

DAVID C. KANE, LC



Career Summary:

David brings 40 years of diverse lighting experience, ranging from designing PoE control systems for large commercial applications to creating streetscapes that enhance a commercial theme, David has been designing lighting and controls for his entire career and is an expert at design continuity, lighting roadways, highways, intersections, and everything in between. He also has designed lighting in commercial applications such as multi-story office towers and high-end multimillion dollar residential projects. In addition, David takes pride in his customer relations and is adept at project management and education.

Project Summary:

Project Reviewer-QA/QC for I-35 NEX Central Lighting Quality Control TxDOT The Texas Department of Transportation (TxDOT) is expanding approximately 19.5 miles of interstate highway I-35 in Bexar, Comal, and Guadalupe Counties, Texas. The I-35 project involves the construction of two non-toll 15-mile-long elevated bridges between the I-35 main lanes and frontage roads. The elevated lanes will provide one high occupancy vehicle lane and two general-purpose lanes in each direction. In addition to the elevated lanes on either side of I-35, the mainline lanes of I-35 will be widened for the addition of two general-purpose lanes. The design-build project also includes revisions to ramps and frontage roads to transition the elevated lanes and connectors with the existing highways. Wi-Skies has the distinctive opportunity to provide quality control and design oversight for lighting of the entire project, which encompasses the entire 19.5 miles of the interstate. Our role includes conversing with three design firms and the overall PM to make sure uniform lighting is provided throughout the project. Multiple drawing packages need to be reviewed and TXDOT specific lighting requirements must be adhered to. The complexity of this layout of highway makes it imperative the lighting is designed correctly and the lighting on the pavement is uniform so that motorists navigating this stretch of extremely busy highway can do so safely and effectively.

Lead Lighting Designer for SR 365 at Howard Road Roundabout Project Georgia DOT is designing a new bridge over SR 365 at Howard Road to eliminate a high-speed intersection, which is expected to have a significant traffic increase due to the construction of Lanier Technical College adjacent to the intersection. The new bridge will be bookended by roundabouts and will allow for a safer traffic route across SR 365. As the Lead Lighting Designer, David was responsible for the lighting of both roundabouts, pole placement, lighting photometrics, voltage drop calculations, and product quantity calculations for both roundabouts as well as the access road for each. David also worked with the State and local contractor to coordinate the Service Points needed and updated construction drawings as necessary.

Lead Lighting Designer for Sandy Springs RTA Expansion Project The City of Sandy Springs is expanding pedestrian areas and Road Transit Access along the main North/South highway in the city. The highly commercial corridor begins at Meadowbrook Dr and ends at Northwood Dr and includes intersections with Windsor Parkway, Glenridge Dr and Lake Placid Dr. The lighting requires the use of their decorative fixtures, placed dependent on their location to driveways, entryways, and intersections as visible identifiers both during daytime and nighttime. As the Lead Lighting Designer, David was responsible for the lighting and pole placement, lighting photometrics, voltage drop calculations, and product quantity calculations. As this is an expansion to an existing area, it was crucial to observe City Standards to maintain the current look, continuity, and lighting levels. David also worked with the City and local contractors to coordinate the placement of the light poles in relation to existing trees and commercial structures.

Lead Lighting Designer for US 701 Bridge over Cape Fear River The State of North Carolina is adding lighting to a Bridge on US 701 over the Cape Fear River. The existing 1250' long bridge was being reconstructed when lighting was added to the project. As one side of the bridge was already constructed, all four lanes of traffic had to be lit from only one side of the bridge, posing a design challenge. As the project was under construction, the lighting design had to be completed in a matter of only a few weeks, complete with light pole mounting details as part of the revised bridge plans. David was responsible for the lighting and pole placement, lighting photometrics, voltage drop calculations, project documentation, and product quantity calculations.

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Education:

- ◆ B.A. Theatrical Lighting
University of Minnesota
1984

Certification:

- ◆ LC, Lighting Certified by
NCQLP

Areas of Expertise:

- ◆ AGI32 Lighting Software
- ◆ Lighting Control Systems
- ◆ AutoCAD
- ◆ MicroStation



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Contributing Lighting Designer for Effingham County Roundabouts Effingham County, GA is developing plans for eight total roundabouts throughout a business development area. These roundabouts will increase travel speeds through the area, as well as decrease the seriousness of traffic accidents at some of the intersections. Each of the eight roundabout sites require lighting, both within the roundabout circle, but also at each crosswalk, and along each approach leg, in accordance with IES standards. David is responsible for the lighting design, pole placement, IES lighting compliance, and design documents.

