

Gary J. Spicer Jr., PE

Fla. License No. 78491 (10/2014)

Master of Science Degree in Structural Engineering from USF (05/2012)

Gary Spicer has worked in the area of transportation structures design for 9 years with Spicer Bridge Consultants, GAI Consultants, and American Consulting Professionals. He started out as an engineering intern at American Consulting, became a senior project manager overseeing 6 engineers and CADD staff at GAI Consultants, and is now president at Spicer Bridge Consultants. Mr. Spicer has experience in miscellaneous structures, minor bridge design and major bridge design – steel as noted below.

Category 4.1.1: Miscellaneous Structures**Beachline Widening between Turnpike and McCoy Rd in Orange County, Florida (09/18 – Present)**

Spicer Bridge Consultants was contracted by ION Electric as a Specialty Engineer for this project. We redesigned two of the overhead sign structures (OHT-102 and OHT-3) to account for drilled shafts being placed in the wrong location. Gary was responsible for producing designs and shop drawings.

Poinciana Blvd and Reaves Rd Interchange for Osceola County, Florida (08/18 – 12/18)

The project involved the design of two new mast arms assemblies in accordance with the FY 2018-19 Standard Plans (one single arm and one dual arm). Gary was responsible for producing designs and plans.

Old Lake Wilson Rd and Fairfax Dr Interchange for Osceola County, Florida (07/18 – Present)

The project involved the design of four new mast arms assemblies in accordance with the FY 2018-19 Standard Plans (all single arm). Gary was responsible for producing designs and plans.

Narcoossee Rd and Lake Landing Interchange for Orange County, Florida (05/18 – Present)

The project involved the design of one new mast arm assembly and the analysis of an existing mast arm for the additional loading of the street sign. Gary was responsible for producing designs and plans.

Buena Vista Dr and Entrance #1 Interchange in Lake Buena Vista, Florida (04/18 – 07/18)

Spicer Bridge Consultants was contracted by Traffic Control Devices as a Specialty Engineer for this project. We provided an analysis of the temporary signalization. Two strain poles with guy wires were designed with the FDOT Strain Pole program. Gary was responsible for checking designs and producing shop drawings.

Wekiva Pkwy US 441 Flyover Ramp XX to SR 46 EB in Lake County, Florida (02/18 – Present)

Spicer Bridge Consultants was contracted by GLF Construction as a Specialty Engineer for this project. We designed a bat abode structure to attach to the bottom of a bridge, designed temporary beam bracing and designed overhang brackets. The bat abode consisted of plywood sections supported by angles and pipe braces attached to the underside of the bridge deck. The temporary beam bracing consisted of timber bracing to support Florida I-45 beams. Gary was responsible for producing designs and checking shop drawings.

Overflow Weir of 403 Basin for Walt Disney Imagineering, Florida (11/17 – 10/18)

The project involved the design of a 19' steel sheet pile wall to serve as an overflow weir for the 403 basin. The wall was designed for a walkway on the coping and slice gate to control the flow. Gary was responsible for checking the walkway design, retaining wall design, and plans.

Floridian Place and Floridian Way Interchange in Lake Buena Vista, Florida (10/17 – 07/18)

Spicer Bridge Consultants was contracted by Traffic Control Devices as a Specialty Engineer for this project. We provided an analysis of the temporary signalization. Two strain poles with guy wires were designed for multiple phases with the FDOT Strain Pole program. Gary was responsible for checking designs and producing shop drawings.

Beachline Widening from I-4 to Turnpike in Orange County, Florida (06/17 – Present)

Spicer Bridge Consultants was contracted by United Signs and Signals as a Specialty Engineer for this project. We provided engineering analysis reports (EAR) for 9 sign structures, 6 high mast light poles, and 4 mast arms. The median drilled shaft for Gantry 75T277 was analyzed for a reduced drilled shaft length using FB-Pier and comparing deflections. The drilled shaft for OHT 16-RT was analyzed for a reduced shaft diameter. An adaptor spool and several high mast light poles were designed for a slightly larger pole than the standard index. The drilled shaft for OHT-1 RT was abandoned and redesigned with a spread footer foundation. Gary was responsible for writing EARs, producing designs and shop drawings.

