



RESUME

Kun (David) Li, PhD., P.E., D.GE.

Senior Project Manager

Education

- Ph.D., Civil/Geotechnical Engineering, Clemson University
- MS, Civil/Geotechnical Engineering, Zhejiang University
- B.S. (Rank 1st in class), Civil Engineering, Zhejiang University

Registrations & Certificates

- Professional Engineer in NJ, NY, DE, and PA
- Diplomate, Geotechnical Engineering
- 40-Hour OSHA HAZWOPER
- 10-Hour OSHA Construction Safety & Health
- LIRR Roadway Worker Protection Training
- E-Railsafe Contractor
- NJ Transit Rail Safety Training
- Nuclear Gauge Safety Training
- Inclinator Training
- GBA(ASFE) Fundamentals of Professional Practice, August 2011 to March 2012

Areas of Specialization

- Geotechnical Engineering
- Earthquake Engineering
- Foundation Design
- Rock Slope Engineering
- Site Investigations and Characterization
- Project Management
- Instrumentation

Professional Activities

- Member, American Society of Civil Engineers
- Member, ASCE Geo-Institute
- Committee Member, ASCE Geo-Institute Earthquake Engineering and Soil Dynamics Technical Committee
- Committee Member, ASCE Geo-Institute Risk Assessment and Management Technical Committee
- Member, International Society for Soil Mechanics & Foundation Engineering
- Member, Earthquake Engineering Research Institute
- Member, Chi-Epsilon National Civil Engineering Honor Society
- American Council of Engineering Companies
- ADSC the International Association of Foundation Drilling
- Geotechnical Extreme Events Reconnaissance

Summary of Experience

Dr. Li is a geotechnical engineer and currently serves as a Senior Project Manager. He has more than 20 years of experience performing professional engineering services on a variety of civil, transportation, geotechnical, geo-environmental, and construction projects involving, but not limited to: subsurface investigation; geotechnical earthquake engineering and liquefaction analysis; finite element analysis; foundations; soil/rock slopes; retaining structures; excavation support systems; preloading; in-situ soil stabilization; instrumentation monitoring; geophysical investigations; rock stabilization; pile installation; slurry walls; tunnels; bridge embankments; forensic investigations; hydrologic and hydrogeologic analyses; and construction monitoring.

Dr. Li is responsible for management and technical performance of geotechnical engineering projects and has managed projects for both public and private clients of various business sectors, including architects/engineers, contractors, governmental, industrial, infrastructure, institutional, oil & gas, power, and real estate.

Dr. Li is the lead for geotechnical earthquake engineering and soil dynamics practice in GZA New York City office and also provides consulting services within the company for geotechnical earthquake engineering assignments in transportation, airport, building projects.

Relevant Project Experience

SEISMIC

Project Manager / Seismic Engineer, JFK Airport, Avis Return Canopy, Jamaica, New York. The site was underlain by potentially liquefiable soils, indicating Site Class F classification and a requirement for site-specific evaluation. Dr. Li was responsible for a seismic study including seismic cone penetrometer testing to collect shear wave velocity data and a site-specific response evaluation. The scope included development of input bedrock ground motions, a site-specific dynamic soil property profile and performing site amplification studies using the computer program SHAKE2000 to develop pseudo spectral acceleration profiles. The results of the evaluations were used to provide site-specific response spectra and update liquefaction evaluations in accordance with the 2014 New York City Building Code.

Project Manager / Seismic Engineer, JFK Airport, Budget Site Improvement, Jamaica, New York. The site was underlain by potentially liquefiable soils, indicating Site Class F classification and a requirement for site-specific evaluation. Dr. Li was responsible for a seismic study including a comparative review of the site subsurface conditions and an adjacent site to evaluate the suitability of implementing the recommended design parameters for the adjacent site to the current project. Based on the study, site-specific seismic design parameters and updated liquefaction evaluations were incorporated into the updated seismic recommendations in accordance with the 2014 New York City Building Code.

