



MINISTRY OF ENVIRONMENT AND ENERGY

REPUBLIC OF MALDIVES

TENDER DRAWINGS

01 MARCH 2016

PROJECT :

**PROVISION OF WATER SUPPLY
FACILITIES IN TH. VILUFUSHI,
MALDIVES**

CONSULTANT:



Al-Habshi
Consultant

Al-Habshi Consultants Office

Tel.: 2430103 / 2433131 - Fax : 2431136
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LIST OF DRAWINGS

DWG. NOS	DRAWING TITLES
GENERAL	
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REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

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MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

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PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 LIST OF DRAWINGS
 Tha.VILIFUSHI ISLAND

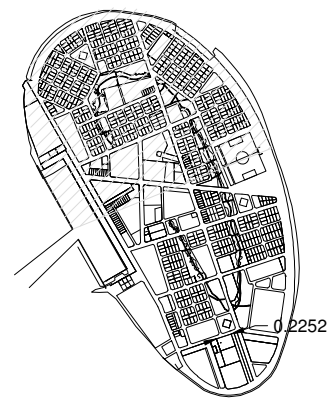
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PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	TV-WS-100			
REV. No.	0				

WATER SUPPLY DRAWINGS



- NOTES:-**
1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
 2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

- LEGEND:**
- — — — — Ø100 WATER SUPPLY MAIN LINE
 - — — — — Ø80 WATER SUPPLY LINE
 - — — — — Ø80 HDPE BRINE OUTFALL
 - WS — WATER SUPPLY
 - ↑ — HOUSE CONNECTION
 - — VALVE CHAMBER
 - ↔ — CHECK VALVE



KEY PLAN

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

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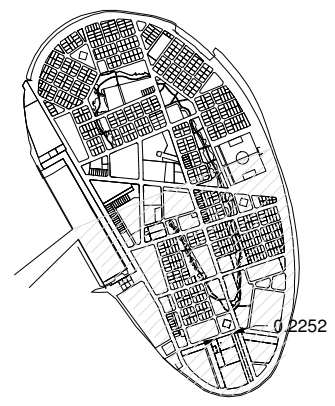
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 Tha. VILIFUSHI ISLAND

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PROJECT No. SHEET No.		DRAWING No.		DATE	
K-627 1 OF 2		TV-WS-101		09.12.15	
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- LEGEND:**
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 - - - - - Ø80 WATER SUPPLY LINE
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 - WS - WATER SUPPLY
 - ↑ - HOUSE CONNECTION
 - - VALVE CHAMBER
 - ↕ - CHECK VALVE




KEY PLAN

REFERENCE DRAWINGS

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REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
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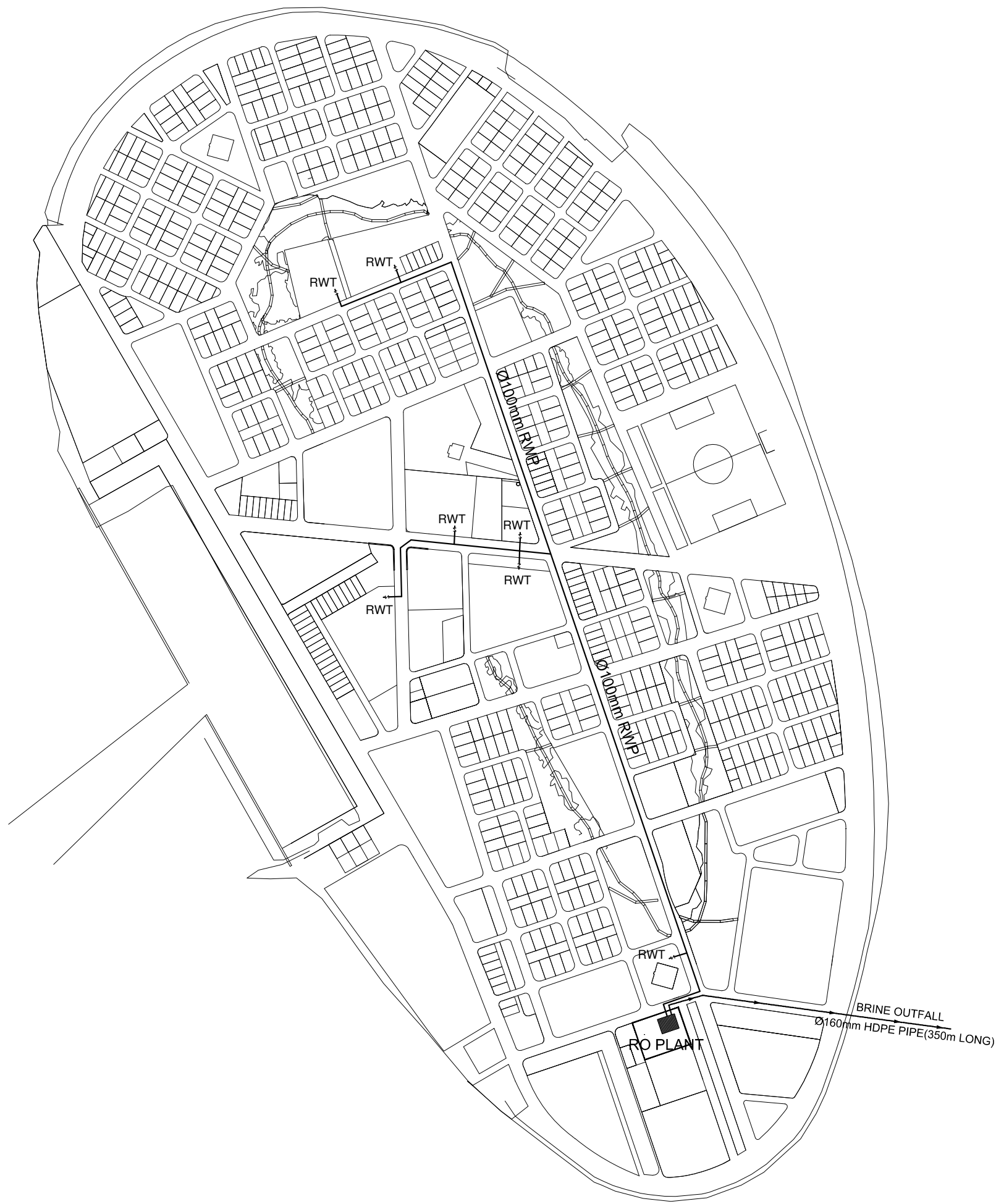
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PROJECT:
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DRAWING TITLE:
WATER SUPPLY LAYOUT-PART-B
 Tha. VILIFUSHI ISLAND


DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
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PROJECT No. SHEET No.		DRAWING No.		DATE	
K-627 2 OF 2		TV-WS-101		09.12.15	
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PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha. Vilifushi, F. Nilandhoo, B. Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 RAIN WATER COLLECTION LAYOUT
 Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 2500	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1				TV-WS-102	
REV. No.		0			



RO PLANT

BRINE OUTFALL
Ø160mm HDPE PIPE (350m LONG)

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Image © 2015 DigitalGlobe

2°30'11.06"

NOTES:-


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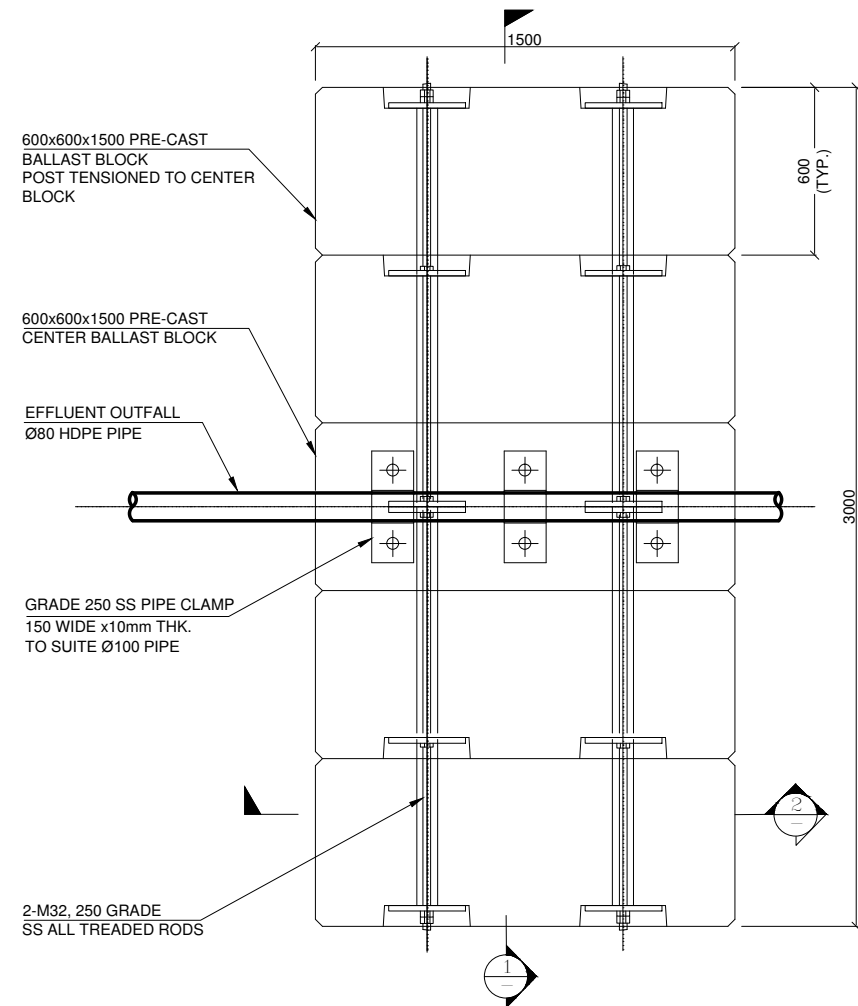
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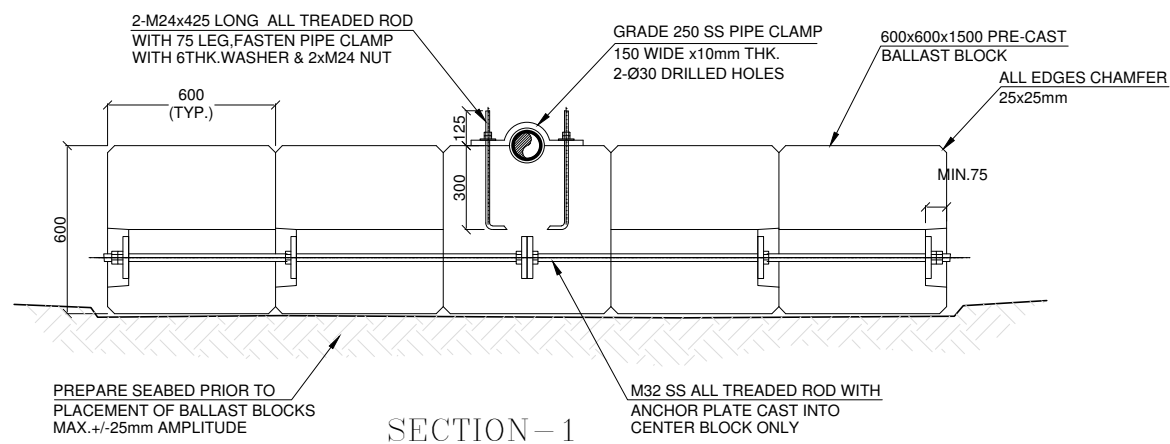
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha. Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 BRINE OUTFALL LAYOUT & SECTION
 Tha. VILIFUSHI ISLAND

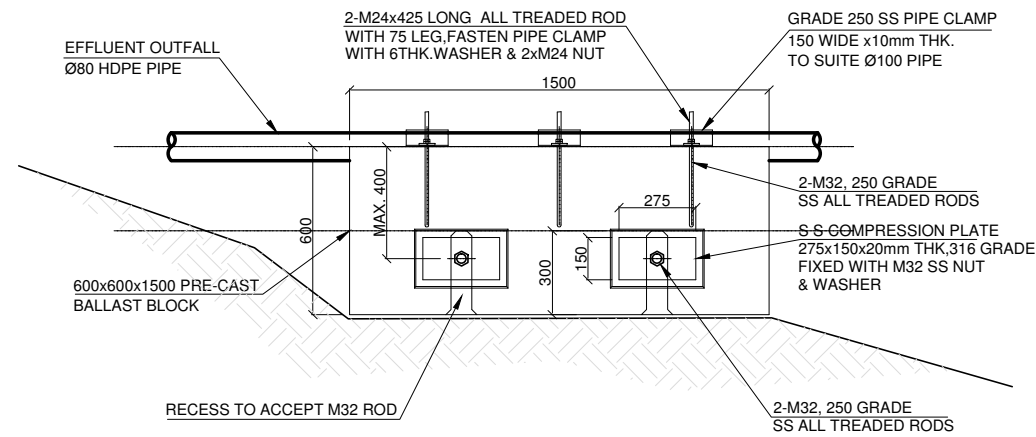
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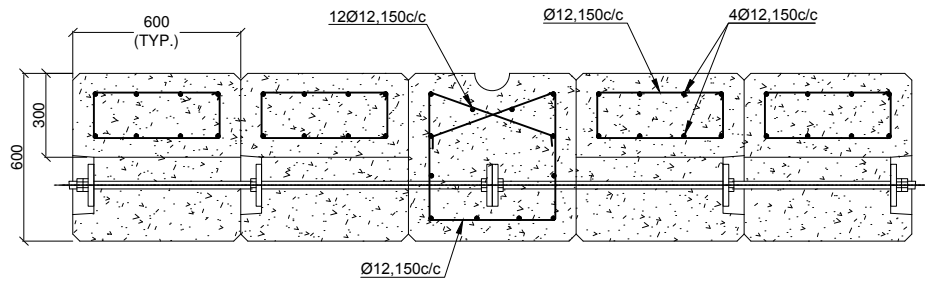
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SURF ZONE - DIFFUSER
SCALE 1:25



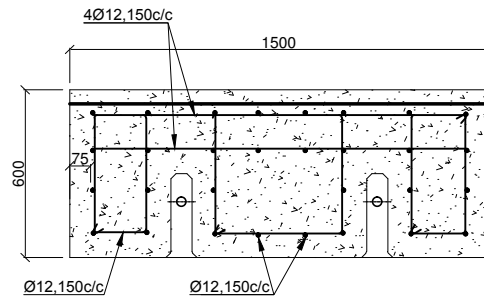
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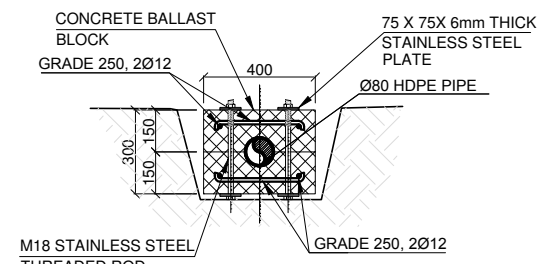
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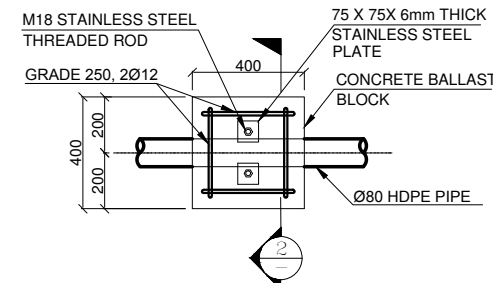
SECTION - 1
REINFORCEMENT DETAILS
SCALE 1:25



SECTION - 2
REINFORCEMENT DETAILS
SCALE 1:25



SECTION - 3
SCALE 1:25



PLAN
RCC BALLAST BLOCK

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REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD

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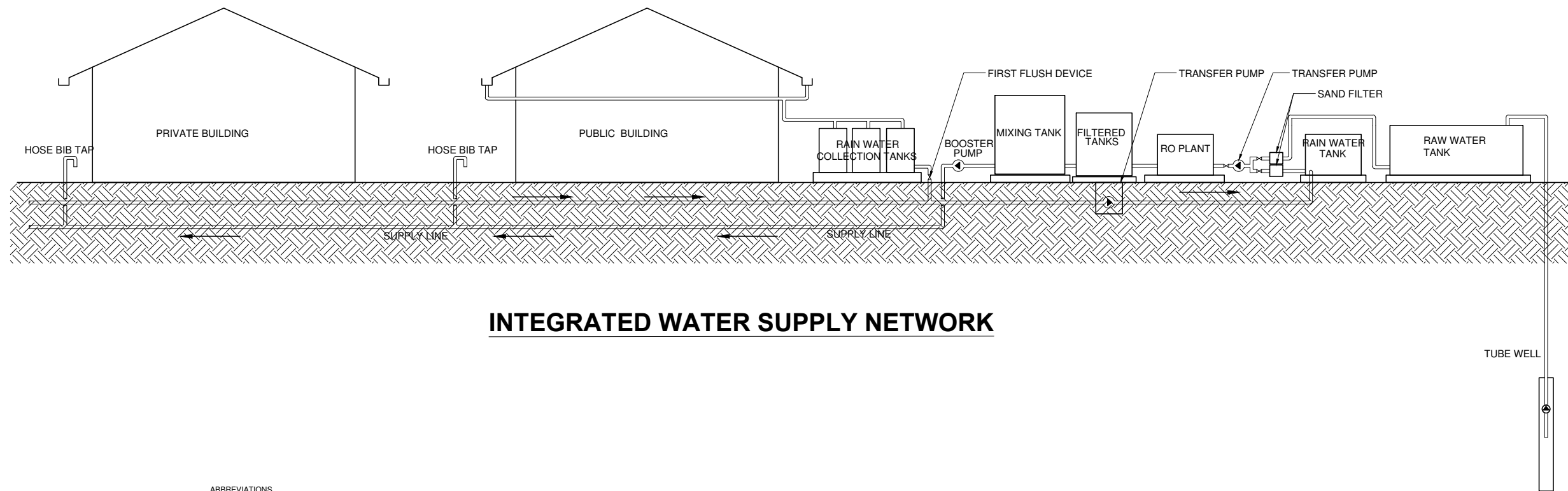
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REPUBLIC OF MALDIVES

