectors and cameras inside the elevator cabs. Each elevator is also equipped with an emergency two-way communication system which gives riders the





View west towards the new elevator on the mezzanine level on January 11. Marc A. Hermann/MTA photo

ability to communicate with dispatchers in the event of an emergency via standard voice communications or visually by answering on-screen questions, which greatly improves communication for riders with hearing or speech disabilities.

The ADA upgrades were fully funded by a grant from the Federal Transit Administration. This project is part of an ADA-improvement package of eight subway stations, which is MTA Construction & Development's second such package being delivered through innovative contracting tools such as design-build and project bundling.

Though this station has a mezzanine, which normally would imply needing three elevators (street to mezzanine and one each from mezzanine to platforms once inside the paid zone), this project made use of only two. There is one from the street to the mezzanine and continuing up to the northbound platform and one from the mezzanine to the southbound platform. A small fare control area was built on the northbound platform around the area of the elevator. MTA PRESS RELEASE, January 19

Platform Edge Barriers Introduced

Over the weekend of January 20–21, 191 Street Station **1** received the first installation of new platform edge barriers, as part of a platform safety pilot program.

In May, 2022, the Track Trespassing Task Force produced a report outlaying several steps that could be taken to alleviate the problem of track intrusions and related injuries and fatalities. A copy of the report can be downloaded at https://new.mta.info/document/87881.

The following weekend, January 27-28, these barriers were installed at Clark Street Station **2 3**. As part of this four-station pilot program, West 8 Street-NY Aquarium **F 0** and one other, as yet unnamed, station will be so outfitted.

Unlike platform edge doors, which provide a complete barrier between platform and trackway, the edge barriers are just a railing assembly that is mounted 15 inches away from the edge of the platform, along the inner edge of the tactile warning strip found on most stations platforms. Of necessity,



View along the platform edge of the new barriers at 191 Street. They are 15 inches from the edge of the platform. If a train did not stop fairly precisely, exiting passengers could still walk around the barriers to the nearest opening. A wheelchair passenger, however, would not have that option. MTA photo

these railings have openings adjacent to the position of the car doors on the train.

On January 19, a Service Delivery Bulletin was issued instructing train operators to make extremely precise stops to allow the train's side doors to line up with the openings in the platform edge barriers. In addition, conductors are being instructed to make manual PA announcements when their train approaches a station with platform barriers, warning passengers to watch their step as they exit the train. MTA PRESS RELEASE, January 21

Second Avenue Subway Phase 2 Contract Awarded

The first construction contract for the extension of the Second Avenue Subway from 96 Street to 125 Street in Harlem has been awarded to C.A.C. Industries, Inc., a family-owned heavy civil contractor based in New York City. The initial \$182 million award is for the first component of the Phase 2 project.

This is the first of four construction contracts. It will relocate underground utilities from 105 Street to 110 Street on Second Avenue at the site of the future 106 Street Station, in order to facilitate the subsequent cut-and-cover construction of the station.

New York City has some of the most complex underground utility networks in the world — much of which is unmapped — which can add delays and costs once projects are underway. Advancing utility relocation ahead of station and tunnel construction is a major lesson learned from Phase 1. This should help reduce unnecessary costs and delays on Phase 2.

Addressing utility relocation requirements upfront will reduce the risk of unexpected costs or delays later as construction progresses. The first contract will also include temporary streetscape modifications that will be required during construction, including new bike lanes to replace those that will be impacted by construction on Second Avenue, and building remediation in preparation for future contracts for the new subway station at 106 Street.





Rendering of the 116 Street Station, which makes use of the existing tunnel (Section 13) that had been constructed in the 1970s. Note the columns along the platform edges, which current construction standards would probably not include. MTA

Additional cost containment initiatives in Phase 2 include reuse of a tunnel segment that was built in the 1970s from 110 Street to 120 Street (*Editor's Note: Route 132A-Section 13*) along Second Avenue, early real estate acquisition, adoption of best value contract structures like A+B contracts, reduction in back-ofhouse and ancillary space and close coordination of contracts. MTA PRESS RELEASE, January 22

63rd Street Track Reconstruction - Phase 2

Over the weekend of January 6-7, crews completed the work necessary to return Tracks B6 and T2 to service from 57 Street-6 Avenue to 21 Street-Queensbridge. Starting Monday morning, January 8, Tracks T1 and B5, between those same two limits, are out of service for major track reconstruction work.

The **[**² shuttle train that operated between 21 Street-Queensbridge and Lexington Avenue/63 Street was transferred from the southbound track (T1) to the northbound track (T2) and resumed operating that Monday morning. This work is scheduled to be completed on February 16.



R-160A-1 8625 (Alstom, 8/2008) is about to depart 57 Street-6 Avenue with the 16:52 0 to Metropolitan Avenue on January 10. It is sitting on Track B6, which had just been returned to service two days before this picture was taken. Note the blue wooden barrier on the left, blocking access to Track B5, which is undergoing reconstruction. Jeff Erlitz photo

Station Re-NEW-Vation Program

During January, this station renovation program began its 2024 "season." The following station was completed:

Station	Weekend	
66 Street-Lincoln Center 1	January 20-21	

During the first quarter of this year, 12 additional stations are scheduled to be renovated. MTA PRESS RELEASE, January 26

LONG ISLAND RAIL ROAD (LIRR)

M9 Deliveries Continue

Since we last reported in the October, 2023 issue of the *Bulletin*, two additional M9 cars have been delivered to the LIRR, 9199–9200, on November 17, 2023.

With these 2 cars, 196 of the 202-car order have now been delivered, so there are only six cars left to be delivered.

METRO-NORTH RAILROAD (MNR)

Hartsdale and Scarsdale Stations Now Accessible

The elevator installations at Hartsdale Station on the Harlem Line have been completed, making the station fully accessible. The elevators were a major component in a project to upgrade the station geared toward enhancing the passenger experience. The full scope of the project included the following upgrades:

- Two enclosed elevator towers located on each platform, serving street level to platform level and overpass level;
- Two ADA-compliant elevators;
- ADA-compliant sidewalks at street level leading to the new elevators;
- An elevated walkway connecting the elevator tower to the existing overpass level;
- Overpass enhancements including benches, leaning bars, new LED lighting and heaters were installed. The Hartsdale Station building was originally constructed for the New York Central & Hudson River R.R. in 1914 by Warren and Wetmore (one of the two firms who designed Grand Central Terminal), as a replacement for a smaller wooden depot built by the New York and Harlem Railroad originally known as "Hart's Corner Station." In 2011, the

station was added to the National Register of Historic Places. On January 11, the Scarsdale Station's ADA project was completed with the opening of a second elevator, in an enclosed tower, that serves the southbound platform. As part of the improvement project, the overpass was raised seven inches to provide greater vertical clearance for MNR work trains and was enhanced with new amenities.

