



Systems & Engineering, PC

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TRANSPORTATION DIVISION - PROJECT EXPERIENCE



*Michigan Street Bridge over Exchange Street and CSX Railway
City of Buffalo*

Systems & Engineering is responsible for all bridge design aspects of this bridge and highway replacement project. The existing 9 span, 4 lane structure is currently being replaced with a new composite concrete and steel 8 span structure.

*Transit Road Rehabilitation
D010360; PIN 5209.36*

S&E served the NYSDOT as the prime consultant for the reconstruction of Transit Road (Route 78.) We provided construction inspection services for the staged replacement of the Transit Road bridge over Gott Creek, and full depth reconstruction of this roadway from Klein Road to French in the towns of Clarence and Amherst, NY. The construction cost for this project was 12 million dollars.

*Milestrip Road Rehabilitation
D012546; PIN 5215.04*

S&E participated in the inspection of the reconstruction of Milestrip Road (Route 179, right) from Route 62 to Route 5 including the replacement of the bridge over CSX railway in the Town of Hamburg.

*Sheridan Drive and Niagara Falls Boulevard, Towns of Amherst
and Tonawanda, NY
D010193; PIN 5307.77*

Subconsultant for the reconstruction of Niagara Falls Boulevard from I-290 to Kenmore Ave and Sheridan Drive from Eggert to Harlem Road in the Towns of Amherst and Tonawanda.



Structural Design
(Industrial & Commercial)

Highway & Bridge Design

Construction Inspection

Member of:



Engineering the Future

Young Street Bridge Replacement, Wilson, NY
D008678; PIN 5754.00

Systems & Engineering designed a new single span carrying Young Street over the east branch of Twelve Mile Creek in Wilson, NY.



Fisher Road Bridges over Smokes Creek, West Seneca, NY
D007309, PIN 5753.71.121

S&E provided the preliminary engineering of 3 bridges carrying Fisher Road over Smokes Creek in West Seneca, NY.

Bicycle Level of Service Rating for NFTA,
Erie County.

Approximately 800 miles of roadway in the Buffalo area were rated for bicycle level of service. Project included data collection, compilation and analysis. Level of service calculations were prepared via the use of an empirical formula developed as part of the project in conjunction with a firm specializing in bicycle traffic in an urban setting.

Emerson Street Waterline Replacement
Rochester, NY

Waterline Replacement and roadway design in Rochester, NY. Responsibilities include the design of a maintenance and protection of traffic plan and creation of as-built drawings.

Niagara Viaduct Phase II
D211795

Level I load rating analysis of the Niagara Viaduct Phase II. The structure consists of 2 parallel elevated three lane roadways of 113 spans (3500 feet). The work involved the compilation of data from as - built plans and performing elastic, plastic, and fatigue analysis on approximately 220 different structural models and incorporating this information into a proposed new design for the rehabilitation of the structure.

Transit Road (Rt. 78) and Millersport Highway (Rt. 263)
D008849; PIN 5209.309

Prime consultant for construction inspection services. This project involves the reconstruction of Transit Road and Millersport Highway from the Town of Lockport south to the I-990. The new rubblization procedure involved utilizes the existing concrete slab for subbase material. This project also includes the widening of Millersport Highway to four lanes and the replacement of the Transit Road bridge over Tonawanda Creek.

Widening of the I-90 and Replacement of the Henry Street Bridge over I-90 (Phase I)
TAB - 95-45B Erie County

Widening of the NYS Thruway I-90 in the Buffalo area. Bridge substructure repairs are to be made in addition to the construction of one additional travel lane. Work also includes inspection for scour-protection of piers in the Buffalo River and Cazenovia Creek.

Route 277, Union Road from Rt. 240 to Rt. 400
D008806; PIN 5131.19

Construction Inspection Services on Route 277 (Union Road) from Route 240 to Route 400. Work includes bridge replacement over Conrail and road reconstruction including the use of a new "Rubblizing" technique.



RDSA Assignments 2&4
Rt. 98 & 219 D006159
PINs 5117.12.101; 5101.54.102

Route 98 involved highway reconstruction and resurfacing, vertical and horizontal realignment of substandard curves, establishment of a new closed drainage system in the Village of Sandusky, open drainage system outside the perimeter of the village, replacement of a jack arch structure with a box culvert, removal and replacement of a bridge structure, maintenance and protection of traffic (including detour plan), and removal and replacement of all sign structures.

Route 219 involved rehabilitation and reconstruction of pavement section, including establishment of new northbound and southbound turning lanes, removal and replacement of all sign structures, guide rail replacement, installation of new median barrier, cleaning, grading, & reshaping of ditches, and erosion control.

Reconstruction and Bridge Replacement on Route 16
City of Olean, Cattaraugus County
D010183; 5576.60

Construction inspection services for the reconstruction of Route 16, including the replacement of the bridge crossing Olean Creek. Mr. David Gelder was the NYSDOT EIC.

Harlem Road Bridge over Scajaquada Creek
D005820; PIN 5268.22

Design of a single span bridge on Harlem Road over the Scajaquada Creek, Cheektowaga, NY. The bridge was designed using the integral abutment concept, which eliminates bridge joints and bearings. The superstructure was built with precast-prestressed concrete beams.

*Bridge replacement of 77-foot span over Elm Creek
Connewago, NY*

Original scope included \$500 thousand bridge replacement. After preliminary report, Mr Huerta recommended replacement of the bridge with a concrete culvert (justified by presence of upstream control dam) resulting in a savings of \$350 thousand.

*I - 90 Bridge Rehabilitation & Repair over Indian Church Road
(BIN 5512098)*

Bridge inspection survey. Included seismic design and revision by NYS Thruway Authority. Done in less than 2 months to meet 1990 construction season. Eight - span bridge with pier cap reconstruction, new pedestals, and 252 new elastomeric bearings.

*Fox Valley Country Club
Lancaster, NY*

Design of 5 bridges with 50 to 60 feet spans for golf carts, pedestrian traffic, and maintenance & access bridge. Main entrance bridge superstructure is composite concrete deck on steel beams. The seven bridges span Ellicott Creek.

Springville-Boston Road Replacement bridge over 18 Mile Creek

Hydraulic study, alternatives review for bridge replacement and design of 36-foot span using precast concrete segmented arch and stream bank protection.

Centralia Road replacement bridge over Big Inlet Creek

Structural design of bridge superstructure made of prestressed box beams and review of structure design.