CONSULTANT:
ACO **دار الهندسة الاستشارية المحاسبية**
Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of
Water supply Facilities in Tha. Vilifushi, F.Nilandhoo,
B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
BRINE OUTFALL DETAILS
Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09.12.15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	2 OF 2	TV-WS-103			
REV. No.	0				



INTEGRATED WATER SUPPLY NETWORK

ABBREVIATIONS

SF	-SAND FILTER
RO	-REVERSE OSMOSIS TANK
HBT	-HOSE BIB TAP
RWS	-RAIN WATER SUPPLY
WS	-WATER SUPPLY
TP	-TRANSFER PUMP
RWCP	-RAINWATER COLLECTION PIPE
TP	-TRANSFER PUMP
BP	-BOOSTER PUMP

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
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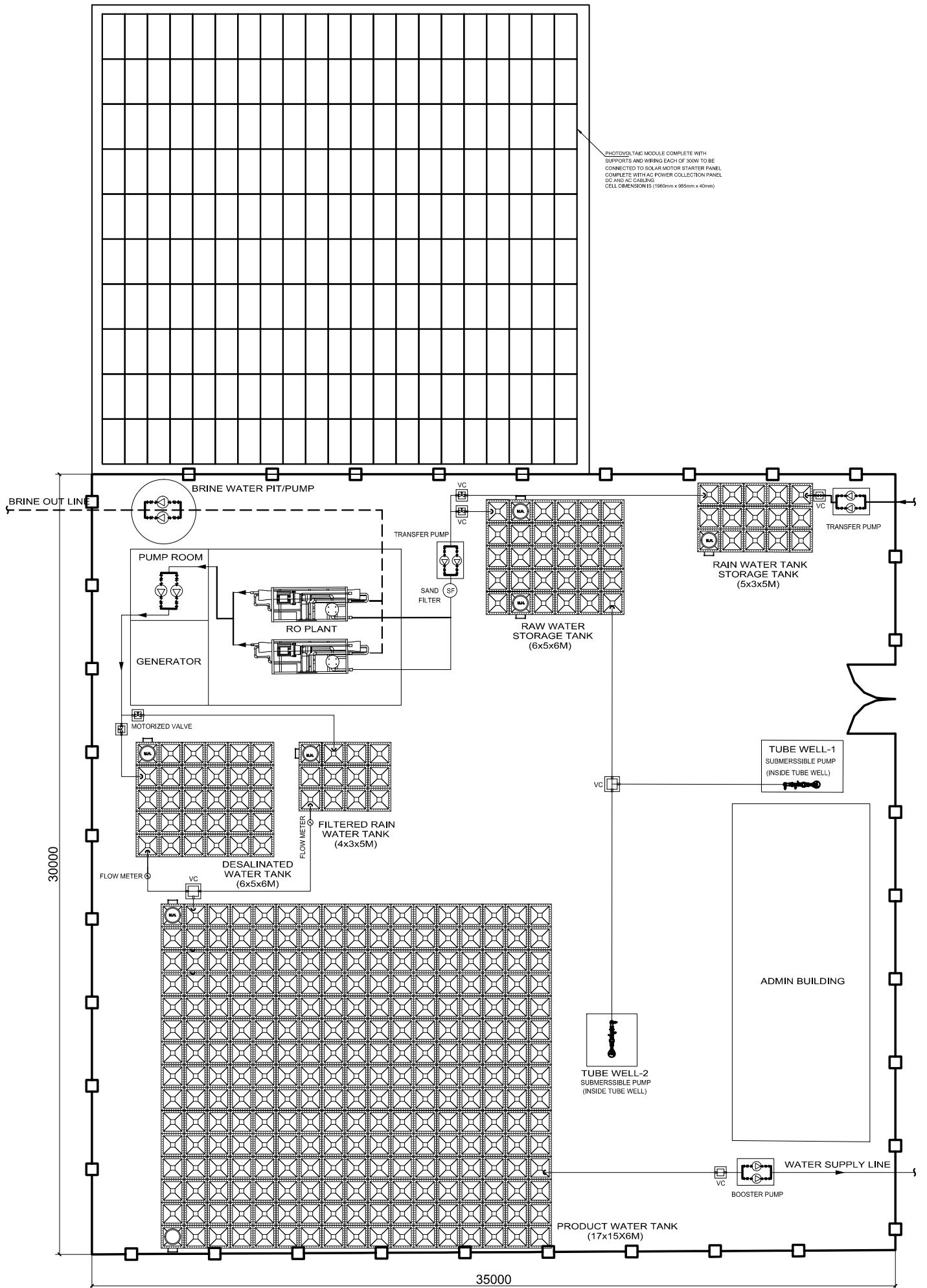
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 REPUBLIC OF MALDIVES

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Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
INTEGRATED WATER SUPPLY NETWORK
 SCHEMATIC-Tha.VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	N.T.S	09.12.15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	TV-WS-104			
REV. No.	0				



NOTES:-

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0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

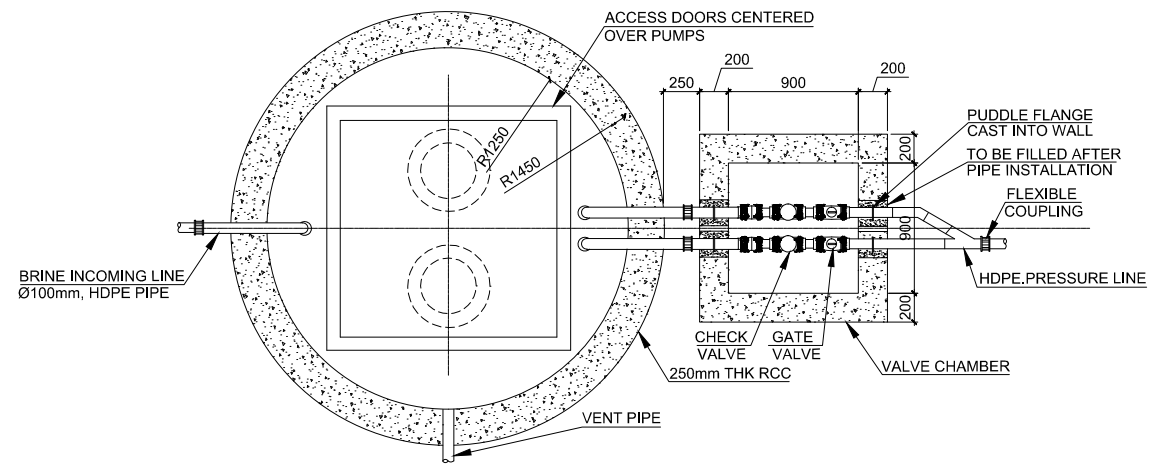
CLIENT
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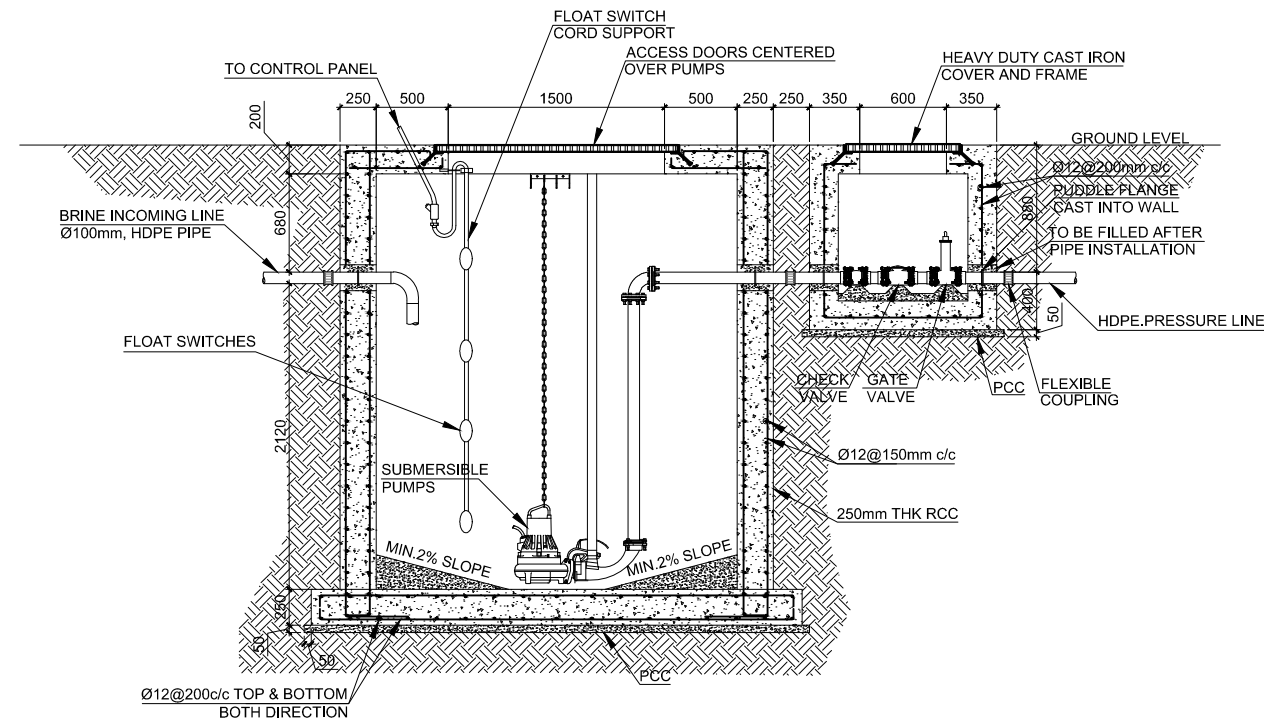
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RO PLANT LAYOUT
 Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
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PROJECT No. SHEET No.		DRAWING No.		DATE	
K-627 1 OF 1		TV-WS-105		09.12.15	
REV. No.		0			



BRINE PUMP DETAILS - PLAN
SCALE - 1 : 50



BRINE PUMP DETAILS - SECTION
SCALE - 1 : 50

NOTES:-

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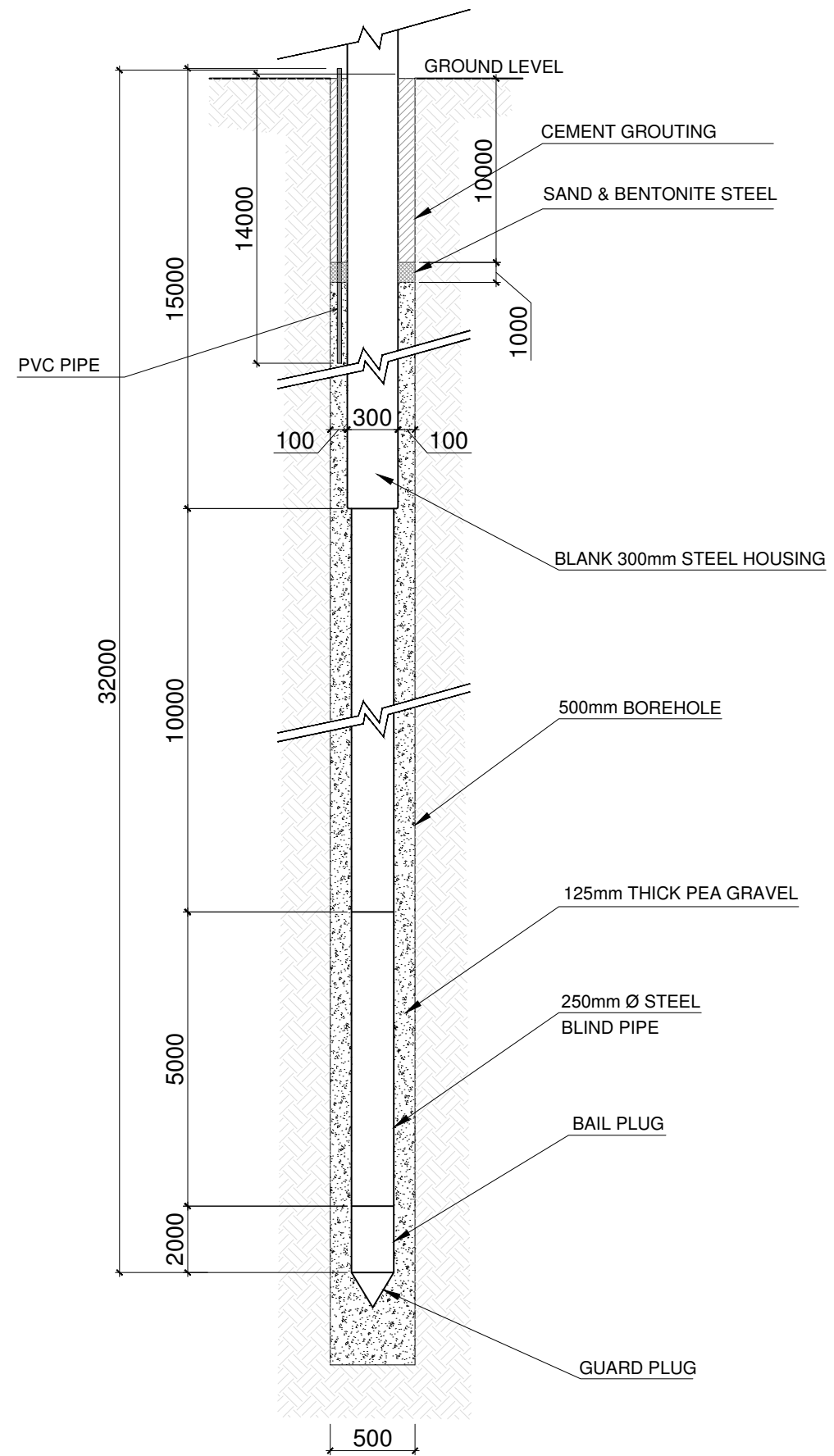
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DRAWING TITLE:
BRINE PUMP DETAILS
 Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
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PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	TV-WS-106			
REV. No.	0				



TUBE WELL DETAIL

- NOTES:-**
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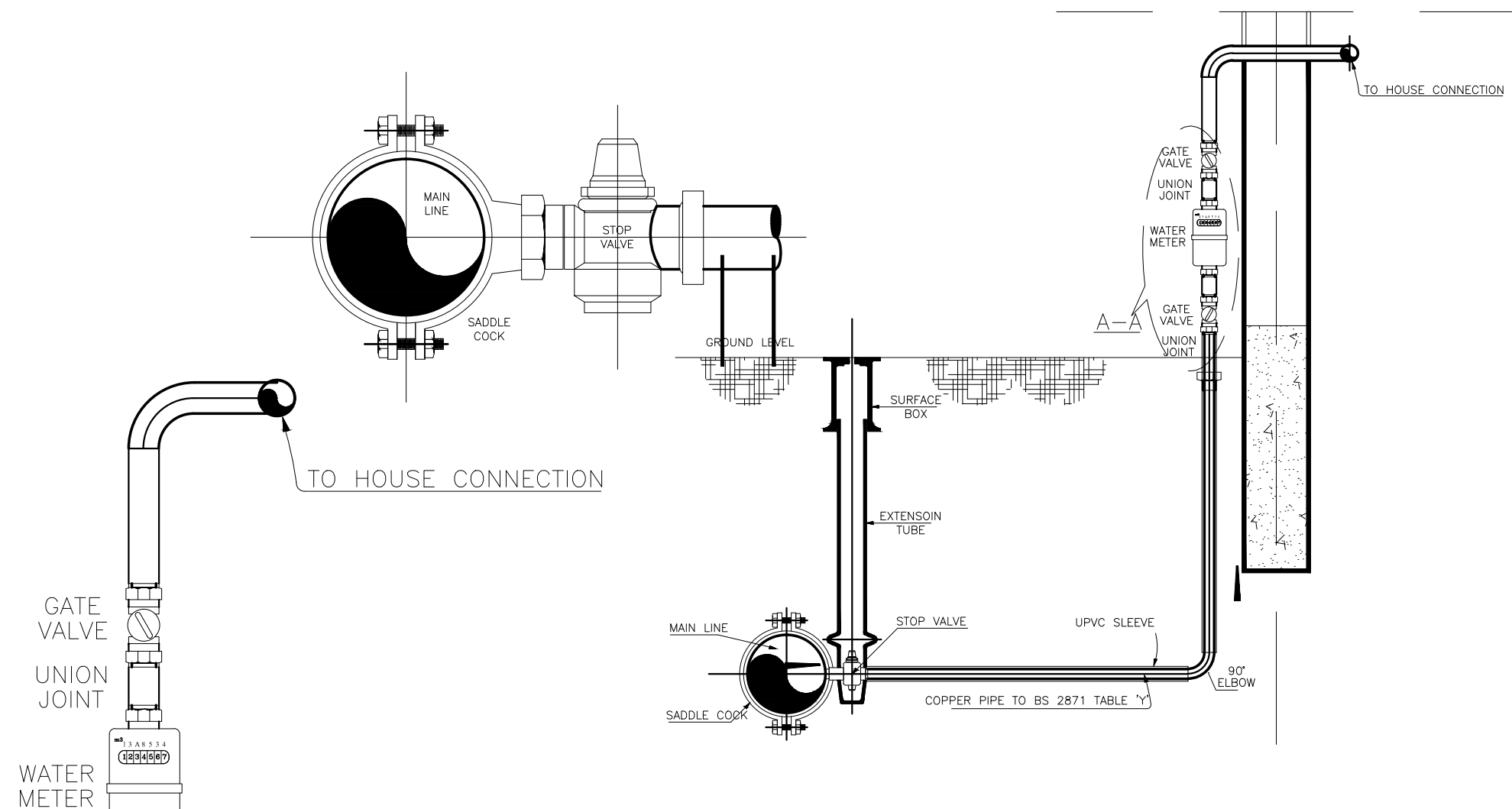
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 TUBE WELL DETAIL
 Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	N.T.S	09.12.15

