



BIM MODEL PROJECT PRESENTATION

PRESENTED BY
PECH SEENIN

4/7/2023

PECH SEENIN (PECH)

BIM MODELER & STRUCTURAL ENGINEER



PROJECT EXPERIANCED (ARCHETYPE ENGINEERING CONSULTANT)

- DUCATI MOTOR THAILAND
- MOMENTIVE JASMINE
- VISCOFAN

TOOLS SKILL

- Revit
- Autocad
- Robot Structure Analysis / TEKLA Structure Designer / ETABS
- Naviswork
- Autodesk construction cloud (ACC) / BIM360
- MS Excel , Powerpoint , Word

LICENSED AND CERTIFICATE

- Professional engineering licensed level - I
- CEFR English test (B2 level)
- BIM Management (LinkedIn)

PROJECT REFERENCE





Viscofan

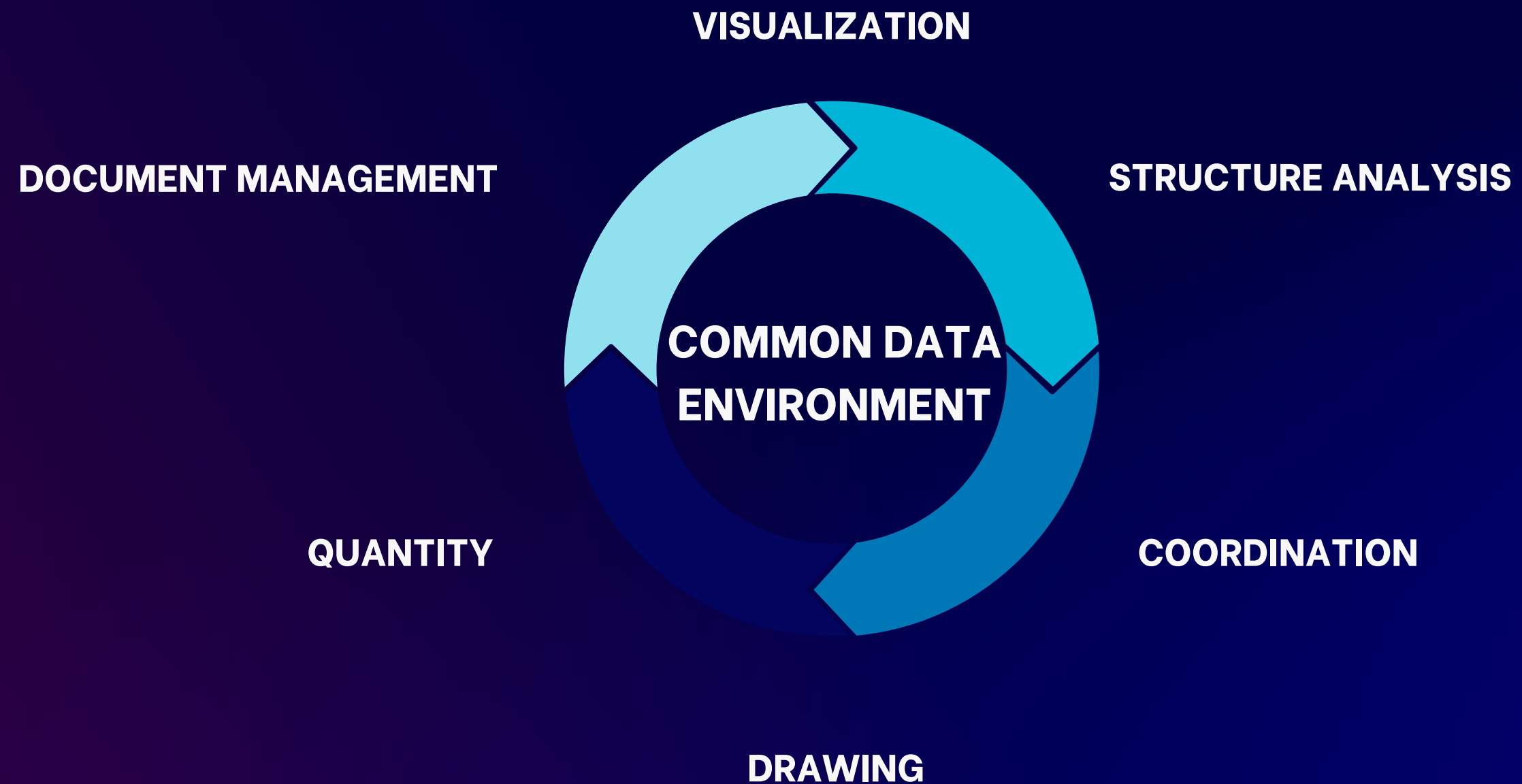
PROJECT AREA USAGE

20,550

SQ.M.

PROJECT GOAL

WHY MUST BE BIM?



VISUALIZATION

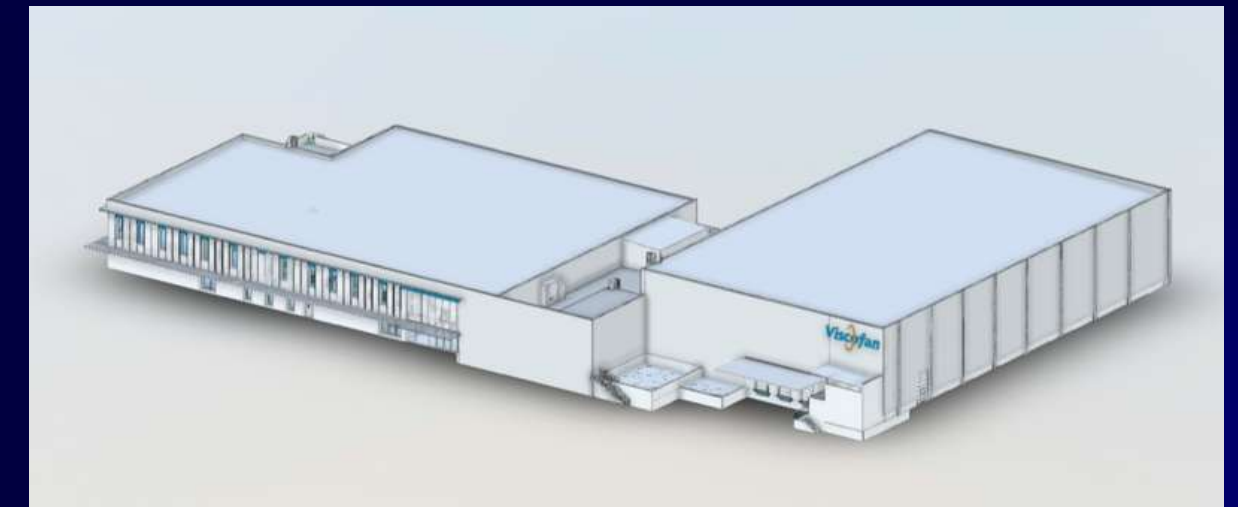
MAKE ALL DISCIPLINES VISUAL THE PROJECT IN THE SAME DIRECTION, GOALS AND SPECIFICATION

