



THE DAY STANFORD STADIUM CAME DOWN

It was 1921. Cal Berkeley had just announced plans to build a new football facility. Across-the-bay rival Stanford University, couldn't stand it. That same year, three Stanford engineering professors designed a 60,000-seat capacity stadium modeled after the ancient Pompeiian amphitheater in Italy. In 18 weeks, teams of mules and men dug out that stadium and beat Cal to the punch. It cost \$200,000. Ironically, Stanford scored the first touch-down in their new facility but lost the game (7-42) to Cal, who went on to win the Rose Bowl later that year.

Fast forward to now. Cal Berkeley, again, announced plans to build a new stadium in 2004. By mid-year 2005, Stanford determined to rebuild their own stadium and have it ready for the 2006 season opener in September. The race is on ... **AGAIN** ...



FERMA CORPORATION



On November 28, 2005, the Stanford Stadium began its metamorphosis into a state-of-the-art, fan-friendly sports arena of the highest caliber. For two weeks, Ferma Corp was on a tight schedule to demolish the 84-year-old stadium, leaving a smooth, clean earthen bowl for the next contractor to contend with. The biggest hurdle for everyone involved has been the time factor. Stanford's athletic department committed far more than mere dollars and manpower to this endeavor. Cardinal Pride is at stake here. And the clock is ticking on their September '06 deadline.

At the close of the last game of the 2005 season (Stanford vs. Notre Dame), Ferma pulled a CAT 350 excavator and dump truck out to center field. Standing at the 50-yard line, fans and alumni gathered around the equipment, almost reverently, as the giant bucket sunk its teeth into the Cardinal's legendary turf, signaling the beginning of the end. "After that first bite, it was a free-for-all," says Rob Verga, Ferma's purchasing manager who worked for Peterson in parts & service and used equipment (1977-86). "Everybody started grabbing whatever they wanted. I have some friends who went to Stanford so I gave them some of the benches we were able to save."

Ferma's two-week contract was just the tip of the iceberg for the 9-month, \$90 million job, under the direction of general contractor, Vance Brown of Palo Alto. The complete package will include:

- Demolition of seating, press box, and "mineshaft"
- Lower playing field; partially in-fill bowl for new seats
- Bore three new tunnels through the dirt berm
- New two-tier seating for 50,000
- New restrooms and concessions concourse
- New press box
- New playing field (probably grass)

The art and science of demolition is something Ferma has helped develop over the past 45 years. "Our mechanics and truck drivers, our CAT operators and fuel-man ... they all work together in concert. Everything is timed," explains Ray Ferrari, co-founder and co-owner of Ferma Corp, which is owned and operated by the 4 Ferrari brothers and their offspring. "The trucks are all timed – loaded properly, and covered so we don't spread any debris onto the highway. These details may seem insignificant, but they're essential for a smooth operation." Ferma brought in 14 CAT machines (including 6 excavators, a compactor, D5N, 3 skidsteers), along with a 20-man crew for the intense

Over the past 4 decades, Peterson has built many custom pieces for Ferma - notice the "PTCo" logo on the thumb of this CAT 322 excavator bucket.



Shawn Clover Photography (www.cloverphoto.com)

