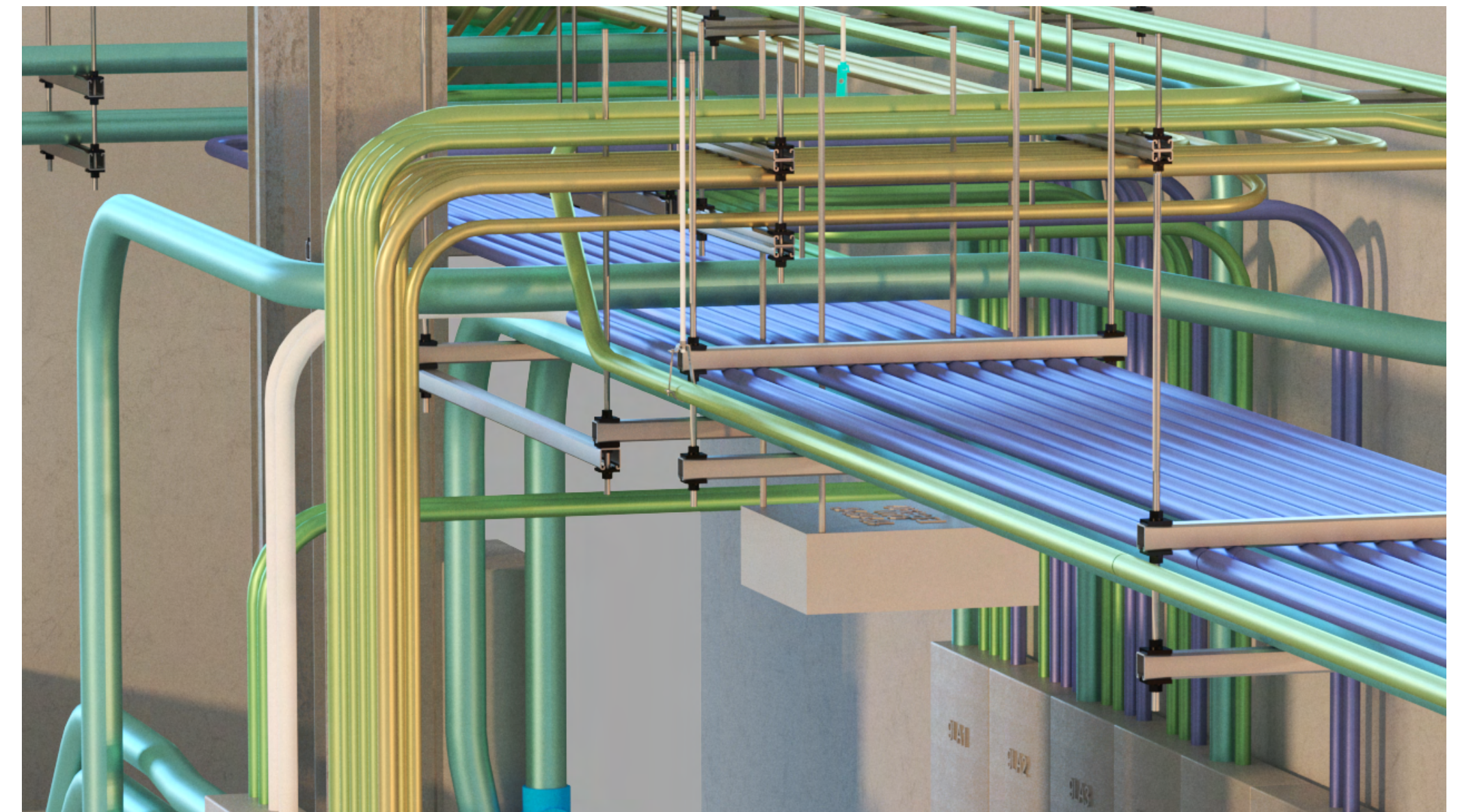




# ELECTRICAL

## STATEMENT OF QUALIFICATIONS



# CONTENT

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# COMPANY OVERVIEW

-  250+ Employees
-  500+ Projects; Nationwide territories
-  HQ in San Francisco; 6 offices worldwide
-  15+ Years of Experience

## OUR SERVICES

Electrical BIM & VDC

Mechanical BIM & VDC

VDC Coordination Management

Onsite Quality Control

Civil Underground BIM & VDC

Concrete BIM & VDC

Enhanced Design

## CORE MARKET SECTORS

  
Mission Critical

  
Healthcare & Life Science

  
Public Works

  
Commercial

  
Aviation

## CERTIFICATIONS

  
Minority Business Enterprise

  
SF Local Business Enterprise

  
Disadvantaged Business Enterprise

  
Small Business Enterprise



Learn more >

# LEADERSHIP TEAM



**Shane Saltzgiver**  
Founder & CEO

- 23 years of AEC industry experience — 14 years as BIM/VDC consultant (Founder of VEC in 2011), 6 years as electrical subcontractor (St. Francis Electric), 3 years as general contractor (Pankow, Straub)
- BS Degree: Construction Management, Cal Poly San Luis Obispo  
Minor Degree: CRP Real Property Development



**Ivana Gery**  
Director - Finance & Administration

- 13 years of AEC industry experience — 5 years in Financing (VEC), 8 years in Financing (St. Francis Electric)
- BS Degree: Masters of Business Administration, California State University of East Bay



**Oleg Osadchy**  
Vice President of VDC Operations

- 13 years of AEC industry experience — 6 years as BIM/VDC consultant (VEC), 4 years as GC (James R. Thompson, Inc.), 3 years of field experience (Tufco Flooring LLC)
- BS Degree: Construction Management, Northern Kentucky University  
Minor Degree: Business Administration



**Kharlo Barcenas**  
Head of Sales & Marketing

- 17 years of AEC industry experience — 3 years as BIM/VDC consultant (VEC), 14 years as GC (Turner, BCCI, STO Build Group)
- BS Degree: Civil Engineering, San Jose State University



**Don Interdonato**  
Director of Development

- 25 years of AEC industry experience — 9 years as BIM/VDC consultant (VEC, Microdesk), 11 years as MEP Engineering Consultant (WSP Group Lincolne Scott), 5 years as electrical subcontractor (Cupertino Electric Inc.)
- BS Degree: Business Administration, Centenary University



**Kevin Williams**  
Senior Project Manager - VDC Coordination Management

- 14-years in the Construction Industry — <1 year as BIM/VDC consultant (VEC), 4 years as general contractor (McCarthy Building Company), 10 years as GC (MATT Construction)
- BS Degree: Construction Management, Cal Poly San Luis Obispo



**Britton Eberts**  
Project Executive - Electrical VDC

- 9 years of AEC industry experience — 6 years as BIM/VDC consultant (VEC), 2 years as GC (Tutor Perini Building Corp.), 1 year as architect (Crockett Architects Inc.)
- BS Degree: Architecture, University of Miami  
Minor: Human and Social Development

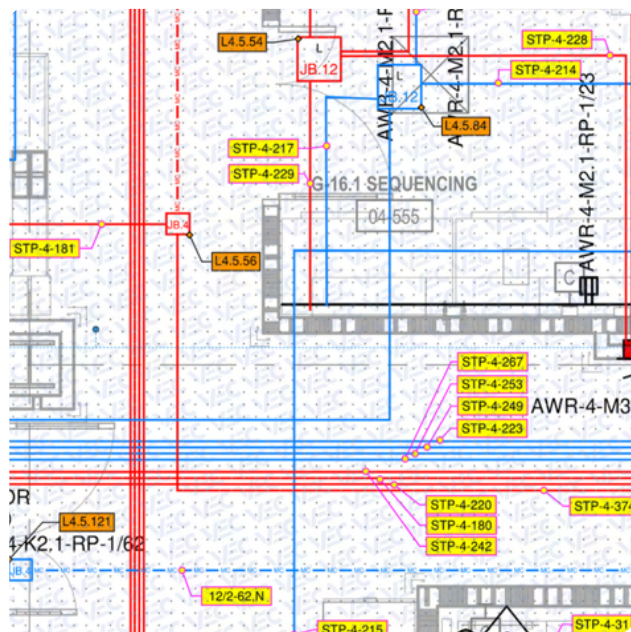


**Rob Ohata**  
Senior Project Manager - Onsite Quality Control

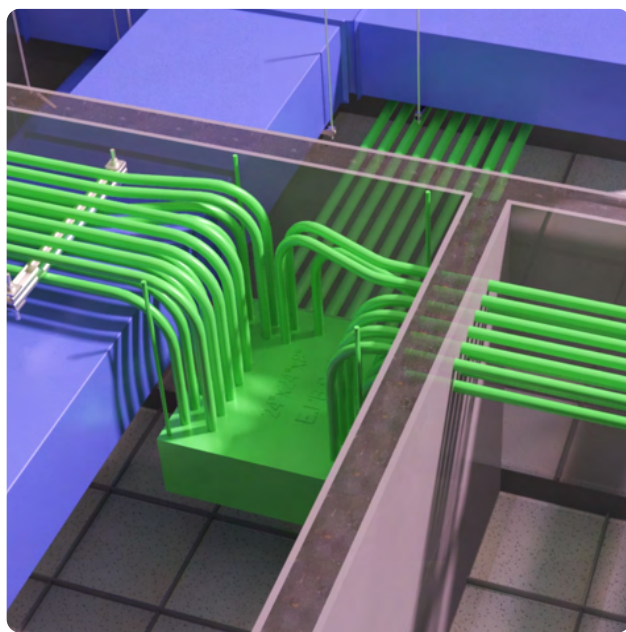
- 13 years of AEC industry experience — 5 years as BIM Coordinator & BIM/VDC consultant (VEC), 8 years of scanning survey technology experience (DPSI, Stantec, Sandis)
- BS Degree: Industrial Design, California State University of Long Beach



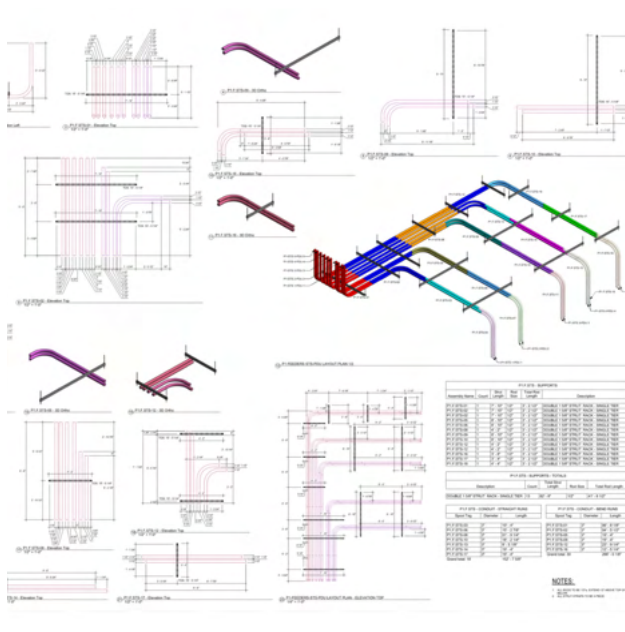
# ELECTRICAL SERVICES



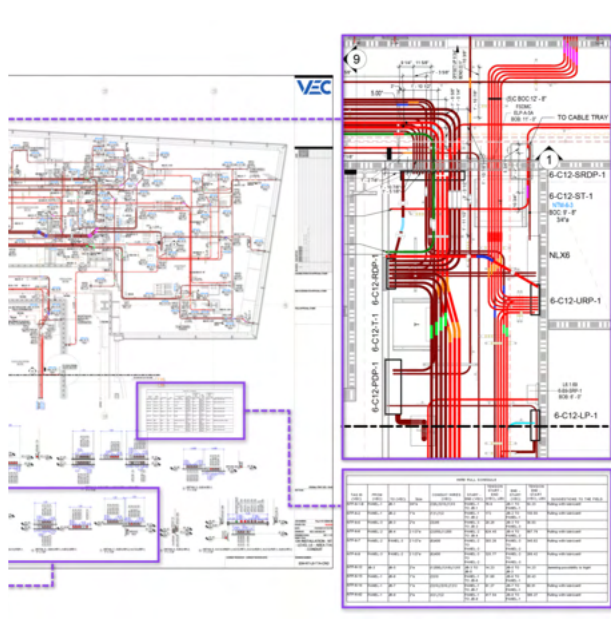
Redlining & Preplanning



Modeling & Coordination



Pre-Fabrication/ Spool Sheets/ BOM



Shop/ Installation Drawings



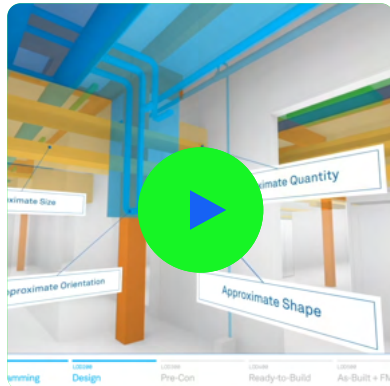
BIM In-House Plug-In Development

# ENHANCED DESIGN

Use enhanced design at each project stage!