REQUIREMENT TO VISUAL GEOMETRY

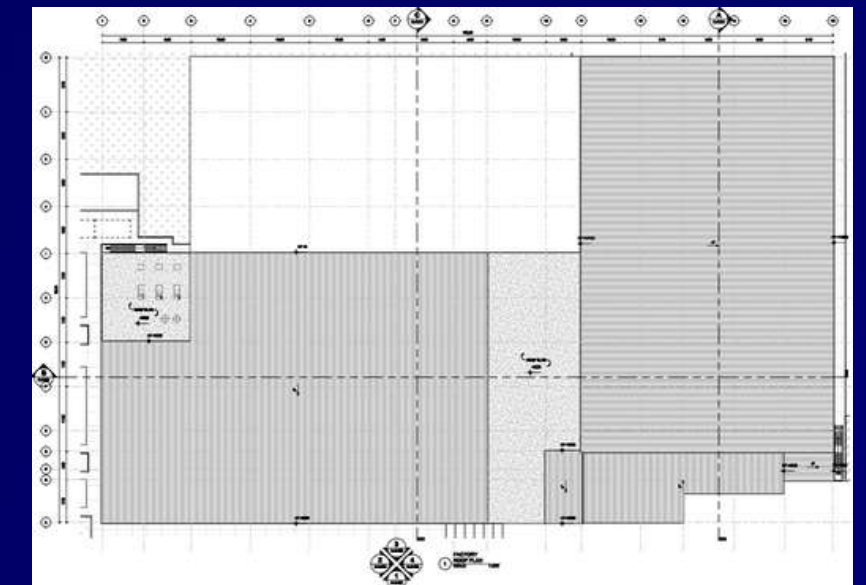
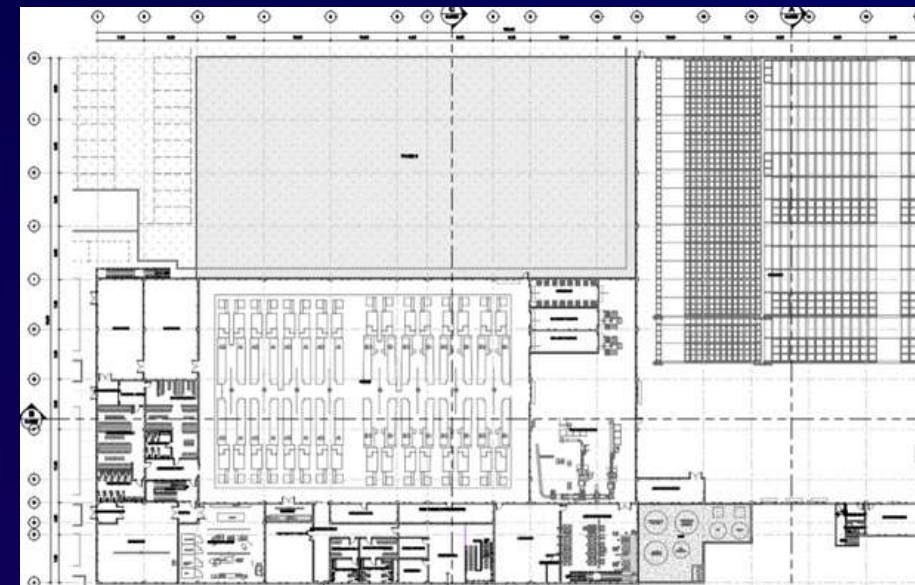
REQUIREMENT



