

FDM - Global

BIM Portfolio

— Maulik Pandya

About Me!

"As a Civil Engineer specialized in BIM Management with two years of hands-on experience, I possess a comprehensive understanding of both traditional engineering principles and cutting-edge BIM technologies. Through my post-graduation in BIM Management, I've developed a proficiency in model creation, coordination, and management, enabling me to optimize workflows and enhance collaboration across diverse project teams. With a commitment to innovation and a track record of delivering results that exceed expectations, I thrive in dynamic environments where I can leverage my expertise to drive efficiency, mitigate risks, and facilitate seamless communication. Passionate about staying at the forefront of technological advancements, I am dedicated to contributing to the development of sustainable and impactful infrastructure projects that benefit communities."

CONTACT

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MAULIK PANDYA



EDUCATION

TechnoStruct Institute of Building Construction and Management

2023-2024 | Post Graduation in BIM Management & Documentation (Remote) - From California, USA.

Saffrony Institute of Technology

2019 - 2022 | Bachelor in Civil Engineering (CGPA - 9.27)

Saffrony Institute of Technology

2016 - 2019 | Certified as a Diploma Civil Engineering (CGPA - 7.50)

EXPERIENCE

PSP PROJECTS LIMITED

01 May 2023 - 31 March | Design Coordinator

BN PRECAST PVT LTD.

06 Jun 2022 - 30 April 2023 | BIM Precast Modeller

ESHIA-BIM PVT LTD.

01 Jan 2022 - 30 May 2022 | BIM-Internship

KNOWN SOFTWARE



Robot Structural Analysis
PRO



AutoCAD



Revit



Navisworks

BIM TRACK



Dynamo



MS Project



Primavera P6



Construction
Cloud



Enscape



Premiere Pro



After Effects



Photoshop



Lightroom



InDesign



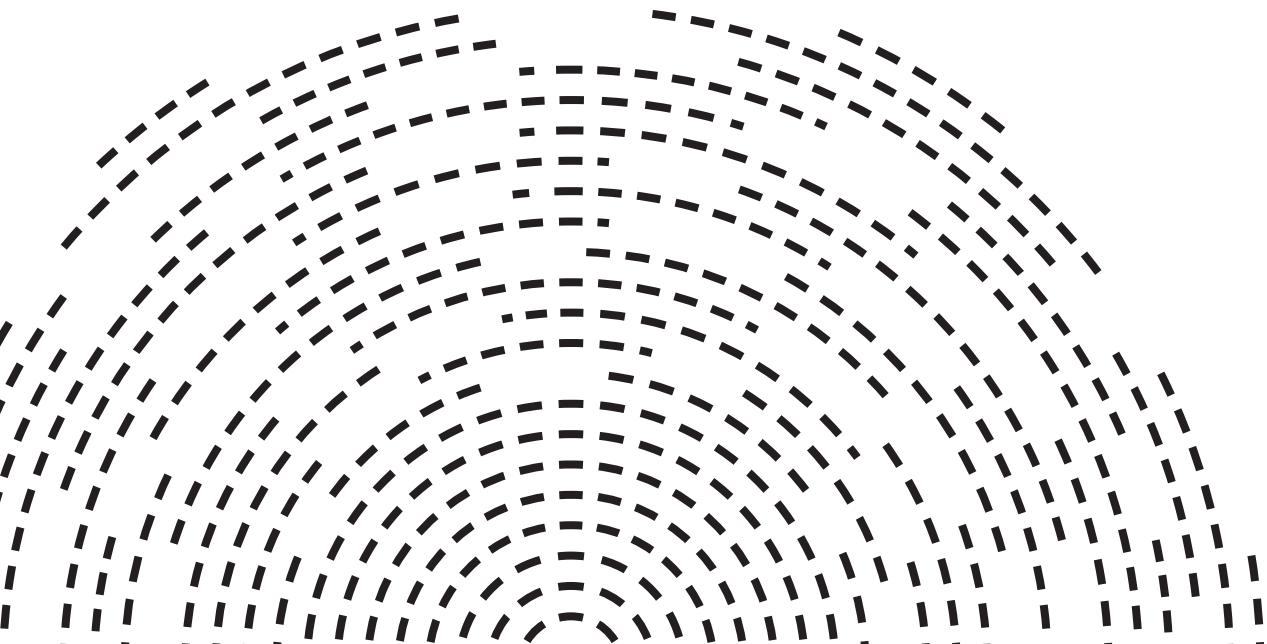
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OI. PROJECT BRIEF

HUNTERS POINT SHIP-YARD 52-54 BLOCK

112 affordable rental apartments (reserved for incomes 30-50% SF AMI),

One on-site apartment in each building for building management staff

62 car parking spaces, .55 per unit

34 spaces at 52

28 spaces at 54

Secured bike parking spaces

One family daycare unit in each building

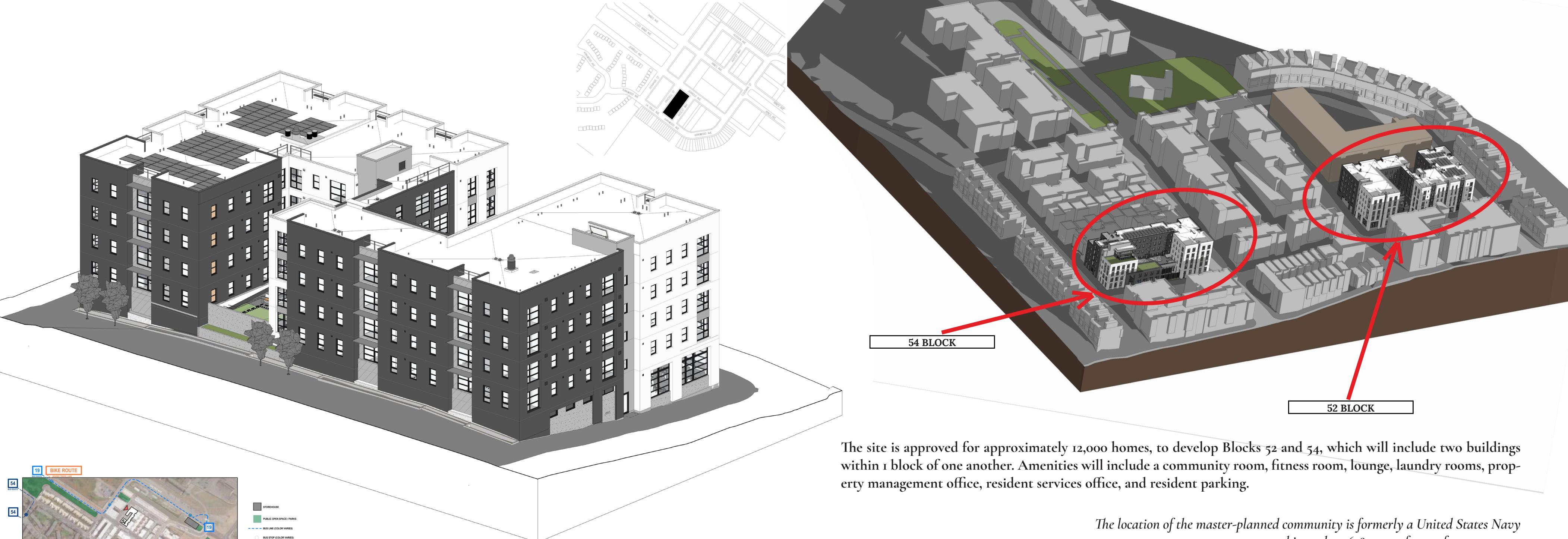
54 BLOCK

Indoor community room, lounge, onsite management and services offices, and courtyard community spaces



52 BLOCK





O2.

BIM EXECUTION

DETAILS OF THE BIM WORKFLOW

IN DEPTH METHODOLOGY FOR THE PROJECT

CHEAT SHEET

Discipline IDs	
IDs	Discipline
A	Architectural
AE	Architectural Exterior
AF	Architectural Furnishing
AI	Architectural Interior
AM	Architectural Millwork
AV	Audiovisual
C	Civil
W	Distribution Energy
DW	Drywall Studs & Walls
EC	Electrical Construction
E	Electrical Design
EQ	Electrical Equipment
EL	Electrical Lighting
EP	Electrical Power & Supply
ET	Electrical Telecom
Q	Equipment
EX	Exterior Skin
EW	Exterior Walls
FA	Fire Alarm
F	Fire Protection
FC	Fire Protection Construction
FSP	Fire Protection Standpipe
G	General
B	Geo technical
GLZ	Glazing
H	Hazardous Materials
HH	Head Height Clearance
I	Interior
K	Kitchen
LC	Lab Casework
L	Landscape
MC	Mechanical Construction
M	Mechanical Design
MD	Mechanical Duct

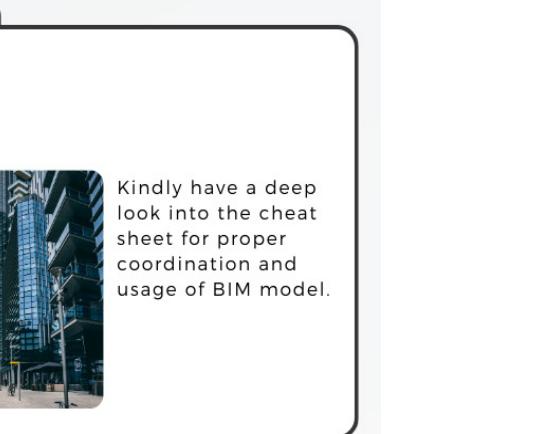
Levels	
IDs	Description
UG	Under Ground
01	Level 01
02	Level 02
03	Level 03
04	Level 04
...
05	Level 05
RF	Roof

Dimensions	
IDs	Description
GRD	Grid
DTL	Detail
SCT	Section
RCP	Reflected Ceiling Plan
PLN	Plan
LGD	Legend
ELV	Elevation
MDL	Model
SCH	Schedule
DTA	Data

File Extensions	
IDs	File Type
.nwc	Naviswork Cache
.ifc	IFC
.dwg	AutoCAD
.rvt	Revit
.nwd	Naviswork Document
.mdl	Model
.sch	Schedule
.dta	Data

BIM 360 Glue Tips

- Familiarize yourself with the interface.
- Organize your models in folders for easy access.
- Coordinate and collaborate using markups, comments, and issue tracking.
- Use clash detection to identify conflicts.
- Customize clash detection rules to suit your project.
- Use views and sections to focus on specific areas.
- Install the mobile app for on-the-go access.
- Seek training and support if needed.
- Update models regularly.
- Explore integration with other BIM tools.



Kindly have a deep look into the cheat sheet for proper coordination and usage of BIM model.
each file format has a matching folder in BIM 360 Glue - check before uploading

Prepared by
MR. MAULIK PANDYA

BIM Execution Plan

JAN-2024

Hunters Points Shipyard
52 - Block & 54 Block

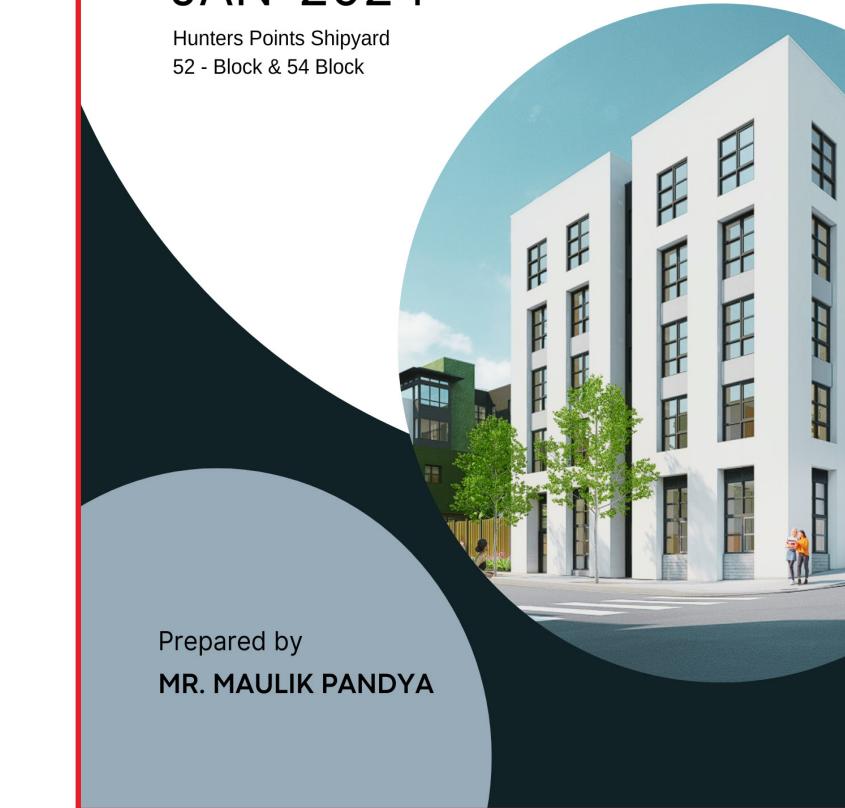


Figure 1-Hilltop Area

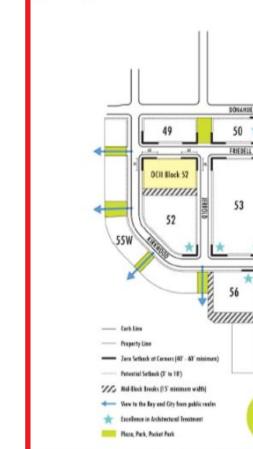


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EXECUTED PROJECT COORDINATES POINT

- **BIM Project Co-ordinates:** -

The models shall be set up to match true world coordinates in relation to the Grid and shall cross reference to the project gridlines. The project origin point will be set-up as the basis for all of the model sharing systems among the different disciplines.

