



Section of Precast Screen Wall in place outside of the Imperial Valley Substation

SAN DIEGO GAS & ELECTRIC

Imperial Valley Substation Screen Wall

Ocotillo, CA

Precast concrete screen walls protect power supply from public view , deterring attempts to vandalize transformers.

In September of 2014 the design stage of the Imperial Valley Substation Screen Wall project was initiated with Oldcastle, SDG&E, and AARK Engineering in San Diego. The purpose of these walls is to protect the power supply from public view to avoid any attempt/s to vandalize these power units.

“After several discussions ...they decided on a hybrid precast and cast-in-place option.”

THE DESIGN

There was several different designs considered by the owner, including alternate products such as high density plastic and polymer concrete. The design team vacillated between a complete (one piece) concrete T-wall system and a more modular design. After several discussions on the most appropriate approach they decided on a hybrid Cast-In-Place application), galvanized steel I-beam columns that Oldcastle Precast panels would slide down into.

DESIGN & CONSTRUCTION TEAM

Owner

San Diego Gas & Electric

General Contractor

Suffolk Construction and Liberty West

Design Engineer

AARK Engineering
El Cajon, CA

Oldcastle Precast Product(s)

Precast Concrete Screen Wall
1,026 Panels and 155 Foundations

San Diego Gas & Electric, Imperial Valley Substation Screen Wall Ocotillo, CA



“The project originally consisted of 1,026 precast panels and 155 foundations.”

For the interior of the facility; the owner decided on precast foundations with the same I-beam and precast panels. This option on the interior allows these screen walls to be taken apart and re-located as needed.

The Request for Proposal (RFP) was issued in early July 2015 and was awarded to Oldcastle Precast, Inc. in early August. The project consisted originally of 1026 precast panels (9'-9" x 7'-5" x 0'-6") and 155 foundations (some 8' x 5' x 2' and 11'-6" x 5' x 2'). More panels and foundations are being added as needed. The project started shipping in early October 2015 and is anticipated to complete shipping in early March 2016. This was a very fast paced project due to the ease of installation of these components. Once the appropriate amount of material was stocked at our facility, we were able to run multiple loads per day to the jobsite in Imperial Valley.

INNOVATION

This project has garnered a tremendous amount of attention from several state and federal organizations, including the Department of Homeland Security who has visited the project job site several times.

San Diego Gas and Electric has several other facilities planned for this design in the coming years. We are looking forward to a bright future with this product line and design in Southern California.

About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

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