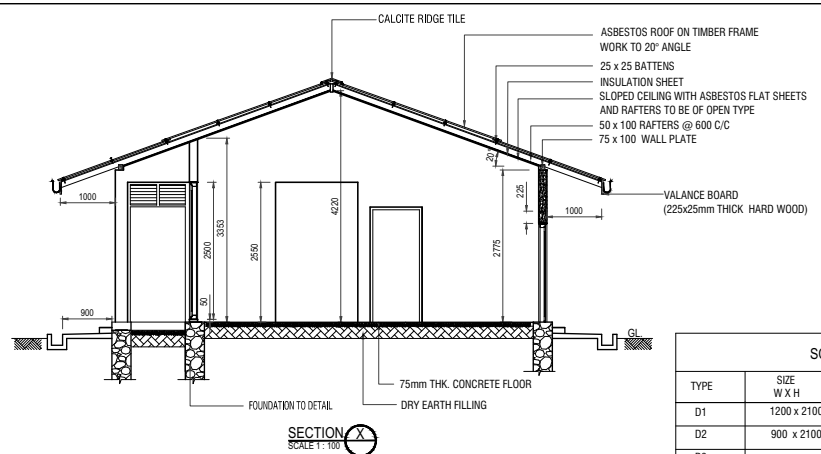
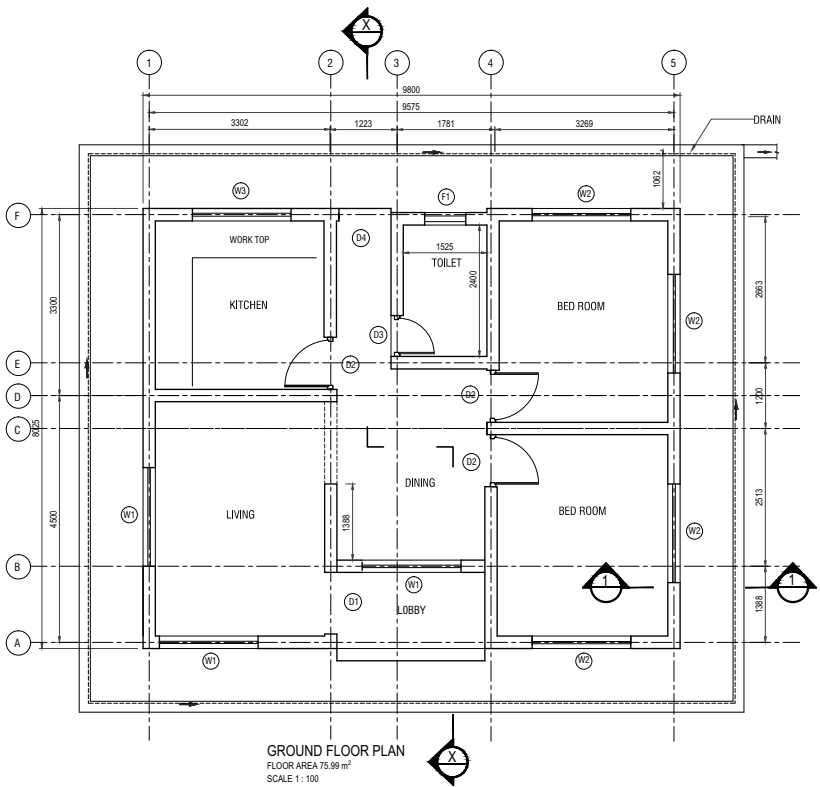


FRONT ELEVATION

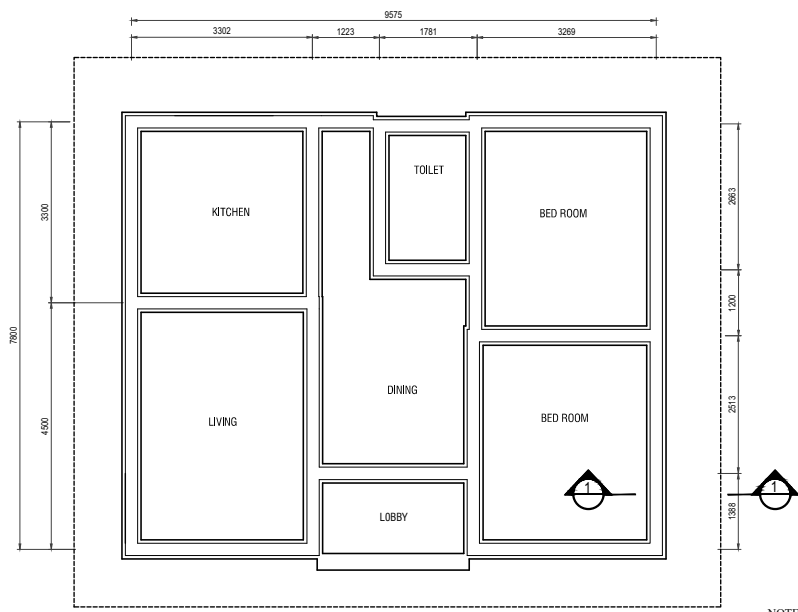


SECTION X
SCALE 1:100

SCHEDULE OF DOORS AND WINDOWS				
TYPE	SIZE W X H	SILL HGT.	DISCRIPTION	NOS.
D1	1200 x 2100	—	TIMBER PANELLED DOOR WTH LOUVERS ON TOP	01
D2	900 x 2100	—	PLYWOOD DOOR	03
D3	750 x 2100	—	P.V.C. DOOR	01
D4	900 x 1800	—	TIMBER PANELLED DOOR	01
W1	2400 x 2500	50	THREE SASHES ALUMINUM GLAZED WINDOW WITH LOUVERS ON TOP	03
W2	1800 x 1800	750	- DO -	03
W3	2400 x 1575	975	- DO -	01
F1	750 x 550	2000	ALUMINUM GLAZED FAN LIGHT WITH LOUVERS ON TOP	01



GROUND FLOOR PLAN
FLOOR AREA 75.09 m²
SCALE 1:100



LAYOUT OF FOUNDATION
SCALE 1:100

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project

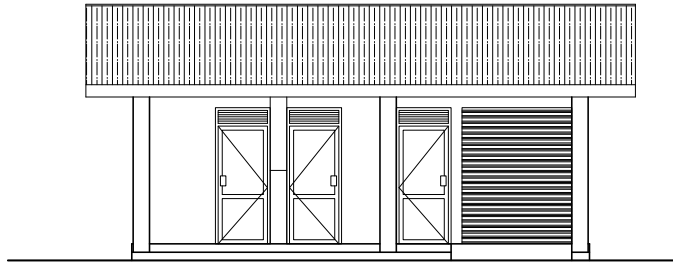
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - OPERATOR / CARE TAKER'S QUARTERS

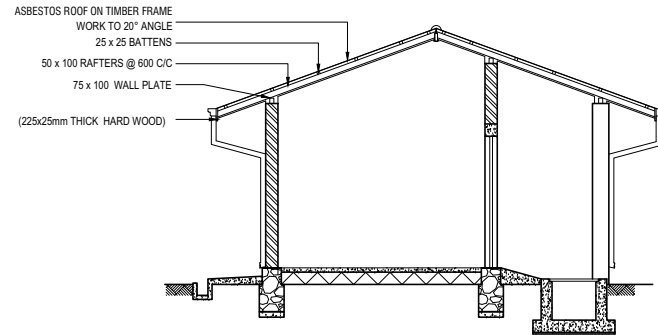
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

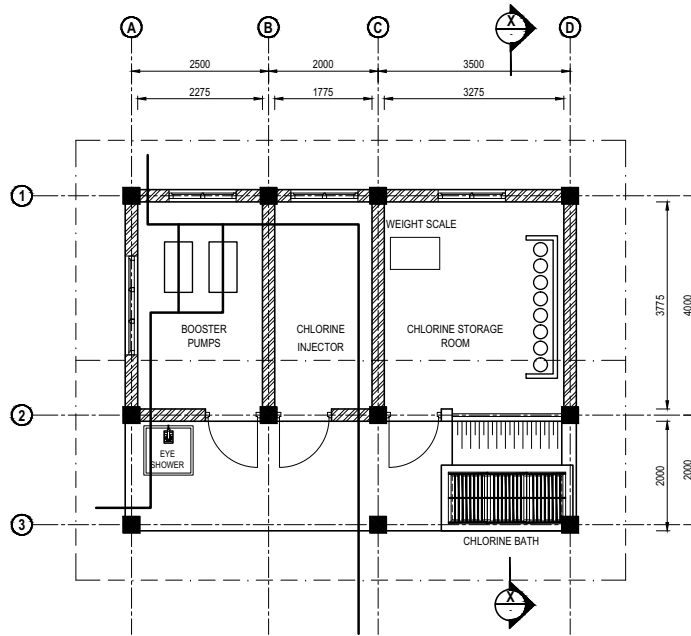
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							SCALE: AS SHOWN



FRONT ELEVATION
SCALE 1 : 100



SECTION X-X
SCALE 1 : 100



PLAN
SCALE 1 : 100

NOTE :- 01. ALL PIPES MATERIAL ARE DI.
02. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



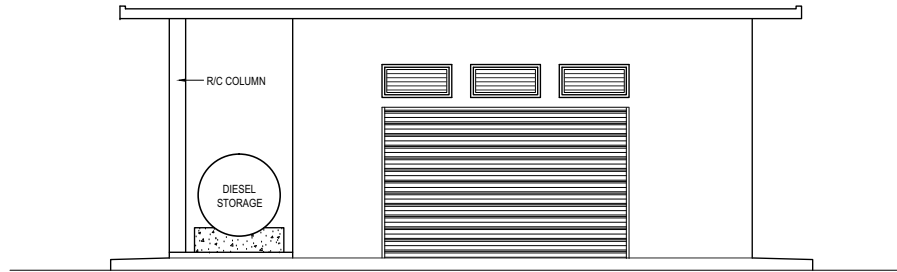
JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - CHLORINATION HOUSE

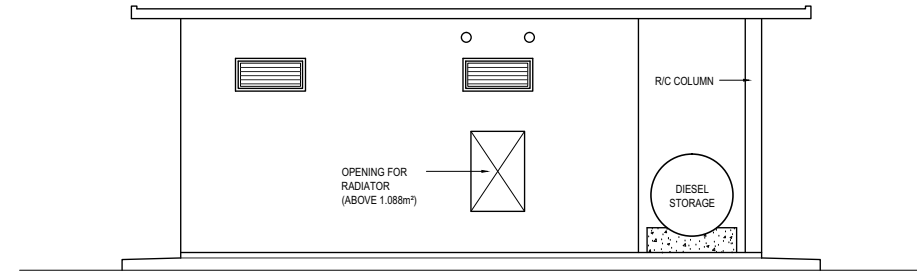
CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS :
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

