



Ryan Sherman

Shermarj1993@gmail.com 

BIM Manager II

607-590-1460 

Ryan combines 7 years of experience (4 years of BIM expertise with 3 years of design experience) in all phases of projects from planning to construction documents. This knowledge allows him to be a valuable resource and work seamlessly with any team from initial studies through final design and construction. Ryan has his Bachelor of Science in Architecture Technology from Alfred State College and is working to pressure his knowledge by implementing cutting edge technology in his industry.

Palm Coast,
FL 

Work Experience

BIM Manager II

Pike Construction Services

Jan 2020 – Present

Rochester, NY

- Managed the utilization of cutting edge VDC (Visual Design and Construction? Tools for \$15-200 million-dollar renovation & new builds.
- Created the standards of operations for the use of 360 cameras and implemented on all jobsites within the company.
- Evaluated and Standardized the process of request forms for office to site technology.
- Organized and guided teams of 20+ during BIM Coordination meetings for multi million-dollar projects.
- Improved operational effectiveness by streamlining the use of cutting-edge technology within the company.
- Established the Florida BIM department after relocating in 2022.
- Provided design assistance incorporating time and money saving ideas through the coordination process.

Design Technology Specialist

Hale Technology in Practice

May 2019– Jan 2020

















Rochester, NY

- Advanced training and knowledge of Laser Scanning and Point Cloud data management.
- Achieved and maintained the Part 107 Pilots License. In order to capture ariel images for the use of photogrammetry mapping.
- Created detailed Revit AMEPF models from scan data using the scan to BIM method.
- Facilitated and lead the coordination of data capture logistics on buildings 30-100 thousand sq.ft. in size.
- Worked in a collaborative office space to meet time sensitive deadlines for model turn over.

Market Sectors

- Healthcare
- Residential
- Manufacturing
- Commercial

SKILLS

- | | |
|--|---|
|  Navisworks |  Bluebeam |
|  Microsoft Suite |  360 Cameras |
|  3D Printing |  Laser Scanning |
|  Leadership |  Coordination |
|  GPR Data |  StructionSite |
|  Adobe Suite |  VR |
|  Revit |  AutoCAD |
|  Licensed Drone Pilot |  Thermal Imaging |

Certifications & Memberships

- ACE Mentor Program
- OSHA 30-Hour Construction
- Intern Mentor Program
- Part 107 Drone Pilot
- ABC Central Florida

Education

Alfred State College – SUNY College of Technology

Alfred, NY

Bachelor of Science in Architecture Technology

Sant'Anna Istitutue

Sorrento, Italy

Study Abroad

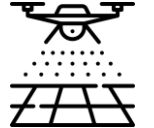



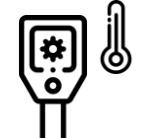

Genesee Community College



Batavia, NY

Associate in Fine Arts








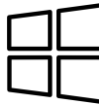








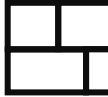
Symbol Key

Equipment

-  Drone
-  Drone Pilot
-  Drone Mapping
-  Aerial Thermal Imaging
-  Virtual Reality Glasses
-  Total Station
-  Laser Scanner
-  Thermal Imaging
-  360 Camera

-  3D Printers
-  Ground Penetrating Radar

Software

-  Revit
-  Navisworks
-  AutoCAD
-  Civil 3D
-  ReCap
-  Tekla Structures
-  Fuzor
-  Microsoft
-  BIM 360
-  SketchUP
-  YouTube Video Link
Click to Play Video
-  Link to Supporting Documents
Click Here For More
-  Adobe Creative Suite
-  Revitzo 5
-  Trimble Realworks
-  BlueBeam
-  StructionSite

Request Forms Company Wide

Added, updated and reformatted the BIM Service request forms to help streamline the standards of the Shared Service department.

- Drone Flight
- Drone License
- 360 Camera
- Thermal Imaging
- Layout
- HDLS
- BIM/VDC Services List

Drone Flight Request Form

Project Information

Project Name: _____
 Address: _____
 Parking Restrictions: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Deliverable

Photos Video 2D - Site Map

Other: _____

Date: If multiple walks are required, please add the dates below if known.
 Date of Flight: _____ Multiple Dates: _____

BIM Department Use

Drone Pilot:
 Name: _____ Email: _____ Phone: _____

COA Needed: Yes No
 COA if needed: _____

Pike

Drone License Request Form

Project Information

Project Name: _____
 Address: _____
 Parking Restrictions: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Requirements

Drone LMS Training: Please complete the introductory course and all knowledge lessons needed.
 Drone Pilots Part 107 License: Obtained through the FAA by passing a written examination.
 Access to Drone Deploy: Please have a project setup on drone deploy so we can view flight patterns.
 Attend in Person Flight Training: The BIM Dept. will hold in person training days for learning how to fly the drone.
 Date: If multiple flights are required, please add the dates below if known.
 Date of Images: _____ Date of Flight: _____

BIM Department Use

Training Point Person:
 Name: _____ Email: _____ Phone: _____

Part 107 License: Yes No In Person Training Complete: Yes No
 Drone Type: _____ Date of Issuance: _____
 Drone Registration ID: _____ Pilot Certification #: _____

Pike

360 Camera Request Form

Project Information

Project Name: _____
 Address: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Requirements

360 Camera Training: Please set up a time with the point person below to go over the training needed.
 PDF Floor Plans:
 Yes If yes, please attach PDF plans and send this form to the point person below in the BIM department.
 No If no, please set up a time to go over the training needed with the point person below.
 Date: If multiple walks are required, please add the dates below if known.
 Date of Walk: _____ Multiple Dates: _____

BIM Department Use

Note: A \$5,000.00 cost will be charged to the project yearly & the camera must be turned into the BIM department upon project completion.

Training Point Person:
 Name: _____ Email: _____ Phone: _____

StructionSite Ready: Yes No One time Walkthrough: Yes No
 360 Camera Asset ID Tag #: _____

Pike

Thermal Imaging Request Form

Project Information

Project Name: _____
 Address: _____
 Parking Restrictions: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Deliverable

Handheld Device Aerial Imaging
 Photos Drone Photos

Date of Images: _____ Date of Flight: _____

Other: _____

BIM Department Use

Drone Pilot:
 Name: _____ Email: _____ Phone: _____

COA Needed: Yes No
 COA if needed: _____

Pike

Layout Request Form

Project Information

Project Name: _____
 Address: _____
 Parking Restrictions: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Deliverable

Control Points (CVS): Yes No PDF/CAD Plans: Yes No
 If yes, attach and send them with this filled out form to the BIM department.

2D Model work needed before Layout 2D Excavation Layout
 2D Foundation Footer Layout Bolt Layout / Check
 2D Sitework Layout

Date of Layout: _____
 Total Days Needed: _____
 Other: _____

BIM Department Use

Layout Point Person:
 Name: _____ Email: _____ Phone: _____

Pike

HDLS Request Form

Project Information

Project Name: _____
 Address: _____
 Parking Restrictions: _____

Project Cost Code

Job: _____ Phase: _____ Category: _____

Point Person: Please include on site contact.

Name: _____ Email: _____ Phone: _____
 Name: _____ Email: _____ Phone: _____

Deliverable

Have PDFs of the Area: Yes No
 If yes, attach and send them with this filled out form to the BIM department.

Scan in Color Scan in Color
 Scan in Black & White Scan in Black & White

Other: _____

BIM Department Use

Registration Point Person:
 Name: _____ Email: _____ Phone: _____

Pike

BIM/VDC Services List

Building Information Modeling / Virtual Design and Construction

Project

Project Name: _____ Date: _____
 Project #: _____

Spatial Coordination

2D/3D Model Production
 • Modeling MEP, Footings, Slabs, Structural Steel and more in order to incorporate into a 3D model.

Issue Tracking
 • Incorporating issues such as RFI's, BA's and CO into a model in order to provide the most up to date files for the team.

Drawing Production
 • Representing all the details of the product, regarding size, shape, material, process, tools and equipment.

Document Control
 • A series of practices that ensure that documents are created, reviewed, distributed, and disposed of in an organized and verifiable manner.

Design Constructability Analysis
 • To anticipate and identify challenges to the actual construction of the project before a project moves on from the design phase.

HDLS Collection/Data Analysis
 • Utilize 3D laser scan data to verify and identify existing conditions to reduce the risk of unforeseen conditions.

360 Walkthrough
 • A process of taking a virtual tour of any structure, through the medium of internet connectivity, from anywhere at any time.

Floor Flatness Analysis
 • Drainage Utilize 3D laser scan data to verify concrete floor flatness and floor slopes for proper drainage.

sUAS Capture
 • 2D & 3D Aerial photography maps for the use of capturing existing site conditions before during and after construction.

Ground Penetrating Radar Analysis
 • Utilize a GPR sub for locating rock and existing utilities. The data can then be used to create 2D & 3D plans of existing conditions.

Pike

BIM/VDC Services List

Building Information Modeling / Virtual Design and Construction

Modeling / Visualization

Schedule Simulation
 • 3D animation linked to a project schedule to help plan and visualize construction sequences through the project duration.

3D Printing
 • Ability to 3D print scaled models to be used as a visual aid on site and during presentations.

Quantity Extraction
 • Extracting data from a 3D model such as doors, windows, walls and square footages into an excel file in order to assist with takeoffs.

Animation
 • Creating a 2D/3D videos of a model showcasing the construction sequence and how it relates to a projects schedule.

Rendering
 • A visual representation of a view or model on how a space will look once completed.

Site Logistics Planning and Communications
 • Logistics out of a project walk using a 3D model of a project

Geo-Spatial

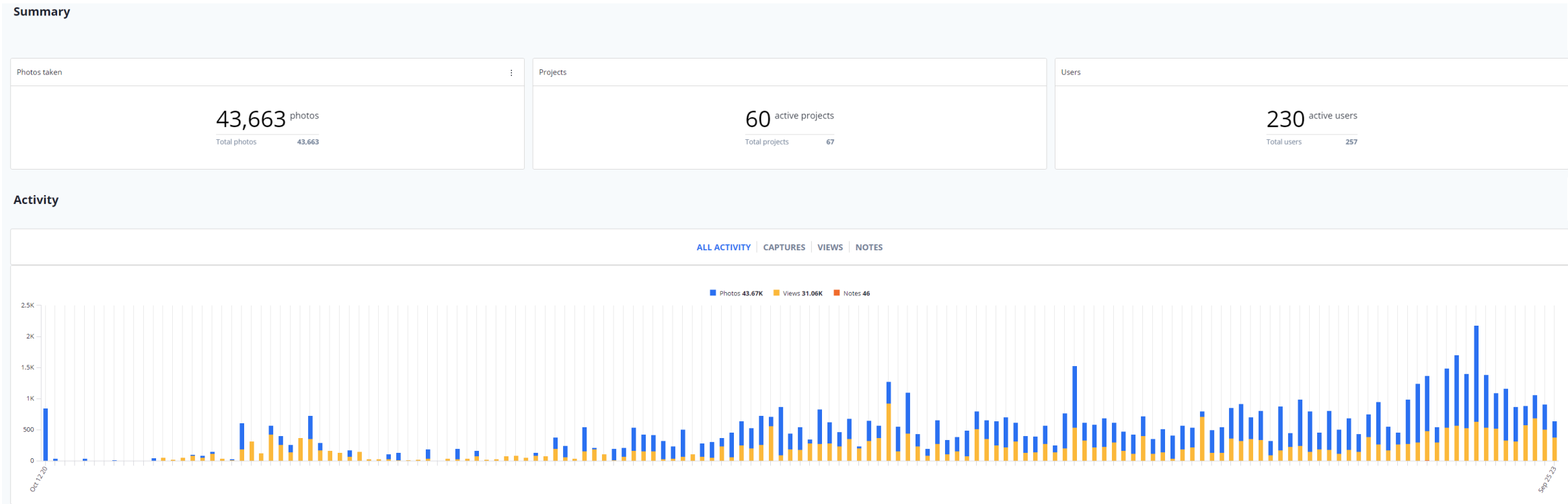
Stub-up Analysis
 • Stub-up Analysis Utilize robotic total station to verify underground utility stub-up locations prior to concrete pours.

Thermal Imaging
 • Detect heat loss failures in building, detect roof failures, pour insulation, and/or building envelope issues.

Civil Surface Analysis
 • 3D Mapping of current site conditions for the use of right Site analysis and stockpile quantification.

360 Cameras Company Wide

Lead and currently leading the efforts on implanting 360 camera on all active projects. Also bringing in \$5,000K a year to the BIM department for each active project.



360 Camera Request Form

Project Information

Project Name:

Address:

Project Cost Code

Job: Phase: Category:

Point Person: Please include on site contact.

Name: Email: Phone:

Name: Email: Phone:

Requirements

360 Camera Training: Please set up a time with the point person below to go over the training needed.

PDF Floor Plans:

Yes If yes, please attach PDF plans and send this form to the point person below in the BIM department.

No If no, please set up a time to go over the training needed with the point person below.

Date: If multiple walks are required, please add the dates below if known.

Date of Walk: Multiple Dates:

BIM Department Use

Note: A \$5,000.00 cost will be charged to the project yearly & the camera must be turned into the BIM department upon project completion.

Training Point Person:

Name: Email: Phone:

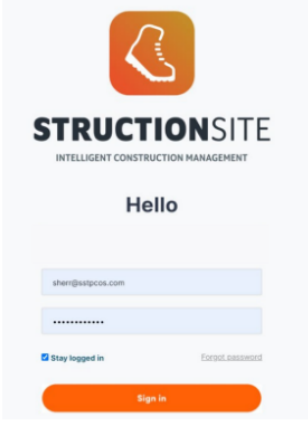
StructionSite Ready: Yes No One time Walkthrough: Yes No

360 Camera Asset ID Tag #:

360 Camera StructionSite Training

Creating a StructionSite Account:

Note: You should receive an email from StructionSite. Please check both your inbox and junk box. Click the link and follow the steps to create an account.



360 Camera StructionSite Training

Insta360 Camera Case:

- 1 Insta360 OneX2 Camera
- 3 Battery's
- 2 USB charge cords
- 1 Charge cube
- 1 Charge hub
- 1 Camera protector
- Instructions
- 1 micro-SD card in camera




To turn on and off the camera hold the button on the side.

Note: Always hold the camera over your head using the Insta360 pole when taking 360 photos.


Recognition Work Tango

The company uses a platform called Work Tango to recognize someone who goes above and beyond. This also recognizes how the individual has incorporated the company's Core Vales. PCMB Leadership, Ownership, Candor & Problem Solving, Collaboration Gets Things Done Right & Authenticity.

MR Michael Ridolfo recognized you with 1000 points 10:09 am | Aug 29



 **Ryan Sherman**

Great job completing the BIM coordination of the Colgate Benton Center Ryan! From the 1st coordination meeting to our last sign-off today, your professionalism and overall systems and BIM knowledge were integral to the success of this stage of the project. Thank you for your commitment to excellence!


 10 HIGH FIVES

Ryan Sherman 8:10 am | Aug 30

@Michael Ridolfo Thank you I appreciate that. The entire team has made the process flow!


 High Five |  Comment

KB Kimberly Breedlove recognized you with 1000 points 1:04 pm | Sep 25





Stephanie Browne, Rene Adames, and Ryan Sherman

A big shout out to Stephanie, Ryan and Rene for representing Pike at the UCF Career Fair. UCF's career is the largest career fair that we attend with over 275+ employers and 6000 students. They were fearless and didn't hesitate attending, especially navigating such a large crowd! Those that they spoke with noted the excitement and energy that they had while speaking about our company. Thank you again for everything!!


 9 HIGH FIVES

Stephanie Browne 2:09 pm | Sep 25

Thanks again Kim for coordinating this event in FL. What a great day that was...such so many amazing students we spoke to. Very grateful for Ryan and his genuine care he give to the internship program and especially to Rene for traveling so far of a distance to attend and yet he was still able to bring the energy!

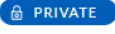
 High Five |  Comment

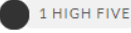
KB Kimberly Breedlove recognized you with 1000 points 3:56 pm | Jul 27





Jeffrey VanVolkenburg, David Ploof, Ryan Sherman, and 1 other


Thank you all so much for your willingness to develop and facilitate workshops to our interns this summer. Your willingness to pass on your knowledge and enthusiasm for the industry, was greatly appreciated. I know that the interns walked away learning some real-world lessons and skills that they will be able to apply to their future careers. Thank you again!

 PRIVATE

 1 HIGH FIVE

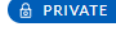
 High Five |  Comment


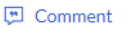
KT Kyle Thomson recognized you with 500 points 12:29 pm | Aug 17

 **Ryan Sherman**


☆ COLLABORATION GETS THINGS DONE RIGHT

Thank you for hoping on the utility modeling meeting this morning.

 PRIVATE


 High Five |  Comment


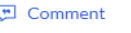
KT Kyle Thomson recognized you with 2000 points 8:53 am | Aug 7

 **Ryan Sherman**


☆ PCMB LEADERSHIP

Ryan, thank you very much for taking the time to help teach me your best practices for modeling MEP systems in Revit. Your insight was invaluable and enabled me to catch on to modelling them quickly.

 PRIVATE


 High Five |  Comment


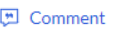
KT Kyle Thomson recognized you with 1000 points 8:34 am | Sep 12

 **Ryan Sherman**


☆ COLLABORATION GETS THINGS DONE RIGHT

Ryan, thank you again for all of the assistance and training you provided on MEP modeling during this quarter. It was valuable knowledge that I know will also come in handy in the future.

 PRIVATE

 High Five |  Comment


Juan Barboza recognized you with 500 points 6:08 pm | Aug 1


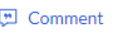


Robert Overhoff, Mauricio Riveros, Anthony D'Alonzo, and 14 others


☆ AUTHENTICITY

I have to thank and recognize to everybody (if I miss someone I am sorry) for make me feel at home in my first year in this adventure that I undertook in pike. I have to thank you very much because they have all been the best bosses and co-workers I have had since I arrived in this wonderful country. And really, all of you have been great mentors who have taught me everything and have been very, very patient with me. I'm proud to work with you, and I can't wait for the years to come... I'm just warming up...

 13 HIGH FIVES


 High Five |  Comment

KB Kimberly Breedlove recognized you with 250 points 11:21 am | Jun 2



Jacqueline Maj, Amber Goodman, Robert Overhoff, and 17 others

THANK YOU to all of the mentors and everyone else that stepped in and assisted last week for the 2023 Summer Internship Orientation and Kick-Off. The Orientation, Job Site Tour and Kick-Off events were a success because of all of you!! Thank you again to each one of you for all of your support.



 27 HIGH FIVES

Andrew Aunkst 11:23 am | Jun 2

Proud to be mentor in this program for the second time, thank you for all that you do Kim in putting this together!

Robert Overhoff 1:35 pm | Jun 2

Mentorship is an important part of what we do as an Enterprise for the next generation of construction professionals. The best part for me is when I learn something new for our Interns.

 High Five |  Comment

2023 Company Representation

Representation Company Wide

Through the 2023 year I have represented the company on several different occasions.

Research & Development: Attended the World of Concrete convention led to organizing Demo week, that showcases all the new technology in the industry today.

2023 Interns: Being a mentor and helping speak, present and organize the internship program from start to finish.

Career Fairs: Representing Pike at career fairs to get new graduates and filling potential openings.



