



BULLETIN

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Electric Railroaders Association

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Front Cover Photo

The fourth day of scheduled activities for the ERA's 2026 International Tour to Scotland, Northern England and the Isle of Man was Sunday, May 3. The group was free to roam around the Sunderland and Newcastle-upon-Tyne area as there were no formal activities scheduled. Many of us took the opportunity to ride and photograph the Tyne and Wear Metro. Looking north towards Gosforth South Junction we see Tyne and Wear Metro Class 555 No. 030 (Stadler, 11/2025), on a Yellow Route train heading to South Shields. Jeff Erlitz photo

Rear Cover Photo

Taken on the same day as the front cover photo, we were lucky to catch one of the very few remaining original Tyne and Wear stock still in service. Class 994 Nos. 4068+4035 (Metro-Cammell, 12/1979+5/1979) were seen at Monkseaton Station while operating a Yellow Line trip to South Shields. These cars last ran in regular service on June 26. Jeff Erlitz photo

Donations

The ERA Board of Directors express their deepest appreciation for these member donations in August 2026.

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Monthly Zoom Meeting

Friday, September 18, at 7:30 p.m.

Presenting This Month: Andrew Ludasi

Veteran photographer and ERA speaker Andrew Ludasi returns with a panorama of unique photos and videos. He continues his domestic and world travels, this past December attending the ATTS (Associazione Torinese Tram Storici = Torinese Friend of Historic Trams) conference which concluded with a historic tram parade of about 20 vehicles. His presentation includes a brief showing of other developments in Milan, Lyon, Paris and, more recently in 2026, Montreal, Toronto and on the South Shore in Indiana. The show will conclude with a short set of historic non-electric surprises for the semiquincentennial.

How to Join Our Zoom Meeting

The Zoom registration link for this meeting is: <https://us02web.zoom.us/joining/register/ri-uK11YR-rucvWkAlEP52Q>. You can sign in at 7:15 p.m. The show begins at 7:30 p.m. If you have any problems, email Bob Newhouser at bnnyc1955@gmail.com, or on the night of the meeting, text or call Bob at 917-482-4235.

Worldwide Suburban Electric Railway, Metro and Tramway Openings in August 2026

Date	Country	City	Segment	Distance (miles)	Railway/Metro/Tram
8/9	Australia	Gold Coast	Broadbeach South - Burleigh Heads	4.2	T
8/10	Germany	Mainz	Hauptbahnhof West - Münsterplatz	0.2	T
8/13	India	Mumbai	Line 2B: Diamond Garden - Chembur	0.6	M
8/14	Bulgaria	Sofia	M3: Hadzhi Dimitar - Gen. Vladimir Vazov	2.0	M
8/21	Israel	Jerusalem	L3: HaTurim - Malha Menachat	4.3	T
8/22	Denmark	Copenhagen	Letbane: Rødovre Nord - Lundtofte	8.6	T
8/26	China	Changchun	Line 7: Qiche Gongyuan - Donghuanchenglu (New line)	14.4	M
"	Indonesia	Jakarta	LRT: Velodrome - Manggarai	3.7	M
8/27	Greece	Thessaloniki	L2: 25 Martiou - Micra	3.0	M
8/30	Taiwan	Taipei	Red Line: Xiangshan - Guangci/Fengtian Temple	0.9	M
8/31	Netherlands	Amsterdam	Line 26: Theo van Goghpark (ex IJburg) - IJburg Franz Kafkastraat	1.0	T

URBAN RAIL NEWS, AUGUST 31

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

Elevator/Accessibility News

The MTA announced the completion of a \$72 million project to make the Kings Highway **F** station in southern Brooklyn fully accessible. Three new elevators now provide a step-free path between the street, mezzanine and both platforms.



Platform level view of both elevators. Marc A. Hermann/MTA photo

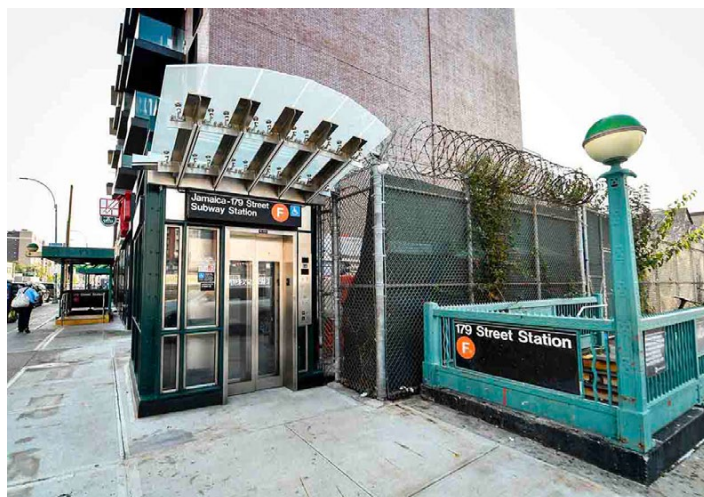
One elevator connects the street with the mezzanine, while two additional elevators connect the mezzanine with the Manhattan-bound and Coney Island-bound platforms. The project also included the expansion and reconfiguration of the mezzanine, a new roofing system, concrete repairs, new lighting and a new fire alarm system. At the platform level, crews extended the canopies and reconstructed the accessible

boarding area. Additional station upgrades included a new station agent booth, two new exit gates, Help Points, security cameras at the turnstiles and intercoms inside the elevators.

The design-build team for the Kings Highway station upgrades includes Halmar and Forte, and the elevators were manufactured and installed by Otis.

[MTA PRESS RELEASE](#), August 19

On August 28, the MTA announced the opening of three modernized elevators serving Jamaica-179th Street **F** Station in Queens. With the addition of this station, 20 elevator replacements have now been completed in 2026.



View east on Hillside Avenue & 179th Place of the new elevator. Marc A. Hermann/MTA photo

As is usual for express stations, one elevator operates between the street and mezzanine and one from the

mezzanine to each platform. The station serves more than 13,000 riders every weekday. The elevator design-builder is the joint venture of Forte–Gramercy.

[MTA PRESS RELEASE](#), August 28

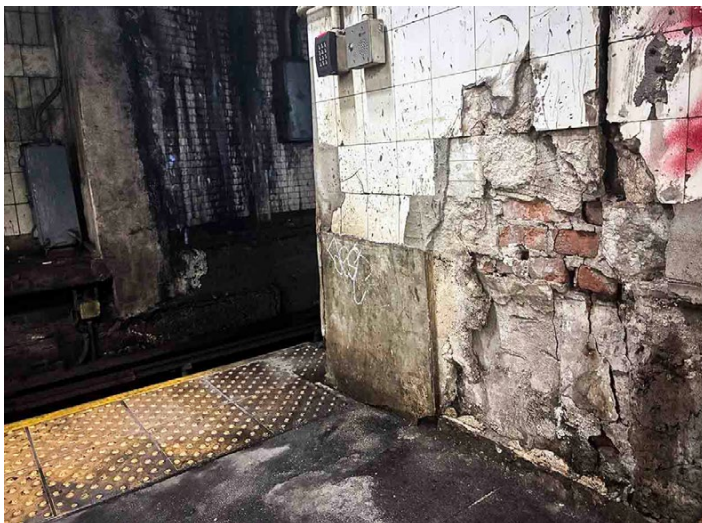
Tracks Out of Service Long-Term

Regarding Track A13 in Coney Island Yard, which had been removed from service on June 1, the work, for concrete pad and electrical utility pole installation work by NYCT's Division of Facilities, was scheduled to wrap up on July 31 and had been extended two weeks, to August 14. Starting on August 8, the purpose of the track outage was changed, to enable loading and unloading of work trains to support work over in Culver Yard. That work was completed and the track was returned to service on Monday, August 24.

Also on August 24, Tracks 38 and 39 in 239th Street Yard were removed from service for track renewal work, in conjunction with on the job training for new track forces. This work is scheduled to continue until November 24. Track M (the center track) at Burnside Avenue on the IRT Jerome Avenue 4 Line, which had been out of service since May 1 for major station rehabilitation work, was also returned to service on Monday, August 24. The northbound platform, remains out of service until September 21.

Chambers Street J Z Station to be Renovated

The MTA is seeking contractors to design, construct and rehabilitate one of the most historic stations in the subway system, the Chambers Street J Z Station, which opened in 1913. This comprehensive renewal project will rebuild structures, replace tiles, upgrade stairways and restore the station from top to bottom, including its architectural finishes. The project is part of the MTA's 2020–2024 Capital Plan, and is made possible by funding from congestion pricing.



An example of existing conditions at Chambers Street, as seen on August 7. Marc A. Hermann/MTA photo

The project will deliver a complete rehabilitation, improving both station appearance and infrastructure, while

preserving the historic details of the station. Chambers Street is on the register of National Historic Places as declared by the U.S. Department of the Interior and serves 18,196 riders on an average weekday. The MTA will award the design-build contract by the end of the year. The station is among the most urgently in need of repair and rehabilitation in the entire subway system, with water damage and decades of structural decay diminishing the station's appearance.

The scope of the project includes:

- Painting the station
- Providing new floor finishes at select areas of the public mezzanines
- Replacing or modifying existing station elements, including station stairs, and doors
- Replacing damaged station finishes and restoring historic station finishes, including ceramic tiles, mosaics, terra cotta decorations, base tiles, concrete and marble bases, and trims
- Performing structural repairs, water leak mitigation, and ceiling improvements
- Installing new station lighting, new cameras and updating the existing CCTV system
- Performing prep work for the installation of new artwork

[MTA PRESS RELEASE](#), August 7

Plan to Lower Subway Platform Temperatures

The MTA announced a partnership to study a Thermal Energy Network (TEN) in the Brooklyn Bridge–City Hall 4 5 6 and Chambers Street J Z station complex. The project will explore how to combat extreme heat on subway platforms while capturing and recycling excess heat to warm nearby municipal buildings during the winter.

The project would be the first thermal energy network installed in a U.S. transit system. The announcement comes days after the MTA announced plans for a comprehensive renewal project at the Chambers Street station, which is among the oldest in the subway system.

Brooklyn Bridge–City Hall is one of the hottest stations in the subway system, with average temperatures reaching 96°F in the summer months of 2025. While the MTA prioritizes reliable service in the short-term to get riders on air-conditioned trains and spend less time on platforms, this study will help identify ways to reduce heat, improve rider comfort and mitigate heat-related issues that can lead to service delays.

TENs, already in use at several hospitals and universities, move heat between buildings, significantly reducing reliance on fossil fuels. The MTA and City will assess the feasibility of using TENs and geothermal infrastructure to absorb, store and transport excess heat between subway stations and adjacent municipal buildings. The initial feasibility study will help determine how much cooling can be achieved and the potential energy cost savings for the City.

The proposed geothermal network would capture, store and redirect excess heat that accumulates in the Brooklyn Bridge–City Hall and Chambers Street station complex. Radiant cooling technology would absorb heat from Brooklyn Bridge–City Hall platforms, and potentially Chambers

Street as well, and transfer it through pipes to geothermal boreholes drilled beneath the abandoned center platform at Chambers Street. The excess heat could then be stored in the boreholes and used during colder months to heat nearby municipal buildings.

The study will be conducted in partnership with New York City Department of City Administrative Services (DCAS), the Mayor's Office of Climate and Environmental Justice, the Office of the Deputy Mayor for Operations and the MTA. The contract for the feasibility study will be awarded this fall. Pending confirmation of geothermal feasibility, design work will begin in early 2027.

Chambers Street Station is particularly well suited for the study because its abandoned center platform would allow the MTA to test technology without disrupting passenger areas. Brooklyn Bridge - City Hall also experiences significant heat in part because of heat generated by trains dwelling at the 6 line terminal.

[MTA PRESS RELEASE](#), August 10

Station Revive Progress

During four weekends in July and August crews completed extensive functional and aesthetic upgrades at Christopher Street-Stonewall 1, Houston Street 1 and Park Place 2 3 Stations. These three stations were refurbished while crews replaced 30-year-old switches north of Chambers Street, which required a suspension of 1 2 3 service in Lower Manhattan.

At Christopher Street, crews scraped and repainted 40,000 square feet throughout the station. Approximately 45,000 square feet of surfaces were scrapped and repainted at Houston Street, and crews completed 38,000 square feet of repainting at Park Place. Highlights of the work included painting the entrances, booths, doors, ceilings, and track areas. Over 12,500 square feet of masonry repairs were done throughout Christopher Street and Houston Street. And 3,000 feet of platform edges were repaired across the three stations to prevent future service delays. Crews also refinished benches for customer seating, cleaned drains, and serviced HVAC systems. At Christopher Street, the Facilities team replaced 20 LED fixtures in dimly lit areas.

