Investing in California Small Businesses

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Design Work and 100-Year Old Property Records Keep Fresno Firm Busy

By Karen Massie

"It's fun for our firm to tell the story," said Adam Holt, Chief Financial Officer for Blair, Church & Flynn (BC&F) Consulting Engineers. "High-speed rail is one of the top five largest projects we've ever worked on. It was a long road but we were patient, persistent and networked non stop for the opportunity." In February 2014, the Native-American owned company based in Clovis landed a design contract for utility relocation engineering on Construction Package 1with design-builder Tutor Perini/Zachry/Parsons. Since then, the amount of work has grown for the firm which is certified as a Disadvantaged Business Enterprise (DBE).

> "High-speed rail has the potential to connect people and resources and create opportunities throughout California in ways we've never seen."
>
> Adam Holt
> Chief Financial Officer
> Blair, Church & Flynn (BC&F)

Holt said the business will do more than $2 million worth of design work for utility relocations in the Fresno area. "The design, coordination and project specific processes for engineering work on high-speed rail are complex," he said. BC&F's project team members work with local utility providers, special districts and public agencies to design solutions to resolve utility infrastructure conflicts between existing sewer, water, irrigation or ››

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CALIFORNIA High-Speed Rail Authority
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drainage systems and the high-speed rail alignment. The engineering work is done in concert with dozens of other engineers, consultants and construction resources. "There are a lot of moving parts to consider given the delivery method, size of the project, all the agencies involved and the age of the existing infrastructure in some of the oldest parts of Fresno and Madera," Holt explained. "But overall, it's a great team of people committed to successfully delivering CP 1."

Blair, Church & Flynn also holds a land services support contract worth about $100,000 with right-of-way consultant, Mark Thomas & Company. BC&F is tasked with researching and assembling property information, boundaries, easements, ownership and public right-of-ways along the alignment. All the existing record documents have to be gathered and reviewed and related to other documents. Documents and maps dating back many years can be hand written, hard to read or difficult to understand the original intent. "Sometimes buildings, roads, parcels, structures and legal monuments described in the documents no longer exist," Holt said. "In many places, high-speed rail will run beside an existing railroad corridor that is a hundred years old. Over time, the railroad provided easements to the county. Sometimes, these areas were later annexed by the city, followed by the addition of roadways, highways and franchise utilities. The history makes the research interesting. It's rewarding when the team finds the right solution."

When Holt arrived at the com-

Blair, Church & Flynn is responsible for more than $2 million in design work for utility relocations for Construction Package 1 area near Fresno.

Blair, Church & Flynn also provides land support services for the high-speed rail project. Team members spend hours combing through property records that date back 100 years to assemble property information, boundaries, easements, ownership and public right-of-ways along the alignment.

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).

pany in 1996, it had 25 employees. Today, more than 100 full-time professionals are dedicated to working on engineering, land surveying, landscape architecture and environmental assignments throughout California.

Over the years, Holt's role has grown. He joined the company as a CAD designer while attending California State University-Fresno where he was getting a Sociology degree and minors in communications and criminology. He said, "I was interested in public relations and marketing, but I had learned AutoCAD and liked engineering. It was a good job that helped me afford to attend college. When I tried to quit after graduation, they wouldn't let me."

Instead, they named the young talent to the newly created Resource Director position and he began creating business, financial, technology and human resources systems and plans for business development and marketing. In 2004, he became a shareholder and company Principal and watched his hard work pay off as the firm began taking on larger projects. In 2009, he was tapped as Chief Financial Officer when one of the founders retired.

Adam Holt, Chief Financial Officer for BC&F has been with the Clovis-based firm for many years, and also serves on the Authority's Business Advisory Council.

Today, Holt sits on the Authority's Business Advisory Council where he represents the American Indian Chamber of Commerce. The Chamber's mission is to provide networking opportunities and support California's American Indian business people by preserving competitive free enterprise, promoting business and community development and establishing a cultural, economic and social center to foster growth of American Indian communities in California. "Our CEO, David Mowry, is very active in the Chamber," explained Holt. "It does a wonderful job of supporting businesses, advocating for opportunities and giving back to the community through a variety of programs that benefit Native American youth with mentoring, scholarships and education."

Meanwhile, Holt is proud of BC&F's work on high-speed rail. About 10 employees are working on the project and the firm is pursuing more contracts for high-speed rail sections that extend south towards Bakersfield. "High-speed rail has the potential to connect people and resources and create opportunities throughout California in ways we've never seen," Holt declared. He knows it's a big deal for a firm from Clovis to be making a meaningful contribution to groundbreaking infrastructure like high-speed rail. He added, "We know we're experienced and qualified, but it's a competitive environment. We know that as a small business, our team must consistently perform and hustle and cultivate strong relationships to continue to have the best opportunities."

> "We know that as a small business, our team must consistently perform and hustle and cultivate strong relationships to continue to have the best opportunities."
>
> Adam Holt
> Chief Financial Officer
> Blair, Church & Flynn (BC&F)

BC&F High-Speed Rail Program Manager Anthony Cemo leads a meeting with project team specialists, who work with local utility providers, special districts and other public agencies to resolve potential conflicts between the high-speed rail system and local utilities.

Reducing Emissions – One Tree at a Time

There are many small businesses working on the California High-Speed Rail Program. Some are so small, they have a staff of one. That's the case for Kelaine Ravdin.

She calls her certifed small business a nano-business, which one prominent publication characterizes as "a little but fierce model of entrepreneurship."

"That is what I like to think of myself as," Ravdin said when informed of the definition. "I thought I was just making it up. I'm glad it's really a saying."

In Ravdin's case, she is the lone principal of Urban Ecos, a San Francisco-based firm that promotes sustainability through the prudent and effective use of natural resources.

While Ravdin is currently the singular representative of her ecological consulting firm, she is working to provide an enormous service for the California High-Speed Rail Authority (Authority) by supporting the Authority's efforts to offset emissions associated with the construction of the nation's first high-speed rail program.

