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## Catrina's Corner

Catrina Blair Small Business Advocate



## Resiliency! It's Woven Into Our Work at High-Speed Rail

Five months into the COVID-19 pandemic and we're still trying to get used to the new normal. While policies to reopen our economy adapt to changing conditions associated with the coronavirus, construction work on high-speed rail continues to ramp up in the Central Valley.

We're making good on our promise to help keep California's workforce employed and to stimulate the local economy. In June, we celebrated dispatching more than 4,000 construction workers, who are building 119 miles of high-speed rail between Madera and just north of Bakersfield. For the first time, we averaged more than 1,000 workers at high-

"We're making good on our promise to help keep California's workforce employed and to stimulate the local economy."

Catrina Blair  
Small Business Advocate  
California High-Speed Rail Authority

# Investing in California Small Businesses

**SMALL BUSINESS NEWSLETTER  
VOLUME 8 • ISSUE 3  
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## Catrina's Corner

Catrina Blair Small Business Advocate



speed rail construction sites in a week. That's a 149 percent increase compared to the week ending August 10, 2019, just one year ago. The data shows 73 percent of those workers reported living in the Central Valley. Workers are trying to stay cool in the hot California sun while taking safety precautions because of COVID-19. You will meet some of those workers in this edition of the Small Business Newsletter.

We'll also introduce you to Graphic Artist Dennis Domondon. He designed the look and feel of this newsletter and so many other publications produced by the Authority's Strategic Communications Department. After COVID-19 hit, he and some friends decided to produce face masks, face shields and ventilators for hospital employees, government workers and volunteers. We are proud of Dennis and grateful for his selflessness to help others during these times of need.

The coronavirus is impacting our work on environmentally clearing the rest of Phase 1 of high-speed rail from San Francisco to Merced and Bakersfield to Los Angeles/Anaheim. In some cases, we've extended comment periods for Environmental Impact Reports/Environmental Impact Statements (EIRs/EISs) and hosted web-based community meetings and public hearings. To make sure everyone understood our environmental documents, we developed online resources that answered questions and updated the status of our environmental work.

There are 560 small businesses on the high-speed rail project and more firms are joining all the time. The Authority's Small Business team had to figure out how to get the word out to business owners about contracts that are available. That information is going out online and a lot of us are becoming experts on Zoom, Microsoft Teams and other apps



Crews work in the hot sun at the Poso Creek overcrossing near Wasco. In June, the high-speed rail project celebrated dispatching more than 4,000 construction workers to construction sites in the Central Valley between Madera and just north of Bakersfield.

### Small Business Program

The Authority is committed to small businesses playing a major role in building the statewide high-speed rail system. The Small Business Program has an aggressive 30 percent goal for small business participation including Disadvantaged Business Enterprises (DBEs), Disabled Veteran Business Enterprises (DVBES) and Micro-Businesses (MBs).

that make it easy for everyone to stay in touch.

I admit doing business online is a little scary at first because you must figure out how these apps work. But once you use them two or three times, you can teach others how to join video chats. Pretty soon, people are using them to talk to business associates and family members and others they haven't seen in a while.

The times we're in and how we're navigating through them speak to our resiliency, the theme of this newsletter. We're working more with our Small Business partners like Debbie Lumpkin, the Deputy Inspector General of the Independent Office of Audits and Investigations. You'll meet her in this issue along with Small Business Champion Tashai Smith with LA Metro. It's a normal thing now for us to pick up the phone and ask each other, "Hey, how did you do that, and did it work for you?"

Finally, construction continues to boom in the Central Valley! We have more than 32 active high-speed rail construction sites and expect more in the coming months. This work that's been deemed as essential is worth more than \$4.8 billion dollars. If you'd like to get a look at what's going on, be sure to check out the latest [high-speed rail construction update](#).

And don't forget – hang in there. We're all in this together!!

Catrina Blair

**1. & 2.** In May, the Authority hosted a virtual Open House to discuss the draft environmental document for the San Jose to Merced project section. Project Manager Dave Shpak and other staff talked about alignments options for the 145-mile section. Before it was over, about 30 to 40 people logged on to the meeting.

**3.** In Kings County, the Hanford Viaduct will span more than a mile in length and allow high-speed trains to cross over Grangeville Boulevard, San Joaquin Valley Railroad, and State Route 198. For the first time, the high-speed rail project averaged more than 1,000 workers at Central Valley construction sites for the week ending Jul 17, 2020. That's a 149 percent increase compared to the week ending August 10, 2019, just one year ago.



# Small Business Events

*\*Subject to change*

**August 11, 2020**  
**Business Advisory Council**  
**Webcast Meeting Online**  
Time: 1:00 PM – 4:00 PM

**October 15, 2020**  
**California High-Speed Rail**  
**Authority Board Meeting**  
Location & Time: TBD

**August 13, 2020**  
**California High-Speed Rail**  
**Authority Board Meeting**  
Webcast Meeting Online  
Time: TBD

**November 10, 2020**  
**Business Advisory Council**  
1:00 PM – 4:00 PM  
Location & Time: TBD

**September 10, 2020**  
**California High-Speed Rail**  
**Authority Board Meeting**  
Webcast Meeting Online  
Time: TBD

**November 12, 2020**  
**California High-Speed Rail**  
**Authority Board Meeting**  
Location & Time: TBD



**August 21, 2020**  
**SoCal Business Development Conference**  
**Webcast Meeting Online**

8:30 AM – 11:30 AM  
Government and private industry representatives will explain how businesses can improve their chance of winning a contract. Attendees will get tips on how to run a successful enterprise from business professionals who work for companies that are more than three years old with \$3 million in revenue and more than 15 employees. The event will be hosted by the Regional Hispanic Chamber of Commerce (RHCC).



**October 7, 2020**  
**How to Prepare for a Matchmaking Event**  
**Online Webinar**

10:00 AM - 11:00 AM  
Learn what to say when there's only minutes to talk one-on-one with agency representatives offering a contract you want to win. Experts will also provide tips on preparing a capability statement and steps to take following a matchmaking session. Attendance is free. Norcal Procurement Technical Assistance Center (PTAC) is hosting the event in conjunction with Northern California Small Business Development Center (SBDC).

**August 11, 2020**  
**DBE Certification Webinar**  
**Webcast Meeting Online**

Time: 11:00 AM – 1:00 PM  
Do you know the benefits of certifying your firm as a Disadvantaged Business Enterprise? DBE certification staff from Caltrans, San Francisco Municipal Transportation Agency (MUNI), SamTrans and Santa Clara Valley Transportation Authority will be on hand to answer your questions at a free webinar. The online session will be hosted by the Business Outreach Committee (BOC).

## Did You Know?

In early February, the Authority released its **2020 Draft Business Plan** for public review and comment as it is required to do every two years. Due to the COVID-19 pandemic, the comment period was extended from April to June. After working with the Newsom Administration and legislative leaders, we postponed the adoption of the 2020 Business Plan until December 15, 2020.

