

Shoring Engineers Completes Shoring and Excavation at new Long Beach Civic Center

California contractor leverages CASE fleet – including new CX490D – in excavating more than 120,000-cubic-yards of material for new downtown landmark building.

By John Bauer, brand marketing manager, CASE Construction Equipment

For 50 years now, [Shoring Engineers](#) has helped excavate and secure the foundational structures of some of Southern California's most iconic new construction, including The Los Angeles Cathedral, Staples Center and L.A. Live. The company is celebrating its 50th year in business by capping off the shoring and excavation work for the new Long Beach Civic Center, working as a subcontractor with primary developer [Clark Construction](#).

The project, which totals nearly 600,000-square-feet divided among three structures for both the City of Long Beach and the Port of Long Beach, includes a new parking garage below grade with two levels of parking. The garage itself requires a total depth of excavation of around 28 feet, with the mass excavation of the project totaling 120,000-cubic-yards.

To move that amount of dirt, Shoring Engineers has relied on a fleet of CASE equipment, anchored by a [CX700](#) excavator and supported by numerous other machines, including the all-new CX490D.

“These machines, they're production is averaging about 150 loads per day in a double bottom truck,” says George Woodley, Jr., vice president, whose father started the company in 1966. “It's been a pretty productive job, and so far, it's been really good for us.”

“With the bucket size of the CX700A excavator, we basically can two-pass each trailer. Four buckets basically fills a set of double bottoms, and we do it quickly,” he says. “So on a job like this, with 120,000-cubic-yards, that's really the ideal machine to do the job.”

Shoring Engineers has had the CX700 for about eight years, but recently purchased the CASE CX490D excavator (362 horsepower, 60,700-pound bucket digging force) to assist on big projects like this, and then anchor “smaller projects” where access is more restricted.

A few primary factors drove the addition of the CX490D. Depending on the job, contractors in California can increase their likelihood of winning bids if they can show or commit a certain percentage of their fleet working on the job to be Tier 4 Final. Similarly, advances in technology will help secure greater uptime compared to older equipment, and achieve greater fuel efficiency – early estimates show the CX490D to be about 30 percent more fuel efficient than the machine it replaces in the Shoring Engineers fleet.

“The CX490D is nice because it's a little bit smaller, but it's a quick machine with a pretty large bucket on it that allows us to load trucks pretty fast,” says Woodley, Jr. “The machines are quiet, they're clean burning, they're very fuel efficient. Diesel technology is a big issue these days, so having Tier 4 Final technology is a difference maker. It lets us bid and perform on jobs where others might not be able to, if they don't have that technology in their fleet.”

The CASE CX490D excavator meets Tier 4 Final emissions standards through a combination of selective catalytic reduction (SCR) and diesel oxidation catalyst (DOC) technologies, which helps maximize uptime and performance – all with minimal maintenance. There is no diesel particulate filter (DPF), no DPF regeneration or associated lifetime service costs.

The added speed that Woodley, Jr. references is made possible by a number of advances in the CASE D Series line. Faster cycle times are achieved through a new electronically controlled pump, a larger control valve and multiple sensors. The CASE Intelligent Hydraulic System and its four integrated control systems further make the best use of the machine's hydraulic power and momentum, resulting in added strength, fuel efficiency, and precise response to controls and smooth operation.

“[This] is a pretty smooth machine,” says Serafin Gonzalez, superintendent, Shoring Engineers. “Especially when you load trucks, the machine has to be smooth. It can't be jerky, so when you're loading you have a nice smooth dump on the trailer.”

The 60,700-pound bucket digging force is also ideal for the varied working conditions the company finds in Southern California.

“The digging power is pretty good,” says Gonzalez. “Digging power is very important, because when you're digging through, for example hard clay, you need the digging power, to be able to still be efficient with loading trucks.”

Maintaining Comfort, Uptime

The CX490D excavator features best-in-class cab space, with a fully adjustable operator station anchored by a standard heated air-ride seat and joystick controls. It also has a pressurized and iso-mounted cab that keeps noise and vibration down. A standard rearview camera feeds a 7-inch widescreen monitor, which also provides operators with real-time access to important performance parameters, including fuel consumption, operating hours and machine information.

“It's got nice features and displays,” says Gonzalez. “You can see everything, how everything works, how everything is operating. It's a nice setup.”

All new CASE heavy excavators, including the CX490D, come with CASE ProCare – a suite of product assurances that includes a three-year Advanced CASE SiteWatch™

telematics subscription, a three-year/3,000-hour full-machine factory warranty, and a three-year/3,000-hour planned maintenance contract.

Shoring Engineers works closely with local equipment dealer/service provider [Sonsray Machinery](#) to handle its preventive maintenance on the new equipment, and also relies on their assistance as a second set of eyes and ears in reviewing the telematics data to keep ahead of machine health/performance.

“The warranty that we get with these machines through CASE is pretty impressive, and that's a very nice feature to have,” Woodley, Jr., says. “I know that they are able to monitor the machines remotely and alert us when service is required. That's really a nice advantage to have; it's a really nice use of modern technology.”

“The relationship that we've built with Sonsray is a good one,” he says. “Their sales staff is attentive. They're there for us if we've got a question, issue or problem. That responsiveness, it's a difference maker, because we've seen what it can be like when we don't get that. This industry moves very, very quickly, so you've got to be able to act fast, solve your problems, and get things done. CASE and its dealers have shown that they've been able to do that pretty consistently.”

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