World of Concrete

March 2023 Construction Tech Demo Week

Demo Week Contact: Ryan Sherman, C: 607.590.1460, Email: Sherr@pikecs.com

SUN	MON	TUES	WED	THURS	FRI	SAT
19	20	21	22	23	24	25
			emesent HOVERMAP-ST-X	GSSI Ground Penetrating Radar	CONSTRUCTION ROBOTICS The Mule	
		Trimble Waypoint Tech	FARO Laser Scanner + Tablet	converge DEWALT Concrete Sensor		
		Trimble X13 3D Laser Scanning System				

Logistics

Trimble	emesent	FARO	GSSI	converge	CONSTRUCTION ROBOTICS
Contact Jesse Phillips Email: jphillips@waypointtech.com	Contact Nick Colucci Email: nick.colucci@emesent.io	Contact Tom Finkle C: 888-569-7792 Email: tom.finkle@faro.com	Contact Brett Caldwell C: 1.541.914.9711 Email: brcaldwell@gsi.com	Contact Deepu M. John Field Engineer C: 914.771.2974 E: deepu.john@sbdlnc.com	Contact Zak Podkaminer Vice President C: 1.315.569.6398 E: zapodkaminer@construction-robotics.com
Demo Location March 21st 7:00 BIM Department, Courtyard	Demo Location March 22nd 10am BIM Department, Pike Conference Room	Demo Location March 22nd 1:30pm - 3:30pm BIM Department, Pike Conference Room	Demo Location March 23rd 9am - 12pm BIM Department, Courtyard	Demo Location March 24th 1pm - 4pm Pike Conference Room	Demo Location March 24th Times TBD Pike Yard



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RO KD EG +14

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High Five Comment

2023 Internship Program



KB Kimberly Breedlove recognized you with 1000 points 1:04 pm | Sep 25

RA RS

Stephanie Browne, Rene Adames, and Ryan Sherman

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+3 9 HIGH FIVES

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High Five Comment

Career Fair



UCF Career Fair

Benefits of Drone Program

2D Georeferenced maps

The ability to produce a 2D Geo Located map overlaid with google earth helped the owner establish and verify all construction activities remain within the property Line.

Promotional

Owner distributes the monthly UAV videos to his marketing team, the videos are then displayed on Canterbury Woods website and sent to future tenants helping to fill units before the project is completed.

Stockpile Quantification

Stockpile quantification to determine the current amount of soil on site and to calculate how much has or will be used by the project team to bring the site to finish grade.

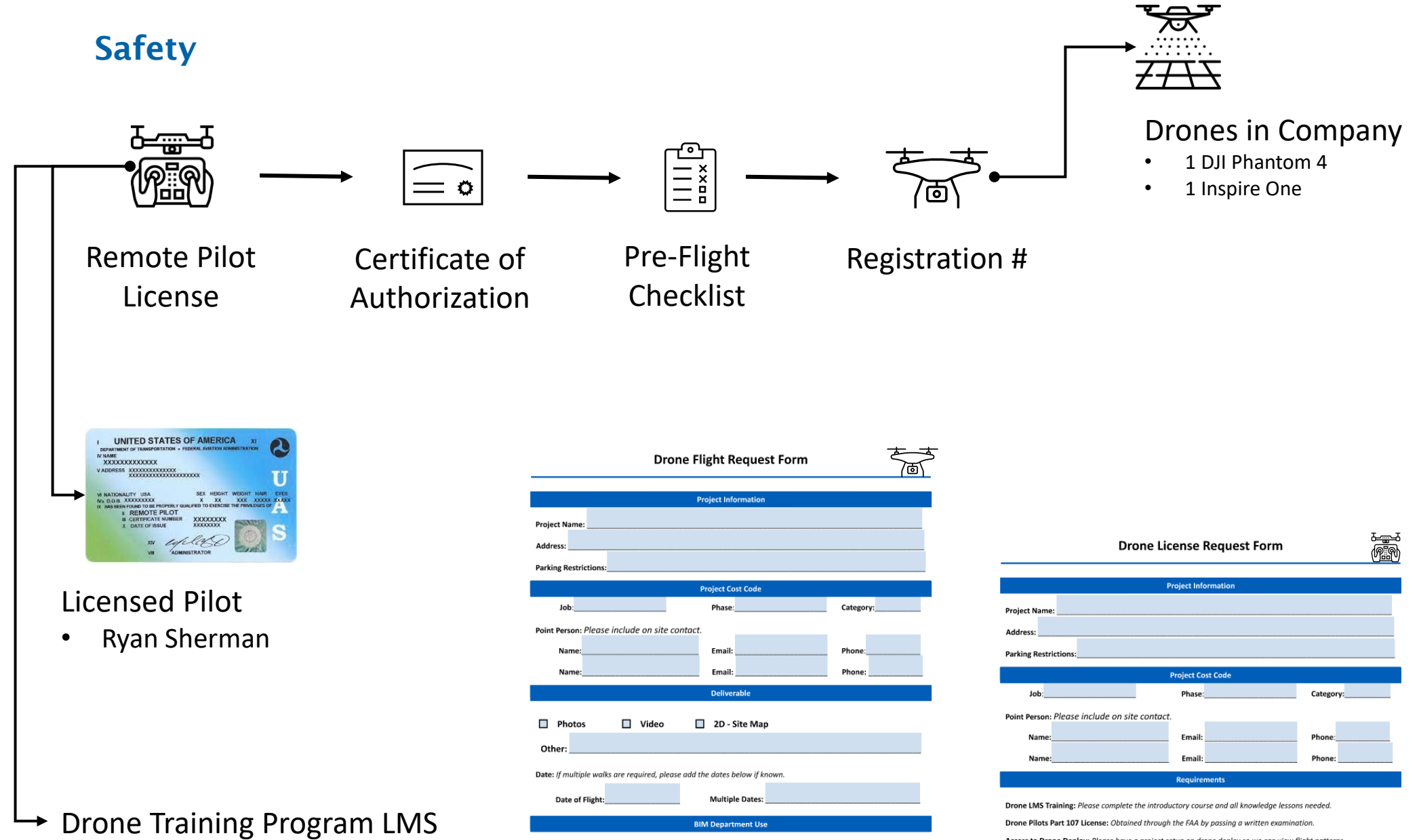
Safety

The UAV photos and videos help the safety department during the steel erection sequencing phase of construction to ensure that the steel contractors are working east to west on the building, then west to east on the floor above to avoid other trades working directly under steel contractors.

RMI Group

The UAV photos and videos help the safety department during the steel erection sequencing phase of construction to ensure that the steel contractors are working east to west on the building, then west to east on the floor above to avoid other trades working directly under steel contractors.

Safety



Marist Dyson Center

Poughkeepsie, NY

Pikes BIM team worked with the project team through the BIM Coordination at Marist Dyson Center. A \$60 Million Dollar renovation doubling from the 54,000 sq. ft. to 110,000 sq. ft. During this time Pike lead the collaboration between Architect, Subcontractors, Owners and Facility maintenance to submit, document and update the 395 RFIs into a coordination model. After this process was finished per floor, signoff was conducted, and the as built model was uploaded for the entire field team to view while the building was being constructed.

Process



Coordinated, tracked and updated over 405 RFI's during BIM Coordination.



The Revit Architectural and Steel model was exported for the subcontractors use.



Navisworks was used to resolve clashes between the MEPs.

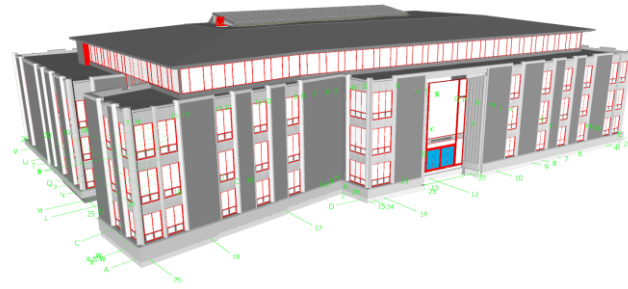


2D signoff documents were created after the model was clash free.

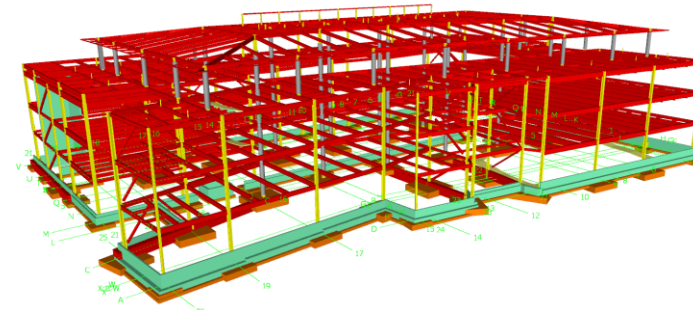
- Underground
- First Floor
- Second Floor
- Third Floor
- Fourth Floor
- Roof



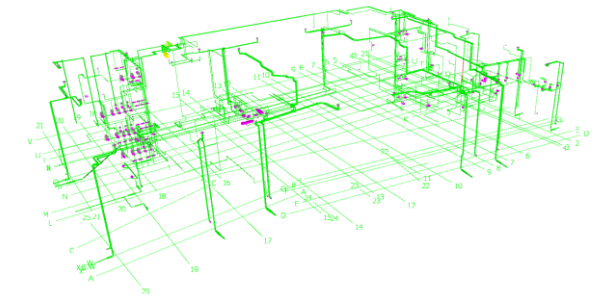
Uploaded the model to Autodesk One Drive for viewing in the field.



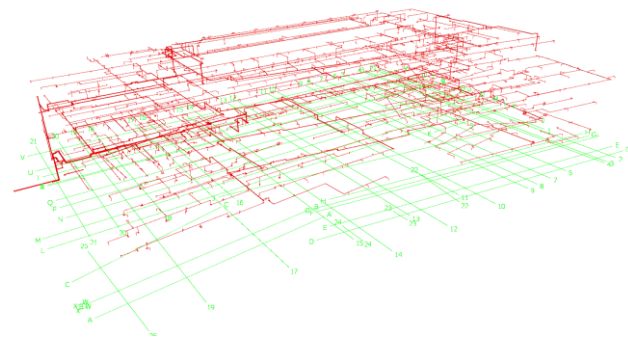
Architectural



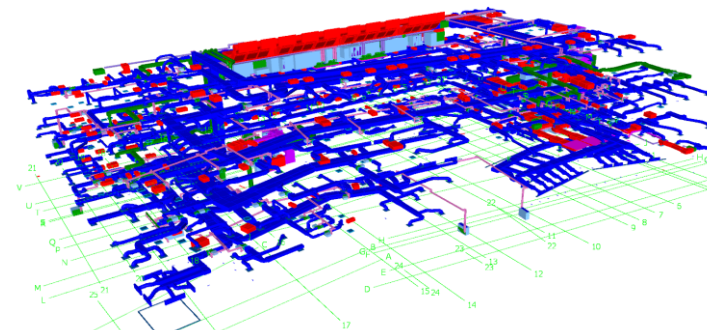
Structural



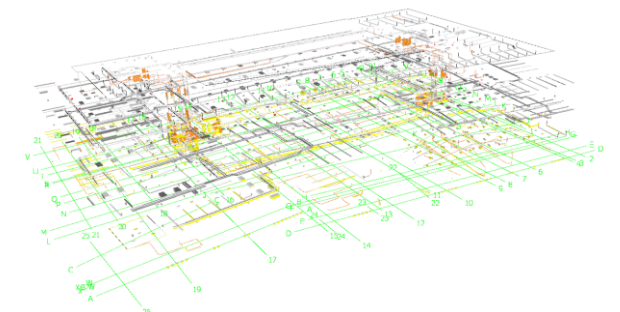
Plumbing



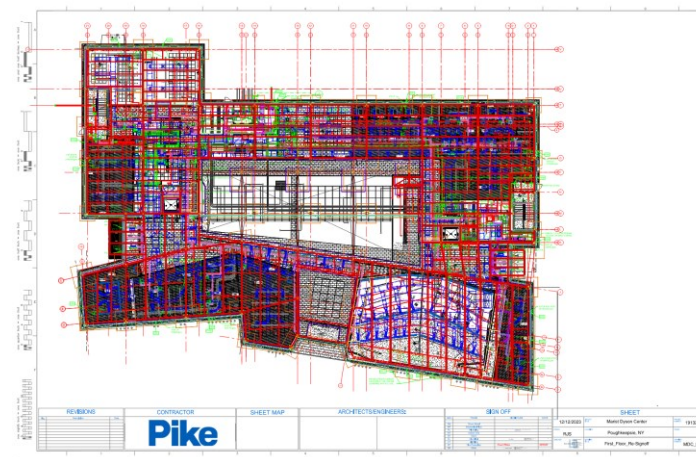
Fire Protection



Mechanical Pipe + Duct Work



Electrical



Signoff Document



Model Viewer

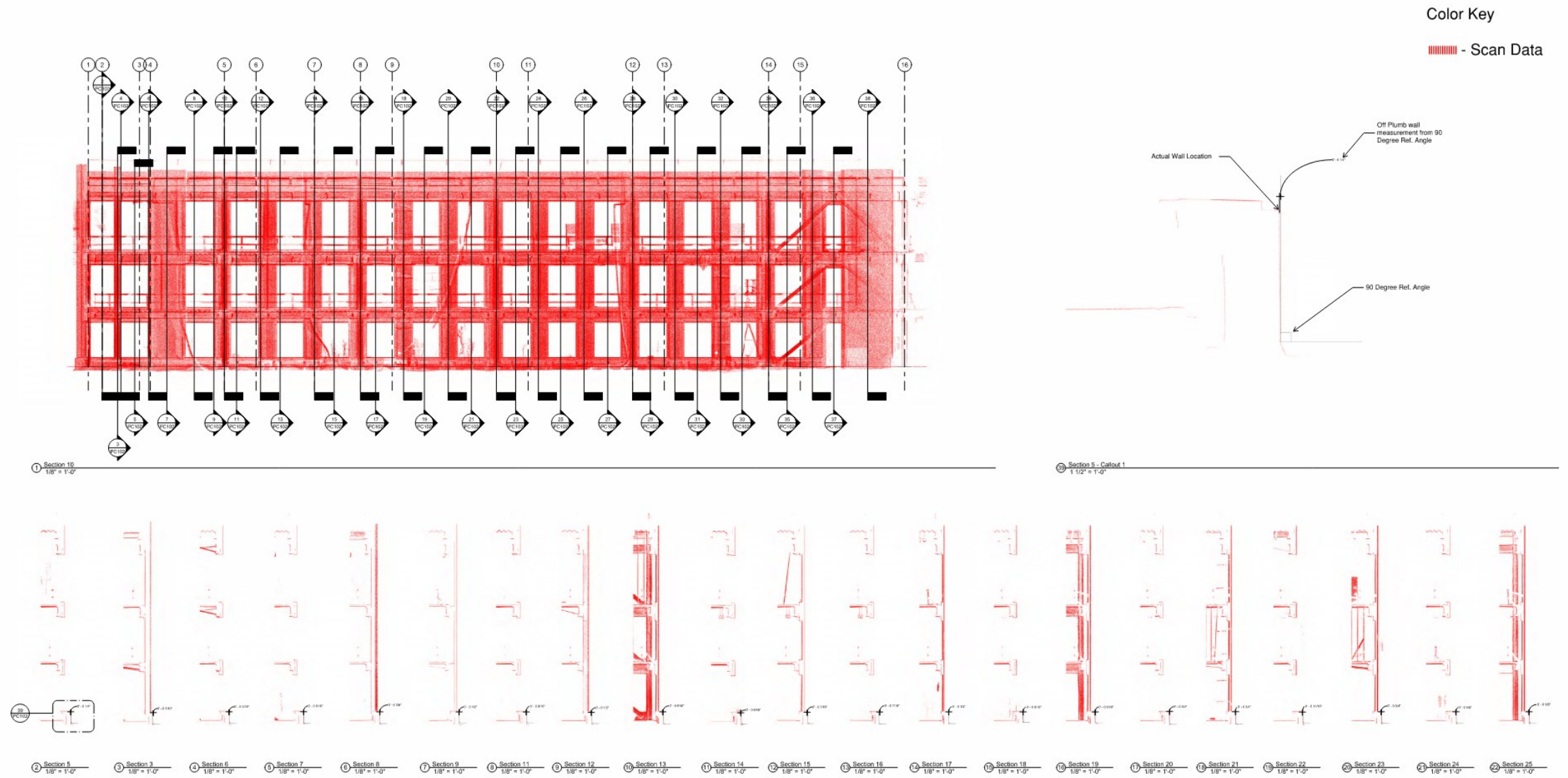
Marist Dyson Center

Poughkeepsie, NY

Pikes BIM team worked with the project team through the BIM Coordination at Marist Dyson Center. A \$60 Million Dollar renovation doubling from the 54,000 sq. ft. to 110,000 sq. ft. During this time Pike lead the collaboration between Architect, Subcontractors, Owners and Facility maintenance to submit, document and update the 395 RFIs into a coordination model. After this process was finished per floor, signoff was conducted, and the as built model was uploaded for the entire field team to view while the building was being constructed.

Deliverable

- PC100 + 102: This shows a section cut down the entire Sequence 5 wall. On 102, you will find an enlarged Detail that will help depict what you are looking at in each Section. A 90-degree reference line was drafted and as requested a line at the top of the wall was placed using the scan data. A measurement using 1/16" of an inch was taken to help depict how out of plumb the wall is at each section.
- PC101: This will give you the Window openings as discussed.
- Pending Deliverable: The windowsill Flatness is still being processed and will be sent out asap.
- Precast Angle Check was performed from the scan data. Comparing the IFC shop model to the field install scan data. Sill Slope Analysis



Pre-Cast Wall Sections

Tube Steel Installation Error

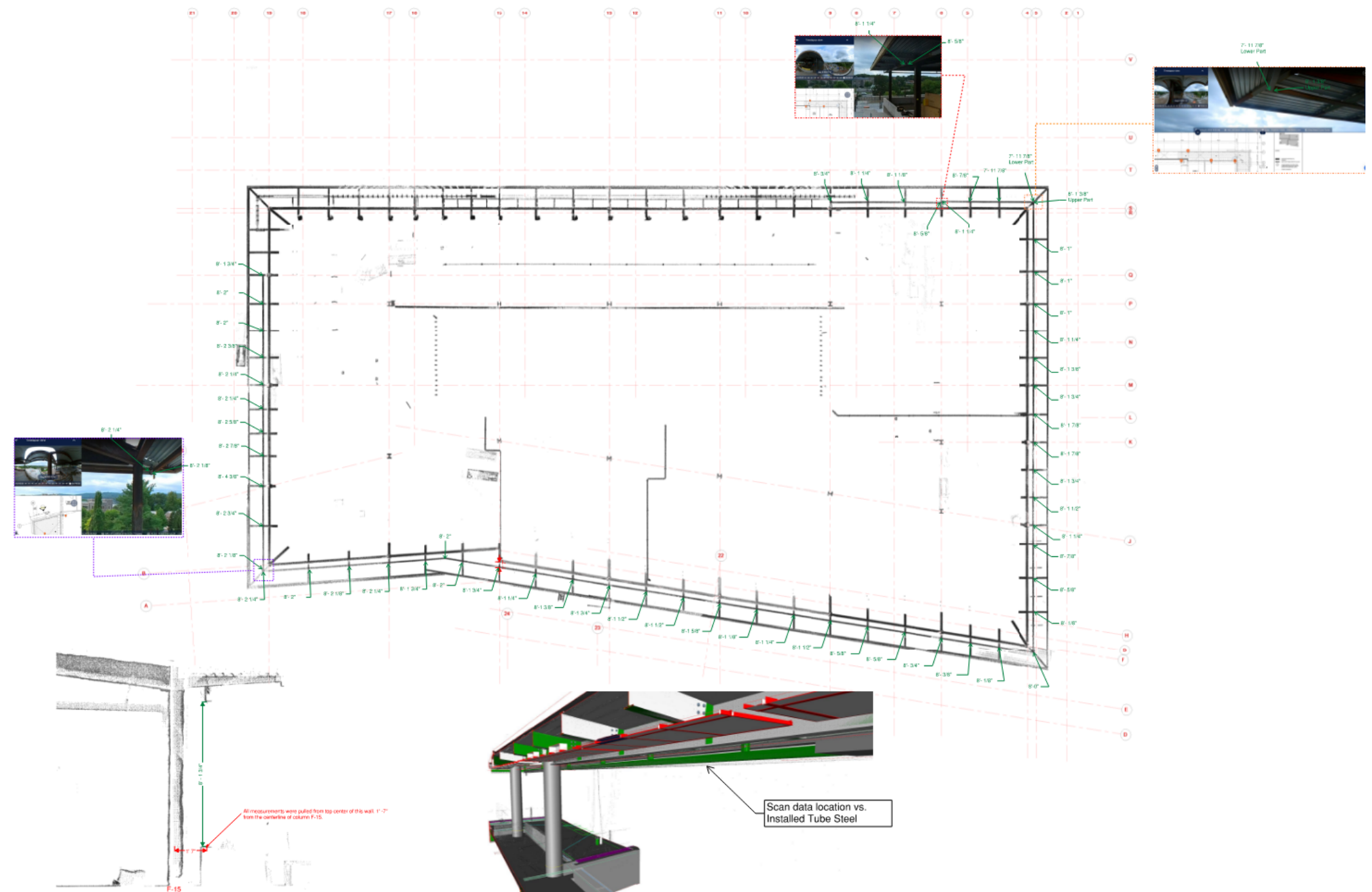
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Deliverable

- The Steel contractor has installed the tube steel around the 4th floor that supports the window panels, and it is showing that the support structure is off.
- After scanning the existing structure, the data was overlaid with the model to support the findings.