We welcome this delay. It comes after our CEO, Brian Kelly, advised the Authority Board of Directors, the Governor's Office and state lawmakers that COVID-19 has not spared this project from its impacts. It has affected the program's environmental review process, expected Cap-and-Trade revenues, the Track & Systems Request for Proposal's timeline and the right-of-way acquisition process. It's also had mild impacts on construction and supply lines. As a result, the Authority must recalibrate exactly where we are in order to fully understand the effects on our program's cost, schedule and revenues. More time is needed for enhanced risk assessments and analyses. We'll do that work and report results to the Board, the public and policymakers later this year. Meanwhile, we continue with high-speed rail construction and conducting environmental reviews of project sections from San Francisco to Los Angeles/Anaheim.



**Amtrak Acela Trains Speeding Up: Testing is underway** for Amtrak's new Acela fleet. Twenty-eight tilting trains moved from Alstom's production plant in New York to Colorado for six months of testing. They're scheduled to make their debut on the Acela line from Washington to New York and Boston next year. The trains can go 186 mph, but will initially have speeds capped at 160 mph. **The cars are designed** for 386 passengers, 30 percent more than current Acela cars. (Photo courtesy of Amtrak)

**BART Works on Bouncing Back From COVID-19:** The **Bay Area Rapid Transit (BART)** is trying to regain ridership decimated by the COVID-19 pandemic shutdown. The agency has launched a **15-Step Welcome Back Plan**. Along with more cleaning and requiring face coverings, the plan includes running longer trains and increasing train frequency so passengers can maintain 6 feet for social distancing. That means no more than 30 passengers per car. BART is also releasing passenger load data so travelers can see when crowding occurs on trains. If overcrowding occurs, officials said they'll add more cars to keep passengers safe. (Photo courtesy of BART)



**Japan's Faster, Safer High-Speed Rail:** Japanese passengers began boarding a new high-speed rail train in July. The **new N700S train** zipped along at more than 223 mph last year during a test run. Now it's taking travelers from Tokyo to Osaka at 177 mph. Seats are more comfy and cars have an upgraded automatic control and braking system which allows the train to stop faster than older trains during emergencies. It's the first train in the world with a lithium-ion battery self-propulsion system that allows it to run for short distances on its own power and move away from high-risks areas like tunnels and bridges. (Photo courtesy Kyodo News)

# Dean's Certified Welding Torches Quality Welds Along High-Speed Rail Alignment

Even in the era of COVID-19, **Dean's Certified Welding Inc.** shows no signs of easing up. That's thanks in large part to a solid foundation laid nearly a half century ago by the firm's original President and CEO Mike Dean.

"If you do what you say you're going to do, and you do a good job, you can't hardly fail," said Dean, who launched the firm in 1973. "It's really been kind of a fairy-tale story."

The firm has evolved though the years. Initially, it started supplying field pipe welding to local Carlsbad tomato farmers. It built up one welder at a time over the decades and the Temecula-based firm currently employs about 60 California-based workers.

"We've had guys retire out of the company

after 30 years," said Dean, lamenting the ongoing struggle of finding and keeping skilled welders. "When people stick around for years and years like that, it means you've treated them right, taken care of them."

The firm gets a lot of specialty work due in part to its vast experience.

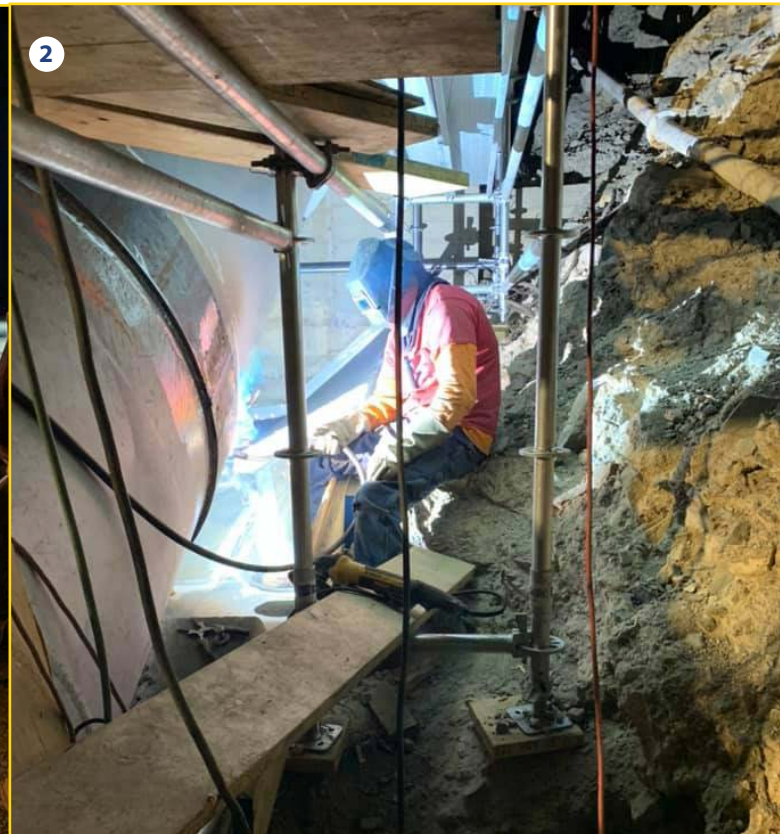
Early on, Dean recalled taking on the welding and testing of 100 miles of Central Valley water pipeline. "We got into bigger pipes and bigger jobs," he said.

High-speed rail counts itself as just one of Dean's many current notable projects. The firm subcontracts with design-builder Dragados Flatiron to weld steel utility pipes along what will be the nation's first high-speed rail alignment in California's Central Valley.



"If you do what you say you're going to do, and you do a good job, you can't hardly fail. It's really been kind of a fairy-tale story."

Mike Dean  
President and CEO  
Dean's Certified Welding Inc.



1. & 2. Last February, crews from Dean's Certified Welding descended on two remote pumping stations for the Metropolitan Water District of Southern California, the largest supplier of treated water in the U.S. They were tasked with replacing 72-inch steel pipe segments that go underground and tie into the pumping plant.

Dean's welders are tasked with welding steel utility casings for water and electrical lines crossing the tracks. The infrastructure must withstand the test of time and the steady vibration of electric high-speed trains traversing the laser-straight corridor in excess of 220 miles per hour. While the sections undergoing welding range in length from 20 to 40 feet, the diameters range from six-inch casings for electrical lines to five-foot casings for water lines.

"Our welders are held to extremely high standards when it comes to the welding code and specifications," said Zachary Gilbert, the firm's Chief Operating Officer. "You put two pipes together and, depending on joint design, we'll go around it over and over with molten metal."