The origin point or base point shall be defined as being located at BLOCK 52:

X (N/S) = 339'-0 3/8"

Y (E/W) = -337'-2 1/8"

Z = 0'-0"

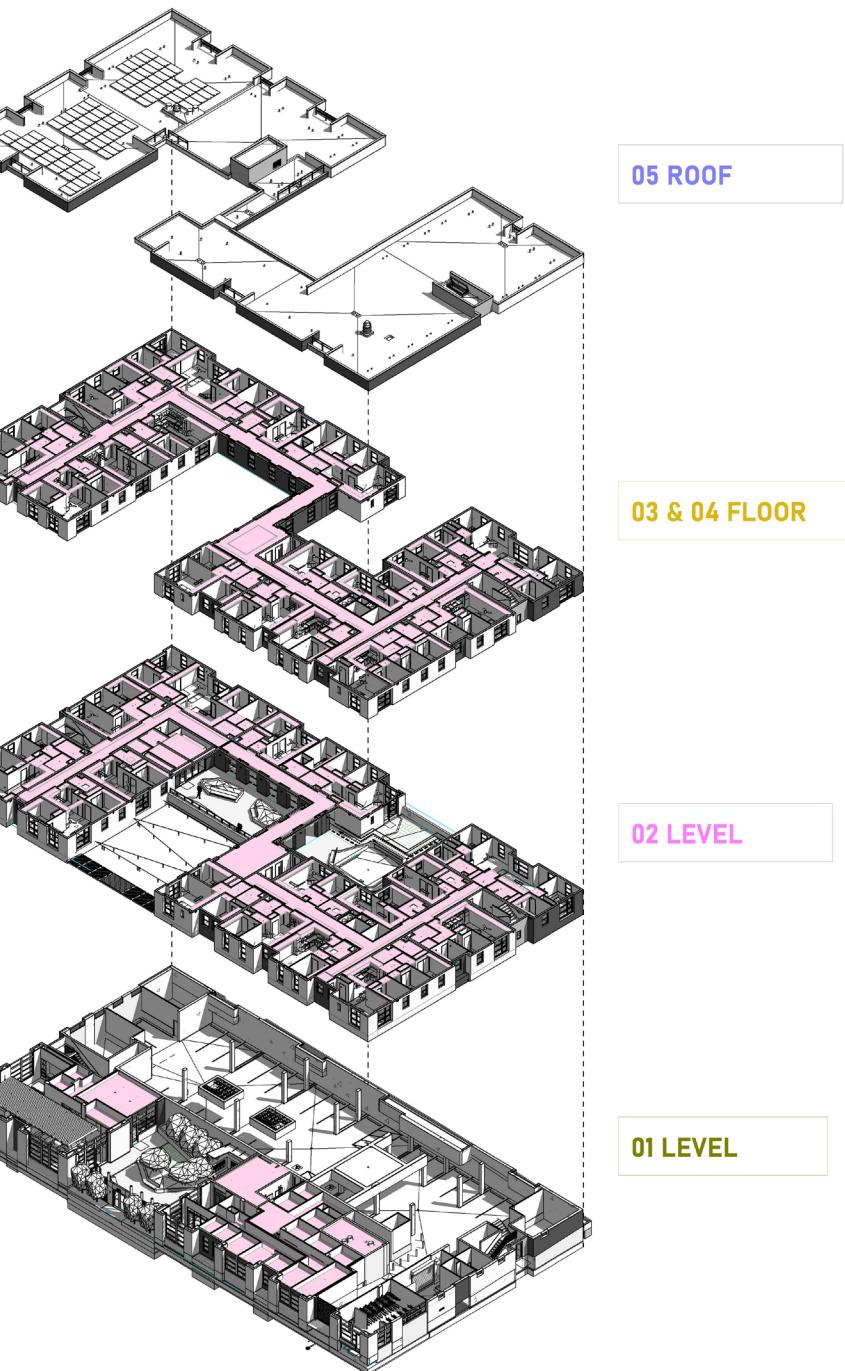
The origin point or base point shall be defined as being located at BLOCK 54:

X (N/S) = 339'-0 3/8"

Y (E/W) = 223'-5 5/8"

Z = 0'-0"

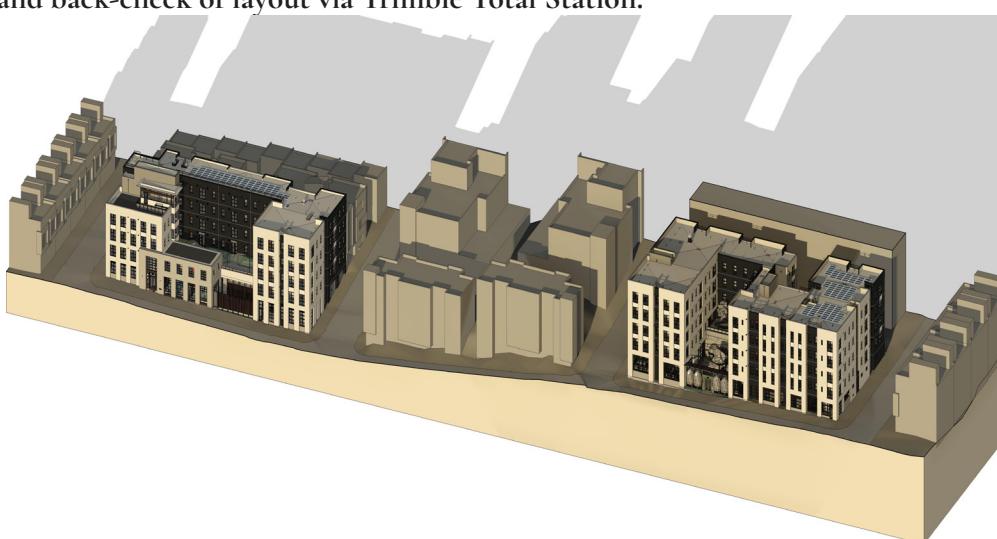
If a model is produced in a local co-ordinate system due to software functionality or limitations, the BIM coordinator or modeler that produced the file shall be responsible for providing clear instruction and documentation as to the origin x, y, z and bearing translations accompanying their BIM submission.



Intend: -

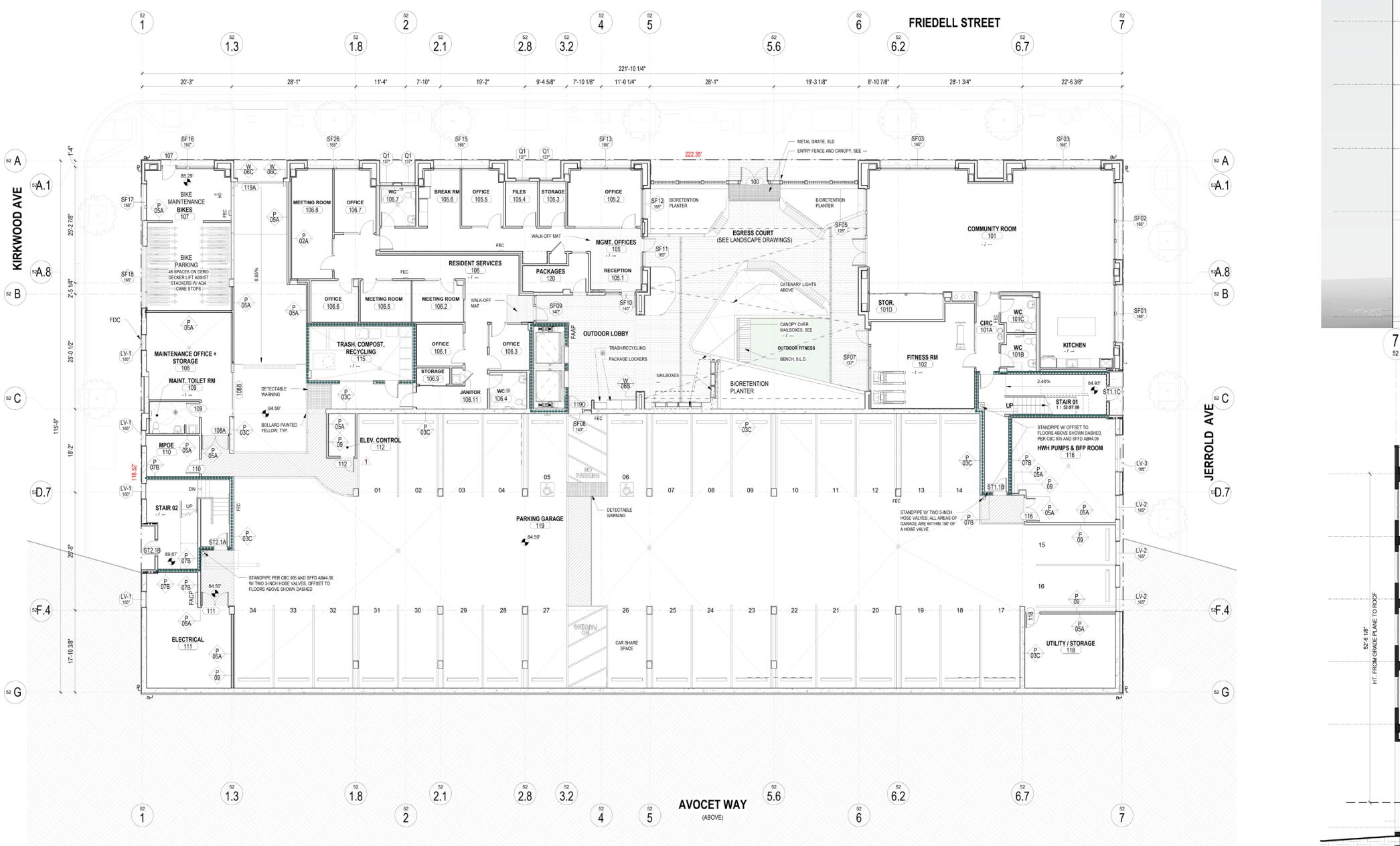
- To increase stakeholder engagement during design reviews.
- To visually define work scope.
- To ensure the final building reflects the design intent.
- To coordinate MEPF and/or other design systems.
- To analyze constructability.
- To resolve spatial conflicts prior to construction.
- To eliminate field rework.
- To improve construction quality.
- To produce a basis for coordinated shop drawings and submittal.
- To fine-tune prefabrication for wood floors and walls.
- To evaluate prefabrication opportunities.
- To provide coordinated sleeve, embed, and block-out drawing.
- To reduce RFIs and change orders.
- To provide a construction coordination model at construction completion.

- To use coordinated model with Autodesk Point Layout to layout and back-check of layout via Trimble Total Station.

