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60TH ANNIVERSARY - THE TOKAIDO SHINKANSEN

CELEBRATION. The Shinkansen is world-famous and embodies the Japanese quest for perfection: with a travel speed of up to 320 kilometers per hour, it is one of the fastest trains in the world.



Don't miss previous issues!



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The Tōkaidō Shinkansen, operated by the JR Central, and formerly by Japan National Railways (JNR), is a high-speed line connecting Tokyo and Ōsaka. The Shinkansen network consists of multiple lines, but the Tōkaidō line is the oldest, first conceived in 1940 and opened in 1964. It is the most heavily traveled high-speed rail route in the world by far, with a cumulative ridership of 6.9 billion passengers.

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A FAIRWELL MESSAGE FROM THE CHAIR:

CHRIS BRADY



HS&IPR *Committee & Friends*

Dear Friends,

As we come together in Cleveland for APTA's 2024 Rail Conference, I want to thank each of you for your participation and support of the High-Speed and Intercity Passenger Rail Committee. My two years have flown by, as we have worked with Congress, the Administration and each other to support the implementation of the Infrastructure Investment and Jobs Act, passed by Congress in November 2021.

From our monthly Friday calls to our annual conferences, the Committee has enjoyed a strong working relationship with senior executives of the Federal Railroad Administration (FRA), state DOTs, Amtrak and private-sector enterprises. We have learned from and shared with our international colleagues from Europe and Japan.

We've had robust engagement that has allowed our members to learn from FRA about its numerous new programs, share success stories and best practices with each other, and create a sharing environment that will inform passenger rail implementation efforts for years to come.

These efforts will no doubt continue under the Committee's new slate of officers for the next two years, and with the strong support of the members of Committee and APTA's professional staff, Art Guzzetti, without whom the Committee could not prosper as it has.

Congratulations to the incoming officers, and thanks to each of you for your strong participation and support for the goal of bringing safe, clean and efficient high-speed rail to the U.S. Looking forward to great things as we prepare for the reauthorization!

Chris Brady

TRANSPORTATION

ITALY

WEBUILD WORKS, COMMISSIONED BY RETE FERROVIARIA ITALIANA

The construction of the Naples-Bari high-speed/high-capacity railway is a crucial infrastructure project that will enhance connectivity and improve transportation options in the region. By embracing innovative and sustainable techniques such as hyperbaric excavation, the project team is setting a new standard for infrastructure development in Italy. The work on the Casalnuovo artificial tunnel is just one example of the forward-thinking approach being taken by Rete Ferroviaria Italiana (RFI), the leading company in the infrastructure hub of the FS Group, and their partners. As construction continues on the Naples-Bari railway, it is clear that this project will not only improve transportation for residents and businesses in the region, but also serve as a model for sustainable and innovative infrastructure development in Italy and beyond. The process uses compressed air to drive away water, reaching a level of hydrostatic pressure that allows working in dry conditions, without the risks associated with cementitious mixtures and chemical additives used in excavation when they come in contact with the soil and groundwater. This is hyperbaric excavation, an innovative, safe and sustainable technique that is now being used in Italy as well on construction sites for the high-speed railway connecting Naples to Bari, one of the few times this technology has been used in Europe.



USA



NEW YORK - BOSTON

Richard Davey, a Bay State native, has been named the new chief executive officer of the Massachusetts Port Authority (Massport) - May 2024. Davey brings with him a wealth of experience in transportation management, having previously led the Massachusetts Bay Transportation Authority and the commonwealth's Department of Transportation. He also spear-headed Boston's bid for the 2024 Olympic Games, showcasing his ability to navigate complex and high-stakes projects. Demetrius Crichlow is a lifelong New Yorker and a familiar face around the MTA being a 27 year veteran, he will be stepping into the role of interim president of New York City Transit following Davey's departure. Crichlow currently heads the subways division of New York City Transit, where he has worked his way up the ranks over the past decade. Starting as a special assistant for operations, Crichlow has managed various train lines and subway operations before attaining his current position as Senior Vice President of Subways in 2021. The appointments of Richard Davey and Demetrius Crichlow to their new leadership roles highlight the importance of experienced and capable individuals in the field of transportation management. As they take on their new responsibilities, both leaders will undoubtedly bring their own strengths and insights to their respective organizations, furthering the advancement of efficient and effective transportation systems in their regions.

FTA AWARDS \$343MM FOR STATION ACCESSIBILITY PROJECTS

The Federal Transit Administration (FTA) on May 28, 2024 reported that eight transit systems in eight states will share \$343 million to make their rail stations “more accessible and in line with the Americans with Disabilities Act (ADA) standards” by installing elevators, renovating platforms for level boarding, improving signage, and improving visual and audio systems.

CALIFORNIA - SFMTA -	\$4,687,612
LOUISIANA - NORTA -	\$5,492,524
MASSACHUSETTS - MBTA -	\$67,609,672
MARYLAND - MDOT/MTA -	\$1,395,330
NEW JERSEY - NJT -	\$83,311,809
NEW YORK - MTA -	\$156,503,053
OHIO - GCRTA -	\$16,000,000

\$205B American High-Speed Rail Act Introduced -

On Monday, March 11, 2024, U.S. Representatives Seth Moulton (D-MA) and Suzan DelBene (D-WA) introduced the American High-Speed Rail Act of 2024. This groundbreaking bill aims to allocate \$205 billion over the course of five years towards the planning and construction of a national high-speed rail network in the United States. The introduction of the American High-Speed Rail Act represents a significant step towards the realization of a long-awaited dream for many advocates of High-Speed Rail. With the allocation of such a substantial amount of funding, the vision of a federal-level, big picture plan for a high-speed rail network is finally within reach. The American High-Speed Rail Act of 2024 not only demonstrates the commitment of U.S. lawmakers to enhancing transportation infrastructure but also highlights the potential for economic growth and job creation that a national high-speed rail network could bring. By investing in the planning and construction of high-speed rail, the USA has the opportunity to revolutionize the way people travel across the country.

SPAIN

The first 10 Talgo S106 Avril high-speed trainsets entered passenger service with national operator RENFE on May 21, 2024.

The Alta Velocidad, Rueda Independiente, Ligero (High Speed, Independent Wheels, Lightweight) is the latest evolution of the Talgo family. The 205 mph or 330 km/h Series 106 sets have two driving power cars and 12 articulated coaches. The configuration is similar to that of previous Talgo trainsets, with four motored bogies under the power cars and 13 of Talgo's 'rodals' to support the coaches.



AUSTRALIA

Australia to spend \$80m on business case for Sydney-Newcastle high speed rail

The federal government has committed almost \$80 million to an initial business case for the greatly anticipated high-speed rail line from Sydney to Newcastle which would connect the two cities, slashing travel time from the current two and a half hours to as little as 45 minutes. Transport and Infrastructure Minister Catherine King said the High-Speed Rail Authority (HSRA) would receive \$78.8 million to deliver the business case. The document will outline the proposed route for the rail line, station locations, the type of trains to be used and the cost and time frame for the project. It is expected to be provided to the government by the end of this year (2024), two years ahead of schedule.

“Both cities will benefit from that interconnection, as will people all along the corridor,” HSRA chief executive Timothy Parker said. “It’s a really good starting point to set the tone for what high-speed rail could be for the whole eastern board of Australia.”

EGYPT

The first phase of the high-speed electric train line between Ain Sokhna and Matrouh is set to begin operating in June 2024, marking a significant milestone in Egypt's transportation infrastructure. The project, which has been in the works for some time, represents a major investment in the country's railway system and is expected to provide a fast and efficient mode of transportation for passengers travelling between the two cities. German railway company Deutsche Bahn has played a key role in the development of the project, with plans to operate the train's first line. The company has submitted an offer to oversee the operations of the line, and if successful, may work closely with Egyptian railway authorities to determine ticket prices and other operational details. The construction and implementation of the HSR network is a massive undertaking, with a total cost of USD 4.5 billion for the first phase alone. A consortium of German companies, including Siemens, Orascom Construction, and Arab Contractors, has been tasked with designing, supplying, and maintaining the line, which will run for 660 kilometres and connect the cities of Ain Sokhna, Alexandria, New Alamein, and Matrouh.



2024 CONFERENCES

RAIL CONFERENCE

June 2-5, 2024

Cleveland, OH

APTATECH

August 4-7, 2024

Philadelphia, PA

SUSTAINABILITY OPERATIONS PLANNING AND SCHEDULING

August 18-21, 2024

Washington, DC

WORKFORCE SUMMIT

August 21-23, 2024

Washington, DC

TRANSFORM CONFERENCE

September 29-October 2, 2024

Anaheim, CA

SAFETY AND RISK MANAGEMENT SEMINAR

December 8-11, 2024

Atlanta, GA





SHINKANSEN

SIXTIETH ANNIVERSARY OF SHINKANSEN

Contribution By: Rie Hirose, JR East

JR TŌKAI TO MARK SHINKANSEN'S 60TH ANNIVERSARY

THE SHINKANSEN LINES TAKE YOU IN DIFFERENT DIRECTIONS AROUND JAPAN. FROM TOKYO TO THE SOUTH RUNS THE TOKAIDO SHINKANSEN LINE, CONNECTING THE CAPITAL WITH OSAKA. THE SANYO SHINKANSEN LINE CONNECTS OSAKA WITH FUKUOKA AND, FROM THERE, THE KYUSHU SHINKANSEN LINE RUNS THROUGH THE ISLAND OF KYUSHU FROM NORTH TO SOUTH. THE OTHER SIX LINES EITHER TAKE YOU NORTH OR INLAND FROM TOKYO. THESE ARE THE AKITA, HOKKAIDO, HOKURIKU, JOETSU, TOKOKU, AND YAMAGATA SHINKANSEN LINES. THE HOKKAIDO LINE TAKES YOU THE FURTHEST NORTH, ALL THE WAY TO HOKKAIDO ISLAND.

High speed railway in Japan, known as Shinkansen, began operations in 1964 when the Tokyo Olympics were held, and it celebrates its 60th anniversary this year. The term "Shinkansen" in Japanese consists of "new" (Shin, 新), "trunk" (Kan, 幹), and "line" (Sen, 線), which reflects its role as a new trunk line connecting cities, facilitating people's travel, and serving as a vital lifeline for Japan.