Other upgrades of the project included:

- An ADA-compliant sidewalk from the newly installed elevator at street level;
- A new walkway connecting the elevator platform level landing to station platform and overpass;



One of the new elevators, this one at Scarsdale Station. Marc A. Hermann/MTA photo

- Benches, leaning bars, new LED lighting and heaters were installed on the overpass;
- Motorcycle parking was rebuilt at street level, as agreed to in the public outreach period prior to the commencement of the project.

MTA PRESS RELEASES, January 5, January 11

Other U.S. Systems

CHICAGO

Yellow Line Service Resumes

The Chicago Transit Authority (CTA) resumed operations on the Yellow Line January 5. CTA's Yellow Line had been closed since November 16, 2023 when a Yellow Line train collided with snow equipment in an accident that injured 38 people, including six employees who were on the snow equipment.



CTA 5599 (Bombardier Transportation, 2015) was severely damaged in the collision on November 16, 2023. CTA photo

Since the accident, CTA worked closely with the National Transportation Safety Board (NTSB), providing full cooperation with its entire investigation while reviewing and re-evaluating safety protocols. CTA tested several trains across the Yellow Line in various weather conditions before declaring the line was ready to return to service.

To support the reopening, the CTA has outlined several interim safety enhancements out of an abundance of caution. Among the measures:

- Reduced travel speeds: trains will run at reduced speeds of 35 mph, down from 55 mph;
- Track cleaning: Crews also have power-washed the Yellow Line, cleaning debris and residue from the rail;
- Enhanced operations communications: CTA also added an extra layer of communication and protection, implementing what's known as manual blocking on the rails for non-revenue vehicles, such as snowplows and other heavy construction equipment. Manual blocking is an operational control protocol that requires railcars and non-revenue equipment to move only after receiving a verbal command from CTA's Control Center;
- Supervised operations: Supervisory personnel will accompany operators on the first few Yellow Line runs.

The NTSB has not issued any safety directives to CTA and the NTSB has been informed of the interim steps the CTA took prior to the Yellow Line reopening.

The NTSB continues its investigation into the incident, including the factors that contributed to the incident. A final report is expected to be issued later this year. MASS TRANSIT, January 8

DANBURY RAILWAY MUSEUM

Ex-NYC Electric Locomotives Moved

Two historic New York Central electric locomotives, saved last year after long facing a threat of scrapping, have been moved from their site on Beacon Island in the Hudson River (in the hamlet of Glenmont, south of Albany) after more than three decades. The Danbury Railway Museum released a statement saying that after 36 years on Beacon Island, the Class S-1 and Class T-3a locomotives have been moved off the site and are currently sitting on private property. They will be shipped to The Danbury Railway Museum soon, where upon arrival work will begin on cosmetically restoring them.

The lengthy effort to save the locomotives, which at one time had been restored but were heavily vandalized during their time on the island, finally saw their future secured last December when they were moved out of the way of a construction project. TRAINS NEWS WIRE, November 3, 2023

PHOENIX

Northwest Extension Opens

More than 2,000 people, including federal, state and local



Dramatic evening drone shot of LRVs 104+126 (Kinki Sharyo, 2008) at the elevated Metro Parkway terminal station. Valley Metro photo

leaders, gathered to celebrate the opening of the Northwest Phase II extension of light rail in Phoenix on January 27. The project includes a series of firsts for Valley Metro and the community including the first elevated station, rail-only bridge over I-17 and a multi-modal transit center.

The project received \$158 million from the nationally competitive Capital Investment Grant program through the FTA. The city of Phoenix T2050 funds provided \$213 million and regional transportation funds from Proposition 400 provided the final \$30 million. Construction began in 2020, creating 3,000 direct jobs in the community and more than 6,000 indirect jobs across the country.

The new extension includes three stations and is anticipated to initially attract 1,400 new, daily riders to the system each day. Crossing the I-17, the project gives greater transit access to the West Valley, connecting current and future riders with opportunities in central Phoenix, Tempe and Mesa.

Featured along the new extension, there are nine different art elements created by seven artists reflecting the character and history of the local community. Art is incorporated into the new stations, parking garage and the Thelda Williams Transit Center. The four-story parking garage has solar panels to support the facility's infrastructure and the transit center is served by five bus routes and, in the future, potentially Bus Rapid Transit.

VALLEY METRO PRESS RELEASE, January 27

SAN FRANCISCO

Muni Metro Upgrade

The San Francisco Municipal Transportation Agency (SFMTA) is upgrading Muni Metro, its light-rail system. Upgrades will replace the current train control system in the subway and extend it to street-level operation for faster, more reliable service.

The agency says its current automatic train control system (ATCS) has many challenges. The ATCS provides much greater safety and reliability than manual operation, but it runs on 1980s technology and can experience equipment failures that cause delays.

In October 2023, the computers that run the system crashed, automatically halting all service in the Muni Metro subway. SFMTA staff rebooted the system and guided train operators through the subway in manual mode. Within about an hour, the computers were back online, vehicles returned to automatic train control and subway service returned to normal.

According to SFMTA, the train control system needs to be modernized to a state-of-the-art Communication-Based Train Control (CBTC) system. CBTC is expected to reduce delays by 20 to 25 percent, on top of the reductions the agency has already achieved, which will allow SFMTA to run more trains throughout the entire Muni Metro network. SFMTA has already started building out the pilot phase of the new system by 2025. MASS TRANSIT, January 8

Caltrain Testing Progress

Caltrain has completed 1,000 miles of testing along its corridor on three of its eventual 23 electric train sets. The entirety of the new fleet must meet all safety and quality standards prior to the launch of electrified service this fall.

The trainsets will continue to undergo additional testing before they can be deemed ready for passenger service. Caltrain currently has six train sets on property, with the remainder expected to arrive from Stadler's US manufacturing facility in Utah over the coming month.



