

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

**NATIONAL WATER SUPPLY AND DRAINAGE BOARD  
MINISTRY OF HOUSING AND PLANTATION INFRASTRUCTURE  
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

**THE DETAILED DESIGN STUDY  
ON  
GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT  
IN  
THE DEMOCRATIC SOCIALIST REPUBLIC  
OF  
SRI LANKA**

**(DRAFT) TENDER DOCUMENTS**

**VOLUME IV 4D  
(SERVICE RESERVOIRS)**

**MAY 2002**

**NJS CONSULTANTS CO., LTD.  
NIHON SUIDO CONSULTANTS CO., LTD.**

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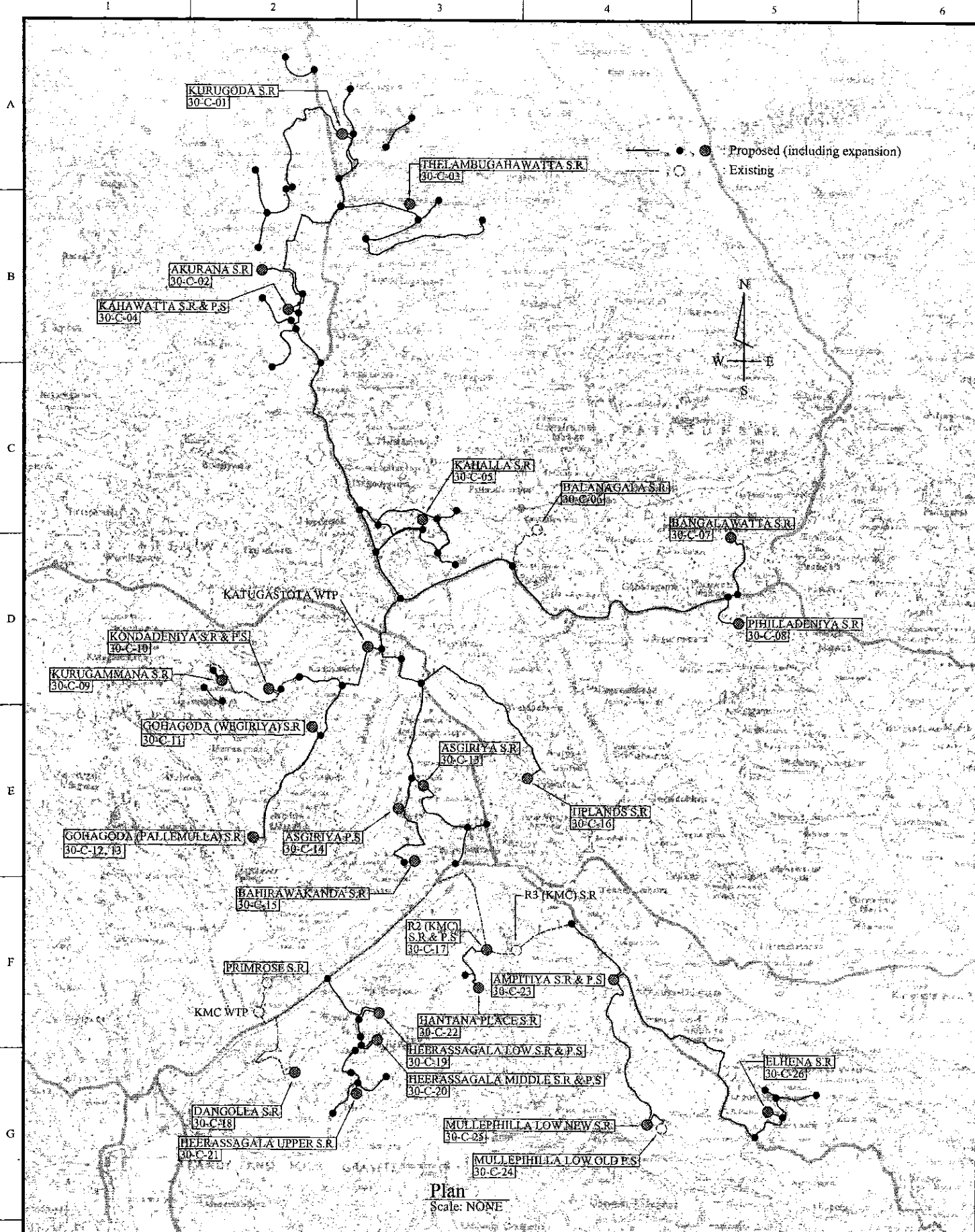
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31-C-20-03	Pipe Layout of Heerassagala Low S.R & P.S PIPE LAYOUT - 2	30-C-23-01	Hantana Place Service Reservoir - Site Plan and CSS
31-C-20-04	Pipe Layout of Heerassagala Low S.R & P.S PIPE LAYOUT - 3	30-C-23-02	Hantana Place Service Reservoir - Washout
	<b><u>Heerassagala Middle Pumping Station and Service Reservoir</u></b>	30-C-23-03	Hantana Place Service Reservoir - Landscaping Layout
30-C-21-01	Heerassagala Middle Pumping Station and Service Reservoir - Site Plan and CSS	30-S-23-01	Hantana Place Service Reservoir - Site Plan
30-C-21-02	Heerassagala Middle Pumping Station and Service Reservoir - DCW, Sewer, Waste Water Layout	30-S-23-02	Hantana Place Service Reservoir - General Arrangement
30-C-21-03	Heerassagala Middle Pumping Station and Service Reservoir - Washout	30-S-23-03	Hantana Place Service Reservoir - R/F Details - Top & Bottom Slab
30-C-21-04	Heerassagala Middle Pumping Station and Service Reservoir - Landscaping Layout	30-S-23-04	Hantana Place Service Reservoir - R/F Details - Sections
30-S-21-01	Heerassagala Middle Pumping Station and Service Reservoir - Site Plan	30-A-23-21	Hantana Place Service Reservoir - Electrical Layout
30-S-21-02	Heerassagala Middle Pumping Station and Service Reservoir - General Arrangement	31-C-23-01	Pipe Layout Plan of 200m3 Hantana Place S.R
30-S-21-03	Heerassagala Middle Pumping Station and Service Reservoir - Top & Bottom Slab	31-C-23-02	Pipe Layout Plan of Hantana Place S.R - 1
30-S-21-04	Heerassagala Middle Pumping Station and Service Reservoir - R/F Details	31-C-23-03	Pipe Layout Plan of Hantana Place S.R - 2
30-S-21-05	Heerassagala Middle Pumping Station and Service Reservoir - R/F Detail of Inlet Valve Chamber	31-C-23-04	Pipe Layout Plan of Hantana Place S.R - 3
30-A-21-01	Heerassagala Middle Pump Station - Plan, Sections and Elevations	31-C-23-05	Pipe Layout Plan of Hantana Place S.R - 4
30-A-21-02	Heerassagala Middle Pump Station - Details of Doors and Windows		
30-A-21-21	Heerassagala Middle Pump Station - Electrical Layout		
31-C-21-01	Pipe Layout Plan of 250m3 Heerassagala Middle S.R & P.S		
31-C-21-02	Pipe Layout of Heerassagala Middle S.R & P.S - 1		
31-C-21-03	Pipe Layout of Heerassagala Middle S.R & P.S - 2		
31-C-21-04	Pipe Layout of Heerassagala Middle S.R & P.S - 3		

# DRAWING LIST

Drawing No.	Drawing Title	Drawing No.	Drawing Title
	<b><u>Ampitiya Pumping Station</u></b>		
30-C-24-01	Ampitiya Pumping Station - Site Plan and CSS	31-C-26-05	Inlet & Outlet Flow Meter & Valve Chamber of Mullepihilla Low New S.R
30-C-24-02	Ampitiya Pumping Station - Access Rd. Plan	31-C-26-06	Drain Valve Chamber of Mullepihilla Low New S.R
30-C-24-03	Ampitiya Pumping Station - Access Rd. CSS		<b><u>Elhana Service Reservoir</u></b>
30-C-24-04	Ampitiya Pumping Station - Access Rd. CSS	30-C-27-01	Elhana Service Reservoir - Site Plan and CSS
30-C-24-05	Ampitiya Pumping Station - DCW, Sewer & Waste Water Layout	30-C-27-02	Elhana Service Reservoir - Washout
30-S-24-01	Ampitiya Pumping Station - Site Plan	30-C-27-03	Elhana Service Reservoir - Washout
30-S-24-02	Ampitiya Pumping Station - General Arrangement	30-S-27-01	Elhana Service Reservoir - Site Plan
30-S-24-03	Ampitiya Pumping Station - Foundation Layout and Details	30-S-27-02	Elhana Service Reservoir - General Arrangement
30-S-24-04	Ampitiya Pumping Station - R/F Details o Slab & Section	30-S-27-03	Elhana Service Reservoir - R/F Detail - Bottom Slab
30-S-24-05	Ampitiya Pumping Station - Details of Beams	30-S-27-04	Elhana Service Reservoir - R/F Details - Top Slab
30-S-24-06	Ampitiya Pumping Station - Roof Detail	30-S-27-05	Elhana Service Reservoir - Section - 01
30-S-24-07	Ampitiya Pumping Station - Staircase Detail	30-S-27-06	Elhana Service Reservoir - Section - 02
30-A-24-01	Ampitiya Pump Station - Plan, Sections and Elevations	30-S-27-07	Elhana Service Reservoir - R/F Details - Walls
30-A-24-02	Ampitiya Pump Station - Plan, Sections and Elevations	30-S-27-08	Elhana Service Reservoir - Pipe Layout - 4 R/F Details - Inlet Valve Chamber
30-A-24-03	Ampitiya Pump Station - Detail of Doors and Windows	30-S-27-09	Elhana Service Reservoir - Pipe Layout - 5 R/F Details - Flow Chamber
30-A-24-21	Ampitiya Pump Station - Electrical Layout	31-C-27-01	Pipe Layout Plan of 300m3 Elhena S.R
31-C-24-01	Pipe Layout Plan of Existing 900m3 Ampitiya S.R, PS and Office	31-C-27-02	Pipe Layout of Elhena S.R - 1
31-C-24-02	PIPE LAYOUT OF AMPITIYA S.R & P.S - 1	31-C-27-03	Pipe Layout of Elhena S.R - 2
31-C-24-03	PIPE LAYOUT OF AMPITIYA S.R & P.S - 2	31-C-27-04	Pipe Layout of Elhena S.R - 3
31-C-24-04	PIPE LAYOUT OF AMPITIYA S.R & P.S - 3	31-C-27-05	Inlet Valve Chamber of Elhena S.R
	<b><u>Mullephilla Low (Old) Service Reservoir</u></b>	31-C-27-06	Inlet & Outlet Flow Meter & Valve Chamber of Elhena S.R
31-C-25-01	Pipe Layout Plan of Existing (25m3) Mullepihilla Low Old WTP & P.S		
31-C-25-02	Pipe Layout of Mullepihilla Low Old WTP AND P.S		<b><u>Overall Project</u></b>
	<b><u>Mullephilla Low (New) Service Reservoir</u></b>	31-C-STD	General Drawing of Float Level Meter & Indicator
30-C-26-01	Mullephilla Low (New) Service Reservoir - Site Plan and CSS		
30-C-26-02	Mullephilla Low (New) Service Reservoir - Washout		
30-C-26-03	Mullephilla Low (New) Service Reservoir - Landscaping Layout		
30-S-26-01	Mullephilla Low (New) Service Reservoir - Layout and General Arrangement		
30-S-26-02	Mullephilla Low (New) Service Reservoir - R/F Details - Top Slab, Bottom Slab and Sections		
30-S-26-03	Mullephilla Low (New) Service Reservoir - R/F Details - Setions & Wall Elevations		
30-S-26-04	Mullephilla Low (New) Service Reservoir - R/F Details - Inlet & Outlet Valve Chamber		
30-S-26-05	Mullephilla Low (New) Service Reservoir - R/F Details - Drain Valve Chamber		
31-C-26-01	Pipe Layout Plan of 100m3 Mullepihilla Low New S.R		
31-C-26-02	Pipe Layout of Mullwpihilla Low New S.R - 1		
31-C-26-03	Pipe Layout of Mullwpihilla Low New S.R - 2		
31-C-26-04	Pipe Layout of Mullwpihilla Low New S.R - 3		



Drawing Number	Name of Service Reservoir	Water Level (m)				Capacity (m3)		Office		Pump House		Chlorination	
		Existing		Proposed		Existing	Proposed	Existing	Proposed	Existing	Proposed		
		LWL	HWL	LWL	HWL								
30-C-01	Kurugoda			569.00	573.00		600						
30-C-02	Akurana	508.00	512.00			600							
30-C-03	Thelambugahawatta			561.50	566.75	500							
30-C-04	Kahawatta			516.00	522.25	600		○		○		○	
30-C-05	Kahalla			485.00	491.25	600							
30-C-06	Balanagala	512.35	514.35			450							
30-C-07	Bangalawatta	519.28	521.28	518.28	521.28	100	300						
30-C-08	Pihilladeniya	522.14	524.14	522.14	524.14	100	200						
30-C-09	Kulugammana	579.25	583.25	579.25	583.25	300	100						
30-C-10	Kondadeniya	531.25	535.25	531.25	535.25	300	200	○		○			
30-C-11	Gohagoda (Wegiriya)	524.31	528.41			150							
30-C-12	Gohagoda Old (Pallemulla)	521.90	524.10			150							
30-C-13	Gohagoda New (Pallemulla)			527.20	531.20		200						
30-C-14	Asgiriya			561.50	567.00		4,100						
30-C-15	Asgiriya P.S.							○		○			
30-C-16	Bahirawakanda	619.10	620.90	625.00	629.00	204	600						
30-C-17	Uplands	556.51	558.34	560.09	566.00	27	2,960						
30-C-18	R2 (KMC)	549.49	555.00			3,636		○		○		○	
30-C-19	Dangolla	529.90	531.60	527.60	531.60	118	500						
30-C-20	Heerassagala Low			566.00	570.00		200		○		○		
30-C-21	Heerassagala Middle			613.00	617.00		250		○		○		
30-C-22	Heerassagala Upper			674.00	678.00		200						
30-C-23	Hantana Place			637.00	641.00		200						
30-C-24	Ampitiya	582.50	586.00			900		○	○	○	○	○	○
30-C-25	Mullepihilla Low Old	672.50	674.36			25		○		○		○	
30-C-26	Mullepihilla Low New			709.00	713.00		100						
30-C-27	Elhena			611.00	615.00		300						
TOTAL						7,060	12,710						

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: General Map of Service Reservoirs

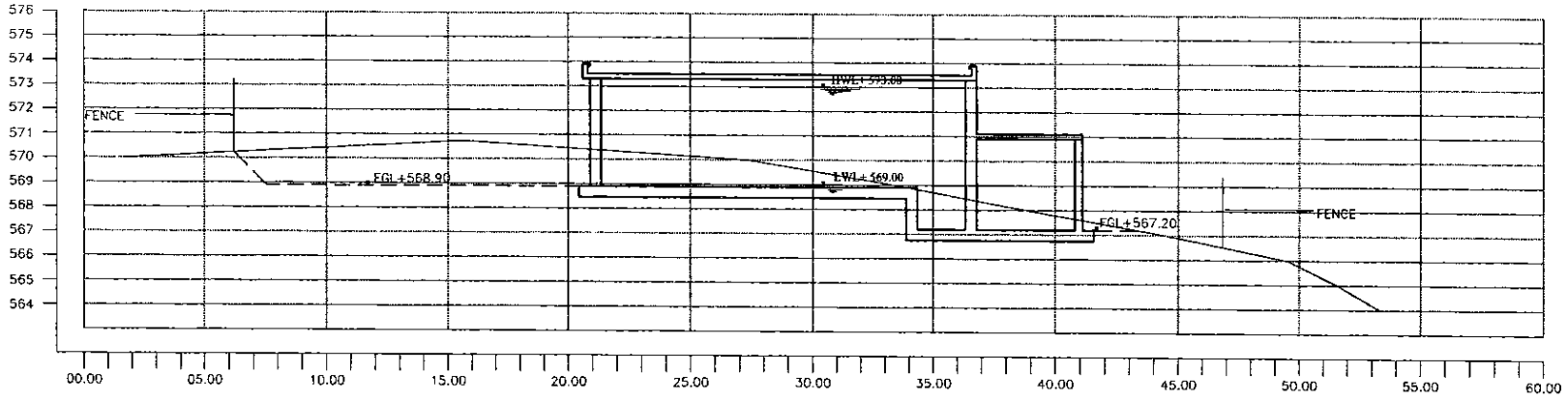
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

