

# HIGH-SPEED INTERCITY PASSENGER RAIL

# SPEEDLINES

JULY 2023  
ISSUE #36

» p.14

## “Investing in America”

The Infrastructure Bill positions Amtrak and rail to play a central role in our transportation and economic future.

### KEYSTONE SERVICE

Frequent daily service between New York City and Harrisburg by way of Philadelphia.

» p.4

### VIA

Canada's largest infrastructure project focused on the future.

» p. 8

### MOROCCO

HSR service between Casablanca and Tangier, operated by ONCF.

» p. 23

### CALIFORNIA

High-Speed Rail Updates

» p.29



# CONTENTS

## SPEEDLINES MAGAZINE



Buy America Certified - funded with federal grants. The Infrastructure Investment and Jobs Act (the "IIJA" more commonly known as the "Infrastructure Bill") made significant changes to Buy America requirements via the Build America, Buy America Act ("BABA").

### *On the front cover:*

*Buy America is a decades-old policy that generally requires federally funded transportation infrastructure, including rail cars, to be manufactured domestically and to use U.S.-made iron and steel. The government can waive the requirements, but President Biden has taken steps to limit waivers and has vowed strict adherence to the provisions.*

**CHAIR:** CHRIS BRADY  
**VICE CHAIR:** CHAD EDISON  
**SECRETARY:** NORMAN FORDE  
**OFFICER AT LARGE:** ANNA LYNN SMITH  
**IMMEDIATE PAST CHAIR:** JOE GIULIETTI

**EDITOR:** WENDY WENNER  
**PUBLISHER:** KEN SISLAK  
**ASSOCIATE PUBLISHER:** DAVID WILCOCK  
**PUBLISHER EMERITUS:** AL ENGEL  
**LAYOUT DESIGNER:** WENDY WENNER

© 2011-2023 APTA - ALL RIGHTS RESERVED

SPEEDLINES is published in cooperation with:  
 AMERICAN PUBLIC TRANSPORTATION ASSOCIATION  
 1300 I Street NW, Suite 1200 East  
 Washington, DC 20005

- 3 LETTER FROM OUR COMMITTEE CHAIR
- 4 PENNSYLVANIA KEYSTONE WEST PROGRAM
- 7 IN MEMORIAM
- 8 CANADA - VIA HIGH FREQUENCY RAIL
- 10 FLIRT NORDIC EXPRESS - NORWEGIAN RAILWAYS
- 13 JULY HIGH-SPEED RAIL SNIPPETS
- 14 AMTRAK STRATEGIC PLAN
- 16 SOUTH AFRICA - HSR
- 18 SPOTLIGHT 
- 19 JAKARTA-BANDUNG - INDONESIA HSR
- 20 FRA CORRIDOR IDENTIFICATION PROGRAM UPDATE
- 23 MOROCCO - AL BORAQ
- 27 FRA LONG DISTANCE SURVEY STUDY
- 29 CALIFORNIA HIGH-SPEED RAIL
- 34 LIFETIME ACHIEVEMENT AWARD





## HS&IPR *Committee & Friends*

*Congress passed a bill that suspended the U.S. government's \$31.4 trillion debt ceiling. President Joe Biden signed the bill into law on June 3 averting what would have been a first-ever default with just two days to spare. The legislation establishes budgetary caps on both defense and nondefense spending for FY24 and FY25. At this point, it is unclear what funding cuts may affect FRA programs and Amtrak. The bill rescinds the unobligated balances of remaining COVID-19 funds from numerous programs, including rescissions from Amtrak. The total allocation for the Transportation, Housing and Urban Development, and Related Agencies (THUD) Appropriations subcommittees will be critical to efforts to fund public transportation at the authorized levels of the Bipartisan Infrastructure Law. APTA is urging the House and Senate Committees on Appropriations to provide a THUD allocation that enables the subcommittees to fully fund public transportation consistent with the Bipartisan Infrastructure Law.*

*We must continue to make the business case for high-speed and intercity passenger rail service investment. As I said in my last letter and reiterate here, our challenge is to prove to the American people and their elected representatives to Congress that their trust was wisely placed. Please write to your Congressional representatives about the continued need for and importance of investment in improved passenger rail service.*

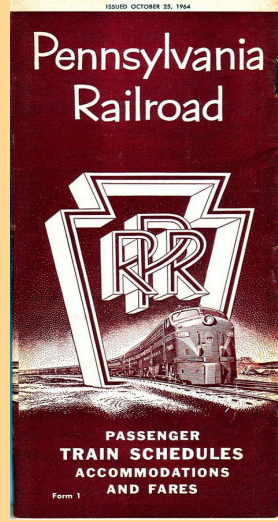
*I want to thank many members of APTA's High-Speed and Intercity Passenger Rail Committee for organizing this year's "Connecting America's Cities" High-Speed Rail Seminar. This year's Seminar highlighted the work being done to advance high-speed and intercity passenger rail through many programs being managed by the Federal Railroad Administration (FRA), including the Corridor Identification and Federal/State Partnership programs.*

*But most noteworthy, the luncheon featured Jolene Molitoris accepting a Lifetime Achievement Award from APTA recognizing her many accomplishments as a former FRA Administrator, Director of Ohio Department of Transportation and former Chair of the APTA High-Speed and Intercity Passenger Rail Committee. This issue of SPEEDLINES republishes an article celebrating the richly deserved award.*

*The recently concluded APTA Rail Conference held June 11-15 in Pittsburgh was a smashing success. APTA had over 1,500 attendees. Our committee meeting also was well attended. We had the opportunity to listen to FRA General Counsel Allison Fultz provide a report on funding opportunities and enhanced safety regulations. At a General Session, FRA Administrator Amit Bose highlighted in his opening remarks how FRA is investing in passenger rail with over 70 projects and \$16 billion in Federal State Partnership grants. I was delighted to moderate a panel on "Planning the New High-Speed Rail Era." The panel included FRA Deputy Administrator Jennifer Mitchell, California High-Speed Rail Authority CEO Brian Kelly, Andy Boyd, Senior Vice President of High-Speed Rail Development for Amtrak; Mike Reininger, CEO of Brightline; and Naohisa Kitada, General Manager, Central Japan Railway. The panel discussed the unprecedented opportunities presented by the Bipartisan Infrastructure Law and how it will help transform passenger rail development in the United States. The level of support from FRA was in evidence*

*Please enjoy this edition of SPEEDLINES. I hope to see you at the next Rail Conference in Cleveland in 2024.*

*Chris Brady*



Keystone trains go between New York City and Harrisburg, PA by way of Philadelphia. Discover new, historic destinations in three of America's oldest states: New York, New Jersey, and Pennsylvania, and dig into some of the nation's best and most diverse cultural treasures, all along one convenient route.

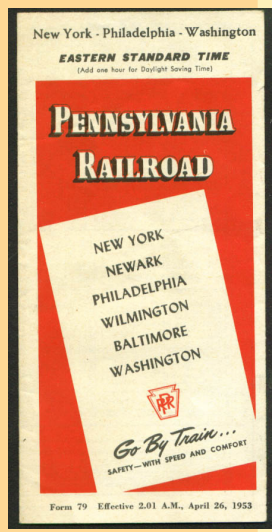
New for 2022 is the Keystone Service 638, which runs express from Philadelphia's 30th Street Station to New York, Moynihan / Penn Station with a stop in Trenton, NJ.

Penn Station with a stop in Trenton, NJ.

The Keystone Service is 195 miles long (314 km).

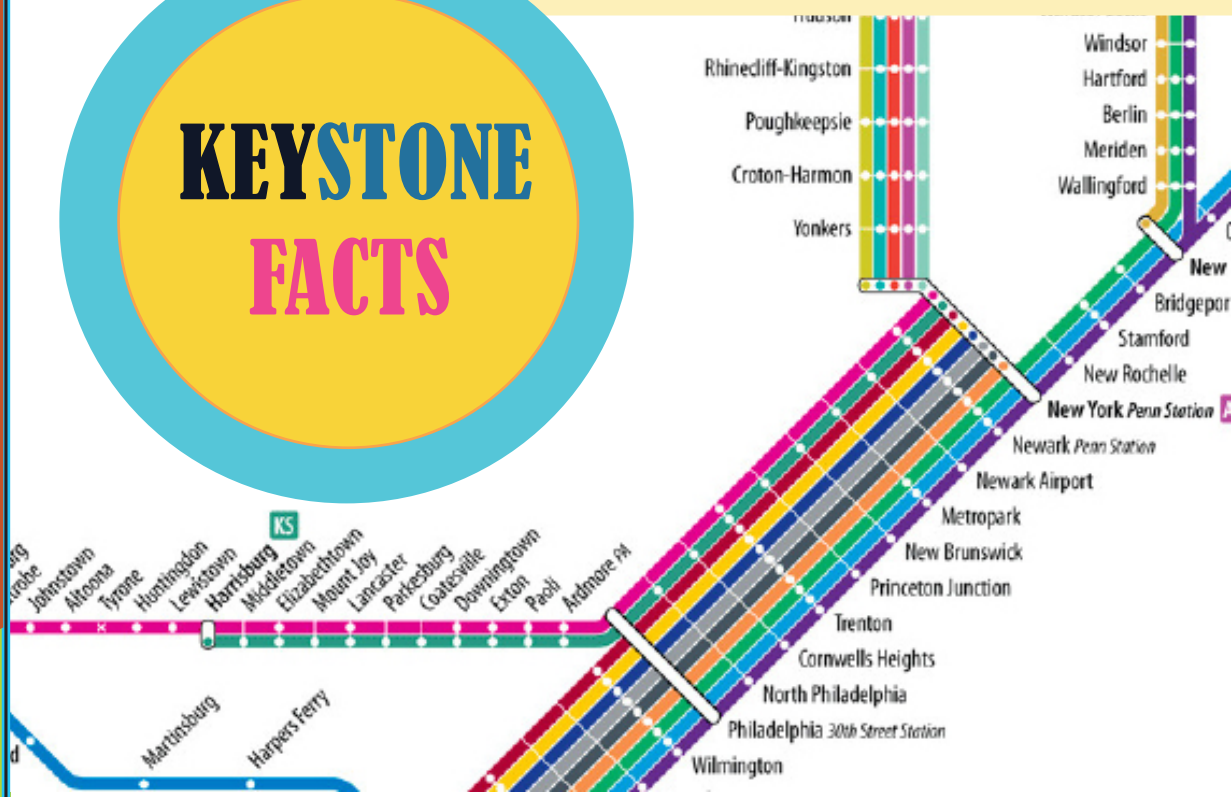
The top speed of the Keystone Service is 110 mph (180 km/h).

There are 13 daily round trips on the Keystone Service and free WiFi for passengers.



The Commonwealth of Pennsylvania has a long history of supporting intercity passenger rail with strategic capital investments and operating assistance to provide safe and reliable passenger rail transportation to millions of travelers annually. In Pennsylvania, the Keystone Service provides 13 weekday and seven weekend round-trip trains per day between Harrisburg and Philadelphia. The Pennsylvanian provides one round trip train daily from Pittsburgh to Harrisburg and then to Philadelphia and New York City.

