Design Assist 202

Mission Health's Current Best Practices

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BRASFIELD & GORRIE GENERAL CONTRACTORS

MISSION HEALTH

SSR Smith Seckman Reid, Inc.

Your Speaker Panel

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- *Toby Kay* – Project Director, Mission Hospital for Advanced Medicine
- *Steve Russell* – Senior MEP Manager, Brasfield & Gorrie
- *Scott Johnson* – Principal, Smith Seckman Reid, Inc.

Agenda Overview & Teaching Goals

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- Project Overview
- Expectations of Design Assist
- Our Design Assist Approach – with details
- Major Outcomes Achieved
- Challenges & Recommendations

Project Overview

- 608,000 Square Feet Expansion on Memorial Campus
- 220 Licensed Beds, 8 ORs, 2 Hybrid ORs, 7 Cath & EP Labs, 4 IR Labs
- $240M Construction Budget

Project Overview

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Project Overview

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Before…

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Now…

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Project Overview

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Expectations of Design Assist (DA)

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Why Design Assist?

- Owner Expectations
- Design Team Expectations
- CM Expectations

Design Assist Process

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Partner Selection

- Prequalification
- Narrative, Pricing RFP (End of SD)
- Interview

Design Assist Process

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Partner Selection

- Prequalification

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PRECONSTRUCTION SERVICES OUTLINE

This is a supplementary document to the MEP Request for Proposal dated January 5, 2016. The information contained within this document is meant to outline the **Pre-construction Services** to be provided by the

constant communication and many meetings with all Team Members.

5) Spend the required time with all Team Members so it is clearly understood how your budget is structured and the assumptions you have made in establishing your budget.

6) Throughout the collaborative design effort, provide value analysis alternatives with order of

All in all, the goal is to bring your firm and others in early enough to affect a good working program by the time the documents are complete. The desired result is to Predict, Plan & Produce.

- Narrative, Pricing RFP (End of SD)

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MEP REQUEST FOR PROPOSAL

TO: Potential Mechanical, Plumbing, Electrical & Low Voltage Partners

FROM: **Steve Russell**

DATE: **January 5, 2016**

RE: Mission re:DESIGN

We are pleased to inform you that your firm has been selected to propose for the construction and the assistance in design of Mechanical, Plumbing and/or Electrical systems for the **Mission re:DESIGN** project. Mission Hospital selected Brasfield & Gorrie to serve as the General Contractor/Construction Manager and we are now seeking experienced, highly reputable trade partners that will help provide the most efficient, cost effective and well-coordinated construction product in the market today. The selected firms are expected to serve as integral Team Members to work alongside the current project team.

PART I: GENERAL PROJECT INFORMATION

- Narrative, Pricing RFP (End of SD)

F. Project Delivery Approach

It is fully envisioned that all participants will work in a cross-functional, assistive manner to design, develop and deliver a project which is exceptional in terms of quality, cost and schedule efficiency. It is expected that the selected MEP Firms will clearly demonstrate its value to the interdisciplinary team throughout the design process & all activities prior to construction as a requirement to maintaining its professional services contract throughout the duration of the Project.

- The elimination of the standard milestone design and construction budget delivery model, transforming it into a combined and continuous design & budgeting effort throughout this phase

e) BIM / Shop Drawings

Please describe your company's internal/external structure and plan for producing shop fabrication drawings in conjunction with a coordinated BIM model for this project. What type of software programs does your company use for production of BIM and/or shop drawings? Include resumes for the proposed project BIM Team Members. Resumes should include educational background, comparable relevant preconstruction experience and length of service in industry and with your company.

Describe any past experience involving the utilization of BIM modeling for scope involving the integration of new components into existing facility infrastructure. Also, what does your firm recommend as to the extent of BIM services that would provide the most value for this project?

- Narrative, Pricing RFP (End of SD)

TOWER SQUARE FOOTAGE SUMMARY

The Mission re:DESIGN Tower Project consists of the following basic areas.