PROJECT No. SHEET No. DRAWING No.
 K-627 1 OF 1 TV-WS-107

REV. No. 0



WATER METER DETAIL

ENLARGED VIEW A-A

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
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REVISION

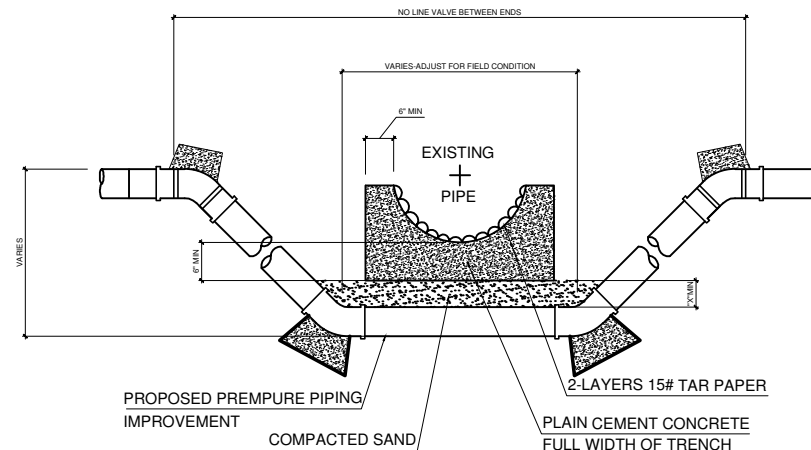
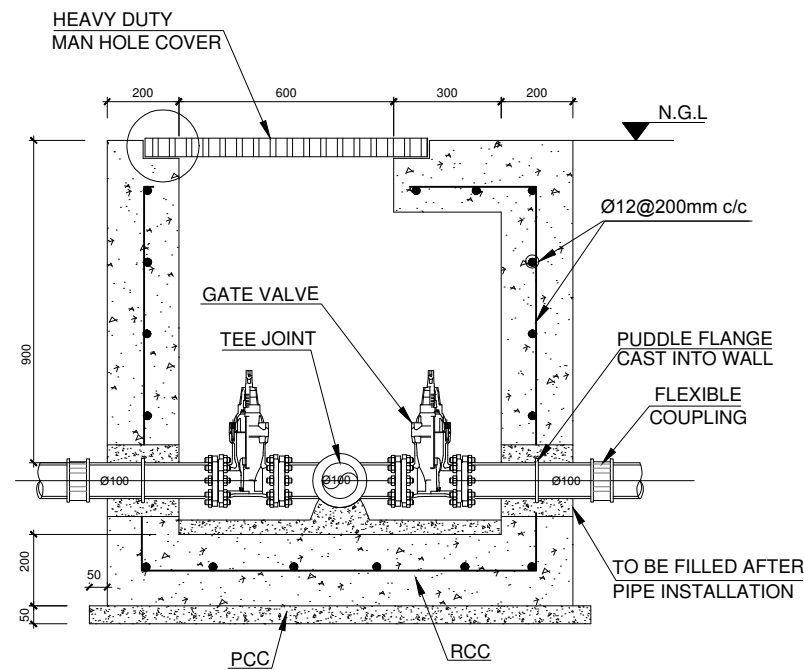
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 REPUBLIC OF MALDIVES

CONSULTANT: **ACO** دار الهندسة المعمارية
Al Habshi Consultants Office

PROJECT: Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE: **TYPICAL DETAILS-WATER SUPPLY - (SHEET-01)**
 Tha.VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 4				
REV. No.	0	TV-WS-109			

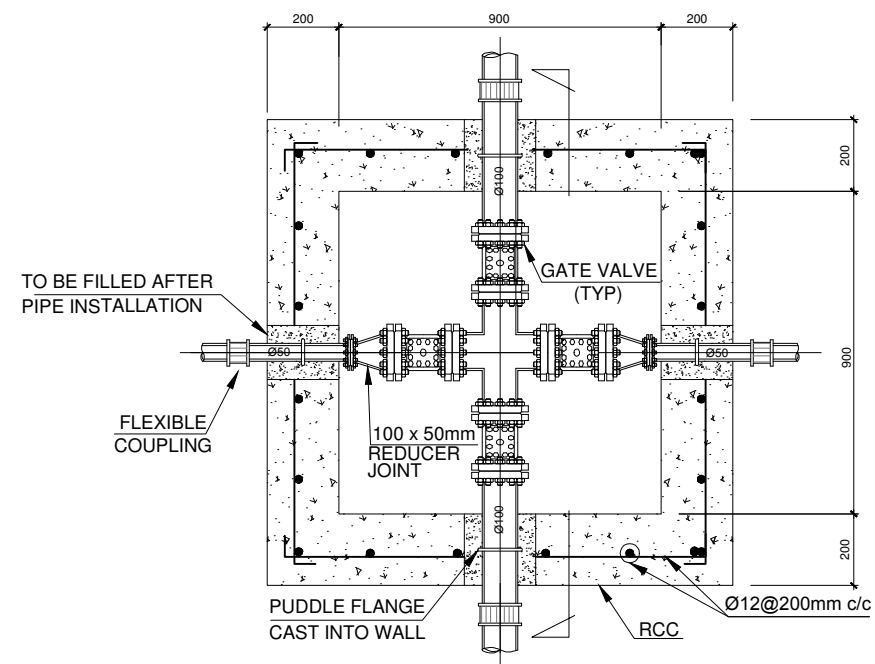


PIPE CROMPING DETAIL
N.T.S

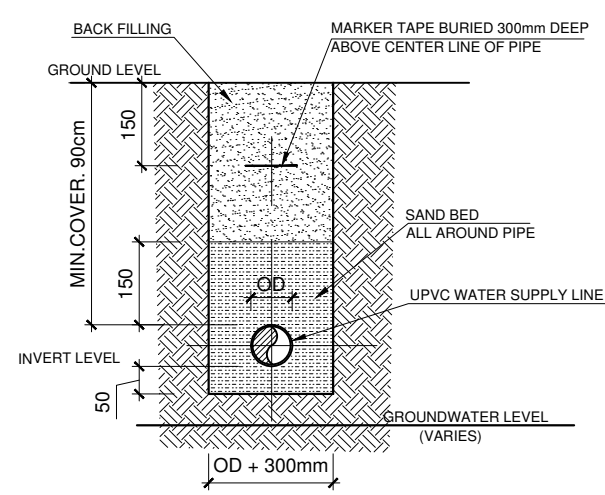
- "X" DIMENSION REQUIRMENTS**
- A - 6" FOR (GAS & OBT LINE CROMPING W/NO CRADLE NEEDED)
 - B - 18" FOR STORM SEWER PIPE
 - C - IF CROMPING SPACE IS MORE THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS AFORMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE.

- CONCRETE CRADLE CONDITIONS**
- A - IF SANITORY OR SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMIT
 - B - IF CROMPING SPACE IS LEMP THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE

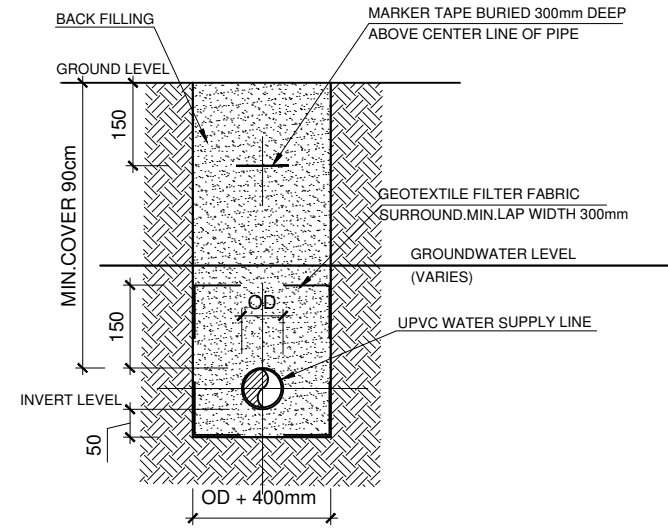
NOTE:-
USE OF BENDS & THRUST BLOCKS OR JOINT DEFLECTION TO BE DETERMINED IN FIELD FOR EACH CROMPING



VALVE CHAMBER



TYPICAL PIPE TRENCH DETAIL
(WATER TABLE BELOW TRENCH BASE)
N.T.S



TYPICAL PIPE TRENCH DETAIL
(WATER TABLE ABOVE TRENCH BASE)
N.T.S

REFERENCE DRAWINGS		
SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT: **MINISTRY OF ENVIRONMENT & ENERGY**
REPUBLIC OF MALDIVES

CONSULTANT: **ACO** دار الجھبھ للهندسة والعمارة
Al Habshi Consultants Office

PROJECT: Consultancy Services for Survey, Design of Water supply Facilities in Tha. Vilifushi, F. Nilandhoo, B. Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE: **TYPICAL DETAILS-WATER SUPPLY - (SHEET-02)**
Tha. VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	2 OF 4			TV-WS-109	
REV. No.	0				

WATER FLOW FROM ROOF

TEE JUNCTION

BALL SEAT

SEALING BALL

DIVERTER CHAMBER

DETAIL-A

TO TANK

DIVERT CHAMBER

FILTER SCREEN

SOCKET

'O' RING SEAL

'O' RING SEAL

DETAIL-A

WATER FLOW FROM ROOF

TO DIVERTER CHAMBER

TO TANK


TYPICAL FIRST FLUSH DIVERTER

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT

MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

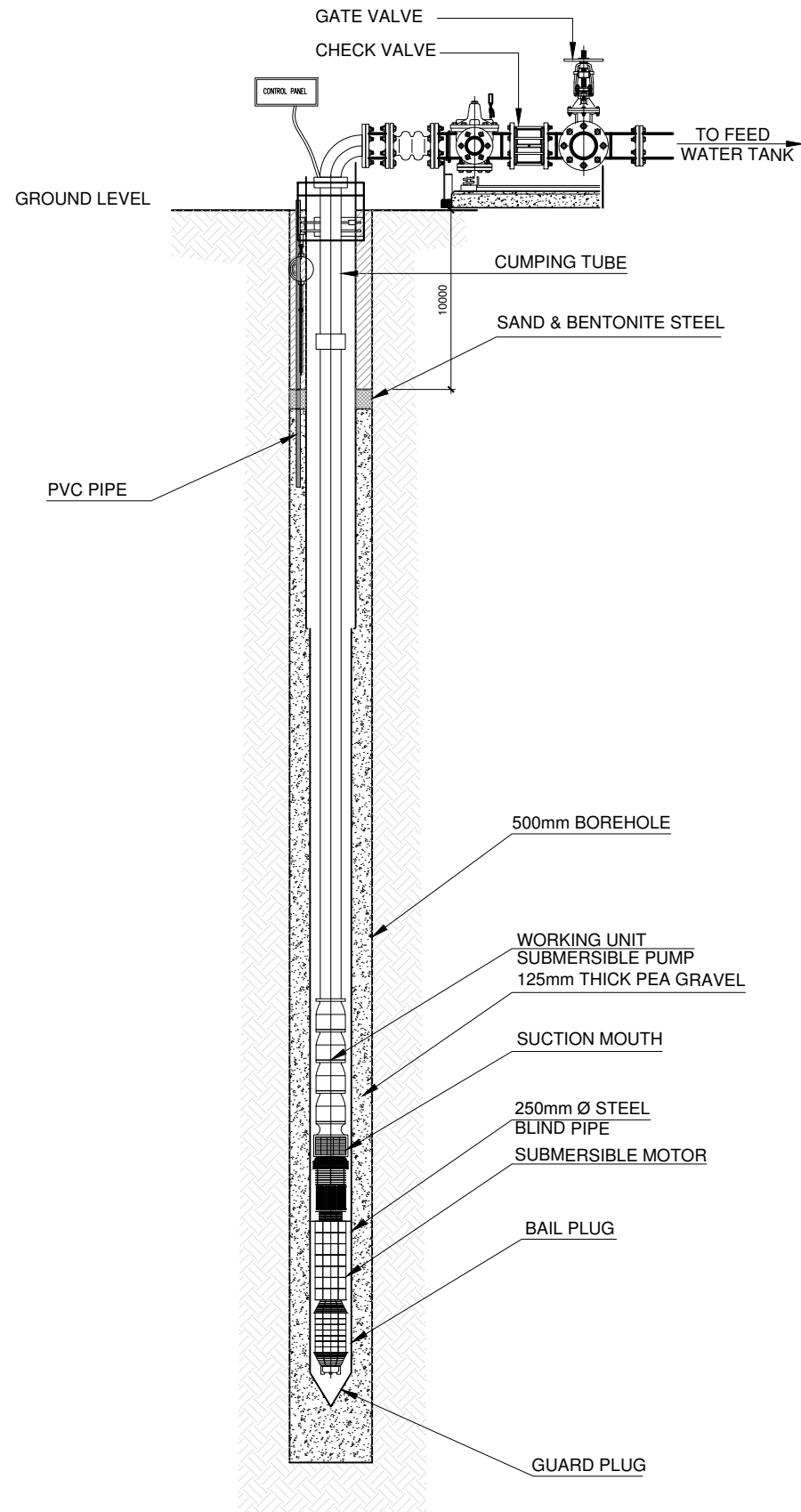
CONSULTANT:

ACO دار الهبشي للاستشارات الهندسية
Al Habshi Consultants Office
 P.O. Box 1156, Male, Maldives

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 TYPICAL DETAILS-WATER SUPPLY - (SHEET-03)
 Tha.VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No. SHEET No.		DRAWING No.			
K-627 3 OF 4		TV-WS-109			
REV. No.		0			



SUBMERSIBLE BORE WELL PUMP

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

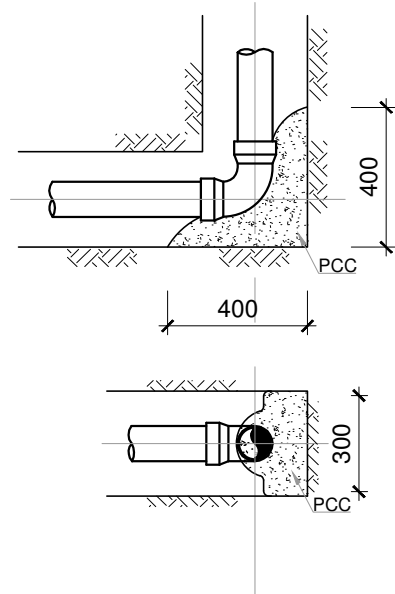
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الهندسة والبناء
Al Habshi Consultants Office

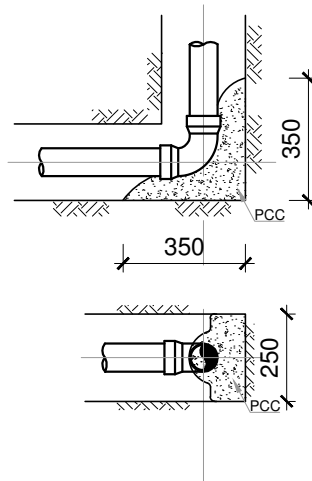
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 TYPICAL DETAILS-WATER SUPPLY - (SHEET-04)
 Tha.VILIFUSHI ISLAND

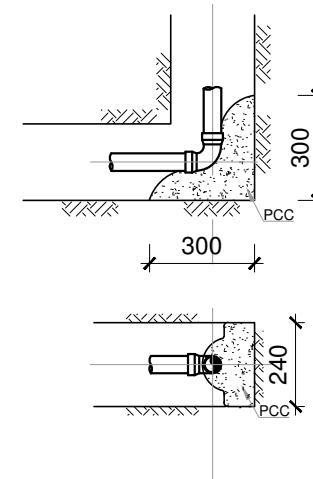
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SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	4 OF 4	TV-WS-109			
REV. No.	0				



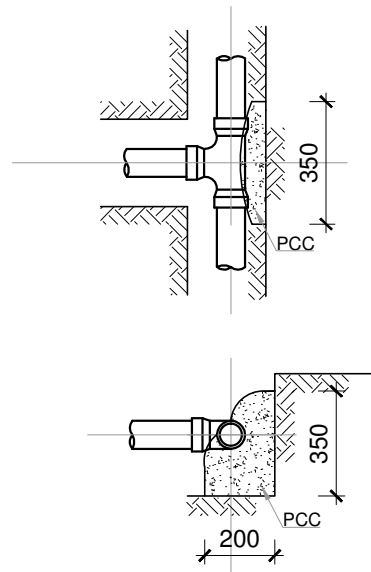
**90° HORIZONTAL BEND (BTM)
FOR Ø100 WS PIPE**



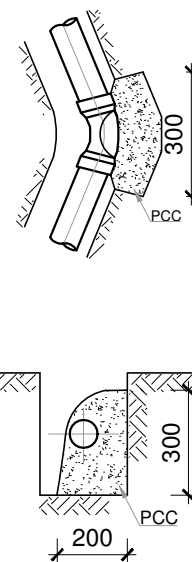
**90° HORIZONTAL BEND (BTM)
FOR Ø80 WS PIPE**