# KEYSTONE FACTS



# PENNSYLVANIA - KEYSTONE WEST PROGRAM

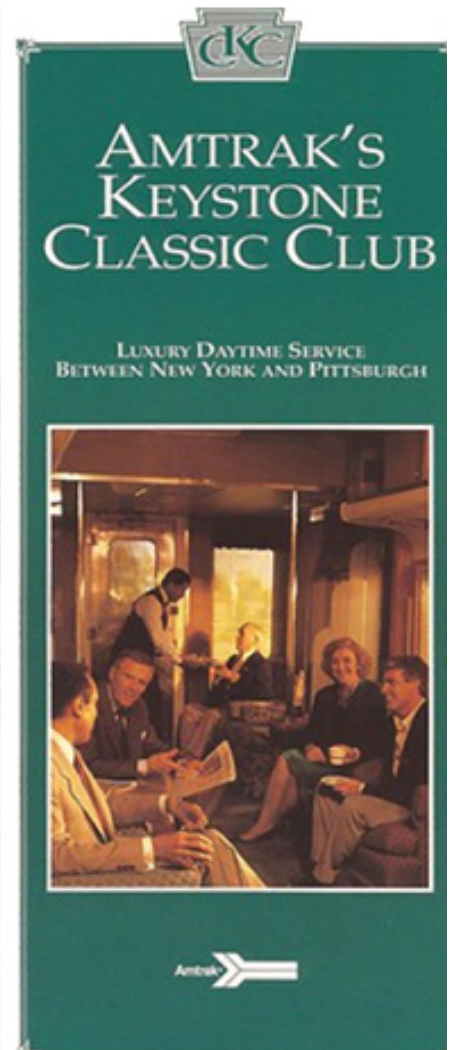
Contributed By: Ken Sislak

Pennsylvania supports two Amtrak corridor services, the 195-mile Keystone Corridor between Harrisburg and Philadelphia – New York City and the 248-mile Keystone West Pennsylvanian, which operates between Pittsburgh – Harrisburg – Philadelphia and New York City once a day.

Prior to Amtrak, the Pennsylvania Railroad operated more than 25 trains per day between Pittsburgh and Philadelphia well into the mid-1960s. At its inception in 1971, Amtrak operated three daily trains over the New York - Pittsburgh route. The Duquesne, the Broadway Limited to Chicago and the National Limited to St. Louis and Kansas City, Missouri. After the National Limited was discontinued in 1979, the Pennsylvania Department of Transportation (PennDOT) added the state-supported Philadelphia-Pittsburgh Pennsylvanian in April 1980, which in 1983 was extended to New York. Since 2005, the New York-Pittsburgh version of the Pennsylvanian has been the only Amtrak service on the Keystone West line.

The Keystone West Pennsylvanian runs between Harrisburg and Pittsburgh on Norfolk Southern's (NS) former Pennsylvania Railroad/Penn Central/Conrail main line. This is one of the heaviest-density freight routes in America. Dispatching is complicated by a 40-mile helper district with 1.8% percent grades over the spine of the Alleghenies, including the historic Horseshoe Curve. Excluding helper moves, the route handles about 45 freight trains a day. It is double track or more from Harrisburg to Altoona, and three tracks or more from Altoona to west of Pittsburgh.

Ridership on the Pennsylvanian had steadily grown over the years until the COVID-19 pandemic curtailed service. In FY 2019 the train carried 215,100 passengers. Service on the Pennsylvanian was suspended in March 2020 as part of systemwide service reductions in response to the ongoing COVID pandemic. Service resumed on June 1, 2020. As a result of service suspensions and changing travel patterns due to the pandemic, ridership in FY 2020 was reduced to 127,700 passengers. Ridership grew slightly in FY 2021 to



128,500 annual riders and in FY 2022 ridership grew again and reached 176,100 annual riders or about 81 percent of pre-pandemic levels.

The Western Pennsylvanians for Passenger Rail began pushing for increased service on the Pennsylvanian. They said there was enough demand to support three round trip trains a day between Pittsburgh - Harrisburg - Philadelphia - New York City. And they were looking at ways to increase service between Altoona and Pittsburgh. PennDOT, in cooperation with the Federal Railroad Administration (FRA) and NS, undertook the Keystone West High Speed Rail Study in 2011 to identify and evaluate the feasibility of options to reduce passenger rail travel times and increase trip frequency—without hindering the important freight service that runs on the same tracks. The Feasibility Report and Preliminary Service Development Plan were approved by the FRA in 2014. As it was a conceptual-level study, additional detailed technical investigation, analysis, and design would be required before undertaking any of the recommended actions.

Since then, Pennsylvania completed a State Rail Plan in 2020, which identified the need for a second round-trip train between Pittsburgh and New York City with one trip beginning and terminating in Cleveland. The strong local advocacy for increasing service frequencies on the Keystone West Pennsylvanian resulted in a more detailed technical analysis of a second daily round trip between Pittsburgh and New York. This was studied by PennDOT with support from Amtrak and NS in 2022. The goal of the study was to determine what improvements needed to be made to NS tracks between Pittsburgh and Harrisburg before a second daily round-trip passenger train could be operated along the route, despite the route having handled three daily

trains years earlier. PennDOT asked Amtrak what it would take to operate the second round-trip. Amtrak came back to PennDOT with a proposed timetable. PennDOT provided the proposed Amtrak timetable to NS for technical evaluation using operations simulation software.

NS conducted the capacity analysis and evaluated the impact of modified and expanded Amtrak rail service on NS traffic fluidity between Harrisburg and Pittsburgh as measured in terms of delay. NS also determined infrastructure necessary to alleviate increased delay on NS traffic and ensure Amtrak rail service delay metrics are returned to at least current levels. The NS report can be viewed at [https://www.penndot.pa.gov/Documents/Amtrak-Pennsylvanian\\_Final-Report.pdf](https://www.penndot.pa.gov/Documents/Amtrak-Pennsylvanian_Final-Report.pdf)

NS identified a program of projects that eliminated chokepoints and improved the operation of both freight and passenger trains in Pennsylvania. The proposed program of projects includes track upgrades, passenger platform improvements, siding, a third-main near Altoona and signals and other related infrastructure. NS estimated the cost of these improvements to be \$142-171 million.

The program of projects and cost estimates include:

- Adding a mainline track to the existing two tracks through the Pittsburgh passenger station at CP-Pitt, Milepost 352.5, \$12.5 million to \$18.5 million.
- Adding a universal three-track interlocking at Milepost PT 276, just west of the Johnstown passenger station, \$9.5 million to \$11.5 million.
- Installing a universal three-track interlocking at Milepost PT 257, Portage, Pa., \$7.8 million to \$9.8 million.
- Constructing a new main track for 5 miles through the Altoona area, from CP

Altoona, Milepost PT 236.8, to CP Antis, Milepost PT 232.5, \$51.5 million to \$61.5 million. This would entail upgrading interlockings at CP Altoona, CP Works, CP Homer, and CP Antis, and adding a helper pocket.

- Upgrading nine miles of an existing controlled siding, paralleling the existing double-track main, from CP Antis, Milepost PT 232.5, to CP Gray at Grazierville (Tyrone), Milepost PT 223.3, \$11.5 million to \$14.5 million. This would include installing a new universal three-track interlocking at Milepost PT 228, west of Fostoria Crossing.
- Addition of 8 miles of third main between Marysville and the Amtrak station in Harrisburg are part of the plans to improve the Pennsylvanian's route. (Dan Cupper)
- Constructing a new third main line for 8 miles between Amtrak's Harrisburg passenger station (CP Harrisburg, Milepost PT 105) and CP Banks at Marysville, Milepost PT 113, \$50 million to \$55 million. This would include restoring a third track across the 3,860-foot-long stone-arch Rockville Bridge (built in 1902 to carry four tracks) and converting the existing CP Banks interlocking to a universal configuration, capable of handling moves from any of three tracks on the west side to any of five tracks on the east side.

In June 2022, the state and NS announced an agreement for a \$200 million capacity improvement that will allow daily roundtrip Amtrak trains between Pittsburgh and Philadelphia/New York City to increase from one to two. NS will construct and maintain the infrastructure improvements. The new service is anticipated to start by 2025. NS will get \$200 million in infrastructure improvements to add one daily round trip passenger train to a line that once had capacity to operate more than 25 daily round-trip passenger trains.

# in Memoriam

*Eric Christian Peterson*

Eric Christian Peterson, a longtime rail professional, died April 21 at age 72. Born on July 11, 1950, to Allen and Dorothy Peterson in Albuquerque, NM, Eric grew up in Omaha, NE, and Torrington, WY. After earning an undergraduate degree in Political Science from Nebraska Wesleyan University and a Master of Science degree in Public Communication from Boston University, Eric began his lengthy and accomplished professional career in Denver, CO, as the Director of Public Affairs for Lutheran Medical Center. In 1981, he moved to Northern Virginia to pursue his interest in political science on the national level as a long-time staff member for U.S. Senator John W. Warner (R, VA), serving in several key roles including legislative assistant, press secretary, and speech writer. He played on the staff softball team named Warner Brothers & Sisters.

After leaving Sen. Warner's staff, Peterson went on to hold federal executive positions across multiple administrations, including senior advisor to the administrator of the Federal Highway Administration; deputy undersecretary, U.S. Travel and Tourism Administration; executive director of the U.S. Consumer Product Safety Commission; senior advisor to the administrator of the Research and Special Programs Administration and deputy administrator of the Research and Innovative Technology Administration.

Peterson also served as executive director of the Landowners Economic Alliance for the Dulles Extension of Rail (LEADER), where he worked to establish a tax district and enable development of the Washington Metropolitan Area Transit Authority's Silver Line.

Later, Peterson's career focused primarily on transportation, in particular high-speed rail. He never retired, preferring to maintain an active role shaping transportation policy as a consultant and member of several advisory boards, committees and commissions at APTA, the Mineta Transportation Institute and the Transportation Research Board. For APTA, he was a member of the High-Speed & Intercity Passenger Rail Committee and was the most recent publisher of SPEEDLINES, the committee's quarterly publication.

Peterson was a dedicated and active member of his church, St. Mark Catholic Church in Vienna, VA, where, over many years, he served as a leader on the Parish Council and Finance Committee. He led fundraising efforts for construction of the St. Mark Christian Formation Center and served actively in the liturgy as an usher and lector. Burial services were held May 19 at St. Mark Catholic Church, where he was interred in the parish's Memorial Garden.

#

# VIA HFR – VIA TGF INC.

HIGH FREQUENCY RAIL TRANSFORMING PASSENGER RAIL SERVICE IN CANADA

Contribution By: Graeme Hampshire

*Via Rail's high-frequency line would connect Toronto to Quebec City, through cities including Peterborough, Ottawa and Montreal.*



The Government of Canada is seeking a private sector partner to take an innovative and collaborative approach for the engineering design and development of High Frequency Rail (HFR). This is intended to promote innovation, drive better service for passengers, reduce risk and improve risk management and ultimately achieve better value for Canadians.

HFR is passenger rail re-imagined with improved operational performance connecting Toronto, Ottawa, Montréal, and Québec City with mainly new, electrified and dedicated tracks that extend over 621 miles (1,000 km) reaching speeds up to 125 mph (200 km per hour).