Seismic Engineer, Mount Sinai Downtown Transformation, New York, New York. The site was assigned Site Class E based on SPT borings and a seismic study was performed to potentially reduce dynamic loads and the Seismic Design Category thus



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provide potential reduction on construction and analysis costs. Dr. Li was responsible for the seismic study including seismic cone penetrometer testing to collect shear wave velocity data and a site-specific ground motion analysis to develop site-specific design response spectrum for structural design and for use in liquefaction analysis. The scope included development of input bedrock ground motions, a site-specific dynamic soil property profile and performing site amplification studies using the computer program SHAKE2000 to develop pseudo spectral acceleration profiles. The results of the evaluations were used to provide site-specific response spectra in accordance with the 2014 New York City Building Code.

Seismic Engineer, Dey Street Concourse Structural Box /FSTC Seismic-Liquefaction Analyses, NYCT

Geotechnical IQ Contract, New York, NY. This project, under a design-build contract with MTA-NYCT, will connect the PATH Terminal with the planned Fulton Street Transit Center, and was a complex undertaking within a very dense, congested urban environment, involving the construction of underpasses and an underground structural box along Dey Street. Performed site-specific seismic design and liquefaction hazard assessment. Tasks included compiling in situ testing (SPT, CPT) data, performing site response analyses using SHAKE 2000 and evaluating liquefaction potential of soils both with traditional deterministic methods and probability methods. Supported structural seismic design by providing design information such as peak ground acceleration curves, soil damping curves for racking deformation calculations. Compiled subsurface investigation data to prepare a geotechnical data report and to perform permeability and settlement calculations.

Seismic Engineer, Archer Green Development, 92-33 168th Street, Queens, New York. The site was assigned Site Class D based on SPT borings and a seismic study was performed to potentially reduce dynamic loads and the Seismic Design Category thus provide potential reduction on construction and analysis costs. Dr. Li was responsible for a site-specific ground motion analysis to develop site-specific design response spectrum for structural design and for use in liquefaction analysis. The scope included development of input bedrock ground motions, a site-specific dynamic soil property profile and performing site amplification studies using the computer program SHAKE2000 to develop pseudo spectral acceleration profiles. The results of the evaluations

were used to provide site-specific response spectra in accordance with the 2014 New York City Building Code.

Seismic Engineer, Laguardia Airport, Delta Terminal Reconfiguration, Queens, New York.

The site was underlain by potentially liquefiable soils, indicating Site Class F classification and a requirement for site-specific evaluation.

Dr. Li was responsible for a site-specific response evaluation to develop design recommendations regarding acceleration response spectra, geotechnical earthquake engineering evaluations and recommendations for the project. The scope included development of input bedrock ground motions, a site-specific dynamic soil property profile and performing site amplification studies using the computer program SHAKE2000 to develop pseudo spectral acceleration profiles. GZA provided recommended acceleration response spectra for the project, as well as liquefaction evaluations that incorporated the updated seismic recommendations.

Seismic Engineer, Fairless Landfill Seismic/Liquefaction Analyses Project, Bucks County, Pennsylvania.

Responsibilities include performing liquefaction analyses using CPT, SPT, and geophysical test data and evaluating the liquefaction susceptibility for the site.

Investigation of Soil Liquefaction, Clemson, South Carolina. Participated in a project sponsored by National Science Foundation. Experience includes data collection and analysis, development of simplified procedures to evaluate liquefaction and ground failure potential and mapping liquefaction hazard, publishing technical papers in referred journals and proceedings of national and international conferences.

Dynamic Properties of Composite Cemented Clay, Hangzhou, Zhejiang, China. Participated in a research project sponsored by National Science Foundation of China - Dynamic Properties of Composite Cemented Clay. Major experience included lab testing, data collection and analysis, report preparation.