Stacking Program		
LL3	Central Support & Mechanical	71,163 SF
LL2	Emergency Department	83,149 SF
L1	Pre/Recovery/Lobby	91,898 SF
L2	Interventional Surgery	85,527 SF
L3	Kitchen/Dining/Mechanical	34,905 SF
L4	ICU Patient Rooms & Support	38,181 SF
L6	Medical/Surgical Patient Rooms & Support	38,181 SF
L7	Medical/Surgical Patient Rooms & Support	38,181 SF
L8	Medical/Surgical Patient Rooms & Support	38,181 SF
L9	Medical/Surgical Patient Rooms & Support	38,181 SF
L10	Mechanical Floor	38,181 SF
L11	Mechanical Floor	-------- SF
L12	Mechanical Space/Upper	2,167 SF
Grand Total		**597,895 SF**

Narrative, Pricing RFP (End of SD)

- As a CM, if we do not collaborate with the design team and owner to establish the detailed scope of work, even though not yet fully designed, we will not capture the correct cost for the project.

- Our Team (OAC) applied their combined experience to forecast the final outcome and fill in gaps from the SD documents, and that is the detail defined in our narrative and published to the trade contractors for pricing.

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Partner Selection

- Interview

3.	➢ **Pre-Construction Presentation** ➢ Your Design Assist Role ➢ Your Approach To Complete GMP ➢ No Project Specifications, How Did You Handle ➢ Your Role In Controlling The Budget ➢ Interpretation Of Budget Accountability ➢

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Partner Selection

- Interview

4.	➢ **Target GMP Budget Presentation** ➢ Line Item Review with Backup Support ➢ Quantity Take-Off Examples ➢

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Selection Criteria

- Ability & Experience
- Pricing Accuracy & Transparency
- BIM Capability
- Accountability – Ownership of Scope & Cost

Design Assist Process

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Kickoff – Set Expectations & Ground Rules

Design Assist Process

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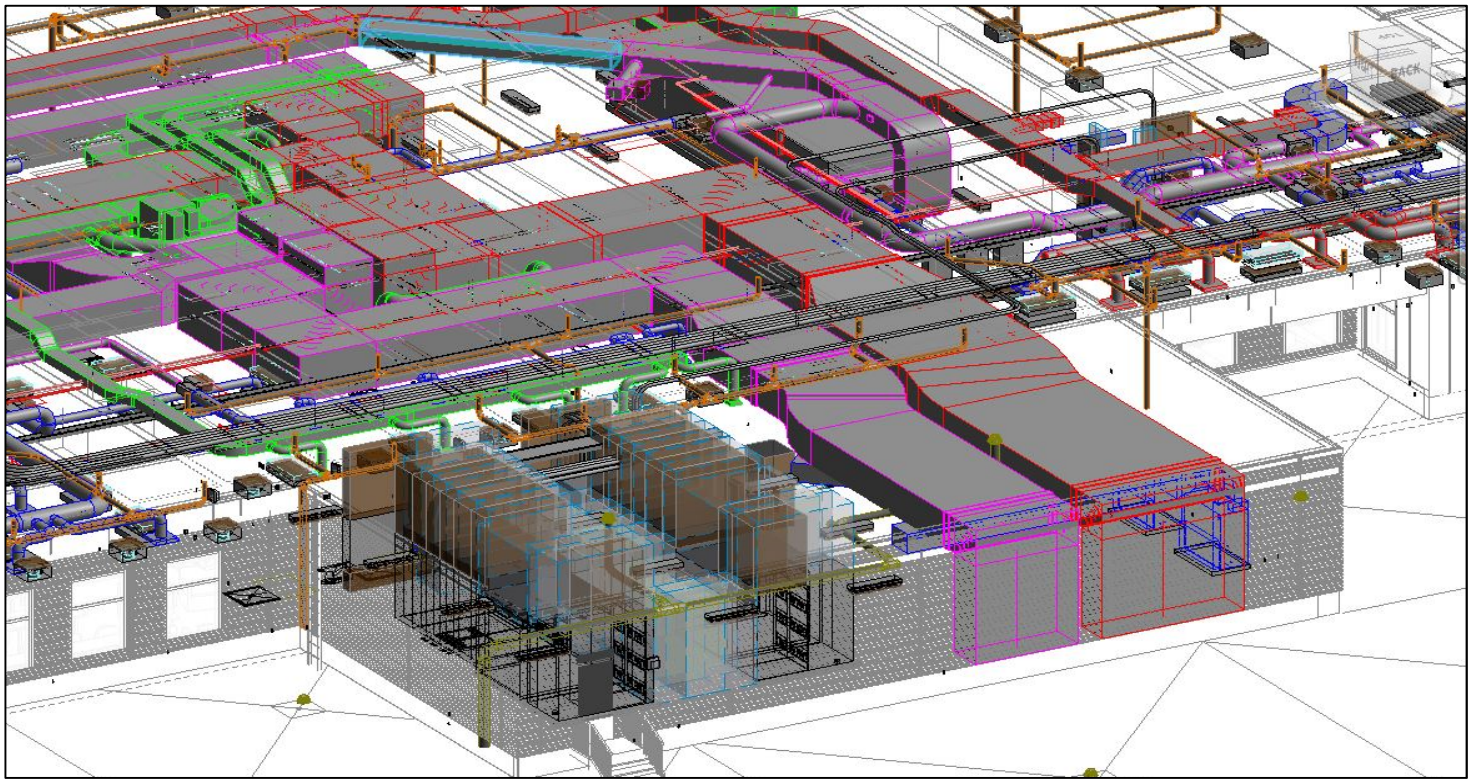
Kickoff – Set Expectations & Ground Rules

