CONSTRUCTION PACKAGE 4 TAKES SHAPE

UPDATED AERIALS OF CONSTRUCTION PROJECTS
Featured Project

GARCES HIGHWAY CROSSING

Photo: 17,000 lbs of rebar being lowered into position.
CONSTRUCTION UPDATE | April 2018

CONSTRUCTION PACKAGE 4

Crews began the first permanent work for Construction Package 4, drilling shafts and pouring concrete for support piers on what will be a high-speed train crossing over Garces Highway in Kern County. The structure will have eight support columns on the south side of the highway and 10 on the north side, each one drilled about 80-feet deep. Then a rebar column weighing about 17,000 pounds will be lowered into the shaft and concrete pumped into the hole. These will form the foundation for piers that will support a bridge structure to carry high-speed trains about 15 feet above Garces Highway.

Top Right: Final adjustments as workers guide the massive structure into place.
Above: Rebar column being lowered into 80-foot hole.
Photo: Traffic is diverted as construction moves along.
At the Fresno Trench, crews have broken through to the south side of State Route 180 and are excavating further underneath the highway. Excavation will continue until the trench is about 40 feet below existing ground level. When complete, the trench will cross under State Route 180, a rail spur and the Dry Creek Canal. The Dry Creek Canal phase 1 construction which involved re-lining sections of the canal is wrapping up in time for the irrigation season to begin. Construction has begun for the protective barrier that separates the high-speed rail alignment from the existing freight line that parallels the project. The barrier is 10 feet tall and will extend nearly 1,200 feet in this area of the project.
198 girders span the existing train tracks. Each one is more than 120 feet long.
On the south side of the San Joaquin River, crews are finishing up construction of pier caps to tie together the support columns. Once that process is complete, girders will be set to begin construction of a deck that high-speed trains will use to connect to the pergola section further south. The viaduct will carry high-speed trains over the river and freight line to form one of the largest structures on this first phase of the project.
Photo: Cedar Viaduct will be about three-quarters of a mile long when completed.
CEDAR VIADUCT | South Fresno

One of the largest parts of Construction Package 1, the Cedar Viaduct will be about three-quarters of a mile long when it’s complete alongside State Route 99. At its north end, pier construction is continuing as the viaduct heads toward Golden State Boulevard. Barrier wall construction along the sides of the structure is the next activity planned.

STATE ROUTE 99 REALIGNMENT | Central Fresno

Southbound State Route 99 traffic is now largely on new concrete pavement near Clinton Avenue in central Fresno. Shifting the mainline about 100 feet to the west helps avoid impacts to the Fresno Chaffee Zoo and a busy freight railroad yard.
With the east and west abutments complete, girders have now been set for this single span crossing. Crews are now working on the bridge deck for the structure that will take Avenue 11 traffic over the high-speed train alignment east of Road 30 ½ in Madera County. Crews have installed overhang and handrails on the exterior of the girders to enable workers to access the superstructure of the bridge.

Crews continue working on the superstructure for the section of the Avenue 12 crossing over high-speed rail lines. Workers have installed a walkway on the exterior edge of the girders. Handrail and safety tie-off components on top of the girders ensure worker safety. Mechanically stabilized earthen (MSE) walls are being constructed on either side of the bridge embankment to retain the earthen fill of the bridge approaches. The MSE walls use a concrete block and layers of geogrid reinforcement straps, which reach back into the fill to stabilize the wall. The structure will eventually carry realigned Avenue 12 traffic over the high-speed rail and a nearby freight line, just east of Madera Community College.
Earthmoving continues for the overcrossing of Avenue 15 in Madera County. Some excavation is also beginning in the area of the structure where a section will cross over the existing freight line. Final utility relocations are planned next, which will enable further construction to begin.

On the north side of the work zone, the abutment and one support structure, known as a bent, are largely complete, while on the south side crews are still constructing the support piers and setting concrete forms. The crossing will take traffic over an existing freight line and the high-speed rail line north of the town of Madera.
A childhood dream became reality when Louis Avila launched Avison Construction in 1992. He started driving tractors for his father when he was 10. By age 28, he was grading roads and slabs for buildings. He started his company with one piece of equipment. “I bought a CAT 14G Motorgrader and had just the one piece of equipment before I had enough money to invest in a second one,” he explained. In 2013, they won a $21.7 million contract with Tutor Perini/Zachry/Parsons (TPZP) for Construction Package 1 for high-speed rail. They paved asphalt to connect both ends of the newly constructed Tuolumne Street Bridge to surface streets in downtown Fresno, and recently finished some work on Avenue 7 in Madera. Another contract with TPZP subcontractor Valverde and Sons is expected to bring them an additional $150,000.

A UNIQUE PERSPECTIVE

Our latest video features views from the air and perspective from the ground from the workers helping to build the nation’s first high-speed rail line.

The aerial photos give you an idea of just how big these projects really are, while the construction crews talk about how important these projects are for the future of California.