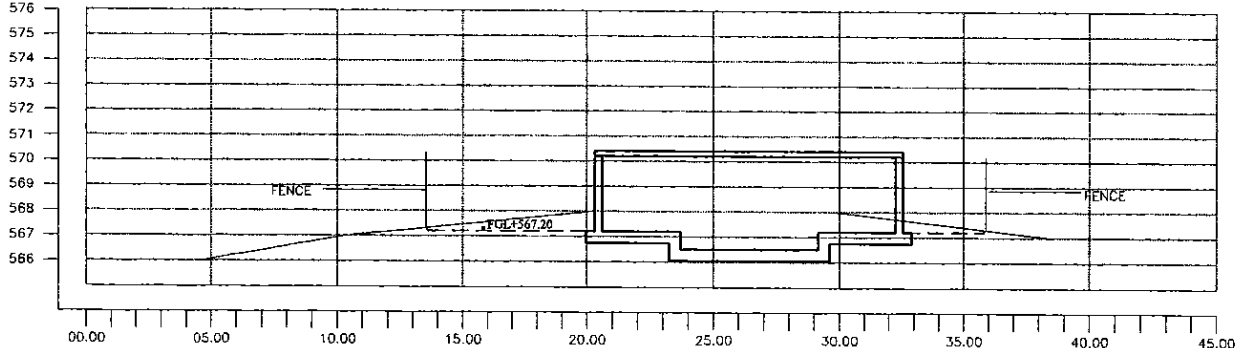
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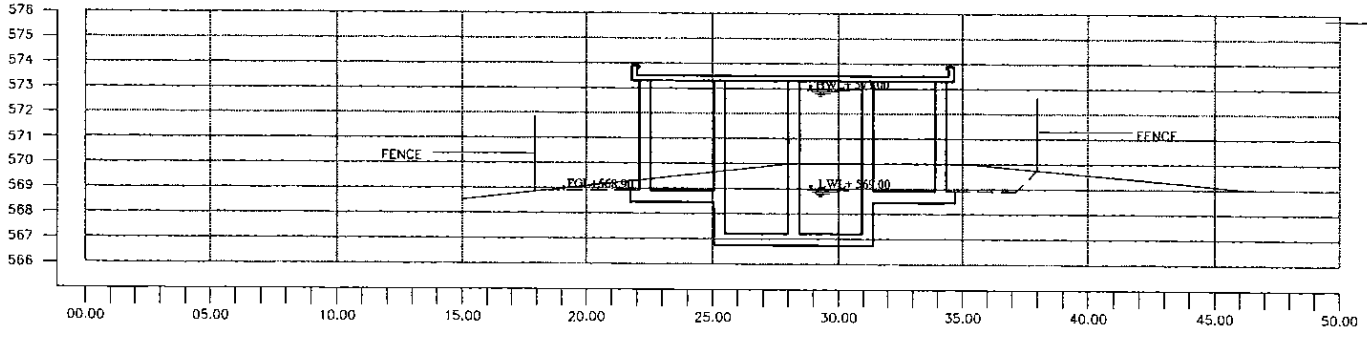
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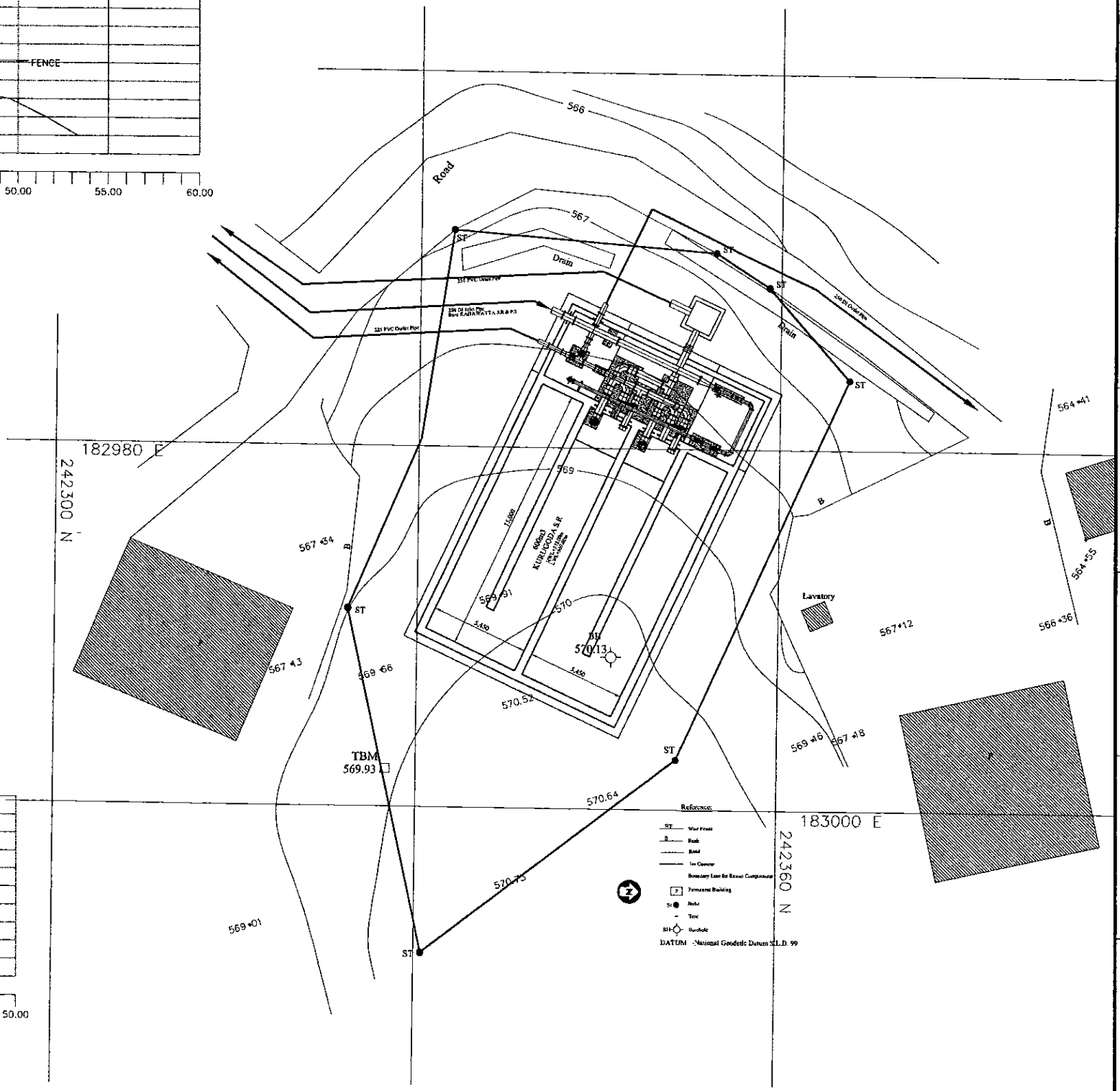
SECTION A-A  
1:150



SECTION B-B  
1:150



SECTION C-C  
1:150



- Reference:
- ST Storm Tank
  - MH Manhole
  - RD Road
  - Drain
  - Proposed Building
  - Boundary Line for Survey Comparison
  - TBM Temporary Bench Mark
  - Marker
  - Time
  - Handhole
  - DATUM - National Geodetic Datum S.L.D. 99

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

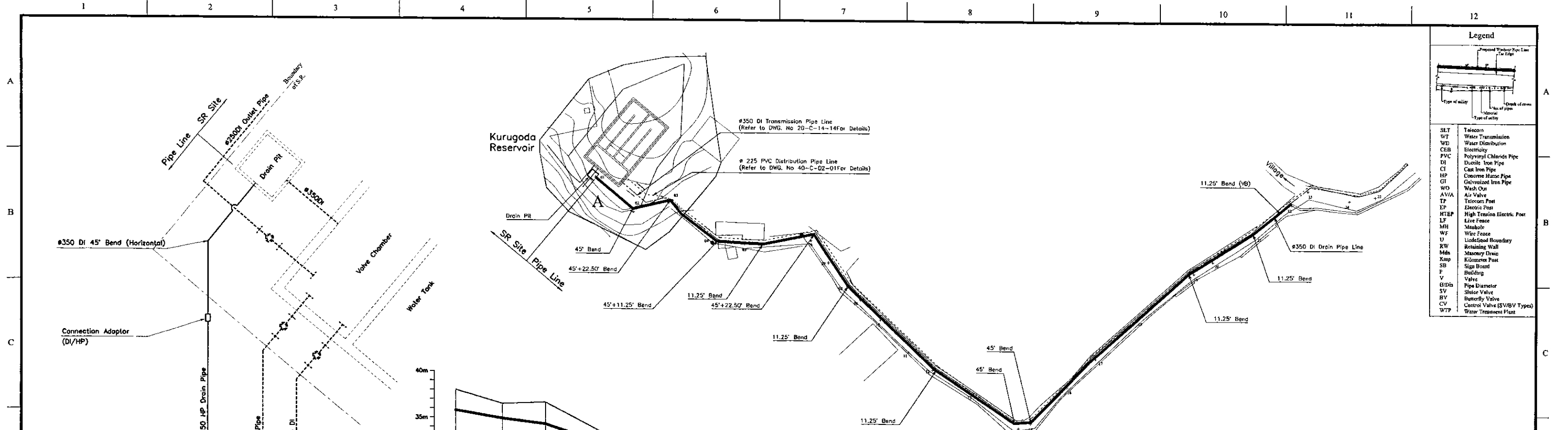
TITLE: **SITE PLAN AND CSS OF 600 m3 KURUGODA S.R.**

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150
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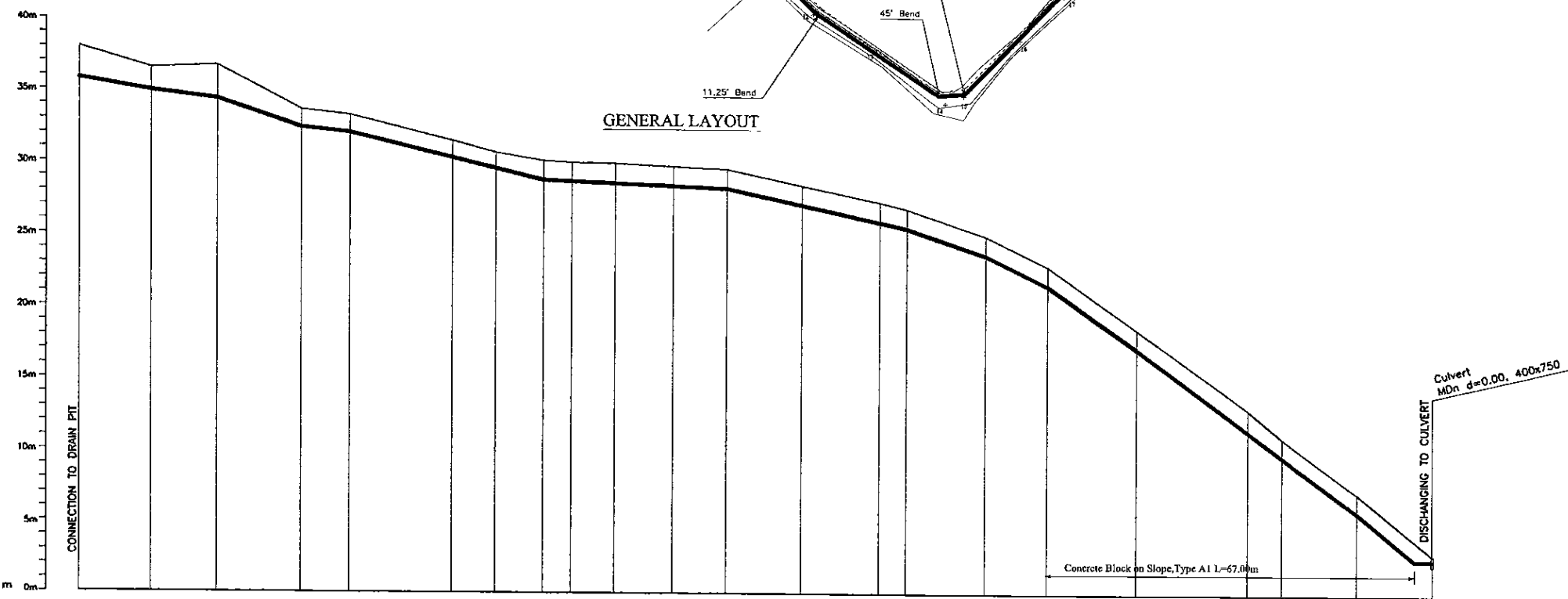
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**Legend**

SLT	Telecon
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Hume Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AV/A	Air Valve
TP	Telecon Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
UB	Unfinished Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
F	Building
V	Valve
Ø/Dn	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (S/BV Types)
WTP	Water Treatment Plant

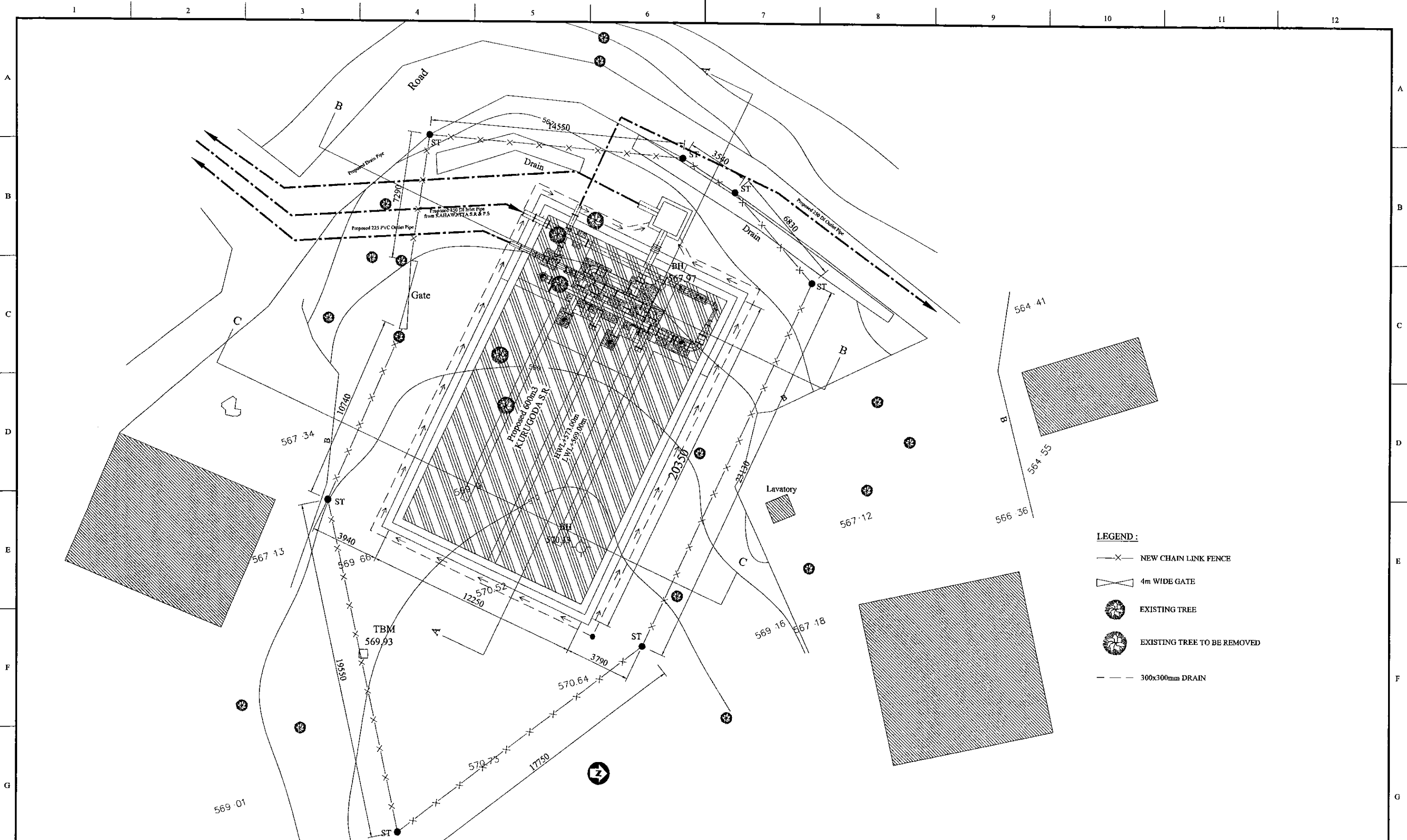
**PIPE CONNECTION DETAIL - A**



Datum (MSL) 530.0 m	0m	5m	10m	15m	20m	25m	30m	35m	40m														
Ground Level (m)	568.00	566.30	566.07	563.80	563.25	561.45	560.64	560.08	559.95	559.91	559.71	559.29	558.40	557.26	556.80	554.84	552.88	548.51	542.95	540.88	537.13	532.85	
Pipe Invert Level [Pipe thickness to be Assumed negligible]	568.00	564.92	564.38	562.37	562.02	559.70	559.05	558.91	558.71	558.14	558.00	555.42	553.56	551.48	547.13	546.51	542.95	540.88	536.75	532.50			
Pipe Data	# 350 CONCRETE HUME PIPE																						
Single Distance (m)	0.00	12.50	11.50	14.55	6.53	17.79	7.54	8.29	4.91	7.47	10.05	9.33	12.05	13.66	4.85	13.71	10.78	15.38	19.39	5.97	13.08	13.11	
Cumulative Distance (m)	0.00	12.50	24.00	38.55	47.08	64.87	72.41	80.70	85.61	93.08	103.13	112.46	125.41	139.07	143.72	157.43	168.21	183.59	202.98	208.95	222.03	235.14	
Station No.	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	

**LONGITUDINAL SECTION**

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> WASHOUT FROM KURUGODA S.R.				<b>SHEET 01 OF 01</b>				
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> Ravi U.	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> HORIZONTAL - 1:500 VERTICAL - 1:200
				<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DESIGN CHIEF</b>			<b>DRAWING NO.:</b> 30-C-01-02	



**LEGEND :**

- X— NEW CHAIN LINK FENCE
- ⌞ 4m WIDE GATE
- ⊗ EXISTING TREE
- ⊗ EXISTING TREE TO BE REMOVED
- - - 300x300mm DRAIN

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **600m<sup>3</sup> KURUGODA S.R. LANDSCAPING LAYOUT**

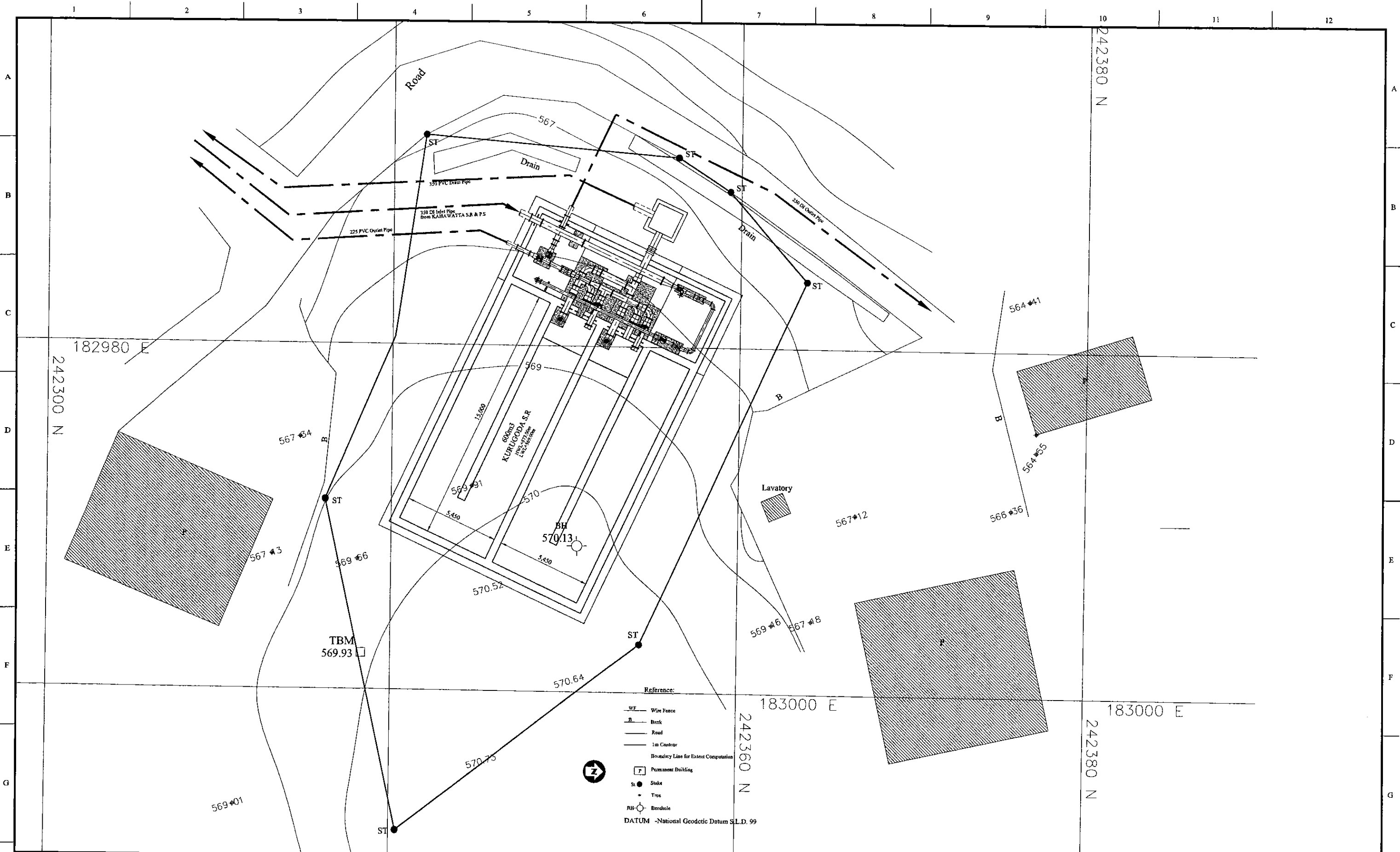
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>POORNA</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
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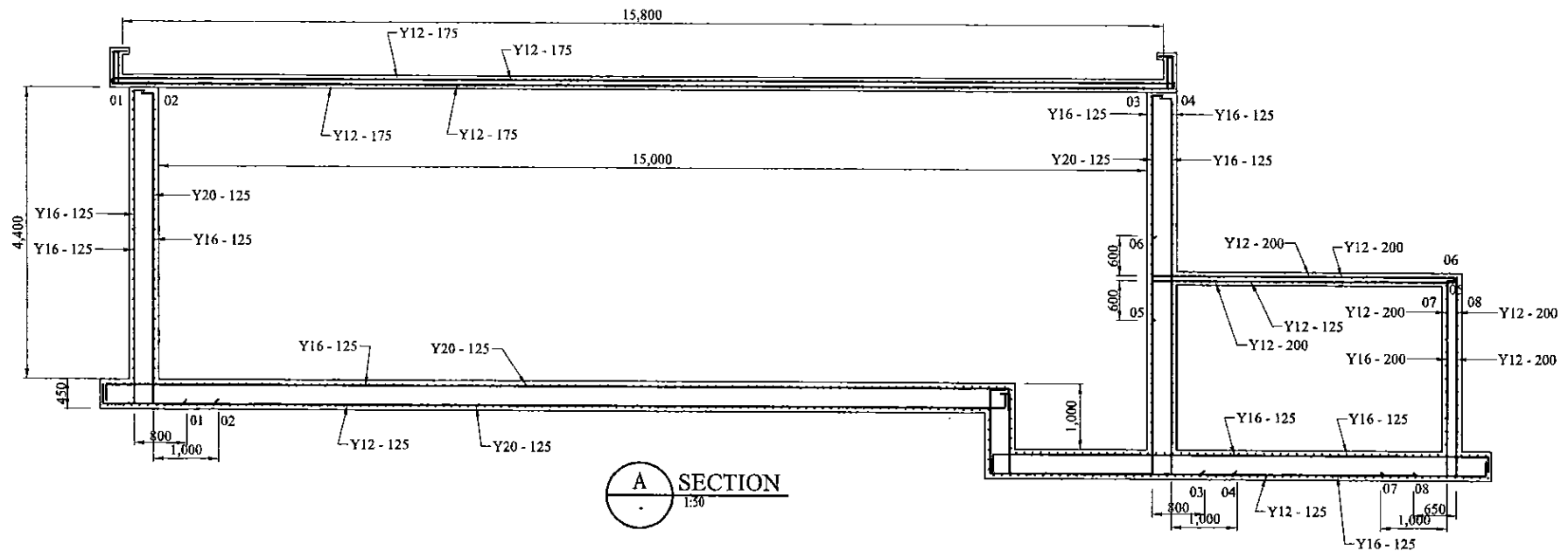




