



BULLETIN

Volume 67, Number 9 | September 2024

Storms Ravage the Region

The 36 hours from early Sunday, August 18 through midday Monday, August 19 saw a historic rainfall event in the NYC metropolitan area. Even though Hurricane Ernesto was a few hundreds of miles offshore, the weather system impacting the area was independent of Ernesto. It was a “synoptic-scale” weather system (i.e. on the order of many hundreds of miles across). As the parent low pressure system moved northeastward through the Great Lakes states, a long fetch of warm, tropical, unstable air preceded it across the eastern seaboard.

Slow-moving thunderstorms “trained” (how appropriate!), meaning they followed the same track producing heavy rains over the same areas for a long period of time. Southwestern Connecticut was hit by exceptionally heavy rainfall on Sunday, with some areas recording six to 12 inches of rain, and prompting the National Weather Service

to issue a rare Flash Flood Emergency. The most affected regions included Fairfield and New Haven counties, where the deluge caused significant flash flooding, leading to multiple water rescues and substantial damage to infrastructure. Similar conditions were found on Long Island, especially along the north shore of Suffolk County. Late Sunday night into Monday morning, another round of heavy showers and storms affected the same areas. Rainfall totals approached a foot across much of southwest CT and eastern LI; areas further west had less (though still substantial) amounts ranging from two to six inches.

Metro-North service was suspended on the Waterbury and Danbury Branches at approximately 8:10 PM on Sunday, August 18, due to flooding. On the Waterbury Branch, flooding caused a mudslide that contributed to
Continued on page 3



Electric Railroaders Association

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Back Issues

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Trip Notices

September 14, 2024: Metropolitan New York Bus Association Committee of the Motor Bus Society trip to the New Jersey Transportation Heritage Historic Bus Festival and Philadelphia Route 15 PCC service. Visit <https://erausa.org/pdf/motor-bus-society/2024-09-metropolitan-ny-bus-association-trip-nj-pa.pdf> for all the details.

October 17-20, 2024: Motor Bus Society Fall 2024 Convention. Visit <https://erausa.org/pdf/motor-bus-society/2024-10-mbs-fall-convention-pittsburgh.pdf> for all the details.

November 22-24, 2024: Annual Meeting Weekend with visits to Coney Island, the Shore Line Trolley Museum, and early entry to NY Transit Museum. Visit <https://erausa.org/regional-trips/2024/11/> for all the details.

Donations

The ERA Board of Directors belatedly express their deepest appreciation for these recent member donations.

\$1000 and Above

Estate of Harold Golk

(Editor's note: Harold [ERA #1375] was a loyal member of 75 years, having joined the ERA on August 8, 1949! He was very supportive of the association and a participant in our international and regional conventions for many years.)

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 90-year long tradition of traction education and entertainment!

Monthly Zoom Meeting

Friday, September 27, 2024 at 7:30 PM.

Presenting This Month: Harvey Laner: Switzerland by Rail 2023

In September of 2023, Harvey Laner joined the Special Interest Tours "Majestic Switzerland by Rail 2023" tour through Europe's railroad wonderland. Locations visited include Zurich, the Forchbahn, Rhaetian Railway, Furka Steam Railway, Gornergrat, Montreux-Glion-Rochers-de-Naye railway, Jungfraubahn, Pilatusbahn, and the Rigi Railways. The program concludes back in Zurich with a surprise appearance of the oldest operating tram in Switzerland.

How to Join Our Zoom Meeting

The Zoom registration link for this meeting is: https://us02web.zoom.us/join/zoom/register/tZAvdu2vqjkoEtGP-5cWT4D_yAlny2Z0FnOKj. You can sign in at 7:15 PM. The show begins at 7:30 PM. If you have any problems, email Bob Newhouser at bnny1955@aol.com, or on the night of the meeting, text or call Bob at 917-482-4235.

Front Cover Photo

Day Three of scheduled activities on the ERA's 2024 European tour took us to Rotterdam. Our chartered tram set consisted of perfectly-matched double-truck motor No. 523 and trailer No. 1020. Both were manufactured by Werkspoor N.V. in March of 1931. In this May 14 view, we have stopped briefly at Spangen, Spartastraat, the western terminal of route 8. Trailer No. 1020 had been built as a motor car, No. 513. It was renumbered 2516 in December 1970, renumbered 2601 in December 1975, and converted into a trailer and renumbered 1020 in July 2004. Jeff Erlitz photo

Back Cover

The service notice that was displayed along the IND Crosstown  Line during the partial shutdowns of service all summer long. MTA

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

Date	Country	City	Segment	Distance (miles)	Rail/Metro/Tram
8/6	U.S.A.	Chicago	Green Line: Damen station	n/a	M
8/8	Vietnam	Hanoi	Line 3: Nhon to Cau Giay	4.8	M
8/10	South Korea	Seoul	Line 8: Amsa to Byeollae	7.7	M
8/12	Finland	Helsinki	Line 13: Pasila (Maistraatintori) to Nihti	2.7	T
8/18	India	Delhi	RapidX: Modinagar North to Meerut South	5.0	R
8/19	Australia	Sydney	M1: Chatswood to Sydenham	9.6	M
8/23	China	Foshan	Line 3: Zhen'an to Zhongshan Park and Lianhe to Foshan University	13.8	M
8/30	U.S.A.	Seattle	Line 1: Northgate to Lynnwood	8.5	T

URBAN RAIL NEWS, AUGUST 31



The washout between Seymour and Ansonia. Metro-North photo

conditions leading to a suspension.

Full service on the Danbury Branch was restored on Monday, August 19, in time for the evening rush. The first train to operate was the 5:07 PM train from Grand Central to Danbury.

Train service on the Waterbury Branch remains suspended due to significant damage, including a severe mudslide midway between Seymour and Ansonia stations and near Beacon Falls. Beginning at 5:30 PM, extremely limited bus service was operated between Bridgeport and Waterbury, bypassing Seymour due to severe roadway flooding.

Metro-North crews continue to restore slopes and ballast that were washed out by floodwaters and transport heavy

stone to refill and stabilize areas surrounding tracks for safe operation. It is estimated that approximately 1,500 cubic yards of heavy stone and 3,600 cubic yards of fill materials will be required to address damage along 200 feet of track.

As of September 1, service on the Waterbury branch had not yet been restored.

LIRR fared much better but there was one major outage, on the Port Jefferson Branch.

On Monday, August 19, an LIRR inspector reported that it was necessary to shut down the branch between Kings Park and Smithtown due to flood waters of the Nissequogue River, which runs under the Smithtown Viaduct (along with Jericho Turnpike). There was concern that the flooding might impact one of the bridge piers of the

viaduct.

Train #650, which left Huntington at 12:28 PM, was held at Kings Park and then canceled. The equipment turned for train #655, which left Kings Park at 2:30. Train #653, which left Port Jefferson at 12:29, was canceled at Smithtown. Several buses were ordered to replace the train service.

After determining that no structural damage had been inflicted upon the viaduct, the single track was returned to service at 10:36 that evening. Train #672 was the first eastbound to operate through to Port Jefferson. It left Huntington at 9:31, five minutes late (probably due to a late MU connection) but arrived at Port Jefferson around one and a half hours late.

[MTA PRESS RELEASE](#), August 18

[MTA PRESS RELEASE](#), August 19

Additional reporting by Todd Glickman, meteorologist

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

BMT Brighton Line Addendum

Missing from last month's news item about the Brighton Line express tracks being out of service to the end of the year, the southbound platform at Church Avenue Station is also out of service, but only to 5:00 AM on Saturday, October 5.

Southbound  and  trains are bypassing the station. Passengers needing to alight there need to ride past to Beverley Road, cross over to the northbound platform, and ride back the one stop. It might be faster, however, to simply walk from Parkside Avenue Station.

Classon Avenue ADA Upgrade Begins

On August 5, a groundbreaking was held to make the Classon Avenue Station in Clinton Hill, Brooklyn a fully accessible station. Funds from the federal government cover accessibility improvements and related improvements to passenger circulation through the reactivation of approximately 3,500 square feet of public mezzanine space and two mezzanine-to-platform stairwells. Classon Avenue is one of 13 stations in the largest design-build bundle of accessibility upgrades awarded to date. The total package spans all five boroughs with a construction budget of approximately \$850 million. Approximately \$500 million is covered by federal funding including \$360 million from the Bipartisan Infrastructure Law.

The anticipated completion date for this project is the fourth quarter of 2026. The project encompasses a multitude of accessibility upgrades and related station improvements, including:

- Three new elevators; one connecting the street level to the mezzanine and two connecting the mezzanine to the platforms serving both directions
- Four new raised boarding areas compliant with the Americans with Disabilities Act (ADA) with new platform edge tactile strips
- Staircases will be refurbished to ADA standards, receiving new stair treads, new handrails, and related repairs
- The staircase connecting the mezzanine to street level will be relocated to accommodate the new street-to-mezzanine elevator, rebuilt, and widened to improve passenger circulation
- Two currently closed mezzanine-to-platform staircases will be reopened, increasing the total number of mezzanine-to-platform staircases from four to six
- One new curb ramp at the northwest corner of the plaza where the new street elevator is located
- New turnstiles, including an automated wide-aisle fare gate to create an ADA-accessible path from the mezzanine to the platform elevators
- Replacement of communications and public announcement

- systems, including upgrades to customer information screens
- Related to the station accessibility work, the station will receive upgrades to fire alarms, sprinklers, and lighting, as well as targeted structural repairs and painting
- In coordination with this project, the station will also receive a station re-NEW-ovation during the planned summer service outage on the train

(Editor's Note: Classon Avenue's mezzanine, as built, was only about half the length of the station. The four currently-open mezzanine to platform stairs are located to the east of the fare control area. The mezzanine to the west of the control area was closed off many years ago. The two stairs to be reopened are in this portion of the mezzanine. We anticipate that about 60 feet of this mezzanine will be reopened. Originally, this smaller portion of the mezzanine also had four stairs to the platforms. The westernmost stair, to the northbound platform, was completely removed some time ago.)

IND Crosstown Line Update

In other Crosstown Line news, on Monday, August 12, Phase 3 of this summer's signal and track work began.

For this phase,  trains are operating between Court Square and Bedford-Nostrand Avenues. As was done during the previous Church Avenue to Bedford-Nostrand phase, trains are terminating in the middle track at Bedford-Nostrand, with both platforms remaining in use.