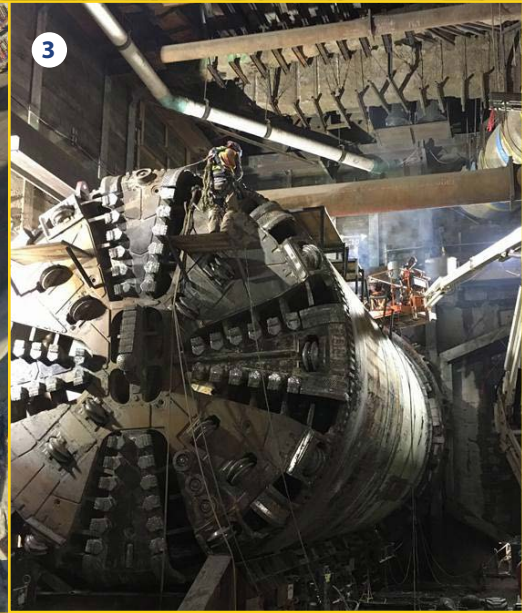
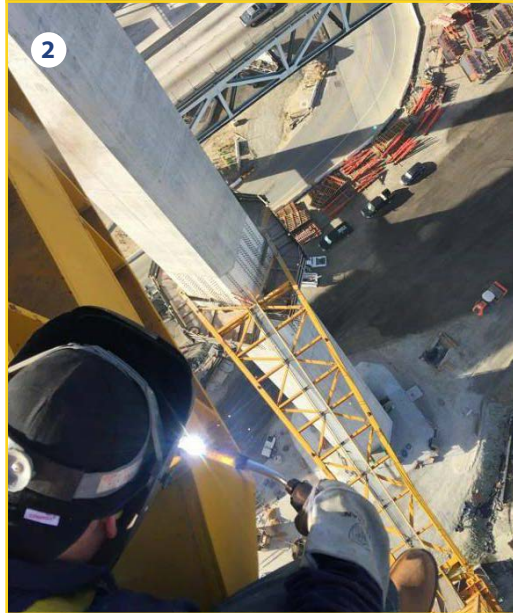
Gilbert bought into the business in 2014 and now shares a third of the firm's ownership with Dean and Dean's wife, Carolyn, the firm's Vice President. Dean credits Gilbert with strengthening the company's foundation, spearheading the launch of a successful Canadian division and preparing the firm to meet the future.

Unique and brag-worthy projects recalled by Gilbert include the **seismic rehab of Naval Medical Center in San Diego**, as the firm put over 300 20-foot long shock absorbers in the foundation of the walls in the building to make it more seismic compliant. They also worked on **Rams Stadium in Inglewood, California**, building fabricated anchor templates to bury underground for the tower footings and they helped remove a **giant tunnel boring machine for the Los Angeles County Metropolitan Transportation Authority**.

Gilbert sees high-speed rail as another project to be proud of.

"Right now I don't think a lot of people put a lot of thought into where it's going," he said. "In 20 years we'll be able to say, 'hey we were one of the first contractors working on that project to get it going.'"

Micah Flores



**1.** Twenty-five welders worked around the clock for 19 days to finish the job on pumping stations for the Metropolitan Water District of Southern California. The plants were shutdown while crews cut out old pipes and welded new ones into place.

**2.** In 2016, Dean's Certified Welding worked on the Gerald Desmond Bridge replacement project in Long Beach. Welders perched on crane towers standing 500 feet high to do maintenance and make repairs.

**3.** After a 21-foot diameter Tunnel Boring Machine (TBM) pushed through a LA Metro tunnel in downtown Los Angeles, Dean's Certified Welding was called in to prep the giant machine for removal.

**4.** Welders Vince Arrendondo and Andreas Moulis weld two sections of casing pipe for the high-speed rail project in the Central Valley. Pipes will eventually carry electrical or water lines and must withstand vibration from high-speed trains traveling up to 220 miles per hour.



# Harnessing the Sun to Power High-Speed Rail

## TerraVerde ENERGY

For 25 years, Rick Brown, PhD, worked as a business and organizational strategy consultant, mostly in the public sector. He made what was perhaps one of the most pivotal decisions of his career in 2005.

That's when he was engaged by a national environmental organization to help them gain a better understanding of climate change and the impact it could ultimately have on their work.

"In delving into the research and science around climate change, I had an epiphany that this is the most important issue out there that I could work on," Brown recalled. "Something needed to change."

A year later, when the federal government passed the solar investment tax credit and California passed its solar initiative, Brown helped convince the board of a low-income housing tax credit company client that it should explore investing in the solar tax credit financing business. That led to the

formation of MMA Renewable Ventures, one of the first financing companies for the solar industry.

"I saw it as both an area of growth in terms of my mission," Brown said. "I felt like if we're really going to get a handle on climate change, we have to quickly move capital from fossil fuel to renewable energy investments."

In 2009, MMA Renewable Ventures was sold to a Spanish energy firm, forcing Brown to plot his next move. "I left there and did a kitchen table start-up," he said.

The kitchen-start-up became **TerraVerde Energy**, a Larkspur-based consulting firm that was founded to support California public agencies evaluating and deploying the distribution of solar photo-voltaic projects, battery energy storage and energy resiliency (microgrid) projects.

"I initially grew the business in the public-school sector," said Brown, the board chair and founder of TerraVerde Energy. "As success

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"It's been a great experience for us. When we were first brought in, there was not a lot of internal knowledge about solar. We created an electricity usage model for the system. Now, with [the Authority's] staff and other consultants, we've built something that the system could use for its life."

Rick Brown, PhD  
Owner  
TerraVerde Energy

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1. In 2009, Rick Brown, PhD, started TerraVerde Energy at his kitchen table. Today, the company is developing an energy procurement strategy so the high-speed rail project can meet its goal of running on 100 percent renewable energy.

2. Students stand beneath solar panels at Buchanan High School in Clovis. Rick Brown's company, TerraVerde Energy, has helped 42 California schools save \$4 million a year by using solar power.



occurred, other types of public agencies – cities, counties, water agencies and then transit and community choice agencies – came along.”

One of those transit agencies is the California High-Speed Rail Authority, which has a commitment to operate exclusively on clean renewable energy. Certified as a small business, TerraVerde is a subcontractor for WSP, the Authority’s Rail Delivery Partner. The company is helping the high-speed rail project develop its energy procurement strategy, focusing on four primary components – feasibility and design, procurement, project management and asset management.

“We’re doing the deep analytics to figure out what are the appropriate scoping and design requirements for the most cost-effective way of implementing solar and battery storage,” he said.

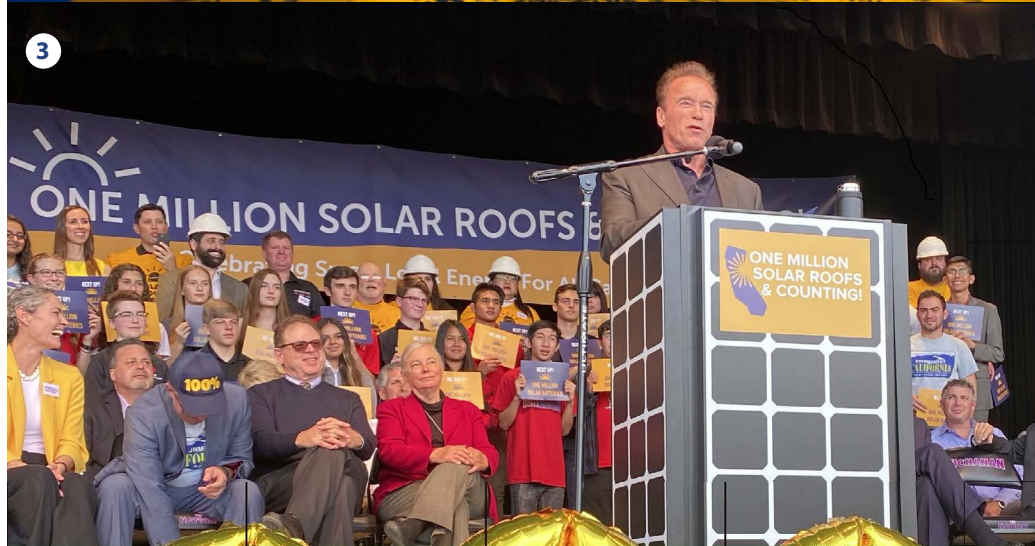
Other transit agencies have tapped into the firm’s expertise. Those clients include Bay Area Rapid Transit (BART), Caltrain and SamTrans. TerraVerde Energy is also supporting over 60 public agencies in developing and managing solar management and storage.