Floridian Place over L-407 Canal in Lake Buena Vista, Florida (05/17 – Present)

Spicer Bridge Consultants was contracted by Jr. Davis Construction Company as a Specialty Engineer for this project. We designed temporary sheet pile walls, temporary beam bracing, bridge overhang brackets, permanent timber fences, and temporary steel fences. Gary was responsible for design and shop drawings.

Beachline Widening from I-4 to Turnpike in Orange County, Florida (03/16 – 09/18)

Spicer Bridge Consultants was contracted by Hubbard Construction as a Specialty Engineer for this project. We provided structural engineering services for 45 tasks. Tasks included redesign of walls for dead man anchors, design of overhead protection systems, analysis of out-of-tolerance piles, temporary beam bracing and design of precast bent caps. Gary was responsible for producing designs and shop drawings for the overhead protection system, dead man anchors, temporary beam bracing, and several out-of-tolerance pile analysis.

Madison St / Gaines St Supplemental Stormwater Outfall in Tallahassee, Florida (03/16 – 11/16)

The project involved the design of wingwalls for a precast box culvert and design of a 23'x31'x20.5' junction box with a flex rake for trash removal, overflow weir, and openings for box culverts. As Engineer of Record, Gary was responsible for checking designs and plans production.

CR 484 at SR 93 (I-75) and CR 475A in Marion County, Florida (02/16 – Present)

The project involved an anchored soldier pile wall with concrete facing, 2 strain pole designs, two overhead sign structures, 2 bridge mounted sign structures, and underdeck lighting structural attachment details. As Engineer of Record, Gary was responsible for coordination, checking designs and producing plans.

East Peyton Parkway Box Culvert in St. Johns County, Florida (05/15 – 12/16)

Box culvert design for JBC Planning & Engineering. The project includes a 207' box culvert with tapered wingwalls. As Engineer of Record for this project, Gary's responsibilities were managing budget, schedule, structural design and plans production. This included checking calculations, plans, coordinating utilities, CAD files, potential conflicts, and culvert locations with JBC along with managing deadlines and preparing submittal packages.

SR 400 / I-4 Interchange Lighting at CR 532 in Osceola, Florida (05/15 – 12/16)

The project includes the design of a pier mounted lighting system. As Engineer of Record, Gary's responsibilities included negotiating staff hours with FDOT District 5, coordinating design responsibilities with SRD Engineers, reviewing scope of services, and managing schedule.

I-95 Widening from North of SR 44 to North of US 92 in Volusia County, Florida (09/14 – 12/16)

Miscellaneous structures include 13 box culverts, 17 cantilever signs, 12 overhead signs, 5 dynamic messaging signs, and 4 bridge mounted signs. Gary was responsible for checking calculations of cantilever signs along with checking plans for sign structures and catwalk.

SR 600 / US 92 Pedestrian Improvements in Volusia County, Florida (07/14 – 12/16)

Miscellaneous structures included lighting on spread footers and drilled shafts, 4 mast arms, and 1 cantilever sign. Responsible for designing the foundations and checking the lighting foundation details. Gary checked the 4 mast arm designs and performed an independent check to verify torsion requirements in FB-Pier.

SR 589 Widening from Sugarwood Toll to Van Dyke Rd in Hillsborough, Florida (10/14 – 12/16)

Miscellaneous structures include 6 cantilever signs, 11 span signs, DMS walkway, 4 mast arms, and 1 CIP retaining wall. As Engineer of Record for the mast arms, responsibilities included checking calculations and plans. As project engineer for the sign structures, responsibilities included coordinating with roadway, designing 1 sign, checking 8 sign calculations and checking sign structure plans. Gary was responsible for checking CIP retaining wall calculations and plans.

US 27 from Barry Rd to US 192 in Polk County, Florida (10/12 – 03/15)

Miscellaneous structures included 2 cantilever signs, and 6 box span signalized intersections. Gary was responsible for checking design and plans of all signal intersections using ATLAS.

Ramp AA over New Berlin Rd and CSX RR in Duval, Florida (01/14 – 02/15)

Miscellaneous structures included a box culvert extension and 3 overhead signs on modified median barriers. Gary was responsible for box culvert extension calculations and plans.