For all three phases, most of the work involved has been track-related. J-Track LLC is the sub-contractor tasked with doing much, or all, of the track work. They have been doing a lot of rail replacement and tie block renewal along the line. All of the switch machines are being replaced with Model TMC-1 machines from Twinco Manufacturing Company, which seems to be one of NYC Transit's new "standard" switch machines. Twinco is a local company, based in Hauppauge in Suffolk County. This model of switch machine is "submersible" and, supposedly, will not be easily damaged if water conditions inundate the trackway.

At Court Square and Nassau Avenue Interlockings the original switch machines were General Railway Signal (GRS) Model 5 machines. At Bedford-Nostrand, the original machines were Union Switch & Signal Style A-10 pneumatic machines.

During this phase, as was done in Phase 1,  skip-stop service is partially suspended with trains operating local in both directions between Marcy and Myrtle Avenue Stations. This doubles the service provided at Hewes and Lorimer Street Stations, the two closest to the Broadway  Station.

BMT Jamaica Line Station Renovation Update

On Monday morning, August 12, the Manhattan-bound platform at Woodhaven Boulevard Station was returned to service. The station reconstruction work had begun there back on December 4, 2023.

At the same time on August 12, the Jamaica-bound platform at 85 Street–Forest Parkway Station was removed from service to, at least, the end of this year. Similar station reconstruction work will be going on there.

IND Culver Line CBTC Update

Over the weekend of August 17–18, the next section of CBTC was placed into service on the Culver Line. This was the northbound local Track B2, from Kings Highway to Ditmas Avenue. Once again, only Automatic Train Protection Manual (ATPM) mode is available. Full Automatic Train Operation (ATO) mode will begin a few weeks later.

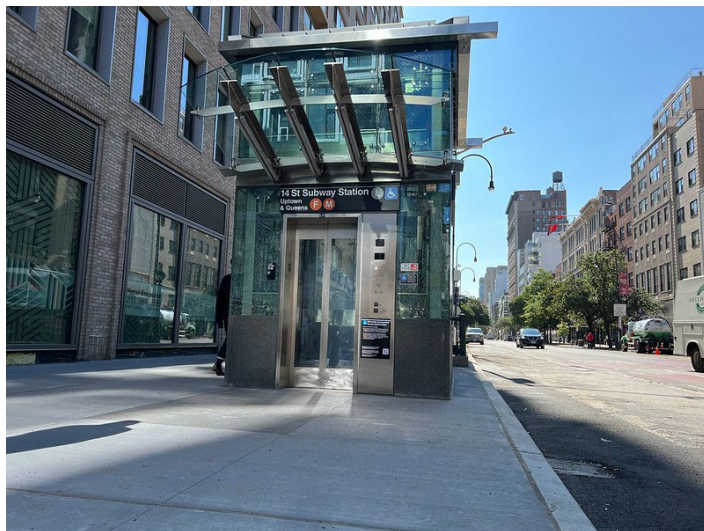
Platform Barrier Installation Update

Over the weekend of August 17–18, platform edge barriers were installed at Halsey Street Station on the BMT Canarsie Line.

On the Labor Day weekend, August 31 and September 1, barriers were installed at Bushwick Avenue–Aberdeen Street Station, also on the BMT Canarsie Line.

14 Street Station Accessible

On August 22, the completion of three new elevators providing access from the street to the 6 Avenue platform and the uptown platform was announced, which marks the first of five major milestones in the 14 Street Complex megaproject. Of the three new elevators, one goes from street level to the mezzanine, one connects the mezzanine to the uptown platform, and the other connects the mezzanine to the platform, which is an island platform that serves both directions. Three additional elevators are under construction for the downtown platform which, when completed, will make the station fully accessible.



Looking east on the northeast corner of 6th Avenue and West 14th Street with the new elevator to the mezzanine. MTA photo

In addition to the accessibility work, the project encompasses circulation improvements and a multitude of state of good repair work, including leak mitigation and repairs to the

Canarsie Line tunnel from 8 Avenue to 1 Avenue. Crews installed four new staircases and widened 21 existing staircases, reconfigured the mezzanine to install two new fare arrays, and added new lighting and tiling for an improved look.

The \$300 million project to make ADA upgrades to the 14 Street complex includes \$247 million in federal funds.

Once completed, the complex will have nine new elevators. The complex will also have 25 new staircases and 39 renovated staircases, as well as five platform upgrades, which include new tactile warning strips and ADA boarding areas.

Approximately 29,000 riders use these stations on a given weekday. The complex serves six lines in four boroughs, as well as two PATH train lines.

[MTA PRESS RELEASE](#), August 22

175 Street Station Bypassed

Over the weekend of August 24–25, this station was bypassed to allow Forte Construction Corp. to perform concrete demolition and new pour adjacent to the elevator. Southbound trains bypassed on Saturday and northbound trains bypassed the station on Sunday.

More Pilot Testing for Adjacent Track Flagging Speed Increase

In the July 2024 *Bulletin*, we brought you up to date regarding NYCT's pilot program to test an increase in the speed of trains that pass work zones on adjacent tracks, from 10 to 15 mph.

The next test will occur over the Labor Day weekend and the following one, when southbound local Track F1 between 36 Street and 59 Street Stations on the BMT Fourth Avenue Line will be taken out of service for track replacement work.

LONG ISLAND RAIL ROAD (LIRR)

New Crossover on the Main Line

In the June *Bulletin* we mentioned the new interlocking located between Floral Park and New Hyde Park on the Main Line. The single crossover reduces the amount of conflict between eastbound Main Line and westbound Hempstead Branch trains.

The west half of the new crossover was installed over the weekend of June 1–2. However, installation of the east half was delayed to the weekend of August 10–11 but the crossover was fully placed into service that weekend.

NEW JERSEY TRANSIT (NJT)

Free Travel for One Week

A transit fare holiday for all riders will take place from August 26 through September 2. During this period, fares will be waived for all modes of transportation, offering free rides across the NJT network as a “Thank You” to the hundreds of thousands of loyal customers who depend on public transit.

Monthly pass holders who have already purchased an August pass, which covers travel through the end of the



month, will automatically receive a 25 percent discount on their September monthly pass purchase through the mobile app, at Ticket Vending Machines or ticket windows.

The fare holiday is a way to express the sincere appreciation for riders' continued loyalty and patronage, particularly during a time when transit service has not consistently met their expectations — or NJT's own. NJT recognizes the impacts these service issues have had over the past few months and remains committed to improving the travel experience for transit riders.

Many of the recent service disruptions have occurred on Amtrak's Northeast Corridor. NJT has been working to advance the joint plan with Amtrak announced immediately following Governor Murphy's meeting with NJT and Amtrak on June 27, to improve service on this critical rail line, the busiest corridor in the country. While the root causes of these incidents have not yet been identified, significant short-term actions have already been taken and there has been noteworthy progress. NJT personnel have increased equipment inspections on platforms, while Amtrak has stepped up its efforts in inspecting and repairing their catenary, signal systems, and substations along the NEC. These collaborative efforts have already led to a noticeable decrease in infrastructure-related incidents.

Additional longer-term actions to address state-of-good-repair of Amtrak infrastructure include adding resources to increase testing of transformers in substations and evaluating opportunities to expand work windows with service adjustments to accelerate repairs and upgrades. In addition, NJT is working with Amtrak to support overall capital renewal by pursuing additional grants to expedite the replacement of catenary, substations, and transmission and signal lines, through the Fed-State Partnership Grant Program.

NJT also recognizes that the River Line light rail service has not been meeting its performance standards over the last several weeks. NJT implemented a supplemental bus plan earlier this week as an interim measure to improve service reliability and predictability for customers traveling on weekdays. At the same time, NJT is holding their contracted operator accountable to expedite necessary repairs and upgrades to the light rail vehicles to restore reliable weekday light rail service as quickly as possible.

[NJ TRANSIT PRESS RELEASE](#), August 15

PORT AUTHORITY TRANS-HUDSON

PATH Tops 10 Million TAPPs

PATH's new TAPP fare payment system has been used more than 10 million times since the tap-to-pay system was launched as a pilot program in December 2023.

The latest usage milestone comes as TAPP adoption rates have quickly risen to more than half of all fare entries into the system since the first readers were installed at the end of 2023. TAPP has been available at all New York and New Jersey PATH stations since May 2024.

During the month of July, riders entering the Christopher Street Station in New York were the most eager TAPPers, with 59 percent of riders there using TAPP to pay, and 57 percent of riders entering the 33 Street terminal station choosing to use the new fare payment system.

PATH's December 2023 launch of TAPP began a transformation of the fare system that will lead eventually to the full replacement of PATH's legacy SmartLink and MetroCard options. During this transition period, fare equipment supporting SmartLink and MetroCard cards will remain operational as more customers become familiar with the new payment option. Current PATH discounts for SmartLink users remain in effect and will be available when PATH issues a TAPP fare card.

[PORT AUTHORITY PRESS RELEASE](#), August 13

Other U.S. Systems

CHICAGO, ILL.

Damen Station Reopens

On August 6, elected officials and Near West Side stakeholders celebrated the re-opening of the CTA's Damen Station on the Green Line, at Lake Street and Damen Avenue. The state-of-the-art station addresses a longstanding need for improved transit options on the Near West Side that benefits residents, supports local growth and job creation in the Kinzie Industrial Corridor, and accommodates large crowds attending events at the nearby United Center.

The station fills a 1.5-mile service gap between Ashland and California stops, restoring rail service to the neighborhood for the first time since the original station was closed at this location in 1948.

The station serves the Kinzie Industrial Corridor, the United Center, Malcolm X College, and the surrounding residential area on the growing Near West Side. This includes the Chicago Housing Authority's Westhaven Park IID, a \$50 million, equitable transit-oriented development project adding 96 mixed-income apartments in the community.

The station provides easy access to CTA buses, space for pedestrians to walk, and bikesharing options. CDOT announced the installation of the City's 1,000th Divvy station here, helping the station serve as a multi-modal facility to provide various sustainable and equitable transportation options for the neighborhood.

The \$80 million TIF-funded project was administered by CDOT in close collaboration with the CTA. The construction contractor was F.H. Paschen. The station was designed by Perkins&Will, a Chicago-based global architecture and design firm known for innovative transit station projects from British Columbia to Chongqing City, China.