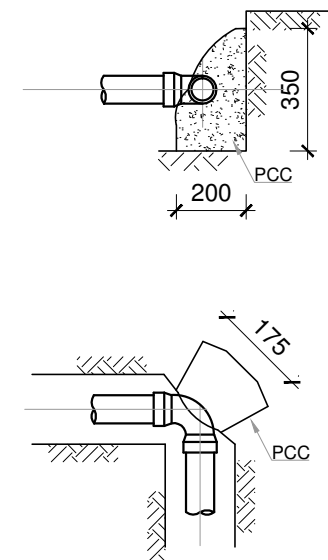
**90° VERTICAL BEND (BTM)
FOR Ø50 WS PIPE**



**ANGLE BRANCH & TEE
FOR Ø80 WS PIPE**



**HORIZONTAL BEND
FOR Ø80 WS PIPE**



**90° VERTICAL BEND (BTM)
FOR Ø80 WS PIPE**

REFERENCE DRAWINGS		
SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

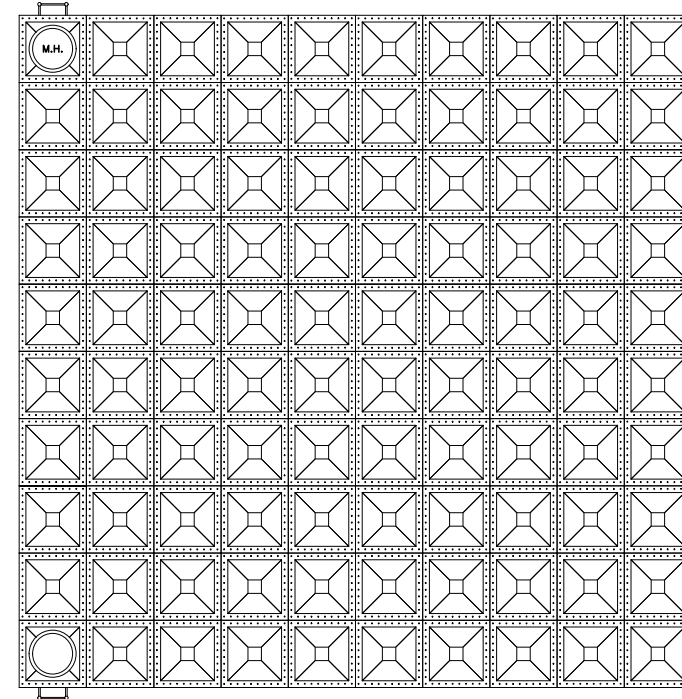
CONSULTANT:
ACO دار الهندسة والبناء
Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
TYPICAL PIPE BENDING DETAILS
 Tha.VILIFUSHI ISLAND

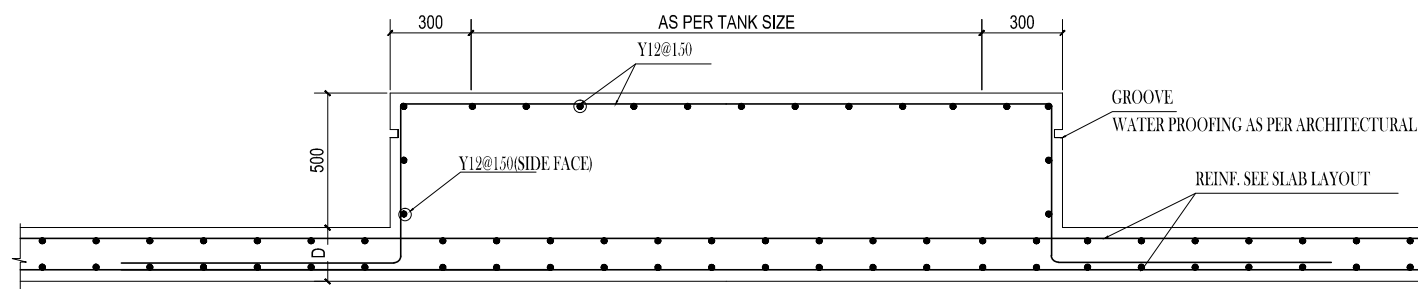
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-WS-110			
REV. No.		0			

1. ALL DIMENSION ARE IN MILLIMETER, UNLESS OTHERWISE NOTED
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.
4. THE DESIGN IS INDICATIVE ONLY. THE CONTRACTOR TO DESIGN & BUILD THE TANK TOWER STRUCTURE.
5. WATER STOPS SHALL BE 210x9mm THICK MULTI-RIB TYPE WITH CANTER BULB FOR CONSTRUCTION, CONTROL AND EXPANSION JOINTS.



PLAN GRP WATER TANK

- 1) Size : 6000x5000x6000mm
- 2) Size : 3000x5000x5000mm
- 3) Size : 6000x5000x6000mm
- 4) Size : 4000x3000x5000mm
- 5) Size : 17000x15000x6000mm



TYP.R.C DETAIL FOR ABOVE GROUND GRP TANK
SCALE N.T.S

REFERENCE DRAWINGS		
SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

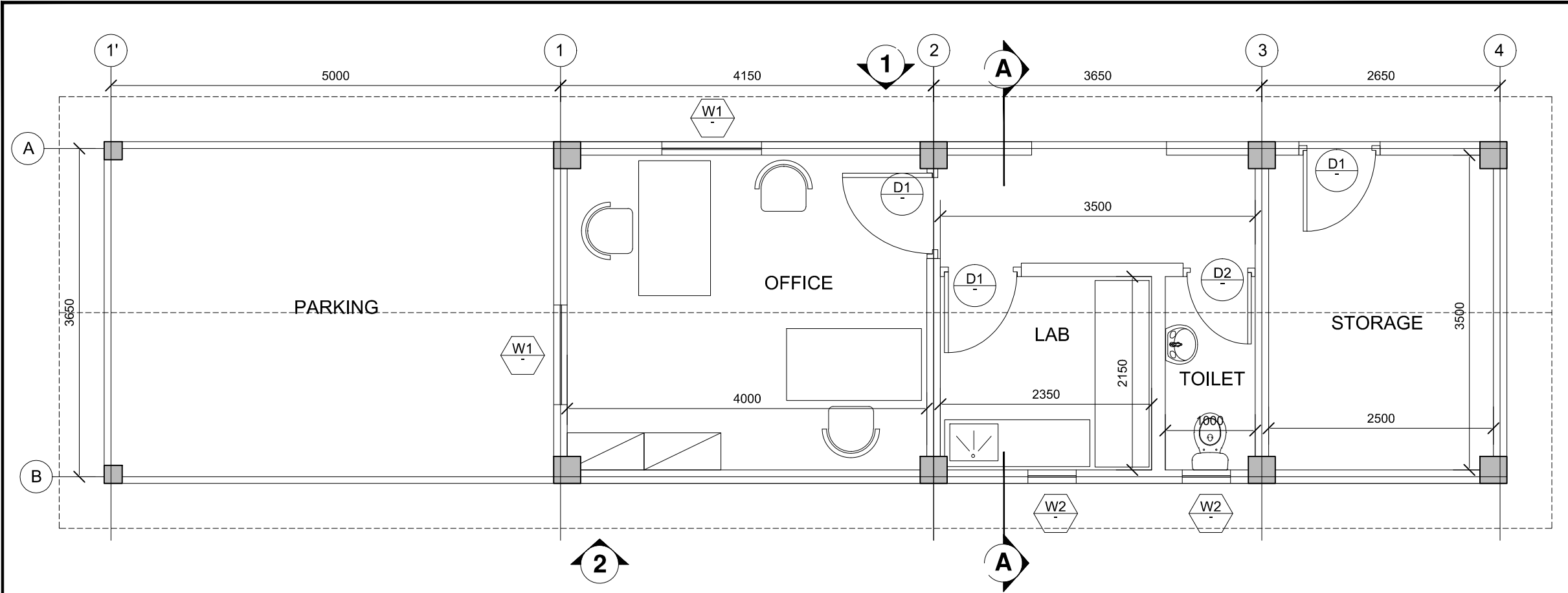
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الهندسة والبيئيات الماڤيڤي
Al Habshi Consultants Office

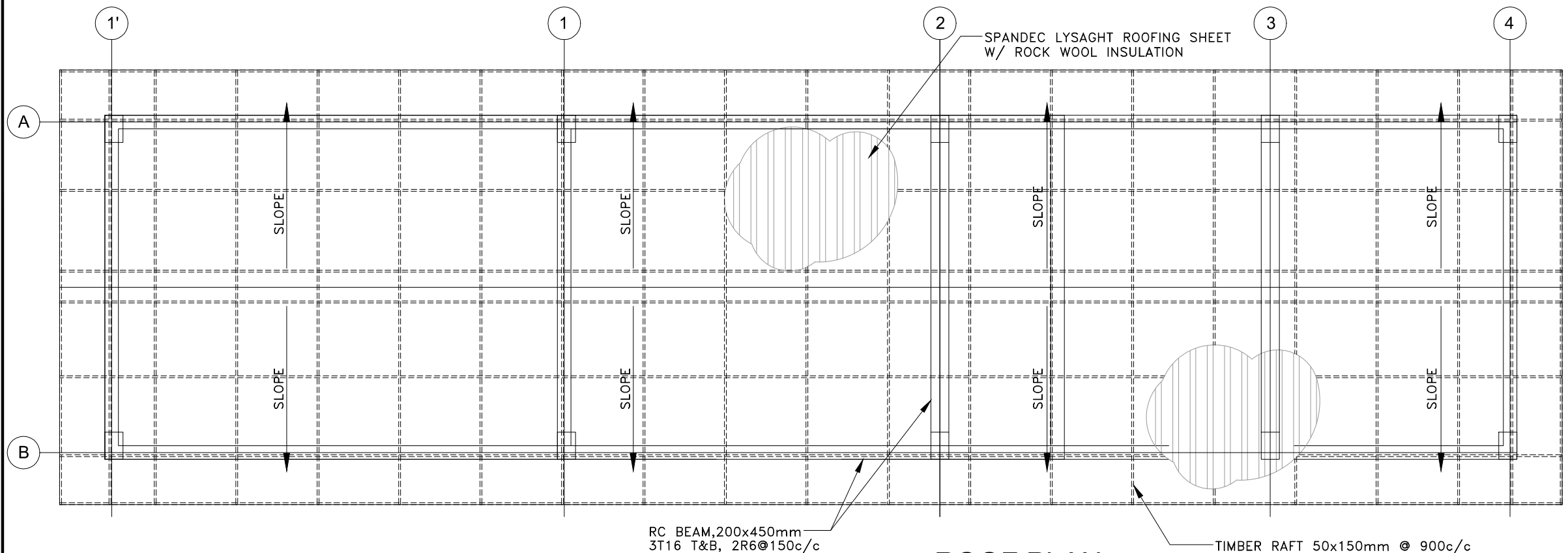
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
GRP WATER TANK
 Tha.VILIFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-WS-111			
REV. No.		0			



FLOOR PLAN
SCALE 1:100



ROOF PLAN
SCALE 1:100

- NOTES:-**
1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
 2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS					
SL.No	DRAWING No.	DESCRIPTION			
REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

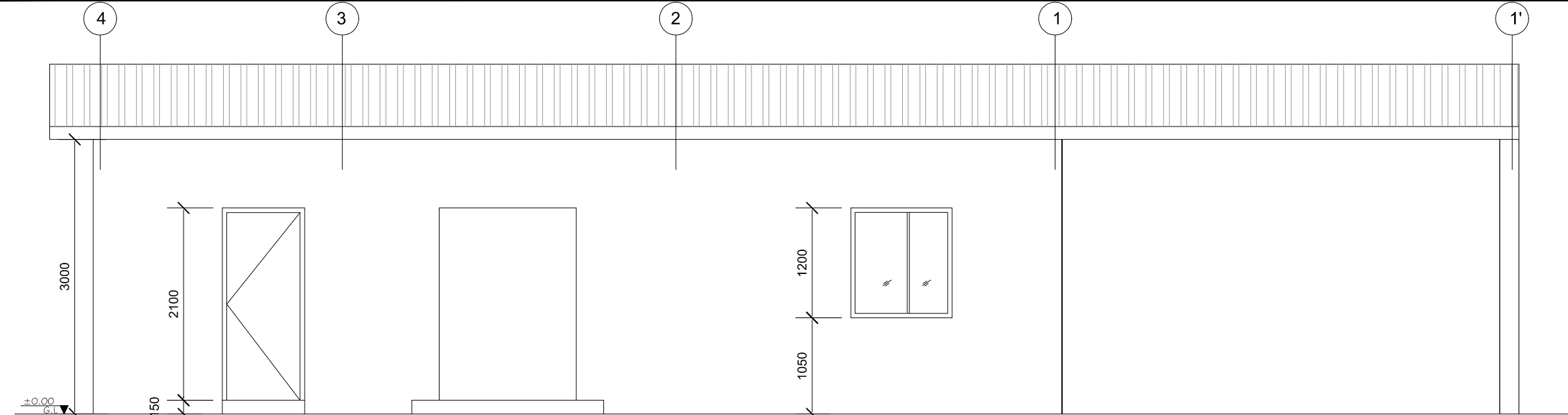
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الجشيت الاستشاري المالديف
Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

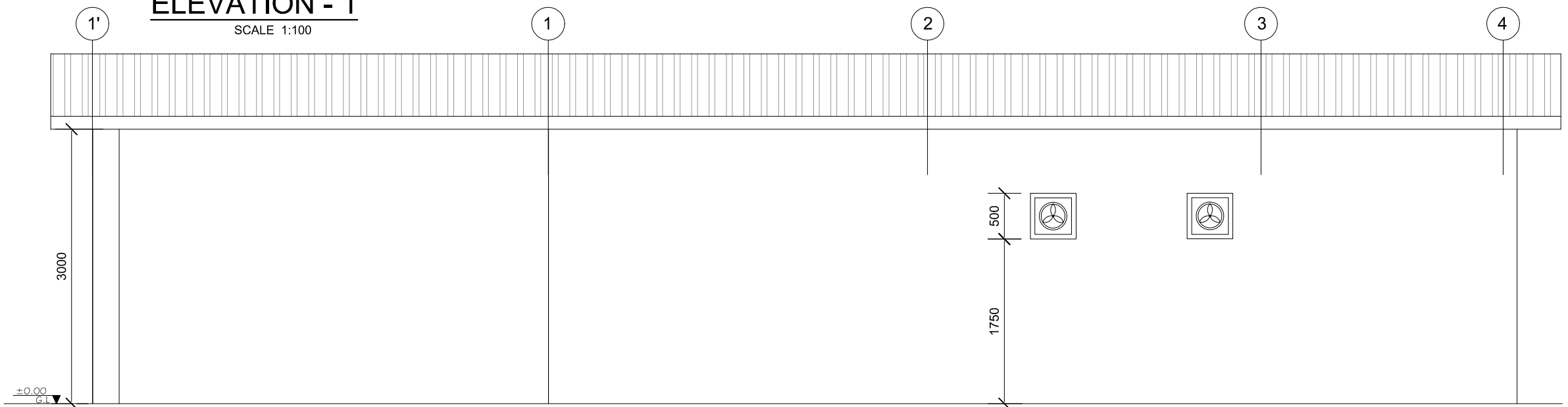
DRAWING TITLE:
 RO PLANT ADMIN BUILDING FLOOR AND ROOF PLAN

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-WS-113			
REV. No.	0				



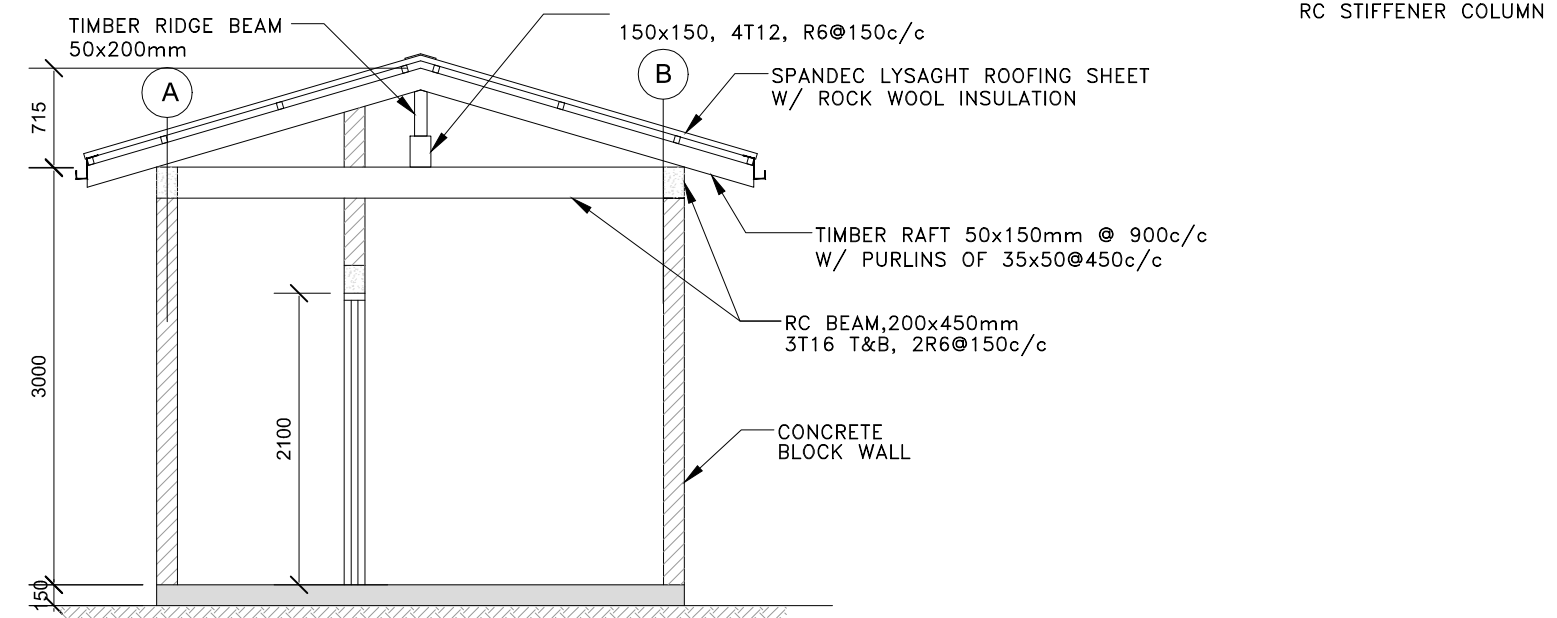
ELEVATION - 1

SCALE 1:100



ELEVATION - 2

SCALE 1:100



SECTION A-A

NOTES:-

- 1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
- 2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
- 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

