



THE CITY OF SAN DIEGO
REPORT TO THE CITY COUNCIL

REPORT NO: 12-072

DATE ISSUED: June 6, 2012

ATTENTION: Council President and City Council

SUBJECT: FY 2012 Recognition of Award Winning Projects – National Public Works Week

THIS IS AN INFORMATION ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COUNCIL.

The City of San Diego is the recipient of nineteen (19) awards for outstanding infrastructure projects from the American Public Works Association (APWA), and American Society of Civil Engineers (ASCE).



American Public
Works Association
APWA



American Society
of Civil Engineers
ASCE

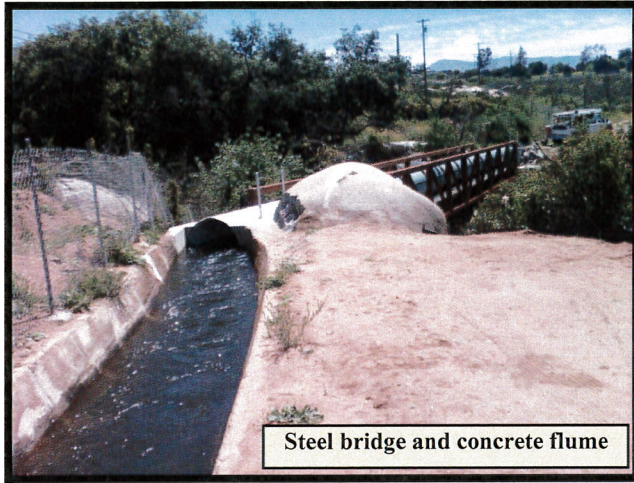
- The **APWA** is an international educational and professional association of public agencies, private sector companies and individuals dedicated to providing high quality public works goods and services. The APWA awards recognize the partnership between the managing agency, the consultant/architect/engineer, and the contractor who, working together, complete public works projects. APWA also recognizes outstanding individuals representing the best in the public works profession.
- Each year, **ASCE** recognizes those who contribute to the field of engineering. The Honor and Awards Program objective is the advancement of the engineering profession through the recognition of exceptionally commendable achievement.

The 2012 award-winning projects are:

Dulzura Conduit Flume 22 Replacement

APWA: Honor Award – Disaster/Emergency Projects

ASCE: Award of Merit - Historical Renovation



The Dulzura Flume 22 Conduit was the last link of the Dulzura conduit to be repaired to re-open the conduit to facilitate moving water from Barrett Reservoir to Otay Lakes. The wildfires of 2007 burned through eastern San Diego County destroying the flume’s bridge structure resulting in the pipe collapse. As heavy winter rains had began filling the Barrett Reservoir, there became an urgency to restore the conduit to alleviate the potential for spillage over the dam and flooding downstream.

The project was designated as an emergency contract by the City of San Diego with an accelerated schedule resulting in the consultant selection, design, bidding, and construction of the Conduit in 10 months and the first water conveyance before the end of 2010. Even with the tight timeframe, the bridge was remarkably designed for minimal maintenance and to endure the harsh conditions in both winter and summer in the East County setting. Incredible teamwork was displayed in completing the design and construction of the bridge between the City, design consultants, and contractors to overcome all of the hurdles and deliver a superior bridge and flume system.

Water Group Job 920

APWA: Project of the Year – Environmental Projects - Under \$2 Million

Water Group 920 is a unique project as Public Works - ECP is piloting an innovative delivery method of design. This delivery method is a hybrid between a traditional Design Bid Build project and a Design Build. The contract was prepared as a typical traditional Design Bid Build with the exception that it was advertised without design plans; instead, the design included a combination of GIS maps and excel spreadsheets. This innovative design delivery method saved project costs and accelerated the process.



