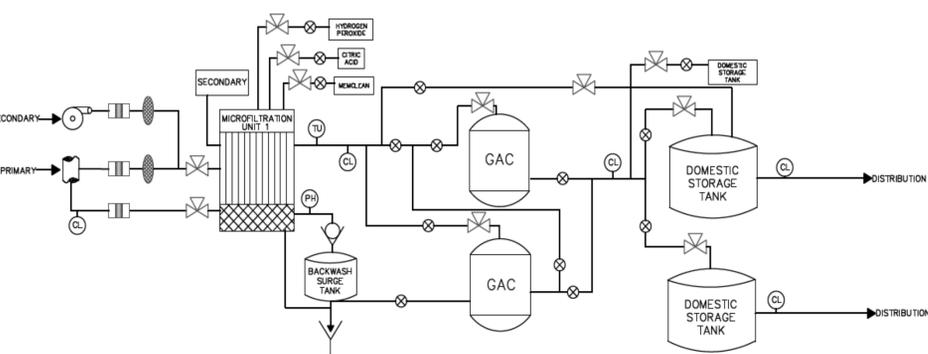


GENE CAMP WATER SYSTEM AND SITE IMPROVEMENTS

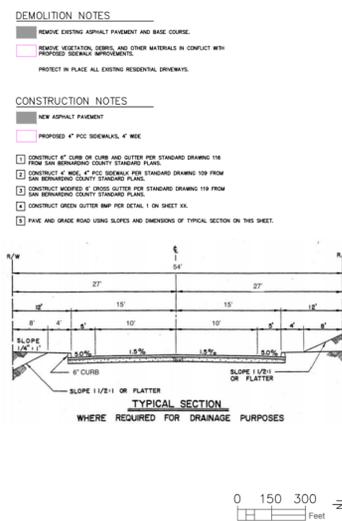
WATER TREATMENT SYSTEM

Level 17 Engineering will be making four (4) major improvements to the water treatment system: integrate a Supervisory Control and Data Acquisition (SCADA) program to improve the overall reliability and efficiency of the water treatment system, reduce operation and maintenance efforts, and consistently provide potable water in compliance with the United States Environmental Protection Agency's Drinking Water Standards; constructing a chemical disinfection injection system complete with a system of pipes and a flow-controlled pump to maintain the required chlorine residual; replacing the Microfiltration Unit's membranes with chlorine-tolerant high-pressure polyvinylidene fluoride membranes to tolerate the chlorination of the Colorado river aqueduct which will allow the system to operate continuously; and construct a secondary clearwell storage tank as an emergency supply of potable water to meet water demand and increase the domestic water storage capacity.



ROAD IMPROVEMENTS

Roadway improvements aim to rehabilitate the deteriorated roads in Gene Camp. Existing access roads have many surface defects such as deep cracks and potholes, and no curbs, sidewalks, or storm water drainage components. Pavement rehabilitation is being proposed and existing asphalt concrete pavement and base course will be removed and replaced. In addition, 4" Plain Cement Concrete sidewalks are being proposed throughout the residential area to increase pedestrian safety and accessibility to the proposed recreational facility. There will also be the addition of 6" curb and gutter to help drain storm water and reduce deterioration of new pavement over time. Culverts have also been designed in areas where storm water may flood the proposed road.



BACKGROUND

The Metropolitan Water District of Southern California is seeking to improve the capacity and reliability of the Gene Camp Water System, which has been operational for over 75 years. It is now experiencing deterioration of its main water treatment system, underground utility network and residential village roads. Level 17 Engineering's goal is to design a functional and optimized water treatment system, completely renovate the underground utility network and implement site improvements at the neighboring Gene Camp Village.

The proposed water treatment system includes new processes needed to treat influent raw water and a new chemical injection system for proper water disinfection. Moreover, sustainable site improvements will be made for the Gene Camp village through residential road improvements and the design of a new, state-of-the-art recreational facility. This infrastructure will be tied together with a completely refurbished water & sewer/septic distribution network. We will be using our extensive knowledge of environmental engineering, heavy civil water design and land development to surpass this challenging project and exceed expectations.

OUR TEAM



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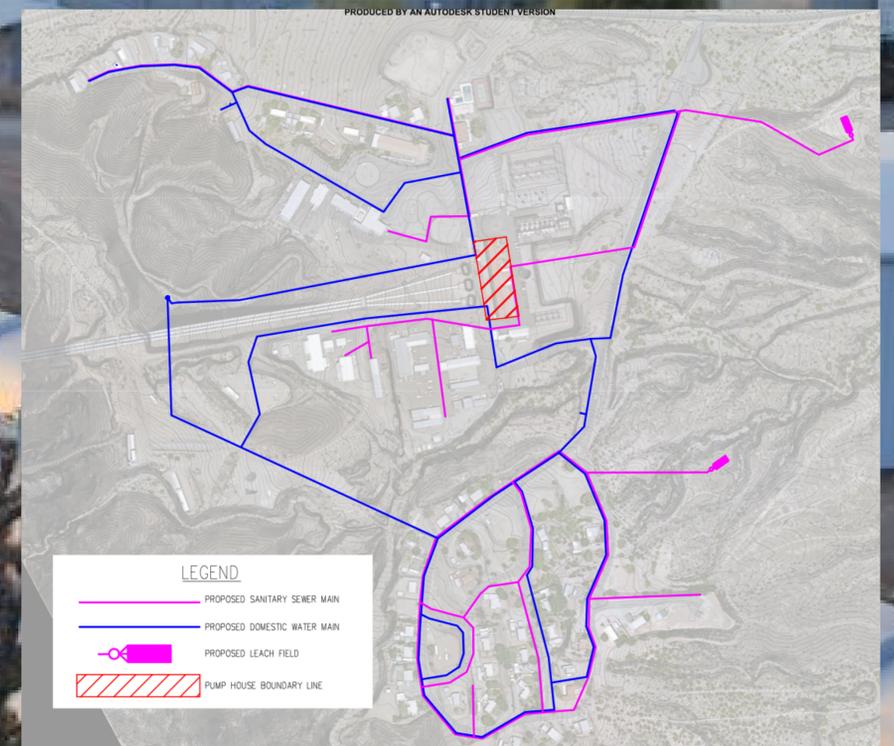


Evan Rossi
Construction Manager

UNDERGROUND UTILITY NETWORK

The main water distribution system at Gene Camp will be replaced in-place. This allows the water system to continue feeding water to the Gene Camp residential community while we install one segment at a time. Concurrently, a cathodic protection system and sacrificial anodes will be added to the high-risk areas of the proposed water distribution system.

Similar to the Existing Water Distribution system, the sanitary sewer system has been corroded by the wear and tear of environmental factors and years of use. Since the two systems are in such close proximity to each other for most of the site, replacements will be done simultaneously. The major sanitary sewer system modifications include installing PVC piping in replacement of the existing vitrified clay piping. The modification also includes installing two new Cathodic leach fields with Biofilters to decrease their total drainage surface area. The old leach sites will be abandoned and the new design will allow the new installations to be constructed closer to the main sewer lines.



RECREATIONAL FACILITY

The recreation facility sits on an approximately 47,500 square foot lot, and the building footprint is to be 27,500 square feet. This community not only houses the employees of the pumping station, but for some their families as well. This will be a space where children can go as well as adults to get out of the house no matter what time of year it is. This facility is to include the following amenities: a gym, basketball court, adjacent showers and lockers, a banquet hall, movie theater, multipurpose space, and a lobby with pool table and ping pong table.



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Metropolitan Water District
of Southern California