> "There are many environmental benefits that trees provide. Trees help clean the air, filter storm water, reduce energy use and pull greenhouse gases out of the atmosphere."
>
> Kelaine Ravdin
> Principal
> Urban Ecos

An urban ecologist, Ravdin is a subcontractor for Parsons Brinckerhoff. She serves as a liaison between the Authority and California Department of Forestry and Fire Protection (CAL FIRE) and helps move the Authority's carbon emissions reduction program forward.

"We've been working on it for a while," Ravdin said. "It's been a great opportunity. It's going to be wonderful to see the first trees planted."

Specifically, Urban Ecos is responsible for helping the Authority determine the feasibility of using trees to offset the project's emissions; estimating the number, size and planning of sites for various types of trees; collaborating with stakeholders to locate the most ideal places for the tree-planting initiative, and assisting in developing educational material regarding the Authority's commitment to Greenhouse Gas (GHG) mitigation.

Ravdin said the effort is multi-layered and will be defined by the region where the tree-planting initiative will take place and driven by stakeholder groups throughout the state who are seeking grants to participate in the program. Urban Ecos and CAL FIRE will also identify wildlands that have been ravaged by fire and identify urban sites where there is a scarcity of trees for the tree-planting initiative.

Urban Ecos and CAL FIRE will also assess locations impacted by

Self-described nano-business owner, Kelaine Ravdin is working to ensure that it meets its commitments to the environment and its clean construction goals.

the high-speed corridor to determine the most ideal locations for the tree-planting effort. Ravdin estimates that about 5,000 trees will be planted in urban areas during the initial phase of the project and several thousand additional acres of trees will also be planted in rural regions.

"There are many environmental benefits that trees provide," said Ravdin, who conducted research in urban forestry while working with the U.S. Forrest Service. "Trees help clean the air, filter storm water, reduce energy use and pull greenhouse gases out of the atmosphere."

"It's a feasible approach," Ravdin added when referring to the Authority's GHS mitigation program. "There are so many opportunities to plant trees. Trees will be beneficial in so many ways for communities that are affected by the train."

Ricci Graham

Small Business Program Certifications

Get certified! t's a constant reminder for small businesses owners and operators who are interested in participating in the high-speed rail project. Being certified makes small businesses eligible for the Authority's aggressive 30 percent small business participation goal. It also includes a 10 percent participation goal for Disadvantaged Business Enterprises (DBE) and a three percent goal for Disabled Veteran Business Enterprises (DVBE).

A company is a Small Business if:

- It is independently owned and operated
- Is not dominant in its field of operation
- It has a principal office located in California
- Owners or corporation officers are based in California
    - Small Businesses (SB) have 100 or fewer employees and average annual gross receipts of $14 million or less over a three year period
    - Microbusinesses (MB) gross annual receipts are less than $3.5 million or they are a manufacturer with 25 or fewer employees

Businesses that count toward the Authority's Small Business goals are:

- Small Businesses and Microbusinesses (MB)
- Disabled Veteran Business Enterprises (DVBE)
- Disadvantaged Business Enterprises (DBE)
- Small Business Administration 8(a) Certified Firms

The Authority recognizes Small Business Certifications from:

- The California Department of General Services (SB, MB, DVBE)
- California Unified Certification Program (DBE)
    - Certifying agencies can be found at ***http://californiaucp.org/***
- Small Business Administration – 8(a) Program

At a recent pre-bid conference for geotechnical site investigation services in Sacramento, Small Business Advocate Alice Rodriguez talked about the Authority's small business participation goals and encouraged interested prime and subcontractors to network and get to know each other.

No More Dead-End Jobs for Pre-Apprenticeship Training Grad

When asked to describe his time working on the high-speed rail project, David Gurley responds with a quick answer, "I'm loving it!"

Last November, he began working on the Fresno River Viaduct in Madera County. Since then, he's also spent time on the San Joaquin River Viaduct and the Tuolumne Street Bridge. It took a lot of dedication on his part to land the job.

After moving to Fresno 11 years ago, the 27-year-old took some college classes and had a variety of jobs. He cut grass, did roofing and for about 5 years he was a shift manager at a fast food restaurant. "I had to do it, but I wasn't happy," Gurley said. "It was a dead-end job. I didn't feel like I was going to be able to develop and grow."

Desperate for change, he joined a program for young fathers that provided multimedia and social skills training. That's when he found out about the Pre-Apprenticeship Training Program designed to train construction workers for high-speed rail. He said, "I had heard about high-speed rail. I thought this would be good."

In 2014, Gurley spent six weeks going through the training program. For eight hours a day, he learned construction fundamentals, including hoisting and rigging, driving a bulldozer, laying asphalt, making concrete slabs and measuring for construction projects. At night, he worked in a warehouse where he earned $9 an hour.

"I was extremely surprised that I didn't have to come out of pocket for the apprenticeship training," Gurley recalled. "They offered us everything. They supplied us with tools and a tool belt. That had to be a savings of at least $300 and we got to keep them when the classes were finished, so we could use them on the job."

After the training program ended, Gurley took an exam and joined Construction & General Laborers' Local 294. He was prepared because instructors had briefed trainees before their classes ended. He said, "They told us where to go to apply and how to go about it. We knew what to do for every single step we would take."

Within three months, Gurley had a job with a Bakersfield construction company. He worked on several other jobs as well. He said, "When one job was over, I'd put myself back on the list with the union hall and wait on the next opportunity."

After 18 months, he got the high-speed rail job he'd been waiting on. "I'm a wacker," Gurley explained. "That's when you take this tamping machine and compact the dirt down 95 percent so people can come out and test the soil and concrete for the column and make sure everything is safe and secure." He also helps keep the construction site clean and does traffic control.

As a union apprentice, Gurley is paid just over $20 an hour. The salary has made a huge difference for his family. "When I landed this position, I felt like I finally accomplished something," he said. "It means my family is financially secure. The health care benefits are great. I'm putting money away for my retirement pension and I can take the kids on trips."