As of May 2024, there are 8 Shinkansen lines operating with a total length of approximately 1,800 miles. It's worth noting that Japan's land area is roughly equivalent to that of Montana in the U.S. In FY2022, the annual number of Shinkansen passengers was 295 million. (Before the pandemic, in FY2018, it was 386 million passengers). The maximum operating speed of Shinkansen is about 200 miles per hour on Tohoku Shinkansen line. It connects Tokyo, the capital of Japan, to Morioka, one of the main cities in the Northeast region, covering about 310-mile distance in 2 hours and 10 minutes. Regarding

punctuality, Tokaido Shinkansen line, which connects Tokyo and Osaka, Japan's second-largest city, covering about 340-mile distance, achieves an average delay of 1.1 minutes, handling highest frequency and mass transportation. In terms of safety, there have been no fatal accidents due to railway operator errors since Shinkansen's inception. Shinkansen offers comfortable and safe travel with excellent punctuality and accessibility, contributing to the revitalization of regions and cities. It also helps reduce congestion through mass transportation and environmental impact due to high energy efficiency.

The technology of Shinkansen is planned to be utilized in the development plans for Texas High-Speed Railway, aiming to connect Dallas and Houston, covering about 240-mile distance, in 90 minutes instead of the current 3.5 hours by car. High expectations are raised for the future progress in the project.



Courtesy of Central Japan Railway Co.



SPEEDLINES | JUNE 2024

Rail Symposium 2024

Value Creation for a Sustainable Society

Contributed By: Jennelise Hafen, APTA

APTA / JITTI RAIL SYMPOSIUM SPEAKS TO RAIL GROWTH AND INTERNATIONAL COLLABORATION



On April 11, the Japanese International Travel and Tourism Institute (JITTI) and APTA hosted the Rail Symposium, “Value Creation for a Sustainable Future” in grand Pavilion Room of the Ronald Reagan Pavilion in downtown Washington, D.C.. This event is one of many collaborative programs enabled by the long-standing partnership between APTA and JITTI. Paul Skoutelas, APTA President and CEO and Masafumi Shukuri, Chairman of JITTI kicked off the program focusing on the once in a century opportunity the Bipartisan Infrastructure Bill has afforded the U.S. Transit industry.

“The Federal Railroad Administration is helping to connect cities and regions with high-performance rail, something Japan led the world in doing 60 years ago when it opened the Shinkansen System”, Skoutelas said.

He continued “The U.S. strategy is to begin by focusing on a small number of corridor projects that can

advance quickly, while developing a broader pipeline of longer-term projects that will move forward as they become ready. An effective, resilient, and easily accessible passenger rail network represents a missing link in America’s overall transportation system. For the first time in more than 150 years – since the First Trans-Continental Railroad united our East and West Coasts – the United States has a once-in-a-century opportunity to build that missing link.”

Spokespersons from commuter rail, high-speed and intercity passenger rail, and rail transit shared stories of successful programs in both Japan and the U.S., fostering an environment for information exchange and opportunities learn from each other.

This full-house symposium was presented in both Japanese and in English (with seamless and simultaneous interpretation through headphones). Following the panels was a networking happy hour with sushi and other light snacks, where attendees were able to discuss the panels, exchange ideas and make connections between Japanese and American organizations. [This symposium was recorded and can be found on YouTube at https://www.youtube.com/live/XbCGyCtfXSQ?si=qum_XQOFTytULSo2](https://www.youtube.com/live/XbCGyCtfXSQ?si=qum_XQOFTytULSo2)

The Keynote speakers, Jennifer Mitchell, Deputy Administrator of the FRA and Masako Okano, Deputy Director-General of the Railway Bureau in the Ministry of Land, Infrastructure, Transport and Tourism of Japan spoke with optimism about the future of High-Speed Rail in the U.S., and the plans

and partnerships that will make a sustainable High Speed Rail system possible.

Two panels followed. “The Economic Value That Passenger Rail Brings by Connecting Cities”, moderated by Chris Brady, Chair of the APTA Committee on HS&IPR and Principal of the Commonwealth Research Associates featured insights from Andy Byford, Amtrak Senior Vice President for High-Speed Rail Programs, and Chad Edison, Chief Deputy Secretary for Rail and Transit, California State Transportation Agency. The conversation covered an announcement earlier that week by Texas Central Partners and Amtrak about joint- opportunities to advance planning and analysis work associated with the proposed Dallas-Houston 205-mph high-speed rail project to further determine its viability.

The second panel “Enhancing Urban Attractiveness and Resilience” was moderated by Jennifer DeBruhl, Director for the Virginia Department of Rail and Public Transportation. Panelists included Catherine Rinaldi, President of MTA Metro North Railroad, and Holly Arnold, Director of the Maryland Transit Administration. Among other things, the discussion talked about how rail agencies are addressing current issues such as rising construction costs, climate resilience, and community development.

Both panels highlighted partnerships and directives needed to create connected systems that can be

sustainable in the U.S. In Japan, 61% of the population lives in the corridor of Shinkansen, obviously demonstrating the economic benefits of High-Speed Rail. This comes from commitment in creating a service that can be trusted for safety, speed, reliability, and frequency and the focus on building communities around this service.

The high-speed train enables the support of local culture and traditions, which in turn contribute to community economy, lifestyle, and stability. In the U.S. we are at the beginning this venture. In the U.S., current funding from FRA, local communities, and states are creating excitement and a path toward reaching goals of a High-Speed rail system. We are starting to see how HSR can change the economic outlook for parts of the U.S., Amtrak is the largest operation in the United States in 2025. Rail infrastructure supports 90,000 jobs and 750 American companies. High-speed rail in California, as in Japan, will focus on building corridors and connecting services where high speed rail has the potential to change the lives of folks living along those routes. Noted in these conversations the best way to build excitement around High-Speed Rail is to experience it, and once the U.S. is able to get a true high-speed service with all the convenience, reliability and comfort of the Shinkansen running, every jurisdiction will clamor for the opportunity to have high-speed rail to their region.



Rail Symposium 2024: Value Creation for a Sustainable Society

CO-HOSTED BY JITTI AND APTA

Thursday, April 11th | Hybrid Event: Ronald Reagan Building and International Trade Center

Held Virtually in English and Japanese

THIS SYMPOSIUM DISCUSSED HOW THE VALUE OF PASSENGER RAIL (HIGH SPEED, INTERCITY, COMMUTER, HEAVY AND LIGHT RAIL) IS BEING ARTICULATED AND MEASURED IN BOTH JAPAN AND THE U.S., REAFFIRMING THE SOCIAL AND ECONOMIC ROLE THAT PASSENGER RAIL PLAYS BY CONNECTING CITIES AND ENHANCING THEIR ATTRACTIVENESS AND RESILIENCE.



DALLAS- HOUSTON, TEXAS

Contribution By: Jed Poster, Amtrak

In 2000, Amtrak introduced Acela, the first high-speed train in the Americas. Today, Acela trains operate at a top speed of 150 mph, soon to increase to 160 mph when our new Acela trains enter service.

The passage of the Infrastructure Investment & Jobs Act (IIJA) in 2021 marked the beginning of a new era in American passenger rail. With unprecedented levels of funding, Amtrak is embarking on the largest capital program in our history to modernize our fleet, bridges, tunnels, stations, and other infrastructure, while redefining the customer experience for the modern era.

Early last year, Amtrak hired Andy Byford for the role of Senior Vice President, High-Speed Rail Development Programs. In this role, Andy is responsible for developing Amtrak's HSR strategy and identifying potential HSR corridors that could tie into the fabric of America's railroad. We believe that Americans deserve high-quality, safe, reliable rail transportation, and HSR should be one piece of the multimodal puzzle.

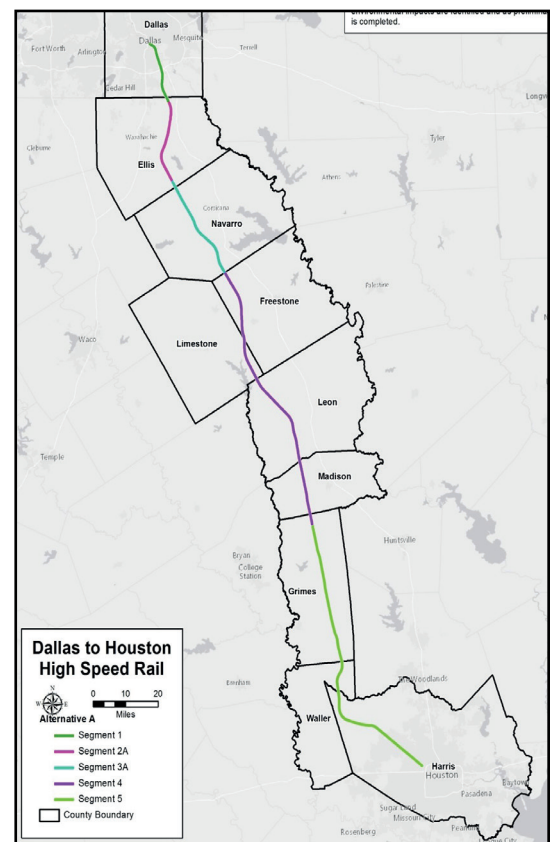
HSR isn't the right solution for every market, but when it's implemented in the right places, it can transform and bridge the gap between entire regions. As countries around the world have shown, HSR works best between cities with strong travel demand, growing economic linkages, and suboptimal modal alternatives. The sweet spot is 200-600 miles – trips that are too short to fly, too long to drive, where highways are congested and airlines are using valuable slots that could be allocated to more profitable and efficient long-haul flights.

SO WHY TEXAS?

Dallas and Houston are the fourth- and fifth-largest Metropolitan Statistical Area (MSA) in the nation, their economies are growing faster than the national average, but... there isn't a single direct passenger rail connection between them. If you wanted to take the train from Dallas to Houston today, your trip would take at least 23 hours: nearly 11 hours on the once-a-day [Texas Eagle](#) from Dallas; a 7-plus hour layover

in San Antonio; and then finally 4 hours and 45 minutes on the three-times-per-week [Sunset Limited](#) to Houston.