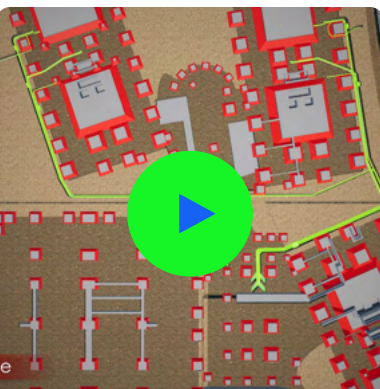
**01**  
Developing the Digital Execution and Governance Plan



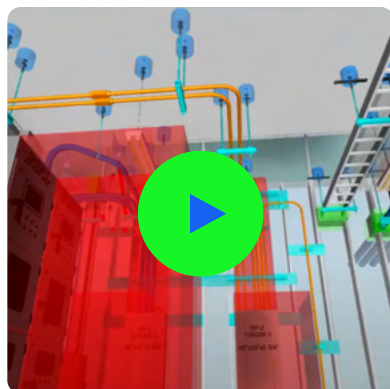
**02**  
Supporting design model development to LOD 350/400



**03**  
Facilitating model coordination



**04**  
Optimizing system routing to reduce material/labor cost



**05**  
Validating the design is constructible and the design intent is achievable



**06**  
Performing model-based cost analysis as the design progresses



# PROMOTING TEAM SYNERGY

Between routine site walks, we meet with the field team, seeking feedback on the model/ drawings provided, reviewing field issues, monitoring QA/QC on the installation, etc. It is critical to remain connected to the actual site conditions instead of solely the virtual BIM environment.

- ☒ Better communication on the project
- ☒ Improved general project coordination
- ☒ Increased team synergy

Onsite support

- Budget Management • Scheduling • Document Management
- Facility Management Data • On site support

Prefab Shop

- Detailing Sheets • Spooling
- Prefab take-offs

General Foreman/Field Crew

- Preconstruction planning & redlining • Installation drawings
- BOM • Means/Methods implementation
- Streamline Field Point Layout (Trimble) • Labeling
- Wire pull calculation • Labor estimate • Conduits schedule

BIM Department

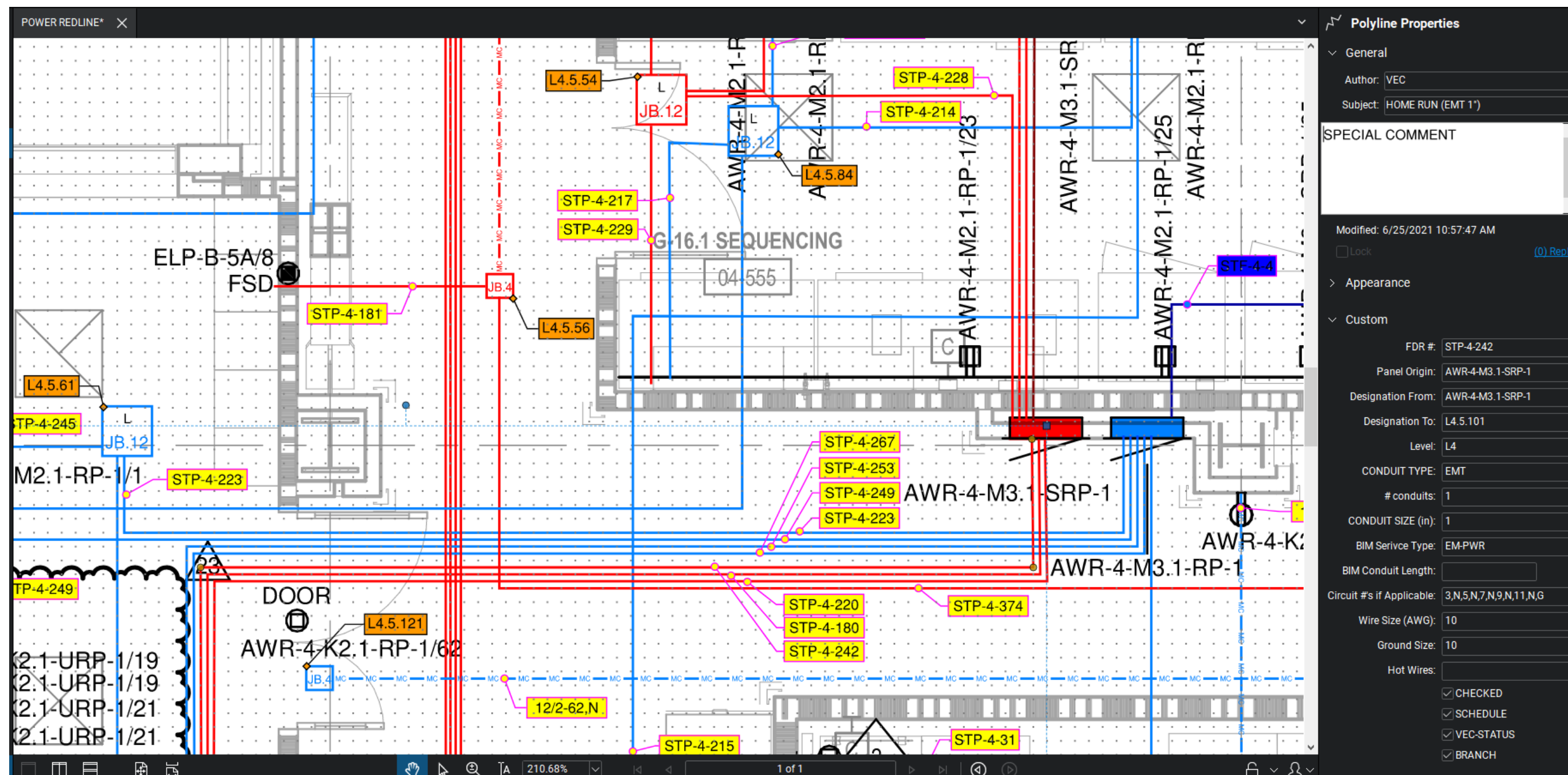
- Modeling • Clash detection & resolution • Prefab take-offs
- Families Library Creation - match manufactory cut sheet
- Talented engineers/Trained personal • Plug-in development
- 24 hours turnaround • LOD 100-500 • Implementation of 2D-7D





# REDLINING & PREPLANNING

VEC uses redlines for most, if not all, of our projects when modeling BIM, achieving optimal routing from the get-go. The engineering team sends us contracting documents, from which we develop 2D redlines that translate into a 3D model. First, we analyze the single-line diagrams and feeder schedules so we can lay out the central distribution systems for the project. Next, we sift through lighting, power, and telecom options to determine the flow of homeruns and branch systems throughout the building while maintaining the integrity of the original design.



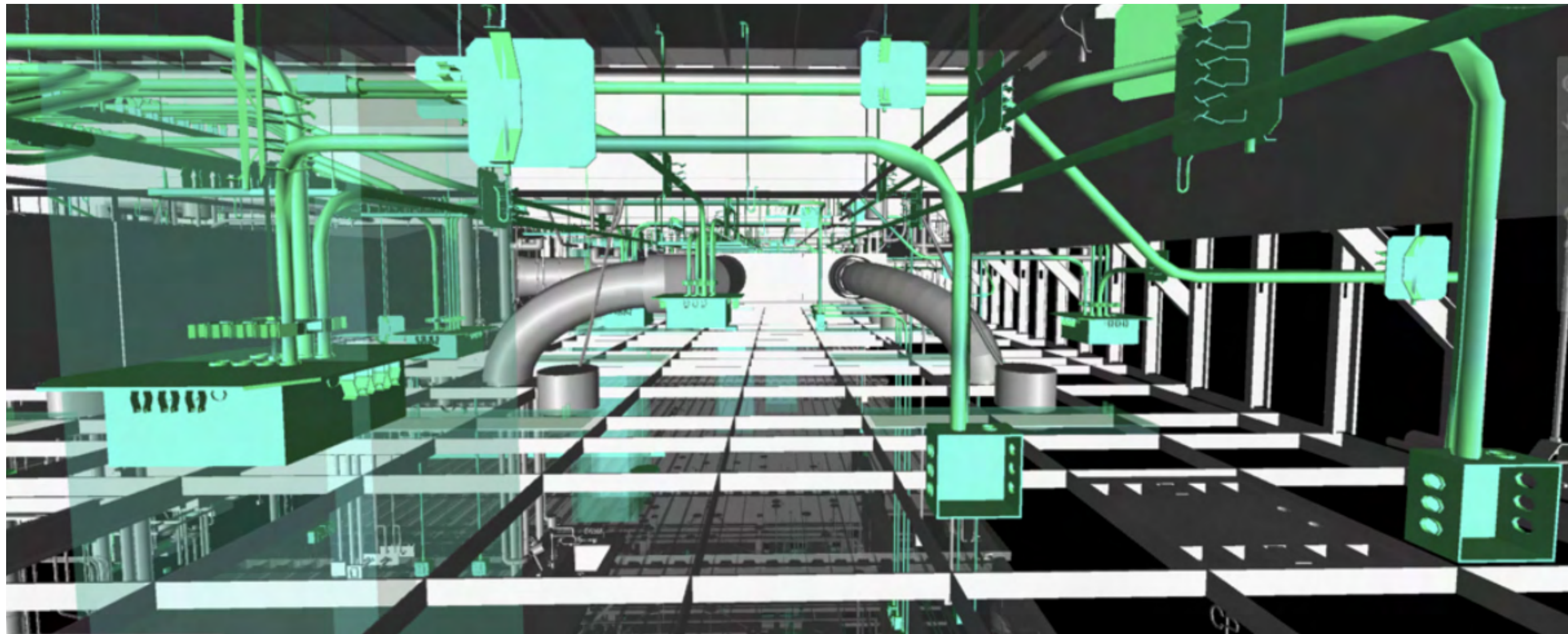
We consider grounding systems, panel schedules, mechanical equipment, and structural obstacles to optimize our redlines.

As a standard, we append multiple sheets together to visualize each elevation, with layers dividing underground, in-slab, and overhead elements.



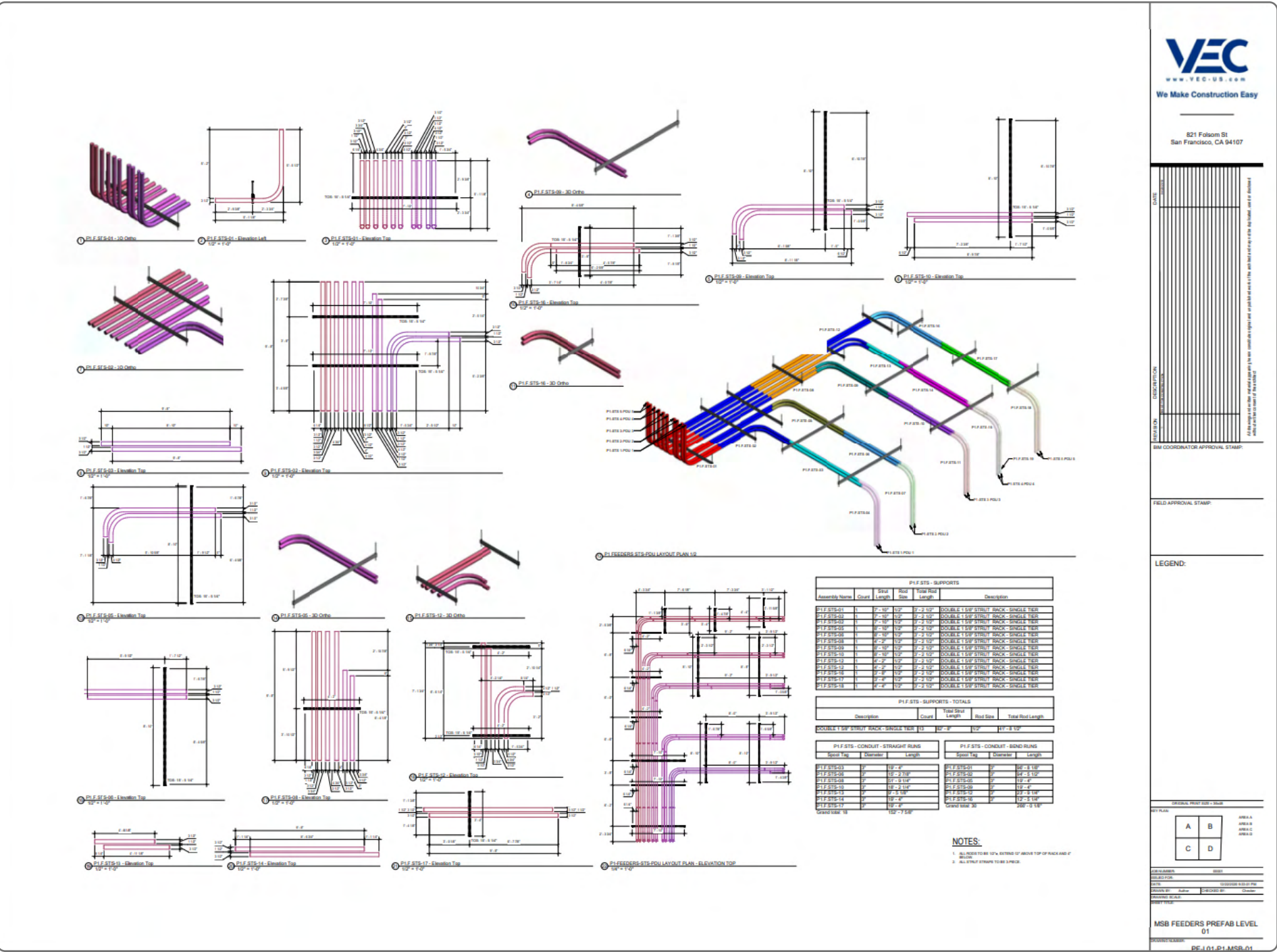
# MODELS BUILT FOR THE FIELD

VEC's construction experts review proposed designs, plan sequencing within each construction specialization, identify potential issues, and suggest improved construction performance. These constructability efforts minimize onsite construction work (or rework) and ensure onsite activity is safe and efficient. Our goals in this arena include improving equipment layout and type, vetting installation options, optimizing system routing, and selecting the best materials. Investment in these initiatives upfront reduces construction costs down the line.





