

Interior Renovation Project: 40-09 21st Street, Long Island City









April 26, 2021



April 26, 2021

Mr. Mayer Steg

CEO

Elms Realty Corp.

10 Linore Ave

Monsey, NY 10952

RE: Interior Renovation Project, 40-09 21st Street, Long Island City, NY 11101

Dear Mr. Steg,

SKY Construction Group appreciates the opportunity to present our proposal for the renovation and construction of 40-09 21st Street in Long Island City. Established in 1990, we are recognized as an industry leader in the residential and mixed-use development sectors with specializations in renovation and adaptive reuse projects.

SKY Construction Group has reviewed the specifications and construction documents provided with the RFP dated October 10, 2020. Our team has drafted an enclosed baseline schedule for your review; in sum, we expect to begin construction on June 1, 2021 and have the project completed by **April 28, 2022**, amounting to a total duration of **331 days** at a total project cost of **\$11,966,677.38**.

As your construction partner, we are excited to help bring this renovation project to fruition on budget and on time. Please do not hesitate to reach out with any questions, comments, or concerns.

Sincerely,

Yaakov Roffman

Yaakov Roffman

President & CEO



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Section 01 Project Understanding



PROJECT Interior Renovation Project

40-09 21st Street,

Long Island City, NY 11101

CLIENT Mayer Steg

Elms Realty 10 Linore Ave Monsey, NY 10952

ARCHITECT Murdock Solon Architects

STRUCTURAL ENGINEER Blue Sky Design

MEP ENGINEER 2LS Consulting Engineering

SKY Construction Group has thoroughly reviewed the supporting documents and understands the scope of work for this interior renovation project. Our team has determined that our focus of the project is to review the existing conditions of the building before beginning demolition work. SKY Construction Group is well known for their expertise in assessing the structural integrity and quality of the existing conditions.

The renovation will introduce two new elevator shafts and a new set of stairs along the north side of the building. The renovation will offer new lobby space, office spaces, and typical commercial programming needs like phone rooms, closets, and bathrooms. The project also will include new lighting throughout the building, new MEP infrastructure, including an HVAC system placed on the roof, and new plumbing systems.

SKY Construction Group is pleased with our work when it comes to these types of commercial renovation projects and we are delighted to begin working with you on developing a project that will not only offer new office space for the surrounding community but will provide an opportunity to help the neighborhood. Through this collaboration of our construction expertise and design teams we can offer an efficient project schedule and timeline with quality work and a successful completed project.



| PROJECT NAME: | Interior Renovation | |
|----------------|--|--|
| LOCATION: | 40-09 21st Street Long Island | d City, NY 11101 |
| DATE: | April 26, 2021 | |
| PROJECT SCOPE | SUBCONTRACTOR TRADES | SCOPE OF WORK |
| DEMOLITION | Demolition Structural Engineer | DM-101.00: Remove two loading berth DM-101.00: Demo center stair opening at all floors. 1st floor to 6th floor and roof DM-101.00: Two columns to be removed |
| EXCAVATION | Excavation | DM-101.00: Approx. 250 sqft selective excavation in cellar (Comm Space G 15). |
| FOUNDATION | Formwork Concrete Rebar Backfill | A-101.00: Passenger Elevator Pit footing and foundation (details @ FO-101b.00) A-101.00: Gurney Elevator Pit footing and foundation (details @ FO-101b.00) A-101.00: Concrete Slab in cellar (Comm Space G 15) FO-101b.00: Stair Shaft C footing and foundation |
| STRUCTURAL | CMU Shafts Concrete Ironworkers Masonry Roofing Steel | A-301.00: Passenger Elevator (Pit, 6 stories, Passenger Elevator Machine Room) A-301.00: Gurney Elevator (Pit, 7 stories, Gurney Elevator Machine Room) A-303.00: Stair Shaft C (Cellar, 6 stories, bulkhead) S101c.00: Ground Floor Framing Steel (W8x28, Face mounted steel shear lab) S-102.00: Second - Sixth Floor Elevator Framing W10x26, New floor infill, concrete header over elevators S-102.00: Second - Sixth Floor Stair Shaft C Lintel S-104.00: Roof Floor Elevator Framing W10x26, New floor infill, concrete header over elevators S-104.00: Roof Floor Elevator Framing W10x26, New floor infill, concrete header over elevators S-104.00: Roof Steel frame ACCU Units S-105.00: Roulkhead Hoist beam, Double joint box |
| ARCHITECTURAL | Drywall Insulation | A-101.00: Ground Floor Lobby, Hallways, Interior Rooms, Doors A-102.00: Second Floor Lobby, Closets A-102.00: Sixth Floor Lobby, Closets |
| MECHANICAL | Ductwork Fire Alarm HVAC Roofing Sheet Metal | A-101.00: Ground Floor Lobby, Hallways, Interior Rooms, Doors A-102.00: Second Floor Lobby, Closets A-102.00: Sixth Floor Lobby, Closets A-103.00: Roof Elevator Machinery Room A-103.00: Bulkhead Elevator Machinery Room M-302.00: 12 vents connected with refrigerant pipes M-304.00: Roof Plan, 12 MUA on dunnage |
| ELECTRICAL | Electric Lighting Emergency Lighting | A-121.00: Cellar LT10, LT12, LT14 A-121.00: Ground Floor LT2, LT4, LT5, LT8, LT11, LT12, A-122.00: Second Floor LT2, LT4, LT5, LT31, LT12, LT15 A-122.00: Third Floor LT2, LT4, LT5, LT31, LT12, LT15 A-123.00: Fourth Floor LT2, LT4, LT5, LT11, LT12, LT15 A-123.00: Fifth Floor LT2, LT4, LT5, LT11, LT12, LT15 A-124.00: Sixth Floor LT2, LT4, LT5, LT11, LT12, LT15 A-124.00: Roof Floor LT2, LT4, LT5, LT11, LT12, LT15 Wall Signage Lighting Occupancy Sensors |
| PLUMBING | Sprinkler Fixtures | A-101.00: ADA W.C. (G02, G03, G10, G11), Water Room (G06) A-102.00: Men's (206), Women's (204), ADA Bathroom (205) A-102.00: Men's (306), Women's (304), ADA Bathroom (305) P-301.00: Elevator Sump Pump & Pit SP-301: New piping and sprinkler heads Water closet, Urinals Drinking fountain, sinks, faucets |
| INTERIOR WORK | Carpentry Finishing Floor Laying Millwork Painting Tile Setting | I-05: Lobby paint, Wood plank flooring, Custom Reception Desk I-08: Typical hallway paint, Wood plank wall I-12: Elevator Terrazzo flooring, Laminate walls + mirror I-13: Public Restroom ceiling paint, porcelain tile flooring and wall, tile trim + mirror |
| INTERIOR SPECS | | Hand dryer, Towel dispenser, ADA grab bars Door Handles, door hinges, door levers |



Section 02 Firm Introduction



Company: SKY Construction Group

Company Size: 200 Full-time Staff

Annual Revenue: \$400 Million

Average Project Cost: \$60 Million

SKY Construction Group is a North American construction company in the tri-state metropolitan area. Since 2008, we have helped customers complete more than 200 projects that have created jobs and grown local economies. We align our capabilities to our customers' objectives to create a lasting positive impact through our project deliverables while maintaining excellent standards of health and safety throughout the construction process. Differentiated by the quality of our people and our relentless drive to deliver the most successful outcomes, SKY Construction Group has created a wonderful collection of clients through our successful projects.

SKY Construction Group started out from modest beginnings, based in a small office in Park Slope. Today, we are now one of Brooklyn's leading project development and construction companies. We are built upon time-tested values of excellence and integrity. This means working to the highest standards in the construction industry and being measured by the enduring quality of our projects. Year after year we are among the safest companies in our industry. Core to our company are our values – ethics, safety, quality, innovation, and sustainability. This is what we believe, what customers can expect, and how we deliver.

SKY Construction Group serves the residential, commercial, and office markets. Our services span from initial planning and investment, through start-up and operations, to fully assess and evaluate your building's performance for long-term purposes. We aim to deliver the project with utmost transparency of the cost and time, so our clients are always aware of the real time decisions we make throughout the building process.

The new development of the Urban Yard in Long island City is exactly the type of project that SKY Construction Group has experience with and is proficient to build. Long Island City is touting many new construction projects and renovation projects. We have completed two residential projects on Jackson Avenue and understand the intricacies and process of working in this local area. We have also



successfully engaged in contract with another project in the area, highlighting that Long Island City is clearly undergoing a development boom and will help the city's economy tremendously. SKY Construction Group is always looking to develop commercial space like this within a site that can directly benefit from the neighborhood while also giving back and helping the community. The Urban Yard project can help serve the local area and help strengthen community ties while growing the neighborhood's economy. The site is located next to the Queensbridge Houses, a NYCHA development, which houses almost ten thousand people. The surrounding area is populated with long-stay hotels which can further benefit the Urban yard project. The opportunity in this project is exactly what we at SKY Construction Group seek to create.

SKY Construction Group has been renovating and restoring pre-1900's buildings for the last ten years. As fewer empty lots come to market, we have targeted these renovation projects as a way to become familiar with the local construction as well as create relationships with repeat clients. We have also developed a great amount of experience with working around and within existing structures such as demolishing and rebuilding the interiors of Empire Stores, a former warehouse complex in Dumbo and renovating and constructing 21-59 44th Drive, our newest project in Long Island City.

SKY Construction Group has a history of successful renovation projects with Murdock Solon Architects as well. The companies brought together here on the Urban Yard project have respect for each other and can attest to our dedication to the timeline and quality of our past projects. We at SKY Construction Group are more than confident in providing the expertise necessary to successfully deliver this Urban Yard Project on time and on budget.



Section 03 Relevant Projects



Empire Stores

Client: Midtown Equities

Location: 53-83 Water St,

Brooklyn, NY 11201

Project Type: Restoration, Renovation

Size: 330,000 square feet

Cost: \$420 Million

Completion: 2017

Architect: Studio V Architecture

In 2013, Midtown Equities leased the site of seven buildings for 96 years and hired SKY Construction Group to reconstruct the contiguous buildings as a single complex, with 300,000 square feet of office space and 80,000 square feet of shops, restaurants and event space.

SKY Construction Group was hired to be the contractor and was responsible in renovating the interior space with the architect. In addition, we were responsible for restoring the exterior façade and maintain some original design features, such as schist walls, iron hoisting wheels, and coffee chutes.

The next step was to lower the ground floor to integrate more smoothly with a new park along the waterfront, which Midtown Equities was responsible to pay for and maintain.

Finally, we developed storm flood protection for the area, and installed flood barriers for Empire Stores, and installed transformers on the seventh floor with a backup power generator.









5 Court Square

Client: White Hall

Location: 5 Ct Square W,

Long Island City, NY 11101

Project Type: New Construction

Size: 80,000 square feet

Cost: \$90 Million

Completion: 2019

Architect: My Architect PC

SKY Construction Group was hired with My Architect PC to demolish the existing structure on site and to build a residential building with an all-glass facade to be reflective of the striking contemporary collection of residences inside — a sophisticated addition to Court Square's streetscape.

The 11-story building offers 61 one-to-three bedroom homes with residences to include kitchens outfitted with Italian cabinetry, oak flooring, marble-clad bathrooms, and floor-to-ceiling windows.

The apartments are finely constructed with a modernist aesthetic that is carried throughout every space. The premium design features dramatic 10-foot ceilings, and the most in-demand home technology elements fully integrated into every residence.









21-59 44th Drive

Client: Nest Seekers Development

Location: 21-59 44th Dr, Long Island City,

NY 11101

Project Type: Residential Multifamily/Commercial

Size: 45,000 square feet

Cost: \$65 Million

Completion: In Progress

Architect: Z Architecture

SKY Construction Group won a bid for the project and is working with Z Architecture in the development of the mixed use building. The site is adjacent to an elevated MTA subway and provided difficult logistics for the project.

The existing building is planned to be fully renovated with a new curtain wall exterior cladding to provide expansive views of Long Island City. SKY Construction Group is responsible for the gut renovation of the interior floors and new construction on the exterior of the building.

The project is a work in progress with updates being posted to our company page as well our social media sites.



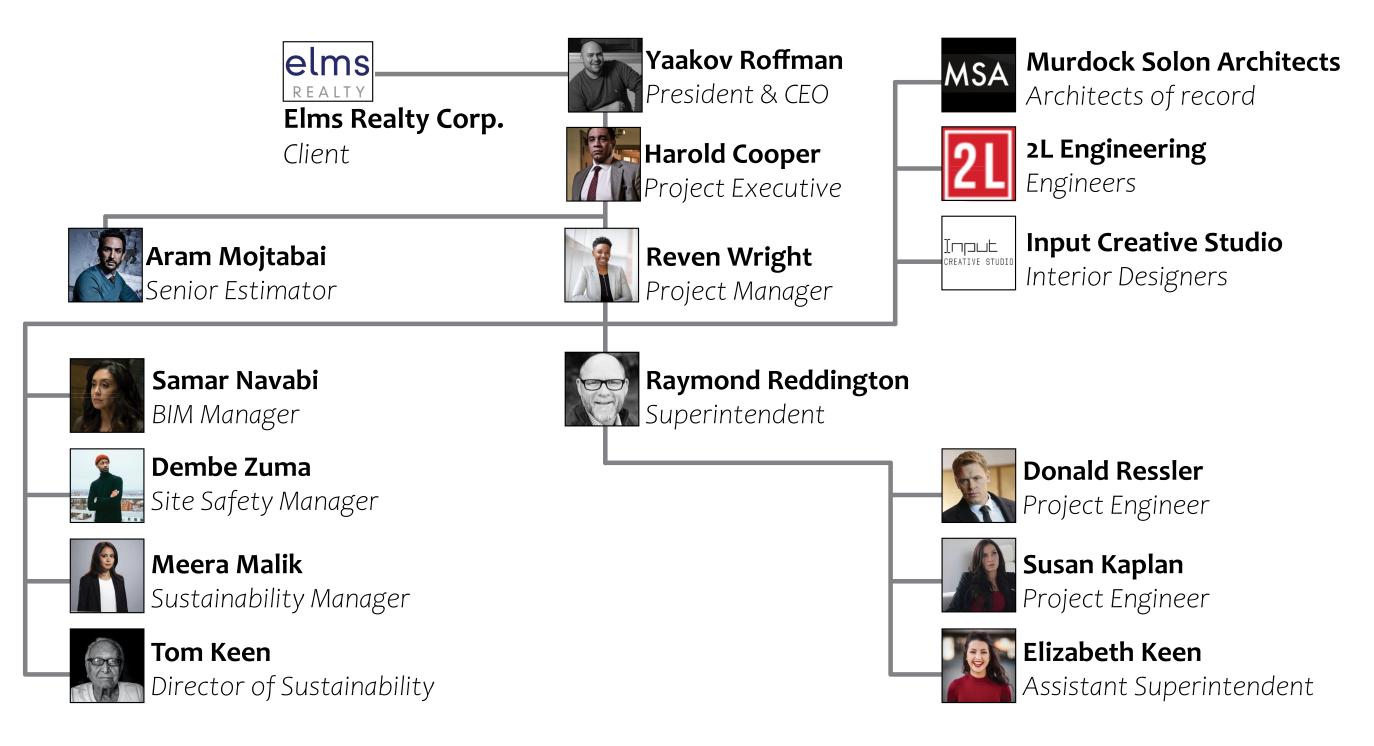






Section 04 Project Team









Yaakov RoffmanPresident & CEO

Education: MBA, NYU, 2006

BPS Construction Management, Pratt Institute, 1985

B Arch, Pratt Institute, 1983

Years of experience: 35 years

Certifications: AIA, CCM, LEED AP

Yaakov Roffman founded Sky Construction Group in 2008, and is currently the President and CEO of the company. His responsibilities revolve around client satisfaction and the beginning phases of any project. Yaakov will oversee the entire construction timeline and attend milestone project meetings to ensure project commitments are met. He will also visit the site for walkthroughs and meetings.



Harold CooperProject Executive

Education: MBA, Stamford University, 1972

BPS Construction Management, Pratt Institute, 1968

Years of experience: 42 years

Certifications: CCM, PMP

Harold Cooper recently joined Sky Construction in 2014, and has demonstrated skill at financial modeling, ensuring that all projects are successfully completed within budget. Harold was selected for this project to provide direct supervision and contact between the owner and the subcontractors. He will provide updates and resolve any conflicts from project schedule.





Reven WrightProject Manager

Education: MS Civil Engineering, NYC Tech, 1990

BPS Construction Management, Pratt Institute, 1987

Years of experience: 25 years

Certifications: PE, CCM, LEED AP

Reven Wright recently finished an LIC commercial project, in time and under budget. Her experience and knowledge are extremely valuable to all projects and provide exceptional project planning through all phases. Reven has executed some of our award winning projects and was chosen to lead this project. Reven will process submittals and approve daily tasks and set update meetings with the client.



Raymond ReddingtonSuperintendent

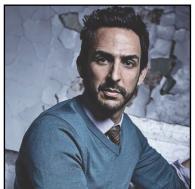
Education: MS Civil Engineering, NYU, 1984
BPS Construction Management, Pratt Institute, 1980

Years of experience: 38 years

Certifications: PE, CCM

Raymond Reddington is a go-to name in the construction industry, and known to have a proven track record of successful project deliveries. Raymond has a track record of completed projects and was selected to communicate with the rest of the team to ensure schedule efficiency this project. Raymond will conduct weekly meetings and develop project and individual schedules to maintain project schedule updates. He is responsible for overseeing and coordinating all subcontractor work.





Education: BPS Construction Management, Pratt Institute, 2002

BS Accounting, Brooklyn College, 1997

Years of experience: 12 years

Certifications: CPA, CCM, LEED AP, EVP

Aram MojtabaiSenior Estimator

Aram has the been with us for about 12 years and was chosen to run the estimating on this project to ensure a strong open dialogue with the subcontractors. Aram is a wiz with the schedules, with sharp accuracy on construction estimates. He will submit weekly cost breakdown reports as well as assemble and review all monthly requisitions for payment.



Education: B Arch, Pratt Institute, 1996

Years of experience: 24 years

Certifications: CCM, PMP, CEP, LEED BD+C

Samar Navabi BIM Manager

Samar was selected for this project after succefuly working with Murdock Solon Architects on the White Hall project in LIC. Samar is responsible for daily BIM model executions and updates, and will coordinate with the Project Manager to develop 3D logistics and submit clash detection.





Education: BS Engineering, Cooper Union, 2000

Years of experience: 18 years

Certifications: PE, MASCE, CCM, CPC

Donald Ressler Project Engineer

Donald was selected for this project after his success working with Murdock Solon Architects on the White Hall project in LIC. His role on this team ensures quality work and effective meetings with the design team and subcontractors.



Education: BS Mechanical Engineering, NYIT, 2002

Years of experience: 10 years

Certifications: ME, CCM, ASHRAE

Susan KaplanProject Engineer

Susan will actively work as a liason between the design team and the subs, as well as review all submittals and RFI's. Susan was selected for her prior experience with commercial renovation and will maintain open communication and reports between the client and the subcontractors.





Education: BPS Construction Management, Pratt Institute, 2002

Years of experience: 14 years

Certifications: CCM, PMP, LEED AP

Elizabeth Keen Assistant Superintendent

Elizabeth was selected due to her experience in renovation. Elizabeth has worked with Input Studio on our latest LIC project and will provide reports and updates on the subcontractor work as well as supervise site safety over the project timeline.



Education: MS Occupational Health and Safety, NYU, 2004 BPS Construction Management, Pratt Institute, 2002

Years of experience: 8 years

Certifications: CCM, NEBOSH

Dembe Zuma Site Safety Manager

Dembe is our most qualified Site Safety manager and is responsible for checking and maintaining all building and safety codes throughout the project. He will provide safety meetings and coordinate pre-task safety checks on site.





Education: B Arch, Pratt Institute, 2002

Years of experience: 14 years

Certifications: LEED AP, BD+C, GA

Meera Malik Sustainability Manager

Meera develops new ways in which we work and has been selected to aid the design team and the subcontractors in overall reporting to obtain a LEED Building certification for the Urban Yard Renovation project, as well as provide workshops to constantly educate our team in sustainable initiatives.



Education: MS Environmental Engineering, Cornell University, 1960 B Arch, Pratt Institute, 1955

Years of experience: 52 years

Certifications: RA, AIA, CCM, LEED AP, WELL AP

Tom KeenDirector of
Sustainability

Tom is responsible for selecting the most sustainable options available, during, construction and throughout the, project timeline. Tom uses the latest technology to determine how we can improve everyday.