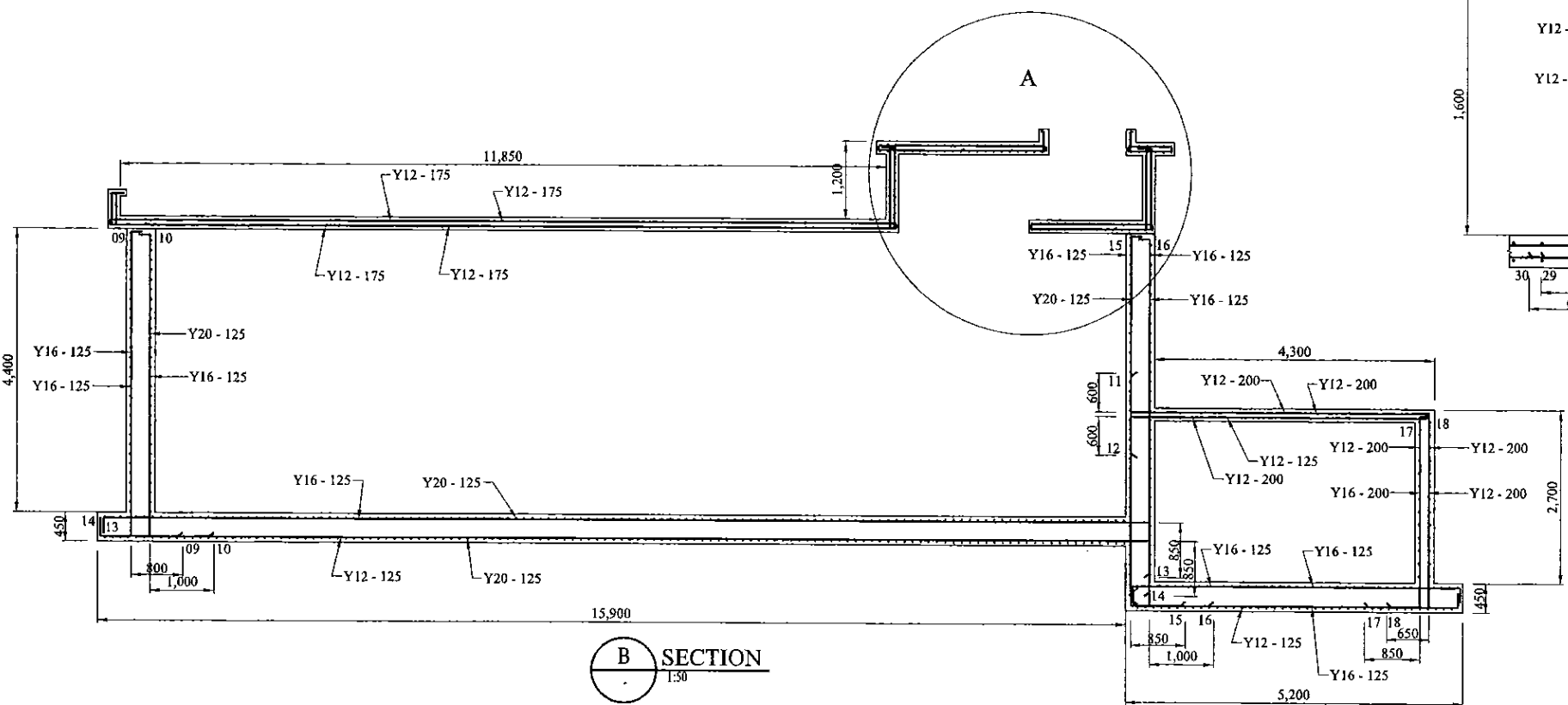
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KURUGODA SERVICE RESERVOIR SITE PLAN								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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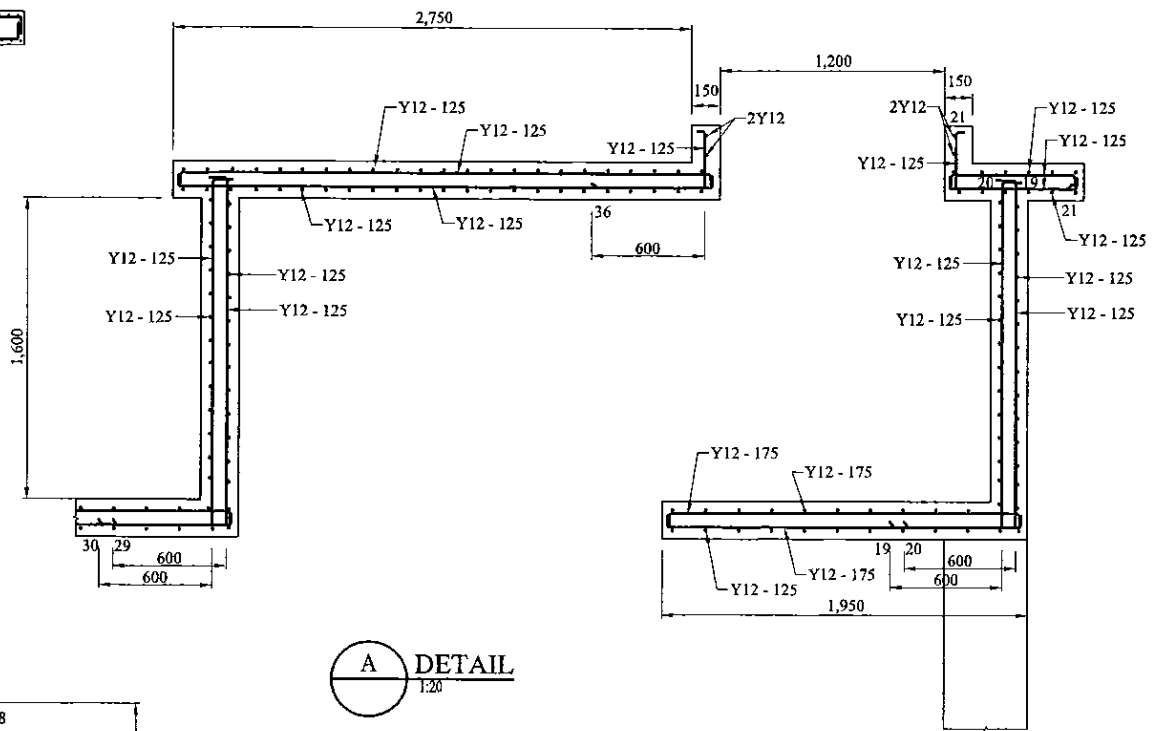








**A SECTION**  
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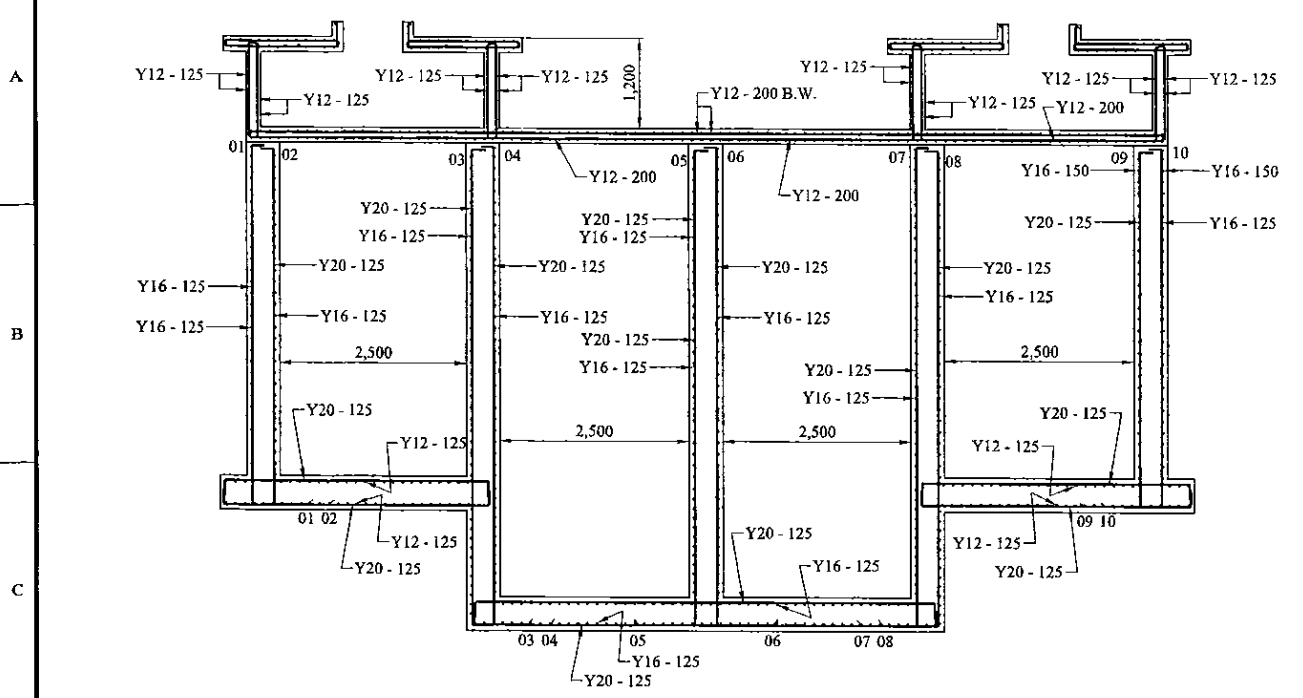


**B SECTION**  
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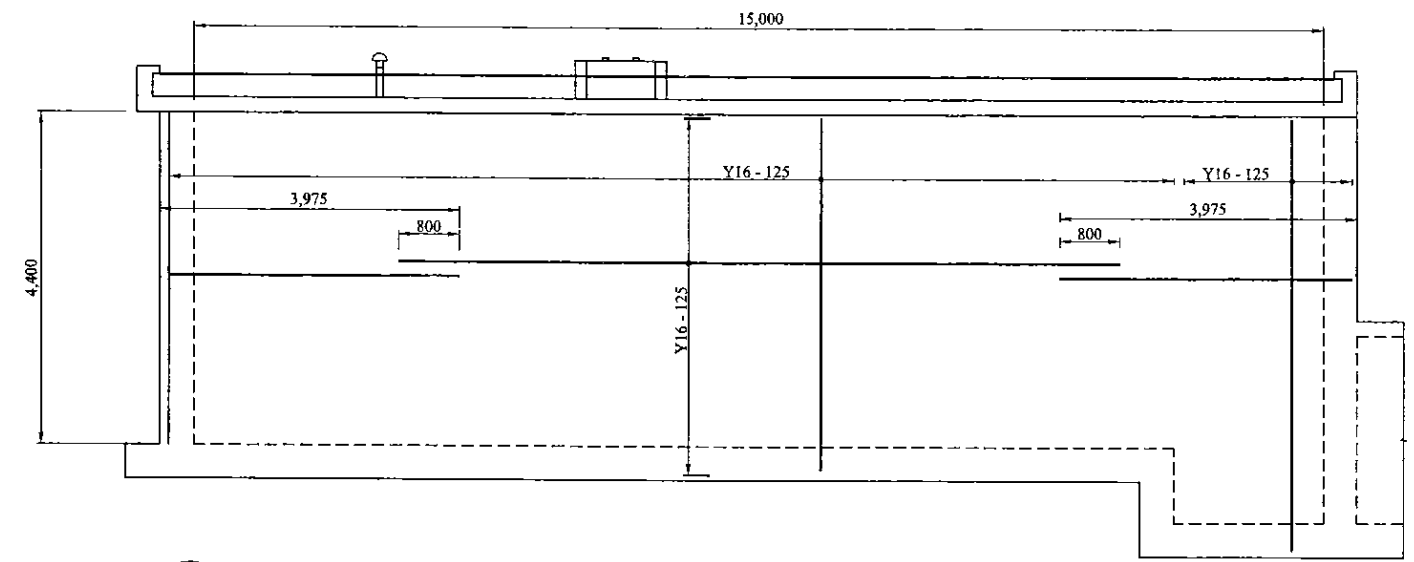


**A DETAIL**  
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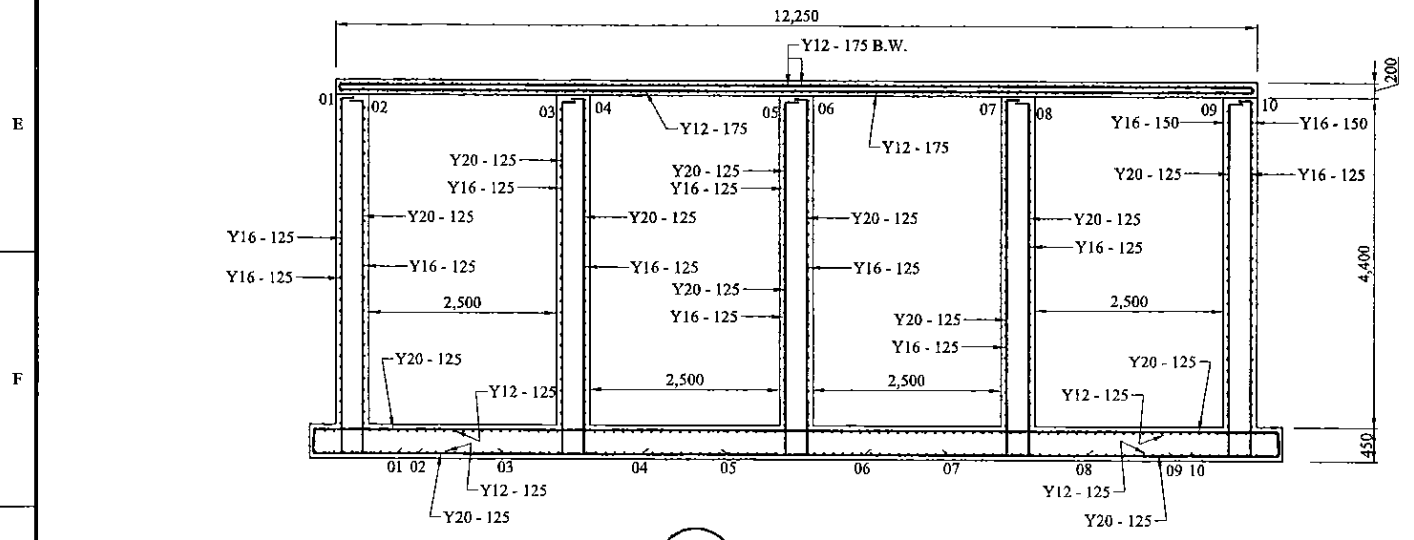
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CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAMANPALI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-01-03</b>



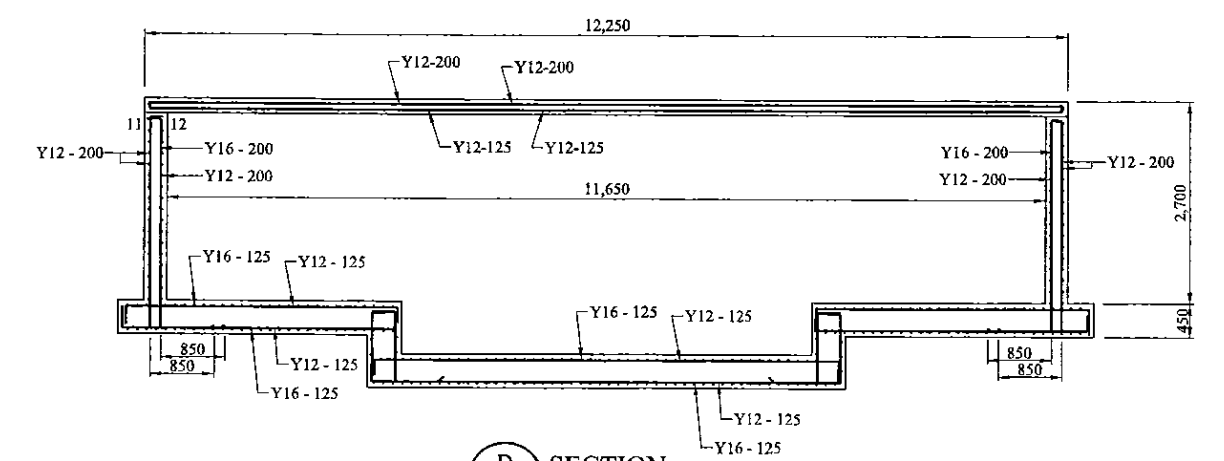
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**C ELEVATION OF WALL - (WALL TYPE 2)**  
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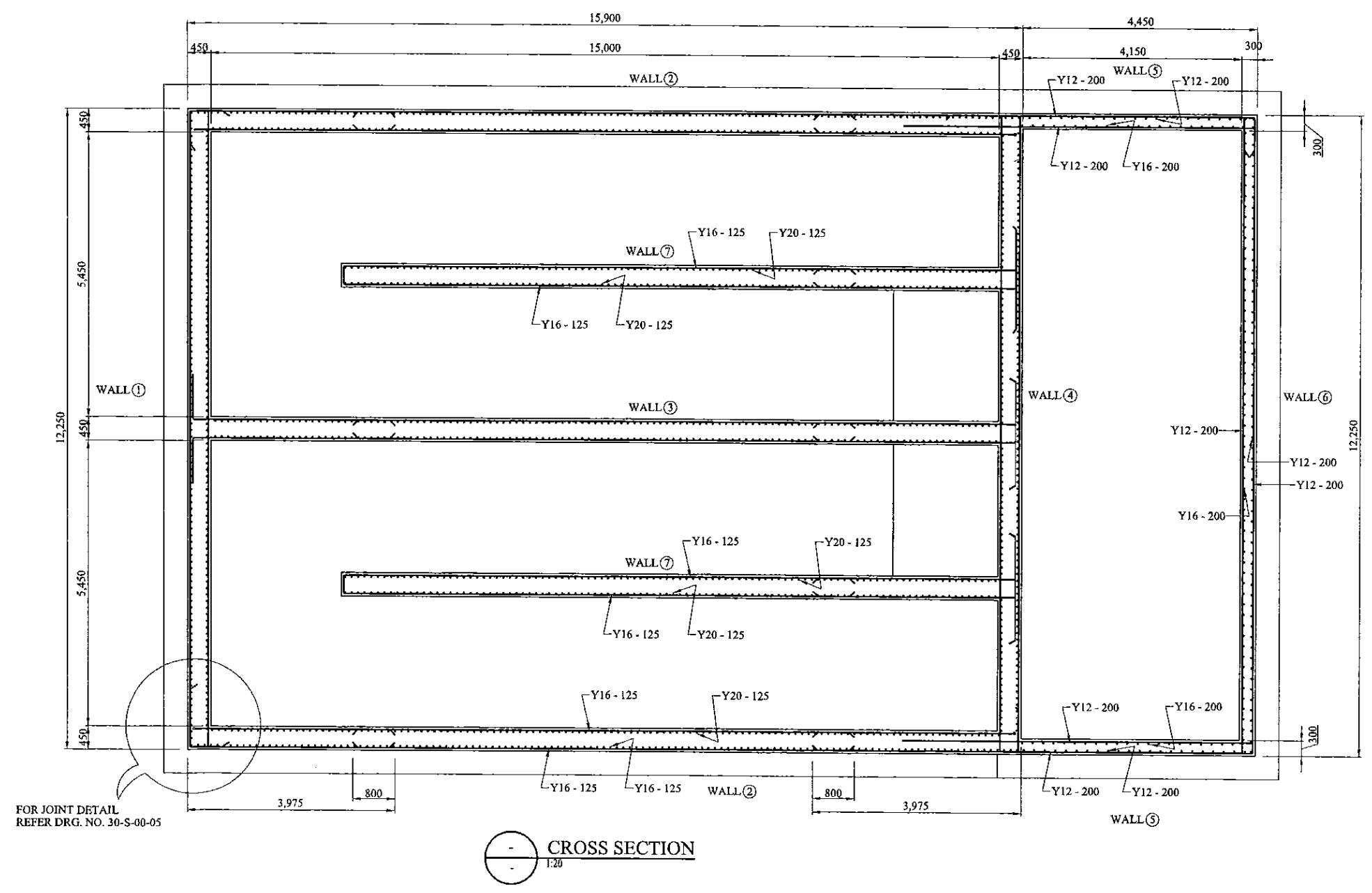