SCHEMATIC MODEL



ARCHITECTURAL DRAWING

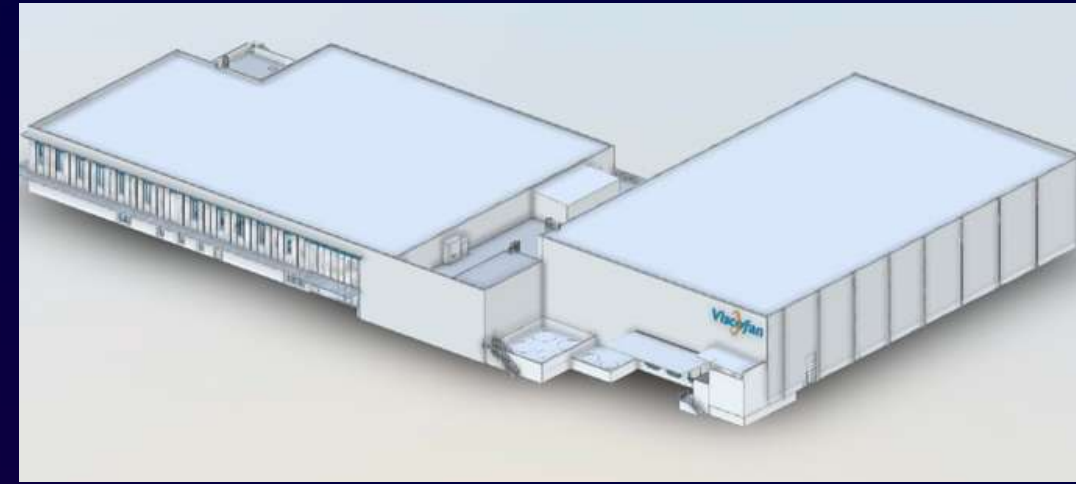


STRUCTURE ANALYSIS

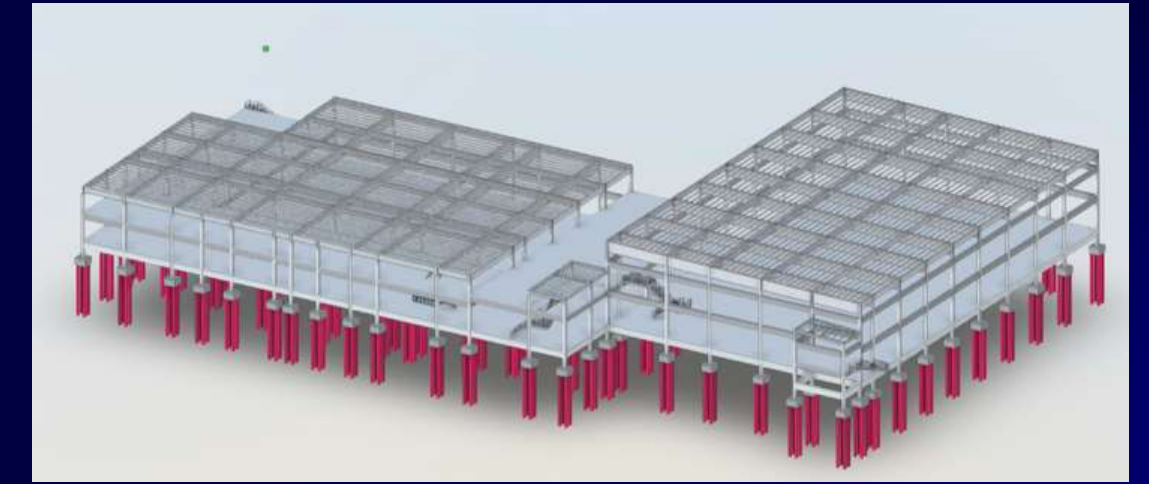
ENGINEERING DESIGN
CALCULATION TO MAKE IT BE
CONSTRUCTED IN THE REAL
WORLD

VISUAL GEOMETRY TO
CONSTRUCABILITY MODEL

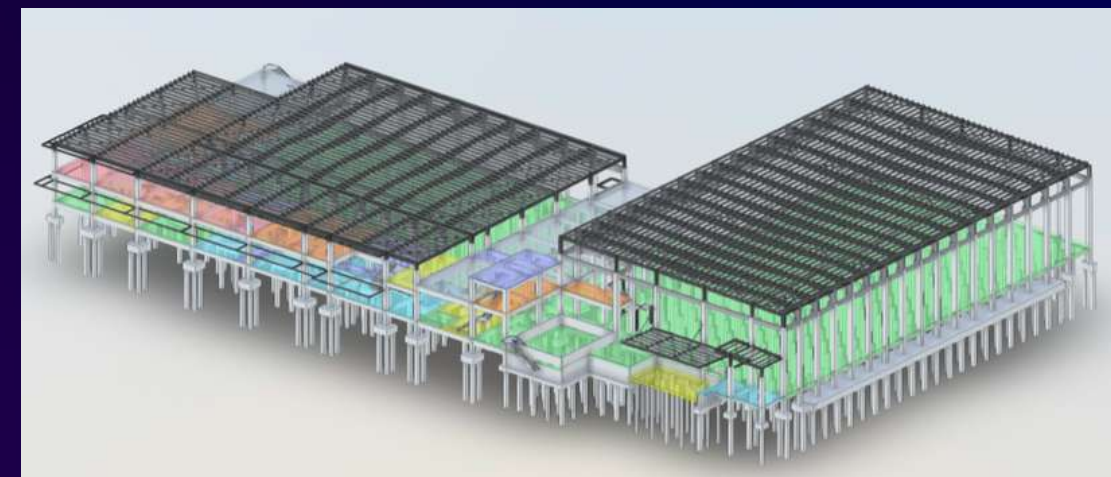
ARCHITECTURE MODEL



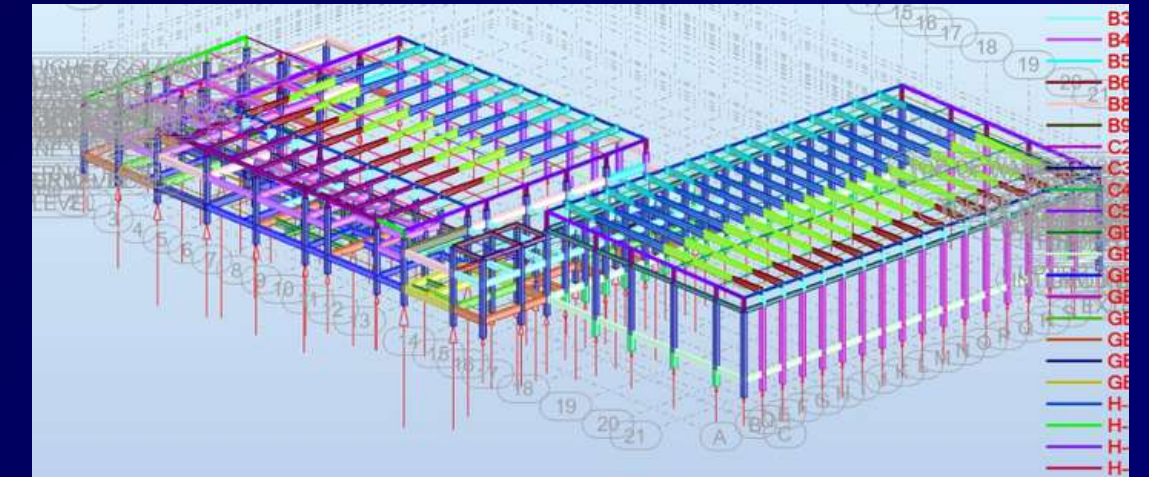
PRELIMINARY MODEL



STRUCTURE MODEL



STRUCTURE ANALYSIS MODEL



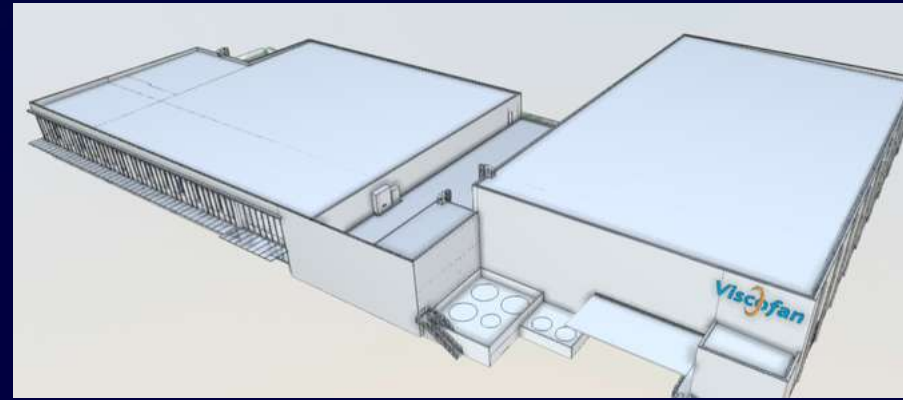
COORDINATION

COLLABORATE INFORMATION WITH OTHER DISCIPLINES ON A COLLABORATION PLATFORM IN THE SAME COMMON DATA ENVIRONMENT (CDE) AND REVIEW THE OVERALL PROJECT FOR

