



Lightning protection at the highest level.

Evolution

We recently completed our first major rebrand in more than 20 years. The process quickly became exciting as we dug into the “authenticity” of the business we’ve operated for generations.

Innovation isn’t a word I use easily. Trying to be ever more efficient is just prudent to me.

During the rebrand process we focused on the essential nature of the systems we design, as life safety applications and the first and

last lines of defense for electronic infrastructure. Where it comes together is in the projects, the work we’re blessed to do with really talented project partners.

So, with excitement I share this first newsletter. See a little of what we’ve been up to lately as we continue to evolve.

Visit hlpystems.com.

Jeff Harger, President

What’s Inside:

Distribution Centers
pg. 2

The Case for Lightning Protection
pg. 3

Reroofs & Lightning Protection
pg. 4

No Shortcuts to the Top
pg. 5

The Earlier the Better
pg. 6

Team Member Spotlight
pg. 7

Around Town
pg. 8

Covid-19 Safety
pg. 9

Distribution Centers: Scale. Scope. Complexity.

Distribution Center means different things to different people—warehouse, fulfillment facility, cross-dock, bulk break or package handling center. The structures range in size from 50,000 square feet to over three million.

HLP Systems is a specialist in the sector having now completed multiple successful projects. A single source, HLP Systems delivers lightning protection system and grounding system design, installation, inspection and certification. One regional example is the **1.2 million square foot IKEA Midwest Distribution Center, in Joliet, Illinois**, which serves IKEA stores throughout the Midwest.

Modern distribution centers are more than big boxes. A phalanx of complex operating systems can include automated retrieval systems, scalable temperature controls, refrigeration and robotics. HLP Systems Executive Vice President Justin Harger commented, “Beyond lightning strikes, our system designs address the operating systems within the structure.” Justin continued, “There are sometimes acres of building under roof and these large roof layouts require layers of precise preplanning.

They call on our in-house designers’ creativity. There is no template for these systems.”

An average commercial building might require two-to-three dozen air terminals, or lightning rods as they are also known. A single distribution center’s lightning protection system can encompass hundreds. Centering on logistics, materials scheduling and staging, comprehensive preplanning includes rough design, modeling and general contractor and subcontractor coordination. “As one of the last trades on the job, delays at our stage can mean delay in building turnover. Our process leaves nothing to chance.” Harger concluded, “None of this is isolated to distribution centers. What people seem to like about our work is the lack of surprises.”

HLP Systems is currently underway on an **Amazon**

Fulfillment Center in Matteson, Illinois. At **855,000 square feet**, it is one of the first operations facilities to utilize Amazon Robotics technology. The project anticipates nearly six miles of cable on roof and another mile in earth, topped off with the installation of over 1000 air terminals. At 12 inches tall, these air terminals are a visual non-factor in the building’s overall aesthetic.

Often the largest structures in a four-to-eight flash per square-kilometer per year lightning flash density area, the probability of lightning events impacting a distribution center is increased due to these structures’ roof area.

To better understand how HLP Systems supports and protects essential operations, contact Justin Harger at jrharger@hlpsystems.com.



IKEA Midwest
Distribution Center

The Case for Lightning Protection

People make the best case for lightning protection as a code-enforced life-safety system. Over the last two decades lightning is second only to floods for deadly weather. Nearly 10% of all those struck, die.

In every instance, property owners are potentially liable.

In 2018, almost \$1 billion in lightning claims was paid to 78,000 policyholders.

Electronic infrastructure describes all the systems within a structure that depend on electrical current for their function. The consequences of electronic infrastructure failure range from inconvenient to irreparable.

\$1.7 trillion dollars in data was lost in one year alone.

The decision to forego lightning protection has consequences. The results of going bare are almost always negative.

Injuries Can Occur From:

Direct Strikes

High fatality rates.



Contact Injury

Victim touching object when struck.



Side Flashes

Current jumps from taller object to nearby victim.



Fire

Rapid spread.



Excerpted from the Lightning Protection Institute (LPI). Founded in 1955, the LPI is the voice of lightning protection and grounding system manufacturers and contractors. lightning.org



Reroofs & Lightning Protection

Roofing consultants hold a unique position. They hold property owners' purse strings. With commercial reroofs, lightning protection can tear at those strings. Involving an HLP Systems' reroof expert early in the project can mean the difference between a reasonable investment and a needlessly inflated expenditure. HLP Systems works closely with roofing consultants and their contractors to sensibly value engineer the lightning protection component of reroofs of all size.

HLP Systems' Jeff Harger commented, "Start with our removal of the existing

lightning protection system from the roof being replaced. To realize any savings, or to repurpose the system's components, removal must be conducted by a professional lightning protection contractor. We can often salvage an amount of the material, repurposing it to the new or updated system."

This must be considered and decided early in the project. Substantial savings may follow.