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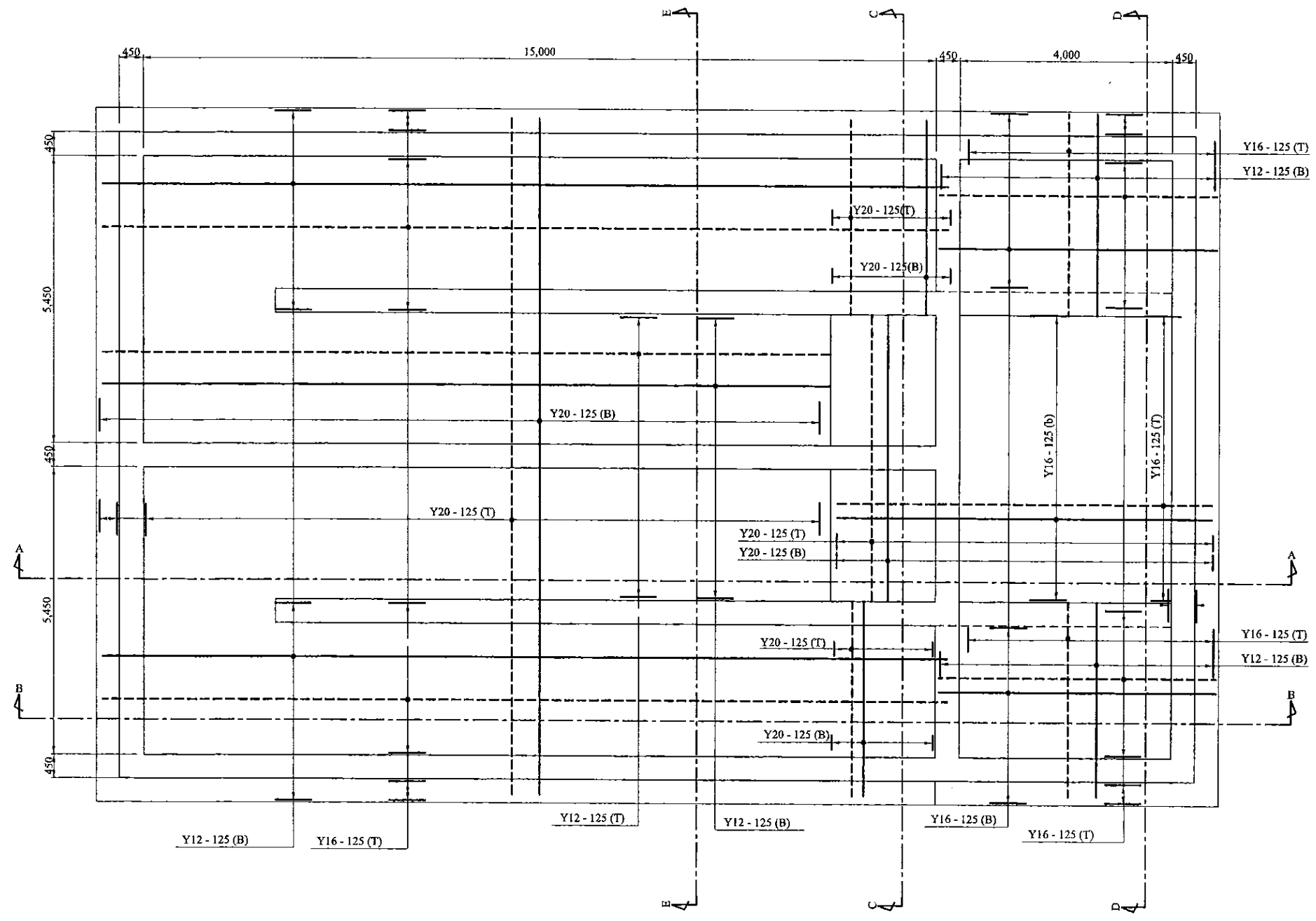


**D SECTION**  
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<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> KURUGODA SERVICE RESERVOIR SECTION C,D & ELEVATION																									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAMANPALI	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> AS SHOWN
REV.	DESCRIPTION	DATE	SIGN.																										
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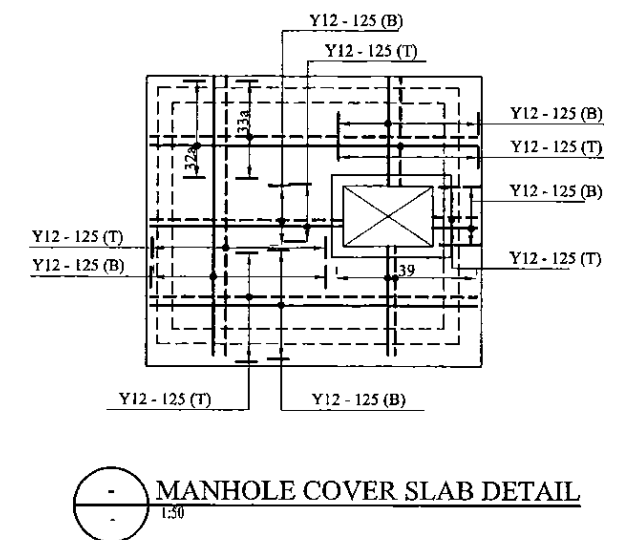
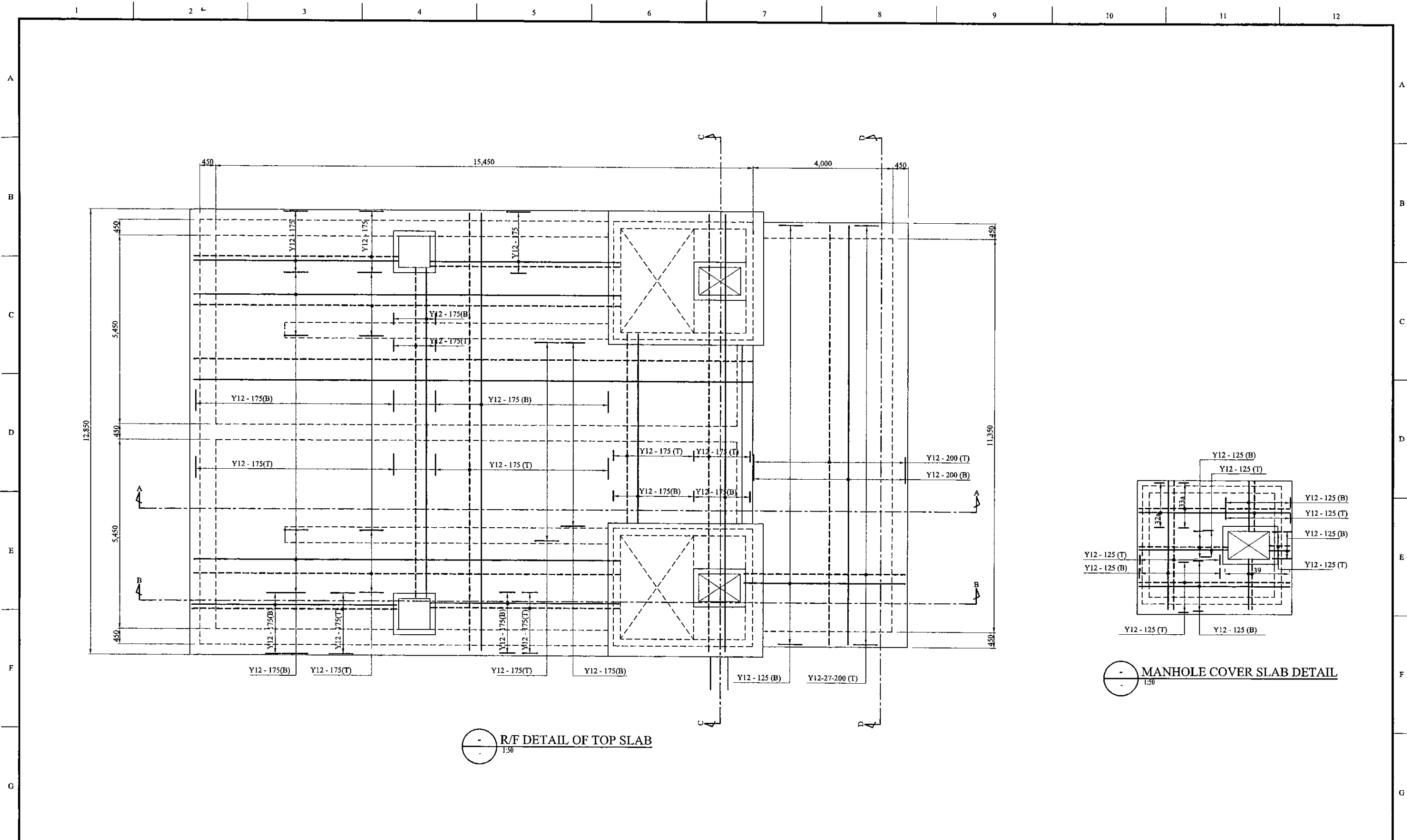


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KURUGODA SERVICE RESERVOIR CROSS SECTION								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS : NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAMANPALI	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: AS SHOWN
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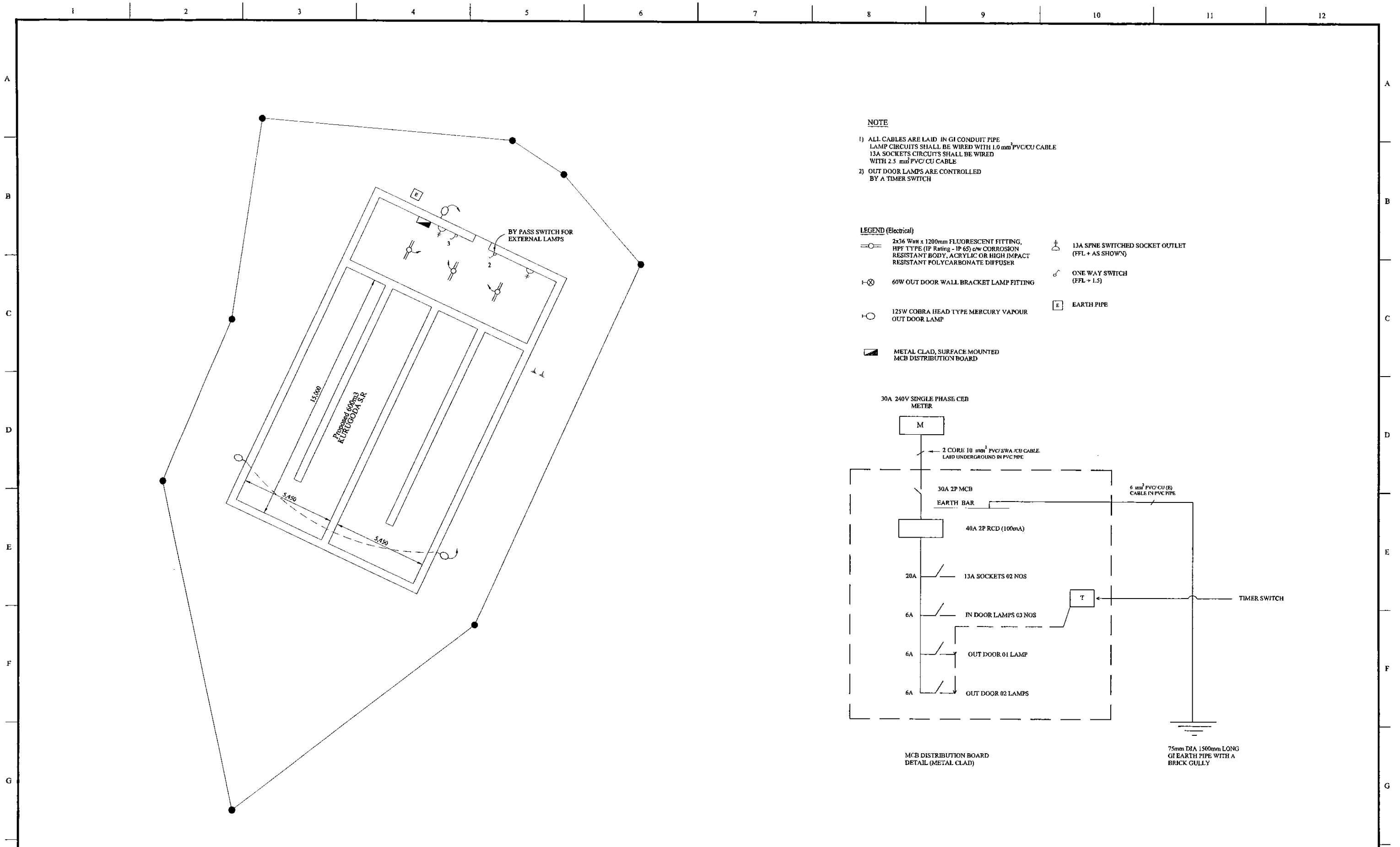
○ R/F DETAIL OF BOTTOM SLAB  
1:50

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> KURUGODA SERVICE RESERVOIR R/F DETAIL OF TOP SLAB								
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b> 	<b>DESCRIPTION</b> 	<b>DATE</b> 	<b>SIGN.</b> 	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAMANPALI	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b> 	<b>SCALE:</b> AS SHOWN
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R/F DETAIL OF TOP SLAB  
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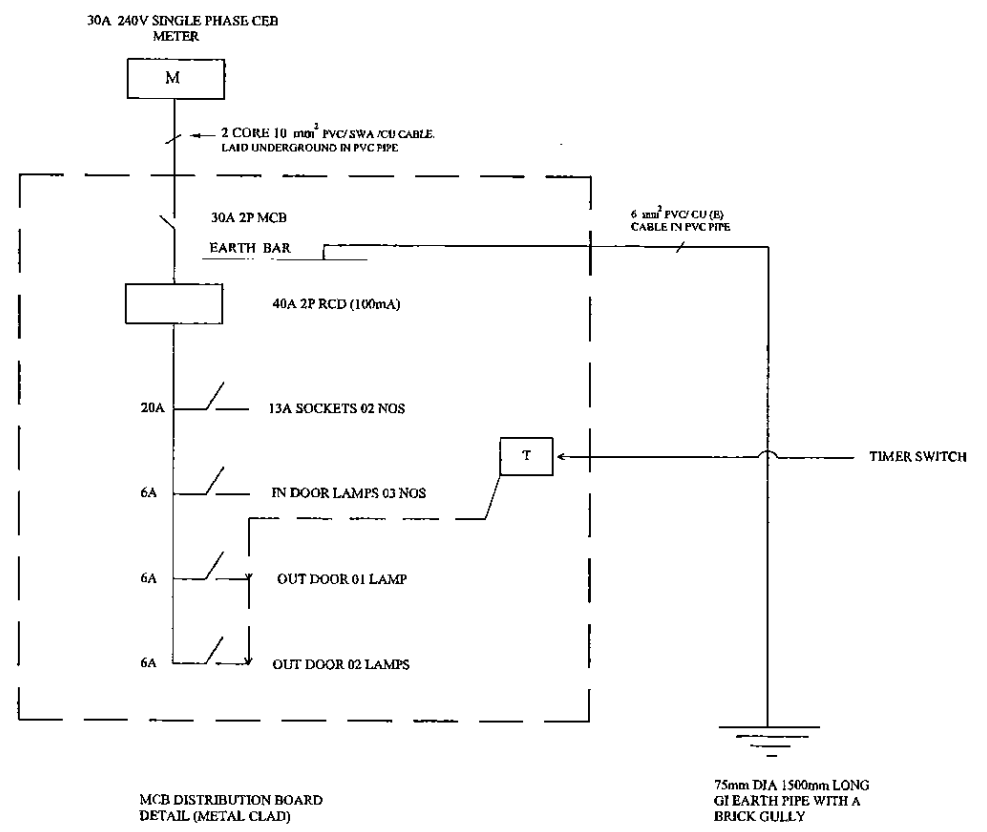
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<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b> _____ _____ _____	<b>DESCRIPTION</b> _____ _____ _____	<b>DATE</b> _____ _____ _____	<b>SIGN.</b> _____ _____ _____	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAMANPALI	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>  	<b>SCALE:</b> AS SHOWN
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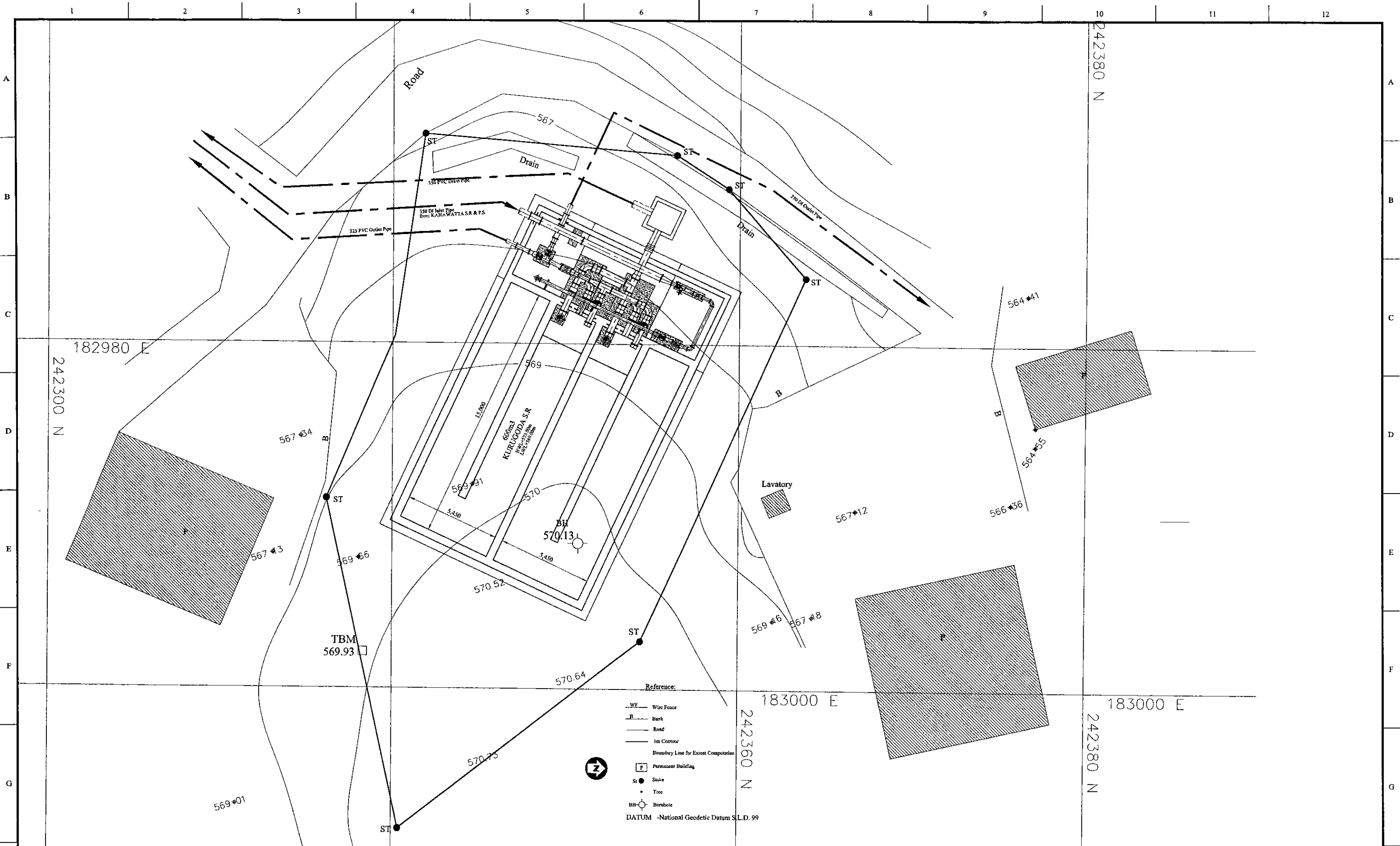
**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED BY A TIMER SWITCH