- Design Reviews
- Constructability Reviews
- Pricing Updates
- Challenge #1 – Align SD Estimate to Budget
- EOR - No Drawing in Model

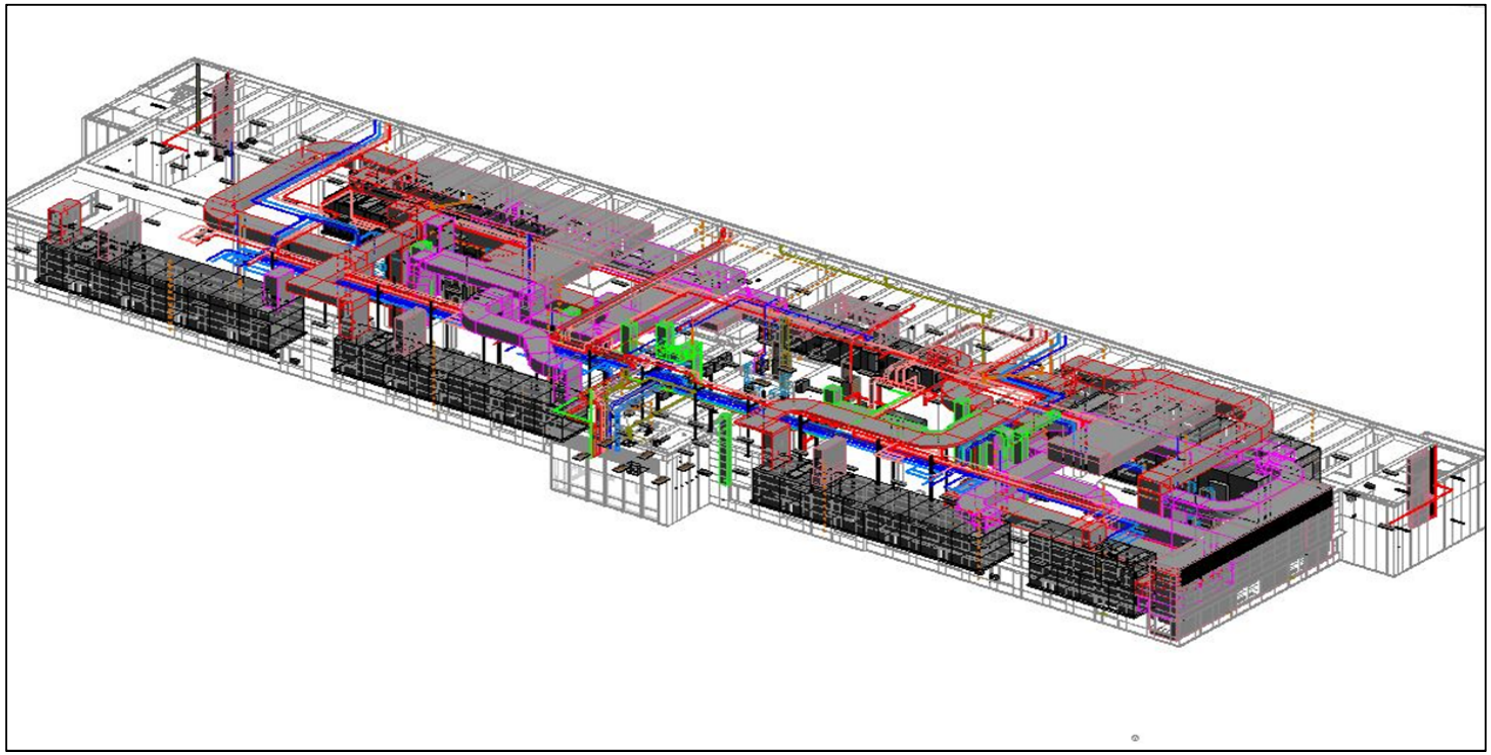
But Then…

Design Integration: Mechanical