[MTA PRESS RELEASE](#), August 25

LONG ISLAND RAIL ROAD (LIRR)

Montauk Branch Service Improvements

The MTA announced upcoming service improvements for the LIRR's Montauk Branch. The upgrades will come in two phases: the first phase will extend the track siding at the Amagansett station; the second phase will include the construction of a permanent second platform at the Hampton Bays station. These projects will increase operational flexibility along the Montauk Branch, which will improve reliability, reduce delays and enable future service increases at a time when ridership along the branch has reached historic highs.

The 2025-29 Capital Plan allocates \$6 billion for

improvements on the LIRR, including infrastructure and rolling stock, a \$300 million increase from the 2020-24 Capital Plan. The improvement projects at the Amagansett and Hampton Bays stations are estimated to cost a combined \$78 million.

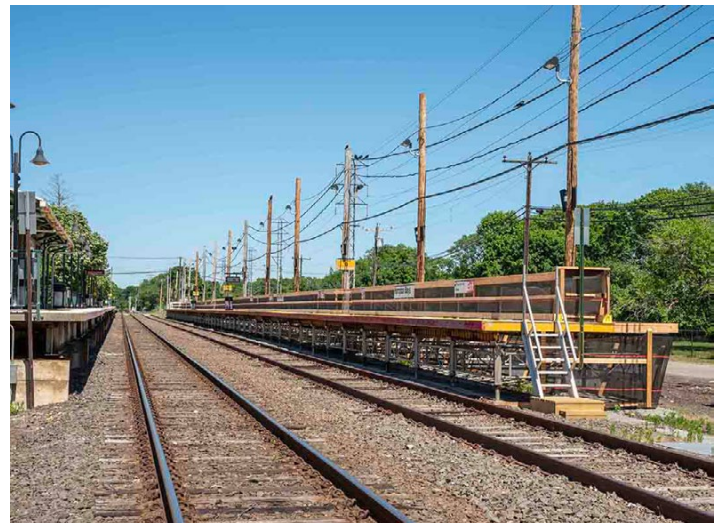
Phase One: Amagansett Siding Extension

There is currently a 27-mile stretch of single-track between Southampton and Montauk, which limits the number of Montauk Branch trains that can run. This project will extend the siding at Amagansett by 14 85-foot car lengths, which will also shorten the distance of single-track to 11 miles between Amagansett and Montauk, and 16 miles between Southampton and Amagansett. The project is scheduled to begin in the first quarter of 2028, with completion anticipated in the second quarter of 2029.

Phase Two: Hampton Bays Station Improvements

At Hampton Bays Station, a temporary second platform was installed for the 2026 U.S. Open held at Shinnecock Hills to accommodate increased ridership. The second phase of these improvement projects will make that temporary platform permanent. The addition of the new eastbound side platform will allow passengers to board and exit trains in both directions without requiring the train to make additional movements when entering or leaving the station.

Hampton Bays will also undergo track and signal upgrades, which will allow the siding to accommodate trains with as many as eight cars, increased from the current six.



View of the additional platform at Hampton Bays on June 16, during this year's U.S. Open at Shinnecock Hills. This six-car platform will be extended to eight cars during the rebuild. Though not specifically mentioned in the press release, we can only presume the platform on the north side (to the left in this photo) will also be extended two car lengths. Jeff Erlitz photo

Starting with the next timetable change on September 8, eastbound Train No. 20, which operates Monday to Friday from Penn Station to Montauk, will operate year round. Its last day of operation this year would have been the Friday of Labor

Day weekend, September 4. With this improvement, Train No. 42, Train No. 20's "winter replacement" operating on the same schedule but only to Speonk, will be discontinued.

[MTA PRESS RELEASE](#), August 24

METRO-NORTH RAILROAD (MNR)

WALK Bridge Construction

The Connecticut Department of Transportation, MNR and Amtrak announced that to support critical high tower cable removal at the WALK Bridge Replacement Project in Norwalk, MNR and Amtrak trains will run on modified schedules with reduced service between New Haven and New York along the New Haven Line during select weekends, beginning September 12 through November 1.

MNR local service on the western half of the line between Grand Central and Stamford, including all stations in Westchester County and Greenwich, will not be affected except for a schedule adjustment to one Saturday-only morning train.

These schedule modifications are necessary to allow crews to safely remove two 234-foot-tall utility towers and overhead wire systems on the existing 130-year-old WALK Bridge, which crosses the Norwalk River in Norwalk, CT.

During each affected weekend, MNR service will include:

- Grand Central-New Haven trains on reduced frequencies and capacities
- Shuttle service between New Haven and Bridgeport
- Main-line trains operating between Grand Central Terminal and South Norwalk, with express service between Grand Central Terminal and Stamford and local service between Stamford and South Norwalk

[MTA PRESS RELEASE](#), August 13

PORT AUTHORITY TRANS-HUDSON (PATH)

Smartlink/MetroCard Usage Ending

SmartLink Cards will no longer be accepted on the PATH system starting September 1, as PATH phases out use of SmartLink and MetroCards following the deployment of the new TAPP fare system. Riders should plan to use any remaining balances on their SmartLink cards by August 31, the final day of SmartLink usage.

The vast majority of PATH riders have already switched to TAPP as their fare payment method of choice, with 96 percent of riders TAPPING into the system by the end of July. PATH also is preparing for the replacement of aging fare gates with modern next-generation equipment to harden against fare evasion. PATH has begun planning work to replace its existing 341 standard and ADA-compliant fare gates at all stations. In March, the Port Authority Board of Commissioners authorized \$3.5 million to start the replacement process for new fare gates.

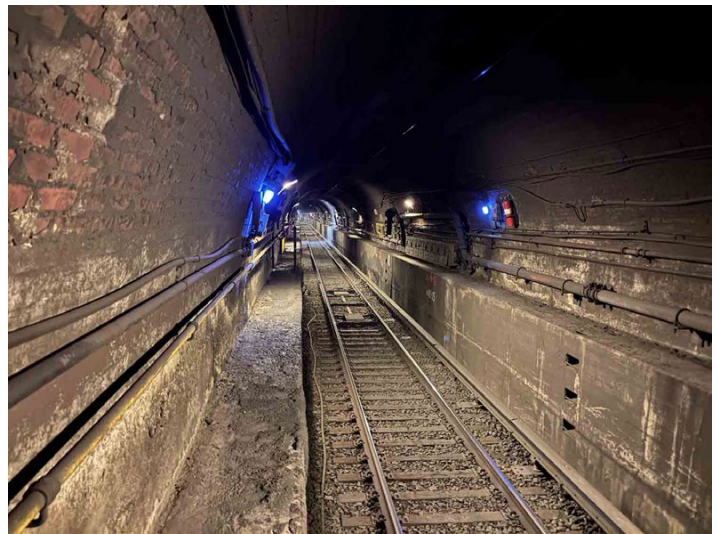
[PORT AUTHORITY PRESS RELEASE](#), August 4

AMTRAK

East River Tunnel Line 2 Reopens

Amtrak officially reopened East River Tunnel (ERT) Line 2 this week, completing the first major phase of the ERT Rehabilitation Project.

Over the past year, crews completely reconstructed the 116-year-old tunnel's interior systems, including track, power, communications, drainage and structural elements. This work involved demolition, removal and replacement of significantly deteriorated infrastructure and incorporated construction of new bench walls designed to improve safety, maintenance access and operational performance. In total, more than 24,000 feet of rail, 8,000 tons of ballast, 8,000 wooden rail ties and 20,000 cubic yards of bench wall concrete were removed and replaced.



(Above and below) Two views of ERT Line 2 before the reconstruction started and during the benchwall demolition phase. Amtrak photos



The second and final phase of the project will begin this fall and feature the same scope of work for the Line 1 tunnel. Ahead of the work in Line 1, Amtrak will conduct additional hardening activities to reduce the risk of infrastructure failures, as was

done for Line 2. The \$1.6 billion project remains within budget and on track to finish by the end of 2027.

It is funded primarily by a federal grant administered by the Federal Railroad Administration, along with contributions from Amtrak, the MTA and NJ Transit.

[AMTRAK NEWS](#), August 17

Other U.S. Systems

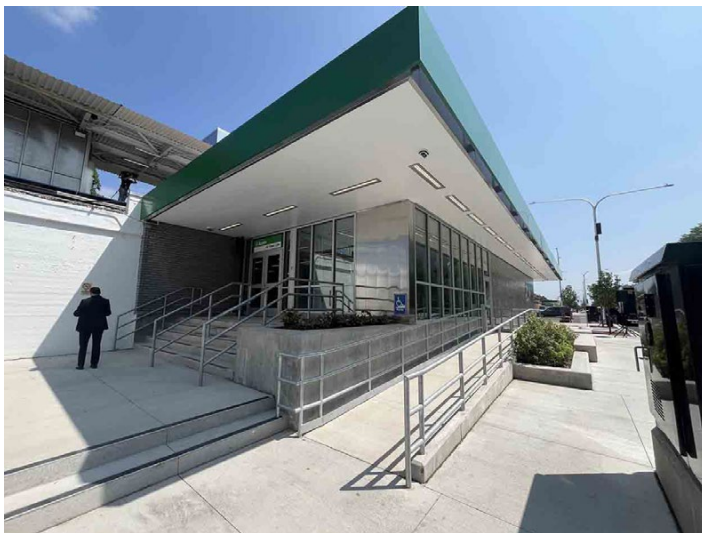
CHICAGO, ILL.

Austin Green Line Station Reopened

The Chicago Transit Authority (CTA) unveiled the fully accessible Austin Green Line station on August 7. The \$25 million project delivered a fully accessible transit hub for the community, achieving a key milestone in CTA's All Stations Accessibility Program (ASAP).

CTA's ASAP Strategic Plan was released in 2018 and serves as a blueprint for making all rail stations fully accessible by 2038. With the opening of the Austin station, 110 of CTA's 146 rail stations (75%) are accessible to those who use mobility devices. Austin is among the 14 stations recently opened or currently funded and in various stages of planning, design or construction to become fully accessible.

Funding for this project was sourced through the federal government's Surface Transportation Program (STP) and Governor Pritzker's Rebuild Illinois Capital Plan. STP provided \$20.3 million in funding and Rebuild Illinois provided \$5.3 million for a total budget of \$25.6 million.



Rebuilt Austin Green Line station. Bill Dwyer/Forest Park Review

The original street level Austin station opened in 1899 and had not been upgraded since it was rebuilt in 1962. Work included the installation of a new elevator and escalator connecting to the platform; reconstruction of the outside station stairs and a new ADA compliant ramp to enter the station; plus, other station enhancements. During construction, riders were able to access rail services using

the station's auxiliary entrance.

Currently, CTA has secured funding for all four remaining stations identified in Phase One and five of the eight stations in Phase Two of the ASAP Plan. CTA has secured \$37 million in funding for elevator replacement and/or modernization efforts, which were also part of the ASAP Plan.

Funding remains the biggest impediment to achieving a fully accessible rail system. Since the launch of the ASAP Plan, CTA has secured \$740.8 million in funding, with design and construction underway for nearly all non-accessible stations identified in the first two phases of the Plan. CTA continues to seek out additional sources of funding for the remaining stations in Phase Two as well as funding for stations in phases three and four of the program.

[CTA NEWS](#), August 7

CLEVELAND, OH.

First New LRV Arrives

The Greater Cleveland Regional Transit Authority (GCRTA) announced the official arrival of its first next-generation railcar. This delivery is part of a comprehensive \$435 million investment to completely replace an aging fleet.

The newly arrived railcar, designated as the Siemens Model S200, represents the future of public transit. Engineered with a major focus on passenger experience, these LRVs feature a modern design with 52 easy-to-clean seats for the highest level of sanitation, additional standing room, four wheelchair areas for enhanced accessibility, two bicycle racks and an advanced infotainment system. In addition, the vehicles will be built to withstand the coldest Cleveland days, with ice cutting technology and a modern operator cab area with a dedicated heating, ventilation and air conditioning unit, heated windshield and enhanced visibility.



S200 No. 403, the first one delivered. GCRTA photo

Upon arrival, each new railcar will undergo rigorous safety and commissioning tests at GCRTA's Brookpark rail yard and

on the GCRTA rail system before entering official revenue Red Line service in the Summer of 2027, and Blue and Green Lines rail service in the Summer of 2028.