- LEGEND (Electrical)**
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - ⊗ 60W OUT DOOR WALL BRACKET LAMP FITTING
  - 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
  - ▭ METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
  - ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ⊗ ONE WAY SWITCH (FFL + 1.5)
  - ⊕ EARTH PIPE



PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JAPAN INTERNATIONAL COOPERATION AGENCY			TITLE: <b>ELECTRICAL PLAN FOR (600m3) KURUGODA S.R</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>			REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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									CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
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PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

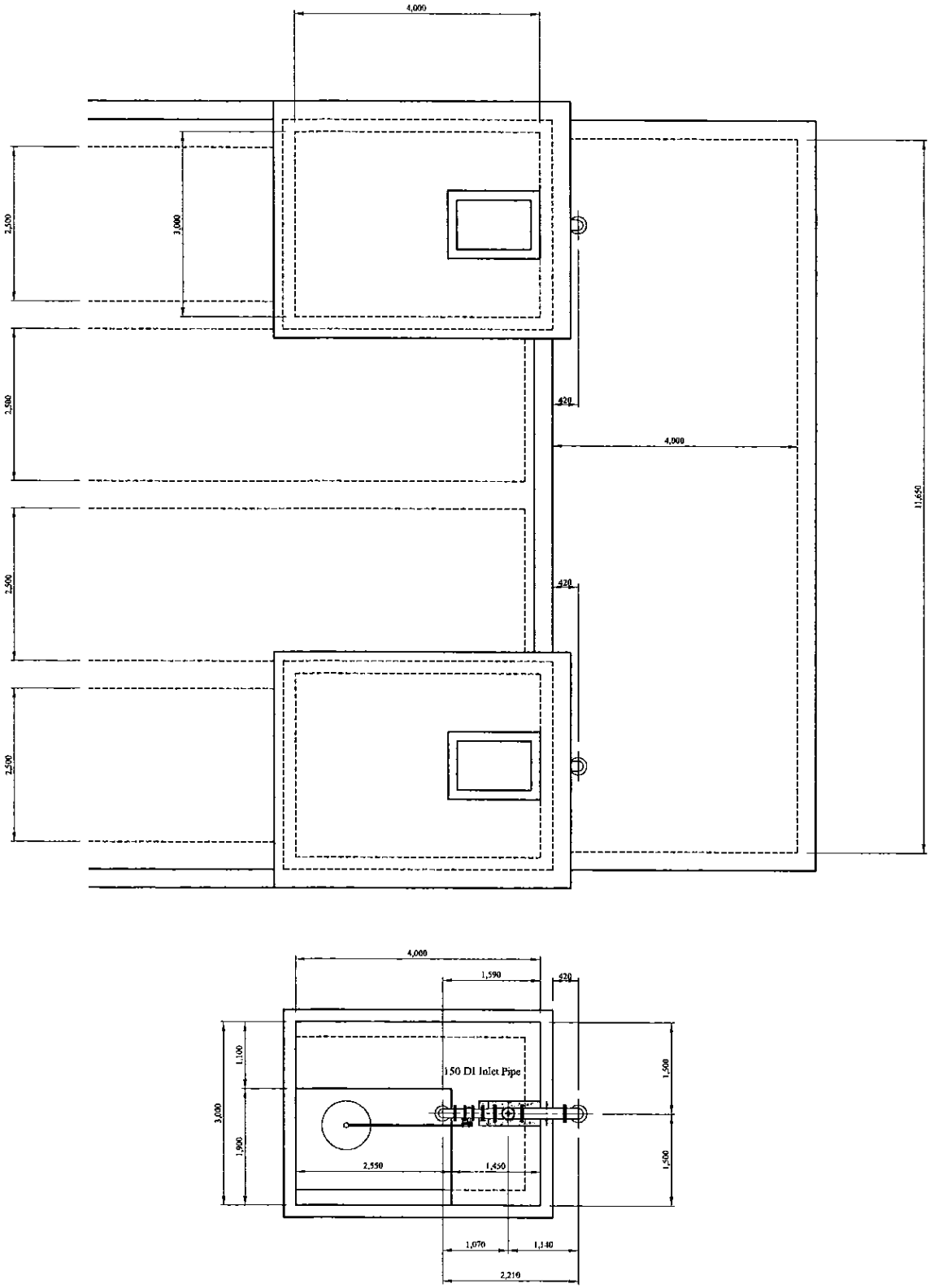
TITLE: PIPE LAYOUT PLAN OF 600m3 KURUGODA S.R.

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)	CE: (P&D)	SCALE:
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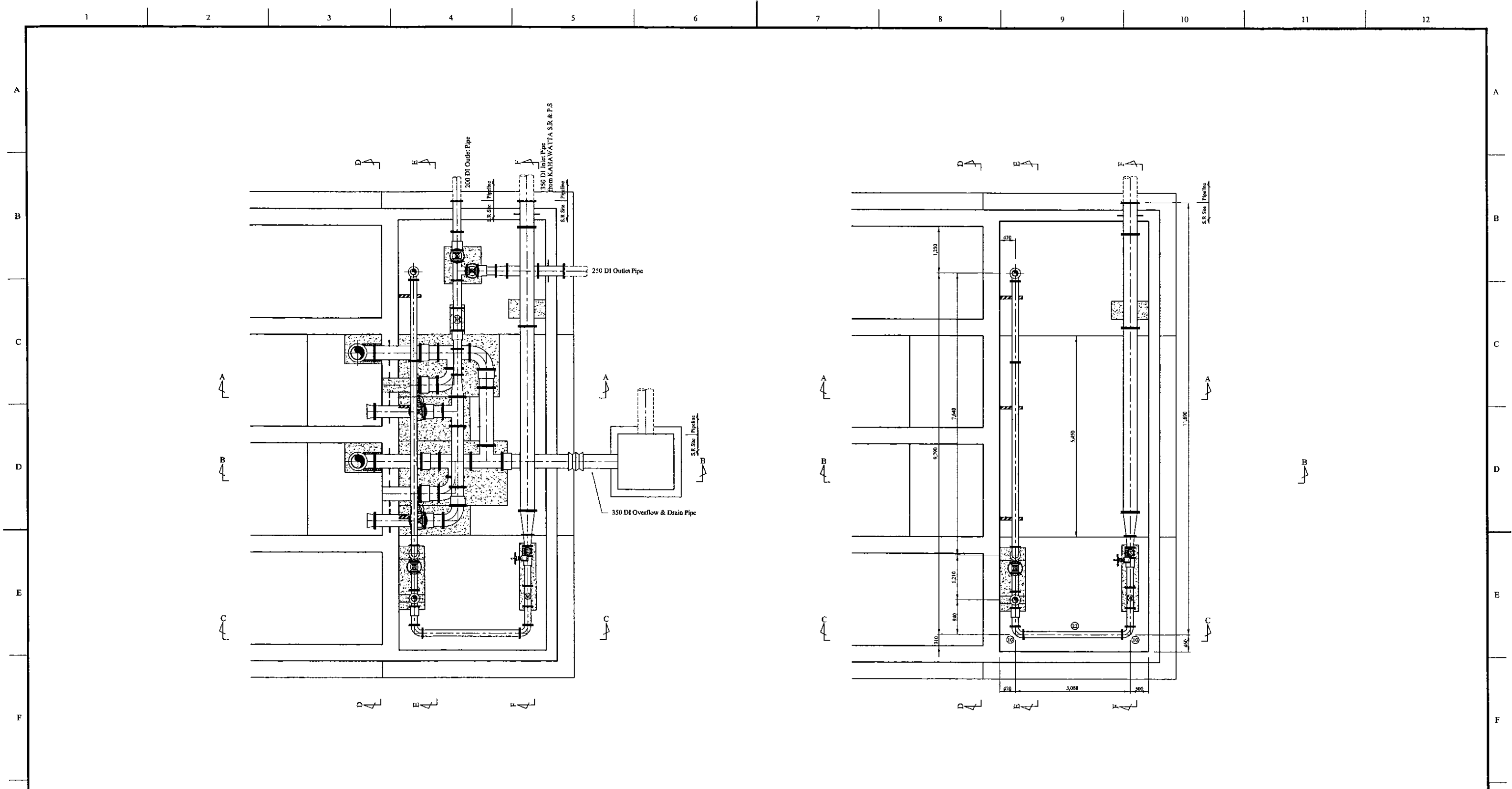




Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	2
2	Double Flanged Piece	SP	125	L=610mm	PN10	2
3	Double Flanged 90 degree Bend	SP	125	L=200mm x 2	PN10	2
4	Butterfly Float Valve	SUS	125	L=460mm	PN10	2
5	Double Flanged 150 x 125 Taper	SP	150x125	L=450mm	PN10	2
6	All Flanged 150 x 100 Tee	DI	150x100	L=440x210mm	PN10	2
7	Ball Valve	DI	100	L=200mm	PN10	2
8	Single Orifice Air Valve	DI	100	L=370mm	PN10	2
9	Double Flanged Piece with Puddle	DI	150	L=700mm	PN10	2
10	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	6
11	Flange Adapter (DF)	DI	150	L=500mm	PN10	5
12	Double Flanged Piece	DI	150	L=1,900mm	PN10	2
13	Double Flanged Piece with Puddle	DI	150	L=600mm	PN10	2
14	Double Flanged Piece	DI	150	L=2,200mm	PN10	1
15	Double Flanged Piece	DI	150	L=5,000mm	PN10	1
16	Double Flanged Piece	DI	150	L=890mm	PN10	1
17	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
18	Sluice Valve	DI	150	L=270mm	PN10	2
19	Double Flanged Piece	DI	150	L=500mm	PN10	1
20	Double Flanged Piece	DI	150	L=1,060mm	PN10	1
21	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
22	Double Flanged Piece	DI	150	L=2,640mm	PN10	1
23	Flow Meter		150	L=560mm	PN10	1
24	Flange Adapter (DF)	SS	150	L=800mm	PN10	1
25	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
26	Double Flanged 200 x 150 Taper	DI	200x150	L=200mm	PN10	1
27	Double Flanged 350 x 200 Taper	DI	350x200	L=650mm	PN10	1
28	Double Flanged Piece	DI	350	L=5,000mm	PN10	1
29	Double Flanged Piece	DI	350	L=2,680mm	PN10	1
30	Double Flanged Piece	DI	350	L=850mm	PN10	1
31	Flanged Bellmouth	DI	300	L=205mm	PN10	2
32	Double Flanged Piece with Puddle	DI	300	L=1,000mm	PN10	2
33	Sluice Valve	DI	300	L=290mm	PN10	2
34	Flange Adapter (DF)	DI	300	L=500mm	PN10	3
35	Double Flanged 90 degree Bend	DI	300	L=400mm x 2	PN10	1
36	Double Flanged Piece	DI	300	L=1,650mm	PN10	1
37	All Flanged 300 x 300 Tee	DI	300x300	L=800x400mm	PN10	1
38	Double Flanged 300 x 200 Taper	DI	300x200	L=600mm	PN10	1
39	Double Flanged Piece	DI	200	L=700mm	PN10	1
40	Flange Adapter (DF)	DI	200	L=500mm	PN10	3
41	Flow Meter		200	L=610mm	PN10	1
42	Double Flanged Piece	DI	200	L=850mm	PN10	1
43	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
44	Sluice Valve	DI	200	L=290mm	PN10	2
45	Double Flanged Piece	DI	200	L=980mm	PN10	1
46	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	1
47	Double Flanged Piece	DI	250	L=840mm	PN10	1
48	Double Flanged Piece with Puddle	DI	250	L=850mm	PN10	1
49	Flanged Bellmouth	DI	350	L=220mm	PN10	2
50	Double Flanged Piece	DI	350	L=4,680mm	PN10	2
51	Double Flanged 90 degree Duckfoot Bend	DI	350	L=450mm x 2	PN10	2
52	Double Flanged Piece with Puddle	DI	350	L=1,240mm	PN10	2
53	Flange Adapter (DF)	SS	350	L=500mm	PN10	6
54	Flanged Spigot Piece with Puddle	DI	350	L=830mm	PN10, Type-T	2
55	Butterfly Valve	DI	350	L=210mm	PN10	2
56	Double Flanged 90 degree Bend	DI	350	L=450mm x 2	PN10	3
57	All Flanged 350 x 350 Tee	DI	350x350	L=850x425mm	PN10	3
58	Double Flanged Piece	DI	350	L=1,575mm	PN10	1
59	Flanged Spigot Piece with Puddle	DI	350	L=1485mm	PN10, Type-T	1
60	Collar	DI	350		Type-K	1
61	Plain Ends Piece	DI	350	L=1,150mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.





PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>PIPE LAYOUT OF KURUGODA S.R - 1</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo Miwa</b>	CE: (P&D)	SCALE: <b>1:50</b>
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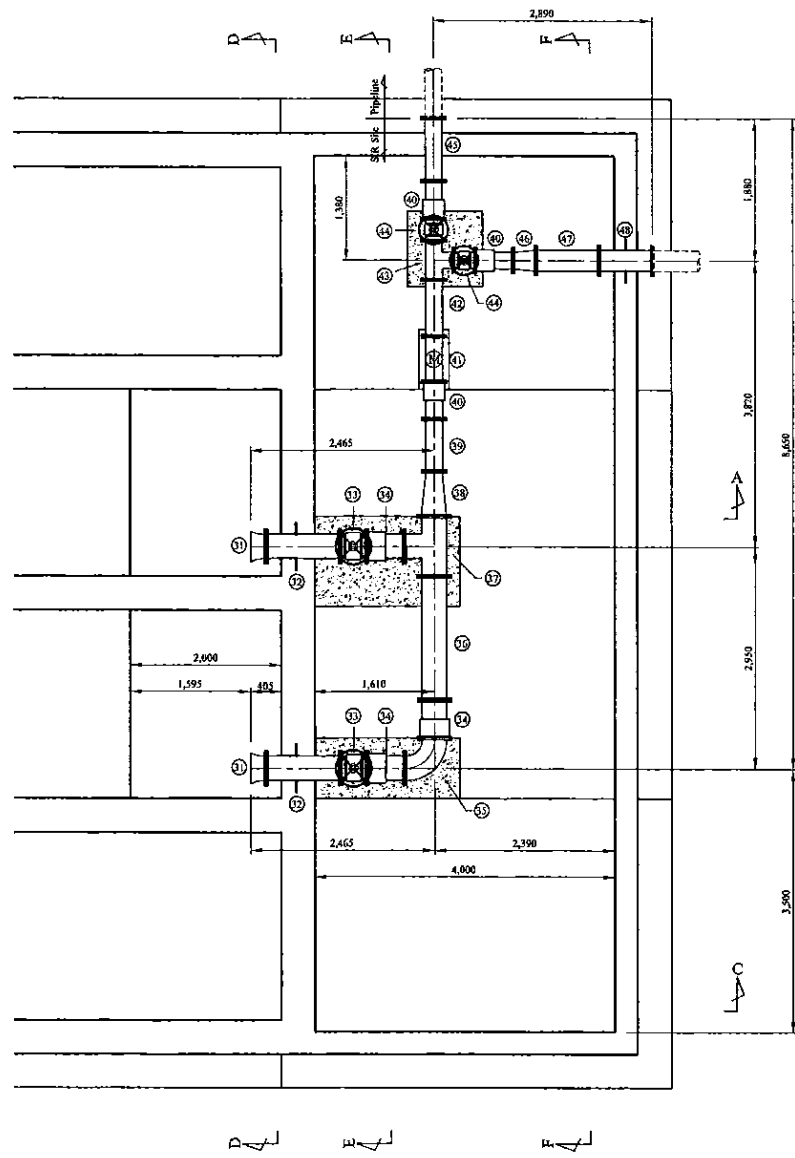


Pipe Layout

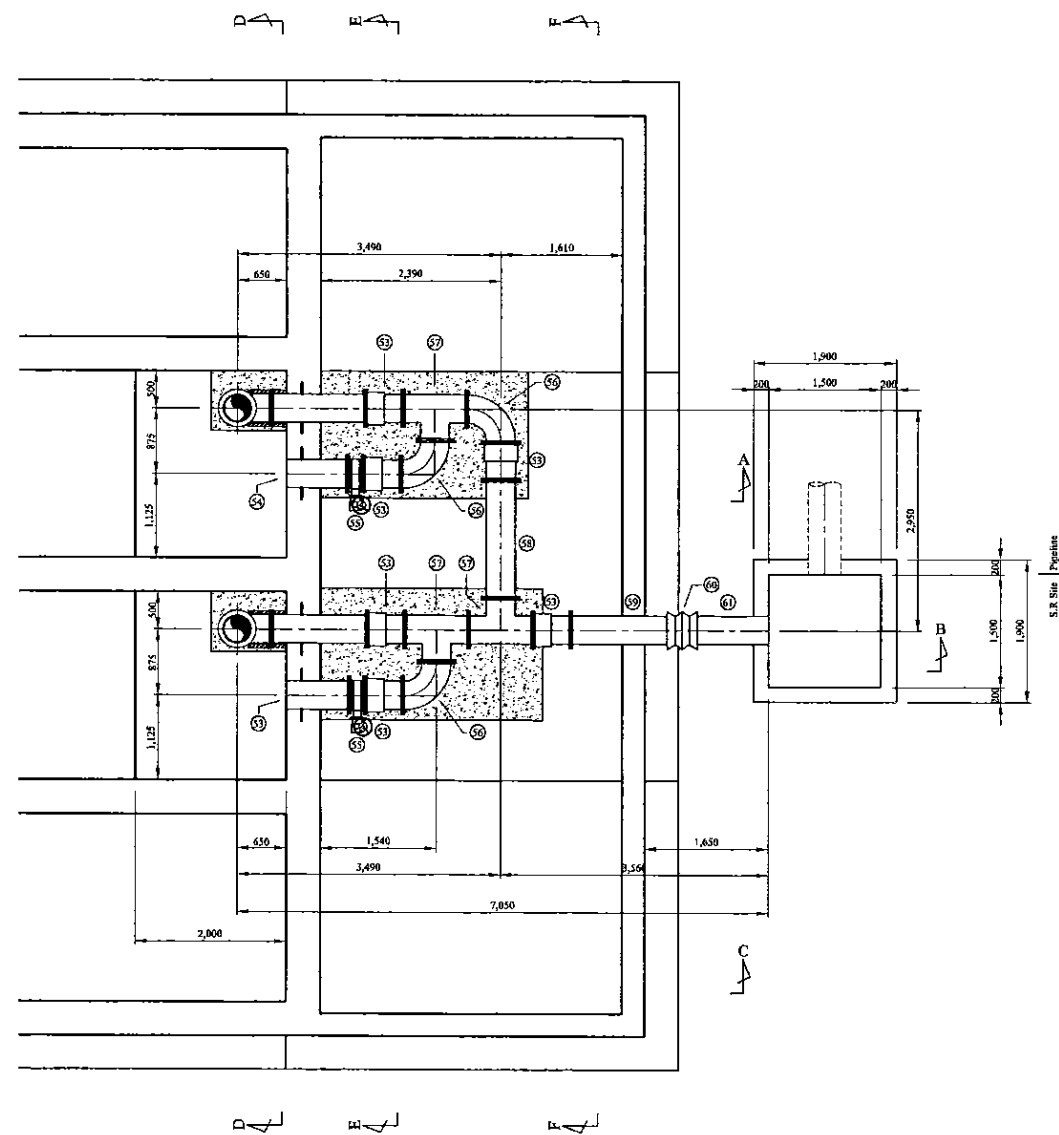
Inlet Pipe

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF KURUGODA S.R - 2								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo Miwa	CE: (P&D)	SCALE: 1:50
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Outlet Pipe



Overflow & Drain Pipe

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF KURUGODA S.R - 3

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.

