

Investing in California Small Businesses

SMALL BUSINESS NEWSLETTER • Volume 12: Issue 02

SPRING 2024



Small Business Program

The Authority is committed to small businesses playing a major role in building the statewide high-speed rail system.

Table of Contents

3	<i>How to Do Business With The State of California</i>	10	<i>Getting Ready to Bring High-Speed Rail Stations to the Central Valley</i>
4	<i>Chardená Shares</i>	12	<i>Preserving Fresno's Historic Train Depot</i>
6	<i>Small Business Events</i>	14	<i>Terravanta Melds Experience and Passion for Equity</i>
7	<i>Did You Know?</i>	16	<i>Speedreads</i>
7	<i>BAC Profile: Baryeh Construction Inc.</i>	18	<i>Structure Feature: SR 43 Tied Arch Bridge</i>
8	<i>High-Speed Rail Making Progress in Western U.S.</i>		
9	<i>Procurement and Contracting Opportunities Are Heating up at High-Speed Rail</i>		

SMALL BUSINESS NEWSLETTER
VOLUME 12 • ISSUE 02
SPRING 2024

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

770 L Street, Suite 620
Sacramento, CA 95814

SMALL BUSINESS PROGRAM

Main: (916) 431-2930

Email: sbprogram@hsr.ca.gov

Catrina Blair, MBA

Chief, Process and Program Development Branch

Email: catrina.blair@hsr.ca.gov

Chardená Valley

Small Business Advocate

Email: chardena.valley@hsr.ca.gov

Damon Dorn

Small Business Outreach Coordinator

Email: damon.dorn@hsr.ca.gov

Asha Grayson

Small Business Technical Associate

Email: asha.grayson@hsr.ca.gov

OFFICE OF COMMUNICATIONS

Annie Parker

Interim Managing Editor

Email: annie.parker@hsr.ca.gov

To access and download more information pertaining to the small business program, visit the Small Business Resources webpage at <https://hsr.ca.gov/small-business/>

The Investing in California Small Businesses newsletter is published quarterly by the Office of Communications of the California High-Speed Rail Authority.

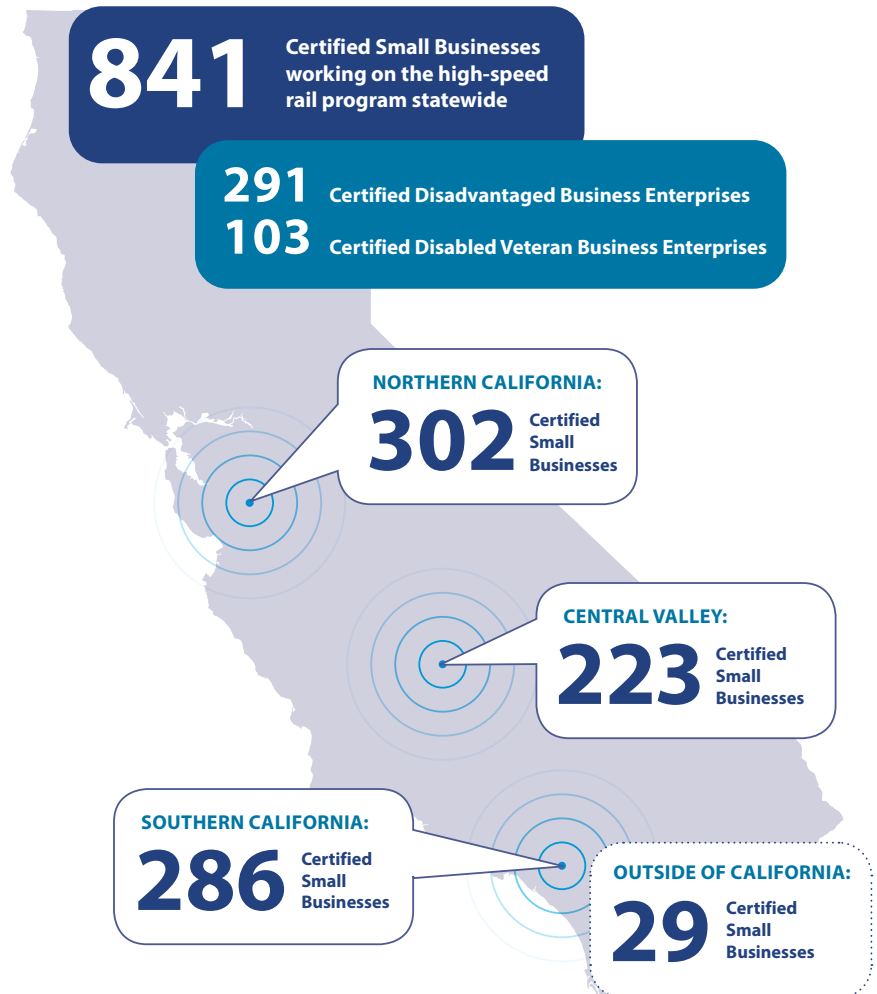
To view past newsletters visit:

<https://hsr.ca.gov/business-opportunities/small-business-program/small-business-newsletter/>

www.hsr.ca.gov

SMALL BUSINESS PARTICIPATION

as of February 2024



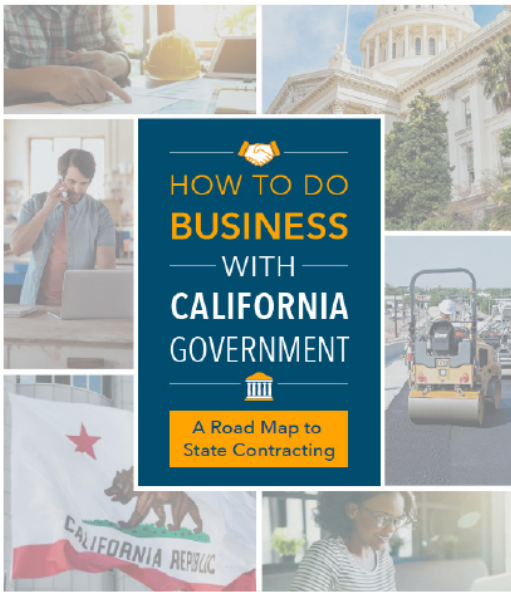
How to Do Business with the State of California

Visit these resources for education, training, and support in growing a thriving business, doing business with the state of California, and connecting with the High-Speed Rail Authority.



Connect with High-Speed Rail

Register your business at www.ConnectHSR.com

HOW TO DO BUSINESS WITH CALIFORNIA GOVERNMENT

A Road Map to State Contracting

CALIFORNIA DEPARTMENT OF GENERAL SERVICES
DGS Office of Small Business and Disabled Veteran Business Enterprise Services

AMERICA'S SBDC CALIFORNIA

There are 56 Small Business Development Centers in California, working to help small businesses

www.californiasbdc.org

We help entrepreneurs start, grow or successfully exit businesses through mentoring and education.

www.score.org

SCORE

FOR THE LIFE OF YOUR BUSINESS

APEX ACCELERATORS

www.apexaccelerators.us/#/



APEX Accelerators provide education and training to ensure that all businesses become capable of participating in federal, state, and local government contracts.

Chardená Shares

Celebrating Small Businesses in May

We are at the halfway point for 2024, and we have been on the move with our partners around the state! We have been connecting with small businesses who want to work on this first in the nation high-speed rail project, and making sure they have the resources to keep their small businesses thriving.

As we continue to build the high-speed rail project in California's Central Valley, we have also achieved some recent milestones that will help us advance our goal of operational electrified passenger service between Merced and Bakersfield by 2030-33. In April, our [Board of Directors approved](#) the release of a Request for Proposals (RFP) to industry for the nation's first 220 mph electrified high-speed trains. The contract will fund: 6 trainsets capable of operating at 220 mph and tested up to 242 mph, two of which will be prototype trainsets to support testing and trial running and four trains that will operate within the 171-mile Merced to Bakersfield section. This procurement is possible in part due to the December 2023 [record federal grant](#) awarded to the Authority which included funding for new electric trains. In accordance with federal funding, the trainsets procurement will be Buy America compliant. With proposals due in the fall, the Authority hopes to award a contract by the end of the year. For more information, check out our [updated procurements page](#) about this and other contracts. We also were recently touring our four station cities in the Central Valley, where the Authority alongside Joint Venture Foster+Partners and ARUP provided residents updates on the future high-speed rail stations being built in their communities. The meetings were held in Bakersfield, Hanford, Fresno, and Merced. Attendees got a chance to view the station concepts and provide feedback on how they wanted to see their regions represented. To learn more about the latest with stations, please check out page 10 of this newsletter.

On May 7, partnered with our Capital Procurements team to host a Small Business Fast-Track Networking Fair and Industry Update and it was a jam-packed day here in Sacramento at the Department of General Services.



Chief of Process and Program Development Catrina Blair and Small Business Advocate Chardená Valley greet visitors at the Pathways to Progress Summit and Vendor Fair event on April 25.

Small businesses in attendance had the opportunity to network with current and potential prime contractors and consultants and learn about contracting and procurement opportunities on the project. The contract opportunities we focused on at the event included:

- *Design, manufacturing, testing, commissioning and maintenance of trainsets.*
- *Design and construction of the train control and communication systems.*
- *Design and construction of the traction power system, including solar and battery energy storage systems.*
- *Pre-construction services and construction of the track and overhead contact systems (OCS).*
- *Design and construction of facilities and stations. Construction of civil infrastructure for Merced and Bakersfield extension project sections.*

We also held a general industry update in the afternoon where we provided updates on upcoming rail related procurements and next steps. My team and I talked to many of you at this event, and if you couldn't attend, we're always available to answer your questions. Look for a similar event this fall, and as always, make sure your small business is registered with up-to-date information in the [ConnectHSR Vendor Registration](#). It's free and will only take you a few minutes to sign up.



(L): Executive Fellow Micah Wilcox and Outreach Specialist Alex Gonzales provided attendees with general information about the high-speed rail project at the May 7 Small Business Fast-Track Networking Fair and Industry Update; (Top, R): It was a packed house as attendees to the Fast-Track Networking Fair and Industry Update got updates from the Authority on current and pending procurements; (Bottom, R): We had a great turnout on May 7 at our network event, and we couldn't have done it without our partnerships with contractors and vendors.

