Floyd L. Potter

Career Summary:

Project Manager of Wi-Skies, LLC, Floyd brings over thirty-three years of diverse engineering experience, with a focus on Georgia DOT roadway design and engineering. His strengths are hydrology and storm water engineering, horizontal and vertical profile design, erosion and sedimentation, signage and striping, utility plan and coordination, cost estimating and bid document preparation. Mr. Potter is extremely proficient with Microstation V8i and other various design software and has worked directly with Georgia DOT and Local Governments in designing Streetscape projects consisting of sidewalk design, decorative pavers/crosswalks, drainage design, curb & gutter design, landscaping, irrigation, decorative street lighting, and utility design. Floyd is very familiar with all aspects of Georgia DOT specification and standards as well as AASHTO's Green Book (Policy on Geometric Design of Highways and Streets) for design and construction.

Contact Information:

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Education:

- A.A.S. Civil Engineering – Fayetteville Tech, 1989

Areas of Expertise:

- Stormwater Management & Engineering
- Hydrology Problem Solving and Solutions
- Hydrology Calculations & Design
- All Aspects of Road Design
- Caice and Inroads Design Software
- HY8 Stormwater Software
- Utility Coordination & Planning
- Microstation J, V7, V8i
- Erosion and Sedimentation Pollution Control (E&SPC)

Project Summary:

CADD for I-285 at I-20 West Phase 1 Lighting Study for GDOT As part of GDOT's Major Mobility Investment Program (MMIP), the existing I-285 interchange with I-20 on the west side of the loop is being reconstructed to improve traffic flow throughout the interchange as well as adjacent interchanges. These improvements include increased entrance and exit ramps for all interchanges as well as the main interchange itself, some of which include eliminating weaving areas and replacing them with dedicated throughway tunnels. This work will be accomplished through a design-build effort, which will be awarded at a later date. Wi-Skies role in this project is to provide the Phase 1 engineering study and oversee and approve the lighting aspects of the final design and construction of the project. The Phase 1 study includes developing a conceptual lighting layout for the entire project, which consists mostly of high mast lighting throughout the interchange, as well as other areas that have conventional lighting and delving into whether expanding the lighting limits is warranted, based on sub-standard conditions, crash data or other conditions. There are also twenty-four underpass structures which need to be evaluated for potential daytime lighting. Floyd is responsible for all CADD file preparations.

Assistant Designer for Woodruff Road Bypass – Greenville, South Carolina (SCDOT) Wi-Skies is providing a complete lighting design for the Woodruff Road Bypass project, which spans a total of six miles of roadway. Woodruff Road is a highly traveled roadway and experiences extreme congestion during peak travel times. SCDOT is proposing a parallel route to bypass the overly crowded Woodruff Road. The roadway contains ten total roundabouts with four travel lanes with a decorative median for most of the route, along with both a sidewalk and multiuse path. As an additional challenge, this roadway intersects a railroad and crosses under transmission lines. Wi-Skies will be responsible for the lighting the entire parkway limits including photometric calculations, service point coordination, voltage drop calculations, conduit routing, and lighting plan development. Floyd is responsible for photometric and plan preparation in accordance with SCDOT requirements.

Assistant Designer for I-74 Danville Lighting Replacement, IDOT District 5, Contract 70A29 The District is making several traffic improvements along the corridor through three interchanges along I-74 – MLK Drive, N G St and US 150 in Danville, IL. This presented them the opportunity to retrofit the existing lighting to LED. All existing roadway lighting poles not affected by the roadway work, so a simple retrofit was done for a majority of the poles. An auxiliary lane was also added to a portion of I-74 near N G St. where several luminaires were required to be removed and reinstalled to accommodate the new lane. In the end three manufacturers were determined to meet the standards called out in the IDOT BDE manual. The District also combined two lighting controllers at the MLK interchange into one controller as the load LED luminaires requires is much lower than that of the existing HPS fixtures and one of the existing controllers was difficult to access. Floyd is responsible for plan preparation, details and all associated CADD design.

Assistant Designer for Ozora Church Rd Roundabout (GDOT). An existing three-legged intersection in a rural area is being converted to a roundabout. As the area is also littered with many large trees and distribution lines which have minimum clearance requirements, light pole placement was limited. To save cost, approach lighting on some of the legs was recommended for removal where there was adequate visibility from an AASHTO safe stopping distance. . Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

Assistant Designer for SR 42 at United and Skyhaven for GDOT. An existing four-way intersection is being expanded due to increased capacity demands. Full intersection lighting is being provided as well to combat an ongoing trend of increased pedestrian and vehicular strikes near the intersection.

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Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

CADD Designer for Lighting at I-77 and SC Hwy 9 Interchange. This existing interchange is adding lighting at the I-77 and Hwy 9 interchange along with tying into another project that is adding lighting along Hwy 9. This project is a combination of high mass towers and conventional roadway lighting. The use of high mast towers will cover the bridge over I-77 and conventional roadway poles will be used along the ramps. We are working with Duke Energy to make sure that this project ties directly to another lighting project along Hwy 9 to ensure full coverage throughout the corridor. Joe is responsible for the entire standalone lighting plan set, including development of plans and oversight of a Geotech sub-consultant, necessary to ensure proper high mast tower foundations are installed at each of the tower locations, based on actual soil conditions. Floyd is responsible for Photometric and Lighting plan development, photometric plans and all CADD work.

