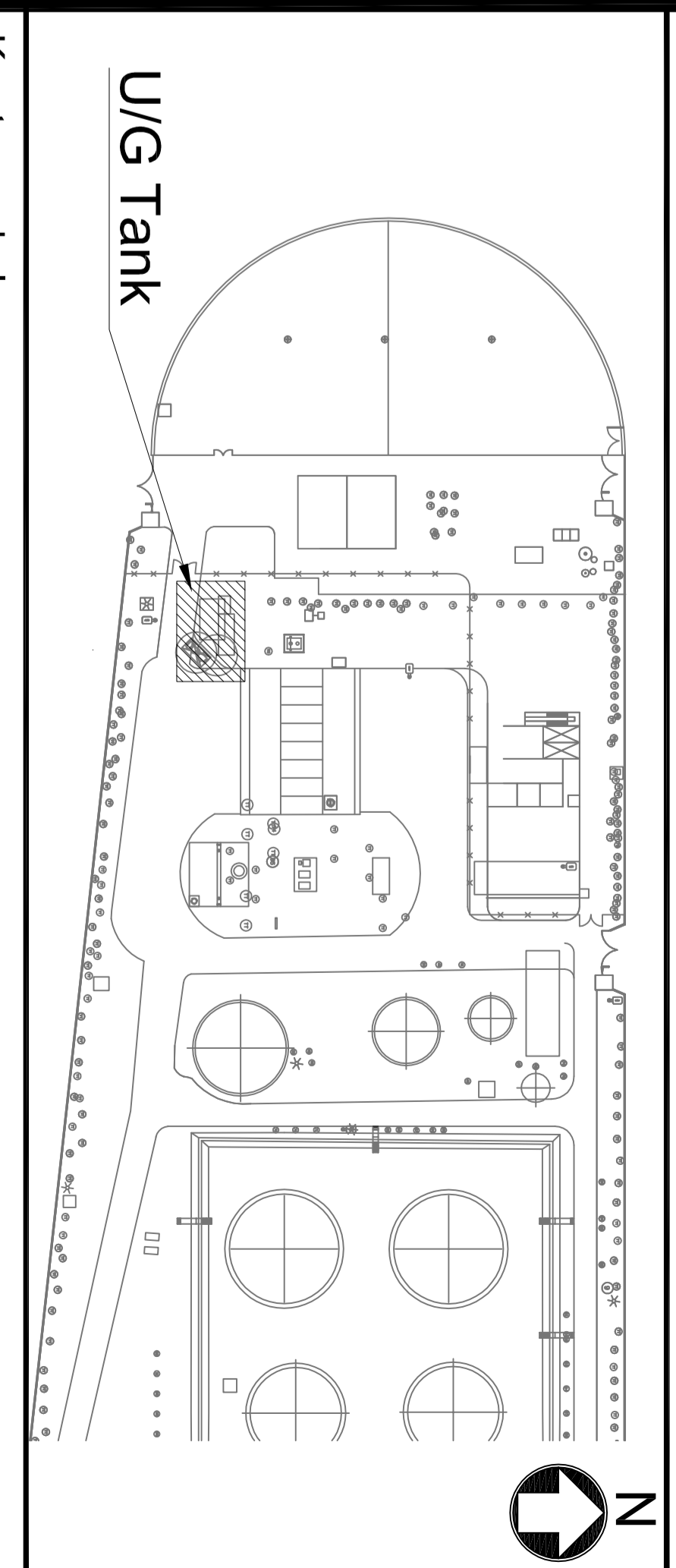


- Notes
- All dimensions are in millimeters and levels are in meters, unless otherwise specified.
 - Structural details if shown like rack, stairs, supports etc., are indicative. Refer structural/civil drawings for the same.
 - All equipment's sizes are based on conceptual layout; equipment list or mechanical data sheet.

Reference drawings



Key to symbols

1) 322538-MPE-0100-01	Plot plan		
2) 322538-MSB-0001-01	Data sheet		
Abbreviations :			
FGL	Finished Ground Level		Existing Area
FFL	Finished Floor Level		Paved Area
TOF	Top of Foundation		Structural work
TOS	Top of Structure		Pipe rack
C/L	Center Line		Typical Level

Rev	Date	Drawn	Description	Chk'd	App'd
0	17.06.15	RD	Issued for Bidding		
P3	16.06.15	RD	Layout Revised & Issued for Approval		
P2	08.06.15	RCP	Revised & Issued for Approval		
P1	01.06.15	MML	Issued for Approval	VNP	AKS

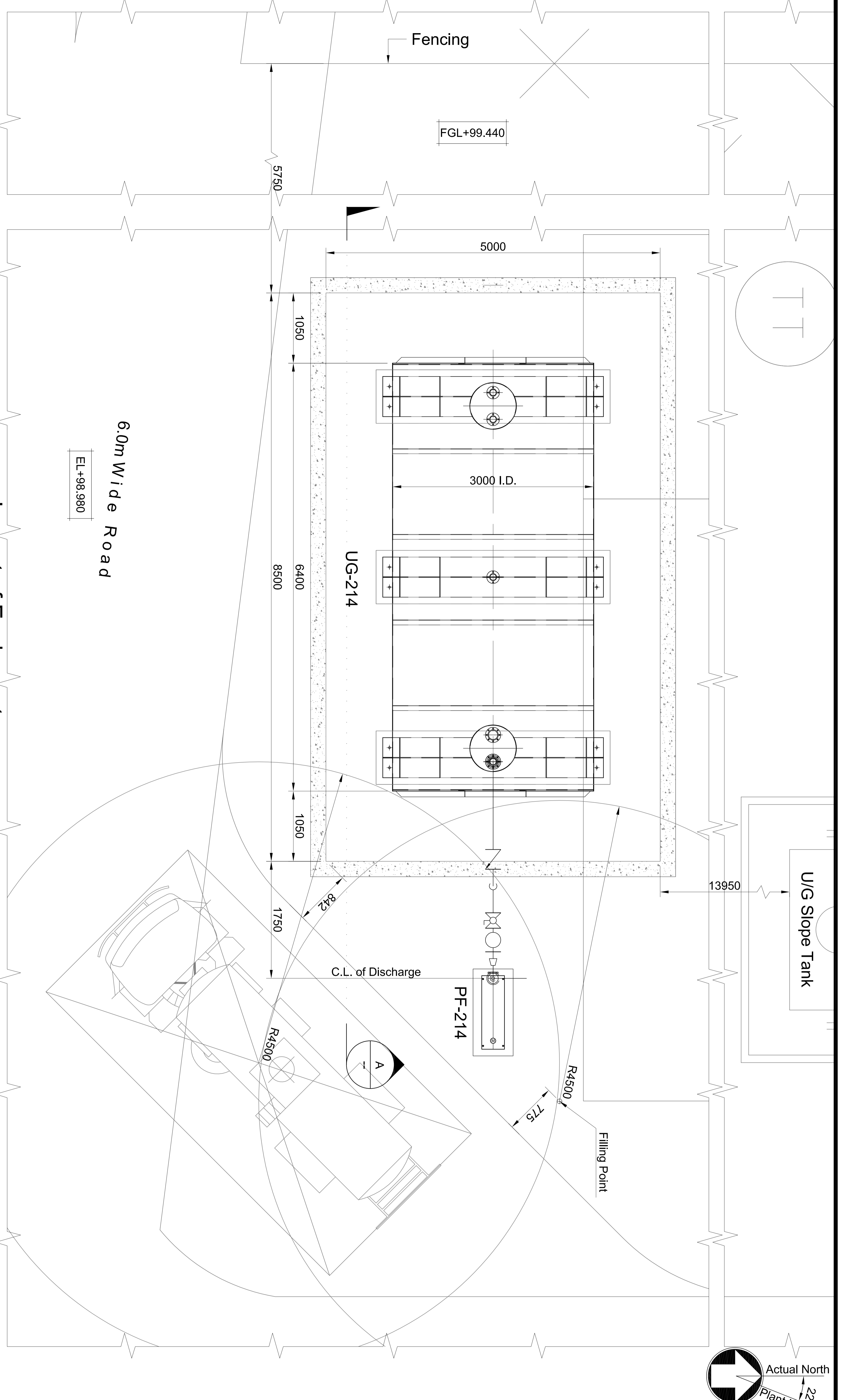
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Sector 2
Noida
201301
India
T +91 (0)12 0254 3582
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M/s Delhi Aviation Fuel Facility Pvt. Ltd.
Aviation Fuelling Station
Shahbad, Muhammad Pur
IGI Airport, New Delhi - 110061