Infrastructure projects the size, scale and complexity of HFR call for Public-Private-Partnership (P3)

methods that are above and beyond the traditional, fixed-price, fixed-schedule design. As a result, the Government of Canada chose to proceed with an innovative P3 model for the HFR project. This type of integrated delivery model, with early private sector involvement in all aspects of this major project, can produce better outcomes by boosting innovation and collaboration between the public and private sectors. This approach is expected to lead to better project results and provide the best value for Canadians.

The Request for Expressions of Interest (RFEOI) published in March 2022 detailed the Government of Canada's plan to advance the project and seek feedback from experienced private sector companies. It was an opportunity for the government to provide information to industry so interested parties could prepare for the procurement process. On December 15, the Minister of Transport





professionals to enhance the expertise available to plan the HFR project.

On February 17, 2023, The Government of Canada launched a Request for Qualifications (RFQ). Once it has evaluated responses, it will invite up to three qualified bidders to respond to the Request for Proposals (RFP). The goal is to select a partner in 2024 to co-develop and optimize the project. On Tuesday, March 21, 2023, the Government of Canada hosted an information session for High Frequency Rail's (HFR) Request for Qualifications (RFQ) process at the Centre Mont-Royal in Montreal. There were two events; one in English from 9 a.m. – 11 a.m., and one in French from 1:30 p.m. – 3:30 p.m. Both events were live-streamed via Zoom so guests could choose to attend virtually if they preferred. The sessions were hosted by panelists from Transport Canada, Public Services and Procurement Canada and the HFR Technical Office. Attendees were given an overview of the procurement process and phases and had an opportunity to ask questions at the end of the sessions.

<https://hfr-tgf.ca/wp-content/uploads/2023/03/HFR.-RFQ.-Info-Session-ENGLISH-for-AODA-March-20.pdf>



Canada's High Frequency Rail project, which aims to provide improved and more accessible rail service and support long-term regional and economic growth, is advancing procurement of the project's developer partner with the selection of three consortia that will be invited to submit bids through the Request for Proposals (RFP) stage. The government of Canada will issue the RFP in September.

Following a Request for Qualifications, the final entities to be invited to bid on the project include:

*Cadence (CDPQ Infra, SNC-Lavalin, Systra Canada, Keolis Canada)*

*Intercity Rail Developers (Intercity Development Partners, EllisDon Capital, Kilmer Transportation, First Rail Holdings, Jacobs, Hatch, CIMA+, First Group, RATP Dev Canada, Renfe Operadora)*

*QConnexiON Rail Partners (Fengate, John Laing, Bechtel, WSP Canada, Deutsche Bahn)*

Government of Canada    Gouvernement du Canada



# FLIRT NORDIC EXPRESS:

*State-of-the-Art Long-Distance Train Will Soon be Running in Norway*

*The Norwegian state-owned railway company Norske tog and rolling stock manufacturer Stadler signed a contract for the manufacture and delivery of 17 FLIRT Nordic Express trains. The contract includes an option for up to 83 additional trains. The new FLIRT Nordic Express are intended for long-distance services throughout Norway from 2026.*

The Swiss train manufacturing company Stadler has been awarded the contract for 17 new long-distance trains in Norway, with an option to acquire up to 100 new trains. The new long-distance trains – FLIRT Nordic Express – is developed from Stadler’s most popular selling train FLIRT (Fast Light Innovative Regional Train), to fit the specific Norwegian needs and extreme climate conditions.

- Norway has some of the most spectacular train rides in the world, and with the FLIRT Nordic Express everything is in place to lift the experience, the comfort, and the quality for the passengers to a whole new level, says Øystein Risan, CEO of Norske tog AS.

Norske tog AS is responsible for procuring, owning, and managing the rolling stock for passenger train transport in Norway. Norske tog AS is owned by the Norwegian Ministry of Transport and Communications.

The production of the new

long-distance trains will start in 2024, and the first new train sets will be delivered for test-driving in Norway from 2025. The new train sets will be put into traffic on the Bergen Line from 2026, replacing old vehicles (locomotives E118 and class 7 coaches) reaching their technical life expectancy.

Good preparatory work with broad stakeholder involvement. The procurement process started about four years ago with an analysis to better understand the needs and frames of the procurement. The initial phase was followed by broad involvement of key stakeholders and interest groups, where the stakeholders were invited to share concrete input on the design and features of the new long-distance trains. Initially, several configurations were on the table, but the number of configurations were narrowed down after four RFI-rounds (editor’s note: request for information) between Norske tog and potential suppliers.

- We have had a very democratic process, where we have put emphasis on taking all input in consideration when developing the requirement specification of this tender competition. The preparatory work and broad involvement process is crucial for a successful conclusion of contract and procurement, says Sille Svenkerud Førner, project manager at Norske tog.

Norske tog created an open requirement specification, which made it possible for the potential suppliers to offer a product they already have, adapted to the Norwegian needs and special conditions. By doing so, Norske tog ensured that





established and well-tested solutions was offered.

#### Comfort and experience

The main purpose of the procurement is to replace the current vehicles servicing on the long-distance lines in Norway. Stadler won the contract based on a total assessment of quality and cost criteria. The company is one of Europe's leading train suppliers.

The new long-distance trains will offer both reclining seats, flexible sleeping compartments, bistro, family areas, and lots of space for luggage for travellers. The Norwegian railway is known for having the best playrooms on trains in Europe – a position which was important to Norske tog to continue. The playrooms on the new FLIRT Nordic Express are smaller, but more compact than on the current ones, and is integrated with the family area to make it easier for parents traveling with kids.

- These are some of the facilities that travellers can look forward to, and which will contribute to

making it the most attractive way of traveling in Norway. The train should not solely be a means of transportation, but also an experience and a place you enjoy staying, says Risan.

The new long-distance trains will have a top speed of 200 km/h. Each train set will consist of 8 carriages with a total capacity of up to 542 seated passengers. Norske tog acquires train for both electrified and non-electrified train lines, including bimodal trains. Bimodal trains can run on both electricity and diesel and are thus important in getting closer to achieving the goal on a zero-emission railway in Norway for the lines that has not yet been electrified.

Facts about the procurement project:

Based on initial research and stakeholder input, the following success factors were defined for the procurement:

#### OPERATOR EXPERIENCE Capacity

- Standardized train with high passenger capacity and efficient utilization of line capacity
  - Performance to operate, with sufficient acceleration for mixed traffic with local trains
  - High seating and sleeping capacity
- Operational concept
- Standardized and flexible operational concept to adapt to varying demands
  - Design that can easily be adapted to operators' specific needs
  - High degree of flexibility and modularity

#### Passenger Experience

- Consistent and attractive passenger experience for all missions and configurations
- Easily accessible, efficient and provides high comfortability
- Highly comfortable and well-equipped seating places for long journey times
- Highly comfortable and well-equipped sleeping places and areas intended for "night train" use
- Pleasant and efficient facilities



(storage spaces, bistro, lavatories, etc.)

**PRODUCT DELIVERY**

**Vehicle solution**

- Functionality and performance are fit for purpose
- Proven and standardized technology with high robustness and reliability
- System and components are designed with focus on maintainability and low maintenance cost
- Safe and energy efficient operation
- IT systems that contribute to an informative and secure travel experience

**Wayside solution**

- Setup for scalability and high robustness
- Provides high operational availability
- Setup for maintainability

**SUSTAINABILITY**

- Resources and expertise to be able to carry out the project in an environmentally friendly and safe manner.
- Lowest possible environmental

footprint throughout the design life of the train, both the electrified and non-electrified lines.

- A product for the non-electrified lines that is sustainable and future-oriented which allows an upgrade of the energy generation in the future.

Please see the video on the following link for more information about the procurement and the requirement specification in the tender competition: <https://vimeo.com/646840939>

**SPECIAL CONDITIONS ON THE NORWEGIAN RAILWAY**

- Lots of front collisions with large animals requires a solid train front.
- Snow avalanche, landslide, and collision with falling trees happens frequently (due to changing climate conditions).
- Norway have long and warm tunnels with a steady temperature of 5-8 degrees Celsius even during the cold winters. Therefore, when the train exits the tunnel, the temperature will vary from 8 degrees Celsius to minus 20 degrees Celsius in less than a minute, resulting in

icing issues.

- The Norwegian railway tracks are curvy, winding, and old. Therefore, driving new trains on these tracks can be compared to driving a sports car on a horse track, which makes it crucial to have a solid sports car.
- Some of the Norwegian train lines are 8-10 hours, which makes it important to make sure the passengers are comfortable on-board.
- Norway has some very windy mountain passes and deep forests with lots of snow on the tracks during the winter. The tracks are frequently shovelled to remove the snow, but during harsh weather conditions, the tracks will get covered with snow in less than 10 minutes after the tracks have been shovelled.
- Overall, the Norwegian railway has more extreme weather conditions, larger animals, and tougher infrastructure than other countries.

# High-Speed Rail SNIPPETS

**The Sonoma-Marin Area Rail Transit District (SMART) announced receipt of a \$30 million grant from the California Transportation Commission to help fund the Windsor and Healdsburg rail extensions. The Healdsburg and Windsor extensions are estimated to cost \$160.5 million and \$70 million. SMART will need \$82.2 million more to fully fund the Healdsburg project, which calls for the construction of a rail and bicycle/pedestrian pathway segment from Front Street to Bailhache Avenue, including the replacement of a bridge spanning the Russian River.**

The San Bernardino County Transportation Authority, in partnership with Brightline West, has been awarded a \$25 million federal grant to build the High Desert high-speed train stations.

"When completed, the Brightline project will be a game changer for our region, reducing commute times, increasing job opportunities and improving the quality of life for residents," said Art Bishop, San Bernardino County Transportation Authority president.

The grant comes through the U.S. Department of Transportation's Rebuilding American Infrastructure with Sustainability and Equity program. The money will go toward the final design and construction of the two stations, both critical elements of the Brightline West rail project, transportation authority officials said.

Malaysia is seeking proposals from private firms to develop a high-speed railway between its capital Kuala Lumpur and neighbouring Singapore, reviving a multi-billion-dollar project of roughly a 350-kilometre (217-mile) rail line connecting the two countries after they failed to agree on several proposed changes to the project. Two years ago the project was estimated to cost around \$17 billion and companies from China, Japan, South Korea and Europe had expressed an interest in contracts to build, operate and finance the trains and rail assets.