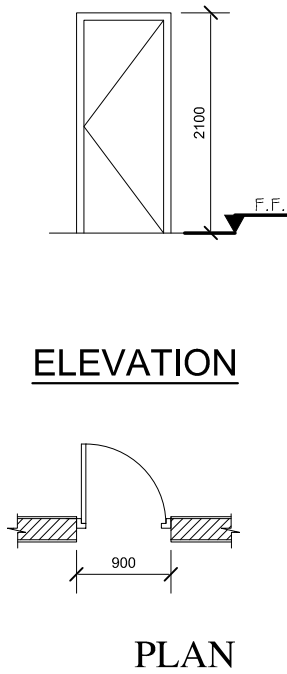
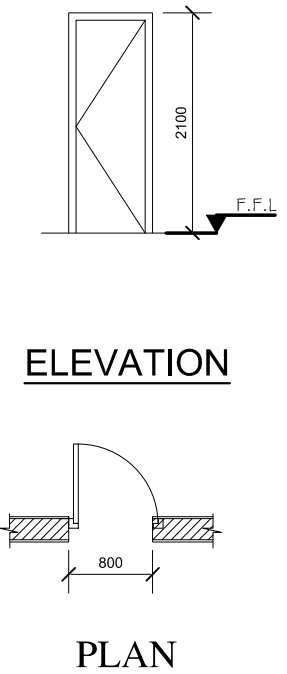
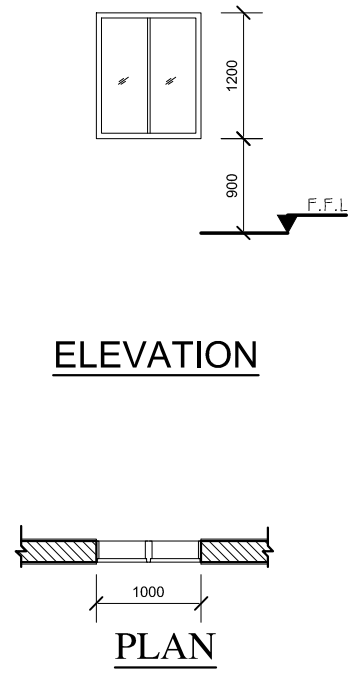
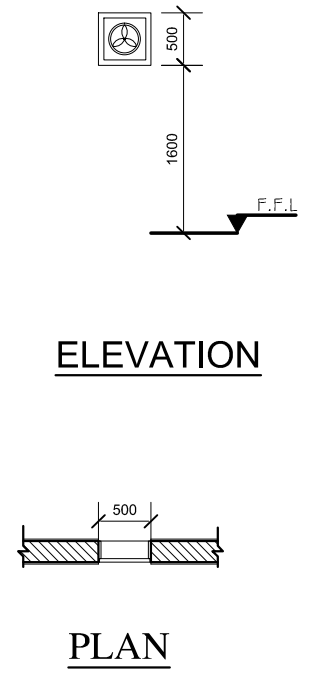
CONSULTANT:
Al Habshi Consultants Office
 Dar Al-Habshi Al-Madaniyah
 P.O. Box 1138, Malé, Maldives
 Tel: +960 725 1234 | Fax: +960 725 1234 | Email: info@alhabshi.com

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RO PLANT ADMIN BUILDING ELEVATIONS AND SECTION

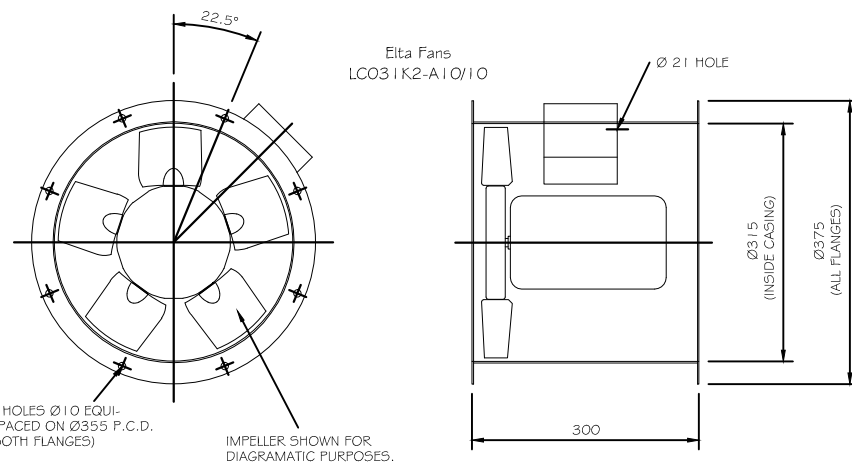
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	TV-WS-114			
REV. No.	0				

DOOR & WINDOW SCHEDULE

 <p>ELEVATION</p> <p>PLAN</p>			 <p>ELEVATION</p> <p>PLAN</p>			 <p>ELEVATION</p> <p>PLAN</p>				 <p>ELEVATION</p> <p>PLAN</p>							
D1	WIDTH	HEIGHT	DESCRIPTION	D2	WIDTH	HEIGHT	DESCRIPTION	W1	WIDTH	HEIGHT	SILL HEIGHT	DESCRIPTION	W2	WIDTH	HEIGHT	SILL HEIGHT	DESCRIPTION
	900	2100	WOODEN FRAME & WOODEN PANEL		800	2100	WOODEN FRAME & WOODEN PANEL		1000	1200	900	ALUMINIUM FRAME WITH DOUBLE GLAZED		500	500	1600	ALUMINIUM FRAME WITH GLASS & FAN

NOTES:-

1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.



TYP. EXHAUST FAN

REFERENCE	LOCATION	SERVICE	FLOW RATE	SP	POWER					FAN SPEED	FAN TYPE	REMARKS
					CFM	IWG	KW	VOLTS	PH			
EXF-1	LABORATORY	LABORATORY	120	0.5	0.25	230	1	50	1450	AXIAL		
EXF-2	TOILET	TOILET	60	0.5	0.25	230	1	50	1450	AXIAL		

1. CONTRACTOR SHALL RECALCULATE ALL EXTERNAL STATIC PRESSURES AND PROVIDE THE ADEQUATE MOTOR.
2. Stop EF at night time

EXHAUST FAN SCHEDULE

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.

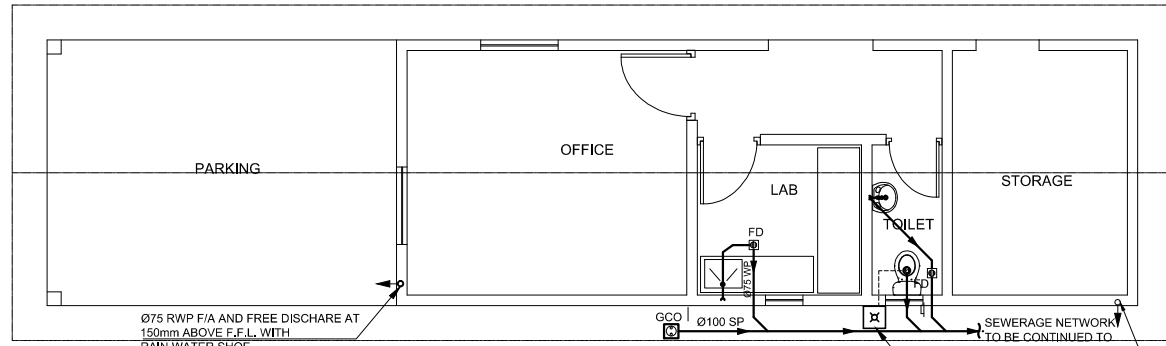
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الهندسة والعمارة
Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

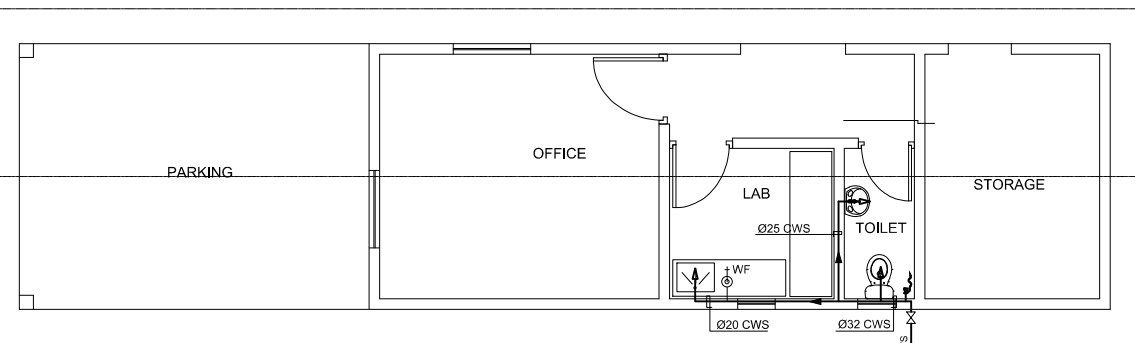
DRAWING TITLE:
RO PLANT ADMIN BUILDING
DOOR, WINDOW & EXHAUST FAN DETAILS

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627		1 OF 1		TV-WS-115	
REV. No.	0				



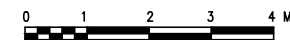
FLOOR PLAN
SCALE 1:100

Ø75 RWP F/A AND FREE DISCHARE AT 150mm ABOVE F.F.L WITH RAIN WATER SHOE



FLOOR PLAN
SCALE 1:100

FROM EXTERNAL WATER SUPPLY



NOTES:-

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2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

Legend :

- DRAINAGE PIPE (BELOW GRADE)
- DRAINAGE PIPE (ABOVE GRADE)
- RAIN WATER PIPE
- VENTILATION PIPE
- FD FLOOR DRAIN
- GCO GROUND CLEAN OUT
- DIRECTION OF FLOW
- CWS COLD WATER SUPPLY
- RY GATE VALVE
- WC WATER CLOSET
- WB WASH BASIN
- KS KITCHEN SINK

Abbreviations :

- WP WASTE PIPE
- VP VENT PIPE
- RWP RAIN WATER PIPE
- L/L LOW LEVEL
- H/L HIGH LEVEL
- F/A FROM ABOVE
- F/B FROM BELOW
- T/A TO ABOVE
- T/B TO BELOW
- B/G BELOW GRADE
- B/S BELOW SLAB

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

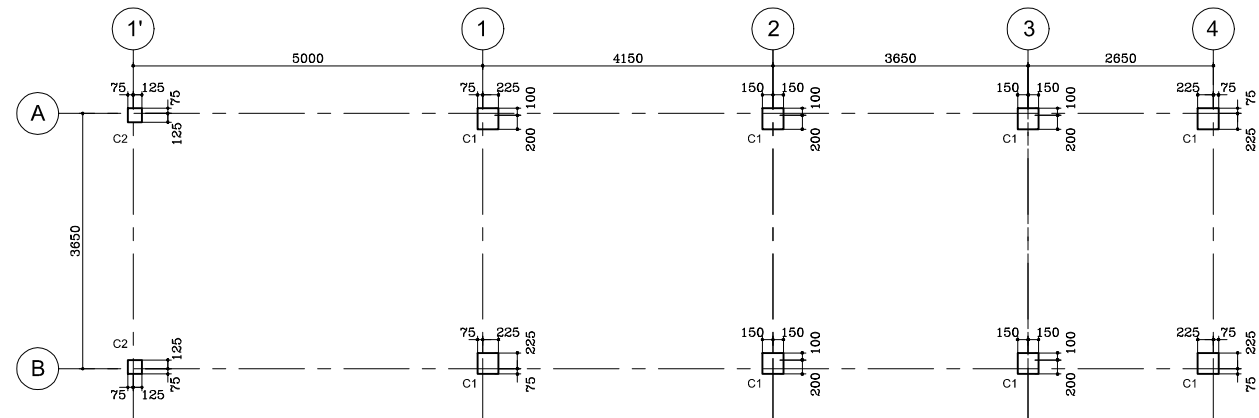
CONSULTANT:
ACO Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

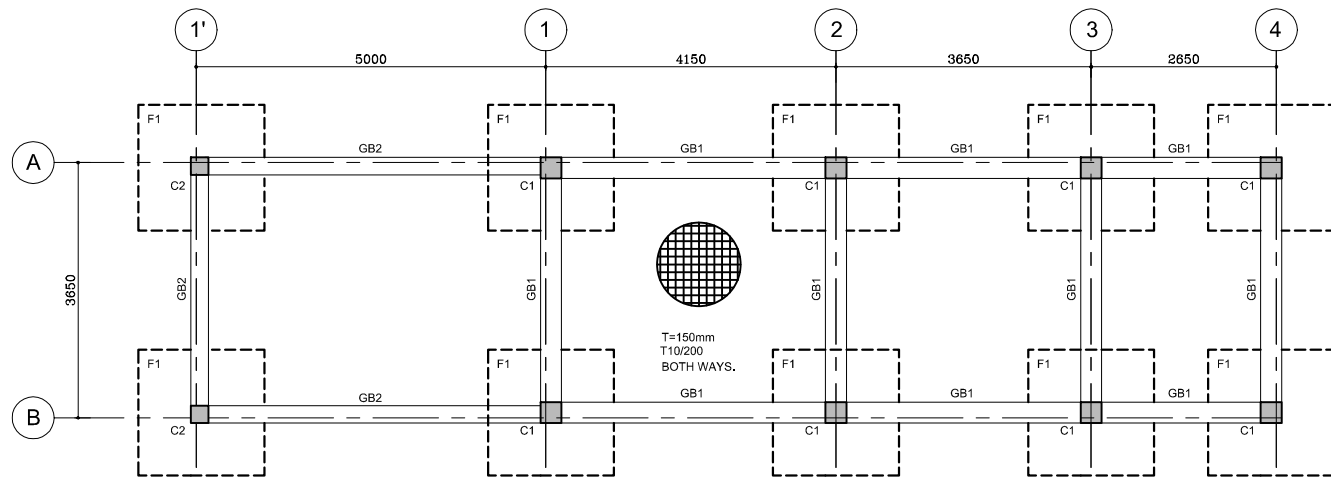
DRAWING TITLE:
RO PLANT ADMIN BUILDING SEWERAGE AND WATER SUPPLY LAYOUT

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.15

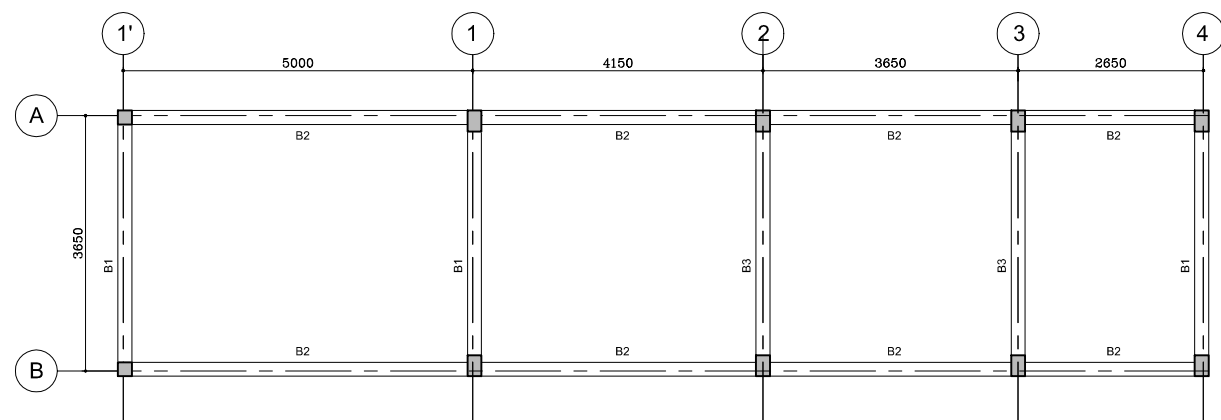
PROJECT No.	SHEET No.	DRAWING No.
K-627	1 OF 1	TV-WS-116
REV. No.	0	



COLUMN & AXIS LAYOUT
SCALE 1:100



FOOTING & GRADE BEAM LAYOUT
SCALE 1:100



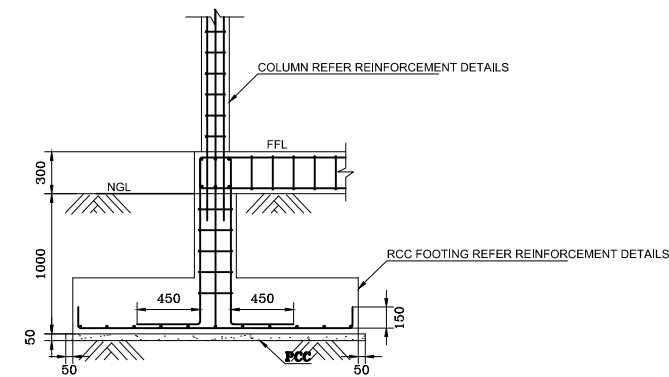
ROOF BEAM LAYOUT
SCALE 1:100

COLUMNS REINFORCEMENT DETAILS							
TYPE	FOUND.			GROUND FLOOR		STIRRUPS	
	SIZE	REINT.	SIZE	REINT.			
C1	300	300	12T16	200	300	10T16	T8/125 c/c
C2	250	250	8T16	200	200	4T16	T8/125 c/c