The unique delivery method of this project benefits the city by allowing the city to spend less time and money in the design phase. Utilizing this innovative delivery method, the design costs and duration were approximately half those of a similar project utilizing conventional design bid build delivery. This project resulted in more efficient use of public funds as well as acceleration in the improvement of the public water system by replacing deteriorated cast

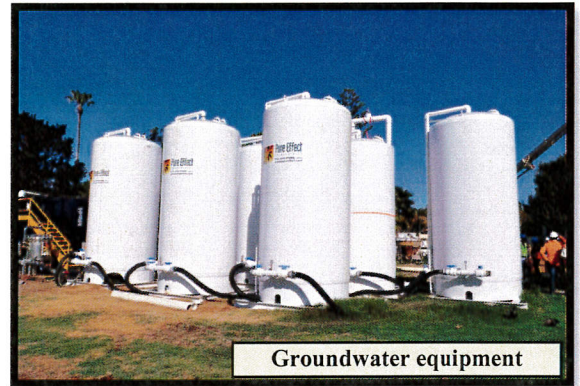
iron pipes. Also, this project improved maintenance and operating practices by keeping water pipeline and its appurtenances efficient and leak-free.

Pump Station 41

APWA: Honor Award – Environmental Projects

\$2 - \$5 Million

The original Sewer Pump Station was built in 1953 and was reaching the end of its service life. The design was planned for a below grade pump station, however, the location is within 50 feet of the shoreline of Mission Bay in Mission Bay Park. Careful planning for dewatering, a key consideration, was made to assure the project remained within budget and schedule. Plans and specifications review by the as-needed consulting engineer, Tran Consulting Engineers (TCE), and timely coordination with permitting agencies, California Coastal Commission, was necessary in achieving the project’s goals.



The entire facility was constructed underground right next to the bay which reduces noise. The new pump station can carry future planned capacity with high reliability and safety. The new force mains present no risk of sewer spill and no odor impact. The landscaping above the pump station provides visual enhancement to the park. The dual power and emergency storage tank assures no risk of sewer spills in this critical area. The project was completed on time to meet EPA deadlines and below budget.

North Ocean Beach Gateway

APWA: Project of the Year – Disaster/Emergency Projects



North Ocean Beach Gateway provides a positive community identity and improves the scenery and visuals of the community. It also acts as a “gateway” for automobile, bike and pedestrian users entering the community of Ocean Beach. A curved “people’s wall,” that possesses plaques of supportive

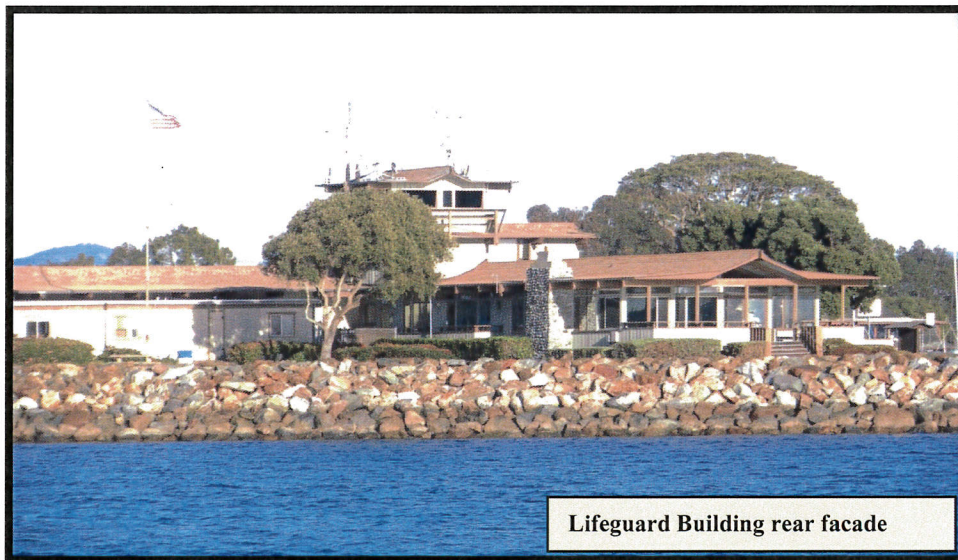
community members, is located at the edge of the plaza. The other side of the “people wall” is designed as a sediment wall that highlights the local beach culture and the natural configurations found on the shores of the community. The hardscape plaza, “signature palm tree,” sidewalk palm trees, and lighting enhances the *genius loci* of the Ocean Beach community. The signature palm tree in the middle of the plaza will provide landmark for the community, and it will be illuminated during the holiday season.