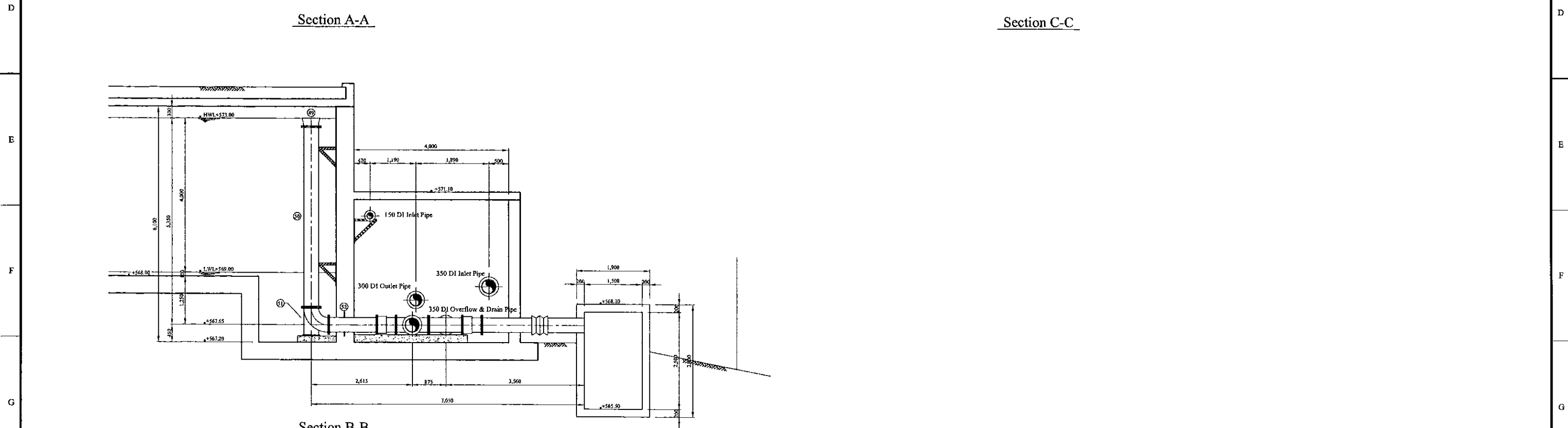
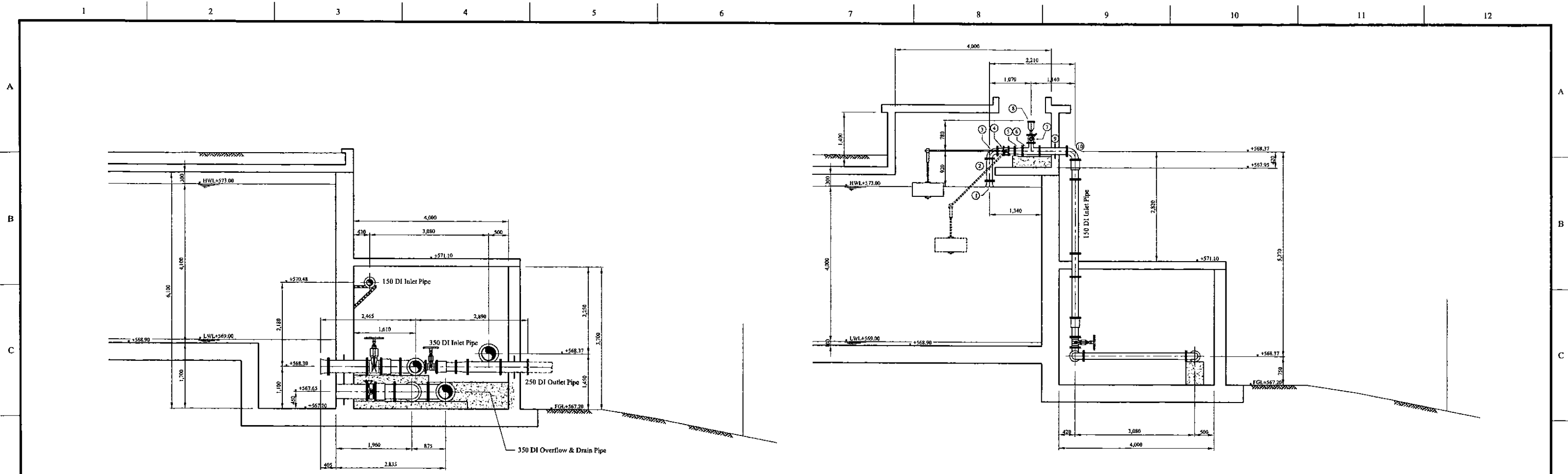
DESIGNED: Koichi OKAZAKI  
CHECKED: DESIGN CHIEF

DRAWN: Koichi OKAZAKI  
AGM: (P&D)

PM: (CONSULTANT) Ikuo Miwa  
DGM: (P&D)

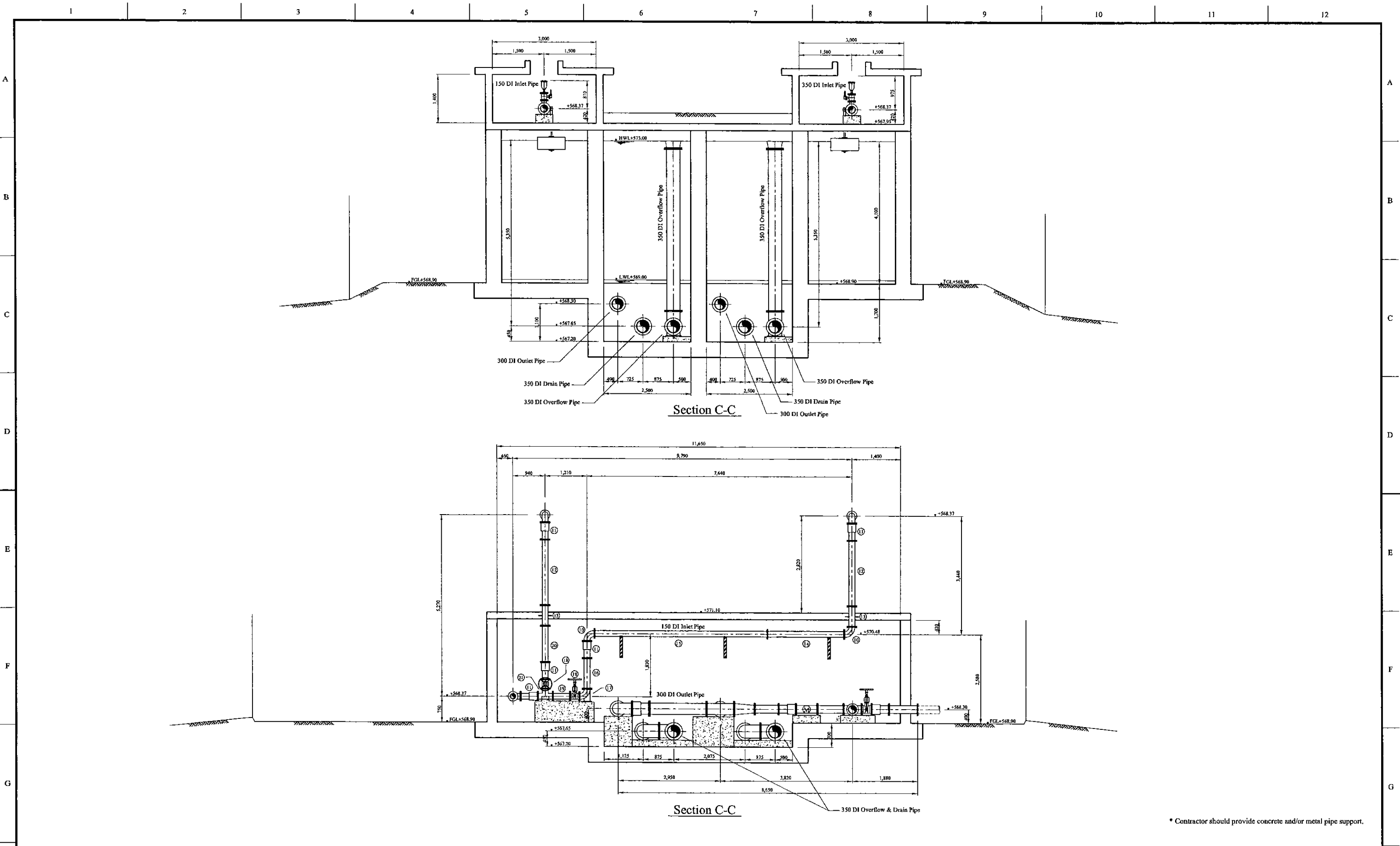
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\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF KURUGODA S.R - 4								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo Miwa	CE: (P&D)	SCALE: 1:50
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\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

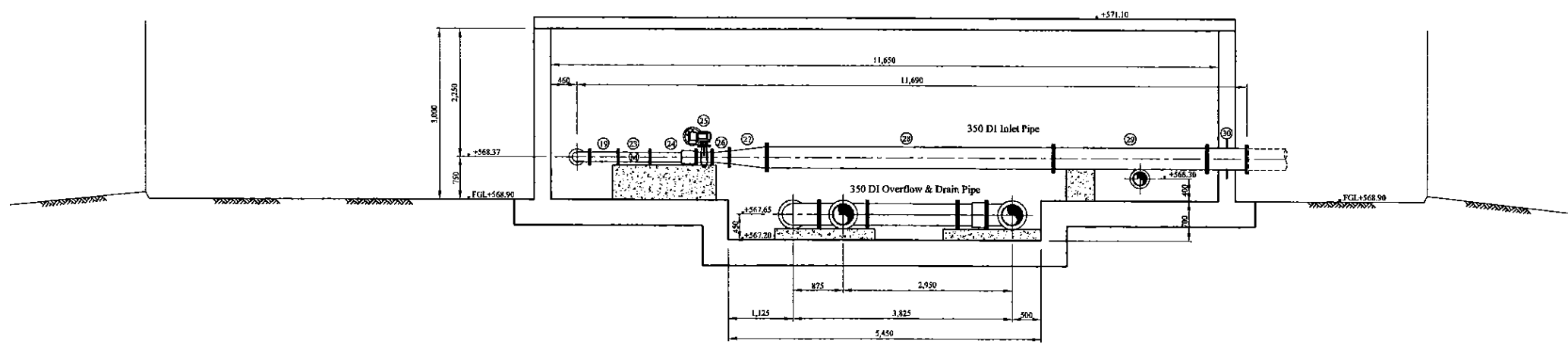
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CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD







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

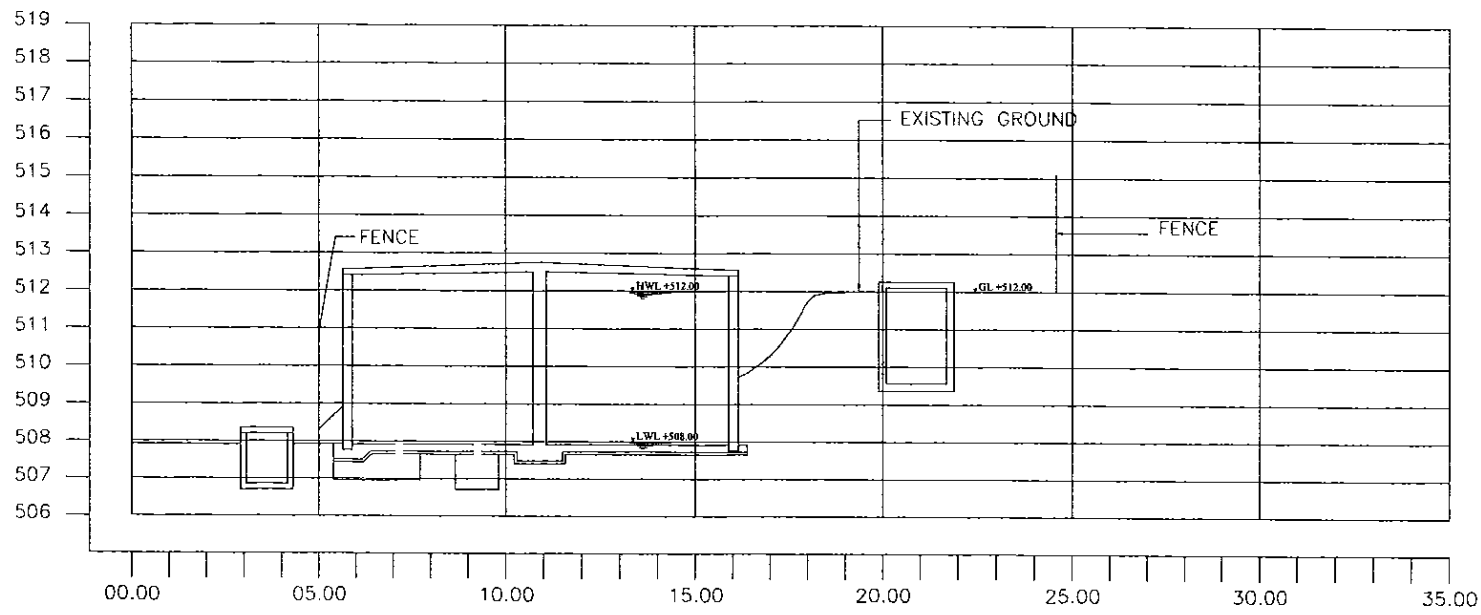
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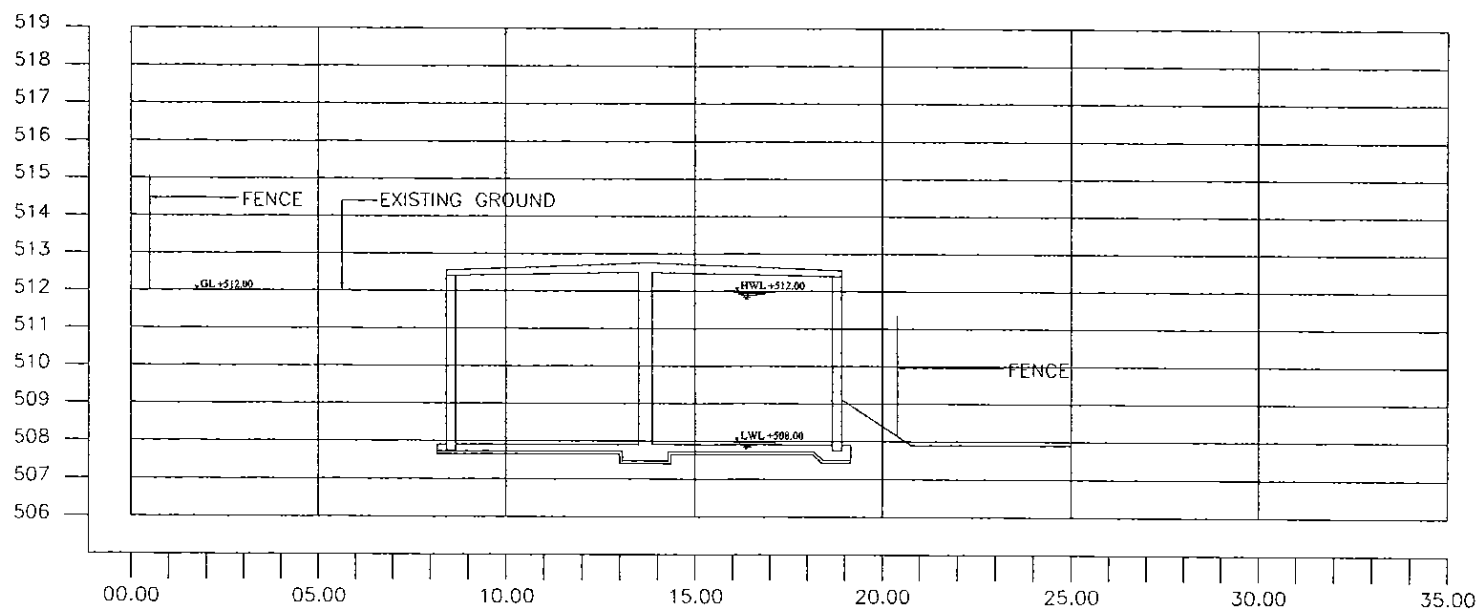
Section C-C

\* Contractor should provide concrete and/or metal pipe support.