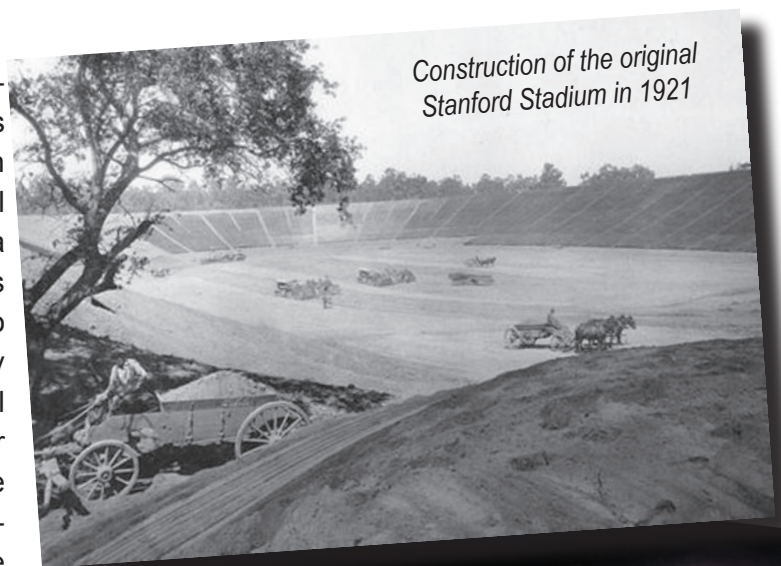
schedule. They worked 16-hour days, in two shifts, from 7:00 am until 11:30 pm, to ensure they'd make the deadline. "These men and machines literally took down the stadium piece by piece ... all 86,000 seats, concession stands, even the huge concrete press box. And, they came in three days early, and under budget," explains Ray Ferrari. The skill and experience required to make that happen is what makes Ferma tops in the demolition industry. "It's amazing to see the expertise that comes out of these machine operators," says Don Ferrari, a second-generation Ferrari who is Ferma's current Vice President & Superintendent. "It's all in the fingers. The equipment is almost an extension of their hands." Most of the material hauled from the site was diverted to recycling centers all over the bay area. The operators spend a lot of time separating the aluminum and steel and concrete and wood from the mud and dirt. They surgically stripped out the aluminum seating and sorted it into piles. In the end, some 500 truckloads were hauled away. And only about 5% actually went to a landfill. The aluminum and steel will eventually be melted down to make new products. The concrete will be crushed to make base rock. Even the wood will be saved and reused.



stadium that will bring fans much closer to the action. And, players will finally be able to hear the shouts and shrieks of their fans cheering them on to victory. According to Stanford sports monthly *The Bootleg*, "this isn't so much a down-sizing as a right-sizing. By removing the track that encircled the playing field, and reducing overall capacity, the new stadium will bring fans much closer to the action ... the first row of seats will be just 50 feet from the sideline."

Ferma's biggest challenge, next to the "hurry-up" factor, was the concrete-and-wood press box. There was a three-to-four day delay for asbestos abatement. Then there was the elevator shaft. "We brought in a special Ultra High-Lift demolition excavator (CAT 325L) with a 3-piece, 52 ft. boom to handle the press box," explains Rob Verga, nephew to the Ferrari's. "They wanted to save the elevator tower behind it, which is relatively new, so we needed the high-reach capability to control the work." Ferma also used a 9.5 ton cement crusher mounted on a CAT 345 to remove the concrete in the press box. Peterson had originally built it for an earthquake retrofit job on San Francisco's I-280 after the Loma Prieta earthquake of 1989.

Once the super structure was stripped away and the earthen berm cleaned, Ferma passed off the job to Don Tucker Excavation for the next phase. Dirt. Tucker needed to move 100,000 yds of dirt to reshape and downsize the new "bowl". Most of it came from various projects already underway around the Stanford campus. By September, the new stadium will stand in the very footprint of the original with 42% less seats and 50% more restrooms. A smaller, cozier, amenity-rich



Construction of the original Stanford Stadium in 1921





Ferma has 70 CAT machines in their 250-piece fleet, 30 of which are excavators. They recently purchased four new 330DL excavators, two 730 articulated trucks, a 966H wheel loader and a 303 mini-excavator. "We like to keep a clean, updated, well-maintained fleet," says Verga. "It's part of our reputation." Peterson's relationship with Ferma goes

back to 1965 and the very first machine they bought - a 977H loader. They liked it so much they bought a second one two weeks later. Since then, Peterson and Ferma have forged a working relationship of trust and innovation which has resulted in such custom designs as a 25-ton drop hammer, a pile driver handler for pier demolition, an excavator-mounted tower for airport runway removal, and the very first excavator-mounted demolition bucket. "We've designed a lot of attachments to help Ferma do the jobs that no one else can," states salesman Bob Holm, who has known the Ferrari's since the 1970s. "They're one of our biggest customers." Year after year, Ferma makes Peterson's Top Ten list, and since 2000, they've made the Top Five. A few years back, Holm sold Ferma a CAT 345 Ultra-High Lift excavator for work at U.C. Berkeley, very similar to the one they used on Stanford's press box. With past jobs like the Dumbarton Bridge, Kezar Stadium, SFO and most of the SF pier-line, Ferma's reputation is becoming as legendary as the infamous rivalry between its two collegiate clients Stanford and Cal.



Ferma's task was to leave a smooth, clean earthen bowl for the dirt contractor to work with. >