Amtrak believes that the country's biggest and fastest-growing metropolitan areas deserve more. And



the travel market between these two megaregions has all the ingredients for a successful HSR project.

In 2023, Amtrak announced that we're exploring a potential partnership with [Texas Central](#), a private organization that previously led the planning process for an HSR system that would connect Dallas and Houston using internationally-renowned Japanese Shinkansen technology.

[The Dallas-Houston HSR project, which received its NEPA Record of Decision in 2020](#), would traverse the 240-mile alignment at speeds of up to 205 mph, giving passengers a 90-minute trip alternative to today's four-hour car trip. Defined by its planned average speed of 189 mph, the project would bring the fastest HSR system in the world to Texas.

Yes, you read that correctly: the fastest HSR system in the world by average speed. They say that everything is bigger in Texas; we think HSR in Texas should be faster, too.

Japan's Shinkansen technology is a world leader in providing safe and reliable HSR service powered by electricity. Since its introduction in the 1960s, there have been zero accidents causing onboard train fatalities. With an average trip delay of 24 seconds, Shinkansen trains are the most reliable mode of transportation one can imagine, and their comfortable seats and high-quality amenities make the ride go by even faster.

As our highways get more congested and the nation's rate of traffic fatalities remains stubbornly high, HSR would provide a



Courtesy of Texas Central Partners

compelling alternative to the I-45 corridor, one of the most congested highways in the nation – safe, punctual, comfortable, convenient, and environmentally friendly.

The [Federal Railroad Administration](#) agreed with the assessment that Dallas-to-Houston serves as a great potential HSR corridor for further planning and development, selecting Amtrak Texas HSR for the Corridor Identification and Development discretionary grant program in December 2023. As part of Corridor ID, the project can be a key component of the nation's pipeline of transformative intercity rail projects. With crucial funding provided through Corridor ID, Amtrak will lead project development activities to further develop the project's business case – assembling a funding package, advancing engineering and design, and securing regulatory approvals.

It's not a done deal yet. Every megaproject is complex – with so

many moving parts, it requires dedicated focus to leave the starting blocks, much less cross the finish line. As the first system of its kind in the nation, Texas HSR will require support and dedication at all levels of government. But as part of [Amtrak's goal to double our ridership by 2040](#) and reach net-zero emissions by 2045, we're proud to bring our 50 years of railroad-ing experience to evaluate this potential project and explore opportunities with Texas Central to help the state meet its full transportation needs as growth continues in the Lone Star state.

As Andy likes to say, "watch this space." (And if you haven't already, watch the video we posted on [Amtrak's YouTube channel featuring a conversation](#) between Andy and Amtrak President Roger Harris).

CHICAGO & ST. PAUL

HERE'S WHY AMTRAK'S NEW BOREALIS TRAIN MATTERS

Contributed By: Rick Harnish and Chris Ott, Midwest High-Speed Rail Alliance

AMTRAK BOREALIS 5/21/2024

INAUGURAL TRIP BETWEEN ST. PAUL AND CHICAGO!

AMTRAK CEO STEPHEN GARDNER JOINED LIEUTENANT GOVERNOR PEGGY FLANAGAN, FRA ADMINISTRATOR BOSE, AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION TO CELEBRATE THE START OF BOREALIS SERVICE ON TUESDAY, MAY 21, 2024.

On Tuesday, May 21, [Amtrak CEO Stephen Gardner](#) (at left in photo above, holding scissors) cut the ribbon for a new train. The new Borealis will run daily between Chicago and St. Paul. Hundreds of people gathered at St. Paul Union Depot to celebrate and to hear an impressive roster of local, state, and federal officials speak. [Amit Bose, the Administrator of the Federal Railroad Administration](#), called the new train “a win for the Midwest” and “just the beginning.” Here’s why the Borealis matters, and what we can learn from its successful launch.

The Minneapolis-St. Paul metro area has a population of more than three million people. Yet for decades, the Twin Cities has had only one intercity train: [Amtrak’s Empire Builder](#), which travels daily between Chicago and the Pacific Northwest. It’s no wonder that such an enthusiastic crowd celebrated in St. Paul for the first run.

Despite threatening weather, similar groups turned out at stops all along the way, in communities including Red Wing and Winona, Minnesota, and La Crosse, Tomah, Portage, and Columbus, Wisconsin. A few of these cities had organized official events to promote the Borealis, but even in communities that hadn’t, people gathered to welcome the train. Trains bring



Minnesota Lt. Governor Peggy Flanagan, Amtrak CEO Stephen Gardner, and Ramsey County Regional Railroad Commissioner Rafael Ortega cut the ceremonial ribbon to begin Borealis service from St. Paul to Chicago.

valuable options and benefits to communities, and the people who live there—and elected officials representing them—know it.

In 2021, the [Federal Railroad Administration](#) released the [Midwest Regional Rail Plan](#). Over several years, the FRA studied a 12-state region, then laid out a vision for a network of trains that would transform travel throughout the Midwest. The line linking Chicago and the Twin Cities is the foundation of the plan’s strategy.

The FRA’s vision calls for hourly, high-speed service on this line (with service to Madison, which is currently left out). The Borealis is just one new train on existing track



New passenger train arrivals and departures in a partnership with **MINNESOTA, WISCONSIN AND ILLINOIS**



“A SECOND DAILY PASSENGER RAIL SERVICE CONNECTING ST. PAUL TO CHICAGO VIA MILWAUKEE IS A WELCOME ADDITION TO OUR TRANSPORTATION SYSTEM, PROVIDING MORE CHOICES AND TRAVEL FLEXIBILITY FOR

PASSENGERS,” SAID COMMISSIONER NANCY DAUBENBERGER, MINNESOTA DEPARTMENT OF TRANSPORTATION. “WE APPRECIATE OUR PARTNERSHIPS WITH COMMUNITIES, FEDERAL, STATE AND LOCAL GOVERNMENTS, THE HOST RAILROAD CPKC, AND AMTRAK THAT WERE NEEDED TO GET THIS SERVICE ON-TRACK, AND TO PROVIDE ANOTHER SAFE, RELIABLE TRANSPORTATION OPTION. WE LOOK FORWARD TO CONTINUING THESE PARTNERSHIPS AS WE WORK TOWARD FURTHER BUILDING OUT PASSENGER RAIL OPTIONS IN THE MIDWEST.”



“THIS ROUTE INCLUDES EIGHT STATIONS IN WISCONSIN, AND DOUBLING THE FREQUENCY OF THE SERVICE WILL BETTER CONNECT THE MANY BUSINESSES, UNIVERSITIES AND TOURIST ATTRACTIONS ALONG THIS CORRIDOR,” WISDOT SECRETARY

CRAIG THOMPSON SAID. “THIS EXPANSION IS THANKS TO THE WORK WISDOT WAS ABLE TO DO TOGETHER WITH MINNESOTA, ILLINOIS AND AMTRAK, AS WELL AS THE OPPORTUNITIES PROVIDED BY THE BIPARTISAN INFRASTRUCTURE LAW. WE WILL CONTINUE TO WORK WITH FEDERAL AND STATE PARTNERS TO EXPLORE MORE PASSENGER RAIL OPTIONS IN WISCONSIN.”

“INVESTMENTS IN RAIL HAVE LONG HELPED MIDWESTERNERS AND THE REGION'S ECONOMY, AND THIS SERVICE WILL MEAN ADDITIONAL PASSENGER RAIL ACCESS FOR PEOPLE TRAVELING BETWEEN MINNESOTA, WISCONSIN, AND ILLINOIS WHILE CONTRIBUTING TO ECONOMIC GROWTH. TODAY MARKS YET ANOTHER WIN FOR PASSENGER RAIL EXPANSION IN AMERICA, AND THROUGH PRESIDENT BIDEN'S BIPARTISAN INFRASTRUCTURE LAW, EVEN MORE PROGRESS IS UNDERWAY,” SAID FRA ADMINISTRATOR AMIT BOSE.



Photo credit: Wisconsin Association of Railroad Passengers

Amtrak Midwestern Train Routes



shared with freight trains. But it is important, because it has brought attention to this line, as well as investment and cooperation with the host railroad, [CPKC](#), to improve its infrastructure.

Launching the Borealis demonstrates that elected leaders and other decision-makers recognize the importance of this corridor, and its future potential. Already, [WisDOT](#) has won a federal [Corridor ID grant](#) to do initial planning for further Borealis frequencies (and to expand train service to cities that lack it, including Eau Claire and Madison).

Planning much greater frequency for the Chicago-Twin Cities corridor also highlights the need to find new paths, such as ways to increase the capacity of the Chicago-Milwaukee corridor, which is heavily traveled.

Frequency of service matters. The Borealis is only the second train serving this line, but it has a carefully chosen schedule. [Borealis travelers heading both east and west](#) can expect to reach their stations in the afternoon or early evening, which leaves time for dinner or other plans. For anyone planning to return the next day, later departure times the following morning are convenient. For most travelers, this schedule is much more convenient than the Empire Builder's.

The Empire Builder frequently suffers from multi-hour

delays as it travels eastbound all the way from the West Coast. In addition to a more convenient schedule, the Borealis should be more dependable at travels between Chicago and the Twin Cities.

Speakers for the Borealis kick-off gave credit to the three states whose support has made the train possible: Minnesota, Wisconsin, and Illinois. The train was years in the making, in part because it's complicated and difficult for states to coordinate on projects like this over a long span of time. Even with strong support from most of the states, a shift in the political winds in just one can slow or stop a project. It shouldn't be this hard.

Amtrak, elected leaders, and transportation staff in the states the Borealis now serves deserve congratulations and thanks, but we need a federal railway program to guide and support multi-state projects like this.

The interstate highway system took decades to build, and it cost hundreds of billions, in today's dollars. It might never have come together—or it might have taken much longer and resulted in a patchwork of inconsistent standards—if the federal government had not led the way. Great train service needs and deserves federal planning, commitment, and investment, on a national scale.