Recently, he started doing property protection and boarding up buildings that will be torn down to make way for high-speed rail. Gurley hopes to continue working on the project as it moves south through the Central Valley and into the Los Angeles Basin. He added he wants to stay on once operations begin. And he can't wait to hop aboard a high-speed rail train. He said, "You'll be able to live in Fresno where housing is cheaper and take the train to work in Los Angeles or San Francisco. That will be great."

Karen Massie

Pre-Apprenticeship Training paid off for David Gurley. As a Laborers Union apprentice, he makes over $20 an hour working on the high-speed rail project. Currently, he's assigned to construction in downtown Fresno where a two-mile trench will carry high-speed trains under State Route 180.

Pre-Apprenticeship Training Class Schedule*

*Subject to change due to recruitment and union availability

Merced County Prop 39	August 2016	22 students planned
Kings/Tulare County Prop 39 & VEAP	September 2016	25 students planned
San Joaquin Prop 39	September 2016	20 students planned
Fresno County Prop 39 & VEAP	October 2016	22 students planned
Merced County Prop 39	November 2016	22 students planned

Security Company Keeps High-Speed Rail Workers Safe

For several months, employees came to work for Dragados/Flatiron, Joint Venture in downtown Fresno under the watchful eye of Jessie Starlin. His certified small business, JLS Global Metro Security (JLS), had been tapped to do security for the high-speed rail design-build working on a 65-mile section in the Central Valley.

Starlin admits he was surprised when he got a call from Dragados/Flatiron asking him to submit a bid for a private security contract. But he believes he knows why he was selected. "I've been doing security work since the 70's," Starlin said. "I do a lot of advertising and that's how Dragados/Flatiron found out that I have a lot of experience on keeping people safe."

Starlin was six years old when his family moved to Fresno area from Richmond, VA. After his high school graduation and a stint in community college, he moved back to the Bay Area where he landed at Cutter Laboratories, a pharmaceutical company. Starlin said he spent nine years with the firm and eventually was put in charge of the unit that manufactured insect repellant. "It was good money, but I'm a country boy and wanted a slower pace of life," Starlin said.

So in 1975, he returned to Fresno where it was cheaper to live and he could afford a house. When a job someone promised to him didn't materialize, he took a security job. "I worked in all different kinds of places," Starlin said. "I worked at convalescent hospitals, apartment complexes, weddings, quinceaneras and wineries. It didn't make any difference what time of day. A lot of times, I was on graveyard, the overnight shift."

Still, he missed the kind of money he made in the Bay Area. That prompted him to start an temporary employment agency. He worked out a deal with Heald College that sent students to school and found them jobs through the temp agency. Eventually, he started a security firm. "It was great because the students could get security training and certification though the school and I could place them in jobs, sometimes at my own security company."

And if all that wasn't enough, Starlin said he also started running a tow company at the same time. Working all hours of the day and night began to take its toll. "I would just catch a couple hours of sleep whenever I could," Starlin recalled. "I was working so much my doctor told me my body was starting to think it was awake even when I was sleeping." Worried about his health, Starlin shut down the temp agency and tow yard.

Now the 71-year-old just does security, but still shows no sign of slowing down. Through the Economic Opportunities Commission, he continues helping young people get security training. He and his two employees work around the state on a variety of security jobs. "Earlier this year, I did security for Super Bowl 50 in the Bay Area," Starlin said. "I want to continue to grow – maybe even nationally."

Karen Massie

Jessie Starlin, owner of JLS Global Metro Security, and his crew are responsible for providing security services for Construction Package 2-3. Their recent jobs have included security for Super Bowl 50 in the Bay Area.

"Earlier this year, I did security for Super Bowl 50 in the Bay Area. I want to continue to grow – maybe even nationally."

Jessie Starlin
Owner
JLS Global Metro Security

SoCal Company Keeps Close Eye on High-Speed Rail Work

Fueled by entrepreneurial spirit and marketing experience, Rebecca Jones opened the doors of Safework, Inc. in Los Angeles. It was 1992. Today, the firm has grown to seven offices across the U.S. and has plans to continue expanding. Getting there hasn't been easy.

Jones explained she capitalized on an opportunity that emerged in the 1980's and 1990's -- a growing recognition for the need to support small businesses, particularly those owned by women and minorities. It prompted her to leave her career in marketing with URS Subsidiary Obrien Kreitzberg and venture off on her own to launch the Safework, which gained its certification as a woman-owned Disadvantaged Business Enterprise (DBE).

It wasn't long before Jones won a $189 million contract to provide safety oversight for Los Angeles at the Hyperion Treatment Plant in El Segundo. That work led to more contracts with Los Angeles-Glendale Terminal Island Water Reclamation and Wastewater Plants and the Los Angeles Zoo.

The company, which focused on safety management services, has expanded and now provides construction management support and construction inspection services. However, safety and risk management continues to be part of its core duties. About 30 percent of the firm's 50 staff members are part of the safety division, including Steve Anderson, who works on Construction Package 1 (CP 1) and Ralph Morales who is assigned to Construction Package 2-3 (CP 2-3) as part of the construction management team. Like other employees, Anderson and Morales both have more than 10 years of experience in their professional field.

Jones said Safework's reputation helped the company get started on high-speed rail and its proven ability to manage project safety in a team environment has allowed it to win a contract for Construction Package 4 (CP 4). "The success of Safework is due to our people -- hard-working, knowledgeable and experienced people -- who do their job and do it well," boasted Jones. She's currently in the process of hiring the safety lead for CP 4.

The company's growing presence in California's Central

> "Being on high-speed rail has made a world of difference. This is a marquee project and we're one of the few firms working on high-speed rail in the entire country. Maybe even more so than money, it means a lot for us and for our reputation."
>
> Rebecca Jones
> Owner
> Safework Inc.

Rebecca Jones, owner of Safework, a woman-owned DBE, has seen her business flourish in recent years. Roughly 30 percent of the 50 members of the Safework crew are currently providing safety and risk management services on Construction Packages 1 and 2-3 in the Central Valley.

Valley has allowed them to secure an additional contract providing safety consulting services for the City of Fresno's major water infrastructure overhaul. "We've been able to accomplish two things for our business by working on this high-speed rail," Jones explained. "We're getting the attention of bigger companies and clients and attracting great people to work with us."