Harger continued, "Lightning protection is almost always better left to the experts. It's never as simple as removing the system and

reinstalling it." Nuance in system design impacts system function. A properly designed and installed, or updated system, addresses any new demands placed on it by structural changes, increased, or enhanced electronic infrastructure.

Harger concluded, "The mindset with reroofs is the same as with any structure. Property owners should specify a properly designed, installed, inspected and certified system." The way to do that is to involve a lightning protection professional.

The place to start is hlpystems.com.

No Shortcuts to the Top

High-rise construction is dangerous. It can be deadly. With Chicago's skyline a primary HLP Systems worksite, the unique skills demanded by these projects are not extraordinary. Much like personal safety systems such as harnesses, they are necessary basics for the safety of HLP Systems' team members and project partners.

OSHA 10 and 30-hour instruction with emphasis programs for high-rise construction and fall prevention supplement other in-house safety programming.

OSHA fall protection safety standards are the most commonly violated standards on construction job sites.

"Even accessing a property's rooftop safely requires experience," Jeff Harger said. "We almost always work side-by-side with other contractors. There's nuance to this." He concluded, "A lot of times we hear, 'You guys are in and out.' Efficiency mimics speed."

There are no shortcuts to high-rise expertise. For at least the last decade, **HLP Systems' portfolio consistently includes 18 to 20 of Chicago's tallest**

buildings. Insurance capacity is equally as important as competency and capability. HLP Systems' project partners benefit from all three.

"Even accessing a property's rooftop safely requires experience,"
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The Earlier the Better

The earlier HLP Systems enters a project, the greater our ability to positively impact design and schedule. From a value engineering perspective, potential percentage savings are substantial, made so using design efficiency, as just one example.

Aesthetic and design challenges are approached holistically. Beyond the aesthetic, and critically more important, are system function and efficacy.

Rather than “fitting a piece” to an already, or nearly, completed project, LPI Master Installer/Designers produce wholly integrated systems.

**Today is our
earliest
opportunity.**

Team Member Spotlight

Alfredo Figueroa

Journeyman Lightning Protection Installer



Problem solver. Craftsman. Staging savant.

For more than a decade, Alfredo Figueroa has helped HLP Systems evolve as Chicago's preferred lightning protection provider for leading architects, engineers and general contractors. His commitment to building supportive, on-site relationships across the trades makes him a valued and trusted project team liaison.

Tell us about your path at HLP. How has your position evolved over time?

I started with HLP as an apprentice and worked my way up to a Journeyman. I'm now HLP's point person for downtown high rises in Chicago. I coordinate with general contractors and electricians on new and ongoing jobs, helping them

understand how our systems function and are installed. Of course I still do quite a bit of handwork on most projects.

What's it like working downtown?

I love working in a hustling, thriving city like Chicago. I was born and raised on the South Side, so being able to make a good, honest living in my city means the world to me and my family. I love looking up and seeing I've helped install systems on countless high rises like One Bennett Park, Vista Tower, NEMA, The Paragon, 150 North Riverside and Loews, in addition to some of the older, more classical buildings, like London House.

What's the most important part of your job?

Protecting a facility's infrastructure and people from

the effects of a lightning strike is most important, but so is making sure our systems are pleasing to the eye.

Tell us about a recent project.

Wolf Point is a stunning building, sitting on the Chicago River with incredible views toward the lake through the river. The sunrise views are especially amazing. I love seeing so many hardworking tradesmen and women taking great pride in building.

What advice do you have for others working their way up through the ranks in the lightning protection industry?

Keep working hard. Listen and talk to your clients, as well as architects, to give them a aesthetically-pleasing and functional system. Oh, and be prepared to take some seriously scenic walks in the sky.

Around Town

Wolf Point East

Pelli Clarke Pelli Architects
Hines & Kennedy

“HLP has been essential in assisting in design and execution of the lightning protection system at Wolf Point East. Alfredo and Jeff have been pivotal in the success of the Wolf Point East lightning protection system through their prompt response and action to any situation.”

–David Purdy, Project Manager, The Walsh Group

Cirrus and Cascade Towers

bKL Architecture
Magellan Development Group

One Bennett Park

RAMS Architects
Related Midwest

Fulton East Chicago

Lamar Johnson Collaborative
Clayco

Safety Amid COVID-19

Operating during the COVID-19 pandemic is not a temporary enterprise. Both OSHA and the CDC provide construction site safety protocols specific to the conditions COVID-19 presents.

Individual contractors and subcontractors rightfully have their own best practices project partners are expected to uphold.

HLP Systems is no different. Our construction workforce safety protocols and guidance are now well established.

They encompass:

- Site, tool/equipment, vehicle sterilization
- Personal safety systems
- Site sanitation and containment
- Enhanced professional hygiene code(s)

We tailor our protocols to mesh with our project partners' best practices. Our workers, like yours, are our most essential assets. Protecting them is the first job.





HLP SYSTEMS

Lightning Protection at the Highest Level

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