Working on high-speed rail has allowed TerraVerde to leverage its relationship with other transit agencies with similar strategic development work.

“It’s been a great experience for us. When we were first brought in, there was not a lot of internal knowledge about solar. We created an electricity usage model for the system,” he said. “Now, with [the Authority’s] staff and other consultants, we’ve built something that the system could use for its life.”

“It will be upgraded when we have a real operation. That’s the exciting part - we provided a solution for achieving 100 percent renewable energy use at much lower cost than projected in previous business plans.”

Ricci Graham



1. Students join school officials and TerraVerde Energy owner Rick Brown (fourth from left) at the ribbon cutting for a \$25 million solar project managed by Brown’s firm.

2. Clovis Unified School District students eagerly sign commemorative shirts at the One Million Solar Roofs and Counting celebration. TerraVerde Energy helped the district procure solar panels for a 5.9-megawatt project that’s expected to shave \$2.7 million off the district’s \$7.5 million yearly energy bill. (Photo courtesy Andrew Aldama/California Solar & Storage Association)

3. Last December, former California Governor Arnold Schwarzenegger spoke at the One Million Solar Roofs and Counting celebration co-hosted by TerraVerde owner Rick Brown (front row, second from right).

# Small Business Prides Itself on LASAR Focus

With construction ramping up on the California high-speed rail project, the amount of work to relocate utilities for Construction Package (CP) 2-3 can seem daunting.

But not for **LASAR Underground Construction** and owner Lorrie Griswold. Her team sees this as an opportunity to leave their mark on the nation's first high-speed rail system.

Founded in 1994, Lorrie and her husband, Shawn, launched the business after relocating to Fresno.

"We bought a dump truck and backhoe and started doing subcontract work for local contractors in the area," said Lorrie. "In 1999, we incorporated and changed the name to LASAR Underground."

Now owned by Lorrie and associate Dennis

Gregory – her husband, Shawn, retired in 2009 – LASAR specializes in water, sewer and utility relocations. The Disadvantaged Business Enterprise (DBE) joined high-speed rail design-builder Dragados-Flatiron Joint Venture (DFJV) in late 2018 and began working on CP 2-3.

LASAR has relocated communication utility lines near various construction sites in Kings County.

"What contributed to Lorrie's and LASAR's success on the high-speed rail project was their initiative to learn about the subcontracting process," said Bjorn Nilsen, DFJV's Small Business Manager. "I remember Lorrie and her team were the first to arrive at our small business workshops. They asked questions about procedure and did what was

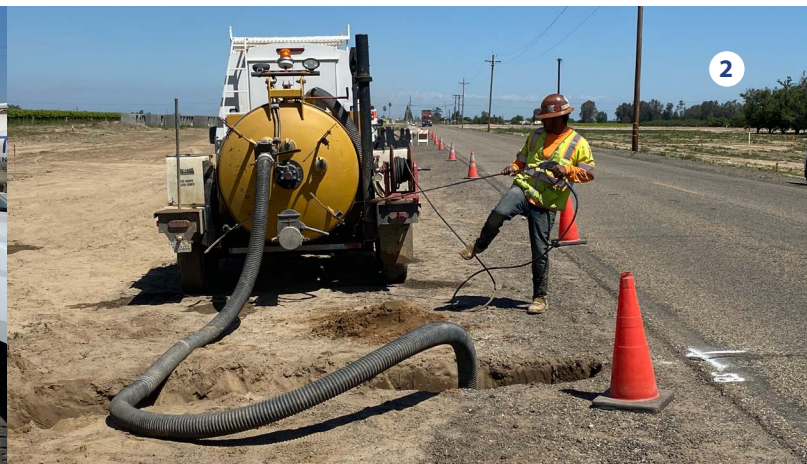
"We pride ourselves on our attention to detail, our quality of work, and getting the job done correctly the first time, every time."

Lorrie Griswold  
Owner

LASAR Underground Construction

**1. & 2.** LASAR Underground Construction crews were hard at work on the high-speed rail project relocating an AT&T telecommunications line at Mountain View and Chestnut Avenues in Fresno County.

**3.** LASAR Underground Construction has grown since Lorrie Griswold (front row, left) opened the firm's doors in 1994. Fifty-seven people are now employed by the small business, which Griswold co-owns with long-time associate Dennis Gregory (second row, left).





needed to ensure they came on board as a knowledgeable and prepared small business contractor.”

LASAR's success on the project has allowed its seven employees to purchase more equipment, including a new backhoe and trencher. They also expanded their services using valuable skills and experience gained from working on the largest transportation project in the nation.

“I think the fact that we’re a diverse woman-owned business has provided LASAR the opportunity to bid on large projects against larger companies,” said Griswold. “We pride ourselves on our attention to detail, our quality of work, and getting the job done correctly the first time, every time.”

Augie Blancas

**1.** LASAR Underground Construction started working on the high-speed rail project in late 2018. In addition to relocating utilities in Fresno County, the company has also worked at various sites in Kings County.

**2.** A worker prepares to do a pneumatic bore using a piercing tool that can make an underground hole for utilities without disturbing the surface ground.

**3.** A LASAR Underground Construction employee measures the depth of utilities beneath the ground prior to making holes to install utility lines.



## UCLA Partners with Authority on Earthquake Research

California is known for earthquakes, so it's no surprise that high-speed rail will be built in active seismic zones. In order to make high-speed rail as safe as possible for workers and passengers, the California High-Speed Rail Authority has awarded a **three-year grant for earthquake research** to the University of California, Los Angeles (UCLA).

University researchers will look at earthquake fault displacement - how much the earth moves on either side of faults in areas where high-speed rail will be operating. It's believed that estimating how much land slides during a quake will increase safety, accuracy and save money on high-speed rail construction.

Earthquakes can be costly, especially when they injure or kill people and damage or destroy infrastructure. Principle research investigator Yousef Bozorgnia, UCLA professor of civil and environmental engineering, is a leading expert on ground motion models, seismic hazard analysis and structural earthquake engineering. He'll work alongside colleagues, fellows, and graduate

and undergraduate students to expand research on earthquake fault movements.

Bozorgnia explains transportation infrastructures and water, phones and gas facilities are built over, under or near active earthquake faults all over California. Soon, high-speed rail tracks will be added to the list. "If not prepared and accounted for, earthquake fault movement can cause devastating damages," warns Bozorgnia. He said UCLA will provide models to designers to predict the level of earthquake ground movement. The models will also quantify the level of uncertainty, which is important for decision makers and those who design infrastructures.

Currently, infrastructure designers must rely on a database that has information from 17 earthquakes. Bozorgnia and his colleagues agreed the database is lacking.

"The uncertainty of movement was high because the model was based on a limited database, which can result in unbelievably expensive designs," Bozorgnia explained. "This data was not enough and we needed to

"The California High-Speed Rail Authority will support at least one new model for designers. However, the opportunity to expand beyond that number is possible. Interest in the research is widespread because it can be utilized for many different applications, not just high-speed rail track."

