

DESIGN-BUILD

Technical and Quality Experts.



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At KC Engineering and Land Surveying, P.C. (KC), our interdisciplinary team ensures responsible solutions tailored to planning challenges and specific clients' needs.

Design-build is a project-delivery system adopted in New York consisting of a joint bid by a construction firm and a design firm.

This is in contrast to the design-bid-build process, by which a design firm will sell a design to a client, who is then largely responsible for the procurement of construction services. Design-build is a cost-saving operation for the client, usually resulting in higher value for all parties involved. Unlike design-bid-build, in which the designer is awarded the project after a conceptual proposal, design-build typically sees teams shoulder most or all of the cost of full practical design development. This full design is included in the final proposal, and a winning team is awarded the project. KC takes design-build projects extremely seriously, and is eagerly pursuing teaming opportunities.

KC has highly-qualified personnel with experience appropriate for design-build projects, including Design and Quality Managers; Lead Structural, Civil, Utility, Geotechnical, and Hydraulic Engineers; Design Survey Managers; and all support staff. We also assign a Design Team Coordinator to each design-build project to manage the proposal process and project progress, as well as an ISO / Quality Control (QC) Auditor to assist the Quality Manager with required design and construction QC auditing.

With all that experience, what makes KC a good partner for design-build projects?

Our Track Record and Talent.

Our design personnel and our narratives always score high. Our Design Team Coordinators are design-build proposal compliance experts — ensuring our team maximizes our technical score. Our work on design-build projects has won industry awards.

Our Certifications.

KC is MBE and ISO 9001:2015 certified, allowing the KC Team to gain MBE credit for designing and developing refined, approved quality control plans following the ISO quality management system. KC has 4 senior managers certified as Design-Build Professionals by the DBIA and a dozen ISO-certified lead auditors on staff.

Our In-House Services.

We have over 130 employees skilled and able to provide structural, civil, geotechnical, utility, and hydraulic engineering; permitting; design survey; quality control; and any other related or required service for a design-build project, making us a valuable partner on any team. Our staff are committed and experienced, and their skill shows in our success.



NYSDOT Design-Build Contract D900056: I-81 Viaduct - Phase 1, Contract 2, Syracuse, NY |

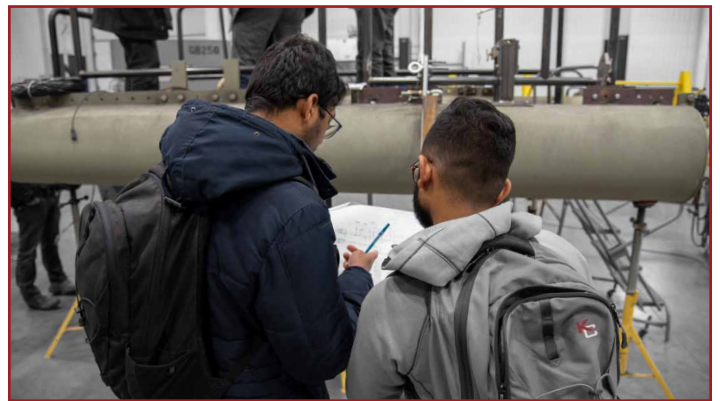
The scope of work for this design-build project includes improvements to the new section of I-81 between I-690 and Kirkville Road, 2 bridges over the CSX Rail Yard, the new section of I-81 between Interchange 4 and Interchange 3, and the NYS Route 5 / 92 intersection; reconstruction of portions of Interchange 3 – I-481 NB over Route 290 and the existing I-81 / I-481 Southern Interchange; replacement of 2 bridges over Route 290; and removal of 5 bridges and construction of 8 new superstructures and substructures. KC is the Lead Designer and Quality Manager and is providing geotechnical, structural, utility, drainage, stormwater, and highway design. This project includes major bridge improvement, demolition, and/or replacement and highway reconstruction in an urban area with many adjacent projects, communities, businesses, and active CSX operations, requiring coordination with relevant stakeholders to maintain safety.





NYSTA Design-Build Contract D800002: Cashless Tolling, Statewide, NY |

The scope of work for this design-build project included demolition of existing toll booths at each toll plaza location and construction of cashless tolling gantries over a 400+-mile section of the NYS Thruway from approximately Exits 16 to 61, as well as all associated signing, striping, landscaping, and electrical work. KC was Lead Designer for this project. KC's work included providing design for the toll gantries; generators / MEP; communication buildings, including tie-in points to existing power and fiber sources and adequate parking space; toll plaza and highway ramp reconstruction; maintenance and protection of traffic (MPT); signage and striping; and drainage and utility relocation. KC also performed quality management as Quality Manager, surveying, and civil and utility engineering services.