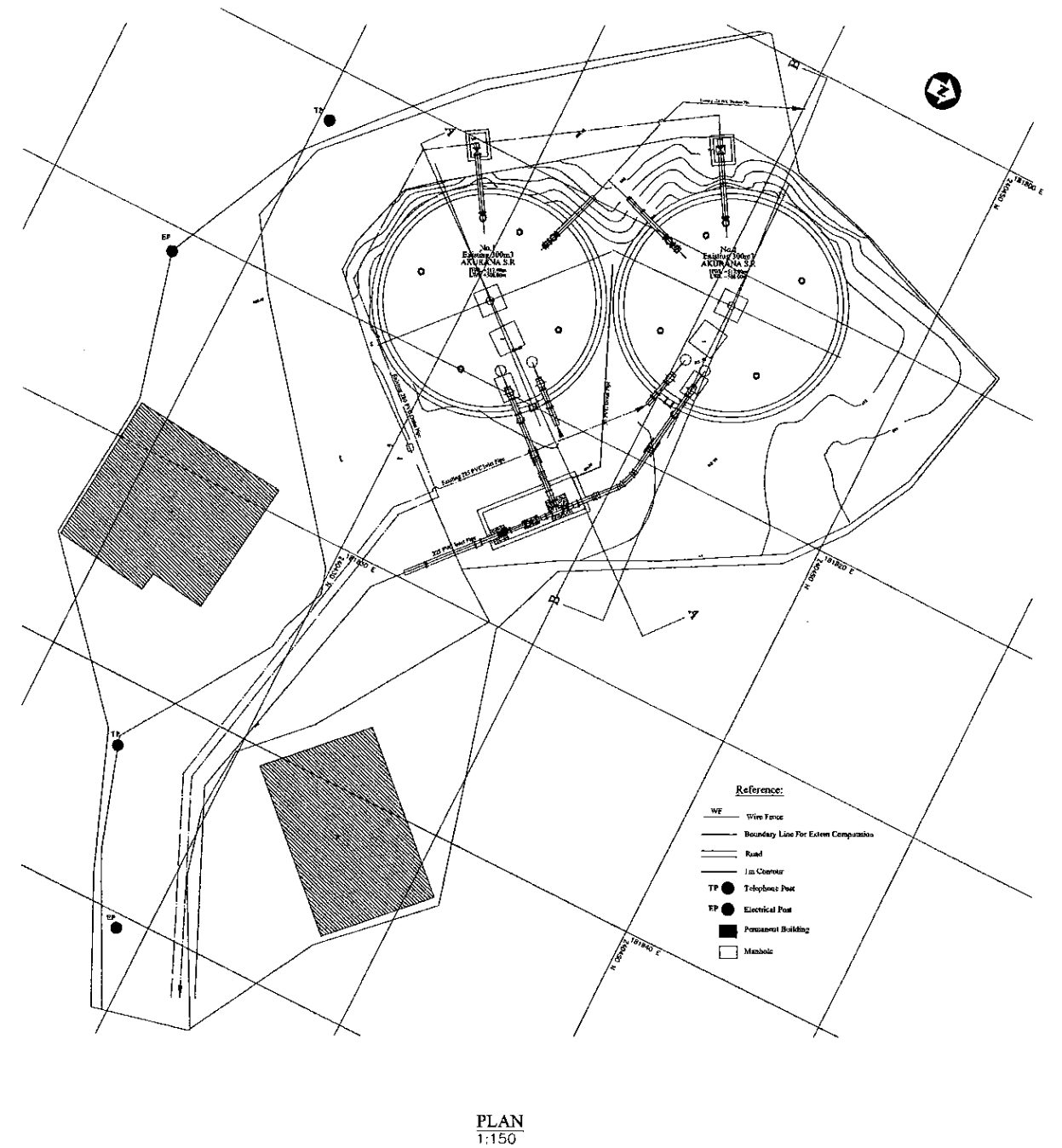
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF KURUGODA S.R - 6</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo Miwa</b>	CE: (P&D)	SCALE: <b>1:50</b>
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SECTION A - A  
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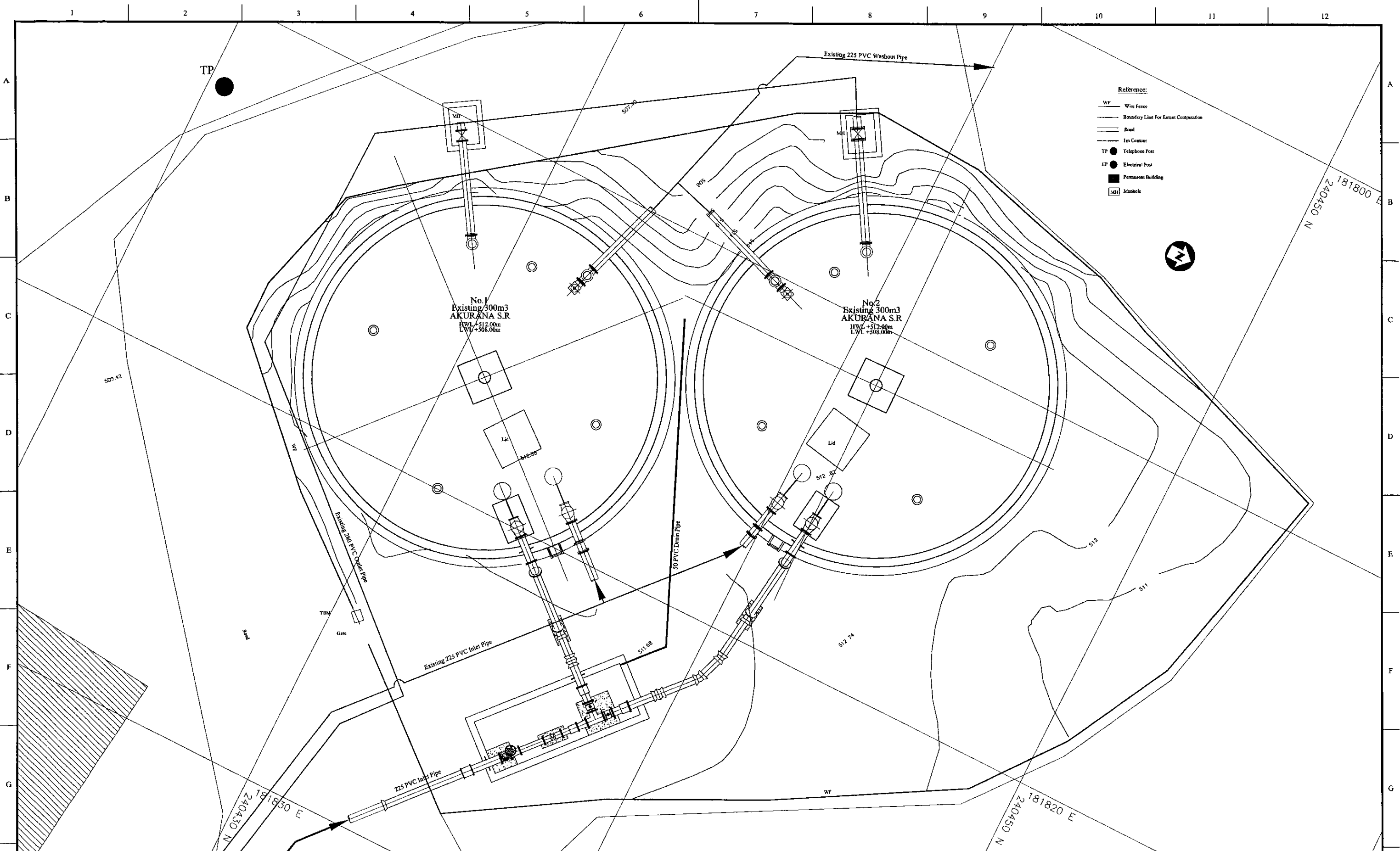


SECTION B - B  
1:100



PLAN  
1:150

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>SITE PLAN OF EXISTING 600m3 AKURANA S.R.</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
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								DESIGN CHIEF				



- Reference:**
- WF Wire Fence
  - Boundary Line For Exact Computation
  - Road
  - Ic Container
  - TP Telephone Post
  - EP Electrical Post
  - Permacon Building
  - MH Manhole

<b>PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE: AKURANA SERVICE RESERVOIR SITE PLAN</b>																																													
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		REV.	DESCRIPTION	DATE	SIGN.													<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DESIGNED:</td> <td>L. JAYAWARDENA</td> </tr> <tr> <td>CHECKED:</td> <td>AGM: (P&amp;D)</td> </tr> <tr> <td>DESIGN CHIEF:</td> <td> </td> </tr> </table>		DESIGNED:	L. JAYAWARDENA	CHECKED:	AGM: (P&D)	DESIGN CHIEF:		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRAWN:</td> <td>SAM</td> </tr> <tr> <td>PM: (CONSULTANT):</td> <td>Ikuo MIWA</td> </tr> <tr> <td>DGM: (P&amp;D):</td> <td> </td> </tr> </table>		DRAWN:	SAM	PM: (CONSULTANT):	Ikuo MIWA	DGM: (P&D):		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>CE: (P&amp;D):</td> <td> </td> </tr> <tr> <td>DATE:</td> <td>31/05/2002</td> </tr> </table>		CE: (P&D):		DATE:	31/05/2002	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SCALE:</td> <td>1:50</td> </tr> <tr> <td>DRAWING NO.:</td> <td>30-S-02-01</td> </tr> </table>		SCALE:	1:50	DRAWING NO.:	30-S-02-01
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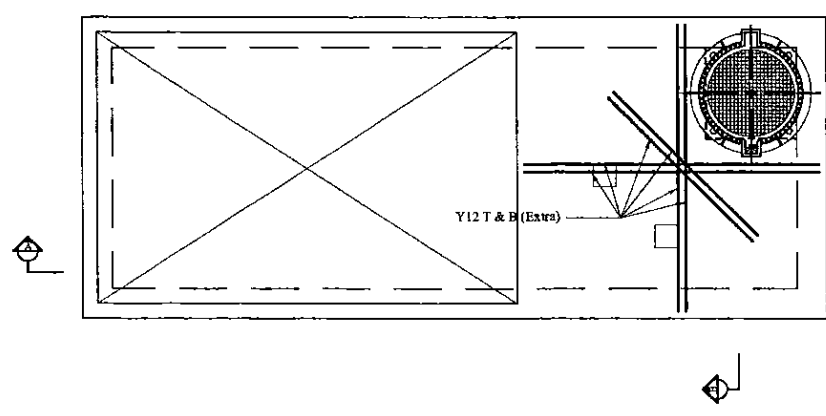
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E

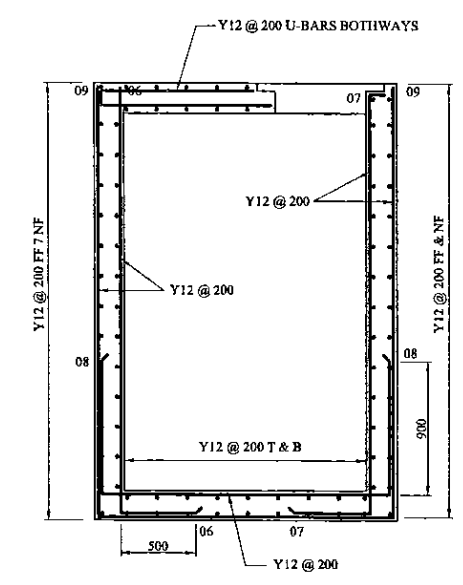
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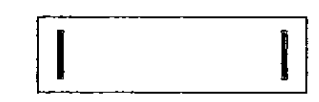
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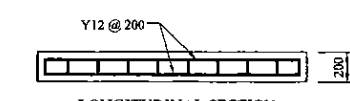
TOP SLAB PLAN



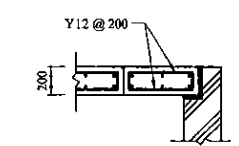
SECTION B



PLAN

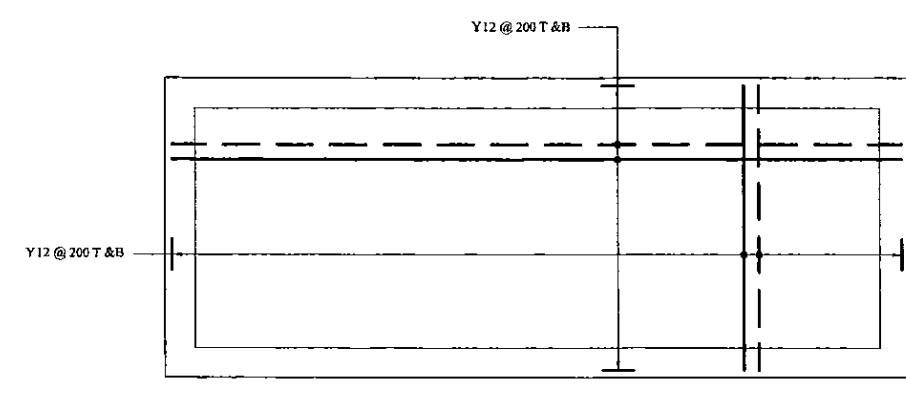


LONGITUDINAL SECTION

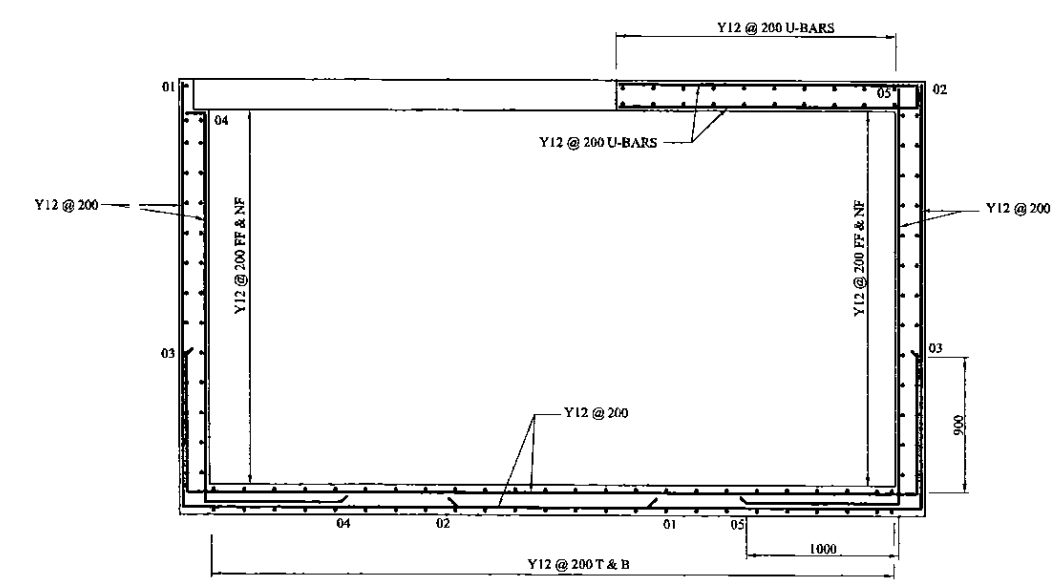


SECTION

CONCRETE OPENING COVER







BASE SLAB PLAN

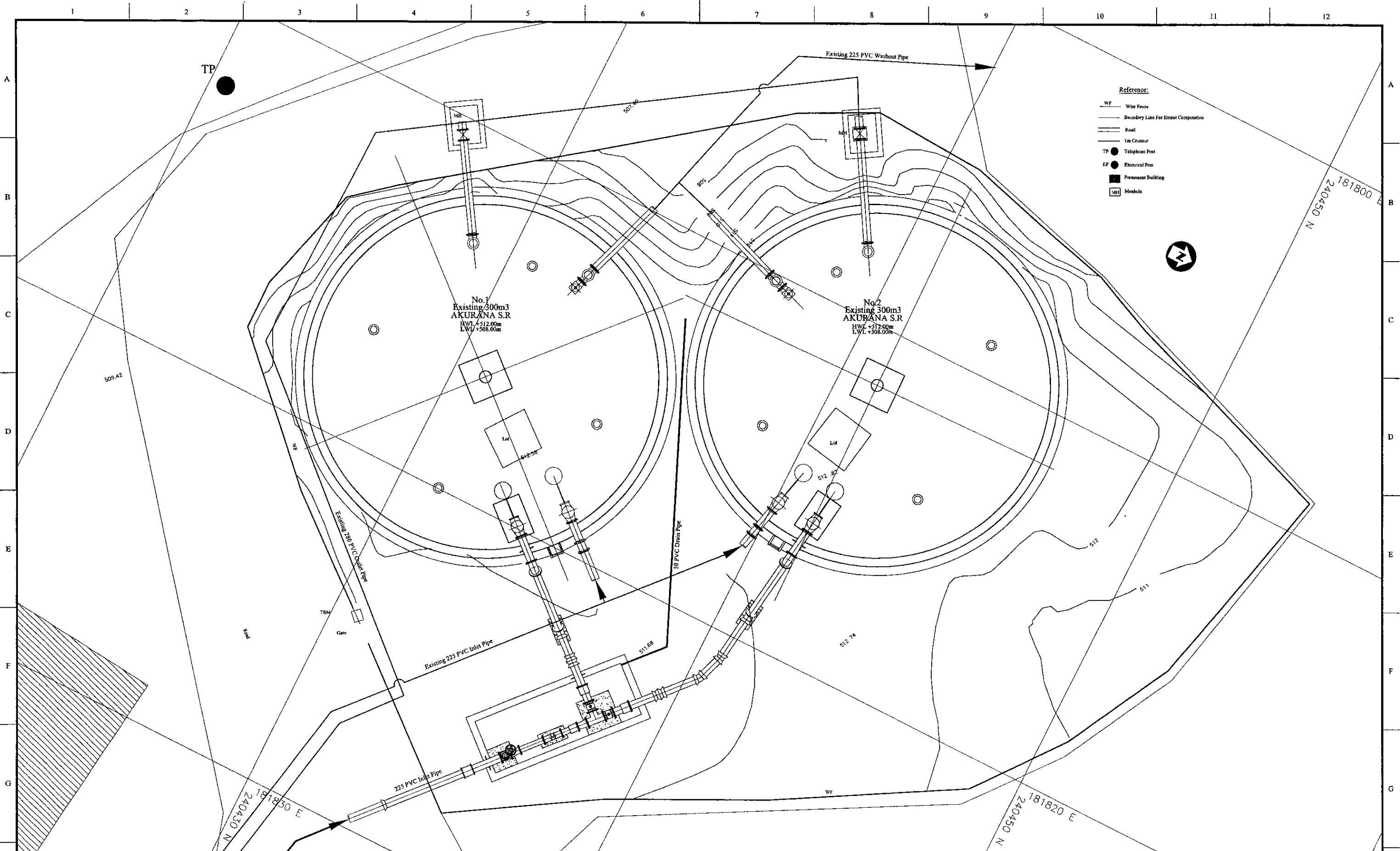


SECTION A

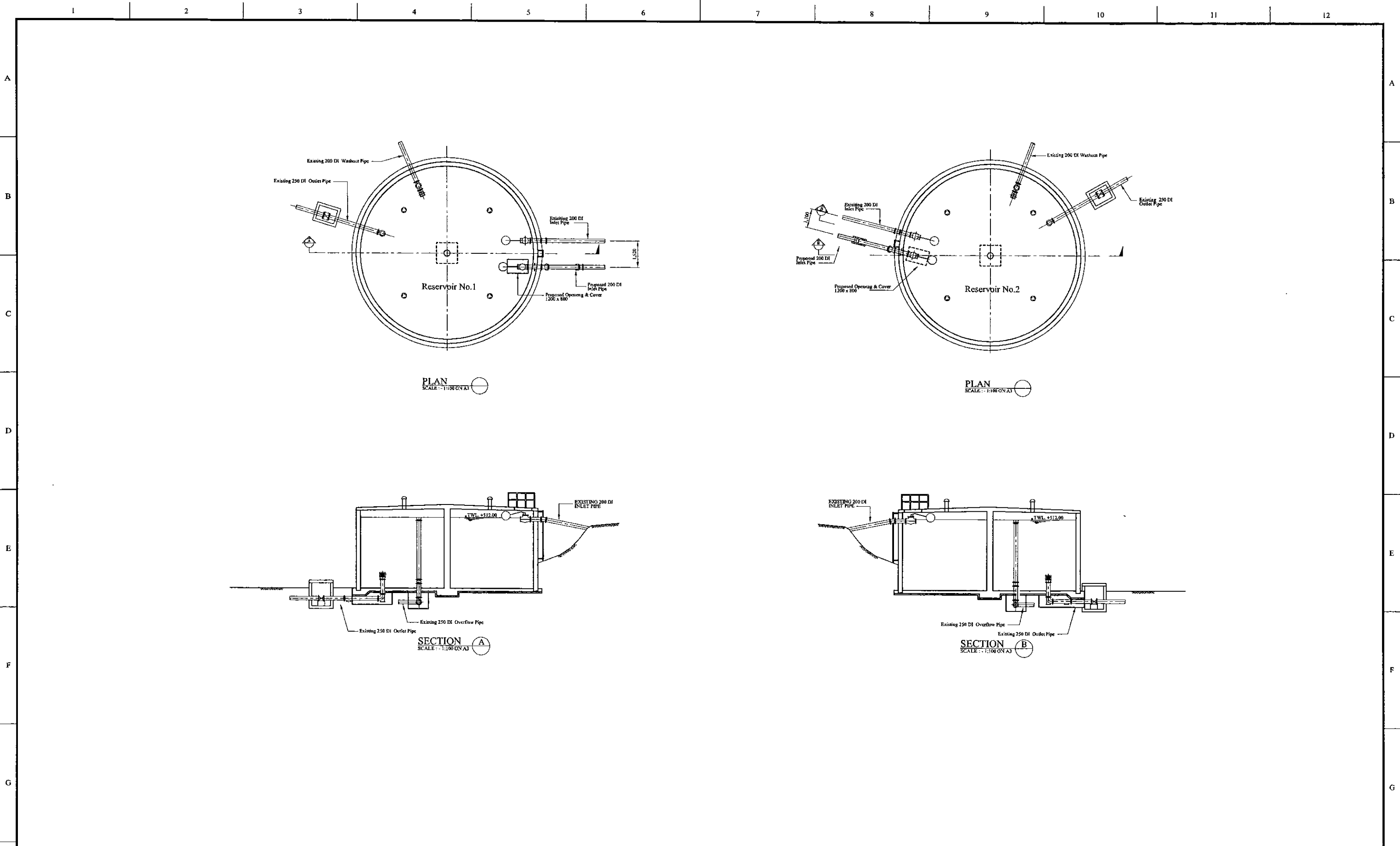
- DESIGN CODE OF PRACTICE:
- A) BS 8110 - Design of RC Concrete Structures
  - B) BS 8007 - Water Retaining Concrete Elements
  - C) BS 5950 & BS 6399 - Structural Steel Work Elements
  - D) Imposed Load to BS6399
  - E) Wind Load to CP3, Chapter V
  - F) Bearings to BS 5400
  - G) CP 2004 - Nominal Earth Load
  - H) Grade of Concrete - 25
  - J) Cover 50 mm.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: R/F DETAILS OF INLET VALVE CHAMBER - AKURANA S.R.								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-02-02