In Wisconsin, the Borealis actually does not serve most of

Borealis

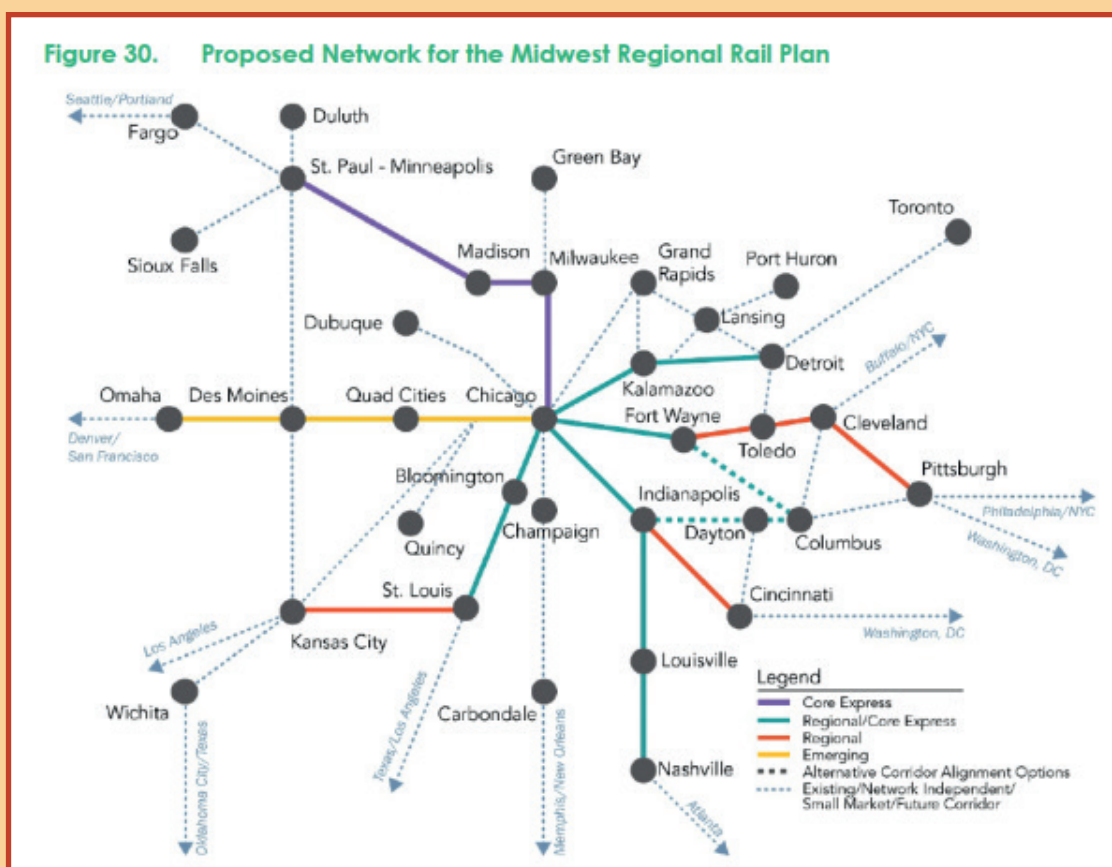
the state's largest cities, including Madison (second largest, the state capital, and home of the University of Wisconsin's flagship campus) and Green Bay (Wisconsin's third-largest city, and home of the Packers).

But many people live in the Wisconsin communities the Borealis does serve: La Crosse, Tomah, the Wisconsin Dells, Portage, Columbus, Milwaukee, and Sturtevant. The Borealis "travel shed"—the area in which people can access the train reasonably easily—includes about 59 percent of Wisconsin's population.

Opponents sometimes try to portray trains as serving only people in big cities. In fact, trains are vital to smaller communities, which often lack easy access to airports. A new train like the Borealis demonstrates what trains can do, for communities of all sizes. The bipartisan support that this geographic diversity builds will be critical for further service improvements, and expansions to cities that don't yet have train service.

Despite setbacks and a process that took many years, advocates for better trains supported this project. Alongside Amtrak and agencies such as state DOTs and the Great River Rail Commission, organized labor and advocacy groups including [All Aboard Minnesota](#), the [Wisconsin Association of Railroad Passengers](#), and [All Aboard Wisconsin](#) worked hard for this train. Individual advocates testified before legislative committees, contacted elected officials, and never gave up.

[The Borealis](#) is an important step in improved service projected to benefit more than two hundred thousand riders per year in three states. If the dedicated advocacy work that achieved this milestone continues, we can get the high level of service that this critical corridor deserves.



PENNSYLVANIA USA

PASSENGER SERVICE BETWEEN READING AND PHILADELPHIA RELEVANT TO HSR?

Contributed By: Thomas Frawley, SRPRA Executive Director

THE MISSION OF THE SCHUYLKILL RIVER PASSENGER RAIL AUTHORITY IS TO FACILITATE THE SUCCESSFUL RETURN OF RELIABLE PASSENGER RAIL SERVICE, CONNECTING THE COMMUNITIES OF READING, POTTSTOWN AND PHOENIXVILLE, PENNSYLVANIA WITH PHILADELPHIA AND BEYOND.



A few months ago, the Schuylkill River

Passenger Rail Authority ([SRPRA or the Authority](#)) was accepted into the Federal Railroad Administration's (FRA) Corridor Identification and Development Program (CIDP) to advance its proposal to implement intercity passenger rail service between Reading and Philadelphia, PA, and ultimately beyond to New York City. The SRPRA project is relevant to high-speed rail in two important ways. First, the SRPRA project will create a new feeder/distributor route that will support future growth of high-speed rail service on the Northeast Corridor. Second, the project's progress to-date is in no small part due to the aligned vision and teamwork of the leadership and staff of Berks, Montgomery and Chester Counties, providing a valuable lesson learned for other rail projects.

BACKGROUND OF THE SRPRA PROJECT

The first phase of the SRPRA Project will connect the communities of Reading, Pottstown and Phoenixville with Philadelphia at [Amtrak's William H. Gray III 30th Street Station](#). At 30th Street,

passengers of the new service will be able to access Amtrak's national passenger rail network, SEPTA's regional rail network, and several other rail and bus services. The second phase, which would provide a one-seat-ride to New York, similar in character to the PennDOT sponsored Keystone service between Harrisburg, Philadelphia and New York. A one-seat ride to New York for the Reading line is dependent upon completion of several capacity-related improvements between Newark, New Jersey and New York City collectively referred to as the Gateway Program, which are forecasted to be completed circa 2035.

Although the specifics of the new Reading – Philadelphia service will be better defined in the preparation of the [Service Development Plan \(SDP\) during Step 2 of the CIDP](#) later this year, the service is preliminarily viewed as embodying the following characteristics:

- Initial service frequency of four to six daily round trips, with eight to ten or more round trips when the ridership grows;
- Travel times competitive with automobiles; and,
- Stations located in the downtown areas of Reading, Pottstown

and Phoenixville, possibly utilizing historic station facilities;

The route would include segments of Norfolk Southern and Amtrak, and segments of either CSX or SEPTA depending upon route alignment ultimately selected in the area between Bridgeport and Philadelphia.

FEEDER AND DISTRIBUTOR ROUTES

The success of high-speed rail depends both on direct access to major metropolitan centers and to feeder and distribution networks that connect with HSR service in those centers. In the early 1980s, American High-Speed Rail Corporation proposed to build and operate a Shinkansen service between Los Angeles and San Diego. Although the project wasn't built, it is likely that its growth and success would have been limited by the then lack of regional feeder and distribution networks in the endpoint cities. In the intervening decades, much has changed. For example, when considering Los Angeles as a potential HSR service terminal, such service would have a high likelihood of success based on the network of numerous intercity rail, commuter rail, heavy and light rail transit and bus routes that radiate from Los Angeles Union Station.

Focusing on Philadelphia, in addition to the Amtrak Northeast Corridor (NEC), 30th Street Station is served by Amtrak Keystone Corridor trains to Harrisburg

and beyond, Amtrak long distance trains that reach beyond the NEC, 13 SEPTA regional rail routes, SEPTA's Market Frankford Line and Subway-Surface Routes, SEPTA bus routes, and NJ Transit's Atlantic City Rail Line. The station serves about 11 million passengers annually and facilitates thousands of interline and intermodal transfers daily; it is Amtrak's third busiest station in the United States, after New York and Washington.

The demonstrated behavior of people in southeast Pennsylvania to utilize the available network of passenger rail transportation services to access Amtrak's Northeast Corridor suggests that inauguration of passenger rail service between Reading and Philadelphia will increase interline passenger transfers to and from the NEC at Philadelphia, thereby contributing to the continued growth and success of Amtrak's High-Speed Rail service.

MULTI-JURISDICTIONAL TEAMWORK

In 2020, the Greater Reading Chamber Alliance sponsored a study to explore the potential for passenger rail service to Reading, PA. That study, unlike the many other studies performed in the years since SEPTA service ended in 1981, focused on intercity passenger rail rather than commuter rail. The study explored the possibilities of service through Philadelphia continuing beyond to New York City and/or Washington DC, and concluded implementation of such services would be feasible, both technically and financially. Based on those study results, in 2021, County Commissioners from Berks, Montgomery and Chester Counties organized a committee to explore how to advance development of passenger rail. Later that year, [the Bipartisan Infrastructure](#)