Roof Tube Steel

JMA

Syracuse, NY

The owner is proposing a new 100,000 sq. ft. Warehouse with 107 parking spaces and a site plan to the city. In order for the owner to submit the plans for review the city requested that site plans and elevations of the proposed building to be presented during the town meeting. The Pikes BIM team working from only a sketch took that sketch and created a 3D model using Revit. After that, the model was brought into renderings software in order to create a presentation that the owner could use during the review meeting.



East Elevation

Process



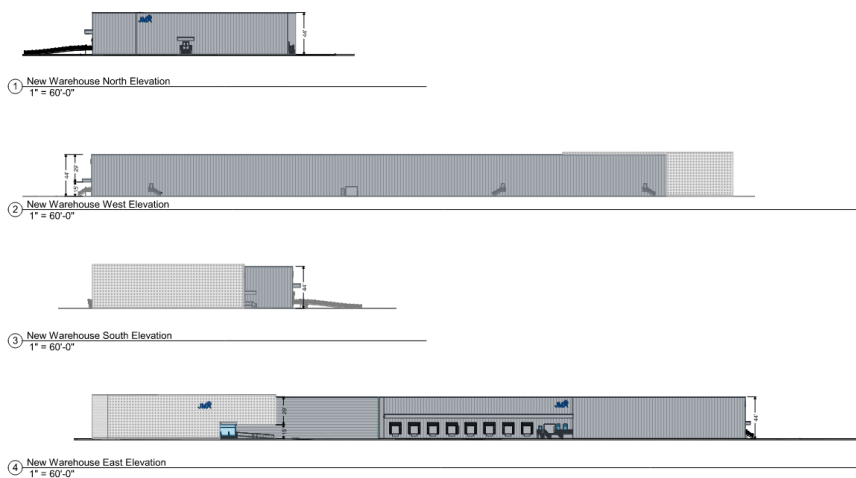
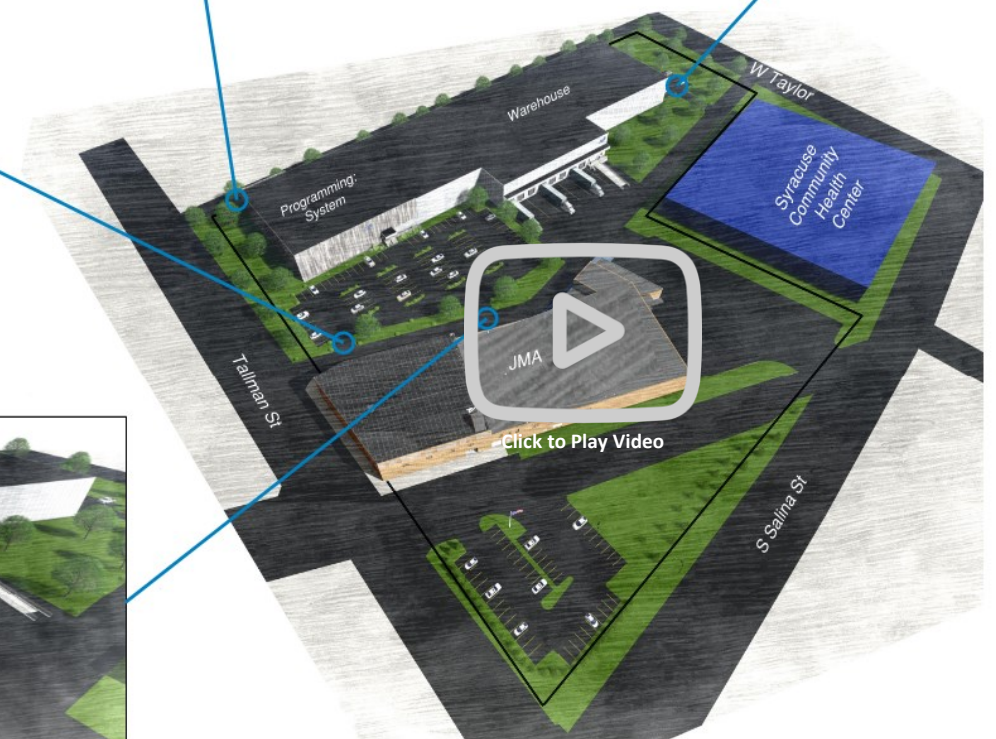
A 3D model was created from a conceptual site plan.



Photoshop was used to color match the design materials.



The 3D model was brought into Lumion to create the 3D video rendering.



Revit Elevations

Renderings

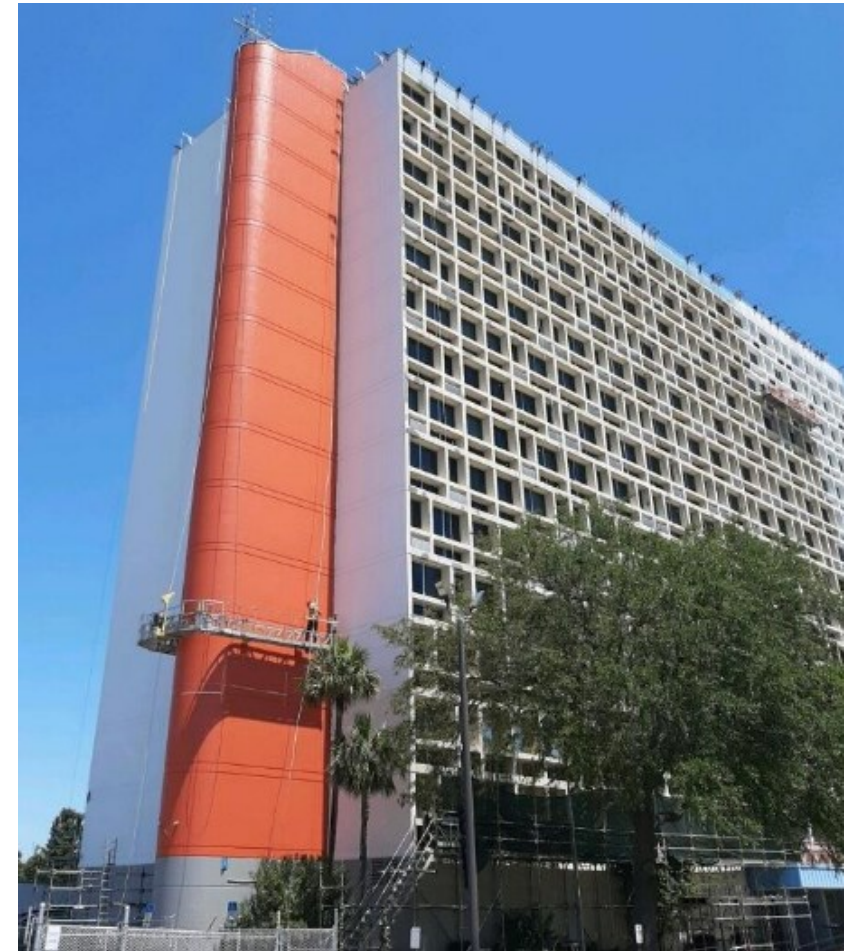
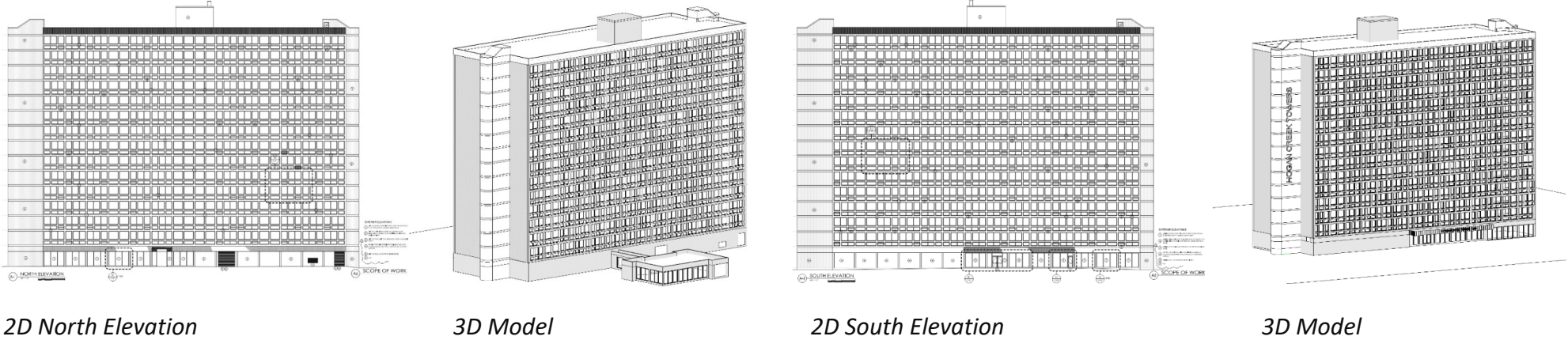
Light Study Amination

Hogans Creek Jacksonville, Florida

The owner had selected paint colors for the exterior façade. Once the contractors had painted a portion of the building the owner did not like how the paint looked once on the building in the sunlight. Before the owner gave approval with moving forward. They had requested to see 3D renderings of the building with the paint selections during each time of day.

A 3D model was created by our BIM department from 2D views of the building. Once the building was 3D modeled the BIM department sat down with the PM on the project and was able to apply the paint swatches to match. After matching the paint swatches, the BIM department created 3D renderings of the building, along with a Sunlight analysis to show the different tones of the building during different times of the day.

The BIM department was able to work with the PM to turn this around in 1.5 days. Timing was critical because there were painters and scaffolding on site. To save the projects timeline and cost of the scaffolding. The painters were able to prime the building while the owner made their decision on what paint they wanted to select.



Process



2D Construction Documents were converted to 2D AutoCAD.



A 3D model was created from using the 2D elevations of the building.



Photoshop was used to color match the field paint selections.



The 3D model was brought into Lumion to color match the field paint selections.

Field Photo

Animation

Colgate Benton Center

Hamilton, New York

Pikes BIM team worked with the project team through the BIM Coordination at Colgate. During this time Pike lead the collaboration between Architect, Subcontractors, Owners and Facility maintenance to submit, document and update over 405 RFIs into a coordination model. After this process was finished per floor, signoff was conducted, and the as built model was uploaded for the entire field team to view while the building was being constructed.

Process



Coordinated, tracked and updated over 405 RFI's during BIM Coordination.



The Revit Architectural and Steel model was exported for the subcontractors use.



Navisworks was used to resolve clashes between the MEPs.



2D signoff documents were created after the model was clash free.

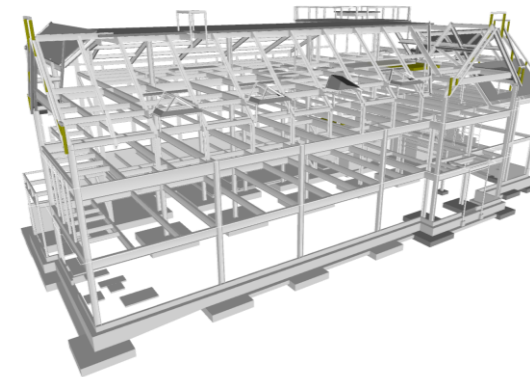
- Underground
- First Floor
- Second Floor
- Third Floor
- Fourth Floor
- Roof



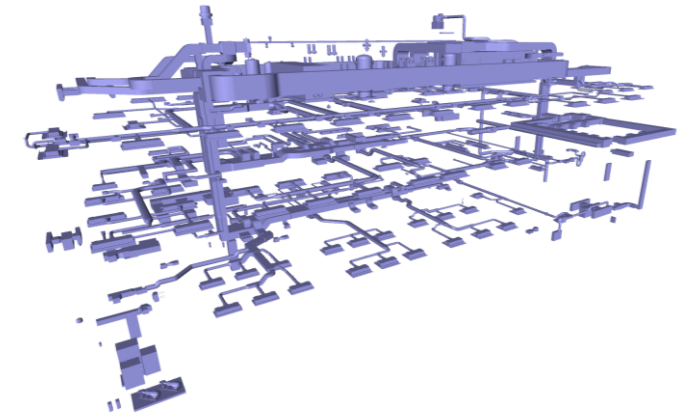
Uploaded the model to Autodesk One Drive for viewing in the field.



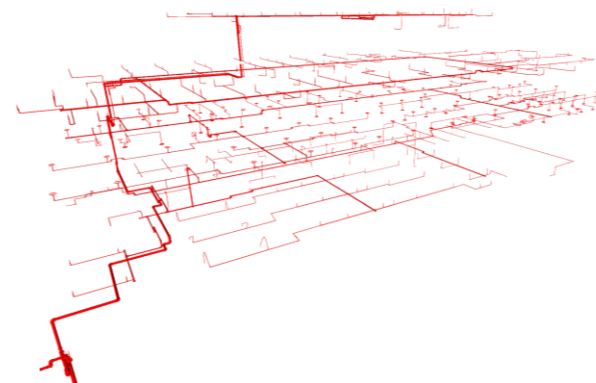
Architectural



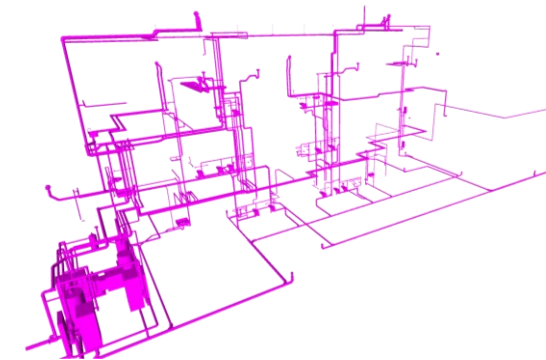
Structural



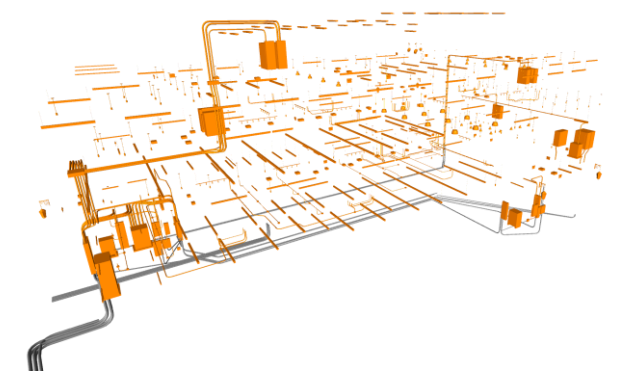
Mechanical Pipe + Duct



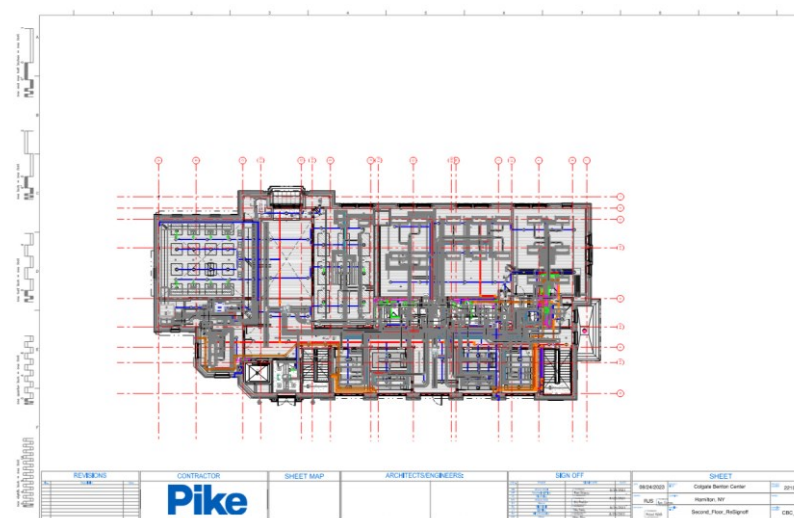
Fire Protection



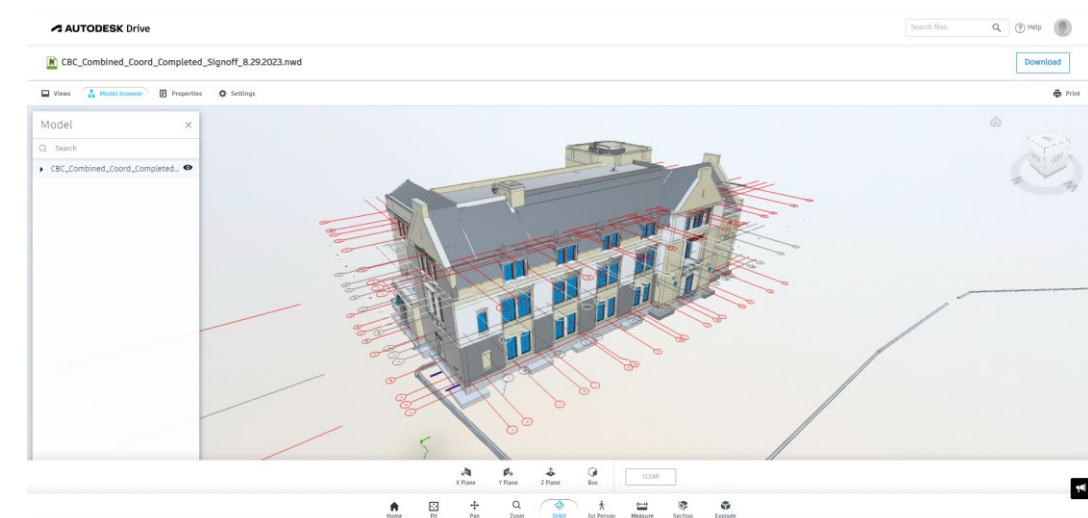
Plumbing



Electrical



Signoff Document



Model Viewer

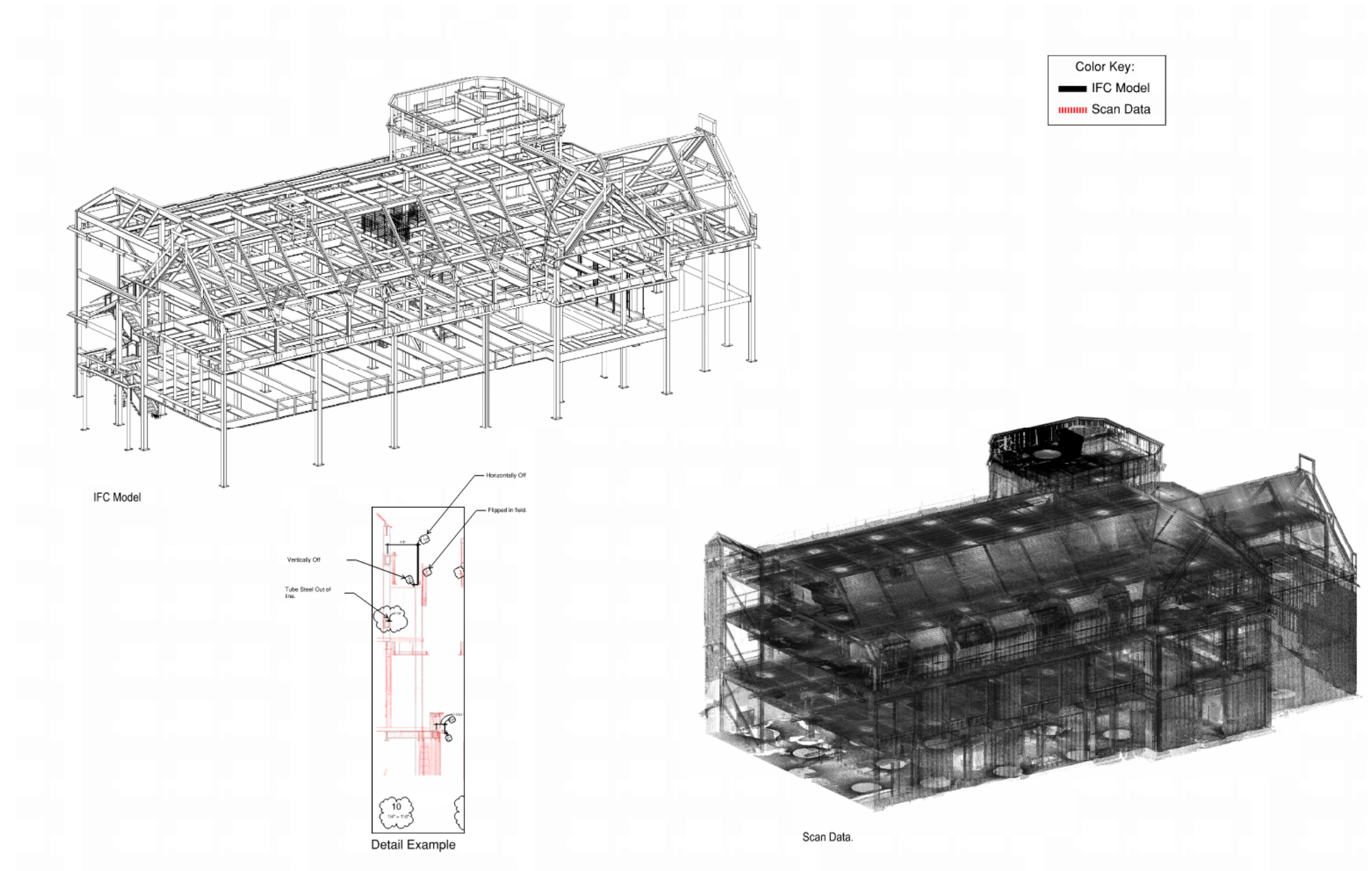
Colgate Benton Center

Hamilton, New York

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Deliverable

- Precast Angle Check was performed from the scan data. Comparing the IFC shop model to the field install scan data.
- After creating sections and dimensioning the Horizontal and Vertical distance showing the discrepancies, a meeting with the Structural Engineer, Design team, and Field Installer happened to show the findings.
- The Result proved that the Installer needed to come back on-site to correct the inaccurately installed steel before the Precast walls were delivered.
- A column check was also performed on each building level to check the installation of the columns, beams, and framing.



