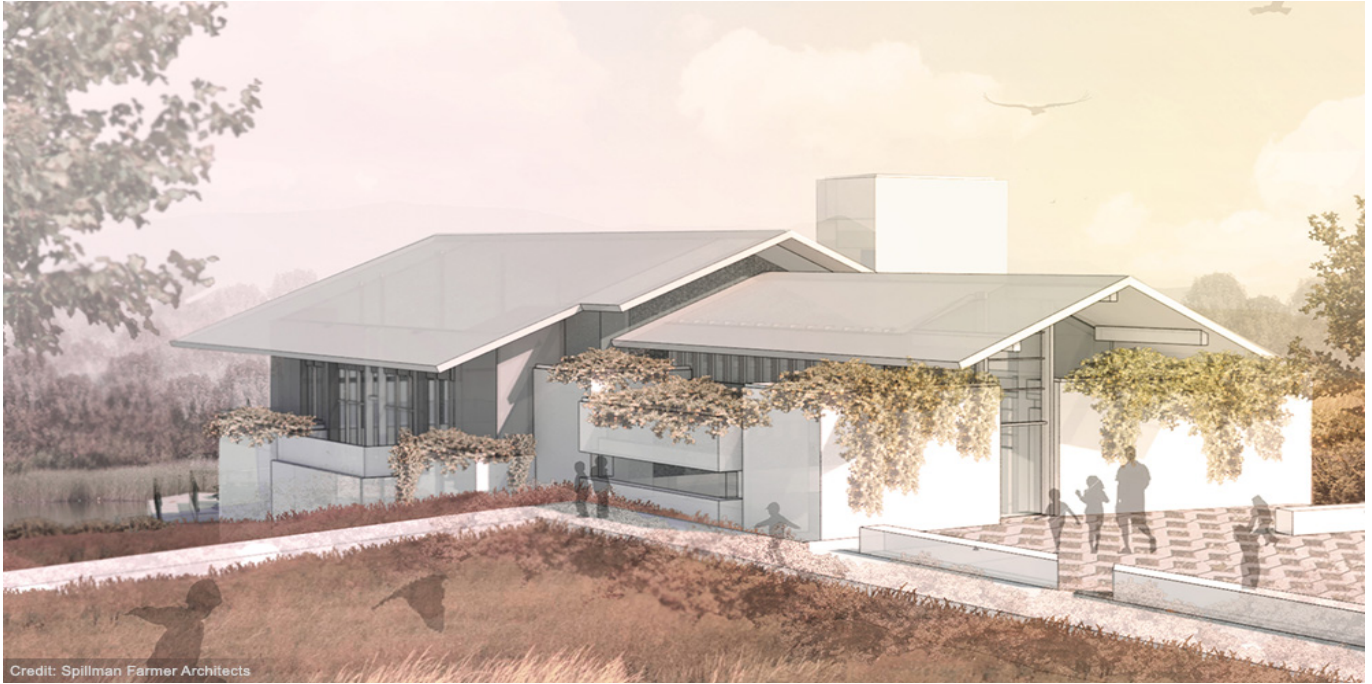


LANGAN IN LEHIGH VALLEY FOR EHDD

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Credit: Spillman Farmer Architects

LEHIGH VALLEY ZOO FACILITIES MASTER PLAN

Location: Schnecksville, PA
Client: Spillman Farmer Architects
Services: Landscape Architecture, Master Planning

OVERVIEW

Located within the scenic 1,100-acre Trexler Nature Preserve, Lehigh Valley Zoo is home to more than 250 animals and hosts more than 100,000 guests annually. As a partner with Spillman Farmer Architects, Langan planners and landscape architects lead several public workshops and staff planning sessions to help the Zoo focus on enhancing visitor experience and determining future facilities and expansion direction. Based on the workshop input, the master planning team developed a prioritized list of potential improvements and recommendations. Major recommendations included: revised ADA compliant entry plaza; new indoor exhibit spaces; improved ADA circulation routes; way finding and informational signage improvements; and additional guest services facilities.