Protections of the Sea-Calming Pagoda, Yanguan, Zhejiang, China. Participated as primary assistant to the project director for the project entitled "Protection of the Sea-Calming Pagoda in Yanguan, Zhejiang, China". Major experience included proposing experiment plans, managing, organizing and conducting on-site experiments, data collection and analysis, report preparation.

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TRANSPORTATION AND INFRASTRUCTURE

Project Manager, Long Island Railroad Expansion Project from Floral Park to Hicksville, New York. This project entails the following major components for extending approximately 9.8 miles from Floral Park to Hicksville: installation of a third track within the existing Railroad ROW; elimination of seven street-level grade crossings; installation of retaining and sound attenuation walls, various station improvements and other related improvements to railroad infrastructures. The project requires foundation design for new bridge construction, modifications to selected bridges, roadway undergrade crossings, pedestrian structures, station structures, retaining / sound walls, and parking garages. These foundations consist primarily of deep foundations (driven pipe piles, drilled micropiles and drilled shafts) with conventional spread footings for lightly loaded structures, and jacked undergrade crossings. Dr. Li is a member of the team which manages and coordinates geotechnical consulting services to provide principal geotechnical design deliverables including geotechnical work plan, investigation plan, data report, foundation design report, seismic assessment report, deep foundation performing testing protocol.

Project Manager, Norfolk Southern Railway Bridge Replacement Project, Portageville, New York. This project is situated within Letchworth State Park and involves the design and construction of a new 963-foot-long, single-track railway bridge across the Genesee River. Prepared geotechnical data and engineering reports, including design recommendations for: arch skewback foundations bearing on rock; rock slope excavation, reinforcement, and stabilization; controlled rock blasting; rockfall hazard mitigation measures; rock-socketed micro-piles; and railway approach embankments. Provide bid procurement support services and ground engineering support services during construction of the subject project.

Project Manager, US 17 / NC 37 Perquimans River Pile Analysis, North Carolina. A temporary trestle was planned to facilitate the construction of Bridge No. 8 over Perquimans River in Hertford, North Carolina. GZA evaluation focused on the use of 36-inch diameter steel pipe piles and a required ultimate axial capacity of 1,050 kips per pile. We estimated the required pile tip elevation for the for both closed-end and open-end pile configurations.

Task Manager / Senior Project Geotechnical Engineer, Indian River Inlet Bridge Project, Bethany Beach, Delaware. This project involved the performance of forensic geotechnical engineering and litigation support services in connection with the construction and performance of 55-foot-high mechanically stabilized earth approach embankments constructed atop soft compressible subsurface soil deposits, which included the collection, review, and evaluation of available design and construction documents, performance of design analyses to identify and evaluate potential causes of observed deformations, and preparation of assessment reports documenting findings, conclusions, and opinions.

Project Geotechnical Engineer, Maine DOT Bridge Project, Portland/South Portland, Maine.

Responsibilities include reviewing and summarizing geotechnical data reports, field data, and laboratory data to obtain design parameters. Performed settlement calculations, including immediate settlement, consolidation settlement, and rate of settlement analyses. Evaluated the effect of wick drains at subject site. Performed global stability analyses considering different options of reinforcement of embankment. Performed seismic analyses, liquefaction hazard assessment and options for mitigation of liquefaction hazards.

Project Geotechnical Engineer, Vent Plant Rehabilitation Project, New York, New York.

Geotechnical Engineer on this project with respect to the design development and implementation of planned temporary support of excavation (SOE) systems to facilitate the rehabilitation of a vent plant on the 6th Avenue between 52nd and 53rd streets. Responsibilities include contract document collection and reviewing, assessment of SOE alternatives to facilitate construction of the subject project, and report preparation. The project also involves forensic investigation of a potential different site condition claim. Responsibilities include document collection and reviewing, data analysis, support to senior management.