Lighting Designer for Lighting for SR 146 from SR 1 to Lakeview Rd (GDOT) This project encompasses the reconstruction and widening of over two miles of SR 146, which includes a total of three roundabouts. Each of these roundabouts requires full lighting, including both horizontal illuminance calculations for the roundabout area, but also vertical illuminance calculations along each of the crosswalks. There is also a segment of SR 146 which will be lit between two of the roundabouts due to their proximity to each other. David is leading the entire lighting design effort by overseeing the photometric calculations, coordinating service point locations, performing voltage drop calculations and developing plans.

Lighting 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. Accommodations were also made to facilitate an additional lane at the entrance of the High School. 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. David is leading the lighting design effort by creating the photometric calculations, coordinating service point locations, performing voltage drop calculations and developing plans.

Lighting 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. David is assisting in overseeing the full continuous lighting design along the interstates, the interchanges and includes lighting for Colonial Life Blvd and Greystone Blvd. both north and south of the interchanges. 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. David also assisted in powering lighting on fourteen overhead signs throughout the project. As this scope was added during construction, it required revisions to the lighting plans as well.

Lighting 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. David also assisted in powering lighting on seventeen overhead signs throughout the project. As this scope was added during construction, it required revisions to the lighting plans as well.

Lighting Designer for SR 98 at SR164 Roundabout for GDOT. A new roundabout is being designed at this intersection. David is the lighting designer for the lighting at this new roundabout, performing photometric calculations, voltage drop, and quantity calculations for the lighting design for the intersection.

Lighting 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. David assisted in developing the entire set of electrical drawings, including the development of the barrier wall mounted light pole foundations.

Lighting Designer for SR 101 at Holly Springs, Goldmine Roundabout Lighting (Paulding County, GA). An existing three-way high-speed intersection in a rural area is being converted to a four-legged roundabout to considerably increase safety. As the area is also expected to grow with the addition of a new church, pedestrian facilities were included within the roundabout, of which vertical illuminance calculations were provided within each crosswalk. Approach lighting on some of the legs was evaluated to be removed along some of the roundabouts, but ultimately recommended to leave in due to the curvature of each of the approach legs. David is responsible for the lighting on this project, including photometric calculations, documentation, and plan preparation.

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Lead Lighting Designer for North Point Parkway Lighting – City of Alpharetta, GA. As part of a roadway diet and enhancement project, Wi-Skies is developing lighting plans for 1.65 miles of North Point Parkway. The highly visible commercial corridor begins at Mansell Rd and ends at Haynes Bridge Rd and includes eight intersections, along with many more commercial driveway entrances and exits. The lighting plan includes over one hundred sixty decorative roadway and post top fixtures, alternated throughout the corridor to achieve both the roadway and sidewalk lighting design criteria, along with intersection lighting and crosswalk lighting calculations at all eight intersections. Each pole location was carefully coordinated with many utilities, but also with the landscape designers, with decorative trees placed to stagger the light pole conflicts. Photometric calculations were conducted to verify all lighting design criteria being met for all criteria along the corridor. David was responsible for the lighting design, all photometric and voltage drop calculations, conduit and cable plans and installation details.

Lighting Designer for Hooks St at Emil Jahna Rd Roundabout Lighting – Florida DOT Hooks Rd is undergoing a 1.5 – mile long extension in the City of Clermont, FL, which intersects with Emil Jahna Rd, which will be a roundabout and subsequently will be lit. There is existing decorative post top lighting along the median of Emil Jahna Rd, much of which will remain in place, save for locations where the post top lighting will create a glare impact to incoming drivers. The new lighting will be designed in accordance with the FDOT Greenbook, utilizing 3000K luminaires and a 35' mounting height at the roundabout. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, and lighting plans.

Lighting Designer for Lighting for SR 84 at Lakeview Rd Roundabout (GDOT) The existing three-legged intersection is being replaced with a new roundabout, which requires lighting, in accordance with GDOT policy. However, the locals were initially not in support of installing lighting at the roundabout. Extensive discussion and coordination were necessary to convince the City the lighting to be provided would not negatively impact the existing residences within the roundabout area nor the church that ties into the fourth roundabout leg. The lighting at the roundabout has been carefully designed using both decorative roadway and pedestrian lighting along the roundabout legs to appease the local influence, without sacrificing operational safety of the roundabout, crosswalks or pedestrian traffic along the sidewalks. David is leading the entire lighting design effort by overseeing fixture placement, photometric calculations, coordinating service point locations, performing voltage drop calculations and developing plans.