Assistant Designer for SR211 at CR1 County Line-Auburn Rd/Mulberry Rd Roundabout (GDOT). An existing interchange is being transformed into a roundabout. Wi-Skies is providing lighting for the roundabout as it is located on a state route. Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

Assistant Designer for SR 98 at SR164 Roundabout for GDOT. A new roundabout is being designed at this intersection. Joe is the lead lighting designer for the lighting at this new roundabout, performing photometric calculations, voltage drop, and quantity calculations for the lighting design for the intersection. Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

Assistant Designer I-85 at SR 42 Interchange for Georgia DOT Wi-Skies was engaged in designing the lighting at the interchange of I-85 and SR 42 in Druid Hills, GA, which featured a new L-cut crossover bridge in the middle of the existing interchange. This project also included many utility conflicts as multiple sets of power lines lined both sides of SR 42 in addition to limited access in a quadrant due to an existing children's hospital. Additionally, many of the light poles had to be mounted on the new bridge to light both the new and existing bridge, which was unaffected by the new construction. Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

Assistant Designer for Carolina Crossroads Phase 1 Design-Build for South Carolina DOT SCDOT is designing improvements along the interstate corridor of I-20/26/126 which includes system interchanges at I-20/I-26 and I-26-I/126 in Lexington and Richland Counties in five phases, of which this is the first. These improvements are proposed to increase mobility and enhance traffic operations by reducing existing traffic congestion within the I-20/26/126 corridor, while accommodating future traffic needs. The corridor's approximately 14 miles of mainline interstate include I-26 from Exit 101 - Broad River Road (US 176) to east of the Saluda River, I-20 from the west of the Saluda River to west of the Broad River, and I-126 from I-26 to east of the interchange with Colonial Life Blvd. Floyd is responsible for Photometric and Lighting plan development, photometric plans and all CADD work. The design includes both high mast towers along the interstate and interchanges as well as conventional roadway lighting along the ramps and side streets. Every effort has been made to minimize spill lighting to the residential areas on the side streets.

Assistant Designer for Carolina Crossroads Phase 2 Design-Build for South Carolina DOT SCDOT is designing improvements along the interstate corridor of I-20/26/126 which includes system interchanges at I-20/I-26 and I-26-I/126 in Lexington and Richland Counties in five phases. These improvements are proposed to increase mobility and enhance traffic operations by reducing existing traffic congestion within the I-20/26/126 corridor, while accommodating future traffic needs. The corridor's approximately 14 miles of mainline interstate include I-26 from Exit 101 - Broad River Road (US 176) to east of the Saluda River, I-20 from the west of the Saluda River to west of the Broad River, and I-126 from I-26 to east of the interchange with Colonial Life Boulevard. Phase 2 of the design includes the design of I-20 as well as a new Diverging Diamond Interchange at Broad River Road (US 176). The lighting design includes both high mast towers along the interstate and interchange as well as conventional roadway lighting along the side streets, with an effort to minimize spill lighting to the residential areas on the side streets.

Assistant Designer for Allison Rd Pedestrian Sidewalk Lighting for City of Beaufort, SC. As part of the beautification of the city of Beaufort, SC, SCDOT added a sidewalk on one side of Allison Road between Cottage Farm Drive and Ribaut Road and wanted to add pedestrian lighting to this sidewalk. The City of Beaufort of a City Standard pedestrian luminaire on a decorative pole. It was Wi-Skies responsibility to provide the lighting design for the pedestrian sidewalk while also illuminating the street. With extremely close ROWs and numerous existing trees and electrical lines, this presented many interesting underground and overhead challenges throughout the project.

Assistant Designer for I-75 at Highway 151 Interchange Lighting – City of Ringgold, GA. Floyd was responsible for plan preparation, photometric plans, and all CADD design for the installation of four high mast towers at the Highway 151 interchange at I-75 for the City of Ringgold, GA. There were originally four towers installed at the interchange before a tornado destroyed them a number of years ago. The interchange had been overhauled and expanded since that time and the lighting was missed. Joe oversaw the lighting design, which was submitted through GDOT's permit process (GUPS) and ultimately approved for installation.

Project Manager for SR 400 Pedestrian Path in Sandy Springs, GA. The City of Sandy Springs is constructing multi-use path which runs parallel to SR 400 for 3.5 miles. This path meanders through both residential areas but is mostly in close approximation to the major corridor, leading to many impacts to the existing main GDOT ITS duct bank, as well as power feeds to ITS devices and lighting along the corridor. Floyd is responsible for plan preparation, details and all associated CADD design.

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Assistant Designer for Fred Nash Roundabout Lighting in Myrtle Beach, SC. SCDOT designed a roundabout just south of SC Hwy 17 at Harrelson Blvd and the entrance to the Coastal Grand Mall in Myrtle Beach, SC. One leg of the roundabout is the entrance to Coastal Grand Mall and one leg of the roundabout is the relocation of Fred Nash Blvd. This is a unique roundabout in that Harrelson Blvd enters and exits the roundabout both north and south but continues through the center of the roundabout. This roundabout design is sometimes commonly referred to as a "hamburger" roundabout. Wi-Skies worked closely with the City of Myrtle Beach, SCDOT, the contractor and the local utility company while designing the lighting for this roundabout, approach and departure legs. The local utility company will ultimately provide and install the lights. Therefore, Wi-Skies provided photometric calculations to meet IES requirements for this roundabout. Since this roundabout is in a heavy traffic area with high roadway speeds, Wi-Skies approached the design as a partial interchange, making sure the area was well lit, both within the roundabout area along the approaches to the roundabout as well as departures.

Assistant Designer for SR 9 at AC Smith Roundabout for GDOT. A three-legged roundabout is being constructed at an existing intersection to reduce crash rates and severity at a rural roundabout. Proper lighting was designed for the roundabout to include the roundabout, crosswalk facilities, and the approaches within the roundabout area. However, recommendations were provided and ultimately accepted to remove transition lighting along the two approach legs on SR 9, as visibility of the roundabout was adequate at an AASTHO safe stopping distance. This transition lighting was not removed along the AC Smith approach leg due to roadway curvatures. Spill lighting was analyzed along all residential property lines to minimize undesirable impacts.