Station materials and design elements were chosen and arranged to create an intuitive user experience and to allow for a long-lasting transit facility with low-maintenance

requirements. A grand stair and escalator, visible through the transparent glass facade, guide passengers to the platform level. A glass bridge connects the inbound and outbound train platforms, offering views of the Chicago skyline and orienting visitors to neighborhood destinations and attractions. The bridge's visible structure references Chicago's iconic steel bridges.



A Green Line train enters the station.
Daniel Schell/Building Up Chicago photo

The new station also features a large mural by the noted artist, Folayemi Wilson, that highlights the rich history of various ethnic groups on the Near West Side. The mural depicts a scene on the prairie with images of young people taken from local photographic archives peering towards the horizon and imagining their future. Wilson was commissioned for the work by the City's Department of Cultural Affairs and Special Events. The CTA includes artwork in its new stations to not only further enhance the space, but also create a connection with the surrounding community and inspire those who travel through the facility.

[CTA PRESS RELEASE](#), August 6

Red Line Extension Contract Awarded

The Chicago Transit Authority (CTA) has taken the next major step in the Red Line Extension (RLE) Project by selecting an experienced contracting team to design and build the 5.6-mile extension of the Red Line from 95th Street to 130th Street, including four new stations.

The Chicago Transit Board approved the award of a \$2.9 billion contract to Walsh-VINCI Transit Community Partners following a comprehensive, two-year procurement process. Walsh-VINCI Transit Community Partners includes Walsh Construction, VINCI Construction, EXP, Systra, and other subcontractors.

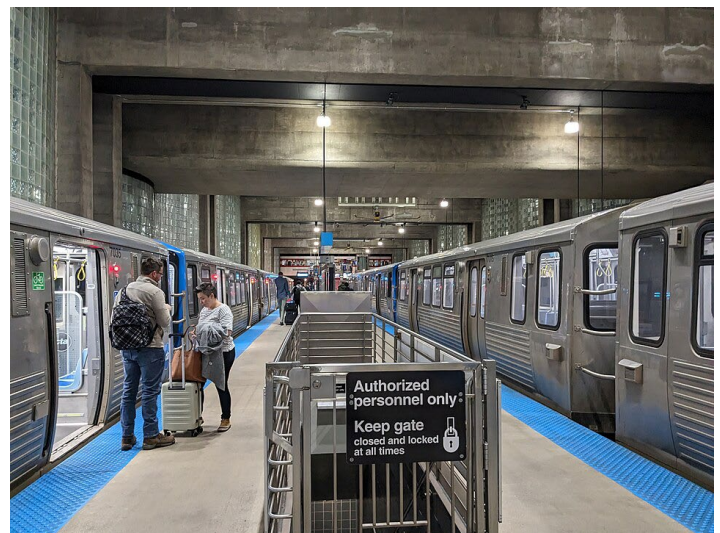
CTA announced earlier this year that it will begin performing advance construction work this fall, including demolition of properties acquired for the project and advance utility relocation, which includes removing wires and poles and relocating utility equipment ahead of major construction in late 2025.

[CTA PRESS RELEASE](#), August 14

40 Years of Service to O'Hare Airport

The CTA is marking 40 years of rail service to O'Hare International Airport by inviting riders to take a ride back in time. To mark the milestone, the CTA offered rides aboard their vintage 6000-series rail cars on Sunday, September 1 beginning at 10 AM from the O'Hare Blue Line station. Riders were able to take a 15-minute round trip ride from O'Hare to Rosemont Yard until 1:30 PM. Regular CTA rail fares applied.

The 6000-series cars, part of CTA's Heritage Fleet, were built in the 1950s and were retired from regular service at the end of 1992. These cars were among the type of 'L' trains that brought CTA riders to and from the airport when the O'Hare extension was completed in 1984. The cars have been outfitted with vintage maps and advertisements from the 1980s, around when the extension opened for the anniversary celebration.



O'Hare Airport Station on April 23, 2024.
Pokemonprime photo via Wikimedia

In addition, a pair of 2600-series cars — another type of 'L' car that provided service to the new O'Hare station in 1984 — was on display at the event. Still running in service today on the Blue, Brown and Orange lines, the 2600-series cars were brand-new and in the midst of being built and delivered to CTA when the O'Hare extension opened. The 2600s on display will be wrapped in their original 1980s "Spirit of Chicago" paint scheme, and also decorated inside with vintage maps and advertisements from the period.

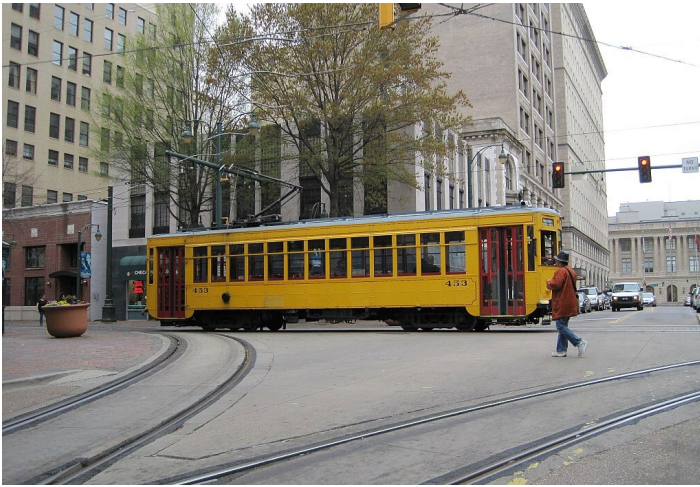
Proposals to extend the 'L' to O'Hare Airport date back to the 1950s, and the Kennedy Expressway was built in the 1960s with a wide median strip specifically to accommodate the tracks. The 'L' was extended toward O'Hare in stages, first extended from Logan Square to Jefferson Park in 1970, then to Rosemont in 1983. The final stretch to O'Hare opened on Labor Day, September 3, 1984. When the O'Hare station opened, the CTA was one of only a few cities in the United States with a direct rapid transit connection to an airport. CTA made history again when the Orange Line opened in 1993, connecting to Midway and becoming the first city in the U.S. to provide rapid

transit service to and from two major airports.
[CTA PRESS RELEASE](#), August 30

MEMPHIS, TENN.

Trolley Service Suspended

Memphis Area Transit Authority (MATA) is temporarily suspending trolley service and making difficult decisions regarding non-essential staff roles and vendor support. MATA is prioritizing necessary rider service options as they finalize their budget.



MATA 433 (Gomaco, 2004) in Downtown Memphis on April 8, 2013.
The car is heading north on North Main Street at Madison Avenue.
Thomas R Machnitzki photo via Wikimedia

Most recently, a trolley brake issue resulted in the Tennessee Department of Transportation recommending costly updates. Rather than making that financial allocation right now, MATA has decided to halt all trolley service until further notice. Alternatively, downtown riders can use Groove on Demand, which the Downtown Memphis Commission operates.

In addition to pausing trolley services, MATA is also streamlining its staffing and vendor costs. They have reviewed every line item and expenditure as they prepare to submit the final budget for approval. Every affected employee will be notified in the coming weeks and receive support securing alternate employment. (*Editor's note: All of the trolley operators were laid off.*) In addition, vendor contracts have been discontinued and/or dramatically scaled back.

Community conversations also continue, helping MATA leaders determine how the 2024-2025 budget will affect fixed routes and on-demand service.

[MATA PRESS RELEASE](#), August 18

PHILADELPHIA, PENN.

Regional Rail Service Increased

SEPTA is increasing Regional Rail service by adding 99 weekend trains and 24 weekday trains to the schedule. New timetables for all lines will go into effect on Sunday, September 8.

These service additions will restore 80 percent of pre-COVID service on weekdays (up from 77 percent) and 84 percent on weekends (up from 63 percent). Regional Rail ridership recovery is currently at about 67 percent of pre-pandemic levels, with weekend ridership growth outpacing weekdays.

Thanks to a robust recruitment and training effort, the Authority will be able to add additional crews to address personnel shortages and provide more consistent service. With 189 engineers, SEPTA is on track to meet its budgeted headcount of 213 by next spring.

These schedule changes support the goals of SEPTA's Reimagining Regional Rail initiative by adding additional service to accommodate off-peak, evening, and weekend trips. Below are some highlights of the upcoming service changes:

- Full restoration of 30-minute weekend service to the Philadelphia International Airport
- Full restoration of hourly weekend service on most lines
- Additional off-peak (late-night and midday) and reverse peak service on most lines
- Additional railcars on select trains to mitigate overcrowding, particularly mid-week when ridership is highest
- Connection of Airport Line service to the Manayunk/Norristown Line for a one-seat ride between the airport and Norristown on weekends
- Schedule adjustments to help improve on-time performance
- State of good repair project on the Warminster Line will require shuttle bus substitution from September 7 through November 3
- Weekends between Warminster and Glenside Stations
- Weekdays (midday only) between Warminster and Roslyn Stations

As a reminder, after four years of offering free parking to help attract customers back to the system, SEPTA will reinstate parking fees with a phased approach beginning September 23. Daily parking rates at SEPTA-owned surface lots will increase to \$2 from \$1 and to \$4 from \$2 at the three garages: Frankford Transportation Center, Norristown, and Lansdale. Parking at surface lots will remain free on weekends and major holidays. The new, state-of-the-art parking system will provide several convenient options to pay for parking, including the new SEPTA Park app.

[SEPTA PRESS RELEASE](#), August 26

SAN FRANCISCO BAY AREA, CALIF.

Caltrain Electric Service Begins

Caltrain debuted its new electric fleet, hosting a VIP tour where participants boarded the trains for its historic inaugural service. After nearly a decade of construction, these new trains



Lineup of Caltrain Stadler KISS EMUs. Caltrain photo

signify a landmark shift towards a faster, more frequent and environmentally friendly public transportation network along the San Francisco Peninsula.

The event included a 30-minute round-trip, starting in San Francisco with the opportunity to engage with federal, state, and local elected officials as well as transportation, business, labor and community leaders. The electric trains will run their first regular service on Sunday, August 11. Additional electric trains will be introduced every week until the launch of the new schedule and full electrified service between San Francisco and San Jose on Saturday, September 21.

[CALTRAIN PRESS RELEASE](#), August 10

BART Next Generation Fare Gate Installations Continue

Bay Area Rapid Transit (BART) has been working this summer on the continuing installation of their new fare gate arrays. The following stations were the most recently completed:

- Civic Center-8th Street entrance, July 18
- Fruitvale, August 11
- Civic Center-UN Plaza entrance, August 11
- Civic Center-8th Street entrance, August 22
- 24th Street/Mission, September 3
- Richmond, September 3

BART Press Releases, [JULY 16](#), [AUGUST 1](#), [AUGUST 22](#)

SAN JOSE, CALIF.