I wanted to highlight one other event that we recently attended in late April. We joined Caltrans at the very successful Pathways to Progress Summit and Vendor Fair hosted by the Sacramento Black Chamber of Commerce on April 25. There was a huge turnout from small businesses, disabled veteran business enterprises and disadvantaged business enterprises across the state. Our Authority Chief Operating Officer Bill Casey, and our Chief of Process and Program Development Catrina Blair, MBA, joined several fellow transportation professionals to provide information on current and future opportunities on their respective projects. Thanks to the Chamber for hosting us, we had a fantastic time and enjoyed meeting the attendees and presenters.

On the home front, we have updated our [small business pages](#) to reflect the action our Board of Directors took last



Our Authority Chief Operating Officer Bill Casey, and our Chief of Process and Program Development Catrina Blair, MBA, joined several fellow transportation professionals at the Pathways to Progress Summit and Vendor Fair to discuss small business opportunities

November to realign our small business goals with State and Federal guidelines. Our small business program goals are now reflected as seen below:

Blended State and Federal	100% State Funded	100% Federal Funded (including grants)
25% SB • Inclusive of 3% MB	25% SB • Inclusive of 3% MB	17% DBE
3% DVBE	3% DVBE	
10% DBE		

We are always looking to make changes and updates to these pages, so please be sure to check back for the latest.

Lastly, we join Governor Newsom and his administration in recognizing [May as Small Business Month](#) in California. Small businesses in California help power our local and state economies and provide incredibly valuable services to Californians. We continue to see robust participation by small businesses on the high-speed rail project. As of February 2024, there are 841 small businesses actively working on high-speed rail, including 291 Disadvantaged Business Enterprises (DBE) and 103 Certified California Disabled Veteran Business Enterprises (DVBE). We want to see those participation numbers continue to rise, so make sure you stay up to date on the latest with the project and be on the look-out for me and my team throughout the spring as summer as we hit the road to share upcoming opportunities. Have a great summer all and see you soon!

Small Business Events



Board of Director Meetings

June 27 & 28

Time TBD
Burbank

August 8

Time TBD
Sacramento

Business Advisory Council Meeting

July 24

1 p.m. to 4 p.m.
Online

June 5

Small Business Symposium

1 p.m. to 4 p.m.
Online

July 11

Authority Small Business Program Doing Business with high-speed rail

10 a.m. to 11 a.m.
Virtual

June 12

California Unified Certification Program (CUCP) DBE/ACDBE Certification Workshop

1 p.m. – 3 p.m.
Online

June 13

CUCP DBE/ACDBE Certification Workshop

11 a.m. to 2 p.m.
Santa Clara Valley Transportation Authority (VTA)
3331 N. 1st Street
San Jose

June 13

Owner's Night

5:30 p.m. to 8 p.m.
Salesforce Rooftop Park
425 Mission Street
San Francisco

Did You Know?

Frequently Asked Questions from Small Businesses

- *What are the changes to the HSR Small Business Participation goals?*

Previously, the Authority had a 30% overall participation goal. In November 2023, the Authority's Board of Directors approved goal changes to the HSR Small Business Program, and all contracts executed after November 2, 2023, will have a new goal structure. Each contract goal will be expressed separately based on, federal and state requirements. The new goal structure will apply as follows:

Blended State & Federal Contracts

- 10% goal for Disadvantaged Business Enterprise (DBE),
- 3% goal for Disabled Veteran Business Enterprise (DVBE),
- 25% Small Business goal, which includes SBs, SB-PWs, and of that 25%, and a 3% microbusiness goal carveout.

100% State Funded

- 3% goal for Disabled Veteran Business Enterprise (DVBE),
- 25% Small Business goal, which includes SBs, SB-PWs, and of that 25%, and a 3% microbusiness goal carveout.

100% Federal Funded

- 17% Disadvantaged Business Enterprise (DBE) goal

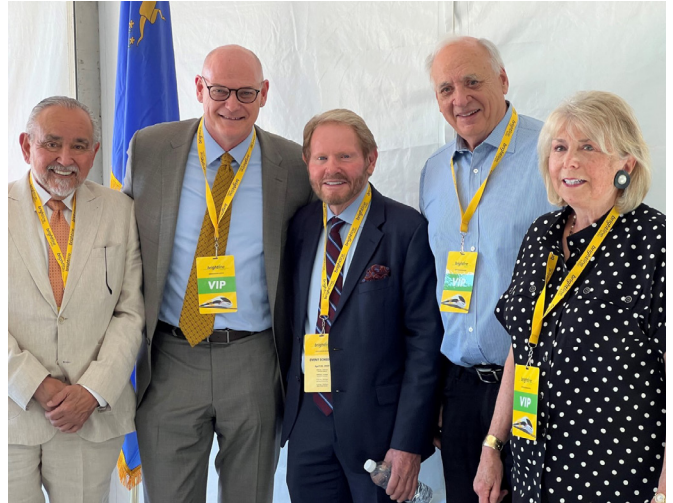
Business Advisory Council Profiles



Baryeh Construction Inc.