Assistant Designer for SR 16 at Beulah Church Roundabout for GDOT. A four-legged roundabout is being constructed at an existing intersection to reduce crash rates and severity at a rural roundabout. Proper, but minimal, lighting was designed for the roundabout to include the roundabout and all crosswalk facilities within the roundabout area. However, recommendations were provided, and ultimately accepted to remove transition lighting along the two SR 16 legs, as visibility of the roundabout was adequate at an AASTHO safe stopping distance. This transition lighting was not removed along the Beulah Church legs due to roadway curvatures and heavy forest areas. Spill lighting was analyzed along all residential property lines to minimize undesirable impacts.

Assistant Designer for SR 8 at Conners Rd Roundabout for Georgia DOT. GDOT is revising an existing intersection, which comprises of two high speed approach legs along SR 8 with a lower speed, albeit heavy truck traffic, roadway which intersects at a high angle to a roundabout. Additionally, there is a feeder road for trucks immediately adjacent, along with a set of railroad tracks about 300' away. The roundabout location will be slightly offset from the original intersection location to lessen the angles along the approach legs, providing a better approach to drivers in all locations, while also slowing traffic along the approaches. Lighting was provided not only within the roundabout circle, but also along each of the approach legs to ensure adequate visibility for all drivers approaching and leaving the roundabout to ensure the new configuration is recognized, the railroad track crossing is seen, the heavy truck traffic is visible and to overcome the ambient lighting of the commercial establishments in the area.

Assistant Designer for SR 53BU at Dragon Dr Roundabout for GDOT. A three-legged roundabout is being constructed at an existing intersection to reduce crash rates and severity at a rural roundabout. This roundabout is at the entrance to a local high school. Proper lighting was designed for the roundabout to include the roundabout, crosswalk facilities, and the approaches within the roundabout area. However, recommendations were provided, and ultimately accepted to remove transition lighting along all three approach legs, as visibility of the roundabout was adequate at an AASTHO safe stopping distance.

Assistant Designer for City of Jesup Streetscape GA (GDOT) The City of Jesup is rehabilitating three street sections off of State Route 38 to match the existing areas that have already been updated previously. The scope is to provide lighting along the sidewalk areas only without negatively impacting the drivers along these roads, as is a Georgia DOT requirement. This is typically a challenge, as pedestrian scale light fixtures are designed to throw light in all directions with little or no cut-off features, especially with acorn style fixtures. To combat this, nominally lower lumen output fixtures are utilized and if possible, mounting height increased to get out of the driver's field of view when measuring the glare metric, the maximum veiling luminance ratio (MaxLv). Calculation of this ratio is necessary to ensure drivers are not blinded by the pedestrian scale light as they drive through this area. All of the lighting work is being done in accordance with Georgia DOT and IES design standards. Floyd is responsible for plan preparation in accordance with GDOT Plan and Presentation Guide, AASHTO requirements and all CADD design.

Assistant Designer for Bridges Rd at Willow Lane Roundabout for Henry County, GA. The County is converting an existing four-legged intersection into a rural roundabout. Wi-Skies is responsible the lighting design at the roundabout, consisting of lighting the roundabout circle, but recommends removing the lighting along the approaches for three of the four legs due to good visibility and a net reduction of associated costs along with the reduction of energy use and spill lighting to the surrounding areas. This SPLOST project was extremely fast-paced and was turned around in less than two weeks.

Assistant Designer for North Ola Rd at Snapping Shoals Roundabout for Henry County, GA. The County is converting an existing four-legged intersection into a roundabout. The roundabout is in a rural area, but with several overhead power lines around and through it, which created several conflicts with the light pole locations. There is a also a church on the north approach leg with multiple entrances and exits, creating several conflicts within the lighting transition zone, so the transition lighting along that leg was recommended to remain in the design. However, the transition lighting along the other three legs were recommended for removal due because of good visibility to and from the roundabout along those legs.

Assistant Designer for Langford Parkway (SR 166) Lighting Replacement. Langford Parkway is a major thoroughfare which connects I-285 to I-85 north of the Atlanta airport in the southwest side of the city. The corridor was originally built as an urban collector, but over time has become an access control freeway with entrance and exit ramps. However, urban curb still exists in portions of the roadway and the lighting was installed based on the original urban collector setting and subsequent setbacks. Because

of this, most of the lighting installed on the outside of the roadway is within unprotected clear zone and subject to frequent knockdowns. As the entire 6.5-mile corridor is continuously lit, this results in a lot of maintenance. To properly address this situation, coupled with inadequate lighting, the recommendation was made to provide a new lighting system through the corridor which will increase pole setbacks coupled with barrier protection as warranted. This new lighting system will also replace and upgrade the existing lighting along the median wall, where applicable. As the corridor was untouched for decades, full survey, LIDAR and SUE is necessary. Floyd is responsible for lighting plan development, photometric plans, standard specifications and to ensure plans are done in accordance with GDOT Plan and Presentation Guide.

Assistant Designer for Lighting for SR 120 from SR 141 to Peachtree-Industrial (GDOT) The reconstruction and widening of over 2.5 miles of this major thoroughfare is substantial and comprises of several large intersections and a roundabout. As part of the project, a multi-use path is being installed along one side of the roadway and a sidewalk will be installed on another, both of which will be properly lit, along with the roadway. Due to narrow ROW and presence of many utilities, this presents many interesting underground and overhead challenges throughout the project. The project spans two cities and ranges from commercial to residential, making the lighting objectives quite different. In-depth analysis is necessary to make sure lighting does not end up where it is not desired, such as in the sensitive residential areas, while also meeting the recommended values for the wide roadway. Floyd is responsible for all CADD design, including photometric plans, construction plans and details.

CADD Designer for Solar Lighting – SR 99 at SR 25 - GDOT. Deemed a high priority project by Management, a roundabout will be created in the place of an existing three-legged intersection. Without local support for paying the lighting bill, the Department will instead go to a completely solar lighting design. Due to the presence of overhead transmission lines, historical boundaries, and heavy forestry at the roundabout, finding a location for the solar array is challenging. Even after identifying a nominal location, a difficult decision was made to eliminate many very tall trees which would cast a shadow over the array during much of the day, hindering the design, which is to nominally create the system to be self-sufficient for up to ten days. Floyd is responsible for photometric plan preparation, construction plan preparation and details.