Funding for BART Extension Committed

The Federal Transit Administration (FTA) has committed more than \$5 billion to the \$12.7 billion Phase II of the project to extend the Bay Area Rapid Transit network into Silicon Valley. The grant is, however, conditional upon California's Valley Transportation Authority closing the funding gap before applying for an FTA Full Funding Grant Agreement.



Map of BART's Phase 2 extension from Berryessa to Santa Clara.
Valley Transportation Authority

The agency has frozen new spending for a 60-day period and says it is planning to renegotiate existing contracts to help cover the shortfall.

Phase II of the Silicon Valley extension will run mainly underground for six miles from Berryessa/North San Jose to Santa Clara, with three intermediate stations. The project will include the construction of a rolling stock maintenance facility and the procurement of 48 cars.

The tunnel and trackwork contract has been awarded to Kiewit Shea Taylor, a joint venture between Kiewit Infrastructure West, JF Shea Construction and Traylor Brothers, supported by Kiewit Engineering Group and Arup. [INTERNATIONAL RAILWAY JOURNAL](#), August 6

SEATTLE, WASH.

South Lake Union Streetcars Shut Down

An electrical breakdown will force Seattle's South Lake Union streetcars to stay in the maintenance yard indefinitely, because mechanics can't get the right parts yet from overseas.

King County Metro announced on the afternoon of August 13 that service has been suspended since Friday, August 9, when an unplanned outage cut off power between electric substations and the overhead catenary wires, which feed power into the trains.

As of June, the SLU line carried 494 average weekday passengers, compared with 3,598 for the city's busier First Hill line that reaches the Chinatown International District, Pioneer Square and Capitol Hill. SLU railcars operate near empty most hours, but occasionally seats fill in late afternoon as commuters resume their office jobs midweek. Service on the 1.3-mile line, which goes from the Fred Hutchinson Cancer Center past Amazon's urban campus to Westlake Station, started in late 2007.

This shutdown is the most recent setback for streetcar dreams, following the slow-motion demise of a First Avenue extension also known as the Culture Connector. It's been on



The Seattle Streetcar system's car 301 in service on the system's first line, the South Lake Union line, on July 23, 2008. It is northbound on Westlake Avenue, crossing Stewart Street, at the beginning of a trip to the Fred Hutchinson Cancer Research Center. The car is a 12-Trio built in 2007 by Inekon Trams, in the Czech Republic. It is crossing the wires of trolleybus route 70. Steve Morgan photo via Wikimedia

ice since 2018, with tepid City Council support, a rising price of \$410 million (including associated public utility improvements) and no money to jump-start construction in the property-tax transportation levy that will appear on Seattle voters' fall ballots.

In the late 2000s, a five-line streetcar plan by City Council members fell by the wayside, while the SLU line chronically missed its rosy revenue promises. The estimated operating cost for the SLU line is \$4.6 million this year, offset somewhat by wraparound ads on the railcars and other sources.

Metro, which operates the city-owned streetcars, reported that in July, crews found worn-out control units that manage one substation's high-voltage circuit breakers. Train frequency was reduced to ease the power load on the other substation. Then worn-out units failed at the other substation, for reasons still being determined.

Under normal schedules, a streetcar arrives every 15 minutes most of the day.

It was expected to take several weeks to obtain and install parts for four control units and up to four high-voltage breakers. The city and Metro said they expect to restore streetcar trips to full schedules as soon as possible.

As for how Metro got stuck without replacement parts, spokesperson Jeff Switzer said he couldn't comment, as that question is part of inquiries still underway with streetcar suppliers. The railcars were purchased from Inekon of the Czech Republic, with some assembly in Seattle.

The South Lake Union line is expected to undergo a future eight-year closure, if Sound Transit follows through with its proposal to build a light rail station under Westlake Avenue for its 2039 Ballard Link extension. Railcars will be unable to operate while a couple of blocks of Westlake are excavated, followed by two-lane traffic over temporary lids.

SEATTLE TIMES, August 13

Light Rail to Lynnwood Opens

Starting August 30, passengers in Snohomish County and Shoreline were able to avoid traffic congestion and use Link light rail to travel quickly to downtown Seattle and SeaTac airport. The 8.5-mile extension of the 1 Line includes four stations, one at Lynnwood City Center, one at Mountlake Terrace, and two in Shoreline, as well as three new parking structures.

This is the third opening in the past year for Sound Transit. Last September, the T Line opened service to Hilltop, and in April the 2 Line opened between South Bellevue and Redmond Technology Stations. The Lynnwood opening heralds the start of even more expansions, with the 2 Line expanded to downtown Redmond early next year, followed by the opening of the rest of the 2 Line later in 2025 and the start of service to Federal Way in 2026.

Voters approved the Lynnwood extension in 2008 as part of the Sound Transit 2 ballot measure. The project broke ground almost five years to the day before service began.

Stacy & Witbeck/Kiewit/Hoffman L200 JV and Skanska Constructors L300 JV executed the civil construction on the extension. Mass Electric completed the systems work, which included the overhead catenary, traction power, signaling, and communications. The \$3.1 billion project budget included up to \$1.17 billion from a Full Funding Grant Agreement executed by the Federal Transit Administration. In addition, the U.S. Department of Transportation's Build America Bureau executed a \$658 million low-interest loan supporting the project, including new light rail vehicles and support facilities.

The Lynnwood extension serves the following stations, all of them with multiple transit connections:

- Shoreline South/148th Station. Located just northeast of I-5 at the NE 145th Street exit, the elevated station includes a parking garage with approximately 500 new spaces
- Shoreline North/185th Station. Located on the east side of I-5, the station serves Shoreline Stadium, the Shoreline Conference Center and the surrounding neighborhoods. Improved pedestrian pathways connect the station to the west side of I-5. A parking garage with approximately 500 new spaces is part of the project.
- Mountlake Terrace Station. Located east of I-5 at the Mountlake Terrace Transit Center just north of 236th Street Southwest, west of Veterans Memorial Park, the elevated station straddles 236th Street Southwest, and is a short walk from the Mountlake Terrace Library, new city hall, and future Gateway transit-oriented development neighborhood. There are 890 existing garage parking spaces at the station.
- Lynnwood City Center. Located at the Lynnwood Transit Center, this elevated station serves one of the busiest transit centers in the region, with extensive connections to local and regional service. A new garage containing 1,670 parking stalls in a five-story structure opened last year.

A fifth station at NE 130th Street in Seattle was added to the alignment as part of the ST3 ballot measure approved by voters in 2016. The new station will serve a growing residential neighborhood between the Northgate and

Shoreline South/148th stations. The NE 130th Street station is scheduled to open in 2026.

[SOUND TRANSIT PRESS RELEASE](#), August 30

WASHINGTON, D.C.

Red Line Stations Reopen

Metro reopened four Red Line stations on Sunday, September 1. The reopening of Glenmont, Wheaton, Forest Glen, and Silver Spring marked the end of Red Line rehabilitation work that was completed while the Maryland Transit Administration built part of a new Purple Line mezzanine at Silver Spring.

Purple Line mezzanine work will continue on the platform at Silver Spring with scaffolding covering about one-third of the platform, but the Metro station will be open for riders. During the summer, Purple Line crews built columns that will support the walkway from the Purple Line station over the tracks to the Metro Red Line platform.

Silver Spring will still be an active construction site for the Purple Line and the scaffolding will remain on site until 2027. [WMATA PRESS RELEASE](#), August 26

International

CALGARY, ALBERTA, CANADA

Light Rail Plans Cut Back

Calgary City Council has approved a revised project scope, capital funding request and delivery model for Phase 1 of the Green Line light rail project. The council says this will responsibly address the cost inflation that is impacting all major infrastructure projects across North America.



A set of Calgary's newest cars, S200 Nos. 2459+2464+2446 (Siemens, 2018) are seen operating a Route B trip on 7th Avenue SW at 9th Street SW on September 2, 2019. Gkoe Khu photo via Urban Electric Transit

The council has accepted recommendations made by the Green Line Board, based on work to reduce costs through value engineering and design optimization, and informed by the outcome of negotiations with contractors during the development phase of the project.

According to Calgary City Council, these changes respond to rising costs and potential future increases, while maximizing the benefits identified in the project business case approved by the council in 2020, part of the grant application made to the Investing in Canada Infrastructure Program.

Main construction for Phase 1 will now start with the core section from Lynwood/Millican in the southeast to Eau Claire in the city center, connecting with the existing Red and Blue LRT lines.

Construction of the remainder of Phase 1 from Lynwood to Shepard, as well as any future extensions north or south, will proceed when additional funding is in place.

The council has also approved a change in procurement strategy for the project, moving from a design-build-finance model to awarding a series of contracts to build Phase 1. According to the council, this is expected to save \$C 600 million (\$US 432.9 million).

Despite extensive efforts to cut costs during the development phase, in the absence of additional funding from the Province of Alberta and the Canadian government, the City of Calgary has been forced to increase its financial contribution to Phase 1.

It will now provide \$C 705 million towards the revised total project cost of \$C 6.25 billion, up from the budget of \$C 5.54 billion approved in 2020.

The City of Calgary will now work to obtain approval of revised funding arrangements from provincial and federal governments, before signing project agreements and beginning main construction later this year.

The council says that Phase 1 of the Green Line is the largest infrastructure investment in Calgary's history. Over \$C 1.4 billion has been spent to date, including \$C 350 million for land acquisition and \$C 400 million for enabling works now nearing completion.

A new fleet of 28 low-floor LRVs was ordered from CAF in 2021, with the first LRVs due to arrive in Calgary in late 2027. [INTERNATIONAL RAILWAY JOURNAL](#), August 5

CZECH REPUBLIC

More Electric Locos for ČD Cargo

The national rail freight carrier, ČD Cargo, recently signed an addendum with the company Alstom Czech Republic to exercise the option to supply the last 11 locomotives to a total of 50. In 2020, the railway division of Bombardier Transportation was purchased by the French company Alstom. The latter subsequently assumed all obligations resulting from the contract signed in 2018 for the purchase of up to 50 TRAXX locomotives.