Section 05 Staffing Chart



| Name | Role | JUNE | JULY | AUG | SEPT | ОСТ | NOV | DEC | JAN | FEB | MAR | APR | Total hours | % of time |
|-----------------------|----------------------------|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|----------------|--------------|
| Yaakov Roffman | President & CEO | 12 | 12 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 55 | 3% |
| Harold Cooper | Project Executive | 22 | 22 | 22 | 16 | 16 | 16 | 16 | 16 | 16 | 22 | 22 | 206 | 12% |
| Reven Wright | Project Manager | 80 | 80 | 80 | 80 | 40 | 40 | 40 | 40 | 40 | 40 | 80 | 640 | 36% |
| Aram Mojtabai | Senior Estimator | 46 | 46 | 46 | 46 | 32 | 32 | 32 | 32 | 16 | 16 | 16 | 360 | 20% |
| Ray Reddington | Superintendent | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Elizabeth Keen | Assistant Superintendent | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Donald Ressler | Project Engineer | 180 | 180 | 120 | 120 | 60 | 60 | 60 | 40 | 40 | 40 | 40 | 940 | 53% |
| Susan Kaplan | Project Engineer | 80 | 80 | 80 | 80 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 600 | 34% |
| Samar Navabi | BIM Manager | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 440 | 25% |
| Dembe Zuma | Site Safety Supervisor | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Meera Malik | Sustainability Manager | 120 | 80 | 40 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 400 | 23% |
| Tom Keen | Director of Sustainability | 120 | 80 | 40 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 400 | 23% |
| | | | | | | | | | | | | | 9,321 | |



Section 06 CPM Project Schedule



Project Start Date:

June 01, 2021

Demolition Start Date:

June 22, 2021

MEP Start Date:

June 22, 2021

Interior Start Date:

June 22, 2021

Project Completion:

April 28, 2022

Site Inspection:

June 01, 2021

Excavation Inspection:

June 28, 2021

Steel Inspection:

August 01, 2021

Concrete Inspection:

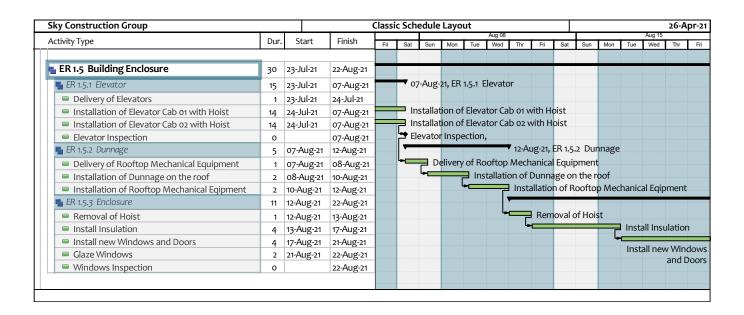
August 23, 2021

Elevator Inspection:

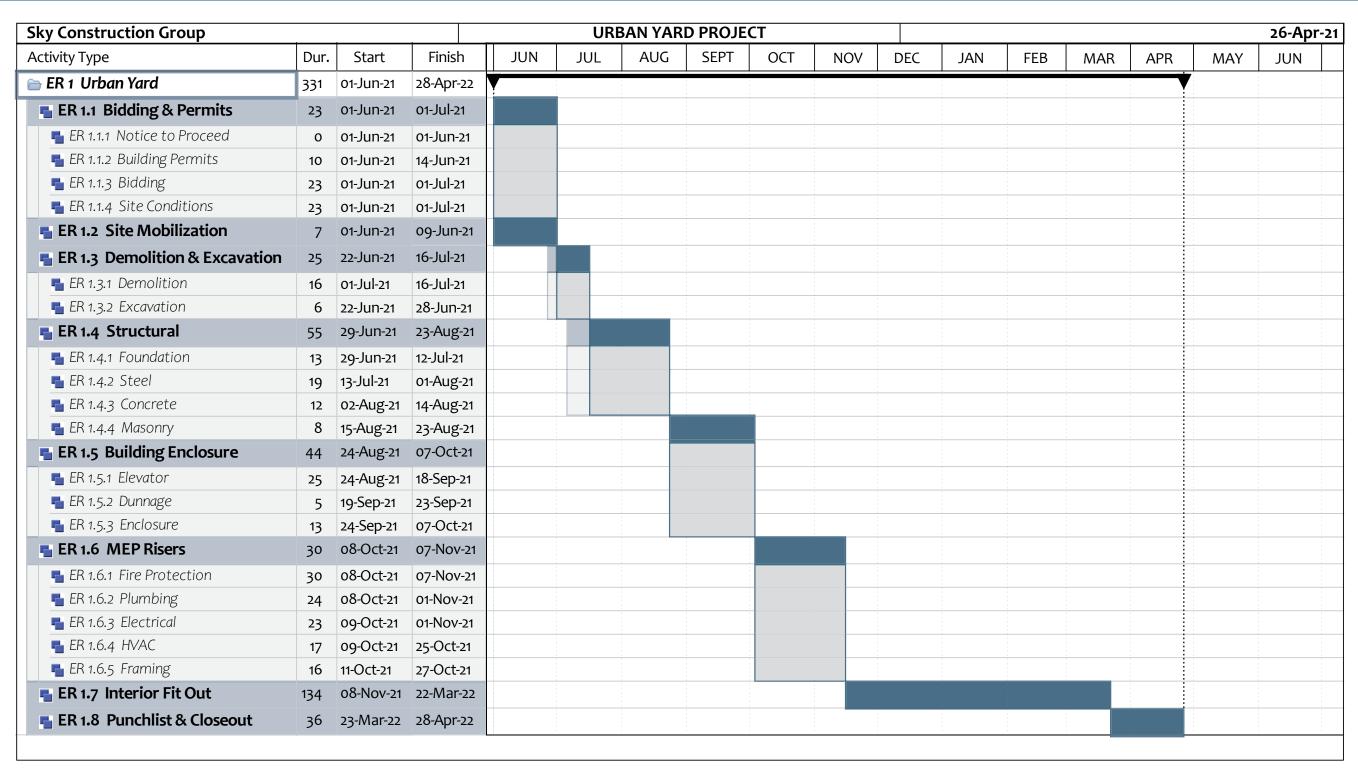
September 18, 2021

Final Inspection:

April 13, 2022

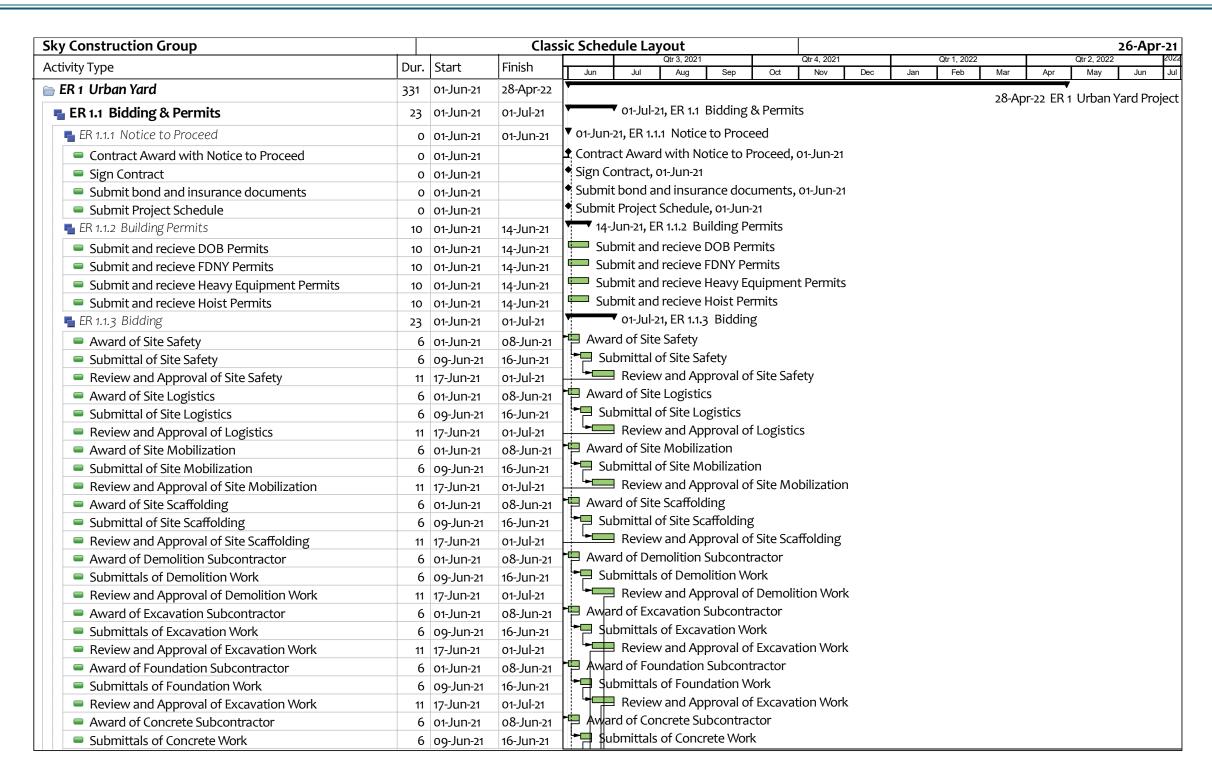






SKY CONSTRUCTION GROUP

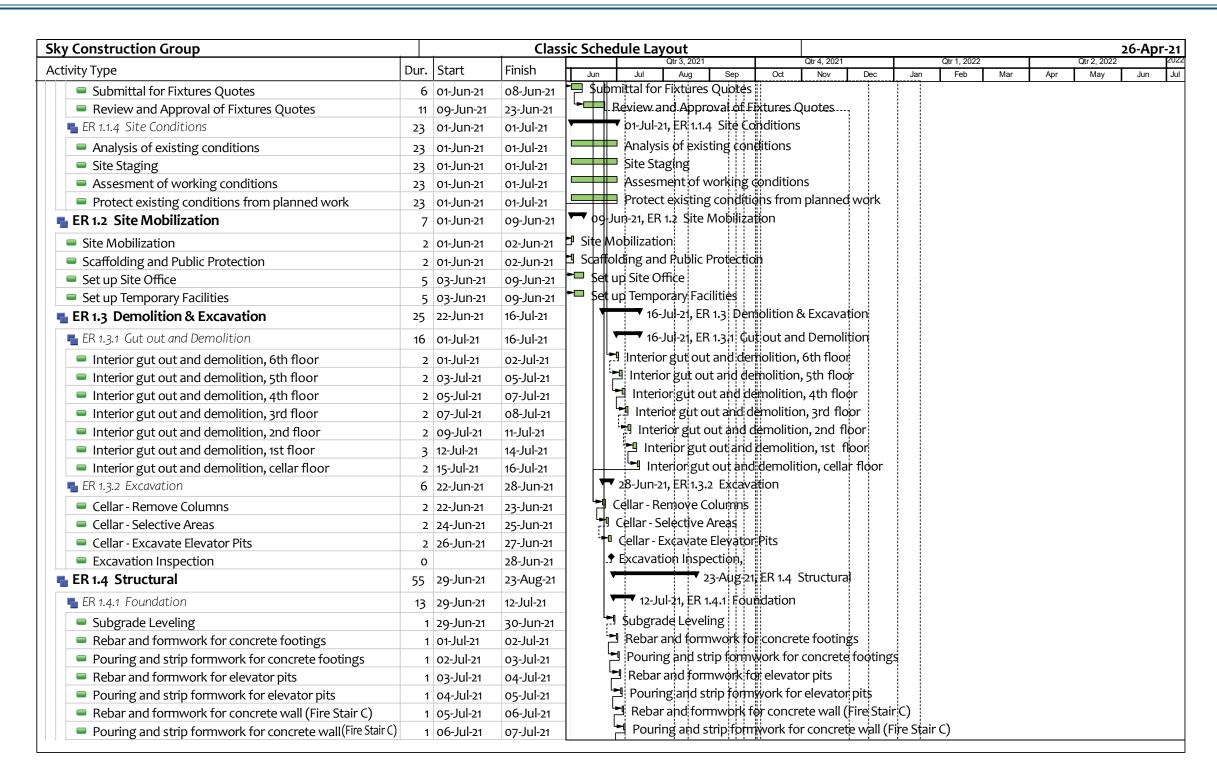






| y Construction Group | | | Clas | sic Sch | edul | | | | - | | | _ | | | _ | | 26-A | p |
|--|------|-----------|-----------|------------------------------|--------------|------------|-------------------|----------|-----------|------------|----------|-------|--------------------|-----|-------|--------------------|--------|---|
| ivity Type | Dur. | Start | Finish | Jun | | Jul Qt | tr 3, 2021 Aug | Sep | Oct | Qtr 4, 202 | 1 Dec | Jan | Qtr 1, 2022 Feb | Mar | Apr | Qtr 2, 2022 May | Jun | _ |
| Review and Approval of Concrete Work | 11 | 17-Jun-21 | 01-Jul-21 | | | | | | | ete Work | | ou | | mai | 7 49. | , | - June | _ |
| Award of Steel Subcontractor | 6 | o1-Jun-21 | 08-Jun-21 | - - - - - - - - - - - | ard o | of Steel | Subcon | tractor | | | | | | | | | | |
| ■ Submittals of Steel Work | 6 | 09-Jun-21 | 16-Jun-21 | - | ubm | ittals of | f Steel V | Vork | | | | | | | | | | |
| Review and Approval of Steel Work | 11 | 17-Jun-21 | 01-Jul-21 | \ \ \- | P rR€ | eview a | nd App | roval of | f Steel V | Vork | | | | | | | | |
| Award of Masonry Subcontractor | 6 | o1-Jun-21 | 08-Jun-21 | ├ ₽ ₩ | ard o | of Maso | nry Sub | contra | ctor | | | | | | | | | |
| Submittals of Masonry Work | 6 | 09-Jun-21 | 16-Jun-21 | - | ubm | ittals of | f Masor | nry Worl | k | | | | | | | | | |
| Review and Approval of Masonry Work | 11 | 17-Jun-21 | 01-Jul-21 | L | ⊢ †Re | eview a | nd App | roval of | f Mason | ıry Work | | | | | | | | |
| Award of Elevator Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | - ₩ | ard o | of Eleva | tor Sub | contrac | tor | | | | | | | | | |
| Submittals of Elevator Work | 6 | 09-Jun-21 | 16-Jun-21 | 1 - 1 | ubm | ittals of | Elevate | or Work | | | | | | | | | | |
| Review and Approval of Elevator Work | 11 | 17-Jun-21 | 01-Jul-21 | | H.R | eview a | nd App | roval of | f Elevato | or Work | | | | | | | | |
| Award of HVAC Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | ┝ ₱ ₩ | vard o | of HVAC | Subcor | ntractor | - | | | | | | | | | |
| Submittals of HVAC Work | 6 | 09-Jun-21 | 16-Jun-21 | │ ├ ─ 戸 ! | ubm | ittals of | HVAC' | Work | | | | | | | | | | |
| Review and Approval of HVAC Work | 11 | 17-Jun-21 | 01-Jul-21 | | H.Re | eview a | nd App | roval of | HVAC ۱ | Work | | | | | | | | |
| Award of Electrical Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | ┝ ₱ ₩ | ard o | of Electr | ical Sub | contra | tor | | | | | | | | | |
| Submittals of Electrical Work | 6 | 09-Jun-21 | 16-Jun-21 | 1 - 1 | Subm | nittals of | Electri | cal Worl | k | | | | | | | | | |
| Review and Approval of Electrical Work | 11 | 17-Jun-21 | 01-Jul-21 | L= = | H.R | eview a | nd App | roval of | Electric | al Work | | | | | | | | |
| ■ Award of Roo\(\text{Mng Subcontractor}\) | 6 | 01-Jun-21 | 08-Jun-21 | ├ ₱ ₩ | ard o | of Roo⊠ | ng Sub | contrac | tor | | | | | | | | | |
| ■ Submittals of Roo⊠ng Work | 6 | 09-Jun-21 | 16-Jun-21 | │ ├ ─ॗ ! | ubm | ittals of | Roo⊠n | ıg Work | | | | | | | | | | |
| ■ Review and Approval of Roo⊠ng Work | 11 | 17-Jun-21 | 01-Jul-21 | - - | Re | eview a | nd App | roval of | ¶Roo⊠n | g Work | | | | | | | | |
| Award of Tile Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | ├ ₽ ₩ | ard o | of Tile S | ubcontr | actor | : | | | | | | | | | |
| Submittals of Tile Work | 6 | 09-Jun-21 | 16-Jun-21 | │├ ─ ! | Subm | ittals of | Tile Wo | ork | # # | | | | | | | | | |
| Review and Approval of Tile Work | 11 | 17-Jun-21 | 01-Jul-21 | - - | Re | eview a | nd App | roval of | fTile Wo | ork | | | | | | | | |
| Award of Flooring and Carpentry Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | ┝ ₱ ₩ | ard o | of Floori | ng and | Carpen | try Subo | contract | or | | | | | | | |
| Submittals of Flooring and Carpentry Work | 6 | 09-Jun-21 | 16-Jun-21 | │ ├ ── ! | ubm | ittals of | Floorir | ng and (| arpenti | ry Work | | | | | | | | |
| Review and Approval of Flooring and Carpentry Work | 11 | 17-Jun-21 | 01-Jul-21 | - = | Re | eview a | nd App | roval of | f Floorin | g.and.C | arpentry | .Work | | | | | | |
| Award of Painting Subcontractor | 6 | 01-Jun-21 | 08-Jun-21 | T†₽ ₩ | vard o | of Painti | ng Sub | cohtrac | tor | | | | | | | | | |
| Submittals of Painting Work | 6 | 09-Jun-21 | 16-Jun-21 | | | ittals of | | | | | | | | | | | | |
| Review and Approval of Painting Work | 11 | 17-Jun-21 | 01-Jul-21 | \ <u>-</u> | Re | eview a | nd App | roÿal.o | Paintin | g.Work. | 1 | | | | | | | |
| Submittal for Lumber Quotes | 6 | 01-Jun-21 | 08-Jun-21 | ├ \$u | bmitt | al for Lu | ımber (| Qubtes | # # | | | | | | | | | |
| Review and Approval of Lumber Quotes | 11 | 09-Jun-21 | 23-Jun-21 | | | | | | umber (| Quotes | | | | | | | | |
| Submittal for Insulation Quotes | 6 | 01-Jun-21 | 08-Jun-21 | | | al for In | | | | | | | | | | | | |
| Review and Approval of Insulation Quotes | 11 | 09-Jun-21 | 23-Jun-21 | | | | | | | n Quote | s | | | | | | | |
| Submittal for Doors and Window Quotes | 6 | 01-Jun-21 | 08-Jun-21 | | 11 ! | | !! | | ow Quo | | | | | | | | | |
| Review and Approval of Doors and Window Quotes | 11 | 09-Jun-21 | 23-Jun-21 | | | | | | | d Windo | ow Quot | tes | | | | | | |
| Submittal for Finishes Quotes | 6 | 01-Jun-21 | 08-Jun-21 | | | al for Fi | | - 1 1 1 | | | | | | | | | | |
| Review and Approval of Finishes Quotes | 11 | 09-Jun-21 | 23-Jun-21 | └ ► | Revi | iew and | l Appro | val of F | inishes | Quotes | | | | | | | | |