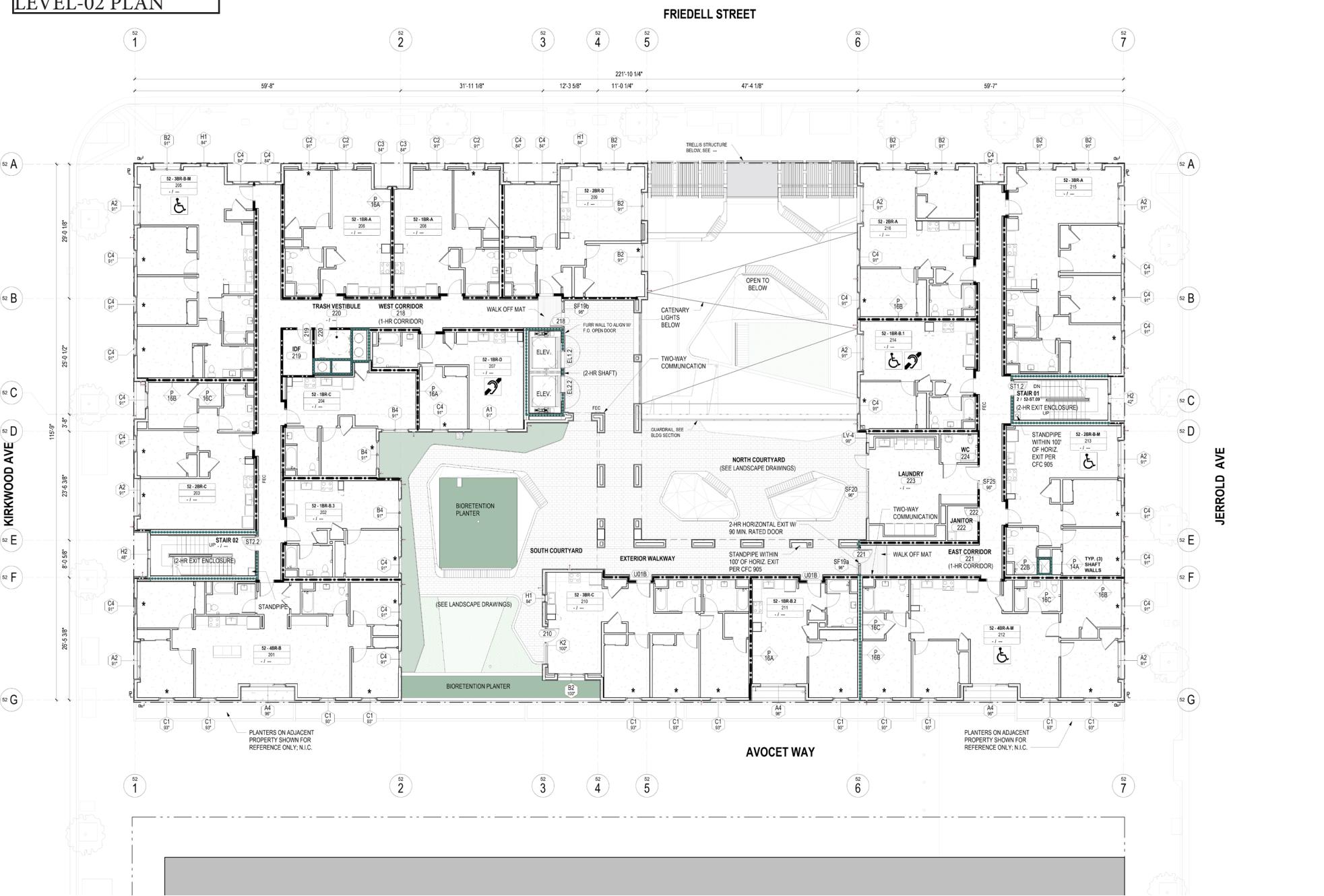


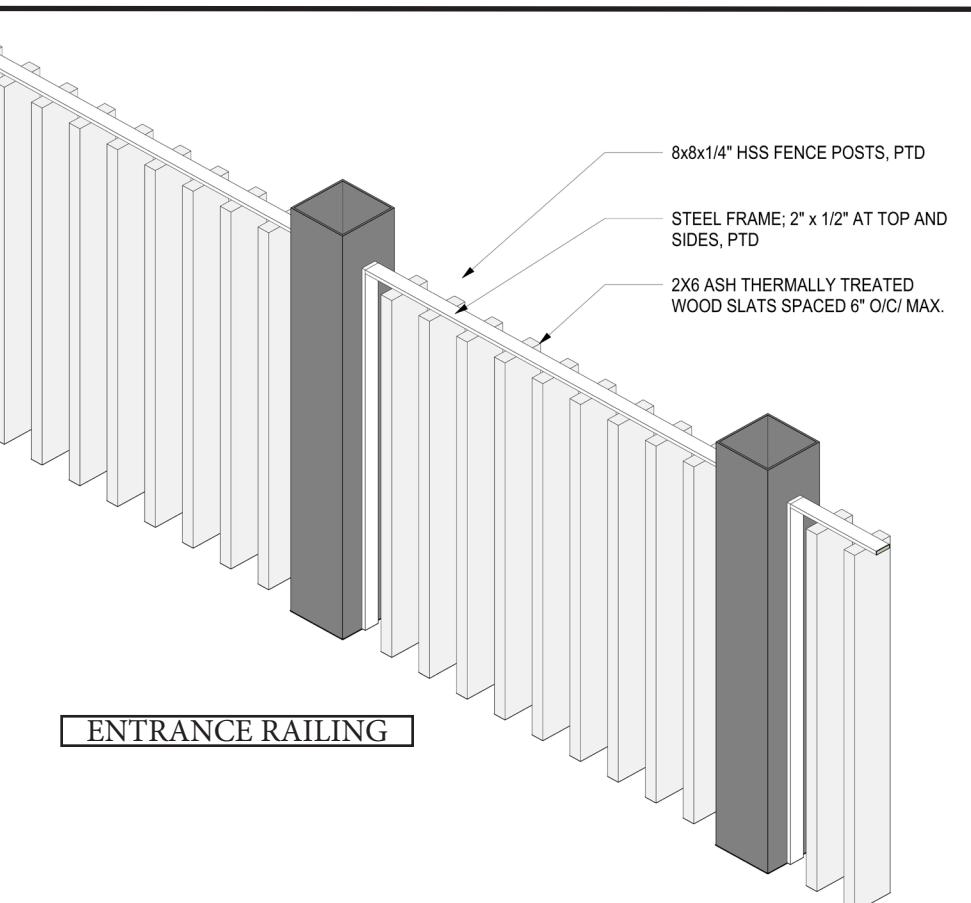
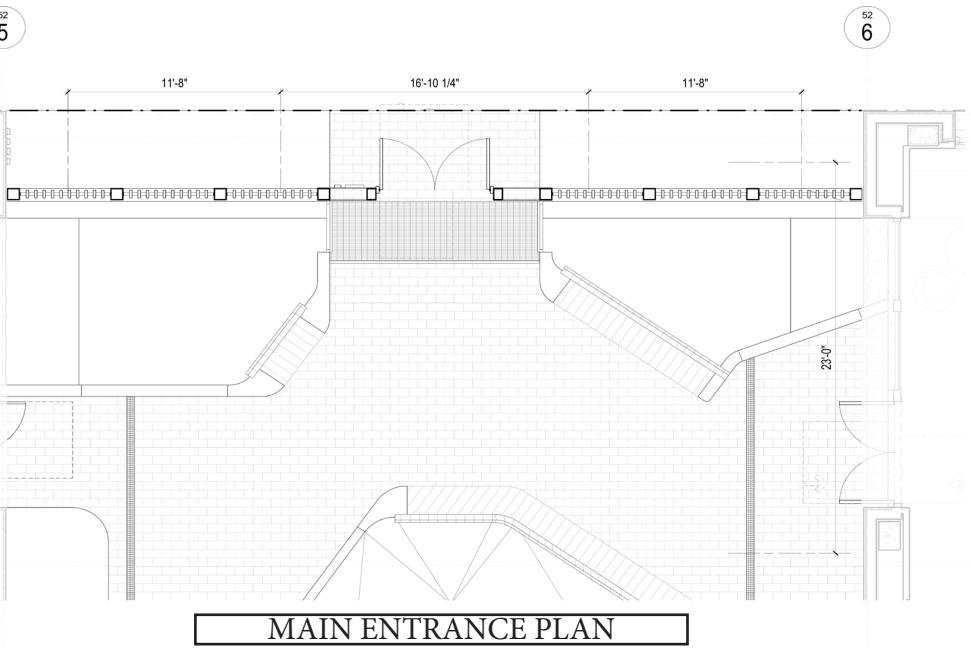
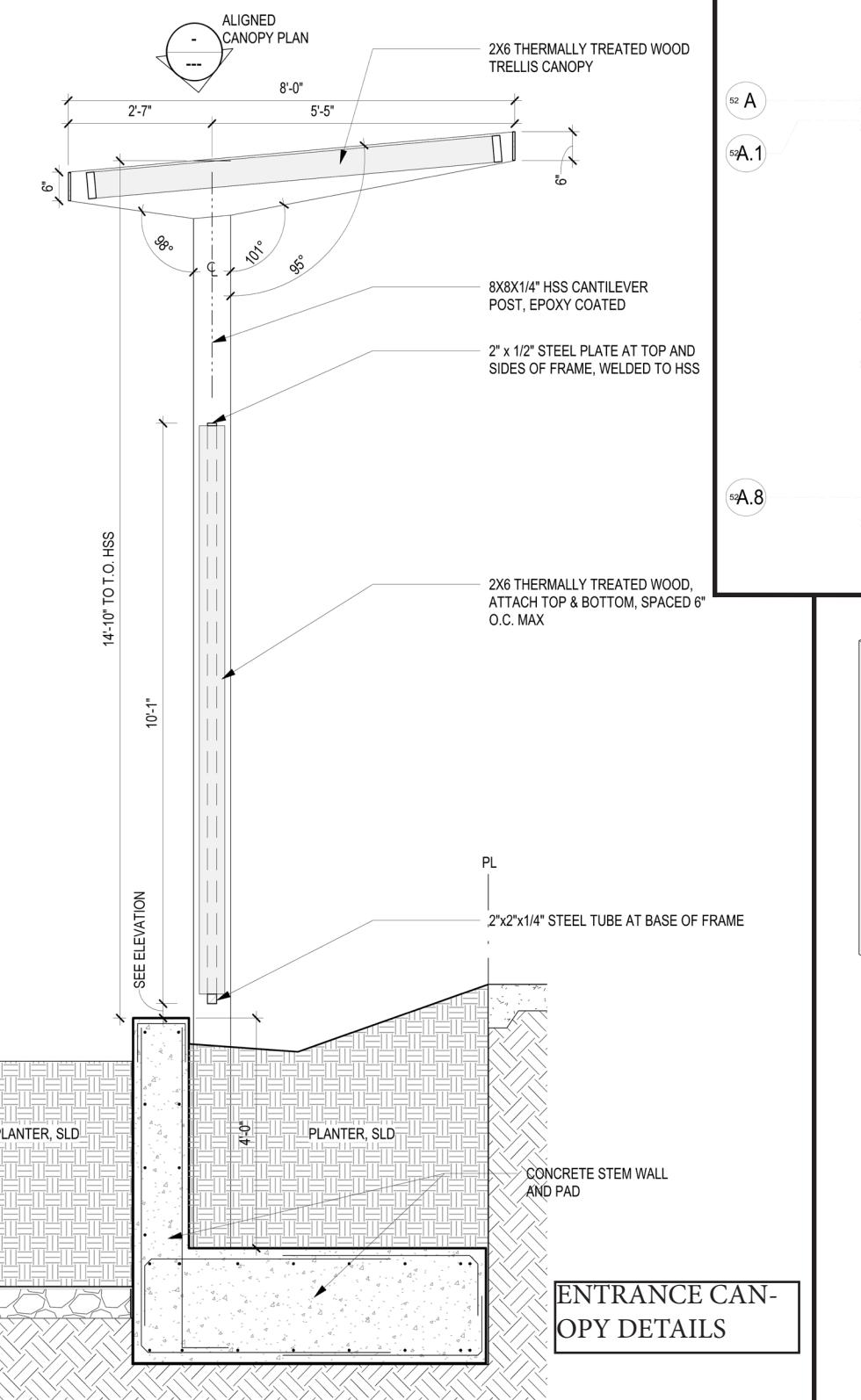
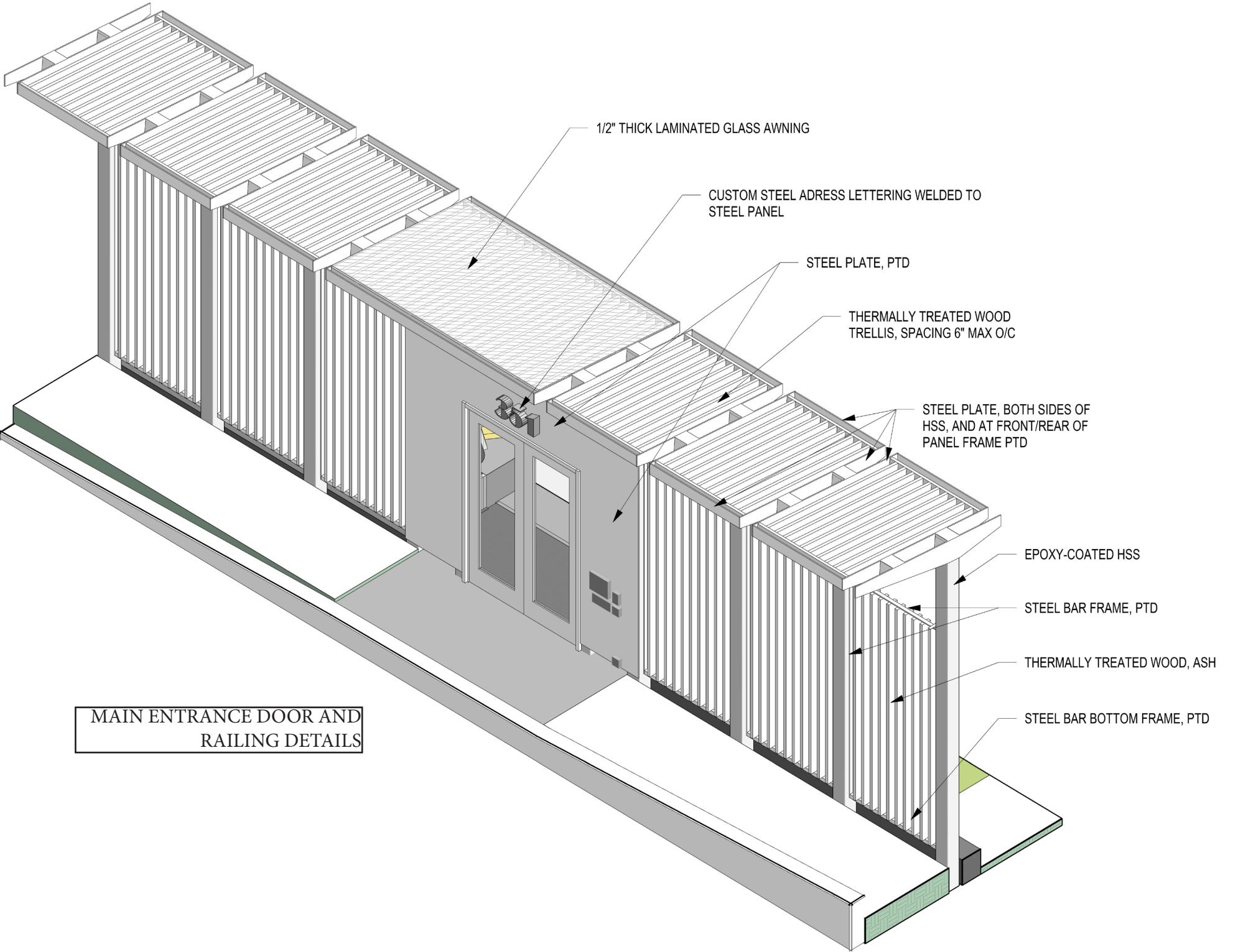
03
LAN