# PREFABRICATION

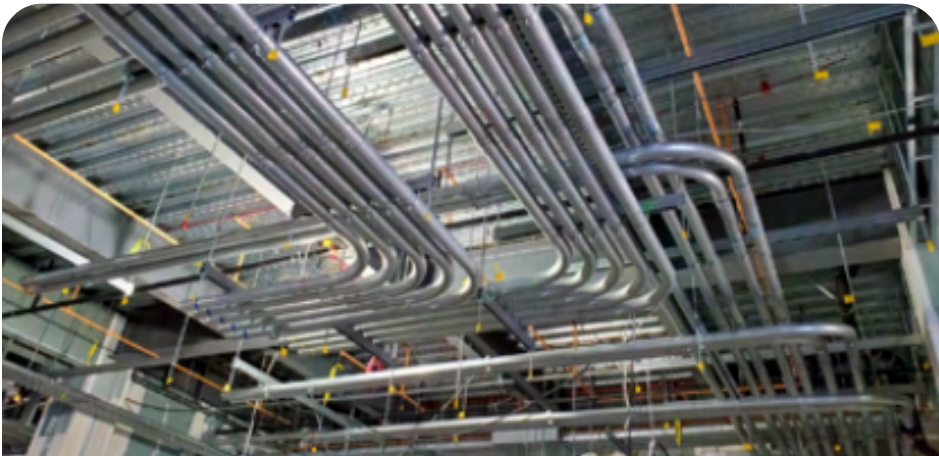


- We have extensive knowledge of ways to minimize material use and labor cost, such as underground routing, under-slab and in-slab routing, or overhead routing.
- We build the BIM model right the first time, incorporating the client’s means/methods, system routing, and pre-fabrication preferences.
- At the start of every project, we spend time with the field team to understand their preferred methods and pre-fabrication desires and capabilities. We familiarize ourselves with all our available options.
- Once the BIM coordination process is complete and an area is “Signed-off,” the trades are locked into that routing, and any changes in the model (or in the field) must be rerouted around the other trades.
- Shop/ installation drawings are produced from the “Sign-off” model, the material is procured, and the field team proceeds with the installation per this set of drawings.



## Prefab from the model

- Accurate information
- Precise BOM
- Prefab detailing
- Material and labor savings



## Field Installation

- Ready to Install
- Faster Installation
- Better Precision



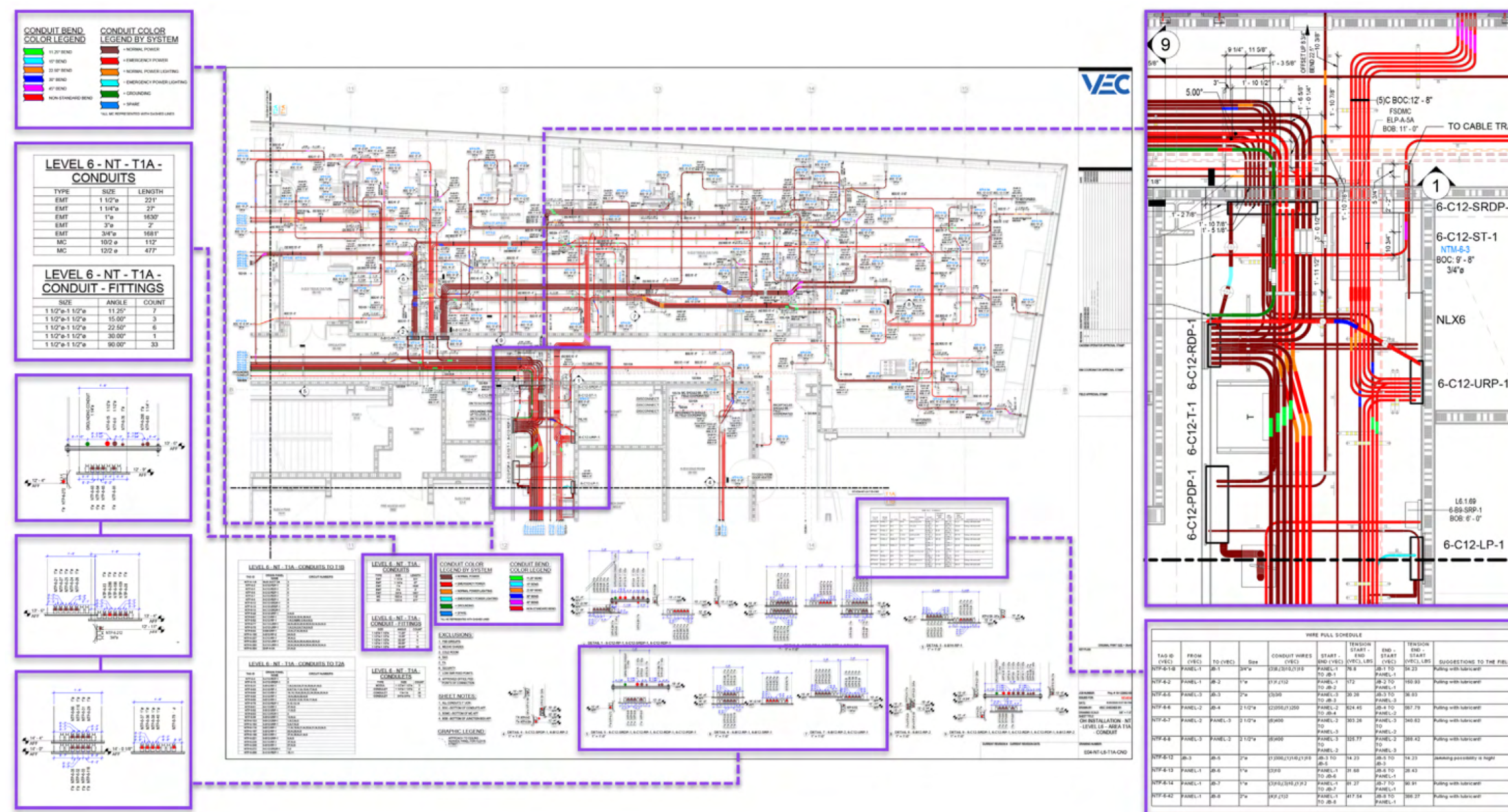
# SHOP/INSTALLATION DRAWINGS

## Our process sets us apart

The primary purpose of any BIM application is to provide clear building installation documents to the field based on a coordinated, clash-free model. We aim to collaborate with the field team to produce high-quality install packages catering to site-specific needs.

We maintain a feedback loop with the crews building the systems through the following processes:

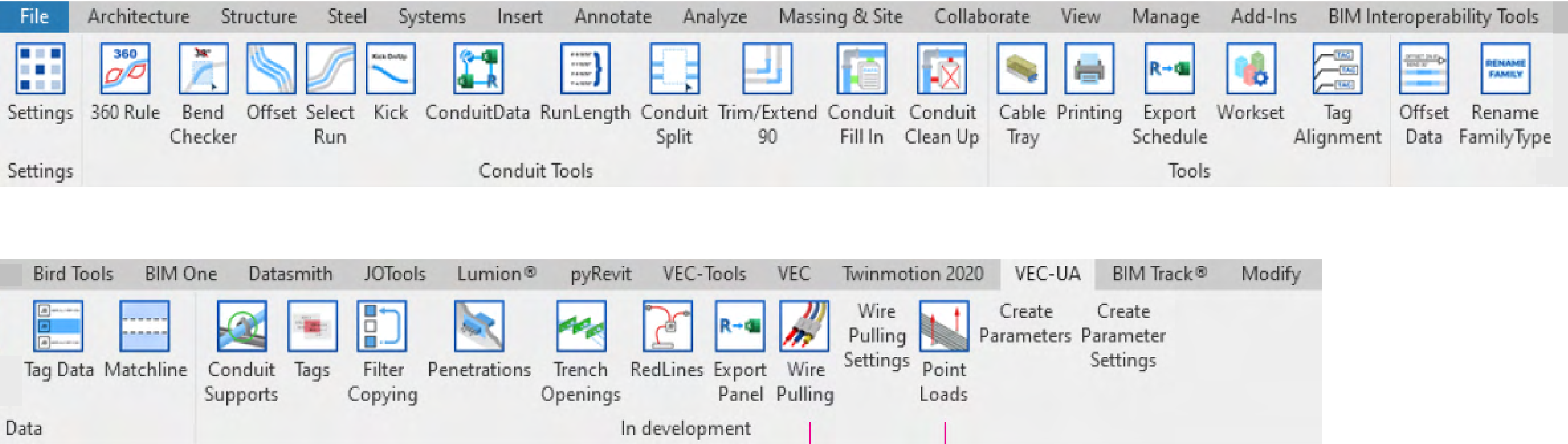
- Always model with the shop drawing in mind.
- Use BIM standards as a guideline, but seek feedback from GFs to finalize document visualization and annotations suited to their project.
- Keep documentation simple, concise and clear documentation with adequate information.
- Cut out anything non-essential to performing the work.
- Include as much information in one location/drawing as opposed to multiple drawings to eliminate unnecessary documentation and wasted time.
- Align the drawing production schedule to the installation sequence.
- Develop drawing sets logically to match the construction crew activity:
  - If overhead is all one crew, there is no need to separate overhead drawings by the system; simply color/tag each system, but keep all conduits shown on one sheet for overhead installation.
  - If risers are all one crew, we would create shop drawings specific to riser installation, only showing riser details and nothing else.





# BIM IN-HOUSE PLUG-IN DEVELOPMENT

At VEC, we have an internal plugin development department. They create plugins necessary for process automatization. That enables us to make electrical services faster and safer due to fewer clashes, resulting in less manual work. Another critical advantage of using plugins is standardization, which helps us provide our services more quickly and efficiently.