Major Equipment & Ductwork – DD & CD Phases

Design Integration: Mechanical



Mechanical Penthouse

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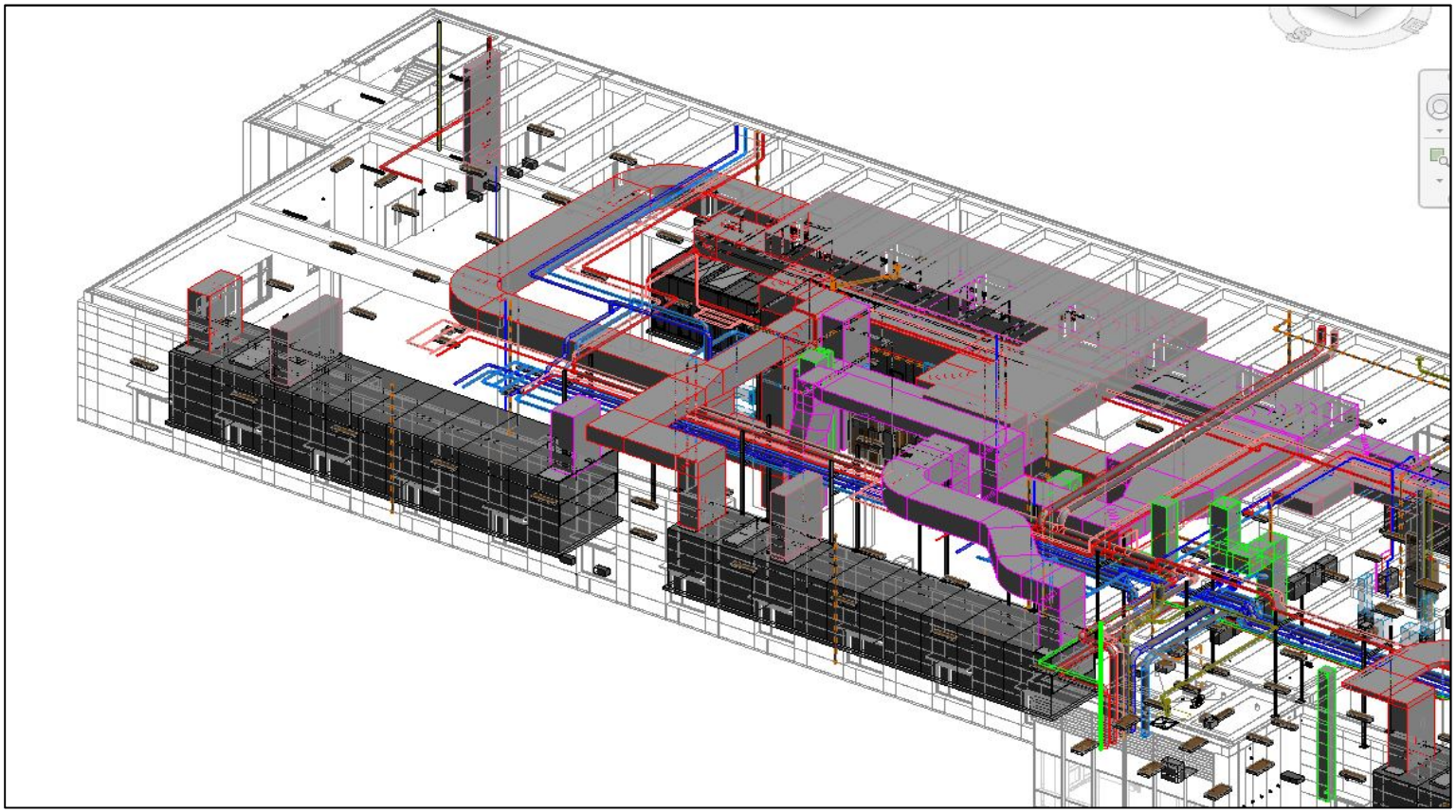
Design Integration: Mechanical