[GCRTA NEWS](#), August 31

PHILADELPHIA, PA.

11th Street Station Renovation Begins

SEPTA gathered with elected officials and other stakeholders to break ground on a project at 11th Street Station that will make the station fully accessible. More than 9,400 riders pass through the station each weekday.

A key element of the \$44 million project is providing elevator access from the street level to the eastbound and westbound platforms. The two new elevators will make the station fully compliant with the Americans with Disabilities Act (ADA). By the time construction at 11th Street is completed, 27 of 28 L Line (formerly Market-Frankford) stations will be fully accessible.

In addition to the new elevators, other planned improvements to the station include:

- New lighting
- Communications system upgrades
- New employee bathroom
- New cashier booth
- New floor and wall tiles
- New wayfinding signage
- Structural repairs and waterproofing improvements

SEPTA's FY27 Budget includes funding to bring full-height fare gates to an additional 13 stations, including 11th Street. At the 10 stations where the new gates are installed, fare evasion has been cut roughly in half.

In order to perform the renovations, 11th Street will be closed to the public from September 5 through August 30, 2027. L trains will bypass the station during this time. The concourse will be closed from 13th Street to 11th Street for the duration of the project.

The typical duration for similar projects is approximately 35 months. Bypassing the station for 12 continuous months is expected to reduce the project duration by at least 10 months and save up to \$3 million. Riders who normally board or exit at 11th Street can use 13th Street Station, which is ADA accessible. When 11th Street reopens, the remaining construction will cause minimal disruption to riders.

[SEPTA NEWS](#), August 27

PITTSBURGH, PA.

Panhandle Bridge Rehabilitation

Pittsburgh Regional Transit announced that crews have begun preparing the Panhandle Bridge for a long-term rehabilitation project.

The bridge, which carries light rail over the Monongahela River between Station Square and First Avenue Stations, will undergo major rehabilitation beginning in 2027. Crews

are currently installing containment around the bridge in preparation for painting, electrical and concrete substructure work. This initial work will not affect light rail service.

The bulk of the rehabilitation work is expected to begin in Spring 2027 when rail service will be single tracked between South Hills Junction and First Avenue Stations. Weekend closures of the bridge — and bus and rail detours — are also expected. PRT will announce specific detours when the construction schedule is finalized.



SD400s 4214+4224 (Siemens/CAF, 1985/2005) are seen crossing the Panhandle Bridge on October 4, 2015.

Dllu photo via Wikimedia Commons

PRT's board awarded the \$58 million rehabilitation project to Mosites Construction Company in March 2026. The rehabilitation will include steel and concrete repairs, new lighting for both service and decorative purposes, replacement of rail and power lines and painting. Work is expected to take 32 months to complete.

Built in 1902 to carry heavy rail traffic across the Monongahela River, the Panhandle Bridge was acquired by PRT in the 1980s and converted for light rail use in 1984.

[PRT NEWS](#), August 20

SAN FRANCISCO BAY AREA, CALIF.

Schedule Improvements

BART's schedule changed on August 10, with targeted improvements that should enhance reliability and reduce wait times for some riders. By making a change in how trains travel through Daly City Station and operating it as a center platform station, service will be improved throughout the system with more even headways, better transfers and less train congestion.

With these improvements, some departure times shifted by a few minutes. BART's Trip Planner was updated with the changes on August 10.

Trains will be more evenly spaced apart for Richmond-bound riders coming from San Francisco, which means wait times will be reduced and trains will have less crowding.

Yellow Line and Red Line trains will be spaced 10 minutes apart instead of 5 and 15 minutes. This gives riders the option to take a Yellow Line train and transfer at 19th Street/Oakland to a Richmond-bound Orange Line train or they can take the direct Red Line train. This will more evenly distribute riders in San Francisco and ease crowding.

Dublin- and Berryessa-bound riders will also have better spacing between Green and Blue Line trains, from 3 and 17 minutes to 8 and 12 minutes. This will reduce wait times on the platform and crowding on trains. Currently some riders are waiting 17 minutes in San Francisco between trains heading towards Bay Fair, leading to platform and train crowding.

There is a new cross-platform transfer at Bay Fair for Dublin (Blue Line) to Berryessa (Orange Line) riders and the reverse trip. This improves service for riders commuting from Dublin and the Altamont Pass to San Jose. Currently the transfer is 19 minutes, now the trains will pull up together.

Riders coming from Antioch (Yellow Line) transferring toward Richmond (Orange or Red Line) will save 17 minutes with a new four-minute transfer at MacArthur from Platform 4 to Platform 1.

Red and Yellow Line trains coming in and out of SFO Station will now be better spaced apart, reducing confusion over which train to board and which train will leave first. Previously, a Yellow Line train towards the city and the East Bay arrived first to the platform but was held longer due to a change in train operators. A Red Line train coming from Millbrae arrived at the platform and then departed before the Yellow Line train following a brief dwell time. This pattern was frustrating to riders who boarded the Yellow Line train thinking it would leave first. This schedule change reduced the frequency in which both the Yellow and Red Line trains are at the platform for boarding at the same time.

[BART NEWS](#), August 4

International

BANGKOK, THAILAND

Orange Line Metro Trainset Unveiled

The first of 32 three-car trainsets being supplied for Bangkok's Orange Line metro by a consortium including Siemens Mobility and Bozankaya has been completed. The train was unveiled on August 14 at Bozankaya's plant in Ankara, where it has completed initial tests. It is now being transported to Germany to undertake further trials.

The second train is currently undergoing test runs in Turkey and is expected to be delivered to Thailand at the end of November. Siemens Mobility, Singapore's ST Engineering and Bozankaya are supplying the rolling stock, mechanical and electrical equipment and signaling for the Orange Line under a contract announced in December 2024.

The initial 22.5-kilometer section of the Orange Line is scheduled to open in early 2028. Running from Yaek Rom Klao in the east of the city to an interchange with the Blue

Line at Thailand Cultural Center, this phase will include both underground and elevated alignments. A further 13.7-kilometer extension through the city center to Bang Khun Non is expected to follow by July 2030.

[RAILWAY GAZETTE INTERNATIONAL](#), August 19

BERGAMO, ITALY

Tramway Cleared for 2026 Opening

The T2 tram line from Bergamo to Villa d'Almè has entered the final phase of construction. Main civil works were completed by the June 30 deadline attached to Italy's EU-funded PNRR investment program, clearing the way for testing and pre-operational trials ahead of opening by the end of 2026. The 11.5-kilometer route will link Bergamo with Villa d'Almè, largely following the alignment of the former Brembana railway, which has been converted into a modern double-track tramway. From its terminus at Piazzale Marconi in Bergamo, T2 will share its first four stops with the existing T1 Bergamo to Albino line before diverging at Bronzetti onto a dedicated alignment to Villa d'Almè.

The line is being built on behalf of Tramvie Elettriche Bergamasche, the company that operates Bergamo's tram network, by a consortium comprising construction company Milesi Sergio, railway infrastructure contractor GCF Generale Costruzioni Ferroviarie and Czech rolling stock supplier Škoda. The route is one of Lombardia's largest sustainable urban mobility investments.

The project is being delivered under Italy's National Recovery & Resilience Plan, or PNRR, which channels funding from the EU's post-pandemic recovery program. The June milestone had been met through close collaboration between the consortium partners and the client. It is hoped that the completed infrastructure would become a benchmark for public transport in the Bergamo area.

The tramway passes through the northern Italian municipalities of Bergamo, Ponteranica, Sorisole, Almè and Villa d'Almè, serving a catchment area of around 240,000 inhabitants. It includes 13 stops, seven park-and-ride facilities, 29 tramway crossings and approximately 10 kilometers of shared pedestrian and cycle paths.

The electrification system comprises a 750v DC overhead contact line supplied by seven traction substations. Signaling and control equipment includes distributed interlockings, centralized supervision and a fiber-optic communications network linking the stops, substations and operations control center. A key element of the project is the new depot at Petosino, which has capacity for up to 11 trams and includes maintenance workshops, washing facilities, covered stabling tracks and a 400-square-meter photovoltaic installation. Once operations begin at the end of 2026, the tramway is expected to carry around four million passengers annually, while reducing road traffic in western Bergamo by approximately 10%.

The fleet for T2 consists of 10 new Škoda trams, each 33.5 meters long and with a maximum capacity of 281 passengers,

including 66 seated. Nine of the 10 trams have been delivered to Bergamo. The tenth, the first to be completed at Škoda's Plzeň plant in the Czech Republic in February this year, is currently being retained at the manufacturer's facilities for further testing and will be delivered to Bergamo in October.

The vehicles will join the 14 AnsaldoBreda Sirio cars already in service on Line T1, creating a total fleet of 24 trams capable of operating on both lines. The Škoda trams already delivered are undergoing night test runs on T1. In a second phase, the vehicles will be used for pre-operational running on T2.

[RAILWAY GAZETTE INTERNATIONAL](#), August 3

BRANDENBURG, GERMANY

Tram Fleet Renewal Continues

Brandenburg an der Havel transport operator VBBr has exercised an option for Škoda Group to supply four more ForCity Plus 48T low-floor trams, taking its total order to eight.

The latest order announced on August 26 has been placed as part of a 2021 framework contract which was awarded jointly by the public transport operators in Brandenburg an der Havel, Frankfurt an der Oder and Cottbus. The joint procurement was designed to enable the three operators to benefit from technical synergies and shared development costs for the customized meter-gauge trams; there are various operator-specific requirements, and the vehicles are being supplied in two widths to fit the legacy infrastructure in the cities.



One of Brandenburg's recently-delivered 48T ForCity Plus cars, No. 112 (Škoda, 2025) is arriving at the Willibald-Alexis-Straße stop on Rosa-Luxemburg-Allee on Route 6 on June 26.

Sebastian Knebel photo via Urban Electric Transit

The three-section unidirectional 71% low-floor 600v DC trams ordered by the city of Brandenburg are 28.96 meters long and 2.3 meters wide, with 51 fixed and five folding seats and a capacity of up to 151 passengers. Features include wide doors, low entrance heights and spacious multifunctional areas for passengers with reduced mobility and people traveling with pushchairs or bicycles.

[RAILWAY GAZETTE INTERNATIONAL](#), August 26

BULGARIA

New EMUs Enter Service

The first eight of 20 Škoda Group electric multiple-units ordered by the Ministry of Transport & Communications entered service with national operator BDZ on August 14, just 23 months after the contract was finalized. The individual trains are being named after Bulgarian mountains, and all are expected to be in service by August 20.

Škoda Group said the entry into service completes a major phase of one of the largest railway projects it has undertaken in southeast Europe in recent years. The contract worth 511.4 million leva+VAT was signed in September 2024 and financed under Bulgaria's share of the EU's Recovery & Resilience Plan. It covers 20 EMUs intended for use on long distance services from Sofia to Burgas, Varna and Ruse, along with the provision of 15 years of maintenance.

The four-car 25 kV 50 Hz EMUs are part of the RegioPanter family which is used in the Czech Republic, Slovakia, Latvia and Estonia. The 160 km/h trains for Bulgaria were adapted to the customer's requirements, including the livery, the interior design with 333 seats, the ETCS signaling technology and key safety features. The passenger information system uses Bulgarian's Cyrillic alphabet as well as English. They have air-conditioning, wi-fi and interior and exterior CCTV. There is partly low-floor boarding, an accessible toilet and multifunctional areas for passengers with reduced mobility, pushchairs and bicycles.

COPENHAGEN, DENMARK

Light Rail Line Completed

Copenhagen's 28-kilometer light rail line between Ishøj and Lundtofte was completed with the opening on August 22 of the second phase which runs 14.9 kilometers north from Rødovre Nord to Lundtofte.

The inaugural service carrying invited guests left Rødovre Nord at 10:30 a.m. and traveled north along the extension to ribbon-cutting ceremonies at some of the 17 new stops. Passenger services were progressively introduced as the inaugural tram advanced, with full operations in both directions underway by 11:30. The main celebrations took place at Gladsaxe Rådhus, where the official ceremony was combined with a wider public festival. Travel was free throughout the opening day, when around 50,000 people were carried.

The line largely follows the O3 ring road to provide an orbital link between the capital's suburbs. It serves residential areas, workplaces, hospitals, educational institutions and public transport hubs, removing the need for many passengers to travel through the city center.

