

Christopher A. Ridley, PE, GE

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Professional Experience

2008 - Current
Rollo & Ridley, Inc.
1996-2008
Treadwell & Rollo, Inc.

Education

B.S., Civil Engineering, California Polytechnic
State University, San Luis Obispo, 1996

M.S., Geotechnical Engineering,
University of California, Berkeley, 1999

Professional Registration

Civil Engineer in California, 2000
Geotechnical Engineer in California, 2005

Certifications

40-hour Health and Safety Training per 29
CFR 1910.120

Confined Space Entry Training per
CFR 1910.146 and 8CCR 5157

8-hour Radiation Safety Training Course
(State of California)

Low- to High-Angle Rescue 30-hour Training

Affiliations

American Society of Civil Engineers,
1996-present

Mr. Ridley has more than 12 years of professional experience in performing and managing geotechnical investigations and construction observation services for various projects throughout the San Francisco Bay Area. His experience includes project management and supervision during investigations for 1) commercial, retail, and residential developments, 2) schools, universities, and museum facilities, and 3) offshore structures including bridges and piers. As a project manager, his experience includes directing subsurface investigations, evaluating foundation systems, performing engineering analyses, and directing field personnel. Mr. Ridley has performed engineering analyses to determine the settlement behavior of soil under loading, bearing capacity for shallow foundations, lateral and vertical pile capacity, slope stability, and seismic hazards including liquefaction potential. His projects have included 1) installing and testing driven piles, drilled piers, rammed aggregate piers, stone columns, various auger displacement piles and micropiles, 2) observing and testing temporary and permanent tiebacks, soil nails, rock bolts, and tiedowns, 3) observing and testing the compaction of engineered fill, 4) installing shallow foundations (spread footings and mats), 5) constructing various shoring systems including soldier-beam-and-lagging systems, soil-mix shoring walls, and rock bolt and shotcrete systems, and 6) monitoring compaction and chemical grouting projects. His project experience includes:

301 Mission Street, San Francisco

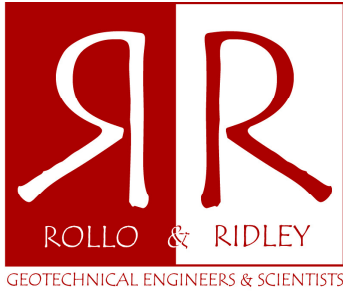
Project Manager during the geotechnical investigation, the engineering and design and construction phases of the project. Project plans include constructing a 60-story concrete tower comprised of residential and retail space, a nine-story mid-rise structure with residential space, and an inter-connecting three-story-high atrium (total building area is approximately 1,150,000 square feet). The tower portion of the site will have one basement level, while the nine-story mid-rise and atrium will have five levels of underground parking. We recommended the tower structure be supported on a pile foundation system with the other portions on a mat foundation with tiedown anchors. During final design, submittals relating to the split level soil-mix shoring wall, internal bracing and excavation schemes, concrete pile driving and dewatering were reviewed. Our services during construction include observing the removal of existing wood piles, installing a soil-mix shoring wall supported by tiebacks and internal bracing, driving 950 concrete piles, installing and testing tiedown anchors, and approving the mat subgrade. When completed, this building will be the heaviest on the West Coast.

Piers 1½, 3 and 5, Port of San Francisco

Project Manager for the conversion of the existing maritime piers to office and retail space. The circa-1910 structures underwent a full seismic strengthening including the addition of new piles. Mr. Ridley was in charge of overseeing the extensive field work (including pile testing, CPTs and exploratory drilling), engineering analysis, and preparing a detailed geotechnical report presented to the Bay Conservation and Development Corporation (BCDC) which was approved. During construction, Mr. Ridley provided day-to-day oversight and consultation during the installation of piles from barges.

Illinois Street Bridge, Port of San Francisco

Conducted a geotechnical investigation for the construction of a new bascule bridge at the Islais Creek Channel in San Francisco, California. The bridge, designed to support pedestrian traffic, two automobile lanes, and one railroad line for use by The Port of San Francisco, will be about 540 feet long. Our investigation evaluated subsurface conditions to



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provide parameters for the design of the pile foundations. Mr. Ridley performed various analyses to determine the axial and lateral capacity of pile groups, settlement at the abutments, and lateral earth pressures on abutment walls. Lateral pile analyses included providing vertical and lateral stiffness curves. He also provided construction services including reviewing RFIs and managing staff during pile and sheetpile installation.

