ABOUT CONSTRUCTION PACKAGE 1

Construction Package 1 (CP 1) is the first significant construction contract executed on the Initial Operating Section of the statewide high-speed rail system. The CP 1 construction area is a 29-mile stretch between Avenue 17 in Madera County to East American Avenue in Fresno County. It includes 12 grade separations, 2 viaducts, 1 tunnel and a major river crossing over the San Joaquin River. CP 1 is a design-build contract that was awarded to Tutor-Perini/Zachry/Parsons (TPZP), a Joint Venture, after an extensive, multi-year competitive bidding process.

UTILITY RELOCATION

One of the first requirements in preparation for construction is locating and then relocating many of the utilities that are essential to life in Fresno. Representing some of the first work, Valverde Construction, Inc. a certified Hispanic Owned Small Business Enterprise based in Los Angeles County, was contracted to perform utility relocation within the area. With this contract, owner Joe Valverde has been able to expand his business by opening an office in Fresno where a small crew of employees are completing designs, buying equipment and hiring additional workers. A family business, Mr. Valverde's two sons are leading the Fresno operations for high-speed rail and will continue to be involved in pre-construction and civil engineering works.

Another company contracted by TPZP to perform this type of work is Blair, Church & Flynn Consulting Engineers (BC&F), a Native-American certified Small Business Enterprise based in the Central Valley. Their specialty has been the identification and relocation of underground utilities. This firm has deep ties in the community with over 50 years of experience with many of the utility providers in the Central Valley. Based out of Clovis, David Mowry, President and CEO of BC&F, has long-term relationships with many of the clients that need to be relocated.

1. Starting in January 2014, Valverde and his team began deploying workers to the field to start the process of identifying and mapping existing utility lines. This work can be challenging as some of the lines had been moved throughout the years.
2. As part of that effort, Valverde Construction Inc deployed specialized robots to map underground sewer lines that may have to be moved and were not easily accessible to the workers.
3. Military veteran and certified Small Business owner Joe Valverde brings over four decades and of experience performing the relocation and reconnection of utilities. Here, Valverde and his staff examine utility maps.

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FRESNO RIVER BRIDGE WORK

Even before the bridge across the San Joaquin River starts taking shape, pre-construction have already provided work for four certified small businesses. Starting on June 23, TPZP began the mobilization of people and equipment to the Fresno River in Madera to finalize design for a dedicated high-speed rail bridge. The mobilization included the movement of Tier 4-rated cranes and other heavy construction equipment to the area and the construction of a large rebar cage that was over 80 feet long and 10 feet in diameter.

This giant cage was fabricated using rebar provided by Martinez Steel, is a certified Disadvantaged Business Enterprise based in Fontana owned by husband and wife, Joe and Debbie Martinez. Their company has been contracted to provide rebar for CP 1, including the rebar cage for this test to finalize designs. While they were suffering the last few years due to the recession, this new contract has allowed their company to hire 50 to 60 more workers as the program moves forward. Over the summer, multiple tests were conducted, one of which included lowering the rebar cage in to the earth and filling the hole with concrete. Subsequent testing, including statnamic testing, which involved a series of small explosions, was conducted on July 23 by Becho Inc. and their subcontractors LoadTest and Applied Foundation Testing.

The final testing was completed just before Thanksgiving by Moore Twining Associates, a certified Disabled Veteran Owned Business Enterprise based in Fresno. Established in 1898, they are the second oldest company in Fresno and have been working in the area for generations. Their company has been contracted to do geotechnical work for CP 1, including testing soil for overpasses, underpasses, embankments and bridges for high-speed rail. Along with another certified Small Business Enterprise GEOVision, based out of Corona, these companies drilled a 500-foot bore to conduct soil testing to ensure that the bridge is built to withstand any seismic events. Construction of the bridge is anticipated to begin in 2015.

1. Workers fabricate an 80-foot by 10-foot rebar cage in preparation for test pile work that was conducted at the Fresno River in Madera throughout the summer.
2. As part of the testing to finalize designs for the bridge, workers had to conduct several tests. In July, the team conducted gamma gamma testing to assess the soil where the bridge structures will be placed.
3. The rebar cage was lowered into a giant hole and in late July, a series of tests were conducted.
4. A worker with Martinez Steel cinches together a giant steel rebar cage.
DEMOlITION OF THE OLD HOLLYWOOD INN AND THE DEL MONTE PLANT

On July 14, 2014, TPZP demolished the first building for the high-speed rail program. The Old Hollywood Inn, located in downtown Fresno, had been abandoned for several years and many who came out to watch the demolition said that they were happy to see the place go because recently it’s been associated with prostitution and drugs. This demolition job was done by J. Kroeker, Inc., a woman-owned certified Small Business Enterprise, based in Fresno. Her company has been contracted to do all the demolition work within the CP 1 area. Owner Jill Kroeker said the new businesses has allowed her to grow and expand her company by moving into a larger office in Clovis and hiring a project manager and more employees as the job progresses.