Bicycle racks and a drinking fountain are also placed to accommodate bike-riders and patrons who visit Robb Field Community Park. Low-level walk lights are placed to guide pedestrian traffic and illuminate the plaza at night. The decorative railing and the palm trees revitalized the streetscape along Sunset Cliffs Boulevard.

Mission Bay Lifeguard Headquarters ADA Improvements

APWA: Honor Award – Disaster/Emergency Projects

This building is the headquarters for the San Diego Community Parks 1 Division and the Lifeguard Service. The public accesses both activities for a variety of informational and permitting purposes. Accessibility upgrades at the building entry and public areas were required for the public’s benefit. Restrooms were torn down and rebuilt, the front counter was adapted, and parking, path of travel, and building entry were made accessible. The public areas of this facility are now compliant with current accessibility codes and laws. Design of the upgrades protected the appearance of the historic building, and increased ease of access for persons with disabilities.



Lifeguard Building rear facade

This project modified the headquarters for the San Diego Lifeguard Service housing their main operations: water and coastal cliff rescues, marine firefighting, dispatching, marine radio distress, and monitoring of all marine traffic traveling between Mission Bay and the Pacific. The facility had to remain operational during construction. The project modified a building admired by many in the community. All mechanical and electrical equipment was concealed so the building’s appearance was not altered. Ramp configuration protected the mature cork oak tree in front of the building.

Language Academy Joint Use Park

APWA: Honor Award – Parks Projects - Under \$2 Million



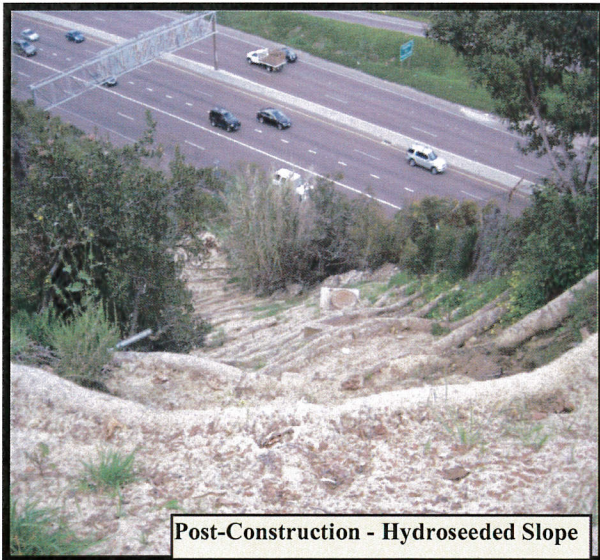
Language Academy Joint Use Park is located at 4961 64th Street on an existing elementary school site in the College Area Community within the City of San Diego. The park is approximately 2.5 acres, consisting of a new multipurpose field, existing children’s play area, existing basket ball courts and updated accessibility improvements.

The park was expanded from 1.4 acres to 2.5 acres by incorporating existing playground and hard courts on the school

grounds with the newly constructed park facilities, and providing additional security features for the park to be used during non-school hours by the general public. The improvements included the field using synthetic turf and running tracks securely fenced from the fronting streets, parking with bollard barriers and walkways accessible from the bus drop-off area, basket ball hard courts off to the side, and children’s play area with protective fencing from the ball field.

6th Avenue Storm Drain Replacement

APWA: Project of the Year – Utility Projects - Under \$2 Million



This project consisted of the replacement of existing corrugated metal pipe with 110 linear feet of reinforced concrete pipe leading up to the slope and temporary above ground pipe with 110 linear feet of HDPE pipe down the slope. The new alignment would connect city service into existing CALTRANS system.