POWER GENERATION AND TRANSMISSION

Project Geotechnical Engineer, Con Edison In-Situ Soil Stabilization, White Plains, New York. This project involved the preparation of a temporary excavation support plan for a planned 8-ft-deep excavation at a



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former ConEdison manufactured gas plant (MGP) facility in White Plains, NY. The excavation support system involved utilizing in-situ soil stabilization (ISS) techniques to create monolithic gravity soilcrete masses in-situ along the excavation perimeter. Performed stability calculation including sliding, overturning, and global slope stability analyses of the in-situ stabilization gravity structure for the temporary excavation support.

Project Geotechnical Engineer, Morgantown Generation Station Project, Newburg, Maryland. This project involves significant modifications involving the construction of new facilities and infrastructure at the Site. Modifications include the construction of two new coal reclaim tunnels. Dewatering permits were required to complete tunnels due to shallow groundwater. Responsibilities include performing geotechnical investigation and field pumping tests to evaluate permeability of soils for dewatering calculations, performing dewatering calculations.

RESIDENTIAL DEVELOPMENT

Project Manager, 39 W 10th Street, New York, New York. Proposed construction consists of gut renovation of an existing three-story townhouse, including lowering the existing cellar floor and a rear yard addition with matching cellar elevations. Ground water was found at an unexpectedly high elevation at start of excavation. GZA was brought on to project team first to perform geotechnical engineering peer review services to review and access geotechnical report, SOE design, contractor's excavation approach, and then to provide expanded scope for dewatering system design services to facilitate elevator and ejector pits as well as associated underpinning. The dewatering system involves combination of perimeter drilled in wells outside the dewatering area and supplemented by interior sumps within perimeter of the proposed elevator pit and ejector pit. The scope included field permeability test, dewatering system design, installing and read of VW Pizometers, building protection plan, and field engineering services to monitor the performance of the dewatering system.

Project Manager, 623-627 Halsey Street, Brooklyn, New York. The proposed development will consist of the construction of two new five-story residential buildings and one new three-story residential buildings at the sites.

Dr. Li planned, coordinated, and managed a geotechnical exploration consisting of test borings and test pits and lab testing to characterize subsurface conditions and provide geotechnical recommendations.

Project Manager, 96 Franklin Street, Brooklyn, New York. Dr. Li managed a project team that provided geotechnical foundation recommendations for roof top addition and a rear yard addition for a three-story building with a cellar. Geotechnical information was provided by test pit observations.

Project Manager, 29 Frost Street, Brooklyn, New York. The proposed construction includes removal of existing partitions, addition of 3rd and 4th floors, a rear yard 4-story extension, and a full cellar extending into the rear extension. Dr. Li planned, coordinated, and managed a geotechnical exploration consisting of test borings and lab testing to characterize subsurface conditions and provide geotechnical recommendations.

Project Manager, 183 Avenue B Geotechnical, New York, New York. This project involves constructions of a 8-story residential building with full cellar and usable roof area. Dr. Li managed and coordinated this project, which included a subsurface exploration that consisted of test borings and test pits, and provided geotechnical recommendation and excavation support and underpinning design for the proposed development. Close coordination with the architect and structural engineer was required to develop foundation recommendations, excavation support and underpinning design in a dense urban setting.

Project Geotechnical Engineer, Church Hill Estates Slope Stabilization Project, North Bergen, New Jersey. Geotechnical Engineer on a rock slope stabilization project. This project involved stabilizing approximately 160 ft high steep, near vertical rock exposure comprising of two distinct types: Palisades sill overlying alternating facies of Lockatong and Stockton Formations. Responsibilities included monitoring rock scaling, monitoring rock bolt/anchor/pin/dowel installations, monitoring installation of rock drains and rockfall drape netting, performing daily construction oversight and quality control/assurance, rock fall analysis, and report preparation.

Project Manager, NYCHA Jacob Riis and Riis II Houses, Coney Island Houses, New York. Responsible for

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geotechnical engineering recommendations related to aid the Hurricane Sandy Capital Improvement Program projects at Jacob Riis and Riis II Houses and Coney Island Houses in New York City. Provided foundation analysis based on evaluation of historical geotechnical subsurface exploration data dating back to the 1940s and 1950s. Recommended proposed structures to be supported on deep foundations consisting of steel H-piles driven to 50 feet bgs to function as friction piles. Performed geotechnical engineering/pile capacity analyses.