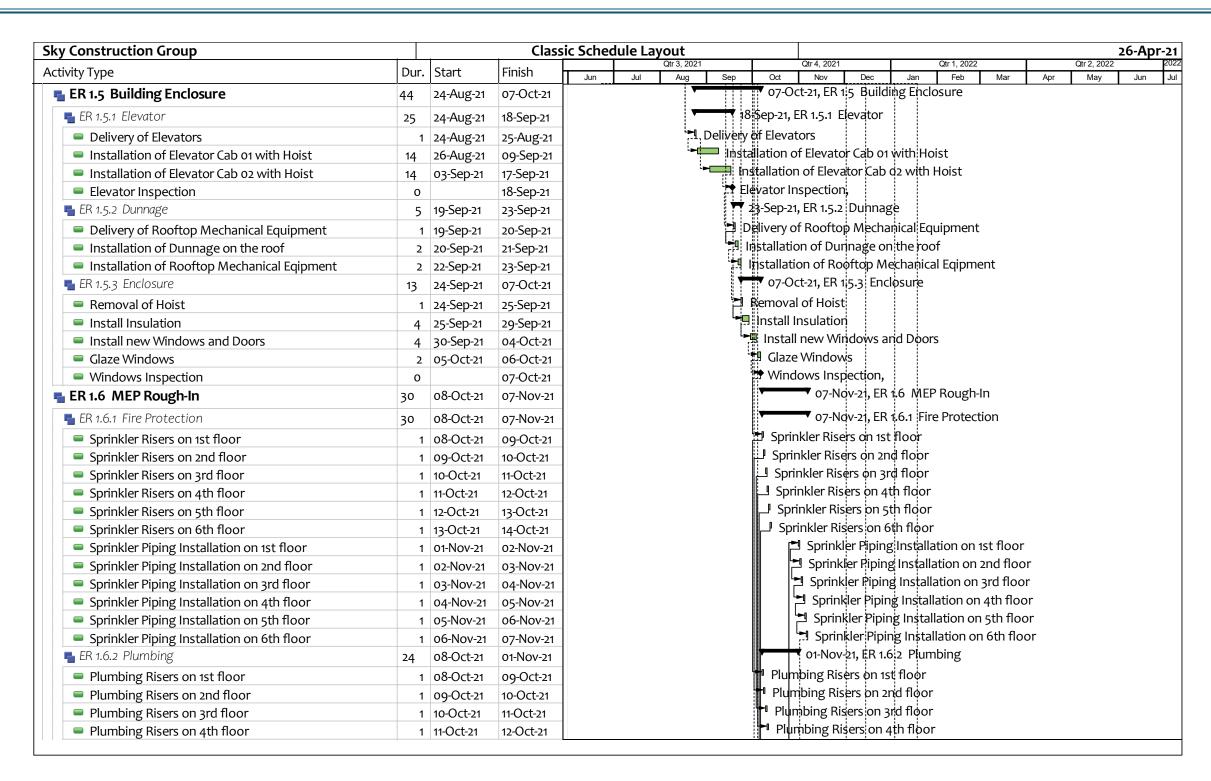






| ky Construction Group | | | Class | ic Scheo | dule Lay | | | | | | | | | | | | -Ap |
|---|------|-----------|-----------|----------|----------------------------|------------------|-----------------|-----------|----------|-------------------|---------------|----------|--------------------|-----|-----|----------|---------|
| tivity Type | Dur. | Start | Finish | Jun | Jul | Qtr 3, 20 Aug | | Бер | Oct | Qtr 4, 202 Nov | Dec | Jan | Qtr 1, 2022 Feb | Mar | Apr | Qtr 2, 2 | Jun |
| Rebar and formwork for concrete slab | 1 | 07-Jul-21 | 08-Jul-21 | | | | | ork for | | | | | -1 | | | | |
| Pouring and strip formwork for concrete slab | | 08-Jul-21 | 09-Jul-21 | | Pourir | ng an | ıd strip | formw | ork fo | r conc | rete slab | | | | | | |
| ■ Back⊠ll, cellar ⊠oor | 2 | 10-Jul-21 | 12-Jul-21 | | → Back | fill, ce | ellar fl | or | | | | | | | | | |
| ER 1.4.2 Steel | 19 | 13-Jul-21 | 01-Aug-21 | | | 01-Α ι | ug-21, [| ER 1.4.2 | Steel | | | | | | | | |
| Delivery and Installation of Hoist Machinery | | 13-Jul-21 | 15-Jul-21 | | Deli | very a | and In | tallatio | n of H | oist M | achinery | | | | | | |
| Delivery and Installation of Structural Steel | 4 | 13-Jul-21 | 17-Jul-21 | | | 1 -1 | | | | | ral Steel | | | | | | |
| ■ Installation of Steel Staircase for Cellar | 2 | 18-Jul-21 | 19-Jul-21 | | | 1 1 | | Steel St | | | | | | | | | |
| ■ Installation of Steel Staircase for 1st floor | | 20-Jul-21 | 21-Jul-21 | | ≥ Ins | talla | tion of | Steel S | taircas | se for 1 | st floor | | | | | | |
| ■ Installation of Steel Staircase for 2nd floor | | 22-Jul-21 | 23-Jul-21 | | • | | | | | | 2nd floor | | | | | | |
| ■ Installation of Steel Staircase for 3rd floor | | 24-Jul-21 | 25-Jul-21 | | ⁱ ≘ 9 Ir | nstall | ation ¢ | f Steel | Stairca | ase for | 3rd floor | | | | | | |
| ■ Installation of Steel Staircase for 4th floor | | 26-Jul-21 | 27-Jul-21 | | | | | | | | th floor | | | | | | |
| ■ Installation of Steel Staircase for 5th floor | | 28-Jul-21 | 29-Jul-21 | | | | | | | | r 5th floor | | | | | | |
| Installation of Steel Staircase for 6th floor | | 30-Jul-21 | 31-Jul-21 | | -9 | Insta | allation | of Stee | el Stair | case fo | or 6th floo | r | | | | | |
| Steel Inspection | 0 | | 01-Aug-21 | | ·• | Steel | l Inspe | ction, | | | | | | | | | |
| ER 1.4.3 Concrete | 12 | 02-Aug-21 | 14-Aug-21 | | | ! ! | | 21, ER 1. | 4.3 Cc | oncrete | e | | | | | | |
| Rebar and formwork for 1st floor elevators | 1 | 02-Aug-21 | 03-Aug-21 | | الے | Reb | ar and | formw | ork for | r 1st flo | or elevato | rs | | | | | |
| Pouring and strip formwork for 1st floor elevators | | 03-Aug-21 | 04-Aug-21 | | <u> </u> | Pau | ıring a | nd strip | formv | vork fo | or ist floor | elevato | ors | | | | |
| Rebar and formwork for 2nd floor elevators | | 04-Aug-21 | 05-Aug-21 | | احا | Reb | oar an | l formw | ork fo | r 2nd t | floor eleva | tors | | | | | |
| Pouring and strip formwork for 2nd floor elevators | | 05-Aug-21 | 06-Aug-21 | | l₌ □ | Ι Ρφι | uring a | nd strip | form | work f | or 2nd floc | r eleva | tors | | | | |
| Rebar and formwork for 3rd floor elevators | 1 | 06-Aug-21 | 07-Aug-21 | | L _e | ∄ Rel | bar an | d formv | vork fo | or 3rd | floor eleva | tors | | | | | |
| Pouring and strip formwork for 3rd floor elevators | | 07-Aug-21 | 08-Aug-21 | | լ <u>,</u> Ր | ₫ Po | uring | and stri | p form | work ' | for 3rd floo | r eleva | itors | | | | |
| Rebar and formwork for 4th floor elevators | | 08-Aug-21 | 09-Aug-21 | | կ r | ⊒ Re | ebar ar | id form | work f | or 4th | floor eleva | tors | | | | | |
| Pouring and strip formwork for 4th floor elevators | 1 | 09-Aug-21 | 10-Aug-21 | | L | 🗗 Pc | ouring | and stri | ip forn | nwork | for 4th flo | or elev | ators | | | | |
| Rebar and formwork for 5th floor elevators | 1 | 10-Aug-21 | 11-Aug-21 | | | ∄ Re | ebar a | nd form | work t | for 5th | floor elev | ators | | | | | |
| Pouring and strip formwork for 5th floor elevators | | 11-Aug-21 | 12-Aug-21 | | | ļ± Pα | ouring | and str | rip forr | nwork | for 5th flo | or elev | ators | | | | |
| Rebar and formwork for 6th floor elevators | | 12-Aug-21 | 13-Aug-21 | | | ¦⊒ R | Rebar a | nd forn | nwork | for 6t | h floor elev | ators | | | | | |
| Pouring and strip formwork for 6th floor elevators | | 13-Aug-21 | 14-Aug-21 | | | P | ouring | g and st | rip for | mwor | k for 6th fl | or elev | vators | | | | |
| ER 1.4.4 Masonry | 8 | 15-Aug-21 | 23-Aug-21 | | | \ | ▼ 23-A | ug-21, EF | R 1.4.4 | Masc | nry | | | | | | |
| Installation of CMU blocks for 1st floor Fire Stair C | 1 | 15-Aug-21 | 16-Aug-21 | | | <u>-</u> | Install | ition of | CMU I | blocks | for 1st flo | or Fire | Stair C | | | | |
| Installation of CMU blocks for 2nd floor Fire Stair C | | 16-Aug-21 | | | | | Install | ation of | CMU | blocks | for 2nd flo | or Fire | e Stair C | | | | |
| Installation of CMU blocks for 3rd floor Fire Stair C | | 17-Aug-21 | 18-Aug-21 | | | - | Install | ation of | f CMU | blocks | s for 3rd flo | or Fire | Stair C | | | | |
| Installation of CMU blocks for 4th floor Fire Stair C | | 18-Aug-21 | 19-Aug-21 | | | 닐 | Instal | ation o | f CMU | block | s for 4th fl | or Fire | e Stair C | | | | |
| Installation of CMU blocks for 5th floor Fire Stair C | | 19-Aug-21 | 20-Aug-21 | | | | Instal | lation o | of CMU | J block | s for 5th fl | oor Fir | e Stair C | | | | |
| Installation of CMU blocks for 6th floor Fire Stair C | | 20-Aug-21 | 21-Aug-21 | | | الجا | Insta | llation c | of CMU | J block | s for 6th f | loor Fir | e Stair C | | | | |
| Stair Tread Concrete Pour | | 21-Aug-21 | 22-Aug-21 | | | وجا | Stair | Tread C | oncret | te Pou | r | | | | | | |
| ■ Concrete Inspection | 0 | | 23-Aug-21 | | | - | • Cond | rete ins | spectio | on. | | | | | | | |

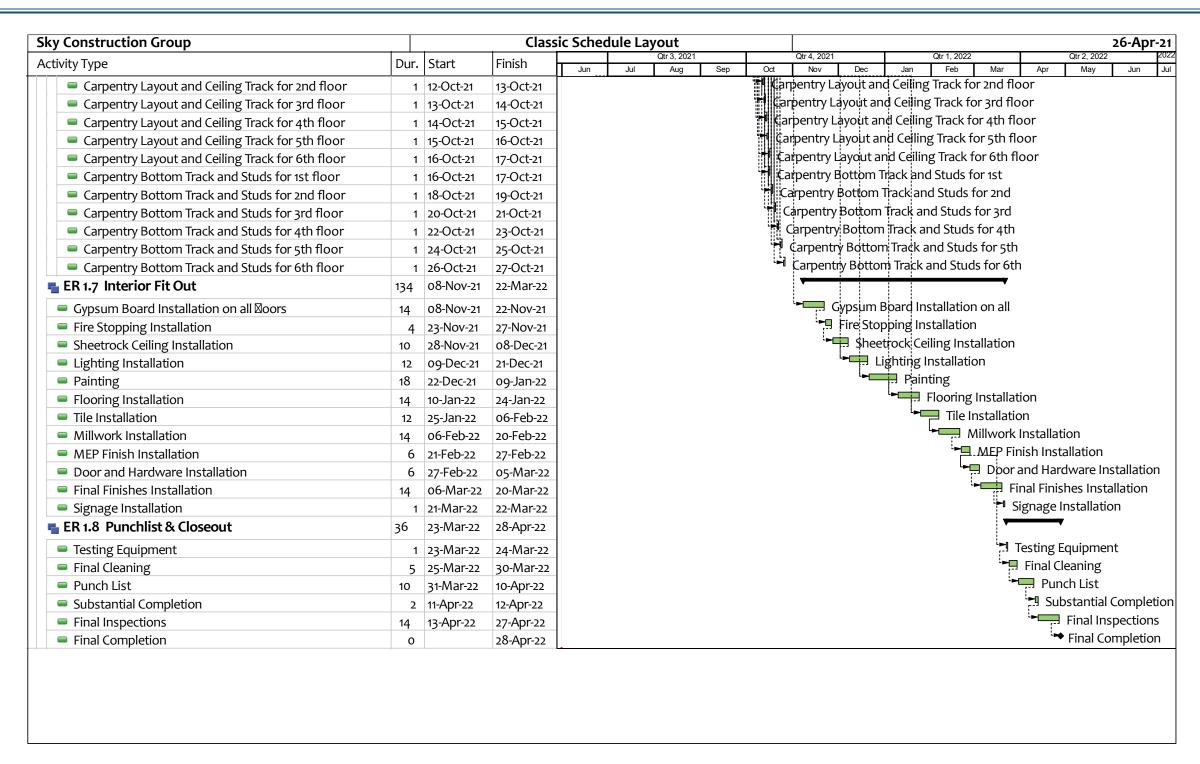






| ky Construction Group | | Clas | sic Schec | lule Lay | out | | | | | | | | | | 26-A | ıq، |
|--|--------------|-----------|-----------|----------|--------------------|-----|---------------------------------------|----------------------|------------|-----------|--------------------|------------|-------|--------------------|------|-----|
| ctivity Type | Dur. Start | Finish | Jun | Jul | Qtr 3, 2021 Aug | Sep | Oct | Qtr 4, 2021 Nov | Dec | Jan | Qtr 1, 2022 Feb | Mar | Apr | Qtr 2, 2022 May | Jun | _ |
| Plumbing Risers on 5th floor | 1 12-Oct-21 | 13-Oct-21 | | 04. | , aug | оор | | imbing Ri | | | 1 . 52 | · · · · · | 7 49. | , | | _ |
| Plumbing Risers on 6th floor | 1 13-Oct-21 | 14-Oct-21 | | | | | l ⊸ ı Plı | ımbing Ri | sers on | 6th | | | | | | |
| Plumbing Rough-In on 1st floor | 2 20-Oct-21 | 22-Oct-21 | | | | | :2 | Plumbing | Rough-I | In on 1s | t floor | | | | | |
| Plumbing Rough-In on 2nd floor | 2 22-Oct-21 | 24-Oct-21 | | | | | - 9 | Plumbing | Rough- | -In on 2 | nd floor | | | | | |
| Plumbing Rough-In on 3rd floor | 2 24-Oct-21 | 26-Oct-21 | | | | | - | Plumbing | g Rough | -In on 3 | 3rd floor | | | | | |
| Plumbing Rough-In on 4th floor | 2 26-Oct-21 | 28-Oct-21 | | | | | - | Plumbin | g Rougl | h-In on | 4th floor | | | | | |
| Plumbing Rough-In on 5th floor | 2 28-Oct-21 | 30-Oct-21 | | | | | <u> </u> | Plumbir | g Roug | h-In on | 5th floor | | | | | |
| Plumbing Rough-In on 6th floor | 2 30-Oct-21 | 01-Nov-21 | | | | | 4 | Plumbii | ng Roug | gh-In or | n 6th floor | | | | | |
| ER 1.6.3 Electrical | 23 09-Oct-21 | 01-Nov-21 | | | | | - | ▼ 01-Nov- | 21, ER 1.6 | 6 3 Elec | ctrical | | | | | |
| ■ Electrical Risers on 1st floor | 1 09-Oct-21 | 10-Oct-21 | | | | | ⊅ Elec | trical Rise | rs on 1s | tfloor | | | | | | |
| ■ Electrical Risers on 2nd floor | 1 10-Oct-21 | 11-Oct-21 | | | | | Ele لــا | ctrical Rise | ers on 2r | nd floo | r | | | | | |
| ■ Electrical Risers on 3rd floor | 1 11-Oct-21 | 12-Oct-21 | | | | | ∟J Ele | ctrical Rise | ers on 31 | rd floo | r | | | | | |
| Electrical Risers on 4th floor | 1 12-Oct-21 | 13-Oct-21 | | | | | 10 :::::: | ctrical Ris | | | | | | | | |
| ■ Electrical Risers on 5th floor | 1 13-Oct-21 | 14-Oct-21 | | | | | | ectrical Ris | ers on 5 | th floo | r | | | | | |
| ■ Electrical Risers on 6th floor | 1 14-Oct-21 | 15-Oct-21 | | | | | J E | e¢trical Ris | ers on 6 | 5th floc | or | | | | | |
| ■ Electrical Rough-In on 1st floor | 2 20-Oct-21 | 22-Oct-21 | | | | | *** | Electrical F | kough-Ir | n on 1st | floor | | | | | |
| Electrical Rough-In on 2nd floor | 2 22-Oct-21 | 24-Oct-21 | | | | | *** | Électrical | Rough-I | n on 2r | nd floor | | | | | |
| Electrical Rough-In on 3rd floor | 2 24-Oct-21 | 26-Oct-21 | | | | | <u>+0</u> | Électrical | Rough- | In on 3 | rd floor | | | | | |
| Electrical Rough-In on 4th floor | 2 26-Oct-21 | 28-Oct-21 | | | | | | l Electrica | Rough | -In on 4 | th floor | | | | | |
| Electrical Rough-In on 5th floor | 2 28-Oct-21 | 30-Oct-21 | | | | | | ■ Electrica | l Rough | n-In on | 5th floor | | | | | |
| Electrical Rough-In on 6th floor | 2 30-Oct-21 | 01-Nov-21 | | | | | - | ■ Electric | al Rougl | h-In on | 6th floor | | | | | |
| ■ ER 1.6.4 HVAC | 17 09-Oct-21 | 25-Oct-21 | | | | | · · · · · · · · · · · · · · · · · · · | 25-Oct-21, | ER 1.6.4 | 1 HVAC | - - | | | | | |
| Mechanical Risers on 1st floor | 1 09-Oct-21 | 10-Oct-21 | | | | | ™ Me | chanical R | isers on | ist flo | or | | | | | |
| Mechanical Risers on 2nd floor | 1 10-Oct-21 | 11-Oct-21 | | | | | 1 Me | chanical F | isers or | n 2nd fl | oor | | | | | |
| ■ Mechanical Risers on 3rd floor | 1 11-Oct-21 | 12-Oct-21 | | | | | <u>-</u> 9 Me | chanical F | Risers or | n 3rd flo | oor | | | | | |
| Mechanical Risers on 4th floor | 1 12-Oct-21 | 13-Oct-21 | | | | | H M | echanical I | Risers o | n 4th fl | oor | | | | | |
| Mechanical Risers on 5th floor | 1 13-Oct-21 | 14-Oct-21 | | | | | Ы М | e¢hanical | Risers o | n 5th fl | oor | | | | | |
| Mechanical Risers on 6th floor | 1 14-Oct-21 | 15-Oct-21 | | | | | Ħ | echanical | Risers o | n 6th f | loor | | | | | |
| HVAC Duct installation on 1st floor | 2 14-Oct-21 | 15-Oct-21 | | | | | ₽ ¶ H | VAC Duct | installat | ion on | 1st floor | | | | | |
| HVAC Duct installation on 2nd floor | 2 16-Oct-21 | 17-Oct-21 | | | | | -4 | VAC Duct | installa | tion on | 2nd floor | | | | | |
| ■ HVAC Duct installation on 3rd floor | 2 18-Oct-21 | 19-Oct-21 | | | | | 11 | ŀVAC Duct | t installa | ition on | 3rd floor | | | | | |
| HVAC Duct installation on 4th floor | 2 20-Oct-21 | 21-Oct-21 | | | | | | HVAC Duc | t installa | ation o | n 4th floor | - | | | | |
| HVAC Duct installation on 5th floor | 2 22-Oct-21 | 23-Oct-21 | | | | | | HVAC Du | ct install | lation o | n 5th floo | r | | | | |
| HVAC Duct installation on 6th floor | 2 24-Oct-21 | 25-Oct-21 | | | | | | | | | on 6th floo | or | | | | |
| ER 1.6.5 Framing | 16 11-Oct-21 | 27-Oct-21 | | | | | | ^{27-Oct-21} | , ER 1.6. | 5 Fram | ing | | | | | |
| Carpentry Layout and Ceiling Track for 1st floor | 1 11-Oct-21 | 12-Oct-21 | | | | | | | | | g Track for | r 1st floo | or | | | |







Section 07 Estimate Summary



| Urban | Yard Developmen | it (8 | 6,040 sf) | 04/2 | 6/2021 |
|-------------|------------------------------------|-------|---------------|--------------|---------|
| # | Trade Description | | Cost | \$/sf | % |
| Division 01 | General Requirements | \$ | 161,992.50 | \$ 1.88 | 1.40% |
| Division 02 | Existing Conditions | \$ | 482,190.50 | \$ 5.60 | 4.20% |
| Division 03 | Concrete | \$ | 953,434.50 | \$ 11.08 | 10.00% |
| Division 04 | Masonry | \$ | 448,829.00 | \$ 5.22 | 5.50% |
| Division 05 | Metals | \$ | 381,464.00 | \$ 4.43 | 3.30% |
| Division o6 | Wood, Plastics, & Composites | \$ | 282,868.50 | \$ 3.29 | 2.50% |
| Division 07 | Thermal & Moisture Protection | \$ | 384,814.00 | \$ 4.47 | 4.20% |
| Division o8 | Openings | \$ | 88,284.50 | \$ 1.03 | 1.20% |
| Division 09 | Finishes | \$ | 798,946.50 | \$ 9.29 | 10.40% |
| Division 10 | Specialties | \$ | 181,936.00 | \$ 2.11 | 2.30% |
| Division 11 | Equipment | \$ | 33,846.00 | \$ 0.39 | 0.60% |
| Division 12 | Furnishings | \$ | 84,473.00 | \$ 0.98 | 0.70% |
| Division 13 | Special Construction | \$ | 79,875.00 | \$ 0.93 | 1.00% |
| Division 14 | Conveying Equipment | \$ | 329,246.00 | \$ 3.83 | 2.80% |
| Division 21 | Fire Suppression | \$ | 382,860.00 | \$ 4.45 | 6.00% |
| Division 22 | Plumbing | \$ | 886,539.00 | \$ 10.30 | 9.20% |
| Division 23 | HVAC | \$ | 1,413,142.50 | \$ 16.42 | 12.20% |
| Division 26 | Electrical | \$ | 1,239,248.50 | \$ 14.40 | 10.60% |
| Division 27 | Communications | \$ | 162,414.50 | \$ 1.89 | 1.40% |
| Division 28 | Electronic Safety, Security | \$ | 156,836.50 | \$ 1.82 | 2.10% |
| Division 31 | Earthwork | \$ | 360,339.50 | \$ 4.19 | 4.00% |
| Division 32 | Exterior Improvements | \$ | 96,859.00 | \$ 1.13 | 1.80% |
| Division 33 | Utilities | \$ | 106,923.50 | \$ 1.24 | 2.60% |
| | TRADE SUBTOTAL | \$ | 9,497,363.00 | \$ 110.38 | 100.00% |
| | | | | | |
| | Building Permit Fees | \$ | 189,947.26 | \$ 2.21 | 2.00% |
| | General Conditions - Reimbursibles | \$ | 284,920.89 | \$ 3.31 | 3.00% |
| | CM Staff | \$ | 759,789.04 | \$ 8.83 | 8.00% |
| | Overhead & Profit | \$ | 949,736.30 | \$ 11.04 | 10.00% |
| | Insurance | \$ | 284,920.89 | \$ 3.31 | 3.00% |
| | FEE SUBTOTAL | \$ | 2,469,314.38 | \$ 28.70 | |
| | TOTAL | \$ | 11,966,677.38 | \$ 139.08 | |

