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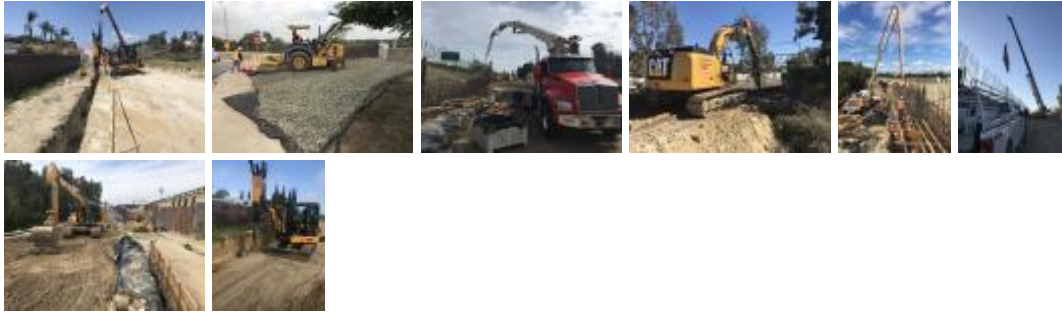
## Sound Wall Segments Being Built Along I-805

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*This photo demonstrates how close homes are located next to the highway. Here the cast and drill holes have been prepared and a concrete foundation will soon be installed. Nearly 70 percent of the sound walls have been erected.*



As part of the California Department of Transportation (Caltrans) and San Diego Association of Governments (SANDAG) **Interstate 805 South Corridor Enhancement Projects**, SEMA Construction Inc. was tapped to build five separate sound wall segments along I-805 between Naples Street in the city of Chula Vista and state Route 54 (SR 54) in the city of National City.



With nearly 70 percent of the work complete, the sound walls stand between 8 to 16 ft. tall and are adjacent to homes along I-805. These walls serve as a sound

abatement method to enhance the quality of life for residents impacted by traffic noise associated with the I-805 South Express Lanes Project.

These five sound wall segments are currently under construction and additional segments will be built in a later phase as construction funding becomes available. The work began in August 2018 and is anticipated to be completed this July. Hundreds of thousands of cars and trucks pass through this section of I-805 daily.

"The sound walls are an important noise abatement related to the I-805 South Express Lanes Project," said Ramon M. Martinez of Caltrans, I-805 South Corridor project manager. "We used federal noise abatement criteria to determine sound wall locations and we worked in close collaboration with property owners throughout the process. It's exciting because this is the part of the project that enhances the quality of life for people living adjacent to the interstate."

Successful construction of the sound walls is a result of homeowner relations.

## **Challenges**

"One of the biggest challenges was that many of these walls are built right next to people's backyards, so you have to remove fences and coordinate with individual residents," said Martinez. "We have an obligation to keep their properties secure as the walls are being built. We're keeping them informed of when construction is occurring and the types of issues they should be ready for. Most people are very supportive of the project and the benefits, and SEMA crews are doing their best to minimize the impact of the construction."

While some occasional lane closures along I-805 have been required, most of the work can be done without impacting motorists. SEMA crews are accessing the backyards via the highway side, which eliminates construction vehicles driving in these residential neighborhoods.

## **Design**

The walls contain some esthetic elements.

"Normally you don't design a wall with excessive decorative elements," Martinez said. "This helps avoid distracting motorists while driving. The public expects sound walls in public places to feature mild and subdued design elements."



SEMA crews are working hard during daytime shifts to complete the remaining construction activities.

"Some of our bigger walls have spread foundations, but those are normally not the walls right next to people's properties," said Martinez. "For this work, we're using Cast-In-Drilled-Hole piles (CIDH) — you basically drill cylindrical holes and fill them with rebar and concrete and place the foundation on top of that.

"Two types of wall systems are being used — those based on prefabricated sections and masonry walls, those that are cast-in-place," he added. "The prefabricated walls are where we tend to have windows on them, where a view is being protected."