Construction began in 2018, with the works divided into five geographical packages. The northern section covered three packages, with Per Aarsleff and CG Jensen among the main contractors. The project was initially budgeted at approximately DKK5.1 billion, but rising costs required a



Avenio No. 114 (Siemens, 2024) is on a test run at Lyngby Centrum on August 18, four days before the opening.

Jiri Pecina photo via Urban Electric Transit

revision and the final approved budget reached DKr9.3 billion, including reserves. The national government contributed 40%, the municipalities 34% and the capital region 26%.

Siemens Mobility, in a consortium with general infrastructure contractor Aarsleff Rail, provided the electrification, signaling, communications, depot equipment and project management and system integration services, and will provide 15 years of maintenance. Rhomberg Sersa Rail Group installed track as sub-contractor to Aarsleff Rail.

Siemens Mobility has supplied 29 four-section Avenio light rail vehicles which are 36.9 meters long with a capacity of 260 passengers, including 64 seated; an initial order for 27 vehicles was followed by an option for two.

A 15-year operations and maintenance contract was awarded to Metro Services, the subsidiary of Milano transport operator ATM which also operates the Copenhagen metro.

The 13.1-kilometer first phase of the line opened between Ishøj and Rødovre Nord with 12 stops on October 26, 2025. Services now operate every 10 minutes off peak, increasing to every 5 to 8 minutes at peak times, and the end-to-end journey over the full route takes 58 minutes.

After a running-in period of three to six months, the frequency is expected to increase to every 5 minutes during the day. Bicycles can be carried. The line is expected to carry around 14 million passengers per year by 2030.

[RAILWAY GAZETTE INTERNATIONAL](#), August 24

FRIBOURG, SWITZERLAND

New EMUs Ordered

Fribourg transport authority TPF (Transports publics fribourgeois) has awarded Stadler a contract to supply 13 four-car Flirt Evo electric multiple-units to modernize its standard gauge fleet.

The SFr117 million firm order announced on August 21 has been placed as an option on a framework contract for up to 510 regional EMUs which Swiss Federal Railways and its

local subsidiaries Thurbo and RegionAlps awarded to Stadler in May 2022. In the procurement, SBB also represented TPF, Transports Publics Neuchâtelois and Compagnie des Chemins de Fer du Jura.

The first of the TPF units is scheduled to enter service in December 2028, with the rest following at two-month intervals to enable the phased withdrawal of the existing Domino units.

The Flirt Evo EMUs are designed around the requirements of regional services, with a maximum speed of 160 km/h, high acceleration and braking rates and should contribute to reliability on routes with numerous stops and relatively short journey lengths.

The 73.5-meter-long EMUs will have wide doors for rapid boarding and alighting. The interior is designed to be bright and open, with a total capacity of 369 passengers including 164 seats and spacious multi-purpose areas for bicycles, pushchairs and luggage. There will be numerous power sockets. Features to enable people with reduced mobility to use the trains independently will include step-free entrances, level transitions throughout, spaces for wheelchair users and an accessible toilet.

[RAILWAY GAZETTE INTERNATIONAL](#), August 21

GOLD COAST, AUSTRALIA

Third Stage of Light Rail Line Opens

The third stage of the G:link light rail line serving Gold Coast in Queensland opened with a day of community events including giveaways, live music, face painting and balloon animals on August 9. The extension runs 6.7 kilometers from Broadbeach to Burleigh Heads with eight stops, taking the line to 27 kilometers with 27 stops.

The light rail line is being developed and managed by Public-Private-Partnership concessionaire GoldlinQ, a consortium of Palisade, International Public Partnerships, Plenary, Marubeni and operations and maintenance partner Keolis.

Quadrant Rail Consulting led commercial negotiations with the O&M and rail systems contractors, managed interfaces between design and delivery teams, and oversaw the tram supply contract. It said it helped reduce O&M contractor pricing by around 30% while maintaining schedule certainty through the Covid-19 pandemic.

John Holland was selected as the preferred design and construction contractor in August 2020, and work got underway in 2021. Construction of the double-track extension took more than four years, most of which was spent upgrading or relocating 59 kilometers of water, sewer, power and telecommunications infrastructure.

The works also included upgraded depot facilities, new signalized pedestrian crossings, enhanced walking and cycling connections and park upgrades.

John Holland said working in a live traffic environment across one of the Gold Coast's busiest urban areas required it to draw on significant technical expertise across rail systems, civil works, station structures and urban infrastructure.

Aecom was subcontracted to perform design consultancy

services. Arcadis acted as independent verifier and Fission as independent estimator. Alstom supplied the railway systems including signaling, controls and telecoms, managed from the upgraded operational control center, which is supported by a new disaster recovery center. Alstom also supplied five more Flexity 2 trams from its Wien plant, taking the fleet to 23, which it also maintains. The 43.4-meter-long seven-section trams include surfboard racks.

In July GoldlinQ invited expressions of interest in the design and construction of the 3.2-kilometer Gold Coast University Hospital to Biggera Waters (Harbour Town) extension, which will add three stops at Musgrave Avenue, Labrador and Biggera Waters.

[RAILWAY GAZETTE INTERNATIONAL](#), August 18

GRUDZIĄDZ, POLAND

Latest Tram Arrives

MZK Grudziądz has taken delivery of the first of three Moderus Beta trams which are being supplied by Modertrans Poznań under a November 2024 contract worth 30 million złoty.

The new trams are almost identical to four Beta MF 28 AC trams which were ordered in March 2021 and are already operating on the city's single nine-kilometer long route. The new trams are fitted with a passenger counting system, but they are not equipped with ticket vending machines. Instead, passengers can purchase or validate tickets using electronic validators.

[RAILWAY GAZETTE INTERNATIONAL](#), August 8



Freshly-delivered Beta MF 28 AC (Modertrans, 2026) No. 99 is sitting on the track just outside the depot. Mayor of Grudziądz photo

HUNGARY

New EMU Unveiled

The first of 11 inter-city electric multiple-units that Stadler is supplying for Hungarian-Austrian cross-border operator GySEV (Győr–Sopron–Ebenfurti Vasút) has been unveiled. The train was presented at Stadler's production facility in Siedlce, Poland on July 30 and was then seen in Hungary on

August 14 while making its way to undertake commissioning trials in Romania.

Being built under a March 2024 contract, the EMUs are intended for use on the Sopron – Győr – Budapest and Szombathely – Győr – Budapest routes and would also be certified for operation in Austria. They are planned to gradually enter service from 2027 onwards, with all 11 due to be operational by the summer of 2028.

The five-car low-floor EMUs are 106.2 meters long and are designed for a maximum speed of 160 km/h. The aluminum carbodies are being produced at the manufacturer's Szolnok plant in Hungary.

The interiors will be reconfigurable, with the winter layout having 280 seats, including 32 in first class, and the summer arrangement having fewer second class seats to create space for up to 18 bicycles.

There will be a dining area with food and drink vending machines, a passenger information system, CCTV, power sockets, USB ports, wi-fi, air-conditioning and three toilets, including one which will be fully accessible.

[RAILWAY GAZETTE INTERNATIONAL](#), August 18

MAINZ, GERMANY

Hauptbahnhof Tram Bypass Line Opens

A tram bypass line has opened to relieve congestion on routes around Mainz Hauptbahnhof. Services began using the 300-meter section of track running along Binger Straße from Hauptbahnhof West to Münsterplatz on August 10, ahead of the official inauguration on August 15.

Construction of the bypass began in June 2024, but work was delayed by archaeological discoveries and adverse weather conditions. The project forms part of a wider €14 million scheme for a comprehensive reconstruction of Binger Straße, including utility renewals, modifications to a bridge, road changes, cycling infrastructure and accessibility works at the Münsterplatz tram stop.

[RAILWAY GAZETTE INTERNATIONAL](#), August 18



Detail of tramway track diagram of Mainz, showing the new bypass on Binger Straße. Christian Stade/gleisplanweb.eu

MANILA, PHILIPPINES

Delivery of Commuter Rail EMUs Begin

The first of 38 eight-car electric multiple-units that a consortium of Sumitomo Corp. and Japan Transport Engineering Co. is supplying for the North-South Commuter Railway serving the Manila area arrived in the Philippines on August 25. After completing customs procedures, the vehicle is scheduled to be delivered to Malanday depot in Valenzuela City.

Sumitomo Corp. and J-TREC are supplying a fleet of 51 eight-car Sustina EMUs in batches of 13 and 38 under two separate tendered contracts. These will be used to work stopping services on the NSCR project.

An initial set of 13 EMUs were ordered in July 2019 for Phase 1 of the project; the first vehicle from this package arrived in November 2021. Under a March 2022 contract, another 38 Sustina EMUs were ordered for the second phase. A separate fleet of seven eight-car EMUs for limited-stop NSCR services are being supplied by CAF and Mitsubishi Corp.

The first trains are now expected to start providing limited revenue services on the Valenzuela – Malolos section by the end of 2027.

Now expected to cost an estimated 873.6 billion pesos, the 147-kilometer, fully elevated standard-gauge NSCR will ultimately link Clark to the north of Manila with Calamba in the south, via Tutuban and Blumentritt stations in the heart of the sprawling conurbation. When complete, the commuter rail line is expected to carry 800,000 passengers per day.

[RAILWAY GAZETTE INTERNATIONAL](#), August 27



G Class No. 7006 approaches the Flinders Street terminus on Elizabeth Street working a Route 59 service on the first day of public operation.
Philip Mollis photo

representatives, contributed to the design of the fleet.

The contract includes 15 years of maintenance, which will be undertaken at a purpose-built depot and stabling facility at Maidstone on Route 82. Built by a John Holland-led alliance, the depot was completed in mid-2025 and is initially being used for commissioning the new trams following delivery. The first cars are being introduced on routes 57, 59 and 82, operating from the existing depot at Essendon. Around 50 trams are expected to be deployed on these services, with the other 50 being allocated to routes 12, 48 and 58.

[RAILWAY GAZETTE INTERNATIONAL](#), August 4

MELBOURNE, AUSTRALIA

Next Generation Tram Enters Service

The first of 100 Next Generation Trams being built for use in Melbourne have entered service on routes serving the north-west of the city. Ordered by the Victoria state government under an A\$700 million contract awarded in 2022, the G class trams are being built at Alstom's Dandenong plant with more than 65% local content.

The three-section 100% low-floor vehicles are 25 meters long, with capacity for up to 150 passengers including 48 seated. They are a development of the former Bombardier Flexity 2 design, but with pivoting outer trucks rather than fixed trucks. They have four powered axles driven by 105 kW Škoda FCX traction motors, giving a maximum speed of 80 km/h, and are equipped for regenerative braking.

Shorter than the 33-meter-long E class cars introduced from 2013, the G class vehicles are intended to replace high-floor Z and A class trams on less heavily trafficked routes. As well as offering a higher capacity and better accessibility, the new vehicles will provide improved passenger comfort than the 1980s-built vehicles they are replacing. An extensive consultation process with more than 1,000 stakeholders, including disability groups, drivers, the Public Transport Users Association and other passenger

EMU Follow-On Order

The Victoria state government has exercised its option to order a further 25 X'trapolis 2.0 electric multiple-units from Alstom for use on the Melbourne suburban network.

The €270 million contract announced by Alstom on August 4 follows an initial order for 25 placed in 2021, bringing the total fleet on order to 50 trains. The first of the initial batch entered passenger service in May, and further deliveries are continuing. The state government allocated A\$674 million in its 2026-27 budget for the purchase of additional rolling stock.

The six-car X'trapolis 2.0 EMUs are derived from Alstom's Adessia commuter rail family, and have been developed in partnership with the Victorian Department of Transport & Planning to replace life-expired EMUs dating from the early 1980s. Each open-gangway EMU can carry up to 1,225 passengers, and also provides 20 dedicated wheelchair spaces, as well as pram, bike and mixed-use areas. The trains have wide doorways and semi-automated ramps for accessible boarding, tactile signage, assistive hearing technologies, and an improved passenger-driver interface.

The trains are being assembled at the company's plants at Dandenong and Ballarat, meeting a requirement for at least 60% local content. The order for the additional trainsets is expected to secure hundreds of skilled manufacturing jobs in Victoria and across the broader supply chain.

[RAILWAY GAZETTE INTERNATIONAL](#), August 7

MONTEVIDEO, URUGUAY

Revised Tram Network Proposals

Private-sector proposals for the development of a five-route tram network linking Montevideo and Canelones have been presented to the government by a Stadler-led consortium.

The plans submitted to the Uruguayan presidential board on July 15 envisage the network being developed through a public-private partnership. The first phase would see two lines built at an estimated cost of US\$787 million.