Mr. Kofi Baryeh is the President of Baryeh Construction Inc (BCI), a Construction Management, Construction and Engineering services company. Mr. Baryeh is a graduate of the University of California Los Angeles, holding a bachelor's degree in civil engineering and a Master of Science degree in Structural/Earthquake Engineering. Mr. Baryeh has over 28 years of experience across engineering design, construction, and construction management industry. Mr. Baryeh is a licensed engineer in the state of California, having worked in the state for 26 years, with the other 2 years in Louisiana, Arizona and Accra, Ghana. Mr. Baryeh started BCI in 2015 to provide construction related services. BCI has provided services to Caltrans, City of Riverside, and presently the California High Speed Rail and Los Angeles Metropolitan Transportation Authority. Mr. Baryeh looks to be both an example and advocate in progressing the possibilities in the AEC industry.

High-Speed Rail Making Progress in Western U.S.



(L): U.S. Department of Transportation Secretary Pete Buttigieg and Authority CEO Brian Kelly catch up at the Brightline groundbreaking in Las Vegas on April 22; (Top, R): (L to R) Authority Board Director Ernest Camacho, Authority CEO Brian Kelly, Authority Board Chair Tom Richards, former Authority Board Chair Dan Richard and Authority Board Director Lynn Schenk attend the Brightline groundbreaking in Las Vegas on April 22; (Bottom, R): U.S. Department of Transportation Secretary Pete Buttigieg joined 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 Nevada Building Trades as they provided remarks on the April 22 groundbreaking in Las Vegas.

On April 22, Brightline West [broke ground](#) on their 218-mile system that will connect Las Vegas and Southern California. U.S. Transportation Secretary Pete Buttigieg and several other dignitaries spoke at the event, and several of our Board members and CEO Brian Kelly attended as well. On May 1, Brightline West also [announced](#) that they had selected Siemens to manufacture

their trainsets. We applaud Brightline on their progress and we're looking forward to the west coast continuing to lead the way by bringing high-speed rail to the US. The Authority recently issued a Request for Proposals for our own high-speed trains in April with the goal to have testing of those trains by 2028. Proposals are due in the fall.

Procurement and Contracting Opportunities are Heating up at High-Speed Rail

Procurements – Track & Systems

Scope	Estimate (\$M)	Description	RFQ/RFP/ADV
Rail Systems Engineering	\$73	Professional Services and Technical Expertise Related to Rail Systems Engineering Services (RSES)	Awarded
Track and Overhead Contact System (OCS) (Track Civil Works, Track Bed, Track, and OCS)	\$131	Design - Design Services for Track and OCS	SOQs Received 04/04/2024
	\$2,021	Construction Manager/General Contractor (CM/GC) - CM/GC Contract	Q1 2025
Systems (Signaling, Train Control, Core Comm, and SCADA)	\$1,487	Signaling and Train Control - Progressive Design-Build (PDB) Contract	Q4 2024
Systems (Traction Power System)	\$1,229	Traction Power - Progressive Design-Build (PDB) Contract	Q3 2024
Trainsets and Driving Simulator	\$534	Trainsets and Driving Simulator - Supply-Maintain Contract	Released RFP 4/16/2024
Depots and Facilities	\$43	Depots and Facilities (Train Certification Facility, Integrated Test Facility, Maintenance of Way Facility, Operation Control Center)	Design Q3 2024
	\$572		Multiple Construction Contracts Q3 2025 & Varies
Program-wide Support for Track and Systems	\$10	Independent Cost Estimator (ICE)	Q4 2024
	\$283	Construction Manager Track and OCS	Q2 2025
	\$208	Construction Manager for Signaling and Train Control PDB	Q1 2026
	\$172	Construction Manager Traction Power PDB	Q1 2026
	\$78	Multiple Construction Manager Facilities	Q3 2025 & Varies
	\$40	Integration Support	Q4 2024
	\$9	Independent Safety Assessor Services	Released RFQ 3/11/2024

Procurements – Stations and Fresno Historic Depot

Scope	Estimate (\$M)	Description	RFQ/RFP/ADV
Stations	\$35	Design - Arup/Fosters JV	Awarded
	\$888	Construction	Merced Q3 2027
			Fresno Q2 2025
			Kings Tulare Q3 2027
			Bakersfield Q3 2027
\$133		Multiple CM Contracts Q2 2025 & Varies	
Fresno Historic Depot	\$3	Design - Page & Turnbull, Inc	Awarded
	\$24	Construction	Construction Contract Q1 2025
	\$4		CM Contract Q1 2025

Procurements – Merced and Bakersfield Extensions

Scope	Estimate (\$M)	Description	RFQ/RFP/ADV
Merced Extension	\$151	Design - Stantec	Awarded
	\$2,925	Construction	Multiple Construction Contracts Q1 2026 & Varies
	\$439		Multiple CM Contracts Q1 2026 & Varies
Bakersfield Extension	\$45	Design - HNTB	Awarded
	\$2,060	Construction	Multiple Construction Contracts Q2 2026 & Varies
	\$309		Multiple CM Contracts Q2 2026 & Varies

From track and systems to stations to construction, we've got procurement opportunities for everyone on the high-speed rail project.