INDUSTRIAL DEVELOPMENT

Task Manager / Senior Project Geotechnical Engineer, Grasselli Redevelopment Project, Linden, New Jersey. Performed site-specific pre-design investigations, including subsurface explorations, geotechnical laboratory testing, and bench-scale mix design / compatibility testing for a proposed perimeter containment barrier wall system. Evaluated multiple site remedy options. The final, selected site remedy involved the design and construction of a permeable, vegetated soil cover system, which included the beneficial re-use of processed dredged materials. Responsibilities included drilling monitoring, in-situ compaction tests, data analysis, preliminary foundation analysis and design calculation, construction alternatives cost evaluations, memorandums, and reports preparation.

Project Geotechnical Engineer, Pitt-Consol Redevelopment Project, Newark, New Jersey. Geotechnical Engineer on this Pitt-Consol redevelopment project located in Newark, Essex County, New Jersey. This project involved the redevelopment of a Brownfield site, which envisioned that a single-story, large-footprint warehouse structure would be built atop soft, compressible geologic deposits. Responsibilities included data analysis, preliminary foundation analysis and design calculation, and report preparation.

Project Geotechnical Engineer, Borne Chemical Site, Elizabeth, New Jersey. Performed slope stability analyses to determine the factor of safety of existing bulkhead and future placement of riprap for this site located in Elizabeth, NJ. Performed calculation to determine depth of Sheet Pile Wall (SPW) along the shoreline that will prevent the contaminated soil and groundwater to contract with Arthur Kill. Responsibilities include performing desk study of reports, performing stability

study using SLIDE, and performing SPW analyses using SPWg11 and ProSheet.

Project Manager, South Brine Pond Capital Improvement Project, Harford, New York. Project-specific subsurface exploration program to explore, evaluate, and characterize subsurface conditions beneath the subject property and performance of geotechnical engineering design analyses and evaluation including bearing capacity computations and two-dimension limit equilibrium slope stability analyses.

Task Manager / Senior Project Geotechnical Engineer, 216 Paterson Plank Road Site, Carlstadt, New Jersey. Operable Unit No. 2 (OU-2) Remedy at this Superfund site. Project involved construction of a low permeability (i.e., geosynthetic) soil cover system, installation of a groundwater collection system, consolidation of on-site materials, excavation and off-site disposal of a localized "hot spot" area, and replacement of an existing steel sheet pile wall. Responsibilities included compile construction drawings and specifications, review bidding proposals, cost evaluation, performing Sheet Pile Wall stability study, performing veneer stability analysis, excavation volume calculation, reviewing geotechnical lab results, providing requisite remedial design, construction quality assurance and oversight services during the duration of the OU-2 Remedy implementation.

Project Geotechnical Engineer, Foote Minerals South Quarry In-situ Soil Stabilization Project, West Chester, Pennsylvania. This project involved the evaluation and development of in-situ soil stabilization (ISS) remedial alternatives to solidify, treat, and isolate lithium/bromate contaminated processed mineral tailings, which were historically deposited within two open-pit dolomite mine quarries at the site. Performed a statistical regression analysis to estimate site-specific bedrock groundwater levels of the South Quarry to establish requisite thickness of ISS treatment. A similar evaluation of regional and site-specific bedrock groundwater levels was performed to establish the top-of-clean fill elevation within the bottom of the North Quarry as part of the overall remedial design of the site. Responsibilities included reviewing data, establishing the regression models, statistical analysis and report preparation.