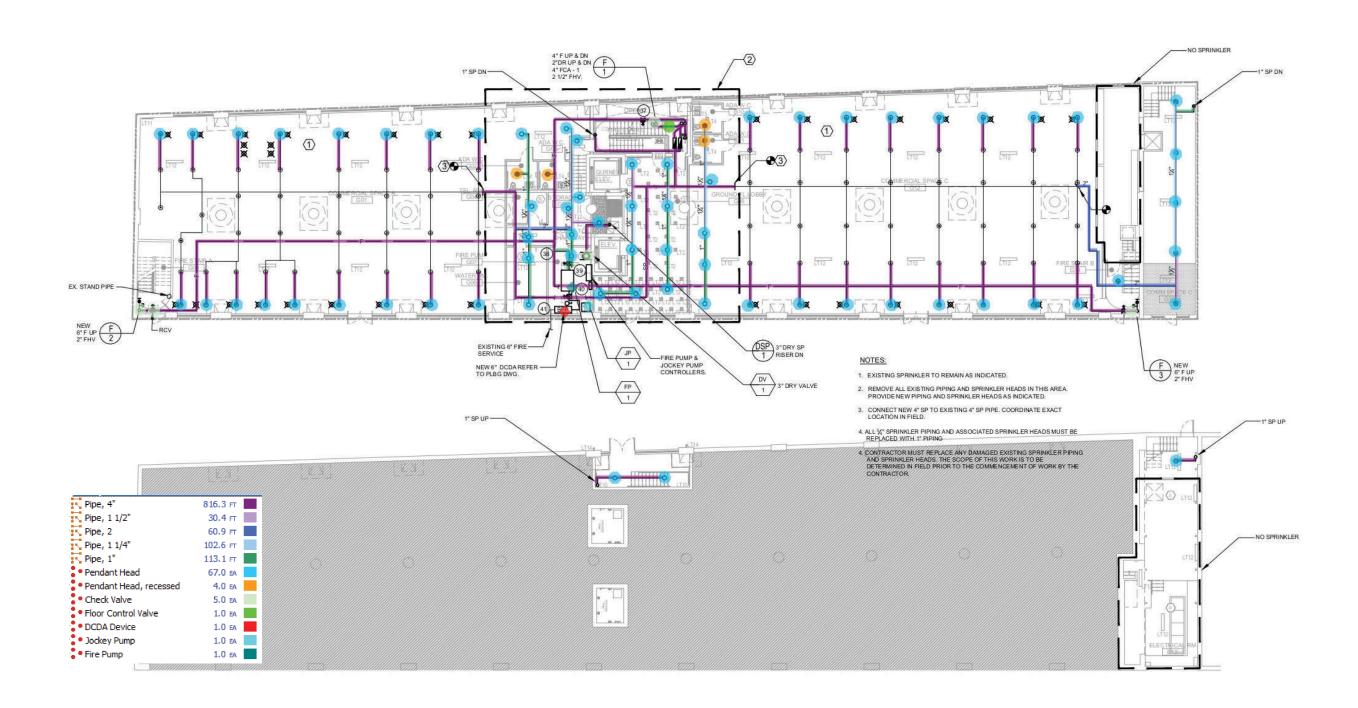


Section 08 Detailed Sprinkler Take-Off

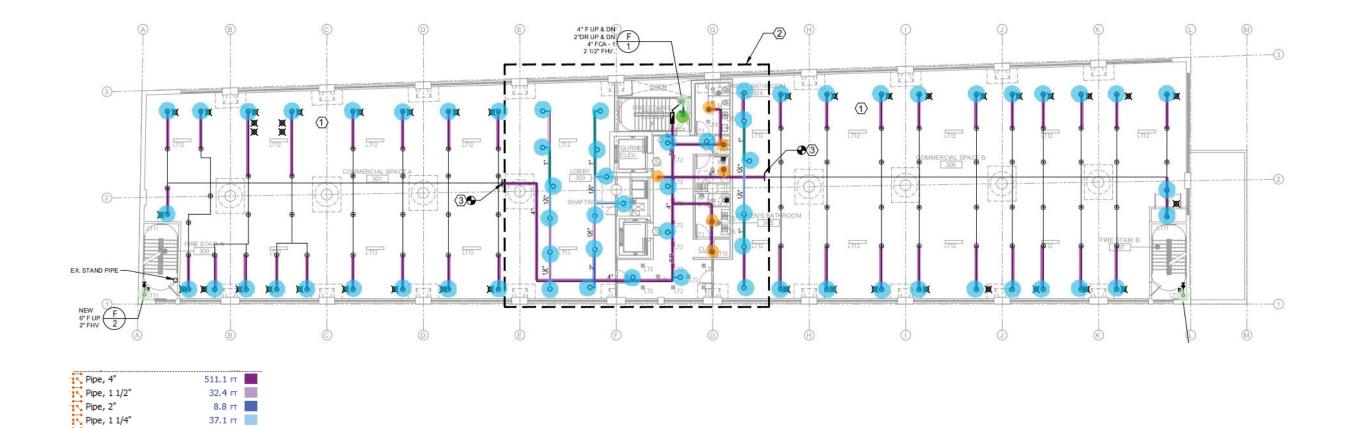


| C | ellar + Gro | ound Floo | or | | | |
|---|-------------|--------------|----------|---|----|--|
| Descriptions | Quantity | Unit | | Unit Cost | | Tot |
| New Pipe, 1 inch | Qualitity | 113 LF | \$ | 14.20 | \$ | 1,604.6 |
| New Pipe, 1 1/4 inch | | 103 LF | \$ | 15.79 | \$ | 1,626. |
| New Pipe, 1 1/2 inch | | 31 LF | \$ | 17.83 | \$ | 552. |
| New Pipe, 2 inches | | 61 LF | \$ | 27.25 | \$ | 1,662. |
| New Pipe, 4 inches | | 816 LF | \$ | 32.99 | \$ | 26,919.8 |
| New Sprinkler heads, Pendant heads | | 67 EA | \$ | 50.00 | \$ | 3,350.0 |
| New Sprinkler heads, Pendant heads, recessed | | , 4 EA | \$ | 70.00 | \$ | 280. |
| Check valve | | 5 EA | \$ | 400.00 | \$ | 2,000. |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ | 12,000. |
| DCDA Device | | 1 EA | \$ | 9,250.00 | \$ | 9,250. |
| Jockey Pump | | 1 EA | \$ | 14,200.00 | \$ | 14,200. |
| Fire Pump | | 1 EA | \$ | 3,500.00 | \$ | 3,500. |
| | Typical | | |),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Ť | ,,, |
| Descriptions (Floor 02) | Quantity | Unit | | Unit Cost | | Tot |
| New Pipe, 1 inch | Д | 39 LF | \$ | 14.20 | \$ | 553- |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ | 584. |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ | 588. |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ | 245. |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ | 16,857. |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ | 3,200. |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ | 420. |
| Check valve | | 3 EA | \$ | 400.00 | \$ | 1,200. |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ | 12,000. |
| Descriptions (Floor 03) | Quantity | Unit | 7 | Unit Cost | 7 | Tot |
| New Pipe, 1 inch | Quarter | 39 LF | \$ | 14.20 | \$ | 553. |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ | 584. |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ | 588. |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ | 245. |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ | 16,857. |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ | 3,200. |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ | 420. |
| Check valve | | 3 EA | \$ | 400.00 | \$ | 1,200. |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ | 12,000. |
| Descriptions (Floor 04) | Quantity | Unit | · · | Unit Cost | _ | Tot |
| New Pipe, 1 inch | | 39 LF | \$ | 14.20 | \$ | 553- |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ | 584. |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ | 588. |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ | 245. |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ | 16,857. |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ | 3,200. |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ | 420. |
| Check valve | | 3 EA | \$ | | \$ | |
| Floor Control Valve | | 3 EA 1 EA | \$ | 400.00 | | 1,200. |
| Descriptions (Floor 05) | Quantity | Unit | 2 | 12,000.00 Unit Cost | \$ | 12,000. To 1 |
| New Pipe, 1 inch | Qualitity | 39 LF | \$ | 14.20 | \$ | 553. |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ | 584. |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ | 588. |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ | 245. |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ | 16,857. |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ | |
| New Sprinkler heads, Pendant heads, recessed | | | | 70.00 | | 3,200. |
| | | 6 EA | \$ | | \$ | 420. |
| Check valve Floor Control Valve | | 3 EA 1 EA | \$ | 400.00 | \$ | 1,200. |
| -loor Cortifor valve | 64b Floo | | \$ | 12,000.00 | \$ | 12,000. |
| | 6th Floo | | | | | |
| Descriptions | Quantity | Unit | | Unit Cost | | To |
| New Pipe, 1 inch | | 66 LF | \$ | 14.20 | \$ | 937 |
| New Pipe, 11/4 inch | | 57 LF | \$ | 15.79 | \$ | 900. |
| New Pipe, 1 1/2 inch | | 23 LF | \$ | 17.83 | \$ | 410. |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ | 245. |
| | | 620 LF | \$ | 32.99 | \$ | 20,453. |
| New Pipe, 4 inches | | 72 EA | \$ | 50.00 | \$ | 3,600. |
| New Sprinkler heads, Pendant heads | | 72 EA | | | | |
| New Sprinkler heads, Pendant heads New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ | |
| New Sprinkler heads, Pendant heads New Sprinkler heads, Pendant heads, recessed Check valve | | 6 EA 6 EA | \$ \$ | 400.00 | \$ | 2,400. |
| | | 6 EA | \$ | | | 2,400.0 24,000.0 272,910. 4 |









Pipe, 1"
Pendant Head
Pendant Head, recessed

• Check valve

• Floor Control Valve

6.0 EA

3.0 EA

1.0 EA







Section 09 Value Engineering Proposal

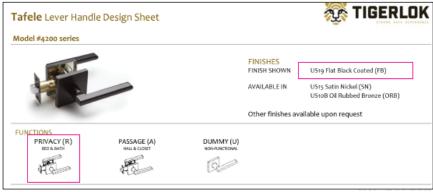


Value Engineering

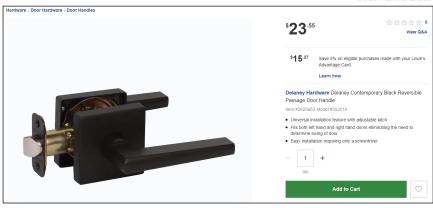
Value Engineering is part of our services here at SKY Construction Group. At each milestone issuance of the design documents, we periodically review the drawings and specifications to find cases to reduce cost, improve constructibility, and increase reliability. Our team can make suggestions for alternate materials or fixtures to positively impact the project's progress. We do this by identifying an opportunity and then submitting our review and suggestion to you and Murdock Solon Architects. We will highlight the general advantages and list the details, as well as the proposed alternative, so you can determine the best course of action.

Below is an example of where our team believes we can save Elms Realty a cost of \$4,565.25 (82% savings) by picking a similar door handle for the public rooms. The specified door handle model is Tafele Lever Door Handle Model series #LC42, priced at \$125.00. While reviewing the specifications, we found this and believed that this was an area of cost reduction by finding an almost identical match for a lower price. Below, is our alternative door handle model, Delaney Hardware Reversible Door Handle, with a unit cost of \$23.55, which is an 81% savings for the project.





Alternative Model:





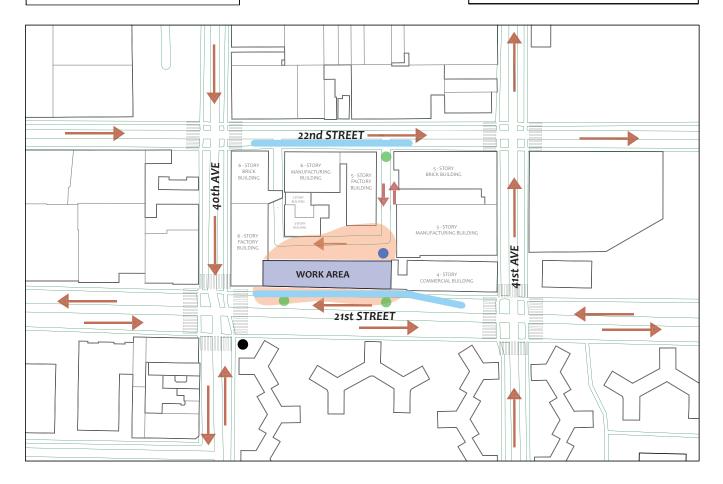
Section 10 Site Logistics



- Assessment of traffic patterns
- Designate area for active work areas
- Assign site access for personnel
- Assign delivery access zones

LEGEND

- Traffic Directions
- Construction Site
- Active Work Zones
 Truck Path
- Delivery access
- Personnel Site Access
- Emergency Muster Point

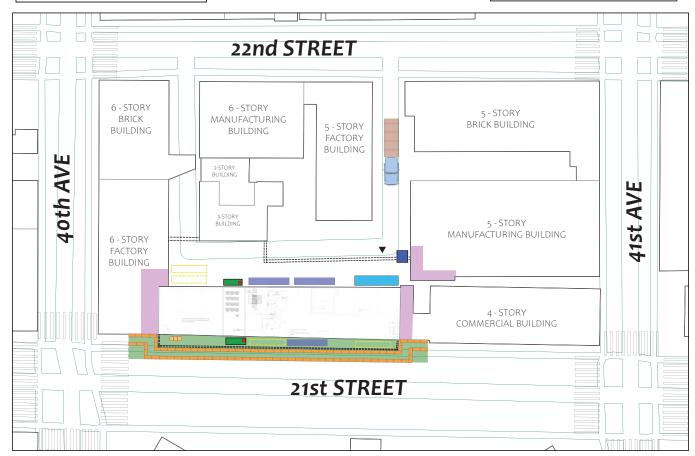


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- Set up site fencing
- Site Security
- Assign field office a location
- Specify material staging area
- Construct shed + scaffolding
- assign area for temp facilites
- Designate on-site parking
- Protect adjacent buildings





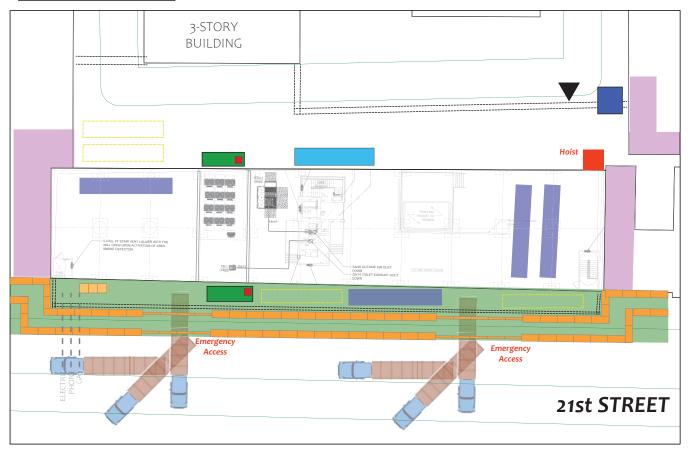


Interior material stagingMove site office closer after

demolition

- Line in for Electric, Gas, and phone
- Process of moving through the construction
- Sidewalk shed allows pedestrian access and offers areas for site parking and material staging

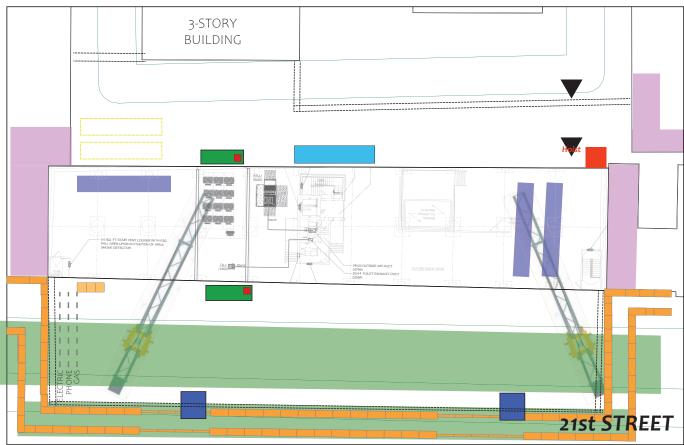






- Extend Sidewalk shed for heavy machinery
- Truck cranes extends from the road
- Hoist exists attached to the building
- Interior area for material staging







Section 11 Constructability Review



Request For Information

Obstruction of HVAC duct

Samar Navabi

May 05, 2021

RFI #23

Murdock Solon Architects

- Request for Clarification

- Installation information for 22x8 HVAC ducts
- Req. height clearance for 22x8 ducts (HVAC)
- Req. lighting clearance for LT2 (electrical)

- Maintain Piping Configuration:

- Shift LT2 beside piping
- Replace lighting fixtures

- Maintain Lighting placement:

- Shift HVAC ducts
- Change HVAC ducts size

Location:

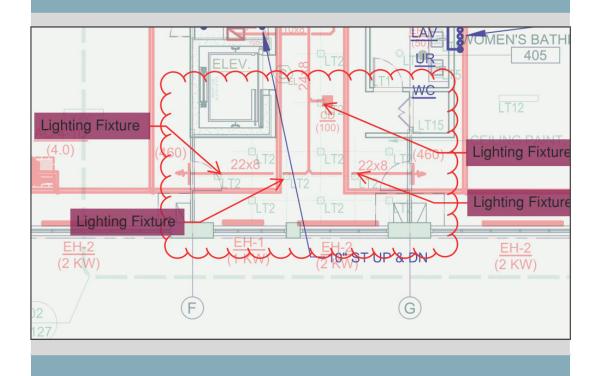
2nd Floor, Elevator Lobby, general area

Referenced Drawings:

M-302.00, E-303.00

Notice:

Duplicate placement on floors 2-6





Request For Information

RFI NAME

Obstruction of doorway

PARTY

RFI SUBMISSION DEADLINE Obstruction of doorw

Samar Navabi

May 05, 2021

ID

PARTY

DATE OF R RESPONSE RFI #25

Murdock Solon Architects

REQUEST DESCRIPTION

- Request for Information

- Spec Listed: DWH-2, AO Smith Del-15 15 gal, 3kw, Install in ceiling Run relief drainage to funnel Drain in lav

- Request for ceiling installation specs
- Height requirements
- Slope of pipes req.
- req. door height

Location:

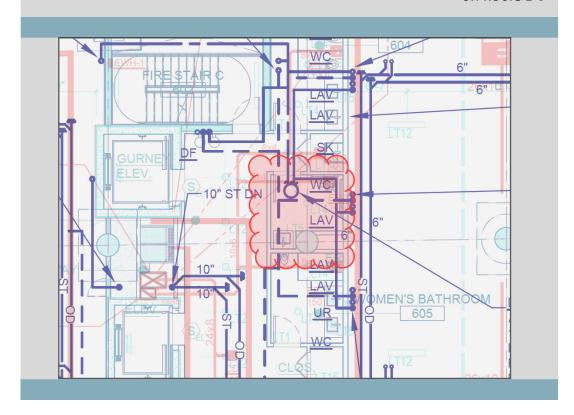
6th Floor, Lobby, adjacent bathroom

Referenced Drawings:

M-304.00, E-307.00, E-308.00

Notice:

Duplicate placement on floors 2-6





Request For Information

KEI NAME

Obstruction of closet walls

EI ID

RFI #34

REQUESTING PARTY

Samar Navabi

RESPONDING PARTY

Murdock Solon Architects

UBMISSION May 05, 2021

REQUEST DESCRIPTION

- Request for Clarification

- Req. height clearance for P-4B#5,7 (electrical)
- Req. height clearance for RP-HE (electrical)
- Req. height clearance for EH-1 (HVAC)

Location:

6th Floor, Fire Stair B, adjacent closet

- Maintain Wall Configuration:

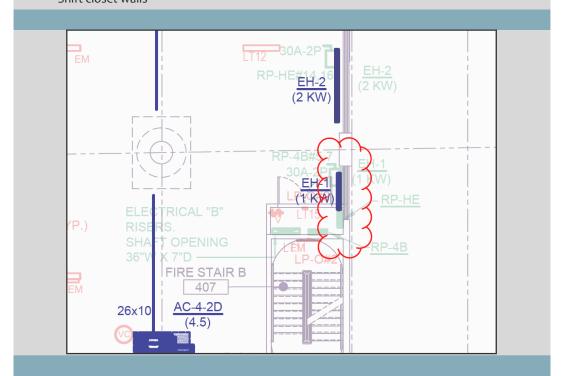
- Shift RP-HE
- Different window size
- Replace spec with smaller units

Referenced Drawings:

M-304.00, E-307.00, E-308.00

- Maintain Window and HVAC:

- Redesign closet height
- Shift closet walls



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Section 12 Quality Assurance & Control



Quality Assurance / Quality Control

SKY Construction Group always provides Quality Assurance (QA) and Quality Control (QC) for our clients' projects, and we have developed a Quality Assurance Plan and a Quality Control Plan specifically for the Urban Yard project. Quality Assurance is a proactive approach in a construction project to prevent mistakes and defects from occurring. Quality Assurance plays a critical factor in the construction process as it assures the client of the quality of work being done.

Quality Assurance refers to reviewing of materials prior to installation. Here at SKY Construction Group, we have developed a tried and tested QA system which we apply to all our major projects. We use Buildertrend to provide up to date information to the team and maintain a well-organized project. This platform assists us by organizing and tracking all submittals of the project. Buildertrend allows faster communication between parties and a more transparent and efficient submittal process. We also require samples of design elements help assure the expectation of finishes. Mock-ups will be tested to set a benchmark for the construction quality of the work being done. In addition, we set up trade meetings among the sub-contractors to maintain open communication about the sequence of work.

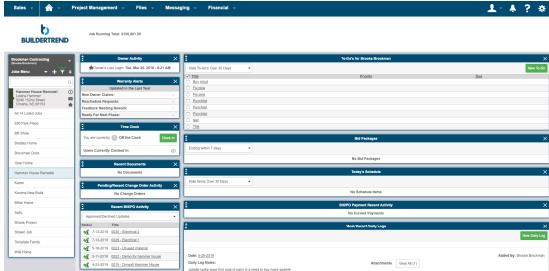
Quality Control refers to reviewing materials after they have been installed, and the set of active procedures that are followed to fulfill the contracted requirements of the project. This includes the use of various tests and inspections to check the quality of work being done. Pre-inspection is a way for our team to be aware of our progress and know what is lacking. Pre-inspection will usually be 2 weeks before the AHJ Inspections of the fire alarm, sprinkler, HVAC, and emergency lighting. These inspections aid our team to constantly think about the project milestones. Quality Control also includes the DOB required testing and inspections by third party inspectors for our project throughout the construction progress.

Pre-punch list review is another way for our team to be on top of our responsibilities. We assess if all work is completed and up to standard. The review follows a closeout schedule with rigorous procedures, in order to achieve a timely project completion. In addition, inspections by the Superintendent occurs for all deliveries on site to control the quality of materials used. Our team enables Power BI software to track our cost data to calculate competitive pricing. Power BI reviews the daily log reports and determines the efficiency of our work hours, highlighting areas of work to improve.



Buildertrend example:

- Bidding - Daily Schedule - Submittals - RFI's - Costs - Tasks for Subs



Power BI example:

- Cost Data - Profits - Overtime work - Efficiency of work hours - Efficiency of Trades





Section 13 Site Safety



Site Safety Plan

SKY Construction Group performs a site safety analysis and risk assessment with every project we take on. Our safety protocols have adapted over the years along with new advancements of technology to allow for the highest protection of our team. We take safety very seriously and SKY Construction Group has received an Experience Modification Rate (EMR) rating of o.8 this past year. We are proud to say that we have never had a fatality on one of our sites.

One of our core company values is safety. Our Site Safety Supervisor, Dembe Zuma, oversees all of our projects and has helped create an environment where safety is a top concern. His responsibility is to create a safe site. There is a safety system in place to help avoid and mitigate risk on our construction site.

Our safety system involves several steps:

- 1. Risk Assessment
- 2. Mitigation Actions
- 3. Communication
- 4. Reporting

Training is essential to a safe construction site. Certification and training is part of the preconstruction phase of any project. Workers are required to be OSHA-30 certification and be subjected to randomized drug tests. A site safety orientation test for the Urban Yard project is also given out. During our construction phase we require site hazard guidelines, and weekly safety meetings. In addition, toolbox talks are held daily every morning.

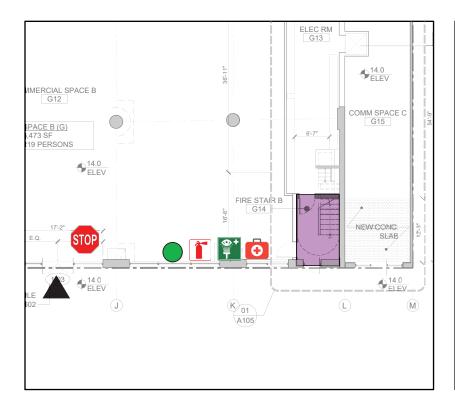
SKY Construction Group prides ourselves with our years of experience, high standard for safety procedures, and professionally trained team members. Our many major projects have successfully been completed on time and without safety issues. We strive to provide a safe workplace for all workers on our construction site. The success of our safety program requires the cooperation and support of all employees.



For the Urban Yard project, we have identified three major areas of concern for our site safety. The first is Covid-19. The world has been tremendously affected over the past year and a half and we must do our part to maintain a healthy construction site. Our protocol includes a stop point where all workers must have their temperature checked beforing entering the construction site. They then may enter and sign in to the site. We require a rapid Covid test to be taken before any worker is allowed into the enclosed building.

The second area of concern is our demolition protocol. We go above and beyond the industry standard for site safety and implement patented safety products like EdgeGuard rails and StrapRail warning lines to ensure the most is being done for our workers. We also have debris nets and warning signs on every floor to make sure our workers are constantly made aware of what's happening on site.

Lastly, there is a fall risk hazard protocol for the vertical shafts in our project. Our approach is to designate where is the fall hazard area and construct LockRail panel systems in addition to putting up warning lines and fall nets. We also require there to be tie off area to make sure we do our best in maintaining a safe site.



Covid Protocol:

- Enter site
- Temp. check
- Sign in
- Covid rapid test
- Sanitation stations

LEGEND



Covid Rapid Testing Entrance access



Vertical circulation



Covid wash station

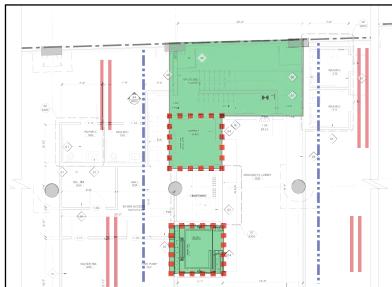


First aid station Eye wash station



Fire extinguisher







Demolition Protocol:

- Portable guard railing
- Tie off area of work
- Debris nets
- Warning signs

LEGEND

Debris nets

EdgeGuard® rails

StrapRail® warning line

Demolition area

Fall Risk Hazard Protocol:

- Install guard railing
- Tie off area of work
- Warning signs
- Employee safety classes

LEGEND

LockRail panel system

Fall nets

StrapRail® warning line

Fall hazard area

Tie off area



Emergency Contacts

Fire: FDNY Engine 260, 0.3 mi away 11-15 37th Ave, Long Island City, NY 11101 (718)-999-2000

Hospital: Mount Sinai Hospital, 1.3 mi away 25-10 30th Ave, Queens, NY 11102 (718)-932-1000

Site Safety Manager: Dembe Zuma DembeZ@skyconstructiongroup.com (845)-558-0909

Fire: FDNY Engine 116, 0.5 mi away 37-20 29th St, Long Island City, NY 11101 (718)-960-2000

Hospital: New York-Presbyterian, 2.6 mi away 525 E 68th St, New York, NY 10065 (212)-746-5454

Builder: Sky Construction Group 61 St James Pl, Brooklyn, NY 11238 (845)-598-9845



SKY CONSTRUCTION GROUP



Section 14 Sustainability



Sustainability

As a member of the construction industry, we at SKY Construction Group take our role very seriously when approaching the long term effect we have on this planet we all inhabit. Our mission is to is to transform the way we build – which currently is a major contributor of greenhouse gas emissions – into a climate solution for our future. Buildings and their construction together account for 36 percent of global energy use and 39 percent of energy-related carbon dioxide emissions annually, according to the United Nations Environment Program. In the United States, residential and commercial buildings account for 40 percent of energy consumption, according to the U.S. Energy Information Administration.

