



Conversations

Newsletter for the CONVERSE Family of Consulting Companies

www.converseconsultants.com

Summer 2008

Converse is Lead Geotechnical Engineer for 18 miles of Pipelines and Tunnels

Converse's Las Vegas office is providing the geotechnical engineering on the Lead Design Engineer (LDE) team for the Systems Conveyance and Operations Program (SCOP). This estimated \$750-million project will ultimately collect Highly Treated Effluent (HTE) from a coalition of wastewater treatment agencies in southern Nevada and convey it through 18-miles of pipelines and tunnels to a new discharge point in Boulder Basin at Lake Mead.

The Clean Water Coalition (CWC) is comprised of the Clark County Water Reclamation District and the cities of Las Vegas, Henderson and North Las Vegas. The primary purpose of the CWC's SCOP is to protect water quality and to provide operational flexibility for the various agencies.

Currently, the wastewater treatment plants in the valley discharge HTE into Las Vegas Wash, which empties into Lake Mead about 10 miles away. Instead, the proposed SCOP will collect the HTE and bypass the wash and convey it by gravity through the intervening River Mountains and ultimately into a deeper lake discharge point in Boulder Basin.

The conveyance system includes large diameter pipelines as well as several tunnels ranging up to 10 feet in finished diameter and up to 8 ½ miles in length. A 12 to 15 MW hydropower plant will be sited at the lakeshore to take advantage of the 400-foot head difference between



Barge Drilling with Crux Subsurface on Lake Mead

Las Vegas Valley and the lake basin. Construction is slated to begin this summer and expected to be completed in 2011.

Converse has been involved in SCOP since 1998 under Black & Veatch (B&V). Early in its inception, Converse provided reconnaissance level geotechnical maps for evaluating potential fatal flaws of a pipeline route outside the valley to Lake Mead. Our efforts continued by supporting the successful EIS process and were part of the B&V LDE team providing pre-design services that followed.

The project has since expanded during the final design phase to include a host of final design engineering firms besides B&V, including Carollo Engineers, G. C. Wallace, HDR, PBS&J and MWH Americas, Inc. At this time, Converse Consultants is completing a wide range of investigations and reports for the project including Geotechnical Design Memorandums, Geotechnical Data, Baseline and Investigation Reports, and Groundwater Characterization Reports.

Our services have included geologic reconnaissance, soil boring and rock-core logging, surface geophysics comprised of seismic refraction, ReMi and resistivity surveys, oversight of sidescan sonar, groundwater sampling, slug, infiltration and aquifer testing, soil and rock laboratory testing, geologic, geotechnical and dewatering analysis and design. ☺

For more information, contact Jim Werle, P.E., at (702) 269-8336.



Black & Veatch's Reach 4 Tunnel Exploration

New Jersey Still Building Homes

Converse's New Jersey office has been providing geotechnical, environmental and construction phase inspection and materials testing services for various residential development projects in New Jersey. One of the projects is "Towne Lake Residential Development" by Kaplan Companies, a major residential developer in New Jersey.



Converse was engaged to explore and evaluate the subsurface physical conditions at the site of a major residential development in the Borough of Sayreville, Middlesex County, New Jersey. The development consisted of 260 single family residences with basement, several interior and main roads, storm water management facilities including detention basins, and utilities. The project schedule called for construction to be completed in three phases over a period of several years.

The project site is located at a former sand borrow area. A lake with an approximate 30-acre footprint covers the north to central part of the site. Proposed grades required cuts and fills of up to 34 and 32 feet, respectively. The majority of the fill areas are located around the lake covering the central to northerly portion of the site. The cut areas correspond mainly to the location of detention ponds, rearrangement of the easterly slope and lowering the grade on the southerly portion of the site. Sub-surface conditions at the site prior to development consisted of up to 25 feet of soft to medium stiff clays overlying stiff clay and/or dense sand.

Converse provided engineering services consisting of preliminary and final geotechnical investigations leading to recommendations for site

stabilization procedures considering the specific site conditions and the construction schedule. The subsurface investigation program consisted of exploratory test borings, test pits and piezocone soundings. Soil samples were obtained from the borings and were analyzed at Converse's soils testing laboratory for identification and strength testing.

Based on the field and laboratory data and engineering analyses, Converse recommended preloading and surcharging to stabilize the soft clay subsurface soils prior to construction at the site. Wick drains were recommended for areas where the construction schedule was accelerated. The drains were about 25 feet deep with a spacing of 4-foot and embedded in a 3 foot drainage layer that slopes to a lake. Converse prepared specifications for geotechnical instrumentation (settlement plates and pneumatic piezometers) installed to monitor the progress of the surcharge program and provided review and engineering analyses of data obtained from the instrumentation.

Converse representatives were present at the project during site preparation activities to observe and document earthwork related construction activities. In addition, Converse performed slope stability analyses and reviewed the design of retaining wall systems constructed at several locations within the project site, and provided on site observation services during construction of the walls to verify compliance with design specifications. ☺



For more information, contact Dr. Golam Kabir at (973) 428-0934.