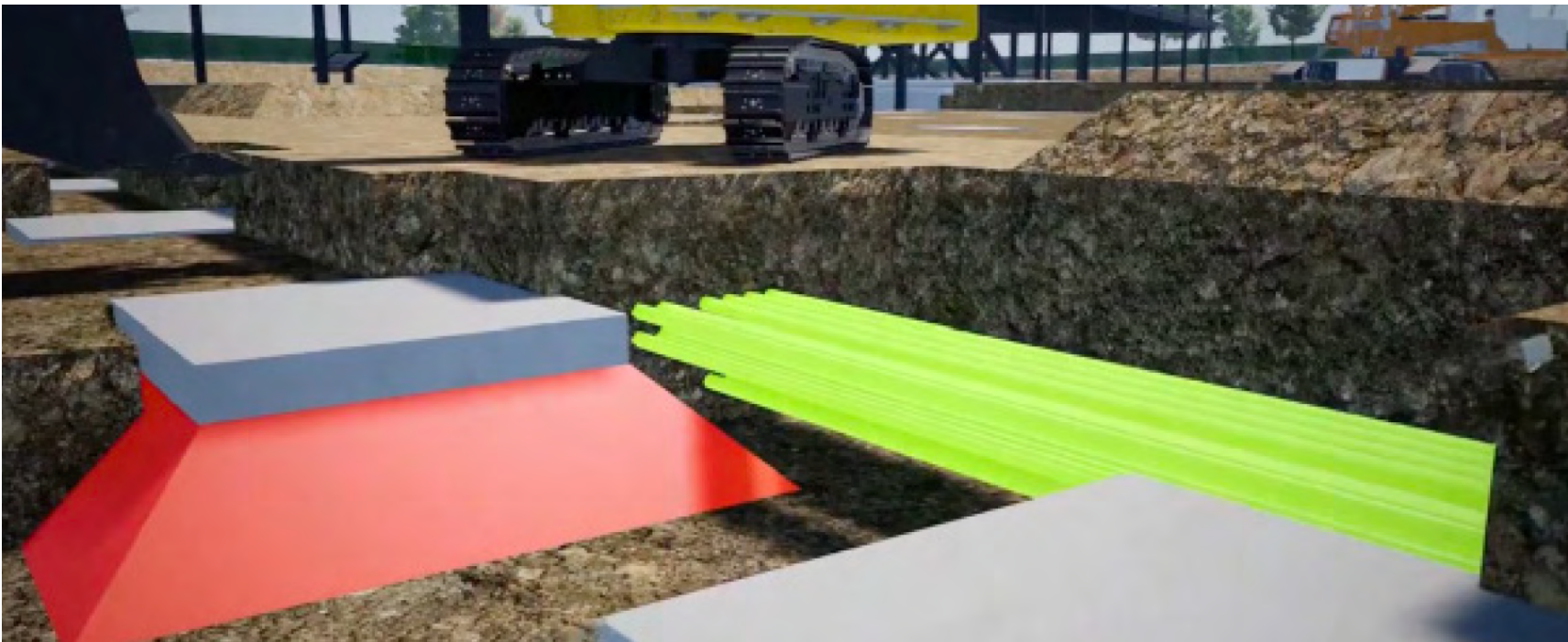


# CONDUIT ROUTING OPTIMIZATION

In this project example, VEC analyzed the underground conduit duct bank feeder design drawings for the generator yard distribution to the main electrical rooms and identified alternate routing solutions that resulted in a 31% reduction in overall feeder length. In order to accomplish this task we took the following steps:

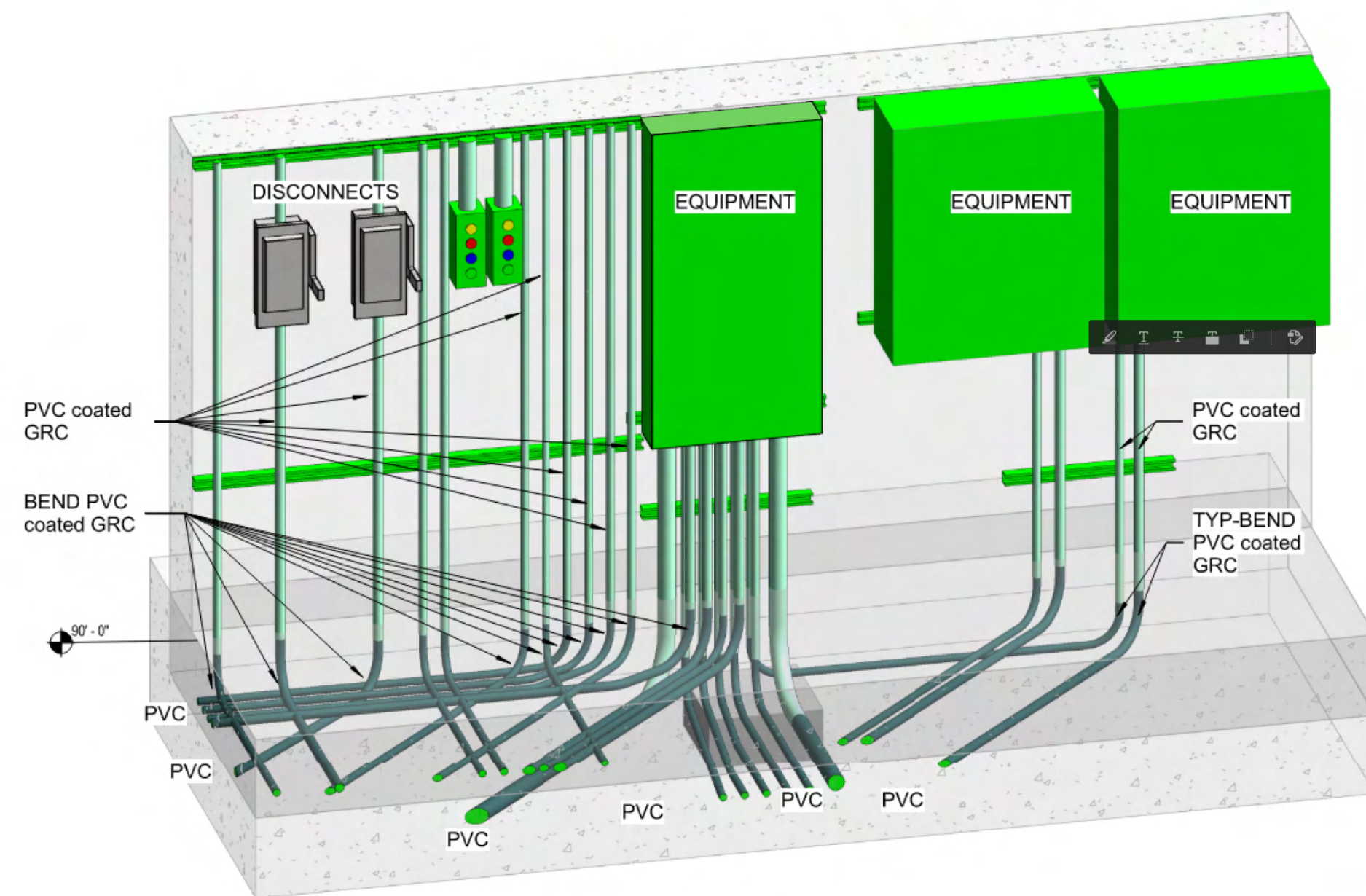
- 1. Create the structural foundation model, including footing “zones of influence.”
- 2. Create the underground duct bank model.
- 3. Optimize duct bank routing while maintaining code compliance and installation efficiency.

Original Routing	Optimized Routing	Total Reduction
21,357 LF of 4” Conduit	14,765 LF of 4” Conduit	6,592 LF of 4” Conduit 19,776 LF of 750 kcmil cable





# METHODS: FIELD CONDUIT ROUTING

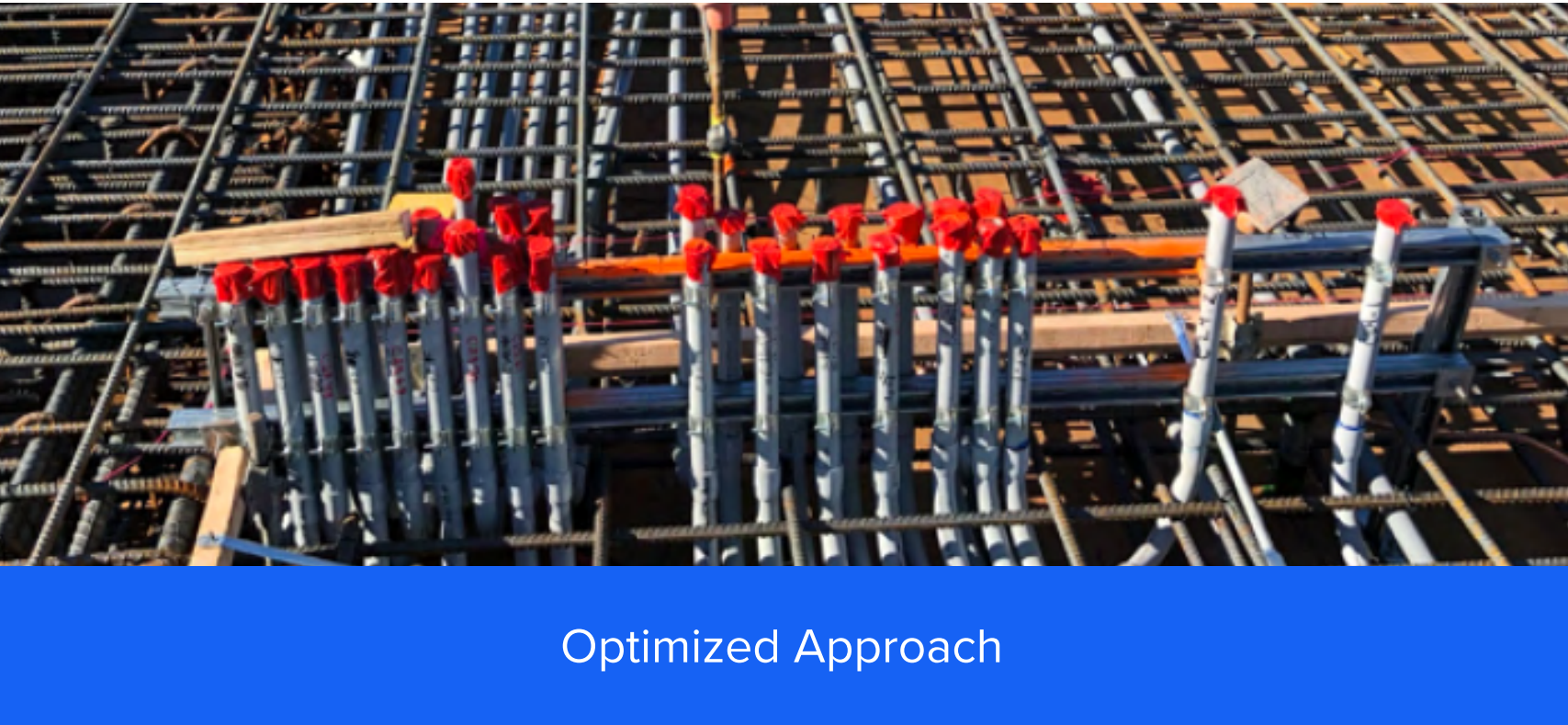


Following the original design intent, the primary and branch electrical distribution throughout the building was routed in overhead EMT conduit supported, with strut trapeze and seismic bracing anchored to the floor slabs.

**Our client identified significant cost and time savings by rerouting the majority of this OH conduit into the floor slabs with PVC conduit.** We utilized BIM to identify alternate routing pathways in the floor slabs, coordinated this around the other trade installations, and provided details for structural review.



# METHODS: BENEFITS FROM BIM



## The Result:

- 177,582 LF of conduit rerouted from overhead EMT on racks to in-slab PVC
- Material/Labor Savings
- Earlier installation due to construction sequence
- Less overhead system coordination during pre-con BIM
- Increased visual quality (cleaner installation)

Conduit Quantities Rerouted from Overhead to In-Slab

Conduit Size	Length
3/4"	50,307 LF
1"	109,185 LF
1 -1/4"	9,831 LF
1-1/2"	8,259 LF
Total:	177,582 LF