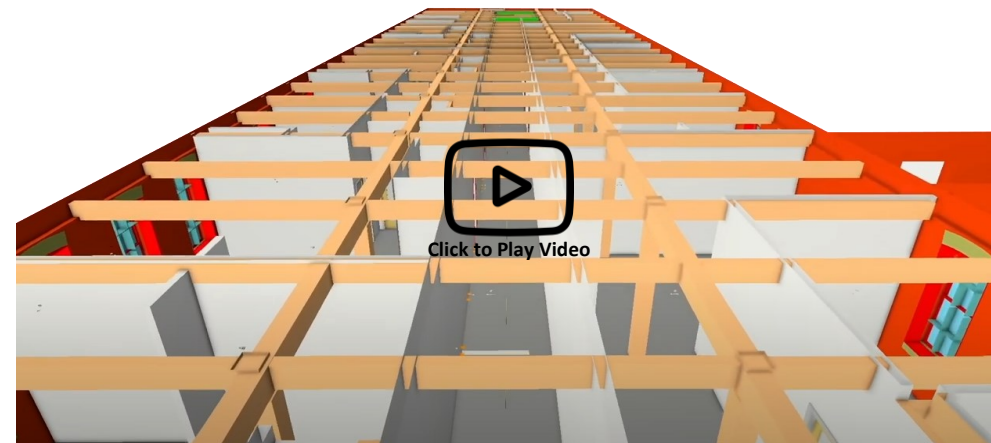
Pre-Cast Angle Check



CROSSROADS AT GENESEE

Buffalo, New York

Because Pike's BIM team was able to capture the existing conditions of the timber framed building before construction, the project team was able to account for unforeseen conditions. This saved the project and owner both time and money from eliminating expensive costs from rework, avoiding schedule delay and ensuring quality. Along with Modeling the Existing Structure Ryan modeled the entire HVAC scope.



Architectural Wall



Exterior Rendering

Process



The 5-level timber framed building was scanned using a Faro Laser Scanner.



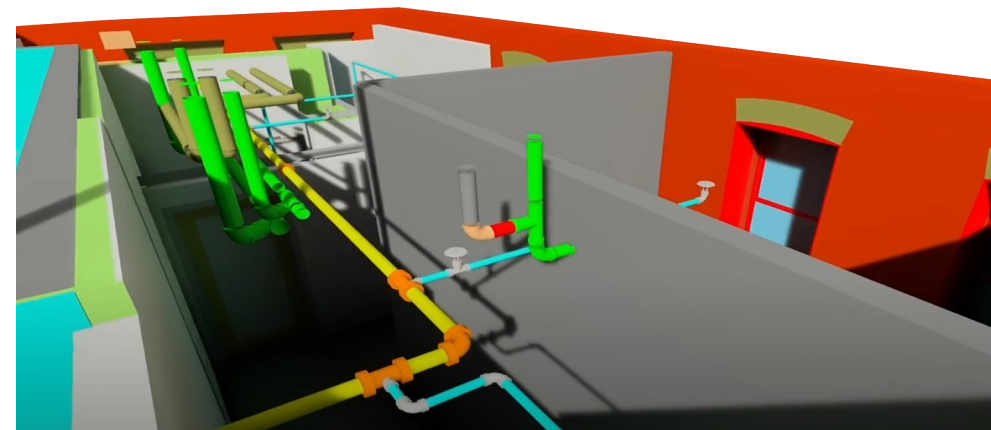
The timber framed structure was modeled using Revit in order to match the existing conditions.



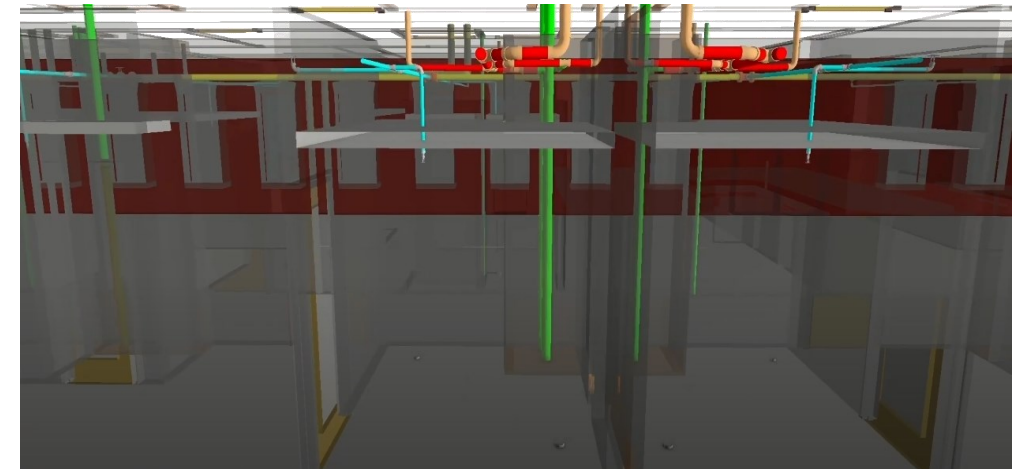
Navisworks was used to resolve clashes between the MEPs.



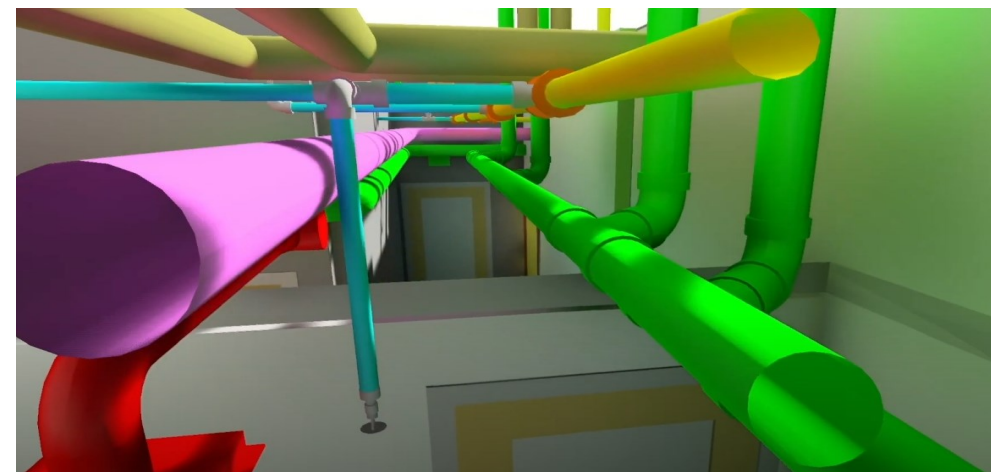
2D signoff documents were created after the model was clash free.



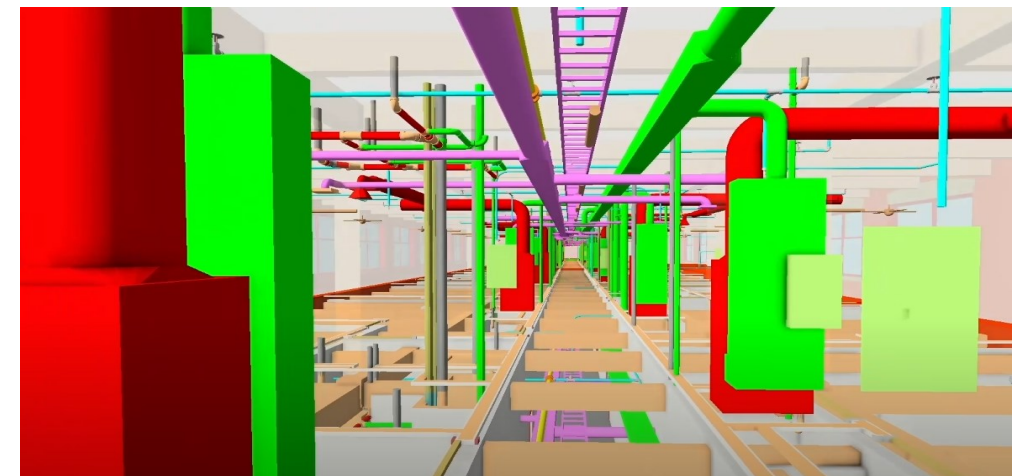
Fire Protection



Plumbing



HVAC



Electrical

CROSSROADS AT GENESEE

Buffalo, New York

The Crossroads at Genesee included reuse of historic warehouse space in downtown Buffalo, NY. Pike's BIM team was able to scan the existing timber frame building using a High Definition Laser Scanning (HDLS) in order to create a highly detailed 3D coordination model. The timber structure was a major design feature for the client to have exposed. Extracting the point cloud data from the scans gave Pike's BIM team the ability to model the exact placement of each column and beam, which was critical in order to coordinate the new MEP systems to be installed.



High Definition Laser Scan (HDLS)

Process



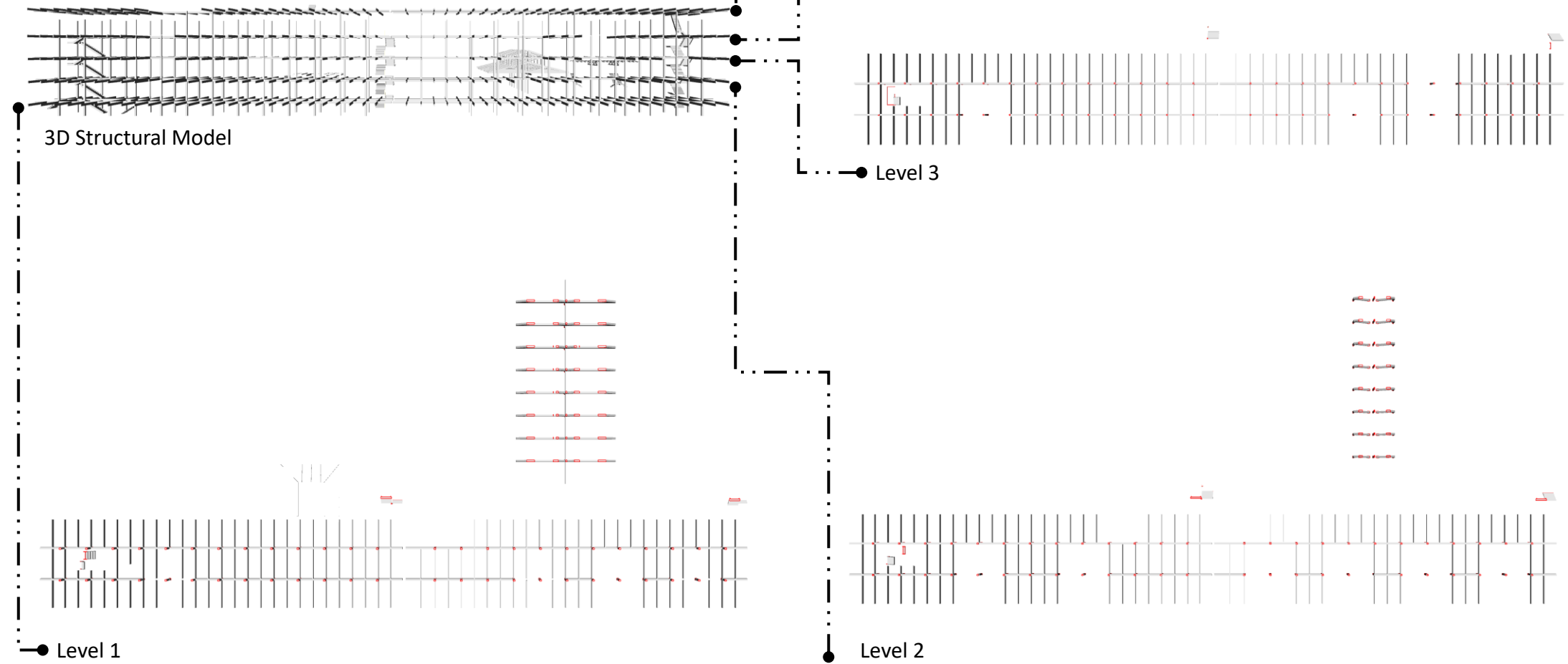
The 5-level timber framed building was scanned using a Faro Laser Scanner.



The point cloud derived from the scan data was then brought into Revit in order to model the existing timber structure members of the building.



The model was Exported from Revit into 2D CAD files for coordination.



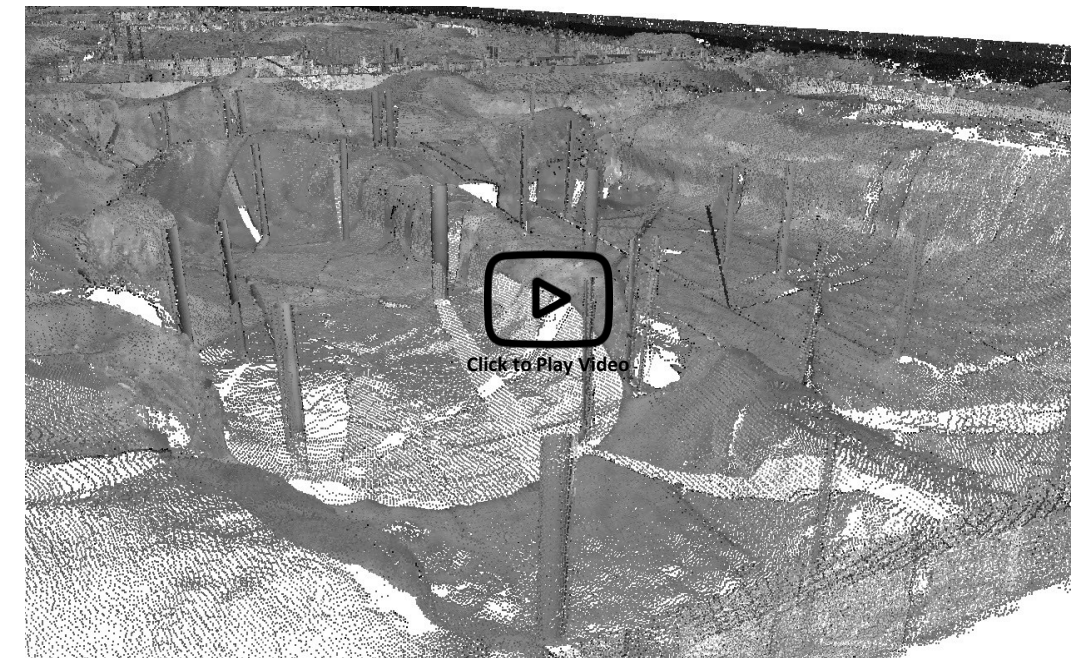
Island Cove Apartments

Delray Beach, Florida

A new sixty-unit affordable housing apartment complex was being constructed. Before the foundations were poured the BIM team Laser scanned the newly placed plumbing layout in the field. Once the scan data was overlaid with the design model, it was showing that the plumbing stacks were not falling in placement of the finished layout. Before backfill and the foundations were poured the BIM department was able to create a deliverable to review with the plumbing subcontractor on site in order to adjust and fix the discrepancies. This saved time and money by reassuring the layout is correct before the foundations were poured.



Trimble X7 Laser Scanner



ReCap view of Point Cloud

Process



3D Scanned the plumbing stacks before backfill.



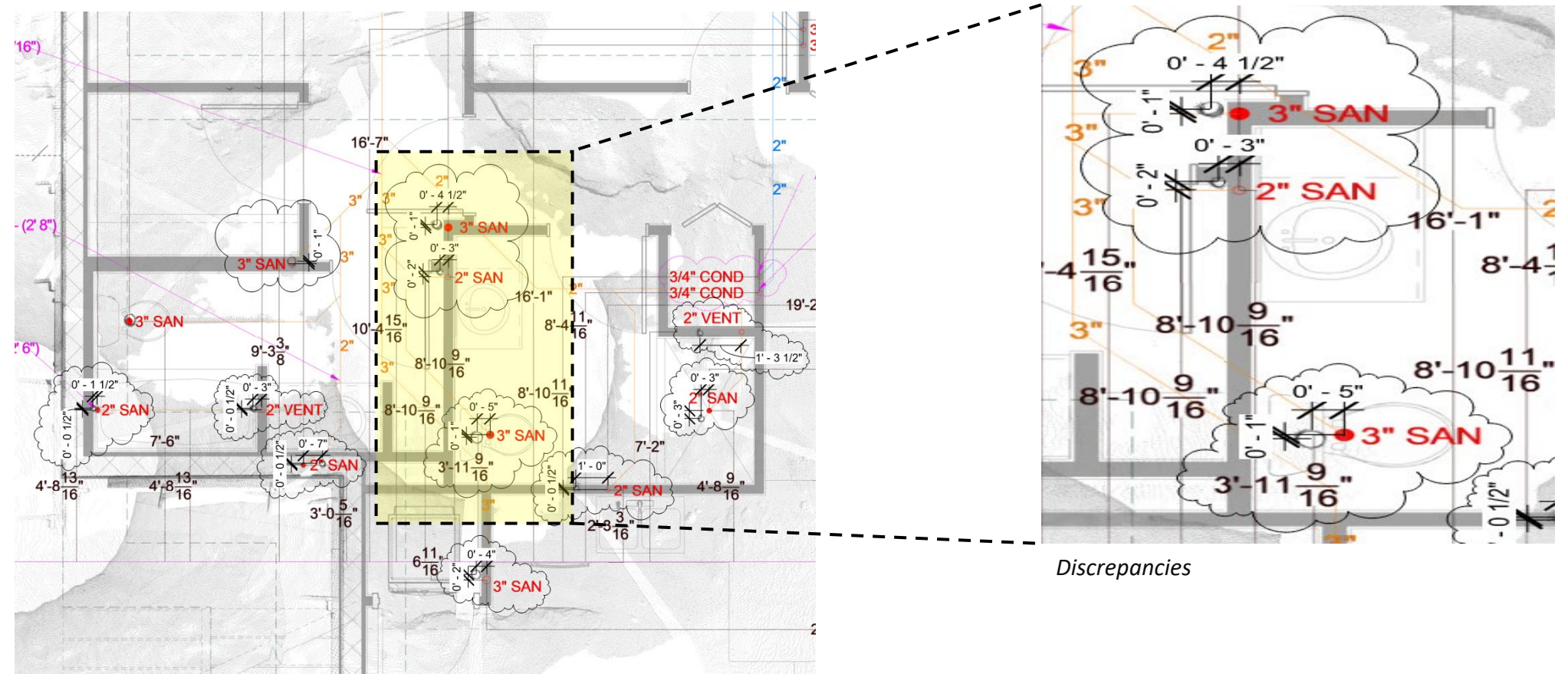
Registered scan data using Trimble.