Two of Caltrain's Stadler KISS electric trains. Caltrain photo

Caltrain's Electrification Project is the first undertaking in North America in a generation in which a diesel operation is being electrified. MASS TRANSIT, January 9

WASHINGTON D.C.

Red Line Work Completed

Construction on the Red Line between the Dupont Circle and Gallery Place Stations was completed early and \$250,000 under budget. Normal Red Line service resumed one day earlier than planned on December 30, 2023.

Service on the Red Line was suspended since December 18,



2023, to repair the deteriorating concrete beams and ceiling that date to the system's original construction. Additionally, the work zone was extended December 22 to 24, with no Red Line service between Gallery Place and Union Station. Free shuttle buses replaced trains during construction. Construction highlights included:

- More than eight tons of concrete and 466 pounds of rebar to rebuild the tunnel ceiling to prevent concrete from falling;
- 3,159 linear feet of running rail replaced between Farragut North and Metro Center;
- 1,152 lights installed for the new platform edge lighting between Farragut North and Judiciary Square with brighter, more sustainable LED lights;
- Extra insulation added to the third rail power cables between Gallery Place and Judiciary Square to provide a moisture barrier;
- 15,914 linear feet of fiber optic cables installed between Farragut North and Judiciary Square to prepare for the next generation train signaling system.

The Red Line construction was a part of WMATA's 10-year, \$15 billion Capital Improvement Program. MASS TRANSIT, January 2

International

AUCKLAND, NEW ZEALAND

Light Rail Project Canceled

The government has officially canceled the Auckland light rail project. Work had been suspended after the National-led coalition came to power last year.

On January 14 Prime Minister Christopher Luxon described the light rail scheme as wasteful and unfit for purpose, while Transport Minister Simeon Brown said it would have cost taxpayers NZ\$15 billion, with advice showing the cost could increase to NS\$29.2 billion.

The proposed 24-kilometer line was intended to run south from the city center to the airport, with a long tunnel section from Wynyard Quarter to Mt. Roskill and then a surface alignment alongside the SH20 motorway. Longer-term plans envisaged an expansion to serve the North Shore and northwest districts.

When the decision to build a light rail line was announced in 2022, the then Minister of Transport Michael Wood said it was intended to form the spine of a fully integrated rapid transport network, with the City Rail Link now nearing completion as the heart. The previous government committed to building light rail to Mt. Roskill within four years of being elected. After six years and over NZ\$228 million spent on the project, not a single meter of track has been delivered and congestion has only worsened in the city.

Scrapping the expensive project is part of the coalition agreements. Auckland Light Rail Ltd. has been instructed to immediately cease work on the project, and to take the



Map of the proposed Auckland light and heavy rail network. Auckland Light Rail website

necessary steps to wind up the company.

The government stated that it is committed to delivering infrastructure that will reduce congestion, boost productivity, and create a more reliable and resilient transport network that drives economic growth. Their focus is on building a rapid transit network in Auckland, including completion of the City Rail Link, which was started by the last National Government, and starting work on a Northwest Rapid Transit corridor, alongside other projects to deliver reduced congestion for Aucklanders. Work is underway on rewriting the Government Policy Statement on land transport which will reflect these priorities.

METRO REPORT INTERNATIONAL, January 15

AUSTRIA

New EMUs Ordered

Austrian Federal Railways (ÖBB) has placed a firm order for 70 electric multiple-units based on a development of Siemens Mobility's established Mireo design.

The €800 million order announced on January 19 is the first





Rendering of ÖBB's new Siemens Mireo EMU. ÖBB

to be placed under a €5 billion 10-year framework agreement covering up to 540 single-deck EMUs which was signed in August 2023. Separately, ÖBB has awarded Stadler framework contracts for double-deck EMUs and battery-electric multiple-units.

The first 70 of the Siemens Mobility EMUs are to be supplied in three variants for entry into service from the end of 2027. The order is broken down as follows:

- 11 three-car units for local service
- 28 four-car units for local service
- 31 four-car units for long-distance service, with first class

A focus has been placed on efficient energy consumption and the EMUs will have a lightweight aluminum construction. They will be wider than previous Mireos, and the cars will have two trucks rather than articulation. The SF7500 trucks will have inside bearings to save weight and create space to enable other components can be located underneath the car to increase space for passengers.

Other features will include ETCS, air-conditioning using a natural refrigerant and heat pumps, wi-fi, power and USB-C sockets, holders for tablets and smartphones, ski and snowboard racks, spaces near the doors for wheelchair users and strollers and space for up to 30 bicycles.

The two wheelchair spaces will have height-adjustable tables and space for an assistance dog. One of the two toilets will be fully accessible and both will have a changing table. RAILWAY GAZETTE INTERNATIONAL, January 19

BASEL, SWITZERLAND

Tina Trams Begin Testing

Baselland tram operator BLT has begun testing the first of 25 Tina trams being supplied by Stadler.

BLT was the first Swiss customer for the Tina (Total Integrierter Niederflur-Antrieb, or, total integrated low-floor drive) design, placing a SFr125 million order in November 2021. The first of the trams was delivered in December 2023, and all 25 are expected to arrive by the end of 2025. The



Basel's first Tina tram. BLT photo

first six are expected to enter service this August, operating across the entire BLT network.

The seven-section steel-bodied meter-gauge unidirectional trams are 45.5 meters long and 2.3 meters wide, with a maximum speed of 80 km/h.

Features include eight double-leaf doors, air-conditioning with CO₂ refrigerant, a spacious interior, large windows and a passenger information system. They are designed to be low-floor and barrier-free throughout, with 96 seats and standing spaces for 160 passengers. An integrated collision warning system will identify potential obstacles to enable action to be taken before a critical situation develops. METRO REPORT INTERNATIONAL, January 22

BERLIN

Berlin Senate Backs Tram Route to Serve Tegel Airport Redevelopment

The Berlin Senate has given the go-ahead for further work on the development of proposals to build a tram line from Jungfernheide to Reinickendorf via the Urban Tech Republic development zone on the site of the city's former Tegel airport.

The Senate's decision on January 9 follows initial studies of public transport options for the corridor, which found that a tramway would be the most appropriate mode, offering economic benefits that would outweigh the costs. More detailed proposals will now be drawn up with a view to obtaining planning approval.

The line would start from Jungfernheide U-Bahn and S-Bahn stations, which would be developed into an integrated transport hub. It would then run along the A100/ A111 road via Jakob-Kaiser-Platz U-Bahn station on Line U7 to the Urban Tech Republic development, terminating at Kurt-Schumacher-Platz station on Line U6.