Yousef Bozorgnia  
Earthquake Fault Researcher  
UCLA Engineering Professor

do better."

Pacific Gas and Electric Company, California Energy Commission, California Department of Transportation and Southern California Gas Company are co-sponsoring the study along with the Authority. The agreement will allow researchers to increase the database with information from 35 earthquakes and



UCLA

Samueli  
School of Engineering

Yousef Bozorgnia, a professor of civil and environmental engineering at the University of California, Los Angeles (UCLA), is researching earthquake fault movements and how they may impact high-speed rail tracks. A three-year grant from the California High-Speed Rail Authority is helping to fund the study.

create new models for designers to estimate movement of active earthquake faults.

Bozorgnia is optimistic new earthquake models will improve infrastructure development and safety and be used by California for generations to come. "The California High-Speed Rail Authority will support at least one new model for designers," he said. "However, the opportunity to expand beyond that number is possible. Interest in the research is widespread because it can be utilized for many different applications, not just high-speed rail track."

Yaqeline Castro

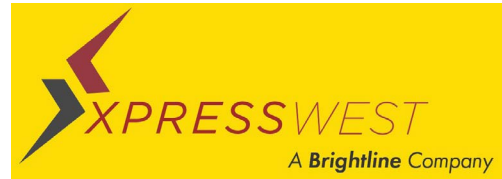
**1.** In 2013, UCLA Professor Yousef Bozorgnia attended the Joint Symposium of Seismic Hazard Assessment in Sendai, Japan. Bozorgnia is known around the world as a leading expert on ground motion models, seismic hazard analysis and structural earthquake engineering.

**2.** In 1999, a strike-slip fault caused damage when a 7.6 magnitude earthquake hit northwest Turkey. A road on top of the fault at a naval base moved horizontally about six feet. It's believed that estimating how much the earth slides during a quake will increase safety, accuracy and save money on high-speed rail construction.

**3. & 4.** In 2019, UCLA Professor Yousef Bozorgnia went to Vancouver, Canada where he was honored with the Bruce Bolt Medal. The award is given to individuals who make technical contributions to the fields of seismic engineering and help improve seismic safety.



# High-Speed Rail Project to Las Vegas is On Track



Las Vegas will be a few hours closer to Southern California when **high-speed trains run from Victorville to Las Vegas**. The project is no longer a gamble with money from the federal government, California and Nevada.

The funding is a major boost to the project, which is expected to cost \$5 billion. Last month, the Nevada State Board of Finance approved allocating \$200 million in tax-exempt private activity bonds for the project. Earlier this year, California green-lighted a \$600 million private activity bond and the federal government agreed to add \$1 billion in activity bonds to the pot. It means that XpressWest can market \$4.2 billion in bonds to the private market.

The project has had a lot of good news. The California Department of Transportation (Caltrans) has entered into a lease agreement to allow high-speed trains to run along Interstate-15. Officials are in talks with the San Bernardino County Transportation Authority to extend the line an extra 35 miles to Rancho Cucamonga. And last March, Nevada's Clark County commissioners approved the required permits needed to build a high-speed train station in Las Vegas off Las Vegas Boulevard near Eldorado Lane.

In 2018, Brightline, a passenger rail service provider in Florida, partnered with Virgin Trains, owned by billionaire Richard Branson, and took over the train project from XpressWest. Brightline/Virgin Trains designed and created an 85-minute, high-end passenger experience from Victorville to downtown Las Vegas. Officials plan to eventually connect the corridor to the California High-Speed Rail Authority's Palmdale station.

Like the California high-speed rail project, the Las Vegas train project promises to be a huge economic boost for California and Nevada. It's believed it will create 30,000 jobs, including 1,000 permanent jobs. Developers also plan to add transit-oriented development that includes



hundreds of living and working spaces around Brightline/Virgin Trains stations.

Construction on the 185-mile line could start later this year and may take up to three years to finish.

Rachel Kesting

# From Big Dig to High-Speed Rail – Making an Impact on CP 4

With more than 30 years in civil engineering, Aamir Durrani has taken his expertise across the U.S. and has landed back in the Central Valley's Kern County.

He's worked on some of the most challenging infrastructure projects in the nation. Where others see a challenge, Durrani sees opportunity.

"From my high school days, I was interested in technology," explained Durrani. "My interest was building something that would be lasting and meaningful. That's why I chose civil engineering."

Durrani graduated from University of California, Irvine in 1985. Three years later, he completed a Master of Science in Civil Engineering at the Georgia Institute of Technology. Shortly after that, he landed his dream job at HNTB and has worked on numerous transportation projects including the Big Dig Tunnel in Boston, the Automated People Mover tunnels at Washington Dulles

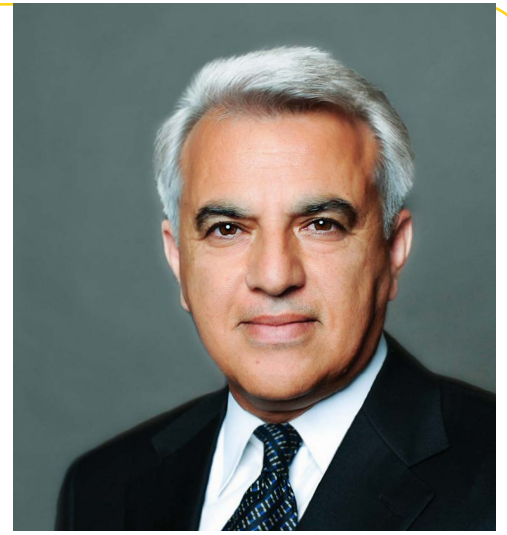
International Airport and the Minneapolis Light Rail tunnels.

Now, Durrani is the Project and Construction Management Engineering Oversight Manager for Construction Package 4, the 22-mile stretch of high-speed rail between Tulare and Kern counties.

"Engineering always provides opportunities for improvement and growth," said Durrani. "I have had the opportunity to work on the best projects in America. Now I get to work on a pioneering project here in Kern County and do work that is historic and state-of-the-art."

Durrani's advice for keeping his passion for engineering is simple. "Life is a beautiful trip, just add purpose," he said. "Know yourself and what you want to do. Be practical and keep up with technology trends so that you are prepared for opportunities now and in the future."

Augie Blancas



"From my high school days, I was interested in technology. My interest was building something that would be lasting and meaningful. That's why I chose civil engineering."

Aamir Durrani  
Project and Construction Management  
Engineering Oversight Manager  
California High-Speed Rail Authority



1. Aamir Durrani (standing third from right) keeps up with colleagues he works with on high-speed rail's Construction Package 4 (CP 4) in the Central Valley. Durrani, who works for HNTB, is the Project and Construction Management Engineering Oversight Manager for CP 4.



2. With more than 30 years in civil engineering, Aamir Durrani has worked on numerous projects including tunnels for the Big Dig in Boston, the Automated People Mover at Washington Dulles International Airport and the Minneapolis Light Rail.