Overlaid Scan data and design plans in Revit.



Exported overlays in BlueBeam.



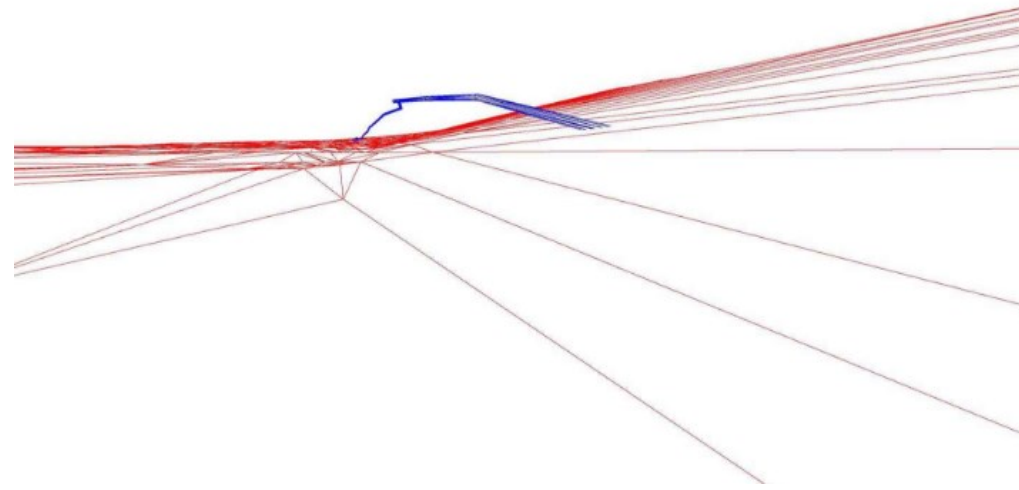
Design Plan & Point Cloud Overlay

Discrepancies

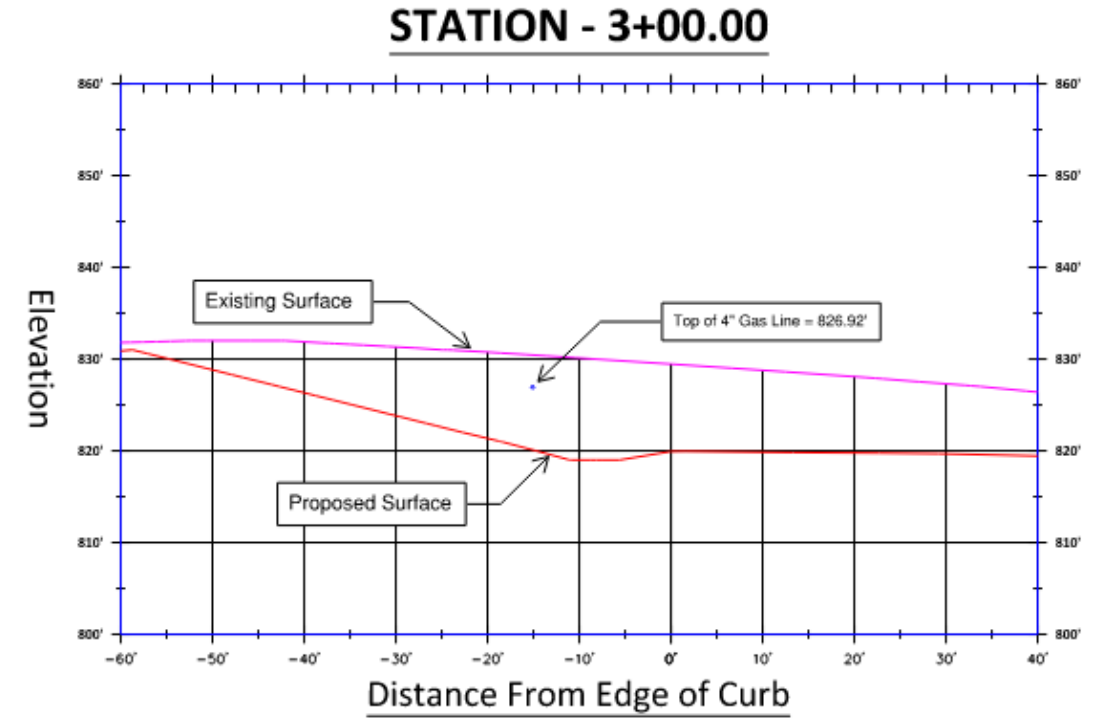
CVA Phase 2

Canandaigua, New York

The Pike Company utilized a 3rd party Ground Penetrating radar company to locate existing utilities on site. The BIM department used this data in conjunction with the contract documents to build a 3d model of the civil utilities at each phase of the project to identify issues with the design and to assist in MEP trade coordination and scheduling. This example shows an existing gas line surveyed to exist 7' above the final proposed grade of the project. The gas line was eventually relocated with the help of the BIM department.



GPR Data vs. Utilities



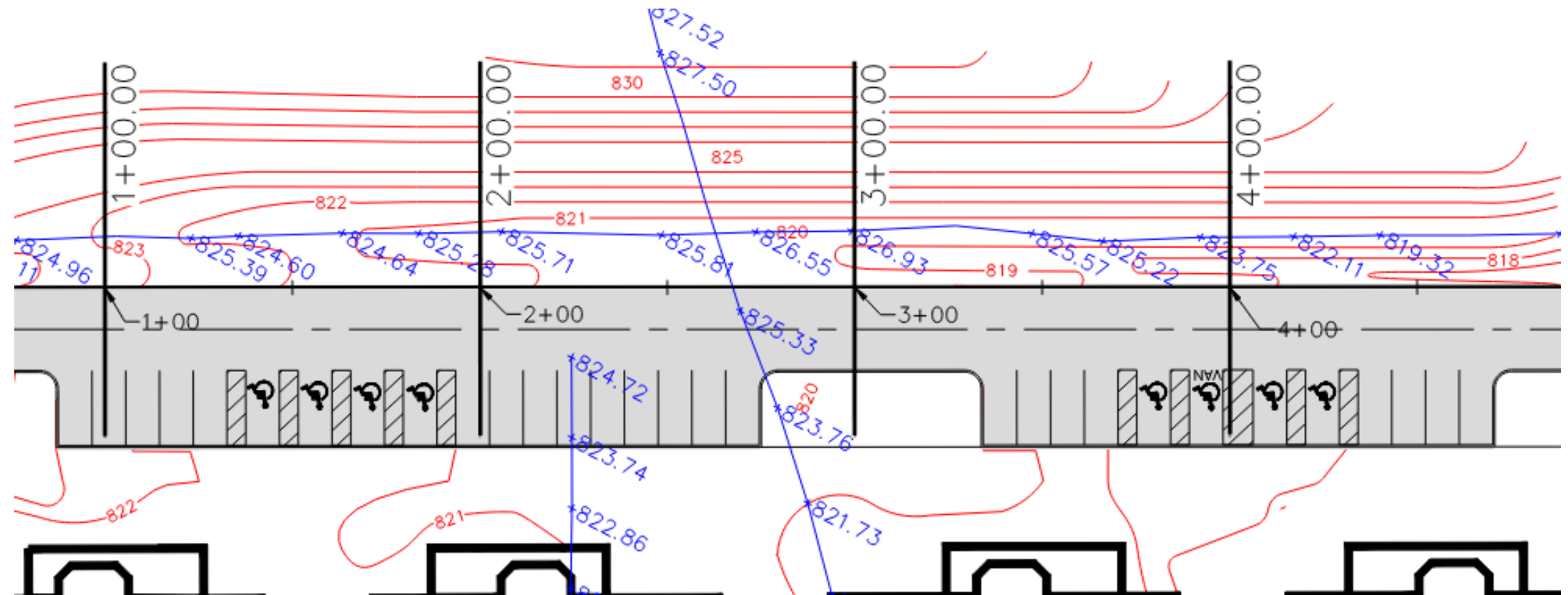
Process



Hired 3rd Party Surveyor to GPR Existing utilities



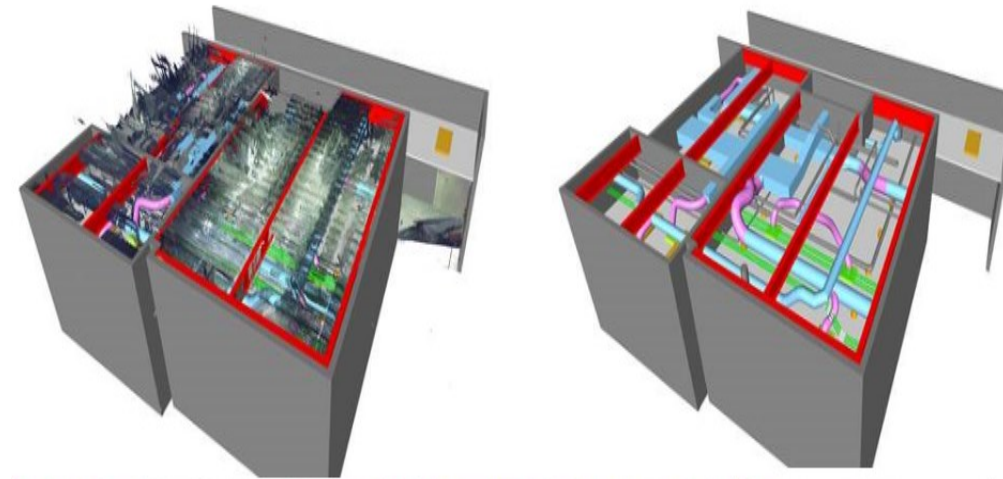
3D Modeled existing utilities per GPR Data. Compared utilizes to existing and proposed grades of project



FF Thompson

Canandaigua, New York

In order for the design team to plan accordingly for the new equipment and room layout existing conditions needed to be documented. Laser scanning the above ceiling gave the opportunity to model the MEP systems along with the Structural and Architectural features. After modeling the existing conditions of the space, plan were printed from Revit in order to give to the design team.



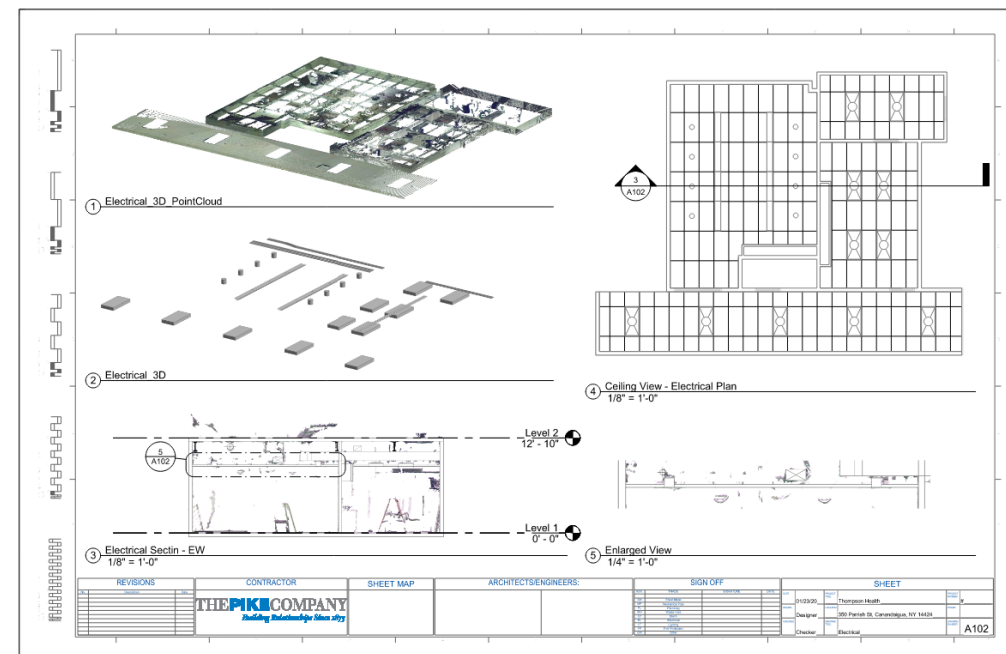
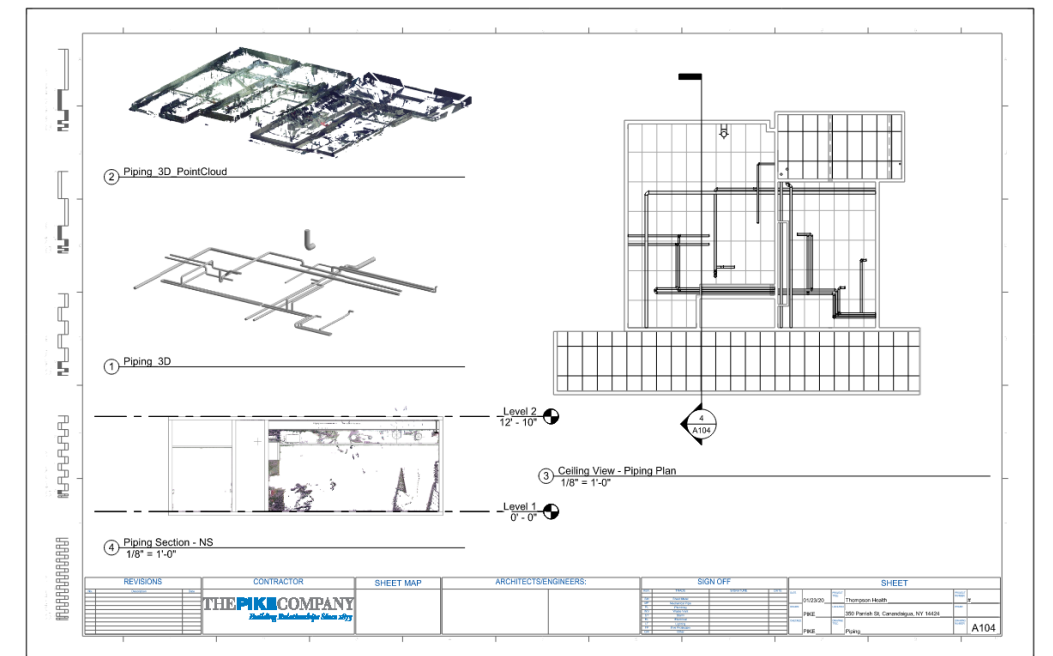
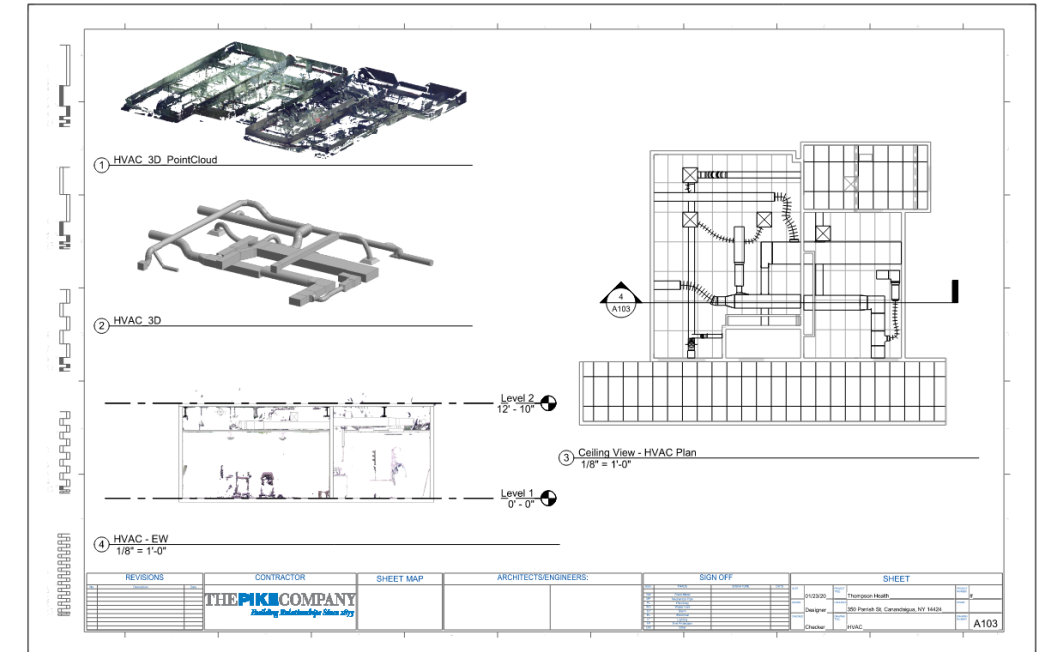
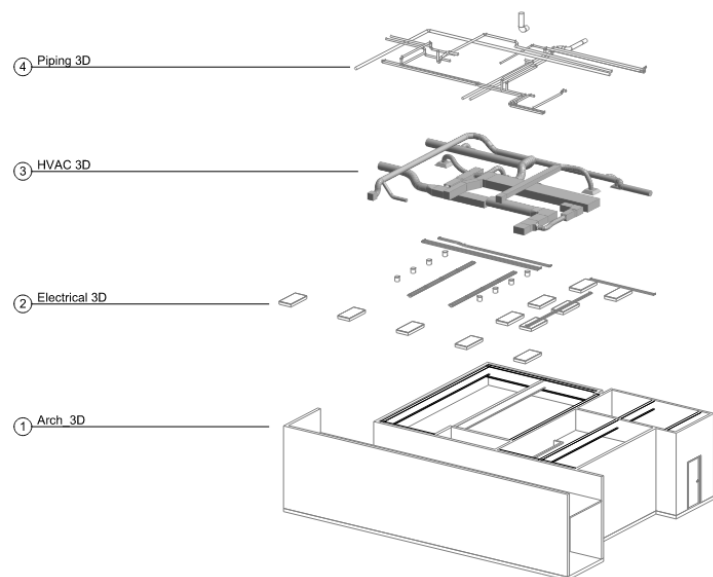
3D Scanned the as-built steel with our 3d laser scanner.



Modeled the Scan data to show the Existing conditions.



Bluebeam was used to provide drawings with dimensions.



Marshall Hall Syracuse, New York

Because Pike's BIM team was able to capture the existing conditions of the timber framed building before construction, the project team was able to account for unforeseen conditions. This saved the project and owner both time and money from eliminating expensive costs from rework, avoiding schedule delay and ensuring quality.

Process



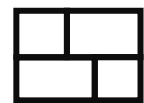
The 4-story building needed to be scanned in order to update the Existing concrete structure in Revit.



Navisworks was used to bring the Architect, Contractors and subs together to review and update the coordination model in real time.



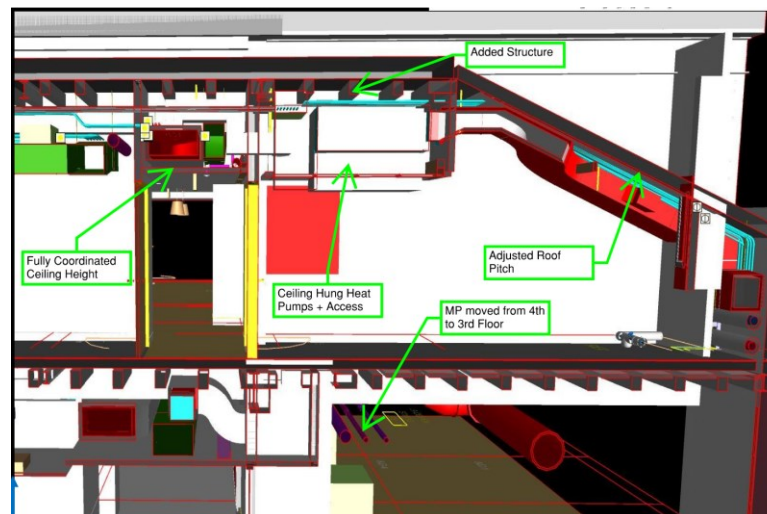
After coordination was complete and the model was clash free, signoff documents were made to ensure a smooth install.