These locomotives enable operation not only in the Czech Republic, but also in Germany, Austria, Poland, Slovakia,



One of ČD Cargo's existing TRAXX locomotives, 388 009, is seen on a freight passing through Podebrady, which is about 33 miles east of Prague. Dopraváček (Transporter) photo

Hungary, Croatia, Slovenia, and Serbia. They will be delivered in 2026 and will be equipped with Atlas and EbiCab security equipment. The value of the option exceeds CZK 1 billion. Beyond the scope of the original contract, ČD Cargo purchased another 10 TRAXX 3MS locomotives, which should be delivered in 2025 and operated by the Austrian branch of ČD Cargo. [DOPRAVÁČEK \(TRANSPORTER\)](#), August 25

Class 151 Electrics To Be Retired

In connection with the introduction of European Train Control System (ETCS) on the railway corridors from Prague to Ostrava, from Ostrava to Břeclav, and from Břeclav to Prague, from January 1, 2025, more older locomotives will disappear from Czech tracks.



ČD 151 001 is seen at Česká-Třebová. Dopraváček (Transporter) photo

České dráhy (Czech Railways) now operates the last 11 Class 151 locomotives from the depot in Bohumín. On the route between Prague and Žilina, their daily requirement needs seven more pieces and they travel an average of 750

kilometers per day. Starting with the timetable of 2025, however, they will definitely disappear from this line and the last six locomotives will find refuge in the Prague depot. Their planned deployment is at the head of the express trains of the Elbe line R20 between Prague and Děčín.

Class 151, formerly Class E 499.2, was produced in 1978 in a group of 27 units at the Pilsen Locomotive Works and was intended for the transport of heavy express trains and express trains on the corridor Prague – Košice – Čierna nad Tisou. On the mountain lines on the Czech-Slovak border and on the Štrbská incline at the foot of the High Tatras, it was supposed to replace a pair of locomotives that were needed to transport up to 15-car trains. The power of the locomotives is 4,000 kW and the maximum speed is 160 km/h, originally 140 km/h.

By the end of the year, the slower version of these with a speed of 140 km/h, the Class 150.2 series, will completely disappear. The last six locomotives serve in the Prague depot on express trains from Prague to Kutná Hora and assist on express trains to Hradec Králové. Their planned deployment will end with the end of this year's timetable at the latest, or with the delivery of new RegioPanters.

[DOPRAVÁČEK \(TRANSPORTER\)](#), July 30

DENMARK

BEMUs for Lokaltog

Danish regional operator Lokaltog has confirmed that it has selected Stadler as the winner of a tender to supply a fleet of 14 battery-electric multiple-units for use on routes in Zealand.

The contract includes an option for the supply of 10 additional trains. The award is subject to approval by the Zealand Regional Council, which is expected in September. The final contract with Stadler is expected to be signed in October. No price has yet been disclosed.



An example of the class of IC2 DMUs to be replaced with BEMUs under this order, in Nykøbing Falster on October 15, 2011.

Leif Jørgensen photo via Wikimedia

Stadler, CAF, and Siemens Mobility were shortlisted for the contract under a tender exercise launched in November 2023. Bids were received on June 4, and after an in-depth technical review, Lokaltog says the bids from Stadler and CAF were deemed to be suitable, with Stadler's offer being marginally better than what CAF provided.

Lokaltog, in which Movia has a majority stake, operates nine local services on a 335-kilometer network that it owns on the islands of Zealand and Lolland-Falster. It operates a total of 58 DMUs, including 13 IC2s, 41 Lint trains and four RegioSprinter DMUs.

[INTERNATIONAL RAILWAY JOURNAL](#), August 8

HANOI, VIETNAM

Second Metro Line Opens

Commercial operations started on Vietnam's second metro line, Line 3 in Hanoi, on August 8. Part of the 12.5-kilometer line between Nhon and Hanoi railway station, the 8.5-kilometer elevated section from Nhon to Cau Giay opened to passengers at 8:00 AM, who are able to travel free of charge until September. This section has eight stations.

According to Hanoi's Metropolitan Railway Management Board (MRB), trains will operate daily from 5:30 AM to 10:00 PM at frequencies of up to 10 minutes. Of the 10 four-car Metropolis trains delivered by Alstom, six will be deployed to operate the initial service.



Hanoi Metro Line 2A train entering Vành Dải 3 (Ring Road 3) station on November 18, 2021. Louis Anderson via Wikimedia

The remaining four kilometers of Line 3, which runs underground from Cau Giay to Hanoi station and has four stations, including at Cat Linh that will provide an interchange with existing Line 2, is understood to be 44 percent complete and is due to open by December 2027. Local media report that Hanoi city authorities are preparing a plan for a 14-line urban railway network to present to the government.

A consortium of Alstom, Hitachi Rail and Colas Rail was awarded a contract to provide rolling stock and railway systems for Line 3 in 2017 and the new line features Alstom's Urbalis 400 CBTC, which will allow trains to carry more than 23,900 passengers per hour in both directions.

[INTERNATIONAL RAILWAY JOURNAL](#), August 8

JAPAN

Shinkansen Fleet Expansion

Central Japan Railway (JR Central) has announced that it will increase its N700S Tokaido Shinkansen fleet operating on the Tokyo to Shin Osaka high-speed line by 17 trains.

The new 16-car trains, manufactured by Hitachi and Nippon Sharyo, will be introduced in 2026-2028, with four entering service in 2026, seven in 2027, and four in 2028. The purchase price has not been disclosed. When all 17 trains have been delivered, the JR Central N700S fleet will total 76 trains.

JR Central originally ordered 40 N700S trains, the first of which entered service in 2020. The operator is currently taking delivery of a second batch of 19 sets it ordered in 2022 for Yen 114 billion (\$US 897 million).

Several new features will be included in the third batch of trains, some of which will be retrofitted to existing sets. These include diagnostic and labor-saving functions, environmental impact reduction measures and in-car improvements.

A total of 10 trains across the whole fleet of 76 sets will be fitted with onboard track and/or catenary and pantograph inspection equipment; eight with the former and five with the latter. This new technology is expected to improve safety and efficiency, and allow the withdrawal of JR Central's seven-car dedicated inspection train, known as Dr. Yellow, in January 2025. The use of automated inspection equipment on service trains will also replace some manual track and catenary inspection, enabling a reduction of the labor force in this area.



"Nozomi" No. 4, bound for Tokyo by JR Tokai N700S series J30 formation, running between Okayama Station and Aioi Station on the Sanyo Shinkansen. Maeda Akihiko photo via Wikimedia

All new trains will feature improved real-time transmission of vehicle condition data that will enable faster fault diagnosis and more efficient maintenance scheduling. Some cars in all trains will also feature a labor-saving device that will automatically swing out banks of seats when maintenance is required.

Environmental impact reduction measures include increasing the amount of recycled aluminum in car bodyshells by 1.6 times compared with existing trains. Whereas recycled aluminum was previously confined to the roof, it will now also be incorporated into the side panels of bodyshells.

The new trains will also be fitted with onboard equipment to automatically maintain the correct supply voltage, replacing some lineside substation functions such as power compensation. When the onboard equipment has been fitted to all Tokaido Shinkansen sets, JR Central expects a reduction in CO₂ emissions of around 10,000 tons a year.

Other improvements on the latest batch of N700S trains include a new function that allows existing onboard batteries to power the HVAC system, at a reduced level, when power is unavailable from the overhead supply. This will provide a much-improved environment for passengers in the event of a breakdown or power failure.

As announced earlier this year, JR Central is reintroducing private compartments and a total of 36 N700S trains will eventually feature them. They will appear first in the second batch of N700S sets and then be included in the third batch that will be delivered from 2026 onwards.

[INTERNATIONAL RAILWAY JOURNAL](#), August 1

MADRID, SPAIN

Platform Screen Doors for Line 6

With a budget of €100.7 million, Madrid Metro is tendering a contract to supply platform screen doors for the project to convert Line 6 to automatic train operation (ATO).

The contract covers the supply and installation of platform screen doors for 70 platforms with a total length of 6.4 kilometers. Contract award is scheduled for the fourth quarter of this year for work to start in June 2025, which will be undertaken alongside a comprehensive program of track renewals.



Rendering of the new platform screen doors. Madrid Metro

Installation of the new platform screen doors is a crucial element of the Line 6 program, selected as the first to be automated as it is the busiest line in the Spanish capital, recording over 90 million passenger journeys in the first half of this year.

Installing doors is expected to help maintain scheduled headways, enabling trains to operate every two minutes.

The new doors will incorporate elements to prevent vandalism and passengers becoming trapped between the door leaves. As well as improving safety at the platform edge, the doors will prevent unauthorized access to the track and help keep it clear of litter.

The door screens will feature integrated LED displays to provide information such as the waiting time for the next service, system maps and incident alerts.

Installation of the new platform screen doors will also involve alterations to signaling and power supply systems as well as the Line 6 control center.

[INTERNATIONAL RAILWAY JOURNAL](#), August 7

OSTRAVA, CZECH REPUBLIC

New Tram Order Completed

The Ostrava transport company (DPO) received the thirty-eighth Škoda 39T ForCity Smart from the Škoda Group, the last car from this order. It will be put into operation in the next few days. The Škoda 39T cars are the most modern trams that DPO has in its fleet. They have been running in Ostrava since 2022 and passengers can see them on lines across the city.



The thirty-eighth, and final, Škoda 39T ForCity Smart car. DPO photo

The new trams have 60 seats and 140 standing places. The length of the car is 26.6 meters, the maximum height with the collector lowered is 3.6 meters, the weight of an empty vehicle is more than 36 tons, and when fully occupied, 56 tons. The price for one vehicle is 47.5 million crowns. They can reach speeds of up to 80 km/h. The first of these new

Škoda ForCity Smart trams started test runs with passengers on November 29, 2021. It was a car 1751, which was christened on October 7, 2021 by Dakar racer Karl Lopraise. [DOPRAVÁČEK \(TRANSPORTER\)](#), August 30

PRAGUE, CZECH REPUBLIC

Wenceslas Square Construction Begins

On June 26, 2024, the construction of the new tram line on Wenceslas Square officially started with a symbolic tap on the rail.

As part of the start of the works, trams in Jindřišská and Vodičková streets have been closed since June 29, which will last until the end of September this year. During this closure, a new tram junction for the future line on Wenceslas Square will also be built. According to the plans, the construction of the new line itself is supposed to take about three years.