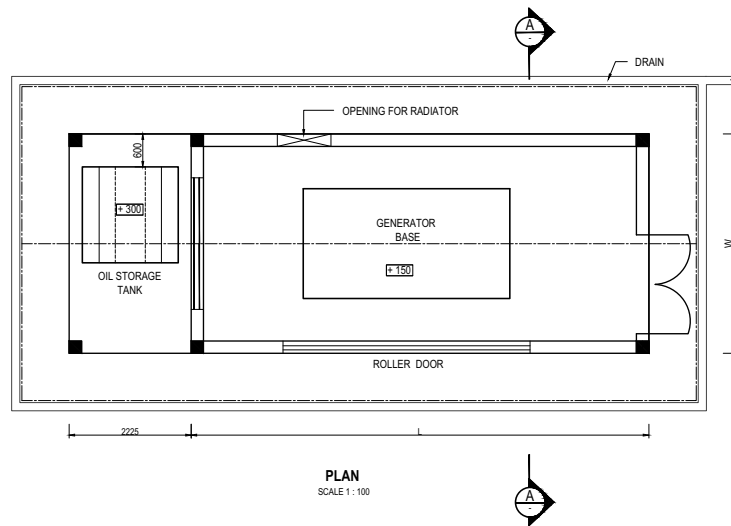
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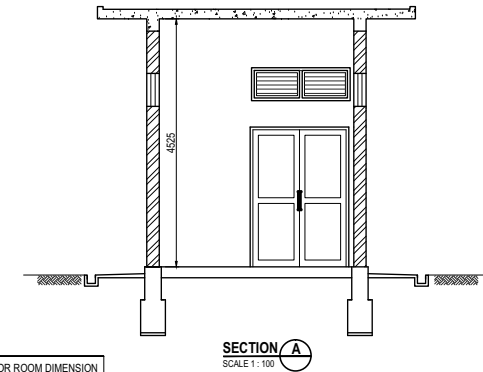
FRONT ELEVATION
SCALE 1:100



REAR ELEVATION
SCALE 1:100



PLAN
SCALE 1:100



SECTION A-A
SCALE 1:100

LOCATION	GENERATOR ROOM DIMENSION	
	L (mm)	W (mm)
01. MAKAHANADARAWA WATER TREATMENT PLANT AND WATER INTAKE	6700	3800
02. RAMBEWA GROUND RESERVOIR	6900	3800
03. MEDAWACHCHIYA GROUND RESERVOIR	6400	3700
04. WAHALKADA WATER INTAKE	8280	4000
05. KAHATAGOLLEWA GROUND RESERVOIR	6400	3700
06. KEBITHIGOLLEWA GROUND RESERVOIR	4750	3280
07. WEERASOLE GROUND RESERVOIR	6900	3800
08. HOROWPATHANA GROUND RESERVOIR	8280	4000
09. KAHATAGASDIGILIYA GROUND RESERVOIR	4750	3280

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - GENERATOR HOUSE

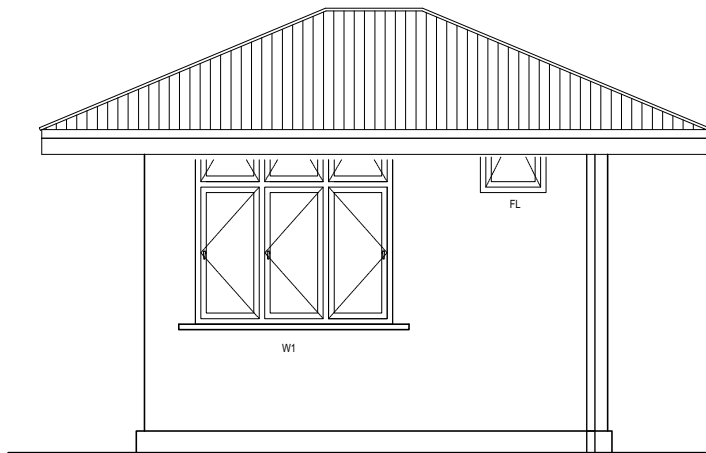
CLIENT:
NATIONAL WATER SUPPLY
& DRAINAGE BOARD



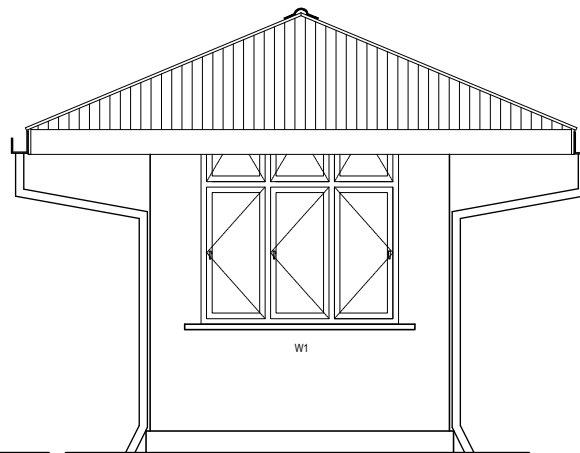
CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN



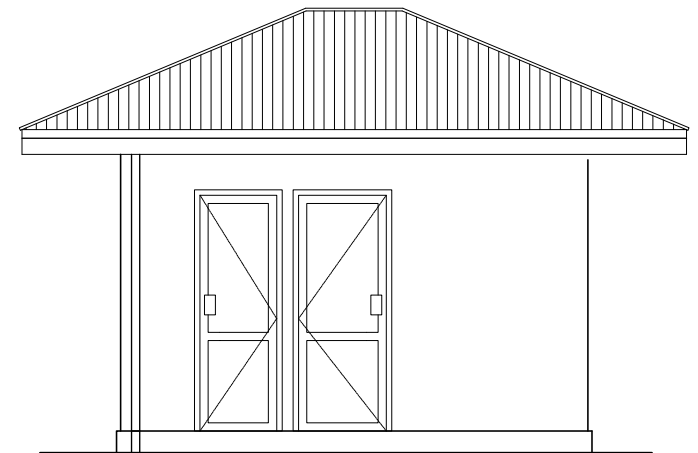
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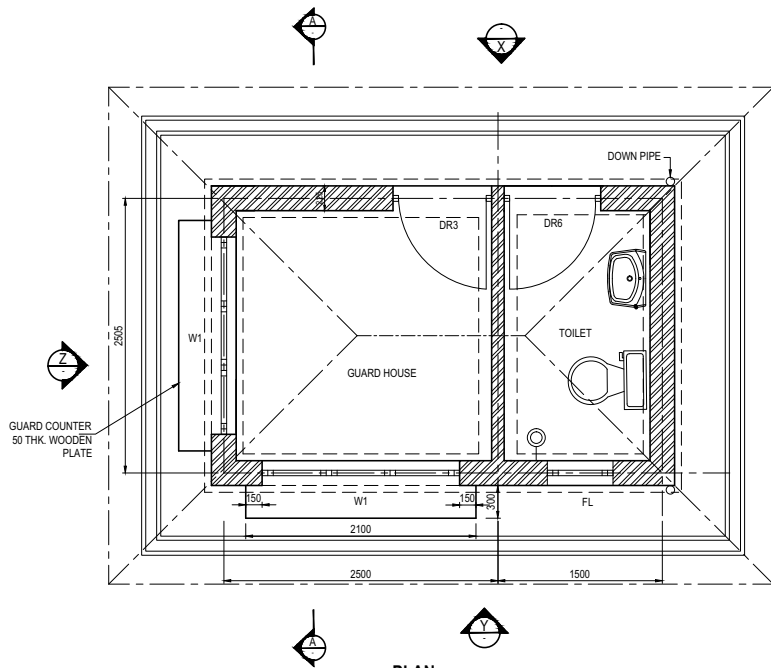
ELEVATION Y



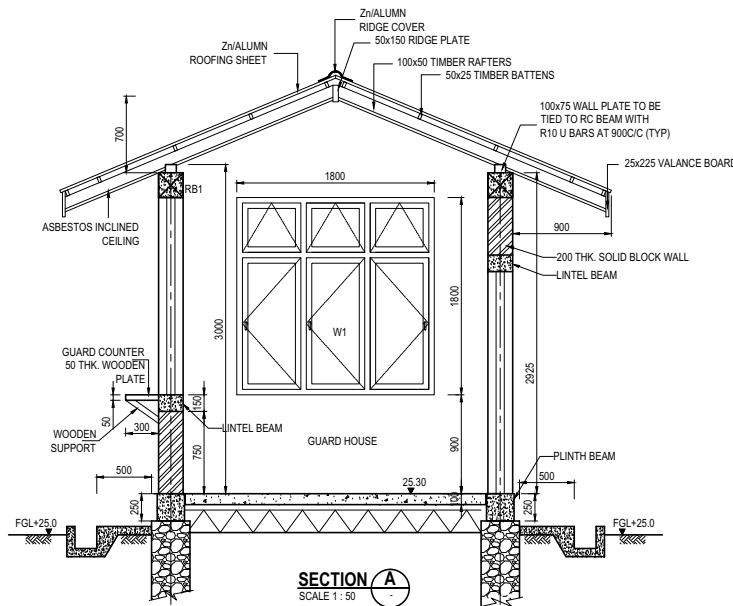
ELEVATION Z



ELEVATION X



PLAN
SCALE 1: 50



SECTION A
SCALE 1: 50

SCHEDULE OF DOORS AND WINDOWS			
TYPE	W	H	QTY.
DR3	900	2200	1
DR6	800	2200	1
W1	1800	1800	1
FL	600	600	1

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - GUARD HOUSE

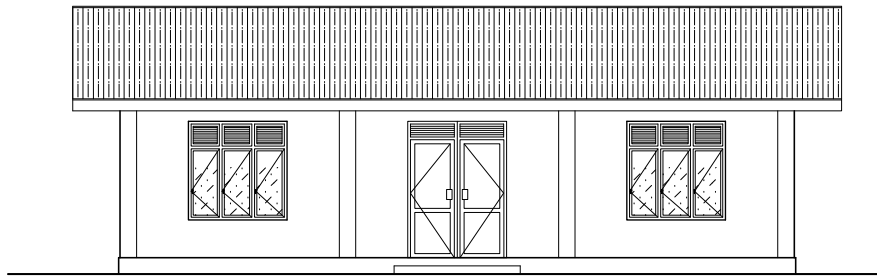
CLIENT:
NATIONAL WATER SUPPLY
& DRAINAGE BOARD



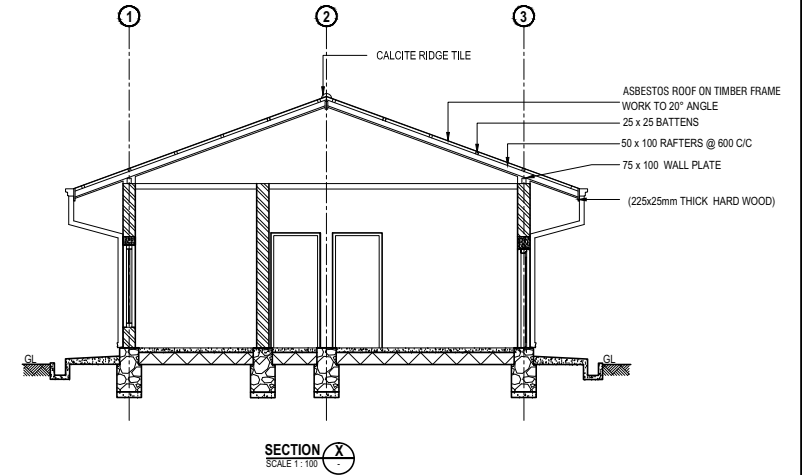
CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN



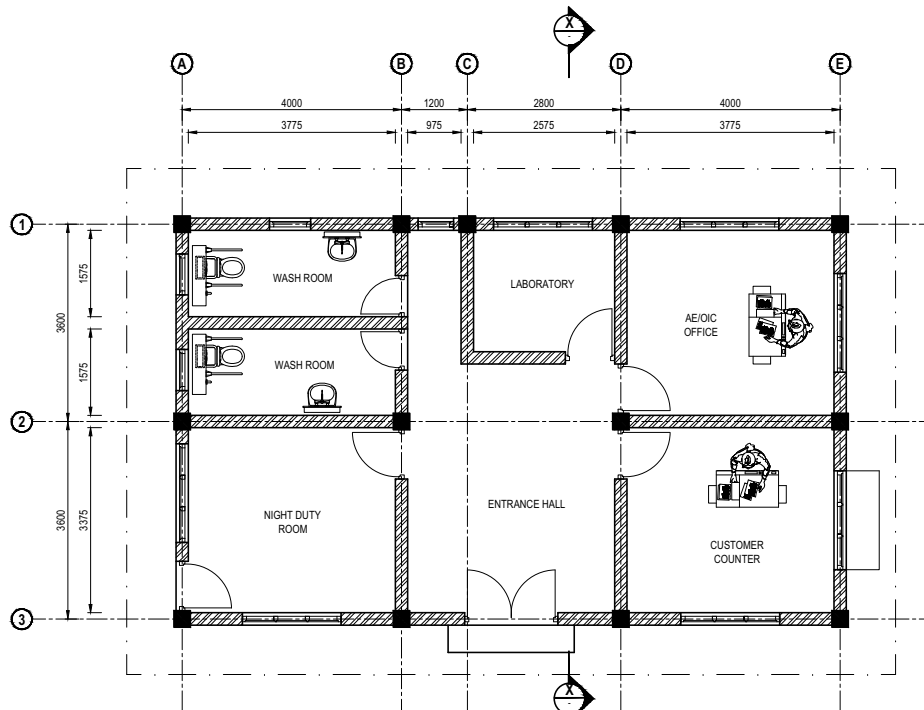
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FRONT ELEVATION
SCALE 1 : 100



SECTION X-X
SCALE 1:100



PLAN
SCALE 1 : 100

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - OPERATIONAL COMPLEX (AE / OIC OFFICE)

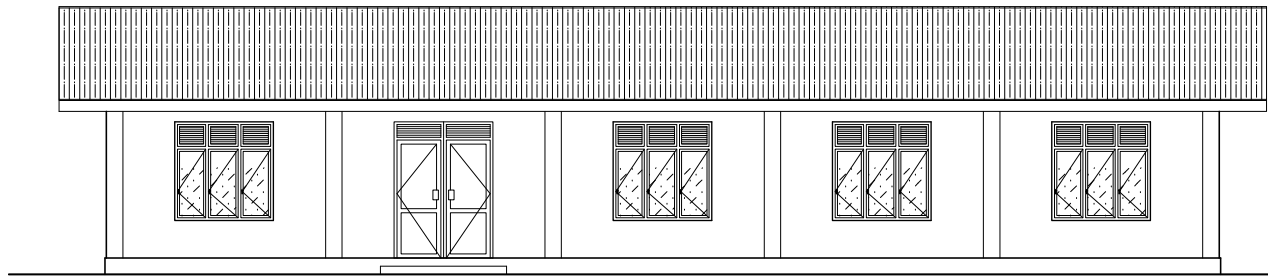
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



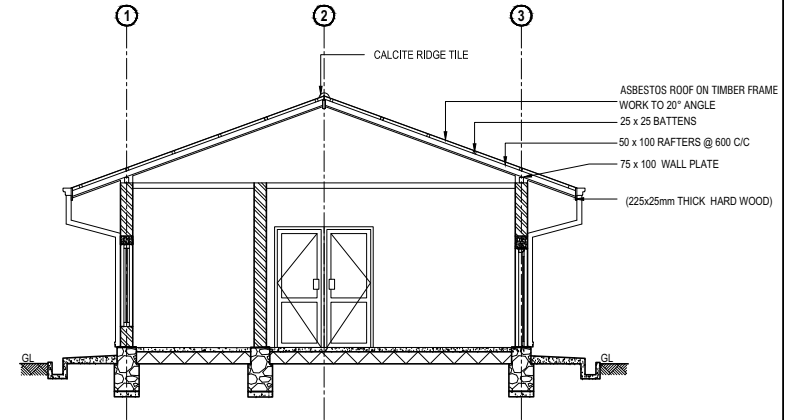
CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN



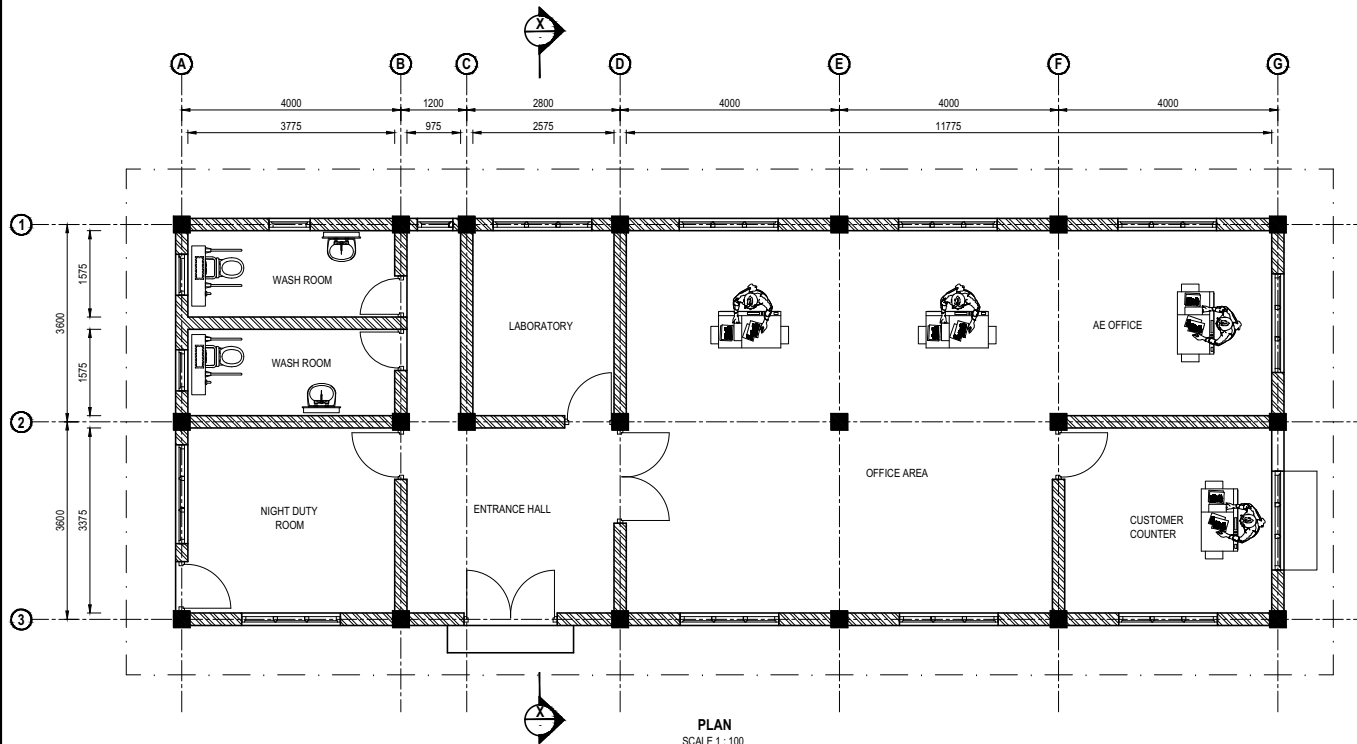
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							26-09-2012	AS SHOWN



FRONT ELEVATION
SCALE 1 : 100



SECTION X-X
SCALE 1 : 100



PLAN
SCALE 1 : 100

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - OPERATIONAL COMPLEX (AE OFFICE, MEDAWACHCHIYA)

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



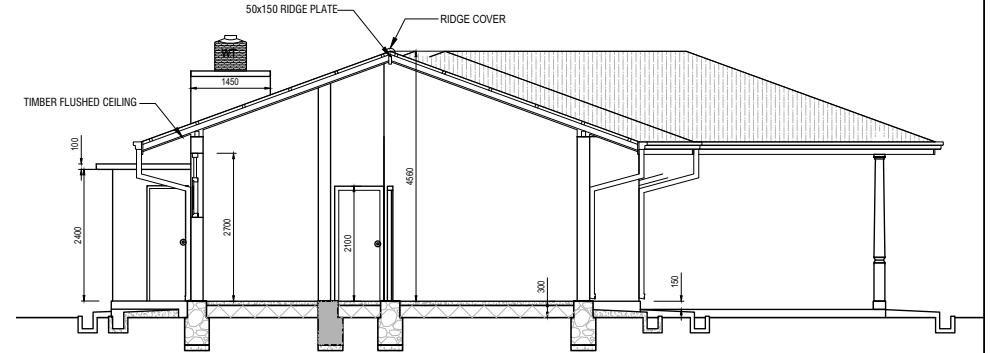
CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN



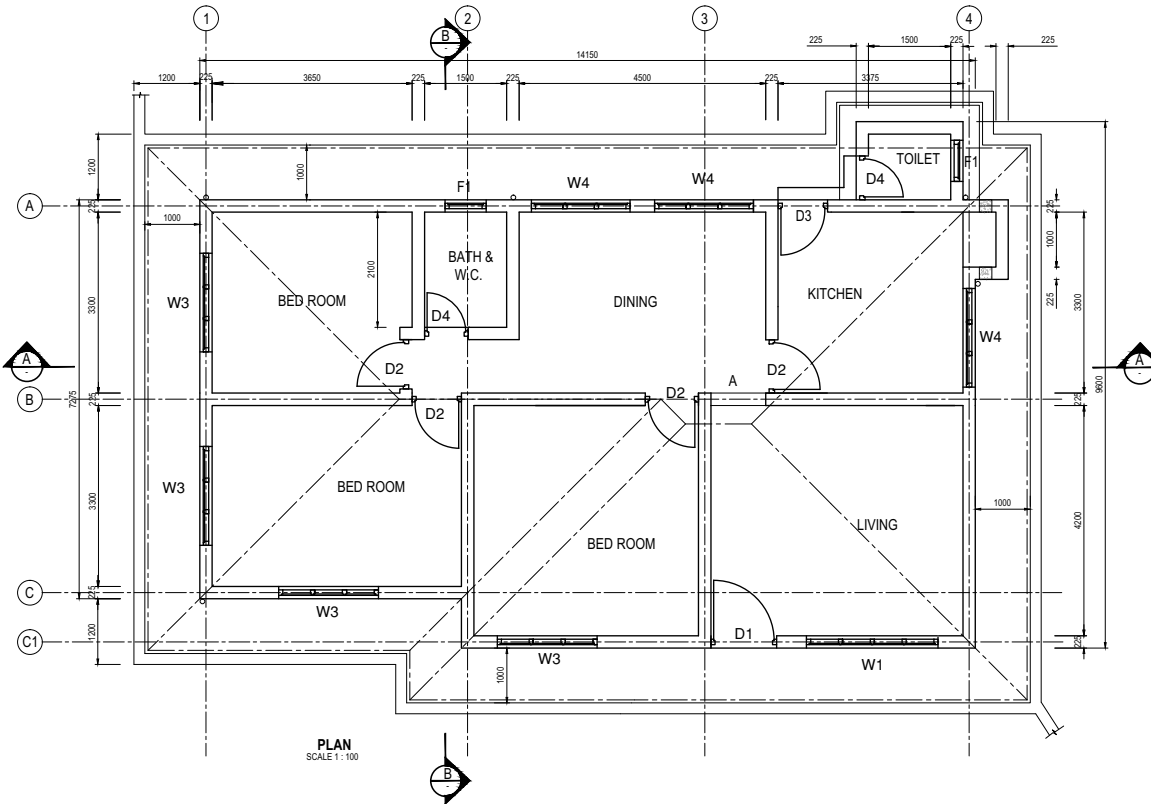
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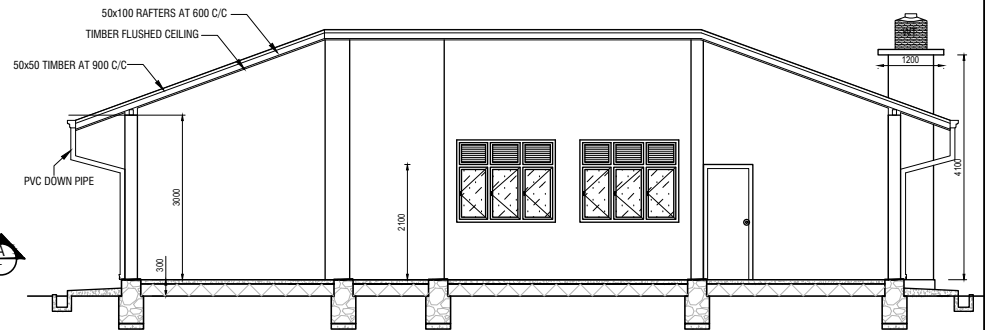
ELEVATION
SCALE 1:100