LEVEL-01 PLAN



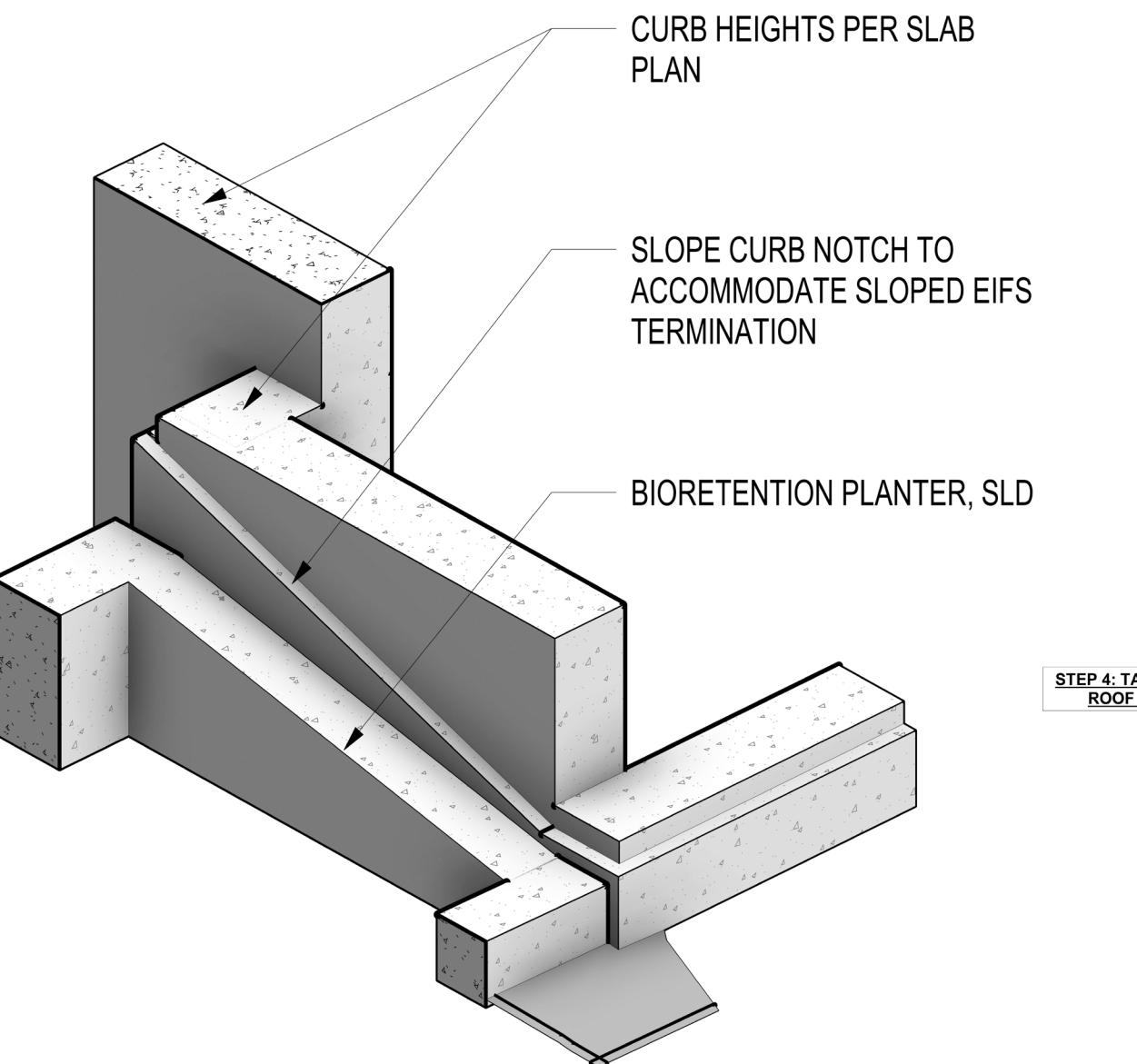
LEVEL-02 PLAN



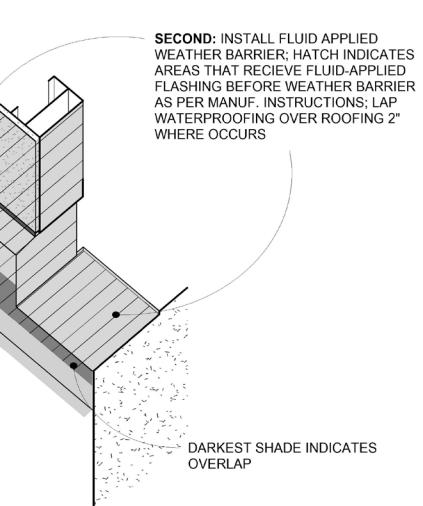


O 4

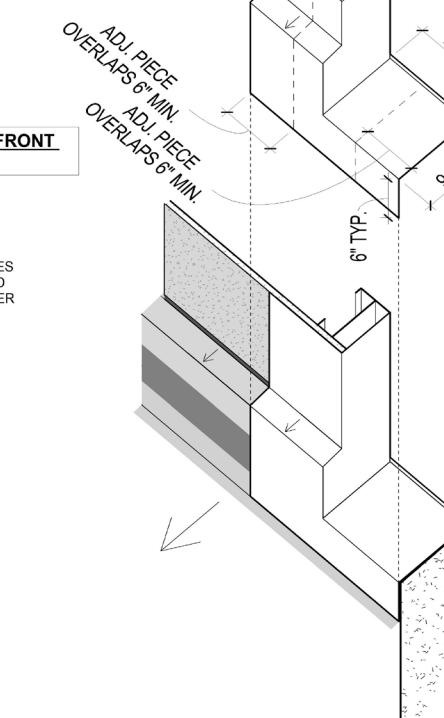
STRUCTURAL DETAILS



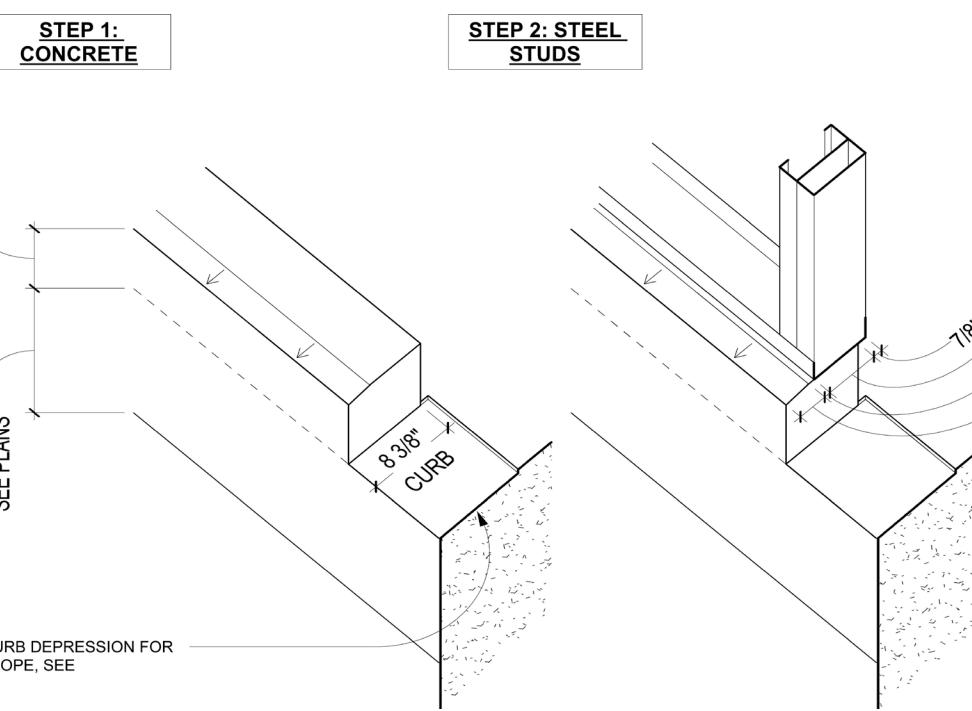
STEP 4: TAPERED INSULATION & ROOF WATERPROOFING



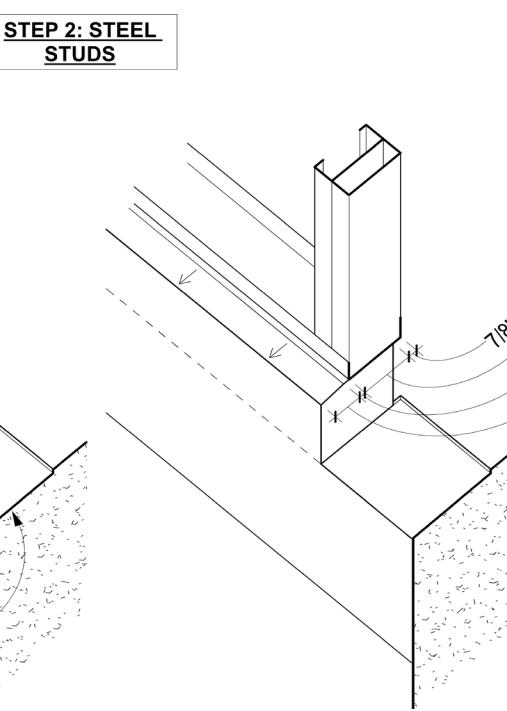
STEP 5: STOREFRONT SILL PAN



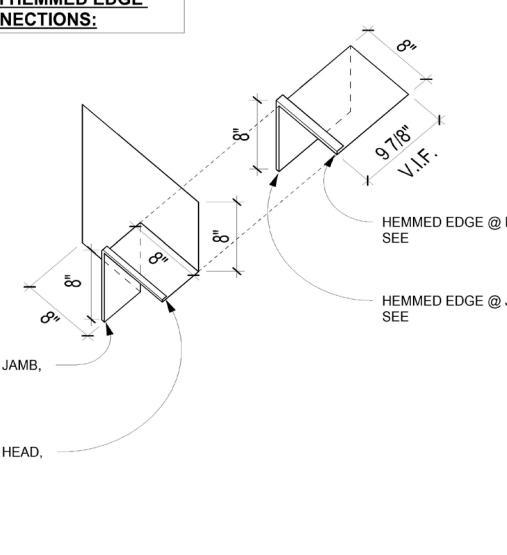
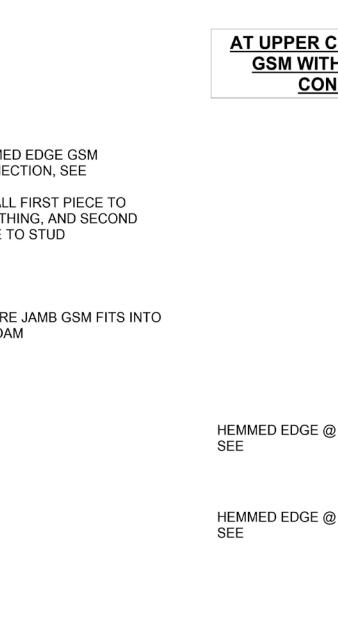
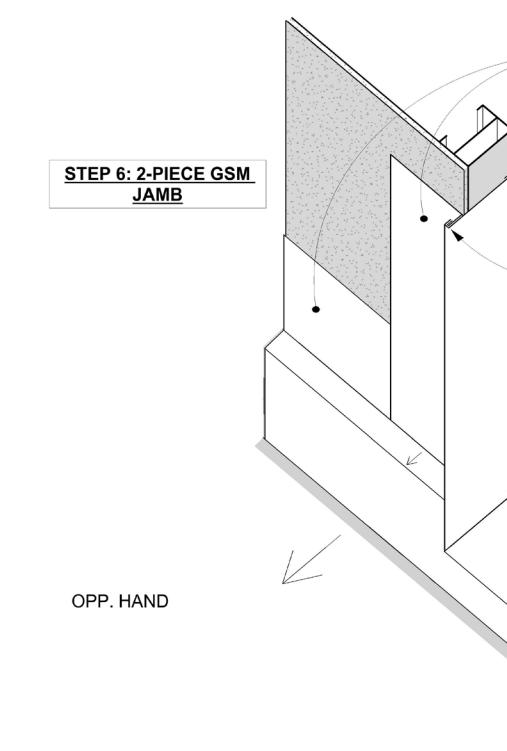
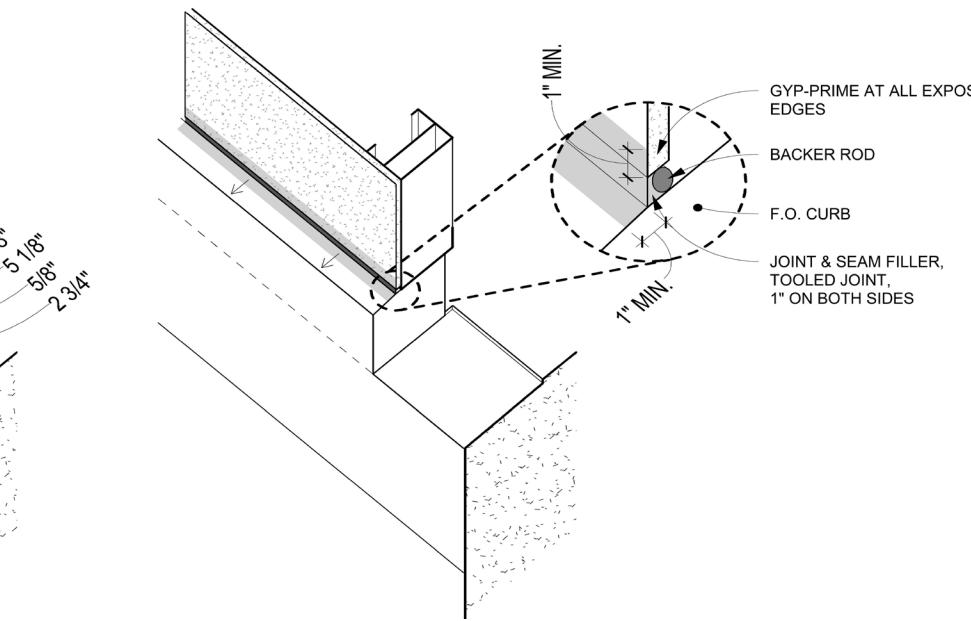
STEP 1: CONCRETE