The consortium of Stadler Rail Valencia, Stiller and Saceem had previously prepared plans for a single 35-kilometer route running from central Montevideo to Ciudad de la Costa and El Pinar along the Avenida Italia. This is similar to Line 1 of the current proposals. Although a previous administration had favored bus rapid transit as its preferred option for the Avenida Italia corridor, the government, led by President Yamandú Orsi which came to power on March 1, has indicated that it supports the light rail alternative and would like to see it completed before the end of its term of office.

Following more detailed feasibility studies, the consortium has now put forward more extensive proposals for five light rail corridors to be developed in phases. These are:

- Line 1: Plaza Independencia – Av Italia – Aeropuerto – Costa Urbana Shopping – El Pinar
- Line 2: Plaza Independencia – Av Italia – Av Luis Alberto de Herrera – 8 de Octubre – Intercambiador Belloni – Zonamerica Technology Park – Airport
- Line 3: Ciudad Vieja – Estación Central
- Line 4: Buco – Sayago
- Line 5: Estación Central – Las Piedras

The estimated US\$787 million cost of the first phase includes construction of the first two routes, including civil works, tracklaying, rolling stock, staff training, the depot and workshops and the fare collection system. Stadler would supply an initial fleet of 30 Citylink trams with capacity for up to 270 passengers each.



Rendering of tram car for Montevideo. Stadler

Line 1 would run for 32.6 kilometers between Plaza Independencia and Ciudad de la Costa via the airport, serving 28 stops. Line 2 would be 13.8 kilometers long with 20 stops;

it would share the initial 7.3-kilometer section through the city center with Line 1 before diverging to serve the major bus interchange at Belloni. Both lines could be extended in subsequent phases, with Line 1 continuing to El Pinar and Line 2 to the airport via the Zonamerica technology park.

The promoters envisage a 25-year concession, allowing three years for construction and 22 for operations and maintenance. However, Stadler's representative for Paraguay and Uruguay told local media that the company did not expect to remain involved in the operating phase, once it had helped to deliver the project. Instead, it would help to train up a local operating company to run the network.

[RAILWAY GAZETTE INTERNATIONAL](#), August 4

MUNICH, GERMANY

Second Cross-City S-Bahn Tunnel

The first tunnel boring machine (TBM) for the construction of Munich's second S-Bahn crossing has been presented by manufacturer Herrenknecht.

Named "Donna Maria" in a vote by local residents, the TBM is scheduled to start boring an initial three-kilometer section of emergency access tunnel on September 17. This will be followed by the seven-kilometer main drive, for which work is expected to begin in 2028.

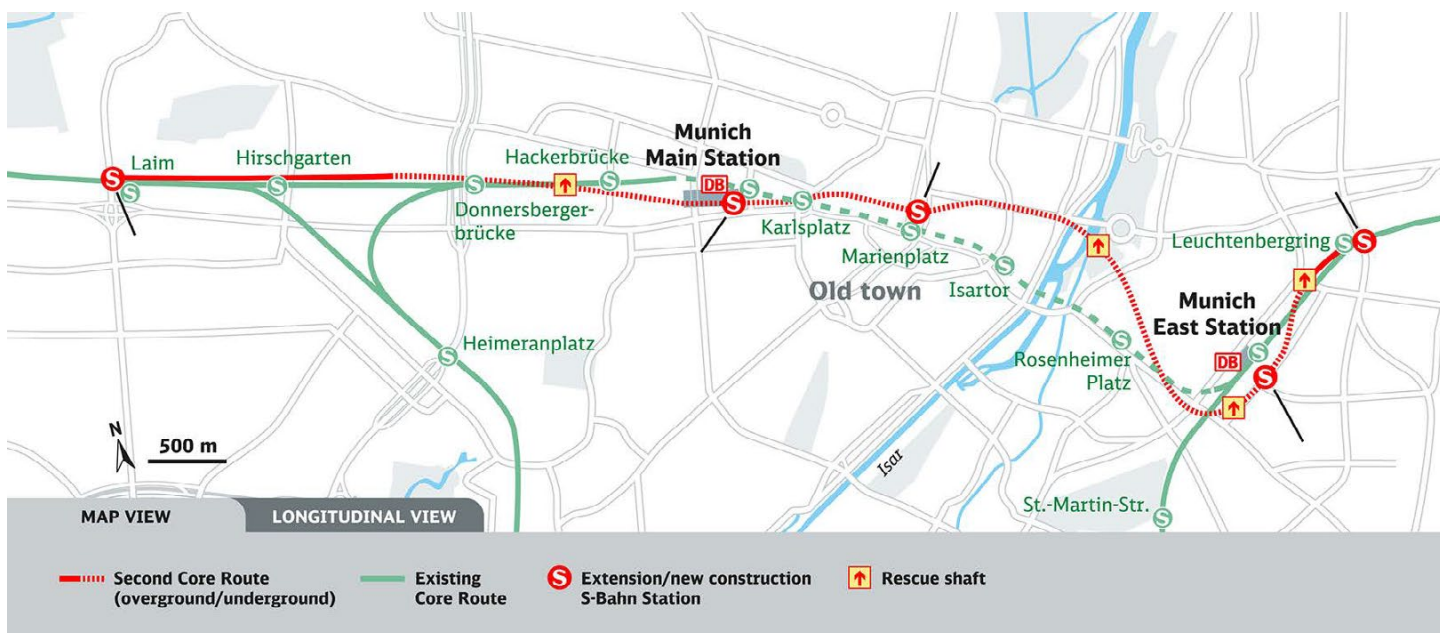
Comprising two single bores of 6.4 kilometers, and a total of 600 meters of cut-and-cover sections at the two portals, the second S-Bahn line will largely run parallel to the existing east-west tunnel between Laim in the west and Leuchtenbergring in the east. It will be accompanied by the emergency tunnel, meaning three bores will be needed along the alignment overall.

The cross-city tunnel will form the principal element of the second Munich S-Bahn program, on which works began in April 2017. In total, 11 kilometers of new alignment will be required. Tunneling will be undertaken by the ARGE Tunnel Hauptbahnhof consortium, comprising Wayss & Freytag Ingenieurbau, the Max Bögl Group, Ed Züblin and Bauer Spezialtiefbau. The Herrenknecht TBM is 178 meters long, weighs 700 tons, and has a diameter of five meters. The tunnels for the second S-Bahn crossing will be located at a depth of around 40 meters.

The launch of work at Ostbahnhof station in October 2025 means that construction is now in hand on all the sections of the corridor. Laim and Ostbahnhof stations are being rebuilt, and new underground platforms will be added at Hauptbahnhof and Ostbahnhof, as well as an intermediate station at Marienhof.

The original S-Bahn tunnel in Munich opened in 1972 ahead of the city hosting the Olympic Games, but it is now reaching the limit of available capacity.

[RAILWAY GAZETTE INTERNATIONAL](#), August 14



Map of Munich's new Cross-City S-Bahn tunnel. DB InfraGO AG

NAPLES, ITALY

New Trains Enter Service

The first of Stadler's custom-built ETR300 electric multiple-units entered commercial service on regional transport operator EAV's (EAV=Ente Autonomo Volturno, or, Autonomous Volturno Authority) 950-mm-gauge Circumvesuviana network on July 28, operating on the Napoli - Volla - Baiano route.



One of the new Stadler ETR 300 sets, at Garibaldi Station in Naples. EAV photo

The entry into service of the first train marks the beginning of a long-awaited fleet renewal program. In May 2021, EAV awarded Stadler an eight-year framework agreement covering the supply of up to 40 three-car 1.5 kV DC EMUs for the

Circumvesuviana network and the provision of five years of maintenance. There was an initial firm order for 23 units. The remaining 17 units were ordered in July 2022.

A second framework agreement covering up to 60 more EMUs was signed in July 2023, with a firm order for 16 financed through Italy's National Recovery & Resilience Plan.

The three-car aluminum-bodied EMUs are 40.9 meters long, with a continuous rating of 1,080 kW, a maximum speed of 100 km/h and a capacity of 377 passengers including 90 seated. The trains are being manufactured at Stadler's Valencia plant. The first set was delivered to Napoli in September 2024 and officially unveiled the following month. Dynamic testing on the network began in January 2026, and the entry into service follows the granting of authorization by the safety agency ANSFISA. The operator has now taken delivery of 12 units, which are expected to be in service by the end of 2026.

[RAILWAY GAZETTE INTERNATIONAL](#), August 4

PARIS, FRANCE

Tram-Trains Ordered

Greater Paris area transport authority Île-de-France Mobilités has awarded CAF a contract worth more than €150 million for the supply of 15 tram-trains for route T13. The order announced on August 26 includes spare parts, and there are options for additional vehicles.

T13 opened in 2022 to serve the area near the Grand Contournement Ouest ring road to the west of Paris. The 15-kilometer section from Saint-Cyr to Lisière-Pereire operates as a railway, with 25 kV 50 Hz electrification, a maximum speed of 100 km/h and the rail network's left-hand running. The 3.8 kilometers from Lisière-Pereire to Saint-Germain-en-Laye RER station functions as a tramway, with 750 V DC electrification, a speed limit of 70

km/h and the road network's right-hand running.

The 15 tram-trains from CAF's Urbos family have been ordered as part of the development of a 10.5-kilometer branch from Lisière-Pereire to Poissy and Achères, which is scheduled to open in 2028.



Citadis Dualis No. TT 504 (Alstom, 2021) is seen operating southbound (left-hand operation here) at Bailly on route T13 on April 7, 2023. This is a former railway alignment.

Alex Krakowsky photo via Urbag Electric Transit

The tram-trains will be 42 meters long and 2.65 meters wide, with seven sections and five trucks. They will be 75% low floor with 86 seats and space for 170 standing passengers. Features will include air-conditioning and dynamic information displays.

The Île-de-France Mobilités visual identity will match the line's existing fleet of 11 Alstom Citadis Dualis LRVs. Design work will be undertaken at CAF's plants at Reichshoffen in France and Zaragoza in Spain, with manufacturing at Bagnères-de-Bigorre in France.

[RAILWAY GAZETTE INTERNATIONAL](#), August 26

PENANG, MALAYSIA

LRT Systems Contract Awarded

A 3.03 billion ringgit railway systems contract for the 23.7-kilometer Penang LRT Mutiara medium capacity metro line has been awarded to a joint venture of local companies Malaysian Resources Corp (90%) and Theta Edge (10%).

The turnkey contract provides for the supply and maintenance, procurement, design, construction, testing and commissioning of railway systems, including signaling, power supply, telecommunications and ticketing equipment.

It also includes rolling stock, but its supplier has not been disclosed. The contract was announced on August 7 and has a term of five years and nine months.

Construction of the Mutiara Line was officially launched in January 2025. It will run along Penang Island from Penang South Reclamation Project Island A to Komtar in George Town, serving 19 stations.

[RAILWAY GAZETTE INTERNATIONAL](#), August 11

PORTO, PORTUGAL

Light Rail Operating Contract to be Tendered

The government has given the go-ahead for Metro do Porto to launch the procurement process for the award of the next operating contract for the light rail network, which is to run for eight years from April 2027. Porto's light rail services were operated by Transdev from December 2002 to March 2010, and have been operated by Barraqueiro since April 2010.

The next contract has an estimated value of up to €690 million. This is to be almost fully funded by Metro do Porto's own income, with €17.5 million coming from national taxes. The budget is 59% higher than the current contract, reflecting network expansion during the next period.



LRV No. MP217 (CRRC, 2023) is at the Estação Trindade terminal of Route C on March 16, 2024. Konstantin photo via Urban Electric Transit

Line G linking Casa da Música to São Bento is expected to open by the end of March 2027. The 6.4-kilometer Line H connecting Casa da Música with Santo Ovídio on Line D is to follow by the end of 2028, including a new bridge over the River Douro. Metro do Porto expects to open the 6.8-kilometer Gondomar Line in 2031, linking Estádio do Dragão with Souto in the southeast and adding nine stops. In the same year Line C will be extended from the ISMAI terminus to Muro, serving one intermediate stop. From Muro, a bus rapid transit route would run north to Trofa.

Metro do Porto services carried a record 94.5 million passengers in 2025.

[RAILWAY GAZETTE INTERNATIONAL](#), August 6

POZNAŃ, POLAND

More Trams from Modertrans

Operator MPK Poznań has ordered 10 Moderus Gamma trams from its in-house manufacturer Modertrans Poznań with an option for 20 more. The contract also covers the

supply of depot equipment and spare parts, warranty repairs and staff training for operations and maintenance. The cost of each tram is put at 16.1 million złoty (€3.74 million).