Tesoro Avon & Amorco Wharves

Mr. Ridley was the Project Manager for the ongoing improvements to the Tesoro Avon and Amorco wharf structures at the Tesoro Refinery in Martinez, California. Work performed includes drilling geotechnical soil borings using a drill ship and performing cone penetration tests on shore and through the pier deck. Collected subsurface data used to assess seismic hazards, develop pile foundation recommendations, and to develop site-specific response spectra for the seismic evaluation of an existing wharf. The hazard levels were for 50 and 10 percent probability of exceedance in 50 years, consistent with the definitions of Level 1 and Level 2 for a risk classification of high in the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS).

Jessie St. Garage (Jewish and Mexican Museums), San Francisco

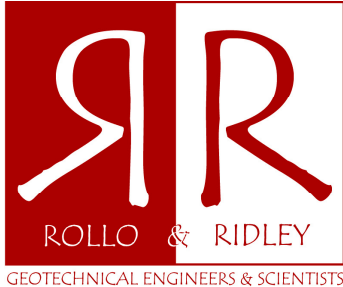
Provided geotechnical services for this deep excavation project in which a parking garage structure was built (completed in 2005) that support the Jewish Museum and proposed Mexican Museums (which is yet to be built). The excavation was approximately 45 feet deep below Mission Street and included excavations adjacent to three luxury high-rise hotels as well as an historic brick church structure. The project also included the preservation of an approximately 200-foot-long, 40-foot-high historic brick façade (former PG&E substation). The wall was supported on a steel trestle and pier system as the deep excavation was advanced beneath it to the 45-foot excavation depth. In addition, the project included installing 200-kip micropiles (tiedown anchors) to hold down the structure against hydrostatic uplift forces.

The Exploratorium, Piers 17 & 19, Port of San Francisco

Project Manager of the geotechnical investigation for the proposed new home of The Exploratorium. The investigation included vertical and lateral pile load tests, Core Penetration Tests (CPTs), and soil borings. In addition to foundation recommendations, the geotechnical investigation report gave site-specific response spectra and presented detailed seismic design criteria.

The Olympic Club, Sutter Street Facility and Post Street Clubhouse Renovation

Project Manager during the geotechnical investigation, design development and construction phases. The project included the demolition and removal of the existing two-story parking structure (Olympic Garage) and the construction of a new seven-story, steel-framed building above four below-grade concrete levels. The building was interconnected with the rear of the existing Post Street Clubhouse. An excavation of approximately 61 feet below street level grade was required to construct the basements. Shoring and underpinning were required to maintain lateral and vertical support of adjacent structures and improvements. The shoring system included approximately 100 hand-mined underpinning piers, slant drilled underpinning piles, soldier beams, and several levels of tiebacks. In addition, Mr. Ridley provided geotechnical services during the renovation to the existing historic nine-story Post Street building. Foundation improvements included a new mat foundation to support a central core shear wall and a micropile-supported shear wall. Shoring and underpinning were installed to allow access to the existing foundations, constructed in the 1910s, up to 20 feet below the existing lowest basement level.



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San Francisco and Bay Area Schools

Involved in geotechnical investigations and the construction observation of many schools in the San Francisco Bay Area. Projects include new campuses for the San Francisco Friends School, The Urban School of San Francisco, Tenderloin School, and Drew College Preparatory School; underground gymnasiums for the Schools of the Sacred Heart, Crystal Springs Uplands School and St. Robert's; and additions at St. Stephen's, St. Gabrielle's, St. Thomas More, Covent of the Sacred Heart, the Brandeis Hillel Day School, and the National Center for International Schools. Projects at the University of San Francisco (USF) include Kendrick Law Library, the proposed seven-story Champion Hall, the proposed Harney Science Expansion, several faulty housing projects, the Welch Field underground parking structure, and the McLaren School of Business.

California Pacific Medical Center, California Campus

Project Manager for the geotechnical investigation for several new structures considered for the California Campus of the California Pacific Medical Center (CPMC) in San Francisco, California. The site is an existing hospital and occupies several blocks. Current plans include seismically retrofitting and converting several of the buildings into medical office buildings and constructing a state-of-the-art elder care facility on drilled piers or drilled displacement piles.