The new tram junction under construction at Wenceslas Square and Vodičková and Jindřišská Streets on August 4. This is the north end of the new tram trackage in the square and the view is looking north. [Dopravářek \(Transporter\) photo](#)

The new line will start from the intersection of Jindřišská and Vodičkova streets, where it will connect to the existing tram line leading from Lazarská street to Senovážné náměstí. On the opposite side, it will end at the National Museum, at the beginning of Vinohradská Street, where it will connect to the existing, approximately 100-meter-long section of tracks built here as part of the reconstruction of the National Museum and the construction of the so-called Museum Oasis in 2018. On the opposite side, DPP (Prague Transport Authority) is preparing the construction of a tram Museum line, which will connect to the existing line leading from Škrétova to Vinohradská street. The tram line in the area of the square will be built with an axial distance of 19.5 meters according to an architectural study approved by the City Council of Prague in 2019. In the middle between

the two dormitories, a similar pedestrian boulevard will be created in the upper part of Wenceslas Square.

The estimated value of the public order for the contractor for the construction of the tram line on Wenceslas Square was 1.252 billion crowns. The DPP evaluated the received offers according to their economic advantage based on the most favorable ratio of the offer price and the date of implementation. The bid price had 80 percent weight in the evaluation, the implementation date 20 percent. The best evaluated offer according to these sub-criteria was the one with the lowest price and the shortest total implementation time, i.e. the lowest number of calendar days.

The winner of the contract for the construction of a new tram line on Wenceslas Square was the company Eurovia CS. [DOPRAVÁČEK \(TRANSPORTER\)](#), August 7

SINGAPORE

LRT Fleet Renewal

Singapore's Land Transport Authority (LTA) has announced the entry into passenger service of the first two of 19 rubber-tired peplemover cars that Alstom is supplying for the Bukit Panjang LRT (BPLRT) line.

The new third-generation cars will gradually replace the first-generation fleet that has been in service since the opening in 1999 of the 7.8-kilometer BPLRT line, built to serve the new town of Bukit Panjang.

BPLRT has 14 stations, including interchanges with Singapore's metro network at Choa Chu Kang on the North South Line and at Bukit Panjang on the Downtown Line.

Deliveries of the new fleet are due to be completed by the end of 2025. In parallel, refurbishment is underway of 13 second-generation cars. Four have now returned to service and half of this fleet is expected to be refurbished by mid-2025.



The first two Innovia APM 300R cars, Nos. 136+135 (Alstom, 7/2024) are seen operating on the Bukit Panjang LRT. [Land Transport Authority photo](#)

The new Alstom cars feature LCD monitors with dynamic route displays, and are also equipped with brighter and more energy-efficient LED lighting and an upgraded air-conditioning system.

Other innovations include an onboard condition monitoring system for key systems such as doors, brakes, and air-conditioning. Sensors will be installed on two cars to provide real-time monitoring of the power rail, enabling preemptive maintenance when required.

The signaling system on the BPLRT line has been upgraded in phases since 2022, with a new supervisory system deployed alongside the first refurbished second-generation cars in July 2023.

These upgraded cars operate under CBTC similar to that in use on Singapore's metro lines, while the BPLRT operations control center is being upgraded.

The BPLRT traction power supply system has been fully upgraded to provide increased capacity, and now features dedicated monitoring and control systems. The power rail system is also being replaced.

Overall, LTA says that work to upgrade the BPLRT line is making good progress and is due for completion by 2026.

Separately, LTA has ordered 25 two-car trains for the Sengkang-Punggol LRT line for delivery from the end of this year. They will double the number of two-car trains in the SPLRT fleet, increasing capacity to meet long-term demand.

The new Teck Lee LRT station is due to open on August 15, serving the new Punggol campus of the Singapore Institute of Technology and the business park within the Punggol Digital District.

[INTERNATIONAL RAILWAY JOURNAL](#), August 7

SPAIN

High-Speed Traffic Up in 2023

Increasing competition on the Spanish high-speed network is driving up traffic to reach record levels, according to the 2023 rail sector report from the National Markets and Competition Commission (CNMC).

High-speed trains operated by incumbent operator Renfe and its competitors Ouigo and Iryo carried a total of 32.4 million passengers in 2023, up 37 percent on the year before.

New ridership records were set on all corridors where passengers can now choose between competing operators. Traffic on the Madrid to Barcelona corridor grew by 34.6 percent to reach 13.8 million passengers in total.

Ouigo and Iryo began operating on this corridor in May 2021 and November 2022 respectively. In 2023 Ouigo had a market share of 20.1 percent and Iryo 21.9 percent, compared with 47.9 percent for Renfe AVE services and 10.1 percent for its low-cost Avlo trains.

Traffic on the Madrid to Valencia corridor was up 73.5 percent at 5.1 million passengers in 2023, following the arrival of both Ouigo and Iryo in the third quarter of 2022. Renfe AVE services retained a 37.9 percent share of the



On the left, Renfe Class 122 AVE on train AVE5170 from Madrid to València. On the right is former SNCF double-deck TGV set No. 810. Acquired by Ouigo, SNCF's low-cost operator who have gone into competition with SNCF themselves in France. In March 2021, Ouigo went into open access competition with Renfe on the High Speed Line from Madrid to Barcelona. Train is 6571 from Madrid to Barcelona. Madrid's main station, Puerta de Atocha, on October 31, 2021. Phil Richards photo via Wikimedia

market in 2023, and Avlo 14.5 percent. Ouigo held 23.6 percent and Iryo 24 percent.

Both the Madrid to Málaga/Granada and Madrid to Seville corridors only opened up to competition last year, and Renfe still commands a significant share of the high-speed rail market here.

Traffic on the Madrid to Málaga/Granada corridor grew by 31.6 percent to reach 3.95 million passengers in 2023. Renfe AVE services accounted for 77.4 percent of the market, and Avlo 4 percent. As its sole competitor, Iryo had obtained 18.6 percent.

On the Madrid to Seville corridor, traffic was up 39.4 percent at 3.9 million. Having started operations here in March 2023, Iryo obtained a market share of 23.2 percent, compared with 73.2 percent for Renfe AVE services and 3.5 percent for Avlo.

Both Ouigo and Iryo began competing with Renfe on the Madrid to Alicante corridor in the second quarter of 2023. Traffic grew by 44.1 percent to reach 2.99 million last year, with Renfe AVE services retaining a 64 percent market share and Avlo 12.5 percent. Ouigo had 18.7 percent and Iryo 4.8 percent.

Growth fueled by competition is also cementing high-speed rail's dominant position in the domestic rail and air market on corridors where the two modes compete.

According to CNMC analysis, in 2023 rail's market share grew on all corridors, except Madrid to Málaga where it fell by 0.5 percentage points to reach 77.5 percent. The market share on other corridors was:

- Madrid to Alicante 86.3 percent
- Madrid to Barcelona 81.8 percent
- Madrid to Seville 87.3 percent
- Madrid to Valencia 93.1 percent

[INTERNATIONAL RAILWAY JOURNAL](#), August 2

SYDNEY, AUSTRALIA

Metro City Opens

August 19 was an historic day in New South Wales's transport history as the doors officially opened on new metro services extending from the city's north west, under the harbor and through the Sydney CBD, to Sydenham.

Commuters now have an additional 15.5 kilometers of new metro rail to get them around the busiest parts of the city, with access to services via six new underground stations and new metro platforms at Central Station and Sydenham Station.

This new section of railway is the next stage of the M1 Northwest & Bankstown Line, which now extends 51.5 kilometers through Sydney with stops at 21 stations between Tallawong and Sydenham. The remaining 13 kilometers of the M1 Line will open after the conversion of 10 existing stations on the T3 Bankstown Line.

The newly expanded metro network provides connectivity to Sydney's employment, financial and retail districts; unlocks the Barangaroo harborside precinct by delivering its first railway station and has capacity to move more people across Sydney Harbor in the busiest hour of the peak than the Sydney Harbor Bridge and Sydney Harbor Tunnel combined.

The inaugural passenger journey under the harbor departed Sydenham Station's Platform 1 at 4:54 AM this morning.

From August 19, the weekday timetable will be in play across the integrated network, with a train arriving every four minutes during the peak and every seven minutes throughout the day during the midday period. After a few weeks, the seven-minute midday service will improve to a five-minute service on weekdays.

A total of 445 new metro services will run through the heart of the city each weekday, with room to move around 34,000 people every hour during peak periods, significantly alleviating pressure on existing transport options and road networks.

Over the coming days and weeks, while commuters become familiar with their new city services, extra Metro staff will be present at each station and on trains during operating hours. Audio and video help points located at each station also connect directly to friendly staff at Metro's Operations Control Center who will be available to answer questions.

While all city stations are now open, commuters will notice hoarding and minor ongoing work in the precinct areas at most new stations. This work largely involves improvements to roads, footpaths and traffic intersections and will not impact passenger journeys.

The new buildings above Crows Nest, Victoria Cross, Gadigal, and Waterloo stations remain under construction and will progressively open as they are finished.

New metro services are the fastest way to get from Sydney's north into the Sydney CBD, with a trip on the metro from Chatswood to Martin Place taking 11 minutes, while a journey along the full alignment, from Sydenham to Tallawong, taking under 60 minutes.

[SYDNEY METRO PRESS RELEASE](#), August 19

TEL AVIV, ISRAEL

Metro Approved

Israel's parliament approved plans for construction of the Greater Tel Aviv Metro project on July 25. The three-line network is costed at Shekels 150 billion (\$40.65 billion) and will total 150 kilometers, including 109 stations, all underground, plus four depots.

Seven transport hubs will be created to facilitate interchange with the city's light rail network, buses and mainline rail services. The metro system, which will complement Tel Aviv's existing three-line, 90-kilometer light rail network, will serve 24 local authorities and is expected to carry two million passengers per day.

It is unclear how the project will be financed, with local commentators suggesting that the final cost could be double that currently envisaged.

Similarly, no completion dates have yet been announced, although trains on the first line are not expected to enter public service until the early 2040s.

[INTERNATIONAL RAILWAY JOURNAL](#), July 29

TORONTO, ONTARIO, CANADA

Rail Service Improved

Starting Sunday, September 1, the TTC made service adjustments across the network. The changes mostly affected bus routes but they did include some streetcar and subway lines.

In the streetcar category, 303 Kingston Road was introduced as a new overnight streetcar route operating between King Street and Roncesvalles Avenue and Bingham Loop (Kingston Road and Victoria Park Avenue.) Streetcars operate via King Street West (diverting via Shaw Street and Queen Street West due to ongoing construction along King Street West), King Street East, Queen Street East and Kingston Road. Service operates every 30 minutes.