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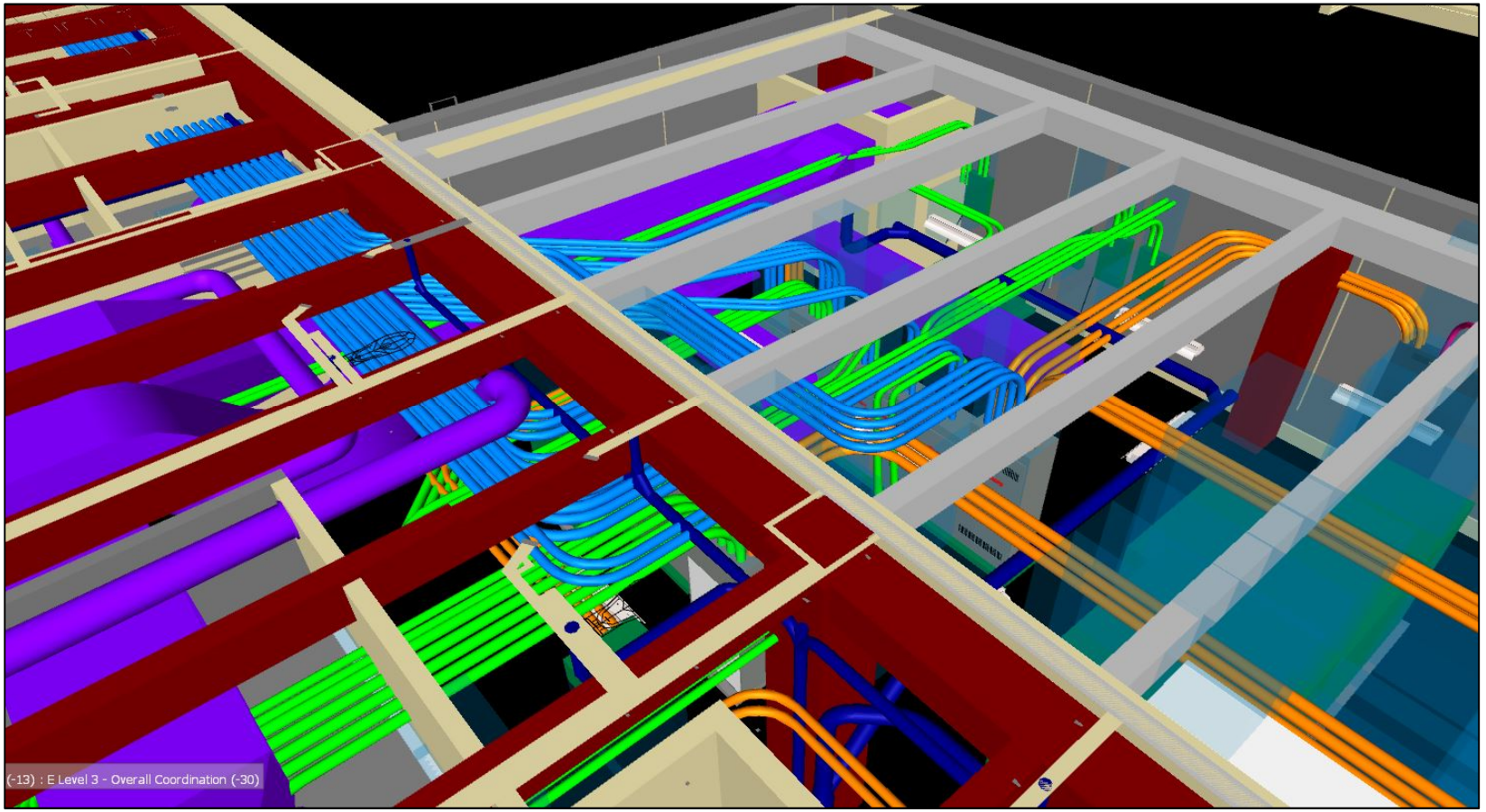
Design Integration: Electrical