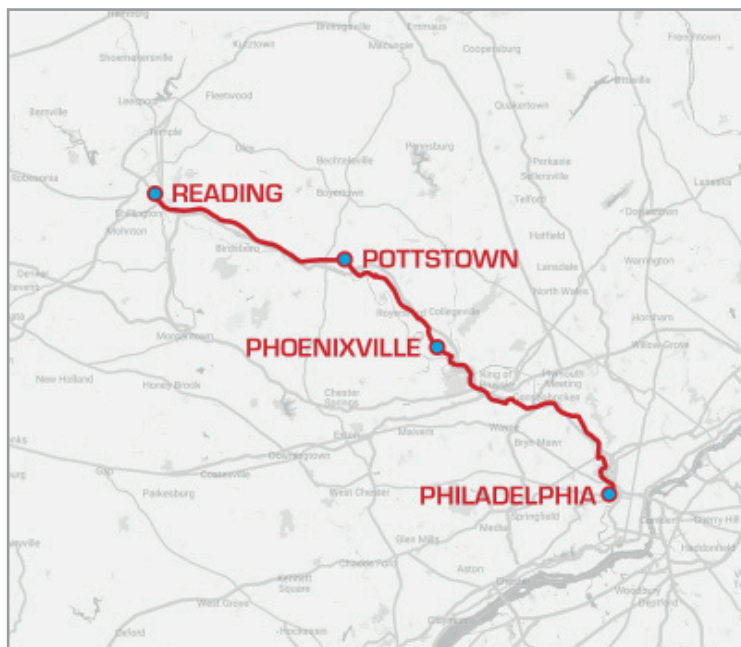
[Law \(BIL\)](#) was passed, providing funding for intercity passenger rail and creating the Corridor Identification and Development Program (CIDP) under the management of the FRA. It seemed as if the stars might finally be aligned for a re-birth of passenger rail between Reading and Philadelphia, and in June of 2022, the informal Committee was replaced, when the three Counties, under the provisions of the Municipal Authorities Act of Pennsylvania, incorporated the Schuylkill River Passenger Rail Authority (SRPRA). The following month, SRPRA submitted a Letter of Interest to FRA regarding participation in the CIDP application process. The incorporation of SRPRA required formal resolutions by the Boards of County Commissioners in the three incorporating Counties of Berks, Montgomery and Chester. These resolutions passed unanimously in all three Counties, the Boards of which were and are divided between Democrats and Republicans, underscoring the understanding that had been reached among all of the Commissioners of all three Counties, that the passenger rail project was not a partisan issue and would benefit the entire region.

All three Counties continue their

cooperative partnership in the work of the Authority, providing financial support in equal measures, and providing the assistance of staff of all three county Planning Commissions. In December 2023, SRPRA was notified that its project had been accepted into the CIDP and work formally began on March 1, 2024.

The teamwork among Berks, Montgomery and Chester Counties is understood to have been a factor in FRA accepting SRPRA's application to participate in the CIDP. That teamwork continues to be a factor in SRPRA's advancement of its workplan in the Corridor Program. At SRPRA, we have concluded that bi-partisan, unified teamwork among project sponsors and stakeholders, and across multiple jurisdictions, can be the difference between success and failure for passenger rail projects of any kind, including High-Speed Rail.

-THOMAS E. FRAWLEY, P.E., ESQ. IS THE EXECUTIVE DIRECTOR OF THE SCHUYLKILL RIVER PASSENGER AUTHORITY. HE IS AN ENGINEER AND AN ATTORNEY WITH OVER 40 YEARS OF EXPERIENCE IN PASSENGER RAIL PROJECTS.



IN THE SPOTLIGHT

YOU SHOULD GET TO KNOW US



MICHAEL CAHILL
PRESIDENT

"High-speed rail represents a pivotal shift in America's transportation landscape, promising to revolutionize mobility and connectivity. By linking urban centers and regional hubs, it fosters economic growth, enhances accessibility, and redefines the way we move, work, and thrive as a nation."

SIEMENS

ROLLING STOCK,
SIEMENS MOBILITY,
NORTH AMERICA



JILL ECKENRODE
PASSENGER RAIL COORDINATOR

"The Cascades is one of the most gorgeous routes in the country with friendly communities to match! Working with our partners at WSDOT, Amtrak and our host railroads, we aim to improve service in the region. Amtrak Cascades provides a comfortable alternative to congested highways, reducing greenhouse gas emissions in our busy but beautiful Willamette Valley. It's exhilarating to be a part of the planning efforts for new service and equipment in the Amtrak Cascades Corridor."

OREGON
DEPARTMENT OF
TRANSPORTATION



BEN LIMMER
BUREAU CHIEF, PUBLIC TRANSPORTATION

"Connecticut's passenger rail network is a critical component to the region's rail transportation network and economy. Thanks to the BIL, we are making generational investments on the NEC that will help improve the safety and reliability of rail service, offer operational flexibility, and provide for increased capacity, speed, and efficiencies. The strong partnerships we have with Amtrak and Metro-North, the FRA and FTA, and the unwavering support of our local, state, and federal officials, ensure we will move forward with these much-needed projects. I am excited to be part of it."

CONNECTICUT
DEPARTMENT OF
TRANSPORTATION



BILL LIPFERT
ASSOCIATE PRINCIPAL

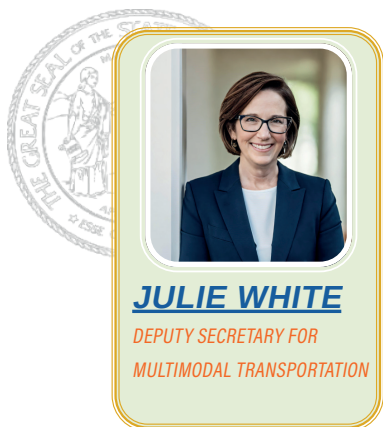
"Traffic on the I-95 in Stamford, CT is invariably stop-and-go, creeping along at 20 mph. As a commuter I often see 800+ passengers on commuter lines and 400+ passengers on intercity. Imagine if all of those passengers were in cars on the parallel highway! Those slowly moving vehicles would be at a dead stop, with nowhere to go. Experiences like this are why I find passenger railroading projects, whether in concept definition or final design stage, so professionally rewarding."

ARUP
RAIL DIVISION

NCDOT'S S-LINE

CONNECTING COMMUNITIES

Contribution By: Candice Andre and Paige Dickerhoof, VHB



KEY TO IMPLEMENTATION SUCCESS – Partnerships

“NCDOT has been so open and inclusive of all the communities. Everyone feels that they are true partners and being heard.”

– Mayor Vivian Jones, Town of Wake Forest

North Carolina communities have been at the forefront of planning for future passenger rail service on the S-Line. A brief background of the [S-Line Program – the North Carolina Department of Transportation](#), with other major partners, is working to expand its passenger rail service along the S-Line, a high-performance passenger rail corridor being developed between Raleigh and Richmond and part of the federally designated Southeast High Performance Rail Corridor. The Southeast Corridor will better connect rural and urban

communities and increase passenger rail services with shorter travel times between North Carolina, Virginia, and the Northeast. Communities that were historically built around rail along the S-Line now have the opportunity to create a true transit-oriented development (TOD) vision. This vision is unique to each community and is expected to mature at different times based on multiple factors, including funding and developer interest. The S-Line program has demonstrated a model of success for community readiness, starting

with a TOD planning study and progressing through mobility hub designs and economic development.

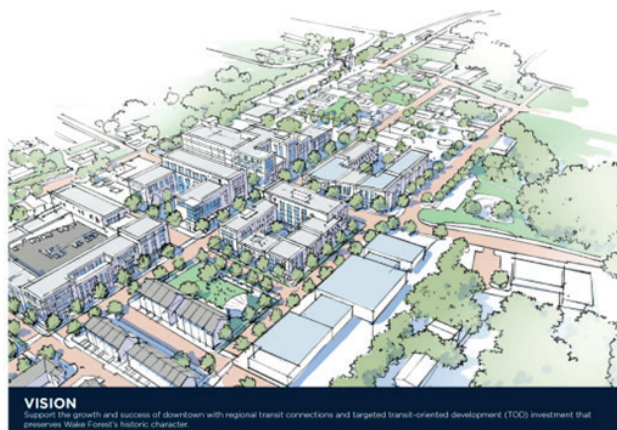
While numerous communities have been involved in the discussion on the opportunities surrounding the S-Line program, the communities illustrated below have partnered with NCDOT on the TOD planning study effort and mobility hub implementation. The current mobility hub planning study includes a feasibility study, NEPA, and preliminary engineering. The communities receiving these various studies are included in the map below. Each of these communities have invested significant effort and funding in these readiness initiatives. The commitment and creativity demonstrated by the communities have driven these opportunities forward.

The vision for each community was created through the TOD Planning Study process, completed in Summer 2023 and based on market conditions (existing and projected), extensive community engagement, and multimodal transportation needs. Each community received a “playbook” with recommendations that included recommendations for building and



WAKE FOREST: Downtown Wake Forest

Typology: Downtown



MARKET READINESS

5 = Strongest; 1 = Weakest

Current Market Strength



Through the station area is built out and lacks large scale development sites, the attractiveness of downtown Wake Forest will still garner development activity over the next 20 years. The station area has the highest TOD potential compared to the other two mobility hub areas in Wake Forest. Transit can make Wake Forest more attractive for people who prefer walkability and density and allow residents access to jobs along the S-Line with a mobility hub in downtown Wake Forest, higher density multifamily density (500 to 300 units) could be developed in the market, along with a moderate quantity of professional office uses, supportive retail, and a small hotel that takes advantage of the area's amenities.

Development Demand Projection (20 years)



The demand projections are based on historic development patterns, planning development projects, and a qualitative assessment of the future-representative market dynamics for each study area. The projections are not calibrated to the actual development capacity of the study area as determined by current land availability, current local zoning regulations.

architectural character; height, massing, and development transitions; infill development and adaptive reuse; and multimodal transportation and parking.