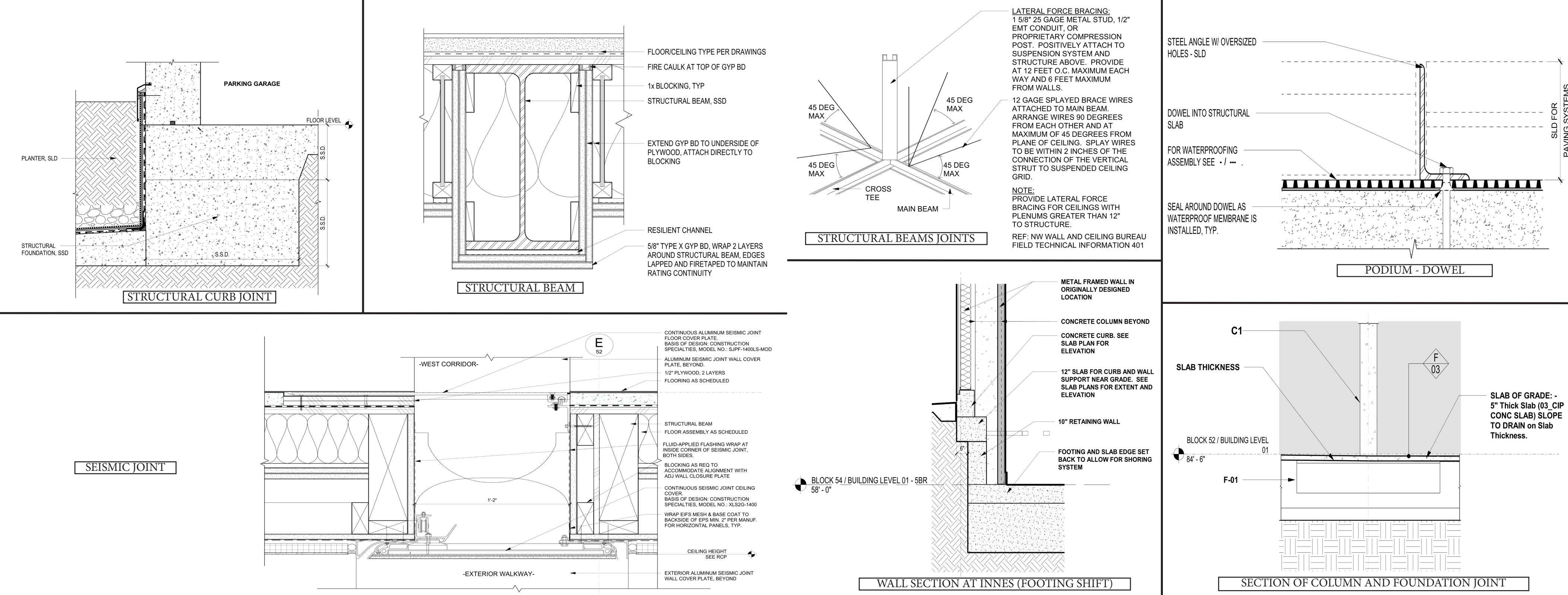


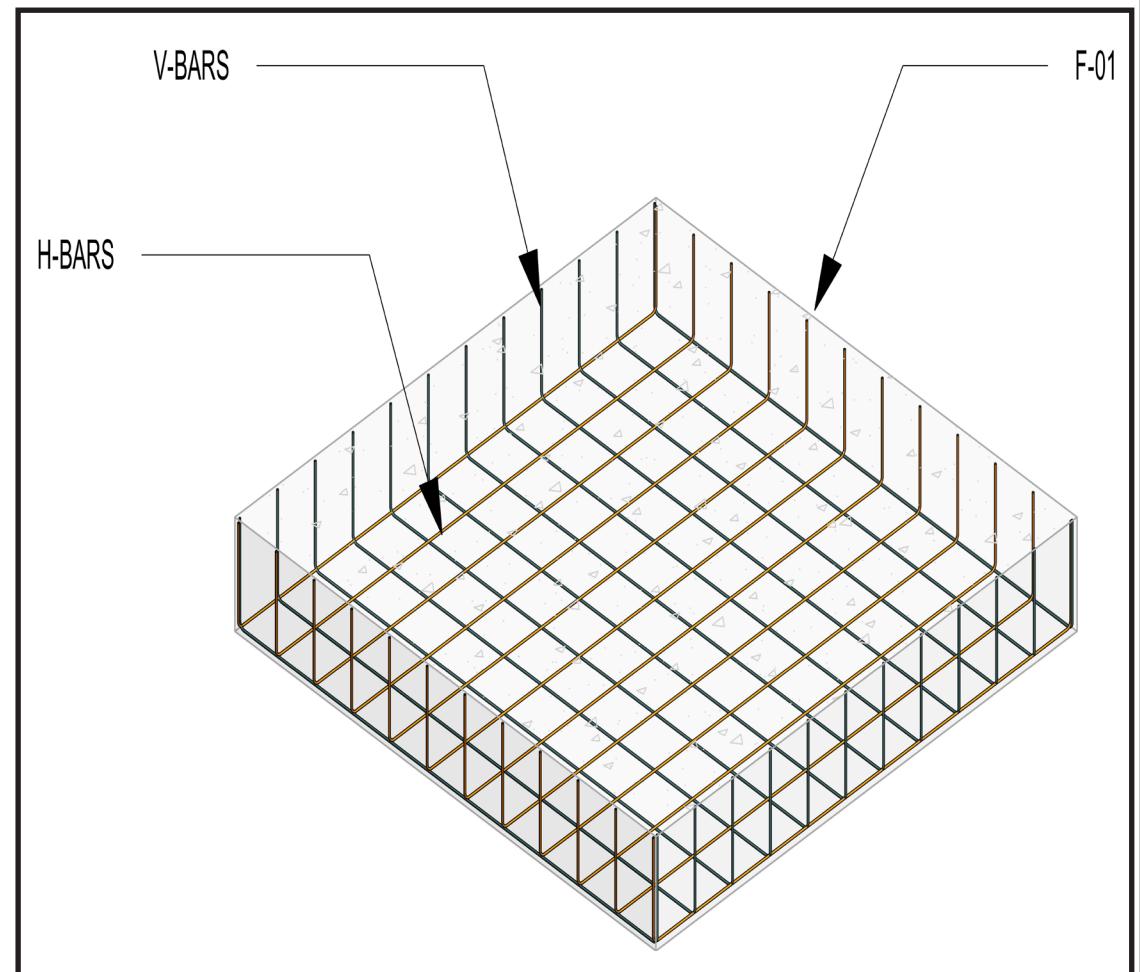
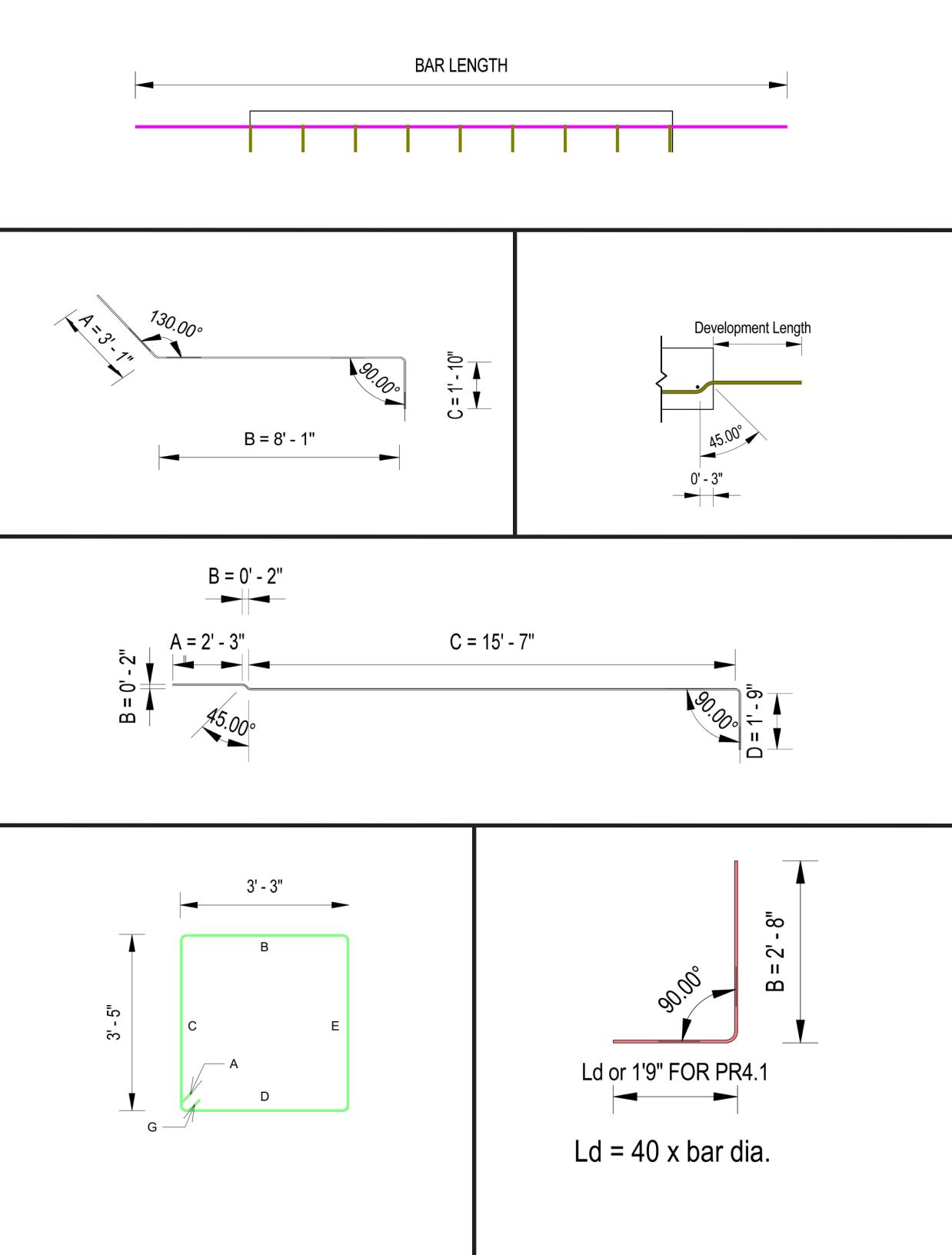
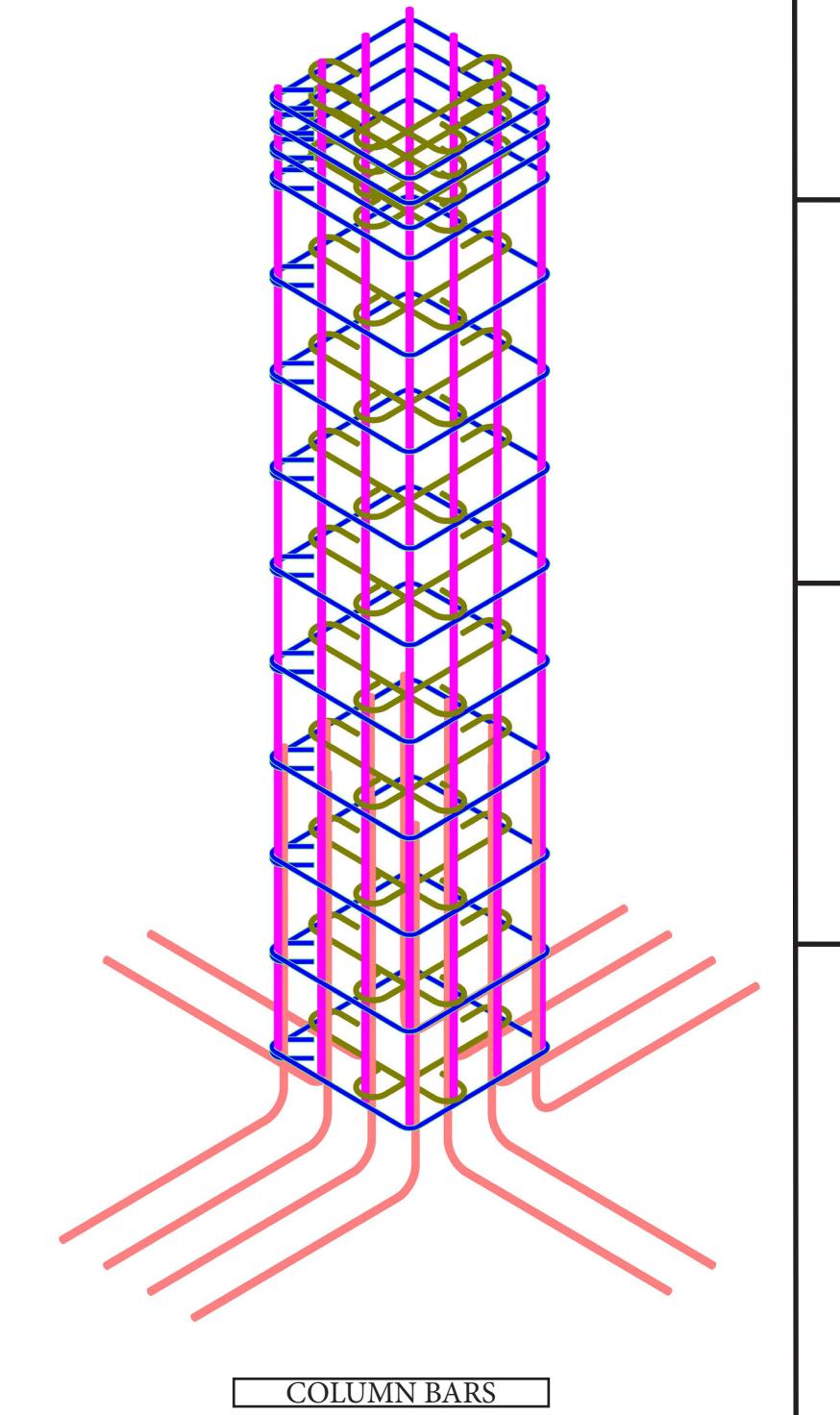
STEP 2: STEEL STUDS