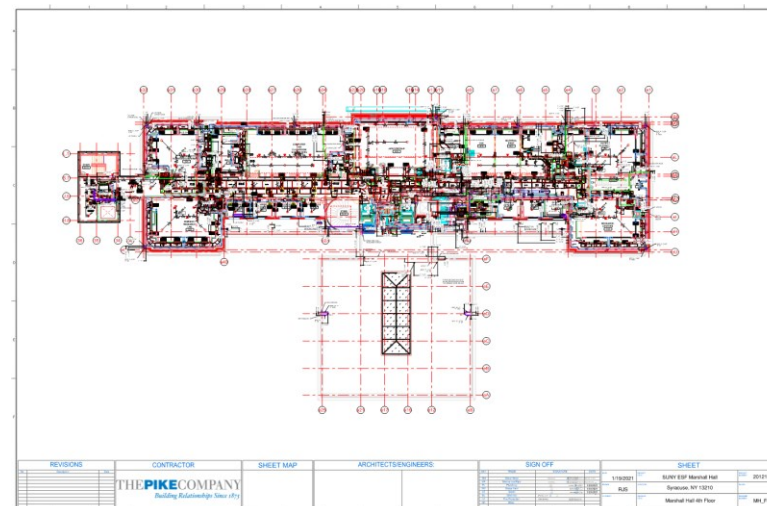
Structionsite was used to document the progress of the project by taking weekly 360 photos.



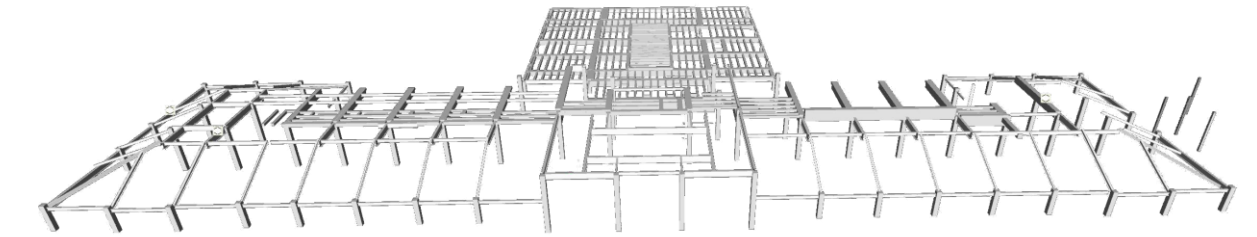
Design Issues



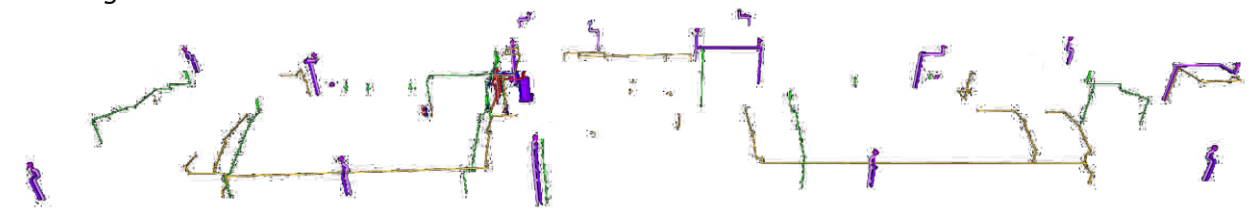
Coordinated Model



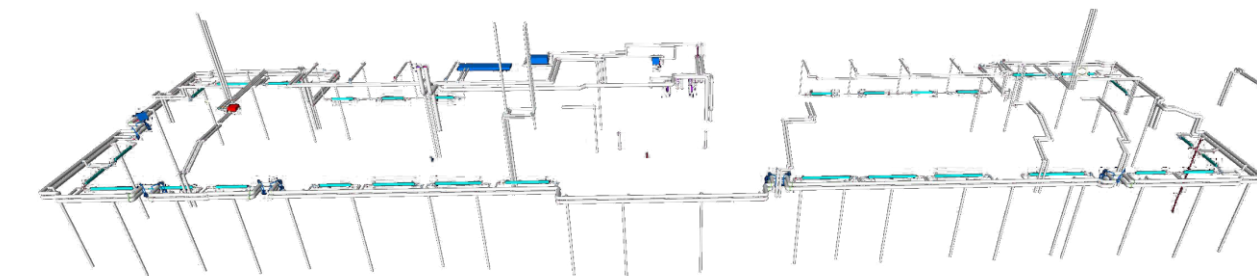
Signoff Document



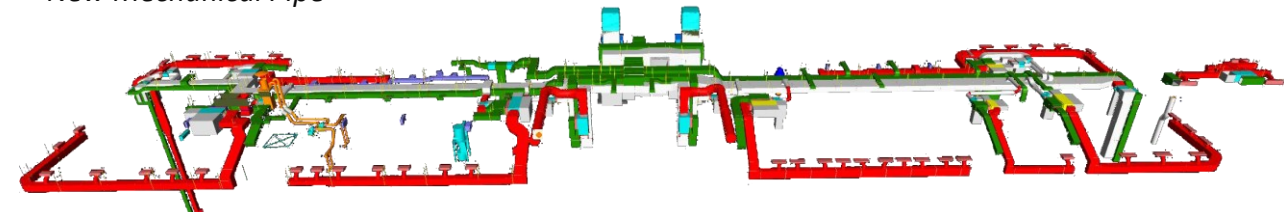
Existing Structure



New Plumbing



New Mechanical Pipe



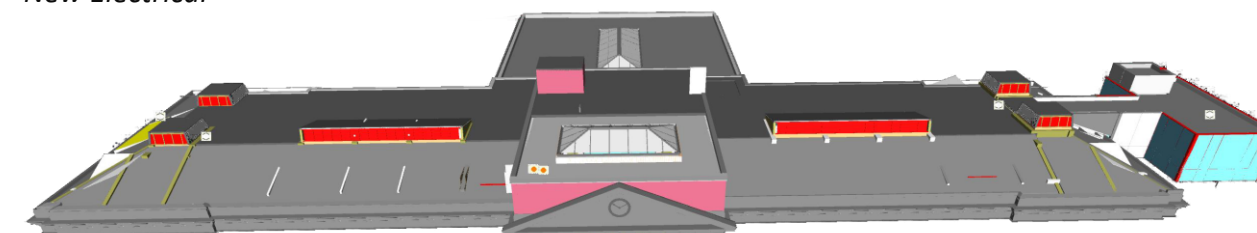
New HVAC



New Fire Protection



New Electrical



Existing + New Building Envelope

Marshall Hall Syracuse, New York

After reviewing the installation of some of the new ceilings the owner was not happy with how they were looking. To adjust the ceilings, the design team needed to know the exact location of the existing structural elements. Shown in red the BIM department was able to laser scan the existing structure and overlay this on the reflected ceiling plan so the designer can work with accuracy to place the newly requested design change.

Process



3D Scanned the as-built steel with our 3d laser scanner.




Trimble Realworks was used to work with the scan data of the existing space and create a slice of only the slopped floor.



Overlaid Scan data and design plans in Revit.

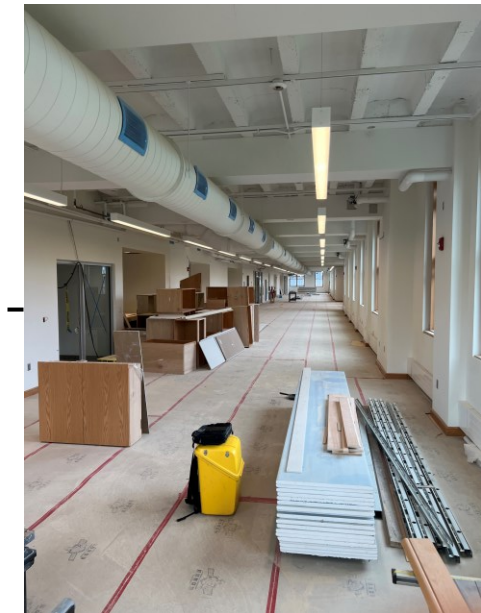


Bluebeam was used to provide drawings with dimensions to the foam subcontractor to ensure accuracy and success.

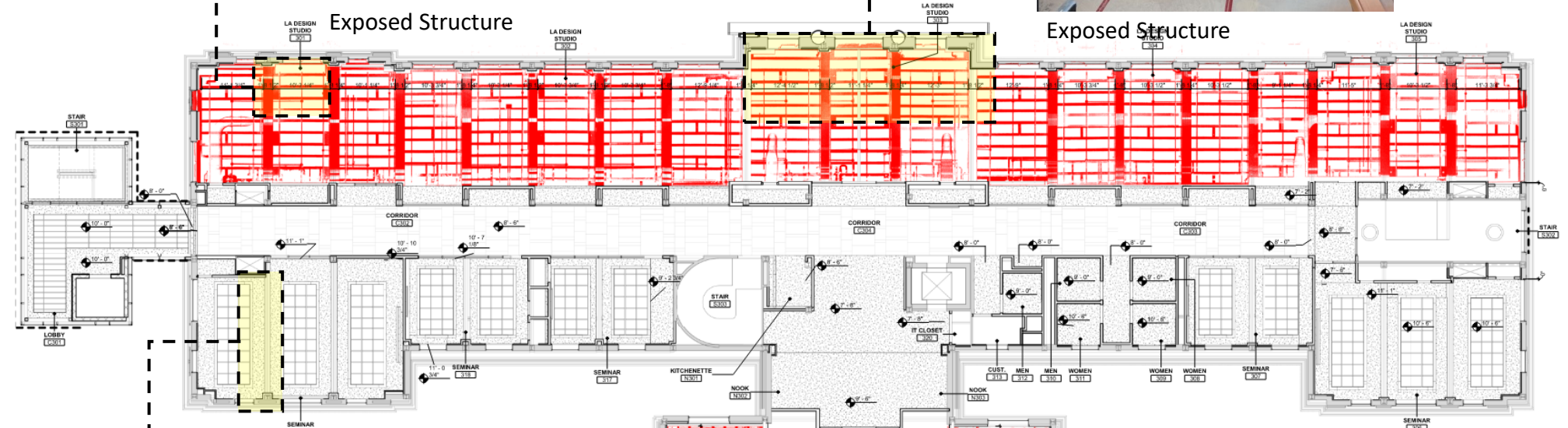
Scan Data - 



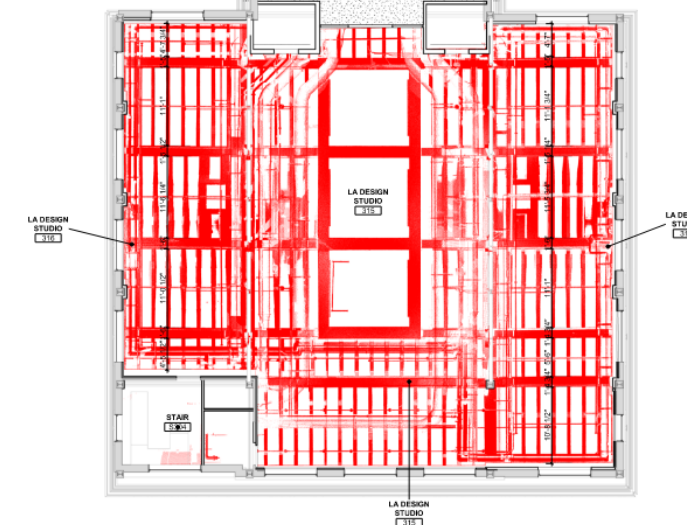
Exposed Structure



Exposed Structure



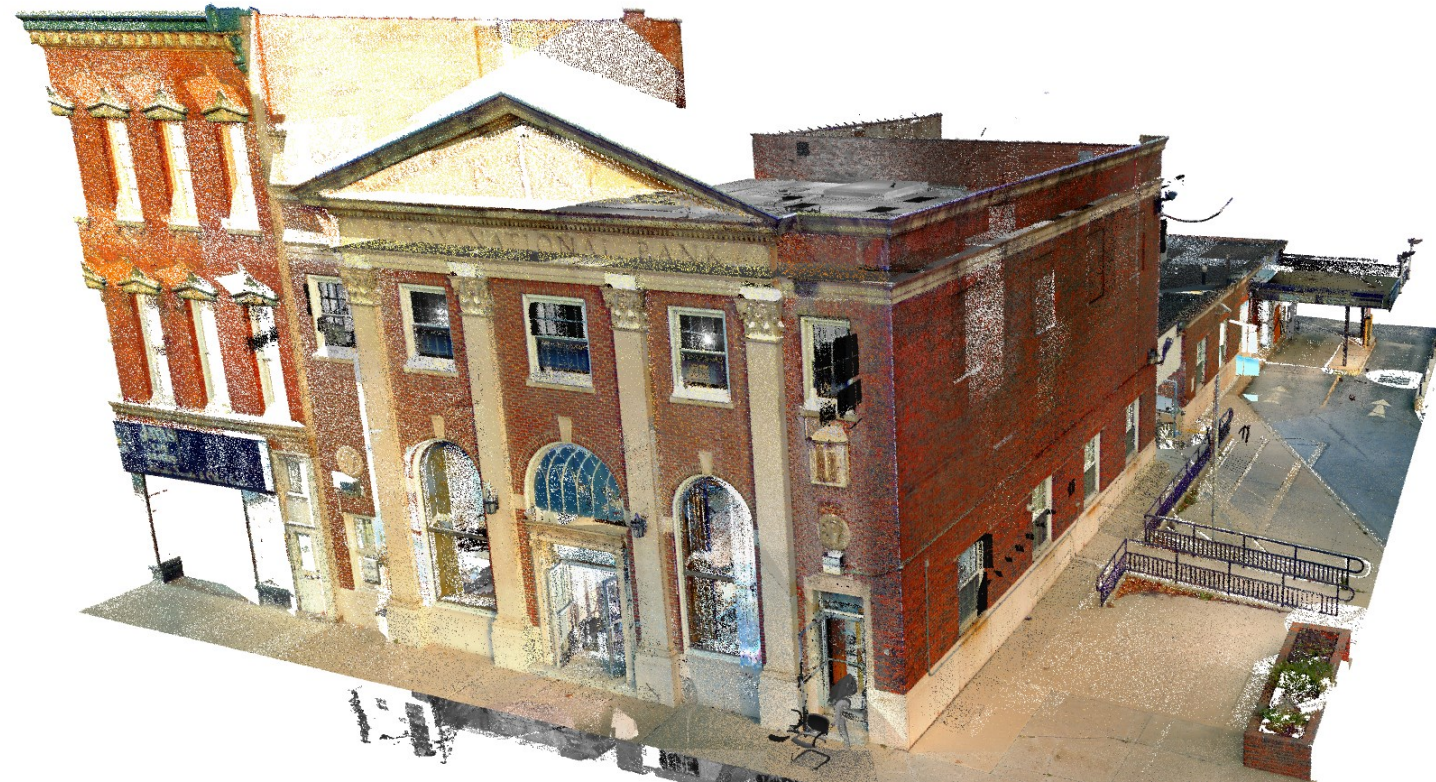
Above Ceiling Finish



Historical Bank

LeRoy, New York

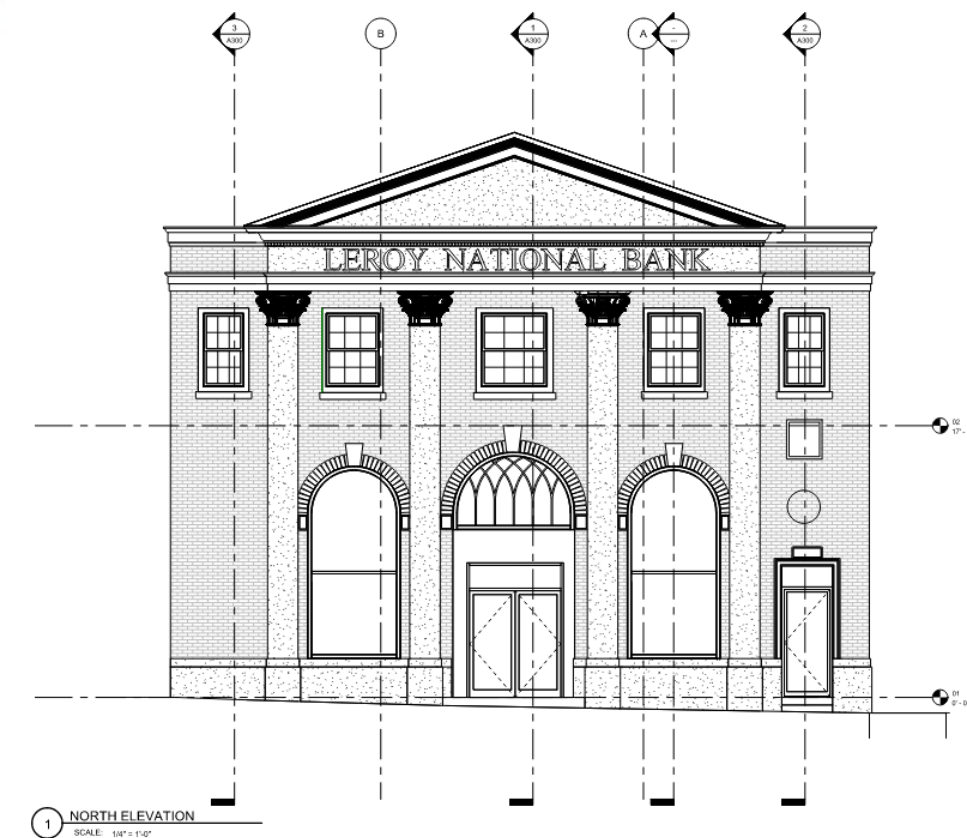
The Historic Bank in LeRoy New York was lacking existing drawings. To develop detailed plans, We conducted a 3D scanning scope on a historical bank in LeRoy New York. We then 3D modeled the existing building from the scan data. The client needed drawings and plans created for the future fit-out of apartments and a restaurant



High-Definition Laser Scan (HDLS)



3D Revit Model



Detailed Drawings Cut From model

Process



The 5-level timber framed building was scanned using a Faro Laser Scanner.



The point cloud derived from the scan data was then brought into Revit in order to model the existing architectural and structural components.

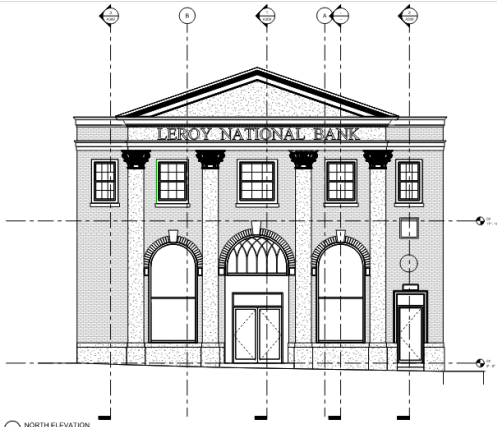


The model was Exported from Revit into 2D CAD files for coordination.