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NEW YORK AQUARIUM - SHARK TANK AND ANIMAL CARE FACILITY

Client: Wildlife Conservation Society
Architect: Smith-Miller + Hawkinson Architects, The Portico Group
(Shark Tank), Ned Kahn (Shimmer Wall Design)
Partner: Duval & Stachenfeld LLP
Services: Geotechnical, Environmental, Master Planning

OVERVIEW

As an initial revitalizing component for the seaside neighborhood of Coney Island, this new 58,000-SF building and 'shimmer wall', was designed by renowned artist/sculptor Ned Kahn. Langan provided geotechnical engineering services including a comprehensive subsurface investigation that included a review of existing data and analysis, soil sampling, and foundation recommendations. Our construction phase services included accredited special inspections, construction administration and monitoring of water-proofing installation. Our environmental engineers provided services for characterization and delineation of soil hauled as part of development, including 24 soil borings. Langan also provided comprehensive State Environmental Quality Review (SEQR) services to evaluate the potential environmental impacts of the project.

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PPL CENTER

- Location: Allentown, PA
- Client: Hammes Company Sports Development, Allentown
Commercial and Industrial Development Authority
- Architect: Sink Combs Dethlefs
- Services: Geotechnical, Master Planning

OVERVIEW

The PPL Center is a new arena that is part of the redevelopment of a five-acre city block in downtown Allentown. The 8,500-seat arena will host the Lehigh Valley Phantoms, an American Hockey League affiliate of the NHL's Philadelphia Flyers. Langan provided geotechnical services in support of the project.

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THE EXPLORATORIUM

Location:	San Francisco, California
Client:	The Exploratorium
Architect:	EHDD
Services:	Geotechnical, Earthquake/Seismic, Master Planning

OVERVIEW

Langan conducted a field exploration program and engineering studies for the proposed conversion of Pier 15 into the Exploratorium: the Museum of Science, Art and Human Perception. The warehouse building at Pier 15 was converted into a world-class museum with sustainable design and historical preservation. The Exploratorium holds a LEED Gold certification and is the largest Net-Zero energy museum in the United States. Our team developed geotechnical, foundation, and seismic design criteria for the project.

AWARDS

San Francisco Business Times 2012 Real Estate Deals of the Year Award, Rehabilitation/Renovation Category

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LIBERTY SCIENCE CENTER

Location: Jersey City, NJ
 Client: New Jersey Economic Development Authority
 Services: Site/Civil, Environmental, Natural Resources & Permitting,
 Master Planning

OVERVIEW

Langan was the consultant for the 196,000-SF Liberty Science Center originally constructed in 1993. We were once again retained for the 2007 expansion, which included a new 94,000-SF, three-story west wing.

AWARDS

Grand Award for Engineering Excellence from the New Jersey Consulting Engineering Council

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AMBLER BOILER HOUSE

Location: Ambler, PA
Client: Summit Realty Advisors, LLC
Services: Site/Civil, Traditional Surveying, Landscape Architecture,
Master Planning

OVERVIEW

The towering smoke stack of the Boiler House has become an icon to the residents of Ambler Borough and to passengers traveling on the adjacent R-5 rail line. When completed, the Boiler House will contain 36,000 SF of exclusive office space, strategically located adjacent to the R-5 line. An extension of the passenger platform at Ambler Station will provide easy access to Center City Philadelphia and the surrounding area. Langan's site design focused on highlighting the industrial heritage of the site, while addressing some of the more serious contamination issues. The plan incorporated landscape elements and plant material consistent with an industrial site which still provided a level of finish appropriate for corporate offices.

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PORSCHE NORTHEAST REGIONAL SUPPORT CENTER

Location: Palmer Township, PA
Client: IDI, Inc.
Services: Site/Civil, Traffic & Transportation, Landscape Architecture,
Traditional Surveying, Master Planning

OVERVIEW

The first project within the Charles Chrin Commerce Center challenged Langan to implement sustainable design and construction strategies in order to achieve a LEED Gold certification.

