LEADER JULY 2017 DRAFT

PRINCETON UNIVERSITY - ANDLINGER CENTER

Location:	Princeton, NJ
Client:	Princeton University
Architect:	Tod Williams Billie Tsien Architects
Partner:	Ballinger
Services:	Geotechnical

OVERVIEW

Princeton University?s 129,000-SF Andlinger Center for Energy and the Environment provides new research and development facilities to students and teachers studying renewable and sustainable energy, climate change, and numerous disciplines related to energy efficiency and social/environmental economics. Langan?s geotechnical engineering services included conceptual design for the project?s support of excavation (SOE) and underpinning systems, specifications for SOE and related earthwork, and review of foundation systems. We also provided consulting services during the design development and construction documentation phases. The building was designed to meet LEED Silver requirements.

ANTERO CLEARWATER FACILITY

Location: Greenwood, WV
Client: Antero Resources
Services: Environmental

OVERVIEW

Langan provided environmental permit services for Antero's Clearwater Facility (ACF), a new state-of-the-art centralized water treatment facility, which included assisting Antero in obtaining an individual National Pollutant Discharge Elimination System (NPDES) permit. As part of the NPDES application package, the Langan team provided GIS mapping of stormwater outfall locations, prepared a comprehensive and site-specific Stormwater Pollution Prevention Plan (SWPPP)/Groundwater Protection Plan (GPP) and conducted NPDES training for Antero personnel and facility operators.

CHASE CENTER

Location:	San Francisco, CA
Client:	Golden State Warriors
Architect:	Manica Architecture, Kendall/Heaton Associates
Partner:	Magnusson Klemencic Associates, Mortenson Clark Joint Venture
Services:	Environmental, Geotechnical, Earthquake/Seismic, Site/Civil

OVERVIEW

Chase Center, the new home of the Golden State Warriors, will provide seating for 18,000 fans and have a view deck and two public plazas, 580,000 SF of office/lab, event space, retail, restaurants, and underground parking. Some of our key services include coordinating regulatory approvals for removal of hazardous materials and soil management, modeling groundwater for design and dewatering during construction, and addressing poor soil conditions by recommending the most appropriate foundations, shoring systems, and construction methods.

TOWER AT 4 PNC PLAZA

Location:	Pittsburgh, PA
Client:	PNC Financial Services Group
Architect:	Gensler
Partner:	Buro Happold
Services:	Geotechnical

OVERVIEW

The Tower at 4 PNC Plaza is 33 stories high and considered the world's most environmentally-friendly building. Langan developed caisson design parameters for the building based on field-load test data, test-drilling results, and available site-specific geotechnical information. Langan reviewed the subsurface and load-test data and developed caisson design parameters based on the data and our experience with similar structures. Our recommended design parameters led to a less-robust foundation system and considerable cost savings and schedule reductions. Design completion included full-time Langan observation during deep foundation construction.

PUBLIC SAFETY AND ANSWERING CENTER (PSAC) II

Location:	Bronx, NY
Client:	New York City Department of Design and Construction
Architect:	Skidmore, Owings & Merrill
Services:	Geotechnical, Environmental

OVERVIEW

Langan provided multidiscipline engineering services for the development of a new 911 call center for the City of New York. The development included construction of a 10-story office building with a building footprint totaling 52,000 SF, a 25-foot-deep cellar, and approximately 34,545 SF of surface parking. The building is an essential facility, designed for category 4 hurricane wind and flood levels, seismic importance factor of 1.5, and fully loaded for security/blast attenuation/baffling. Langan provided a full range of geotechnical engineering services for the project, including subsurface exploration, driven pile and slurry (diaphragm) wall foundation design, site-specific seismic analyses including site-response analysis and liquefaction evaluation. Environmental engineering services included preparation of a Remedial Action Plan, Construction Health and Safety Plan, related construction documents, and coordination with the New York City Department of Environmental Protection.

AWARDS

2017 NYCxDesign Awards, Government/Institutional: Winner

2017 American Institute of Architects New York Design Awards, Architecture: Merit Award

TANGER OUTLETS AT FOXWOODS

Location: Mashantucket, CT
Client: Standard Builders
Services: Surveying/Geospatial

OVERVIEW

Spanning over a quarter mile, The Tanger Outlets at Foxwoods is the newest addition to the well-known Resort & Casino. With 350,000 SF of outlet shops, the new retail development is being touted as a shopping mecca. Langan provided construction stake out services throughout the project for Standard Builders. This included establishment of survey control for the use of other contractors, locations of rock face, detailing the two existing building faces that the outlet tied into, checking concrete pours and anchor bolt locations for accuracy, and various other survey related tasks.

AWARDS

2016 Connecticut Building Congress (CBC) Project Team Award - Award of Merit New Construction

LYON STREET STEPS

Location:	San Francisco, California
Client:	The Presidio Trust
Services:	Site/Civil, Geotechnical

OVERVIEW

Langan provided site/civil and geotechnical engineering services to support the ongoing reforestation efforts within the Presidio. Our team evaluated the stability of the existing Lyon Street retaining wall and the slopes behind and above the wall. The project involved a great deal of coordination among public agencies, regulatory agencies, and citizens since Lyon Street Steps is located on federal land and adjacent to private residential property.