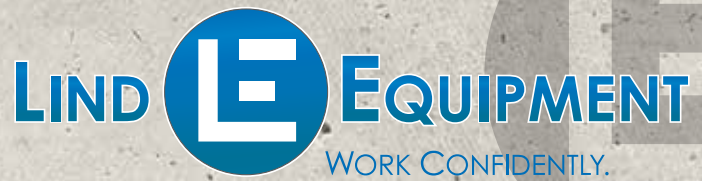


# CASE STUDY: ICE District



Located in the heart of Downtown Edmonton, the ICE District will be Canada's largest mixed-use sports and entertainment destination. The development is comprised of world-class superstructures, including the Stantec Tower, JW Marriot, and the Legends Private Residences, Central Parkade and the Edmonton Tower. Lind Equipment worked with PCL to adopt the LED Jobsite temporary lighting system across all phases of construction on the project.

The first set of lights were deployed on the Edmonton Tower project in the early spring of 2015, when LED technology was still considered to be relatively new in the field of temporary construction lighting. Demonstrating PCL's corporate commitment to environmental sustainability, the progressive decision-makers at PCL recognized the energy savings that LED Jobsite lighting would provide.

Traditionally, electricity costs for temporary lighting on a jobsite are underestimated and not always accounted for accurately. Lind Equipment worked closely with PCL to track the energy usage throughout the project and the results proved to be quite staggering. LED Jobsite lighting resulted in saving over \$3,000,000 in electricity costs.

With traditional bulb-based lights (i.e. stringlights, metal-halide highbays and quartz-halogen floodlights), the electricity costs would have totalled \$3,577,313. LED Jobsite lighting reduced energy consumption by 90% and cost only \$373,740.

## PROJECT FACTS:

### LOCATION:

Edmonton, Alberta, Canada

### PROJECT SIZE:

5 Buildings, Total 4.2 Million Square Feet

### TYPE OF PROJECT:

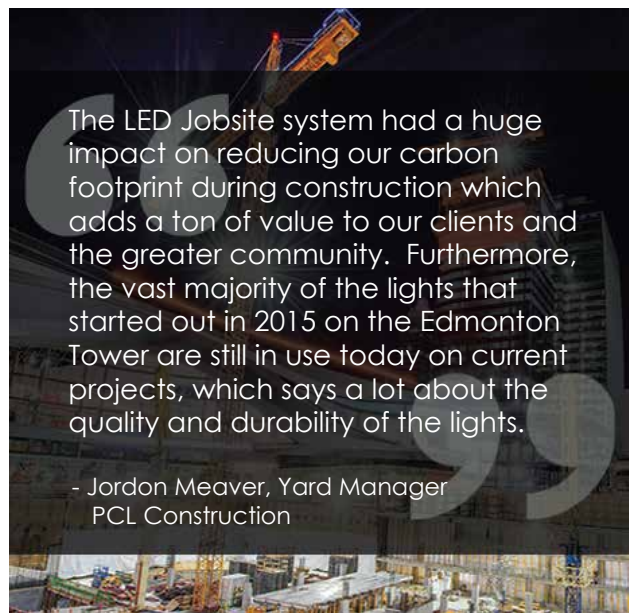
Mixed Use, Commercial, Retail, Residential

### CONSTRUCTION DURATION:

4 years +

### ELECTRICITY SAVINGS:

\$3,203,573 (at the time of print - see [www.ledjobsite.com](http://www.ledjobsite.com) for current totals)



The LED Jobsite system had a huge impact on reducing our carbon footprint during construction which adds a ton of value to our clients and the greater community. Furthermore, the vast majority of the lights that started out in 2015 on the Edmonton Tower are still in use today on current projects, which says a lot about the quality and durability of the lights.

- Jordon Meaver, Yard Manager  
PCL Construction

## ENVIRONMENTAL GAINS:

# 32,819

METRIC TONS CO<sub>2</sub> SAVED

### POSITIVE ENVIRONMENTAL IMPACT EQUIVALENT TO:

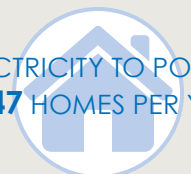
REMOVING **6,939** CARS  
FROM THE ROAD PER YEAR



PLANTING **841,513**  
URBAN TREES



ELECTRICITY TO POWER  
**4,847** HOMES PER YEAR





## ON THE JOBSITE: BEYOND ELECTRICITY SAVINGS

Through dramatically reduced energy usage, no maintenance, and durable construction that can be used again and again, the LED Jobsite system created huge benefits for the project team and the environment. An amazing win-win!

LED Jobsite lights require significantly less circuits, no maintenance, and are easier to install, relocate and uninstall. During the Central Parkade build, the project team appreciated the innovative design of the Beacon360 Blaze lights and benefited from being able to replace traditional stringlights at a ratio of 2:1. Therefore, instead of installing 200' of stringlights (20 bulbs and sockets), only 1 LED Jobsite light was needed to provide equivalent light output, and they never required a single bulb change.

With creative and analytical thinking, the PCL team factored in the durability and reusability of the LED Jobsite system. Recognizing that LED Jobsite lights can be reused again and again, for years, PCL shifted their mindset and inventory control to consider temporary lighting as a company asset rather than a disposable item.

In most areas of each building, the Beacon360 Blaze was hung from the ceilings as the structural build was completed. Upon the start of fitout work, the Beacon360 Blazes were brought down from the ceiling and mounted on tripods to be used as portable lights around the site. This ability to use the lights across all phases of construction was a huge advantage for all the trades on the site.



## JOBSITE SAFETY

Jobsite safety is enhanced by using LED Jobsite lighting. Since LED bulbs are cool, workers avoid skin burns. Unlike hot halogen bulbs, which pose a fire hazard when located near flammable materials, LEDs do not pose a fire risk. Furthermore, compact fluorescent and metal-halide bulbs contain mercury and toxic heavy metals; workers can be exposed to these toxins when bulbs break. Fluorescent and metal-halide bulbs also emit UV radiation.

## CALCULATING THE SAVINGS:

### LED LIGHTS USED

### TO REPLACE THESE BULB-BASED LIGHTS

### ENERGY REDUCTION

LE980LED LED Crane Light

1000W Metal-Halide Crane Light

**70%**

LE360LED 360 Area Light

100W Incandescent Stringlights  
(each LED light replaces 25 stringlight bulbs)

**94%**

LE360LED 360 Area Light

400W Metal-Halide Highbay/Wobble Light

**70%**

LE970LED Flood Light

500W Quartz Halogen Flood Light

**90%**