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GUARDIAN LIFE INSURANCE REGIONAL HEADQUARTERS

Location: Hanover, PA
Client: Guardian Life Insurance Company of America
Services: Site/Civil, Traditional Surveying, Traffic & Transportation,
Geotechnical, Master Planning

OVERVIEW

Langan provided a full range of engineering services for the development of a new three-story, 281,680-SF corporate building on a 31-acre site. The Guardian Life Insurance Company of America, one of the nation's largest mutual life insurers and a leading provider of employee benefits, selected Lehigh Valley for its regional headquarters, which will replace its current regional headquarters located in three buildings in Bethlehem and one in Allentown.

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BRONX ZOO - CHILDREN'S ZOO

Location: Bronx, NY
Client: Wildlife Conservation Society
Partner: Duval & Stachenfeld LLP
Services: Environmental, Master Planning

OVERVIEW

Langan was retained to complete State Environmental Quality Review Act (SEQR) Environmental Assessments for over 100 projects planned at the Bronx Zoo, including improvements and upgrades to the existing 1.7-acre Children's Zoo. As part of the SEQR process, Langan completed a Coastal Consistency Assessment that evaluated the projects' consistency with New York City's Waterfront Revitalization Program and New York State's Coastal Zone Management Program.

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Credit: Henrik Kam, courtesy SFMOMA

SFMOMA EXPANSION

Location:	San Francisco, California
Client:	San Francisco Museum of Modern Art (SFMOMA)
Architect:	Snøhetta / EHDD
Partner:	Webcor
Services:	Geotechnical, Earthquake/Seismic, Environmental, Master Planning

OVERVIEW

Since originally constructed two decades ago, Langan has been providing engineering services for the San Francisco Museum of Modern Art (SFMOMA). The recent \$610-million expansion called for a 10-story, steel structure addition to the 5-story building and a 30-foot-deep excavation next to neighboring towers. The southern portion of the expansion required the installation of a new foundation system, while the northern portion rests on the existing foundations. Challenges included control of anticipated differential settlement between the existing and new foundations, spreading new building loads to prevent over-stressing of the existing mat foundation, temporary support of adjacent structures during excavation for the new basement, and variable subsurface conditions (including weak layers that required ground improvement) within the new expansion limits.

AWARDS

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2016 ENR California Best Projects, Cultural/Worship Best Project

2017 ENR National Best of the Best Cultural/Worship Project

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CCSF CHINATOWN/NORTH BEACH CAMPUS

Location: San Francisco, California
Client: City College of San Francisco
Architect: EHDD
Services: Geotechnical, Earthquake/Seismic, Environmental, Master Planning

OVERVIEW

The new City College of San Francisco (CCSF) campus is on three lots and consists of a 14-story tower over a basement (main building) and a 4-story building over a basement (annex building). Langan performed a geotechnical investigation, geologic hazard evaluation, and site-specific seismic response study. We also performed Phase I and Phase II Environmental Site Assessments (ESAs) for the project. Our report was submitted to the Division of the State Architect (DSA) and CGS for review and was approved without exception. This project was the largest California community college and tallest structure to go through DSA.

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BACICH ELEMENTARY SCHOOL BUILDINGS

Location: Kentfield, California
Client: Kentfield Unified School District
Architect: EHDD
Services: Geotechnical, Earthquake/Seismic, Master Planning

OVERVIEW

Langan performed a geologic hazards evaluation and geotechnical investigation and provided construction observation and testing services for the new Library/Classrooms and Multi-Use Building at Bacich Elementary School. The site evaluation report was performed in accordance with California Code of Regulation Title 24, California Building Code, and the CGS Note 48 and submitted to DSA for review and approval. Our team provided similar services for as the new gymnasium and learning center constructed at Kent Middle School.

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