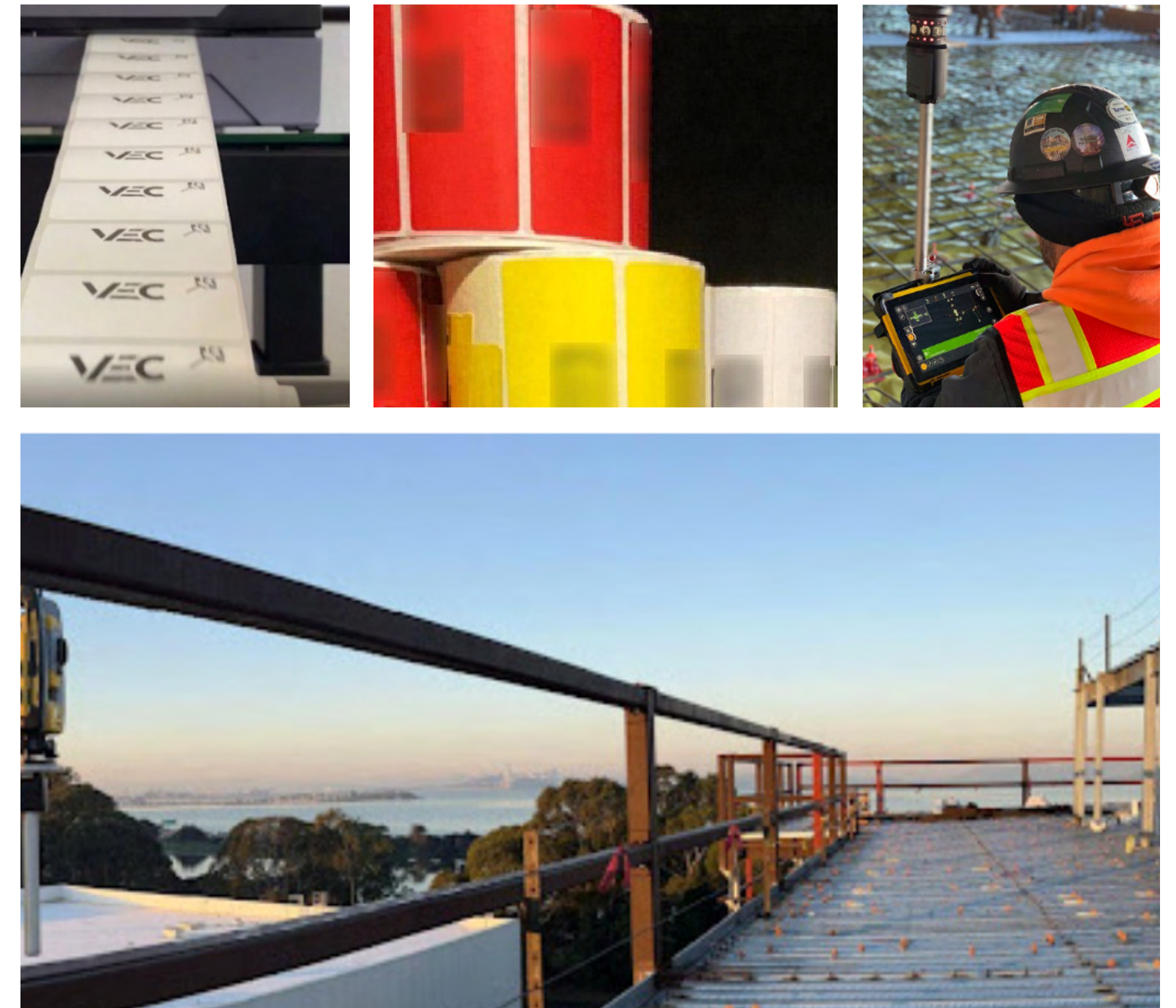


# TRIMBLE POINT LAYOUT

Trimble Layout is a critical component of any turn-key BIM service, ensuring data is accurately transferred from the Coordinated BIM model to the field.

## Our approach:

- VEC provides MEP BIM/ VDC Trimble Point Layout services in-house, greatly streamlining the process.
- Quality assurance process to ensure BIM model is accurately transferred to the field.
- Experienced and well-trained team of professionals equipped with the knowledge to handle any job site.
- Enhanced communication of job status through color-coordinated layout progress reports.
- Customized color-coded labeling system to match installation drawings enables better organization and reduces confusion during the installation process.
- Safety is our top priority for our team and yours





# LABELING



## Only with VEC

- ✓ Automated labeling process straight from Revit model.
- ✓ Produce labels and deliver them to the job site.
- ✓ Align with the BOM.
- ✓ Labeling makes your installation look sharp.

## Value

- ✓ Improves wire installation time.
- ✓ Eliminates mistakes that come with reading IDs written with permanent markers.
- ✓ No handwriting notes.

BOX NUMBER:  
**8N1d**

BOX TYPE:  
**8"x8"x4"**

PANEL ORIGIN:  
**LP-1E**

CIRCUIT NUMBERS:  
**1/3, 5/7,  
9,11,13N,  
15N,G**

BOTTOM OF BOX:  
**12'-0"**

VOLTAGE:  
**120/208V**

BOX NUMBER:  
**12S6d**

BOX TYPE:  
**12"x12"x4"**

PANEL ORIGIN:  
**SH1**

CIRCUIT NUMBERS:  
**(#8) 2/4/6,  
(#8) 8/10/12,  
(#8) 14/16/18,G**

BOTTOM OF BOX:  
**12'-0"**

VOLTAGE:  
**277/480V**

GMP MANUFACTURING - 19307  
3100 WEST WARREN AVE, FREMONT  
LEVEL 01 - AREA D

POWER LABELS

CONDUIT ID  
**N7c-1**

PANEL NAME  
**LP-1D SEC2**

CIRCUIT NUMBERS  
**54N,56N,58N,G**

WIRE SIZE: #10  
GROUND SIZE: #10  
CONDUIT LENGTH: 139'  
**1 1 1 3**

CONDUIT ID  
**S8d-1**

PANEL NAME  
**SH1**

CIRCUIT NUMBERS  
**25,27,29N,31,33,35N,37N,G**

WIRE SIZE: #10  
GROUND SIZE: #10  
CONDUIT LENGTH: 54'  
**3 2 2 3**



# WIRE PULLING

Electrical contractors often waste too many hours on wire pulling. But we have great news! We offer customers our own plugin that can cut these hours by hundreds of times, which makes it a priceless asset. This plugin enables our specialists to make various extra calculations, like:

- How many wires can we push into the conduit?
- How strongly should we do that?
- How to pull these wires appropriately to avoid their breaking?
- Etc.

And while the typical approach to such calculations depends on a graphical format, VEC can ensure a much faster process. Let’s consider the following numbers. On average, wire pulling takes one hour per conduit for one expert. Meanwhile, our plugin can make 100 conduits per hour automatically. Feel the difference!



Formulas:

Straight Section:  
 $T_{i+1} = T_i + Lw(fc \cdot \cos(\text{Alpha}) \pm \sin(\text{Alpha}))$   
If Alpha = 90° then  $T_{i+1} = T_i + Lwfc$

Bend:  
 $T_{out} = T_{in} \exp(fc \cdot \text{Theta})$

Abbreviations and Symbols:

f – Coefficient of Friction

c – Weight Correction Factor

w – Wires distributed weight, lb/ft

Alpha – conduit incline angle

Theta – bend sweep angle in radians

Color Legend

Straight conduit

Conduit incline up

Conduit incline down

Fitting

Stub up

Stub down

From

To

General Info:

RUN ID	
FROM	PANEL-1
TO	JB-4
WIRES	(1)10,(1)14,(1)6
f	0.35
c	1.33
w	0.16 lb/ft
L	52.92 ft
Bend sum	990°
Allowable side wall pressure	1000 lbs/ft
Allowable Max tension	326.48 lbs
Jamming Possibility	HIGH
Suggestions to the field	Pulling with lubricant! Allowable Side Wall pressure was exceeded!



# WIRE PULLING

Calculations From - To					
Point	Tension, lbs	Side wall pressure, lbs/ft	Length, ft	Conduit incline angle	Bend sweep angle
0	T = 0	SP = 0	L = 0	Alpha = 0°	Theta = 0°
1	T = 0.24	SP = 0	L = 3.21	Alpha = 90°	Theta = 0°
2	T = 0.5	SP = 0.67	L = 1.2	Alpha = 0°	Theta = 90°
3	T = 1.59	SP = 0.67	L = 14.49	Alpha = 0°	Theta = 0°
4	T = 3.3	SP = 4.41	L = 1.2	Alpha = 0°	Theta = 90°
5	T = 3.35	SP = 4.41	L = 0.29	Alpha = 45°	Theta = 0°
6	T = 4.82	SP = 6.46	L = 0.79	Alpha = 0°	Theta = 45°
7	T = 5.28	SP = 6.46	L = 6.05	Alpha = 0°	Theta = 0°
8	T = 10.97	SP = 14.68	L = 1.2	Alpha = 0°	Theta = 90°
9	T = 11.14	SP = 14.68	L = 2.24	Alpha = 0°	Theta = 0°
10	T = 13.38	SP = 17.9	L = 0.58	Alpha = 0°	Theta = 22.5°
11	T = 13.47	SP = 17.9	L = 0.72	Alpha = 22.5°	Theta = 0°
12	T = 16.18	SP = 21.64	L = 0.58	Alpha = 0°	Theta = 22.5°
13	T = 16.3	SP = 21.64	L = 1.61	Alpha = 0°	Theta = 0°
14	T = 33.87	SP = 58.87	L = 1.02	Alpha = 0°	Theta = 90°
15	T = 33.94	SP = 58.87	L = 0.88	Alpha = 0°	Theta = 0°
16	T = 70.55	SP = 122.62	L = 1.02	Alpha = 0°	Theta = 90°
17	T = 70.6	SP = 122.62	L = 0.71	Alpha = 0°	Theta = 0°
18	T = 146.75	SP = 255.07	L = 1.02	Alpha = 0°	Theta = 90°
19	T = 146.78	SP = 255.07	L = 0.38	Alpha = 0°	Theta = 0°
20	T = 305.1	SP = 530.3	L = 1.02	Alpha = 0°	Theta = 90°
21	T = 305.1	SP = 530.3	L = 0.01	Alpha = 0°	Theta = 0°
22	T = 439.88	SP = 764.56	L = 0.7	Alpha = 0°	Theta = 45°
23	T = 439.62	SP = 764.56	L = 4.25	Alpha = 45°	Theta = 0°
24	T = 633.82	SP = 1101.65	L = 0.7	Alpha = 0°	Theta = 45°
25	T = 633.95	SP = 1101.65	L = 1.76	Alpha = 0°	Theta = 0°
26	T = 1317.76	SP = 2290.4	L = 1.02	Alpha = 0°	Theta = 90°
27	T = 1317.89	SP = 2290.4	L = 1.8	Alpha = 90°	Theta = 0°
28	T = 2739.4	SP = 4761.38	L = 1.02	Alpha = 0°	Theta = 90°
29	T = 2739.51	SP = 4761.38	L = 1.4	Alpha = 0°	Theta = 0°

Calculations To - From					
Point	Tension, lbs	Side wall pressure, lbs/ft	Length, ft	Conduit incline angle	Bend sweep angle
29	T = 0	SP = 0	L = 0	Alpha = 0°	Theta = 0°
28	T = 0.11	SP = 0	L = 1.4	Alpha = 0°	Theta = 0°
27	T = 0.22	SP = 0.38	L = 1.02	Alpha = 0°	Theta = 90°
26	T = 0.35	SP = 0.38	L = 1.8	Alpha = 90°	Theta = 0°
25	T = 0.74	SP = 1.28	L = 1.02	Alpha = 0°	Theta = 90°
24	T = 0.87	SP = 1.28	L = 1.76	Alpha = 0°	Theta = 0°
23	T = 1.25	SP = 2.17	L = 0.7	Alpha = 0°	Theta = 45°
22	T = 1.96	SP = 2.17	L = 4.25	Alpha = 45°	Theta = 0°
21	T = 2.82	SP = 4.91	L = 0.7	Alpha = 0°	Theta = 45°
20	T = 2.83	SP = 4.91	L = 0.01	Alpha = 0°	Theta = 0°
19	T = 5.87	SP = 10.21	L = 1.02	Alpha = 0°	Theta = 90°
18	T = 5.9	SP = 10.21	L = 0.38	Alpha = 0°	Theta = 0°
17	T = 12.27	SP = 21.33	L = 1.02	Alpha = 0°	Theta = 90°
16	T = 12.32	SP = 21.33	L = 0.71	Alpha = 0°	Theta = 0°
15	T = 25.61	SP = 44.52	L = 1.02	Alpha = 0°	Theta = 90°
14	T = 25.68	SP = 44.52	L = 0.88	Alpha = 0°	Theta = 0°
13	T = 53.38	SP = 92.78	L = 1.02	Alpha = 0°	Theta = 90°
12	T = 53.5	SP = 92.78	L = 1.61	Alpha = 0°	Theta = 0°
11	T = 64.24	SP = 85.96	L = 0.58	Alpha = 0°	Theta = 22.5°
10	T = 64.25	SP = 85.96	L = 0.72	Alpha = 0°	Theta = 0°
9	T = 77.14	SP = 103.22	L = 0.58	Alpha = 0°	Theta = 22.5°
8	T = 77.31	SP = 103.22	L = 2.24	Alpha = 0°	Theta = 0°
7	T = 160.7	SP = 215.03	L = 1.2	Alpha = 0°	Theta = 90°
6	T = 161.15	SP = 215.03	L = 6.05	Alpha = 0°	Theta = 0°
5	T = 232.34	SP = 310.89	L = 0.79	Alpha = 0°	Theta = 45°
4	T = 232.32	SP = 310.89	L = 0.29	Alpha = 45°	Theta = 0°
3	T = 482.91	SP = 646.18	L = 1.2	Alpha = 0°	Theta = 90°
2	T = 484	SP = 646.18	L = 14.49	Alpha = 0°	Theta = 0°
1	T = 1006.06	SP = 1346.19	L = 1.2	Alpha = 0°	Theta = 90°
0	T = 1006.3	SP = 1346.19	L = 3.21	Alpha = 90°	Theta = 0°



# ON-SITE FIELD PRESENCE

Between routine site walks to meet with the field team, seeking feedback on the model/ drawings provided, reviewing field issues, monitoring QA/ QC on the installation, and doing similar tasks is critical to remain connected to the actual site conditions instead of solely the virtual BIM environment.