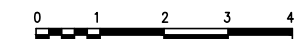
FOOTING REINFORCEMENT DETAILS						
MARK	DIMENSION			REINFORCEMENT	BOXED	REMARKS
	L	W	H			
F1	1800	1800	400	T12@100 c/c B/W, T&B		

GRADE BEAM REINFORCEMENT DETAILS							
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
GB1	300	300	4T16	3T16	T6/125 c/c		
GB2	250	300	4T16	3T16	T6/125 c/c		

BEAM REINFORCEMENT DETAILS							
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
B1	200	500	5T16	3T16	T6/125 c/c		
B2	200	500	4T16	3T16	T6/125 c/c		
B3	200	500	5T16	3T16	T6/100 c/c		



FOOTING DETAIL
SCALE 1:25



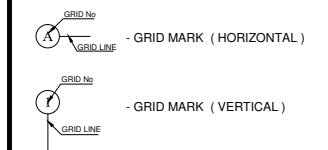
NOTES:-

- ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
- ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.
- CONTRACTOR SHALL CONDUCT INDEPENDENT GEOTECHNICAL INVESTIGATION TO CONFORM THE BEARING CAPACITY OF SOIL 150 KN / M
- THE CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOW :-
COLUMN / BEAM = 40 mm
SLAB = 30 mm
FOUNDATION = 50 mm
- WATER CEMENT RATIO SHALL BE 0.50
- FOR ALL GENERAL NOTES REFER BY DWG UT-GN-01
- GRADE OF CONCRETE IS M30 AND GRADE OF STEEL IS Fy 460

LEGEND:-

- NGL - NATURAL GROUND LEVEL
- FFL - FINISHED FLOOR LEVEL
- PCC - PLAIN CEMENT CONCRETE

ABBREVIATIONS:-



REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

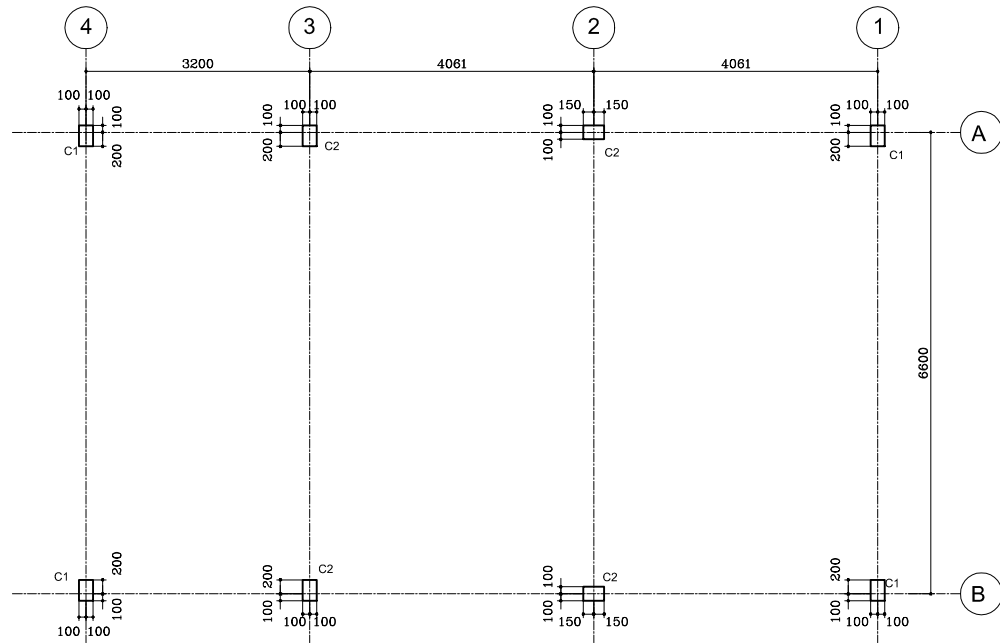
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الهندسة المعمارية
Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RO PLANT ADMIN BUILDING
STRUCTURAL DRAWINGS

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-WS-117			
REV. No.		0			



COLUMN & AXIS LAYOUT
SCALE 1 : 100

TYPE	COLUMNS REINFORCEMENT DETAILS						
	FOUND			GROUND FLOOR			
	SIZE	REINT.	SIZE	REINT.	STIRRUPS		
C1	200	300	8Y16	200	200	4Y16	Y8/200
C2	200	300	8Y16	200	300	8Y16	Y8/200

MARK	FOOTING REINFORCEMENT DETAILS						
	DIMENSION			REINFORCEMENT		BOXED	REMARKS
	L	W	H	WIDTH	LENGTH		
F1	1800	1800	300	5Y16/m	5Y16/m		
F2	2500	2500	400	8Y16/m	8Y16/m		

MARK	GRADE BEAM REINFORCEMENT DETAILS						
	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
GB1	300	300	3Y16	3Y16	Y8/200		

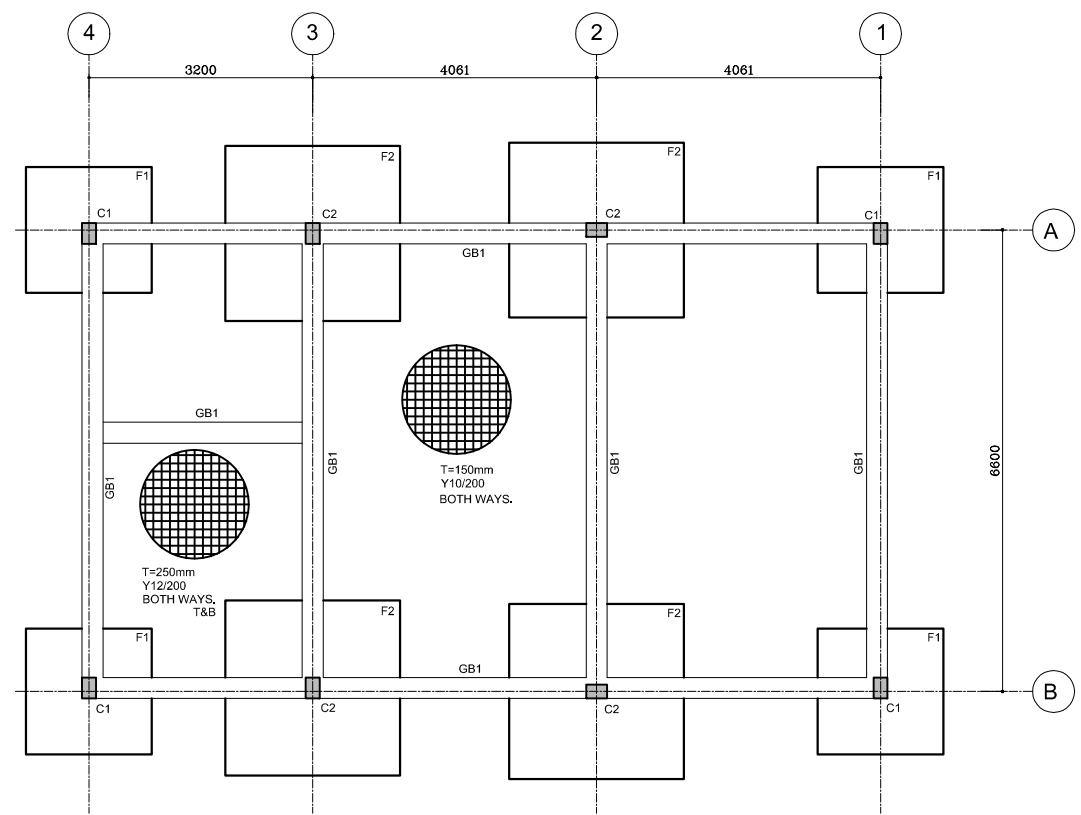
MARK	BEAM REINFORCEMENT DETAILS						
	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
B1	200	500	3Y16 + 2Y16	2Y16	Y8/150		
B2	200	400	3Y16	3Y16	Y8/150		
B3	200	400	5Y16	3Y16	Y8/150		

MARK	THICK	REINFORCEMENT		REMARKS
		WIDTH	LENGTH	
		S1	150	

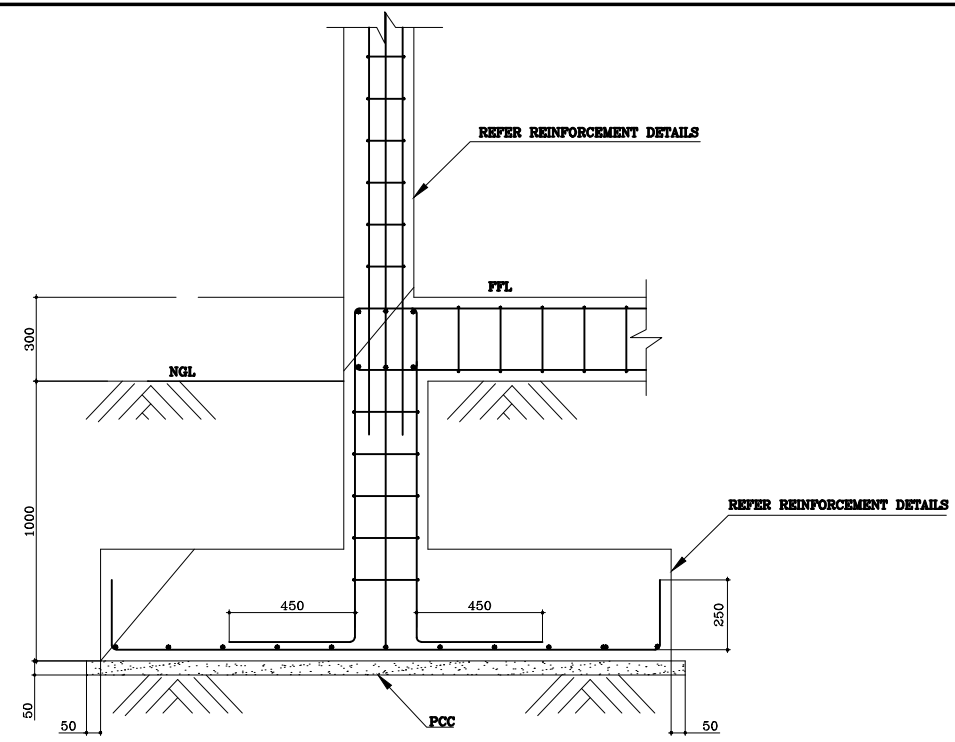
1. ALL DIMENSIONS ARE IN MILLIMETERS (MM).
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.
4. CONTRACTOR SHALL CONDUCT INDEPENDENT GEOTECHNICAL INVESTIGATION TO CONFORM THE BEARING CAPACITY OF SOIL 65 KN/M² AT 1M DEPTH AS DESIGNED IS APPROPRIATE SHOULD THERE BE A VARIANCE CONTRACTOR SHALL REVISE THE DESIGN TO CONSTRUCT THE WORK
5. THE CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOW :-
COLUMN / BEAM = 40 mm
SLAB = 30 mm
FOUNDATION = 50 mm
6. WATER CEMENT RATIO SHALL BE 0.50
7. FOR ALL GENERAL NOTES REFER BY DWG UT-GN-01

- LEGEND:-**
- 1. NGL - NATURAL GROUND LEVEL
 - 2. FFL - FINISHED FLOOR LEVEL
 - 3. PCC - PLAIN CEMENT CONCRETE

- ABBREVIATIONS:-**
- GRID MARK (HORIZONTAL)
 - GRID MARK (VERTICAL)



FOOTING & GRADE BEAM LAYOUT
SCALE 1 : 100



FOOTING DETAIL
SCALE 1 : 25



REFERENCE DRAWINGS			
SL.No	DRAWING No.	DESCRIPTION	

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
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0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

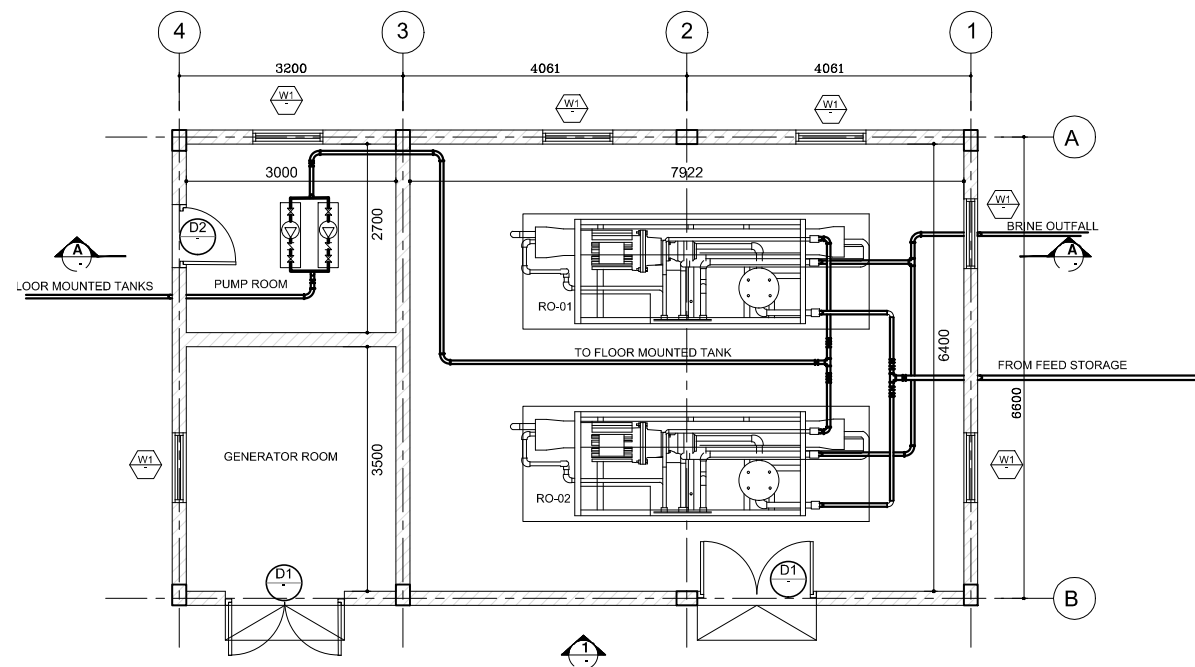
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO
 Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 REVERSE OSMOSIS UNIT STRUCTURAL PLANS
 Tha.VILIFUSHI ISLAND

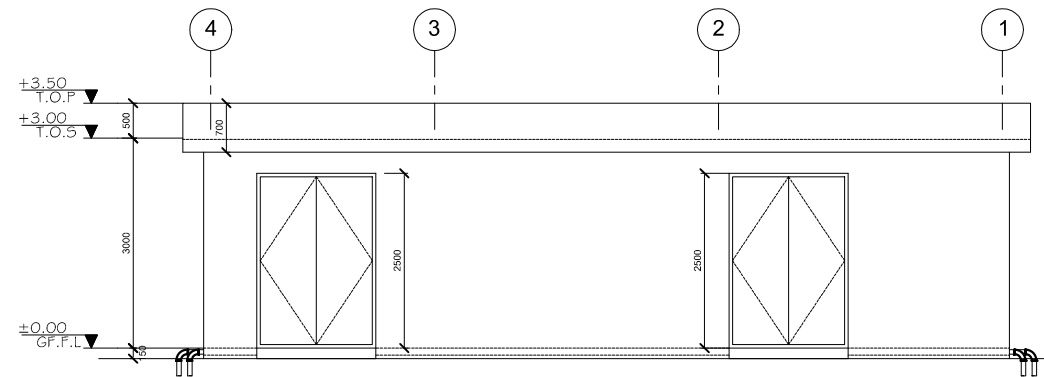
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SK	SR	MP	MA	1:100	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-WS-119			
REV. No.	0				



RO PLANT BUILDING
SCALE 1:100

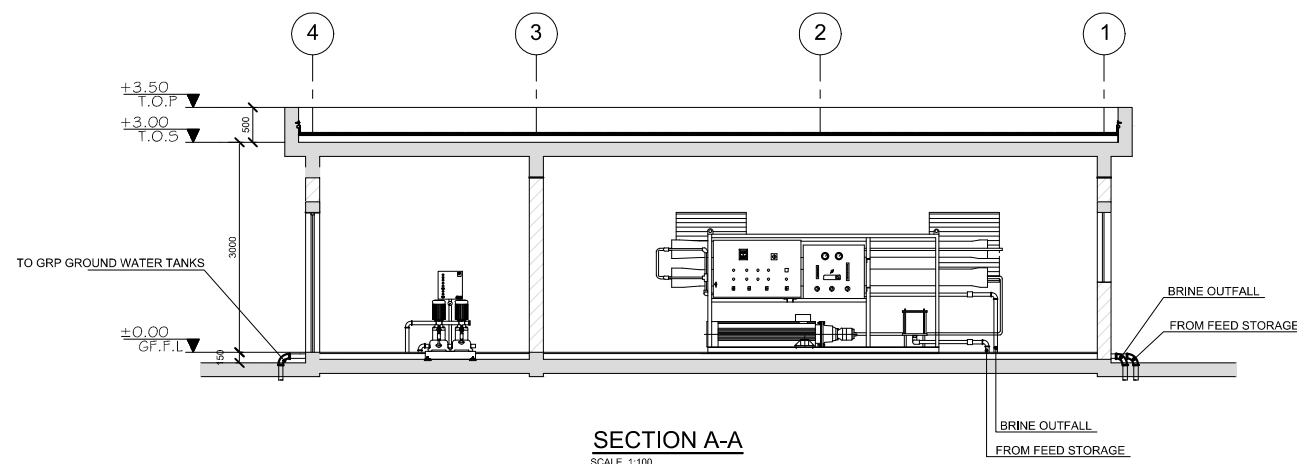
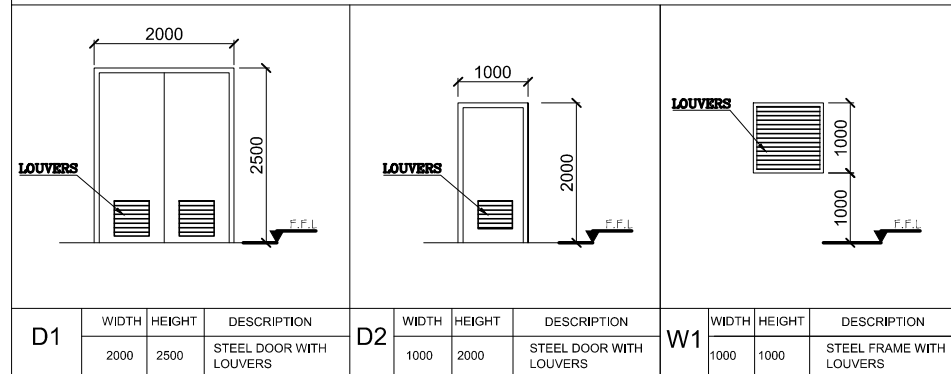
RO PLANT SCHEDULE FOR xxxxxxxx ISLAND