# Authority Graphic Designer Joins Battle Against COVID-19

What started out as a community of festival enthusiasts quickly morphed into a group that manufactured protective face gear for medical personnel and other essential workers. Dennis Domondon, a graphic designer at the California High-Speed Rail Authority, is a co-founder of the nonprofit **Burning Hearth**. Centered around ideals of the annual **Burning Man music festival**, the group mobilized communities all over the nation called nests and decided to support one another when the COVID-19 pandemic hit.

Sacramento area group members agreed to deliver food and supplies to “burners” who were negatively impacted by the pandemic. “We wanted to make sure people we knew, who were out of work, were able to feed themselves,” Domondon explained. “We wanted them to focus on finding work and not worry about where their next meal was coming from.”

The group began buying dry goods like toilet paper, rice and canned goods and delivering them. When volunteers expressed concern about catching the coronavirus, the group began supplying them with masks.

“We wanted to make sure people we knew, who were out of work, were able to feed themselves. We wanted them to focus on finding work and not worry about where their next meal was coming from.”

Dennis Domondon  
Graphic Designer



That sparked the idea to provide protective gear for medical professionals. Domondon and his friend Jack Rubinson suggested using 3D printers available at multiple Burning Hearth community nests to print protective facemasks and strategized on ways to acquire more printers. “Thanks to anonymous donors, we got more printers and started an operation with the Reno nest to print, cut and manufacture as many masks as we needed,” Domondon explained.

A partnership with the **Sunnyvale non-profit Maker Nexus** bolstered the operation. Reusable face shields were added to the product line and 3D printers were churning out protective gear 24 hours a day. They produced 300 shields a day, each costing around \$5 to make. The protective face



1. Burning Hearth members began providing food and supplies for friends who were laid off when the COVID-19 lockdown hit. Concern about the safety of volunteers who delivered food led to another project – manufacturing masks and face shields.
2. Burning Hearth chapters in California, Nevada and Texas acquired 3-D printers and began producing personal protective equipment (PPE) that was donated to several hospitals. With PPE in short supply, medical staff let Burning Hearth volunteers know they were grateful someone was able to help.



shields are donated to medical personnel at no cost. Recently, ventilators were added to the product list.

Burning Hearth added nests in Denver, the San Francisco Bay Area, San Diego and Austin, Texas and provided each nest with \$3,000 to \$5,000 in funding. With a network of about 400 volunteers, they have delivered more than 1,900 protective shields to medical facilities, sent 600 face shields to San Diego postal workers and shipped six ventilators to the Federal Emergency Management Agency.

"It feels good to know that we were able to step up in a time of need," Domondon said. "Frontline workers are taking care of people with COVID-19 or keeping post offices and other agencies open. When they said they needed gear to stay safe, we were able to answer their calls."

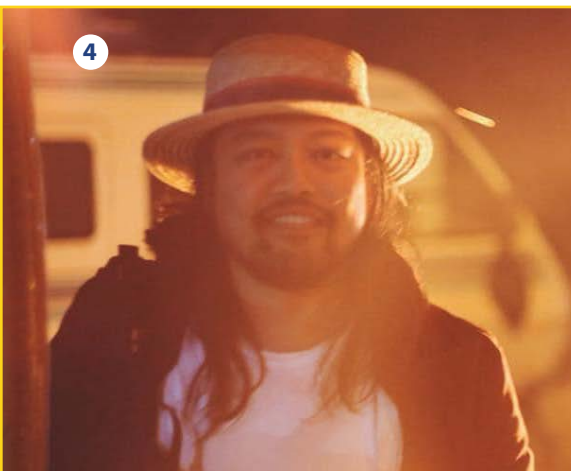
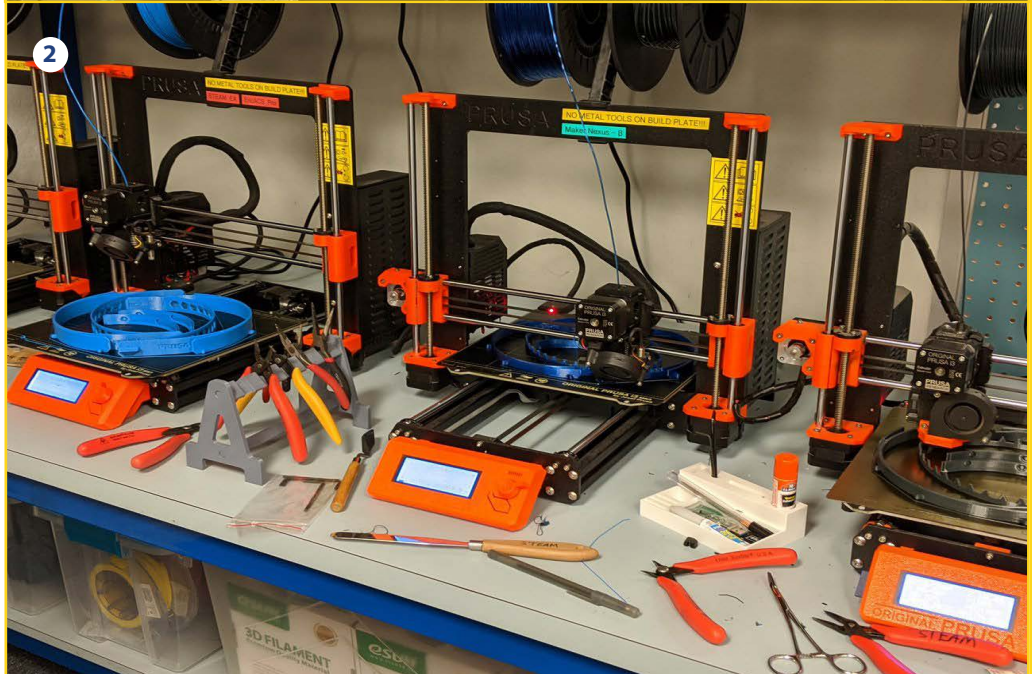
If you or anyone you know works in the medical field or other essential jobs and is in need of protective face shields at this time, please refer them to <https://www.burninghearth.org/contact>.

Yaqeline Castro/Karen Massie

**1.& 2.** Burning Hearth partnered with Sunnyvale non-profit Maker Nexus and soon volunteers were pumping out protective gear 24 hours a day. Ventilators were added to the product list. The non-profits are sending their products to hospitals, Federal Emergency Management Agency and the United States Postal Service.

**3.** Burning Hearth volunteers prepared food and handed it out along with face masks at the Summer Spark drive-through festival in Rancho Cordova in July.

**4.** Graphic artist Dennis Domondon helped convince fellow Burning Man festival goers to start a non-profit called Burning Hearth which is providing food and protective gear to those in need during the coronavirus crisis.



# 4,000 Construction Workers and Counting

COVID-19 has put the brakes on work in many industries and regions, but high-speed rail is moving forward in California.

"We're making history for the future," declared Carpenter Juan Luna. He's one of **more than 4,000 workers dispatched to construction sites** in the Central Valley. "**Utility Worker Gary Winningham** said, "There are a lot of construction workers in California. They all have families and need to put food on the table. So, it's essential to keep all of us working."

More than 73% of high-speed rail construction workers reported that they live near the high-speed rail alignment. **Carpenter Foreman Matt Jimenez** lives in Visalia. "I've been in this trade for about 10 years and have had to travel 5-6 hours to get to work," explained Jimenez. "I feel blessed having a stable job near my home, especially with everything going on in our country and

seeing friends and family out of work right now."