Assistance Designer for SR 247 at SR 247 Spur for Georgia DOT. An existing high-speed three-legged intersection is being reconstructed to a roundabout, of which lighting is to be provided. Because of the high-speed approach legs, there must be careful consideration for approach lighting along each leg to ensure drivers are aware of the upcoming round-about, so they slowdown in time. Floyd is responsible for preparation of lighting plans, photometric plans, and details.

Assistant Designer for SC 161 at US 321 Roundabout for South Carolina DOT. An existing high-speed three-legged intersection is being reconstructed to a roundabout, where lighting is being provided. Because of the high-speed approach legs and presence of an existing grocery store in one of the quadrants, approach lighting along each leg is being carefully considered to ensure drivers are aware of the upcoming roundabout. Floyd is responsible for preparation of lighting plans, photometric plans, details and to ensure plans are done in accordance with SCDOT Plan and Presentation Guide.

Assistant Designer for I-26 Widening Between MM 85-101 for SCDOT Sixteen miles of I-26 is being expanded to accommodate an additional lane in each direction from mile post 85 to 101 north of Columbia, South Carolina. As part of the project, two interchanges are being revised which include full lighting design which Wi-Skies is responsible for designing. Additionally, Wi-Skies will design and implement a new state of the art Weigh-In-Motion (WIM) system in the northbound direction. Floyd is responsible for all CADD design, including photometric plans, construction plans and details.

Assistant Designer for Experimental Daytime Lighting at both I-85 at SR 237 and I-285 at SR 13 for GDOT. As part of ongoing high-level research work with IES, GDOT and other agencies, Floyd is leading the effort for all the CADD design with the daytime lighting within short tunnels, which are considered to be under 400'. Measuring of over a dozen tunnels has led to the belief that the amount of daytime lighting recommended within short tunnels is excessive. As part of this effort, GDOT has chosen two tunnels which certainly need some sort of daytime lighting and tasked him to provide what he believes will be the minimum amount of lighting necessary within them. The team is putting together full lighting plans to accomplish this and will verify the results in the field before it is ultimately accepted. From these tunnels and others, the hope is that GDOT can revise policy based on these findings, even before international policy is revised.

Assistant Designer for Buford Springs Connector at Peachtree St Roundabout Lighting. As part of a private development, the existing exit and entrance ramps from I-20 at the Buford Springs Connector to Peachtree St will be reconstructed to terminate into a roundabout before reaching Peachtree St. The roundabout also incorporates Inwood Drive and an adjacent parking lot into the design, culminating in four total legs. Floyd's responsible for all CADD design, consisting of photometric plans, lighting plans and details. The lighting design will optimize lighting within the roundabout, along with lighting on all approaches, including tie-ins to existing lighting on both the exit ramp and the entrance ramp to Buford Springs Connector. Lighting at the intersection of Peachtree St is also being evaluated due to the revised tie-in. Additionally, existing Service Points will be updated for the new lighting load.

CADD Designer for Lake Charles Regional Airport Electrical Rack Relocation in Lake Charles, LA. Lake Charles Regional Airport experienced a hurricane in 2013 which destroyed a portion of the electrical system powering their parking lot lighting and FA helicopter building. At the time, it was decided to create a temporary electrical rack to power these loads until a more suitable solution could be put in place. Now, Lake Charles Regional Airport is completing several parking lot improvements and turning one of its parking lots into a rental car parking lot. As part of these improvements, the temporary electrical rack will be relocated and new loads for electric gate operators will be added. Floyd is responsible for plan preparation and details.

CADD Designer for Lancaster Lane and Londonderry Way Pedestrian Lighting in Union City, GA. Union City, in-an-effort to improve pedestrian lighting, is deciding to install decorative pedestrian lighting fixtures along Lancaster Lane and Londonderry Way. An initial layout

was provided by another firm and it was up to Katie to determine if this layout would satisfy lighting requirements put forward by AASHTO. It was determined that the layout and lumen output of the fixture proposed would not provide adequate illumination for the safety of pedestrians in this area. A brighter fixture is being proposed within the same style of fixture the Union City is specifying and the spacing along these roads has been updated to meet recommended lighting levels. Floyd is responsible for construction plans, photometric plans, and details.

Assistant Designer for Bell Rd at Old Homestead Trail Roundabout Lighting in Johns Creek, GA. The City of Johns Creek is building a 192-acre community park between Bell Road and the Chattahoochee River. A roundabout, which Wi-Skies is responsible for lighting, is being constructed on at this location on Bell Road with the south leg of the roundabout being the entrance to the park. The north leg of the roundabout is the entrance to the gated subdivision, Old Homestead Trail. Since this is an existing residential area, but also will become a busy pedestrian area as bikers and walkers will be entering the park, consideration had to be made to limit spill lighting for the residents while generating enough light within the roundabout and crosswalks for pedestrian safety. In addition to existing overhead distribution lines which have clearance requirements, limitations on right of way, and limitations with the entryway to the Old Homestead Trail subdivision, light pole placement presented a challenge. After discussion with the City of Johns Creek, the lighting design was developed for two scenarios: the initial design for before the park is built (with Low Pedestrian classification) using dimming for all of the luminaires and an increased light level after the park is constructed in the future, where the pedestrian classification will become Medium, where the luminaires will be adjusted to full lumen output. Floyd oversaw all CADD activities including preparation of lighting plans, photometric plans and details.

Assistant Designer for Hames Rd at Willowcreek Overlook Roundabout Lighting (Cherokee County, GA). An existing three-legged intersection in the middle of a residential area is being converted to a roundabout. As the area is also littered with many large trees and distribution lines, which have minimum clearance requirements, light pole placement was limited. Additionally, the area in the proximity of residences near the roundabout, created concern over spill lighting. These areas of concern were carefully analyzed to ensure there was minimal or no impact to the residences in the area. To save cost, approach lighting on some of the legs was recommended for removal, where adequate visibility would be present to drivers approaching in that leg from an AASHTO safe stopping distance. Floyd led the CADD design including preparation of lighting plans, photometric plans and details.