On May 16, Authority Chief Operating Officer Bill Casey provided our Board of Directors with a procurement overview. This was a similar overview of the update provided by Authority's Small Business Fast-Track Networking Fair and Industry Update held on May 7 in Sacramento. You can read

more about this event in the Chardená Shares column on page 4 of this newsletter.

For more information about upcoming procurements, please view chart below, or view the Board of Directors [materials from the May 16 Board meeting](#). You can also check out the latest on our [procurements page](#).

Getting Ready to Bring High-Speed Rail Stations to the Central Valley



How do passengers get on the train? Stations. Over the last few years, with the support of our regional offices, we have made significant progress on their design and planning. We have always had a very high bar for those stations to meet, given the role they play in the system. In both planning and design, they need to be:

- *Durable;*
- *Easy to maintain;*
- *Universally accessible; and*
- *Feature design characteristics that make them readily identifiable as high-speed rail stations.*

First and foremost, they must be seamlessly integrated with a range of transportation modes, from bicycles and scooters to buses and cars, as well as with the pedestrian pathways and rail systems that make the system the speeding heart of interregional travel.

In the last few years, we have made major strides in our station delivery efforts. Last year's award of the Federal-State partnership grant means we can advance the critical project

delivery elements in Fresno to have that station ready for testing the system later this decade; the RAISE grant (awarded in July 2023) to restore the historic Fresno Depot means we can start construction on public plazas as well as renovation of the historic depot and have those open and occupied with a goal of 2027.

In the Central Valley, the Authority's Planning and Central Valley Regional offices continue to work with the City of Fresno in early site activation planning, which engaging with the community to identify station-site and plaza improvements and activities that will spur economic growth and a sense of community through temporary and long-term activities on the station site before it is constructed. We have held a range of meetings to gather feedback from Fresno residents, city officials, transit agencies, regional transportation authorities, business organizations, community and public organizations, and other important stakeholders, such as academic institutions and non-profits to ensure that this planning is a success.



Visitors to the Kings/Tulare regional station meeting in Hanford listened to Director of Planning and Sustainability Director Meg Cederoth's presentation on the local station planning effort.

Similar work is underway with the other Central Valley stations: Merced, the Kings/Tulare region, and Bakersfield. Each one has unique conditions that make the station special. Through a collaborative engagement process, working with consultant team, SmithGroup, the team engaged with community-based organizations (CBOs) in Bakersfield, Hanford, Fresno, and Merced in early 2024, all of who contributed valuable insights. Together, the Authority connected with 235 CBO participants. Participants shared exciting ideas and vision for how the future stations can serve the people of the Central Valley, and how they would like to partner with the Authority to shape the future of the station areas.

In February, the Authority design team shared conceptual designs and updates to the Board of Directors. design progress and an [overview on progress of the four Central Valley high-speed rail stations](#) from Authority Director of Planning and Sustainability Margaret Cederoth. During her presentation, Cederoth covered a wide range of topics, including specifics such as site plans and platform sizing, community outreach and engagement, and unveiled preliminary renderings of the four stations at Merced, Fresno, Kings/Tulare and Bakersfield.

In late April/early may, we toured the four station cities in the Central Valley to show our new designs and get feedback. The week kicked off with a meeting in Bakersfield at the Westchester Hall. The packed house learned about the current design of the elevated station. In Hanford,

those in attendance learned that the station would be connected to the Hanford Viaduct, currently our largest active construction site. In Fresno, representatives from surrounding businesses in downtown Fresno had questions about the station while representatives from Chinatown echoed that the entrances on both sides of the station should be vibrant and equal to show investment on both sides of the tracks. The week ended with a meeting in Merced where residents had questions about advanced design, right of way, and on the elevated station itself. Merced leaders including Mayor Matthew Serratto was in attendance showing his support and excitement of what the station and high-speed rail will bring to the city and to the Central Valley overall.

As we continue to move forward with station planning and design in the Valley, we'll keep you all updated on the latest opportunities.



(Top): Visitors to the Kings/Tulare regional station meeting in Hanford listened to Director of Planning and Sustainability Director Meg Cederoth's presentation on the local station planning effort; (Bottom): At the Fresno convention center on May 1, attendees got to get a close-up look at the future station renderings and provide their input and feedback for what they want to see at their station.

Preserving the Past, Building the Future: Meet the Architecture Firm Preserving Fresno's Historic Train Depot

The Historic Fresno Train Depot holds great significance as it pays homage to the city's founding in 1872 as a Central Pacific Railroad station. The original small wooden station was expanded in 1889, leading to the construction of the Historic Fresno Train Depot. With the introduction of high-speed rail tracks, the City of Fresno is set to embark on a new chapter of economic prosperity, building on the city's origin story.

The Historic Fresno Train Depot is an integral part of this revitalization, and [Page & Turnbull](#), with their expertise in preserving historic buildings, is at the forefront of this endeavor. Their sustainable approach to conserving history while modernizing spaces involves addressing building code and environmental impact issues, while enhancing overall building efficiency.