Currently, there are 32 active construction sites stretching from Madera to north of Bakersfield. **Cement Mason Apprentice Shontae Clements** is working on the towering San Joaquin River Viaduct. "I've been here more than three years," Clements said. "It's like family. It's fun. We work hard and get the job done. Then when I go by with my kids, I can tell them I did everything."

High-speed rail work represents more than \$4.8 billion dollars in construction commitments. California High-Speed Rail Authority CEO Brian Kelly explained the project has given the Central Valley a major economic shot in the arm. He said, "This is the strength of our program – stable work, stable paycheck, stable families and a more stable future for California."

Karen Massie/Scott Waters

"This is a good project to work for. I'm working for my family."

Juan Luna  
Carpenter

1. Carpenter Juan Luna is one of more than 4,000 construction workers dispatched to high-speed rail construction sites in California's Central Valley. Luna said, "We're making history for the future."

2. Governor Newsom's administration determined that high-speed rail construction work is an essential activity during the COVID-19 shutdown. Utility Worker Gary Winningham said, "There are a lot of construction workers in California. It's essential to keep all of us working."

3. Cement Mason Shontae Clements (left) is working on the San Joaquin River Viaduct. "I've been here more than three years," she said. "It's like family. We work hard and get the job done."

4. Carpenter Foreman Matt Jimenez is glad his work on the high-speed rail project is keeping him close to home in Visalia.



# Engineer Loves Challenge of Working on High-Speed Rail

**Daniel Teran** is one of many talented engineers at the forefront of progress.

“For me there is no better type of work,” said Teran about working on the California High-Speed Rail project. “Every day is a new challenge that requires fast-paced problem solving.”

Engineering has always been in Teran’s blood. His love for STEM (science, technology, engineering and math) started at a young age with a fascination for puzzles and LEGO®. It was in high school that he found himself excelling in math and science, which led him toward a future in engineering.

“I always loved puzzles, building things, and trying to figure out how all the pieces come together – which is very similar to the work we do,” added Teran.

A proud Oregonian and Beaver (his college mascot), Teran is a graduate of Oregon State University. After college, he worked

for the Washington State Department of Transportation where he worked on a multibillion-dollar transportation project called the Columbia River Crossing which ignited his interest for large scale projects. After working shortly for a private engineering firm, he and his family came to California to join the high-speed rail team.

Teran has served in a variety of capacities since joining high-speed rail. In 2016, he joined the Project and Construction Management team at Construction Package (CP) 2-3. Then he worked for CP 4 in 2018 before returning to CP 2-3 in early 2019. His work focuses on coordinating third party agreements with Caltrans, counties, cities and utilities, engineering and right-of-way companies in order to complete construction.

“These large infrastructure projects are game changers both locally and nationally,” added Teran about his time with high-speed

“For me there is no better type of work. Every day is a new challenge that requires fast-paced problem solving.”

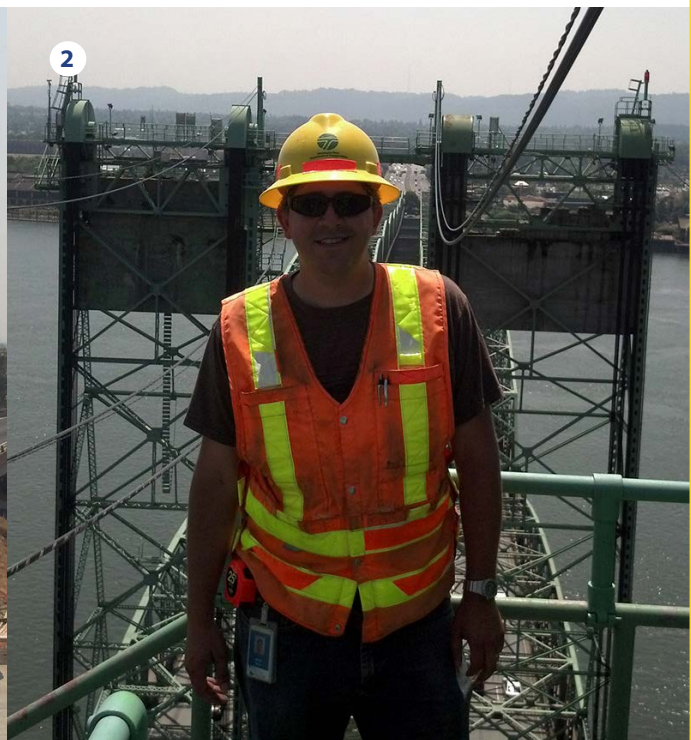
Daniel Teran  
Transportation Engineer  
WSP

rail. “I consider it an honor to be involved with a project like this and proud to work with other engineers who are making a lasting impact for generations to come.”

Augie Blancas

**1.** Engineer Daniel Teran stands overlooking the Cedar Viaduct which is a part of the high-speed rail project. Since 2016, he’s worked on coordinating third party agreements for Construction Package 2-3 and Construction Package 4 in the Central Valley.

**2.** After graduating from Oregon State University, Teran worked for the Washington State Department of Transportation. His job on a multi-billion-dollar project called the Columbia River Crossing sparked his interest in large scale transportation projects.



# Getting Small Businesses Onboard with LA Metro

Growing up in the inner city of Oakland, Tashai Smith had no idea how much her surroundings would direct her career path. “I experienced the impact of barriers in education and was influenced by my parents who were involved in the civil rights movement,” Smith recalled.

After graduating from college, she got a job with the Black Chamber of Commerce on a community development block grant. “This was my first exposure to diversity and affirmative action in contracting programs,” she explained.

Twenty-three years ago, after a stint in the City of Pasadena’s Affirmative Action Department, Smith landed at the **Los Angeles County Metropolitan Transportation Authority (LA Metro)**. She began as a Diversity & Economic Opportunity Representative and then moved up in the department, serving in several executive management positions.

Today, Smith is the Deputy Executive Officer and oversees LA Metro’s Small

Business, Contract Compliance and Capacity Building Unit. Smith enjoys her work because she can help eliminate barriers for small businesses, including minority, women and veteran-owned firms, to compete and gain access to business opportunities. “It is an advocacy that drives me to do what I do,” Smith explained. “Opening doors for small

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“It is an advocacy that drives me to do what I do,” Smith explained.

“Opening doors for small businesses enables them to be successful, grow and impact our economy and our community.”

Tashai Smith  
Deputy Executive Officer  
LA Metro

businesses enables them to be successful, grow and impact our economy and our community.”

Smith pointed out when businesses, large and small, obtain LA Metro contracts, they’re joining the “largest infrastructure expansion program in the nation.” The agency’s Small Business Enterprise (SBE) Prime (set-aside) program makes it possible for small firms to compete as prime contractors. She said, “This program allows for the SBE Prime to perform 30% of the work with its own workforce and contract out up to 70% to other small, medium or large firms or perform 100% of the work themselves.” Small businesses must be certified to join that program. Smith added, “It’s not just a good faith effort. Bidders and proposers must meet the SBE goal to be eligible for award.”

The California High-Speed Rail Authority has secured \$423 million in Proposition 1A funds for LA Metro’s **Link Union Station (Link US) Project**, which will allow trains to enter and exit the station from existing



1. Tashai Smith has been with the Los Angeles County Metropolitan Transportation Authority (LA Metro) for 23 years. Today she serves as the Deputy Executive Officer and oversees the agency’s Small Business, Contract Compliance and Capacity Building Unit.