Title
Modernization of Existing Fuel Farm

U/G Tank
Layout & Section of Equipment

Designed	U.J.	Eng check	MMS/VNP
Drawn	MML	Coordination	VSG
Dwg check	U.J.	Approved	VST
Scale at A2	Status	Rev	Security
As Shown	EXE	0	STD
Drawing Number	322538-MLB-0003-01		

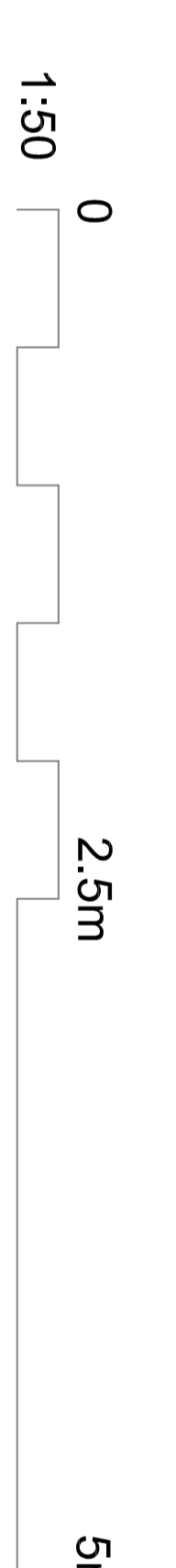


Layout of Equipments
1 : 50

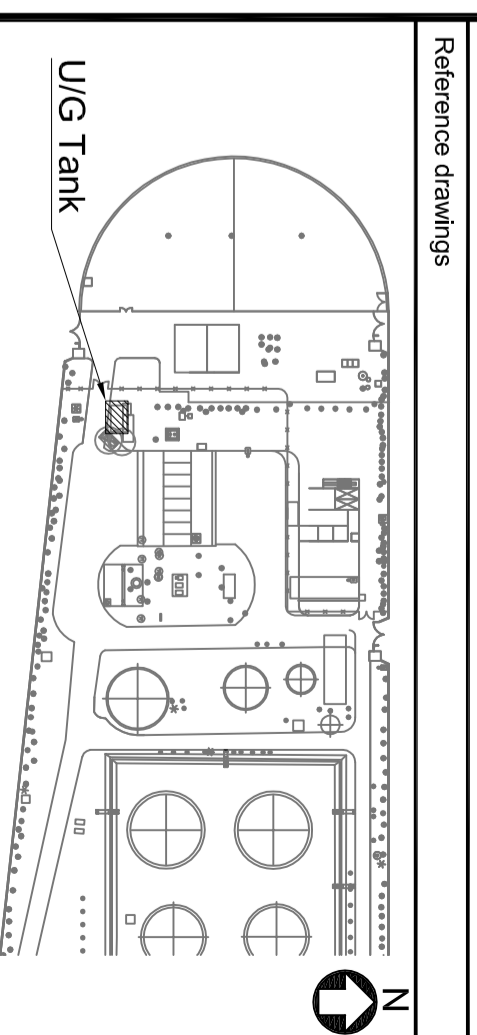
Section A
1:50

Detail of Under Ground Proposed Tanks

Tank No.	Dia. X Height	Product	Capacity	Remarks
UG-214	3.0m I.Dia. X 6.4m Long	ATF(CLASS-B)	45 KL	
PF-214	Hold	Pump	-	Centrifugal



- Notes**
1. All dimensions are in millimeters and levels are in meters, unless otherwise specified.
 2. Structural details if shown like rack, stairs, supports etc., are indicative. Refer structural/civil drawings for the same.
 3. All equipment's sizes are based on conceptual layout, equipment list or mechanical data sheet.