SR 91 (Turnpike) at I-4 Interchange Improvements in Orange County, Florida (05/13 – 11/14)

Miscellaneous structures included 2 overhead signs, 1 cantilever sign, and temporary bracing. Gary was responsible for designing and checking plans for sign structures and bracing.

SR 9 (I-95) Overland Bridge Replacement in Duval County, Florida (05/12 – 12/16)

Miscellaneous tasks included barrier modifications, sign structures, and crane analysis. Gary was responsible for analyzing barrier mounted signs and bridge during crane loading.

SR 93A (I-75) at SR 60 in Hillsborough County, Florida (11/12 – 08/15)

Miscellaneous structures included Dynamic Message Signs and other overhead sign structures. Gary was responsible for the cantilever signs quality control and temporary bracing design.

SR 10 / US 90 from McDuff Ave to Stockton St in Hillsborough County, Florida (01/13 – 10/14)

Milling and resurfacing project in FDOT District 2 that required repair of a box culvert for removed drainage pipes. Gary was responsible for performing culvert analysis and producing plans for the culvert repair.

SR 92nd Loop Reconstruction Cattle Crossing (2013)

New construction of a 12' x 14' box culvert with flared wingwalls for cattle crossing below SE 92nd Loop. Gary was responsible for the quality control of the box culvert design and plans production.

SR 35 (US 301) at SR 44 Signalized Intersection (2013)

The project was part of a design contract with District 5 to review the modifications of the signalized intersection. Gary was responsible for the structural analysis and design variation for the proposed signalized intersection.

District-Wide Structural Support for FDOT District 1 (2010 to 2012)

Structural Engineer, Plans Reviewer, and Conception Report Developer for design and preparation of plans for transportation related structures throughout the District. Gary was responsible for bridge design, mast arms, strain poles, sign structures, retaining walls, box culverts, etc. to support the District Structure's Group.

District-Wide Traffic Operations Design for FDOT District 4 (2010 to 2012)

Gary was reviewer for various miscellaneous FDOT roadway and traffic operation services projects.

District-Wide Structural Support for FDOT District 7 (2010 to 2012)

Structural Engineer for design and preparation of plans for transportation related structures throughout the District. Gary was responsible design of mast arms, strain poles, sign structures, retaining walls, box culverts and other structures to support the Structures group operating as an extension of District staff.

Category 4.1.2: Minor Bridge Design

Weems Road over Weems Pond Outfall in Tallahassee, Florida (06/16 – Present)

The project involved a 3-span cast-in-place flat slab bridge and 2 cast-in-place cantilever retaining walls. The bridge had 2 lanes, a raised sidewalk and a water main mounted to the back side of the traffic railing. Steel piles with large spacing were used to span over two large existing utility pipes running parallel under the bridge. As Engineer of Record, Gary was responsible for coordination, checking designs and producing plans.

Jork Road over Little Pottsburg Creek in Jacksonville, Florida (06/16 – 12/16)

The project involved a single span Florida Slab Beam bridge and 2 sheet pile walls. The bridge had a water main mounted to the back side of the traffic railing and utilized an integral end bent and sheet pile wall to eliminate anchors for the wall. As Engineer of Record, Gary was responsible for coordination, checking designs and producing plans.

SR 482 Widening from Universal to John Young Parkway in Orange County, Florida (08/09 – 01/16)

The project involved 4 bridge widenings, 1 multi-phase bridge replacement, permanent steel sheet piling with concrete facing, temporary sheet piling, concrete box culvert, 3 overhead signs, and 9 mast arms. Bridges range from 3 to 6 spans with spans lengths between 34' – 100' utilizing FIB 36 beams, AASHTO Type II beams, and modified AASHTO Type II beams. Gary was responsible for design and plans of bridge replacement, bridge widenings, permanent sheet pile walls, and temporary sheet pile walls.