Assistant Designer for Seven Hills Blvd at Naturewalk Parkway Roundabout Lighting - Paulding County, GA. A large roundabout is being designed on Seven Hills Boulevard at the entrance to two large housing complexes. Seven Hills Boulevard is a heavily trafficked collector road with a multi-use trail on the south side. There are also sidewalks and multi-use trails going into each subdivision with crosswalks at each leg of the roundabout. Seven Hills Boulevard is currently continuously lit; therefore, Wi-Skies lighting design must be implemented into the middle of the current roadway lighting design, while not interrupting the uniformity along the roadway. Careful consideration was made with regards to the approach legs of the roundabout on Seven Hills Boulevard to remove some of the existing lighting that would be redundant or excessive to the proposed roundabout lighting. Floyd led the CADD design including preparation of lighting plans, photometric plans and details.

Assistant Designer for Rosebud Road at Brushy Fork Roundabout Lighting in Gwinnett County, GA. An existing intersection in the middle of a residential area is being converted to a roundabout, in which spill lighting becomes a concern to the residences due to the proximity of residences to the roundabout. These areas of concern were carefully analyzed to ensure there is minimal or no impact to the residences in the area. As the area is also littered with many large trees and distribution lines, which have minimum clearance requirements, placing poles is complicated. Therefore, coordination is necessary with local utility company throughout the design process. As a cost savings venture, approach lighting on some of the legs was recommended for removal, where adequate visibility would be present to drivers approaching in that leg from an AASHTO safe stopping distance. Floyd oversaw all CADD activities including preparation of lighting plans, photometric plans and details.

Assistant Designer for I-20 EB at Maynard Terrace Roundabout Lighting (GDOT). The existing exit ramp from I-20 onto Maynard Terrace is being reconstructed to terminate into a roundabout, which is a residential wooded and historical area. Because of this, lighting the roundabout is of critical importance as is limiting the spill lighting outside of the roundabout area. Further complicating this is the presence of a multi-use path which crosses the roundabout on one of the approach legs. The lighting design optimized lighting within the roundabout, along with the approaches along all four legs, while tying into existing continuous lighting along the bridge as well as incorporated lighting along multi-purpose walkway and crosswalks in the roundabout. Floyd oversaw all CADD activities including preparation of lighting plans, photometric plans and details.

Assistant Designer for I-285 at SR 400 Interchange Lighting and ITS Power (GDOT) As part of the largest design-build effort the state has ever taken on, Floyd assisted the designer in designing the lighting and electrical ITS work for the interchange, comprising of several hundred devices. This interchange is the busiest and fastest-growing interchange in the Atlanta area, subject to traffic volumes of over 250,000 vehicles daily. The overall design intent is to provide collector-distributor (CD) lanes throughout the project limits for a total of 8.3 miles along both SR 400 and I-285, which will eliminate much of the congestion in the area due to a poor existing interchange layout. Throughout the design process, several lighting and ITS design alternatives were designed and considered. The lighting design also included daytime lighting installations under three tunnels.

CADD Designer for Lighting for SR 120 from SR 141 to Peachtree-Industrial (GDOT) The reconstruction and widening of over 2.5 miles of this major thoroughfare is substantial and comprises of several large intersections and a roundabout. As part of the project, a multi-use path is being installed along one side of the roadway and a sidewalk will be installed on another, both of which will be properly lit, along with the roadway. Due to narrow ROW and presence of many utilities, this presents many interesting underground and overhead challenges throughout the project. The project spans two cities and ranges from commercial to residential, making the lighting objectives quite different. In-depth analysis is necessary to make sure lighting does not end up where it is not desired, such as

in the sensitive residential areas, while also meeting the recommended values for the wide roadway. Floyd is leading the entire CADD design effort by overseeing the photometric plans, utility coordination, construction plans and details.

CADD Designer for Solar Lighting – SR 99 at SR 25 - GDOT. Deemed a high priority project by Management, a roundabout will be created in the place of an existing three-legged intersection. Without local support for paying the lighting bill, the Department will instead go to a completely solar lighting design. Due to the presence of overhead transmission lines, historical boundaries, and heavy forestry at the roundabout, finding a location for the solar array is challenging. Even after identifying a nominal location, a difficult decision was made to eliminate many very tall trees which would cast a shadow over the array during much of the day, hindering the design, which is to nominally create the system to be self-sufficient for up to ten days. Floyd is responsible for construction plans, details, utility coordination and service point locations.

Assistant Designer for I-85 at SR 18 Interchange Lighting (GDOT) The existing slip-diamond interchange intersection is being reconstructed to terminate into a roundabout at each ramp terminal and an additional roundabout is being constructed a half mile away for Wi-Skies is responsible for the complete lighting plans, specifications, voltage drop and photometric calculations. The existing high mast lighting at the interchange will be salvaged as much as possible, however, several of the towers will be retrofitted to LED fixtures to optimize the lighting both to the I-85 mainline, but also to the crosswalks within the roundabouts. While these tower locations will not change, the cable and conduit feeding the towers will be destroyed during the roadway reconstruction, meaning circuits must be traced and re-routed where necessary to ensure all existing lighting remains in operation after construction. Floyd is responsible for plan preparation, photometric plans and details.

Assistant Designer for Roundabout Lighting at SR 9 at Dawson Forest Rd for Georgia DOT. Two new roundabouts will replace two high speed three-way intersections in a rural part of Dawson County, GA. The roundabouts and the roadway between them are designed to be properly, but minimally lit to meet rural lighting standards for the roundabouts. Additionally, due to the presence of bats in the area, vertical illuminance had to be analyzed along the ROW line along the entire project limits. These vertical calculations were done every 10' to ensure there were no concerns whatsoever along the ROW line, as this was an FHWA requirement. Floyd was responsible for all the CADD design, details and quantity review.