The first area of our focus is "operational carbon emissions" which comes from powering lighting, heating, and cooling our buildings. Globally, building operations account for about 28 percent of emissions annually. We begin assessing this problem and coming up with solutions by reviewing and following the work published by LEED and the Institute for Sustainable Infrastructure (ISI). These institutions provide extensive research and opportunities for every owner to discover green alternatives that will provide a more efficient building over time. These exist at all price points.

The second area of focus is the amount of carbon generated through manufacturing building materials, transporting materials to construction sites, and the actual construction process. Globally, this accounts for about 11 percent of emissions. To do our part in the global climate crisis, we employ general principles to our company like using recycled building materials. On every project, SKY Construction Group aims to source 80% of all our building materials from companies in the local area, and to limit transportation vehicles within 50 miles of our project site.



Section 15 Construction Technology



Construction Technology

SKY Construction Group constantly evolving, and we introduce programs to assist our team in the office and in the field. By constantly employing new programs to aid us in our work, we are always ahead of the curve when it comes to building and managing a project efficiently and on schedule. Each member uses these program tools differently and together we can increase our project's productivity. The programs used differ depending on the type and scale of the project. For the Urban Yard Project, we have come up with a list of programs to aid our team on the project.

We picked Buildertrend as the main program for this project. The entire project – from scheduling, cost budgets, and submittals – will all be stored here. This program allows us to connect with Murdock Solon Architects and our subcontractors in order to provide secure, yet extremely fast, communication among all the project's team. All RFI's and submittals will be stored and saved on here. In addition, daily site logs and progress updates will be available for the client's review. In addition, Buildertrend allows for third party integration to smooth out scheduled tasks, document viewing, and payroll responsibilities. When it comes to scheduling on this project, our team will use Oracle Primavera to create our work schedule. This program is extremely powerful in creating scheduled work and assessing float days and critical path methods. We use integrated software to calculate the project risks and apply it to our Primavera schedule.

Sky Construction Group employs the very best BIM managers to follow up all construction drawings with our own detailed review and analysis of the specified work. We use BIM 360 by Autodesk to review proposed work for any potential issues. The program is extremely powerful in being able to calculate clash detection among the drawings and 3d model work and determine who needs to be aware of its findings. In the field, we use Bluebeam Revu to view all our drawings wherever our workers are, to ensure that our team always has the most up to date drawings.

We employ a laser scanning BIM company to create cloud points of the project, which creates a 3d image of the project. This will document the progress of the project every week, and be useful when needing to know where any pipes or wiring is in the future. For the site, we implement GPS Asset Trackers to track shipments of materials and products, monitor driving of trucks and heavy machinery, and track engine runtime for maintenance. This helps us get competitive deals on insurance as well.



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Section 17 PowerPoint Presentation

URBAN YARD: Interior Renovation Project

April 26, 2021



Project Proposal for Elm's Realty by Sky Construction Group

40 09 21st Street, Long Island City, NY, 11101

AGENDA



- Project Understanding and Approach
- Firm Introduction
- Relevant Projects
- Project Team
- Team Bio's
- CPM Project Schedule
- Sample 2-week look ahead
- Staffing Chart
- Summary Estimate
- Detailed Trade Take-Off
- Construction Site Logistics Plan
- Construction Site Safety Plan
- Quality Assurance/Quality Control Plan
- Constructability Review
- Sustainable Construction Plan
- Construction Technology Initiatives



Section 01 Project Understanding



PROJECT UNDERSTANDING

Project Name: Urban Yard Project

Project Address: 40-09 21st Street, Long Island City, NY 11101

Client/Owner: Mayer Steg, Elms Realty

Architect: Murdock Solon Architects

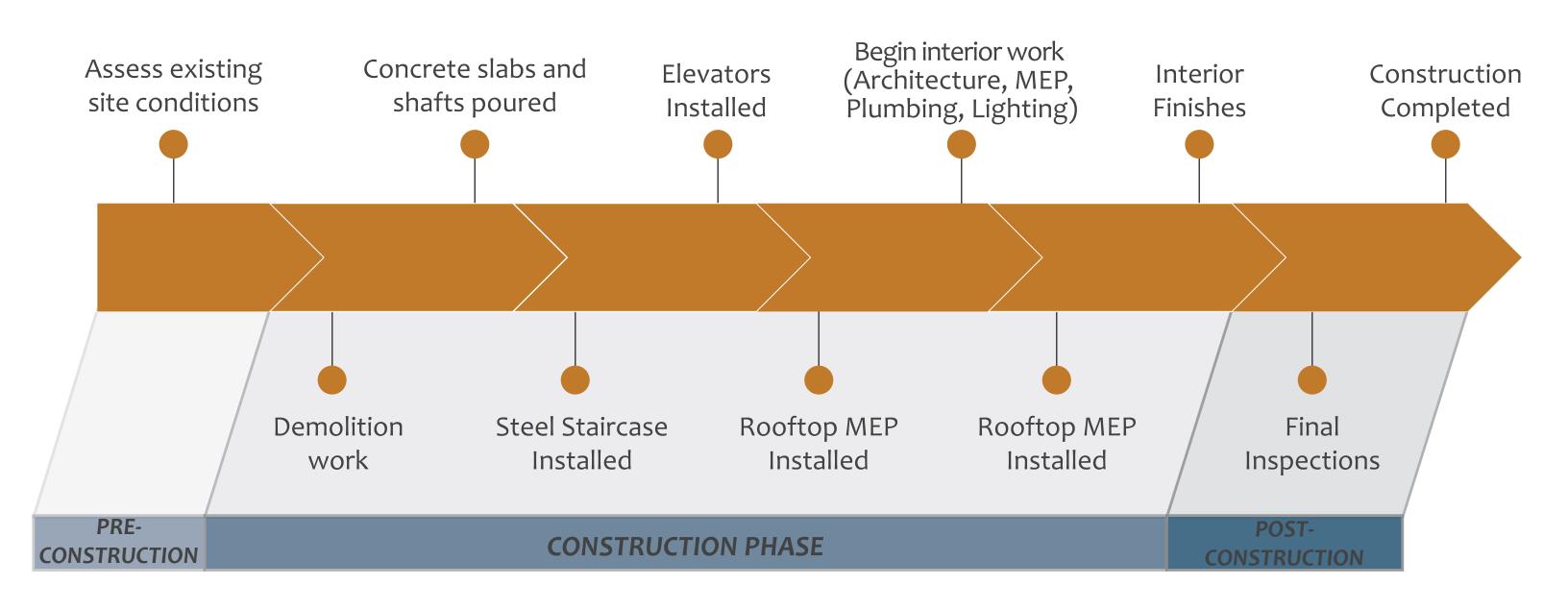
Structural Engineer: Blue Sky Design

MEP Engineer: 2LS Consulting Engineering





PROJECT UNDERSTANDING

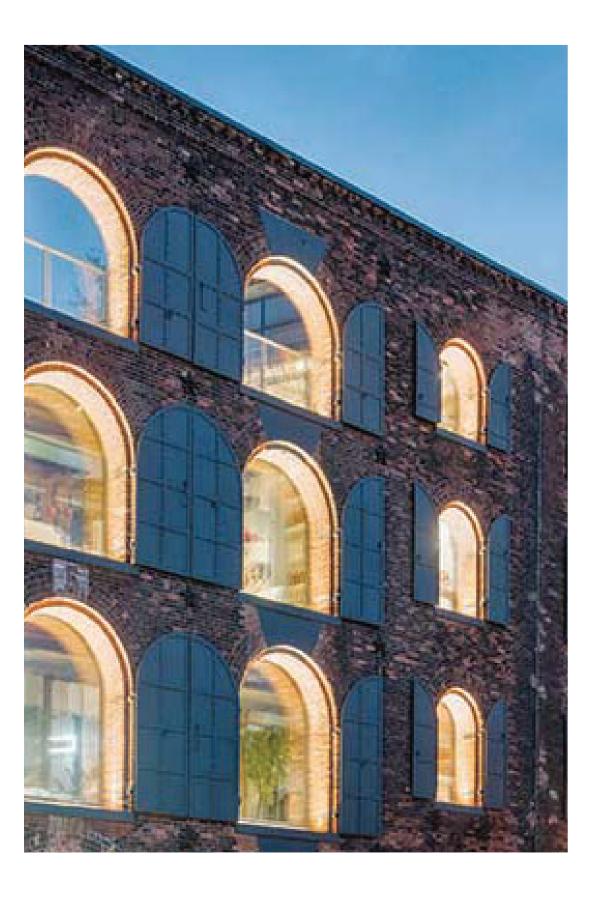




Section 02 Firm Introduction



FIRM INTRO



SKY Construction Group

- Founded in 2008, focus in the tri-state area
- More than 200 projects completed
- We serve the residential, commercial, and office markets
- 200 Full-time staff
- Annual Revenue of \$400 Million
- Certified MBE (Minority Business Enterprise)

Core to our company are our values – ethics, safety, quality, innovation, and sustainability.



Section 03 Relevant Projects



RELEVANT PROJECTS

Client: Midtown Equities Location: 53-83 Water St,

Brooklyn, NY 11201

Project Type: Restoration, Renovation

Size: 330,000 sqft

Architect: Studio V Architecture

Responsible for:

- Reconstructing the buildings as a single complex
- Assessing and restoring the exterior masonry façade
- Renovating the interior space for commercial use

Relevance:

- Project with existing structures
- Restoring the masonry façade
- Worked with Input Interior Design









RELEVANT PROJECTS

Client: White Hall

Location: 5 Ct Square W, Long Island City, NY 11101

Project Type: New Construction

Size: 80,000 sqft

Architect: Murdock Solon Architects

Responsible for:

- Demolish existing structure
- Full glass façade
- High end residence style fixtures and furnishings

Relevance:

- Project located in LIC
- Demolition and façade work
- Work with Murdock Solon Architects









RELEVANT PROJECTS

Client: Athienou Properties, LLC

Location: 21-59 44th Dr, Long Island City, NY 11101 Project Type: Residential, Multifamily/Commercial

Size: 45,000 sqft

Architect: *Z* Architecture

Responsible for:

- Developing mixed use building
- Gut renovation of interior space
- New exterior façade

Relevance:

- Project located in LIC
- Difficult site logistics
- Worked with Input Interior Design









Section 04 Project Team



PROJECT TEAM



Elms Realty Corp.

Client



Yaakov RoffmanPresident & CEO



Harold Cooper
Project Executive



Murdock Solon ArchitectsArchitects of record



2L Engineering Engineers



Input Creative Studio

Interior Designers



Aram Mojtabai Senior Estimator



Reven WrightProject Manager



Samar NavabiBIM Manager



Dembe ZumaSite Safety Manager



Meera Malik Sustainability Manager



Tom KeenDirector of Sustainability



Raymond Reddington

Superintendent



Donald ResslerProject Engineer



Susan KaplanProject Engineer



Elizabeth Keen

Assistant Superintendent



Section 05 Staffing Chart



STAFFING CHART

| Yaakov Roffman President & CEO 12 12 4 4 3 3 3 3 4 4 55 3% Harold Cooper Project Executive 22 22 22 16 16 16 16 16 22 22 206 12% Reven Wright Project Manager 80 80 80 80 40 40 40 40 80 640 36% Aram Mojtabai Senior Estimator 46 46 46 46 46 32 32 32 32 16 16 16 360 20% Ray Reddington Superintendent 160 | Name | Role | JUNE | JULY | AUG | SEPT | ОСТ | NOV | DEC | JAN | FEB | MAR | APR | Total hours | % of time |
|--|-----------------------|----------------------------|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|----------------|--------------|
| Reven Wright Aram Mojtabai Project Manager 80 80 80 80 40 <td>Yaakov Roffman</td> <td>President & CEO</td> <td>12</td> <td>12</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> <td>55</td> <td>3%</td> | Yaakov Roffman | President & CEO | 12 | 12 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 55 | 3% |
| Aram Mojtabai Senior Estimator 46 46 46 46 46 32 32 32 32 32 16 16 16 360 20% Ray Reddington Superintendent 160 <t< td=""><td>Harold Cooper</td><td>Project Executive</td><td>22</td><td>22</td><td>22</td><td>16</td><td>16</td><td>16</td><td>16</td><td>16</td><td>16</td><td>22</td><td>22</td><td>206</td><td>12%</td></t<> | Harold Cooper | Project Executive | 22 | 22 | 22 | 16 | 16 | 16 | 16 | 16 | 16 | 22 | 22 | 206 | 12% |
| Ray Reddington Superintendent 160 <td>Reven Wright</td> <td>Project Manager</td> <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>40</td> <td>40</td> <td>40</td> <td>40</td> <td>40</td> <td>40</td> <td>80</td> <td>640</td> <td>36%</td> | Reven Wright | Project Manager | 80 | 80 | 80 | 80 | 40 | 40 | 40 | 40 | 40 | 40 | 80 | 640 | 36% |
| Elizabeth Keen Assistant Superintendent 160 <td>Aram Mojtabai</td> <td>Senior Estimator</td> <td>46</td> <td>46</td> <td>46</td> <td>46</td> <td>32</td> <td>32</td> <td>32</td> <td>32</td> <td>16</td> <td>16</td> <td>16</td> <td>360</td> <td>20%</td> | Aram Mojtabai | Senior Estimator | 46 | 46 | 46 | 46 | 32 | 32 | 32 | 32 | 16 | 16 | 16 | 360 | 20% |
| Donald Ressler Project Engineer 180 180 120 120 60 60 60 40 40 40 940 53% Susan Kaplan Project Engineer 80 80 80 80 40 | Ray Reddington | Superintendent | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Susan Kaplan Project Engineer 80 80 80 80 40 | Elizabeth Keen | Assistant Superintendent | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Samar Navabi BIM Manager 40 <t< td=""><td>Donald Ressler</td><td>Project Engineer</td><td>180</td><td>180</td><td>120</td><td>120</td><td>60</td><td>60</td><td>60</td><td>40</td><td>40</td><td>40</td><td>40</td><td>940</td><td>53%</td></t<> | Donald Ressler | Project Engineer | 180 | 180 | 120 | 120 | 60 | 60 | 60 | 40 | 40 | 40 | 40 | 940 | 53% |
| Dembe Zuma Site Safety Supervisor 160 | Susan Kaplan | Project Engineer | 80 | 80 | 80 | 80 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 600 | 34% |
| Meera Malik Sustainability Manager 120 80 40 20 20 20 20 20 20 20 20 400 23% | Samar Navabi | BIM Manager | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 440 | 25% |
| | Dembe Zuma | Site Safety Supervisor | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 1760 | 100% |
| Tom Keen Director of Sustainability 120 80 40 20 20 20 20 20 20 20 400 23% | Meera Malik | Sustainability Manager | 120 | 80 | 40 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 400 | 23% |
| | Tom Keen | Director of Sustainability | 120 | 80 | 40 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 400 | 23% |

9,321



Section 06 CPM Project Schedule



CPM SCHEDULE

| JUNE | JULY | AUG | SEPT | ОСТ | NOV | DEC | JAN | FEB | MAR | APR |
|---------------|---------------|------------|---------------|-------------|-----------------|---------------|--------------|--------------|------------------|------------|
| | | | | | | | | | | |
| June 01: | July 01: | August 01: | • | October 07: | · . | December 08: | January 09: | February 20: | March 20: | April 13: |
| Project start | Demolition | Steel | Elevator | Building | Fire Protection | Ceiling | Painting | Millwork | Final finishes | Final |
| date | begins | Inspection | Inspection | Enclosure | deadline | installation | deadline | deadline | deadline | Inspection |
| | | | | deadline | | deadline | | | | · |
| June 01: | July 13: | August 23: | September 25: | | November 08: | | January 24: | February 27: | March 23: | April 28: |
| Site | Delivery of | Concrete | Hoist removal | October 08: | Interior fit | December 21: | Flooring | MEP finish | Punchlist & | Project |
| inspection | Hoist | Inspection | | MEP risers | out begins | Lighting work | installation | deadline | Closeout begins | Completion |
| , | | | | begins | | deadline | deadline | | | , |
| June 14: | July 16: | | | | | | | | March 31: | |
| Building | Excavation | | | October 25: | | | | | Begin Punch List | |
| permits | work deadline | | | HVAC work | | | | | | |
| deadline | | | | deadline | | | | | | |
| | July 17: | | | | | | | | | |
| June 29: | Expected | | | | | | | | | |
| Foundation | steel | | | | | | | | | |
| work begins | | | | | | | | | | |
| WOIN DEGILIS | Genvery | | | | | | | | | |

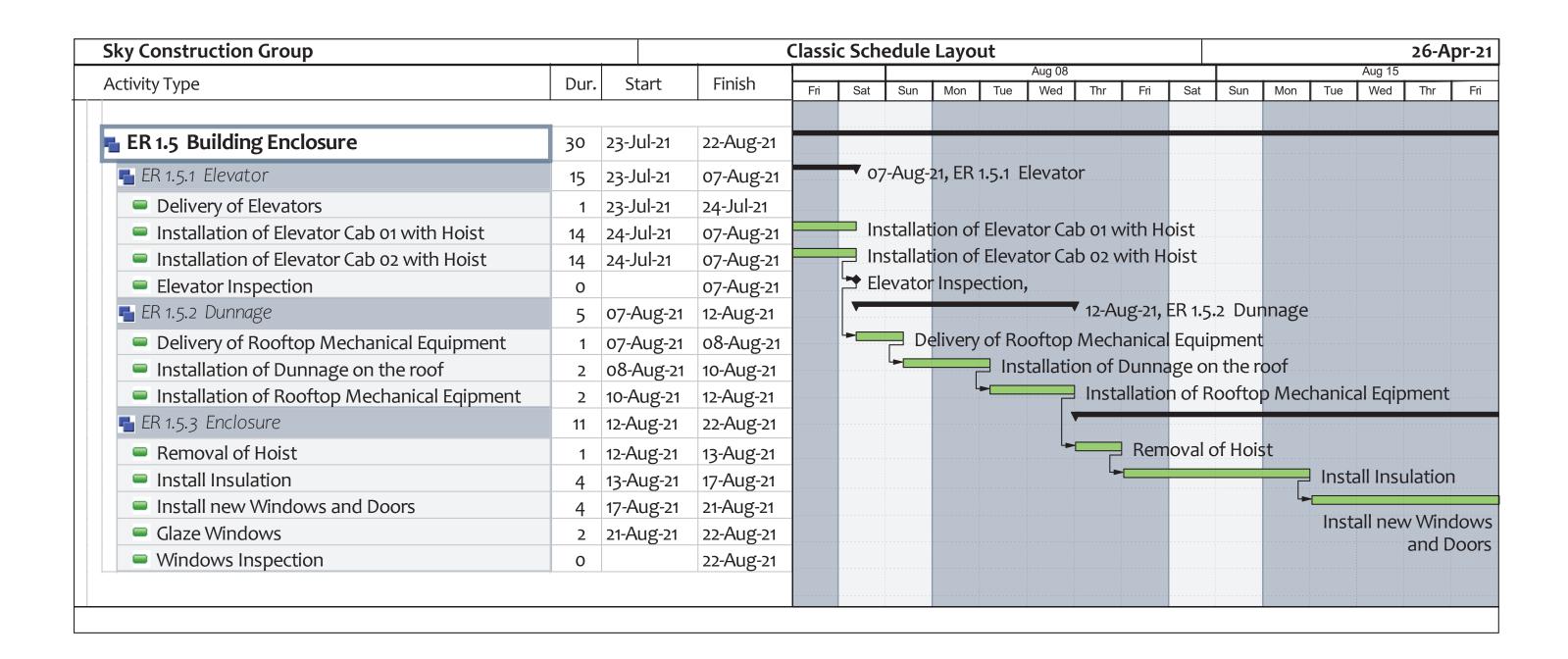


CPM SCHEDULE

| Sky Construction Group | | | | | URI | BAN YAR | D PROJE | CT | | | | | | | | 26-Ap |
|--------------------------------|------|-----------|-----------|-----|-----|---------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Activity Type | Dur. | Start | Finish | JUN | JUL | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN |
| ER 1 Urban Yard | 331 | 01-Jun-21 | 28-Apr-22 | Y | 1 | | | | | | | | | Y | | |
| ER 1.1 Bidding & Permits | 23 | 01-Jun-21 | 01-Jul-21 | | | | | | | | | | | | | |
| ER 1.1.1 Notice to Proceed | 0 | 01-Jun-21 | 01-Jun-21 | | | | | | | | | | | | | |
| ER 1.1.2 Building Permits | 10 | 01-Jun-21 | 14-Jun-21 | | | | | | | | | | | | | |
| ER 1.1.3 Bidding | 23 | 01-Jun-21 | 01-Jul-21 | | | | | | | | | | | | | |
| ER 1.1.4 Site Conditions | 23 | 01-Jun-21 | 01-Jul-21 | | | | | | | | | | | | | |
| ER 1.2 Site Mobilization | 7 | 01-Jun-21 | 09-Jun-21 | | | | | | | | | | | | | |
| ER 1.3 Demolition & Excavation | 25 | 22-Jun-21 | 16-Jul-21 | | | | | | | | | | | | | |
| ER 1.3.1 Demolition | 16 | 01-Jul-21 | 16-Jul-21 | | | | | | | | | | | | | |
| ER 1.3.2 Excavation | 6 | 22-Jun-21 | 28-Jun-21 | | | | | | | | | | | | | |
| ER 1.4 Structural | 55 | 29-Jun-21 | 23-Aug-21 | | | | | | | | | | | | | |
| ER 1.4.1 Foundation | 13 | 29-Jun-21 | 12-Jul-21 | | | | | | | | | | | | | |
| ■ ER 1.4.2 Steel | 19 | 13-Jul-21 | 01-Aug-21 | | | | | | | | | | | | | |
| ER 1.4.3 Concrete | 12 | 02-Aug-21 | 14-Aug-21 | | | | | | | | | | | | 1 | |
| ER 1.4.4 Masonry | 8 | 15-Aug-21 | 23-Aug-21 | | | | | | | | | | | | | |
| ER 1.5 Building Enclosure | 44 | 24-Aug-21 | 07-Oct-21 | | | | | | | | | | | | | |
| ER 1.5.1 Elevator | 25 | 24-Aug-21 | 18-Sep-21 | | 1 | | | | | | | | | | | |
| ER 1.5.2 Dunnage | 5 | 19-Sep-21 | 23-Sep-21 | | | | | | | | | | | | | |
| ER 1.5.3 Enclosure | 13 | 24-Sep-21 | 07-Oct-21 | | | | | | | | | | | | | |
| ER 1.6 MEP Risers | 30 | 08-Oct-21 | 07-Nov-21 | | | | | | | | | | | | | |
| ER 1.6.1 Fire Protection | 30 | 08-Oct-21 | 07-Nov-21 | | | | | | | | | | | | | |
| ER 1.6.2 Plumbing | 24 | 08-Oct-21 | 01-Nov-21 | | | | | | | | | | | | 1 | |
| ER 1.6.3 Electrical | 23 | 09-Oct-21 | 01-Nov-21 | | | | | | | | | | | | 1 | 1 |
| ■ ER 1.6.4 HVAC | 17 | 09-Oct-21 | 25-Oct-21 | | 1 | | | | | | | | | | | |
| ER 1.6.5 Framing | 16 | 11-Oct-21 | 27-Oct-21 | | | | | | | | | | | | 1 | |
| ER 1.7 Interior Fit Out | 134 | 08-Nov-21 | 22-Mar-22 | | 1 | | | | | | | | | | | |
| ER 1.8 Punchlist & Closeout | 36 | 23-Mar-22 | 28-Apr-22 | | | | | | | | | | | | 1 | |