"Being on high-speed rail has made a world of difference," Jones said. "This is a marquee project and we're one of the few firms working on high-speed rail in the entire country. Maybe even more so than money, it means a lot for us and for our reputation."

Elizabeth Jonasson

Translating Time into Productivity

On any given day, you can find Javier Morrone, taking L.A. Metro's Gold Line from Pasadena to Los Angeles Union Station to provide Spanish Language translation for clients in downtown Los Angeles. Many of his customers, such as Metro, First 5 LA and the Immigration Court are only steps away from the train station.

His job as a translator is a big step up from where he started when he arrived in L.A. at age 20. While he was attending college, he worked as a janitor and a manager in the hotel industry. He graduated with a Master's Degrees in History and Economics. In 2000, Morrone started teaching at Pasadena City College and ten years later he launched his language translation business.

Today, Morrone owns Lex Lingua Court Interpreters and as a subcontractor for micro-business Carmazzi Global Solutions, he provides services for the California High-Speed Rail Authority. At the April Authority Board meeting, he provided small translation devices so attendees could hear him translating what was being said into Spanish. He explained, "If California had a high-speed train, I could expand my service area from Los Angeles all the way to the courts in Sacramento."

Morrone is no stranger to rail. He grew up in Buenos Aires, Argentina and rode on trains and subways because owning a car was a luxury. He noted, "The light rail system is over 100 years old, but it's a good network and I could go anywhere." He even got to ride on Red Cars, streetcars that once served visitors in downtown L.A. and were eventually sold to a rail company in his hometown.

> "If California had a high-speed train, I could expand my service area from Los Angeles all the way to the courts in Sacramento."
>
> Javier Morrone
> Owner
> Lex Lingua Court Interpreters

Riding the train to work today saves him a lot of time. On board the train, he can prepare for court cases. He's also not stuck in traffic. "It only takes 30 to 40 minutes to get from my home to work, versus an hour and a half by car," he explained. "I hate driving and with the money I save, I can take a vacation in Italy!"

Rachel Kesting

Javier Morrone, owner of Lex Lingua Court Interpreters, and a colleague provide Spanish translation at an Authority board meeting. He is an avid Metro rider and is looking forward to someday riding high-speed rail between LA and Sacramento.

Fresno EDC Honored for Work with Businesses Impacted by High-Speed Rail

Will Oliver, Madera City Council Member and Business Support Manager with the Fresno Economic Development Corporation (EDC) was recognized for his work to assist the relocation of over 100 businesses. His efforts also saved over 1,300 hundred area jobs.

"We're really excited," declared Lee Ann Eager, President and CEO of the Fresno Economic Development Corporation (EDC). "We saw early on the possibilities that high-speed rail could bring to the Fresno area."

At the June Board of Directors meeting for the California High-Speed Rail Authority, a smiling Eager told Board members that the California Association for Local Economic Development (CALED) recognizes outstanding economic development programs every year. This year CALED looked at 40 to 50 groups and the Fresno EDC was one of seven winners selected for an Award of Merit. Eager offered some insight into why her organization's High-Speed Rail Business Support Program was honored. "It's extremely successful," Eager explained. "It's a one-of-a-kind program."

A year after voters approved funding for high-speed rail in 2008, the Fresno EDC went to work having community and businesses meetings. "We also got together with the Authority and said let's make sure we do this right," Eager said. When funding from the Authority came through in 2013, the EDC hired six people to work on the project.

It was determined that 300 businesses would be impacted by the high-speed rail project after the Authority selected a route in the Fresno area. In effort to make sure the businesses didn't leave the area, the EDC is helping them to relocate. "To date, we've relocated 100 businesses," Eager said. "And we've saved about 1,300 jobs."

> "To date, we've relocated 100 businesses and we've saved about 1,300 jobs. The EDC has assisted with expansion of 30 percent of the businesses. "
>
> Lee Ann Eager
> President and CEO
> Fresno Economic Development Corporation

The Cosmopolitan Tavern & Italian Grill, a family-owned restaurant that's been in Fresno for over 100 years old, was one of the EDC's success stories. It opened in a new location close to the Fresno Convention Center in July. The Stars Dance Studio moved into a larger space and added 80 students. Main Event Graphics, a printing service and boxing program for at-risk youth, expanded into a new facility where it serves more youngsters and hired more workers. Before moving, the owners of Fresno Tank and Trailer Repair were renting space. Now they're buying their new location. And that's not all.

Eager said six farmers complained when they learned the Fowler overpass for high-speed rail was slated to run diagonally through their properties. After facilitating negotiations between the Authority, property owners and the location's jurisdiction, the high-speed rail route was changed so the overpass ran down the side of the properties where it impacted fewer parcels.

Eager admits it's a lot of work for the people who work on the support program, but it's been rewarding. "Ninety percent of the businesses that are being impacted by high-speed rail have been retained in Fresno. Owners for the other ten percent either wanted to retire or were planning to close, anyway," Eager explained. "The EDC has assisted with expansion of 30 percent of the businesses. Our theme song is 'We Can Work It Out.'

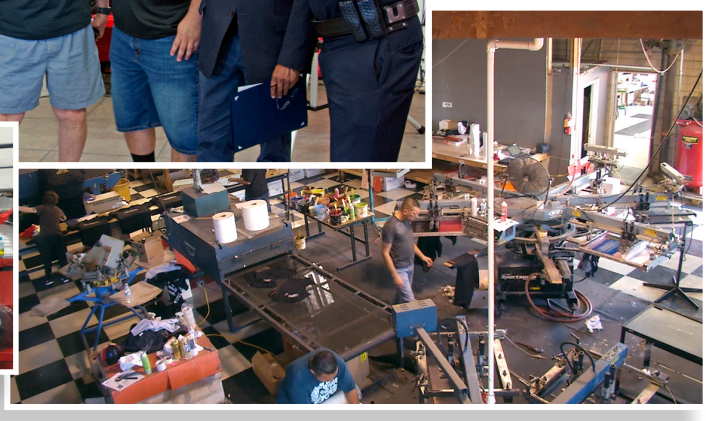
Karen Massie

Business Owner Thanks Authority and Fresno EDC for Relocation

Al Perez, the owner of Main Event Graphics in Fresno, remembers when talk began about high-speed rail coming to the Central Valley. "When I first heard about it, about a year and a half went by and we were like 'this is never going to happen,'" said Perez. Soon he realized his business would be one of the first to relocate to make way for high-speed rail.