## Value:

- Resolves coordination issues directly in the field. That speeds up some processes and helps build confidence in the drawings and model.
- Allows for closer contact between the office and the construction field. This advantage brings the BIM team on the same page as the builders.
- Provides field BIM Station provided for key partners at no charge.
- Reduces the time to resolve issues. This capability provides support for the field at the right time.
- Seeing issues in the field with your own eyes helps you gain knowledge and eliminate mistakes in the future.
- Improves the quality of work.



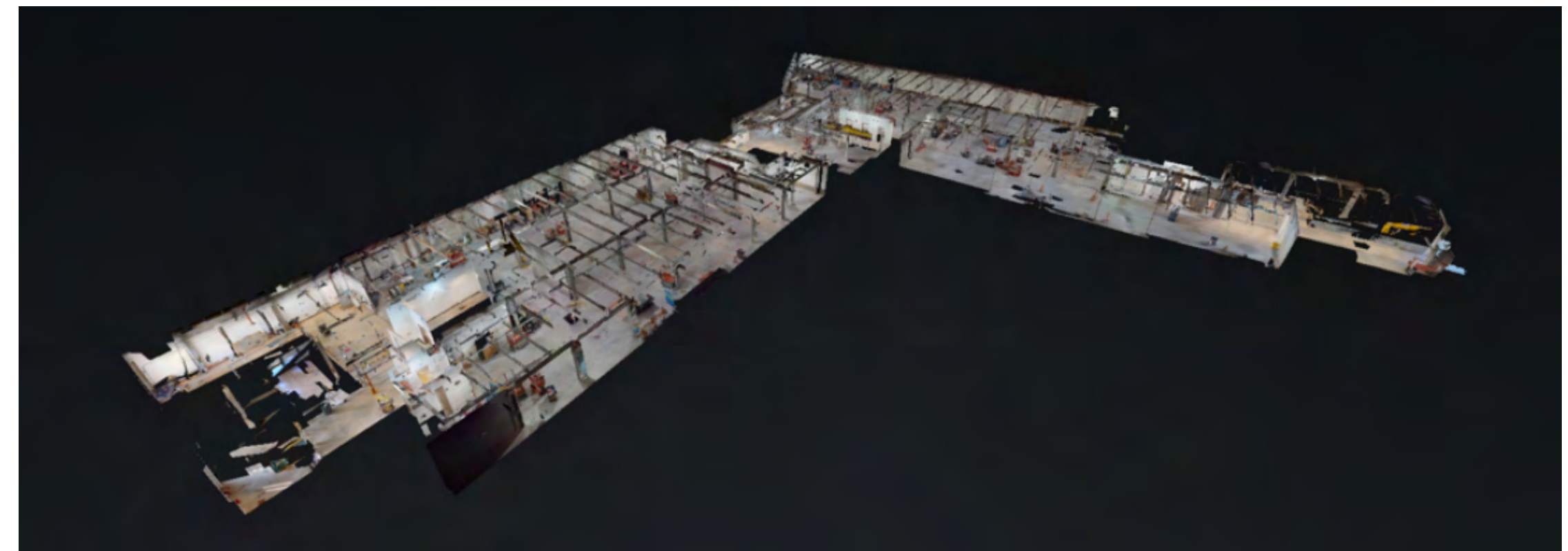
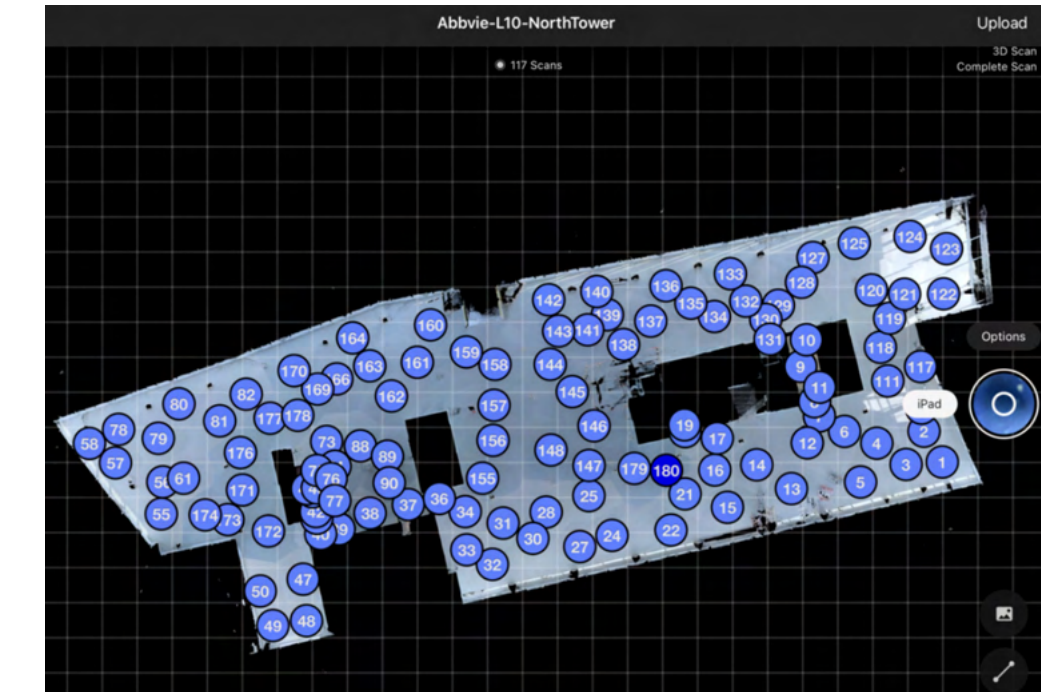


# VIRTUAL TOUR

## Our Process Sets Us Apart

Documentation on any job site has its challenges, but with 360° technology, we can capture site conditions and construction progress quickly and efficiently. By assessing the job site, we can deploy the right technology for the job, whether it is walking the site or flying it utilizing our drone technology. This photo/video documentation of the job site provides you with a virtual walkthrough at your fingertips.

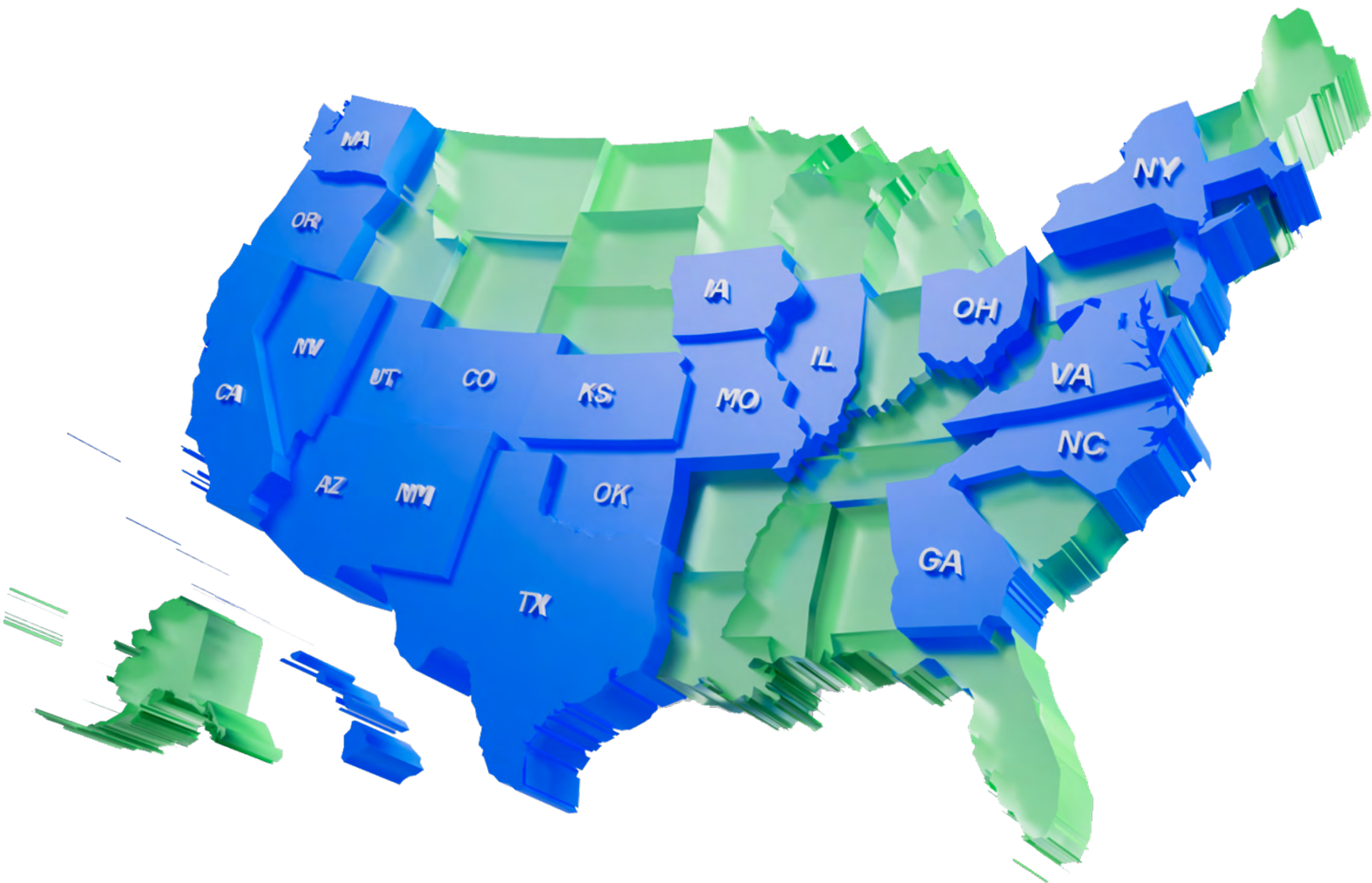
- Eliminates unnecessary trips to the field.
- Faster communication.
- Reduces the misunderstanding and challenges with traditional phone photography, such as remembering where you took photos were taken and having incomplete info due to only one or two reference images.
- Takes measurements in the virtual field.
- 20,000 sq.ft. in 3 hours.
- Low-level point clouds (when needed and usable).
- Fully stitched walkthroughs.
- An instant field walk right on your screen.
- Captures a history of field conditions.