The existing drainage system was installed on an emergency basis in which temporary plastic pipe was installed above ground to alleviate the failed system.

The storm drain alignment was within the determined limits and all work was performed

within these limits in order to not damage any additional vegetation. During construction runoff from the rains into the storm drain system was managed by providing best management practices for water quality assurance. Once construction was complete the slope was revegetated using both container plants with irrigation and hydroseeding.



Campus Point Court Storm Drain Replacement

APWA: Honor Award – Utility Projects - Under \$2 Million

This project consisted of the replacement of 372 linear feet of corrugated metal pipe (CMP) with reinforced concrete pipe (RCP), repair of the damaged/eroded slope, and landscaping. The agency utilized the newly implemented Design-Build contract method to bring in the design and the construction team under one contract and therefore improve the completion schedule. The process involved the following management techniques:

- Generating well defined and detailed selection criteria.
- Conducting a site meeting with all the design-build bidders and stakeholders.
- Assembling a project review team to evaluate all bid proposals and submittals.
- Considering all possible regulatory requirements and constraints early in the process.

The failed pipe had caused severe erosion within the open space area between the parking facility and Caltrans Right-of-Way. The lack of erosion protection was a threat to cause additional failure to the exiting slope upstream and the facilities downstream. This project repaired the damaged slope and prevented further erosion and possible damage to the private parking facilities upstream. Furthermore; the project stopped debris from entering the storm drain system downstream.



Flouridation Facilities at Alvarado, Miramar and Otay Water Treatment Plants

APWA: Project of the Year – Utility Projects - \$2 - \$5 million

ASCE: Award of Merit in Water Supply – Civil Engineering Project Awards

This project consisted of the design-build construction of new facilities to optimize the fluoride contained in the City’s potable water. The project was funded by the First Five Commission of San Diego County, which promotes the health and well being of children during their most critical years of development, from the prenatal stage through five years of age. With the completion of the project, City of San Diego residents for the first time are being provided fluoridated water.

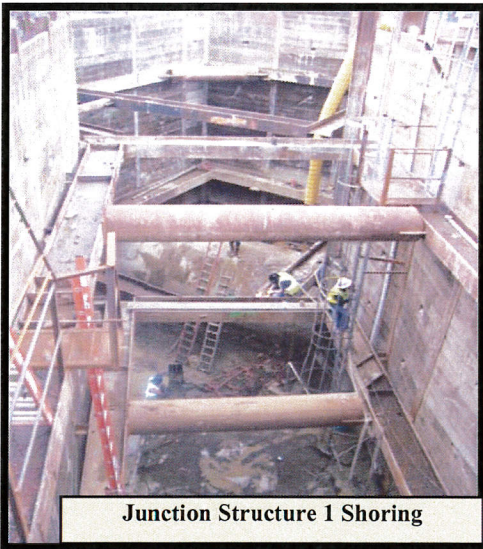
The work completed during this project include furnishing and installing the Fluoridation Bulk storage, day tank, yard piping, above grade piping, metering pumps, analyzers, transfer pumps, fill station, injection points, flow meters, chemical resistant coating, electrical work, and instrumentation controls at three separate facility locations.