Project Manager, Landfill Project, New Jersey. This project involved NJDEP LSRP and professional engineering services in connection with the on-going Landfill closure activities. Responsibilities including performing material acceptance



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review and facilitating the authorization of imported fill materials for beneficial use at the site; facility inspections, monitoring, and reporting; performing site-specific remedial field support services (e.g., collection of soil / groundwater samples for analytical testing and construction quality assurance services) in support of the on-going RA activities and preparations of subsequent RAOs; performing site-specific remedial design support services and preparation of proposed Closure Plan modification applications; preparing project memoranda and reports.

Project Manager, Fairfax Pit Berm Design Peer Review Project, Centerville, Virginia. Responsibilities include reviewing design documents provided by others and running independent rock fall analyses to verify the analyses to establish the required berm sizes and locations.

Project Geotechnical Engineer, Brightfields In-situ Soil Stabilization Project, Wilmington, Delaware. Performed a one-dimensional calculation to estimate potential differential settlements between ISS and non-ISS treated zones. Responsibilities include undertaking a desk study of provided documents, establishing existing subsurface conditions and geotechnical engineering design parameters, performing one-dimensional settlement analyses, and report preparation.

Project Manager, Equinix 5851 W Side Ave Pile Design, Brooklyn, New York. Dr. Li managed a project team that provided geotechnical foundation recommendations for new electrical switchgear installed on a new concrete pad, which is sensitive to disturbance. Drilled micropiles were designed to support the structure.

COMMERCIAL DEVELOPMENT

Project Manager, 545 North Ave, New Rochelle, New York. The proposed development consists of the addition of up to four stories to the existing two-story brick building and the addition of an elevator within the building footprint. Dr. Li planned, coordinated, and managed a geotechnical exploration consisting of test borings and lab testing to characterize subsurface conditions and provide geotechnical recommendations.

Project Manager, 177 North 7th Street SOE review, Brooklyn, New York. In order to achieve a full cellar at 179-181 North 7th Street, the full width of the site must be

excavated and underpinning is proposed below building at 177 North 7th Street, and adjacent yards and sidewalk will be supported by soldier pile and lagging system during the excavation. Rakers and corner bracing were proposed at locations where lateral bracing is needed. In addition to the proposed SOE work, the 179-181 building is intended to be supported on drilled steel micropiles. GZA performed a review of the piling, underpinning and SOE drawings at 179-181 North 7th Street, Brooklyn, New York, more specifically as to the impact on building at 177 North 7th Street and recommend a further course of action.

Project Manager, 20 South 2nd Avenue, Mount Vernon, New York. The proposed development consists of deconstruction of the existing building and paved areas and construction of a mixed-use development to include two eleven-story residential towers above a ground-floor community space and a partial below-grade parking garage. Dr. Li planned, coordinated, and managed a geotechnical exploration consisting of test borings and lab testing to characterize subsurface conditions and provide geotechnical recommendations.

Project Manager, 52 Elizabeth Street Geotechnical, New York, New York. This project involved construction of a new seven-story mixed-use building with three below grade cellar levels. Dr. Li managed and coordinated this project, which included coordination with NYCT, a subsurface exploration that consisted of test borings and test pits, and provided geotechnical recommendation and excavation support and underpinning design for the proposed development. Close coordination with the architect and structural engineer was required to develop foundation recommendations, excavation support and underpinning design in a dense urban setting.

Project Manager, 21 Park Place Geotechnical, New York, New York. This project involves internal renovation of the existing five-story building, construction of a steel framed structure within the existing brick bearing walls, and adding three levels above the existing building. Dr. Li managed and coordinated this project, which included coordination with NYCT, a subsurface exploration that consisted of test borings and test pits, and provided geotechnical recommendation and excavation support and underpinning design for the proposed development. Close coordination with the architect and structural engineer was required to develop foundation

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recommendations, excavation support and underpinning design in a dense urban setting.

Project Manager, 21-25 31st Street, Queens, New York.