2 WEEK LOOK-AHEAD



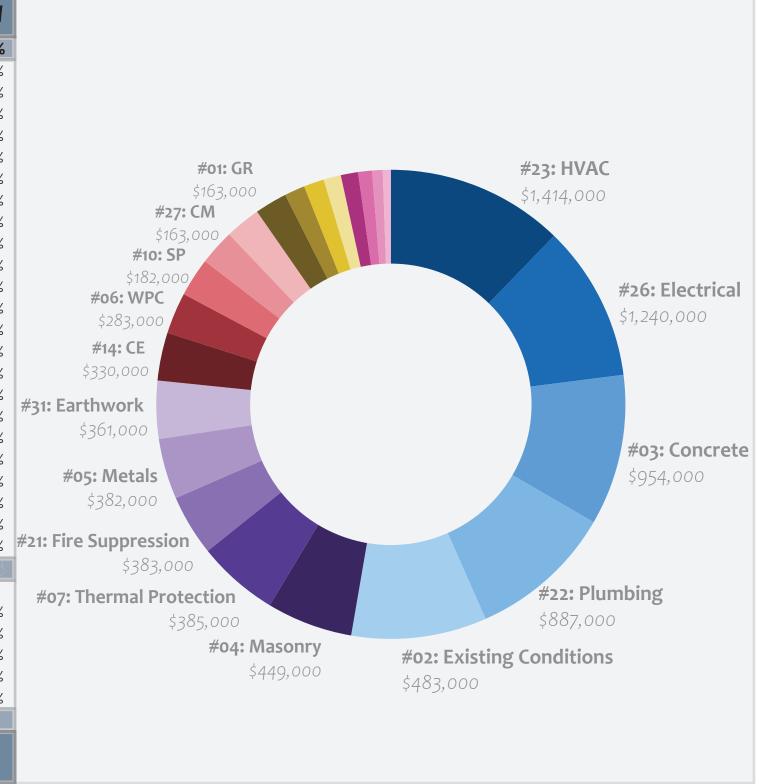


Section 07 Estimate Summary



SUMMARY ESTIMATE

| Urbar | Yard Developmen | it (8 | 6,040 sf) | 04/2 | 26/2021 |
|-------------|------------------------------------|-------|---------------|--------------|---------|
| # | Trade Description | | Cost | | % |
| Division 01 | General Requirements | \$ | 161,992.50 | \$ 1.88 | 1.40% |
| Division 02 | Existing Conditions | \$ | 482,190.50 | \$ 5.60 | 4.20% |
| Division 03 | Concrete | \$ | 953,434.50 | \$ 11.08 | 10.00% |
| Division 04 | Masonry | \$ | 448,829.00 | \$ 5.22 | 5.50% |
| Division 05 | Metals | \$ | 381,464.00 | \$ 4.43 | 3.30% |
| Division o6 | Wood, Plastics, & Composites | \$ | 282,868.50 | \$ 3.29 | 2.50% |
| Division 07 | Thermal & Moisture Protection | \$ | 384,814.00 | \$ 4.47 | 4.20% |
| Division o8 | Openings | \$ | 88,284.50 | \$ 1.03 | 1.20% |
| Division 09 | Finishes | \$ | 798,946.50 | \$ 9.29 | 10.40% |
| Division 10 | Specialties | \$ | 181,936.00 | \$ 2.11 | 2.30% |
| Division 11 | Equipment | \$ | 33,846.00 | \$ 0.39 | 0.60% |
| Division 12 | Furnishings | \$ | 84,473.00 | \$ 0.98 | 0.70% |
| Division 13 | Special Construction | \$ | 79,875.00 | \$ 0.93 | 1.00% |
| Division 14 | Conveying Equipment | \$ | 329,246.00 | \$ 3.83 | 2.80% |
| Division 21 | Fire Suppression | \$ | 382,860.00 | \$ 4.45 | 6.00% |
| Division 22 | Plumbing | \$ | 886,539.00 | \$ 10.30 | 9.20% |
| Division 23 | HVAC | \$ | 1,413,142.50 | \$ 16.42 | 12.20% |
| Division 26 | Electrical | \$ | 1,239,248.50 | \$ 14.40 | 10.60% |
| Division 27 | Communications | \$ | 162,414.50 | \$ 1.89 | 1.40% |
| Division 28 | Electronic Safety, Security | \$ | 156,836.50 | \$ 1.82 | 2.10% |
| Division 31 | Earthwork | \$ | 360,339.50 | \$ 4.19 | 4.00% |
| Division 32 | Exterior Improvements | \$ | 96,859.00 | \$ 1.13 | 1.80% |
| Division 33 | Utilities | \$ | 106,923.50 | \$ 1.24 | 2.60% |
| | TRADE SUBTOTAL | \$ | 9,497,363.00 | \$ 110.38 | MANG |
| | | | | | |
| | Building Permit Fees | \$ | 189,947.26 | \$ 2.21 | 2.00% |
| | General Conditions - Reimbursibles | \$ | 284,920.89 | \$ 3.31 | 3.00% |
| | CM Staff | \$ | 759,789.04 | \$ 8.83 | 8.00% |
| | Overhead & Profit | \$ | 949,736.30 | \$ 11.04 | 10.00% |
| | Insurance | \$ | 284,920.89 | \$ 3.31 | 3.00% |
| | FEE SUBTOTAL | \$ | 2,469,314.38 | \$ 28.70 | |
| | TOTAL | \$ | 11,966,677.38 | \$ 139.08 | |





Section 08 Detailed Sprinkler Take-Off



Urban Yard Development: 40-09 21st Street, LIC, NY 11101 Detailed Sprinkler Take-off

4/26/2021

| | | Cellar + | Grou | nd Floor | |
|--|----------|----------|--------|-----------|-----------------|
| Descriptions | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 113 LF | \$ | 14.20 | \$ 1,604.60 |
| New Pipe, 1 1/4 inch | | 103 LF | \$ | 15.79 | \$ 1,626.37 |
| New Pipe, 1 1/2 inch | | 31 LF | \$ | 17.83 | \$ 552.73 |
| New Pipe, 2 inches | | 61 LF | \$ | 27.25 | \$ 1,662.25 |
| New Pipe, 4 inches | | 816 LF | \$ | 32.99 | \$ 26,919.84 |
| New Sprinkler heads, Pendant heads | | 67 EA | \$ | 50.00 | \$ 3,350.00 |
| New Sprinkler heads, Pendant heads, recessed | | 4 EA | \$ | 70.00 | \$ 280.00 |
| Check valve | | 5 EA | \$ | 400.00 | \$ 2,000.00 |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ 12,000.00 |
| DCDA Device | | 1 EA | \$ | 9,250.00 | \$ 9,250.00 |
| Jockey Pump | | 1 EA | \$ | 14,200.00 | \$ 14,200.00 |
| Fire Pump | | 1 EA | \$ | 3,500.00 | \$ 3,500.00 |
| | | Typi | ical F | loors | |
| Descriptions (Floor 02) | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 39 LF | \$ | 14.20 | \$ 553.80 |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ 584.23 |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ 588.39 |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ 245.25 |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ 16,857.89 |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ 3,200.00 |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ 420.00 |
| Check valve | | 3 EA | \$ | 400.00 | \$ 1,200.00 |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ 12,000.00 |
| Descriptions (Floor 03) | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 39 LF | \$ | 14.20 | \$ 553.80 |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ 584.23 |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ 588.39 |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ 245.25 |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ 16,857.89 |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ 3,200.00 |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ 420.00 |
| Check valve | | 3 EA | \$ | 400.00 | \$ 1,200.00 |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ 12,000.00 |
| Descriptions (Floor 04) | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 39 LF | \$ | 14.20 | \$ 553.80 |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | | \$ 584.23 |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ 588.39 |

| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ 245.25 |
|--|----------|--------|-------|------------------|-----------------|
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ 16,857.89 |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ 3,200.00 |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ 420.00 |
| Check valve | | 3 EA | \$ | 400.00 | \$ 1,200.00 |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ 12,000.00 |
| Descriptions (Floor 05) | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 39 LF | \$ | 14.20 | \$ 553.80 |
| New Pipe, 1 1/4 inch | | 37 LF | \$ | 15.79 | \$ 584.23 |
| New Pipe, 1 1/2 inch | | 33 LF | \$ | 17.83 | \$ 588.39 |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ 245.25 |
| New Pipe, 4 inches | | 511 LF | \$ | 32.99 | \$ 16,857.89 |
| New Sprinkler heads, Pendant heads | | 64 EA | \$ | 50.00 | \$ 3,200.00 |
| New Sprinkler heads, Pendant heads, recessed | | 6 EA | \$ | 70.00 | \$ 420.00 |
| Check valve | | 3 EA | \$ | 400.00 | \$ 1,200.00 |
| Floor Control Valve | | 1 EA | \$ | 12,000.00 | \$ 12,000.00 |
| | | 6th Fl | oor - | + Roof | |
| Descriptions | Quantity | Unit | | Unit Cost | Total |
| New Pipe, 1 inch | | 66 LF | \$ | 14.20 | \$ 937.20 |
| New Pipe, 1 1/4 inch | | 57 LF | \$ | 15.79 | \$ 900.03 |
| New Pipe, 1 1/2 inch | | 23 LF | \$ | 17.83 | \$ 410.09 |
| New Pipe, 2 inches | | 9 LF | \$ | 27.25 | \$ 245.25 |
| New Pipe, 4 inches | | 620 LF | \$ | 32.99 | \$ 20,453.80 |
| New Sprinkler heads, Pendant heads | | 72 EA | \$ | 50.00 | \$ 3,600.00 |

6 EA

6 EA

2 EA

70.00 \$

400.00 \$

12,000.00 \$

420.00

2,400.00

24,000.00

272,910.40



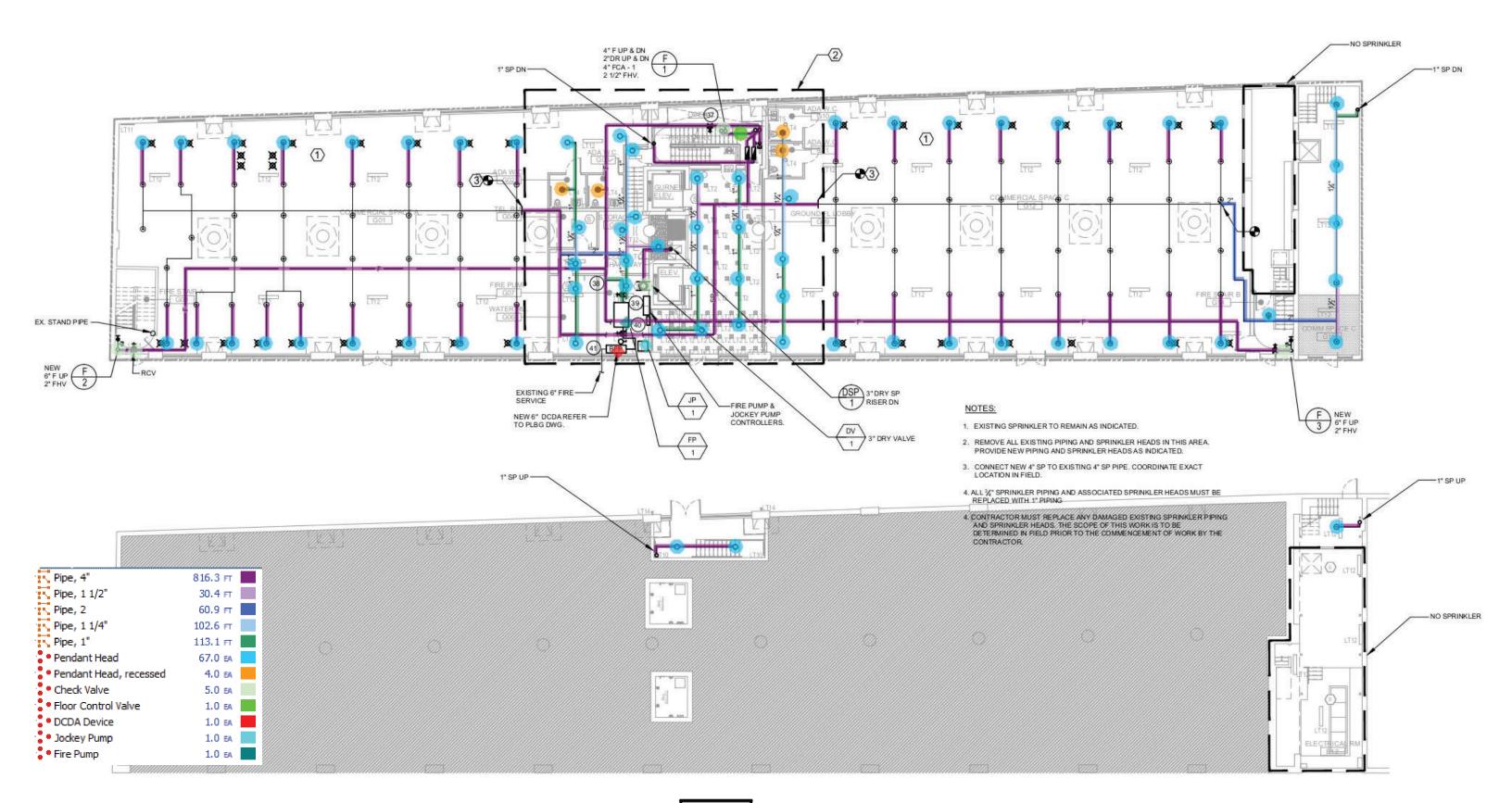


Check valve

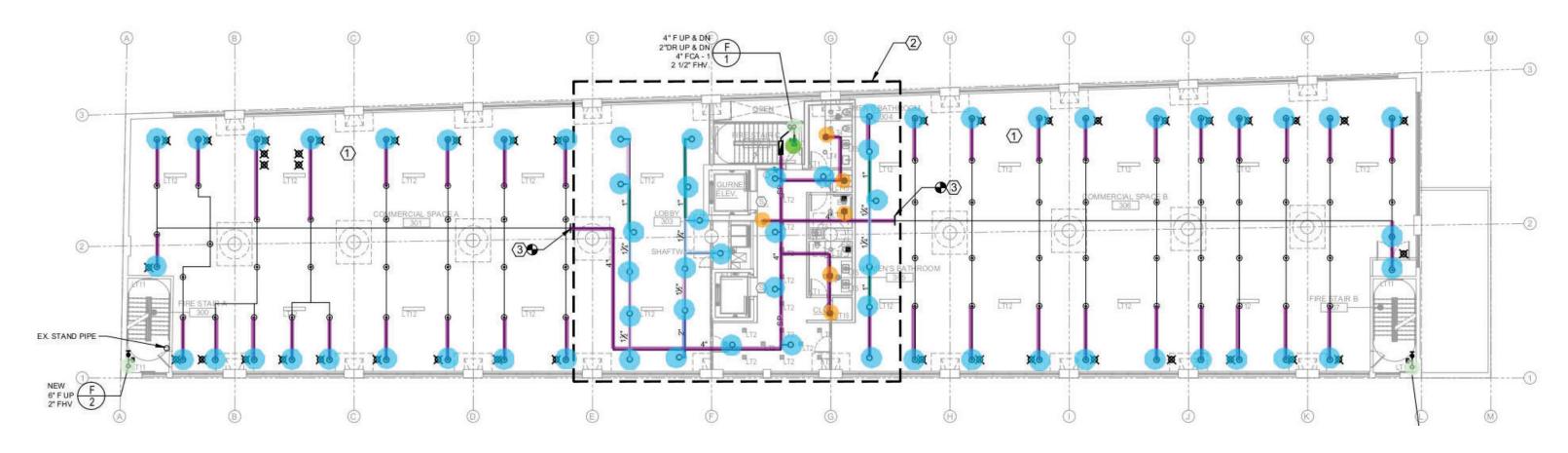
Floor Control Valve

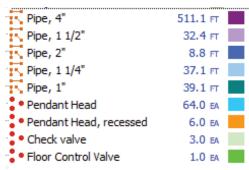
New Sprinkler heads, Pendant heads, recessed

Sub-Total













Section 09 Value Engineering Proposal



Value Engineering

Specified:

Tafele Lever Door Handle Model series #LC42

Quantity:

Unit cost:

Total Cost:

15

\$125.00

\$5,625.00

Alternative:

Delaney Hardware Reversible Door Handle

45

\$23.55

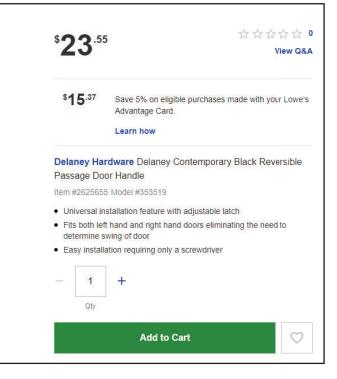
\$1059.75

\$4,565.25 savings (81% savings)

Specified:



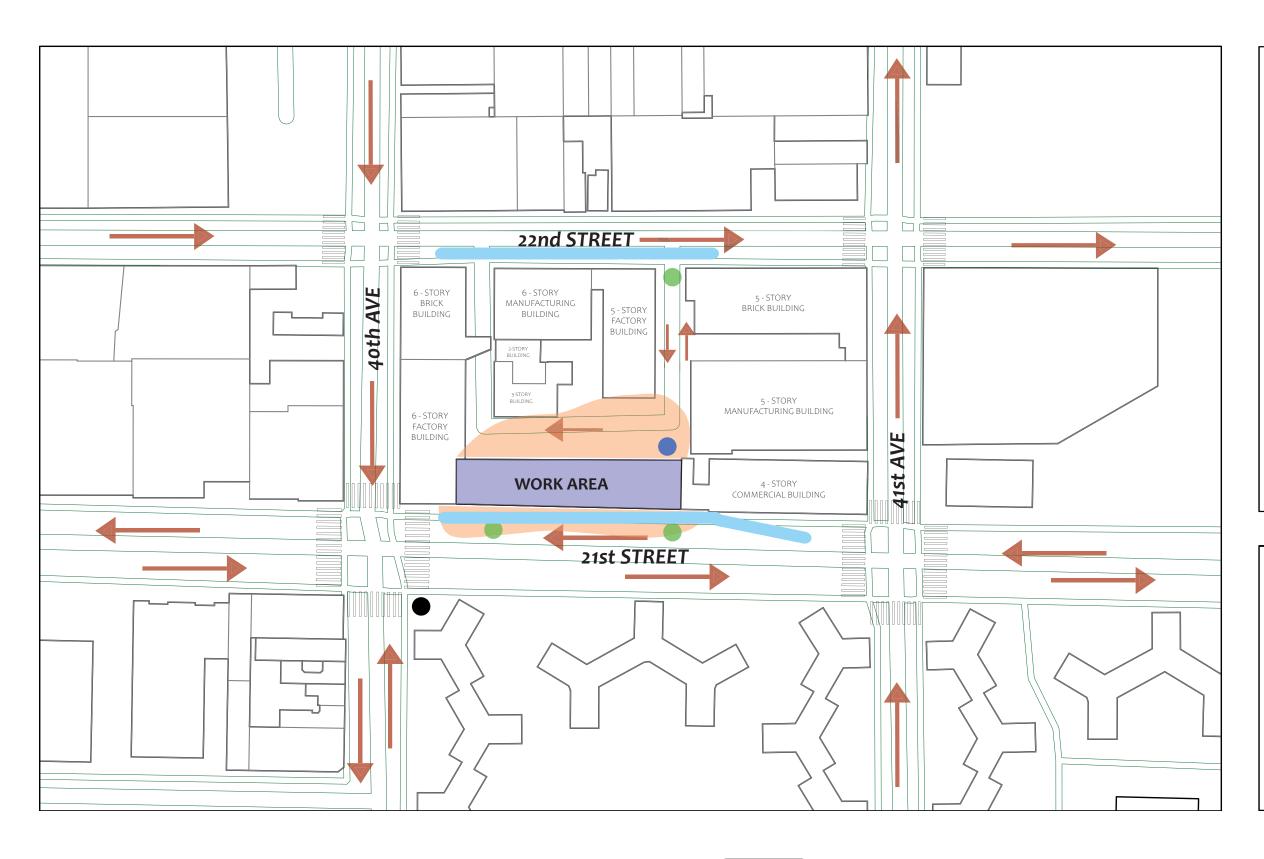






Section 10 Site Logistics



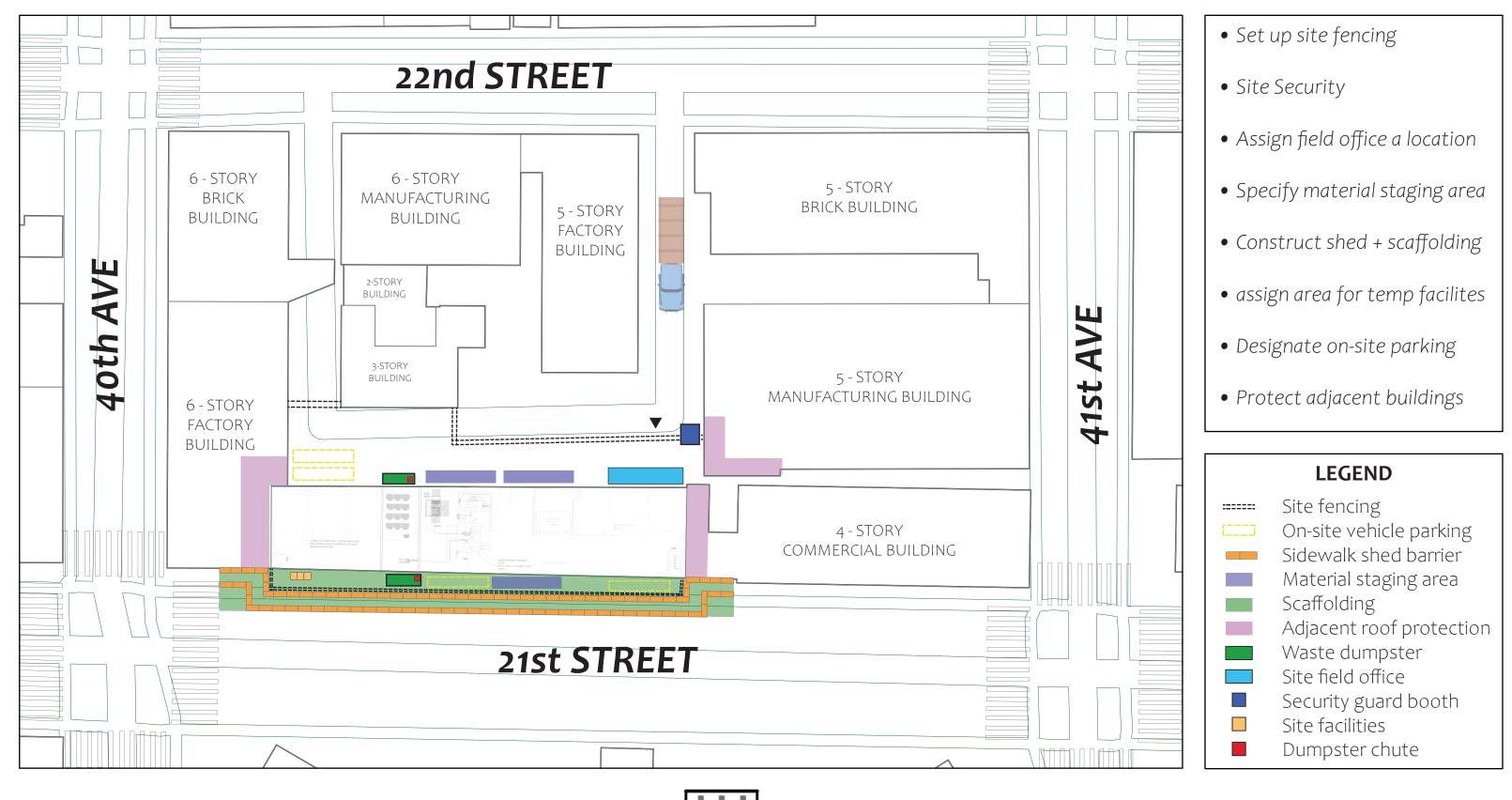


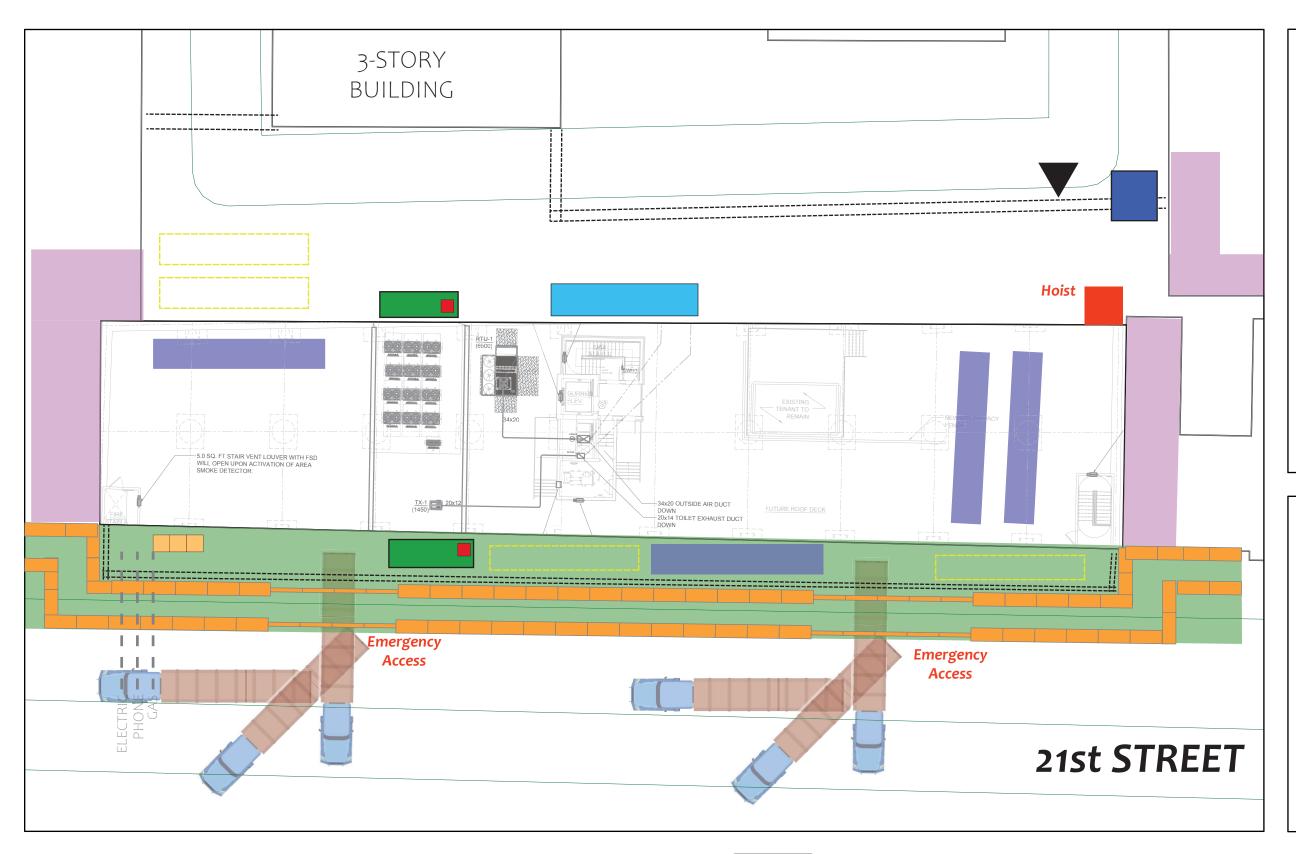
- Assessment of traffic patterns
- Designate area for active work areas
- Assign site access for personnel
- Assign delivery access zones

LEGEND

- → Traffic Directions
- Construction Site
- Active Work Zones
 Truck Path
- Delivery access
- Personnel Site Access
- Emergency MusterPoint





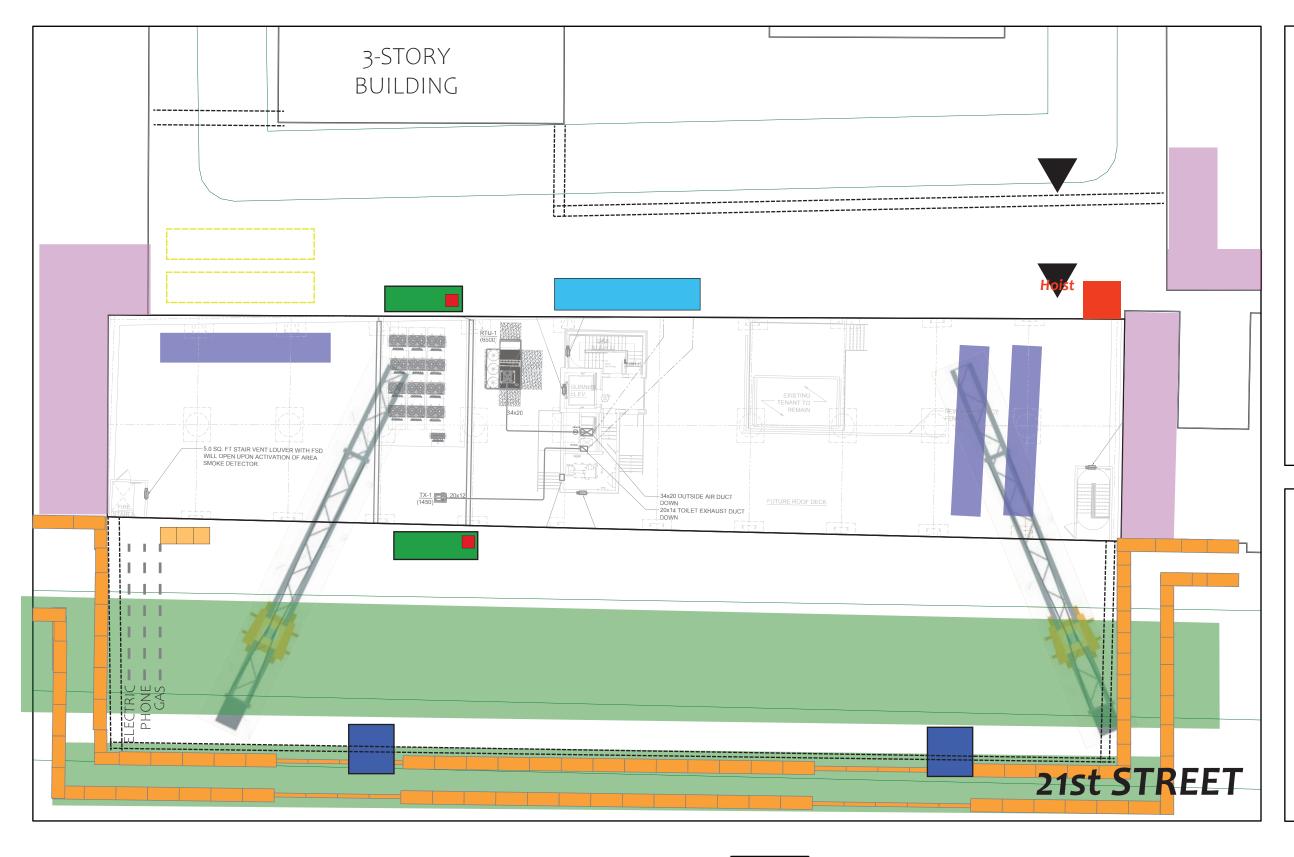


- Interior material staging
- Move site office closer after demolition
- Line in for Electric, Gas, and phone
- Process of moving through the construction
- Sidewalk shed allows pedestrian access and offers areas for site parking and material staging

LEGEND

- Site fencing
- On-site vehicle parking
 - Sidewalk shed barrier
- Material staging area
- Scaffolding
- Adjacent roof protection
- Waste dumpster
- Site field office
- Security guard booth
- Site facilities
- Dumpster chute





- Extend Sidewalk shed for heavy machinery
- Crane extends from the road
- Hoist exists attached to the building
- Interior area for material staging

LEGEND

- Site fencing
- On-site vehicle parking
 - Sidewalk shed barrier
- Material staging area
 - Scaffolding
- Adjacent roof protection
- Waste dumpster
- Site field office
 - Security guard booth
- Site facilities
 - Dumpster chute



Section 11 Constructability Review



CONSTRUCTABILITY _____ REVIEW

Obstruction of HVAC piping and lighting fixtures

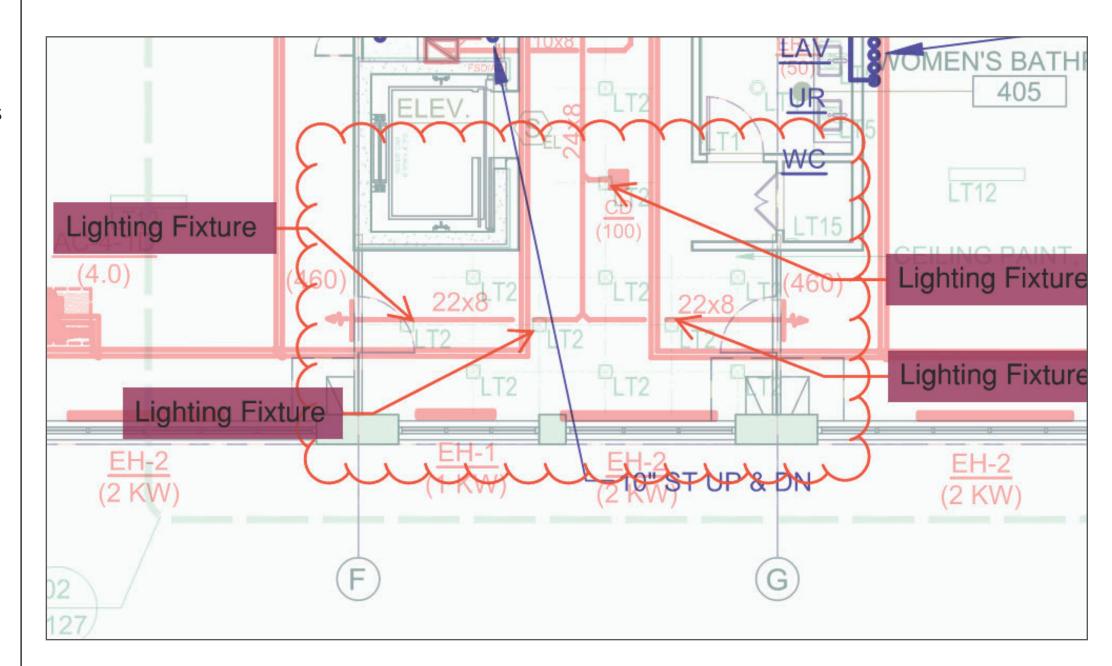
- Request for Clarification
 - Installation information for 22x8 HVAC ducts
 - Req. height clearance for 22x8 ducts (HVAC)
 - Req. lighting clearance for LT2 (electrical)
- Maintain Piping Configuration:
 - Shift LT2 beside piping
 - Replace lighting fixtures
- Maintain Lighting placement:
 - Shift HVAC ducts
 - Change HVAC ducts size
- Notice: Duplicate placement on floors 2-6

Location:

2nd Floor, Elevator Lobby, general area

Referenced Drawings:

M-302.00, E-303.00





CONSTRUCTABILITY _ REVIEW

Obstruction of Bathroom Entrance - 6th floor plan

- Request for Information
 - Spec Listed: DWH-2, AO Smith Del-15

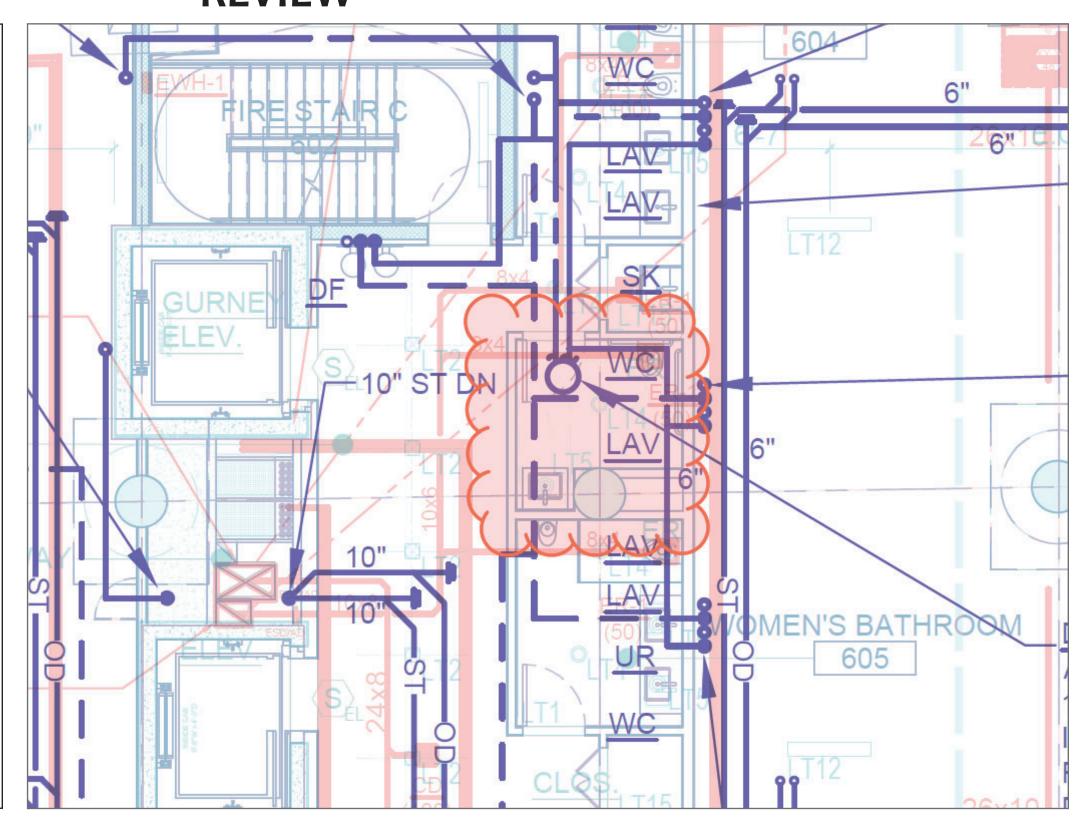
 15 gal, 3kw, Install in ceiling
 Run relief drainage to funnel
 Drain in lav
 - Request for ceiling installation specs
 - Height requirements
 - Slope of pipes req.
 - req. door height
- Notice: Duplicate placement on floors 2-6

Location:

6th Floor, Lobby, adjacent bathroom

Referenced Drawings:

M-304.00, E-307.00, E-308.00





CONSTRUCTABILITY

Obstruction of HVAC equipment and closet wall - 6th floor plan

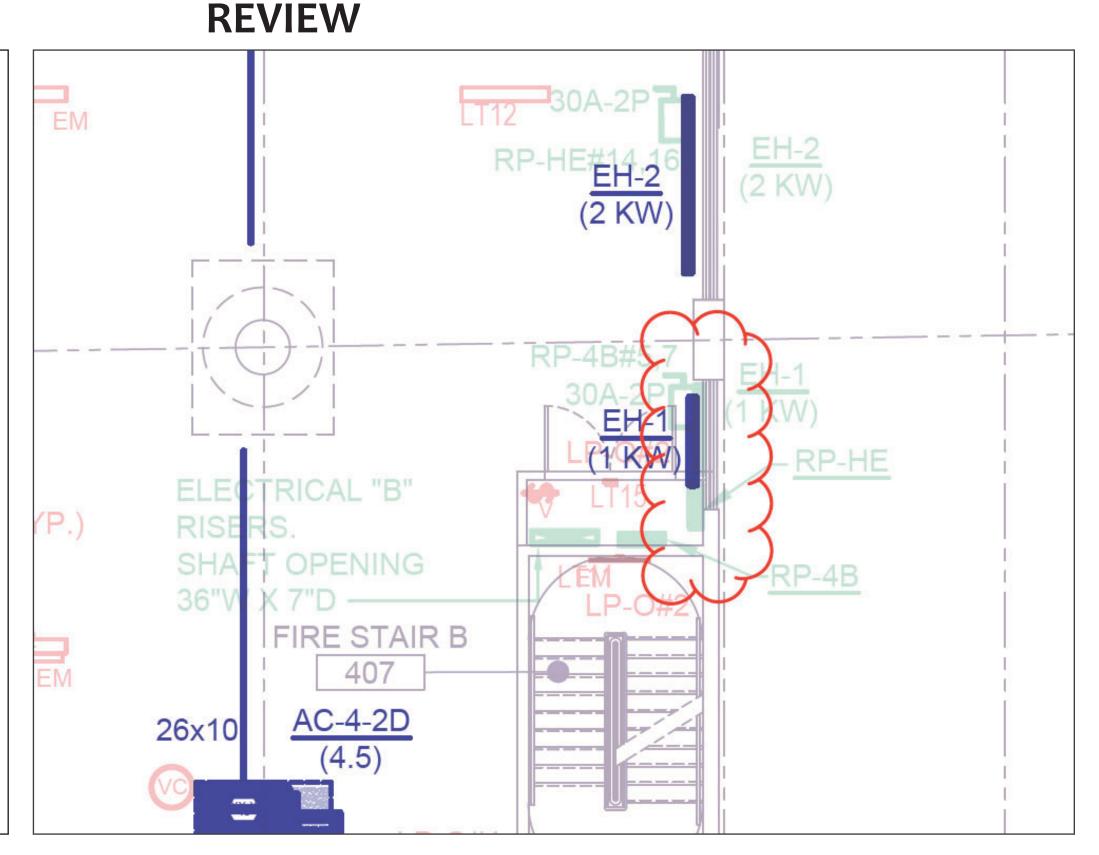
- Request for Clarification
 - Req. height clearance for P-4B#5,7 (electrical)
 - Req. height clearance for RP-HE (electrical)
 - Req. height clearance for EH-1 (HVAC)
- Maintain Wall Configuration:
 - Shift RP-HE
 - Different window size
 - Replace spec with smaller units
- Maintain Window and HVAC:
 - Redesign closet height
 - Shift closet walls

Location:

6th Floor, Fire Stair B, adjacent closet

Referenced Drawings:

M-304.00, E-307.00, E-308.00





Section 12 Quality Assurance & Control



QA/QC

Quality Assurance:

Submittals using **Buildertrend** to provide up to date information to the team and maintain a well organized project

Samples and mockups of interior design elements help assure the expectation of finishes

Trade meetings to maintain open communication about sequence of work

Keeping track of **approved shop drawings** from Murdock Solon Architects

Quality Control:

Pre-inspection requirements 2 weeks before the AHJ Inspections - Fire alarm, Sprinkler, HVAC, emergency lighting

Pre-punch list review to assess if all work is completed and up to standard

Delivery Inspections by the superintendant of materials and equipment before unloading

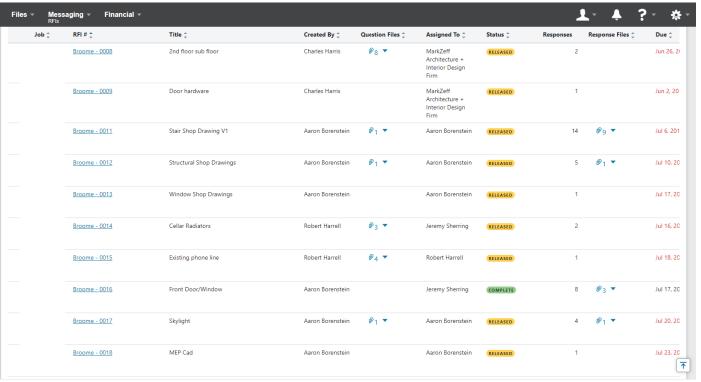
DOB required **testing and inspections** by third party inspectors

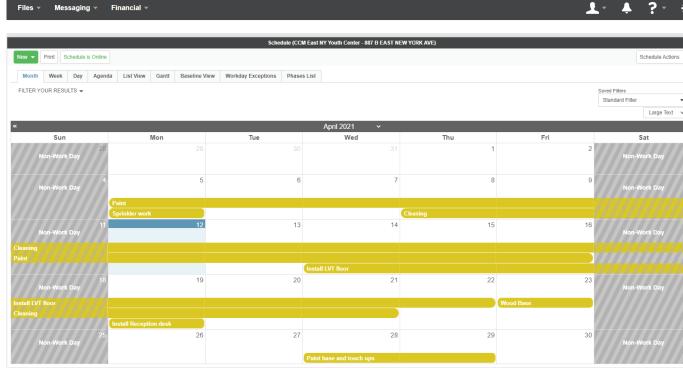


QA/QC

Buildertrend examples:

BiddingDaily Scheduleof subs

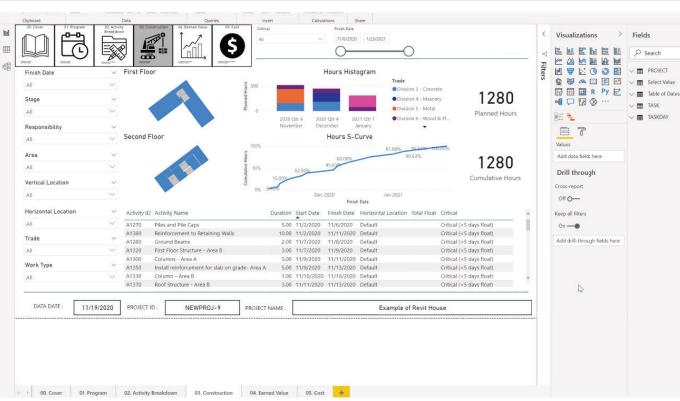




Power BI examples:

 Cost Data
 Efficiency of work hours







Section 13 Site Safety





EMR Rating: 0.7

Work Related Injuries: 0

Work Fatalities: 0

DOB Stop work orders: O

Site Safety Manager: Dembe Zuma

Safety System: Risk assesment, mitigation actions, communication, reporting

Training: OSHA-30 certification, toolbox talks, site hazard guidlines, randomized drug tests, weekly safety meetings, site safety orientation test



Fire: FDNY Engine 260, 0.3 mi 11-15 37th Ave, Long Island City, NY 11101 (718)-999-2000

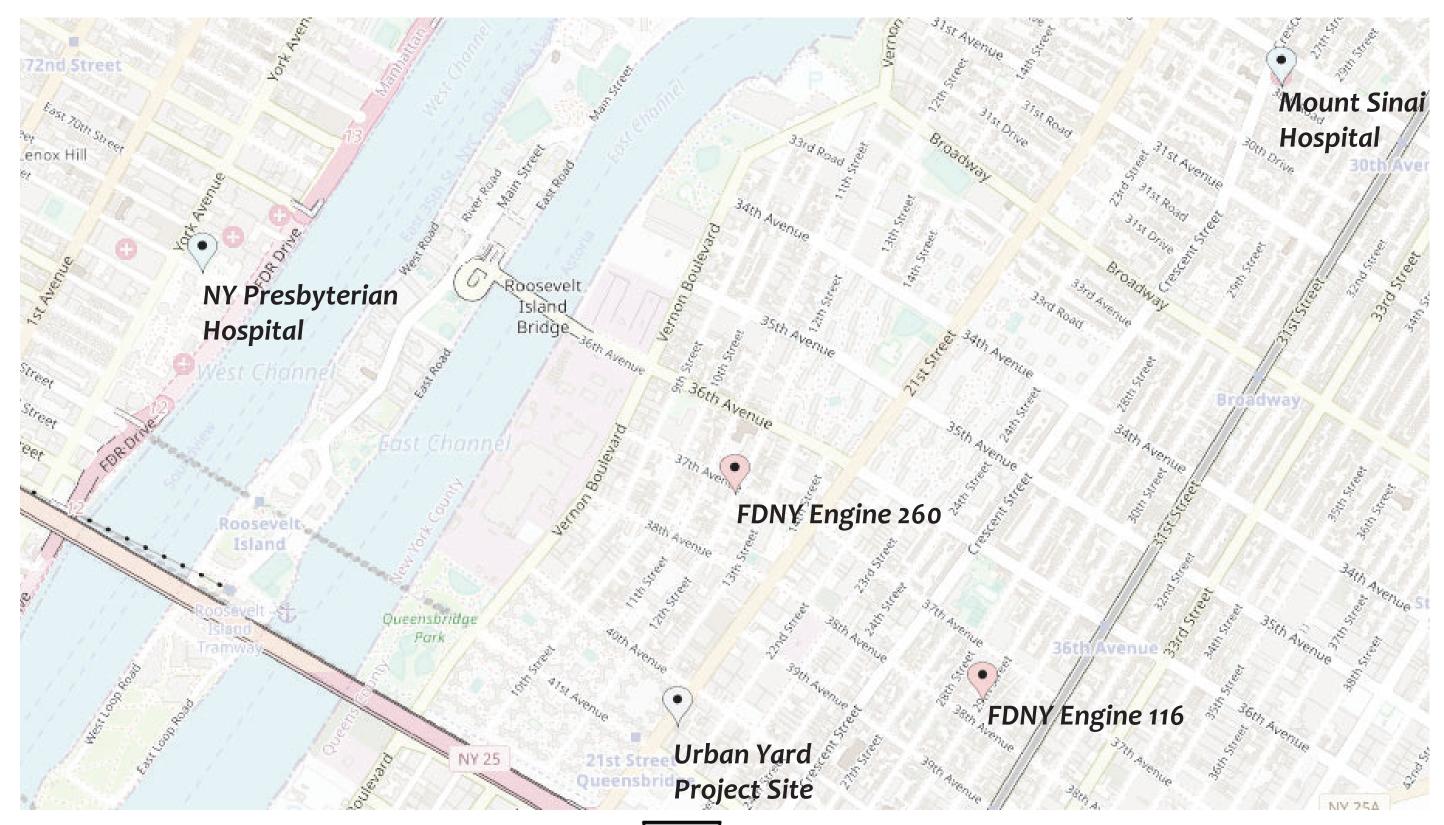
Fire: FDNY Engine 116, 0.5 mi 37-20 29th St, Long Island City, NY 11101 (718)-960-2000

Site Safety Manager: Dembe Zuma DembeZ@skyconstructiongroup.com (845)-558-0909 **Hospital:** Mount Sinai Hospital, 1.3 mi 25-10 30th Ave, Queens, NY 11102 (718)-932-1000

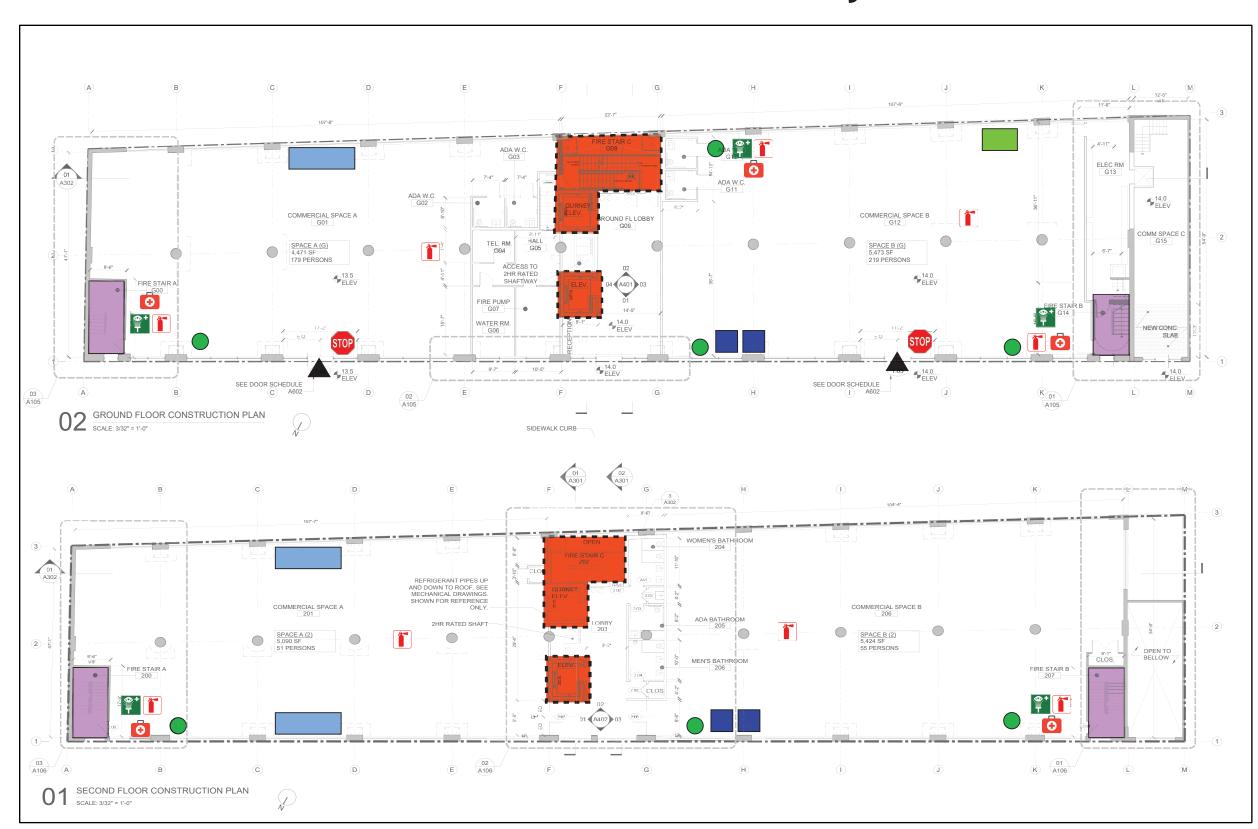
Hospital: New York-Presbyterian, 2.6 mi 525 E 68th St, New York, NY 10065 (212)-746-5454

Builder: Sky Construction Group 61 St James Pl, Brooklyn, NY 11238 (845)-598-9845









Site Safety Plan:

- Weekly toolbox talks
- Safety meetings with superintendant & foreman
- Sign in
- Covid rapid test

LEGEND

Safety Office

Covid Rapid Testing
Entrance access

Vertical circulation

Covid wash station Temp. bathroom

. Waste Zone

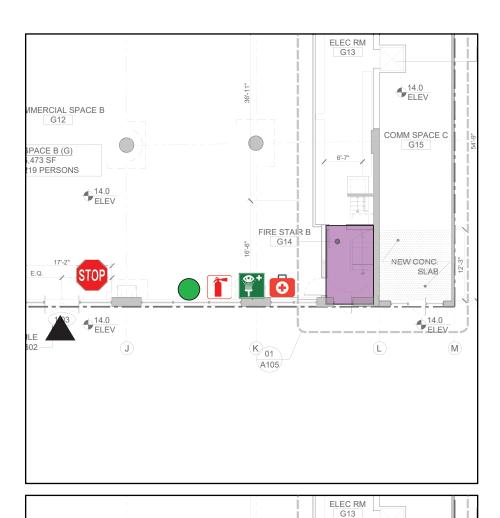
Trip Hazard Zone

First aid station

Eye wash station

Fire extinguisher





***** •

K)_01

MERCIAL SPACE B

PACE B (G) 473 SF 19 PERSONS

Covid Protocol:

- Enter site
- Temp. check
- Sign in
- Covid rapid test
- Sanitation stations

LEGEND

- Covid Rapid Testing Entrance access
- Vertical circulation
- Covid wash station
 First aid station
- First aid station
 Eye wash station
 - Fire extinguisher

Post-vaccine Protocol:

- Enter site
- Temp. check
- Sign in

LEGEND

•

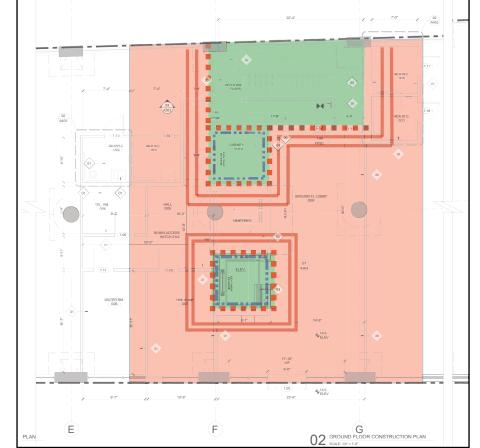
14.0 ELEV

COMM SPACE C G15

NEW CONC

14.0 ELEV

- Entrance access
 Vertical circulation
- Covid wash station
- First aid station
- Eye wash station
- Fire extinguisher



THE THE STATE OF T

Fall Risk Hazard Protocol:

- Install guard railing
- Tie off area of work
- Warning signs
- Employee safety classes

LEGEND

- LockRail panel system
- ---- Fall nets
 - StrapRail® warning line
 - Fall hazard area
 - Tie off area

Demolition Protocol:

- Portable guard railing
- Tie off area of work
- Debris nets
- Warning signs

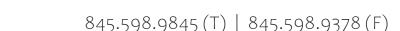
LEGEND

Debris nets

EdgeGuard® railsStrapRail® warning line

Demolition area

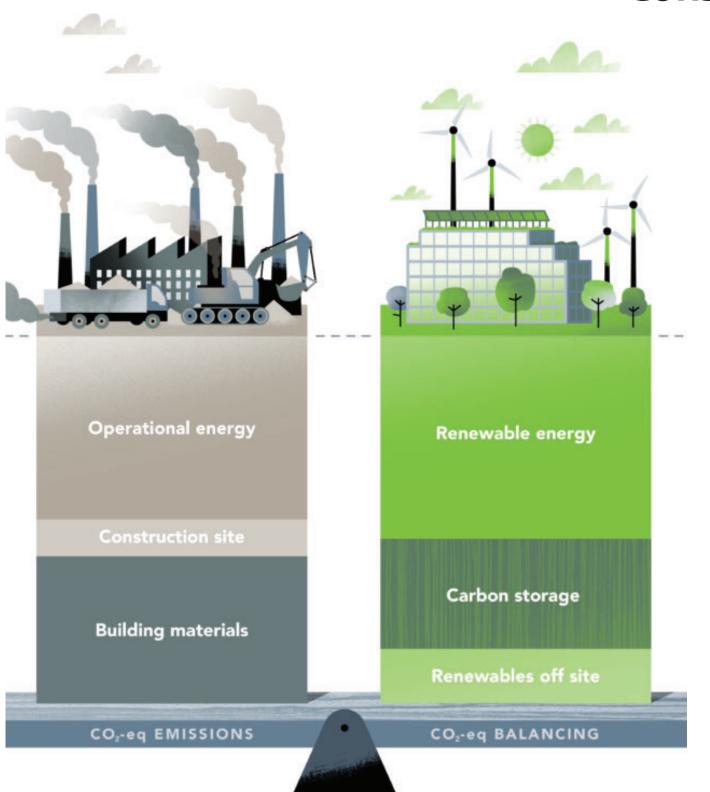




Section 14 Sustainability



Sustainable Construction Plan



Construction affects Climate Change:

Buildings generate nearly 40% of annual global greenhouse gas emissions

By building green, we can reduce the impact our buildings have on contributing to climate change:

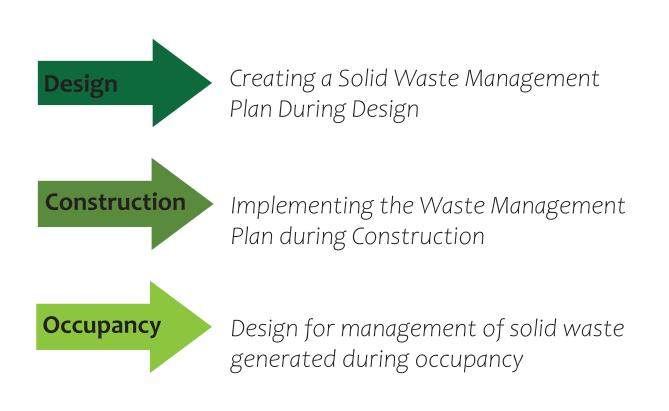
- Use of recycled building materials
- Reduce operational energy
- Achieve net-zero emissions by 2050



Sustainable **Construction Plan**

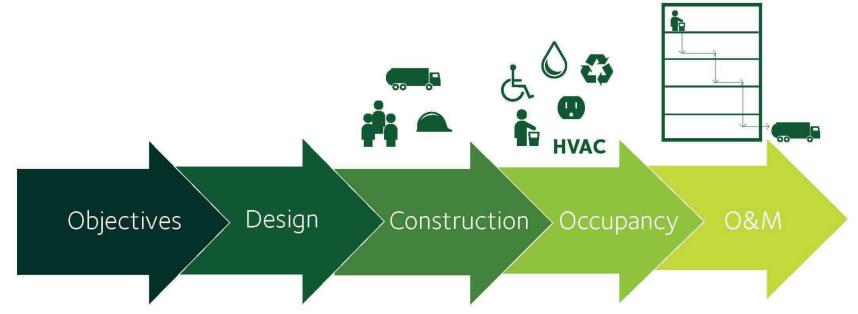
Waste Management:

- Reduce the carbon footprint by limiting transportation
- Reduce landfill waste by separating recycling and non-recycling bins



A Systematic Process

DESIGNING FOR WASTE MANAGEMENT FROM CONSTRUCTION **THROUGH O&M**



- Occupancy Designations
- Construction Waste Diversion Goals
- · Business Objectives
- Program Materials
- Specifications
- Behavior Process
- Technology
- · Waste Management
- Trade coordination Construction Waste Management Plan

Accountability in

reporting

Training

Logistics

Staging

Hauling

Scheduling

- Horizontal & Vertical Conveyance
- Tenant culture & behavior
- · Required infrastructure
- Waste managed by building systems

- Increased rent
- Increased productivity
- Decreased operating costs Solid Waste Management
- Plan executed
- Building systems in place for metrics



Section 15 Construction Technology



Construction Technology

Buildertrend:

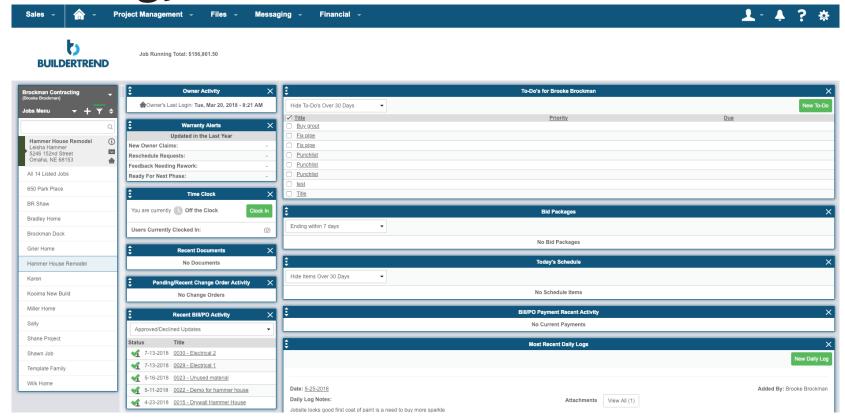
- Submittals
- RFI's
- Submittals
- View schedule
- Check off tasks

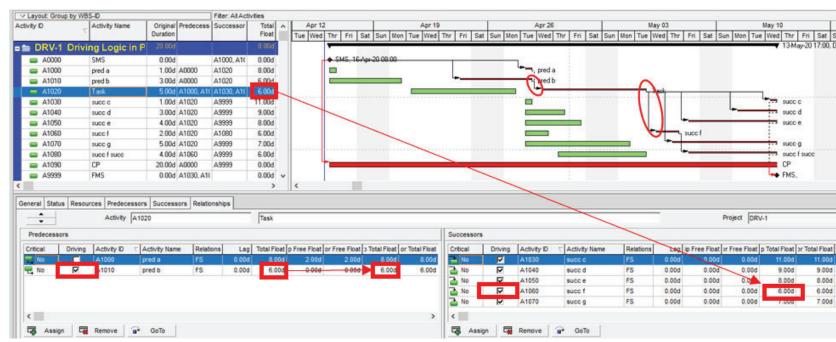


Oracle Primavera:

- Schedule work
- Assess float
- Schedule tasks
- Critical Path
- Risk Assessment







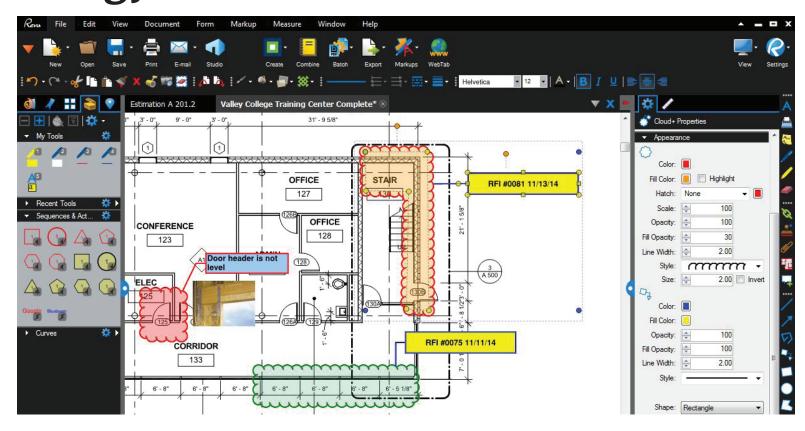


Construction Technology

Bluebeam Revu:

- Read drawings on site
- Overlay drawings
- Constructibility
- Send for RFI

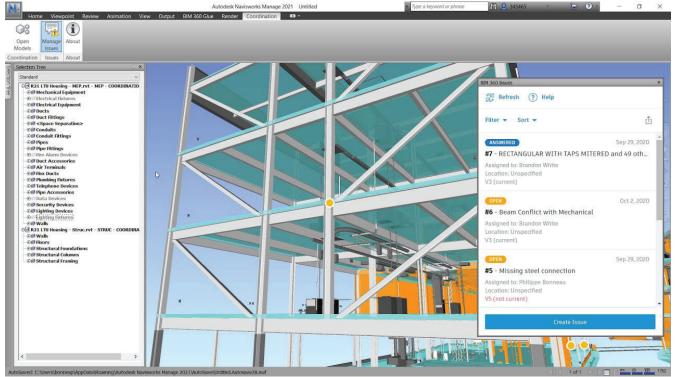




BIM 360:

- Clash detection
- Improved communication
- Cost Savings





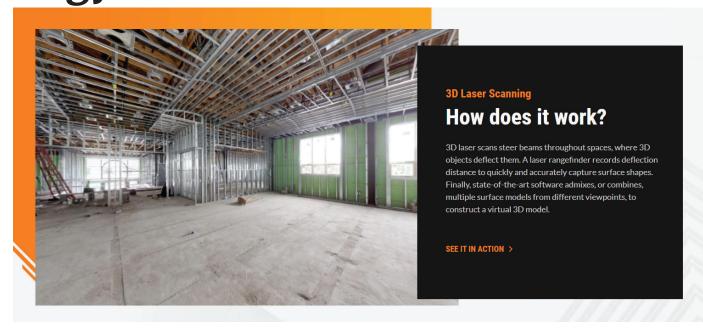


Construction Technology

Laser Scanning BIM:

- 3D cloud points
- Identify areas of concern
- Useful in building cycle





GPS Asset Tracker:

- Track shipments
- Driving reports
- Engine runtimes
- Reduce delays
- Insurance discounts



Track the things that walk away

Active construction sites are inherently difficult to secure. Inventory, equipment, and tools are frequently stolen. Proactive companies are using trackers to secure the most vulnerable items including HVAC units materials, appliances, equipment and more. Companies are able to prevent theft and increase efficiency.

- ✓ Protect tools, inventory and assets
- $\ensuremath{\checkmark}$ Avoid expensive downtime and replacement costs
- ✓ Deter theft and reduce your exposure

Get the solutions guide >

Shop Trackers **>**





Protect assets & equipment

Equipment tracking lets you monitor the use of your large and small equipment. Get realtime location, engine runtime hours (for maintenance) and more on each piece of equipment you own. This information will help you increase productivity and reduce delays and downtime. If there is inappropriate or excessive use, you'll know immediately.

- ✓ Monitor and track large and small equipment
- Track engine runtime for maintenance
- Increase productivity and monitor usage



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ANY QUESTIONS?

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