[The Daily Evening Expositor reported on July 6, 1889, that "from San Francisco to Los Angeles there is no depot that can be compared with the one to be constructed in Fresno. It will be a model building of the latest style of architecture."](#) Constructed of red brick and topped with a slate bellcast hip roof, the Queen Anne style depot represents the growth of Fresno from a dry desert plain into the agri-business capital of the world in the late 1800s.

"The station is going to be continued to be used and be restored to its prominence so that it can again be a vital part of the entire community," says Peter Birkholz, AIA, LEED AP, DBIA. President of the architecture, preservation, and planning firm Page & Turnbull. He is the Principal-in-Charge for the rehabilitation project. The depot located at Tulare and H Streets is comprised of three distinct buildings: the historic passenger depot, the Freight Depot/Railway Express Agency, and the Pullman Shed, which is known to be one of the last remaining Pullman sheds in the United States.

Birkholz says the project's primary goal is to integrate future High-Speed Rail service; "maintain the historic



Historic Fresno Train Depot Pullman Shed.

nature of the property while updating it to allow for future uses; the historic station will provide early activation of the site." Birkholz adds that the historic buildings "will be rehabilitated to accommodate future needs and to meet current building codes for accessibility, fire and life-safety, and seismic standards." Birkholz served in the same capacity for the relocation and rehabilitation of the award-winning Livermore (CA) Train Station.

For the past two and a half years, Birkholz has led a team of six architects and designers who have worked with an even larger team who is working on the intermodal station and public areas. With sub-consultants and contractors, many of which are also small, and minority-owned businesses they have spent time performing site surveys and developing a virtual computer model of the existing building to support future uses. Proposed improvements include structural and seismic strengthening, new utilities and building systems, rehabilitation of historic features, and more to extend the performance and lifespan of the building. In addition, design documents are being prepared for permitting and construction.

"Page & Turnbull is delighted to be a part of the design team that is developing the forward-looking High-Speed Rail intermodal station. Projects like the Historic Fresno Train Depot renovation, where a historic building and new infrastructure converge, linking the future and the past, exemplifies a key tenet of our firm's philosophy. This



Page & Turnbull staff prepare to survey building.

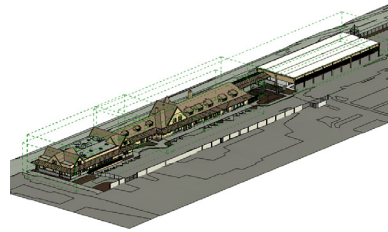
project adapts a building that once served steam driven railroads to become a new type of station that will efficiently and sustainably transport passengers around California. We aim to make the historic depot an iconic and economically vital part of downtown Fresno and of the High-Speed Rail system,” said Peter Birkholz.

“One unique thing is that this passenger station and connected freight station combine to form a very long building (over 300 feet long), and the building with its cupolas and quirky roof lines have lots of character,” states Birkholz. Another of the project’s unique challenges is preserving the original brick and mortar structure while maintaining the structural integrity. In the performance of their work, Page & Turnbull’s team have modeled several options, such as alternative seismic options that include strengthening the brick walls with hidden concrete columns in lieu of unsightly and space reducing steel frames. The task of bringing the unreinforced brick masonry buildings up to current state seismic code is easier said than done. Brick structures of this age do not have steel reinforcing, and the roofs and floors are typically not tied together.

Utilizing state-of-the-art technology, their team has performed site surveys, laser scanning and measurements that are the basis of a 3D model developed of the structure. This model is being used to prepare design documents that will be the basis of a future construction project that includes modernizing the building to current standards. Modifications such as widening doorways, eliminating steps, and even installing elevators in discrete locations that will not impact the building’s historic integrity will make the space fully accessible and available for future uses and users.

“People often think that preservation is just putting up a layer of paint, buying period furniture and making the building look old. We have a much more ambitious approach about preserving this existing building and saving

its embodied carbon,” Birkholz said. Saving embodied carbon allows for less impact than building a new building in the same location, and, “It’s a good, sustainable approach that will maintain and highlight the story of the past and will create an inviting shell for future uses,” he said.



3D Rendering of the Historic Fresno Train Depot

The Fresno High-Speed Rail Station, Historic Fresno Station Depot and Plaza Activation Project are critical first steps in restoring the site for passenger rail service. They will provide community benefits before high-speed rail passenger service on the Merced to Bakersfield line is initiated later this decade. In June of 2023, The Authority secured a \$20 million grant from the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program which will be directly used for restoration of the historic passenger rail depot building as well as new park and plazas and tree canopies and integrate zero emissions vehicle infrastructure into historically disadvantaged communities. With a thoughtful approach to accessibility and equity, and ensuring history does not repeat, the new station design will rectify tracks from the past that were laid purposefully to segregate a then-burgeoning Chinatown.

Birkholz says he’s “a true proponent of high speed rail. I wish they could fully fund it and just see that it gets built out up to its ultimate destinations that both north and south. I'm thrilled just to be working on high speed rail because I think it is a really good forward thinking transportation solution.”

Page & Turnbull is an architecture, preservation, and cultural resource planning firm with nearly 50 professionals in four offices—San Francisco, Sacramento, San Jose, and Los Angeles. They are a State of California Certified Small Business and Women Business Enterprise. Page & Turnbull is also working on the HSR Business Case as the preservation architect for San Jose’s historic Diridon Station.