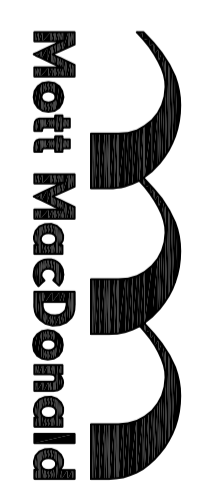
Key to symbols

1) 322538-MPE-0100-01	Plot plan
2) 322538-MSE-0001-01	Data sheet
3) 322538-MLB-0003-01	U/G Tank Layout & Section of Equipment
4) 322538-PC-C-0003-01	P & I Diagram : Down Graded ATF Transfer System

Abbreviations :

FFL	Finished Ground Level	⊕	Anchor @ Drain/Vent	Typ	Typical
FFL	Finished Floor Level	⊕	IP Insulation Protection	FTA	Fiscal Trap
TOF	Top of foundation	⊕	IH Insulation Hot	FTA	Fiscal Trap
TOS	Top of Steel work	⊕	IC Insulation Cold	FTA	Fiscal Trap
ROP	Bottom of Pipe	⊕	IC Insulation Cold	FTA	Fiscal Trap
COP	Center of Pipe	⊕	IC Insulation Cold	FTA	Fiscal Trap
CL	Center Line	⊕	IC Insulation Cold	FTA	Fiscal Trap
LSU	Level	⊕	IC Insulation Cold	FTA	Fiscal Trap
FSD	Flat Side Up	⊕	IC Insulation Cold	FTA	Fiscal Trap
FSD	Flat Side Down	⊕	IC Insulation Cold	FTA	Fiscal Trap

0	17.06.15	RD	Issued for Bidding		
P1	16.06.15	RD	Issued for Approval	VNP	AKS
Rev	Date	Drawn	Description	Chk'd	App'd



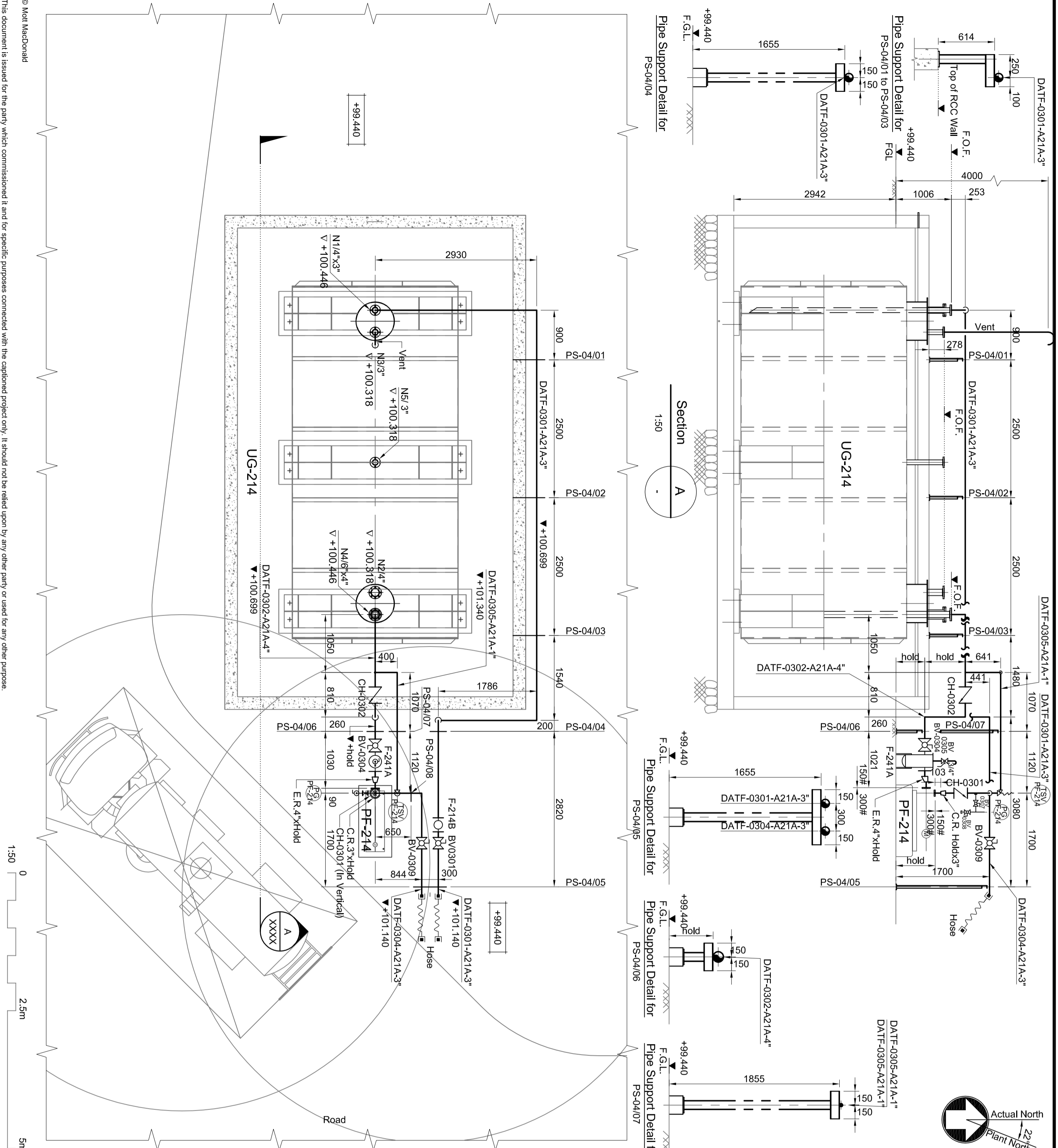
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Noida
201301
India
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Aviation Fuelling Station
Shahbad, Muhammad Pur
IGI Airport, New Delhi - 110061