The vehicles will be similar to the 30 Moderus Gamma LF 04 AC BD vehicles which have been entering service since January 2025. MPK also has 52 older Gamma trams in operation across its network. Scheduled for delivery in 2028, the 32-meter-long, fully low-floor trams are intended to replace older vehicles, primarily Tatra and Moderus Beta cars. They will be equipped with air-conditioning, CCTV cameras, LED lighting and passenger information systems, as well as ramps to enable level boarding.



Moderus Gamma LF 04 AC BD No. 970 (Modertrans, 12/2025) is one of the newest examples of this model currently operating in Poznań. It is seen here operating on Route 3 at Ulica Podgórna on May 27.

Tomáš Kasal photo via Urban Electric Transit

The new vehicles will also incorporate diagnostic systems, and will offer improved energy efficiency, driver ergonomics, and passenger comfort features based on the experience gained from operating the existing Gamma trams.

The deal is backed by 175 million złoty of co-financing from the EU's European Funds for Infrastructure, Climate, Environment 2021–27 program. MPK Poznań said that exercising the options for more trams would be subject to the availability of further funding.

[RAILWAY GAZETTE INTERNATIONAL](#), August 10

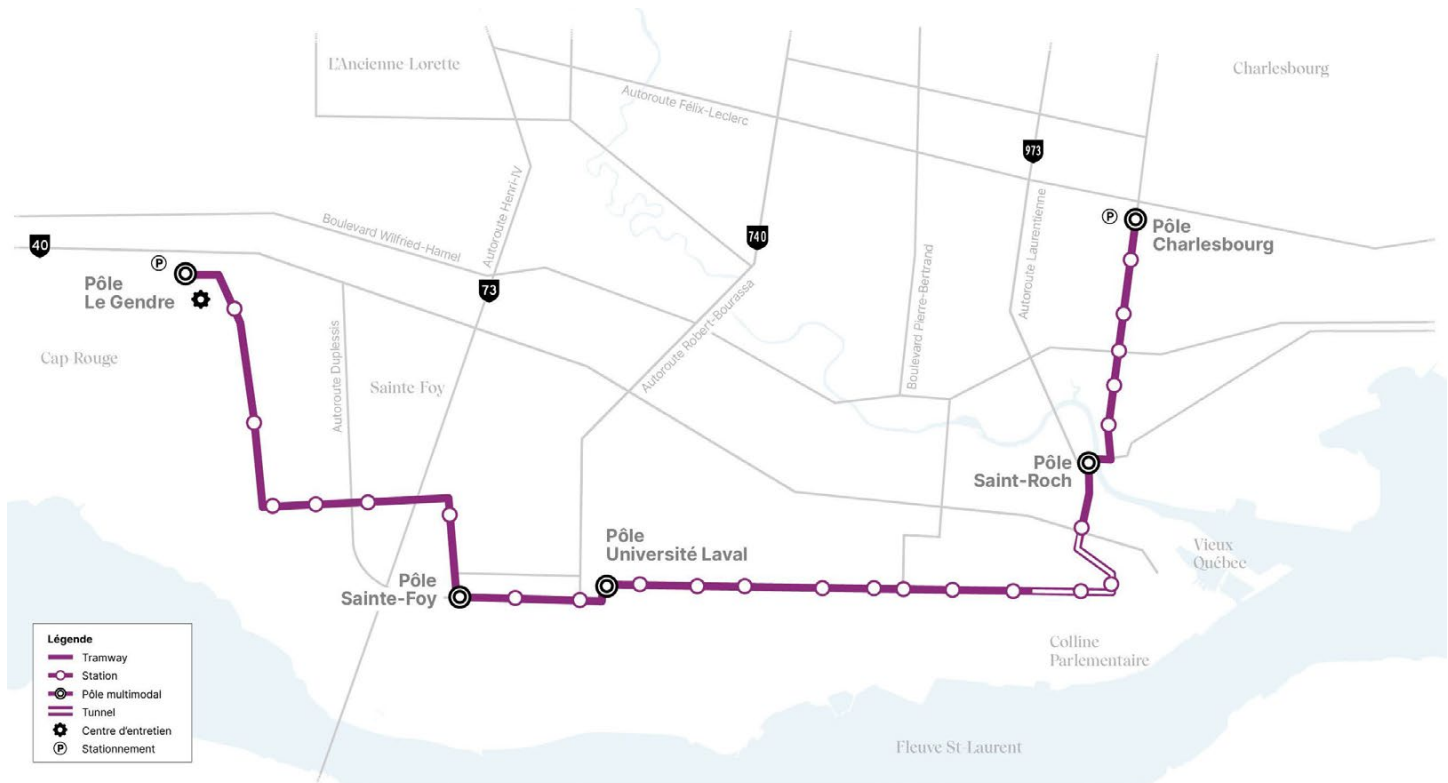
QUÉBEC, CANADA

Tramway Rail Systems Contract Agreed

The Connexion Capitale consortium of AtkinsRéalis and Siemens Mobility has confirmed that it has been selected to supply the railway systems for the TramCité light rail project in Québec City.

The first line of a planned 33-kilometer tram network would run for 19 kilometers from Le Gendre to Charlesbourg, via Sainte-Foy, Université Laval, Parliament Hill and Saint-Roch with 29 stops and a two-kilometer underground section. A fleet of low-floor trams 35 to 40 meters long using overhead and battery power is planned. The line is expected to open in 2033, with a capacity of 75,000 journeys per day by 2041.

(Below) Map of Québec's proposed tramway. CDPQ Infra



Under the partnership, Siemens Mobility and AtkinsRéalis will manage rail systems integration, signaling, communications, electrification and project delivery. The technical scope includes oversight for testing and commissioning of the network and long-term maintenance.

Public infrastructure developer CDPQ Infra has been leading the project on behalf of the province of Québec since December 2024, following the collapse of a previous light rail scheme led by the city. Earlier this year, it finalized a civil works package with the Tram Alliance consortium, made up of Construction Kiewit and EBC Inc, supported by WSP, Artelia, CIMA+ and Régis et Richez Associés.

AtkinsRéalis and Siemens Mobility say that a Progressive Design Build model is being used to create a co-development phase focused on refining the technical options for the tramway, the project schedule, final pricing and the establishment of clear performance and delivery parameters prior to full delivery.

[RAILWAY GAZETTE INTERNATIONAL](#), August 3

SHANGHAI, CHINA

First Trains Delivered for Metro Line 22

CRRC Zhuzhou Electric Locomotive has delivered the first batch of seven trainsets for Shanghai's metro Line 22, which is scheduled to open by the end of this year. A total of 40 three-car trainsets have been ordered for Line 22 in what is the metro operator's first rolling stock contract to include a long-term maintenance agreement.



Delivery of first metro car for Line 22. CRRC ZELC

All vehicles are powered, and the trainsets feature silicon carbide auxiliary converters and oil-free air compressors to improve energy efficiency while reducing maintenance requirements. The trains will have a maximum speed of 120 km/h using Grade of Automation (GoA) 4 unattended automation operation. They support automatic coupling and uncoupling in service, allowing train lengths to be adjusted according to passenger demand.

The exterior and interior styling draws inspiration from

Chongming Island's natural landscape and Chinese cultural heritage, with motifs representing the island's terraced fields and reed beds.

Line 22, formerly known as the Chongming Line, will be Shanghai's first metro route to cross the River Yangtze. It will form a 43-kilometer-long route linking Pudong's Jinji Road station to Yu'an on Chongming Island via Changxing Island, with 41 kilometers of the line being built underground. It will have eight stations and the longest river crossing on a Chinese metro network.

An extension beyond Jinji Road is planned.

[RAILWAY GAZETTE INTERNATIONAL](#), August 13

SINGAPORE

Cross Island Line Phase 3 Progress

The Land Transport Authority has announced the alignment and station locations for Phase 3 of the Cross Island Line metro project, which will extend the future line by 10 kilometers from station CR19 in Jurong Lake District to CR23 at Gul Circle.

On July 31, LTA said commuters traveling to and from the western parts of Singapore can expect time savings of up to 50 minutes once the line is completed. Two of the four underground stations on Phase 3 will be interchanges, with station CR21 connecting commuters to the Jurong Region Line and CR23 connecting to the East-West Line.

A second CRL depot of approximately 23 ha will be constructed at the former Raffles Country Club site. This will be co-located with a multi-storey bus depot. Construction works for CRL3 are expected to commence in 2027, for opening by the late 2030s.

The CRL will be Singapore's longest fully underground MRT line at around 67 kilometers long when completed. Construction works for the 29-kilometer Phase 1 with 12 stations are in progress and expected to be completed by 2030. The seven-kilometer CRL-Punggol Extension with four stations is targeted for completion in 2032. The 15-kilometer CRL Phase 2 with six stations is targeted for completion in 2032. Works are also underway for a six-kilometer extension from CR2 station to CR1/TE32 station at Changi airport Terminal 5.

CRRC Qingdao Sifang and Singapore CRRC Sifang Railway Vehicles Service are supplying 44 six-car automated trainsets, and there is an option to order up to 11 more to support future ridership growth. The line is expected to have a ridership of at least 600,000 passengers per day in the initial years, growing to one million in the longer term.

[RAILWAY GAZETTE INTERNATIONAL](#), August 14

Jurong Line Train Testing

One of the 62 three-car trainsets that Hyundai Rotem is supplying to operate Singapore's Jurong Region Line is now undergoing commissioning trials at Korea Railroad Research Institute's test track in Osong. The vehicle is carrying out test runs on sharp curves and steep gradients. The vehicles are being built at Hyundai Rotem's Changwon plant under a S\$416.5 million contract signed in February 2020.

The first train arrived in Singapore in September and another six have now been delivered. These are undergoing thorough system integration tests at the Tengah Depot of the Jurong Line. The vehicles have wide doorways and an automatic track inspection system for detecting and diagnosing rail faults in real time.



Train set No. 30031, destined for Singapore's Jurong Line.
Hyundai Rotem photo

The 24-kilometer elevated route will be operated by a joint venture of SBS Transit and RATP Dev Asia Pacific for nine years with an option for two more. The 10-station first phase southwest from Choa Chu Kang on the North South Line to Bahar Junction is planned to open in 2027.

[RAILWAY GAZETTE INTERNATIONAL](#), August 27

SOFIA, BULGARIA

Metro Line 3 Extension Opens

The opening of a three-kilometer eastern extension of Sofia metro Line 3 on August 14 is expected to reduce road traffic in the local area by up to 25%, according to operator Metroliten EAD. The extension runs northeast along Vladimir Vazov Boulevard from Hadzhi Dimitar to the Levski residential district, adding three stations. It takes the total length of the capital's metro network to 55 kilometers with 50 stations.

Of the new stations, that serving the Georgi Asparuhov Stadium has a distinctive interior reflecting the colors associated with the nearby stadium; this commemorates the Bulgarian football legend Georgi Asparuhov who died in a road accident in 1971. The Levski terminus, named after General Vladimir Vazov, incorporates a 110-space park-and-ride facility.

Completed at a cost of €144 million, the extension project was financed from Bulgaria's National Recovery & Resilience Plan. Construction was divided into three lots:

- Lot 1: General Vladimir Vazov to Besarabia, built by Monolit Sofia
- Lot 2: Besarabia to Georgi Asparuhov Stadium, built by Trace Group



Platform level of the new Georgi Asparuhov Stadium station on the Line 3 extension. Sofia Metropolitan photo

- Lot 3: Georgi Asparuhov Stadium to Hadzhi Dimitar, built by GP Group

The contracts were signed in autumn 2021, and construction officially began on March 21, 2022. Siemens Mobility has supplied the CBTC train control and management systems under a 29.9 million leva contract signed in September 2021. The Simetro consortium of Siemens Mobility and Newag has also supplied four additional Inspiro trainsets to expand the Line 3 fleet and operate the longer route.

Work is underway on the construction of a six-kilometer six-station branch of Line 3 from Shipka Street through Geo Milev and Slatina to Tsarigradsko Shose, with completion currently targeted for 2027. Simetro was awarded a contract in 2023 to supply a further eight trainsets as part of this project.

