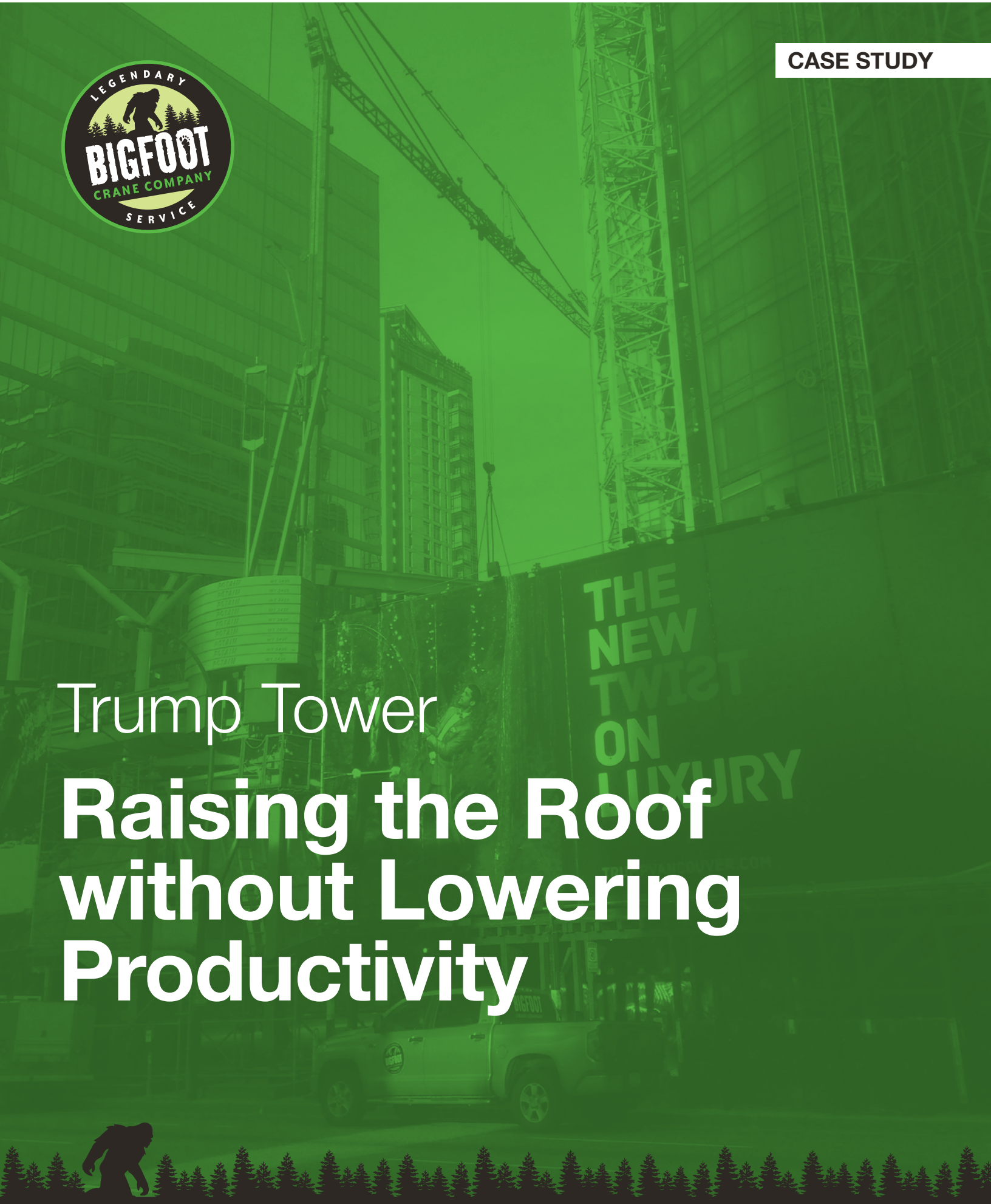
CASE STUDY



Trump Tower

Raising the Roof without Lowering Productivity

Challenges? At Bigfoot, we take them all in stride.

WWW.BIGFOOTCRANE.COM

Situation

The new Trump Tower in downtown Vancouver needed a way to hoist all the pieces of the steel canopy at its podium up as high as 70 feet above street level. The crane had to stay in place for several months and operate within a narrow space between two existing high-rises, all without blocking either the street and the sidewalk or interfering with a second crane on the same site.

Solution

It was a tall logistical order, but we came up with an integrated plan that included a 35 metre Potain HD40A Self-Erecting Tower Crane mounted on an engineered 20 foot stand set up over the sidewalk, allowing foot traffic to move freely underneath. An innovative hydraulic jib allowed the crane to maneuver between the two high-rises and radio coordination between the two crane operators enabled smooth operations.

Special Challenge 1

Busy street, busy sidewalk. Don't block either. Ever.

The City of Vancouver would not allow a crane to block any part of West Georgia Street for long periods of time. The same went for the sidewalk. So we engineered a 20 foot stand over the sidewalk and set the self-erecting crane on top of that. People could easily pass underneath. One problem. We still needed City approval to block the street while the crane was lifted onto its stand.

Turns out we had another project at the Fortis Building just down the block which also needed a crane lifted onto the site. We waited several months for street closure approval, then piggy-backed both jobs together on the same day, the Sunday between Christmas and New Year's.

Special Challenge 2

Wide reach in a narrow space.

The steel for the building's base canopy needed to be placed between two high-rises, meaning limited mobility for the crane. The Potain Self-Erecting Tower Crane features a hydraulic unfolding jib which allowed us to retract the jib throughout the project. When folded, the crane can swing out over the street to pick up steel from trucks and offload it onto the site. Once the steel is between the two buildings, the crane folds its jib out to reach to all the difficult places.

By law, a self-erecting crane also has to be able to weathervane, slewing 360° when not in use. Since this crane couldn't do this within the narrow space, we implemented an engineered 'tie down' to secure the jib when out of service.

Special Challenge 3

Choreograph a two crane tango.

A tower crane was already working the site erecting the main structure tower, but it couldn't be utilized to place the steel at the podium since it was working at capacity adding floors. We organized a safe work schedule and radio contact between both crane operator, allowing them to safely lift off different trucks in the same loading zone without interfering with each other.