Service on the 306 Carlton and 312 St. Clair routes were increased during overnight periods. Every day, between 1:30 and 5:30 AM, the headway improved from 20 to 15 minutes.

On the subway side, service on Line 1 (Yonge-University-Spadina) was improved weekdays throughout the day and early evening:

- AM peak service rose from about 19 to 21 trains/hour
- Midday service from about 10.5 to 11.6 trains/hour
- PM peak service from 17 to 20 trains/hour
- Early evening service from 12 to 14 trains/hour

This increase comes primarily from redeploying weekday gap trains as part of the scheduled service. In addition, four "trippers" will operate between 1:30 and 8:30 PM. Weekend gap trains have been removed from the schedule.

Service on Line 2 (Bloor-Danforth) was augmented with gap trains on weekdays.

[STEVE MUNRO'S TRANSIT & POLITICS WEBSITE](#), August 29
[TTC PRESS RELEASE](#), August 27

First BART Car Arrives at Western Railway Museum

Photographs by Western Railway Museum

Bay Area Rapid Transit (BART) A-Car No. 1164 (Rohr Industries, 1973) arrived at the museum on Friday, August 9. It had been trucked from BART's Hayward Shop on a flatbed trailer.

BART's track gauge is 5' 6" ("Indian") and not standard gauge (4' 8½"). As a result, when the car was lifted by crane off the flatbed trailer, it was placed onto "transition" dolly cradles so that the car could roll along the museum's standard-gauge trackage. Once the car was shifted to just outside the Loring C. Jensen Car House in which it will be displayed, a crane lifted the car again, the dolly cradles were moved away, and the car was carefully lowered onto the

dual-gauge track specifically constructed for this and the next two BART cars.

It is planned to have B-Car No. 1834 (Rohr Industries, 1972) and C-Car No. 329 (Alstom, 1988) join No. 1164 in the very near future. Those two cars have already been set aside for the museum at BART's Hayward Shops. All three cars were donated by BART.

The museum is planning to create a Rapid Transit History Center that will include all of BART's history.

[WESTERN RAILWAY MUSEUM FACEBOOK PAGE](#), August 10



A-Car 1164 is sitting in the Haywood Shops on August 9 getting ready to take her trip to the museum. An overhead crane in the shop lifted the car up off the track. The tractor-trailer used to transport her was then backed into the shop building and placed under the car. After a considerable amount of time went by, the crane slowly lowered her onto the flatbed. Andy Payne photo



Closeup of one of the dolly cradles used to move the 5' 6"-gauge car on the museum's standard-gauge tracks. Bob Simon photo



1164 has arrived at the museum and has been lifted off the flatbed trailer by two cranes and positioned over one of the tracks.

Andy Payne photo



1164 sits on the special dual-gauge track in her new home inside the Loring C. Jensen Car House. There is enough room on this track for the next two cars coming from BART. Sitting to her left is Western Pacific 4-6-0 No. 94 (ALCo-Brooks, 9/1909). On the extreme left is Sacramento Northern 65-ton steeple cab electric No. 652 (General Electric, 1928). Ryan Blake photo

Book Review

Paul Grether (ERA #6933)

Railtown: The Fight for the Los Angeles Metro Rail and the Future of the City by Ethan N. Elkind, published by University of California Press, Berkeley and Los Angeles, Calif. in 2014, softcover, 292 pages, with detailed end notes and index. ISBN 978-0-520-27827-1.

Los Angeles is fortunate to have a detailed history of the development of its modern rapid transit system. In addition to the good books covering San Francisco and Washington D.C., BART: The Dramatic History of the Bay Area Rapid Transit System by Michael C. Healy (See November 2022 *ERA Bulletin* p. 21) and Great Society Subway: A History of the Washington Metro by Zachary M. Schrag (*ERA Bulletin* review forthcoming), Elkind's book documents the L.A. story. Note that Elkind does not delve into the technical details of the rail system, except where necessary to tell the story of the decision-making.

In the 1970s, Los Angeles was regretting the relatively recent dismantling of the Pacific Electric "Red Car" system. The rapid growth of the region fueled by significant highway construction caused horrendous traffic and unhealthy smog. The diffuse governance of the region, with many local political jurisdictions, contributed to sprawled land-use patterns further exacerbating the transportation problems. Elkind describes the early interest in construction of a subway rapid transit system. The L.A. context seemed pre-ordained to make regional investments like rail transit politically difficult.

L.A. leaders watched the early success of the BART system, then WMATA and MARTA (Atlanta). Given the need to go to the L.A. voters, the 1971 Atlanta MARTA model of tying investment in rail to immediate improvements in bus service with a fare reduction became the L.A. plan for the early Proposition A effort. Elkind describes the many challenges through the course of the late 1970s through the 1990s to try to fund and build rail — some samples:

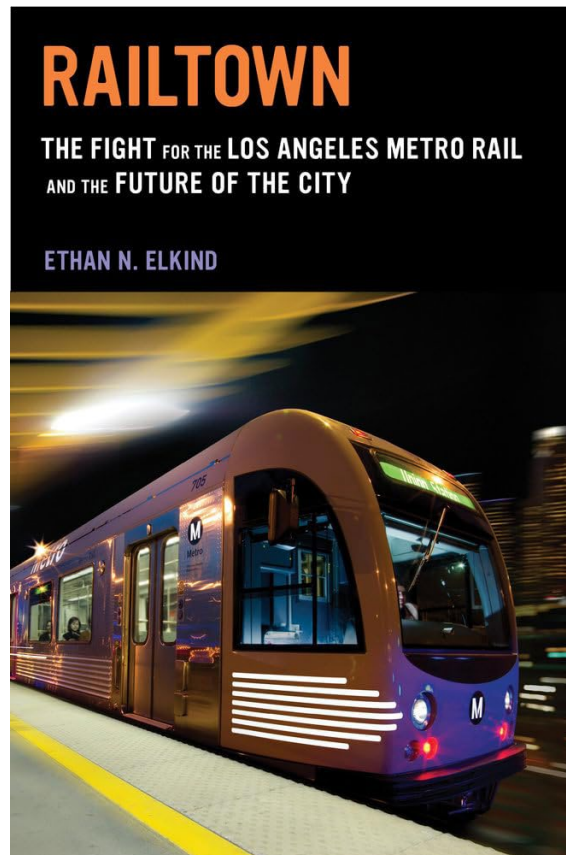
- Democratic and Republican federal administrations and Congressional delegations that were not always enthusiastic about investing in rail for L.A.;
- Political fights between the many jurisdictions over where and how the rail construction timing would be phased, i.e. which would get the first lines;
- Significant scope creep and cost overruns in the first lines;
- The 1985 explosion (!) of a Ross Dress for Less store along

Wilshire Boulevard resulting from methane leeching from abandoned oil wells that would be used for years as an excuse against subway construction along the corridor with the highest ridership potential;

- The establishment of the L.A. Bus Riders' Union and the impact of equitable investments in both bus and rail.

Elkind describes in great detail how Mayor Tom Bradley and cohorts can be credited with much of the early work, decisions and leadership ultimately creating the Metro system. While the story ends in 2013, it is still very relevant to the context of transit in L.A. as new growth and investment shapes transit policy in the current post-COVID era. This book will appeal to those with an interest in rapid transit politics, the "new era" history of Los Angeles rail transit and the Los Angeles County Metropolitan Transportation Authority.

Link to book information: www.libib.com/u/grether?solo=89102449



A Metro Gold Line (now known as A Line) train stops at Union Station on September 18, 2004. Paul Grether photo

Travels with Jack May

Britain and the Baltics — Part 30a

By Jack May (ERA #2275)

Author's note: My mention of under-running third rail in Parts 29 (Helsinki) and 30 (Stockholm) created quite a bit feedback and interaction, so here's some of the commentary I received in its entirety. The first, from Hank Raudenbush (ERA #1183), follows. (Editor's note: See also the March 2024 issue of the Bulletin, page 21, for an in-depth article on under-running third rail.)

First of all, thanks for the great cover of the tour!

Some comments on **Olaf Olsen's** (ERA #3163) mention of third rail. The Sprague-Wilgus third rail went into service on the NY Central in 1906. It provides considerably better (but like anything human, not perfect) protection against accidental contact, snow and ice. However, most of the systems in the USA that used third rail had already adopted either the uncovered, overrunning type (still in use in Chicago and Boston), or the covered overrunning, which was pioneered in 1903 by the Wilkes-Barre & Hazleton, and soon adopted by the IRT (1904), LIRR (1905), etc.

Underrunning was adopted by the Market-Frankford line, the first section opening in 1907. Central California Traction also adopted underrunning at 1200 volts.

The Philadelphia & Western also adopted an underrunning 3rd rail, but a different design avoiding the S-W patents. The details can be seen in Ron DeGraw's book, "Pig & Whistle". This design proved to be so unsatisfactory that P&W changed to covered overrunning after only about a year of operation.

Why did more systems in the USA not adopt the under-running? Primarily because so many had already made their choice, and a changeover would be difficult to stage.

Otherwise, a couple of reasons. There probably were patent royalties associated with the Sprague-Wilgus design, which would affect both the pocketbook and the pride of possible users. Also, the underrunning used a 75 lb rail, which provided only half the conductivity of the 150 lb designs used on many overrunning installations.

In some cases, the possibility of through operation with a line already using another type may have been a factor. This may have played a part in the LIRR choice; at the time a connection to the IRT was being constructed. This would have influenced the PRR choice for Penn Station, and possibly the Hudson & Manhattan.

The City of NY, which built the subway lines for the Brooklyn Rapid Transit probably mandated (1914) the covered type as had been used on the IRT, and then also for the IND system (1930's). Both the IRT and BRT/BMT had to develop contact shoes which could operate on their older uncovered and later covered types.

Philadelphia's Broad St Subway followed many technical details of NY's system (Note: rather than of the Market-Frankford line) and used the covered overrunning. Possible

through operation via the Bridge Line to the Camden-Atlantic City lines might have also been an influence.

Planners of much later systems such as BART, WMATA, and MARTA have chosen to use NYCTA's standard covered overrunning, perhaps unaware of the other, or considering the conductivity issue. That issue was solved by Metro North in extending their electrification from North White Plains to Brewster. Hardware was developed to permit the use of the NYCTA 150 lb rail section in the underrunning position. There is also the possibility of using an aluminum section to provide better conductivity with the old hardware.