Title
Modernization of Existing Fuel Farm

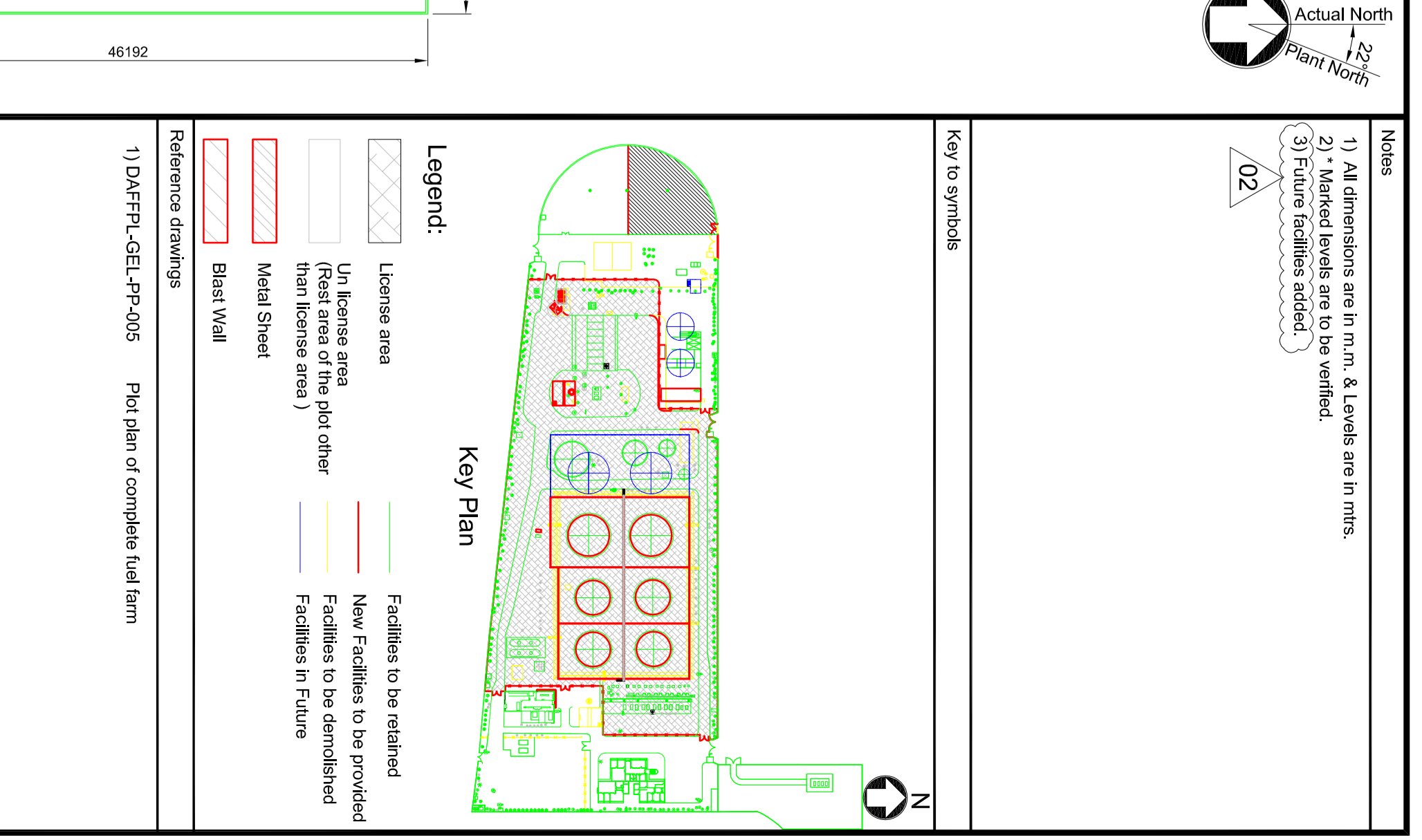
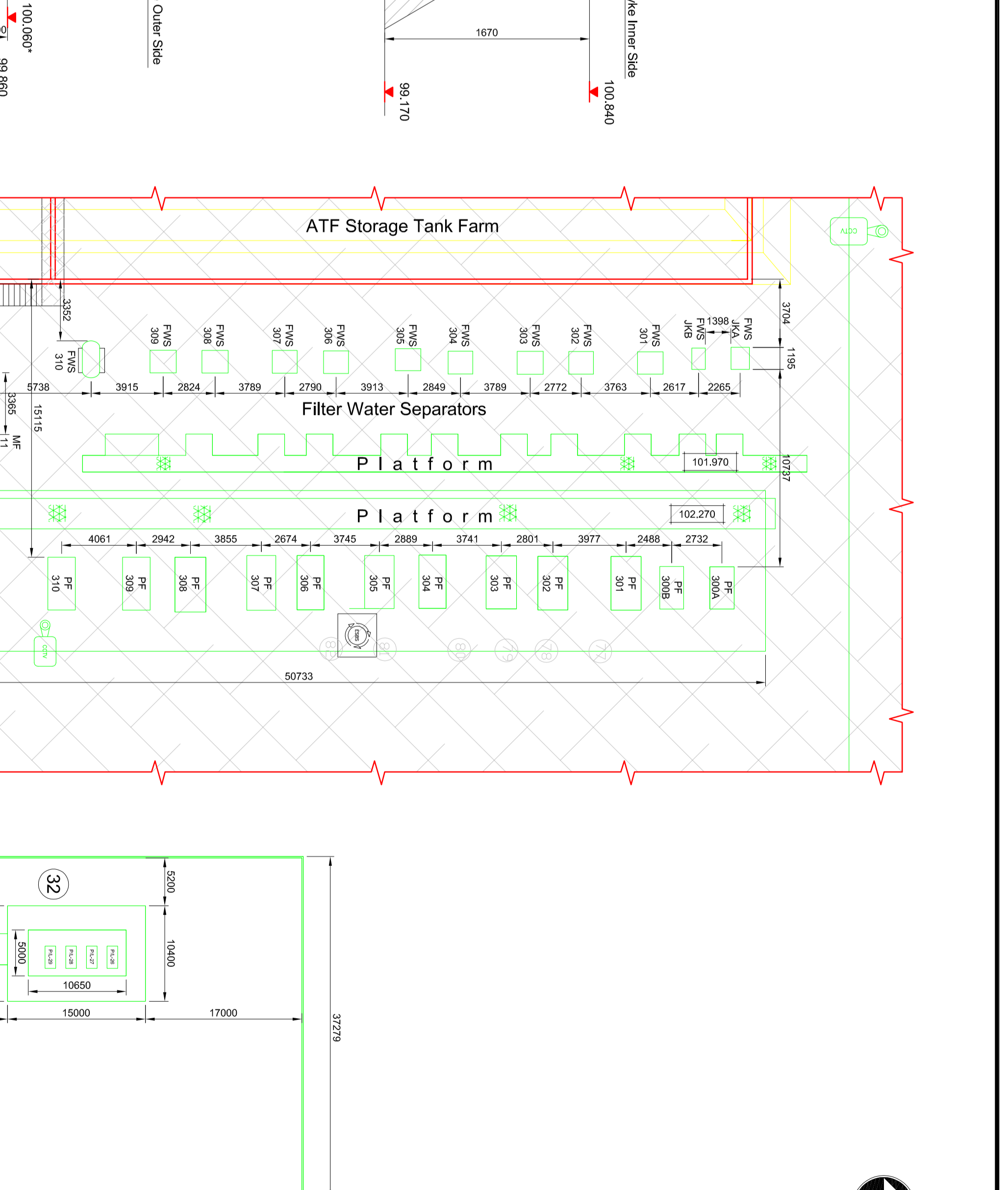
U/G Tank Piping Layout & Section

Designed	U.J.	Eng check	MMS/VNP
Drawn	R.D.	Coordination	VSG
Dwg check	U.J.	Approved	VST
Scale at A2	1:50	Status	EXE
Drawing Number	322538-MPB-0104-01	Rev	0
		Security	STD