South Mission Valley Trunk Sewer Replacement Project – Phase I

APWA: Project of the Year – Utility Projects - \$6 - \$25 million

ASCE: Outstanding Civil Engineering Project – Wastewater Collection & Treatment



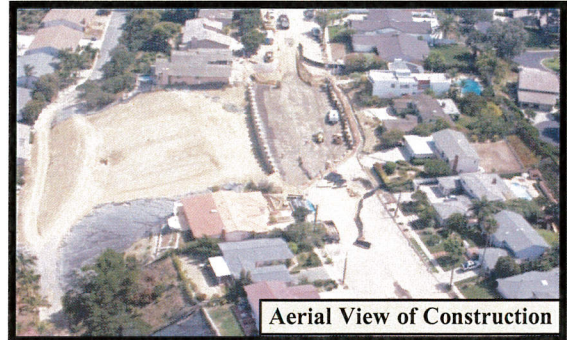
The SMVTS Replacement Phase 1 re-routed high priority sections of an existing sewer, originally installed in the 1960s, out of the environmentally sensitive San Diego River channel. The project required an integrated approach that utilized a unique combination of microtunneling, conventional two-pass tunneling, pipe jacking and open-trench construction to install 3,700 feet of new 36-inch sewer. An understanding of site conditions (densely populated and highly congested), and potential failure modes determined appropriate construction methods. Additionally, the project required the construction of a massive junction structure adjacent to I-8 to connect the new sewer to the 108-inch North Metro Interceptor Sewer.



Soledad Mountain Road Reconstruction

ASCE: Region 9 Statewide Award - Outstanding Roadway Emergency Project

The Soledad Mountain Road Reconstruction was successfully completed in less than two years; a remarkable time frame considering the multiple obstacles facing the project and the community after the October 2007 landslide. Restoring the road, services and access to homes in a short period of time was critical to move back many of the homeowners to their residences.



The project included massive earth work, the rebuilding of sewer and water mains, along with gas, electric, telephone and other utilities. The successful completion of the project didn't just improve the area, but surely lifted the community's spirit. This project was a direct testament to the importance of public work in the daily life of our people.

Alvarado Water Treatment Plant Upgrade and Expansion - Ozone Facilities

ASCE: Outstanding Water Treatment Project



The implementation of the plant's new ozone facilities completes the Alvarado Water Treatment Plant's expansion project which began in 1994. The upgrade and expansion project has resulted in the construction of eight new filters, the installation of new and rehabilitation of existing flocculation and sedimentation basins, the implementation of ozone as the primary disinfectant, new east and west clearwells, the new Earl Thomas Reservoir, the upgrade of the Lake Murray and College Ranch pump stations, and the remodeling of the existing operations building and plant entrance.

The fourth and final phase of the project consisted of installing new ozonation facilities, which include: 200 Million Gallons per Day (MGD) ozone generation and dosing capability; two 15,000-gallon liquid oxygen tanks; four 50 MGD baffled concrete contactors for primary

disinfection; a 200 MGD ozonated, settled water pump station; a new ozone building; and appurtenant equipment and control systems.

The incorporation of ozone enables the City to provide safer water with lower levels of carcinogenic disinfection by-products, and more aesthetic, better tasting and odorless water.

Otay Water Treatment Plant Upgrades Phase I & Phase II

ASCE: Award of Merit in Water Supply – Civil Engineering Project Awards

Upgrades to the treatment plant included the construction of chlorine dioxide generator and contactor facility, new flocculation and sedimentation basin, new pumped backwash system, replacing filter’s media with granular activated carbon, new powdered activated carbon facility, and SCADA system upgrades.

These improvements provide better operational flexibility, redundancy in the treatment process, and improved water quality including lower settled water turbidities, reduction in disinfection byproducts, minimization of filtered water turbidity spikes, and improved water quality.



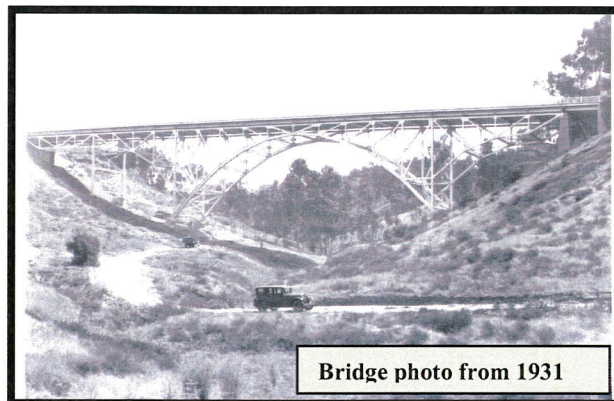
First Avenue Bridge over Maple Canyon Retrofit and Painting Project