SECTION B
SCALE 1:100



PLAN
SCALE 1:100



SECTION A
SCALE 1:100

SCHEDULE OF DOORS AND WINDOWS

TYPE	SIZE		QTY.
	W	H	
D1	1200	2550	1
D2	950	2100	4
D3	950	2100	1
D4	750	2100	2
W1	2400	2250	1
W3	1800	1800	4
W4	1800	1050	3
F1	750	1200	2
A	1000	2100	1

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - STAFF'S QUARTERS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



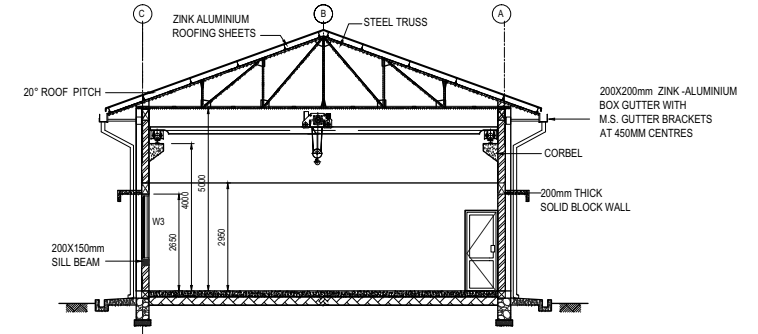
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



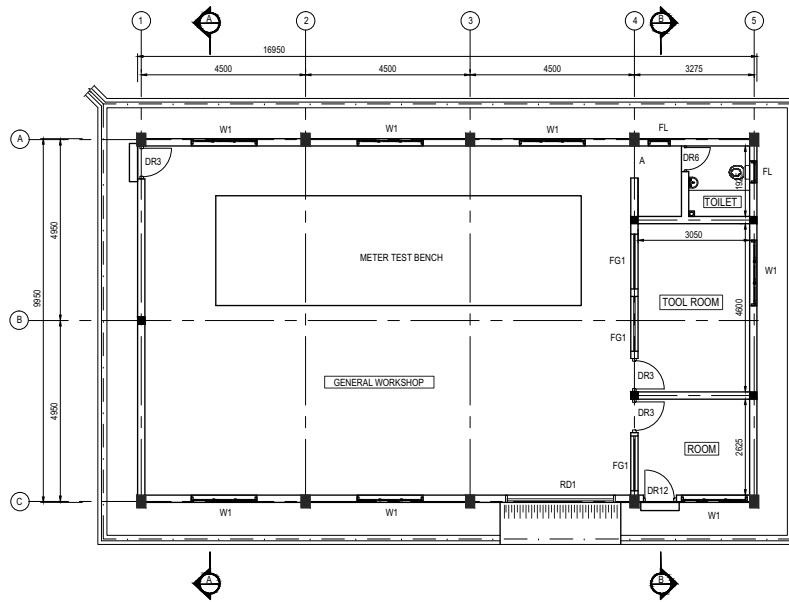
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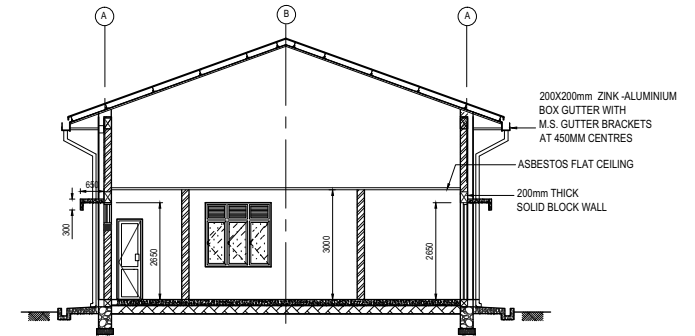
FRONT ELEVATION



SECTION A
SCALE 1:150



PLAN
SCALE 1:150



SECTION B
SCALE 1:150

NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - WORK SHOP

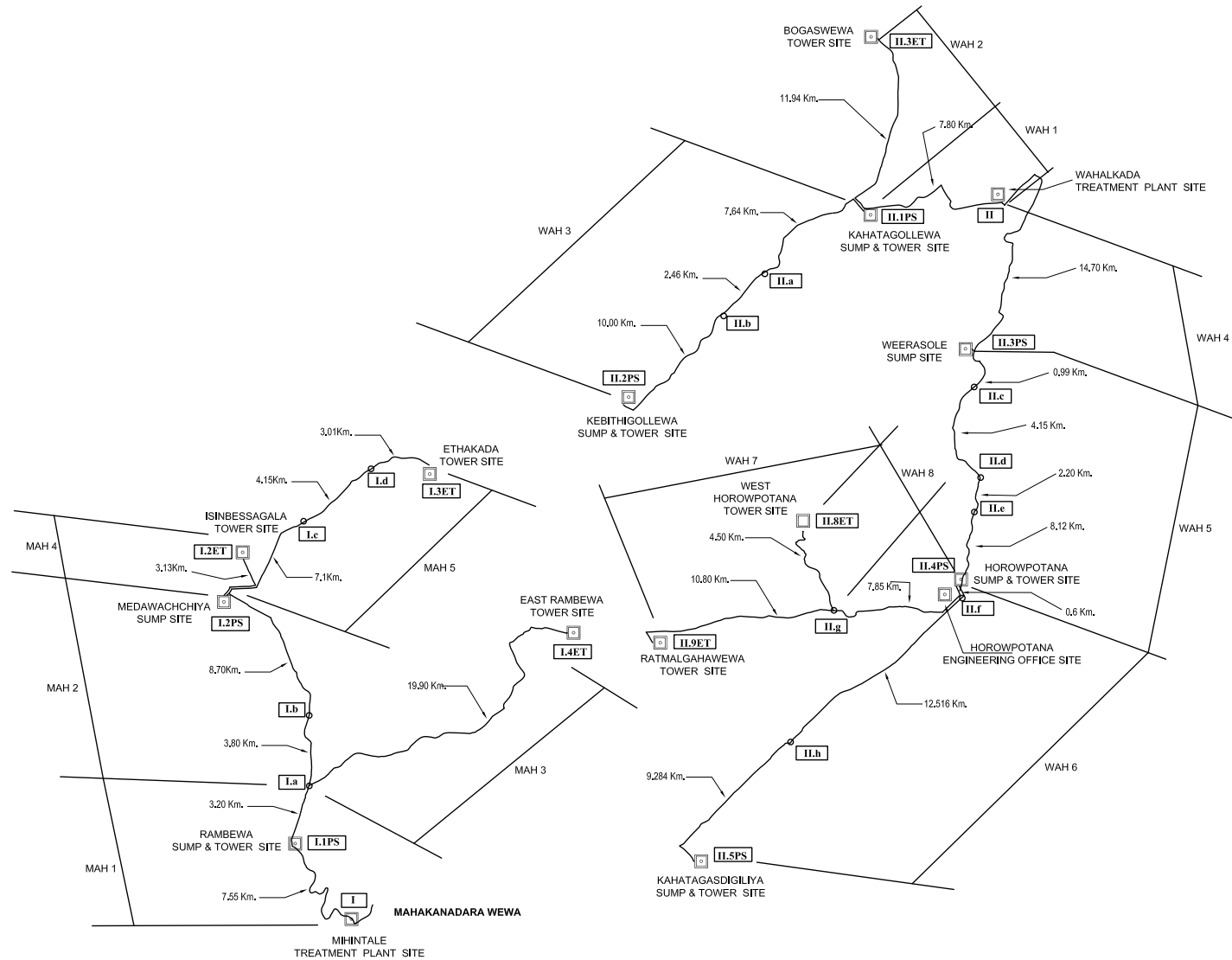
CLIENT:
NATIONAL WATER SUPPLY
& DRAINAGE BOARD



CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project

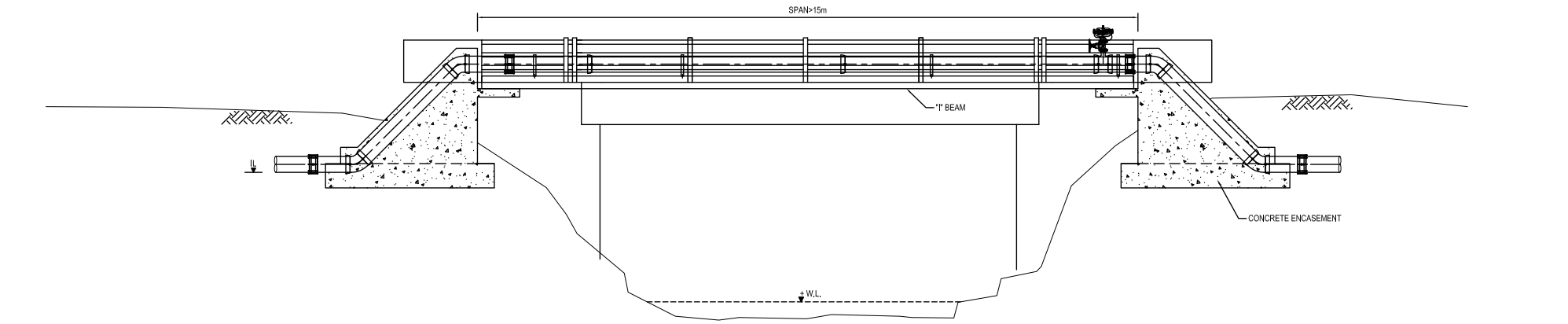
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: GENERAL LAYOUT OF TRANSMISSION PIPE LINES

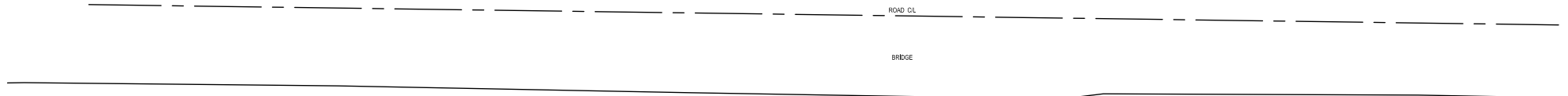
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