STEP 3: GYP SHEATHING & SEALANT



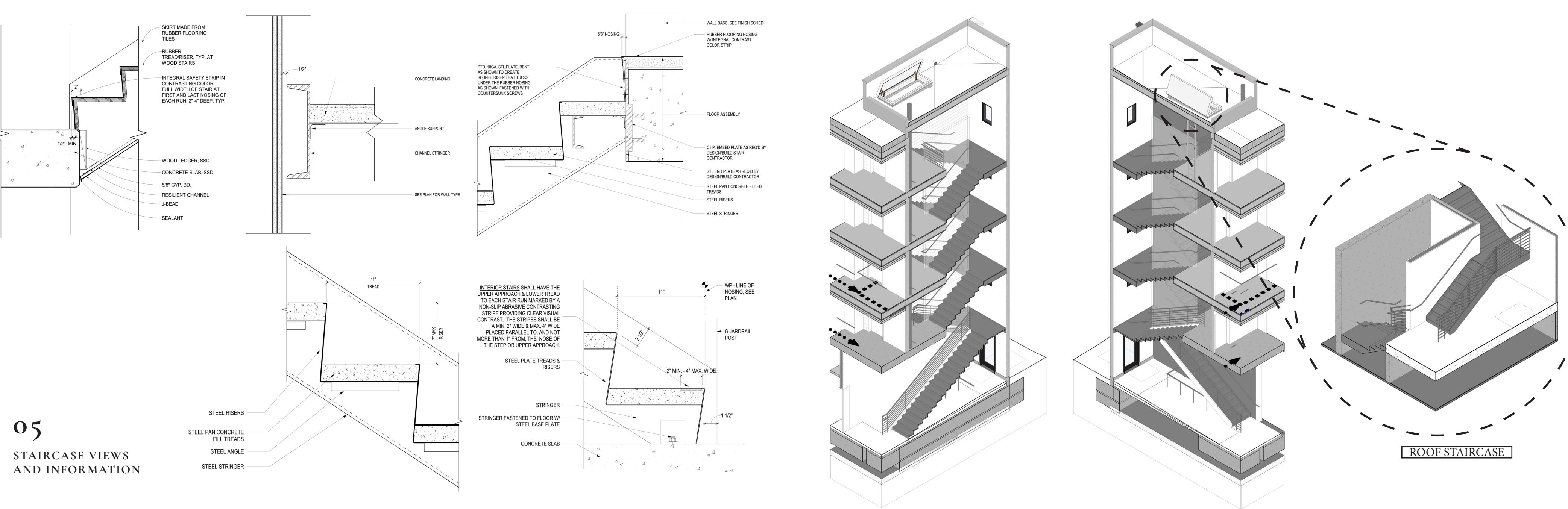


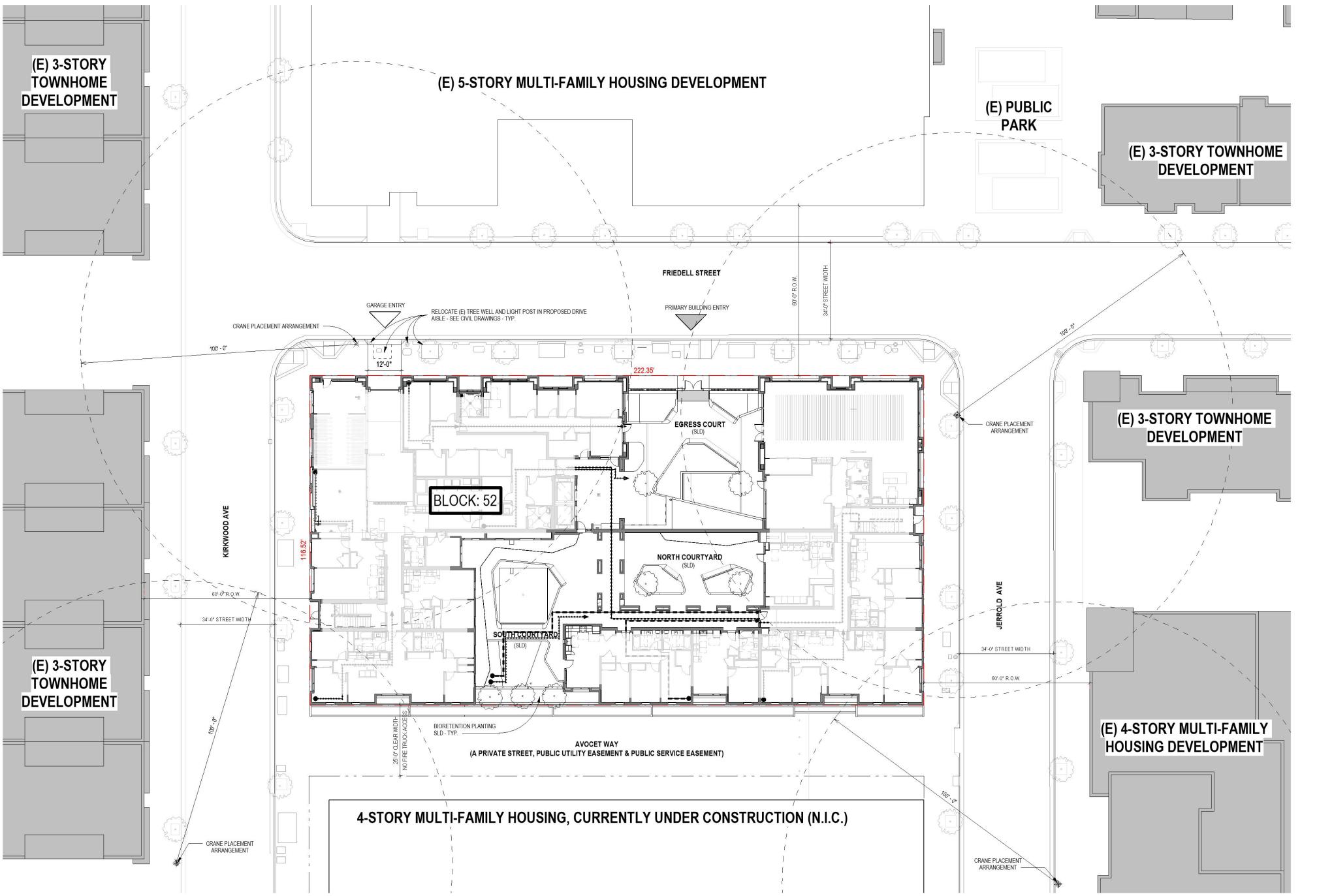


$L_d = 40 \times \text{bar dia.}$

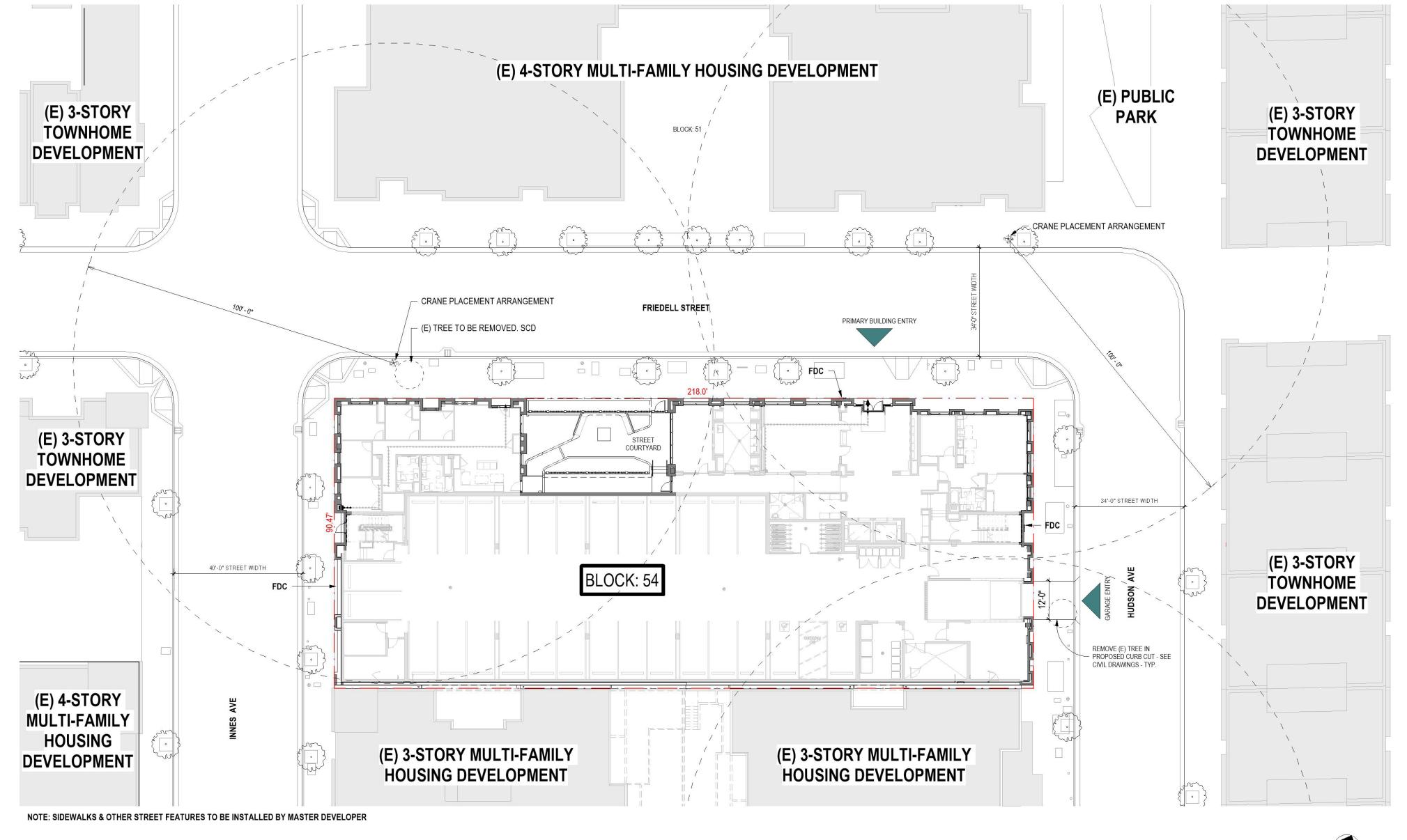
05

STAIRCASE VIEWS AND INFORMATION

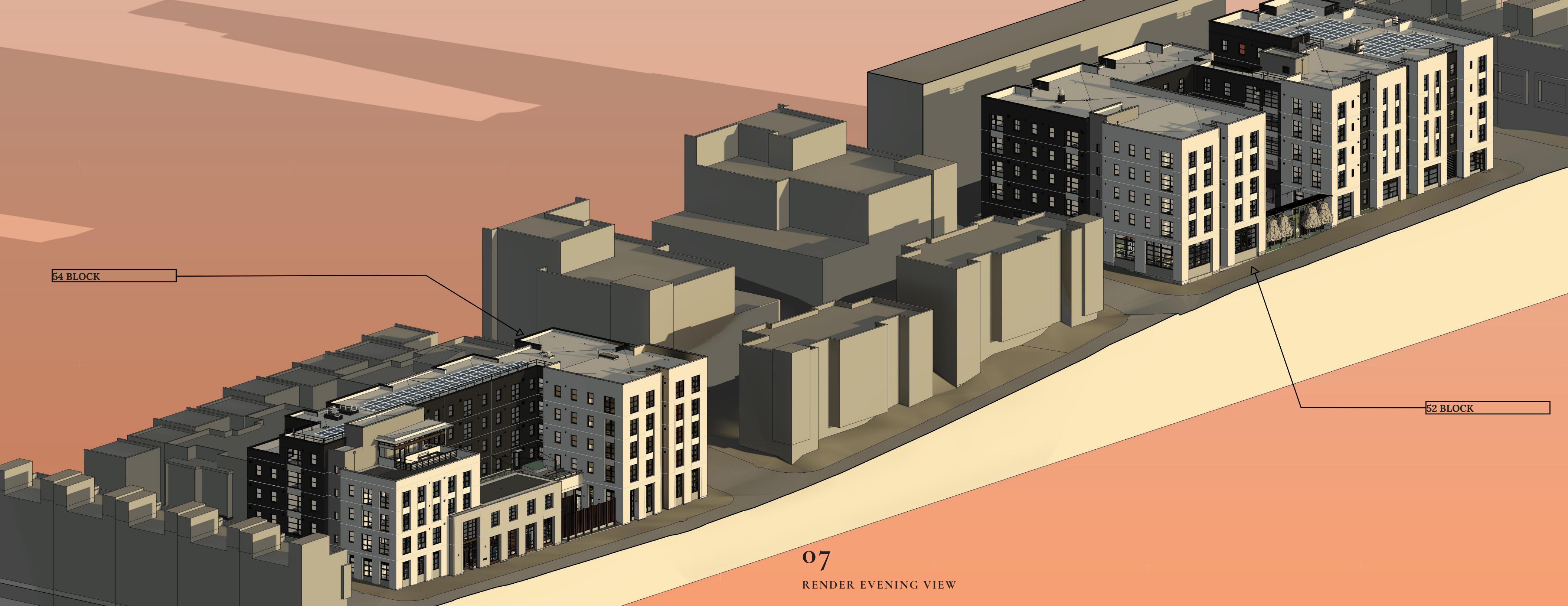




CRANE PLACEMENT LAYOUT - 52 BLOCK



CRANE PLACEMENT LAYOUT - 54 BLOCK



07

RENDER EVENING VIEW

08

CLASH REPORT

TIER 1

- Architectural components (walls & ceilings)
- Structural elements
- Underground MEP

TIER 2

- King Studs, Headers & sills
- MEPF Risers, Mains Standpipe
- MEPF Equipment & Fixtures
- NO fly-zones and accesszones

TIER 3

- Pressure Piping
- Electrical distribution & in-wall
- Branch Fire protection lines
- Low pressure duct

TIER 4

- Infill studs
- Seismic coordination
- Access Panels
- Electrical Branch Lines



Summary

Total project issues: 41

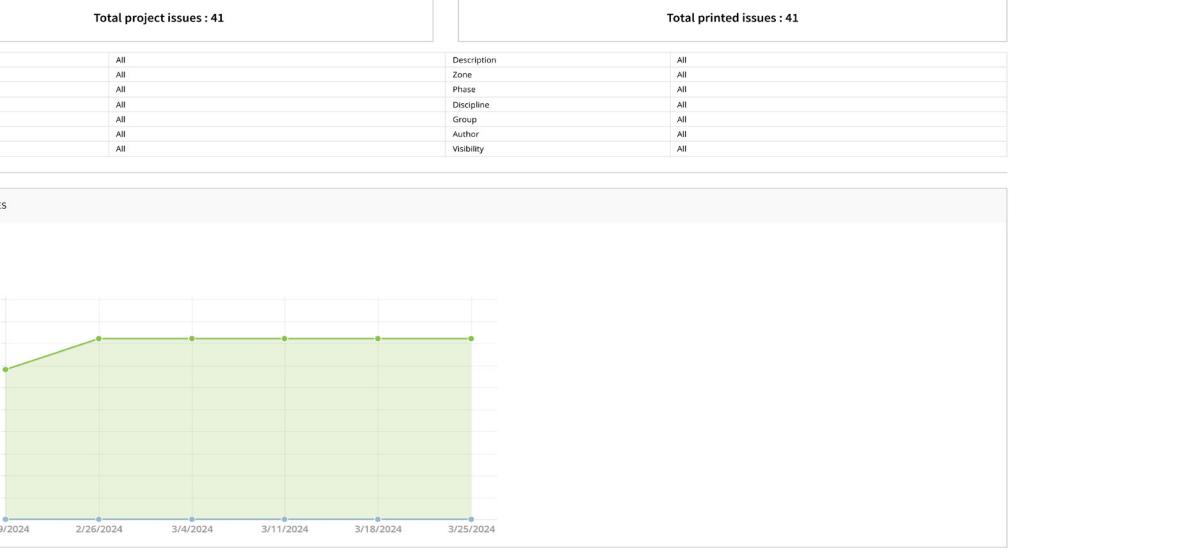
HPSY 52 - 54 Block

(001)

Issue Report

Printed by Maulik Pandya

Date: 3/24/2024 4:49 AM UTC



maulik@tibcam.com

3. Pipe VS Railing

Description: I have identified the major clash between the Architect Model Railing VS Pipelines

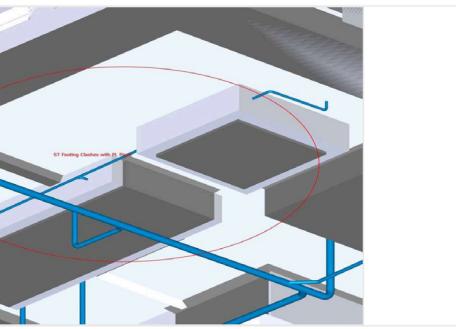


Author	Maulik Pandya (maulik@tibcam.com)
Created	2/25/2024 10:02 AM
Last changed	2/26/2024 2:54 PM
Assigned to	(pl-001@gmail.com)
Priority	Critical
Zone	Zone 2
Discipline	Plumbing

maulik@tibcam.com

2. Pipe VS Footing

Description: Same here. Pipe Clashing with Structural Footing.

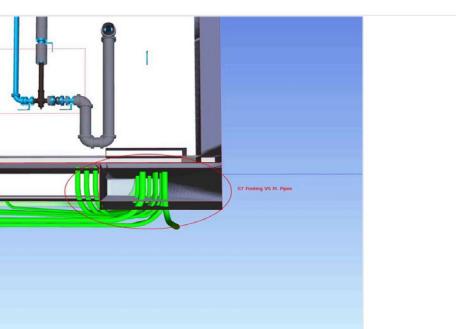


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Created	2/25/2024 9:59 AM
Last changed	2/26/2024 2:53 PM
Assigned to	(pl-001@gmail.com)
Priority	Medium
Zone	Zone 1
Discipline	Plumbing

maulik@tibcam.com