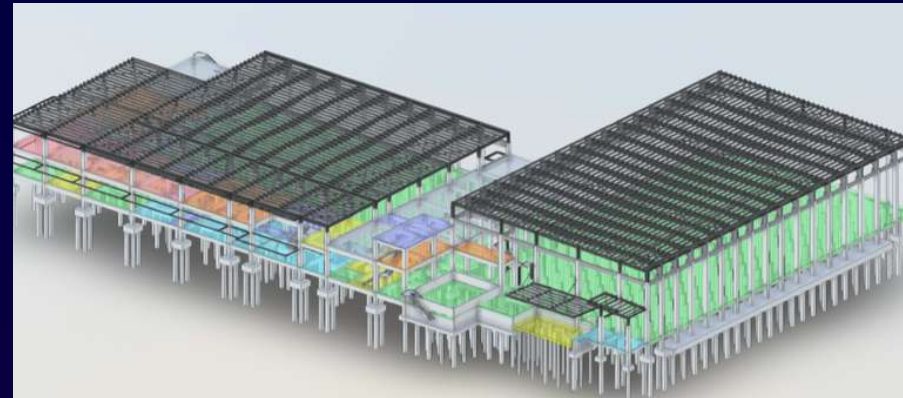
- GEOMETRY COORDINATION
- CLASH DETECTION
- PROJECT CONSTRUCTION

CONSTRUCTION MODEL TO REALITY
CONSTRUCTION SITE

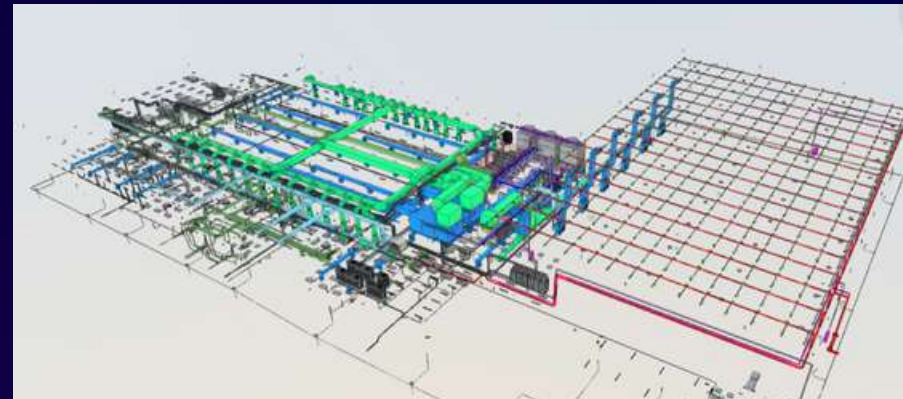
ARC



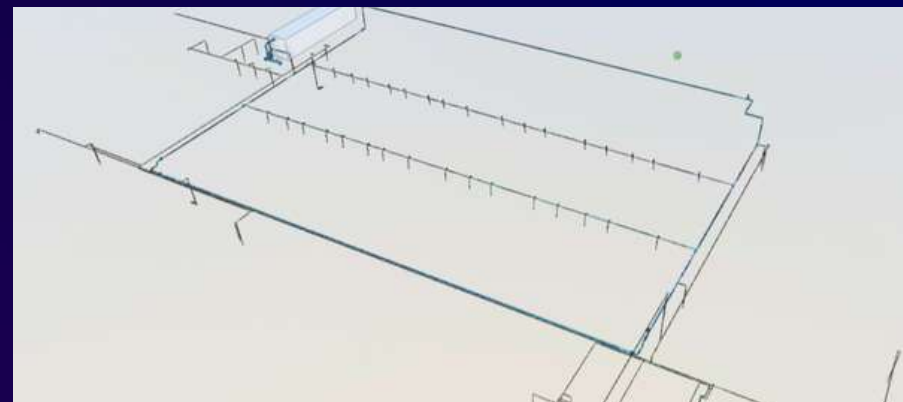
STR



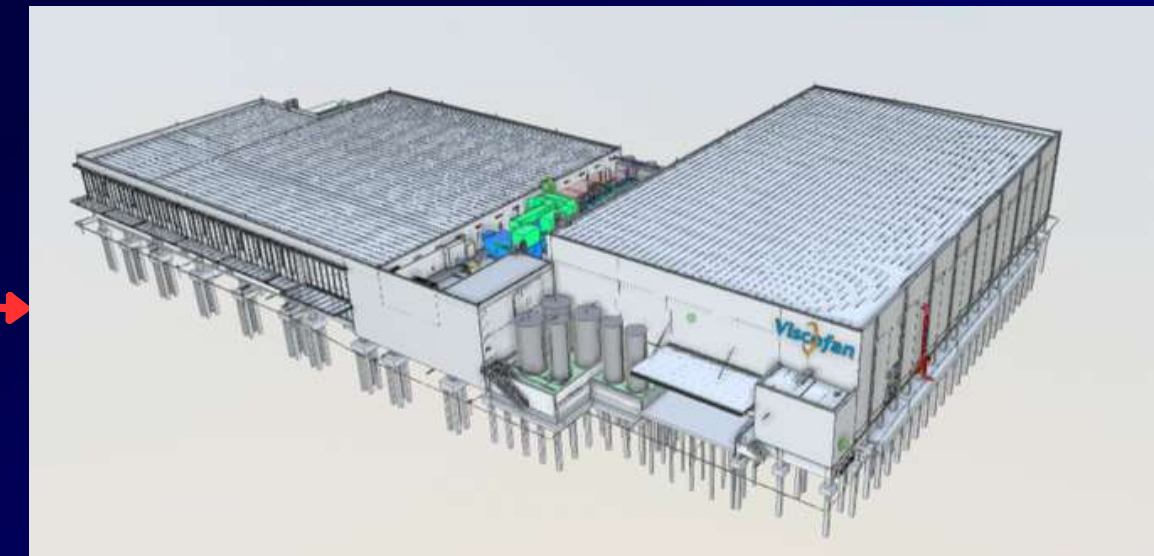
MEP



IPP

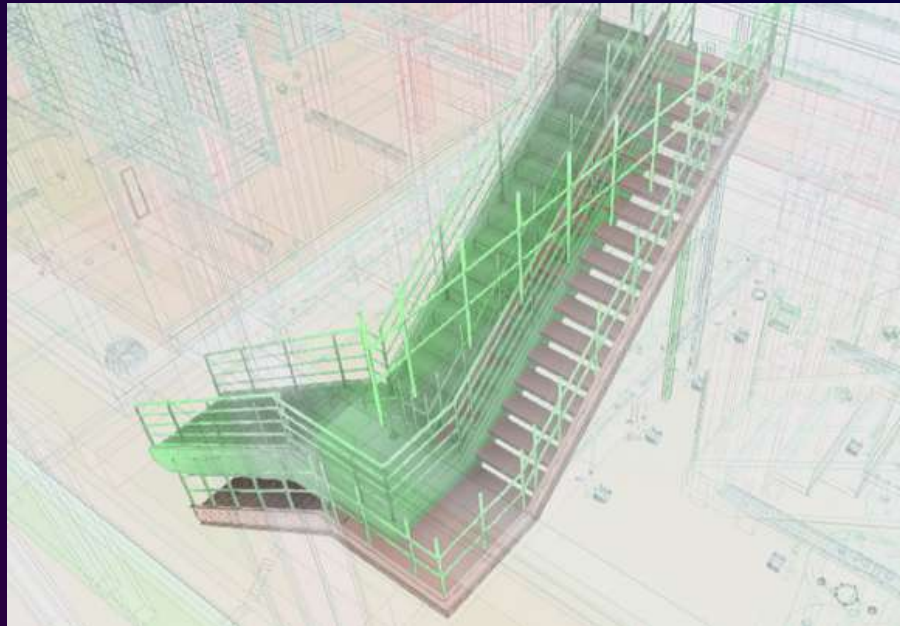


FEDERATED MODEL

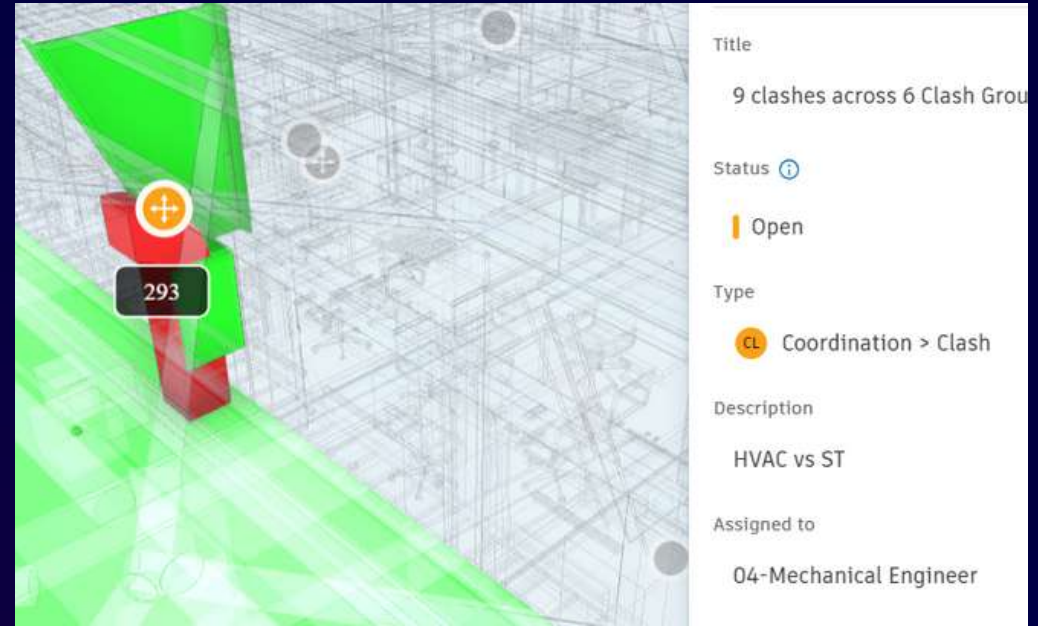


AUTODESK
CONSTRUCTION
CLOUD(ACC)

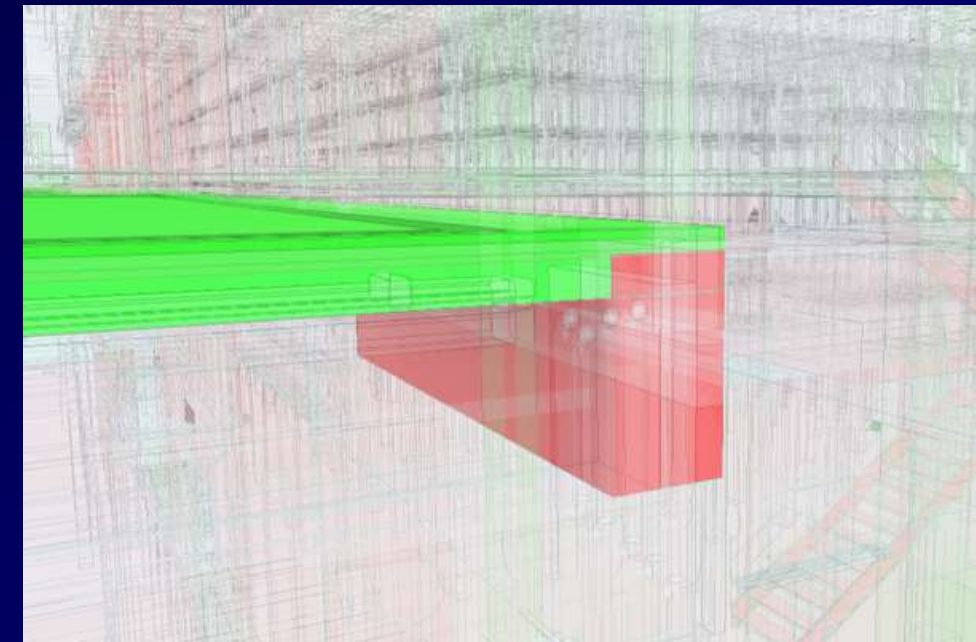
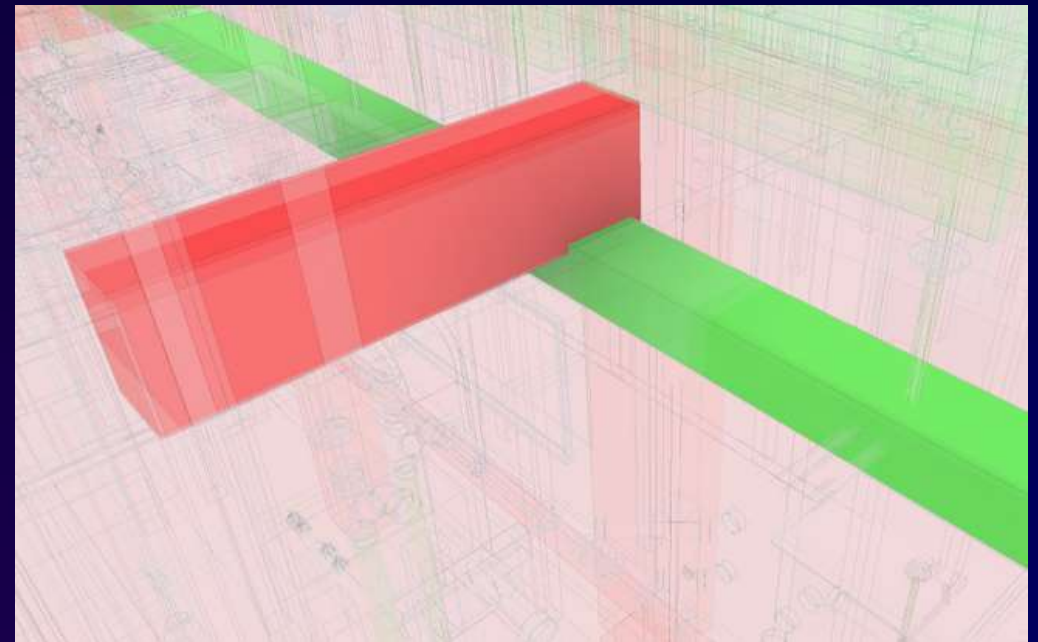
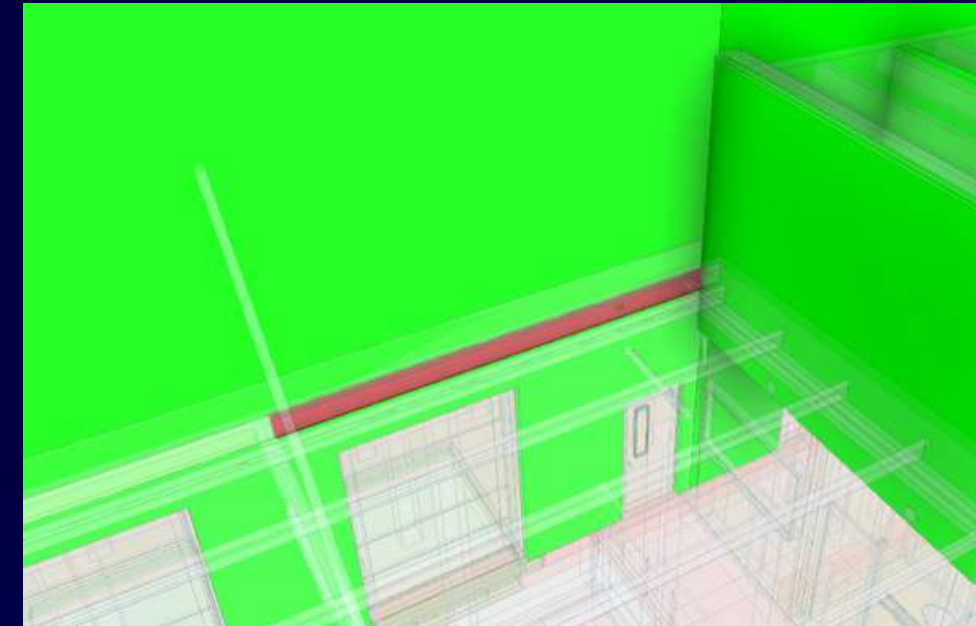
GEOMETRY COORDINATION