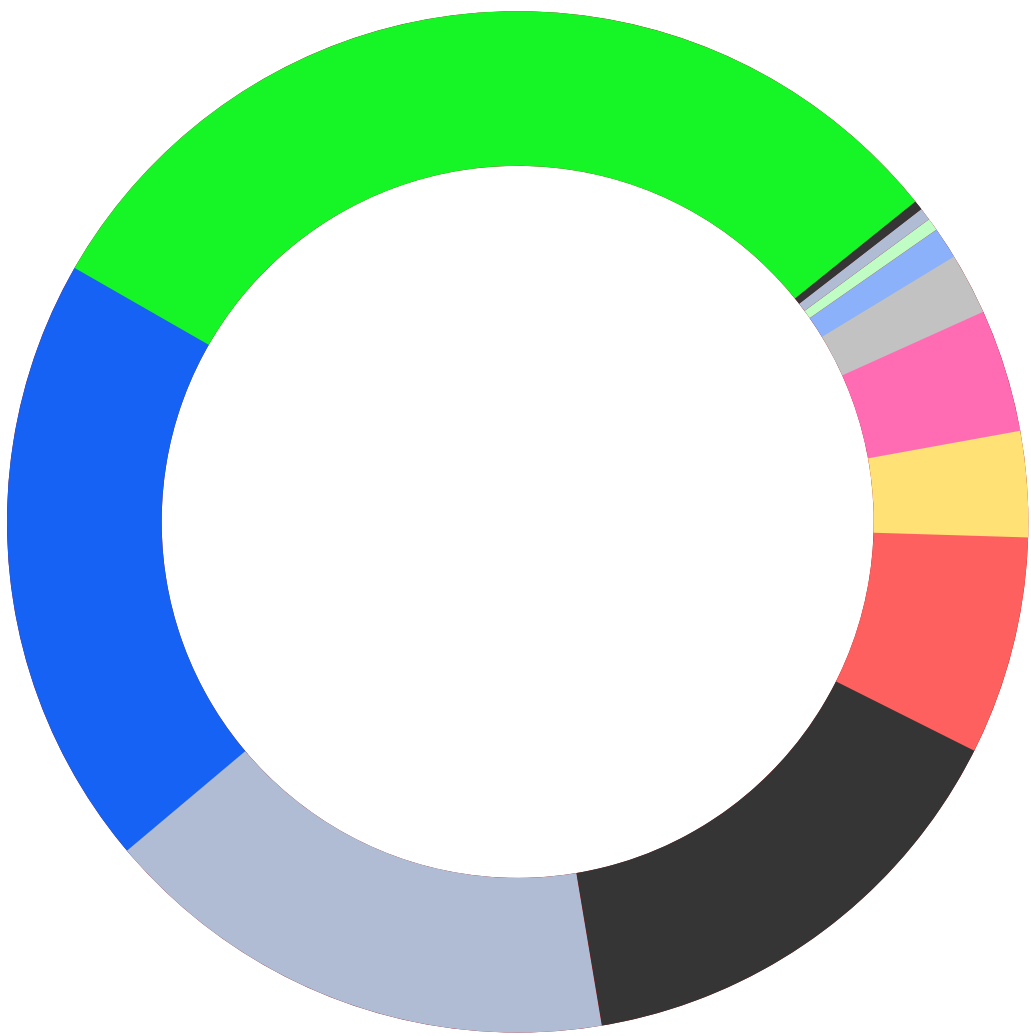
# PROJECT EXPERIENCE

Nationwide territories



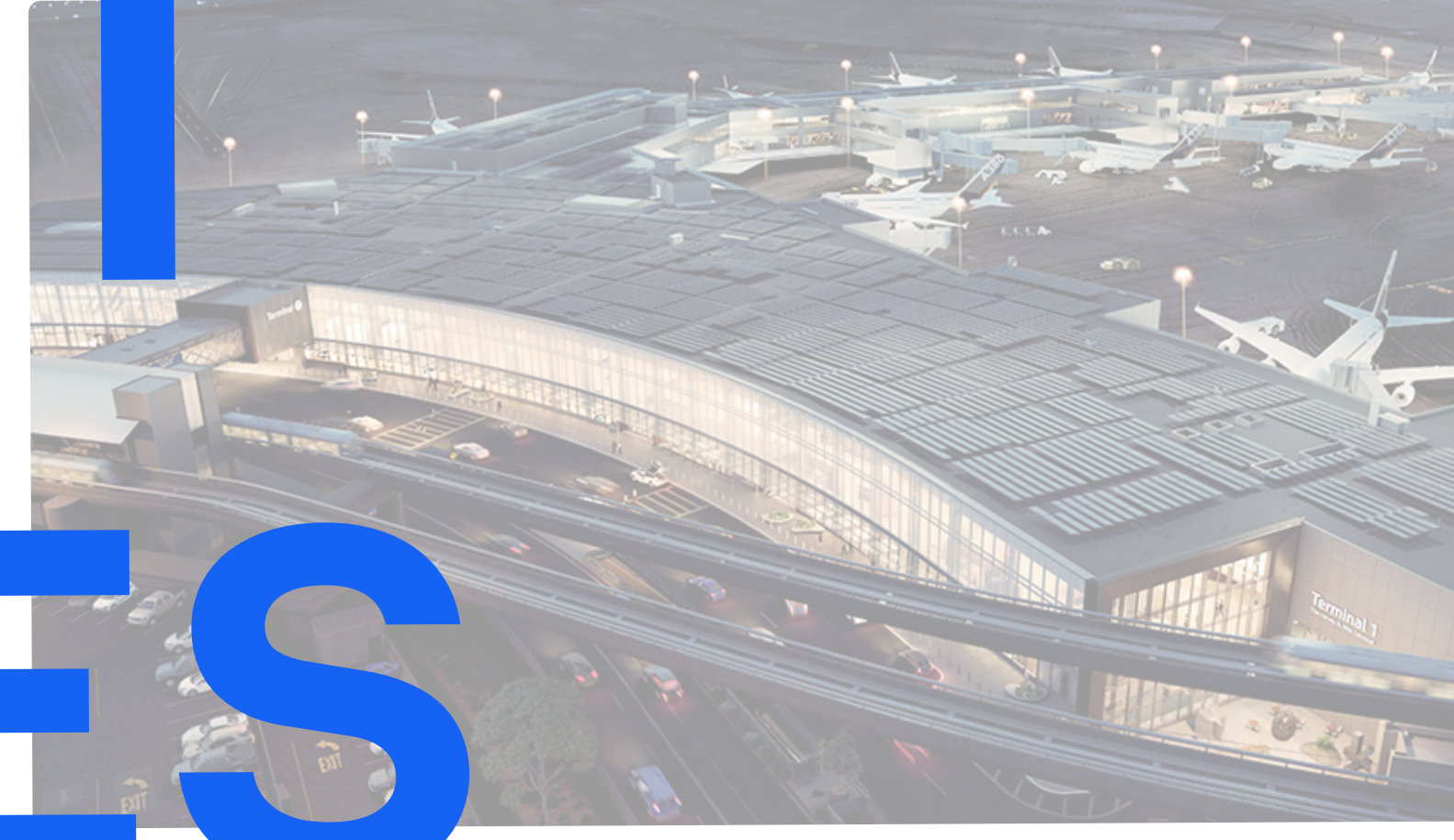
- |                   |                 |            |                  |            |
|-------------------|-----------------|------------|------------------|------------|
| ■ Arizona         | ■ Illinois      | ■ Virginia | ■ North Carolina | ■ Oklahoma |
| ■ California      | ■ Massachusetts | ■ Georgia  | ■ New Jersey     | ■ Hawaii   |
| ■ Colorado        | ■ Missouri      | ■ Maryland | ■ New Mexico     | ■ Nevada   |
| ■ Washington, D.C | ■ Oregon        | ■ Kansas   | ■ New York       | ■ Utah     |
| ■ Iowa            | ■ Texas         | ■ Ohio     | ■ Washington     |            |

Types of Project Experience



- |                         |                       |                    |                         |
|-------------------------|-----------------------|--------------------|-------------------------|
| Data Center<br>30.9%    | Public Works<br>16.5% | Healthcare<br>6.9% | Education / Lab<br>3.8% |
| Commercial<br>19.6%     | Life Science<br>15.3% | Aviation<br>3.4%   | Mixed Use<br>1.9%       |
| Tech-Commercial<br>0.9% | Energy<br>0.2%        | Retail<br>0.4%     | Residential<br>0.1%     |

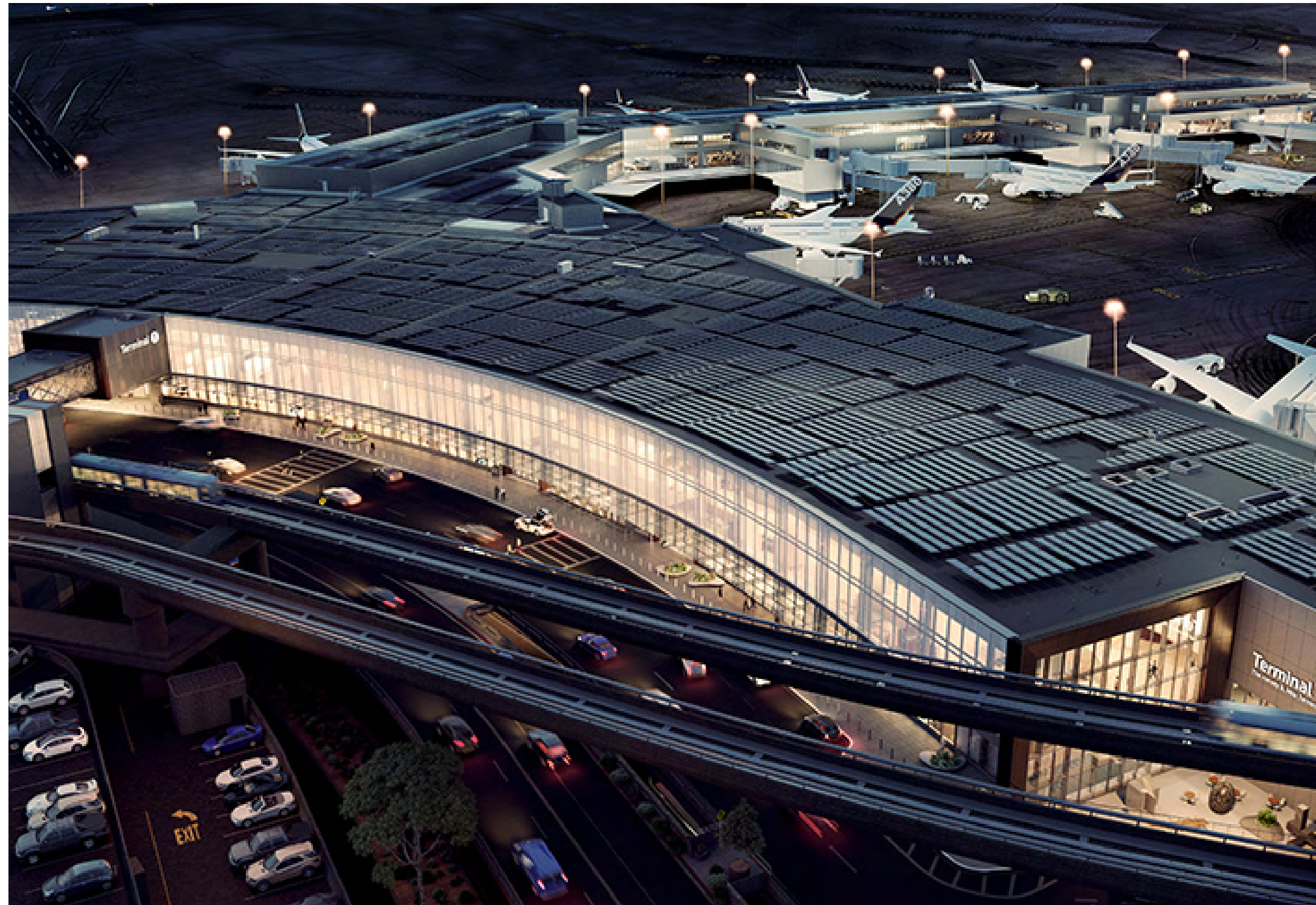




# PROJECT EXAMPLES







# SFO Terminal 1 Center

## Market Sector:

Aviation

## Type:

Airport Terminal

## Client:

Electrical Contractor

## Location:

San Francisco, CA

## Year:

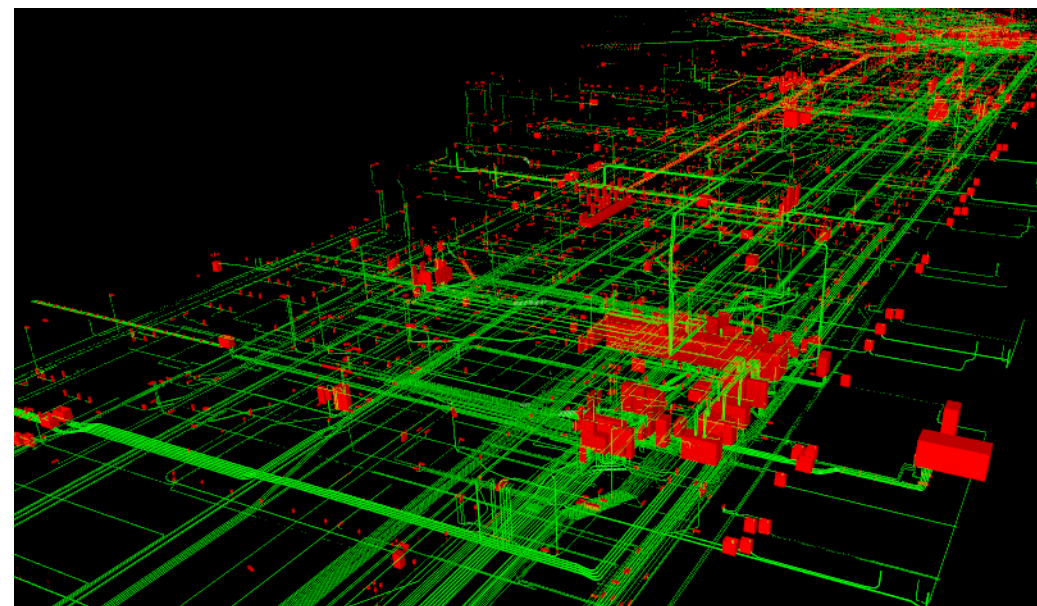
2017-2022

## Size:

1,500,000 sq. ft.

The newest renovation projects of San Francisco International Airport (SFO) include updating one of the oldest terminals — Terminal 1, and its Boarding Area B (BAB). The new area covers passenger circulation space with access to the aircraft gates, 24 gates with holding rooms for domestic and international flights, modern passenger loading bridges, and concession spaces.

The project incorporates next-generation building systems, anticipates the potential leads in traffic, and considers future aviation trends and the impact of rising sea levels. Being true to the region's values, Terminal 1 is the world's first Leadership in Energy and Environmental Design (LEED) Platinum terminal.