Assistant Designer for Pedestrian Bridge over Castleberry Rd in Cumming, GA. The City of Cumming is constructing an elevated pedestrian bridge to the City Fairgrounds from the parking lot across Castleberry Rd. Ramps will tie into the existing sidewalk and lead up to a covered portion of the bridge over Castleberry and tie into an existing elevation difference on the other side. All the ramps, adjacent sidewalks and covered portion of the bridge all require pedestrian lighting, accomplished by several light fixture types. Additionally, there are variable message signs on both sides of the pedestrian bridge to alert drivers along Castleberry of pertinent information. Floyd is responsible for photometric plans, construction plans and details.

CADD Designer for Solar Lighting at CR 238 at Industrial Drive/Cool Springs Rd Roundabout for Georgia DOT. The existing intersection is being converted to a four-legged roundabout, which requires lighting. Due to the limited power options in the rural area, power for this lighting must be accomplished by other means, namely solar as well as potentially wind energy. Finding the square footage of land necessary for the solar panels which will not become shadowed is a challenge within itself due to wetlands, trees and potential businesses in the future. The objective to create the first completely off-grid lighting project within the state which would be self-autonomous for ten days or more. Floyd is assisting the lead Engineer in designing the alternative energy solution along with assisting the lighting design, consisting of photometric calculations, lighting plans and specifications.

Assistant Designer for Daytime Lighting along both SR 11 and SR 53 under SR 316 (GDOT). These two separate projects will replace existing at-grade intersections are being converted to two interchanges, under which both require daytime lighting. Because of the County's limited funds for maintaining such an expense, experimental daytime lighting is being considered under the tunnel, which is based on our research with Georgia DOT. Alternative energy will also be considered to assist with power costs. Floyd will be responsible for the CADD design, details and conformance.

Assistant Designer for SR 53 at SR 183 Roundabout Lighting for Georgia DOT. GDOT is revising a three-legged intersection to a roundabout due several high-speed accidents. SR 183 terminates into SR 53 at the intersection while SR 53 continues east to west, all of which are rural roads with speed limits of 55 MPH, with only yield signs at each leg, creating a dangerous situation. Add in that drivers along westbound SR 53 experience a blind curve entering the intersection without the need to yield makes it treacherous. The new roundabout will force traffic in all directions to slow down to at least a crawl before proceeding. The addition of lighting in the rural and very dark area will also assist visibility and therefore safety to the roundabout's performance. Floyd is responsible for the CADD design to develop final plan sheets, verify quantities and verify GDOT CADD conformance.

Assistant Designer for Lighting at I-75 and I-16 Interchange – Georgia DOT This existing interchange is being overhauled as part of a multi-phase construction project totaling six miles of interstate, all of which will be continuously lit. There are three smaller interchanges, all of which require complete lighting or modifications to complete lighting. Additionally, five total tunnels will require supplemental daytime lighting. There is a lot of pedestrian lighting going in this area as well as the city continues its beautification approach, especially near the River. However, there are also several locations which are sensitive to light pollution, such as residences or other environmental concerns, all of which are being analyzed to verify there is minimal concern. Floyd is overseeing the CADD design, including photometric plans, construction plans, details and quantities.

Assistant Designer for Stand-alone Lighting SR 166 at SR 5 Roundabout (GDOT). This stand-alone lighting project will provide lighting at an existing roundabout with a history of problems. The roundabout is in a rural area; however, is the intersection between two major high-speed routes in the area. When the original roundabout was constructed, it had a single high mast tower placed in the middle of the roundabout. This high mast tower was subsequently struck down by a vehicle, thus proving providing lighting in the middle of a roundabout is not an effective solution as it does not afford the driver enough advanced warning of the upcoming

roundabout. Therefore, a more effective design using several 40' poles placed around the outside and in advance of the roundabout is the solution we are deploying. As there is no other roadway work as part of this lighting improvement, Joe is responsible for overseeing a survey and utility investigation and a myriad of other construction issues, especially dealing with the many distribution lines present at the roundabout. Floyd is responsible for CADD design and details.

CADD Designer for Pedestrian Bridge over Northside Dr at Mercedes-Benz Stadium. As part of a design-build project, Wi-Skies is designing the lighting for a pedestrian bridge being constructed safely allow pedestrians to cross the busy six-lane roadway immediately adjacent to the new Atlanta Falcons stadium. The bridge spans a total of almost 1000' of walkable path, including a 140' long covered portion as it crosses Northside Drive. All of the pathway is being lit to high pedestrian traffic lighting design criteria, including vertical illuminance design criteria, which is being accomplished with a combination of pedestrian scale LED fixtures for outside of the covered portion and architectural ceiling mounted fixtures inside the covered portion. The sidewalk areas along the perimeter of the west loop are also being lit to ensure good visibility of fellow pedestrians while not providing a glare concern to the drivers along Northside Dr. In addition to the pedestrian lighting, Wi-Skies is also responsible for designing the impressive architectural lighting features on, in and around the bridge. Both sides of the bridge will have continuous multi-color rope lights which span a total of over 2000'. Additionally, accent lights are being provided at crucial areas, such as the bridge decorative columns and outer aluminum skin of the bridge as it crosses Northside Drive All of the decorative features will be centrally controlled for the client to have the ability to change the colors freely, depending on the venue. The architectural features of this bridge will mesh well with the new stadium's architectural features, as it is immediately adjacent to the new stadium, which will be aerially viewed often to show off its architectural features, yet the lighting on the bridge will set it apart. Floyd is responsible for all the CADD design and details.