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NYSDOT Design-Build Contract D900034: Region 8 Bridge Replacement, Ulster County, NY

Region 8 Bridge Replacement, Ulster County, NY | This design-build project included the full replacement of two bridges: BIN 1040750 NYS Route 209 (3-span continuous steel girder bridge with a total span of 402 feet) over Rochester Creek and BIN 1019700 NYS Route 28 (7-span continuous steel girder bridge with a total span of 994 feet) over Esopus Creek. KC performed the structural design of the two structures, geotechnical work, environmental permitting, surveying, roadway design, and hydraulic analysis.

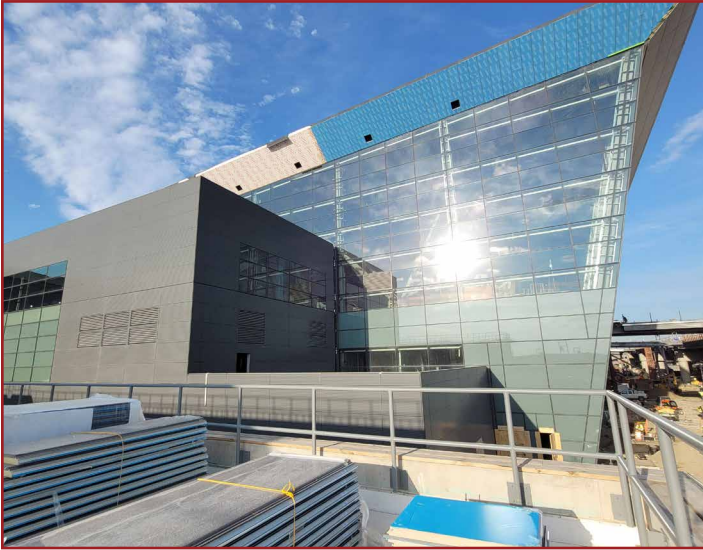
KC was the Lead Designer and our team was the Best Value selection – we had the highest technical score, and our overall technical and cost score was 100. This project was completed one month ahead of schedule.



NYSDOT Design-Build Contract D900043: Kew Gardens Interchange Improvements, New York, NY

Kew Gardens Interchange Improvements, New York, NY | This design-build project included six full bridge replacements consisting of the demolition of the existing structures and complete construction of the replacement bridges. In addition, the construction of five new bridges and alignment modifications provided operational improvements to the Grand Central Parkway (GCP), Jackie Robinson Parkway (JRP), and Union Turnpike (UT) in the Kew Gardens Interchange. The highway work included the realignment of the existing mainline roadways and the interconnecting ramps within the interchange. The project also included construction of cut-and-fill

type earth retaining structures and approach work to tie into the new bridge structures. KC provided bridge design, utilities design, drainage design, risk management, and quality management services.



PANYNJ Design-Build Contract 70151: JFK Airport Central Substation #2 Design-Build, New York, NY

| The scope of work for this design-build project includes the development of a new two-story, single-building 40MVA substation and all associated components on an approximately 81,065-square-foot (SF) site. KC serves as Quality Manager and Construction QC Manager / Resident Engineer for this design-build project and is responsible for protecting and safeguarding the interests and objectives of the PANYNJ. KC oversees design unit deliverables and supervises quarterly audits. Additionally, KC verifies that site activities are performed in accordance with quality requirements; plans and directs the activities of inspection and testing personnel; monitors the quality of materials, workmanship, and construction; and issues nonconformance reports (NCRs).

NYSTA Design-Build Contract D214134: The New NY Bridge, Tappan Zee Hudson River Crossing Rockland County, NY

| As part of the design team for this design-build project, KC provided design support services, including for the bridge approach, approach roadways, new maintenance access ramps connecting the Thruway mainline and River Road, and associated adjustments to River Road. KC also designed on- and off-ramp adjustments at Interchange 9, retaining walls and noise walls, drainage systems, signing and pavement markings, lighting, erosion and sediment control (E&SC), and maintenance and protection of traffic (MPT). KC also provided construction support services.