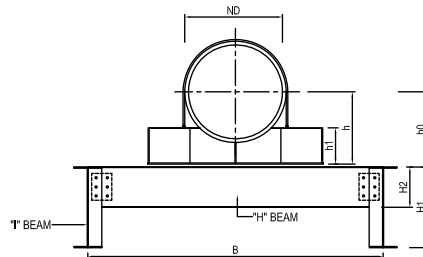
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SECTION A
SCALE 1:100



PLAN
SCALE 1:100



SECTION B
SCALE 1:500

GENERAL NOTE :

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. NO OBSTRUCTION TO FLOW SHALL OCCUR DUE TO THE PIPE CROSSING
3. ALL DIMENSIONS AND LEVELS SHALL BE CHECKED AT DETAILS DESIGN.
4. FOR OTHER GENERAL DETAILS REFER STANDARD DRAWINGS.
5. FOUNDATION OF THE TWO SUPPORTS ARE TO BE PLACED ON FIRM GROUND AND THE BEARING CAPACITY TO BE CONFIRMED AT DETAIL DESIGN.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project





JAPAN INTERNATIONAL COOPERATION AGENCY

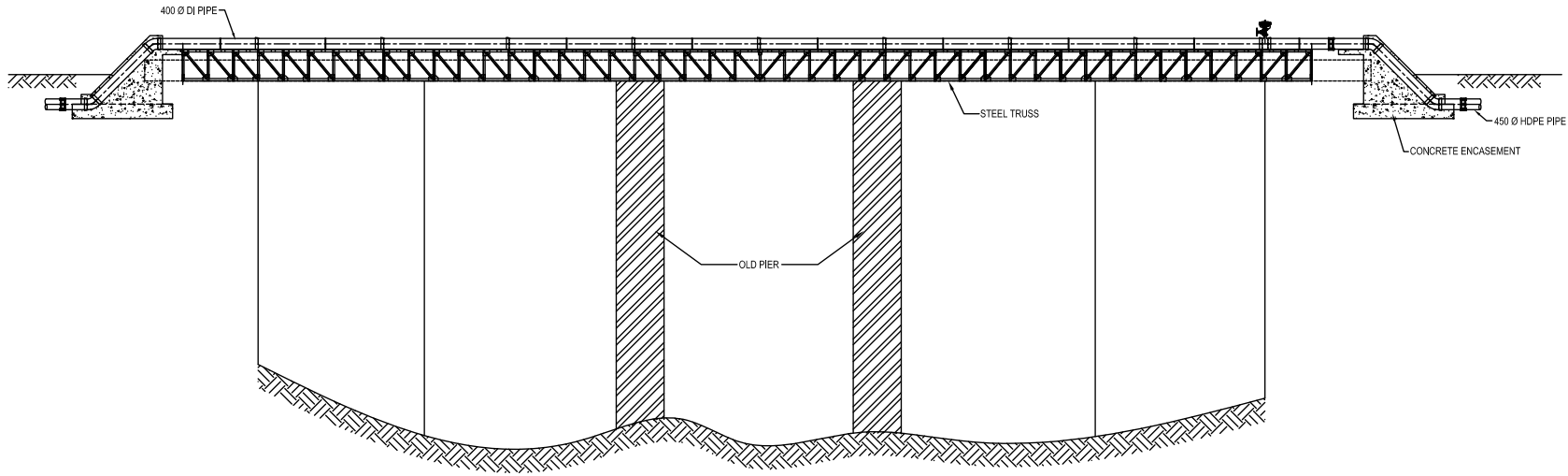
TITLE: STANDARD DRAWING - BRIDGE CROSSING SPAN < 15m

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

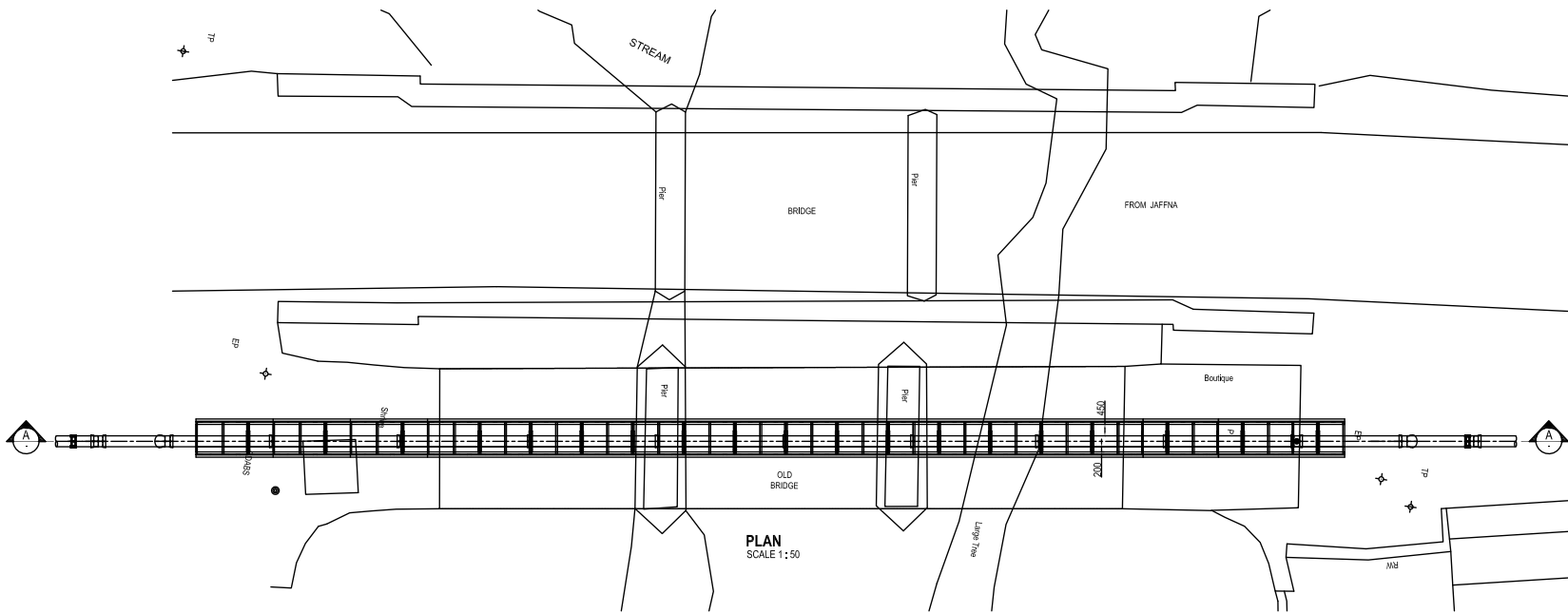


CONSULTANTS :
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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							18-09-2012	AS SHOWN



SECTION A
SCALE 1:50



PLAN
SCALE 1:50

GENERAL NOTE :

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. NO OBSTRUCTION TO FLOW SHALL OCCUR DUE TO THE PIPE CROSSING
3. ALL DIMENSIONS AND LEVELS SHALL BE CHECKED AT DETAILS DESIGN.
4. FOR OTHER GENERAL DETAILS REFER STANDARD DRAWINGS.
5. FOUNDATION OF THE TWO SUPPORTS ARE TO BE PLACED ON FIRM GROUND, AND THE BEARING CAPACITY TO BE CONFIRMED AT DETAIL DESIGN.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



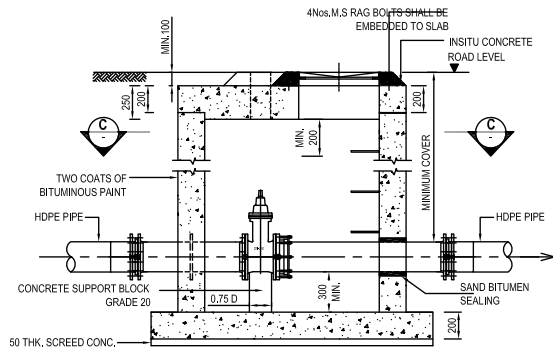
JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - BRIDGE CROSSING DETAIL BRIDGE No. 149/4

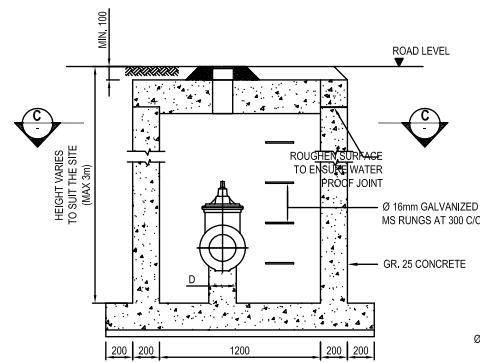
CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS :
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

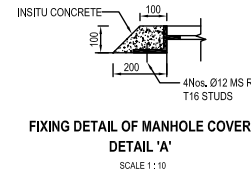
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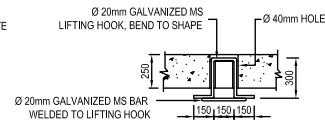
SECTION A
SCALE 1:20



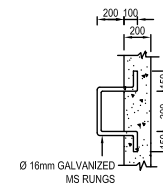
SECTION B
SCALE 1:20



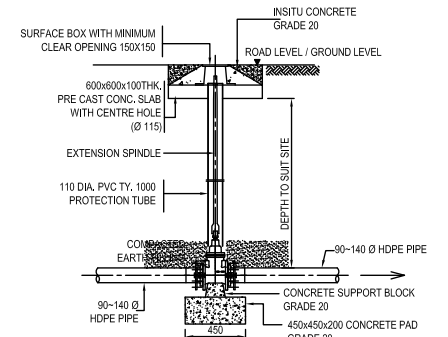
FIXING DETAIL OF MANHOLE COVER DETAIL 'A'



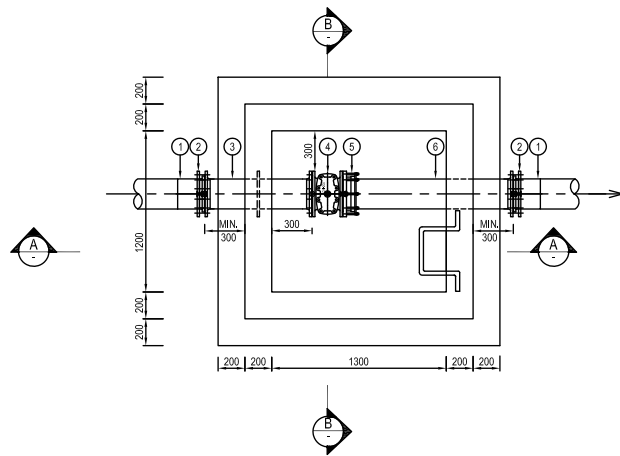
DETAILS OF LIFTING HOOK
SCALE 1:20



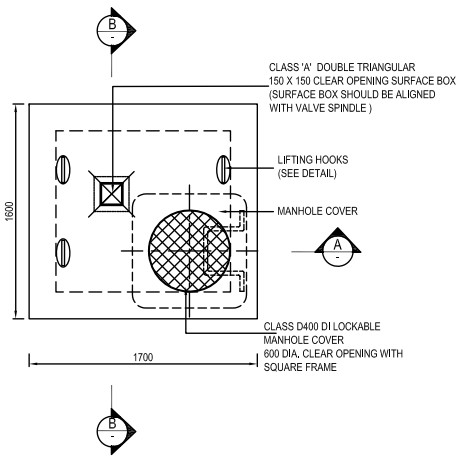
DETAILS OF MS RUNGS
SCALE 1:20



FOR PIPES OF OD 90 TO OD 140
SCALE 1:20



SECTIONAL PLAN - C
SCALE 1:20



PLAN (COVER SLAB)
SCALE 1:20

FOR HDPE PIPES OD 150 TO OD 280

SCHEDULE OF PIPES AND FITTINGS FOR HDPE PIPES OD 150 TO OD 250		
No.	DESCRIPTION	QTY.
1	STUB FLANGE	2
2	STEEL BACKING FLANGE	2
3	DI DOUBLE FLANGE PIPE WITH PUDDLE FLANGE 400mm AWAY FROM ONE END	1
4	DOUBLE FLANGE SOFT SEALING GATE VALVE WITH STEM CAP	1
5	FLANGE ADAPTOR	1
6	DI FLANGE & SPIGOT PIPE	1