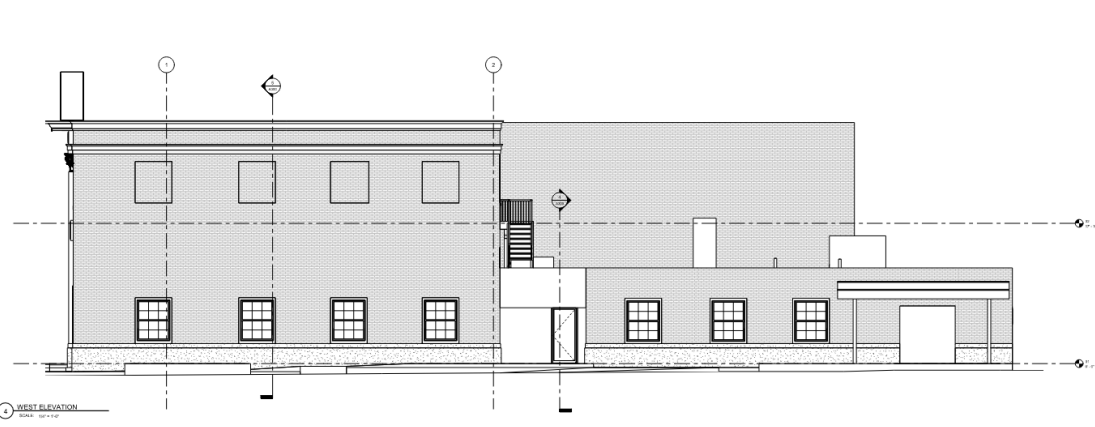


Historical Bank LeRoy, New York

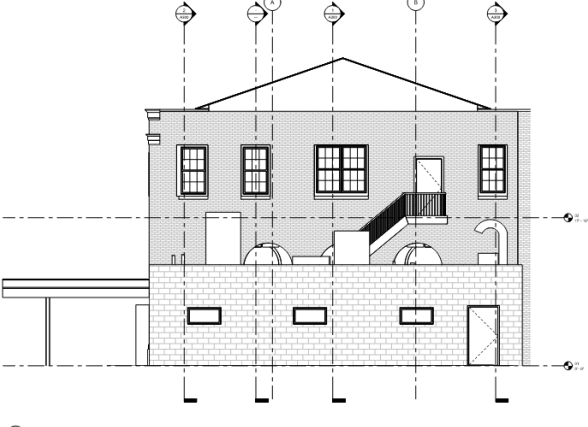
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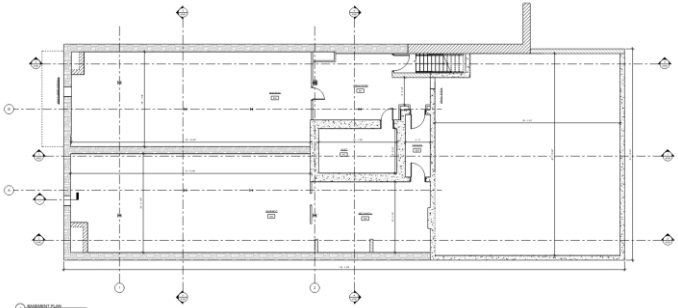
North Elevation



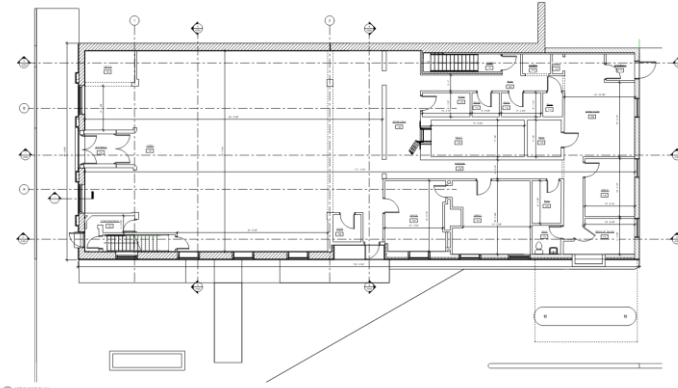
West Elevation



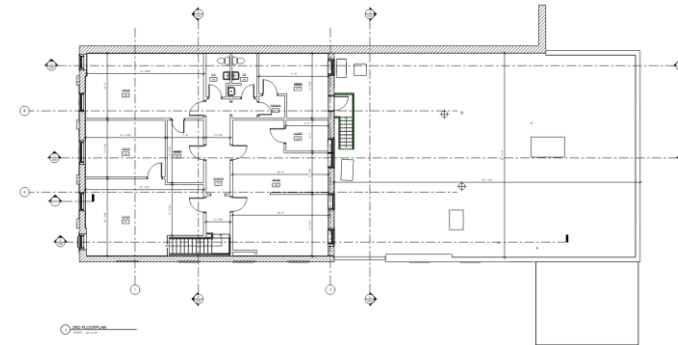
South Elevation



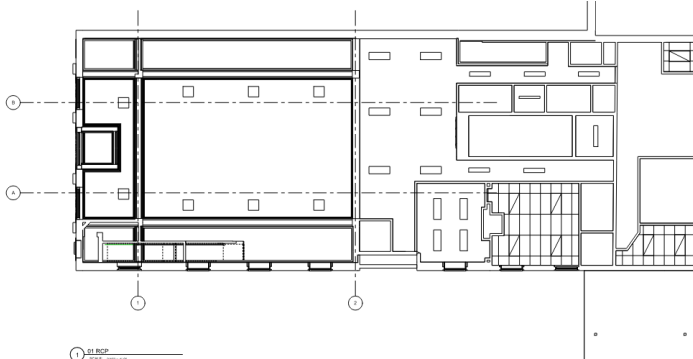
Basement Plan



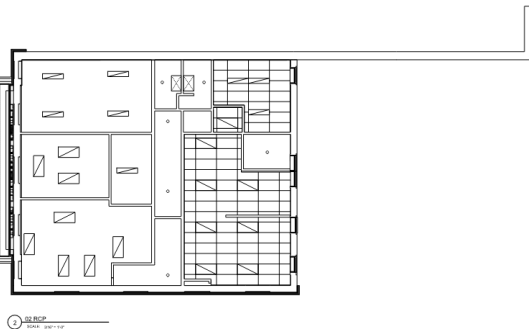
First Floor Plan



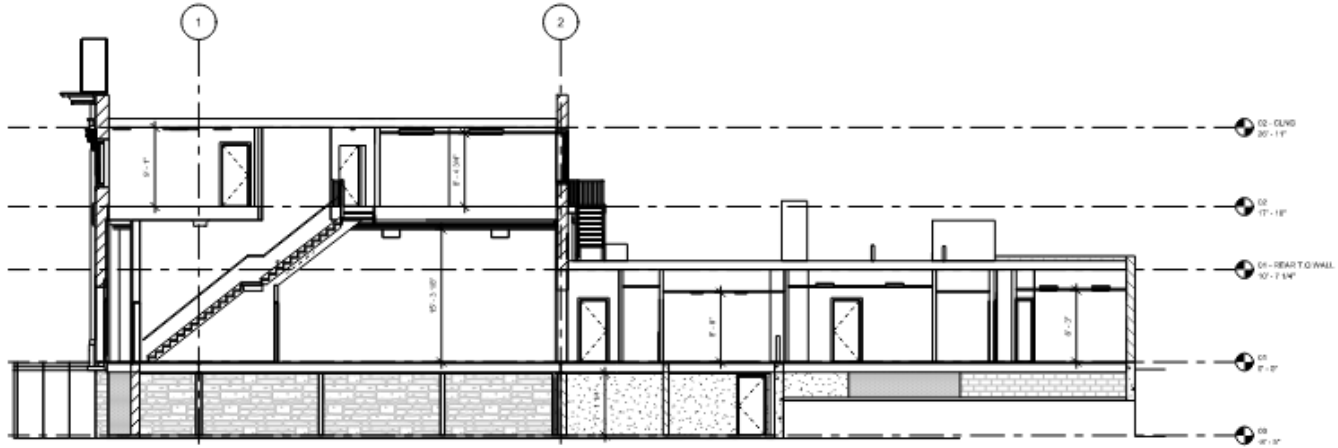
Second Floor Plan



First Floor RCP

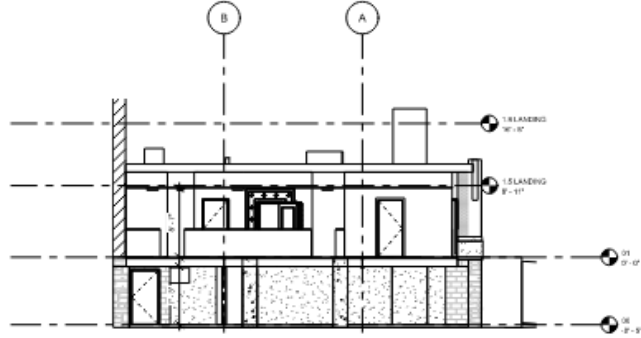


Second Floor RCP



BUILDING SECTION B
SCALE: 1/8" = 1'-0"

Building Section B



BUILDING SECTION D
SCALE: 1/8" = 1'-0"

Building Section D



SU Haven Hall

Syracuse, New York

Pike's BIM team was able to hire a GPR specialist in order to locate the existing rebar in each bathroom location. The BIM team overlaid the GPR scans showing the rebar and worked with the design team to order special shower drain bases for each shower. When coring for the shower drain locations the field installation was able to miss coring throughout the structural rebar that supports the existing building.

Process



Ground Penetrating Radar was used to locate the existing rebar in the floors concrete slab.



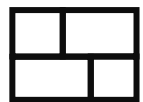
The GPR data was brought into Revit in order to model the rebar locations.



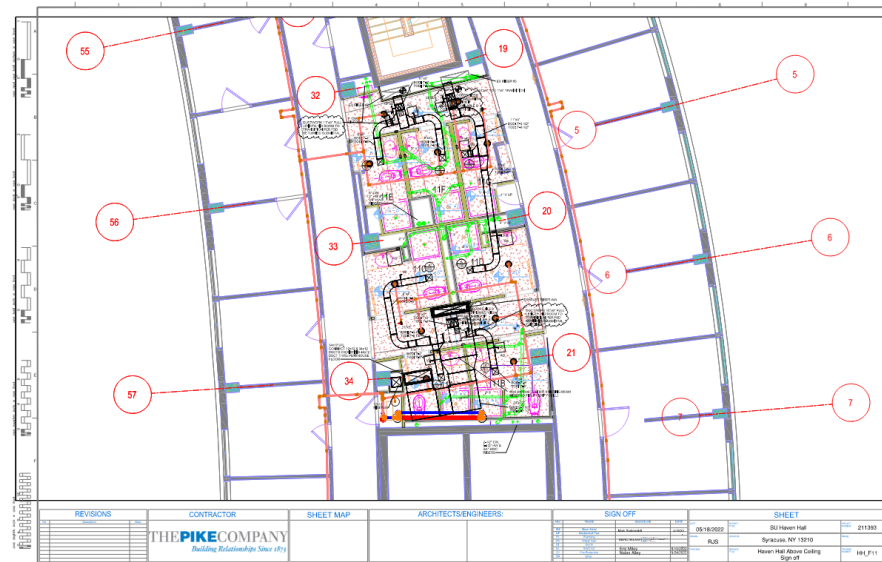
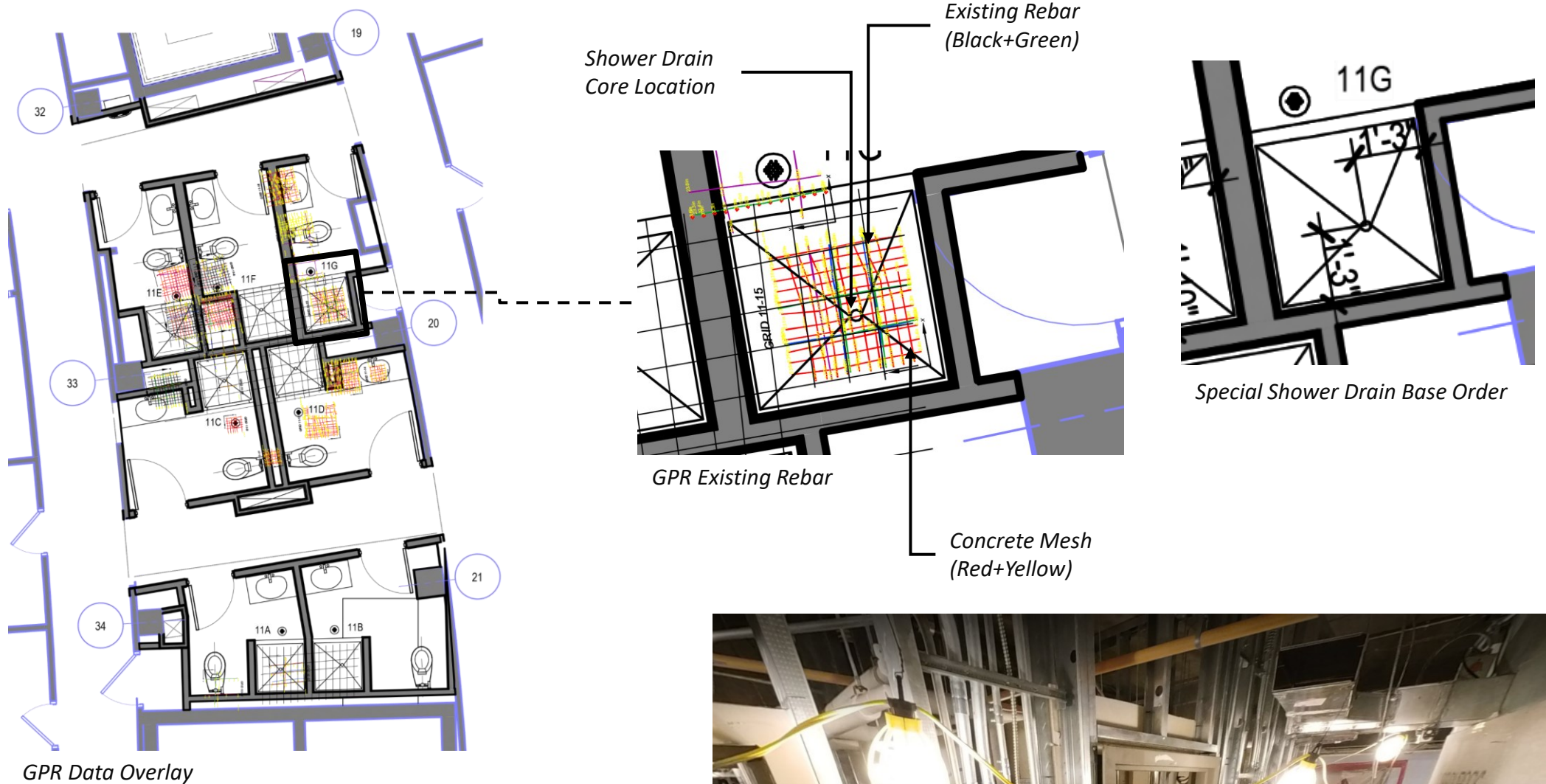
Navisworks was used during coordination to work with the design team on ordering custom shower drains.



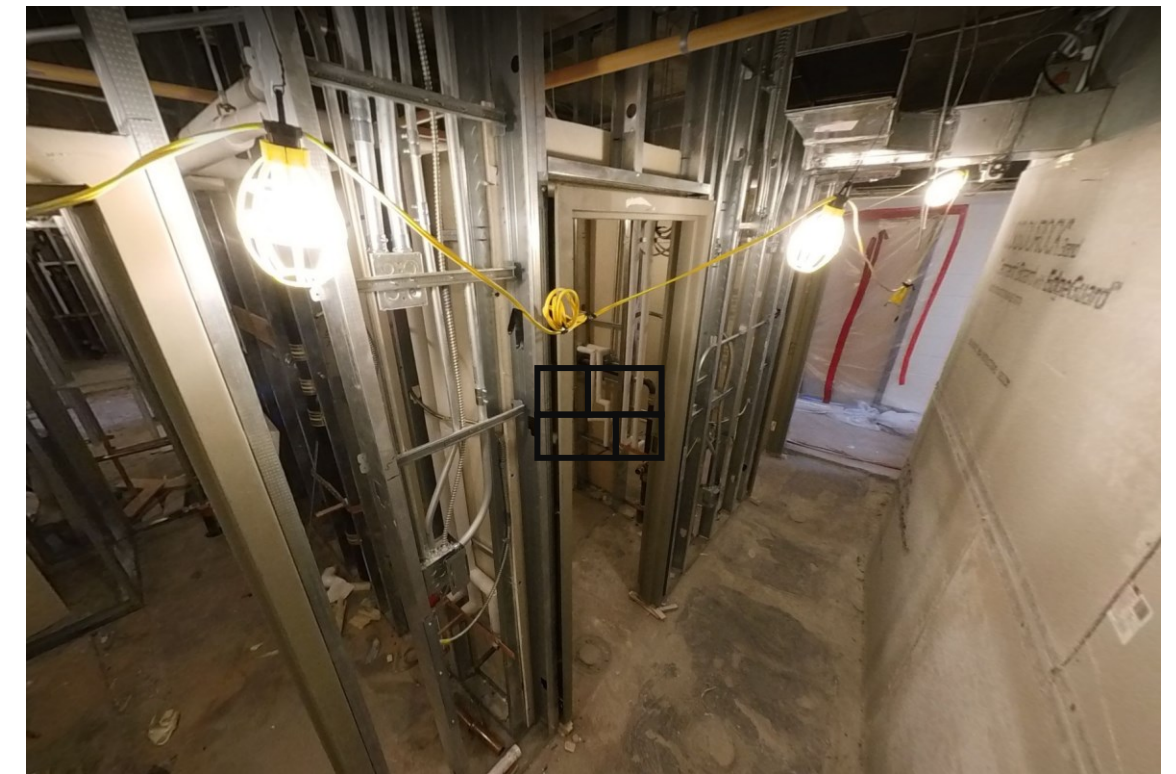
After coordination was complete the core locations were documents and signed off.



Structionsite was used to document the progress of the project by taking weekly 360 photos.



Signoff Document



360 Photos

Longview Apartments

Ithaca, NY

A request from the Architect was to document and provide an existing conditions model of the complex in order for the Architect to update the facility. The entire building was scanned in 3 days and took 2 days to register. After registration the scan data was brought into Revit to model Ceilings, Doors, Windows, Walls, Roofs,



Scan Data



3D Revit Model



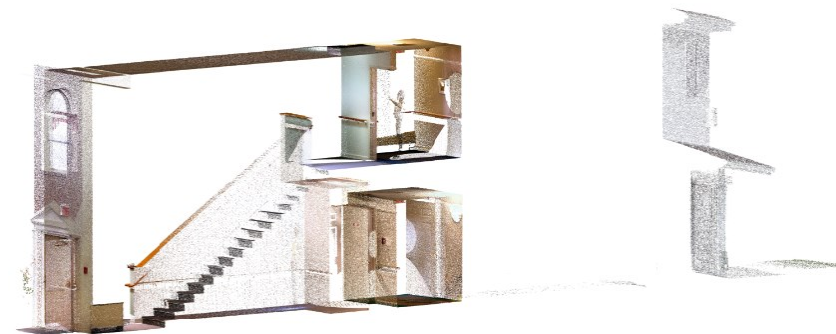
3D Scanned the building using a Trimble X7.



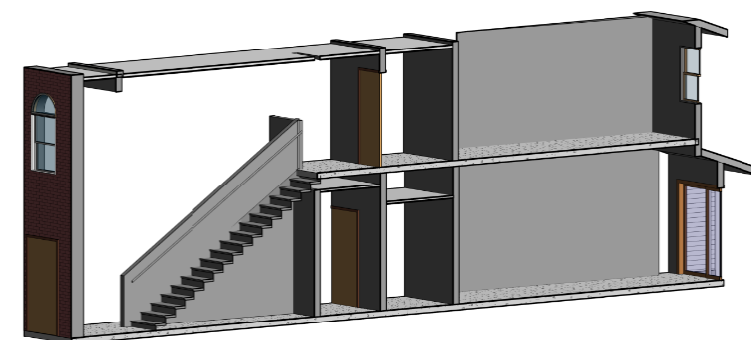
Modeled the Scan data to show the Existing conditions.



Bluebeam was used to provide drawings with dimensions.