*Tonnelle Avenue Bridge and Utility Relocation Project is moving forward. The joint statement from Alicia Glen, New York Commissioner and Co-Chair, Balpreet Grewal-Virk, New Jersey Commissioner and Co-Chair, and Tony Coscia, Amtrak Commissioner and Vice-Chair stated, : "With this \$25 million grant award from US DOT, the Tonnelle Avenue Gateway early work project will happen. Before this year is out, there will be shovels in the ground on this project and on the Hudson Yards Concrete Casing Section 3, so work will be underway on the Hudson Tunnel Project in both New Jersey and New York. Gateway is moving rapidly from planning to reality. The award shows confidence in GDC's growth and capability to receive Federal funding, and we are grateful to the Biden Administration, US DOT, Majority Leader Schumer, our Congressional allies, and our Governors for that confidence, and for putting real money behind their support." The project will commence in 2023 and is expected to last approximately 2 years.*

*A \$20 million grant from the Federal Railroad Administration will help pay for restoration of downtown Fresno's historic Southern Pacific train depot and creation of plazas that will eventually tie in with a future high-speed rail passenger station.*

*The grant award to the California High-Speed Rail Authority is coming from the U.S. Department of Transportation's RAISE (Rebuilding American Infrastructure with Sustainability and Equity) program. The Fresno depot project is one of 162 to receive a share of more than \$2.2 billion in Wednesday's announcement by the Biden administration*

Investment in passenger rolling stock across North America, including HSR, light rail, metro, passenger coaches and locomotives are expected to increase around nearly 5% from 2021-2026, according to a projection from McKinsey & Co. This growth is brought on from Federal funding of \$66b allowing upgrades and improvements to the nation's rail system. This includes Amtrak, where Siemens and Alstom are working on fulfilling upgrades to fleet.



# AMTRAK - STRATEGIC VISION

## DELIVERING INTERCITY TRANSPORTATION AND ENHANCED SERVICE

Contribution By: Alexandra Kaiss and Jessica Zhao,  
Amtrak Government Affairs, Interns

The New Era of Rail is Amtrak's strategic vision for modernizing its fleet, bridges and tunnels, stations, and other infrastructure while redefining the customer experience. Following the November 2021 passage of the Infrastructure Investment and Jobs Act (IIJA) in Congress, Amtrak will be receiving more federal funding than it has in the more than 50 years since its creation. This unprecedented investment is generating new opportunities for Amtrak and passenger rail to move people sustainably while enhancing our economic future. Amtrak is focusing on New Era Fleet Projects that will improve our customers' experience with improved safety, comfort, reliability, and sustainability. To operate the services Amtrak anticipates in the future, a key project will be the new Airo fleet.

Amtrak Airo is currently an in-design project that will equip short- and medium-distance corridor operations around the

country. These trains will deliver better passenger experiences, including a modern, spacious interior with panoramic views that allow passengers to appreciate the beautiful American landscape. Airo cars will feature enhanced technology, increased legroom, onboard Wi-Fi, individual outlets and USB ports, touchless restroom controls, and more. The new equipment is planned to enter service in 2026, and their design and manufacture will be by Siemens as part of a \$7.3 billion contract.

Amtrak Airo trains will deliver greatly enhanced sustainability features, consistent with Amtrak's goals for the New Era of Rail. Airo trains are more fuel efficient while reducing diesel emissions by 90%. Travel congestion will also be alleviated by operating speeds of up to 125 mph and by the elimination of engine changes when moving on and off the electrified Northeast Corridor. The new trains are also more accessible,

with spacious restrooms, vestibules, and café cars and integrated wheelchair lifts for passengers using mobility devices and wheelchairs. These trains will operate on a wide range of Amtrak routes, including the Washington, D.C.-Boston Northeast Regional, New York's Adirondack, Empire, and Maple Leaf Services, Virginia's Northeast Regional, Pennsylvania's Keystone and Pennsylvanian, Maine's Downeaster, Oregon and Washington's Cascades, Connecticut and Massachusetts's New Haven/Springfield Service, North Carolina's Carolinian, Vermont's Vermonter and Ethan Allen Express and the long-distance Palmetto.

More information can be found here:

<https://media.amtrak.com/2022/12/amtrak-invests-in-the-future/>

<https://www.amtrak.com/amtrak-airo>



# HSR IN SOUTH AFRICA

## DEDICATED CAPE GAUGE - GAUTRAIN, AFRICA'S GOLDEN TRAIN

Contributed By: Wendy Wenner



The Gautrain is South Africa's first high-speed rail project and represents the optimal aspects of transportation megaproject planning; built entirely from scratch and with much opposition.

Gautrain is an overland and underground rail system with 15 of the 80 km (50 miles) of track running through bored tunnels extending beyond Johannesburg. Most of Gautrain's rail track tunnels were excavated using conventional drilling and blasting methods with dynamite, as circular shapes were carefully detonated causing the rock to collapse. The pace was roughly 10m or under a mile daily, to gradually lengthen the tunnel.

With more complex terrain outside of Johannesburg, a Tunnel Boring Machine (TBM) was required. Locals wanted to choose a fitting name prior to boring in celebration and deemed Imbokodo fitting, meaning "rock".

Boring was done with a German TBM which could handle a high-water table and different degrees of hard rock, sand and soft soil along with German engineers who utilized Pressure Balance Shield technology. Part of the project involved urban tunneling where tunnels were built deep under infrastructure foundations.

The Imbokodo TBM with a 475 ft. (145m) backup system including 13 trailers, dug a 3 km long tunnel with an excavated diameter of 22.3 ft. (6.8m) and a minimum groundcover of 49 ft. (15 m); weighing 885 tons. The cutter head of the machine was fitted

with a cutter monitoring system from Bouygues called Mobydic. Sixteen-disc cutters included sensors that monitored ground conditions and tool status. Five-disc cutters possessed heavy systems which monitored the force applied to the discs, temperature inside the disc cutter and rotation speed of the disc and eleven-disc cutters had capabilities to monitor only the temperature. This full system enabled engineers to detect fluctuation of ground conditions in real time and insured optimized cutter head maintenance.

Challenges were not just below ground but engineers had to meet constant demands with construction above. The terrain encompassed an enormous amount of dolomite, a mineral which can bring upon sinkholes without warning. The ground had to be prepared by compacting and pumping cement into cavities.

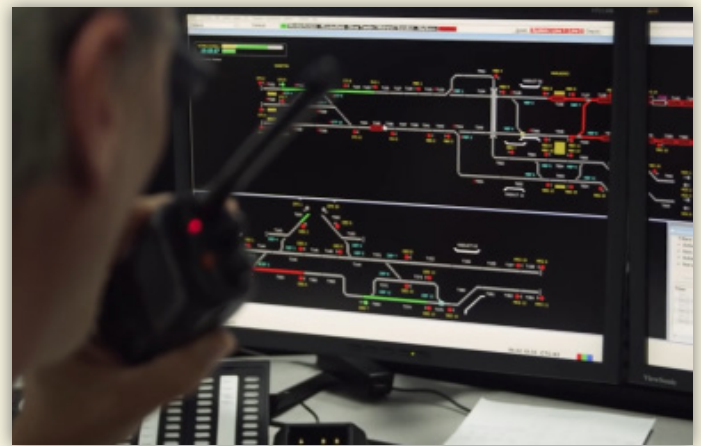
Engineers continued to employ innovative techniques for the construction of Gautrain Viaducts crossing over busy highways. After surveying the region, strategic viaduct placements were discussed. Using balanced cantilever construction long spans, the bridges were built over areas where construction from the ground was not possible. This involved the construction of concrete reinforced shafts or piled foundations that were socketed into hard bedrock. Each shaft being approximately 7m in diameter and reaching depths up to 30m (100 ft.) The Viaduct piers were then created followed by construction of the viaduct segments. A total of 205 pre-constructed bridges were assembled and installed together.

With an extensive amount of work already accomplished there are plans for expansion to be implemented in 5 phases. This will extend the current 10 stations, adding 19 new stations. The proposed expansion identified would add 149km (92 miles) of railway line creating an estimated 240,000 jobs.

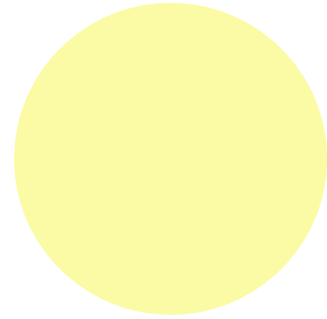
Gauteng commuters can now receive full details on Gautrain pricing for 2023. A timetable is published in PDF format and can be found on the website. The new Gautrain fares came into effect 1 June 2023 and vary depending on commutes between peak or off-peak times.



### Bombardier's Gautrain fleet in South Africa



# IN THE SPOTLIGHT



## YOU SHOULD GET TO KNOW US



**CONNIE CRAWFORD**  
DIRECTOR

"As more people move to cities and give up their cars, intercity passenger rail is not just a convenience, it is a necessity. Short distance flights are inefficient and do not connect city centers the way rail can, and roadways are overcrowded. I am excited to see Amtrak's Northeast Corridor performing so well, while Brightline shows the great potential of privately funded transportation systems. Before long, California will have high-speed rail service as well. This is a thrilling time for passenger rail in the US!"

ASTM North  
America

RAIL & TRANSIT



**SARAH WATTERSON**  
PRESIDENT

"When launched, Brightline West will be one of the greenest forms of transportation in America and an eco-friendly upgrade to the I-15. Beyond significantly cutting carbon emissions and creating a cleaner, more efficient way to travel, it will ensure vital and long-term protections for a diverse array of wildlife."

BRIGHTLINE WEST



**GRAEME HAMPSHIRE**  
PROGRAM DIRECTOR

"I have witnessed the benefits and have firsthand knowledge of the transformative impact that modern, resilient, and sustainable rail services can have on people's lives. I am grateful for the opportunity to join the HFR Team and bring my experience and knowledge of the rail and infrastructure sectors to make high frequency rail service in Canada a reality."

HFR-TGF (VIA RAIL)

# INDONESIA

## THE JAKARTA-BANDUNG HIGH-SPEED RAILWAY

*Jakarta-Bandung High-speed Railway is a proposed project in Indonesia, connecting the capital city of Jakarta to the textile hub of Bandung.*

Contributed By: Wendy Wenner

The first high-speed rail in Indonesia will connect its two largest cities, Jakarta and Bandung, the capital of West Java, covering a distance of 142.3 kilometres (88.4 mi). It will also be the first high-speed rail in Southern Hemisphere and South East Asia - expected to top well over \$7.2 billion USD.

While the spiraling costs and construction delays have prompted a good deal of negative commentary, the completion of the Jakarta-Bandung High-Speed Railway marks a milestone for the BRI – the project is Southeast Asia’s first high-speed rail line – and for Jokowi’s goal of filling out the large gaps in Indonesia’s infrastructure.

The EMU KCIC400AF Fuxing trainset and the KCIC400AF CIT 22 01 trainset arrived in Indonesia mid-2022 with testing initiated on 16 November 2022, during the 2022 G20 Bali Summit. The Jakarta-Bandung high-speed rail line has begun running trial and plan for a soft launch in August 2023, and be in general operation by the end of August followed by Indonesia’s Independence Day commemoration.

Indonesia already has a conventional railway network. But when finished, the high-speed railway in Indonesia would be the first high-speed railway in ASEAN with a top speed of 350 kilometres per hour (220 mph) while Laos’ Vientiane-Boten railway with speed of 160 kilometres per hour (99 mph) would be classified as semi-high speed rail.

First Class has 18 grey seats in a 2-1 arrangement, made from faux leather chairs, embroidered with Mega Mendung batik. While Business

Class has 28 red seats in a 2-2 arrangement, made of faux leather, with laser cut Mega Mendung batik motifs. Premium Economy has 555 seats in gray and blue with a 3-2 arrangement, made of suede, with a Mega Mendung batik print pattern.

