



AARON G. KEIL, LC

Career Summary:

Aaron brings over 10 years of lighting experience, primarily from his time in electrical distribution and being a lighting manufacturer rep. In addition, he is an instructor for Lighting Analysts AGi32 software. Aaron has completed a wide range of lighting projects in his career including residential, commercial, industrial, educational, healthcare, sports lighting, agricultural, government, and roadway projects. The role in those projects have included initial site visits, client scope meetings, photometric plans, product selection and submittals, ROI reports, utility rate case analysis, sales, and project management.

Project Summary:

Senior Lighting Designer for I-75 at Chula-Brookfield Road (GDOT) At the Chula-Brookfield exit along I-75, GDOT is upgrading the existing on/off ramp intersections with new roundabouts and re-routing the ramps to accommodate the new intersection locations. As part of the project new high mast lighting is to be provided. Aaron is responsible for all lighting plans, including the calculations.

Senior Lighting Designer for US78 at Mountain Industrial Blvd (GDOT) As an extension of the Tucker Summit CID Street Lighting Project between DeKalb County, City of Tucker and Georgia power, GDOT is widening the existing exit ramps at US78 and Mountain Industrial Blvd. As part of the widening, this previously unlit section of highway is adding continuous lighting to both on and off ramps. Additionally, lighting at the intersections is to be upgraded and coordinated with Tucker Summit Phase 2 project. Aaron is responsible for all lighting plans, including the calculations.

Project Manager for I-35 NEX Central Design-Build 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 design-build 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 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.

Senior Lighting Designer for Irving Park Road and Old River Road Intersection (IDOT) The Illinois Department of Transportation (IDOT) is widening a section of IL-19 (Irving Park Road). In conjunction with this project, The Village of Schiller Park is replacing the existing post-top lighting, which needs to be removed to accommodate the wider roadway width, with new lighting. The village has requested that designs be completed for both conventional roadway luminaires and a hybrid model consisting of conventional & post-top. Aaron is responsible for all lighting plans, including the calculations.

Project Manager for Pensacola, FL Fuel Farm ST Engineering at Pensacola airport is installing a fuel farm to provide a site to offload and re-fill fuel from planes before and after maintenance activities performed at the site. Aaron is developing electrical and site lighting plans to provide power to the fuel farm. In addition to the fuel tanks, there is a new covered building for other maintenance activities being constructed, which will house an electrical service room, sub-fed from an existing panelboard within the building. There are both 480/277V and 240/120V loads consisting of a 15HP pump, several 3/4HP pumps, recirculating hot water heaters, general power and lighting.

Senior Lighting Designer for I-285 WB Auxiliary Lane Expansion (GDOT) A 1.25 mile long auxiliary lane is being constructed along I-285 westbound between Roswell Rd and Riverside Dr as part of an advance project for a larger scale future project. This project will extend an existing bridge over Long Island Dr, which will impact the existing lighting underneath the bridge, which is being replaced and re-spaced. Additionally, the existing Mt Vernon bridge over I-285 will be replaced and relocated 25' east to minimize construction impacts for staging. The new bridge will have significant lighting on it, including pedestrian scale post top poles integral to half-walls between sidewalks and separated bike

Contact Information:

- ◆ Email:
aaron@wi-skies.com
- ◆ Cell: (920) 323-9843

Education:

- ◆ B.S. Architectural Engineering -Electrical Systems Specialty – Milwaukee School of Engineering, 2012

Software Proficiencies:

- ◆ AGi32
- ◆ Microsoft Office



AARON G. KEIL, LC

path, wall sconce lights along the sidewalks and sign lighting on the outside of the bridge to accentuate new decorative signage attached to the decorative bridge façade. Aaron is responsible for all lighting plans, including calculations and construction details.

Senior Lighting Designer for Sea Island at Frederica Roundabout (Glynn County, GA) The County is replacing the existing major intersection at Sea Island and Frederica with a roundabout to improve traffic flow. Wi-Skies is tasked with providing new lighting at this intersection and working with Glynn County to establish lighting standards for the island; both conventional and decorative. Aaron is responsible for all lighting plans, including calculations.

Senior Lighting Designer for Effingham County Roundabouts Lighting Design 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, along each approach leg, in accordance with IES standards. Aaron is responsible for the lighting and electrical design for some of the roundabout lighting designs including photometric calculations, coordinating service point locations, performing voltage drop calculations and developing plans.

Senior Lighting Designer for Enbridge Energy – Straits of Mackinac Tunnel Boring Enbridge Energy is looking to bore a 4 mile utility corridor under Lake Michigan. As part of the tunnel bore project, Enbridge is adding to their Mackinac south facility. These proposed additions have caused concerns with the neighboring properties and owners; The Headlands International Dark Sky Park and the local indigenous tribes. Wi-Skies has been tasked with quality control and design oversight, to insure that IES and other applicable guidelines are met. This would be to both identify the minimum light levels necessary for construction activities, but also minimize any sky glow as a direct result of the lighting. Aaron is responsible for reviewing all documentation, providing a final report with his findings and creating 3D renderings to help with the approval process.

Senior Lighting Designer for Carolina Crossroads Phase 3 Design-Build for South Carolina DOT SCDOT is designing improvements along the interstate corridor of I-20/I-26 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/I-26 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. Aaron is responsible for all modeling and lighting plans for the pursuit phase.

Senior Lighting Designer for Experimental Daytime Lighting for GDOT. As part of ongoing high level research work with IES, GDOT and other agencies, Joe Marsh is leading the effort to overhaul the international standard for 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 and Joe is recommending providing only lighting which would be minimally necessary to ensure good visibility throughout the tunnel and nothing more. As part of this effort, GDOT has chosen two tunnels which certainly need some sort of daytime lighting and has tasked Wi-Skies to provide what they believe will be the minimum amount of lighting necessary within them, along with others that need to be analyzed. Wi-Skies 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. Aaron is responsible for 3D modeling of the existing bridges GDOT has identified and running daylight calculations in AGI32.

Project Manager 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. Aaron is responsible for performing photometric calculations, voltage drop, and quantity calculations for the lighting design for the intersection.

Project Manager for City of Albany Lighting at Traffic Signal Upgrades. The City of Albany, GA is upgrading sixteen intersections throughout their downtown corridor as part of a traffic enhancement and beautification project. As part of this work, they are installing decorative lighting onto these traffic signal poles, for which Wi-Skies is responsible for. Given the luminaire locations are dictated by the traffic signal locations (by MUTCD), the challenge is meeting intersection lighting requirements with these limitations. It is our responsibility to provide luminaires to maximize the lighting delivered where it needs to be within the intersection while also meeting the aesthetic objectives of the project. Aaron is responsible for the photometric design and leading the development and delivery of the final lighting plans.

Project Manager for Johns Creek Parkway at Lakefield Dr Roundabout Lighting (City of Johns Creek, GA) This quick response project involves the replacement of an existing intersection with a new roundabout to reduce the severity and frequency of crashes at the busy intersection. Aaron is responsible for the photometric calculations, performing voltage drop calculations and developing plans. This includes the evaluation of the existing lighting along both intersecting roads, as well as tying into the existing electrical systems.

Senior Lighting 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

AARON G. KEIL, LC

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. Aaron is responsible for all lighting plans, including calculations.