

Metro Gold Line Case Study

Project Owners

Los Angeles County Metropolitan
Transportation Authority (Metro)

Project Location

Monrovia, California

Project Architect

Parsons

General Contractor

Kiewit Turner

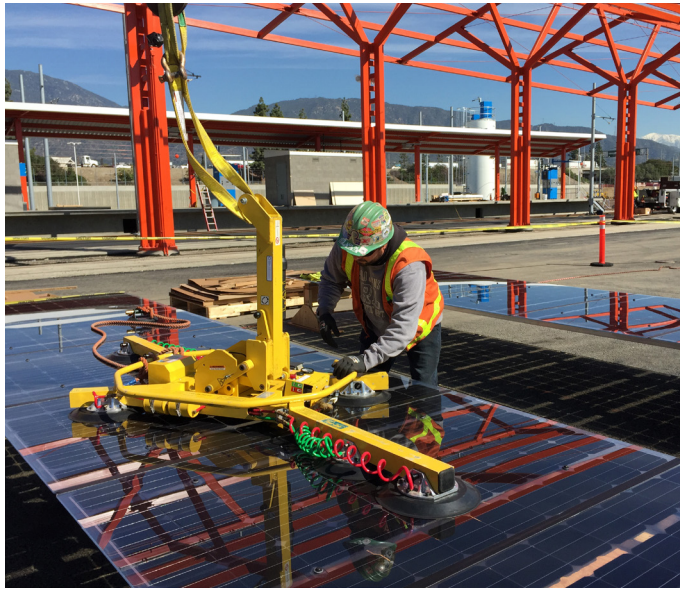
Solar Installer

Hot Purple Energy

PROJECT OVERVIEW

Los Angeles METRO worked with Parsons and Kiewit Turner to design and build a new LEED Certified maintenance yard on the Gold Line in Monrovia, California.

The goal of the project was to build a highly functional and aesthetic canopy for the maintenance yard that provided a highly visible statement about METRO's commitment to renewable energy.



THE PROBLEM

The Gold Line canopy is 280' long and over 30' tall. Due to the size of the canopy and its central location on an active job site, minimizing installation time and the number of lifts used for the solar installation was a critical design consideration. An additional problem to solve was the shape of the canopy itself- in order to provide a unique architectural element, the southeast corner of the canopy is flared up creating a unique installation challenge on how to mount solar module on a curved face.



THE SOLUTION

Lumos worked with Kiewit Turner and Hot Purple Energy to create a super efficient module installation system by pre-assembling individual modules on the ground into "Mega Modules" that could be lifted via a vacuum lift and crane and placed directly onto the structure, minimizing man power required on lifts and speeding up the overall installation.

The Lumos Mega Module approach also increased job site safety by minimizing man hours on lifts which was an area of particular concern for the general contractor, Kiewit Turner. The Mega Module approach was also a major benefit to the Solar Installer allowing them to pre-wire each string on the ground versus having to work from lifts, increasing quality control and efficiency.



The Mega Module approach was also the key to installing on the curved plan created by the flared corner of the canopy. By gently absorbing the curve over the full length of each Mega Module rather than incrementally with individually mounted modules, we were able to achieve the smooth, continuous glass surface the architects were looking for.