CLASH DETECTION (CLARIFY FOR ISSUE)



CONSTRUCABILITY

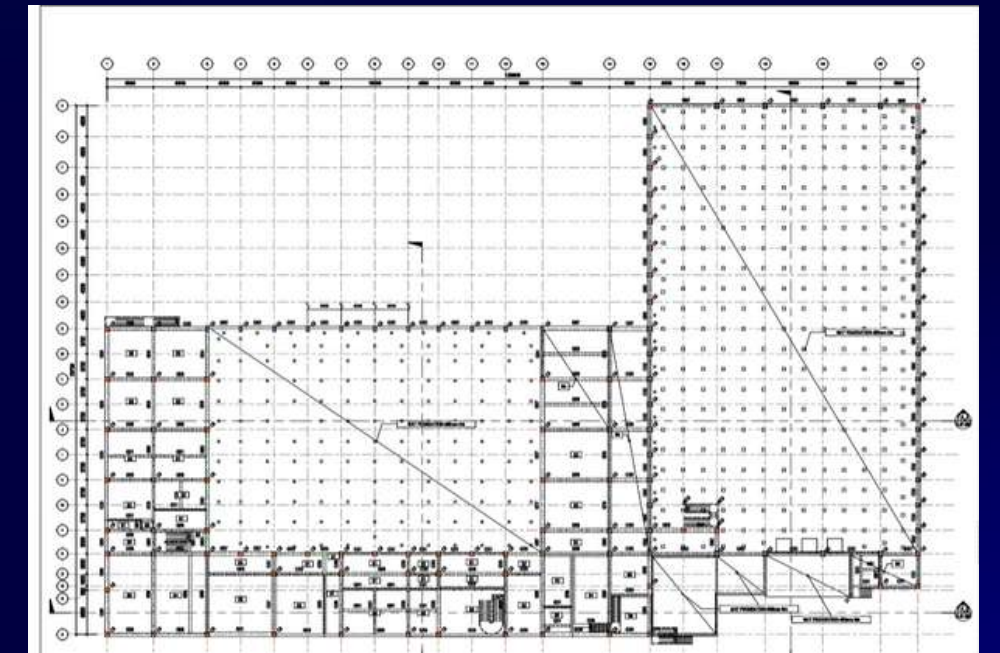
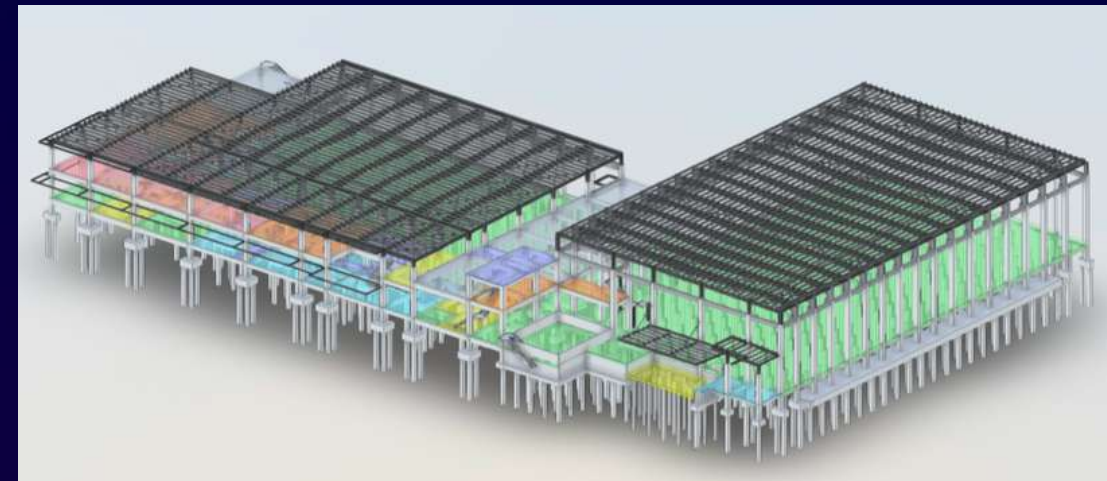


DRAWING

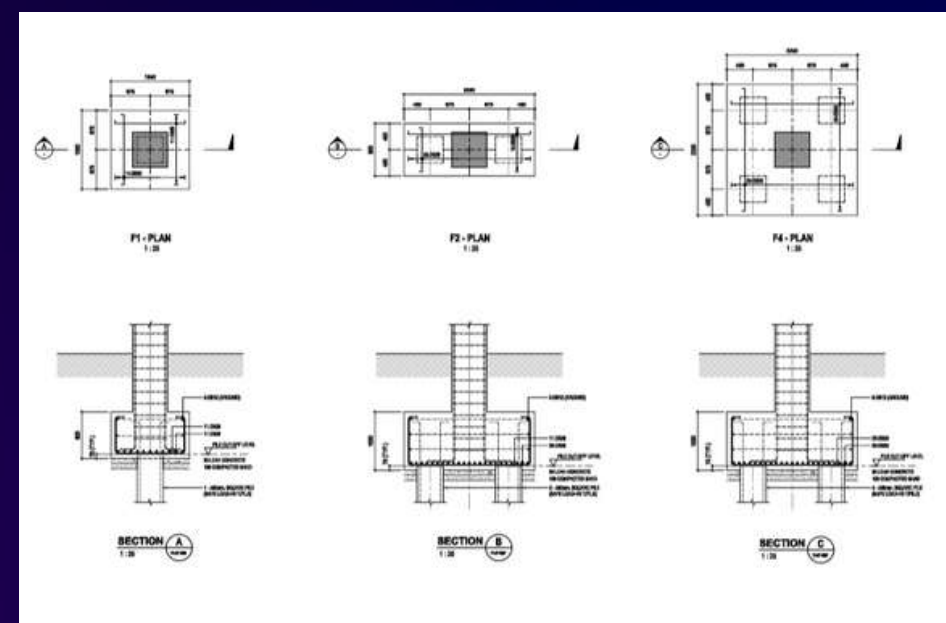
CREATE A 2D SHEET FROM THE MODEL FOR DRAWING AND DOCUMENT PACKAGE

CONSTRUCABILITY MODEL TO DELIVERABLE PACKAGE

STRUCTURE MODEL



PLAN



DETAILS

GROUND BEAM SCHEDULE		
MARK	SIZE	REMARK
B5	B5_400x1000	
B6	B6_500x700	
B8	B8_500x1000	
B9	B9_600x1200	
GB1	GB1_300x600	
GB2	GB2_400x800	
GB3	GB3_400x800	
GB4	GB4_400x1000	
GB5	GB5_500x1000	

COLUMN SCHEDULE		
TYPE	SIZE	Comments
C1	C1_400x400mm	
C2	C2_500x700mm	
C3	C3_600x600mm	
C4	C4_600x800mm	
C5	C5_400x800mm	

MEMBER SCHEDULE

QUANTITY

EXPORT AN ACCURATED QUANTITY LIST FROM THE ACCURATED MODEL TO MINIMIZE THE OWNER'S BUDGET

QUANTITY SCHEDULE

<Column Rebar Schedule>					
A	B	C	D	E	F
Host Category	Type	Bar Diameter	Bar Length	Weight/m	Weight
Structural Column	DB16	16 mm		1.58	70.609163
Structural Column	DB20	20 mm		2.47	213.838134
Structural Column	RB9	9 mm	880 mm	0.50	2.19618

<Beam Rebar Schedule 2>					
A	B	C	D	E	F
Host Category	Type	Bar Diameter	Bar Length	Weight/m	Weight
Structural Framing	DB20	20 mm		2.47	64.868669
Structural Framing	RB9	9 mm		0.50	8.353627