NOTES:

- MANHOLE COVERS SHALL BE OF HINGED HEAVY-DUTY LOCKABLE TYPE (CLASS-D 400) WITH 600DIA. MINIMUM CLEAR OPENING.
- MANHOLE FRAME SHALL BE FIRMLY FIXED TO THE CHAMBER WITH 4 NOS. RAG BOLTS OR SIMILAR MANNER.
- SURFACE BOX SHOULD BE FIXED TO THE FRAME WITH A STEEL CHAIN.
- MARKER POST SHALL BE INSTALLED AT VERY VALVE LOCATION.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

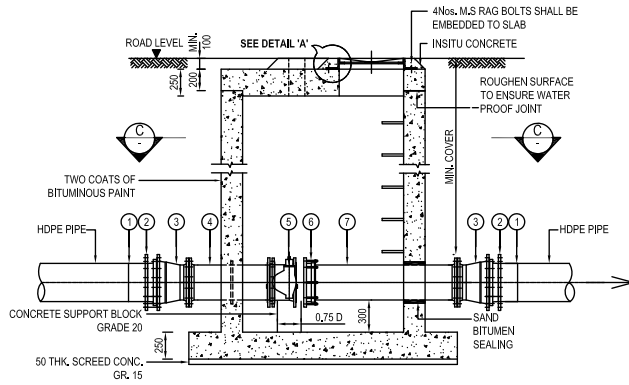
TITLE: STANDARD DRAWING - SECTION VALVE CHAMBER FOR OD 90 TO 280 HDPE PIPES

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

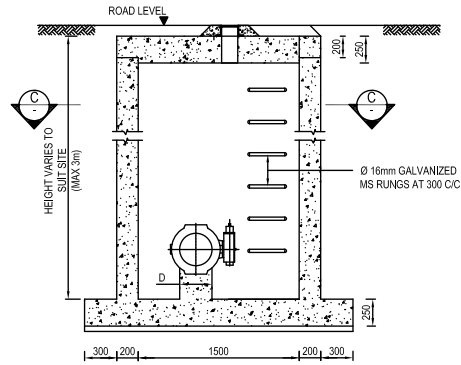


CONSULTANTS:
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	SCALE:
							18-09-2012	AS SHOWN



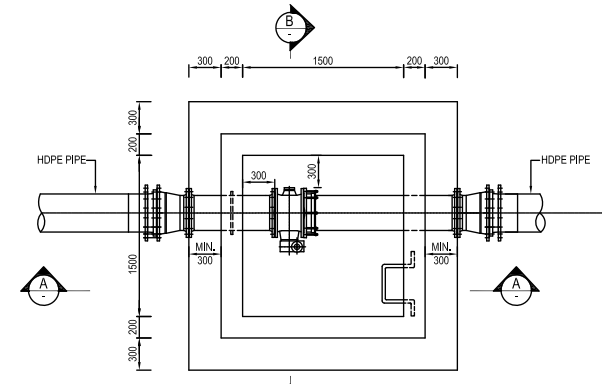
SECTION A
SCALE 1:25



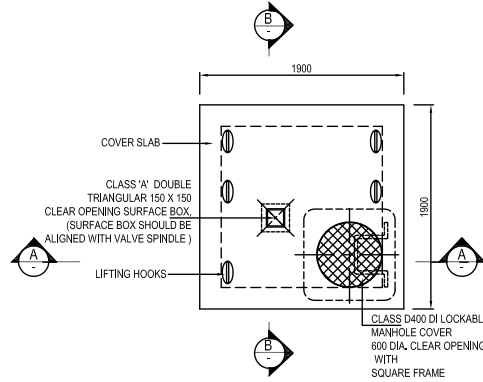
SECTION B
SCALE 1:25

SCHEDULE OF PIPES AND FITTINGS FOR SECTION VALVE ASSEMBLY

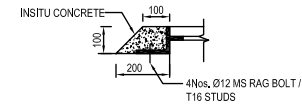
No.	DESCRIPTION	QTY.
1	STUB FLANGE	2
2	STEEL BACKING FLANGE	2
3	DI FLANGED TAPER FOR HDPE PIPE	2
4	DI DOUBLE FLANGE PIPE WITH PUDDLE FLANGE 400mm AWAY FROM ONE END	1
5	BUTTERFLY VALVE - KEY OPERATED	1
6	FLANGE ADAPTOR	1
7	DI FLANGED & SPIGOT PIPE WITH PUDDLE FLANGE 400mm AWAY FROM FLANGE END	1



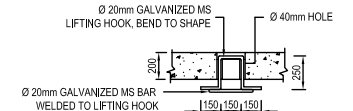
SECTIONAL PLAN - C
SCALE 1:25



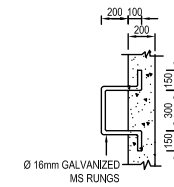
PLAN (COVER SLAB)
SCALE 1:25



FIXING DETAIL OF MANHOLE COVER DETAIL 'A'
SCALE 1:10



DETAILS OF LIFTING HOOK
SCALE 1:20



DETAILS OF MS RUNGS
SCALE 1:20

NOTES:

1. MANHOLE COVERS SHALL BE OF HINGED HEAVY-DUTY LOCKABLE TYPE (CLASS-D 400) WITH 600DIA, MINIMUM CLEAR OPENING.
2. MANHOLE FRAME SHALL BE FIRMLY FIXED TO THE CHAMBER WITH 4 NOS. RAG BOLTS OR SIMILAR MANNER.
3. SURFACE BOX SHOULD BE FIXED TO THE FRAME WITH A STEEL CHAIN.
4. VALVE DIAMETER TO BE ADJUSTED TO INNER DIAMETER, (355 TO 500)
5. MARKER POST SHALL BE INSTALLED AT VERY VALVE LOCATION.

STANDARD DRAWING - SECTION VALVE CHAMBER FOR OD 355 TO 500 HDPE PIPE

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project

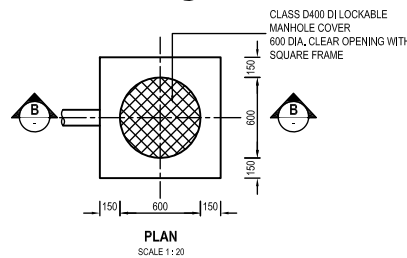
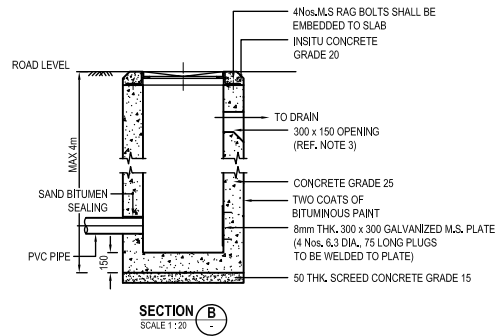
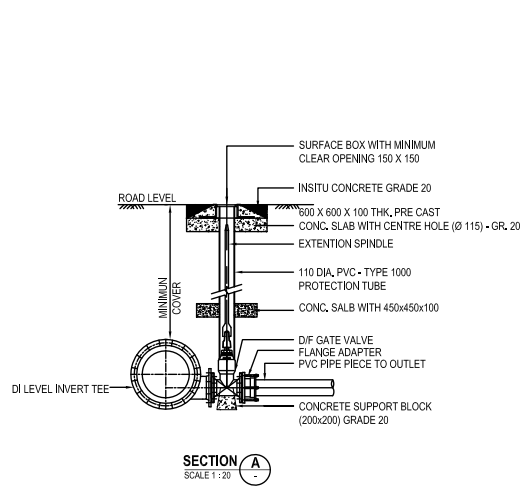
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - SECTION VALVE CHAMBER FOR OD 355 TO 500 HDPE PIPES

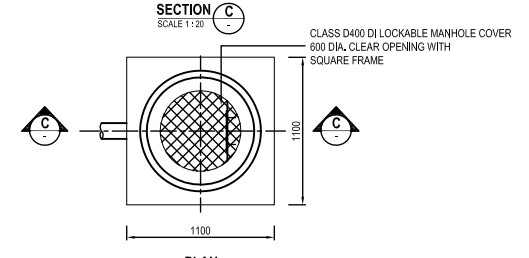
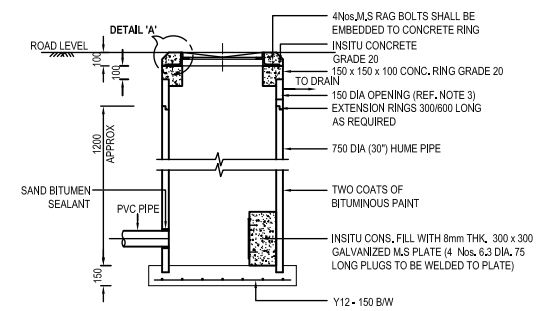
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

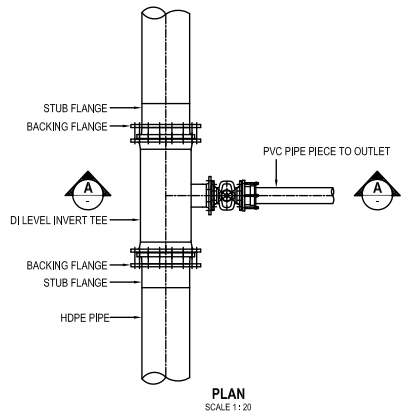
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	SCALE:
							18-09-2012	AS SHOWN



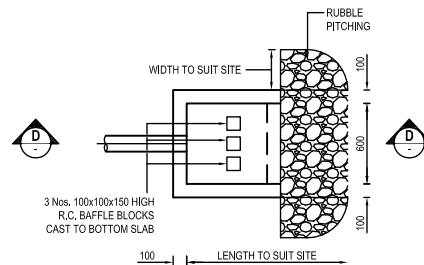
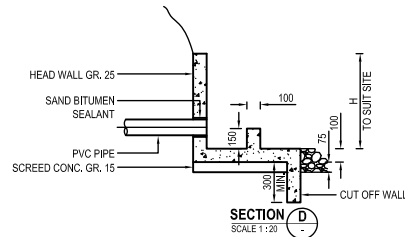
OUTLET CHAMBER TYPE - A
(SUBJECT TO TRAFFIC LOADS)



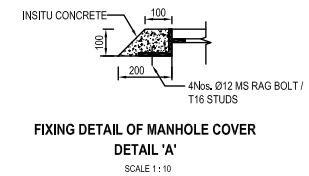
OUTLET CHAMBER TYPE - B
(NOT SUBJECT TO TRAFFIC LOADS)



WASHOUT DETAIL FOR 80 DIA. AND 200 DIA. OUTLETS



OUTLET TYPE C

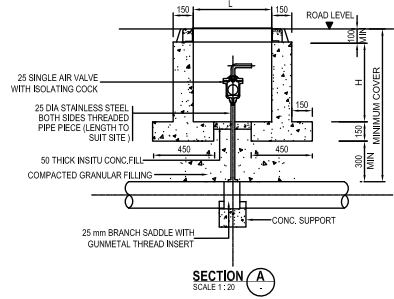


- NOTES:
- LENGTH OF PIPE FROM THE VALVE TO THE DISCHARGE POINT SHALL BE TO SUIT THE SITE CONDITIONS.
 - FOR TYPE A AND B, IF THE LOCATION OF CHAMBER DOES NOT PERMIT DIRECT DISCHARGE TO A NATURAL DRAINAGE, THEN A LEAD PIPE FROM THE CHAMBER SHALL BE USED UP TO A SUITABLE LOCATION.
 - SURFACE BOX SHOULD BE FIXED TO THE FRAME WITH A STEEL CHAIN.
 - MARKER POST SHALL BE INSTALLED AT VERY VALVE LOCATION.