[RAILWAY GAZETTE INTERNATIONAL](#), August 19

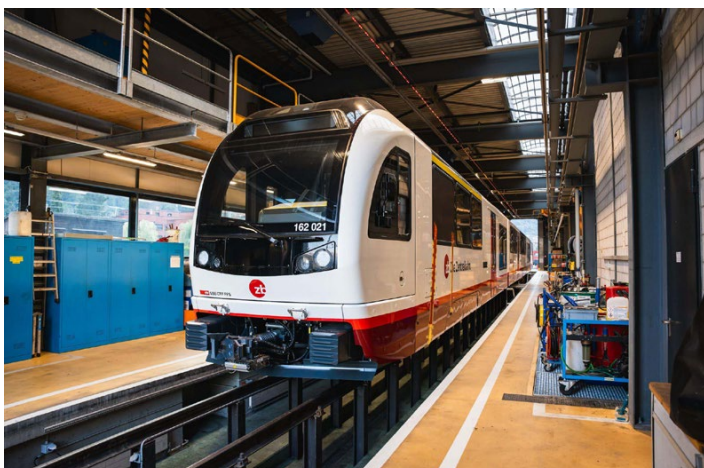
SWITZERLAND

New EMUs for Zentralbahn

Meter-gauge operator Zentralbahn has taken delivery of the first of 10 latest-generation Stadler FINK electric multiple-units. The latest Flinke, innovative niederflur-komposition (fast innovative low-floor train) EMUs were ordered in two batches which are being produced together. The first was delivered on a transporter wagon from Stadler's plant in Bussnang to Meiringen overnight on August 12-13.

The new EMUs are similar to ones previously delivered to Zentralbahn, with a small number of differences and adaptations to meet new regulatory requirements. The approval and commissioning process will assess handling, braking performance, functioning of the Riggensbach rack-and-pinion and adhesion drive systems, the controls and the train protection system.

The first unit from the order is expected to enter traffic with the December 13, 2026 timetable change, operating on a half-hourly service which is being introduced between Lucerne and Engelberg. The remaining nine FINK units will then enter service in subsequent weeks.



The first of the new Class 162 EMUs, No. 021. Stadler photo

The three-car 15 kV 16.7 Hz EMUs have 111 seats in second class and 17 in first class. Each trainset takes around 10 months to manufacture.

Stader is also to supply Zentralbahn with a further seven ADLER (Alpiner, dynamischer, leiser, eleganter, Reisezug; Alpine dynamic quiet elegant train) ABeh150 EMUs for use on longer-distance services from the end of 2027. These will provide additional capacity by 2030 to handle increasing leisure traffic including the growth of international tourism. [RAILWAY GAZETTE INTERNATIONAL](#), August 17

TORONTO, CANADA

Tunnel Construction Contract Signed

The Pape North Connect joint venture has signed the Pape Tunnel & Underground Stations (PTUS) construction contract for Toronto's Ontario Line with project promoters Metrolinx and Infrastructure Ontario. Pape North Connect includes Webuild, FCC Canada, Arcadis and Aecom.

A progressive design-build model is being used for PTUS, with structured collaboration among the client, designers and contractors from the earliest stages to progressively refine designs, costs and construction methodologies.

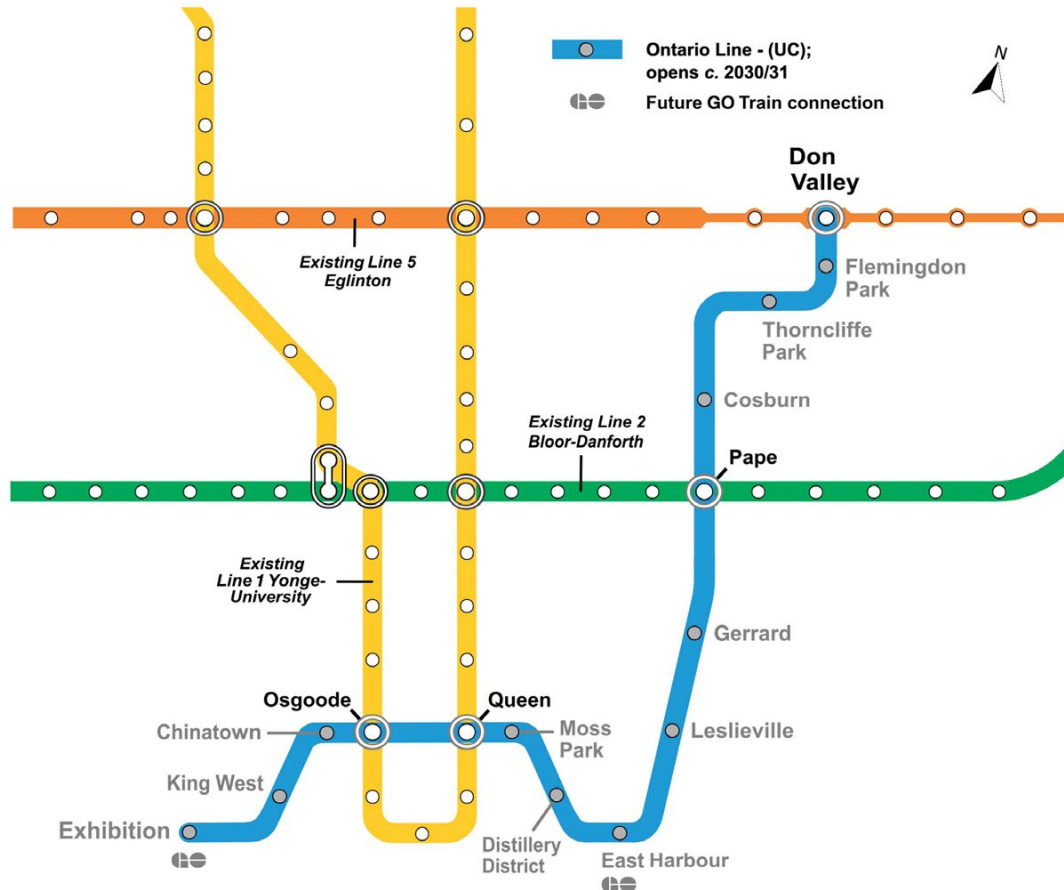
This signing of the contract for the delivery phase was announced on August 5. It follows the completion of the development and advanced design phase under a Development & Master Construction Agreement contract awarded in 2024. The target price of C\$4.32 billion is a jointly determined estimate of the total capital cost required to deliver the section of the project, providing Metrolinx with greater reliability in pricing, risk, scope and schedule.

Webuild said the PTUS package represents one of the most technically challenging sections of the entire project. It includes the excavation of two twin tunnels about three kilometers long underneath Pape Avenue between the Gerrard portal and the Minton portal/Don Valley Bridge, with two underground stations, three emergency exit/

service buildings, a crossover in the section of tunnel near Pape and Sammon Avenues and an interface with the existing Line 2.

Webuild said this will require major excavation and construction activities in one of Canada's most complex urban environments, with existing infrastructure, underground utilities and traffic both above and below ground.

[RAILWAY GAZETTE INTERNATIONAL](#), August 11



(Left) Map of the Ontario Line. Transportfan70 via Wikimedia Commons

Paul's ERA Bookshelf

By Paul Grether (ERA #6933, Photographs by the author)

Interurbans to Pittsburgh — The Story of the Harmony Route and The Butler Short Line by William M. Fronczek, Jr. M.D., Central Electric Railfans Association, Chicago, Illinois, 2026, hardcover, 146 pages. ISBN 978-0-915348-55-8. Heavily illustrated text with back-and-white pictures, maps, and tickets and other ephemera. Several appendices include maps for the major cities along the lines, equipment rosters and detailed end note references by chapter. The beginning features a family tree of the various corporations involved with the lines.

Dr. Fronczek is a longtime volunteer and contributor to the Pennsylvania Trolley Museum (PTM) located outside of Pittsburgh, Pennsylvania. Not coincidentally PTM is home to the only surviving car from the interurban lines, Pittsburgh Harmony Butler & New Castle 115, a 1909 product of St. Louis Car Company which was acquired by the museum in 1986 after the carbody was part of a restaurant. The museum also has snow sweeper #1 from the Beaver Valley Traction, a 1918 Maguire-Cummings product.

The book includes chapters on the initial establishment, construction and equipment of the Butler Short Line and its AC traction power system, retail magnate Russel Boggs and the establishment of the Pittsburgh, Harmony, Butler and Newcastle Railway (Harmony Route) including a lot of labor drama, the Beaver Valley extension including the Beaver River Bridge, the sale of electric power, consolidation of ownership of the lines under David McCahill, freight, local city services in the major towns and eventually replacement bus services. The text is readable and very detailed and richly illustrated throughout, with many photos and other

ephemera sourced from the PTM Archives. While mostly told in chronological order, this is not just a book of facts, Dr. Fronczek describes details of the behind-the-scenes business decision-making, incidents, politics, economics and other factors impacting the history of the line, along with detailed technical facts and figures. Also included are details of the “what-if” scenarios of seriously considered extensions into eastern Ohio.

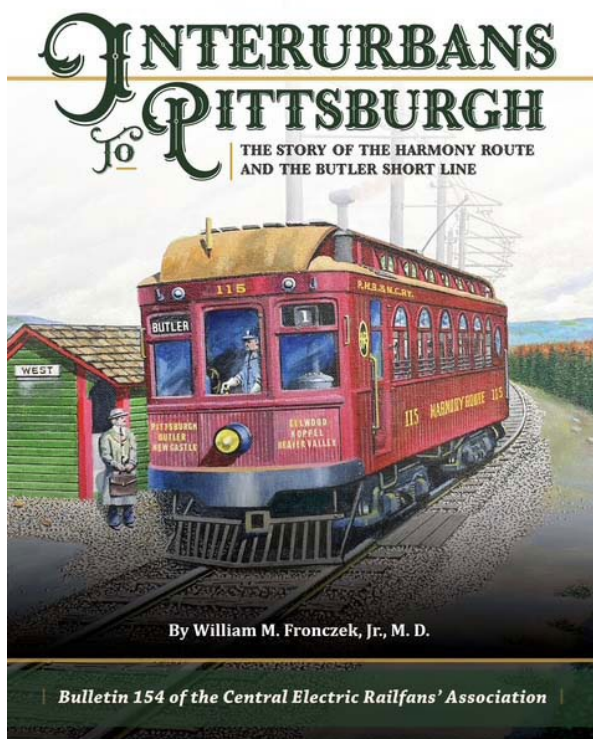
The final chapter provides an interesting overview of the history of alternating current (AC) in railway electrifications across North America which is an interesting context within which the AC system of the Pittsburgh & Butler Short Line was designed, built and operated. Proximity to the Westinghouse Electric & Manufacturing Company in East Pittsburgh no doubt influenced the decision to electrify with the pioneering AC technology.

This book appeals to those with an interest in Pittsburgh area electric railway history, an interesting example of the boom/bust cycle of early interurban investment and operation, and colorful storytelling from the era of the early twentieth century. Dr. Fronczek speculates that if the lines had survived the depression they would have been incorporated into the Pittsburgh Railways Interurban network like the Washington and Charleroi lines were. With the major suburban growth in the North Shore of Pittsburgh that followed World War Two, a truncated couple of lines would have meant productive modern day legacy light rail service to the North Shore, just like the South Shore has today. I agree with Dr. Fronczek.

Links to book information:

www.libib.com/u/grether?solo=167070730

Further reading: Information on Pittsburgh Harmony Butler & New Castle car No. 115 in the collection of the Pennsylvania Trolley Museum - <https://pa-trolley.org/collection/pittsburgh-harmony-butler-new-castle-railway-115/>



Building the New York Subway System, A Photographic Journey

Construction Route No. 16 — Part 6

By Jeff Erlitz (ERA #3997)

This month, we continue with Construction Route No. 16, the IRT Jerome Avenue Line. This group is from April and September of 1916.

These photographs are in the Subway Construction Photographs Collection of the New York Transit Museum via the New-York Historical Society.