<S1 Schedule>		
A	B	C
Type Mark	Type	Volume
S1	S1_100mm THK.	52.64 m ³

<Steel Framing Schedule>					
A	B	C	D	E	F
Type Mark	Type	Volume	Length	Cost	Weight(kg)
SB1	SB1_125x75x3.2 (w=21.3 kg/m)	0.65 m ³		21.30	11599.698073

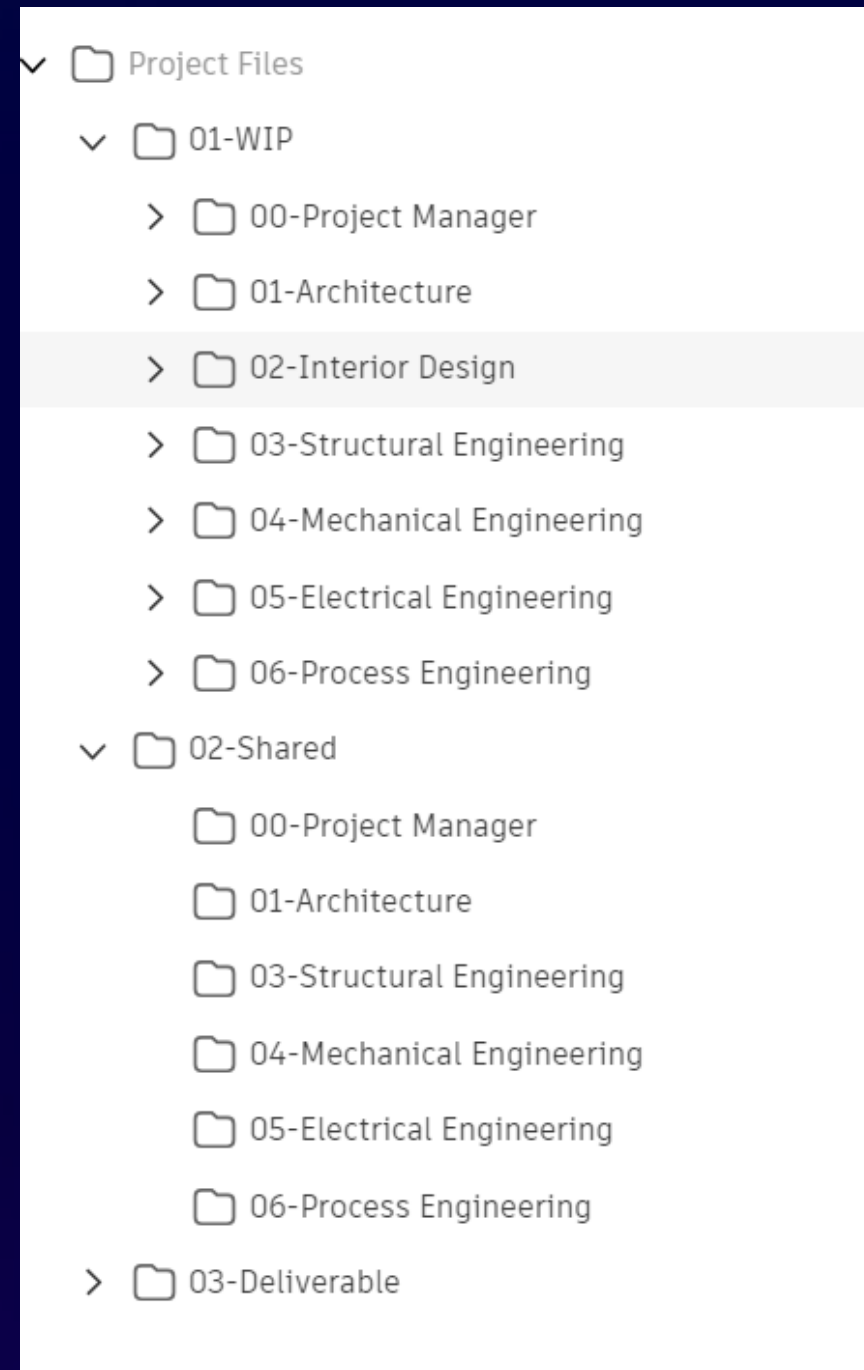
BOQ

ลำดับที่	รายการ	จำนวน	หน่วย	ค่าวัสดุ		ค่าแรงงาน		รวมค่าวัสดุและค่าแรงงาน	หมายเหตุ
				ราคาต่อหน่วย	จำนวนเงิน	ราคาต่อหน่วย	จำนวนเงิน		
	หมวดงานโครงสร้าง								
1	งานฐานราก FB	80	ฐาน						
	1.1 งานหินทุบ	69.7	ลบ.ม.	-	-	200.00	13,940.00	13,940.00	
	1.2 ทรายถมหนา 10 ซม.	4.36	ลบ.ม.	350.00	1,526.00	150.00	654.00	2,180.00	
	1.3 คอนกรีตหนา 10 ซม.	4.36	ลบ.ม.	1,645.00	7,172.20	450.00	1,962.00	9,134.20	
	1.4 คอนกรีตโครงสร้าง	89.36	ลบ.ม.	2,261.00	202,042.96	450.00	40,212.00	242,254.96	
	1.5 เหล็กเสริม								
	- DB12	433.16	กก.	25.75	11,145.21	7.00	3,032.12	14,177.33	
	- DB20	859.70	กก.	27.30	23,469.81	5.00	4,298.50	27,768.31	
2	งานเสาเหล็ก C1	80	ต้น						
	2.1 คอนกรีตโครงสร้าง	17.310	ลบ.ม.	2,261.00	39,137.91	450.00	7,789.50	46,927.41	
	2.2 เหล็กเสริม								
	- RB9	37.40	กก.	24.70	923.78	7.00	261.80	1,185.58	
	- DB20	3,635.28	กก.	27.30	99,243.14	5.00	18,176.40	117,419.54	
	รวม				384,661.01		90,326.32	474,987.33	

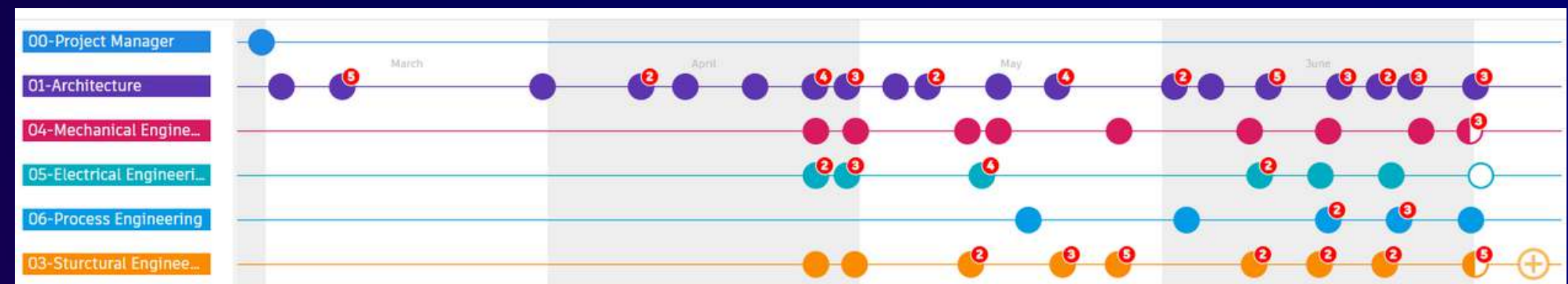
DOCUMENT MANAGEMENT

TO KEEP ALL OF THE PROJECT DOCUMENTS AND INFORMATION IN THE SAME COMMON DATA ENVIRONMENT (CDE) WHICH EVERY DISCIPLINE WILL EXCHANGE THEIR INFORMATION VIA THIS PLATFORM. EACH DISCIPLINE WILL MANAGE AND DEFINE WHAT INFORMATION CAN BE SHARED AND WHICH ONE IS NOT.