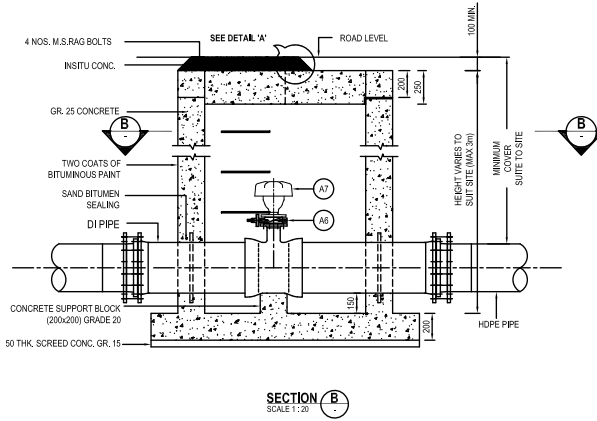
SCHEDULE OF VALVE & OUTLET PIPE		
SIZE OF MAIN PIPE	SIZE OF WASHOUT VALVE (mm)	SIZE OF LEAD AWAY PIPE FROM MAIN PIPE TO CHAMBER
UPTO 225 HDPE	80	90 PVC
225 - 355 HDPE	100	110 PVC T 1000
400 - 450 HDPE	150	160 PVC T 1000
500 HDPE	200	225 PVC T 1000

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

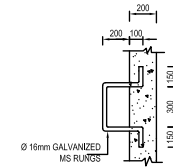
PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: STANDARD DRAWING - WASHOUT VALVES AND OUTLET FOR HDPE PIPES
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV. DESCRIPTION DATE SIGN. DESIGNED: DRAWN: PM: (CONSULTANT) DRAWING NO.: MWT&D/STD/C/05
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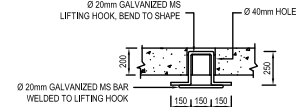
SECTION A
SCALE 1:20



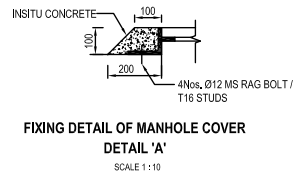
SECTION B
SCALE 1:20



DETAILS OF MS RUNGS
SCALE 1:20



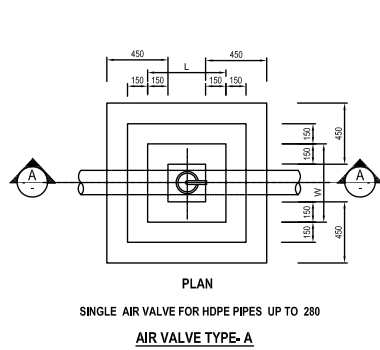
DETAILS OF LIFTING HOOK
SCALE 1:20



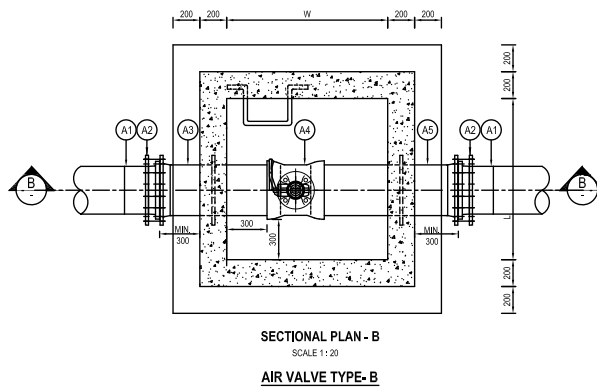
FIXING DETAIL OF MANHOLE COVER
DETAIL 'A'
SCALE 1:10

SCHEDULE OF PIPES & FITTINGS FOR DOUBLE AIR VALVE ASSEMBLY		
No.	DESCRIPTION	QTY.
A1	STUB FLANGE	2
A2	BACKING FLANGE	2
A3	DI FLANGE & SPIGOT PIPE WITH PUDDLE FLANGE 400mm AWAY FROM FLANGE END	1
A4	SOCKET TEE WITH FLANGE BRANCH TEE (50 Ø / 80Ø)	1
A5	DI FLANGE & SPIGOT PIPE WITH PUDDLE FLANGE 400mm AWAY FROM FLANGE END	1
A6	DOUBLE FLANGE GATE VALVE WITH NOTCHED HAND LEVER	1
A7	DOUBLE ORIFICE AIR VALVE	1

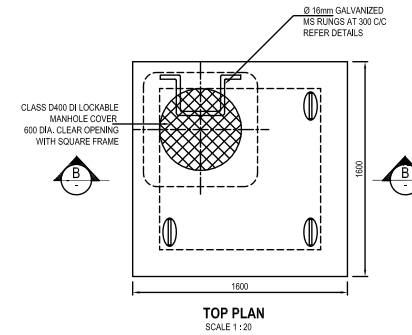
* AIR VALVE AT TRANSMISSION MAIN AS STATED IN DRAWING.



PLAN
SINGLE AIR VALVE FOR HDPE PIPES UP TO 280
AIR VALVE TYPE-A



SECTIONAL PLAN - B
SCALE 1:20
AIR VALVE TYPE-B



TOP PLAN
SCALE 1:20

- NOTES:
1. MANHOLE COVER SHALL BE HINGED, HEAVY DUTY (CLASS D 400) VENTILATED TYPE WITH 600 DIA. MINIMUM CLEAR OPENING.
 2. MANHOLE FRAME SHALL BE FIRMLY FIXED TO THE CHAMBER WITH 4 Nos. RAG BOLTS OR SIMILAR MANNER.
 3. FOR PIPES IN COMMON TRENCH, AIR VALVE LOCATION TO BE STAGGERED TO ALLOW SPACE FOR THE VALVE CHAMBERS.
 4. MARKER POST SHALL BE INSTALLED AT VERY VALVE LOCATION.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - AIR VALVE AND CHAMBERS FOR HDPE PIPES

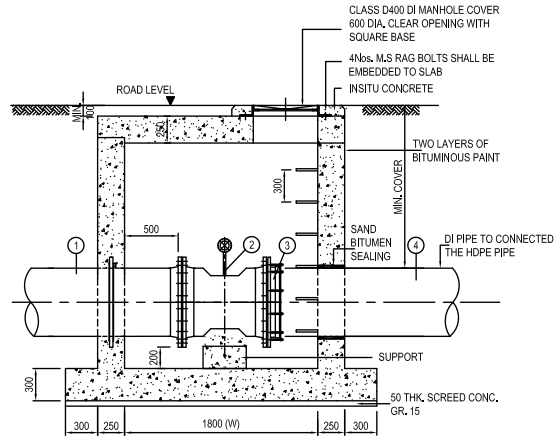
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



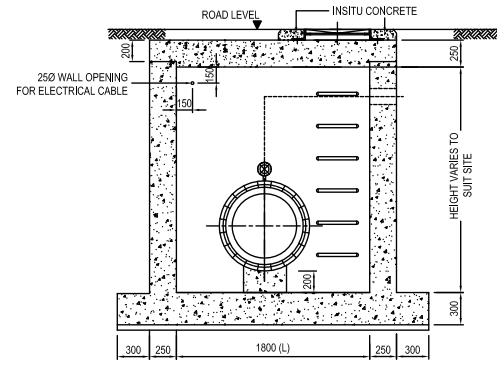
CONSULTANTS:
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



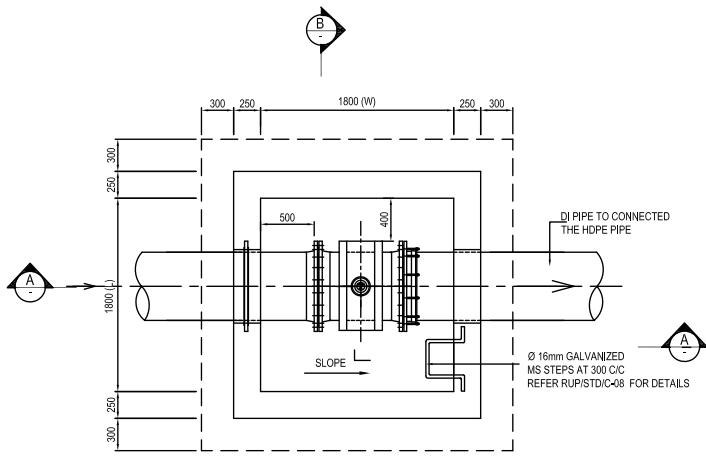
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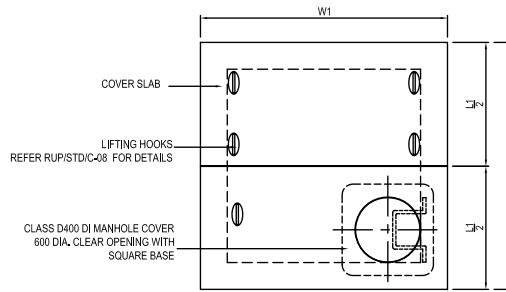
SECTION A
SCALE 1:50



SECTION B
SCALE 1:50



PLAN
SCALE 1:50



PLAN (COVER SLAB)
SCALE 1:50

NOTES:

1. MANHOLE COVERS SHALL BE OF HINGED HEAVY-DUTY (CLASS-D 400) WITH 600DIA. MINIMUM CLEAR OPENING.
2. MANHOLE FRAME SHALL BE FIRMLY FIXED TO THE CHAMBER WITH RAG BOLTS OR SIMILAR MANNER.
3. STRUCTURAL CONCRETE SHALL BE GRADE 25.
4. ALL INSITU CONCRETE SUPPORTS AND THRUST RESTRAINTS SHALL BE GRADE 20 UNLESS OTHERWISE STATED.
5. CHAMBER TOP LEVEL TO BE MATCHED WITH FINAL ROAD FORMATION LEVEL.
6. MARKER POST SHALL BE INSTALLED AT VERY VALVE LOCATION.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - FLOW METER CHAMBER FOR HDPE PIPES