Uncovered overrunning was common among most early system in Europe, but other arrangements have been adopted. The Hamburg S-bahn uses near-side contact, and Manchester-Bury used a far-side contact until it was converted to a light rail line. The older "kleinprofil" lines in Berlin began with uncovered overrunning, and later added a cover. The "grossprofil" lines, which started later, use underrunning, as does the commuter rail S-Bahn.

The rubber-tired technology introduced in later years in Paris, and also in Montreal and other places, uses near-side contact. Stockholm, where the first line was under tutelage of American suppliers and their Swedish licensees, used the NY style covered overrunning, but most recent new start systems in Europe such as Rotterdam and Helsinki use underrunning.

The late Ed Davis (ERA # 3199) indicated that the underrunning third rail used on the New York Central's electric division emanating from Grand Central was also used by the NYC's electrified West Shore Railroad's interurbans between Syracuse and Utica, N. Y.

Olaf further commented about another type of third rail used to carry current for propulsion, overhead third rail:

An unusual overhead third rail was necessary for the electric locomotives that used the several long ladders in Grand Central Terminal, especially on the upper level. They would have to negotiate several puzzle switches, or eight-point switches, in succession while pulling heavy trains, and could not just coast, as the distances were considerable. The Niagara Terminal motors were still in service when I qualified in GCT, and their small contact pantographs were raised pneumatically when the engineer pressed a button in the cab. Simultaneously, the ground-level shoes were disconnected. Visually, the result was a slow-moving arc above the tiny trolley-freight locomotive as the switch engine moved down the ladder at restricted speed under the rusty overhead rail.

Just a footnote: Metro-North retired and scrapped their three Baldwin-Westinghouse ex-Niagara Junction units in 1998, leaving only one operational, as a work-motor on the overrunning third

rail equipped PATCO Philadelphia-Lindenwold rapid transit line in South Jersey. Earlier this month it was reported that this 1937-built unit has now been scrapped.

I also received a message about the abandonment of the Lidingöbanan's tram operation on the streets of the mainland from Alan Pearce (ERA #4016):

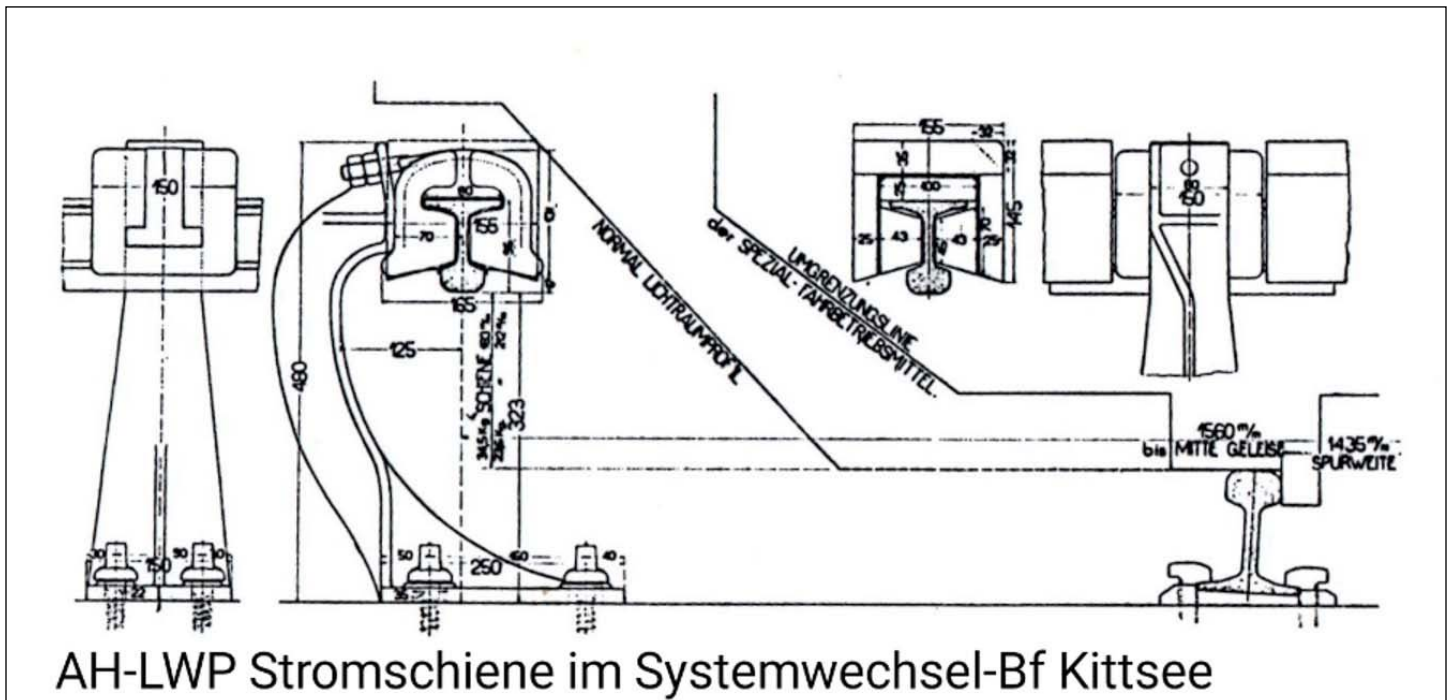
Jack,

Good to see the modern Lidingöbanan cars in the episode. The former in town terminus at the Humlegården was on the southernmost roadway around the gardens named Humlegårdsgatan where the double track terminal tracks were in the street. The last service was on 1st September 1967 with the 20:00 departure comprising a three car train of motor control trailer and motor. I was in the rear motor car. We rode to the island just over the bridge and walked back by which time the tracks were already disconnected and being ripped out. The Tunnelbana opened to Ropsten on 2nd September, which was the last day of Stockholm street trams and of left

hand running. The first day of right hand running or "H Dag" saw me in Göteborg watching the change-over there.

A photo of the line's terminal on the last afternoon is below.

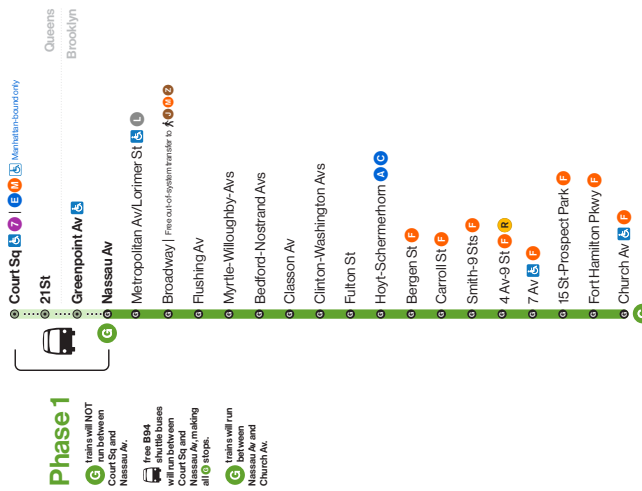
The late Martin Heyneck (ERA #2666) wrote that a very short (and short-lived as well) section of underrunning third rail existed from 1914 to 1923 on the LWP interurban line that ran from Vienna in Austria to Bratislava in Slovakia. In my previous report regarding my visit to Bratislava, I referred to the "Pressburgerbahn", the interurban line that became international when the nation of Czechoslovakia was carved out of Austria-Hungary after the first world war (see https://translate.google.com/translate?hl=en&sl=de&u=https://de.wikipedia.org/wiki/Pressburger_Bahn&prev=search for a description of this unusual line). Martin stated that the two station platform tracks at Kittsee were equipped with underrunning third rail "in order to simplify the change of the AC locomotives on the interurban section with the DC ones needed for operation in the urban area of the town of Pressburg" (which is now the city of Bratislava). In 1924 this became unnecessary as the border between the two countries was shifted from Kittsee to the town of Berg (the border is now back at the eastern edge of Kittsee). He supplied the drawing at the bottom of this page:



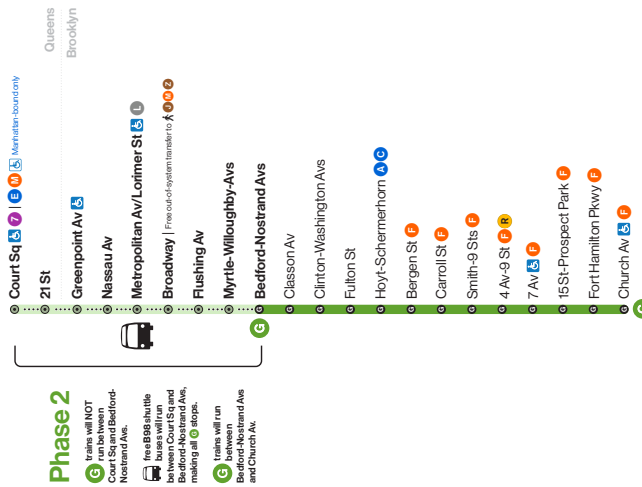


Crosstown Line Signal Modernization

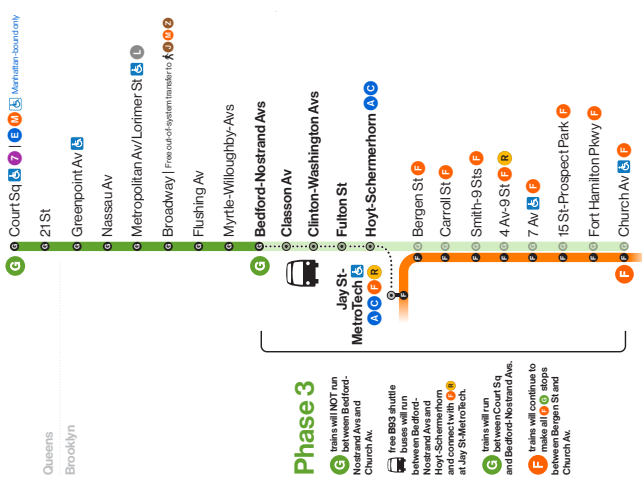
Phase 1: June 28 to July 5, 2024



Phase 2: July 5 to August 12, 2024



Phase 3: August 12 to Sept 3, 2024



Legend

- Suspended service
 - Shuttle bus
 - Station name
 - Partially accessible
 - Fully accessible
- Out-of-System Transfer**
- Use OMNY or MetroCard for a free out-of-system transfer between Broadway G and Hewes St J or Lorimer St J M Z.

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