Converse Provides Rail Services

Converse is working with Wilson and Company on the expansion of the Union Pacific Rail Yard in Roseville, California. Services include a geotechnical investigation and various recommendations for track and pavement subgrades. Previous work in Sacramento included geotechnical investigations for various projects for Sacramento Rapid Transit. Upcoming work also includes contractor quality control for major light rail grade separation.

Converse has a long and successful history working with railroads. The Southern California offices had a long standing on-call contract for

geotechnical and materials services with Union Pacific. We've worked on rail spurs, tracking and multimodal hubs, as well as grade separations. Converse also has extensive experience with railroad projects throughout Nevada, including overpasses and main lines.

One of the most critical aspects of many of our projects is the evaluation of construction water needs and available resources. This critical portion of the work includes the evaluation of the groundwater basin with GIS mapping, test well drilling, and aquifer testing. ☺

For more information, contact Dean Stanphill, P.E., at (775) 856-3833.

Higher Ed Facilities in California to Receive Makeovers

Converse Consultants has been awarded two contracts totaling \$1.2 million to provide geotechnical and materials testing and inspection services for the new construction and renovation at two community college campuses.

The San Bernardino Community College District was formed in 1926. Currently, the District oversees San Bernardino Valley College, Crafton Hills College, the Professional Development Center, and its own public television and radio station (KVCR). The district has been plagued by aging facilities and seismic issues while working hard to serve a rapidly increasing enrollment.

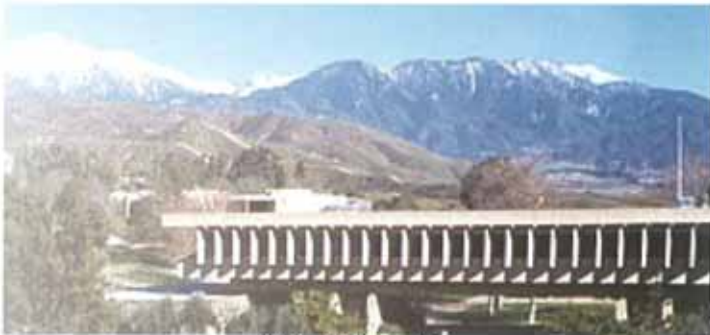
A \$500 million bond measure was passed to improve and build facilities to:

- Provide facilities to increase the number of trained medical assistants, respiratory therapists, emergency medical technicians and paramedics.
- Build a new science and technology center.
- Wire classrooms for increasing the use of computers.
- Build a new technical building for aeronautics, diesel mechanics and automotive professions.
- Renovate, repair and update 40 year-old classrooms and learning centers.
- Upgrade laboratories for science, health and technology programs.
- Provide a wider range of job and career training programs.

Converse will provide DSA inspection and testing services for site grading, asphalt, steel, welding, concrete, masonry, roofing and fireproofing during construction. Coordination between the District and our Project

Manager and Field Services Manager has enabled Converse to provide our services to multiple projects simultaneously, maintaining our high standard of quality and meeting the needs of the client. ☺

For more information, contact Dr. Hashmi Quazi at (909) 796-0544.



Crafton Hills College



San Bernardino Valley College

Employees in Action

Bill Brusse, from the Converse State College office, works to preserve and restore cold water fisheries with his work in the Spring Creek Chapter of Trout Unlimited. Bill has been the Chapter President for the past 3 years and expects to continue to volunteer for the group.

Bill's co-worker, **Mark Ralston** has also given of his time and talents as President for the Spring Creek Chapter.

If **Don Christiansen** says "Scouts Honor", you probably should believe him. Don has generously served the Boy Scouts for 15 years and is now an assistant district commissioner in his community. Don, Vice President of the Las Vegas office, also works as a neighborhood pride zone volunteer – an anti-graffiti group that quickly covers graffiti before the perpetrators can come back to admire it.

Smeeta Thompson, also from the Las Vegas office, has generously given of her time to collect food for the Salvation Army and toys for Toys for Tots at Christmas. She has also "adopted" a family through Social Services and collected gifts for them for the past 2 years. ☺

Rivals Join Forces to Fight Hunger in Arizona

Converse's Arizona office, Grenier Engineering and the Cumming Corporation teamed up in the February Society of Marketing Professional Services (SMPS) Construction event. Fourteen teams of local Phoenix architects, engineers, contractors, designers and students were challenged to design and build a structure made of nonperishable canned foods, ingenuity and luck to help stop hunger in Phoenix.

Our team elected to channel rival energies of the University of Ari-



zona Wildcats and the Arizona State University Sun Devils for a good cause in our structure, "Wildcats and Sun Devils CAN Bridge the gap to overcome hunger." We put aside our school rivalries to assist the St. Mary's Food Bank in narrowing the gap on hunger.

Grenier, Cumming and Converse donated \$250 each to purchase cans and other materials for the structure. Safeway also donated \$100 to the team. Converse Air Quality Specialist and ASU Sun Devil, Merry Ellen Boom and Arizona Director of Client and Business Development and Team Co-Captain, Patricia Krogh participated in build night at the Fiesta Mall in Mesa, Arizona with Grenier and Cumming Corporation to get the project off the ground. ☺

For more information, contact Dean Alford at (480) 296-0266.