Prior to any demolition activities that occurs as part of the high-speed rail program, the structures must be abated - cleared of environmental hazards such as asbestos and lead. Katch Environmental is a certified Disabled Veteran Business Enterprise based in Fresno that specializes in industrial hygiene, inspection and remediation, and is an expert in cutting-edge environmental technologies. Within the CP 1 area, prior to demolition, they ensure that the buildings and structures are cleared of environmental hazards such as asbestos and lead. Owner Paul Katchadourian is a Fresno native who served in the Army before starting his business in Fresno.

One of the most noticeable changes many of the residents of Fresno saw related to high-speed rail construction was the demolition of the old Del Monte Plant in downtown Fresno. The demolition was also associated with the first road closure as part of the high-speed rail program. Demolition began in late September, and activity at the site is ongoing. This building – which is being removed to accommodate the future high-speed rail station – had been abandoned for years and experienced significant fire-damage and was deemed unsafe.

The Authority is committed to recycling 100 percent of steel and concrete during construction. As of October 31, demolition in general has resulted in the recycling of 8,000 tons of asphalt and concrete. The demolition of the Del Monte building has resulted in approximately 3,600 tons of material.

1. The Del Monte Plant was the largest structure demolished to date. This building was over 111,000 square feet and was up to 70 feet at its tallest point – taking up the entire block. It was demolished to make way for the first leg of high-speed rail and the future realignment of Golden State Boulevard.
2. Work on the Del Monte Plant started in September 2014 and took several weeks. Approximately 3,600 tons of recyclable material was recovered from this demolition, with the majority of the concrete being crushed down to later be used when building CP 1 structures.
3. Workers tear down the Old Hollywood Inn on July 14. This building was the first building demolished as part of the high-speed rail program.
4. J. Kroeker Inc., a subcontractor to TPZP, at the end of demolition at the Old Hollywood Inn.
5. Workers from Katch Environment, Inc. work to abate – remove all hazardous materials prior to demolition – from the White Bear Facility in Fresno. That building is scheduled to be demolished in the coming weeks.
The Authority is building high-speed rail using modern construction equipment that helps protect air quality and reduce greenhouse gas pollution. As part of this commitment, the Authority has worked out an agreement with the San Joaquin Valley Unified Air Pollution Control District – approved by the Authority Board of Directors in May - that commits the Authority to offset its construction criteria pollutant emissions among other commitments and outlines a process for detailed Voluntary Emission Reduction Agreements (VERA) to ensure Valley families and communities will not suffer negative impacts from construction emissions. Ways to implement this agreement include the replacement of aging and inefficient farm and other equipment – such as school bus engines and irrigation pumps. These measures also complement the Authority’s requirements to use clean construction vehicles and recycle 100 percent of steel and concrete.

On November 19, the Authority joined state and local officials as well as the U.S. Environmental Protection Agency (EPA) to showcase the construction equipment purchased by TPZP and their subcontractor Valverde Construction Inc.— including cranes, crawlers and excavators – that are all rated Tier 4. A Tier 4 designation refers to the most stringent EPA engine standards for non-road, heavy-duty diesel engines and is achieved via different methods, such as clean and efficient exhaust systems, electronically controlled engines, and selective catalytic reductions to significantly reduce the levels of harmful pollutants such as particulate matter (PM) and nitrogen oxide (NOx). By 2030, the annual benefits throughout the U.S. from using Tier 4 engines are estimated to reduce NOx, PM2.5, and sulfur dioxide (SO2) by 82 percent, 90 percent, and 99.7 percent, respectively.

1. **CASE excavators** are used for water, sewer and storm drain relocation, excavating holes, removing structures and demolishing buildings.
2. **LIEBHERR LR1160 Crawlers** are used for construction of structures, viaducts, trenches, overpasses and underpasses. They have a maximum lifting capacity of 160 tons and a main boom maximum length of 334 feet.
3. **TEREX 1100 cranes** are used for construction of structures, viaducts, trenches, overpasses and underpasses. They have a maximum lift capacity of 100 tons and the main boom has a maximum length of 155 feet.