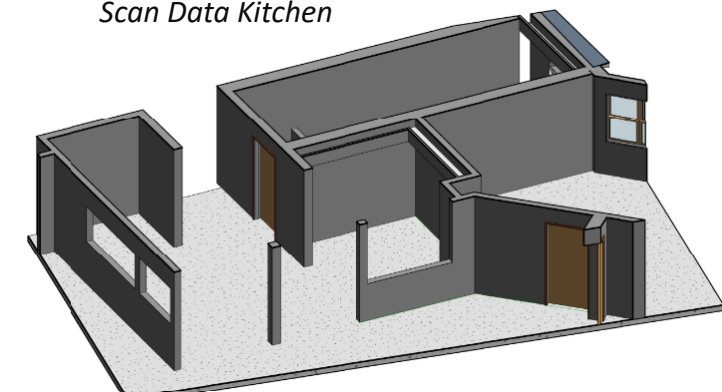
Scan Data Stairs



3D Revit Model



Scan Data Kitchen



3D Revit Model

Longview Apartments

Ithaca, NY

A request from the Architect was to document and provide an existing conditions model of the complex in order for the Architect to update the facility. The entire building was scanned in 3 days and took 2 days to register. After registration the scan data was brought into Revit to model Ceilings, Doors, Windows, Walls, Roofs,



Front Elevation



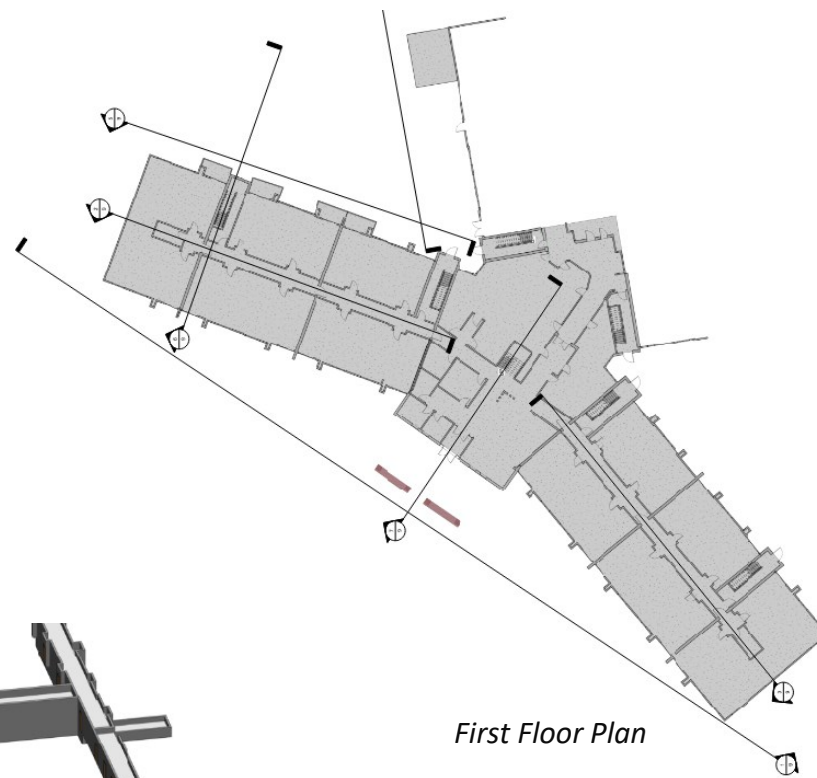
3D Scanned the building using a Trimble X7.



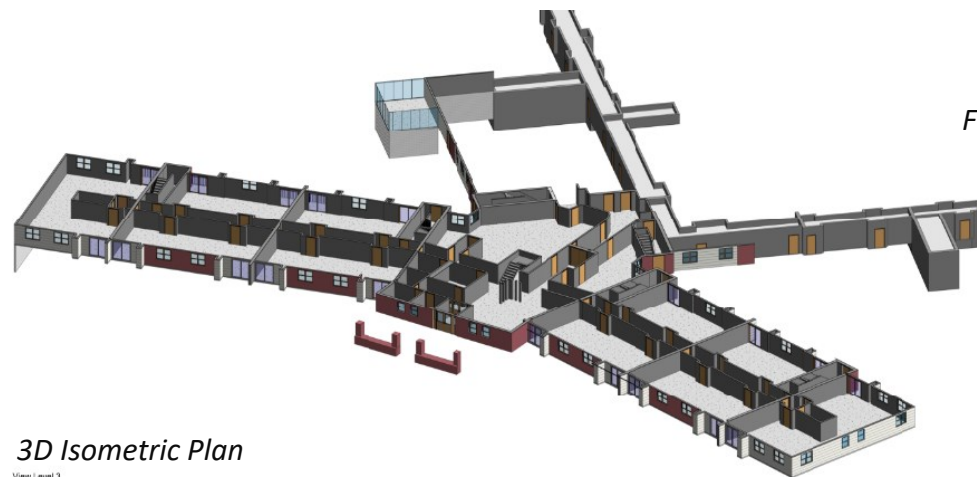
Modeled the Scan data to show the Existing conditions.



Bluebeam was used to provide drawings with dimensions.



First Floor Plan



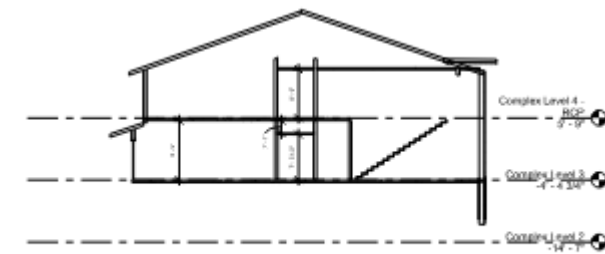
3D Isometric Plan



Building Section 1



Building Section 2

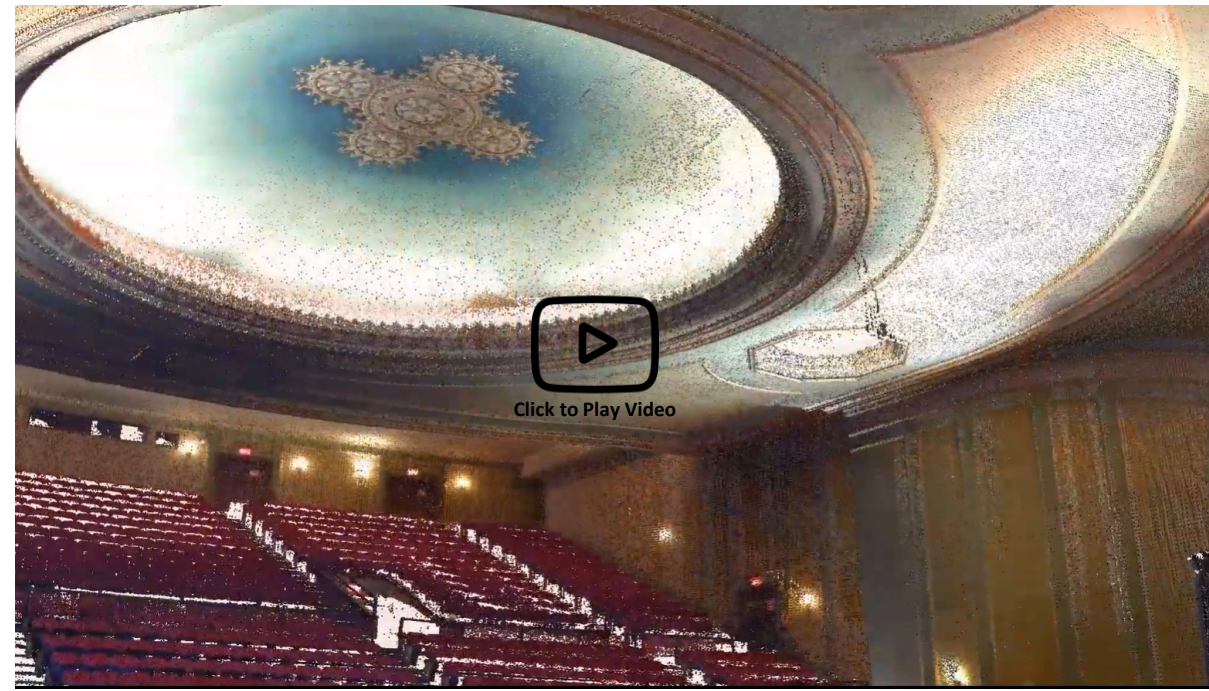


Building Section 3

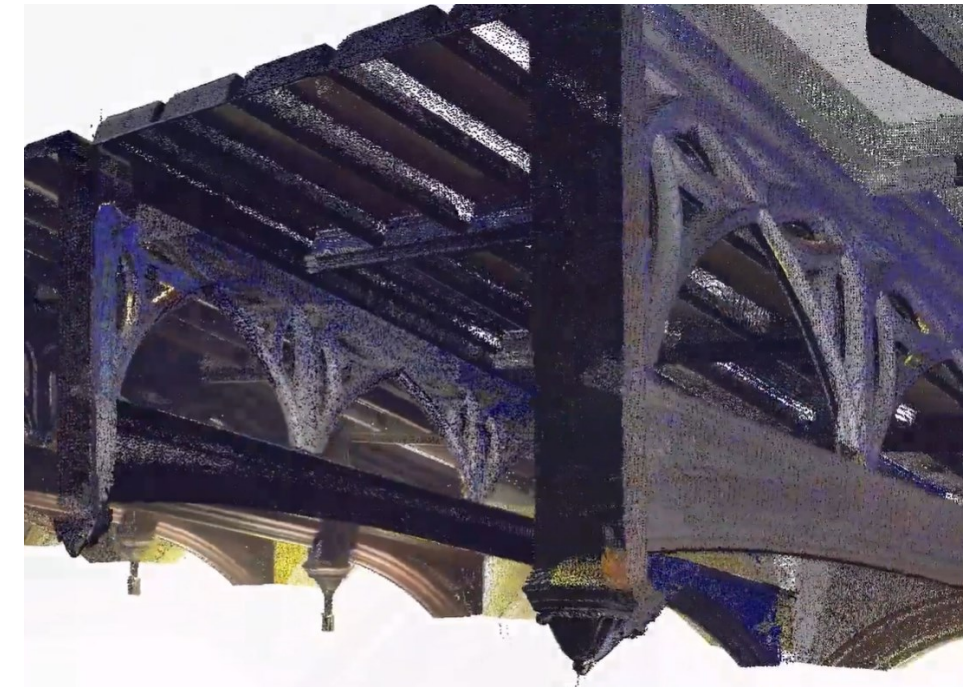
HDLS Analysis

Rochester Theatre Rochester, New York

An existing theatre was being renovated. The BIM team laser scanned the current layout and existing conditions of the theatre.



Laser scan of Auditorium



Existing Roof Conditions

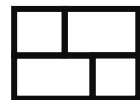
Process



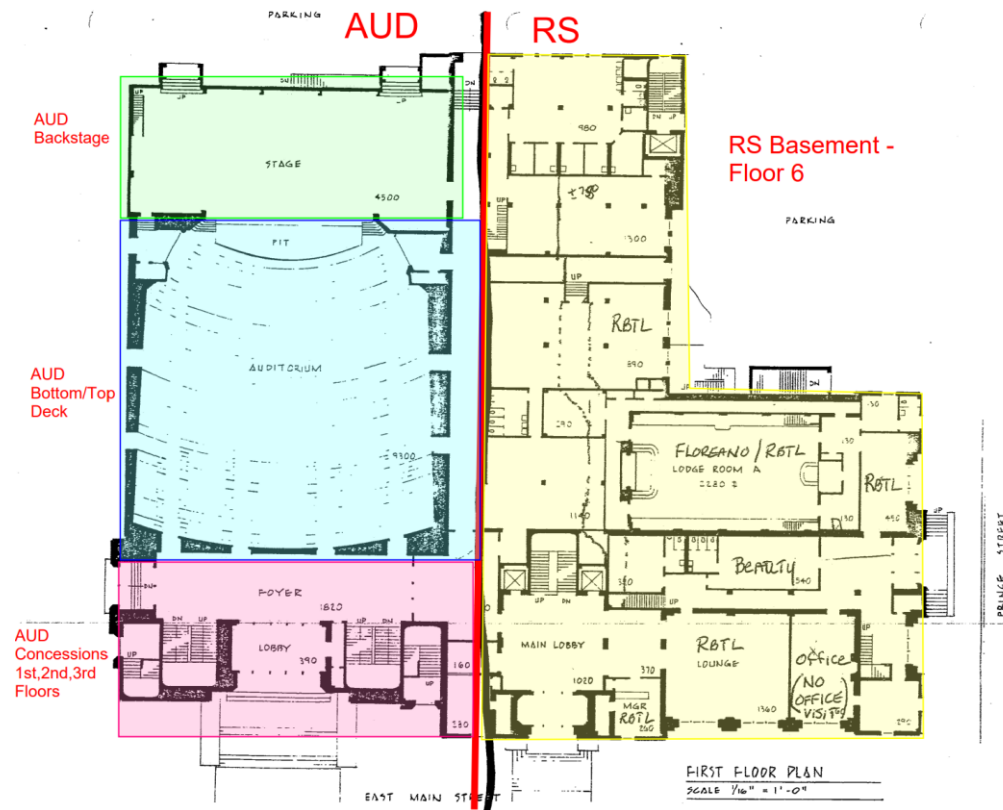
3D Scanned the plumbing stacks before backfill.



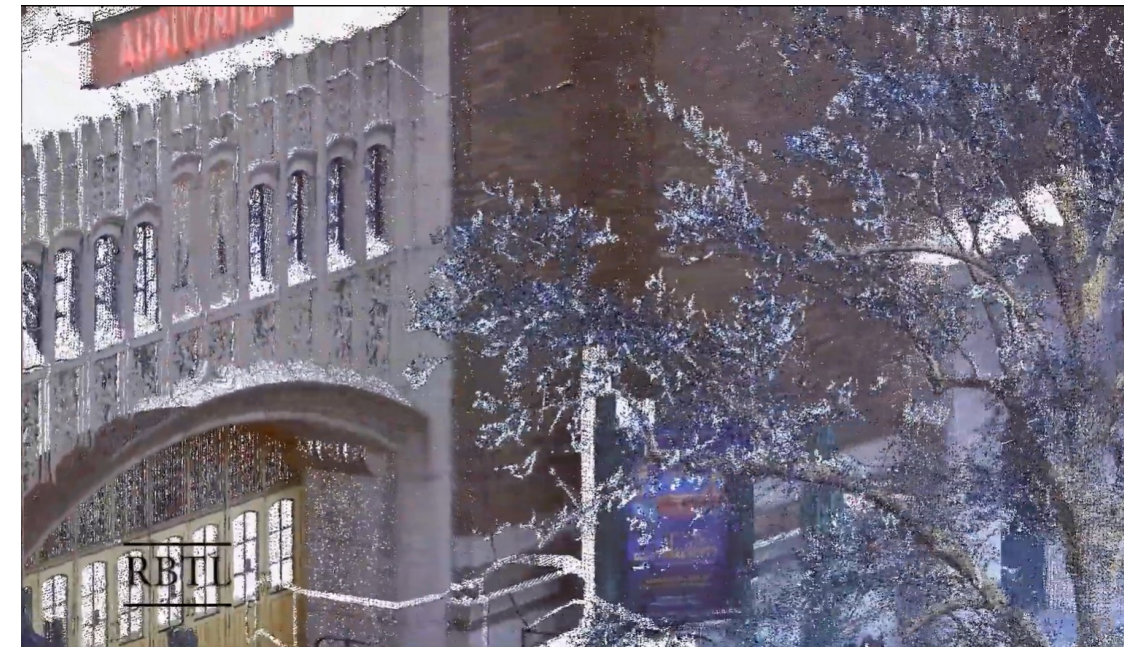
Registered scan data using Trimble.



Uploaded to StructionSite for reference and review



Design Plan



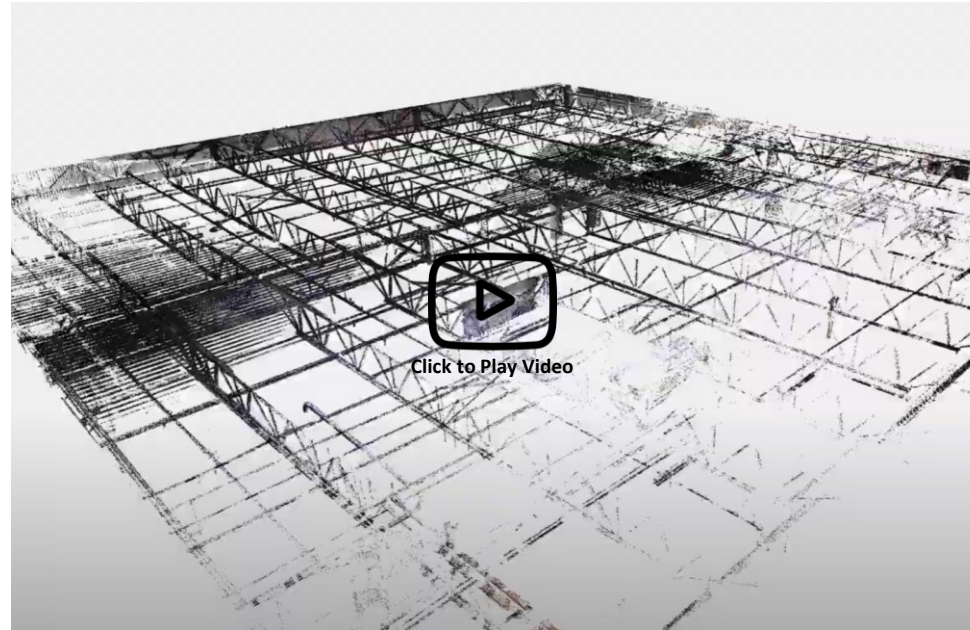
Laser Scan of Building Exterior

HDLS Analysis

Menlo Microsystems

Ithaca, New York

An existing office was being renovated. The BIM team laser scanned the facility in areas such as the clean room and office spaces. Once the scan data was refined, it showed the equipment and ductwork in the clean room, giving the architect a 3D visual to understand the existing conditions.



Laser Scan of Building Structure



Building Point Cloud

Process



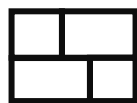
3D Scanned the clean room and office spaces



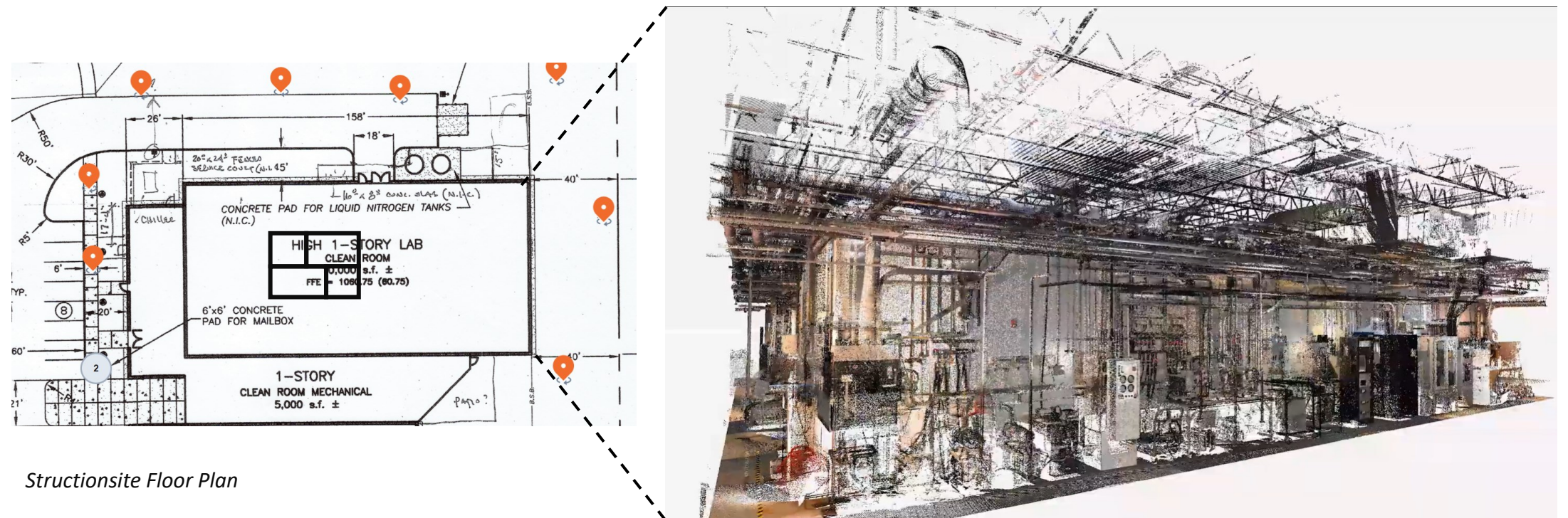
Registered scan data using Trimble.



A video animation was captured using ReCap Pro.



Uploaded to Struionsite for reference and review



Struionsite Floor Plan