In the longer term the route could connect with a tramway extension from Turmstraße in Moabit to Jungfernheide. The new tramway will connect large urban development



Early morning view of a Flexity Berlin seven-section tram at the new route M10 terminal at U Turmstraße on September 21, 2023, just 11 days after this extension opened. The planned tram route to the Urban Tech Republic development zone could someday connect at its southern end with this line. Molgreen photo via Wikimedia Commons

projects on the site of the former Tegel Airport, including the Schumacher district with 5,000 residential units. The future users of the Urban Tech Republic will also benefit from the new, attractive public transport offer, these are 5,000 students at the Berlin University of Technology, 20,000 employees of the approximately 800 companies that will settle there, and also the many people who will live in the 5,000 new apartments. METRO REPORT INTERNATIONAL, January 17

Type JK Metro Cars Introduced

The first of the Type JK trainsets for the Berlin U-Bahn's small-profile lines was ceremonially handed over to operator BVG by Stadler on January 11.



The first Type JK train set, on display at Olympia-Stadion Station at the west end of line U2. Milos Djuric/TeamOn/BVG photo

The Type JK vehicles are 2.4 meters wide, and three of their four axles are powered. They have flat wall-mounted passenger information screens, wi-fi, lighting that adjusts to the time of day and handrails designed to provide space for wheelchairs and strollers. In March 2020 BVG finalized a €3 billion framework contract with Stadler covering the supply of up to 1,500 vehicles by 2035, along with the provision of spare parts for 32 years. So far firm orders have been placed for 140 small-profile Type JK cars for lines 1 to 4 and 236 of the large-profile Type J cars for lines 5 to 9.

This includes 12 pre-series cars of each type which will be used for testing ahead of series deliveries. The fleet is being manufactured by Stadler in Berlin.

Production has been delayed by problems with global supply chains and the first Type JK sets are now expected to carry passengers later this year.

METRO REPORT INTERNATIONAL, January 22

ENGLAND

Class 701 EMUs Finally Enter Service

A revenue passenger service was operated by one of South Western Railway's (SWR) Alstom Class 701 electric multiple-units (EMU) for the first time on January 9.

The 750v DC third-rail EMU was scheduled to operate one return passenger service a day on the London Waterloo to Windsor & Eton Riverside route for four days that first week. A similar very limited service is planned for the next week.

SWR said the launch marks the first step in the phased roll-out of the full 90-train fleet later this year, firstly on the Windsor route and then across the rest of its southwest London suburban network, although no timescale is being given.

The operator said the new EMUs, which it has branded Arterio, will offer improved performance, with faster acceleration and regenerative braking. Driver-operated doors are expected to reduce station dwell times.



SWR Class 701 EMU 004 at Wimbledon Depot. SWR photo

The 60 10-car Class 701/0 and 30 five-car Class 701/5 EMUs have 2+2 seating and wide gangways. From a passenger perspective, they should offer a significant improvement on the aging ex-British Railway Class 455 EMUs they will replace, as they are fitted with wi-fi, charging points, air-conditioning and toilets.

There is one toilet per five-car set and two on a 10-car



set. SWR said the fully accessible toilets with bioreactors to biologically and thermally treat waste are the first of their kind to be used across an entire UK fleet and are similar to toilets in used in the Netherlands and Switzerland.

There are two wheelchair and three bicycle spaces on five cars sets, and double this on the longer variant.

The contract for Bombardier Transportation — subsequently acquired by Alstom — to supply 60 10-car and 30 five-car Class 701 third-rail EMUs from its Aventra family was announced in June 2017. The £895 million order was financed by leasing company Rock Rail and partners SL Capital and GLIL Infrastructure.

Entry into service was originally planned for mid-2019, but was put back to mid-2020 because the manufacturer required more time to complete software development. The first EMU was delivered for testing in June 2020, but in January 2022 SWR said it was still waiting for Alstom to supply a train that performs to specification before it could begin testing, crew training and mobilization.

Problems were understood to include the cab layout, where the production sets differed from the design agreed with drivers' trade union ASLEF.

Audits by Alstom following its purchase of Bombardier Transportation also identified problems with the manufacturing process that were leading to trains being completed with large numbers of defects needing to be rectified at significant cost. RAIL BUSINESS UK, January 10

FLORENCE, ITALY

Tram Line 4 Railway Systems Contract Awarded

The city of Florence has awarded a consortium of CMB, Alstom, Hitachi Rail and ComNet a contract to supply and install the track, overhead electrification, substations and lighting for the tram Line 4 project. The €50 million contract covers Section 4.2 of the line, the outermost 5.3 kilometers from Le Piagge railway station to San Donnino and the center of Campi Bisenzio with 11 stops.



Sirio 2026 (Hitachi Rail Italy, 11/2016) on route T2 at Peretola Aeroporto on June 14, 2023. Pro photo via Urban Electric Transit

There is a \notin 49 million option for a second lot covering the 6.3-kilometer Section 4.1 from Le Piagge to Leopolda and Porta al Prato with 13 stops. This will connect Section 4.2 with the existing Line 1, enabling Line 4 services to run through to the city center.

The Line 4 project is being financed through the National Recovery & Resilience Plan.

METRO REPORT INTERNATIONAL, January 16

GALAȚI, ROMANIA

Tram Order Signed

Astra Vagoane Călători Arad has been awarded a contract to supply a further 10 Autentic trams to the city of Galați within 19 months.



Autentic Galați 1872 (Astra, 12/2021) on route 44 at Piața Energiei on June 13, 2023. Frazzer photo via Urban Electric Transport

Bozankaya had also bid for the contract, which was signed on January 15. The order is worth 80 million lei+VAT, and is being financed with EU funding through Romania's National Recovery & Resilience Plan. The Autentic trams will be similar to eight supplied previously. They will be 18 meters long, with air-conditioning, 30 seats and a capacity of 100 passengers. METRO REPORT INTERNATIONAL, January 19

KRAKOW, POLAND

Suburban Rail Loop Tunneling Contract Awarded

On January 8, MPK Kraków opened the final 0.7 km section of the fast tram route to Górka Narodowa in the north of the city, extending routes 18 and 50. Work began in July 2020 with construction led by contractor Intercor. A 3.6-kilometer section of the line opened from Krowodrza Górka as far as the temporary terminus Papierni Pradnickich in September 2023, and has since carried 42,500 passengers.