Audrey Chaney

PAGE & TURNBULL

Terravanta Builds Social and Environmental Equity With HSR



Illary Archilla is the president and CEO of Terravanta, which is based in Lake Forest.

The high-speed rail line from Los Angeles to San Francisco is a sprawling project, spanning nearly 500 miles and with more than 13,000 jobs created so far. Each of those workers is making a difference for the state of California. Few are more aware of that difference than Illary Archilla, the president and CEO of [Terravanta](#). Based in Lake Forest, Terravanta is a subcontractor for Stantec. Terravanta provides project management and utility relocation design. Of course, it's about engineering. But it's also about Latina business owners who are also environmentalists. "It just feels like a hobby in my work," Archilla said. "We're

really passionate and we really want to make a difference. We supply support and help with management, but really the end purpose is making a difference within our communities."

The type of difference Terravanta makes depends on the project. When working with Metro, the work involves project management of their electric vehicle maintenance program, supporting work on commissioning for the Airport Connector Project, or even bus stop enhancements involving shading, safety and lighting in disadvantaged communities. With Southern California Edison, Terravanta

oversees some relocation of utilities and also management of engineering and construction of generation projects, distribution, transmission and telecom lines.

The end goal for all the projects is the same: Leave the community better off than when Terravanta started on the project.

Holistic engineering isn't often discussed, but Archilla thoughtfully designed her company based on her early job experiences. She worked in project management on infrastructure projects, while also teaching yoga in her time off. As she considered starting a company, she wanted to make sure it wasn't just another job. The name of the company pulls from Latin, and she wanted it to have a feminine meaning. Archilla said "terra" equates to earth and the air, while "vanta" stands for vantage point. Put together, you get Terravanta.

"It really connects with the core of what we do and who I am as a human being," Archilla said.

The connection to the high-speed rail project is easy to understand. Yes, there are critical environmental and social benefits; it's also just a really cool project.

"I'm a mechanical engineer, so anything that has wheels and moves is exciting," Archilla said with a laugh.

But there's more to it than that. Archilla gets excited talking about the huge economic benefits coming to the Central Valley, but also loves that people will be able to visit the giant sequoias in the Sierra Nevada mountains. The train is much more environmentally friendly than flying from LA to San Francisco and will run on renewable energy. But most of all, Archilla said, the first-in-the-nation project will show the nation and the world what California is capable of.

"I think California always leads in different aspects of the world, and I think this just reinforces California's position and shows what can be done," she said. "The benefits are there, not only social and environmental justice, but financially as well."

In a sense, the project is already making a big impact.

Workers are getting training and jobs. Construction vehicles are cleaner than ever before. And small businesses like Terravanta – on of more than 800 in the Authority's Small Business program – are making a big difference every day.

Jim Patrick



Speedreads



BRIGHTLINE WEST BROKE GROUND, NOW THE HIGH-SPEED TRAIN IS ON THE CLOCK FOR THE 2028 OLYMPICS

Construction is now underway for Brightline West, a 218 mile rail system that will connect Los Angeles to Las Vegas in just 2 hours. The high-speed bullet train won't be operational until 2028 when the summer Olympic games are set to take place. The train will be fully electric, have zero emissions and reach up to 200 miles per hour. Brightline has full environmental clearance alongside Interstate 15, which will have plenty of stops between Las Vegas and Rancho Cucamonga. This eco-transportation project is helping to build a foundation in the high-speed rail industry for the U.S.

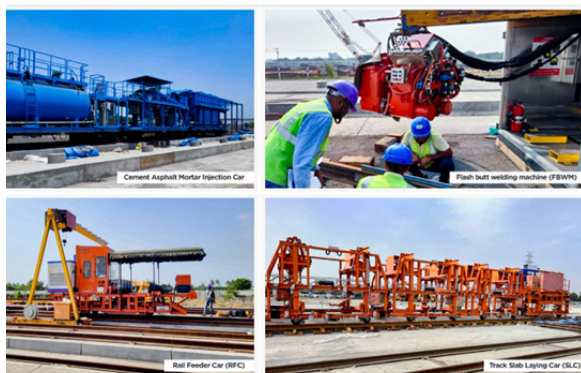


AMTRAK HIGHLIGHTS PLAN FOR HIGH-SPEED RAIL IN TEXAS

Part of Amtrak's update for high-speed rail in the US includes the planned high-speed corridor between Dallas and Houston. The operator currently offers service from Acela which travels at 150 mph in selected sections of the Northeast Corridor, providing service for over 65 million passengers and 75% of the market share of business travel within the area. It is exploring ways to expand service to Texas with new vehicles from Acela creating next steps for high-speed rail there. Dallas to Houston is a desirable route because of its ability to connect high populated cities with limited curves and simple topography.

INDIA'S FIRST BULLET TRAIN

The Mumbai-Ahmedabad bullet train has been steadily making progress since work began in late 2021. The National High-Speed Rail Corporation Limited is constructing the train and shared updates including pictures of machinery, design, and manufacture specifications. The bullet train is being put together by cutting edge machinery that is comprised of a mechanized track installation. The assembly, testing and commissioning of these machines is underway. The bullet train will cover a distance of 508 km between Mumbai and Ahmedabad and is expected to achieve a maximum speed of 320 km per hour, reducing travel time to just 2 hours. At the start of operation, there will be 35 bullet trains running providing 70 trips per day.