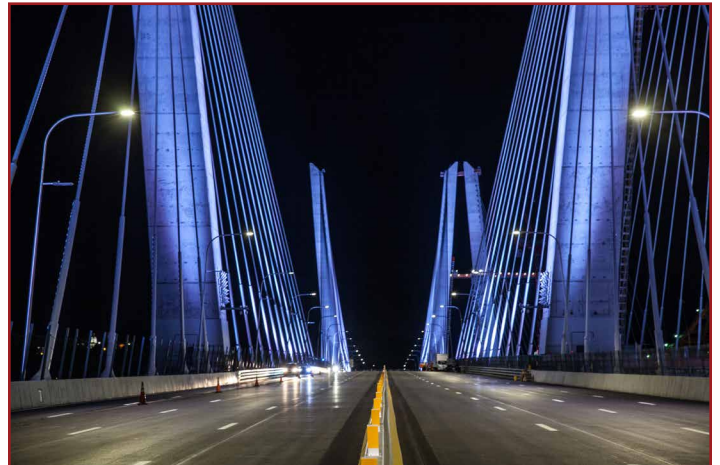


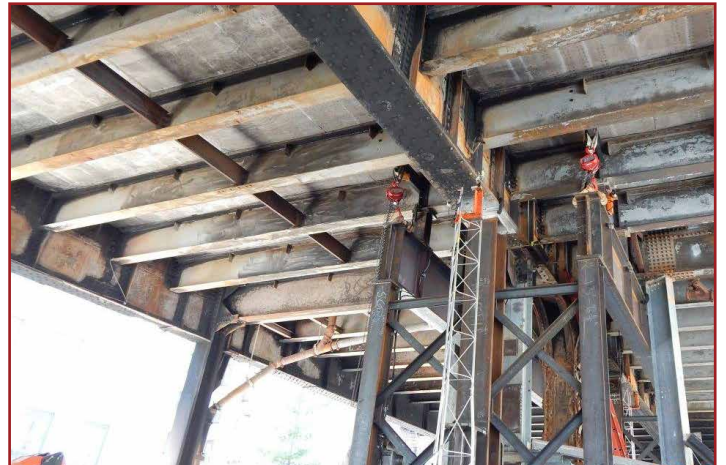
Photo credit: NYSTA

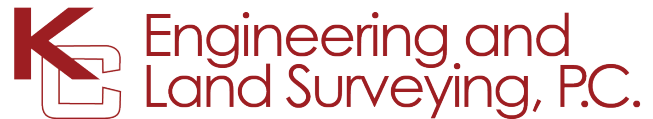


NYSDOT Design-Build Contract D900040: Bruckner Viaduct Deck Replacement, New York, NY | This design-build project included the rehabilitation of six bridge decks along the Bruckner Viaduct. The scope included replacement of the concrete deck, deck joints, bearings, and pedestals, and repair of concrete piers, abutments, deteriorated structural steel members, and other structural work. It also included structural steel painting and miscellaneous structural work. KC provided field verifications of all concrete substructure repair areas, all superstructure steel replacement members, and the types and layouts of all end diaphragms. The field verification work on structural steel members required the use of 60-foot and 80-foot boomlifts and lane closures on a daily basis. KC's tasks also included preparation of Release For Construction (RFC) drawings for all the substructures and structural steel repair work.

MTA-MNRR Design-Build Contract 1000071957: Design and Construction of Emergency Repairs, Park Avenue Viaduct at 118th Street, Bronx, NY |

This design-build project consisted of providing structural analysis and details for the replacement of damaged steel columns supporting main tracks on Park Avenue. The steel structural details included lifting operations and lifting sequence, stiffening of the existing beams to control deflection due to train loading during the repair period, and design of replacement members as per AREMA Standards. KC served as Lead Designer on this project and completed the design at an accelerated schedule of two weeks to allow the contractor to meet aggressive project milestones.





Diversified. Multidisciplined.

KC Engineering and Land Surveying, P.C. (KC) is a diversified, multidisciplinary consulting engineering firm. Since 1983, KC has provided our public and private sector clients with a comprehensive range of professional services using only the latest technical equipment. The corporate headquarters of the firm is located in New York City, with branch offices in Newburgh and Albany, NY. KC has extensive experience with government agencies, municipalities, and private clients; a diverse, professional staff; and an impeccable record of services rendered.

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