

How we built aerial panoramic of Red Wings arena area



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Digital



The panoramic view of downtown was created in collaboration with LunaTech 3D.

The Red Wings arena area — a 45-block, five-neighborhood expanse of downtown envisioned as a supersized entertainment and sports district — presented the Crain's newsroom last week with an opportunity to illustrate the project in an innovative way.

When the week was over, we'd created an online, interactive, aerial panoramic in partnership with Plymouth-based LunaTech 3D that gave readers a view of the area unlike any other. It also

bookmarked for us — and the city — a "before-the-hockey-arena" view.

Wouldn't it be great to fast-forward three years and see that same view "after-the-arena"?

We think so, too ... so stay tuned.

In the meantime, we've had a lot of questions about how the interactive was created. We've asked Doug Willett, president of LunaTech 3D, to gather answers from his team so we could tell the behind-the-scenes story of the Detroit Rink City interactive.

Here are some answers to how it was done.

How were the aerial images taken and put together?

LunaTech used a high-definition DSLR camera, with a special wide-angle lens, attached to an aerial vehicle to capture dozens of photographs from each corner of the new hockey arena site, says Nicole Heyart, principal at LunaTech and a Google-certified geo 3D developer.

"We then stitched the photographs from each location into four spherical images that allows the user to spin 360 degrees from the location of the aerial vehicle and view the site along with the surrounding area," Heyart said. "These spherical images were connected together into a custom tour interface that allows the user to jump from one location to the next within the tour."

Time invested? About 1.5 hours to shoot, and about a half hour to 45 minutes to stitch each of the four views, Heyart said.

Any FAA rules that apply?

LunaTech stays within parameters stated by the **Federal Aviation Administration**, which are pre-flight vehicle inspection, maintaining line of sight and adhering to a flight ceiling height. "We operate with a safety-first mindset," said Heyart.

Was the aerial vehicle a drone?

A drone is technically an unmanned aircraft controlled by computer — and often refers to crafts used by the military. The vehicles used by LunaTech are technically unmanned aerial vehicles (UAVs) that are piloted by trained individuals but are used to create virtual visual presentations — and not to spy on or invade anyone's privacy.

What's with the red pulsing circles?

"Hot-spot overlays" were placed in each spherical image to give the user more information about the surrounding neighborhoods. Clicking on an overlay brings up an image gallery showing existing and proposed changes for each neighborhood. LunaTech and Crain's editors worked together to piece the images with the corresponding areas.

How did you decide what to spotlight?

LunaTech's Willett camped in the Crain's conference room all day last Friday, working with our team in selecting and editing the photos for each gallery view. As we combed through the images and PDFs of the proposed arena area, we chose those we thought worked best. Late into Friday evening, LunaTech delivered the code to us for the actual interactive map.

How did you get it to show up on crainsdetroit.com?

The tour was exported into a Web interface that allowed it to be viewed by a direct link or embedded into any Web page or supporting digital media. That's where Norm Witte III, Crain's Web developer, took over. Working with the LunaTech team, he downloaded about 5,500 files to be used in the interactive, and figured out how to blow out the page where the interactive was to display and make it all work well for readers.

Magic, really.

What do you think of the interactive? If we did this again, what would you like to see? Tell us in the comments below.