"It was scary at first because we only heard horror stories," he recalled. "I've got to say it came right on time."

Relocating his business for high-speed rail actually sped up his plan to move his business. He initially hoped to move next to a church in another downtown neighborhood. Instead, he ended up moving into a building that once housed a church just blocks from his old location. Perez credits a real estate agent contracted by the Authority for allaying his fears. He explained, "She was just awesome. She detailed and went through everything in the shop and maximized how much money we were going to get for reestablishment. Then she hooked me up with Will Oliver, Director of Business Services for the Fresno Economic Development Corporation (EDC)."



The EDC's High-Speed Rail Business Support Program works with businesses affected by high-speed rail and helps them stay in Fresno. Perez said the new place Oliver found for him has made a world of difference. "We came out of 5,000 square feet and doubled [in size] to 10,000," Perez said. "We were able to add more equipment and take on bigger contracts."

Since the move, Perez has started another printing company and established a sign company. Because the EDC got the city to change a zoning law, Perez was able to move a second venture called Main Event Boxing from his old location to the new space. "The boxing was a hobby -- something we were passionate about," Perez declared.

For ten years, the boxing ring was a way for Perez and his long-time business partner, Tommy Avalos, to help keep kids off the streets. Now the gym, which was a hobby, is thriving. It's bringing in enough money to pay for itself, the trainers and it's open to the public. Perez is almost giddy when he talks about it. "We have about 50 members. We have kids as young as seven years old. We have the top amateurs in the Valley. We're sending them to Reno, the Junior Olympics. We also have seven or eight professionals."

At one time, Al feared that high-speed rail would be the knockout blow for both of his businesses. His feelings have certainly changed. "It worked out perfectly," he declared. "Couldn't have been happier. It's been a big blessing."

View more about this success story at:
https://www.youtube.com/watch?v=pIl_xSh-Irs

Justin Chechourka

Preparing the Workforce for Future Careers in Rail

In the coming years, expanding rail systems throughout the state of California will require access to a workforce that is trained, skilled and ready to transition into many career opportunities the industry is projected to generate. That's just what the Los Angeles-based Transportation Workforce Institute (TWI) is counting on.

Recently, U.S. Secretary of Transportation Anthony Foxx visited the TWI to meet with staff and students. His visit was to recognize the awarding of a two-year, $750,000 Workforce Development Grant from the United States Department of Transportation to create TWI and develop a model rail systems technology curriculum that could serve as a template for other colleges interested in offering similar course work.

Jess Guerra and his colleagues at the TWI are working to ensure that those who are interested in careers in rail are ready to take advantage of these emerging opportunities.

Guerra, who serves as the Director of TWI, is presently developing a curriculum that will serve as the foundation for the Rail Systems Technology Program. The program will offer associates degrees for students seeking to qualify for careers in the public transportation industry.

"Currently, there aren't any such training programs in the Western United States," Guerra said. "It's not your typical (college) program. The biggest challenge is that we are developing degree and certificate programs where one doesn't exist."

Once the curriculum is approved by the California State Community College Board of Governors, the Rail Systems Technology Program will begin offering two-year college degrees in rail vehicle maintenance, rail signal inspection, traction power, rail communications and track specialists as early as Spring 2017.

"We have already made the commitment and have hired two full-time faculty members," Guerra said. "We're hoping to have the capacity to start off with 100 to 150 students."

Students who graduate from the Rail Systems Technology Program will be equipped with skills to qualify for career opportunities that will be generated by the California High-Speed Rail Program, the expansion of Los Angeles Metro, and the expansion of the freight rail industry.

"L.A. Metro has a lot of projects building out," Guerra said. "As high-speed rail is moving forward we're going to need a trained workforce to address (its) needs. And commuter rail and freight have a challenge in finding talent. When students go through the program they're going to be able to go out and apply and be ready to enter the workforce."

Link to learn more: ***http://www.rita.dot.gov/ntwd***

Ricci Graham

"As high-speed rail is moving forward we're going to need a trained workforce to address (its) needs. And commuter rail and freight have a challenge in finding talent. When students go through the program they're going to be able to go out and apply and be ready to enter the workforce."

Jess Guerra
Director
TWI

TWI
Transportation Workforce Institute

U.S. Secretary of Transportation Anthony Foxx visited with staff and students at the Los Angeles based Transportation Workforce Institute (TWI) after institute founders received a $750,000 federal grant to create TWI and develop a rail systems technology curriculum.

Innovative Tunnel Research Benefits Education

Do you ever wonder where our precipitation and snowfall winds up? Aside from the water that runs off into local streams, much of the water percolates deep into the soil through fractures in the rock.

Two geologists are conducting innovative research using fiber optics to measure that water during the Authority's environmental studies in the mountains of the Angeles National Forest. Dr. Richard Laton, from California State University Fullerton, and Dr. Matt Becker, from California State University Long Beach, teamed up to use Fiber Optic Distributed Temperature Sensing (DTS), a unique process to detect and measure water movement . "We are measuring something very interesting," said Laton. "To our knowledge, this has never been done before."

The researchers are working with Kleinfelder, a global architecture, engineering and science consulting firm based out of San Diego. The firm allowed the researchers to take advantage of the fact that they're boring deep holes in the mountains for a tunneling study for the Authority. Both Laton and Becker also have graduate students using this research for their thesis papers.

The process starts with deep coring or taking plugs out of the rock. The cores are bored as deep as 2700 feet to bring up rock samples for testing. When the holes are backfilled with cement, fiber optic cables are embedded in the cement. By checking every meter along the cable, the DTS system can measure temperature with extreme accuracy. Deviations in temperature reveal where water has seeped into the fractures and is moving down through the mountain.