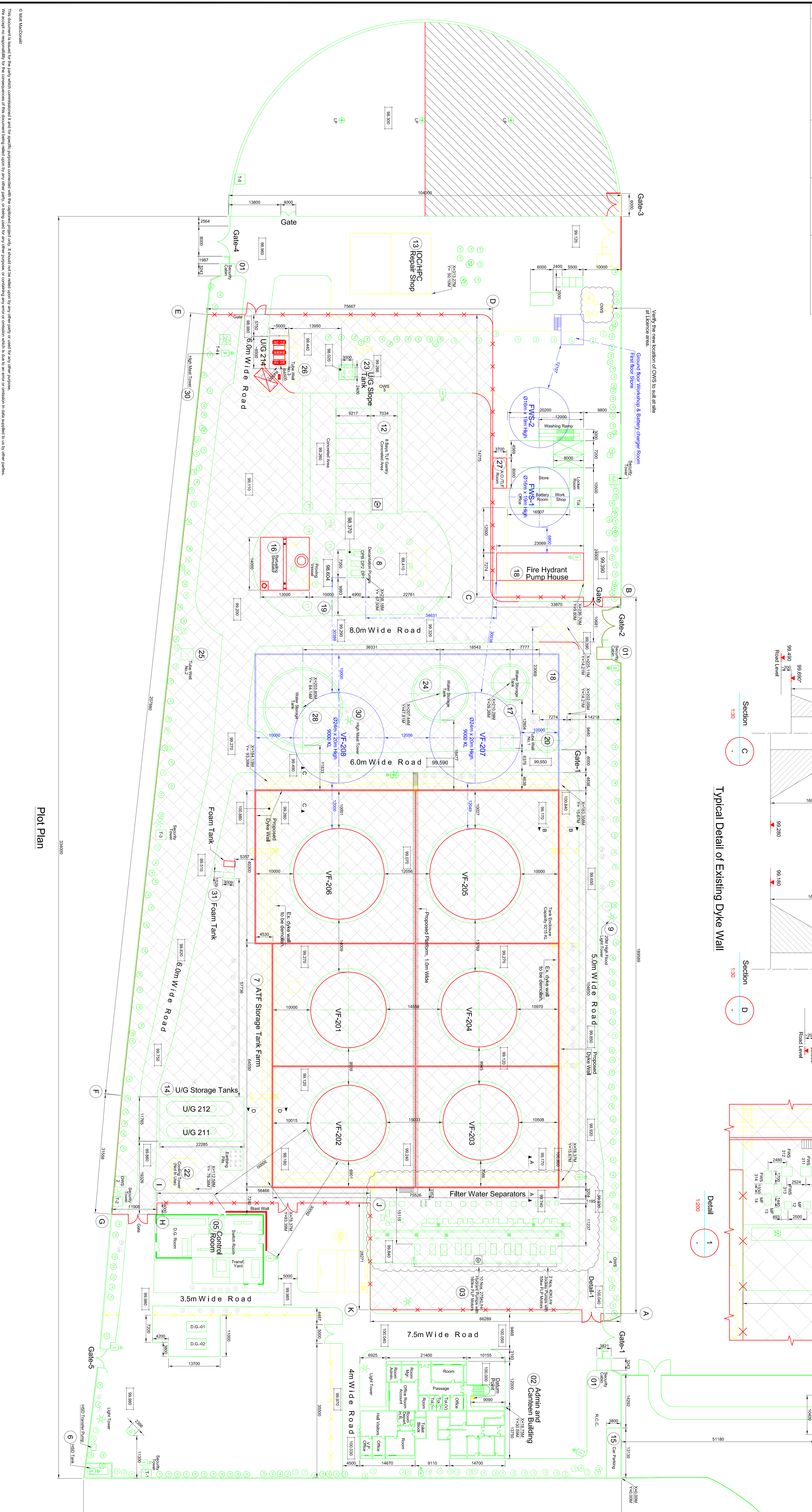


Sl. No.	Description	Size (In Mtrs.)	Area in Sq.Mtrs.	Remarks
1	Security Check Post (New)	3.8x2.2x4	12.85	
2	Admin and Control Building	-	701.25	
3	Pump House	50.2x7.2	366.46	
4	Testing Rig	10x10	100.00	
5	Existing and Control Room	-	295.17	
6	Dehal Tank Farm	3.97x7.0	New	
7	Ad Storage Tank Farm	104x7.2	814.24	
8	HTI Pump House	12x35.5m	680.00	
9	High Flood Light Tower (20m High)	3x3x3	-	
10	Repair Shop	20x30.2	404.00	
11	Meter Calibration Unit (24)	2.0x3.0	6.00	To be removed & relocated
12	Tank Lorry Decoupling Gantry	9.2x24.55	317.28	To be removed & relocated
13	Repair Shop (HTO/C)	16.0x8.8x2	137.60	To be removed.
14	U/G Storage Tank (of New)	-	-	
15	Parking Area	-	-	
16	Fuelers Parking	9.0x15x15m HT	2062.41	To be removed & relocated
17	Water Storage Tank	30.0x30.0x1m	6.81	To be removed & relocated
18	Fire Hydrant Pump House	1.2x3.2x2	2.88	To be removed & relocated
19	DB Platform	2.0x2.0	2.00	
20	Tube Well No. 1	6.1x7.6	46.36	
21	Over Head Water Tank	2.2x2.0x0.5x1m HT	25.44	To be removed.
22	Coating Tower	4.8x1.2x1.2	-	
23	U/G Strip Tank	-	-	
24	Water Storage Tank	14.0x0.5x1m HT	153.33	
25	Tube Well No. 2	3.4x3.4x6	11.97	To be removed.
26	Tube Well No. 3	3.4x3.4x6	11.97	To be removed.
27	A.O.U.T.F. Room	8x3x7	216	New
28	Water Storage Tank	20.0x0.5x1m HT	628	
29	Road for Fire Tender	30m HIGH	-	
30	High Mast Tower (24m)	30x15x30m HIGH	4.50	New
31	Frame Tank	5.48x8.67x20m	47.85	
32	Companion Point	5.48x8.67x20m	-	