## **Partnerships**

Project partnerships have contributed to success.

"It's very rare that a project goes pretty smoothly," said Martinez. "One of the challenges has been the weather. Whenever it rains, because there is such limited access, areas can be compromised until the ground dries. The moisture in the sediment also impacts the pouring and curing of concrete. Lastly, the workspaces are very tight, and you don't have a lot of room in many cases to place the temporary supports. Successfully coordinating construction has depended upon constant communication between Caltrans, SANDAG, SEMA and the homeowners.

Relations between SEMA, Caltrans and SANDAG have been positive and constructive. When issues do arise, they are resolved rapidly and mutually. Caltrans and SANDAG make every effort to keep residents informed about the project and this has helped keep the project moving forward.

## **About I-805 South Corridor Enhancements Projects**

The I-805 South Corridor Enhancement Projects are a set of projects that include the construction of sound walls and bridge and safety improvements to the Sweetwater River Bridge. These projects build upon the I-805 South Express Lanes Project, a \$1.1 billion effort to create a modern new transportation backbone for South San Diego County.



Project funding comes from a combination of federal, state, and local programs, including the local TransNet half-cent sales tax for transportation projects administered by SANDAG. For more information about this project, go to: [KeepSanDiegoMoving.com/I805](https://www.KeepSanDiegoMoving.com/I805).

SEMA's project manager is Sean Langan.

Peak days have many construction workers on site. The subcontractors assisting SEMA are: Alcorn Fence Company, Diversified Landscape Co., Integrity Rebar Placers, L. Johnson Construction Inc., Maneri Traffic Control, So. Cal Traffic Inc., Southwest V-Ditch, The J.V. Land Clearing Co. Inc., Traffic Loops Crackfilling Inc., and Zamborelli Enterprises Inc.

SEMA anticipates that the work has required 7,800 tons of concrete and 327,000 tons of rebar.

## **A large amount of equipment is being used by SEMA and the subcontractors.**

### **SEMA:**

- Grove cranes: 30T Hydro RT530, 45T Hydro RT650 and 55T Hydro RT760
- Cat dozers: D4, D6
- Cat excavators: 328, 330 and 345
- Cat rollers: 323, 563
- Cat 623 scraper
- Bobcat T300 (tracks)
- Cat 430 loader
- Cat wheel loaders: 950, 966
- Various trucks: water trucks and pickup trucks; two Lowboys; manlifts and forklifts; air compressors and other air tools and other pieces.

### **J.V. Land Clearing:**

- Cat loaders: 963, two 973s and 963K
- Kobelco excavator
- Ford trucks: F250 and two F350s

### **Diversified Landscape:**

- Variety of Dodge, Chevy and Ford trucks
- International tractors
- Fruhauf and H&H trailers
- Generators: ETQ TG 3000s and 4000s and Honda EB3000
- Two SK750 mini-skid steers
- New Holland and Bobcat mini-excavators
- New Holland and Takeuchi skid steers
- John Deere 410e backhoe
- Lull telehandler
- DW 3700 trencher
- Ford skip loaders: 445-C and two 545Ds

### **Traffic Loops Crackfilling:**

- Various trucks: utility, dump, crane, and basket trucks
- John Deere 310 backhoe

### **L. Johnson Construction:**

- JCB 531-70 loadall forklifts
- Canoga and Western mixers
- Pumps: Western WD30
- Mayco: two C30 HDGs, M630-T2D and C30HD and other pieces.

Other equipment on site is an Auto Crane truck-mounted crane; drilling rigs, including a GEAX with a DTC 30 beak; an XTREME XR1254 telehandler; skip loaders; shoring equipment and manlifts.

Dealerships providing equipment, either purchased or rented, include [RDO Rental Co.](#), **Ahern Rentals** and **Otay Sales**. CEG