# Confidential Client Data Center

## Market Sector:

Mission Critical

## Type:

Data Center

## Client:

Electrical Contractor

## Location:

Confidential

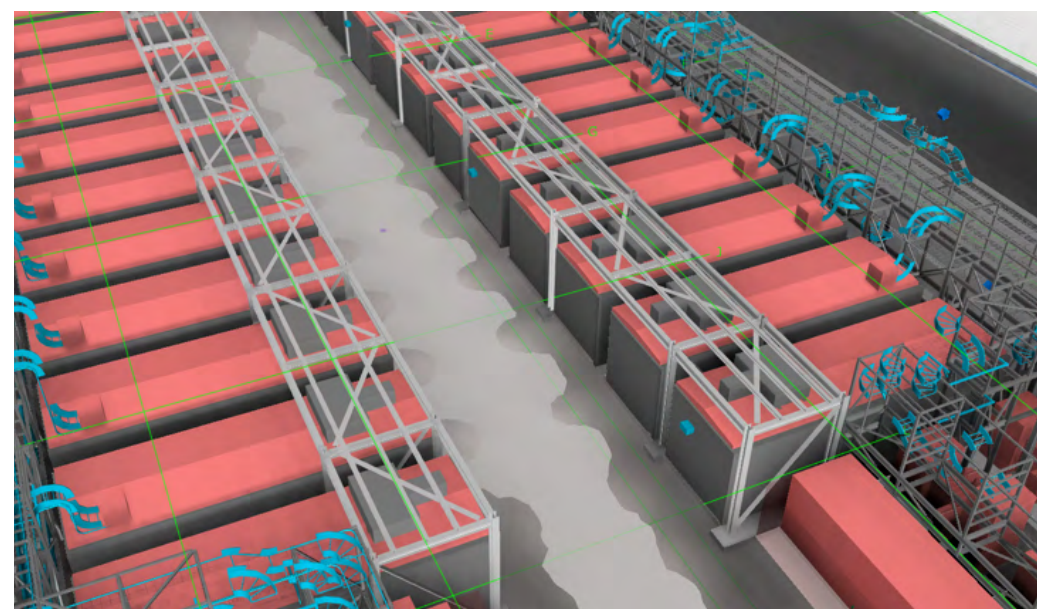
## Year:

2020-2022

## Size:

322,000 sq. ft.

For this critical data center renovation project, VEC deployed our Site Technology team to 3D laser scan and verify the as-built locations of the structural beams, column layout, bracing, and penetrations within the Colos. With this crucial data, VEC led the construction BIM coordination team and provided Electrical Modeling and Detailing for deep construction coordination. We resolved clashes, optimized electrical and communication routing, and ultimately ensured constructible installation plans would be delivered to our long-standing client. Once construction began, VEC ensured installation went as smoothly as possible by preparing thousands of MEP layout points and a model-based MEP construction layout at the site.







# UCSF Child, Teen & Family Center and Department of Psychiatry Building

## Market Sector:

Healthcare

## Type:

Medical Office Building

## Client:

Electrical Contractor

## Location:

San Francisco, CA

## Year:

2018-2020

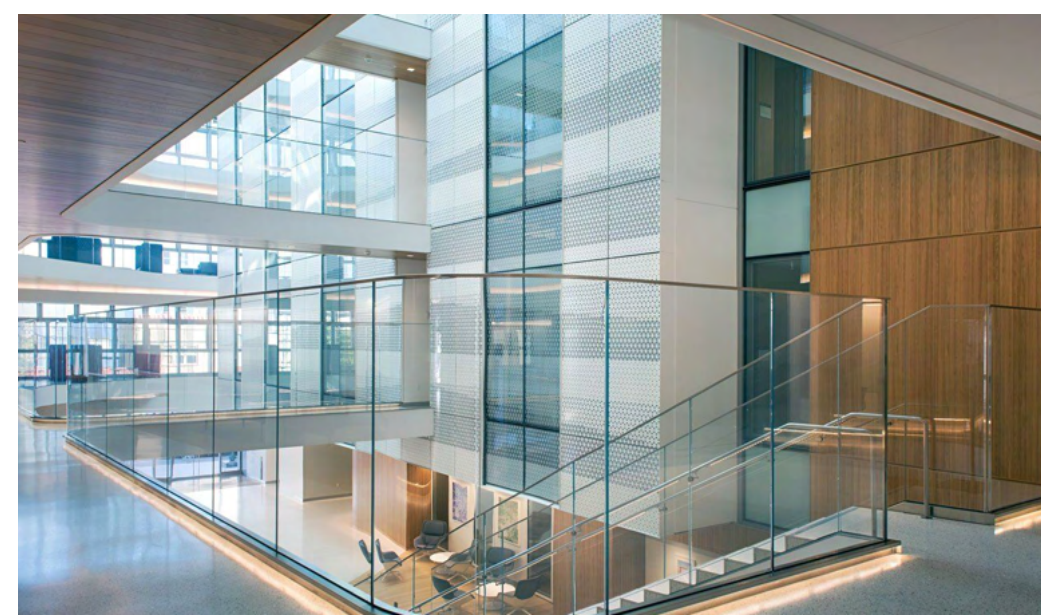
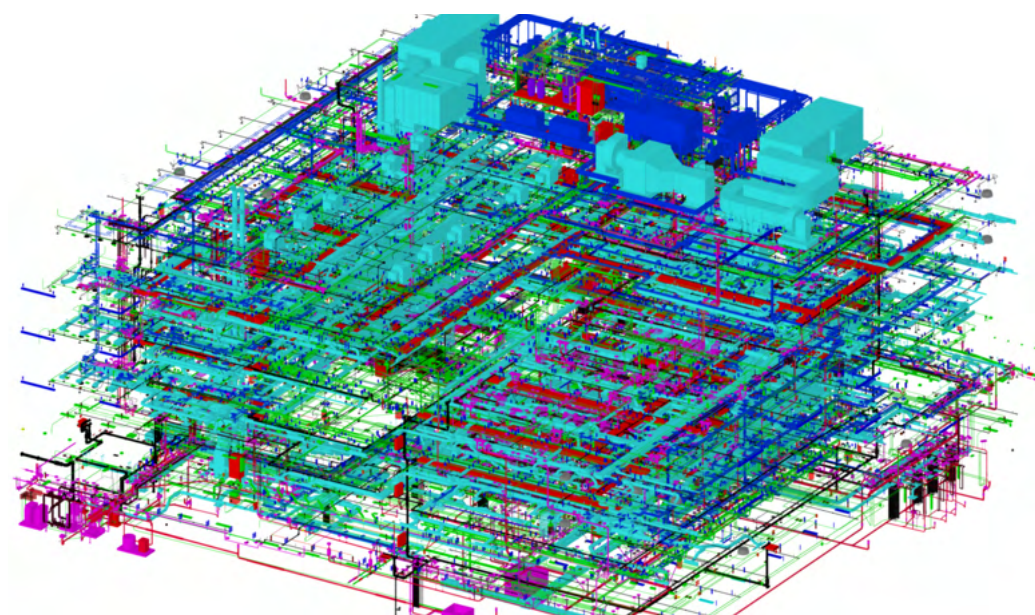
## Size:

170,000 sq. ft.

## Services Provided:

Power, Lighting, Fire Alarm, Low Voltage, ERRCS, 2-way Comm

UCSF Child, Teen, & Family Center and Department of Psychiatry Building is a medical office building leased to the University of San Francisco, California (UCSF). This facility serves as a place for specialists to do collaborative research and provide clinical care. It integrates departments like pediatrics, neurology, neurosurgery, psychiatry, etc. These features make it one of the first facilities in the United States to combine high-quality mental and physical health services, academic disciplines, and pioneering research. The building represents patient-centered design principles that optimize patient care and destigmatize mental health treatment.







# Children's Hospital of The King's Daughters

## Market Sector:

Healthcare

## Type:

Hospital Facility

## Client:

Electrical Contractor

## Location:

Norfolk, VA

## Year:

2019 — 2021

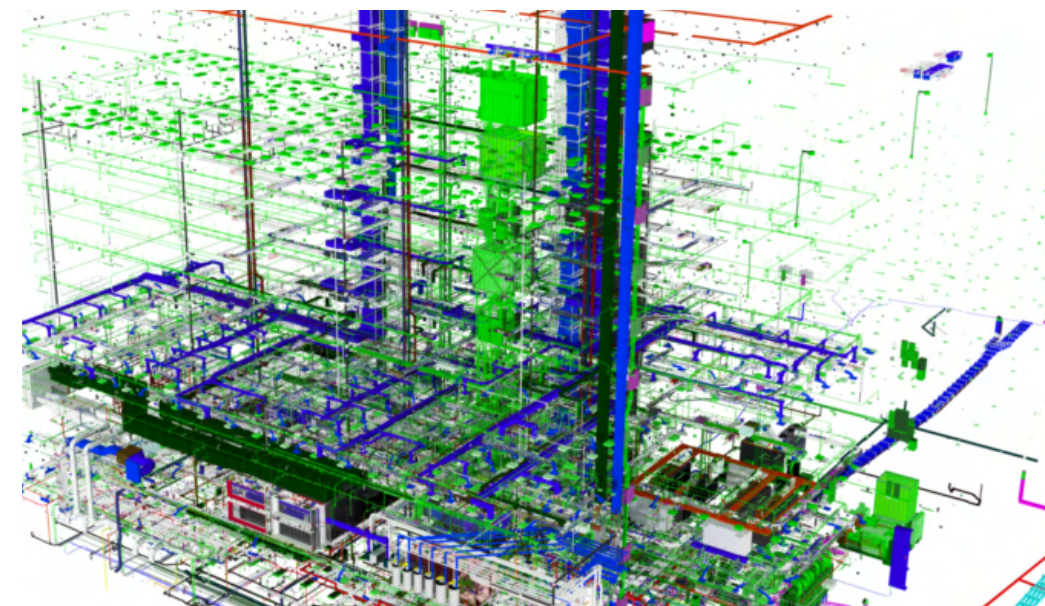
## Size:

370, 000 sq. ft.

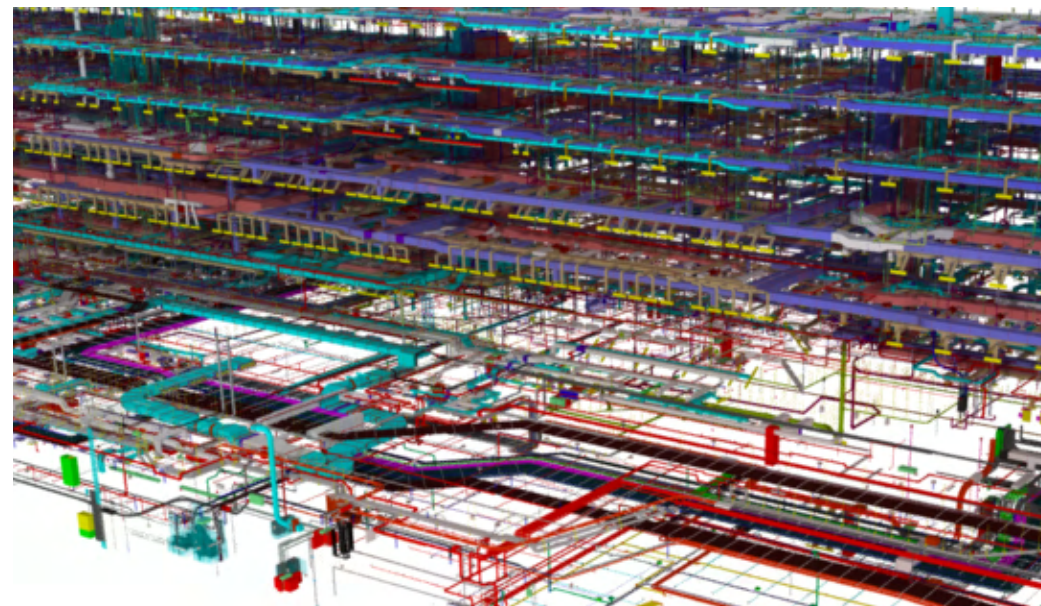
## Services Provided:

Power, Lighting, Fire Alarm, Low Voltage, ERRCS, Nurse Call

CHKD's Medical Tower II includes 60 private inpatient beds, programs for partial hospitalization, behavioral and specialty clinic facilities, a multi-sensory room, comfortable lounge areas for families, a rooftop recreation space, and a healing garden. The building's design aims to facilitate family-centered care and engage parents. Our team helped build modern settings for individual and group therapy and create an environment embracing the unique demands of children.







# Medstar Georgetown University Hospital

## Market Sector:

Healthcare

## Type:

Hospital Facility

## Client:

Electrical Contractor

## Location:

Washington, DC

## Year:

2020 — 2022

## Size:

835, 000 sq. ft.

## Services Provided:

Power, Lighting, Fire Alarm, Low Voltage, ERRCS, Nurse Call, 2-way Comm

The new Medical/Surgical Pavilion will contain 56 private patient rooms and an up-to-date emergency department with 33 exam rooms. It also includes the underground parking structures for 600 cars, a rooftop helipad with access to 32 operating rooms, and 6 acres of green space. The facility allows Medstar to provide high-quality patient care and assist the university in critical educational and research activities.





Helping the best build better.

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