SR 600 / US 92 Pedestrian Improvements in Volusia County, Florida (07/14 – 06/15)

The project is currently open to the public of International Speedway which includes a pedestrian bridge consisting of 182' steel truss supported with 8 levels of switchback ramps. The pedestrian bridge needed to meet ADA requirements, have attachments for lighting and speakers, drainage conduit, and 50' aesthetic wings on either side of the main span. Extensive coordination was required to manage the International Speedway, FDOT, truss fabricators, a future extension into a shopping plaza, lighting and speaker conduits, and all of the utilities in the highly developed area. As project manager, Gary's responsibilities included developing proposal concepts, proposal design calculations, proposal quantities, producing or checking all the design calculations, producing plans, post design services, attending meetings with FDOT and contractors, along with coordinating utilities, drainage, lighting, and geotech.

I-95 Widening from North of SR 44 to North of US 92 in Volusia County, Florida (09/14 – 12/16)

The project is currently under construction and includes 20 Florida I-Beam bridges with wrap around MSE Wall. Responsible for proposal concepts, proposal quantities, project manager for 9 bridges with spans ranging between 75' to 150' and 5 roadway walls. 6 of the bridges had complex geometry using large skews (> 40 deg), horizontal curves, and variable beam lengths. As project manager, Gary checked a majority of the bridge component designs and coordinated with CAD to produce plans.

SR 589 Widening from Sugarwood Toll to Van Dyke Rd in Hillsborough, Florida (10/14 – Present)

The project is currently under construction for The Florida Turnpike Enterprise and includes 8 bridge widenings with FIBs and AASHTO beams and roadway MSE walls. 4 of the bridges had complex geometry using large skews, horizontal curves, and proposed bridge deck over existing bridge. Gary was responsible for proposal concept plans, design and quantities, along with bridge quality control.

Ramp AA over New Berlin Rd and CSX RR in Duval, Florida (01/14 – 02/15)

This Cost Savings Initiative project included a 3 span Florida I-Beam bridge over a railroad with span lengths of 164' and 116'. Responsible for various design tasks, plan production, and post design services. Gary's design tasks included checking geometry, end bent designs, beam variables, expansion joints along with designing bearing pads and beam stability.

SR 91 (Turnpike) at I-4 Interchange Improvements in Orange County, Florida (05/13 – 11/14)

The project was constructed for The Florida Turnpike Enterprise and included one 3-span Florida I-Beam bridge structure with spans up to 105' and MSE walls. As design engineer for the Ramp C over SR 91 bridge, Gary's responsibilities included superstructure and substructure quality control and post design services.

SR-9A (I-295) from N of I-10 to N of Commonwealth Ave in Orange County, Florida (02/13 – 02/14)

FDOT District 2 project involving widening of four 3-span bridges using Florida I-beams that range in length from 35' to 94'. 2 of the bridges had complex geometry using large skewes, horizontal curves, and bridges over railroads. As project manager, Gary was responsible for either checking or designing all structural components and plans production.

SR 9 (I-95) Overland Bridge Replacement in Duval County, Florida (05/12 – 12/16)

The project is currently under construction for FDOT District 2. Category 2 Bridge widening includes 17 spans, 140 ft. range on curved and straight alignments, supported on single column piers with single drilled shaft foundation, vessel impact analysis, and complex geometry. Project also included bridge mounted span sign structures. Gary was responsible for superstructure, modified barrier, substructure redesign, sign designs, and crane analysis for post design.

I-4 / Lee Roy Selmon Connector in Hillsborough County, Florida (2012)

Specialty Engineer for analysis and design of remedial plans for numerous structures. Gary's assignments included over 26 piers as well as the design of temporary falsework foundations to resist the construction loads during erection of segmental bridge #6.

I-75 over Deer Prairie Creek in Sarasota County, Florida (2011 – 2012)

This project involving widening of twin flat slab bridges 5 – 27' spans. As project manager, Gary was responsible for all the bridge design components and working with CAD for plans production.

I-75 over Withlacoochee River and Croom Rital Rd in Hernando County, Florida (2010 – 2011)

This project involving widening of 2 sets of twin bridges using Florida I-beams with spans from 40' to 70'. As engineering intern, Gary was responsible for designing the superstructure on the bridges over Withlacoochee along with the superstructure and substructure on the bridges over Croom Rital Road.