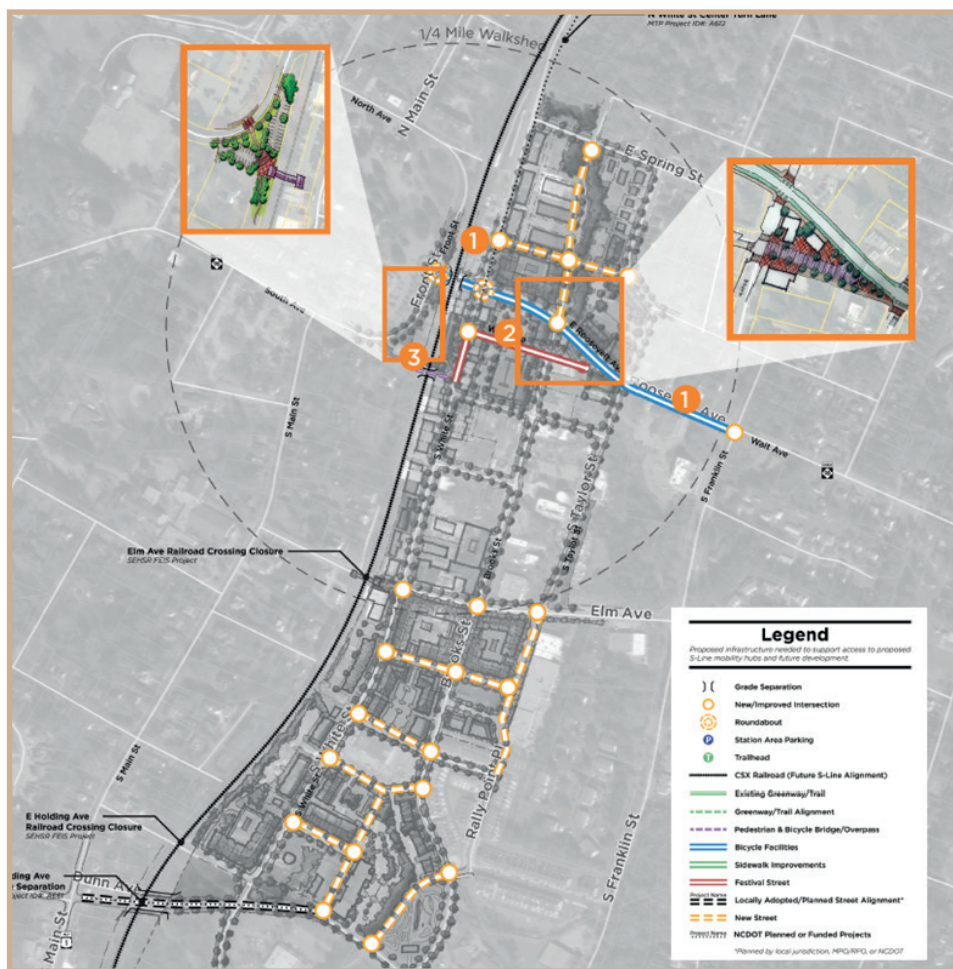
Vision

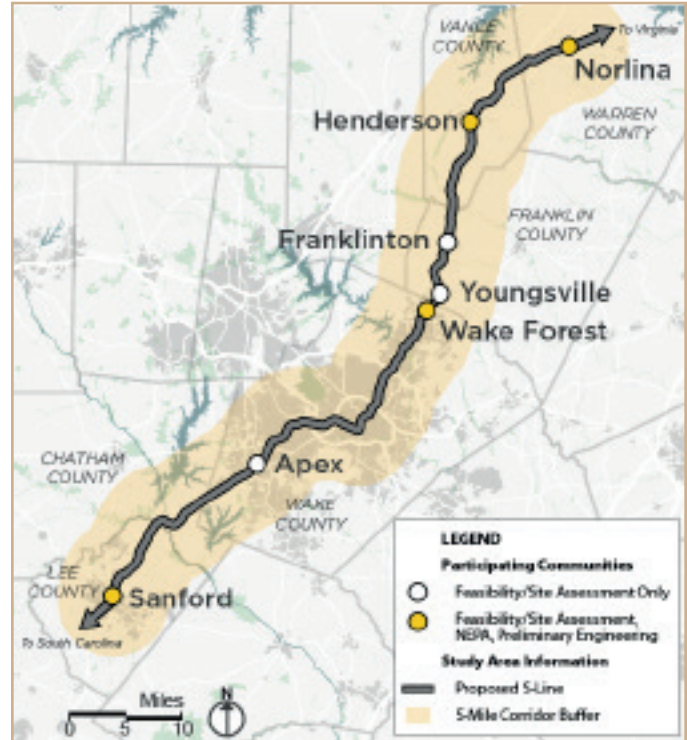
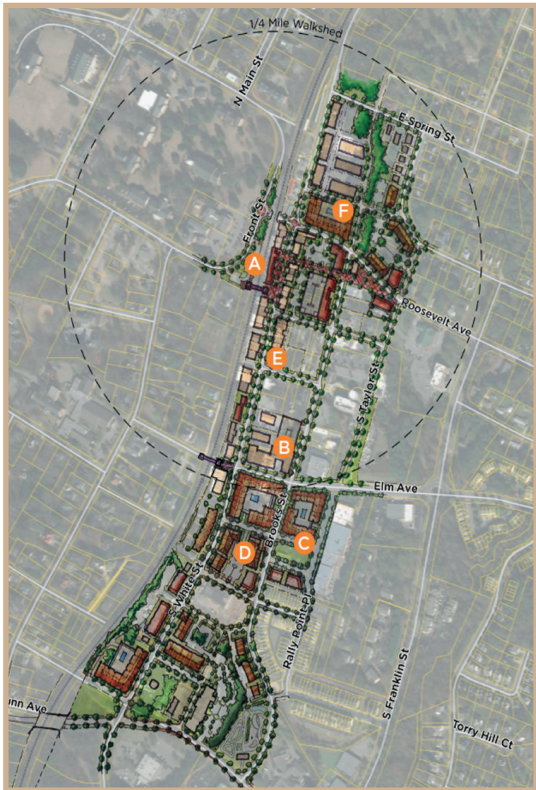
Specifically, the [Town of Wake Forest](#), which is expected to be the first stop on the S-Line north of Raleigh, saw a 11.87 percent population growth since 2020. With a strong growth trend, the Town understands the benefits of TOD – with denser, mixed-use developments, connected by a variety of transportation options. In a recent conversation with [Mayor Jones of the Town of Wake Forest](#), we discussed how to address the continuing growth and she mentioned that providing infrastructure and community services to TOD areas is less of a financial burden to the Town when compared to greenfield development. Transportation options are critical to the success of TOD – the more compact development needs options other than single-occupancy vehicles for connecting people to places of work and play. Priority infrastructure projects as part of the TOD study are shown in the image below, in addition to catalytic TOD sites. Mobility hubs are key to providing these transportation options in a single, activated area (the next major milestone in the community readiness model).

The Wake Forest community has been

engaged in the overall planning process for rail, TOD, and the mobility hub. The Town has been intentional about sharing information through social media and other communication platforms, and the community has paid attention.

The expectation is for a similar model to be used with interested communities along the [North Carolina corridors selected under USDOT's Corridor Identification and Development \(CID\)](#) program to prepare for potential future passenger rail. According to the Federal Railroad Association's webpage for [CID](#), the 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."





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 FOR MORE
 INFORMATION,
 GO TO:

<https://www.ncdot.gov/divisions/rail/s-line-projects/Pages/default.aspx>



BRIGHTLINE WEST

2024 - A HUGE MILESTONE FOR PUBLIC TRANSPORTATION

Contributed By: Speedlines Staff



Brightline West officially broke ground April 22, 2024 on its 218-mile high-speed rail line connecting Las Vegas to Southern California. Brightline is the only private provider of modern, eco-friendly, inter-city passenger rail service in America – offering a guest-first experience

designed to reinvent train travel and take cars off the road by connecting city pairs in congested corridors that are too short to fly and too long to drive. At speeds up to 200 miles per hour, trains will take passengers from Las Vegas to Rancho Cucamonga in about two hours, twice as fast as the normal drive time.

Nevada Building Trades. In addition, Nevada Reps. Dina Titus, Susie Lee and Steve Horsford and California Reps. Pete Aguilar and Norma Torres made remarks and joined the celebration. More than 600 people, including union representatives, project supporters and other state and local officials from California and Nevada, attended the event.



The [groundbreaking event](#) included remarks from U.S. Transportation Secretary Pete Buttigieg, Brightline Founder Wes Edens, Nevada Gov. Joe Lombardo, Sen. Catherine Cortez Masto, Sen. Jacky Rosen, Senior Advisor to President Biden Steve Benjamin and Vince Saavedra of the Southern

“People have been dreaming of high-speed rail in America for decades – and now, with billions of dollars of support made possible by President Biden’s historic infrastructure law, it’s finally happening,” said Secretary Buttigieg. “Partnering with state leaders and Brightline West, we’re writing a new chapter



in our country's transportation story that includes thousands of union jobs, new connections to better economic opportunity, less congestion on the roads, and less pollution in the air."

"This is a historic project and a proud moment where we break ground on America's first high-speed rail system and lay the foundation for a new industry," said Wes Edens, Brightline founder. "Today is long overdue, but the blueprint we've created with Brightline will allow us to repeat this model in other city pairs around the country."

CONSTRUCTION OF BRIGHTLINE WEST

Brightline West's rail line will be constructed within the median of the I-15 highway with zero grade crossings. The project was recently awarded \$3 billion in grant funding from FRA made available by the Bipartisan Infrastructure Bill. The rest of the \$12 billion project will be privately funded. Brightline has received a total allocation of \$3.5 billion in private activity bonds from USDOT.

The privately led infrastructure project is one of the largest in the nation and will be constructed and operated by union labor. It will use 700,000 concrete rail ties, 2.2 million tons of ballast, and 63,000 tons of 100 percent American steel rail during construction. Upon completion, it will include 322 miles of overhead lines to power the trains and will include 3.4 million square feet of retaining walls. The project covers more than 160 structures including viaducts and bridges. Brightline West will be fully Buy America Compliant. Brightline hopes to complete construction and introduce service prior to the 2028 Olympic Games in Los Angeles.

STATIONS AND FACILITIES

The system will have stops in Las Vegas, NV, as well as Victor Valley, Hesperia and Rancho Cucamonga, CA. The Las Vegas Station will be located near the iconic Las Vegas Strip, on a 110-acre property north of Blue Diamond Road between I-15 and Las Vegas Boulevard. The site provides convenient access to the Harry Reid International Airport, the Las Vegas Convention Center and the Raiders' Allegiant Stadium. The station is approximately 80,000 square feet plus parking.



The Victor Valley Station in Apple Valley will be located on a 300-acre parcel south-east of Dale Evans Parkway and the I-15 interchange. The station is intended to offer a future connection to the High Desert Corridor

and California High Speed Rail. The Victor Valley Station is approximately 20,000 square feet plus parking.

The Rancho Cucamonga Station will be located on a 5-acre property at the northwest corner of Milliken Avenue and Azusa Court near Ontario International Airport. The station will be co-located with existing multi-modal transportation options including California Metrolink, for seamless connectivity to Downtown Los Angeles and other locations in Los Angeles, Orange, San Bernardino and Riverside Counties. The Rancho Cucamonga Station is approximately 80,000 square feet plus parking.