NO.	PUMP CAPACITY	MOTOR	POWER SUPPLY	REMARKS
01	25.0M ³ /HRS	35 KW(46.90 BHP)	400-415/3/50	TWO NOS OF RO PLANT WORKING ACCORDING TO FLOAT SENSOR

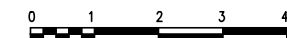


VIEW-1
SCALE 1:100

DOOR & LOUVER SCHEDULE



SECTION A-A
SCALE 1:100



NOTES:-

1. ALL DIMENSION ARE IN MILLIMETER (MM), UNLESS OTHERWISE NOTED
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الهندسة والبناء
Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha. Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
REVERSE OSMOSIS UNIT DETAILS
Tha. VILIFUSHI ISLAND

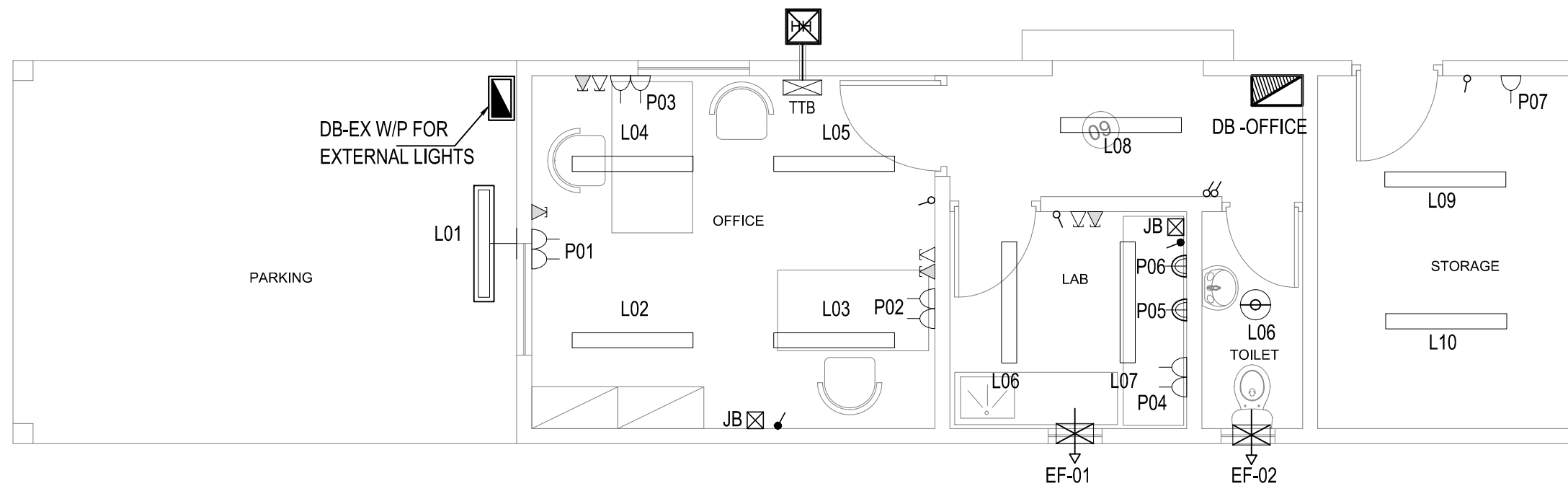
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.15
PROJECT No. SHEET No.			DRAWING No.		
K-627 1 OF 1			TV-WS-121		
REV. No.			0		

ELECTRICAL DRAWINGS

- NOTES:-**
1. ALL DIMENSIONS ARE IN mm EXCEPT AND OTHERWISE SPECIFIED.
 2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
 3. ALL ABOVE GROUND CONDUIT SHALL BE RIGID HOT DIP GALVANIZED EXCEPT AS NOTED.
 4. ALL NEMA 3R GASKETED S S ENCLOSURES TO HAVE LOCKABLE HANDLE AND 3 POINT LATCHING.

LEGENDS

TYPE	SYMBOL	DESCRIPTION
B		1 x 40W SURFACE MOUNTED FLUORESCENT LIGHT FITTING
C		1 x 40W WALL MOUNTED FLUORESCENT LIGHT FITTING-WEATHERPROOF
E		1x80W SURFACE MOUNTED FLUORESCENT DOWN LIGHT - WEATHERPROOF
		5A SWITCHED SOCKET OUTLET (1000W)
		5A SWITCHED SOCKET OUTLET AT HIGH LEVEL-WEATHER PROOF (1000W)
		13A TWIN SWITCHED SOCKET OUTLET
		JUNCTION BOX
		20A DP SWITCH
		EXHAUST FAN (80W)
		TELEPHONE TERMINAL BOX
		SINGLE OUTLET FOR DATA
		SINGLE OUTLET FOR VOICE
		0,6x0,6x0,6m HAND HOLE



REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	28-12-'15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

REVISION

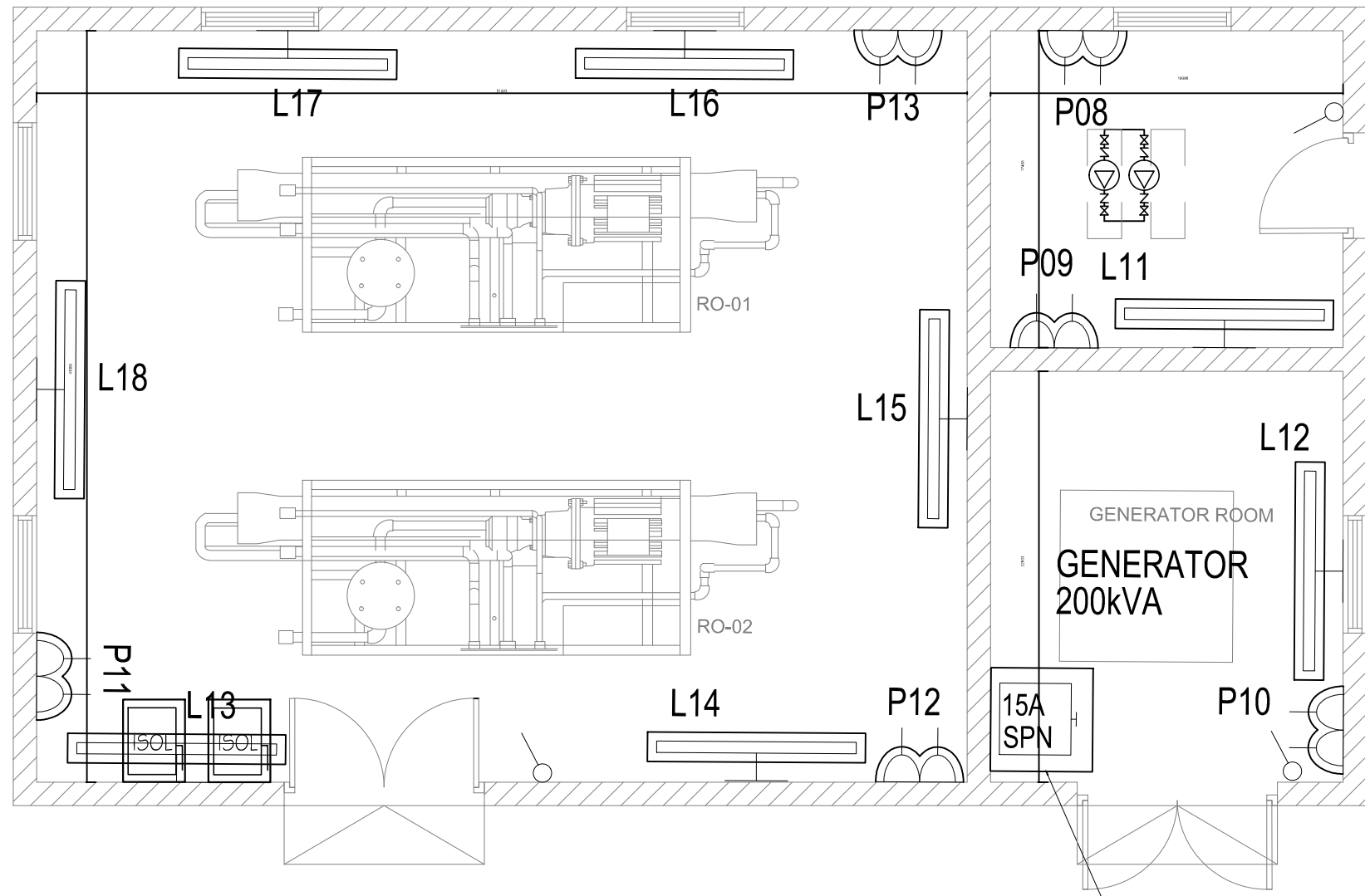
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 T.VILUFUSHI ISLAND
 RO PLANT ADMIN BUILDING
 ELECTRICAL LAYOUT

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:50	28-12-'15
PROJECT No. SHEET No.		DRAWING No.		REV. No.	
K-627 1 OF 1		TV-EL-100		0	



RO PLANT BUILDING
SCALE 1:100

S/F FOR BATTERY CHARGER(0.50KW)

NOTES
 1. ALL DIMENSIONS ARE IN mm EXCEPT AND OTHERWISE SPECIFIED.
 2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
 3. ALL ABOVE GROUND CONDUIT SHALL BE RIGID HOT DIP GALVANIZED EXCEPT AS NOTED.
 4. ALL NEMA 3R GASKETED S.S ENCLOSURES TO HAVE LOCKABLE HANDLE AND 3 POINT LATCHING.

LEGENDS

TYPE	SYMBOL	DESCRIPTION
C		1 x 40W WALL MOUNTED FLUORESCENT
		SWITCH FUSE - WEATHERPROOF
		ISOLATOR FOR TUBE WELL PUMP ON / OFF
		13A TWIN SWITCHED SOCKET OUTLET - WEATHERPROOF

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

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CONSULTANT:
ACO دار الهندسة والاستشارات الهندسية
 Al Habshi Consultants Office

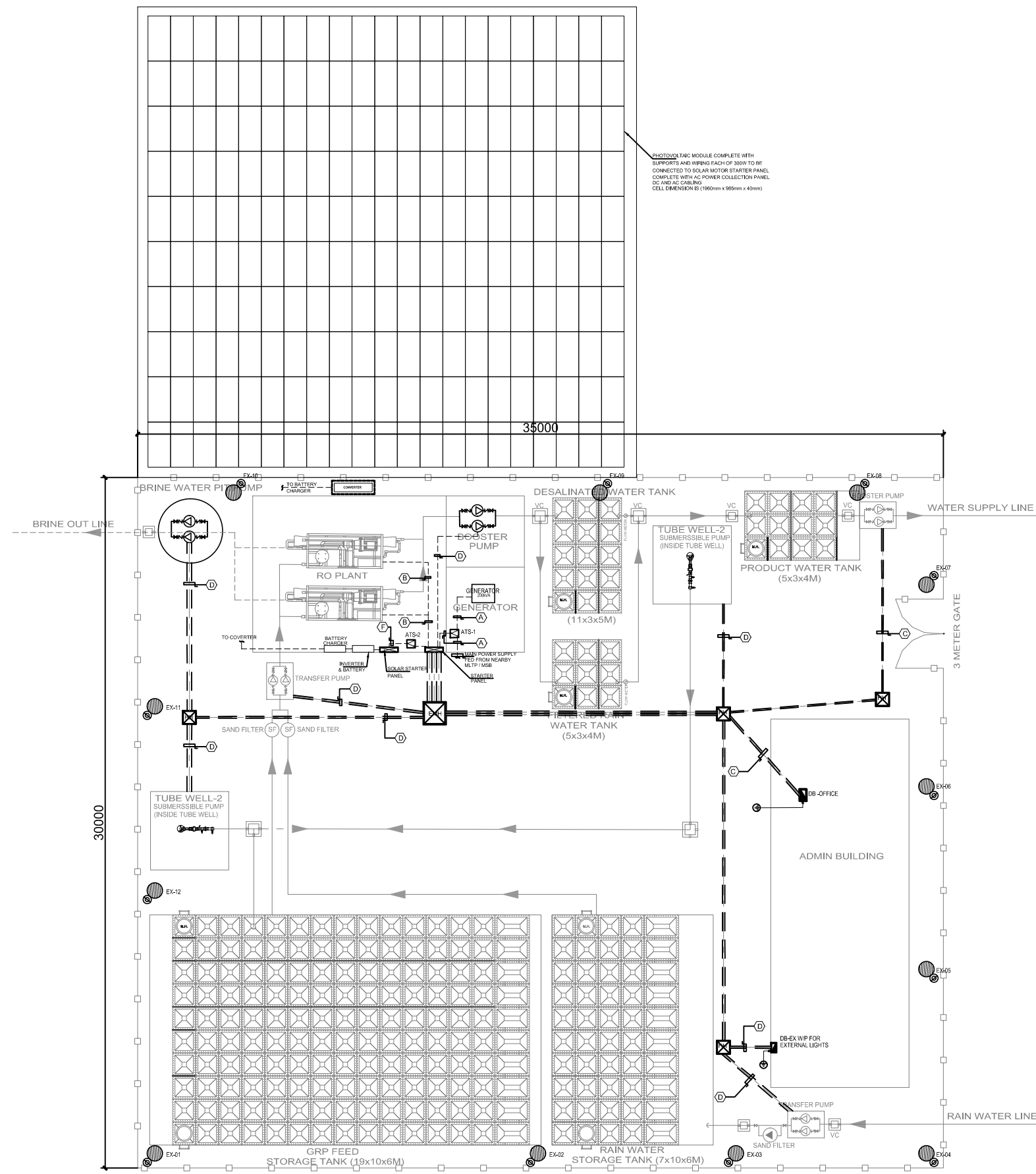
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RO PLANT BUILDING ELECTRICAL LAYOUT T.VILUFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:100	28-12-15

PROJECT No. SHEET No. DRAWING No.
 K-627 1 OF 1 TV-EL-101

REV. No.
 0



LEGENDS:-

①	TUBE WELL WITH SUBMERSIBLE PUMP 9m ³ /hour AT 62m HEAD
②	ADMIN.OFFICE INCLUDING ALL ELECTRO-MECHANICAL FACILITIES
③	GRP FEED STORAGE TANK
④	RO UNITS
⑤	GENERATOR ROOM
⑥	FLOOR MOUNTED GRP STORAGE TANK
⑦	TRANSFER PUMP (2 Sets.) 6m ³ /hour AT 20m HEAD
⑧	OVERHEAD GRP TANK
⑨	BRINE STORAGE WITH 2 Nos. PUMP 7.9m ³ /hour, BOTH WORKING

CABLE LEGEND:-

A	2x4c 150mmSQ cu/XLPE/SWA/PVC ON CABLE TRAY
B	(4x35.0+1x16.0)mmSQ cu./PVC IN 50mmØ PVC DUCT
C	(4x16.0+1x6.0) cu./PVC IN 50mmØ PVC DUCT
D	(4x10.0+1x6.0)mmSQ cu./PVC IN PVC DUCT
E	(4x6.0+1x4.0)mmSQ cu./PVC IN PVC CONDUIT
F	4c 120mmSQ cu/XLPE/SWA/PVC ON CABLE TRAY

TYPE	SYMBOL	DESCRIPTION
G		W/P 70W HP SODIUM VAPOUR LAMP POST MOUNTED (6mts HT.)
		DISTRIBUTION BOARD
		DISTRIBUTION BOARD/WEATHER PROOF
		STARTER PANEL
		1.0x1.0x1.0m MANHOLE
		0.6x0.6x0.6m HANDHOLE

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	28-12-'15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