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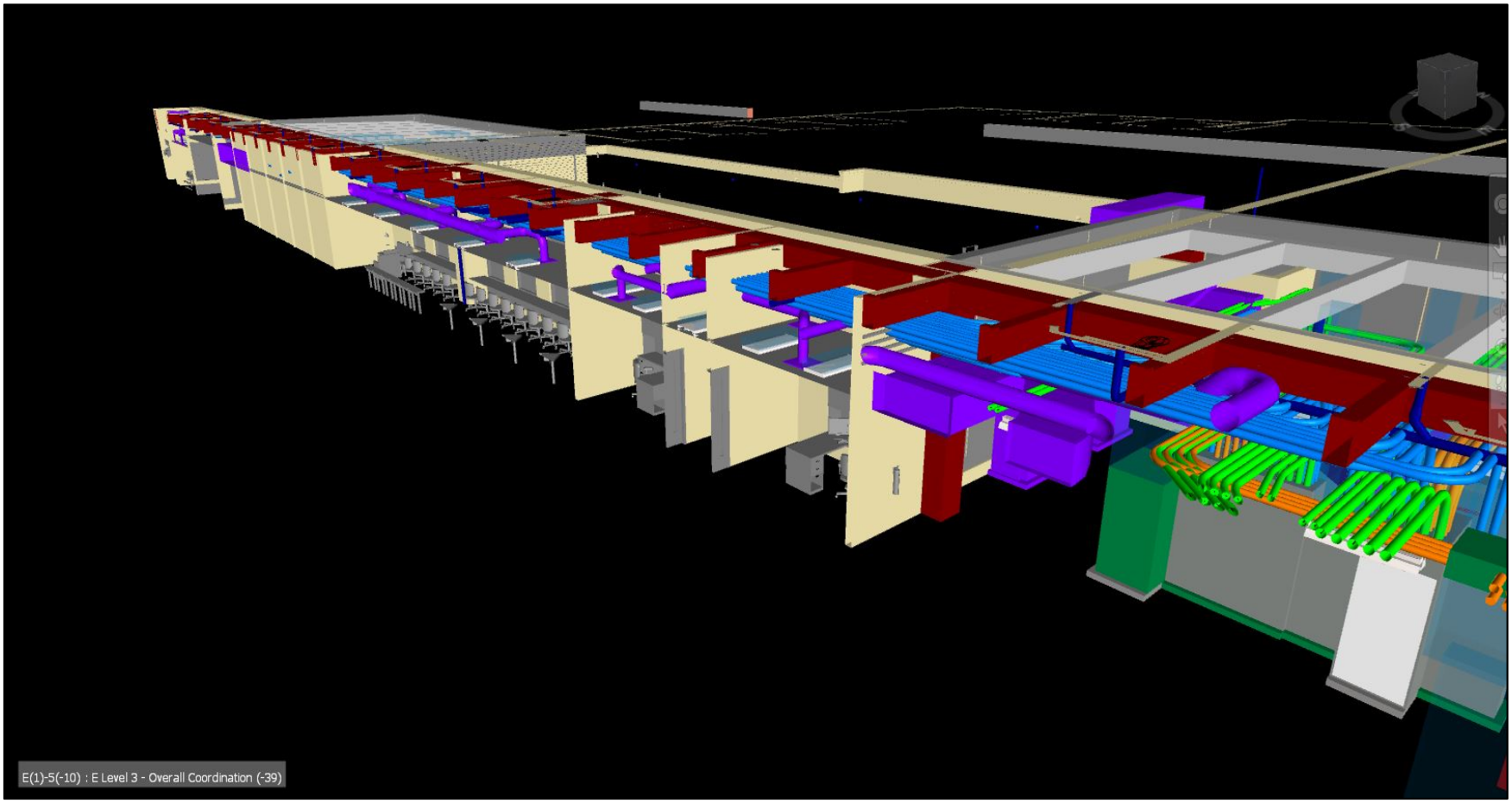
Design Integration: Electrical