- WORK IN PROGRESS (FOR INTERNAL REVIEWS)
- SHARED INFORMATION (FOR OTHER DISCIPLINE REFERENCE)
- DELIVERIBLE (FOR EXTERNAL REVIEWS)

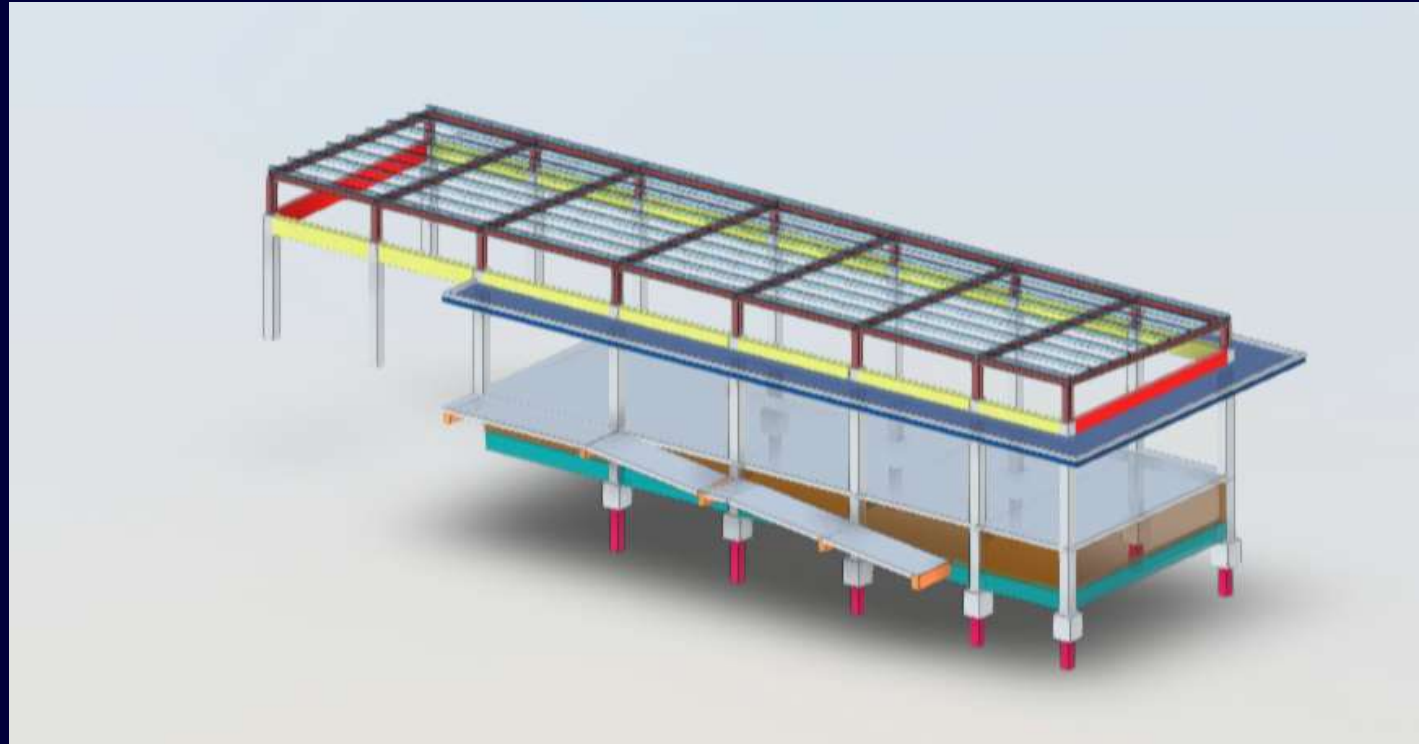


INFORMATION PURPOSED



PROJECT TIMELINE

CANTEEN



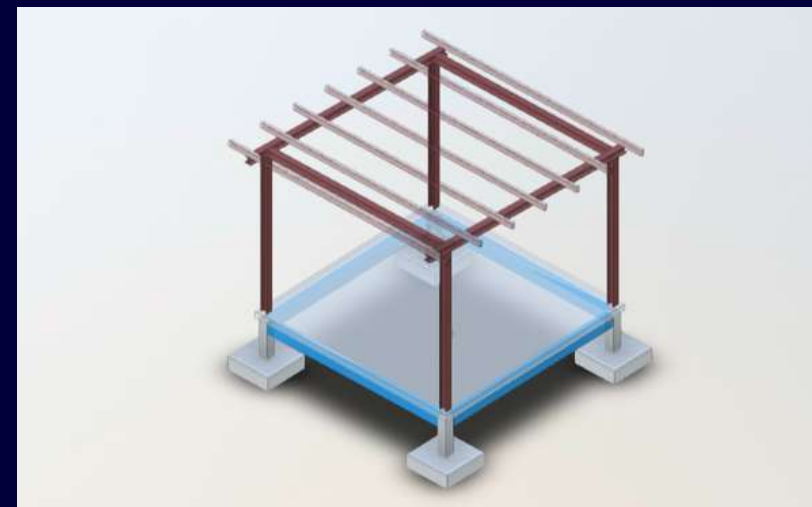
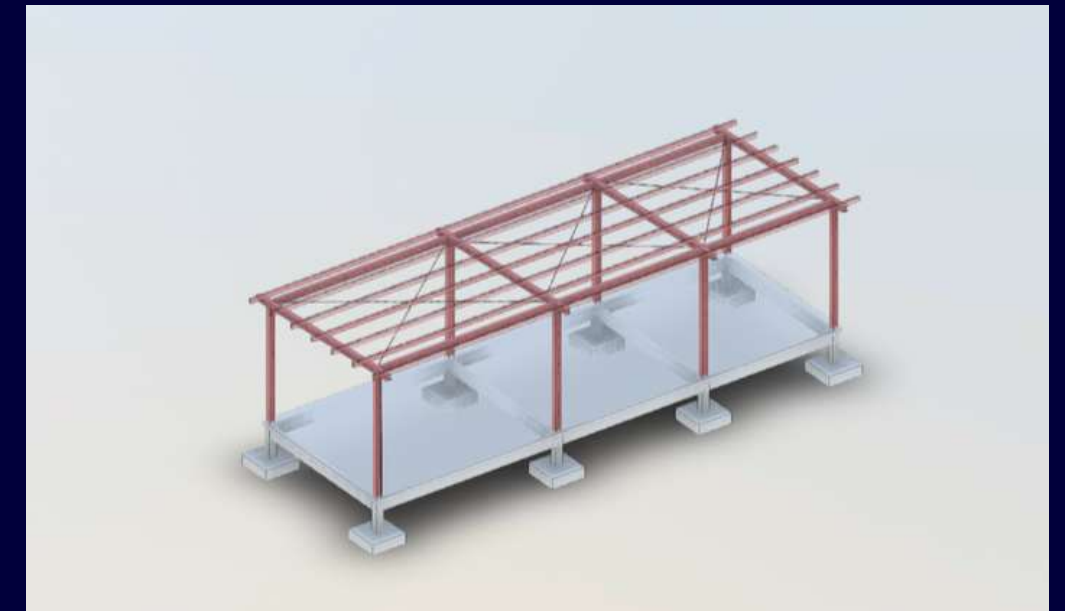
FIRE PUMP ROOM



GUARD HOUSE

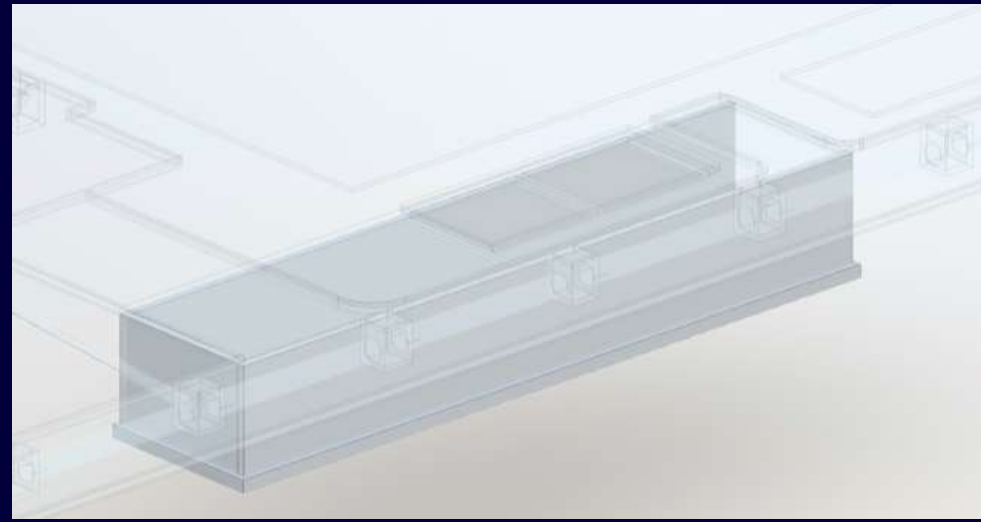
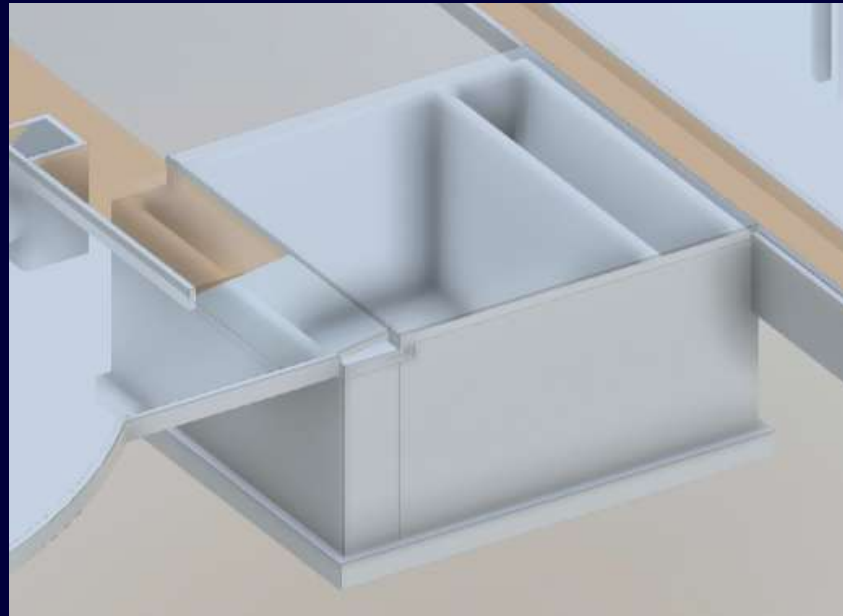