Other supporting facilities available in passenger trains on the Fast Train include power outlets, televisions, folding tables and friendly toilets for users with special needs. There is also a mini bar in the middle of the train for passengers who want to buy snacks and cold and hot drinks.



# FRA

## FRA CORRIDOR IDENTIFICATION PROGRAM UPDATE

Contributed By: David Wilcock

*The Corridor Identification and Development (Corridor ID) Program is a comprehensive intercity passenger rail planning and development program that will help guide intercity passenger rail development throughout the country and create a pipeline of intercity passenger rail projects ready for implementation.*

In the Passenger Rail Update section of Issue 35, an overview of the Federal Railroad Administration's (FRA) Corridor Identification Program was provided by APTA staff. As part of the overview, a list of Expressions of Interest in Corridors was provided. These EOI's had been solicited by FRA during 2022. Over 75 corridors were identified by multiple eligible project sponsors including states, passenger rail authorities, municipalities, metropolitan planning organizations and Native American tribes.

Following the response to the EOI, FRA released a Notice of Funding Opportunity (NOFO) in December 2022 for the Corridor Identification and Development Program. Under this notice, FRA will select Corridors for participation in the Corridor ID Program. For each selected Corridor, FRA will initially award the grantee \$500,000 for eligible Step 1 planning activities. Step 1 initiates the grantee's Corridor development efforts under the Program by preparing a scope, schedule, and cost estimate for developing a Service Development Plan (SDP), or updating an existing SDP, for the Corridor. Step 1 also includes the grant recipient's development of its capability and capacity (including securing initial staff, contractor support, and non-Federal financial resources) necessary to support successfully preparing the SDP

The initial award is not subject to any cost sharing. Should the completion of eligible Step 1 activities not require the use of the

full \$500,000 of the initial award, any remaining funds will be carried forward to the Step 2 award for Step 2 activities.

Applications were due by March 20, 2023. To date there has been no formal announcement from FRA regarding the number of applications received or the specific corridors of interest for which funds have been requested. Given the initial response to the EOI, it is likely that FRA received many applications for the Corridor ID program. In reviewing the numerous online sources of information, the following table of applications was prepared. Please note that the table has not been confirmed and is likely missing applications. It is being provided as a point of interest and reference to readers of Speedlines.

“

“Our decisions about transportation determine much more than where roads or bridges or tunnels or rail lines will be built. They determine the connections and barriers that people will encounter in their daily lives - and thus how hard or easy it will be for people to get where they need and want to go.”

-Elijah E. Cummings

State/Region	Applicant	Corridor	Notes
<b>AZ</b>	Arizona DOT	<ul style="list-style-type: none"> <li>Tucson-Phoenix-Buckeye</li> </ul>	Re-route <i>Sunset Limited</i>
<b>CA</b>	California DOT (Caltrans)	<ul style="list-style-type: none"> <li>Coachella Valley – San Geronio Pass Rail Corridor (CVR) Corridor</li> </ul>	Los Angeles – Coachella
<b>CA</b>	CCJPA	<ul style="list-style-type: none"> <li>Capitol Corridor Vision Plan</li> </ul>	San Jose, CA – Reno, NV
<b>CA</b>	LOSSAN	<ul style="list-style-type: none"> <li>LOSSAN North (Los Angeles, CA – San Juan Obispo, CA)</li> <li>LOSSAN South (Los Angeles, CA – San Diego, CA)</li> </ul>	Improvements to the existing state-supported services
<b>CA</b>	SJJPA/Caltrans	<ul style="list-style-type: none"> <li>Oakland, CA – Merced, CA</li> </ul>	Improvements to the existing state-supported services
<b>CA</b>	SJJPA/Caltrans	<ul style="list-style-type: none"> <li>Merced, CA – Union City, CA</li> <li>Merced, CA – Natomas, CA</li> <li>Merced, CA – Chico, CA</li> <li>Chico, CA – Stockton, CA</li> <li>Chico, CA – Union City, CA</li> </ul>	New services
<b>ID/UT/NV</b>	Utah DOT/Idaho DOT/ Nevada DOT	<ul style="list-style-type: none"> <li>Boise, ID – Salt Lake City, UT – Las Vegas, NV (Desert Winds Corridor)</li> </ul>	New service
<b>IL/MO</b>	Missouri DOT	<ul style="list-style-type: none"> <li>Chicago, IL – Quincy, IL – Hannibal, MO</li> </ul>	Extension of existing Carl Sandburg/Illinois Zephyr service
<b>IL/IN/OH/PA</b>	City of Fort Wayne IN, Mid-Ohio Regional Planning Commission (MORPC)	<ul style="list-style-type: none"> <li>Chicago, IL – Fort Wayne, IN – Columbus, OH – Pittsburgh, PA</li> </ul>	New service
<b>IL</b>	Illinois DOT	<ul style="list-style-type: none"> <li>Chicago, IL – St. Louis, MO (Lincoln Service)</li> <li>Chicago, IL – Carbondale, IL (the Illini/Saluki)</li> <li>Chicago, IL to the Quad Cities and Rockford, IL</li> </ul>	Improvements to the existing state-supported services
<b>IL/IN</b>	Indiana DOT	<ul style="list-style-type: none"> <li>Chicago, IL – Indianapolis, IN</li> </ul>	New service
<b>IL/IN/MI</b>	Michigan DOT	<ul style="list-style-type: none"> <li>Chicago, IL – Detroit/ Pontiac, MI (Wolverine) (proposed expansion to Windsor/Toronto, ON)</li> <li>Chicago, IL – Port Huron, MI (Blue Water)</li> <li>Chicago, IL – Grand Rapids, MI (Pere Marquette)</li> </ul>	Improvements and increased service on the existing state-supported services
<b>KY/IN</b>	Kentuckiana Regional Planning & Development Agency (KIPDA) and Louisville Metro Government	<ul style="list-style-type: none"> <li>Louisville, KY – Indianapolis, IN</li> </ul>	In coordination with InDOT for Indianapolis – Chicago to reinstate the Kentucky Cardinal
<b>MA/NY</b>	MA DOT	<ul style="list-style-type: none"> <li>Boston, MA to Albany-Rensselaer, NY</li> </ul>	Improvements to the existing service
<b>MA/CT</b>	MA DOT	<ul style="list-style-type: none"> <li>Boston, MA to New Haven, CT via Springfield, MA</li> </ul>	New service
<b>ME/NH/MA</b>	Northern New England Passenger Rail Authority	<ul style="list-style-type: none"> <li>Boston, MA – Portland, ME – Brunswick, ME</li> <li>Brunswick, ME – Rockland, ME</li> </ul>	One application for 1) improvements and additional service on the state-supported route and 2) extension to Rockland
<b>MI</b>	City of Kalkaska	<ul style="list-style-type: none"> <li>Ann Arbor, MI to Traverse City/Petoskey, MI</li> </ul>	New service
<b>MN/WI</b>	Minnesota DOT	<ul style="list-style-type: none"> <li>Minneapolis, MN to Duluth, MN via Superior, WI</li> </ul>	Planned Northern Lights Express corridor
		<ul style="list-style-type: none"> <li></li> </ul>	
<b>MO</b>	Missouri DOT	<ul style="list-style-type: none"> <li>Kansas City, MO to St. Joseph, MO</li> <li>Kansas City, MO to Southwest Missouri</li> </ul>	New services
<b>MO</b>	Kansas City Area Transit Authority (KCATA)	<ul style="list-style-type: none"> <li>Topeka – Kansas City – Lee Summit</li> </ul>	New Services

State/Region	Applicant	Corridor	Notes
MS/LA/TX	Amtrak and Southern Rail Commission	<ul style="list-style-type: none"> <li>DFW to Meridian, MS</li> </ul>	New services
NC/VA/DC	North Carolina DOT, VPRA	<ul style="list-style-type: none"> <li>Charlotte, NC to Washington, DC</li> </ul>	Expansion of the existing state-supported service
NC/GA	North Carolina DOT	<ul style="list-style-type: none"> <li>Atlanta, GA to Charlotte, NC</li> </ul>	Expansion of the existing service
NC	North Carolina DOT	<ul style="list-style-type: none"> <li>Hamlet, NC to Raleigh, NC</li> </ul>	Expansion of the existing service
NC	North Carolina DOT	<ul style="list-style-type: none"> <li>Wilmington, NC to Raleigh, NC</li> <li>Charlotte, NC to Kings Mountain, NC</li> <li>Greenville, NC to Raleigh, NC</li> <li>Winston-Salem, NC to Raleigh, NC</li> <li>Morehead City, NC to Raleigh, NC</li> <li>Fayetteville, NC to Raleigh, NC</li> <li>Winston-Salem, NC to Charlotte, NC</li> <li>Weldon, NC to Raleigh, NC</li> <li>Salisbury, NC to Asheville, NC</li> </ul>	New services
OH MI/OH	Ohio Rail Development Commission (ORDC)	<ul style="list-style-type: none"> <li>Cincinnati, OH – Dayton, OH – Columbus, OH – Cleveland, OH</li> </ul>	New services
OH/MI	Ohio Rail Development Commission (ORDC)	<ul style="list-style-type: none"> <li>Detroit, MI – Toledo, OH – Cleveland, OH</li> </ul>	New service
OH/IN/IL OH/NY OH/PA	Northeast Ohio Areawide Coordinating Agency	<ul style="list-style-type: none"> <li>Cleveland, OH – Chicago, IL (Lake Shore Limited and Capitol Limited)</li> <li>Cleveland, OH – Buffalo, NY (Lake Shore Limited)</li> <li>Cleveland, OH – Pittsburgh, PA (Capitol Limited)</li> </ul>	Additional frequencies on long distance trains for daytime arrival/departures in Northern Ohio
OK/KS	Oklahoma DOT; Texas DOT support	<ul style="list-style-type: none"> <li>Oklahoma City, OK to Newton, KS, via Wichita, KS</li> </ul>	Extension of the state-supported Heartland Flyer beyond the current Ft Worth to Oklahoma City route
PA/NJ/NY	PA DOT	<ul style="list-style-type: none"> <li>Scranton, PA – New York, NY (Lackawanna Cut Off)</li> </ul>	New service
PA	PA DOT	<ul style="list-style-type: none"> <li>Keystone Corridor (Pittsburgh-Harrisburg-Philadelphia)</li> </ul>	Expansion of existing state-supported services
PA	Schuylkill River Passenger Rail Authority	<ul style="list-style-type: none"> <li>Reading, PA – Philadelphia, PA</li> </ul>	New Service
TX	Texas DOT	<ul style="list-style-type: none"> <li>Houston, TX to San Antonio, TX</li> <li>San Antonio, TX to DFW</li> <li>DFW to Houston, TX</li> </ul>	New services
VA/DC	VPRA	<ul style="list-style-type: none"> <li>Washington DC to Bristol VA</li> </ul>	Expansion of the existing state-supported service
VA	VPRA	<ul style="list-style-type: none"> <li>Commonwealth Corridor (East-West Rail)</li> </ul>	New service
WA/OR	WS DOT/ODOT	<ul style="list-style-type: none"> <li>Eugene OR – Portland OR – Seattle WA – Vancouver BC (Cascades)</li> </ul>	Expansion of the existing state-supported service
WA/OR	WS DOT/ODOT	<ul style="list-style-type: none"> <li>Portland, OR – Seattle WA – Vancouver BC</li> </ul>	Ultra High-Speed Rail Corridor
WA/ID/MT/ND/ MN/WI/IL	Big Sky Passenger Rail Authority	<ul style="list-style-type: none"> <li>Chicago, IL – Milwaukee, WI – Twin Cities, MN – Fargo, ND – Bismarck, ND – Missoula, MT – Seattle, WA/Portland, OR</li> </ul>	Restoration of the Amtrak North Coast Hiawatha long-distance route
WI/IL	Wisconsin DOT	<ul style="list-style-type: none"> <li>Chicago, IL – Milwaukee, WI (Hiawatha Corridor)</li> </ul>	Expansion of the existing state-supported service
WI	Wisconsin DOT	<ul style="list-style-type: none"> <li>Milwaukee, WI – Green Bay, WI</li> <li>Milwaukee, WI – Twin Cities, MN via Madison, WI and Eau Claire, WI</li> </ul>	Extension of existing the state-supported Hiawatha Corridor service