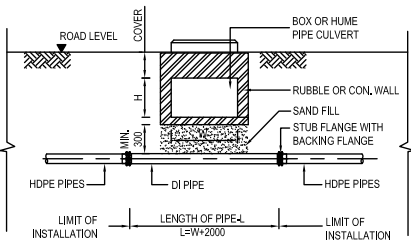
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



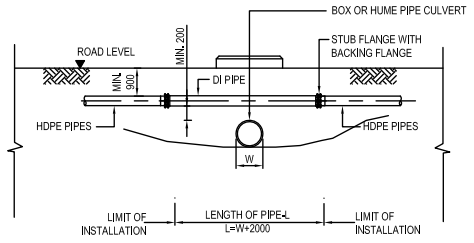
CONSULTANTS:
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



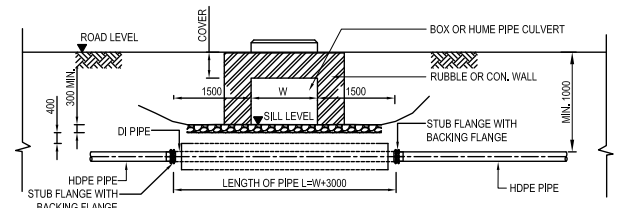
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ELEVATION



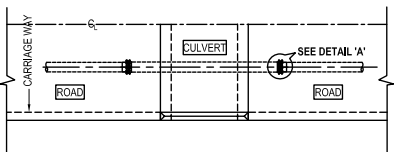
ELEVATION



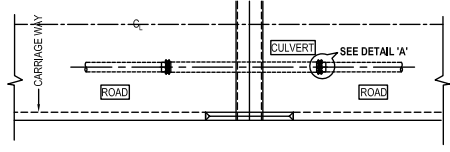
ELEVATION

DETAIL OF PIPE SUPPORT						
PIPE (D Ø)	(A)	(C)	(R)	(S)	(B)	(t)
DN ≤ 300	225	200	150	50	1000	250
350 - 400	300	250	200	75	1200	350

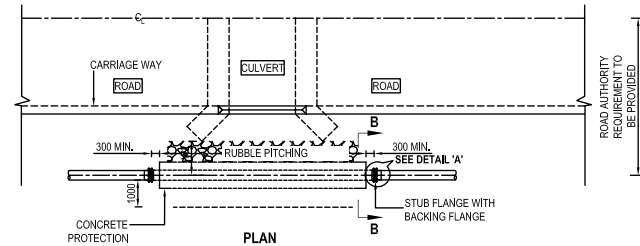
DETAILS OF STRAP					
PIPE SIZE (mm)	T (mm)	W (mm)	L (mm)	C (mm)	SIZE OF BOLT
80-150	6	40	50	30	M12
200-300	8	50	60	35	M16
350-400	8	65	65	40	M20



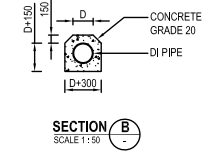
PLAN
CULVERT CROSSING TYPE-A
INSIDE THE CARRIAGE WAY AND BELOW THE OPENING
SCALE 1: 100



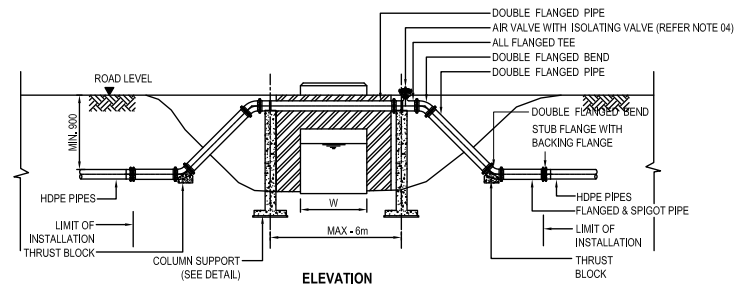
PLAN
CULVERT CROSSING TYPE-B
INSIDE THE CARRIAGE WAY AND ABOVE THE CULVERT OPENING
SCALE 1: 100



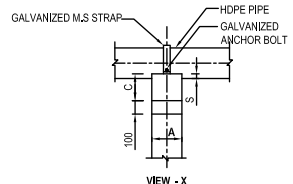
PLAN
CULVERT CROSSING TYPE-C
OUT SIDE CARRIAGE WAY AND BELOW THE OPENING
SCALE 1: 100



SECTION B
SCALE 1: 50

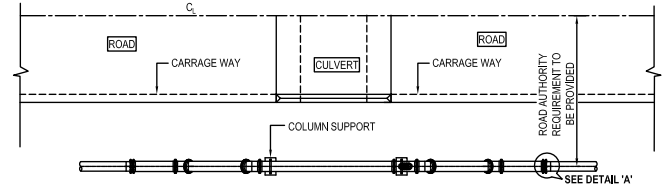


ELEVATION

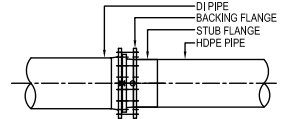


VIEW - X

VIEW - Y



PLAN
CULVERT CROSSING TYPE-D
SCALE 1: 100

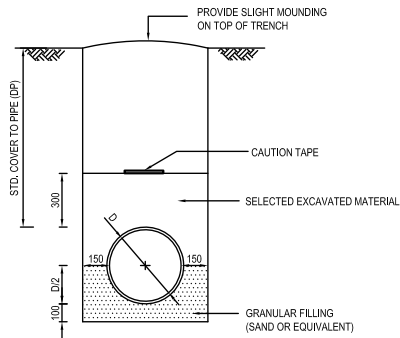


DETAIL 'A'
SCALE 1: 20

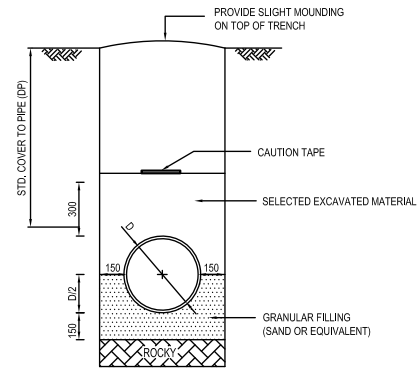
- NOTES
1. THE RUBBLE PITCHING TO BE PROVIDED ONLY WHEN W2 ≤ 1500
 2. NO OBSTRUCTION TO THE FLOW THROUGH THE CULVERT SHALL OCCUR DUE TO THE PIPE CROSSING.
 3. WHERE APPLICABLE, THE WASHOUT TEE, PROVIDE AT A MINIMUM DISTANCE OF 2x DIAMETER AWAY FROM THE COUPLING.
 4. SIZE OF THRUST BLOCK TO BE DECIDED BY THRUST CALCULATION.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

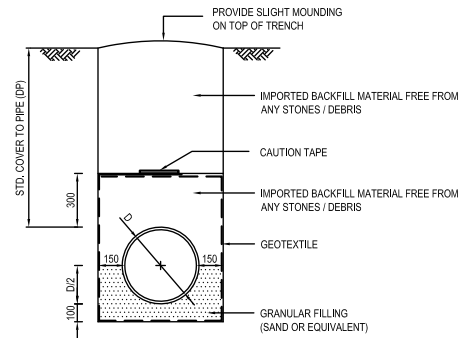
PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: STANDARD DRAWING - CULVERT CROSSING FOR HDPE								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.: MWT&D/STD/C/08	
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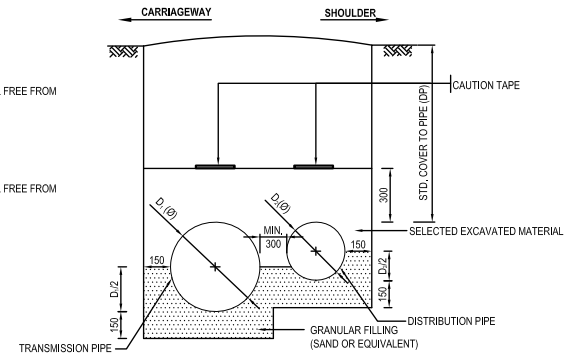
**BEDDING TYPE - A
FOR NORMAL GROUND**



**BEDDING TYPE - B
FOR ROCKY TRENCH BOTTOM**

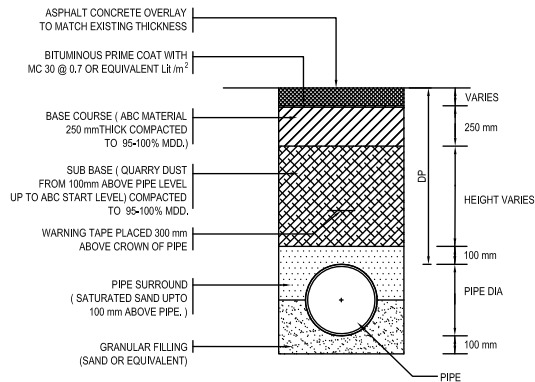


**BEDDING TYPE - C
FOR SOFT / MARSHY GROUND**

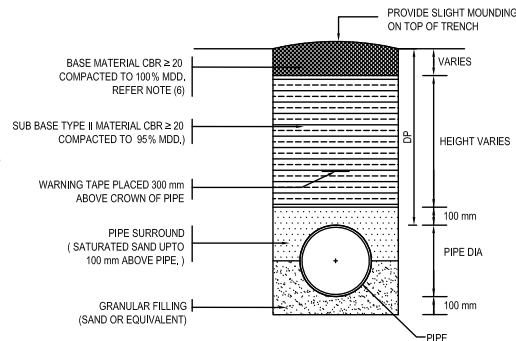


**TYPICAL SECTION FOR PIPES IN
COMMON TRENCH**

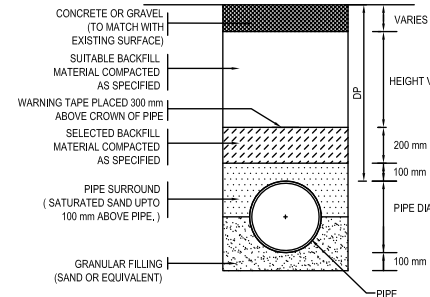
TYPES OF PIPE BEDDING



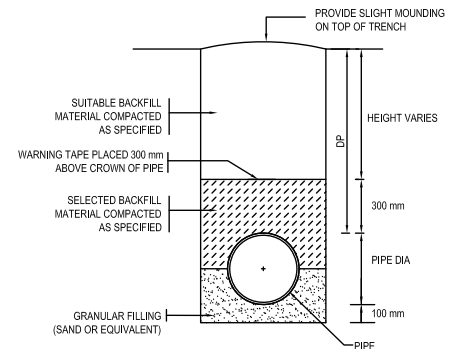
TYPE A - CARRIAGEWAY (RDA/PRDA ROADS)



TYPE B - ROAD SHOULDER (RDA/PRDA ROADS)



**TYPE C - CARRIAGEWAY
(LOCAL AUTHORITY / PS ROADS)**



**TYPE D - ROAD SHOULDER
(LOCAL AUTHORITY / PS ROADS)**

TYPES OF ROAD REINSTATEMENT

NOTES:

- CONSTRUCTION OF SUB BASE, BASE, SURFACE TREATMENT MATERIALS & COMPACTION SHALL BE SUBJECT TO SUPERVISION & APPROVAL OF ENGINEER OR RELEVANT AUTHORITY.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: STANDARD DRAWING - PIPE BEDDING AND ROAD REINSTATEMENT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

NJS CONSULTANTS CO., LTD. - JAPAN

NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:
							MWT&D/STD/C/09
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