Lighting Designer for Lighting for Trickum Rd at Nocatee Trail Roundabout (Cherokee County, GA) A new four-legged roundabout is being constructed at an existing three-legged intersection and Wi-Skies was brought in to provide lighting. The lighting at the roundabout has been carefully designed to avoid excessive light spill to the nearby adjacent residential homes, as well as to minimize any impacts to the decorative features at the residential neighborhood entrance. David is leading the entire lighting design effort by overseeing the photometric calculations, coordinating service point locations, performing voltage drop calculations and developing lighting and electrical plans.

Lead Lighting and Controls Designer for 18-story World Headquarters for International Pharmaceutical Company A new corporate headquarters was being constructed in 18 floors of a new high rise in Manhattan, New York. The entire project design team was tasked with creating a sustainable project approaching net-zero power consumption where possible. David designed the lighting and control placement using POE (Power Over Ethernet) technology to integrate the lighting control into Building Management System software using CAT6 cable to carry power and data from all of the lighting fixtures and sensors back to the data closet. The integrated controls included occupancy sensing, people counting, HVAC integration, and room scheduling. David's tasks included lighting design, photometric calculations, conceptual plan preparation, sensor placement maps, and project costing.

Lighting and Controls Designer for 17 building campus An International Software Company in the Pacific Northwest was building a new 17 building campus as their new world headquarters. The entire project design team was tasked with creating a sustainable project approaching net-zero power consumption where possible. David designed the lighting and control placement using POE (Power Over Ethernet) technology to integrate the lighting control into Building Management System software using CAT6 cable to carry power and data from all of the lighting fixtures and sensors back to the data closet. The integrated controls included occupancy sensing, people counting, HVAC integration, room scheduling, the ability to see all 17 buildings from a central management location, and the ability to access all of the project parameters from a newly created cell phone application. David's tasks included lighting design, photometric calculations, conceptual plan preparation, sensor placement maps, POE controlled lighting, technology integration, and project costing.

Lead Lighting and Controls Designer for a series of Assisted Living Facilities A corporation in the southeast was developing multiple assisted living facilities, across 3 states, to include all levels of care from independent living to full medical care. The design parameters included both residential and commercial aspects of lighting and design, as well as extensive cutting-edge technologies to enhance the residents' safety and living experience. Circadian rhythm with lighting was implemented to enhance everyday moods and reinforce daily schedules of residents experiencing Alzheimer's. Resident locator and individual security control was implemented through a discreet wearable that allowed the medical staff to locate residents as well as allowing the resident to unlock their own door with their wearable. Entering their unit with the wearable would also welcome the resident home with lighting and temperature based on time of day and time of year. A bed sensor was also utilized to light a path to restroom when they got out of bed, alerted the nursing staff if they didn't get out of bed, and alerted nursing if the resident fell out of bed. An emergency lighting scheme was also designed to integrate with a generator system in case of a power outage. All of the lighting, environmental controls, and cutting-edge technologies were integrated through the POE software that powered and controlled the entire facility. David led the lighting, control, quotations, and technology design team in creating the design, construction documents, and financials needed to successfully construct the projects.

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Lead Lighting and Controls Designer for a new middle school campus A school district in central Colorado was constructing a new middle school campus and was tasked with not only using POE technology to save energy but incorporate many new technologies to create a “Smart Campus”. David was the lead lighting and controls designer where he incorporated occupancy sensing in all spaces, as well as on- demand color tuning in all classrooms to allow teachers to “tune” the lighting to match and enhance the task at hand. A lighting indicator system was utilized throughout the campus to visually alert students and staff of the current status, from “All Clear”, to “Weather Warning”, to “Lock Down”. The lighting indicating system was also integrated into the Shot Detection system that identified the location of any shots fired, alerted the administration, and changed the color of the indicators in the area of the identified shots. An emergency lighting scheme was also designed to integrate with a generator system in case of a power outage. All of the lighting, environmental controls, and new technologies were powered and controlled via POE (Power over Ethernet) technology. David led the lighting, control, quotations, and technology design team in creating the design, construction documents, and financials needed to successfully construct the project.

Lead Lighting and Controls Designer for high end residential new construction David was the lead lighting and control designer on multiple million dollar plus homes across the United States. These homes ranged from 6,000-15,000 sq.ft and would incorporate intuitive technologies to enhance the residents home experience. Technologies included lighting, home audio, video streaming, security, environmental, shading, and landscape lighting. All of these technologies were available to the resident through a secure app for local or remote control. David worked closely with the individual residents throughout the construction process to ensure a smooth and successful building process.

Lead Lighting Designer for SR 8 Bridge at Jackson Creek for GDOT. The SR 8/US 29 (Lawrenceville Hwy) bridge replacement over Jackson Creek is designed to enhance safety and aesthetics. To ensure proper alignment and transition, the sidewalks and civil infrastructure surrounding the approaches to the bridge bring the total project length to 0.4 miles. The design required careful coordination with the City’s construction team to utilize decorative pedestrian light poles to match the community aesthetics. Wi-Skies paid special attention to ensure the lighting meets minimum pedestrian path recommendations and does not create an adverse glare affect to the drivers along the roadway. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, and lighting plans.