# MOROCCO - AL BORAQ HSR

## AMAZING NEW ONCF AL BORAQ HSR SERVICE

Contributed by: Emmanuel S. "Bruce" Horowitz

One of the extra benefits of attending the 2023 UIC HSR Conference in Marrakech was the opportunity to add a few days to observe and experience the amazing ONCF (Office Nationale des Chemins de Fer) Passenger Rail network. In addition to operating the highly successful first HSR line in Africa, the ONCF Casablanca-Tangier Al Boraq, it also provides an extensive network of conventional passenger rail lines serving all major population centers in the northern half of the country. Most intercity services operate on a European style memory pattern service with hourly frequency during most of the daytime hours. There are also more frequent regional rail (commuter-like) services serving greater Casablanca and two or three daily longer distance trains on the rural parts of the network. It was interesting to observe that, as in France, although all highway and urban rail (LRT) systems operate "right-handed," that ONCF like SNCF operates trains "left-handed." When standing on the platform, be SURE to remember, "Look to the

RIGHT" for oncoming trains!

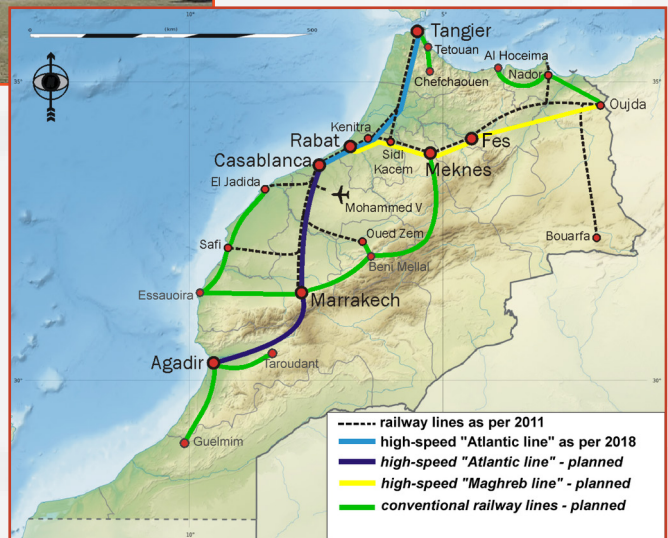
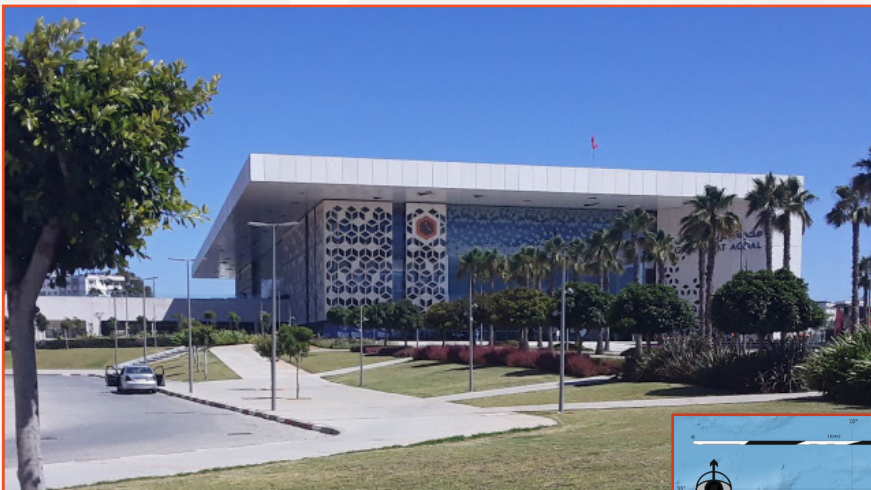
### AL BORAQ HSR

Because of Speedline's focus on HSR, this article will focus on the new ONCF Al Boraq service while noting the breadth and depth of the connecting conventional rail services. The TGV Service was introduced to revenue service November 2019 and has enjoyed exceptionally high ridership and performance. Current ONCF 2023 forecasts anticipate 5 million annual Al Boraq riders! As in many French or other European HSR services, the ONCF route operates both on substantially upgraded legacy conventional lines (Casablanca-Rabat-Kenitra) with a maximum of 180 KM/HR and a significant new "greenfield" line (Kenitra-Tangier) with maximum of 320 KM/Hr! Because the new line is also shorter than the historic Kenitra-Sidi Kacem-Tangier (i.e., "hypotenuse vs. two sides of a triangle") and the maximum speed 3 times higher, the endpoint travel time Casablanca/Tangier has

been reduced from roughly 4 hours 45 mins on a slightly longer route to only 2 hours 10 mins for the current 323 KM route!

### TGV EQUIPMENT

ONCF's Al Boraq TGV fleet consists of the newest generation Alstom Double-Deck rolling stock, comparable to that currently operated on many SNCF lines. Each trainset consists of 10 units, two first-class cars (2+1 seating), a café-lounge/staff functions car and seven second-class cars (2+2 seating). The interior, ergonomics, seat pitch, lighting, power supply, digital signage and all other customer amenities are exceptionally well designed. It was observed by European visitors as well as ONCF staff that one of the explanations of this equipment's immediate success is that ONCF chose to procure Alstom TGV sets virtually identical, aesthetically and operationally to the existing SNCF TGV's rather than attempt to "customize" or make any other changes to a demonstrated





successful design. One “minutia-literate” observer pointed out that even the Al Boraq seat numbering and internal signage are virtually identical to SNCF TGVs.

### HSR SERVICE

The current Al Boraq service pattern provides 14 daily round-trips, with minor weekend variations, scheduled on a precise “clockface-memory-pattern” departing both termini on the top of the hour, with two intermediate stops: Rabat-Agdal and Kenitra. All TGV seats are specifically reserved in advance (standard class and First class) and an effective (airline-style) “yield management” system is used for pricing. Counting currency conversion and a variety of classes and segments, the prices appeared to be very roughly one-third to one-half as much as Amtrak Acela train pricing. For travelers within Morocco, the Al Boraq HSR service is priced at roughly double conventional rail fares in both classes for trips of comparable length.

### HSR STATIONS AND INTERMODAL CONNECTIONS

ONCF Al Boraq HSR trains call at three substantially upgraded legacy intercity stations: Casablanca-Voyageurs, Kenitra and Tangier-Ville and one literally breathtaking new station, Rabat-Agdal, a few miles south of the downtown, historic Rabat-Ville station. Because of extreme space and rail capacity limitations at the central Rabat-Ville station, ONCF chose to design and build a large, magnificently choreographed new station, Rabat-Agdal. All HSR stations have an attractive and well-designed private waiting room for departing and arriving First Class Passengers called “Al Boraq Lounge.” The lounges provide ticketing assistance, comfortable individual and group seating space and light snacks and beverages.

All stations provide good intermodal transfer connections to other local and intercity passenger trains, local bus public transit, taxi, “kiss-and-ride,” as well as parking. Casablanca’s “Casa-Voyageurs” station also

has a major stop of its well-patronized Casa Tram LRT directly in front. Although the new Rabat-Agdal station is currently beyond the southern limit of Rabat’s LRT system, an extension is being planned to serve the HSR station. Frequent local train service continues to connect Rabat-Agdal and Rabat-Ville (downtown) station which is directly served by the Rabat LRT.

ONCF and Rabat Urban Planners deserve great credit for designing the significant (ex-industrial/brown-field) new Rabat-Agdal site with supportive zoning to successfully encourage significant new (and dense) commercial and residential construction surrounding the station. Therefore, in addition to the use of ample underground parking for those who drive from elsewhere in Rabat, there is a great potential for walking/biking access for the new nearby neighborhood.



### ONCF UIC CHARTER TGV MARRAKECH TO CASABLANCA

It is exciting to observe that ONCF is now committed to build a largely new ROW HSR line for the very heavily travelled Casablanca-Marrakech corridor and seriously considering a further future southward extension all the way from Marrakech to Agadir, which has never had rail service! Like the current successful Al Boraq service, the southern extensions will be built by ONCF in conjunction with their long-time partner SNCF, and hopefully, like its

predecessor line will be built on-time and within budget!

A very special event following the closing of the UIC HSR Conference provided delegates the rare opportunity to actually ride a chartered ONCF Al Boraq TGV Trainset all the way from (conference host city) Marrakech back to Casablanca (with connections to Casablanca airport) and optionally all the way to Tangier. ONCF most



graciously brought a TGV trainset down to Marrakech the night before to allow UIC invitees to ride a future route of Al Boraq service well in advance of commercial service. Although limited to operate at conventional track limits of 160 KM/HR, this special charter train traversed the Marrakech-Casablanca segment with one scheduled intermediate stop in 2 hours 20 mins for the 257 KM trip, at least 30 mins faster than conventional 3-stop trains!

#### ONCF/SNCF RAILWAY TRAINING ACADEMY

Lastly, for those who chose to select an optional Rabat tour, UIC delegates were given the opportunity to visit the truly

impressive and extensive ONCF/SNCF Railway training Academy. Over the years, the successfully joint venture of ONCF and SNCF has developed what is believed to be the largest formal Railway Technology, Maintenance and



Training facility in Africa. The facilities and programs cover all types of (primarily) passenger rail service in Morocco, including: TGV HSR; Conventional Electric Locomotive-hauled Intercity trains; modern Double-Decker EMU trainsets; older single-deck EMU trainsets, and Diesel locomotive-hauled Intercity trains. This training campus offers theoretical, technical, hands-on, work-bench and traditional classroom education in Morocco's two primary languages of French and Arabic, as well as some English. In addition to providing complete training for virtually all ONCF employees, it also provides supplemental railway training under contract to several other African countries, with a focus on those whose European-historic language is French.

#### CONCLUDING THOUGHTS

The UIC should be highly commended for taking the bold step of holding its first HSR Conference in North Africa! This gave Moroccan operator ONCF and host city Marrakech to make a tremendously positive impression on many of world's railway leaders. Congratulations!