Detail of Under Ground Proposed Tanks				
Tank No.	Dia. X Height	Product	Capacity	Remarks
UC-214	3.0m Dia. X 6.0m Long	ATFC(LASSB)	45 KL	New
Detail of Under Ground Existing Tanks				
Tank No.	Dia. X Height	Product	Capacity	Remarks
UC-211	2.7m Dia. X 19.6m Long	ATFC(LASSB)	115 KL	
UC-212	4.016m Dia. X 15.51m Long	ATFC(LASSB)	200 KL	
UC-213	1.84m Dia. X 5.81m Long	ATFC(LASSB)	10 KL	
Detail of Above Ground Existing Tanks				
Tank No.	Dia. X Height	Product	Capacity	Remarks
VF-201	20.0m Dia. X 20.0m Height	ATFC(LASSB)	6200 KL	
VF-202	20.0m Dia. X 20.0m Height	ATFC(LASSB)	6200 KL	
VF-203	20.0m Dia. X 20.0m Height	ATFC(LASSB)	6200 KL	
VF-204	20.0m Dia. X 20.0m Height	ATFC(LASSB)	6200 KL	
VF-205	24.0m Dia. X 20.0m Height	ATFC(LASSB)	9000 KL	
VF-206	24.0m Dia. X 20.0m Height	ATFC(LASSB)	9000 KL	



Notes	1) All dimensions are in m.m. & levels are in m.m.
	2) Retained levels are to be verified.
	3) Future studies are to be considered.
Scale	1:400
Project Number	322938-MPE-0100-01

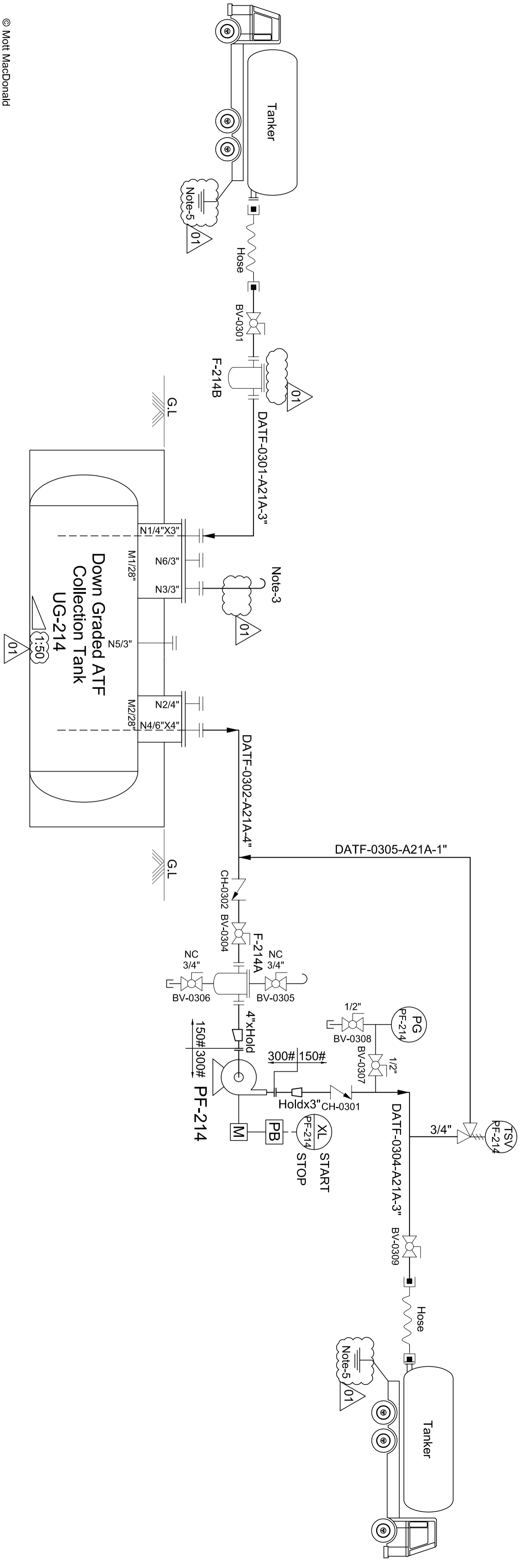


Client	M/s Delhi Aviation Fuel Facility Pvt. Ltd. Aviation Fueling Station Shaheed Muzammil Pur IGI Airport, New Delhi - 110061
Project	Modernization of Existing Fuel Farm Layout for Proposed Encloser Modification in Existing Aviation Fueling Facility
Design	UL
Drawn	K.S.
Checked	U.I.
Scale	1:400
Sheet	EKE
Revision	02
Standard	STD


Author	ASB
Designer	Sankar
Checker	U.I.
Approver	VST

- Note :
1. For abbreviation & symbols refer drawing no 322538-PIB-0001-01.
 2. The vent at the highest point and the drain at the lowest point, shall be provided in the pipe lines. The size of vent and drain shall be 3/4".
 3. The vent shall be located at a height of not less than 4 meters above the ground level.
 4. All ball valves shall be considered as quarter turn taper type.
 5. Earthing provision for truck

Equipment List					
Sr No.	Tag No.	Description	QTY.	Capacity	MOC Remarks
1	UG-214	Down Graded ATF Collection Tank	01	45 KL	CS
2	PF-214	Down Graded ATF Transfer Pump	01	20 M ³ /hr @ 2.0 Kg/cm ² g	CS