SPAIN'S TOURISM REVENUE SEEN HITTING NEW RECORD IN 2024

Spain, the second-most visited country in the world behind France, is seeing record tourism revenue growth thanks in part to the country's high-speed rail system. [Agence France Presse \(AFP\) reports](#) that Spain's tourism sector is expected to record earnings above 200 billion euros for the first time ever in 2024 – an accomplishment following record earnings generated in 2023. Spain's national statistics institute, INE says that Spain hosted 85.1 million international travelers in 2023, primarily hailing from Great Britain, France, and Germany. Within Spain, new high-speed rail operators have increased market competition in the high-speed rail sector, lowering trip costs and resulting in more domestic tourism.

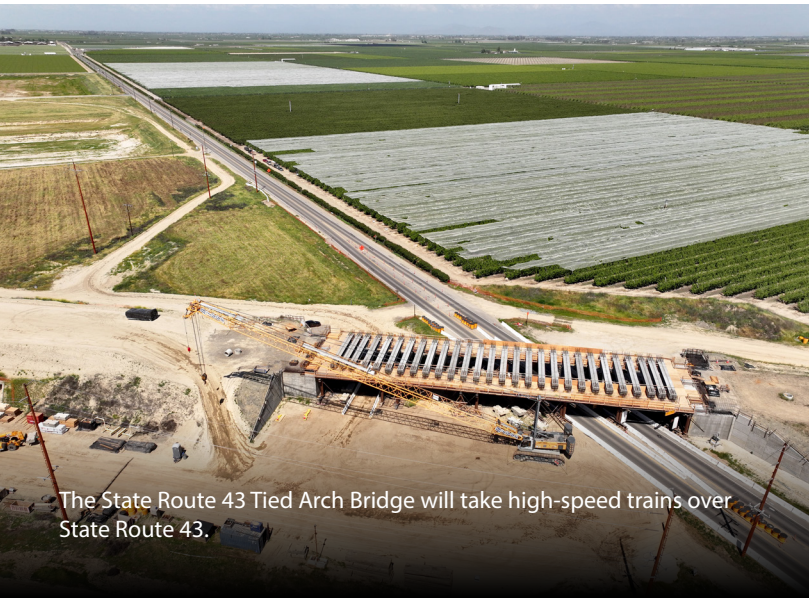
AFP also reports that post-COVID growth in global travel, particularly from Asian countries, is benefiting Spain's tourism industry, as are security concerns in competing tourism destinations located in the eastern Mediterranean, in closer proximity to the Israel-Hamas war.

They also report that some tourist destinations in Spain have experienced backlash against perceived over-tourism.



SR 43 TIED ARCH BRIDGE

LATEST VIDEOS: WWW.YOUTUBE.COM/CAHIGHSPEEDRAIL



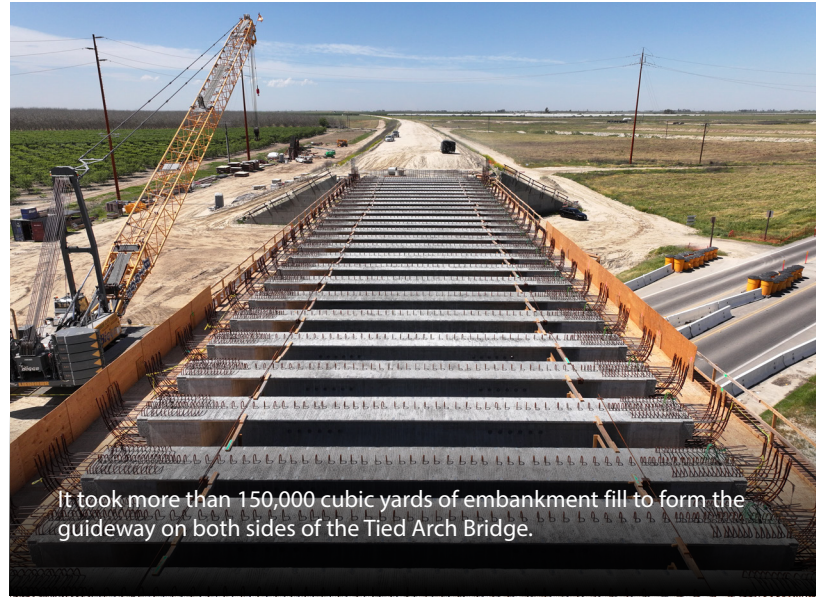
The State Route 43 Tied Arch Bridge will take high-speed trains over State Route 43.



The guideway is where future high-speed trains will travel before it crosses over the highway and traffic, between Fresno and Kings counties.



The structure is located State Route 43 between Davis Avenue and Cole Slough in Fresno County.



It took more than 150,000 cubic yards of embankment fill to form the guideway on both sides of the Tied Arch Bridge.



The Tied Arch Bridge spans 249-feet long and 52-feet wide.