TRANSFORMER ROOM

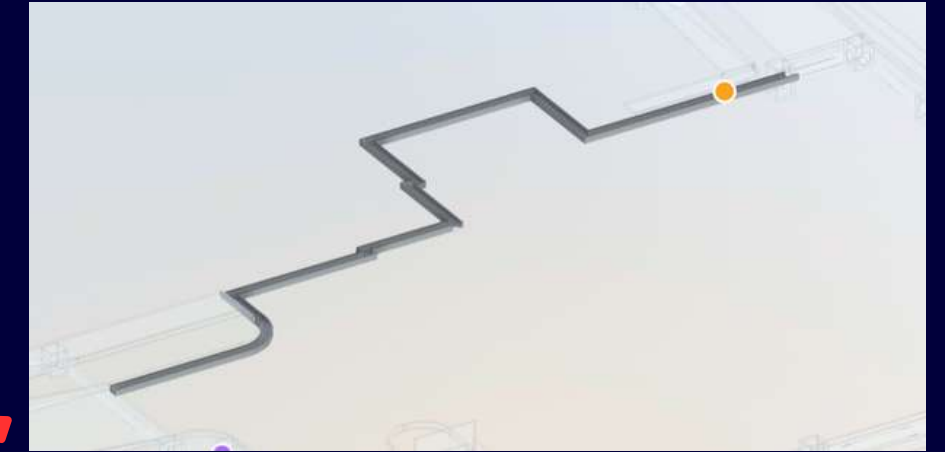


WATER TREATMENT ROOM

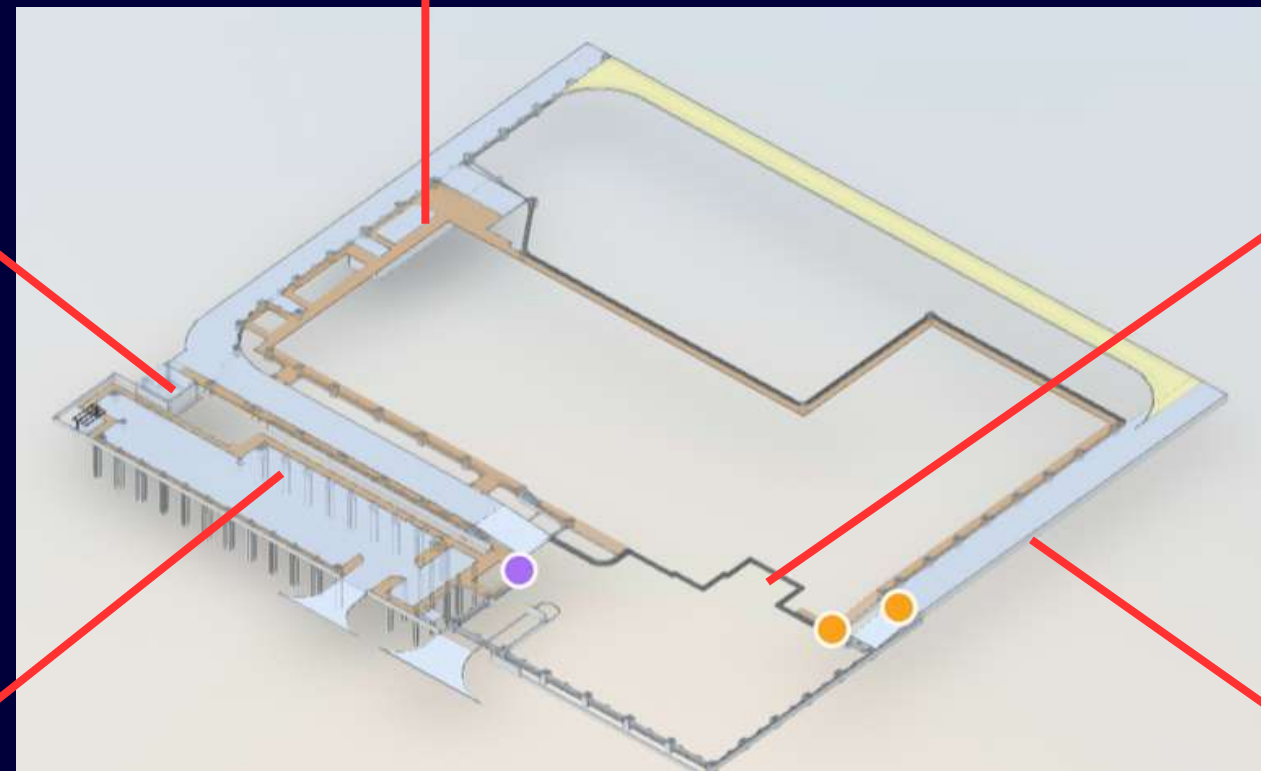
FIRE PUMP
UNDERGROUND TANK



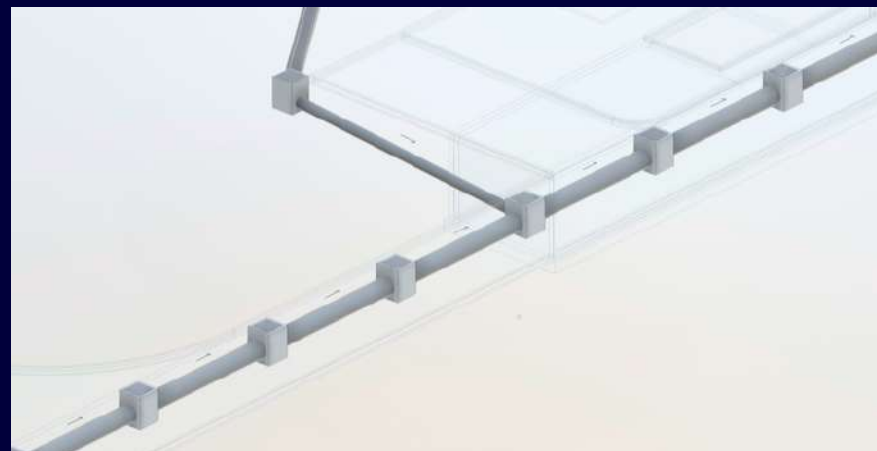
GUTTER FOR SITE DRAINAGE



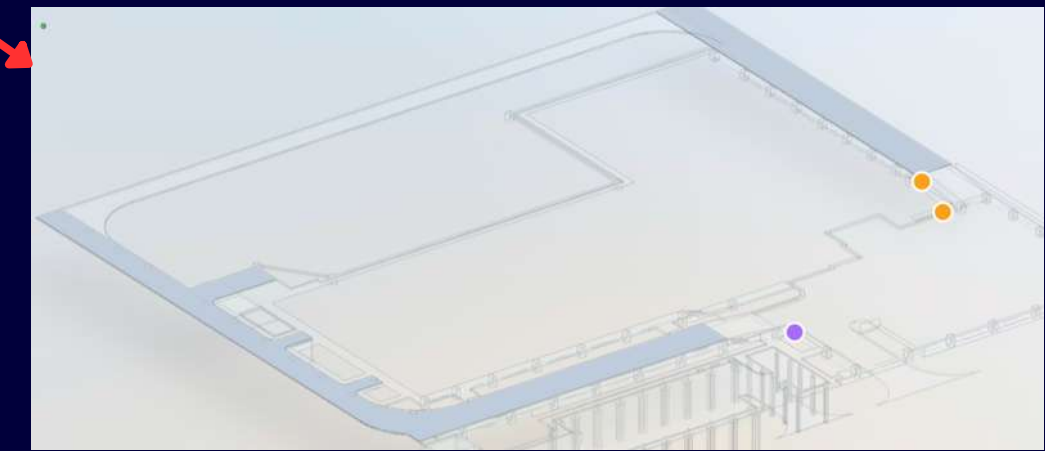
RAIN STORAGE
UNDERGROUND TANK



MANHOLE



INTERNAL ROAD PAVEMENT



CIVIL WORKS

THANK YOU FOR YOUR ATTENTION