REVISION

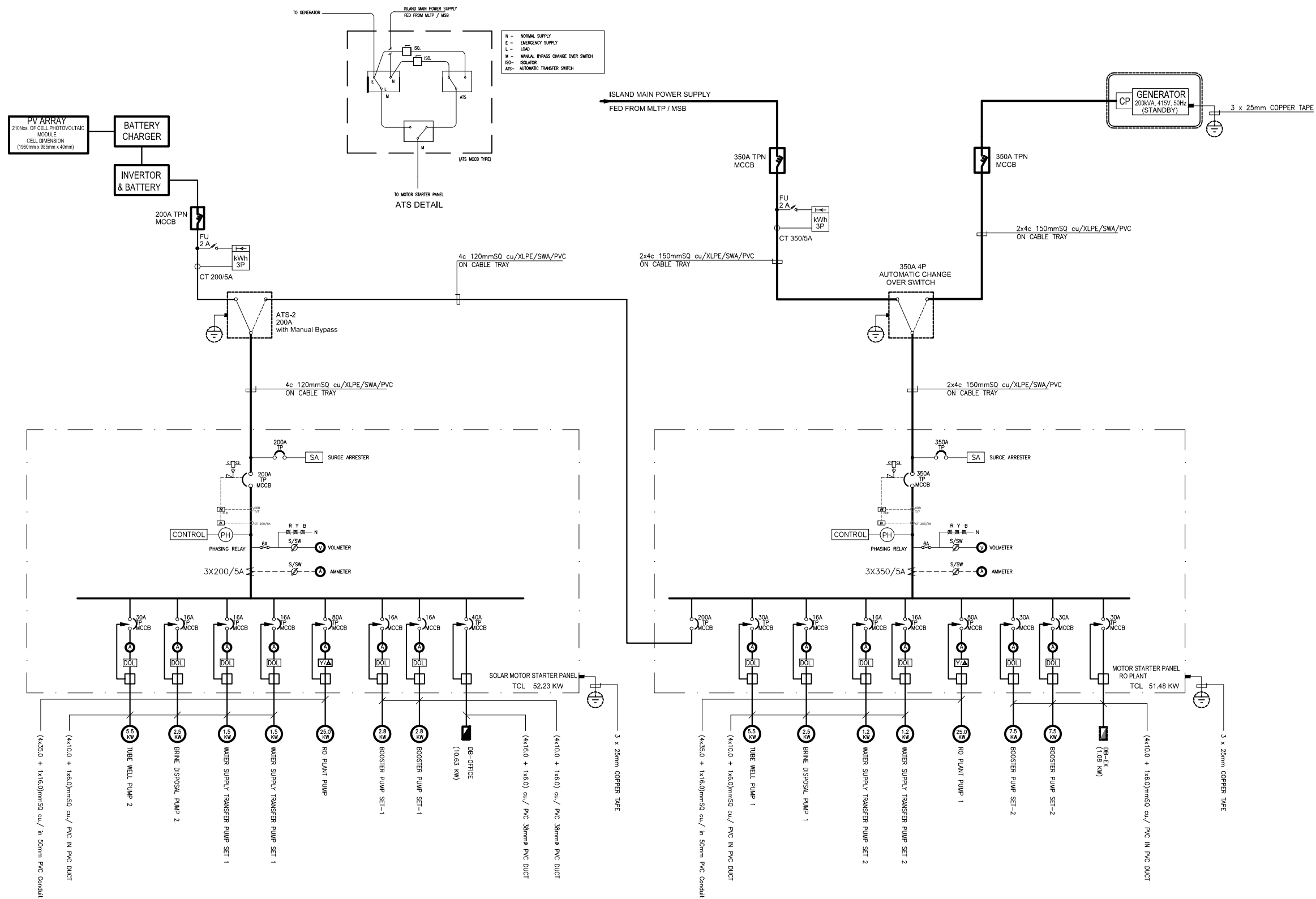
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الحبيش للاستشارات الهندسية
 Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RO PLANT ELECTRICAL LAYOUT
 T.VILUFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:100	28-12-'15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1			TV-EL-102	
REV. No.	0				



**ELECTRICAL SINGLE LINE DIAGRAM
T.VILUFUSHI ISLAND**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT AND OTHERWISE SPECIFIED.
 - CABLE LEGEND AS SHOWN AS DRAWING
 - ALL S/F/ELECTRICAL PANELS AND GENERATOR SHALL BE PROVIDED WITH EARTHING SYSTEM
 - ALL ELECTRICAL INSTALLATIONS FOR OUTDOOR USE, SHALL BE PROTECTED FROM RAIN AND DUST
 - ALL PUMPS SHOULD BE PROVIDED WITH OWN CONTROL PANEL WITH NECESSARY PROTECTION.
 - ALL EXPOSED INSTALLATION SHOULD BE IN G.I CONDUIT OR SHADED CABLE TRAYS.
 - ALL ABOVE GROUND CONDUIT SHALL BE RIGID HOT DIP GALVANIZED EXCEPT AS NOTED.
 - ALL NEMA 3R GASKETED S.S ENCLOSURES TO HAVE LOCKABLE HANDLE AND 3 POINT LATCHING.
 - CONTRACTOR IS RESPONSIBLE TO GET THE FINAL APPROVAL FOR ALL THE DETAILS REGARDING SOLAR SYSTEM FROM THE CONSULTANT ENGINEER BEFORE IMPLEMENTING ON THE SITE.

LEGEND	DESCRIPTION
MCCB	MOULDED CASE CIRCUIT BREAKER
MCB	MINIATURE CIRCUIT BREAKER
ELR	EARTH LEAKAGE RELAY
ELCB	EARTH LEAKAGE CIRCUIT BREAKER
A	AMMETER
V	VOLTMETER
PF	POWER FACTOR METER
☐	SELECTOR SWITCH
⊗	PHASE INDICATOR
☐	MCCB LOCKABLE ISOLATOR
DOL	DIRECT ON-LINE STARTER
SA	SURGE ARRESTOR
CP	CONTROL PANEL
☐	DISTRIBUTION BOARD
☐	DISTRIBUTION BOARD W/P
☐	STARTER PANEL WEATHERPROOF
⊖	EARTH PIT
☐	EARTH LEAKAGE RELAY

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

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 REPUBLIC OF MALDIVES

CONSULTANT:
 ACO دار الهندسة والاستشارات الهندسية
 Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilufushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 SCHEMATIC DIAGRAM FOR RO PLANT UNIT T.VILUFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:50	28-12-15
PROJECT No. K-627		SHEET No. 1 OF 1		DRAWING No. TV-EL-103	
REV. No. 0					

DB-OFFICE

LOCATION: ADMIN BUILDING

MCB 10 WAYS TPN 3 Nos. 63A HRC FUSES + ISOLATOR 100A TPN										
LIGHT SECTION C.O.E.L.C.B. 40A, 300mA 4 POLE										
CR No	Phase	W/SIZE sq.mm	RATES AMP	LOCATION	TYPE OF LIGHT/POWER	NO. OF POINTS	CONTROLLED BY	R	Y	B
1	R	2.5	10	OFFICE BLDG.	LIGHT L02-L05	4(1x50)	SWITCH	200		
	Y	2.5	10	LAB	LIGHT L6-L7	2(1x50)+1(1x80)	SWITCH		180	
	B	2.5	10	TOILET/CORRIDOR	LIGHT L06-L08	1(1x70)+1(1x50)+1(1x80)	SWITCH			200
2	R	2.5	10	STORAGE	LIGHT L09-L10	2(1x50)	SWITCH	100		
	Y	2.5	10	OFFICE-CAR PARK	LIGHT L01	1(1x50)	SWITCH		50	
	B	-	10		SPARE					
3	R	2.5	15	RO PLANT BLDG.	LIGHT L13-L18	6(1x50)	SWITCH	300		
	Y	2.5	10		SPARE					
	B	-	10	RO PLANT BLDG.	LIGHT L11-L12	2(1x50)	SWITCH			100
POWER SECTION C.O.E.L.C.B. 63A 30mA 4 POLE										
4	R	4.0	15	OFFICE	P01-P03	3(1x200)	SWITCHED	600		
	Y	4.0	15	OFFICE-LAB	P05	1(1x1000)	SWITCHED		1000	
	B	4.0	15	OFFICE LAB	P06	1(1x1000)	SWITCHED			1000
5	R	4.0	15		SPARE					
	Y	4.0	15	OFFICE LAB	P04	1(1x200)	SWITCHED		200	
	B	4.0	15	OFFICE-STORAGE	P07	1(1x1000)	SWITCHED			1000
6	R	4.0	15		SPARE					
	Y	6.0	15		SPARE					
	B	6.0	15		SPARE					
7	R	6.0	20	OFFICE BLDG.	SU-01	1(1x2000)	JB+DP SWITCH	2000		
	Y	6.0	20	OFFICE BLDG.	SU-02	1(1x2000)	JB+DP SWITCH		2000	
	B	4.0	15		SPARE					
8	R	-	10		SPARE					
	Y	4.0	10	RO PLANT BLDG.	P11-P13	3(1x200)			600	
	B	4.0	10	RO PLANT BLDG.	P08-P09	3(1x200)				600
9	R	4.0	10		SPARE					
	Y	4.0	10		SPARE					
	B	4.0	10	RO PLANT-GENERATOR ROOM	BATTERY CHARGER	1(1x500)	15A SPN S/F			500
10	R	4.0	10		SPARE					
	Y	4.0	10		SPARE					
	B	4.0	10		SPARE					
TOTAL CONN. LOAD						10.630 K.W.		3200	4030	3400

DB-EX

2 WAYS TPN 40A, TP, ISOLATOR										
C.O.E.L.C.B. 40A, 300mA 4 POLE										
CR No	Phase	W/SIZE sq.mm	MCB WITH	LOCATION	DESCRIPTION	NO. OF POINTS	CONTROLLED BY	R	Y	B
1	R	6.0	15ASP	EXTERNAL LIGHTS	EX1-EX4	4(1x90)	Controlled by 20A2P contactor, Photo cell and H-O-A selector	360		
	Y	6.0	15ASP	EXTERNAL LIGHTS	EX5-EX8	4(1x90)			360	
	B	-	15ASP	EXTERNAL LIGHTS	EX9-EX12	4(1x90)				360
2	R	-	15ASP		SPARE					
	Y	-	15ASP		SPARE					
	B	-	15ASP		SPARE					
TOTAL CONN. LOAD						01.080 K.W.		360	360	360


REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

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REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

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 REPUBLIC OF MALDIVES

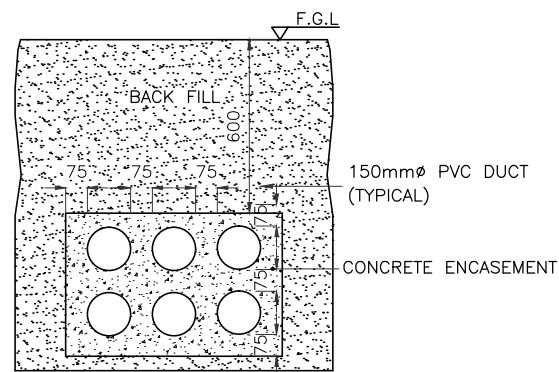
CONSULTANT:

Al Habshi Consultants Office

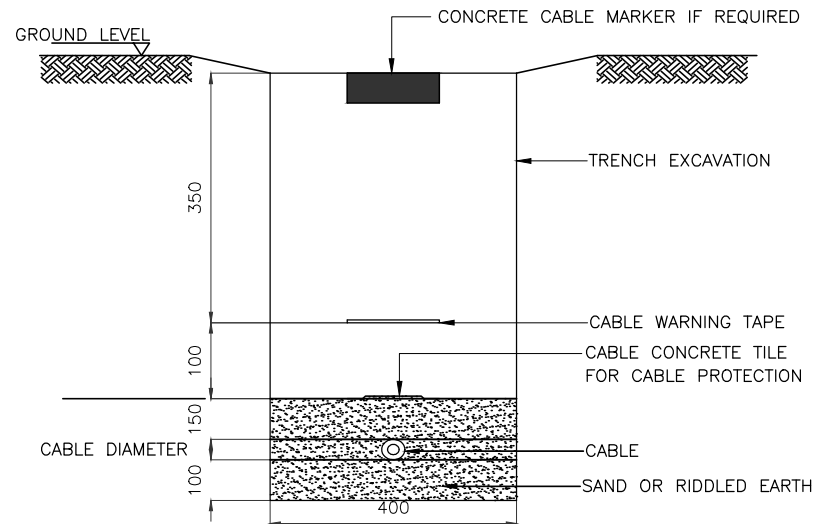
PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
ELECTRICAL DB SCHEDULE

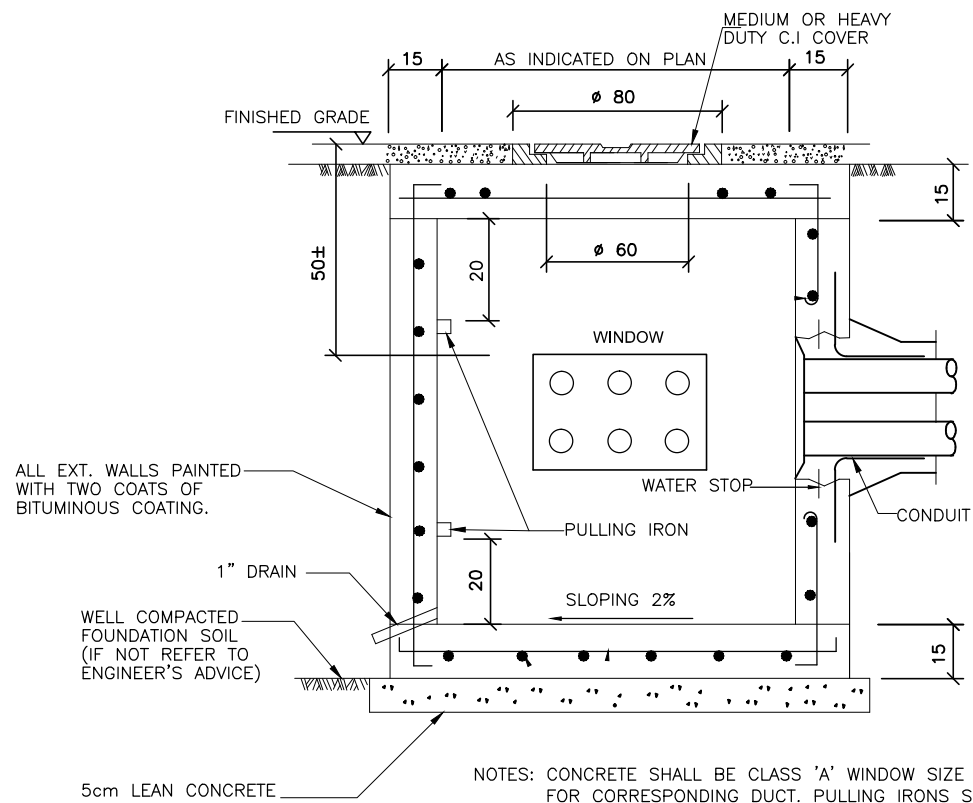
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:50	28-12-15
PROJECT No. SHEET No.		DRAWING No.			
K-627 1 OF 1		TV-EL-104			
REV. No.	0				



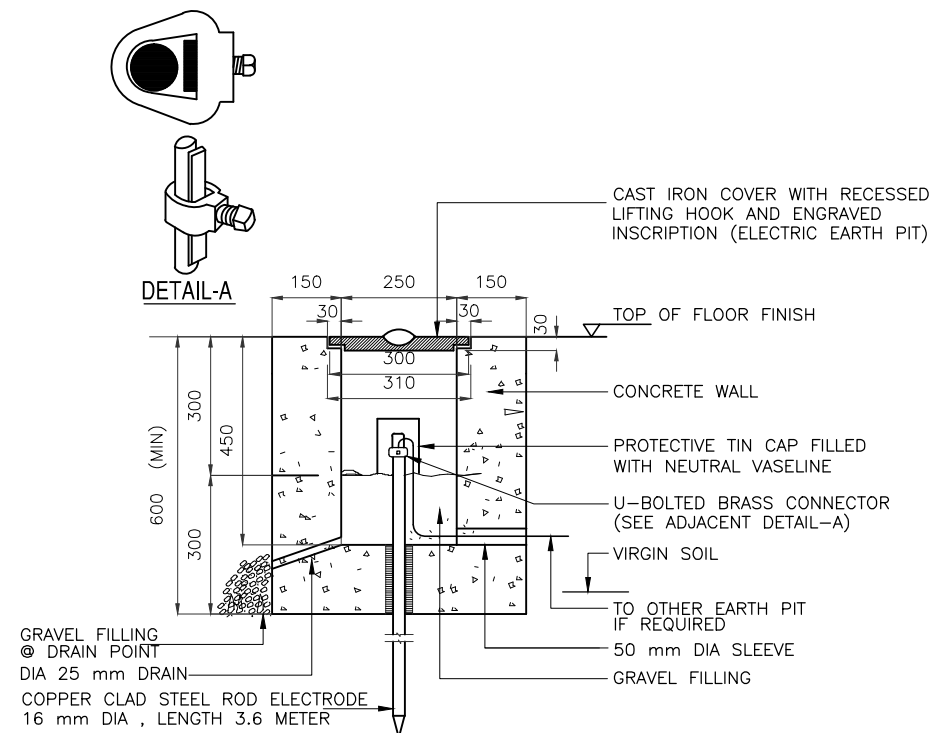
1 DUCT BANK DETAIL



2 DIRECT BURIED CABLES



3 MANHOLE DETAIL



4 EARTH PIT CONSTRUCTION (OUTDOOR)

REFERENCE DRAWINGS			
SL.No	DRAWING No.	DESCRIPTION	

REVISION				
REV.	DATE	DESCRIPTION	DRAWN	CHKD. APPRD.
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS MA

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MINISTRY OF ENVIRONMENT & ENERGY
 REPUBLIC OF MALDIVES

CONSULTANT:
ACO دار الحسبي للاستشارات والمدى
Al Habshi Consultants Office

PROJECT:
 Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
 ELECTRICAL TYPICAL DETAILS
 T.VILUFUSHI ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:50	28-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	TV-EL-105			
REV. No.	0				