Category 4.2.2: Major Bridge Design - Steel

Wekiva Pkwy US 441 Flyover Ramp XX to SR 46 EB in Lake County, Florida (02/18 – Present)

Spicer Bridge Consultants was contracted by GLF Construction as a Specialty Engineer for this project. We designed a bat abode structure to attach to the bottom of a bridge, designed temporary beam bracing and designed overhang brackets. The overhang brackets were designed for a steel box girder bridge and required a finite element plate model of the beam to verify web stresses and deflections. Gary was responsible for producing designs and checking shop drawings.

CR 210 Bridge over US 1 and FEC Railroad in St. Johns County (11/12 – 08/14)

This project was completed for the FDOT District 2 and received the 2015 FDOT Best in Construction award. The project includes a two-span (201' and 169') continuous steel plate girder bridge. Gary was responsible for the superstructure quality control and post design services. He reviewed the designs for geometry, splices, transverse stiffeners, bearing stiffeners, diaphragms, cross-frames, and bearing plates performed by others. For post design, he reviewed shop drawings, performed stability analysis for girder lifts, reviewed girder erection plans, and checked bracing stability during construction. He was also responsible for detailing various steel superstructure components and coordinating with the CAD design.

SR 9 (I-95) over F.E.C.R.R./Ramp D/Ramp F/Ramp G (02/12 – 12/16)

This Design-Build project is currently under construction for FDOT District 2. This Category 2 bridge replacement includes a span (135') with steel plate girders over Ramp F and Ramp G which has bend points on both the pier and end bent supporting this span. Gary performed an independent check using DESCUS to verify the plate girders designed with MDX.

SR 123 over SR 85 in Okaloosa County (11/11 – 03/13)

This Design-Bid-Build project for District 3 was taken from BDR to 90% with Gary serving as a Bridge Designer and Plans Reviewer. While writing the BDR, Gary designed and compared costs for 7 bridge alternatives which included 78" Steel Plate Girders, 84" Steel Plate Girders, and Steel Box Girders. 84" Steel Plate Girders were selected to support the two-span continuous bridge (193' spans) over SR 85. Mr. Spicer was responsible for designing the geometry, steel girders, bearing pads, sole plates, deck, piers, footings, and end bents. Software used for design included MDX, STAAD, FB-Pier, GA Skew, RC-Pier, and MathCAD. He was also responsible for coordinating with the CAD designer and checking plans.

SR 93 (I-75) over SR 52 in Pasco County (02/11 – 10/12)

This Design-Bid-Build bridge replacement project for District 7 was taken to 90% plans by Mr. Spicer. This project included the design of two bridges with single spans (173') over SR 52 which used Steel Plate Girders. Gary served as a Bridge and Plans Reviewer for this project. Responsibilities included the designs of steel girders with MDX, cross-frames, bearing pads, end bents, and geometry. He was also responsible for detailing various steel superstructure components and coordinating with the CAD design.

SR 93 (I-75) over SR 78 in Lee County (01/10 – 01/12)

This Design-Bid-Build widening project for District 1 was taken to final design. This project consisted of a median widening of twin bridges with 3 spans (45', 128', 45') which added 2 steel plate girders to each bridge. Gary served as Bridge and Plans Reviewer taking the project from 60% to final. He was responsible for checking the designs of steel girders with MDX, cross-frames, geometry, decks, piers, end bents, and columns. He was also responsible for detailing various steel superstructure components and coordinating with the CAD design.

Category 5.4: Bridge Load Rating

Weems Road over Weems Pond Outfall in Tallahassee, Florida (06/16 – Present)

The project involved a 3-span cast-in-place flat slab bridge and 2 cast-in-place cantilever retaining walls. The bridge had 2 lanes, a raised sidewalk and a water main mounted to the back side of the traffic railing. As Engineer of Record, Gary was responsible for checking load rating.

Jork Road over Little Pottsburg Creek in Jacksonville, Florida (06/16 – Present)

The project involved a single span Florida Slab Beam bridge and 2 sheet pile walls. The bridge had a water main mounted to the back side of the traffic railing and utilized an integral end bent and sheet pile wall to eliminate anchors for the wall. As Engineer of Record, Gary was responsible for checking load rating.