1. Pipe VS Footing

Description: There is issue with pipe. It is clashing with structural footing.

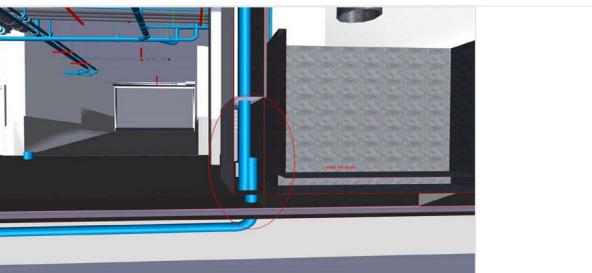


Author	Maulik Pandya (maulik@tibcam.com)
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Last changed	2/26/2024 2:53 PM
Assigned to	(pl-001@gmail.com)
Priority	Medium
Zone	Zone 1
Discipline	Plumbing

maulik@tibcam.com

6. Pipe VS Pipe

Description: There is issue with the pipe alignment.

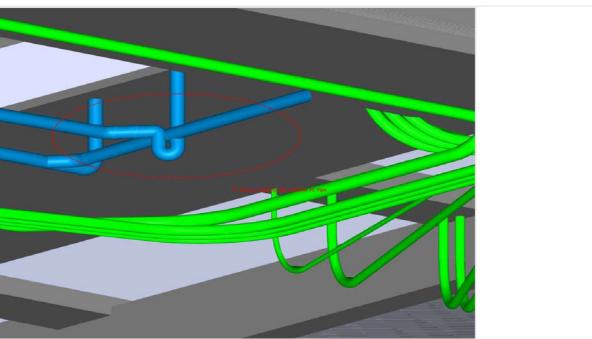


Author	Maulik Pandya (maulik@tibcam.com)
Created	2/25/2024 10:07 AM
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Assigned to	(pl-001@gmail.com)
Priority	Low
Zone	Zone 2
Discipline	Plumbing

maulik@tibcam.com

5. Pipe VS Pipe

Description: It is major mistake that pipe systems is clashing with same discipline.



Author	Maulik Pandya (maulik@tibcam.com)
Created	2/25/2024 10:04 AM
Last changed	2/26/2024 2:55 PM
Assigned to	(pl-001@gmail.com)
Priority	High
Zone	Zone 2
Discipline	Plumbing

maulik@tibcam.com

4. Pipe VS Railing

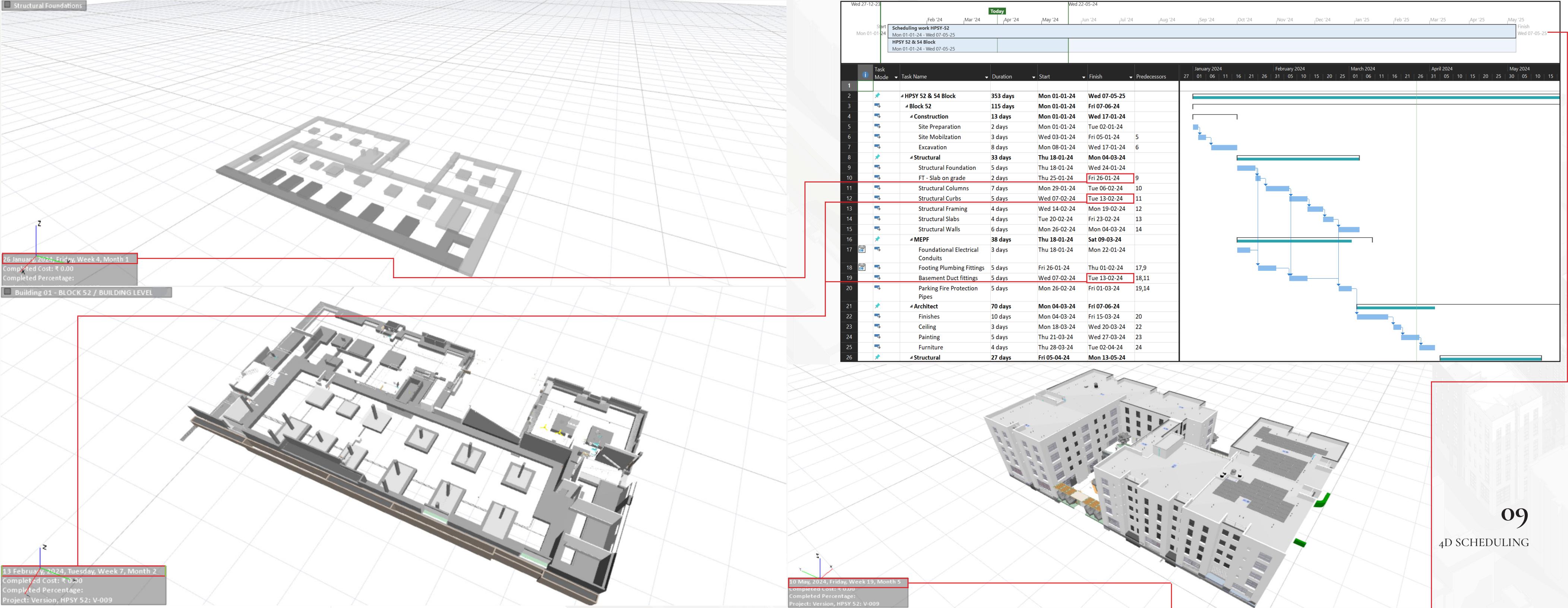
Description: Railing VS Pipe



Author	Maulik Pandya (maulik@tibcam.com)
Created	2/25/2024 10:02 AM
Last changed	2/26/2024 2:54 PM
Assigned to	(pl-001@gmail.com)
Priority	Critical
Zone	Zone 2
Discipline	Plumbing

Overall Element Source	Architect	Fire Protection	Mechanical	Electrical	Structural	Landscape	Plumbing	Steel Fabrication	Total
	Architect								10
Architect	10								10
Fire Protection	17	N/A							17
Mechanical	160	135	3						298
Electrical	125	20	26	N/A					171
Structural	122	N/A	12	3	N/A				137
Landscape	2	N/A	2	N/A	3	N/A			7
Plumbing	92	20	53	62	20	N/A	N/A		247
Steel Fabrication	93	N/A	43	33	2	N/A	N/A	N/A	171
Total	621	175	139	98	25	0	0	0	1058