Once a month, a research team visits the forest and connects a small fiber optic sensor box to a core sample. Measurements are taken and later in Becker's lab, students process the data. Graphs are produced to visually represent temperature readings that correspond to the movement of water through rock fractures deep in the mountain.

"This is groundbreaking research," Laton explained. "We are taking a dynamic measurement, a flow assessment fracture by fracture, over a longer period of time. We will be able to identify which fractures are transmitting water and track seasonal changes, if any, from dry summers to wet winters."

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Dr. Richard Laton
California State University Fullerton

The geologists pointed out the research is not required for high-speed rail, but it will help people who deal with hydrology and geology assess water tables and understand other water related issues. This is especially exciting for water-starved California which is still dealing with a record breaking drought.

Rachel Kesting

The purpose of the geophysical investigation that is currently ongoing in the Angeles National Forest is to learn more about the 1.2 billion year old San Gabriel Mountains in the areas of geology, groundwater and seismic properties.

Diversity Honors Handed Out for Work on High-Speed Rail

Kudos go out to Dragados/Flatiron, the design-build team for Construction Package 2-3, Alert-O-Lite, a certified small business working on Construction Package 1, and the Small Business Unit for Caltrans District 6, which services Fresno and four other Central Valley counties. They were honored on April 20 at the Central Valley Diversity Expo hosted by the Fresno Metro Black Chamber.

"The Diversity Awards were started in an effort to recognize agencies, organizations and firms which have a good track record for working with chamber members," explained Tshaka Touré, Board Chairman for the Fresno Metro Black Chamber of Commerce.

The design-build team of Dragados Flatiron was selected as the Business Diversity Buyer of the Year for its exemplary behavior and overall approach. According to Touré, "They've extended themselves and made themselves accessible. They've proven over and over that they want to help the Central Valley and Fresno businesses win contract bids." He explained Dragados Flatiron does more than alert businesses about upcoming opportunities. "They teach small businesses how to compete and get the winning edge." The Dragados Flatiron joint venture won the contract to design and build 65 miles of high-speed rail from south of Fresno to the Kern Tulare County line.

The Chamber awarded Alert-O-Lite, based in Fresno, as the Diverse Supplier of the Year. "The owner, Debbie Hunsaker is approachable and willing to help our members," Touré explained. Her company, has provided supplies and equipment to chamber members and allowed them to establish lines of credit when it's difficult to get credit from other firms. Alert-O-Lite is in charge of traffic control for Construction Package 1 of the high-speed rail project, which runs from Madera to south of Fresno.

Morris Caudle, Small Business Liaison for California Department of Transportation (Caltrans) District 6 was on hand to accept an award as the Business Diversity Advocate of the Year. Caudle has been instrumental in getting small business certifications for chamber members. "Morris participates in every program we invite him to," Touré said. "Every time he comes he brings a wealth of information and seems pleased to do it." Caltrans is serving as the Authority's contractor and will move a two-mile section of State Route 99 approximately 100 feet to the west to make way for the high-speed rail line.

About 80 people attended the chamber's award ceremony which was held after a long day at the Central Valley Diversity Expo. The event featured workshops designed to help small businesses and 130 matchmaking sessions between small businesses and Fresno County, the city of Fresno, state and federal agencies, construction and utility companies and the community college district.

Link to Fresno Metro Black Chamber Facebook 5th Annual Central Valley Business Diversity Expo:

https://www.facebook.com/FresnoMetroBlackChamber/photos/?tab=album&album_id=1188825241150118

Karen Massie

Small Business Coordinator Sarah Villa (2nd from right) receives Business Diversity Buyer of the Year Award for Dragados Flatiron from Fresno Metro Black Chamber Board Chair Tshaka Toure (2nd from left)

Alert-O-Lite owner Debbie Hunsaker was thrilled when the Fresno Metro Black Chamber named her firm as the Diverse Supplier of the Year.

State-of-the-Art Diesel Locomotive Set to Ride Metrolink Rails

Four locomotives spanning the history of rail stood like proud soldiers on display on Track 15 at Los Angeles Union Station. Each beast of a machine represented a feat of engineering for its time. At the head of the line was a locomotive that is said to be the safest, cleanest and most powerful diesel to ever ride the rails.

Wearing a fresh coat of Metrolink's black, green and grey color scheme, the new Tier 4 locomotive drew a crowd of around 100 people, braving the summer heat, to attend its unveiling. And why not? They were getting a look at the first Tier 4 diesel engine to be used by a commuter and passenger rail service in the United States.

"This is a really, truly momentous occasion and we're excited for both our agency and the region," said Metrolink Board Chair Shawn Nelson. "Metrolink became the first commuter rail agency in the country to purchase a Tier 4 locomotive. That's not unusual for Metrolink, we've got a habit of being first."

The locomotive was the first of what will eventually be a fleet of 40 Tier 4 locomotives. It's an investment of approximately $280 million. Metrolink named its first cleaner-burning diesel engine after former Metrolink Chair Pat Morris, who helped make the decision to buy the new engines.

The decision may have been Metrolinks', but the actual purchase would be a team effort. The High-Speed Rail Authority kicked in $68.5 million in connectivity funding, more than $100 million came from the State of California and tens of millions came from the California State Transportation Agency's (CalSTA) Transit and Intercity Rail Capital Program.

Tier 4 trains can reach speeds of up to 125 miles per hour pushed by 4,700 horsepower which is 64% more power than Tier 0 trains Metrolink currently uses. Despite all that additional power, the train will reduce fuel usage by eight percent and reduce emissions by a whopping 85 percent.

"We operate 150 trains a day. Don't forget us next time you take your next ride. We hope to make it safer, more reliable, certainly as we progress... cleaner," said Chair Nelson.

Link to Metrolink page on Tier 4 trains ***http://www.metrolinktrains.com/news/news_item/news_id/1051.html***

Justin Chechourka

"We operate 150 trains a day. Don't forget us next time you take your next ride. We hope to make it safer, more reliable, certainly as we progress... cleaner."