2. Small businesses need to understand LA Metro’s procurement process in order to win a contract. Tashai Smith encourages them to take advantage of LA Metro’s free technical assistance.



northern tracks and new tracks to the south. Small businesses are already hopping on board the project. According to Smith, "To date, the Link US Contractor has utilized 41 certified firms on the project and has paid \$14.8 million to those firms."

To participate in LA Metro projects, companies need to understand alternative delivery methods such as Design-Build, Public-Private Partnerships and Construction Manager/General Contractors (CMGC), a process where a contractor is hired to provide feedback during design phases before construction begins.

"Building relationships with prime contractors is key for small businesses. They must complete all of the paperwork that's required for bidding on contracts," Smith said. "Access to capital is a continued universal challenge for small firms. They need to understand prompt payment on design-build contracts and know their rights when payment disputes arise."

LA Metro provides companies with technical assistance. They can get support through LA Metro's Project Management Office and Vendor Contract Management. The agency has also developed Disadvantaged Business Enterprise (DBE) University, a series of workshops designed to help companies understand contract requirements.

Smith invited firms to visit **Metro Connect** for information on business programs and events. She added she's always willing to help, too. "I'm proud to speak for an agency that's gained a reputation for being the gold standard in small business support and involvement. Faith and perseverance have been my guiding principles, but it's also a team effort."

Karen Massie



1. The Conference of Minority Transportation Officials (COMTO) honored LA Metro Deputy Executive Officer Tashai Smith (third from left) for boosting the number of small businesses working with LA Metro. In 2019, she won COMTO's Excellence in Diversity and Inclusion Leadership Award.

2. & 3. There's plenty of work for small businesses on LA Metro projects. The Regional Connector Transit Project, worth an estimated \$1.75 billion, is a 1.9-mile light rail subway under construction in downtown Los Angeles. It features three new stations and is forecast to open in 2022.

# Deputy Inspector General Supports Caltrans in Pulling New Faces into Government Contracting

"I provide oversight to racial equity in hiring, contracting and discrimination prevention," explained Debbie Lumpkin. Two years ago, the former corporate executive and diversity consultant was appointed as California's Deputy Inspector General of Diversity in the **Independent Office of Audits and Investigations (IOAI)**, an office created when Senate Bill 1 (SB1), the **Road Repair and Accountability Act of 2017**, was signed into law. The landmark legislation started California on a ten-year \$54 billion quest to fix its roads, freeways and bridges.

Lumpkin brought years of experience to the job. For five years, she ran her own company and served as a diversity, equity and inclusion consultant to private corporations and large membership organizations.

Prior to that, she spent 19 years at Southern California Edison (SCE) where she held a variety of senior management positions including Principal Manager of Supplier

Diversity. She was very successful in that job. She said, "Spending levels with women, minority and service-disabled veteran-owned businesses tripled, reaching 38% of SCE's total procurement spend."

"Firms that have successful contracts get to be a part of public works projects that put people's tax dollars to work, contribute to the economic prosperity of the state and have lasting, tangible benefits to Californians."

Debbie Lumpkin  
Deputy Inspector General of Diversity  
Independent Office of Audits and Investigations



Today, it's critical for small businesses to know what opportunities are available. Lumpkin reviews Caltrans' outreach efforts to increase the number of small, disabled veteran and disadvantaged business enterprises bidding on contracts using SB 1 funds generated by gasoline and diesel sales taxes. She's charged with making policy and program recommendations to Caltrans that bring in more minority and women contractors.

She encourages small businesses to get state and federal certifications before jumping into government contracting. "Most challenges exist in understanding state laws and federal regulations," she explained. "Certification provides access to information, resources, tools and opportunities."

Many small, disabled veteran and disadvantaged businesses also struggle to compete for transportation projects because they don't have the bonding or capital needed to take on large-scale contracts. Lumpkin said, "To overcome these challenges, I offer three pieces of advice – seek an experienced business mentor or prime supplier with transportation experience, join a local business chamber or entrepreneurial organization and connect with the small business representatives at the agency you



**1. & 2.** In 2011, Debbie Lumpkin (2nd from left) received the Supplier Capacity Building Award from the Black Business Association. Prior to becoming California's Deputy Inspector General of Diversity in the Independent Office of Audits and Investigations (IOAI), she spent 19 years at Southern California Edison where she held many management positions.

are looking to do business with.”

To help other California transportation agencies have a better understanding of small business challenges and improve collaboration with each other, Lumpkin organized the Independent Office of Audits and Investigations Equity Taskforce. The California High-Speed Rail Authority is a task force member along with other state agencies and stakeholders that represent the interests of businesses that would like to qualify for and win transportation contracts.

“I am proud of launching the taskforce and developing the compliance framework for the diversity accountability program,” Lumpkin said. She’s working towards creating a long-lasting program that includes everyone. “Since my position is new, I focused on establishing structure and program design. The vision of the diversity accountability program is to institute a dynamic, sustainable compliance process that has an impact on performance and values collaboration, inclusion, fairness, and transparency.”

She admitted it’s a massive undertaking, but worth it. “Firms that have successful contracts get to be a part of public works projects that put people’s tax dollars to work, contribute to the economic prosperity of the state and have lasting, tangible benefits to Californians,” Lumpkin said. “It is also important to include faces that mirror the diversity of the people who live and work in the great state of California.”

Karen Massie

**1.** Debbie Lumpkin (2nd from right) joined colleagues from the Independent Office of Audits and Investigations as they toured a Caltrans bridge project near Marysville. Lumpkin supports efforts to increase the number of small businesses bidding on Caltrans contracts.

**2.** Debbie Lumpkin (3rd from right) is honored for her work by California legislators including State Senator Jim Beall (left), Ex Officio Board Director for the California High-Speed Rail Authority.

**3.** Debbie Lumpkin (2nd from left) and Caltrans employees attended the 6th Annual International Conference on Women’s Issues in Transportation with Caltrans Director Laurie Berman (6th from left).





# CONSTRUCTION UPDATE

# JULY 2020

LATEST VIDEOS | [WWW.YOUTUBE.COM/CAHIGHSPEDRAIL](http://www.youtube.com/cahighspeedrail)



**Handford Viaduct, Kings County**  
Contractors are pouring concrete to form the bents that provide support for the Hanford Viaduct in Kings County. A total of 84 bents are needed for the entire viaduct. Crews are also pile-driving more than 7,000 concrete production piles for the structure's foundation.



## Interested in doing business with High-Speed Rail?

Visit [www.ConnectHSR.com](http://www.ConnectHSR.com)

### SMALL BUSINESS PARTICIPATION AS OF JULY 2020

**560** Certified Small Businesses working on the high-speed rail program statewide

**180** Certified Disadvantaged Business Enterprises  
**60** Certified Disabled Veteran Business Enterprises

**NORTHERN CALIFORNIA:**  
**199** Certified Small Businesses

**CENTRAL VALLEY:**  
**173** Certified Small Businesses

**SOUTHERN CALIFORNIA:**  
**172** Certified Small Businesses

**OUTSIDE OF CALIFORNIA:**  
**16** Certified Small Businesses