Assistant Designer on I-285 WB at SR 6 DDI (GDOT). The Department is reconstructing an existing slip diamond interchange to a diverging diamond interchange (DDI) in an effort to greatly reduce traffic concerns at the interchange. Due to the proximity to the Atlanta airport, the use of high mast towers is not possible. Further, the City's desire to use decorative fixtures not intended for roadway use put on us to work with multiple lighting manufacturers to develop fixtures and poles which will meet photometric requirements for the busy roadway as well as meet the City's decorative desires. The existing bridge over I-285 will not be reconstructed as part of the project, which makes lighting the 260' bridge area span challenging. This is especially critical in the area where drivers are on the opposite side of the roadway between crossovers. Additionally, there is a concurrent project consisting of many decorative lighting features that the design team is responsible for providing power to.

Assistant Designer SR 9 at SR 60 Roundabout Lighting for Georgia DOT. An existing four-legged high-speed divergent intersection is being revised to a roundabout, the center of which will be an ancient burial site, known as Stone Pile. Because of this, the significance of adequate advanced lighting is critical to the safety of the roundabout's operation. At the same time, the area is sensitive to light pollution due to the adjacent residences and historical boundaries. To overcome the spill light concern while also providing adequate lighting, the design will utilize low lumen output fixtures at a low mounting height and the limits of lighting will be extended as much as possible to ensure as much advanced visibility to the driver approaching in any direction. Floyd is responsible for plan development, CADD design for final plans and photometric design.

Assistant Designer for City of East Point Main St Streetscape. The City of East Point is rehabilitating a mile segment of sidewalk along the west side of Main St (State Route 14 & 139, US 29) and Wi-Skies is designing the lighting to be included. The scope is to provide lighting along the sidewalk areas only without negatively impacting the drivers along the State Route, as is a Georgia DOT requirement. This is typically a challenge, as pedestrian scale light fixtures are designed to throw light in all directions with little or no cut-off features, especially with acorn style fixtures. To combat this, we use lower lumen output fixtures nominally. We also try to increase mounting height to get out of the driver's field of view when measuring the glare metric, the maximum veiling luminance ratio (MaxLv). Calculation of this ratio is necessary to ensure drivers are not blinded by the pedestrian scale light as they drive through the corridor. All the lighting work is being done in accordance with Georgia DOT standards. Floyd is leading all the CADD design and plan preparations.

Assistant Designer for SR 347 at New Bethany Rd Roundabout Lighting for Georgia DOT. SR 347 is located directly south of Lake Lanier and serves many of the lakefront businesses along the lake and is being re-aligned and expanded. As part of the project, the intersection of SR 347 with New Bethany Rd is being converted to a roundabout and moving several hundred feet north. As the area near the lake, it is sensitive to light pollution and hence a low lumen LED fixture is being utilized at 30' to minimize light pollution concerns while also meeting horizontal illuminance requirements for the roundabout and vertical illuminance requirements at each crosswalk.

Assistant Designer for Roundabout Lighting at SR 52 at SR 183 Roundabout (GDOT) Wi-Skies is providing a lighting design, including photometric calculations, plans, specifications and quantities, to a three-legged roundabout at the rural intersection of SR 52 at SR 183 in Dawson County, GA. The existing intersection is being revised to a roundabout due several high-speed accidents, for which the roundabout will force traffic in all directions to slow down to at least a crawl before proceeding. The addition of lighting in the rural and very dark area will also assist visibility and therefore safety to the roundabout's performance. Floyd will be responsible for all the CADD design and plan preparations.

Assistant Designer for Lighting along SR 30/90/US 280/16th St from I-75 to Midway Rd in Cordele, GA for Georgia DOT. Due to the heavy volume of truck and other traffic at the interchange due to the large commercial presence, the Department is widening the roadway from the northbound interchange ramp intersection to the Midway Rd intersection, where a Pilot exists. Due to the high

pedestrian traffic in the area, lighting is being extended from the interchange to Midway. As the existing lighting system is HPS, the new portion will be HPS to match. In addition to the roadway being analyzed for proper luminance through this half mile segment, new sidewalk facilities will be analyzed, including both horizontal and vertical illuminance requirements. The intersection at Midway has transmission lines running along the west side of the road, creating a large area where light poles cannot be installed and therefore, creating uniformity issues within the intersection. Floyd is the lead CADD designer for this project, providing final photometric plans, details, and quantities for the new lighting system.

Assistant Designer for I-85 at SR 18 Interchange Lighting (GDOT) The existing slip-diamond interchange intersection is being reconstructed to terminate into a roundabout at each ramp terminal and an additional roundabout is being constructed a half mile away for which Floyd was responsible for the CADD design, plan preparation for both photometric plans and construction plans, details and quantities. The existing high mast lighting at the interchange will be salvaged as much as possible, however, may be modified to optimize the lighting both to the I-85 mainline, but also to the crosswalks within the roundabouts.

Assistant Designer for SR 12 at Cove Lake Road Intersection Lighting for Georgia Department of Transportation An existing four-way intersection is being expanded due to increased capacity demands. Full intersection lighting is being provided as well to combat an ongoing trend of increased pedestrian and vehicular strikes near the intersection due to a bus stop at the intersection. Floyd is overseeing the CADD design, details, and plan preparations for this project.

CADD Designer for SR400 @ SR53 Continuous Flow Intersection for Georgia DOT. Floyd prepared photometric plans, full lighting plans, details and quantities for existing intersection which is being changed to a Continuous Flow Intersection (CFI). The basis of a CFI is to eliminate the need for a dedicated left turn arrow at a normal signalized intersection. In order to accomplish this, the left turn movement must be done several hundred feet prior to the main intersection by creating a small crossover intersection. For lighting purposes, these smaller adjacent intersections must be well lit, as well as the main intersection. This creates a-very-large area which must be continuously well lit with good uniformity. Since these intersections are generally busy, the main challenge is providing enough light across the entire intersection when the width of the intersection is so large. Additionally, this intersection had several crosswalks which had to be analyzed to alleviate any pedestrian conflicts.