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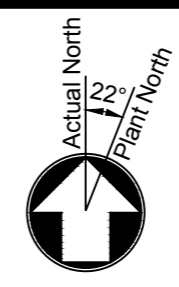
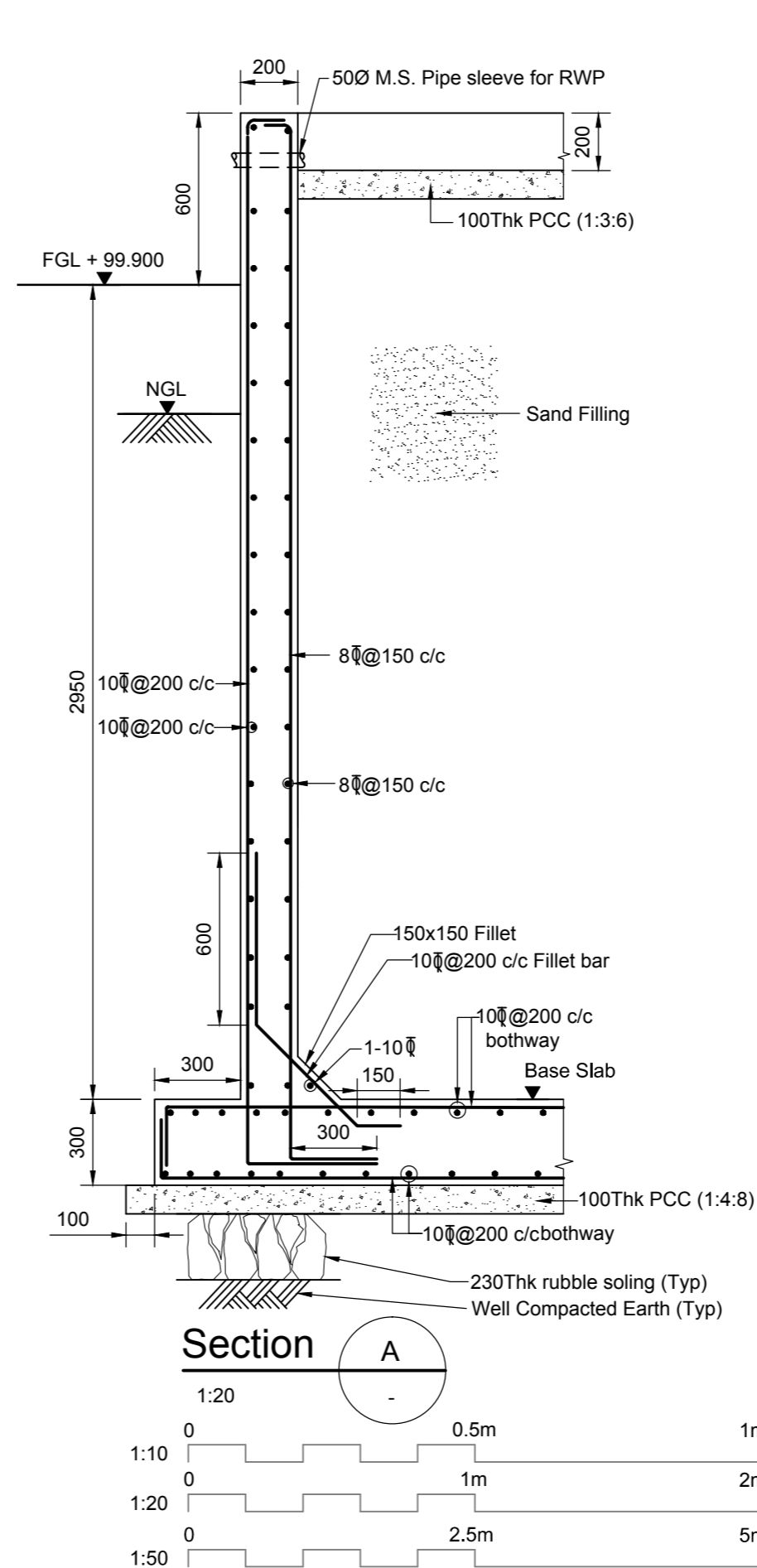
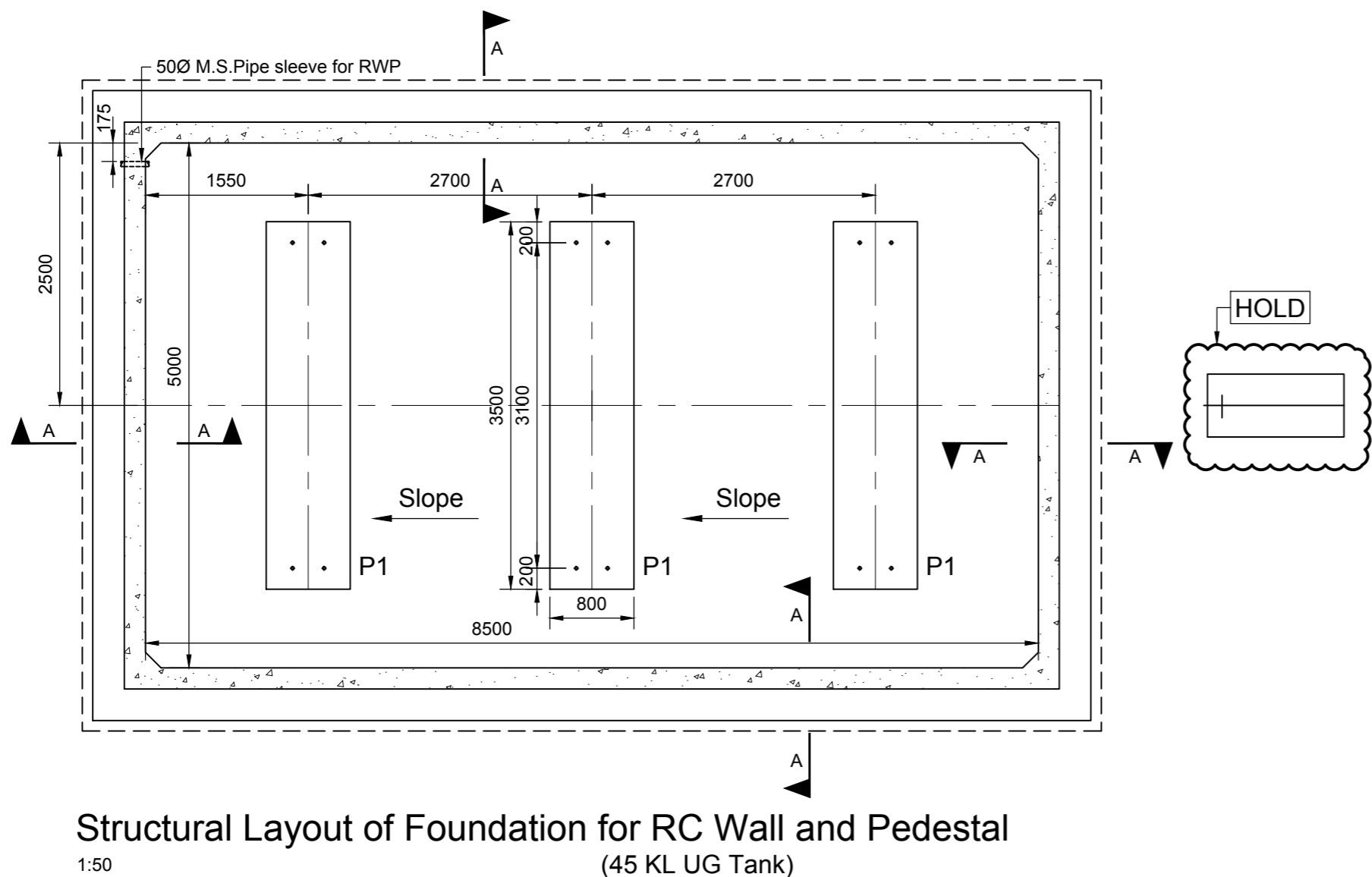
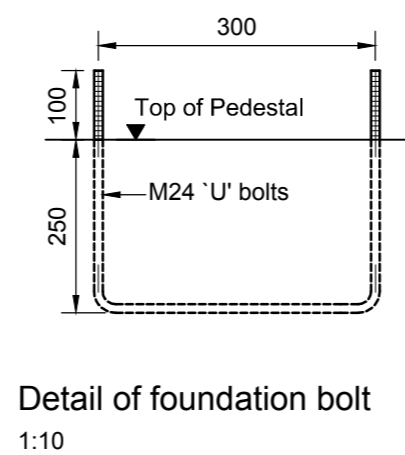
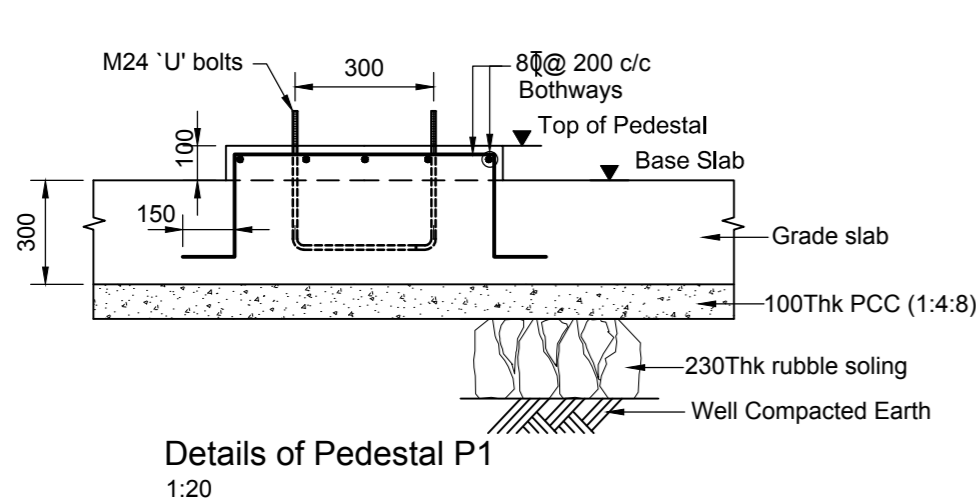
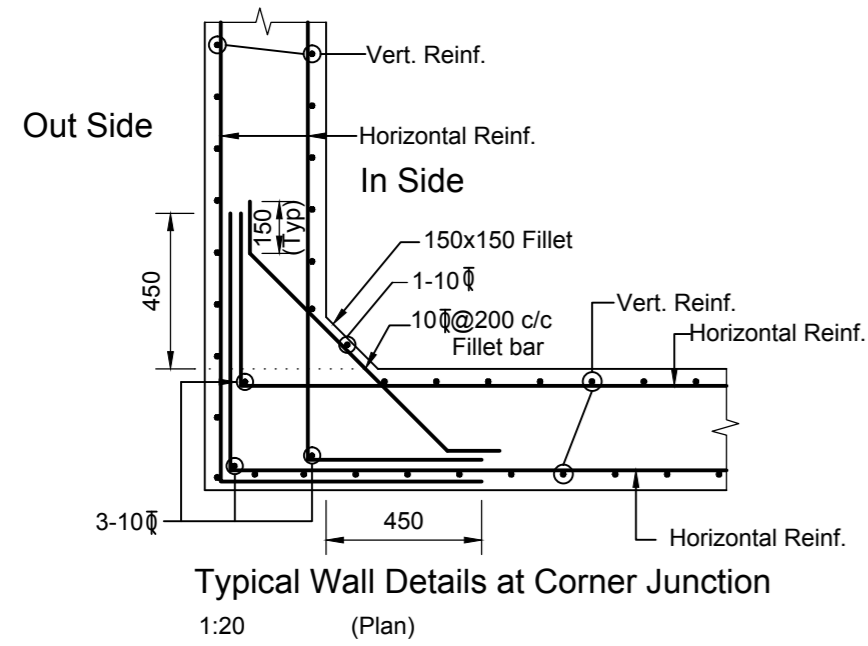
T +91 (0)12 0254 3582
F +91 120 254 3562
W www.mottrac.com

