



GOLD LINE OPERATIONS CAMPUS

Facts & Sustainability Features

The Foothill Gold Line Construction Authority is nearing completion of the \$265-million, state-of-the-art Gold Line Operations Campus. Built as part of the 11.5-mile Foothill Gold Line light rail project from Pasadena to Azusa the 24-acre full-service Gold Line Operations Campus will house up to 84 light rail vehicles and nearly 200 employees over several shifts a day.

The 132,000-square-foot Main Shop Building received a temporary certificate of occupancy in late March of this year, and the Gold Line Operations Campus will be turned over to Metro in early June, three months ahead of schedule. The six-station Pasadena to Azusa light rail extension is on time and on budget, and will be turned over to Metro in late-September for pre-revenue service. Metro determines when passenger service will begin on the line.



About the Campus: The Gold Line Operations Campus is located just south of the I-210 Freeway, between Evergreen Avenue (north), Duarte Road (south), California Avenue (west) and Shamrock Avenue (east), in the city of Monrovia. The facility will operate 24 hours a day, 7 days a week, and is both an operations facility (providing offices and training facilities for staff) and a full-service maintenance facility to inspect, service and maintain up to 84 light rail vehicles. Maintenance services will include heavy repairs, blow-down, wheel truing, body repairs, painting, storage, cleaning and washing.

A public plaza area is being built at the northwest corner of the Gold Line Operations Campus property to afford the opportunity to sit and watch train activity at the campus. The plaza will be a passive area, planted with a mix of drought tolerant plants, native oaks and ornamental shade trees.

Sustainability is Built into the Operations Campus: The Gold Line Operations Campus is one of the only facilities of its kind to be designed and built to meet the U.S. Green Building Council's LEED Gold standards. A 178.5-kilowatt solar panel array, a large-scale stormwater collection and filtration system, along with other water and energy conservation features have been built into the facility to promote sustainability and reduce the use of natural resources (see reverse for details).

Sustainability is Built into the Gold Line Operations Campus

Designed and Built to Meet LEED Gold Standards: The 132,000-square-foot Main Shop Building was designed and built to meet the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) Gold standards, one of the highest levels of recognition available.

- The design of the Main Shop Building is projected to achieve 35% more efficient water usage and 32.5% more optimized energy performance than a typical building of its kind.
- Nearly a third of the electricity needed for the Main Shop Building will be powered by an on-site "solar power array:"
 - The 178.5-kilowatt solar panel array will generate an average of nearly 22,000 kilowatt hours per month of electricity – enough to fully power on average more than 24 homes.
 - If not immediately utilized on-site, the power generated by the Gold Line Operations Campus solar array will be made available to the local electric grid.
- The Main Shop Building also reduces the power use by incorporating skylights that track sunlight, sensors that detect human motion as well as the level of ambient light entering from the skylights and adjusts the high-efficiency LED lighting accordingly to minimize the use of electricity. Energy performance will also be closely monitored by sub-meters.

Reduced Fresh Water Consumption: With California's ongoing historic drought, the team has found ways to reduce water consumption throughout the Gold Line Operations Campus:

- The Car Wash Facility (which uses an average of 60,000 gallons of water each day) will use only recycled, reclaimed water.
- The Main Shop Building will be able to achieve a 35% reduction in water consumption by using high efficiency fixtures and infrared sensor faucets that dispense less water.
- Smart sprinkler technology, and planting of a variety of drought-tolerant plants, will reduce landscape water consumption on and around the campus by 50%.

Stormwater from the Site will be Fully Captured, Treated and Infiltrated for Groundwater:

A comprehensive stormwater management system has been installed throughout the Gold Line Operations Campus to capture the first ¾-inch (112,000 gallons) of a 100-year storm event:

- The stormwater system utilizes an elaborate drainage system which captures all site and roof drainage and sends it through a Cyclonic Debris Removal System (CDS) that separates and removes contaminants. Once filtered, the water travels to large subterranean chambers built below the facility with open bottoms that allow the treated water to be detained and infiltrated into the groundwater aquifers below.
- In the event rainfall doesn't reach the on-site drain systems, it will directly infiltrate through the permeable ballast and landscape areas.

Other Sustainability Elements: Building materials and practices for the Gold Line Operations Campus were selected to be sustainable, long-lasting, and environmentally friendly:

- Nearly 50% of the materials used in the construction of the campus are comprised of recycled materials, including the steel rails used along the site's nearly six miles of light rail track.
- All of the track ballast, aggregate and concrete was locally sourced, to reduce the environmental impact of transporting materials long distances.
- The majority of materials and packaging disposed during construction were diverted away from the landfills to be repurposed and recycled.
- The Main Shop Building will use low-VOC (volatile organic compound) products and materials throughout the building to improve indoor environmental quality for its occupants.

"The Operations Campus provided us a unique opportunity to find ways to reduce water and energy usage, without significantly impacting the project schedule and budget. We believe it will become a model for other, similar facilities."

– Habib F. Balian, Foothill Gold Line Construction Authority CEO