SR 482 Widening from Universal to John Young Parkway in Orange County, Florida (08/09 – 01/16)

The project involved 4 bridge widenings, 1 multi-phase bridge replacement, permanent steel sheet piling with concrete facing, temporary sheet piling, concrete box culvert, 3 overhead signs, and 9 mast arms. Bridges range from 3 to 6 spans with spans lengths between 34' – 100' utilizing FIB 36 beams, AASHTO Type II beams, and modified AASHTO Type II beams. Gary was responsible for checking one of the bridge load ratings.

I-95 Widening from North of SR 44 to North of US 92 in Volusia County, Florida (09/14 – Present)

The project is currently under construction and includes 20 Florida I-Beam bridges with wrap around MSE Wall. Responsible for proposal concepts, proposal quantities, project manager for 9 bridges with spans ranging between 75' to 150' and 5 roadway walls. 6 of the bridges had complex geometry using large skews (> 40 deg), horizontal curves, and variable beam lengths. As project manager, Gary was responsible for checking a majority of the bridge load ratings.

SR 589 Widening from Sugarwood Toll to Van Dyke Rd in Hillsborough, Florida (10/14 – Present)

The project is currently under construction for The Florida Turnpike Enterprise and includes 8 bridge widenings with FIBs and AASHTO beams and roadway MSE walls. 4 of the bridges had complex geometry using large skews, horizontal curves, and proposed bridge deck over existing bridge. Gary was responsible for performing load ratings on proposed and existing bridges.

SR 91 (Turnpike) at I-4 Interchange Improvements in Orange County, Florida (05/13 – 11/14)

The project was constructed for The Florida Turnpike Enterprise and includes five Florida I-Beam bridge structures with spans up to 175 ft., complex multi-phase construction, spread footing bridge foundations, as well as MSE and CIP retaining walls. Gary was responsible for checking bridge load rating.

SR-9A (I-295) from N of I-10 to N of Commonwealth Ave in Orange County, Florida (02/13 – 02/14)

FDOT District 2 project involving widening of four 3-span bridges using Florida I-beams that range in length from 35' to 94'. 2 of the bridges had complex geometry using large skews, horizontal curves, and bridges over railroads. Gary was responsible for performing bridge load ratings.

I-75 over Deer Prairie Creek in Sarasota County, Florida (2011 – 2012)

This project involving widening of twin flat slab bridges 5 – 27' spans. Gary was responsible for performing bridge load ratings.

I-75 over Withlacoochee River and Croom Rital Rd in Hernando County, Florida (2010 – 2011)

This project involving widening of 2 sets of twin bridges using Florida I-beams with spans from 40' to 70'. Gary was responsible for performing bridge load ratings.

CR 210 Bridge over US 1 and FEC Railroad in St. Johns County (11/12 – 08/14)

This project was completed for the FDOT District 2 and received the 2015 FDOT Best in Construction award. The project includes a two-span (201' and 169') continuous steel plate girder bridge. Gary was responsible for checking bridge load rating.

SR 9 (I-95) over F.E.C.R.R./Ramp D/Ramp F/Ramp G (02/12 – Present)

This Design-Build project is currently under construction for FDOT District 2. This Category 2 bridge replacement includes a span (135') with steel plate girders over Ramp F and Ramp G which has bend points on both the pier and end bent supporting this span. Gary was responsible for performing independent bridge load rating.

SR 123 over SR 85 in Okaloosa County (11/11 – 03/13)

This Design-Bid-Build project for District 3 was taken from BDR to 90% with Mr. Spicer serving as a Bridge Designer and Plans Reviewer. This bridge consisted of 84" Steel Plate Girders to support the two-span continuous bridge (193' spans) over SR 85. Gary was responsible for performing bridge load ratings.

SR 93 (I-75) over SR 78 in Lee County (01/10 – 01/12)

This Design-Bid-Build widening project for District 1 was taken to final design. This project consisted of a median widening of twin bridges with 3 spans (45', 128', 45') which added 2 steel plate girders to each bridge. Gary was responsible for performing bridge load ratings.

SR 93 (I-75) over SR 52 in Pasco County (02/11 – 10/12)

This Design-Bid-Build bridge replacement project for District 7 was taken to 90% plans by Mr. Spicer. This project included the design of two bridges with single spans (173') over SR 52 which used Steel Plate Girders. Gary was responsible for performing bridge load ratings.