The new terminal at Górka Narodowa provides a turning loop for trams, improved bus interchange and a 470-space park & ride site which will have convenient access from the



Tango NF2 863 (Stadler, 2021) at the new Górka Narowa terminal of lines 18 and 50. MPK Kraków photo

future northern bypass which is currently under construction. METRO REPORT INTERNATIONAL, January 10

MANCHESTER, ENGLAND

Metrolink Operating Contract Extended

The contract for KeolisAmey Metrolink Ltd to operate and maintain Greater Manchester's Metrolink light rail network has been extended until July 2027.

The KAM joint venture has been running the 103-kilometer Metrolink network since July 2017, having been awarded a seven-year contract with provision for extension up to 10 years. This replaced separate contracts with RATP Dev as operator and MPact-Thales as maintenance contractor.



M5000 3092 (Bombardier Transportation, 11/2014) is seen at the St. Peters Square stop on an Eccles to Ashton-under-Lyne trip on August 1, 2022. JesperO photo via Urban Electric Transit

Transport for Greater Manchester said the terms for the extension from July 2024 would place increased emphasis on operational performance. Planned improvements would include investment in the latest technology developments, refreshed social impact ambitions and the provision of more frontline staff to tackle fare evasion and antisocial behavior. METRO REPORT INTERNATIONAL, January 12

MELBOURNE, AUSTRALIA

Suburban Rail Loop Tunneling Contract Awarded

The government of Victoria has awarded the Suburban Connect consortium of Acciona, CPB Contractors and Ghella the first major tunneling contract for the Melbourne Suburban Rail Loop East project.

The A\$3.6 billion Tunnels South contract covers the construction of the 16-kilometer Cheltenham to Glen Waverley section of the 26-kilometers of twin tunnel required for the project. The package also includes two underground station boxes, 55 cross-passages and portals at the Southern Stabling Yard.



Map of the proposed Suburban Rail Loop. State of Victoria (Major Transport Infrastructure Authority)

Major tunneling works are expected to commence in 2026 using four tunnel boring machines. At least 12 percent of hours are to be worked by trainees, apprentices and cadets.

A separate contract is to be awarded for the Glen Waverley to Box Hill section of the route.

RAILWAY GAZETTE INTERNATIONAL, January 7

ODESSA, UKRAINE

Tram Deliveries Begin

Odessa municipal transport operator Odesmiskelektrotrans has begun dynamic testing of the first of 13 K1T306 trams being supplied by a consortium led by Tatra-Yug.

The order was placed in December 2022, with the manufacturer saying it was the first tram contract to be signed since the full-scale Russian invasion that February. The first of the 26-meter-long three-section unidirectional 100 percent low-floor trams arrived in the city on December 21, 2023.

The ${\textcircled{\sc eq}} 24$ million order was placed as part of the Urban





Odessa's new K1T306 tram, 7013. Tatra-Yug photo

Public Transport of Ukraine project funded by the European Investment Bank, and includes spare parts and warranty and post-warranty servicing.

Odessa previously purchased 47 new trolleybuses with financing from the European Bank for Reconstruction & Development. Together with the European Investment Bank, they are purchasing electric buses.

METRO REPORT INTERNATIONAL, January 4

OLSZTYN, POLAND

Tramway Extension Opens

Revenue services have started on a 6-kilometer tramway extension in Olsztyn, taking the city's network to 17 kilometers. The extension branches off the existing network at the junction of al Piłsudskiego and ul Kościuszko and serves the Pieczewo residential area in the southeast of the city.

Revenue services commenced on December 30 with the launch of a new Route 4 which runs from Pieczewo to the city's main railway station. January 1 saw the introduction of Route 5, connecting Pieczewo to the transfer hub at Wysoka Brama, which has been relocated and double-tracked to increase capacity. The city's bus network was also modified to reflect the opening of the tram extension.

The double-track line serving 13 stops was built by a consortium of Polimex and Trakcja under a 403 million złoty contract awarded in 2021. The extension includes a 270-meter flyover across the junction of ul Krasickiego and ul Synów Pułku.

Durmazlar has supplied 12 Panorama trams to expand the city's fleet under a 107.9 million złoty contract signed in August 2018. The five-section vehicles for 600v DC operation



Heading south along Ignacego Krasickiego towards the new terminal at Pieczewo, one of the recently-built Panorama LRVs, 3020 (Durmazlar, 2020), is shown just north of the Carrefour (Krasickiego) stop. MPK Olsztyn photo

are 33 meters long and 2.5 meters wide and fitted with four double leaf and two single leaf doors per side. Each car can carry up to 210 passengers, including 40 seated.

An additional stabling shed has also been built at the ul Kołobrzeska tram depot.

METRO REPORT INTERNATIONAL, January 16

PARIS

Line 4 Fully Automatic

The Paris Métro's second busiest line has been fully converted to Grade of Automation (GoA) 4 unattended operation, following a period when driver-operated trains ran alongside automated trains.

Speaking at an event on January 19 to mark the completion of the \in 480 million Line 4 automation project, RATP CEO Jean Castex said it had been more challenging than the conversion of Line 1 in 2012. However, the operator's knowledge of how to automate metro lines without major disruption was unique in the world.

Line 4 runs for 14 kilometers from Porte de Clignancourt in the north to Bagneux-Lucie-Aubrac in the south, and carries 700,000 passengers per day. It is the only line in Paris that interchanges with all other metro and RER routes.

RATP and transport authority Ile-de-France-Mobilités decided in 2013 to convert Line 4 to GoA4, in order to improve service quality and reliability. In 2015 Siemens Mobility was awarded a contract to supply its Trainguard CBTC. Platform edge screens incorporating passenger information systems have since been installed at the 29 stations and management of the line was transferred to a new control center in 2020.

One biggest challenges for the project was the line's fleet, which was comprised of three different types of rubber-tired wide-bodied six-car trainsets supplied by Alstom. There are 21 MP89CA and 11 MP05 sets plus 20 new MP14CA trains. The CBTC

😰 BULLETIN

February 2024



Paris metro Line 4 at Barbara. Jérémie Anne photo

must adapt its commands to suit the specific type of rolling stock.

Dynamic testing of automated operation began in 2022, and in September of that year four GoA4 trainsets designated "shuttle" by RATP were put into automated service. Weekend and evening services went fully automatic in May 2023 and the last manual driving ended in December 2023.