Shawn Nelson
Board Chair
Metrolink

The unveiling of Metrolink's new Tier 4 diesel engines at Los Angeles Union Station. Metrolink will pay $280 million for 40 new locomotives described as the cleanest and most powerful diesel engines riding the rails.

TIER 4 BY THE NUMBERS

ENGINE: CAT C175 – 20-cylinder

SAFETY FEATURES: Crash Energy Management, Positive Train Control

HORSEPOWER: 4,700 HP

MAX SPEED: 125 MPH

GHG EMISSIONS REDUCTIONS: 85 Percent

High-Speed Rail Construction: It's Happening

The California High-Speed Rail project is happening and in big ways. There are now multiple project sites where bridges, trenches and other structures are being constructed. Keeping track of those projects is now easier than ever with BuildHSR.com.

The goal of the site is to serve as a one-stop shop for all construction related activities. You'll find the latest pictures and videos from the various projects. If a project is going to have impacts on roadways or businesses that information will be posted at ***www.BuildHSR.com***.

You'll also find the latest road and construction alerts so you'll be aware of any traffic impacts.

Also keep an eye out for our new interactive map that is putting information about the phases, project sections and station communities all in one easy to navigate location.

To see the August update: ***http://hsr.ca.gov/docs/programs/construction/road_closure/2016_Construction_Alert_August.pdf***

Small Business Participation on Construction: By the Numbers*

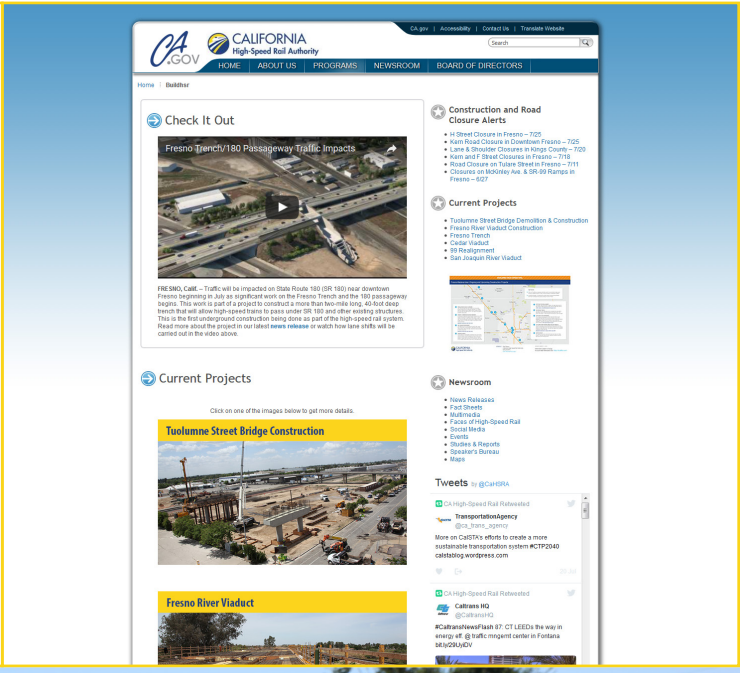
CONSTRUCTION PACKAGE 1

- 94 Small Businesses Subcontractors & Vendors Working
  - 27 Small Business Enterprises
  - 23 Disadvantaged Business Enterprises
  - 13 Disabled Veteran Business Enterprises
  - 31 Micro Businesses
- $37.7 Million Paid Small Businesses Subcontractors & Vendors

CONSTRUCTION PACKAGE 2-3

- 9 Small Businesses Working

*As of May 31, 2016



Fresno River Viaduct *Near Madera*

The first glimpses of a finished product can be seen at the Fresno River Viaduct in Madera County. A long section of the viaduct is now free-standing after the "falsework" or support structure was removed. Concrete continues to be poured to finish the bridge deck on both sides of SR-145. Work to cross the highway will begin soon as will construction of the abutments.

Tuolumne Bridge Construction *Downtown Fresno*

After more than 40 girders were placed in June, workers are now focused on the bridge deck at the Tuolumne Bridge in downtown Fresno.

State Route 99 Realignment *Central Fresno*

This project with Caltrains as the Authorty's contractor will move State Route 99 from Clinton to Ashran, Approximately 100 feet to the west.

Cedar Viaduct *South Fresno*

Rebar cages for nine columns are now in place at the Cedar Viaduct in South Fresno. Concrete for four of those columns has been poured, with the construction of remaining columns underway.

Cottonwood Creek *Madera County*

Rebar cages have now been installed to form eight columns for the bridge at Cottonwood Creek in Madera County.

San Joaquin River Viaduct *North Fresno*

Engineers are reviewing plans to start foundation work in the riverbed at the San Joaquin River Viaduct in North Fresno. Rebar cages have been tied and are ready to be placed once drilling work is complete.

Fresno Trench/SR-180 Passageway *Fresno*

Conceptual Rendering

Construction crews are now working on State Route 180 between G and H street near downtown Fresno.

Rancho Cordova Firm Serves as Eyes and Ears on High-Speed Rail Construction

"As I was growing up, I always wanted to be an engineer," said Abhijit Naik. In 2001, he started living his dream when he began working as a student assistant with the California Department of Transportation (Caltrans) Office of Earthquake Engineering. It wasn't long before he started working full time and found his niche in the agency's Structure Design & Structure Construction unit. "I realized that I liked working in both design and construction at the same time," Naik said.

After a five year stint at Caltrans, Naik's job took him around the world. He worked on Sacramento city and county bridge projects. Then he was off to India for the Chenab Rail Bridge project, which will be the world's highest railway bridge when completed. He also worked in Bahrain on the Mina Salman Bridge Interchange, which features seven bridge spans.

Last year, Naik was hired by the Hanna Group, a certified small business based in Rancho Cordova that specializes in bridge construction projects. The company has a subcontract with Arcadis, the lead construction and project management team for Construction Package 2-3 (CP 2-3). Naik relocated to Fresno to serve as the Independent Site Engineer (ISE) Lead Segment Manager for the 65-mile stretch of high-speed rail which runs from Fresno to the Kern/Tulare County line. The Hanna Group will review, assess, evaluate and certify construction work done by Dragados Flatiron, the design-build team for CP 2-3.

