

STV PERSPECTIVES (HTTPS://STVPAGES.COM/CATEGORY/STVPERSPECTIVES/)

# Lessons from the Field: New Methods for Designing Effective Video Surveillance

JUL 22, 2022



One of the most challenging aspects of designing video surveillance systems is outfitting our clients with comprehensive coverage.

Over the past 10 years, as I've managed major airport, rail, multimodal transit, and tunnel security system project in various metropolitan areas, I've also designed communications and security systems at transportation facilities, including upgraded intrusion detection systems, and data networks, with one overarching challenge in mind.

Every project entails individual Fields of View (FOV) with unique cameras and levels of pixilation. Every turnstile, gate, entryway, or platform has its own specific needs and criteria, which means individualized analysis for all camera locations.



(https://www...  
u=https%3A...  
from-the-fie



(https://www...  
url=https%3...  
from-the-fie



(https://twitt...  
url=https%3...  
from-the-fie



()



(mailto:?&...  
body=https%3...  
from-the-fie

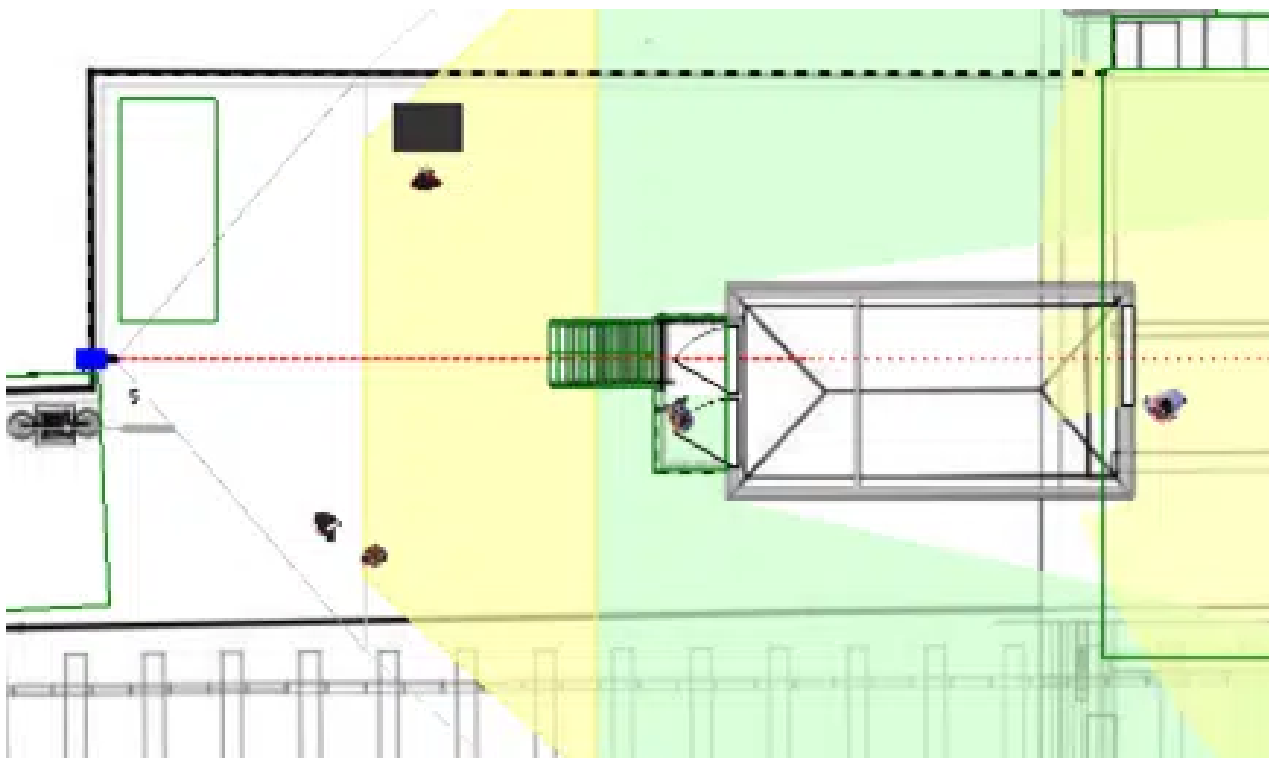


*Software FOV Rendering*

Until recently, this meant that for each camera requested by our client, members of my project team would conduct hundreds of FOV surveys to determine what the installed cameras' views would be. These analyses consisted of affixing a temporary camera, measuring the height, capturing digital images, documenting calculations, and replicating them in Computer Aided Design (CAD) to establish full surveillance coverage.

This tedious and inefficient process, which is a part of a closed-circuit television (CCTV) design in the industry, takes lots of manpower for a result that often needs to be readjusted later during the construction phase.

There had to be a better way.



*Software Floor Plan*

After exploring various types of software to aid in the design process, we found one that allowed us to tailor CCTV renderings to not only include three-dimensional features, but it also gives us access to thousands of camera manufacturers and models, all within one program.

With this method, rather than conducting multiple FOV surveys at the same site after designs are adjusted, my team is now able to update the renderings and produce the most accurate camera view.

As designers, it affords my team the ability to capture the FOV more accurately and make adjustments in the design process: which means less time and fewer resources spent on gathering data and more time spent implementing the data for actionable designs.



*Field Replicated FOV Example*

After recently employing this software for a \$40 million customer service initiative for a transit client, due to the tool's efficacy, as well as the client's satisfaction, this has now become the standard practice in my systems group.

I'm thrilled to have this tool in our firm's arsenal to visualize what is desired by our clients and create what is required to implement it.



*Danielle LaFrance, P.E., PMP, is an STV associate, systems engineer, and member of the firm's Diversity, Equity, and Inclusion council. She has more than 11 years of experience designing communications and security systems on major airport, rail, multimodal transit, and tunnel security systems in the New York, Boston, St. Louis, and Washington, D.C. metropolitan areas.*

## RECENT ARTICLES

**Chicago Rising Star Awarded WTS Scholarship (<https://stvpages.com/chicago-wts-diversity-in-transportation-scholarship-2022/>)**

**Finding Ways to Measure Equity and Climate Resilience for Clients (<https://stvpages.com/measuring-equity-climate-resilience/>)**

**Newly Elected WTS Philadelphia VP Alexis Williams Wins Member of the Year (<https://stvpages.com/wts-member-of-the-year-philadelphia-2022/>)**

[Fields Of View \(https://stvpages.com/tag/fields-of-view/\)](https://stvpages.com/tag/fields-of-view/)

[FOV \(https://stvpages.com/tag/fov/\)](https://stvpages.com/tag/fov/)

[Stations \(https://stvpages.com/tag/stations/\)](https://stvpages.com/tag/stations/)

[Surveillance \(https://stvpages.com/tag/surveillance/\)](https://stvpages.com/tag/surveillance/)

[Systems \(https://stvpages.com/tag/systems/\)](https://stvpages.com/tag/systems/)

[Thought Leadership \(https://stvpages.com/tag/thought-leadership/\)](https://stvpages.com/tag/thought-leadership/)

[Transit \(https://stvpages.com/tag/transit/\)](https://stvpages.com/tag/transit/)

[Video \(https://stvpages.com/tag/video/\)](https://stvpages.com/tag/video/)

## Subscribe to STV Pages

**SUBSCRIBE**

## Looking for something else?

**ARCHIVE**

**SEE STVINC.COM**

---

Privacy Policy  
(<https://stvpages.com/privacy-policy/>)

© 2021 STV Pages. All Rights Reserved.