The new train control system allows for a minimum headway of 85 seconds, although in normal service trains run every 105 seconds at peak times.

Line 13 will be the next to be converted to fully automated operation. This will pose new challenges, as it has branches and is operated with steel-wheeled trains.

Expressions of interest for the project were invited in December 2023 and a call for tenders to supply the automation technology and control center is planned for February.

The plans envisage that manually-driven Alstom MF19 trains will be introduced from 2027 to replace the current MF77 fleet. The fitting of additional platform edge screens will be undertaken in 2028, paving the way for full automation in 2032.

Castex has also proposed that the planned modernization of Lines 7 and 8 should include automation at GoA4 rather than the current attended ATO to GoA2. He explained to Metro Report International that these lines should be the next to be automated because of their length, the age of their MF77 trainsets, their heavy usage and difficulties recruiting drivers. METRO REPORT INTERNATIONAL, January 25

Grand Paris Express Line 15 East Contract Awarded

Automated metro project promoter Société du Grand Paris has awarded a €2.54 billion contract for the design and construction of the eastern segment of Grand Paris Express Line 15.

The winning COREA consortium is led by Eiffage Génie Civil, and also includes design studios Architecturestudio, Ar Theme Associés, BIG – Bjarke Ingels Group, fbcc architecture, LA/BA architectes, Silvio d'Ascia, Viguier Urbanisme Paysage and Wilmotte & Associés architectes.

The scope of the work covers the construction of 17 kilometers of tunnel starting south of Drancy-Bobigny station and extending as far as a point west of Champigny-Centre station.



Map of Line 15 East. Société du Grand Paris

It includes the construction of six stations and maintenance facilities at Rosny-sous-Bois.

This is the second design and build contract for Line 15, the first package, covering the western part of the line having been awarded last July. Procurement of the northern and southern sections is still to come. Opening is planned for 2031. METRO REPORT INTERNATIONAL, January 26

PRAGUE

New Trams Ordered

Prague transport operator DPP has formally awarded Škoda Group an KC16.6 billion eight-year framework contract covering the supply of up to 200 ForCity Plus Praha 52T trams, with a firm order for an initial 40. Škoda was named preferred bidder in November. Stadler had also submitted a KC17.8 billion bid based on its Tango design.

The first 20 trams are expected to be delivered by December 2025, and the next 20 by the end of 2026. The optional vehicles would enable the replacement of much of DPP's high-floor tram fleet, if funding can be secured.

The design is a combination of cutting-edge technical solutions of the 21st century and, at the same time, proven and technological principles tested in everyday operation in Prague. Announcing the confirmation of the contract on January 10, Škoda said the design takes into account Prague's combination of narrow streets, sharp curves, steep gradients and significant height differences, but also long and relatively straight routes.

The five-section unidirectional trams will be nearly 32 meters long and 2½ meters wide, 100 percent low-floor and, therefore, step-free. There will be 44 forward-facing and 26 rearward-facing padded seats and space for 173 standing passengers at five persons per square meter, a 16 percent increase in capacity from the 15T trams. They will have a boarding height of 350 mm, five 1.3-meter-wide double doors, air-conditioning, automatic passenger counting, six



Škoda ForCity Plus Praha 52T tram impression. Škoda

large information screens and LED interior and exterior lighting. They will have a design speed of 80 km/h, empty weight of 48 tons and design life of 30 years.

Dako-CZ will produce the electromechanical braking system, and an anti-collision system will combine LiDAR and cameras with off-line recorded maps and odometry to create a "virtual driving tunnel" in which the tram can detect obstacles. METRO REPORT INTERNATIONAL, January 11

ROME

New Trams Ordered

Rome transport operator ATAC has awarded CAF a framework contract for the supply of up to 121 trams. Hitachi Rail, Stadler and Škoda Group had also bid. CAF was named as preferred bidder on September 29 (see November 2023 *Bulletin*, page 18), and the contract has now been finalized following government approval.



An example of a recent Urbos family tram built by CAF, this is an Urbos 100 built in 2020 and operated by Skånetrafiken in Lund, Norway. The location is the downtown terminal at Centralstation and this was taken on October 2, 2023. Jeff Erlitz photo

On January 2, CAF announced a \notin 130 million firm order for the supply of an initial 40 Urbos trams along with spare

parts and the provision of five years of maintenance. Options are included for a further 81 trams, which would take the value of the order to more than \notin 400 million.

The initial trams will replace older Stanga trams which are now 70 years old. Future orders could include cars for use on planned new lines. The five-section bidirectional trams from the Urbos family will be 33.5 meters long and have a capacity of 215 passengers, with 68 seats and two wheelchair spaces.

They will be designed for the future installation of an onboard energy storage system, enabling catenary-free operation to both reduce the visual impact on the historic city and improve energy efficiency. METRO REPORT INTERNATIONAL, January 3

SAUDI ARABIA

Unique Tramway to be Built

The Royal Commission for AlUla (RCA) has awarded Alstom a €500 million contract to supply a "truly unique" tramway inspired by heritage, including the historic Hedjaz Railway.

Alstom said the 22.4-km line would be the world's longest catenary-free tramway. The 17 stops will serve urban areas, archaeological sites and UNESCO World Heritage tourist destinations around five core historical districts of the ancient city, including AlUla Old Town (District 1), Dadan (District 2), Jabal Ikmah (District 3), Nabataean Horizon (District 4) and Hegra Historical City (District 5).

Opening is planned for the second half of 2027, as part of a "360 Mobility" sustainable transport plan developed by RCA with Systra and RATP Dev. This includes bicycle, equestrian and pedestrian travel as well as electric buses and autonomous pods.



Rendering of AlUla Tramway Citadis B tram. Alstom

Alstom will be responsible for comprehensive system design, integration, installation, testing and commissioning. This will include the power supply, signaling, communications and depot equipment, and 20 Citadis B battery-trams which are to be designed and built at its La Rochelle site in France.

Alstom will provide full maintenance for the trams for 10 years, using its Health Hub predictive maintenance and fleet management tool and a workshop designed to provide flexibility and reduce capital expenditure. It will also provide training programs.



Alstom will draw on its international experience including tramways in Dubai and Qatar, as well as the automated peoplemover at Jeddah's King Abdulaziz International Airport and the Riyadh metro. METRO REPORT INTERNATIONAL, January 3

SHEFFIELD, ENGLAND

Supertram Refurbishment Planned

South Yorkshire Mayoral Combined Authority is seeking market feedback to help it draw up plans to extend the lives of the original Supertram fleet.