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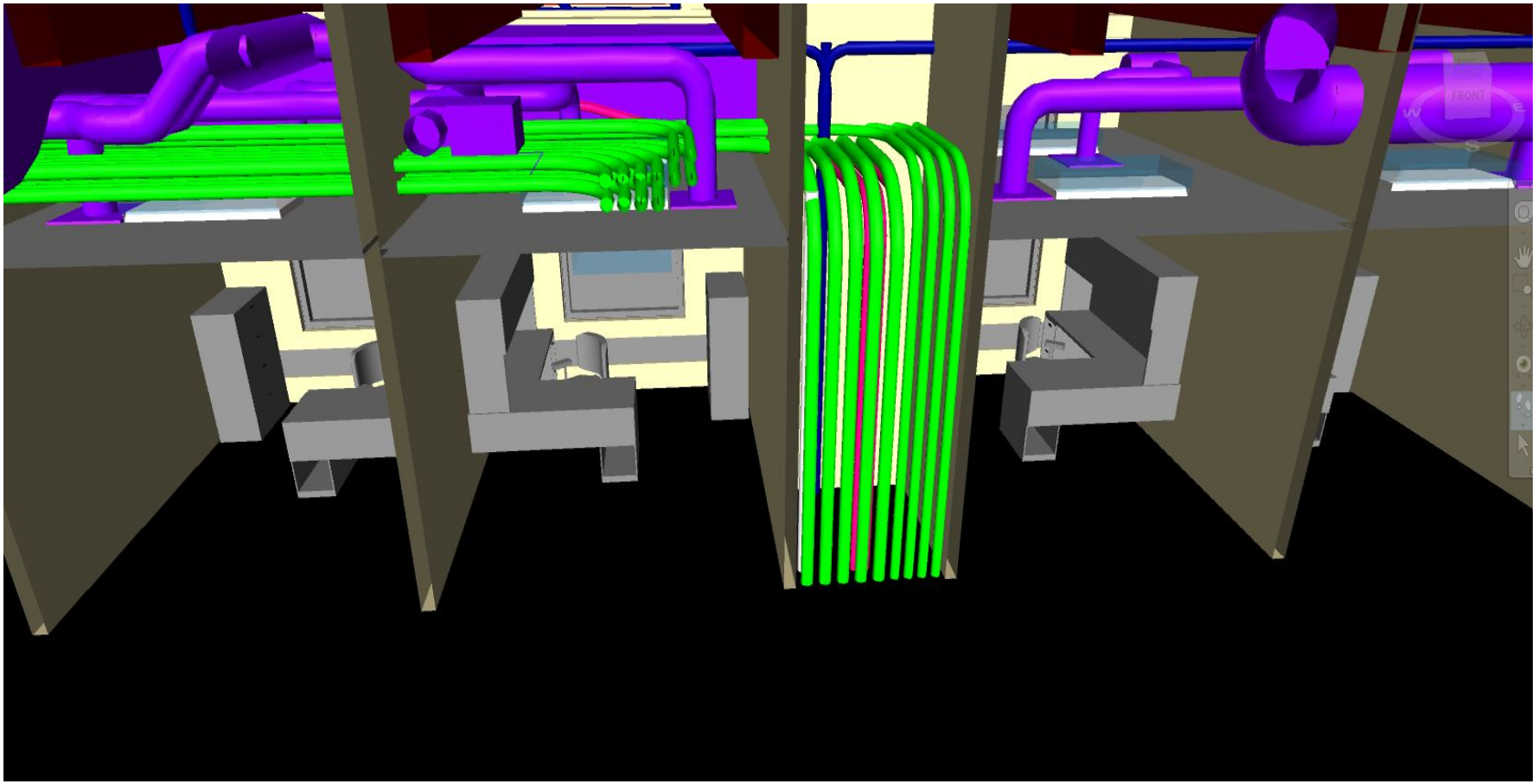
Design Integration: Electrical



Design Assist Process

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Major Equipment Buyout

- DD Drawings/Specs
- Equipment RFPs – Transparent, Competitive Process
- Equipment Vendor Interviews
- Best & Final Pricing
- Owner Selection (Not MEP Subs)
- $750k Savings to Budget

Design Assist Outcomes

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Major Outcomes – Real & Anticipated

- Significant Equipment Buyout Savings
- CDs More Reflective of As-Builts
- Prefabrication
- Fewer Surprises, More Familiarity, Less RFIs
- 3.5% Scope Change
- Higher Quality
  - Construction Product
  - Owner Operations & Maintenance at Occupancy
- Strength of IPD Team to Address Budget Challenges
- Weekly BIM Coordination Meetings – DA Team
- Schedule Enhancement

Design Assist Recommendations

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Recommendations

- Operations & Maintenance Must Be Involved – Leadership Imperative
- Add Trades to Design Assist Initiative
  - Skin
  - Framing
  - Drywall
  - Structure
  - Low Voltage
- If Not True IPD Contract, then Design Assist
- Incentivize ($) Process Improvement

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Q & A

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