# FRA

## LONG DISTANCE SERVICE STUDY

The Federal Railroad Administration (FRA) is conducting a Long-Distance Service Study to evaluate the restoration of daily long-distance intercity rail passenger service on routes discontinued by Amtrak and the potential for new Amtrak long-distance routes. This study will ultimately create a long-term vision for long-distance passenger rail service and identify capital projects and funding needed to implement that vision. Long-distance trains are statutorily defined as routes over 750 miles, between endpoints that Amtrak operates, according to the Passenger Rail Investment and Improvement Act of 2008.

Amtrak was established by the Rail Passenger Act of 1970, which removed the common carrier requirement for U.S. railroads to provide intercity passenger rail service. Amtrak was created to fulfill that requirement relieving the railroads of the financial burden of providing passenger rail service. In 1971, the US Department of Transportation (US DOT) designated 21 city pairs between which intercity passenger trains should operate, and Amtrak began service between those cities later that year.

The new passenger rail system was about half the size (by route miles) of the pre-1971 U.S. passenger rail system, which had been operated by multiple railroads. At the request of Congress, several long-distance routes were added to Amtrak's system in the 1970s, but long-distance service was reduced in the following decades – especially after a 1978 US DOT report that recommended significant service reductions. Long-distance network service reductions over the past 50 years have resulted in some communities losing common carrier transportation options, as well as the economic and social benefits of those connections.

Currently, Amtrak operates 15 long-distance trains, ranging from approximately 760 to 2,500 miles long.

Long-distance trains provide service at nearly half of the train stations in the Amtrak system. In 2019, long-distance trains carried more than 4.5 million passengers.

Section 22214 of the Bipartisan Infrastructure Law (BIL) of 2021 tasks the FRA, under delegation from the Secretary of Transportation, with conducting an Amtrak Daily Long-Distance Service Study to evaluate the restoration of daily intercity passenger rail service and the potential for new Amtrak long-distance routes. Under BIL, the FRA is required to conduct a study to evaluate the restoration of daily intercity rail passenger service along:

- any Amtrak long-distance routes that were discontinued; and
- any Amtrak long-distance routes that occur on a non-daily basis.

In evaluating intercity passenger rail routes, FRA may evaluate potential new Amtrak long-distance routes, including with specific attention provided to routes in service as of April 1971 but not continued by Amtrak, taking into consideration whether those new routes would:

- link and serve large and small communities as part of a regional rail network;
- advance the economic and social well-being of rural areas of the United States;
- provide enhanced connectivity for the national long-distance passenger rail system; and
- reflect public engagement and local and regional support for restored passenger rail service.

[ ADVANCE APPROPRIATIONS ]

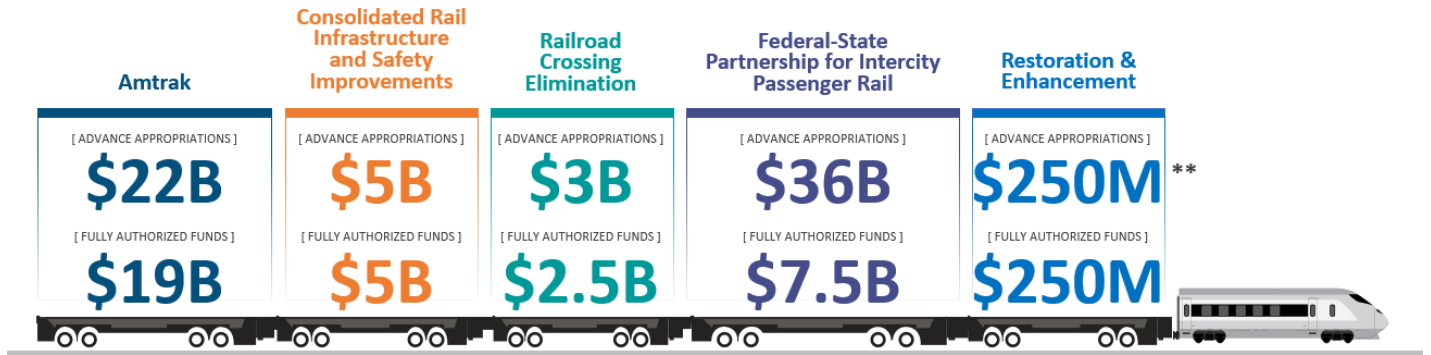
From FY22-FY26

**\$66B** in total funding

[ FULLY AUTHORIZED FUNDS ]

From FY22-FY26

**\$36B\*** in total funding



\* Authorized funds represent an up to amount that require annual appropriations to set funding levels for each fiscal year.

\*\* \$34.5 billion for grant programs; additional \$1.5 billion is authorized for FRA operations and R&D – not included in this graphic. Grants for Restoration & Enhancement (advance appropriations portion) are funded through “takedowns” from Amtrak NN account; not included in totals to avoid double-counting.

The Long-Distance Service Study presents an opportunity to establish and bolster essential intercity passenger rail connections and build a stronger rail network overall—one that would allow people to get where they need to go safely and efficiently.

In some communities, long-distance trains are the only common carrier passenger transportation option available, and the long-distance network provides millions of Americans with transportation options other than a personal vehicle.

**The Long-Distance Service Study will:**

- Evaluate options for restoring or enhancing to daily basis intercity passenger rail service along routes.
- Elect preferred options for restoring or enhancing service.
- Develop a prioritized inventory of capital projects and other actions required to restore or enhance the service, including cost estimates for those projects and actions.

- Develop recommendations for methods by which Amtrak could work with local communities and organizations to develop activities and programs to continuously improve public use of intercity passenger rail service along each route.

- Identify Federal and non-Federal funding sources required to restore or enhance the service.

In the coming months, FRA will continue to engage and listen to stakeholders, including transportation and rail partners, federally recognized tribes, and communities as they evaluate how to better connect people with long-distance rail services. Engagement for the Long-Distance Service Study began in September 2022 and will continue throughout 2023.

For more information and to comment on the study please refer to: <https://fralongdistancerailstudy.org/>



# CALIFORNIA HSR

## MILESTONES LAY GROUNDWORK FOR FUTURE OPERATIONS

Contribution By: Katta Hules

As the backbone of California's ambitious State Rail Plan, California high-speed rail will connect the Central Valley to the rest of the Golden State.

After last year's exciting milestones, the California High-Speed Rail Authority (Authority) is looking forward to accelerated growth and continued progress on creating America's first fully electrified high-speed rail system that will connect the Golden State like never before. Support for the system has grown since the vote in 2008 when Proposition 1A passed with 53 percent of the vote, with 6.6 million Californians voting yes. A recent UC Berkeley Institute of Governmental Studies poll found that by a 5 to 3 margin (56 percent to 35 percent) voters support the plan to build in the Central Valley and expand to the Bay Area and Los Angeles.

In the latter half of 2022 alone, the Authority completed several structures in the Central Valley; finished environmentally clearing 422 miles of the 500-mile Phase 1 system between the San Francisco Bay Area and the Los Angeles Basin and Anaheim, via the Central Valley; received tens of millions of dollars in federal grants; awarded design contracts for the system's Central Valley stations; and much more.

By the beginning of 2023, the Authority had created 10,000 jobs, celebrating with an event where the federal government confirmed its intention to work in partnership

with the project. In March the Authority published its biennial Project Update Report, a comprehensive status update given to the state legislature that provides a roadmap for the project's future.

All this positions the project closer to 100% renewably powered trains running at top speeds of 220 mph, connecting San Francisco to Los Angeles in less than three hours while drastically reducing commute times, greenhouse gas emissions and offering a clean and safe alternative to the state's punishing traffic. California high-speed rail will provide a fast, reliable, and sustainable mode of internationally proven interregional mass transportation to many parts of the state, initially connecting 6 of the top 10 largest cities in California.

### CONSTRUCTION AND EARLY DESIGN

Significant progress has been made in the Central Valley with construction and design of electrified high-speed rail spanning 171 miles across Merced, Madera, Fresno, Kings, Tulare and Kern Counties.

This 171-mile initial operating segment from Merced to Bakersfield includes the construction of bridges, overpasses, viaducts, and other civil works across more than 30 active job sites in the

Central Valley. Structures underway include grade separations consisting of realigned roadways that go over or under planned as well as pre-existing freight railway, improving safety across the high-speed rail alignment. Civil construction in Construction Package 4, the 22-mile stretch of high-speed rail between one-mile north of the Tulare-Kern County line and Poplar Avenue, will be complete by this summer.

Of these 171 miles, 119 miles are far along in construction, and will be the system's test track, as there is no other place planned or underway in the entire country where the Authority can test at its voter-mandated speeds. For those 119 miles, more than 90% of the parcels needed are already in hand. Beginning the high-speed rail line in the Central Valley is key to the Authority's building block approach, as the line will carry more riders and deliver the most mobility, environmental and economic benefits for the lowest cost.

Testing of the initial Merced to Bakersfield electrified high-speed rail line is targeted to commence in 2028, and the Authority is working to deliver passenger rail operations on that corridor between 2030 and 2033. This completed rail line will save riders almost 1.5 hours of travel time, slashing the journey time from 2.5 hours to just

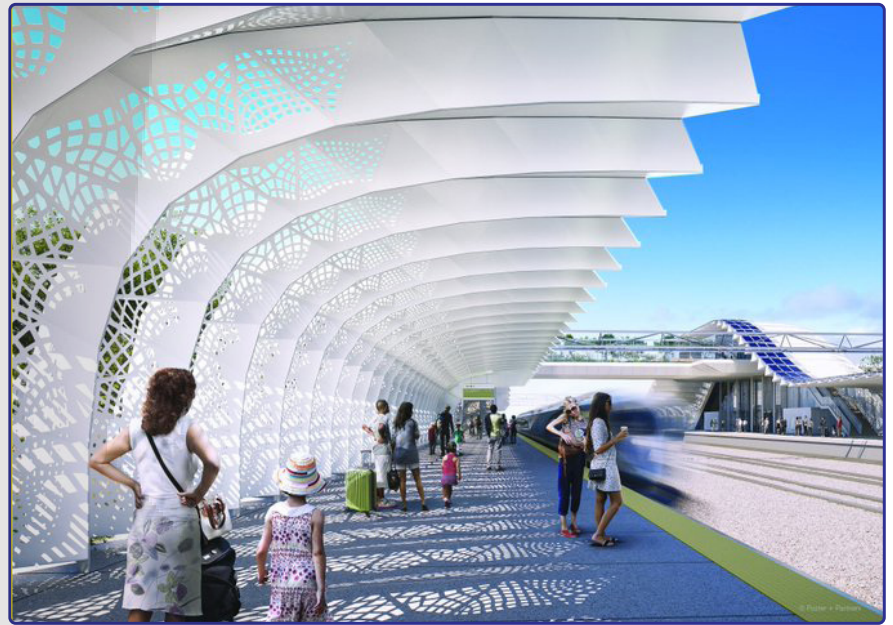
under an hour, non-stop. In Merced, the system will connect riders to the Bay Area and Sacramento with other regional transit lines, like Altamont Corridor Express and Amtrak. In Bakersfield there will be bus connections to points south, like those currently in service.