The Hesperia Station will be located within the I-15 median at the I-15/Joshua Street interchange and will function primarily as a local rail service for residents in the High Desert on select southbound morning and northbound evening weekday trains.

The Vehicle Maintenance Facility (VMF) is a 200,000-square-foot building located on 238 acres in Sloan, NV, and will be the base for daily maintenance and staging of trains. This site will also serve as one of two hubs for the maintenance of way operations and the operations control center. More than 100 permanent employees will report on a daily basis once operations begin and will serve as train crews, corridor maintenance crews, or operations control center teammates. A second maintenance of way facility will be located adjacent to the Apple Valley station.

MARKET ASSESSMENT

The Las Vegas and Southern California travel market is one of the nation's most attractive corridors with over 50 million trips between the region each year. Approximately 17 million Southern California residents

are within 25 miles of the Brightline West station sites. Studies show that one out of every three visits to Las Vegas come from Southern California.

Additionally, Las Vegas continues to attract visitors from around the world, with 4.7 million international travelers flying into the destination. The city dubs itself on being the world's No. 1 meeting destination, welcoming nearly 6 million people to the Las Vegas Convention Center last year.

ECONOMIC & ENVIRONMENTAL BENEFITS

Brightline West's \$12 billion infrastructure investment will create over \$10 billion in economic impact for Nevada and California and will generate more than 35,000 jobs, including 10,000 direct union construction roles and 1,000 permanent operations and maintenance positions. The investment also includes over \$800 million in improvements to the I-15 corridor and involves agreements with several unions for skilled labor. The project supports Nevada and California's climate goals by offering a no-emission mobility option that reduces greenhouse gases by over 400,000 tons of CO2 annually – reducing vehicle miles traveled by more than 700 million each year and the equivalent of 16,000 short-haul flights. Brightline will also construct three wildlife overpasses, in partnership with the California Department of Fish and Wildlife and Caltrans for the safe passage of native species, primarily the bighorn sheep.

BRIGHTLINE FLORIDA

Brightline's first rail system in Florida connecting Miami to Orlando began initial service between its South Florida stations in 2018. In September 2023, Brightline's Orlando station opened at Orlando International Airport, connecting South Florida to Central Florida. Brightline has plans to expand its Florida system with future stops in Tampa, Florida's Space Coast in Cocoa and the Treasure Coast in Stuart. For more information, visit [SPEEDLINES Issue 37](#).



THE AMERICAN PIONEER 220

PIONEERING HIGH-SPEED RAIL IN THE U.S.

Contributed By: Armin Kick, Vice President Locomotives and High-Speed Trainsets, Siemens Mobility North America

THE TRIP FROM VEGAS TO SOUTHERN CALIFORNIA WILL BE ON A FLEET OF SIEMENS AMERICAN PIONEER 220S. BUILT ON MORE THAN 2 BILLION MILES OF HIGH-SPEED RAIL EXPERIENCE ACROSS THE GLOBE, THE AMERICAN PIONEER 220 IS THE MOST ACCESSIBLE HIGH-SPEED RAIL VEHICLE ON THE MARKET, ENSURING PASSENGERS IN WHEELCHAIRS CAN SEAMLESSLY MOVE FROM CAR TO CAR THROUGHOUT THE ENTIRE VEHICLE - WITHOUT INTERRUPTION. A GREENER TRAVEL EXPERIENCE WITH ENHANCED PASSENGER COMFORTS, THIS FIRST OF ITS KIND TRUE-HIGH SPEED TRAINSET WILL FOREVER TRANSFORM THE WAY AMERICANS EXPERIENCE RAIL TRAVEL.



For decades, the United States has talked about high-speed rail, but now the vision is becoming a reality with Siemens Mobility's American Pioneer 220 high-speed train. With a top speed of 220 mph on a 100 percent electrified network and accommodations beyond the current ADA requirements, the American Pioneer 220 will contribute to more connected and efficient transportation across the nation. The American Pioneer 220 stands out for its multifaceted advancements, engineered to optimize operational efficiency and passenger experience. With the integration of the latest in propulsion technologies, it offers a sustainable and cost-effective transportation solution, creating job opportunities and fostering community connections. It boasts a remarkable reduction in costs, with a 30 percent

cut in maintenance expenses. Fully digitally connected through Siemens Railigent platform, the train facilitates real-time maintenance analysis, minimizing downtime and maximizing efficiency. Combining a 15 percent lighter weight than previous models with futuristic aerodynamic innovations including fully shrouded bogies and optimized end car designs, the American Pioneer 220 boasts a reduction in energy consumption by up to 30 percent.

Safety remains paramount, with advanced control systems, robust crash energy management, and wide-body trains that consider the Rail Vehicles Access Advisory Committee (RVAAC) guidance. Moreover, by operating on 100 percent electrified power, the American Pioneer 220 aids in the removal of substantial carbon emissions from the air.



ABOVE: BRIGHTLINE WEST SELECTS SIEMENS MOBILITY FOR HIGH-SPEED TRAINSETS

Coming soon: The fastest train in the U.S.
Brightline West is the first true high-speed route in America

10 American Pioneer 220 high-speed trains

Up to **220 mph** in passenger operation

Technology solutions
for rail infrastructure and electrification
creating efficient and reliable operations

Potential for **700M+ fewer**
vehicle miles traveled per year between
Southern California to Las Vegas

- ADA compliant, end-to-end accessibility and fully automated boarding
- Remote digital monitoring
- FRA Tier III compliant
- Traction power and catenary installation
- First true high-speed train made in America
- Zero emission, fully electric

With spacious seating, seamless connectivity, climate control, and level boarding, the American Pioneer 220 prioritizes the passenger experience. It is the most accessible high-speed rail vehicle on the market, ensuring passengers in wheelchairs can seamlessly move from car to car throughout the entire vehicle with ease.

Beyond offering a more enjoyable travel alternative, the American Pioneer 220 catalyzes economic development, revitalizing cities and fostering growth along its route. From supporting technology clusters to facilitating mixed-use development around stations, its impact extends far beyond transportation, transforming communities and driving progress nationwide.

Brightline announced on May 1, 2024 that Siemens Mobility (Siemens) has been designated the “preferred bidder” to build trainsets for the Brightline West high-speed rail project that will connect Las Vegas and Southern California. The contract will include a fleet of ten “American Pioneer 220” (AP 220) trainsets to be manufactured, delivered to Nevada and tested to support

Brightline West’s timeline of initiating service in 2028. These trains are an evolution of the proven Velaro platform, currently operating in Europe. The seven-car trains will carry between 434-450 passengers, depending on final configuration and can make the trip between Las Vegas and Southern California in less than two hours.

The announcement came after a multi-year competitive procurement process conducted among multiple global competitors. The selection, which is subject to the conclusion of definitive agreements, is based on specific criteria that included price, manufacturing schedule, train performance (e.g. Speed and travel time), ADA compliance, passenger amenities and total passenger capacity. In addition, the criteria considered future interoperability with the California high-speed rail project. The trains will be built in accordance with all applicable “Buy America” requirements.

This selection includes a 30-year rolling stock maintenance contract that will be performed at brightline west’s vehicle maintenance facility in Sloan, NV. At this site, crews will perform routine daily maintenance, as well as long-term

overhauls and repairs. This will generate high-paying jobs performing train maintenance activities on a permanent basis.

“Just as we redefined train travel with our trainsets for brightline Florida, we are excited to pioneer this new frontier of manufacturing and development for brightline west,” said Michael Reininger, Brightline’s CEO. “The momentum we are building, will culminate in new jobs and a new supply chain that will establish the foundation for a high-speed rail industry from coast to coast.”

“We are excited to work with brightline to transform rail in America. The high-speed chapter of America’s rail story will build on Siemens’ 40 years of designing, building, testing, delivering and maintaining trains in the United States,” stated Marc Buncher, Siemens Mobility North America CEO. “On behalf of our 4,500 rail employees across the United States, we are excited to be selected to build and maintain America’s first true high-speed trains, which will feature some of the world’s most innovative high-speed rail technology. When they enter service, it will be one of the most pivotal moments in the history of American rail.”

MORE INFORMATION CAN BE FOUND HERE:

<https://www.mobility.siemens.com/us/en/portfolio/rolling-stock/high-speed-and-intercity-trains/american-pioneer-220.html>
<https://www.mobility.siemens.com/us/en/trends/high-speed-rail-in-us.html>

2024 CALIFORNIA



CALIFORNIA
High-Speed Rail Authority

Contribution By: Speedlines Staff

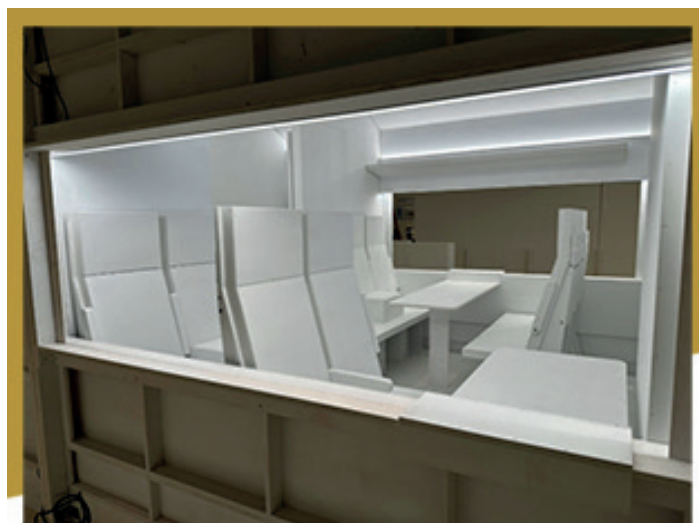
The California High-Speed Rail Authority (Authority) expects to commence service on its high-speed trains on an initial Merced-Fresno-Bakersfield operating segment sometime between 2030 and 2033. The Authority Board of Directors is moving the project forward by approving the release of a Request for Proposals (RFP) to Alstom Transportation, Inc., and Siemens Mobility, Inc., the two prequalified

shortlisted firms that were announced in January. The shortlist of these firms emerged from the Request for Qualifications approved by the Board in August of 2023. With proposals due in the fall of 2024, the Authority hopes to award a contract for 220 mph electrified trainsets by the end of the year.