San Francisco Public Utilities Commission (SFPUC) Administration Building

This proposed headquarters for the SFPUC will be a 14-story building over two basement levels. Mr. Ridley published the geotechnical report which contains recommendations for shoring and underpinning of adjacent streets and buildings, respectively, and for a mat foundation. The project will be green certified by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™.

Adobe Systems Headquarters, Tower III

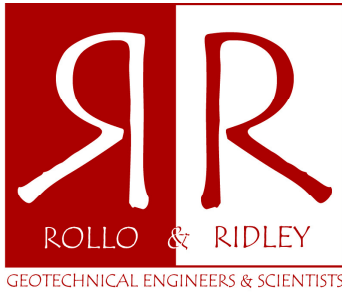
Performed a geotechnical investigation and managed the construction observation for an 18-story tower over underground parking constructed in downtown San Jose, California. Recommendations for a mat foundation, soil cement shoring of adjacent structures and dewatering were given.

AT&T Park (Formerly known as SBC Park and Pacific Bell Park)

Observed deep concrete pile, compaction grouting, and stone-column installation for the San Francisco Giants baseball stadium in San Francisco, California. The site is underlain by liquefiable fill and highly compressible Bay Mud deposits. The ballpark facilities include a playing field, a 40,000-seat outdoor stadium, a ferry landing and a multi-level office structure.

555 4th Street, San Francisco

Managed the geotechnical investigation and construction observation services for this nine-story, 480,000-square-foot, poured-in-place concrete, 300-unit condominium project. The structure is supported by a relatively new pile type called Torque-Down piles, which are closed-end steel pipe piles drilled to depth. Mr. Ridley developed a pile load testing program consisting of seven pile load tests to determine tension and compression capacities and pile lengths, which saved the project approximately 40 percent in pile costs as compared with conventional pile types. A total of 789 piles were installed for this project with each having an allowable compression capacity of 400 kips.



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Pier One, Port of San Francisco

Provided construction observation for the installation of four-foot-diameter steel pipe piles for the pier adjacent to the Ferry Building along the San Francisco waterfront. The piles were 140 feet long and were installed using a vibratory hammer. The development included seismically strengthening the 90-year-old pier to convert its use from maritime activities to commercial office space, while preserving its historical landmark status.

Four Seasons Hotel and Tower

Involved in the site investigation for the 65-foot-deep excavation for a 36-story, 750,000-square-foot, mixed-use development that borders Yerba Buena Gardens in downtown San Francisco, California. Besides the hotel, the tower will contain luxury residential condominiums, a state-of-the-art fitness facility, retail shops, and below-grade parking.

Broadway Rockslide

Worked as the Project Engineer for the mitigation of a rockslide on Telegraph Hill in San Francisco, California. Stabilization efforts included rock scaling, deep rock anchors, net anchors and gabion mesh, and tie-backed shotcrete walls.

San Francisco International Airport Expansion

Observed the installation soil-cement (Geo-Jet) piles for the West Field improvements, which included construction of a 135,000-square-foot underground retention structure.

W Hotel (Starwood Hotels & Resorts Worldwide Inc.)

Observed the installation of a tied-back soldier-beam-and-lagging shoring system and the deep pile foundation for the 31-story hotel tower across from the Moscone Convention Center in San Francisco.

Mission Plaza – Albertsons Store

Field Engineer for the geotechnical and environmental investigation of a large retail development in Daly City, California. Construction of a 50-foot retaining wall was done using a permanent tied-back soldier beam and shotcrete system installed using the top-down construction process.

The Brannan

Observed the driving of H-section steel end-bearing piles used to support a new 18-story residential building and adjacent parking garage in San Francisco, California. Piles were driven to refusal in two separate sand-bearing layers.

Carquinez Bridge Replacement (Interstate 80)

Logged geotechnical borings drilled from a barge in 80 feet of water for Caltrans for the new Carquinez suspension bridge constructed west of the existing bridge in Pinole, California.

Oracle World Headquarters

Part of the construction management team that built a nine-story high-rise on soft compressible Bay Mud soil for the Oracle Software Company in Redwood City, California.