

**LAS VEGAS CONVENTION AND VISITOR AUTHORITY
 LAS VEGAS CONVENTION CENTER EXPANSION PHASE 2
 GEOTECHNICAL ENGINEERING AND CONSULTING SERVICES
 LAS VEGAS, NEVADA**



The Las Vegas Convention and Visitors Authority (LVCVA) is in the process of planning a 1,800,000-square foot expansion that would include new meeting rooms, and support spaces. In addition to the expansion, several areas of the existing facility need to be renovated due to the age and condition of the building components and to add additional features so that the Las Vegas Convention Center (LVCC) will be able to meet the needs of the millions of convention visitors that come to Las Vegas every year. The LVCC Expansion and Facility Renovation project has been planned over several phases. Phase 2 entails construction of a new approximate 1,800,000 square foot facility that will include an exhibit hall, meeting rooms, service docks and back of house support. Phase 2 will be located at the former Riviera Hotel site and the current location of the gold lot parking area.

The LVCVA Las Vegas Convention Center Expansion Phase 2 project is located near 2 dry cleaning facilities that potentially released a PCE plume which may create contaminated groundwater and soils. During the geotechnical phase of the project special care must be taken to minimize any exposure to contaminated materials by work crews in order to maintain a safe work environment.

GES was recently awarded the geotechnical engineering, soils investigation, soils analysis and consulting services for the LVCC expansion phase 2. For a project of this size and complexity there are several issues that will need to be addressed. These include:

- Subsurface soils conditions
 - Soils are expected to be varied throughout the site ranging from loose and soft to very dense and firm.
- Shallow groundwater
 - Groundwater is expected as shallow as 10ft in some areas near the project site.
- Environmental considerations
 - Site has potential soil and groundwater contamination from a PCE plume that was generated by two dry cleaners located near the project site.
- Shallow cemented layers
 - Shallow cemented layers (caliche) most likely will be encountered during the subsurface soil investigation. Cemented layers provide excellent support for heavily loaded foundations however, they are often very difficult and time consuming to excavate.

After being awarded the project, GES immediately began working with the Cordell Corporation, LVCVA's design and construction representative, to gain an understanding of the overall project and discuss issues, concerns and unique requirements of the project. After the initial meeting, GES is currently preparing a boring location plan that will show the layout, spacing and depths of proposed borings that will provide the opportunity to develop a representative subsurface soil profile across the site. GES is also reviewing existing applicable geotechnical boring logs and incorporate relevant data into our geotechnical exploration program.

PROJECT OWNER:
 Las Vegas Convention and Visitors Authority

GES CLIENT:
 Cordell Corporation

POINT OF CONTACT:
 Mr. Chuck Coleman
 (702) 892-2881

TOTAL PROJECT COST:
 \$900,000,000

Firm Responsibility:
 Geotechnical Design –
 \$400,000