Lead Lighting Designer for Etris Rd Multi-Use Trail for Roswell, GA. This multi-use trail stretches from Hardscrabble Rd to Crabapple Rd in Fulton County, Georgia. The project is approximately 0.9 miles long, providing safe, non-motorized connectivity between neighborhoods, schools, and the Crabapple activity center. Community safety and aesthetics are elevated with decorative LED pedestrian post-top and pendant light poles along the path and crosswalks. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, and lighting plans.

Lead Lighting Designer for 14th Street and Washington Street Roundabout in Darlington County, SC (SCDOT). Wi-Skies was tasked with providing full roundabout and approach lighting design including photometric calculations, plans, specifications, and quantities for a three-legged roundabout in Darlington County, South Carolina. David led the design effort to coordinate the necessary documentation, while interfacing with the local power company contact to locate the needed service points. The existing intersection is being revised to improve traffic flow and safety.

Lead Lighting Designer for SC 403, SC 341, and S 56 Roundabout in Florence County, SC (SCDOT). Wi-Skies is tasked with providing a border and approach lighting. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, and lighting plans for the four-legged roundabout in Florence County, South Carolina. The existing intersection is being revised to improve traffic flow and safety.

Lead Lighting Designer for South Fork Peachtree Creek Greenway for City of Tucker, GA. The Peachtree Creek Greenway is a proposed multi-use trail corridor (pedestrian and bicycle) that will follow the creek (north fork and/or south fork) through portions of Atlanta, Brookhaven, Chamblee, Doraville and unincorporated DeKalb County. The Greenway will be a hard-surfaced multi-use path linking major regional trails/transportation networks. Lighting is a major supporting element of the South Fork Peachtree segment not just for safety, but also for accessibility, aesthetics, and environmental harmony. David led the effort to create a continuous lighting design including photometric calculations, plans, specifications, and quantities using decorative pedestrian post top light poles.

Contributing Lighting Designer for SR 30 at Kolic Helme y Rd Roundabout for Effingham County, GA. The existing stop-controlled T-intersection is to be replaced with a roundabout at the SR 30/ Kolic Helme y Rd crossing while introducing a new roadway serving a new residential development. Crosswalks and multi-use paths are being placed around and through the roundabout while the current undivided two-lane highway and undivided two-lane road are yet to be developed for future growth and multimodal traffic. David is a member of the Wi-Skies team that is providing lighting design including photometric calculations, plans, specifications, and quantities for a four-legged roundabout which will improve traffic flow and safety.

Lead Lighting Designer for Andrews Road Improvements, Columbus, GA (GDOT) This mile long project is a corridor improvement project for CR 455/Andrews Road from Cussetta Road to Buena Vista Road. The project will widen the corridor to include one lane of traffic in each direction, a center turn lane, and a 10’ multi use path for bicycles and pedestrians. Continuous lighting will be added to ensure better traffic flow, as well as traffic and pedestrian safety. Increased lighting along the corridor will also enhance the visibility of commerce along the corridor. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, generating project quantity estimates, and lighting plans.

Lead Lighting Designer for Brennan Road Improvements, Columbus, GA (GDOT) This 1.2 mile long project is a corridor improvement project for CR 2228/Brennan Road from Cussetta Road to St. Mary’s Road. The project will widen the corridor to include a widened lane of traffic in each direction, and a 10’ multi use path for bicycles and pedestrians. Continuous lighting will be added to ensure better traffic flow, as well as traffic and pedestrian safety. Increased lighting along the corridor will also enhance the visibility of commerce along the

DAVID C. KANE, LC

corridor. David is leading the entire lighting design effort by overseeing the photometric calculations, fixture placement, coordinating service point locations, performing voltage drop calculations, generating project quantity estimates, and lighting plans.

Contributing Lighting Designer for the Roundabout Diamond Interchange US 27 ALT @ County Line Road, Muscogee County, GA (GDOT) This project is analyzing adding roundabouts and traffic flow devices to both exits of County Line Road exiting US 27 ALT. The design team has developed 4 alternatives to discern the most efficient and cost-effective method to safely move traffic onto County Line Road. An adjacent roadway running parallel to US 27 adds a level of complexity to the design as it will need to be incorporated into the roundabouts and traffic flow. David assisted in performing the lighting design, photometric calculations, and cost estimates for the 4 alternates, to assist the design team in their decision-making process.