This project involved construction of a new six-story mixed use structure with two cellar levels, requiring excavation of up to approximately 36 feet below the sidewalk elevation. Dr. Li managed and coordinated this project, which included a subsurface exploration that consisted of test borings and provided geotechnical recommendation and excavation support and underpinning design for the proposed development. Close coordination with the architect and structural engineer was required to develop foundation recommendations, excavation support and underpinning design.

Project Manager, 58 Gerry Street, Brooklyn, New York.

Project manager responsible for excavation support and underpinning design for the proposed excavation to construct a new seven-story building with one cellar level. Performed the geotechnical and structural analysis to complete the design and provided stamped drawings for submittal.

Project Geotechnical Engineer, 87-03 Queens Boulevard HSBC Bank Project, Queens, New York.

Geotechnical Engineer on this subsurface exploration project. This project involved performing a subsurface exploration within the basement of an existing building for the construction of a new bank vault. Responsibilities included drilling monitoring, data analysis, preliminary foundation analysis and design calculation and report preparation.

AVIATION**Project Manager, JFK Airport, Avis Return Canopy, Jamaica, New York.**

The Site is the Avis return canopy facility located in JFK Airport in Jamaica, New York. The proposed development is to build a car return canopy with footprint area of approximately 21,840 square feet. Dr. Li was responsible for managing and coordinating the geotechnical subsurface exploration, preparing geotechnical recommendations, performing a site-specific ground response analysis, preparing micropile calculations and geotechnical specifications. Close coordination with the architect and structural engineer was required to develop foundation recommendations, respond to rider comments from the PANYNJ.

Project Manager, JFK Airport, Budget Site Improvement, Jamaica, New York.

The Site is the Budget Rent A Car System Inc. facility located in JFK Airport in Jamaica, New York. The proposed development is to build an addition to the existing rental office, a new fuel island and car wash. Dr. Li was responsible for managing and coordinating the geotechnical subsurface exploration, preparing geotechnical recommendations, performing a site-specific ground response analysis, preparing micropile calculations and geotechnical specifications. Close coordination with the architect and structural engineer was required to develop foundation recommendations, respond to rider comments from the PANYNJ.

Project Manager, Newark Airport, Avis Canopy, Newark, New Jersey.

The Site is the Avis facility located in Newark Liberty International Airport (EWR) in Newark, New Jersey. The proposed development includes redevelopment of the vehicle entrance and exit booths and construction of a new canopy. Dr. Li was responsible for managing and coordinating the geotechnical subsurface exploration, preparing geotechnical recommendations, preparing driven steel pipe pile calculations and geotechnical specifications. Close coordination with the architect and structural engineer was required to develop foundation recommendations, respond to rider comments from the PANYNJ.

EDUCATIONAL**Project Geotechnical Engineer, Columbia University Manhattanville Redevelopment, New York, New York.**

Performed a foundation design peer review in connection with Columbia University's Manhattanville Land Use Improvement and Civic Project. The project included sixteen 15- to 25-story building structures with a total footprint area of about 6.8 million square-feet to be constructed atop the active 125th Street fault system. In addition, the project included an 8-level below-grade parking and building utility facilities with a total footprint area of about 2 million square-feet. The geotechnical/foundation design concerns with respect to the project include uncertainty of underlying subsurface conditions, design flood levels, seismicity of the underlying fault, etc. Tasks included reports collection, desk review of geotechnical design analyses, focused on the design and construction of building foundations, excavation support, and construction dewatering methodologies.



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Project Manager, FIT New Academic Building Excavation Support Design Service, W 28th Street between 7th and 8th Ave, New York, New York.

This project involved construction of a new 10-story building with two cellar levels, requiring excavation of up to approximately 33 feet below the site surface elevation and up to about 15 feet below groundwater. Dr. Li managed and coordinated this project, which included excavation support system options evaluation, test pit explorations to expose existing and adjacent buildings foundations, excavation support design, and structural coordination. Close coordination with the architect and structural engineer was required to develop foundation recommendations, excavation support and underpinning design.