The Central Valley section hit quite a few milestones in the last six months alone. Several grade separations have been completed and opened to the public, improving safety from Madera to Kings Counties. In total, the Central Valley has 68 structures and grade separations either under way or completed.

#### IMPROVEMENTS IN SOUTHERN, NORTHERN CALIFORNIA

Last year, as a part of the Authority's Proposition 1A connectivity and bookend project investments in Southern California, ground was broken on a joint project site in Southern California with the Los Angeles County Metropolitan Transportation Authority (LA Metro). The Rosecrans/Marquardt grade separation project in Santa Fe Springs, Calif., will eliminate one of the most dangerous rail crossings in the state while providing near-term mobility, safety, environmental and economic benefits to the region. This rail crossing is one of the busiest in the country with over 112 trains and 45,000 vehicles using it daily. The Authority provided \$76.7 million of funding for the project, which once completed, will support the future high-speed rail line in the Los Angeles to Anaheim section. The grade separation will allow the high-speed trains to maintain speed and safely pass through the area.

Burbank to Los Angeles will connect two key multi-modal transportation hubs, Los Angeles Union Station (LAUS) and the Hollywood Burbank Airport, providing a plane to train



connection in the San Fernando Valley. The Authority also approved a multi-million dollar project management and funding agreement with Los Angeles Metro to modernize the historic LAUS through the Link Union Station project. The Authority is providing the project with \$423 million in Proposition 1A funds to increase passenger rail services at the station from 178 trains up to 503 trains with the same number of platforms, transforming regional rails services in Southern California. The future high-speed rail route will use LAUS as its Los Angeles stop and the agreement will serve to enhance the station, improve the passenger rail corridor, and promote economic development in the downtown area.

In Northern California, the Authority is providing \$714 million in Proposition 1A funding to Caltrain to help electrify its trains and rails as well as \$84 million in Proposition 1A funding for a grade separation in San Mateo which opened in 2021. The Caltrain tracks will be part of the Northern California

blended corridor that will support the high-speed rail in the region. In 2022, electrification hit an exciting milestone when the first electric trainsets arrived at the Caltrain facility in San Jose. The electrification project will be complete in 2024.

#### JOBS AND ECONOMIC DEVELOPMENT

The California high-speed rail has, to date, created more than 10,000 good paying construction jobs, the majority of which go to Central Valley residents in economically disadvantaged areas of the state. This is a significant milestone when less than five years ago in May 2018, the project celebrated 2,000 jobs created. Meanwhile, more than 750 certified small businesses are working on the high-speed rail project, with more than 200 of those also Central Valley based.

The Authority has also been named Employer of the Year by the Sacramento, Los Angeles, and International Chapters of the Women's Transportation Seminar, an

organization dedicated to the global advancement of women in transportation. Over half the Authority's total workforce is female, including most of its executive team. In addition, this year the Northern California chapter of the American Planning Association awarded the San Jose to Merced section the 2023 Excellence Award for Advancing Diversity and Social Change.

To help meet the demand for highly skilled jobs on the project, the Authority, in partnership with the local Building and Construction Trades Council, Fresno County Economic Development Corporation, the City of Selma and Fresno Economic Opportunities Commission, created the Central Valley Training Center in 2020.

The pre-apprenticeship training center provides veterans, at-risk young adults and low-income people from the Central Valley with a comprehensive and innovative look into careers in more than 10 different construction trades. The graduates received pre-apprenticeship and hands-on construction training from professional carpenters, cement masons, electricians and other specialists. Students also developed skills that include active listening, teamwork and critical thinking that can be applied at construction sites and in other employment opportunities.

In the Central Valley alone, the high-speed rail program has created over \$2 billion in labor income and \$6.4 billion in economic activity that has benefited the region and workers. Investments have created an estimated economic impact of at least \$16 billion statewide. Every day, an average of more than 1,300 workers are dispatched to over 30 active construction sites. In Fresno, the unemployment rate has decreased from 17% during the Great Recession to 9.3% in 2021.

Proposition 1A called for the initiation

of construction and for the project to link the population centers of California, including those in the Central Valley, home to nearly three million people and one of the fastest growing regions in the state. Far from bypassing the Central Valley, the project aims to bring the state together and improve the region's notoriously bad air quality while also improving livability and ease of travel along the alignment. This inclusive planning benefits every community intersected by and connected to high-speed rail, including fast-growing cities such as Fresno and Bakersfield and other communities such as Kings/Tulare and Merced.

#### ADVANCING DESIGN

In October 2022, the Authority Board of Directors unanimously approved the design contracts for the Central Valley stations to Foster + Partners and Arup. The Authority awarded a station design contract for the first of two separately funded phases. The first contract is to advance the design work at the four station sites, including identifying right-of-way and utility relocation requirements necessary for construction.

Meanwhile, the second contract progresses to final design and construction ready documents, construction support and commissioning. Creating new multimodal, environmentally friendly stations in these areas will help bolster their economies and raise their profile in the state. The Authority partners with the station's city to serve the community's unique needs based on public feedback to create local hubs that are shaded, pedestrian friendly and bikeable.

Additionally, the advance design for the Merced and Bakersfield sections of the Central Valley line were approved in August 2022, bringing the project closer to building the final Central Valley packages that will complete the 171-mile section. The

Authority awarded the Merced to Madera extension design contract to Stantec Consulting Services Inc., which covers approximately 33.9 miles with 40 structures. The Fresno to Bakersfield extension contract was awarded to HNTB and covers approximately 18.5 miles between the cities of Shafter and Bakersfield in Kern County with 31 structures. The two firms will work with the Authority to finalize the project configuration footprint and advance design work to refine costs and travel time enhancements, and map right of way and utility relocation.

#### ENVIRONMENTAL CLEARANCE

In August 2022, the Authority Board approved the final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) and finalized the approximately 43-mile project route for the San Francisco to San Jose section. This action completed the environmental clearance in Northern California, in compliance with one of the requirements of the \$2.5 billion federal American Recovery and Reinvestment Act grant the Authority received. The grant required environmental clearance of the Phase 1 system and starting construction of the project in the Central Valley.

The draft environmental documents for one of the final Southern California sections, Palmdale to Burbank, recently finished its extended comment period. With the comment period for this Draft EIR/EIS complete, the Authority is on track to complete environmental clearance for the full Phase 1 California High-Speed Rail System from San Francisco to Los Angeles/Anaheim by the end of 2024.

#### SUSTAINABILITY

The Authority is committed to being the backbone of California's ambitious climate goals both in creating a fully electrified high-speed rail and



Rendering of the Fresno station that will be located between Fresno's Downtown and Chinatown areas. The Authority is looking to deliver passenger operation by 2030 between Merced and Bakersfield but with the understanding that risk could push that schedule window out to 2033.



Rendering depicting station elements of the Fresno station located between Fresno's Downtown and Chinatown areas.



Rendering of the Merced station located in central downtown Merced. Merced-Fresno-Bakersfield will carry more riders, deliver the most mobility, and environmental/economic benefits (the 56-minute trip will shave 100 minutes off a 2.5 hr. car ride)



making sure the construction of the rail system is as sustainable as possible. To highlight and maintain transparency on our efforts, the Authority releases regular Sustainability Reports. The 2022 report, released in October, detailed efforts such as restoring more than 2,972 acres of habitat and protecting more than 3,190 acres of agricultural land, planting more than 7,100 trees and avoiding 420,245 pounds of criteria air pollutants – the equivalent of removing one natural gas-fired power plant from the grid for a year.

### FUNDING

Securing funding has always been a challenge for the Authority, especially in recent years as the country has weathered challenges of the COVID-19 pandemic and, more recently, inflation and global supply chain issues. The recent support of the federal government and the state of California have nevertheless driven positive developments.

In June 2022, after extensive negotiation with the California Legislature, Gov. Gavin Newsom signed the yearly state budget appropriating the remainder of the Proposition 1A funding voted for by the public in 2008 to help fund the high-speed rail project. The original funding was \$9.95 billion, at the time of the allocation \$4.2 billion remained undispersed. The \$4.2 billion was packaged as part of a multi-year transportation deal that totals \$15 billion investment, including \$10.8 billion for transit, port-related goods movement, active transportation, climate adaptation and more. The remaining Prop 1A funding will accelerate the advancement of the project. This news builds on the project's momentum and drives it toward finishing the initial 171-mile Merced to Bakersfield.

Meanwhile, in August 2022, the Authority was awarded \$25 million in federal funding for advance design work to move the project beyond

the 119-miles under construction and into downtown Merced. This grant was awarded through the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program, and \$25 million is the maximum grant award. This is the second grant the Authority received under the Biden Administration since November 2021. The Authority was previously awarded \$24 million for crucial safety, efficiency and construction projects in and around the City of Wasco and State Route 46. After years of low federal support during the Trump era, the federal government's reengagement has been a great boon to the project.

To keep up the progress, the Authority is looking to leverage new funding sources to further advance the project's momentum. In October 2022, the Authority applied for new federal funding to expedite important safety improvements along the rail line in the Central Valley. The Authority applied for \$67 million in grant funding from the Federal Railroad Administration's FY22 Railroad Crossing Elimination Program for improvements to six current railroad grade crossings in Shafter, Calif. If awarded, these funds would go toward work on the first major structures in the Central Valley outside the current 119 miles under construction, a major milestone in connecting to Bakersfield. It would also provide funding for the Central Valley Training Center.

In April, the Authority applied for additional federal funding through the Federal-State Partnership for Intercity Passenger Rail Program. The application asked for two grants: the first asks for \$193.6 million to fund configuration level design for the San Jose to Merced and Bakersfield to Palmdale project sections both of which involve complex tunnels requiring in-depth geotechnical investigation; the

second asks for \$2.8 billion to help build a two-track system connecting the cities of Merced, Fresno, and Bakersfield. Both grants would be matched through California's Cap-and-Trade funds.

### THE FUTURE IN FOCUS

The Authority looks forward to improvements and exciting updates. Per the requirements for the dispersal of the remaining Proposition 1A funds, the Authority will establish an Inspector General to provide independent oversight of the project. This is a welcome addition to the Authority's robust commitment to transparency and accountability. The Authority's recent progress in construction, environmental clearance, and funding has put the project in a strong position as it moves ahead. There are many exciting developments to look forward to as the Authority works to deliver its first operating segment in the lead up to delivering the full Phase 1 system. The project is only picking up speed in 2023 towards a better, more sustainable future of California transportation.

“The reality about transportation is that it's future-oriented. If we're planning for what we have, we're behind the curve.”

-Anthony R. Foxx,

U.S. Secretary of  
Transportation, 2013-2017

LIFETIME  
*achievement*  
AWARD

Jolene M. Molitoris



American Public Transportation Association (APTA) held its 2023 High-Speed Rail Seminar, Connecting America's Cities, in Washington, D.C.

Nearly 300 industry leaders and advocates gathered to discuss the growing pipeline of projects under the Infrastructure Investment and Jobs Act (IIJA), and to honor the lifetime achievements of the first female administrator at the Federal Rail Administration (FRA), Jolene M. Molitoris.

Lifetime Achievement Award  
March 15, 2023