Naik and his team will keep a close eye on grade separations along the alignment -- bridge structures and embankments that separate high-speed rail trains from roadways and other railroad lines. CP 2-3 will feature more than 50 bridges and approximately 19 million cubic yards of embankment.

> "We will be an on-site presence during construction. We expect to be working on more than 30 bridges and seven embankments at the peak time of construction between 2017 and 2019."
>
> Abhijit Naik
> Independent Site Engineer
> Lead Segment Manager
> The Hanna Group

Right now, while the design-build team is completing construction designs, the Hanna Group only has three people working on the project – two in the Central Valley and one in the Rancho Cordova office. But as Dragados Flatiron starts ramping up for heavy construction, Naik expects his team to grow. "The Independent Site Engineer is [in charge of] a very exhaustive oversight program." Naik explained. "We will be an on-site presence during construction. We expect to be working on more than 30 bridges and seven embankments at the peak time of construction between 2017 and 2019."

When it's finished, Naik will be able to look at the high-speed rail project with pride. "It's a well thought-out transportation program which will get people where they're going in a shorter amount of time than conventional means of surface transportation," Naik explained. "It should be able to draw businesses and provide employment opportunities along with increased wealth and development for the Central Valley. It's going to mean big dividends for future generations."

Karen Massie

Lead Segment Manager Abhijit Naik with The Hanna Group, is working with Arcadis to provide construction and management oversight for Construction Page 2-3. This oversight function helps the Authority and the design-build contractor work together to deliver this portion of the high-speed rail program.

ITE is Making Connections Between Engineers and High-Speed Rail Program

Director of Operations and Maintenance Bruce Armistead (left) and Chief Program Manager Frank Vacca (right) fielded questions about high-speed rail during a 90-minute webinar hosted by the Institute of Transportation Engineers (ITE). The event was live-streamed to ITE members watching around the nation.

Engineers around the country were able to get the latest news about California's high-speed rail project on August 2. That's when the Institute of Transportation Engineers (ITE) hosted a 90 minute webinar featuring two key members of the Authority's management team – Chief Program Manager Frank Vacca and Director of Operations and Maintenance Bruce Armistead.

"It's been a year since heavy construction began on high-speed rail," Vacca said. "Many people are unaware that we have started building. So, the webinar was a great opportunity to tell people around the country what's going on."

Vacca gave an overview and progress report on the high-speed rail project. The Authority plans to connect the San Francisco Bay Area to the Los Angeles Basin via the Central Valley. Based on funds the Authority expects the first operable segment of high-speed rail to run from the San Jose and Silicon Valley to just north of Bakersfield.

He also talked about the work being done at various construction sites around the Central Valley and challenges engineers encounter as they design and build the largest infrastructure project in U.S. history. "California is home to seismically active areas with multiple earthquake faults," Vacca said. "So, it's critical that high-speed rail structures, stations and tunnels are constructed to limit structural damage, prevent collapse, reduce service disruptions and keep passengers and rail personnel safe."

Webinar participants learned about future operations, maintenance and trainsets from Armistead. "Our trains will be able to seat up to 300 people and go up to 220 miles an hour," he explained. "They must be safe and reliable. And we'll also have both light and heavy maintenance facilities to keep them on time and rolling."

> "Our trains will be able to seat up to 300 people and go up to 220 miles an hour. They must be safe and reliable and we'll also have both light and heavy maintenance facilities to keep them on time and rolling."
>
> Bruce Armistead
> Director of Operations and Maintenance
> Authority

Armistead also talked about stations. Development around the stations will be thoughtful and include businesses and amenities that will service the trains, passengers and residents who move into housing that's expected to spring up around the stations.

This is not ITE's first encounter with the Authority. In the last three years, California ITE chapters have hosted Authority representatives at more than a dozen meetings around the state. Students who belong to ITE chapters at several universities have also been in attendance. The organization is interested in high-speed rail because of the key role of engineers in designing, building and implementing the project.

ITE was founded in 1930. Today, it has more than 13,000 members in more than 90 countries worldwide. They are transportation professionals, who are responsible for researching, planning, designing, operating, management and developing policies for various types of ground transportation. The organization promotes professional development and continuing education for transportation engineers.

About 30 people logged on to the webinar hosted by ITE. Some members who joined the event were able to receive credit for participating.

Karen Massie

Calendar of Upcoming Events

Meeting dates, times and locations are subject to change.

EVENTS	DATE	TIME	ADDRESS	
Stockton Regional Public Agency Consortium	September 1, 2016	8:00 a.m. – 12:00 p.m.	San Joaquin County Robert J Cabral Agricultural Center	2101 E. Earhart Ave Stockton, CA
Authority Board of Directors Meeting	September 13, 2016	TBD	Department of Health Care Services	1501 Capitol Ave #4510 Sacramento, CA
American Public Transportation Association Annual Conference	September 11-14, 2016	http://www.apta.com/mc/annual	JW Marriott L.A. LIVE	900 W Olympic Blvd Los Angeles, CA
Business Advisory Council Meeting	September 21, 2016	1:00 p.m. -3:00 p.m.	Department of General Services Executive Dining Room	707 3rd St West Sacramento, CA
Authority Board of Directors Meeting	October 11, 2016	TBD	Sacramento County Board of Supervisors	700 H St #2450, Sacramento, CA
Caltrans 12th Annual Procurement & Resource Fair	October 19, 2016	9:00 a.m. – 12:00 p.m.	Balboa Park Club Ballroom	2150 Pan American Rd San Diego, CA
Business Advisory Council Meeting	October 20, 2016	1:00 p.m. -3:00 p.m.	Hugh Burns State Building Assembly Room	2550 Mariposa Mall Fresno, CA
Rail-Volution Annual Conference	October 9 – 12, 2016	http://railvolution.org/	Hyatt Regency	5 Embarcadero Center San Francisco , CA
Business Advisory Council Meeting	December 8, 2016	1:00 p.m. -3:00 p.m.	Department of General Services Executive Dining Room	707 3rd St West Sacramento, CA