Client

M/s Delhi Aviation Fuel Facility Pvt. Ltd.
Aviation Fuelling Station
Shahbad, Muhammad Pur
IGI Airport, New Delhi - 110061

Rev	Date	Drawn	Description	Ch'k'd	App'd	Title
0	18.05.15	AGG	Issued for engineering	HRS	VST	Modernization of Existing Fuel Farm Process & Instrument Diagram of Down Graded ATF Transfer System
01	21.05.15	AGG	Revised as per client's comment & Issued For Engineering			

Drawing Number		Security	Status	Rev
322538-PIB-0003-01		STD	EXE	01



- Notes
- All dimensions are in mm & levels in metre
 - Only written dimension are to be followed
 - Reinforced concrete shall be grade M-25. R/F steel shall be high yield strength deformed bars grade Fe415 conforming to IS : 1786
 - Clear cover to main reinforcement for different members shall be beams-25mm, columns-40mm pedestal-40mm & Footing - 50mm Wall = 25mm +10mm extra below ground level
 - Net safe bearing capacity considered in design is 10.0 t/sq.m at 2.0m or minimum 600 below hard strata
 - FGL corresponds to EL ± 99.900

Key to symbols

Abbreviations :

FGL = Finished Ground Level
 NGL = Natural Ground Level
 FFL = Finished Floor Level
 Thk = Thick
 RC = Reinforced Concrete
 Typ = Typical
 Det = Detail
 Reinf = Reinforcement
 RWP = Rein Water Pipe

45KL UG Tank
Key Plan

- Reference drawings
- CGA-01 General Notes.
 - CCA-02 Typical Details of Columns, Footings, Beams, Walls etc.
 - APA-0001-01 Plot Plan
 - MLB-0003-01 Layout & Section of Equipment

Rev	Date	Drawn	Description	Ch'k'd	App'd
0	10.06.15	HSP	issued for Tender		

A20
Sector 2
Noida
201301
India
T +91 (0)12 0254 3582
F +91 120 254 3562
W www.mottmac.com

Client
M/s Delhi Aviation Fuel Facility Pvt. Ltd.
 Aviation Fuelling Station
 Shahbad, Muhammad Pur
 IGI Airport, New Delhi - 110061

Title
Modernization of Existing Fuel Farm
45KL UG Tank
Layout & Details of RC Wall Foundation and Pedestal

Designed	DGR	Eng check	ASP
Drawn	HSP	Coordination	VSG
Dwg check	ASP	Approved	VST
Scale at A2	Status	Rev	Security
1:100	TEN	0	STD

Drawing Number
322538-CCB-0022-01