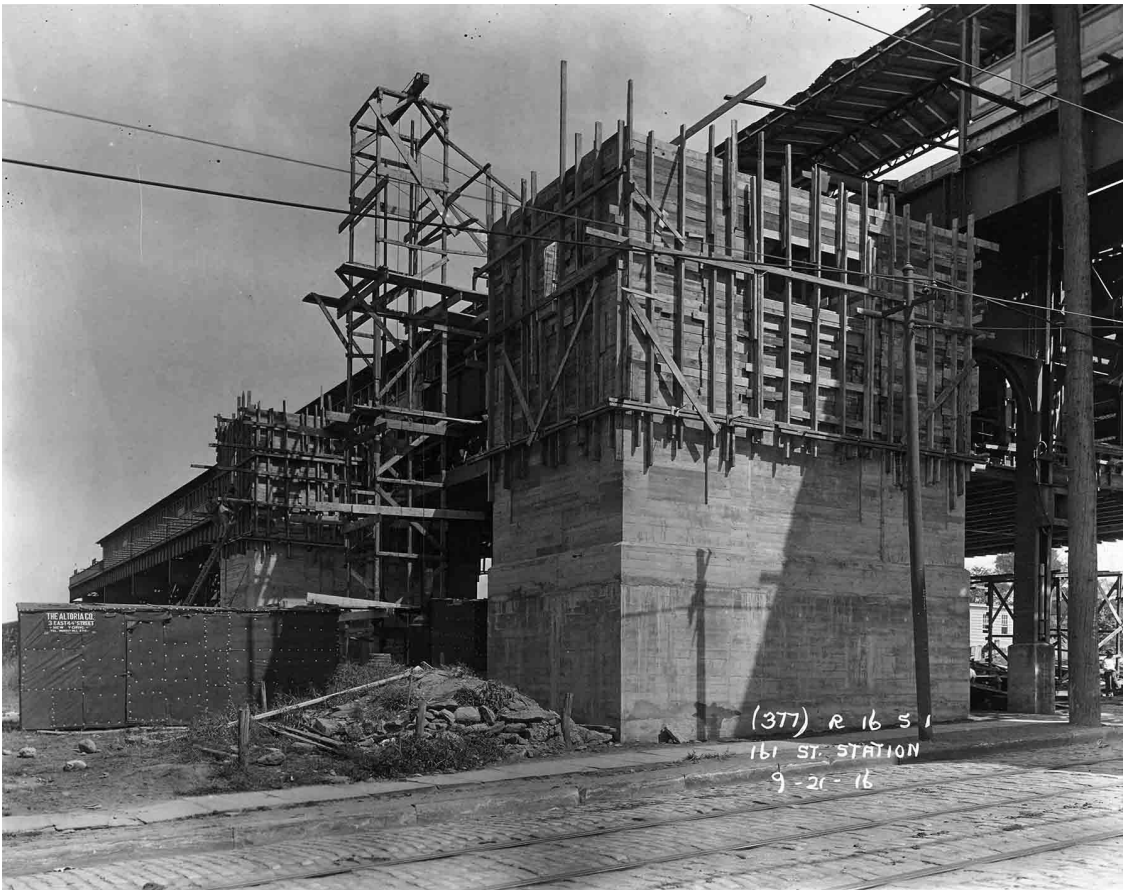
View northeast of the 183rd Street station on April 19, 1916. The photographer is standing on the north side of Buchanan Place a bit west of Jerome Avenue. The grade rises rapidly west of Jerome so he is almost level with the mezzanine, on the left side of this photo. Quite a bit of the outer wall, sans windows, has been installed along the southbound platform.

Charles Manchester/PSC photo



Same day as the above photo, we are looking north along the southbound platform at Kingsbridge Road Station. The Kingsbridge Armory, also known as the Eighth Regiment Armory, was built between 1912 and 1917 and was designed by the firm of Pilcher & Tachau. It is reputedly the largest armory in the world. The wood walls on the outer edges of the platforms are almost complete. Note the two pieces laying on the platform in the foreground.

Charles Manchester/PSC photo



This, and the remaining three images, were all taken on September 21, 1916. Last month, we showed you the bare steelwork for the street stairs at 161st Street and River Avenue. By this date, the stairways on the west side of River Avenue were almost completely encased in concrete. The view is looking northeast, from the south curb of 161st Street.

Pierre P. Pullis/PSC photo



On the east side of the structure, the concrete work around the street stairs has not progressed as far. Looking northwest from the south curb of 161st Street.

Pierre P. Pullis/PSC photo



Looking northeast along the southbound local trackway and platform at New York University (Burnside Avenue) Station. This station is different in that the mezzanine, the roof of which we see here, is not located over the cross street for which the station is named. The center of the mezzanine is roughly 175 feet south of the centerline of Burnside Avenue.

Pierre P. Pullis/PSC photo



A very interesting view of Bedford Park Boulevard Station. The view is looking basically west from the west side of Jerome Avenue and south side of Bedford Park Boulevard. The graceful driveway leading to the front doors of the station building is long gone, having been replaced with a gas station on this corner. The wall opposite the entrance doors was removed and replaced with a very wide set of stairs down to the south sidewalk of the boulevard.

Pierre P. Pullis/PSC photo

Travels with Jack May

France 2018 — Part 2

By Jack May (ERA #2275, Photographs by the author)

I woke up early on Tuesday, August 14 without the slightest feeling of jet lag, anxious to continue riding and photographing the tramways of Paris. Karl-Heinz was also hot to trot and as soon as we finished breakfast, we were on the road (I mean on the rails) with our cameras and maps. We rode Métro Line 5 from Gare du Nord to Place d'Italie (its end point) and then transferred to Line 7 to get to Villejuif-Louis Aragon, the terminal of one of the rapid transit line's two branches, but more importantly, the starting point of tram Line T7 (see <http://www.urbanrail.net/eu/fr/paris/paris-map-giant.png> again).

The weather was overcast, so we rode out to the end of the line at Athis-Mons/Porte de l'Essonne without stopping for photos. The T7, which was opened in 2013, is seven miles long and has 18 stations. With 19 Alstom Citadis 302 cars on its roster, the route's inner portion was very cleverly sandwiched through an existing street pattern, but appeared to be occasionally subject to red traffic signals at various points where the cars do not have priority. Further on, the line has some trackage through partially undeveloped areas, albeit with a few right-angle turns that limit speed. It was still an enjoyable ride.

The line's endpoint is at Orly Airport, which has been served since 1991 by Orlyval, an automated rail line that connects with RER Line B at Antony station. Unfortunately, this VAL system line, similar to the distribution operation at O'Hare Airport in Chicago, charges a high fare and does not accept most passes, such as Mobilis and Navigo. But its route is superior to that of the T7-Métro combination, which cannot get passengers to and from the center of Paris very quickly. Thus, it is doubtful that a substantial number of tram riders to the airport are travelers, but more likely employees. (Author's Note: VAL technology is used for metro operations in cities including Torino, Lille and Toulouse, where tramways are also in the mix of local transit. Orly will eventually be served by an extension of Métro Line 14 and a new Line 18, both parts of the future Grand Paris Express project, which calls for an additional 125 miles of high-speed automated rapid transit. See <https://www.societedugrandparis.fr>)

The T7 runs through a tunnel under some runways just beyond the Orly station, and to our surprise (although good research would have probably indicated this), we ended up adjacent to the Musée Delta (<https://museedelta.wixsite.com/musee-delta>), whose most noted feature is its possession of both a retired Concorde supersonic aircraft and a Mirage fighter jet, which both capitalized on the Delta Wing (as opposed to Delta Airlines). This enabled us to get some photos of the trams sailing past the iconic airplanes.

On the other side of the airport, the line has long stretches of grassed-in trackage that made a good background for our



The southern terminal of Paris tram Line T7 at Athis-Mons Porte de l'Essonne, just south of Orly Airport and adjacent to the Musée Delta.

photos, unfortunately still without shadows from a sun that seemed to tantalize us, getting close but unwilling to break through the clouds.

We gradually worked our way back to Porte de Thais, where the T7 briefly runs alongside a busway, but then reversed direction again and headed to La Fraternelle, where we transferred to an orbital branch of RER Line C.

It was now getting brighter and we both wanted to take photos at the tunnel portal on Line T6, so we rode to Viroflay R. G., where we could transfer to the rubber-tired tramway. It took us just under an hour, as we had to ride three commuter trains to accomplish the journey: First RER Line C (MONA*) for 11 minutes to Massy Palaiseau, where we had a six-minute connection to an RER Line C (CIME*) train to Versailles Chantiers (22 minutes), for another transfer after 12 minutes to an SNCF (PORO*) train bound for Montparnasse, where we backtracked one station (three minutes). It turned out that the MONAs and CIMEs were through routed, but we still had to wait for time. I should have mentioned in Part 1 that the train I rode from Viroflay R. D. to La Défense was a PASA.

*(Author's Note: All Paris commuter trains carry a four-letter designation code that defines their route, terminals and intermediate stopping pattern. It is displayed on the front of each train (using LEDs), as well as in timetables and on electronic annunciator boards at stations. The codes are usually constructed to be pronounceable so they can easily be remembered by passengers. In a sense they work just like the marker lights formerly used on New York subway trains (green-green for Lexington Avenue express to Woodlawn) but upgraded to serve a much more complicated route network.)

The photos of the T6 were shown in Part 1 of this report.



(Above and below) Two views of the T7 running through fields between the Helen Boucher and Caroline Aigle stops near the southern end of the line. Lots of blue sky, but not behind the photographer.



old overcast that had graced the mornings on the preceding days. Nevertheless, that would not interfere with the enjoyment of our tram riding.

Our first task of the day was to get over to Porte de Chapelle to see if there was any testing going on along the next segment of the T3b circumferential tramway, which was being pushed westward to Porte d'Asnieres. We could have ridden to Chapelle by Métro, specifically Line 4 to Marcadet Poissonniers and then Line 12, but we thought we'd like to ride some of the tram line, so instead we took Métro Line 7 to Porte de Pantin. We enjoyed the seven-stop ride (and of course thought of "the first lady of song" when our tram paused at the Ella Fitzgerald station). Upon arrival at our destination, we saw a certain amount of work still had to be accomplished before live testing could begin. And now we know it was achieved in the next three months, as the eight-stop, 2½-mile extension opened on November 24, 2018. The entire T3 is now 16½ miles long and has 51 stations. It is called the tramway des Marechaux because it follows the Boulevards of the Marshals, a series of wide thoroughfares that encircle Paris along the alignment of a former wall that was completed in 1850 but only lasted for 85 years. (I suspect it may have been envisioned as the Maginot Line of its day.)

Sixty Citadis 402 trams provide service on the extremely

(Above and below) Two views of the Musee Delta's most striking artifacts, a supersonic Concorde aircraft and a Mirage fighter jet. The Concorde, capable of cruising at a speed of 1,338 mph, faster than the speed of sound, is painted for British Airways on one side and Air France on the other, the owners of 12 of the 20 that were built. Between 1976 and 2003 passengers who patronized the very costly service between Paris or London and New York JFK would make the trip in under 4 hours. The lower view shows an Alstom Citadis 302 tram traveling toward its southern terminal at a speed infinitely greater than the Concorde it is passing.



By the time we completed our work, there was little time for further rail activities, so we headed back to our hotel. Instead of riding Métro Line 13 and then transferring to Line 4 at Montparnasse-Bienvenue, because it was rush hour and we already had seats, we decided to continue on Line 13 to St. Lazare, from where we rode the 26 bus to a stop near our final destination. We had an excellent dinner at a bistro close by our accommodations, chicken prepared so well that I think I will seek out the restaurant on a future trip. We went to sleep early, as we knew we had much on our plates (but no leftover chicken) for our last full day in Paris.

Specifically, we wanted to see progress on what was then the forthcoming extension of tram Line T3b, and then cover the T8 and the T11 lines. The weather forecast was mostly sunny for Wednesday, August 15, and indeed we saw shadows when we woke and consumed our substantial breakfasts, but by the time we got out on the road, it was the same old, same



Just south of Porte des Thais at the La Belle Épine stop, the T7 turns sharply west to go under the Avenue de la Cité, from which this photo was taken.

successful line. With frequencies as high as every three to four minutes in peak periods, prior to the newest extension last year the daily average ridership was 150,000. A further extension along the boulevards to Porte Dauphine will be built, but it is doubtful the line will complete the circle, as future plans call for it to branch off to the west.

Porte de Chapelle was a good starting point for accessing the southern end of the T8, and after some photographs we waited for one of the many bus lines that would take us to Porte de Paris. Our activities on the two new lines — and more — will be described in the next part of this trip report.



Looking east toward what was the temporary end of the line at Porte de Chapelle, some three months before service was inaugurated on the extension of Line T3b to Porte d'Asniers. It appears the stop was relocated to this exact point.

(Author's Note: The T3b was extended again on April 5, 2024 to Porte Dauphine Avenue Foch. With this further extension of 2 miles, the entire almost-circumferential line T3 is now 18½ miles long and has 58 stations.)

(Below) Late in the afternoon of Monday, May 13, a seven-section Citadis 402 approaches Balard, near the end of its clockwise run on route T3a. These 100-percent low-floor units are the widest on all the RATP's tram routes, at 2.65 meters.