The CHSRA will purchase a total of six trainsets capable of operating at 220 mph and tested up to 242 mph. These include two prototype trainsets to support testing and trial running and four trains for passenger operations on the 171-mile Merced to Bakersfield section, which is under construction.

The Authority has previewed concepts of what the trainsets could look like and what people can expect for an investment of more than a half-billion dollars. For months, the Authority's staff has been conducting outreach to student groups, families, disability advocates, engineers and others to gather feedback on what kinds of seating options, amenities and other features they want to see when the trains begin operating. The result is an ongoing evolution of plans and renderings that will likely be finalized later this year when the bids are finalized for the trainsets.

This procurement is possible in part due to the recent \$3 billion federal grant awarded in December, which included funding for new electric trains. In accordance with federal funding, trainset procurement will be Buy America compliant. Trainset design will be informed by formal feedback from hundreds of stakeholders. The CHSRA has begun work to extend the 119 miles currently under construction to 171 miles of future electrified high-speed rail from Merced to Bakersfield. There are currently more than 25 active construction sites in the Central Valley. The CHSRA has environmentally cleared 422 miles of the high-speed rail program from the Bay Area to Los Angeles County.



UK HS2

INNOVATIVE ENGINEERING SUPPORTS HIGH-SPEED RAIL PROGRAM

Contribution By: Jeff Wharton, Systra USA

HIGH SPEED RAIL 2 IS BUILDING ON THE SUCCESS OF HS1, THE TRANSFORMATIVE PROGRAM WILL ESTABLISH A NEW 140 MILE HIGH-SPEED RAILWAY CONNECTING LONDON AND BIRMINGHAM IN THE WEST MIDLANDS. HS2 WILL SIGNIFICANTLY INCREASE RAIL CAPACITY BETWEEN THE TWO CITIES AND WILL GENERATE ECONOMIC BENEFITS ACROSS THE UK. IT STANDS AS ONE OF EUROPE'S MOST AMBITIOUS INFRASTRUCTURE PROGRAMS.

The delivery of HS2 is complex and multifaceted the project is split in a number of Lots and Sublots (See Northern Sub Lot Map <https://learninglegacy.hs2.org.uk/document/hs2-area-north-route-map-tool/>).

Since 2017 the Mott MacDonald SYSTRA Design Joint Venture, with Weston Williamson + Partners, have been working as part of the Balfour Beatty VINCI contract to undertake the civil engineering design in the northern part of the route. Spanning 90km, this represents the largest and most complex northern portions of the project. Responsibilities include designing a spur into central Birmingham and the connection of the new infrastructure to the existing West Coast Main Line network in Staffordshire.

largest railway station built in over a century, offering unparalleled connectivity to three airports and many of Britain's largest cities. Travelers will enjoy seamless transfers between HS2 (using six underground platforms); the Elizabeth Line – the high capacity cross-London mass transit railway; the Great Western Main Line (with eight ground-level platforms); the North London Line; and the London Underground. The station's strategic location within a rapidly developing neighborhood is projected to spur the creation of 65,000 jobs and 5,500 homes.

TECHNICAL EXPERTISE MEETS DIGITAL INNOVATION

The delivery of HS2 is underpinned

by the markets deep knowledge in large-scale infrastructure projects. For example, the Water Orton No.1 & No.2 Viaducts are two continuous single-track concrete box girder viaducts designed to safely carry HS2 lines over major transport links (including motorways and railway lines), as well as the River Tame and its floodplain. Furthermore, the Birmingham & Fazeley Canal Viaduct, a composite structure, optimizes the use of steel and precast/cast-in-situ reinforced concrete for enhanced efficiency. Throughout these assignments, the UK engineers have leveraged their prowess in engineering, modeling, and Building Information Modeling (BIM). Dynamic and parametric 3D modeling tools, along with a centralized electronic data management space, have streamlined design

DELIVERING A SUPER-CONNECTED HUB

At the southern most point of HS2 there is the challenge of delivering a landmark element of HS2—the London high-speed station at Old Oak Common. This is being delivered under the Balfour Beatty Vinci SYSTRA (BBVS) partnership. Upon completion, the Old Oak Common Station will be London's



processes, ensured technical quality, and fostered collaboration among the numerous stakeholders involved in this massive program. The commitment to digital workflows was recognized early on at the 2019 Year in Infrastructure Awards, where the Joint Venture teams earned a Special Recognition Award for Advancing Digital Workflows through Digital Twins. This approach has continued to flourish and has been core to the Industry's expert input on the delivery of HS2.

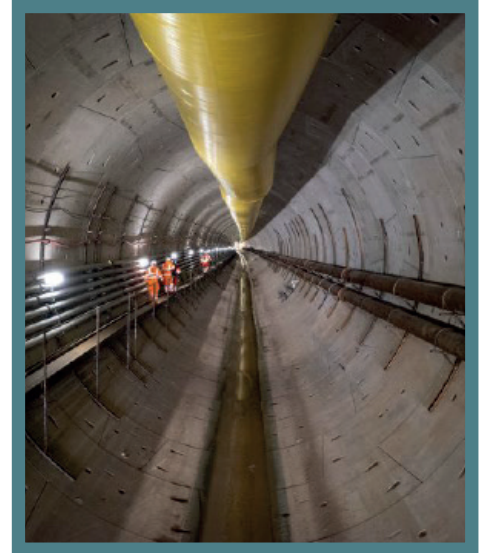
WORLD-LEADING ENGINEERING BREAKTHROUGHS

In December 2022, HS2 marked a global milestone as a 450-person team led successfully slid a 12,600-tonne bridge a record-breaking 165meters across the M42 motorway in Warwickshire. This remarkable engineering feat, captured on video, has the potential to revolutionize similar construction methods in the UK while minimizing disruption to motorists.

[\[Link to HS2 Box slide video\]](#), Image shown below.]

The video demonstrates the success in sequencing and logistics, showing the carefully orchestrated preparatory works completed in phases as the huge box structure advances at an average rate of 4.64 meters per hour. But what it can't demonstrate is the vast cooperation and coordination that took place between all the stakeholders involved in this feat. The design JV, played a key role in this achievement by rethinking the structure of the M42 Marston Box Rail Bridge. The company's innovative design, developed in close collaboration with Freyssinet, not only enabled the record-setting slide but also reduced embodied carbon.

The team had to look at all the positive and negative tolerances and understand how they would work in multiple scenarios. They worked closely with all partners from design to delivery to understand their methodology and with the geotechnical engineers to understand the ground conditions. The collaborative approach across sectors and the continued involvement in HS2 of wider Industry, promises further innovative solutions as this transformative rail network takes



shape, redefining transportation in the UK.

Contributors to this article were Llewelyn Morgan and Paul Mills in the UK, and Jeffrey Wharton in the USA. Jeffrey is an experienced leader in design, engineering, design-build and construction management for the rail industry. Learn more about SYSTRA from Jeffrey Wharton at the APTA annual Rail Conference, Cleveland Ohio, 2-5 June, 2024 jwharton@systra.com



ABOVE: AN AERIAL OF THE WORLD'S LONGEST BOX BRIDGE SLIDE ACROSS THE M42.

CAPITAL INVESTMENT

INTERCITY PASSENGER RAIL PROJECT PIPELINE DASHBOARD

Contribution By: Art Guzzetti and APTA Staff

APTA provides the Intercity Passenger Rail Project Pipeline Dashboard in order to track the progress of projects in the Federal Railroad Administration's Corridor Identification and Development Program and the Federal-State Partnership for Intercity Passenger Rail Grant Program.

Since November 2021, the Federal Railway Administration (FRA) has funded over one hundred intercity passenger rail projects in 32 states. To monitor the progress of projects as they move through various stages of development, APTA is providing this resource as a way to track the progress of projects in the Federal Railroad Administration's Corridor Identification and Development Program (Corridor ID) and the Federal-State Partnership for Intercity Passenger Rail Grant Program. APTA applauds the historic funding for transportation infrastructure provided through the Bipartisan Infrastructure Law. The Dashboard will highlight projects showing steady progress, identify instances where progress has been delayed, and seek to use data to help enhance progress overall. Data can also be useful in making the case for ongoing support. Find the Dashboard at [apta.com](https://www.apta.com/advocacy-legislation-policy/federal-legislative-issues/intercity-passenger-rail-project-pipeline-dashboard/) under Advocacy, Legislation and Policy, Federal Legislative Issues or visit the website page at: <https://www.apta.com/advocacy-legislation-policy/federal-legislative-issues/intercity-passenger-rail-project-pipeline-dashboard/>

The Bipartisan Infrastructure Law, as enacted in the Infrastructure Investment and Jobs Act, authorized up to \$108 billion for public transportation – the largest federal investment in public transportation in the nation's history. With these historic investments, projects in place and a desire for passenger rail transportation from the public, we are at a turning point in American history, and on track to completing projects that have been part of the American imagination for years.

The information for the Pipeline Dashboard is generated directly from the Federal Railroad

Administration website, FRA press releases, and other FRA information, and will be continually updated. It lays out FRA projects by state, city, project, sponsor, category, fiscal year, total grant, and description of projects for quick review. Project categories include new High-Speed Rail, conventional rail, existing routes with extensions, existing routes, major back log projects and more. With the dashboard, one can view the progress on sections of the California High-Speed Rail, planned to operate at 186 mph and the progress of a walk bridge replacement in Norwalk, Connecticut without searching through past press releases and websites for updates on each individual program.

Matthew Dickens, Senior Director, Policy Development and Research at APTA and developer of the dashboard, is eager for folks to utilize it, "APTA's Intercity Passenger Rail Project Pipeline Dashboard aims to keep projects on track, by providing one resource to view all current projects, and to enable collaborations and connections between organizations working with FRA funding to complete rail projects in the near future."

"One of the things we have to understand is that federal transportation dollars require a local match. If that money isn't there, that money goes to another state."

-REP. Mike Quigley