SYMCA says the 25 Siemens-Düwag trams built for the opening of the Sheffield light rail network in 1994 are suffering from underframe corrosion and the refurbishment is likely to involve removal of most of the interiors and underframe equipment, including the wooden floors. Additional electrical and mechanical improvements and repairs are planned to take advantage of the vehicles being stripped down.



Supertram 113 (Siemens-Düwag, 1994) is seen operating on route Y at Church Street-Cathedral on September 11, 2014. Christian Maibaum photo via Urban Electric Transit

Following the market engagement process, it is envisaged that tenders for the works could be called in May. The tram refurbishment forms part of a wider program of renewal works across the Supertram network, which is owned by SYCA but currently operated by Stagecoach under a contract which expires in March. From then, operations will be taken in-house by the authority. METRO REPORT INTERNATIONAL, January 30

TIMIŞOARA ROMANIA

More Battery-Equipped Trams Ordered

Bozankaya has been awarded a further order to supply battery-equipped trams for use in Timisoara.

In July 2019 the Turkish manufacturer beat Pesa to win a contract to supply 16 trams, with options for up to 24 more. A firm order for another five was subsequently confirmed, and 18 vehicles have so far been delivered.



Model 2021 1021 (Bozankaya, 2023) is operating south on Bulevardul Dâmbovița by the company's yard and shop on August 12, 2023. Martin N. photo via Urban Electric Transit

The latest order announced on January 3 covers the supply of 17 more trams at a cost of US\$36.2 million. The deal is being financed with EU funding secured through Romania's National Recovery & Resilience Plan. Deliveries are expected by the end of this year. The 100 percent low-floor trams are 30 meters long with have a capacity for up to 251 passengers. According to the manufacturer, the battery provides a range of up to 70 kilometers for off-wire operation.

The additional vehicles are to be delivered in a yellow and black livery, in a change from the purple used for the initial batches. METRO REPORT INTERNATIONAL, January 18

TORONTO/HAMILTON

Eglinton West Extension Contracts Awarded

Greater Toronto & Hamilton Area transport agency Metrolinx has appointed infrastructure consultancy AECOM as its delivery partner for the Eglinton Crosstown West Extension light rail project, and has awarded Aecon Infrastructure Management a contract to design and build an elevated section of the route.

The extension will add 9.2 kilometers to the 19-kilometer Eglinton Crosstown Light Rail Transit line which is currently under construction. The extension will run from the future Mount Dennis station to Renforth Drive, with seven stations.

As delivery partner, AECOM will provide program management, advisory, commercial management, procurement and supply chain management and project supervision services.

Aecon Infrastructure Management will build the 1.5-kilometer elevated section running from Scarlett Road over the Humber River to Jane Street. A separate contract will be let for design and construction of Scarlett-Eglinton and Jane-Eglinton stops on this elevated section. The rest of the extension will be underground.

Metrolinx is working with the Greater Toronto Airports Authority to explore options for extending the line by a further 4.7 kilometers to Toronto Pearson International Airport. METRO REPORT INTERNATIONAL, January 9 🚯 BULLETIN

February 2024

The History Corner

An occasional series showcasing a particular electric railway operation or locale. This month, we visit Brooklyn, New York. (All photographs by Max H. Hubacher (1900–1989) via the New York Public Library)



PCC 1059 (St Louis Car, 1936), 69 McDonald/Vanderbilt to Coney Island, Vanderbilt & Willoughby Avenues, 11/19/1947



Peter Witt 8490 (Osgood-Bradley, 1925), Putnam to Ridgewood, Fulton Street & South Elliott Place, 10/27/1949



Peter Witt 8263 (St Louis Car, 1923), Fifth to Fort Hamilton, Atlantic Avenue & Nevins Street, 11/20/1947



NYCTS 6176 (J G Brill, 1931-2), Crosstown to Erie Basin, Myrtle Avenue & St. Edwards Street, 1/26/1951



NYCTS 6035 (Osgood-Bradley, 1931-2), Nostrand to Avenue U, Nostrand & Putnam Avenues, 3/23/1951



PCC 1083 (St Louis Car, 1936), 35 Church to First Avenue, 13th Avenue & 39th Street, 10/22/1952

Book Review

By Paul Grether

Norfolk & Western Electrics

by Mason Y. Cooper, published by Norfolk & Western Historical Society, Forest, Virginia in 2000 [first edition], hardcover and softcover, 128 pages, illustrated throughout with black & white photos, maps and diagrams. ISBN 9780963325495

The Norfolk and Western Railway (N&W) traces its heritage to the 1830s. It evolved into a powerhouse railroad that had historically high profits as a result of both the large coal deposits along its lines and its efficient operating practices. Among rail enthusiasts, the N&W is known for continuing to operate its home designed and built steam locomotive fleet into the early 1960s. The N&W disappeared through merger in 1982 with the Southern Railway.

Lesser known is that the N&W was an early electric railroad. Electrification was not a consideration for major adoption, rather it was used as a solution to a specific local problem, the Elkhorn grade and tunnel on the Bluefield Division. Long heavy drag freights of coal trains struggled with steam locomotives, and crews were asphyxiated in the



Early undated view of an N&W LC-1 class electric locomotive. Public domain – Westinghouse

operations and comparisons with steam are also covered including the contribution of the electrification to the war

long 3,100-foot tunnel. Ultimately comprising 52 miles in Virginia and West Virginia, the singlephase 11,000-volt, 25 Hz AC started operations in 1915 and lasted until the N&W abandoned electric operations in 1950 upon completion of a new by-pass route around the Elkhorn tunnel.

The historical societies associated with many of the major historic railroads often publish high-quality, well-researched books and this volume is no exception. Chapters cover the economics, engineering and politics leading to the decision to invest in the electrification. The technology and engineering of the Westinghouse system is covered in detail, including the locomotives used to move the heavy coal tonnage. The



By Mason Y. Cooper

efforts during both world wars. Finally, there is a chapter on the N&W relationship with the Virginian Railway which had a similar but more extensive AC electrification. When the N&W and Virginian finally merged, the N&W briefly became an electric railroad again and the Virginian electrification and subsequent N&W operations are also covered.

This book covering a relatively obscure element of the N&W will appeal to those interested in electric freight operations, early AC electrification technology, engineering and the economics of electrification.