ASCE: Outstanding Historical Renovation Project



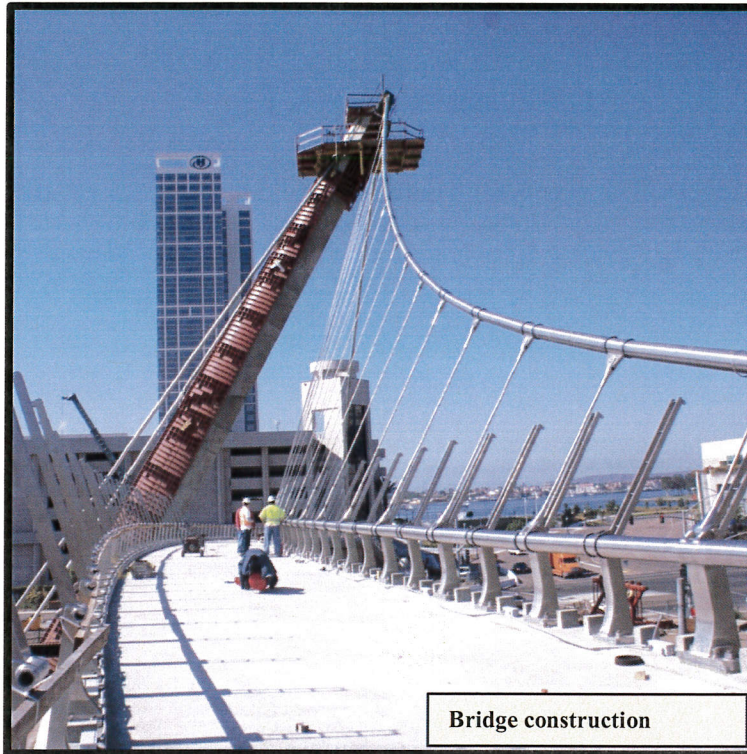
This project ensured the preservation of the historic bridge originally built in 1931 and the only one of its kind in the City of San Diego.

The bridge is now lead-free, has a rehabilitated deck, new historical street lighting, new paint reflecting its original color, and most importantly, it will be able to withstand the strength of a catastrophic earthquake.



North Harbor Drive Pedestrian Bridge Seismic Retrofit
ASCE Project of the Year: Civil Engineering Project Awards

Located in an area of San Diego that is highly visited and used by tourists and residents, the North Harbor Drive Bridge has been given an additional 50 years by retrofitting it for a third of the cost of a new bridge. Retrofitting was done with a minimal impact on the surrounding environment and with no disruption to traffic flow in the area.



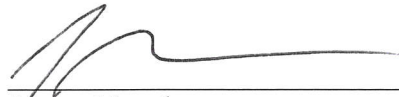
Mohsen Maali, Senior Civil Engineer, Public Works - Engineering
APWA: Individual Award of Merit



While Mr. Maali's efforts regularly stand out, his effort to bring the Mayor's Capital Improvement Program Streamlining recommendations to the City Council were outstanding! The Streamlining effort will amend the Municipal Code related to public works construction and consultant contracts, amending three (3) Council Policies and developing one (1) new Council Policy to implement Capital Improvement Program (CIP) streamlining recommendations. When implemented, these recommendations will reduce the schedule on many projects by more than six months and save thousands of dollars. Mr. Maali was responsible for taking all the various ideas, filling in the gaps, coordinating with the City Attorney, writing the reports, consolidating the written responses to questions and generally doing everything the Mayor's

office and the Director needed to pull the whole thing together. In addition Mr. Maali was responsible for coordinating the transfer of the CIP Contracting effort from the City's Purchasing Department to the Engineering Department last summer. That effort resulted in a reduction of the average time to award a contract from over six months to less than four months.

Respectfully submitted,



James Nagelvoort
Assistant Director
Public Works



Approved: Tony Heinrichs
Director
Public Works