CLASH MATRIX



BIM AUDIT REPORT

IO



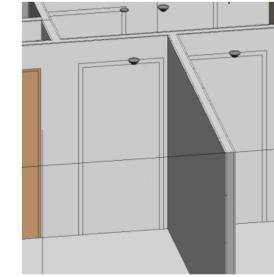
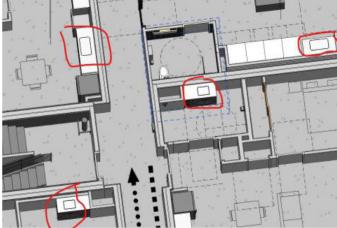
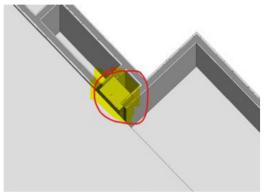
ARCHITECTURE				
GENERAL				
No	AUDIT CHECK POINT	OBJECTIVE	ITEM	COMMENT
1	Project Leader	As per Client	Y	N/A
2	Project Browser Organization	Refer to Revit Folder Structure naming protocols	Y	Browser is organized.
3	Consultant Incoming CAD files	Consultants in folder	N	Received in PDF format.
4	Revit working file Naming	Refer to Revit naming protocols	N/A	Not as per BIM protocol
5	Template File	Is the Standard Template used	Y	Mithun template is used.
ANOTATION DETAILS				
No	AUDIT CHECK POINT	OBJECTIVE	ITEM	COMMENT
6	Drawing Naming	Refer to Revit naming protocols	Y	N/A Sheets & Drawings are not given along with model.
7	Legends Naming	Refer to Revit naming protocols	Y	It is as per details
8	Schedule Naming	Refer to Revit naming protocols	N/A	Schedules are not available in the model.
9	Sheet Naming	Refer to Revit naming protocols	N/A	Sheets & Drawings are not given along with model.
10	Families Naming	Refer to Revit naming protocols	N	Some Generic model families have not been named properly.
11	System Families -Description & Type Mark	Do all the floors have a description and type mark in the parameters	N	Description and type marks are not present.
12	System Families -Description & Type Mark	Do all the curtain walls have a description and type mark in the parameters	N	Description and type marks are not present.
13	System Families -Description & Type Mark	Do all the railings have a description and type mark in the parameters	N	Description and type marks are not present.
14	System Families -Description & Type Mark	Do all the railings have a description and type mark in the parameters	N	Description and type marks are not present.
15	System Families -Description & Type Mark	Do all the ramps have a description and type mark in the parameters	N/A	Description and type marks are not present.
16	System Families -Description & Type Mark	Do all the stairs have a description and type mark in the parameters	N	Description and type marks are not present.
17	System Families -Description & Type Mark	Do all the walls have a description and type mark in the parameters	N	Description is not available but type mark is present.
18	Groups Naming	Are there groups in the project, if so why? And do they follow Revit naming protocols	N	Groups are present in the model for multiple similar modelling purposes and yes it is as per the area naming protocols.
19	Revit Links Naming	Refer to Revit naming protocols	Y	Yes, it follows the naming protocols.
20	Assemblies Naming	Are there assemblies in the project? Do they follow naming protocols	N/A	No assemblies present in the model.
21	Work set Naming	Refer to Revit naming protocols	N	Work set have not been named properly and Could have been more detailed.
22	Material Naming	Refer to Revit naming protocols	N	Revit Defaults have been used but naming not done properly.
23	Project Information	Is all the project information correct including the energy settings	N	Project information is given properly.But energy settings are not done in the model.
24	Project Parameters	Are there any rogue project parameters in the file?	Y	There are multiple parameters which is rogue and have not been used properly in the project.
25	Fill Pattern Naming	Refer to Revit naming protocols	Y	It is as per details
26	Line Styles Naming	Refer to Revit line protocols	N	Various unused New Line patterns have been created.
27	Line Weights	Do the line weights match Refer to Revit line protocols?	Y	Default mithun standard has been followed.
28	Line Patterns	Are there any rogue project line patterns in the file?	Y	Line patterns used from imported CAD file.
29	Room, Window, Door Tags	Refer to Revit naming protocols	N/A	Door and Window tags are there.
30	Callout Tag Naming	Refer to Revit naming protocols	Y	Callout view names are mentioned.
31	Section Elevation Tag Naming	Refer to Revit naming protocols	Y	Yes, it follows the naming protocols.
32	Arrow Heads Naming	Refer to Revit naming protocols	Y	Yes, it follows the naming protocols.
33	Location of Project	Is true north & project north set up correctly	Y	It is as per details
34	Design Options	Have all design options been removed in CD if not why?	N/A	
35	Manage Links Revit file Naming	Refer to Revit collaboration protocols	N	
36	Manage Links - AutoCAD Files	Are there any AutoCAD files loaded into the Revit project, can any be removed?	Y	
37	Manage Links - DWF Files	Are there any DWF files loaded into the Revit project, can any be removed?	N	
38	Manage Links - Point Cloud Files	Are there any Point Cloud files loaded into the Revit project, can any be removed?	N	
39	Manage Images	Are there any rogue images in the file, if so why?	N	
40	Decal Types	Are there any rogue decal types in the file, if so why?	N	
41	Phases - Project Phases	Refer to Revit naming protocols	Y	
42	Phases - Phase Filters	Refer to Revit naming protocols	Y	
43	Phases - Graphic Overrides	Refer to Revit naming protocols	N/A	

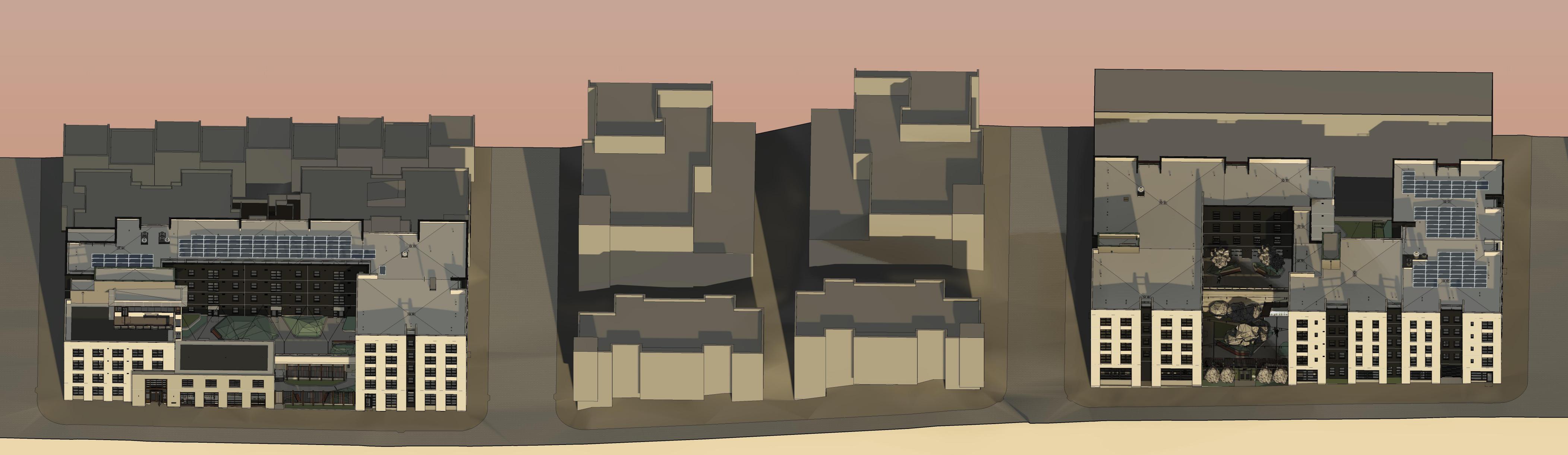
BIM AUDIT REPORT



54 Block

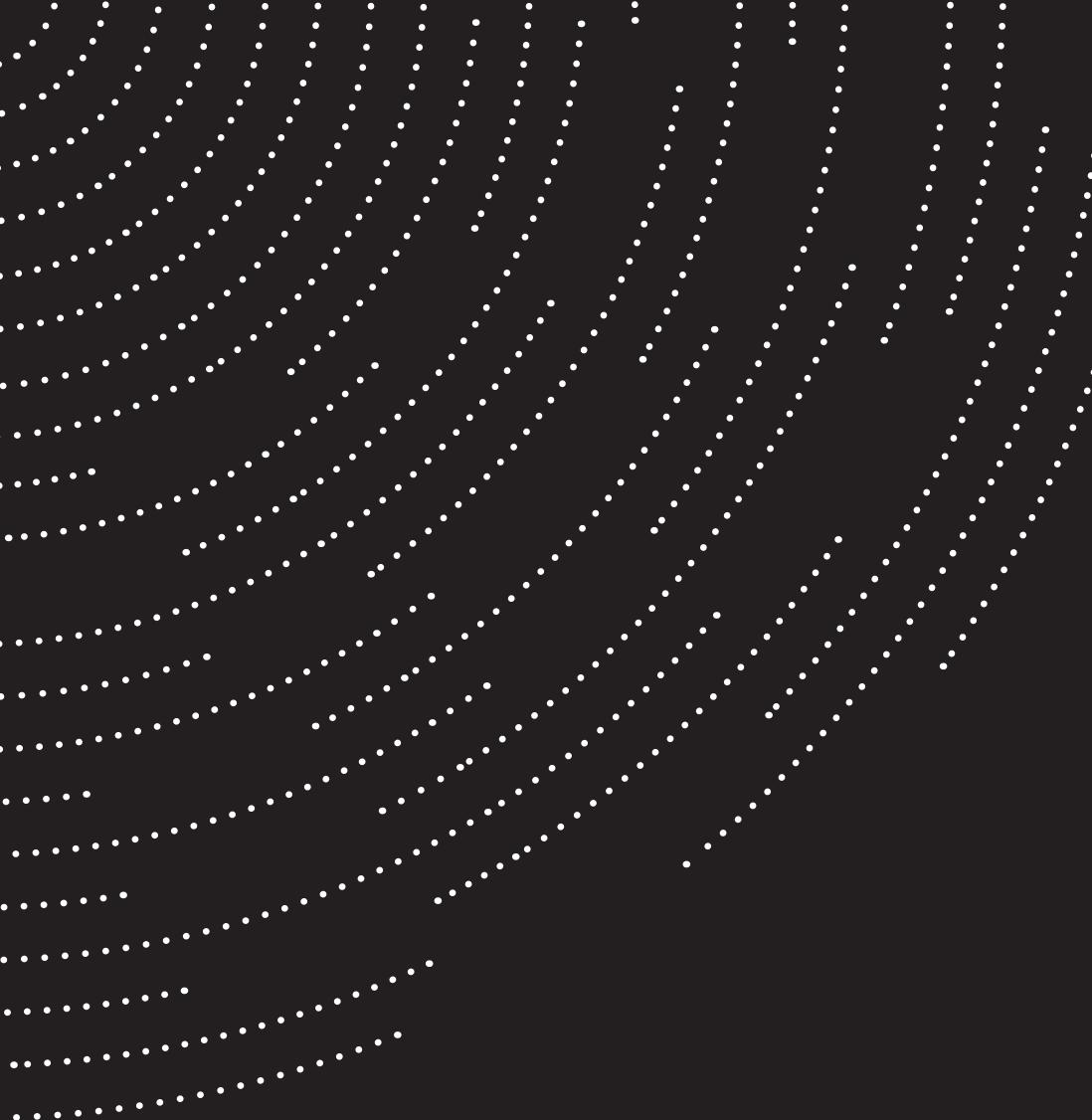
BIM
Portfolio

				Doors do not have basic ironmongery details, handles etc. (Refer snap shot below.)
64	Doors	Is this element correctly modeled?	N	
65	Windows	Is this element correctly modeled?	Y	Windows are modeled properly.
66	Roof	Is this element correctly modeled?	Y	Roofs are modeled properly.
67	Staircase	Is this element correctly modeled?	Y	Staircases are modeled properly.
68	Railings	Is this element correctly modeled?	Y	Railings are modeled properly.
69	Curtain Glazing	Is this element correctly modeled?	Y	Modeled Properly.
70	Special Elements (Specify)	Is this element correctly modeled?	N	Special elements cut-out not provided correctly(Sink Counter). (Refer snap shot below.) 
71	Flashing etc.	Is this element correctly modeled?	N/A	
72	Ramps	Is this element correctly modeled?	N/A	
QA ANALYSIS				
No	AUDIT CHECK POINT	OBJECTIVE	ITEM	COMMENT
73	Numbers of Warnings Found		Y	4048 warnings are found in total.
74	Wall Column Overlap Yes/No		Y	Walls and Columns. (Refer snap shot below.) 
75	Grid Numbers	Is this element correctly modeled?	Y	Grid numbers are given correctly.
76	Room Bounding Error		N	
77	Family Name Errors		Y	Placement location are not properly done.
78	Cad file link location error		Y	
79	Revit file link location error		N	
80	Mismatch with original		Y	
81	Family creation errors		N	
82	Wrong alignment with grid, floor, wall, columns		N	



54 BLOCK

52 BLOCK



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