Link to book information: www.libib.com/u/ grether?solo=62161142

Travels with Jack May

Britain and the Baltics — Part XXIV

By Jack May (Photographs by the author)

Saturday, August 26

The events of Friday, August 25 in Riga were related in Part XIX. Today was getaway day from that city, with our bus scheduled to leave at 9:00 AM and arrive in Tallinn, Estonia, some 200 miles due north, at 1:30 PM. But it didn't quite happen that way for several reasons (excuses?), and we didn't check in at our hotel (in a rather chaotic way — the hotel didn't know we were coming?) until after 4:30. It turned out that the hostelry is an ancient landmark, the building dating from the end of the 14th century, becoming a hotel in the early 1990s, after Estonia's communist regime fell. This probably explains why it didn't have an elevator - and I was not pleased our room was on the third floor (it could have been worse — others had to climb to the fourth - ugh). The Gotthard Residents is in Tallinn's beautiful old city, among its narrow streets and attractive arches. And that was the reason that our bus couldn't take us directly to its entrance, so instead we had to climb a steep hill, burdened with our luggage, to get to the front door.

One of the reasons why our arrival in Tallinn was late was that we took a detour to the town of Parnu in Estonia to see a narrow gauge steam locomotive on display in the downtown area. We had to walk some distance from where our bus was parked to reach the locomotive, and unfortunately it was facing the wrong way in terms of the sun.



A narrow gauge 0-4-0T locomotive on a very short plinth at the site of Parnu's former railway station. Apparently, the steam engine was constructed by Orenstein & Koppel of Berlin, Germany in 1911. With plants in both the east and the west the company was divided after World War II, and eventually its locomotive business was sold to Bombardier. No. 5 is officially on loan from the Estonian Railway Museum at Lavassaare. The other photos directly below illustrate what I could see of a driverless bus experiment in Tallinn, which unfortunately we reached just a little bit too late to try out. Two tiny (eight-passenger) automated (autonomous?) buses were being tested alongside the center reservation of a tram line that was out of service because of a major rebuilding project. The test ran from July 29 to August 26 and the buses operated on Mondays to Saturdays from 8:30 AM to 5:30 PM. The roadway used by the vehicles was cordoned off from regular motor traffic by barriers and I arrived just in time to photograph the last trip of the day (actually the last trip of the entire test period). See https://estonianworld.com/ technology/tallinn-introduces-driverless-shuttle-buses/.

.....



(Above and below) Two views of the final trip of the driverless bus experiment in Tallinn. The eight-passenger battery-powered buses and autonomous technology were supplied by EasyMile of Toulouse, France. The rusty rails represent the northern portion of tram routes 1 and 2, which was out of service while the line was being rebuilt.





The tram line was scheduled to go back into service six days later, on Friday, September 1, but by then we would be in Stockholm. They say that timing is everything, but sometimes there is little that can be done to control it. All in all I'd have to say that our Saturday was a bust; had we arrived in Tallinn anywhere near our scheduled time some of it could have been salvaged, but that was not to be.

On the positive side though, Karl Heinz, Julien and I found a restaurant in the attractive gentrified center of the old city, and had very good dinners.

Sunday, August 27

We didn't have to get up too early for breakfast on what looked to be a fine sunny day, as our bus, which would take us to the nearby carbarn and shop, wasn't scheduled to leave until 9:00 AM. Upon our arrival we had plenty of time to wander around the facility and take photos, as our two-car charter over the portion of the tramway that was operating wouldn't leave until 10:15 (less than a week later and the network would have become almost twice as large). Here are a few photos from the carhouse area.



Located in a park-like area near the shops, this monument was built in 1988 to commemorate one hundred years of tram service in Tallinn. An earlier photo is located at the end of this article.



A group of Tatra KT4s at the carhouse and shop on this Sunday morning.

With regard to the four-wheeler, I should mention that Julien and I, plus our spouses, visited Tallinn in 1991 as part of a trip to Scandinavia, arriving by overnight ferry crossing the Baltic Sea from Stockholm and leaving by a daytime ferry crossing the Gulf of Finland to Helsinki. At that time we found it to be a very pleasant city, and because the writing was on the wall (not graffiti) about the future break-up of the Soviet Union, the people were very cheerful and welcoming to Americans. I thought their dislike of Russia was specifically manifested in two particular anecdotal experiences. The first was that the tourist office's map of the city's sights had no mention of the beautiful Russian Orthodox church (although it showed Lutheran and Catholic ones). And the second came about when we attended a huge choral concert at the stadium, which was comprised of singing groups from all over the world, including a delegation from the U.S. It was an event so big that tram service was halted (perhaps to allow employees to attend or maybe just so that the crowd could walk unimpeded to the stadium). Interestingly, the stage was the grandstand and we, the audience, were on the field. We noticed that the locals were boycotting bottles of Pepsi-Cola, which vendors were selling for the equivalent of five cents American, and instead were buying cans of Coke, at a price 10 times as much (no doubt smuggled into the country). I suspect the introduction of Perestroika by the Soviet government a few years earlier led many Eastern Europeans to express their feelings and assert their rights with less risk than at any time in the past half century. Only a few months later Estonia, Latvia and Lithuania were freed from Russian rule without a shot being fired. This was attributed to what was called the "Singing Revolution," of which I am sure the concert we witnessed was an important part.

Our two days were very pleasant and we rode both the tram system and a suburban railway line. I mention this because Julien reminded me that after a trip on a suburban DMU (probably a car similar to the motor unit we rode to Daugavpils), we saw a carhouse in the distance and walked to it. The man in charge (who did not speak English) was very friendly and let us have the run of the facility, where we eventually saw the T-11 inside the shop and were invited to board and inspect it. Before we knew it, the staff brought it out into the sun where we took photographs. Perhaps what did the trick was my giving the manager a copy of a route 7-Newark City Subway timetable that had a silhouette of a streetcar on its cover. We got a great kick out of his saying "PCC" when he saw it. After we left we left we wondered if had we offered some sort of payment whether it could have been chartered for a short trip. In any case, now we would ride the T-11 over the trackage that was now in service, which will be part of the narrative to be continued in Part XXV of the report.





(Above and below) Two views of the T-11, one of the two cars chartered for our fantrip. With no access to the shop's interior (probably because it was a Sunday), some members of the group found a place to sit while waiting for departure time, as illustrated in the lower photo.