Assistant Designer for Roundabout Lighting at US 278 at SR 142 (GDOT). Wi-Skies is the responsible electrical engineer for lighting plans for a roundabout in Covington, GA. This roundabout is intended to slow down the traffic in a high-speed rural area while also providing continuous flow to the US 278 traffic by including dual lanes for three of the four legs. These additional lanes create additional setback, coupled with the City of Covington's preference of a maximum mounting height of 30', posed challenges to meet vertical illuminance recommendations in the middle roundabout lane. However, in using a Type IV LED, these challenges were met.

Assistant Designer for Jeffersonville Road and Millerfield Road Lighting (City of Macon/Bibb County). As part of a large-scale area of urban improvement, Joe is leading the lighting design for two segments which encompass a total of 1.8 miles of urban collector roadway. The five-lane roadway cross-section consists of dual lanes in each direction with a middle turn lane throughout. To complicate the design, there are several smaller roadways and driveways littered throughout the project, a continuous multi-use path along one side with a sidewalk on the other of the roadway throughout. This creates a challenge of providing good uniformity throughout a wide area using a large setback. Especially challenging is meeting vertical illuminance requirements along the multi-use path, sidewalk and at the many crosswalks throughout the project while also providing recommended average luminance and uniformity in the center dual turn lane. This is all being accomplished by using LED fixtures mounted at a maximum mounting height of 45', due to Macon-Bibb's maintenance limitations. Floyd completed the CADD design, details, and plan preparation as per GDOT Plan Presentation Guide.

Assistant Designer for Roundabout Lighting - SR 195 at Smithville Rd and 2nd St for Georgia Department of Transportation. Two legs of an existing six leg intersection are being cul-de-sac'd, leaving the remaining four legs in an extended roundabout design. This configuration brings about unique challenges in providing lighting uniformly to all the internal segment and crosswalks. Floyd led the effort to complete lighting plans and performed quantity calculations.

Project Manager/Designer for Jeffersonville Road and Millerfield Road Lighting (City of Macon/Bibb County) As part of a large-scale area of urban improvement, Floyd was lead designer for two segments which encompass a total of 1.8 miles of urban collector roadway. The five-lane roadway cross-section consists of dual lanes in each direction with a middle turn lane throughout. Design included drainage studies, drainage calculations and design, curb & gutter design, sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, landscaping coordination, horizontal and vertical design, Right-of Way Plans, typical section design, staging plans, driveway design, and culvert design. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Hazlehurst Street Improvements (City of Hazlehurst, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two-lane street with failing base and pavement, inadequate drainage and flooding problems. Floyd performed a drainage study and pinpointed the drainage problems and solved the drainage issue. After the drainage issue was resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, driveway design, prepared bid documents and project management. The design was done in Caice and

Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Lyons Street Improvements for the City of Lyons, Georgia. Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two-lane street with failing base and pavement, inadequate drainage, and flooding problems. Floyd performed a drainage study and pinpointed the drainage problems and solved the drainage issue. After the drainage issue was resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, driveway design, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Dodge County Street Improvements (Dodge County, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two- lane street with failing base and pavement, inadequate drainage, and flooding problems. Floyd performed a drainage study and pinpointed the drainage problems and solved the drainage issue. After the drainage issue was resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, driveway design, Railroad permitting, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Vidalia Street Improvements (City of Vidalia, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two-lane street with failing base and pavement, inadequate drainage and flooding problems. Floyd performed a drainage study and pinpointed the drainage problems and solved the drainage issue. After the drainage issue was resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, driveway design, water & sewer relocation design, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Vidalia Streetscape (Transportation Enhancement) (City of Vidalia, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two to four lane street with cracked sidewalk with failing base, failing pavement base, inadequate drainage and flooding problems. Floyd performed a study and pinpointed all the problems and issues. After the issues were resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, decorative sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, decorative crosswalk design, landscaping coordination and design, decorative street lighting coordination, water & sewer relocation design, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Eastman Streetscape (Transportation Enhancement) (City of Eastman, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of a two-lane street with cracked sidewalk with failing base, failing pavement base, inadequate drainage and flooding problems. Floyd performed a study and pinpointed all the problems and issues. After the issues were resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, decorative sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, decorative crosswalk design, landscaping coordination and design, decorative street lighting coordination, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for McRae Streetscape (Transportation Enhancement) (City of McRae, Georgia). Floyd was lead designer for this urban collector roadway. The existing roadway consisted of four lane street with cracked sidewalk with failing base, failing pavement base, inadequate drainage and flooding problems. Floyd performed a study and pinpointed all the problems and issues. After the issues were resolved Floyd designed and upgraded the streets that included an upgraded drainage system, curb & gutter design, decorative sidewalk design, erosion and sedimentation control, signage and marking, utility coordination, horizontal and vertical design, typical section design, decorative crosswalk design, decorative retaining wall design, ADA ramp design, decorative street lighting coordination, water & sewer relocation design, prepared bid documents and project management. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Lee County East-West Connector (Lee County, Georgia). Floyd was lead designer for this rural roadway that was approximately five miles of new location. The proposed design consisted of a new two-lane roadway with several drainage basins. Floyd designed the connector road that included several drainage systems, bridge culvert analysis and design, bridge

coordination, erosion and sedimentation control, signage and striping, horizontal and vertical design, typical section design water line design, and utility coordination. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.

Project Manager/Designer for Monroe Bypass (City of Monroe, Georgia). Floyd was lead designer for this rural roadway that was approximately four miles of new location. The proposed design consisted of a new two-lane roadway with several drainage basins. Floyd designed the bypass that included several drainage systems, bridge culvert analysis and design, bridge coordination, erosion and sedimentation control, signage and striping, horizontal and vertical design, typical section design water line design, and utility coordination. The design was done in Caice and Microstation software, all design was done in accordance with Georgia DOT standards and specifications, AASHTO and ADA requirements. Plans were done in accordance with Georgia DOT Plan Presentation Guide and Electronic Data Guidelines.