HEALTHCARE

Project Manager, Northwell Health Southside Hospital Expansion, Bay Shore, New York. Project manager for the geotechnical program for this hospital expansion project. The scope of expansion includes construction of a new 6-story expansion building with footprint of about 44,000 sf, a new parking garage of about 63,000 sf, and new canopies. Dr. Li planned, coordinated, and managed a geotechnical exploration consisting of test borings, cone penetration tests, and lab testing to characterize subsurface conditions and provide geotechnical recommendations.

Selected Publications and Presentations

Cai, Y., X. Liang and K. Li. Dynamic characteristics of composite sample of cemented clay-clay. *Shuili Xuebao/Journal of Hydraulic Engineering*, 10 (2003)

Juang, C.H., S.Y. Fang and D.K. Li. Reliability analysis of soil liquefaction potential. *Geotechnical Special Publication*, 133 (2005)

Juang, C.H., H. Yuan, D.K. Li, S.H. Yang and R.A. Christopher. Estimating severity of liquefaction-induced damage near foundation. *Soil Dynamics and Earthquake Engineering*, Vol 25 No 5 (2005), 403-411.

Li, D.K., C.H. Juang and R.D. Andrus. Liquefaction potential index: a critical assessment using probability concept. *Journal of GeoEngineering*, Vol. 1, No. 1 (2006), 11-24.

Li, D.K., C.H. Juang, R.D. Andrus and W.M. Camp. Index properties-based criteria for liquefaction susceptibility of clayey soils: a critical

assessment. *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 133, No. 1 (2007), 110-115.

Juang, C.H. and D.K. Li. Assessment of liquefaction hazards in Charleston quadrangle, South Carolina. *Engineering Geology*, Vol. 92, No. 1-2 (2007), 59-72.

Juang, C.H., D.K. Li, S.Y. Fang, Z. Liu and E.H. Khor. Simplified procedure for developing joint distribution of a_{max} and M_w for probabilistic liquefaction hazard analysis. *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 134, No. 8 (2008), 1050-1058.

Li, D.K. and C.H. Juang. 2005. Mapping liquefaction hazard in Charleston quadrangle, South Carolina. *International Conference on Geotechnical Engineering for Disaster Mitigation & Rehabilitation 2005*, Singapore.

Fang, S.Y., C.H. Juang and D.K. Li. 2005. Probabilistic and deterministic models of liquefaction potential by means of regression analyses. *9th International Conference on Structural Safety and Reliability*, June. Roma, Italy.

Li, D.K. and C.H. Juang. 2006. Mapping liquefaction-induced ground failure potential in Charleston quadrangle, South Carolina. *8th National Conference on Earthquake Engineering*, April. San Francisco, USA.

Li, D.K., C.H. Juang and R.D. Andrus. 2006. Estimation of liquefaction effect by means of liquefaction potential index. *GeoShanghai International Conference*, June. Shanghai, China.

Juang, C.H., D.K. Li and B.G. Nielson. 2007. Fully Probabilistic Analysis of Liquefaction Potential of Performance-Based Earthquake Engineering Design. *10th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP10)*, July. Tokyo, Japan.

Juang, C.H., Fang, S.Y., Li, D.K. (2008), "Reliability analysis of liquefaction potential of soils using standard penetration test", *Reliability-Based Design in Geotechnical Engineering: Computations and Applications*, Taylor & Francis, Chapter 13, Ed. Phoon, K.K., pp. 497-526.

Li, D.K., Mahon, P.D., Yang, M., and Diaz-Fanas J. (2019). Reaching Depths in Astoria: An Excavation Support and Underpinning Case Study. *ASCE Geo-Institute Metropolitan Section Reaching New Heights and Depths*, May 2019. New York, New York, USA.

Li, K., and Cassandra W. (2019). Site Specific Seismic Studies for Building Projects in Metropolitan New York City Area. *7th International Conference on Earthquake Geotechnical Engineering (7ICEGE)*, June 2019. Rome, Italy.