1 2 3 4 5 6 7 8 9 10 11 12



PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT PLAN OF EXISTING 600m3 AKURANA S.R</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikio MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-02-01</b>
								DESIGN CHIEF				



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: INLET PIPE ARRANGEMENT OF EXISTING AKURANA RESERVOIR -1

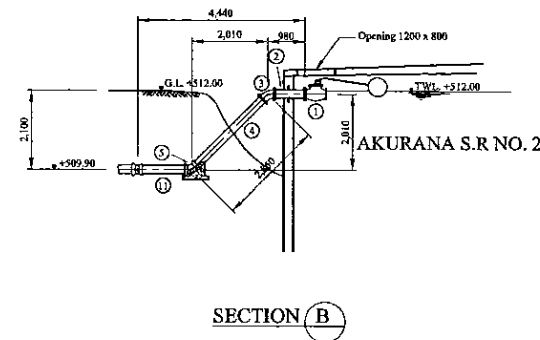
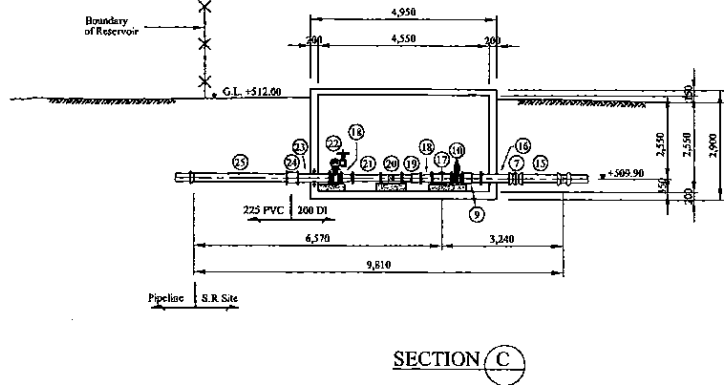
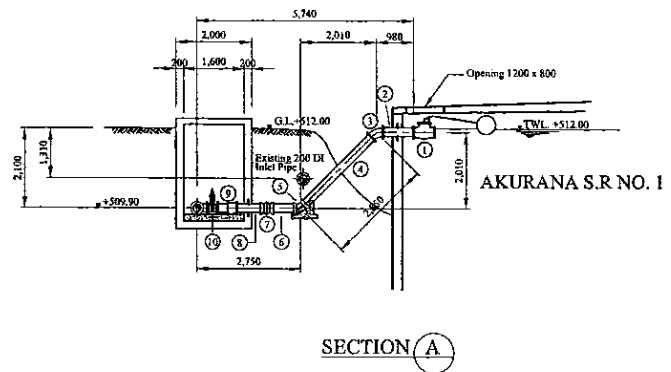
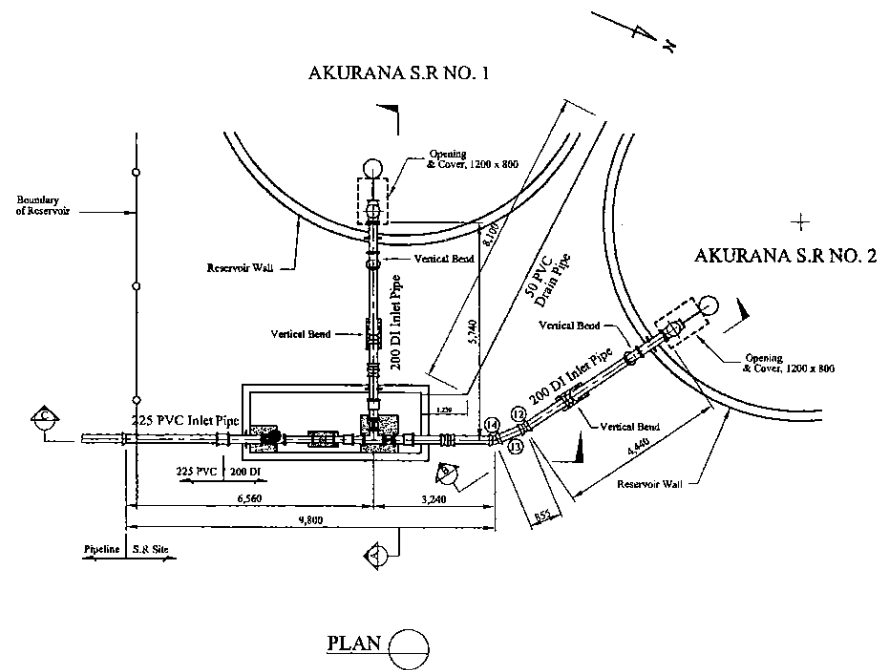
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

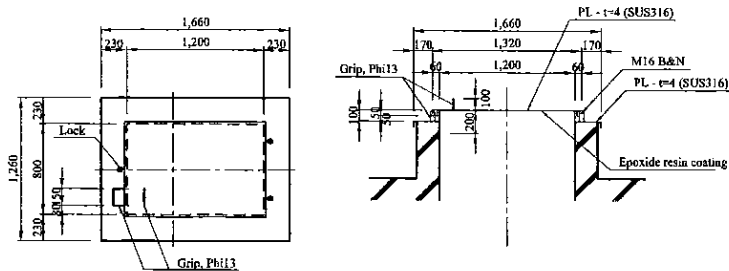
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuro MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-02-02

H

H



Manhole (800x1200mm, Water proofing type with lock)  
Scale=1:30



Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Float Valve		200		PN10	2
2	Double Flanged Piece with Puddle	DI	200	L=800mm	PN10	2
3	Double Flanged 45 degree Bend	DI	200	L=180mm x 2	PN10	2
4	Flanged Spigot Piece	DI	200	L=2,550mm	PN10, Type-T	2
5	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	2
6	Plain Ends Piece	DI	200	L=890mm	Type-T	1
7	Collar	DI	200		Type-K	2
8	Flanged Spigot Piece with Puddle	DI	200	L=790mm	PN10	1
9	Flange A adapter (DF)	DI	200	L=500mm	PN10	2
10	Sluice Valve	DI	200	L=290mm	PN10	2
11	Plain Ends Piece	DI	200	L=1,300mm	Type-T	1
12	Double Socket 11.25 degree Bend	DI	200	L=40mm x 2	Type-T	1
13	Plain Ends Piece	DI	200	L=750mm	Type-T	1
14	Double Socket 22.5 degree Bend	DI	200	L=65mm x 2	Type-T	1
15	Plain Ends Piece	DI	200	L=1,200mm	Type-T	1
16	Flanged Spigot Piece	DI	200	L=920mm	PN10, Type-T	1
17	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
18	Double Flanged 200 x 150 Taper	DI	200x150	L=300mm	PN10	2
19	Flange A adapter (DF)	DI	150	L=500mm	PN10	1
20	Flow Meter	DI	150	L=560mm	PN10	1
21	Double Flanged Piece	DI	150	L=750mm	PN10	1
22	Toothed Vane Valve	FCD	200	L=300mm	PN10	1
23	Flanged Spigot Piece with Puddle	DI	200	L=1,000mm	PN10, Type-T	1
24	Connection A adaptor (PVC/DI)	DI	200		10Bar	1
25	Straight Pipe	PVC	225	L=2,600mm	10Bar	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



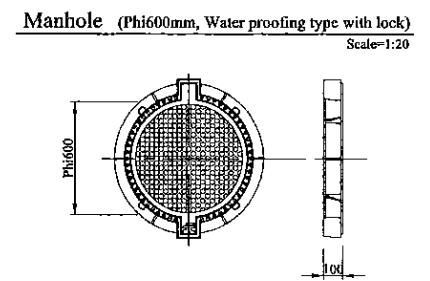
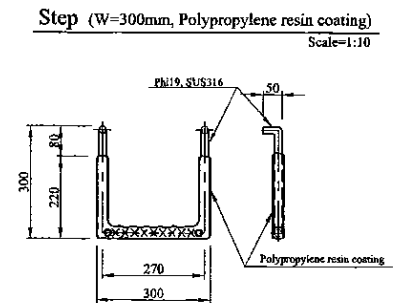
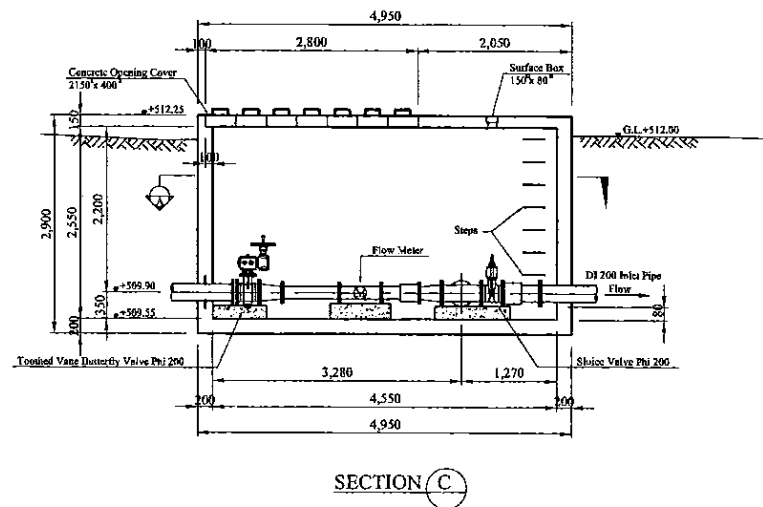
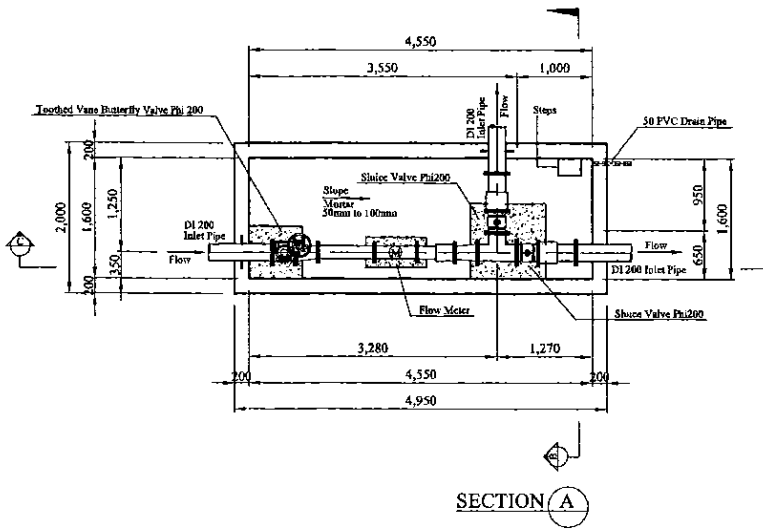
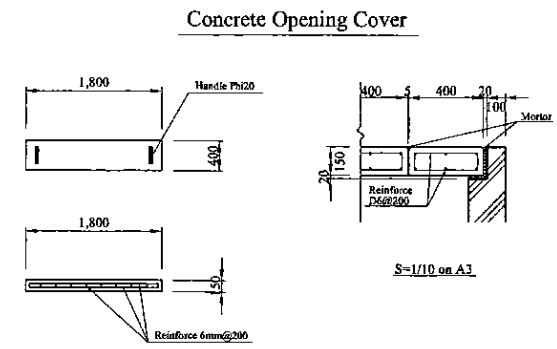
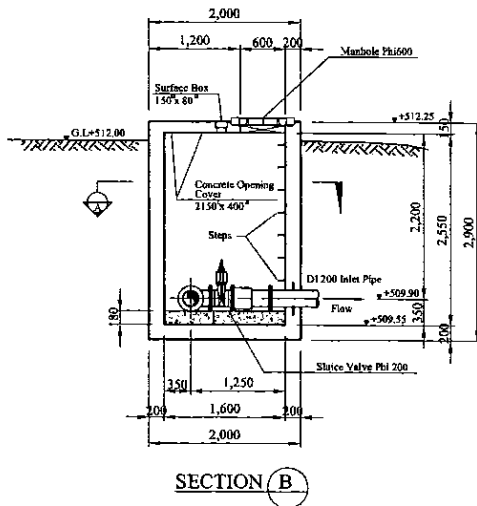
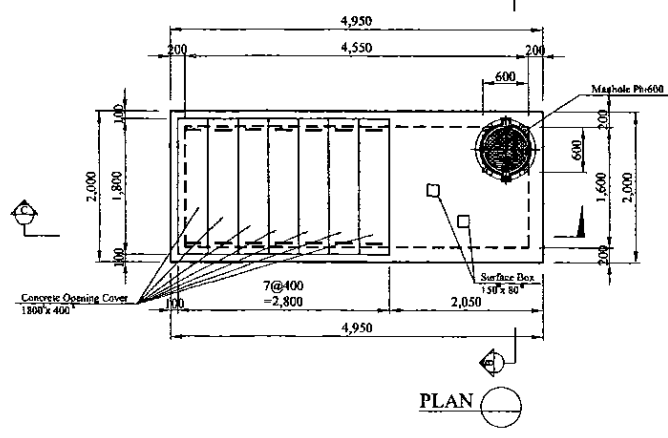
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: INLET PIPE ARRANGEMENT OF EXISTING AKURANA RESERVOIR -2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

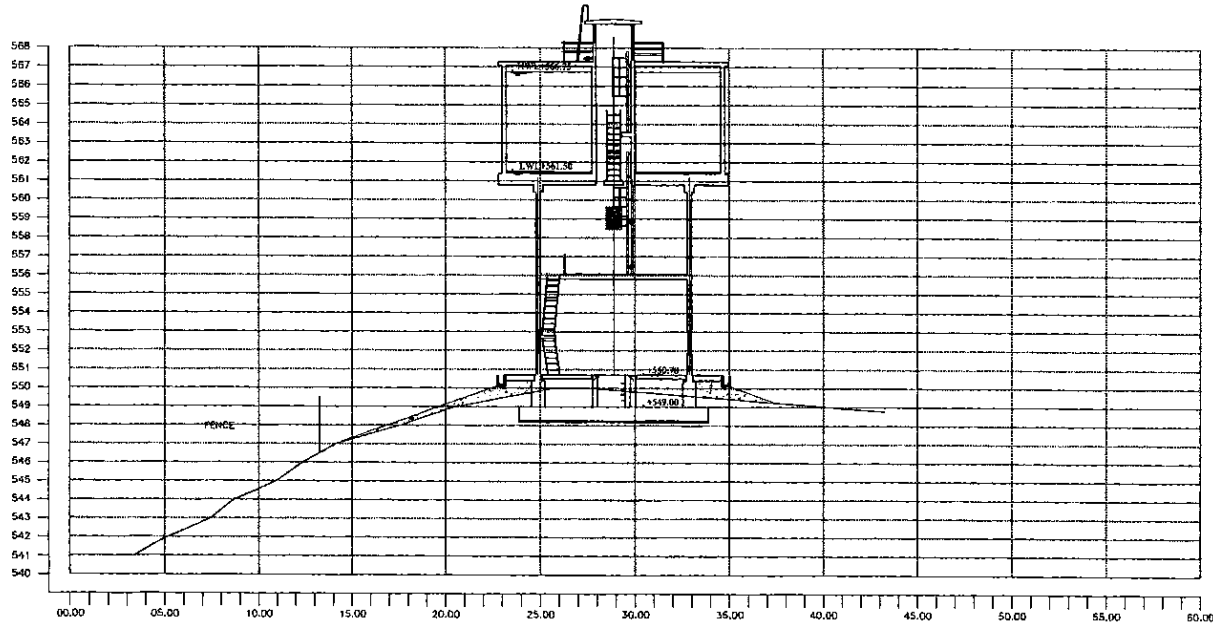
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-02-03



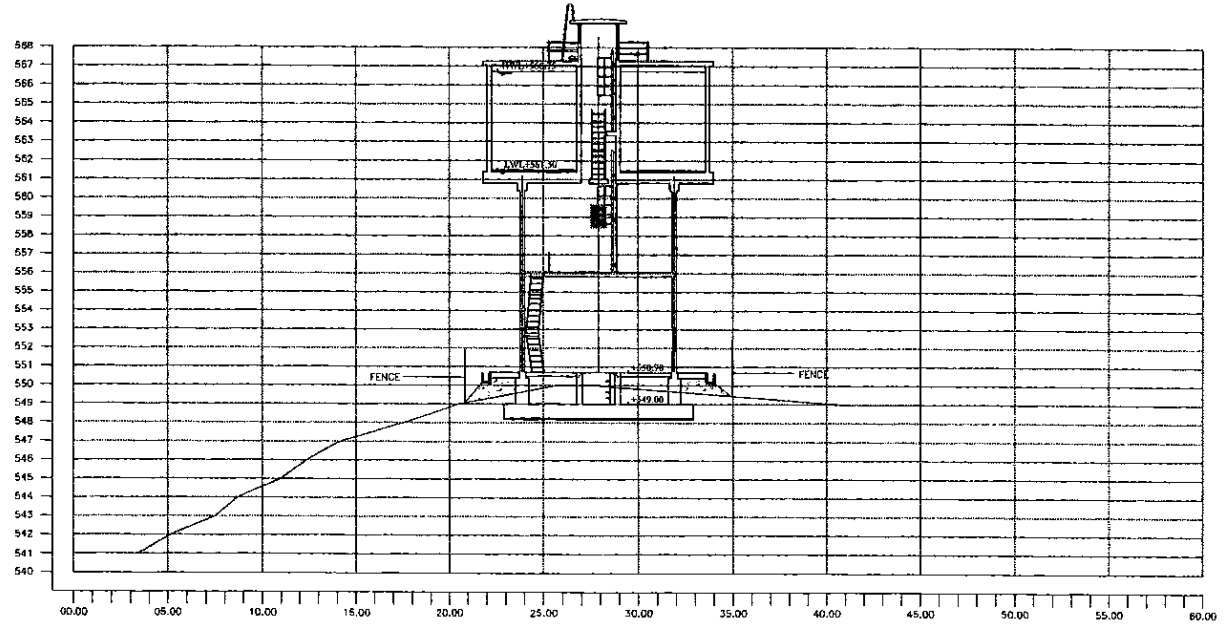
Valve Chamber

\* Contractor should provide concrete and/or metal pipe support.

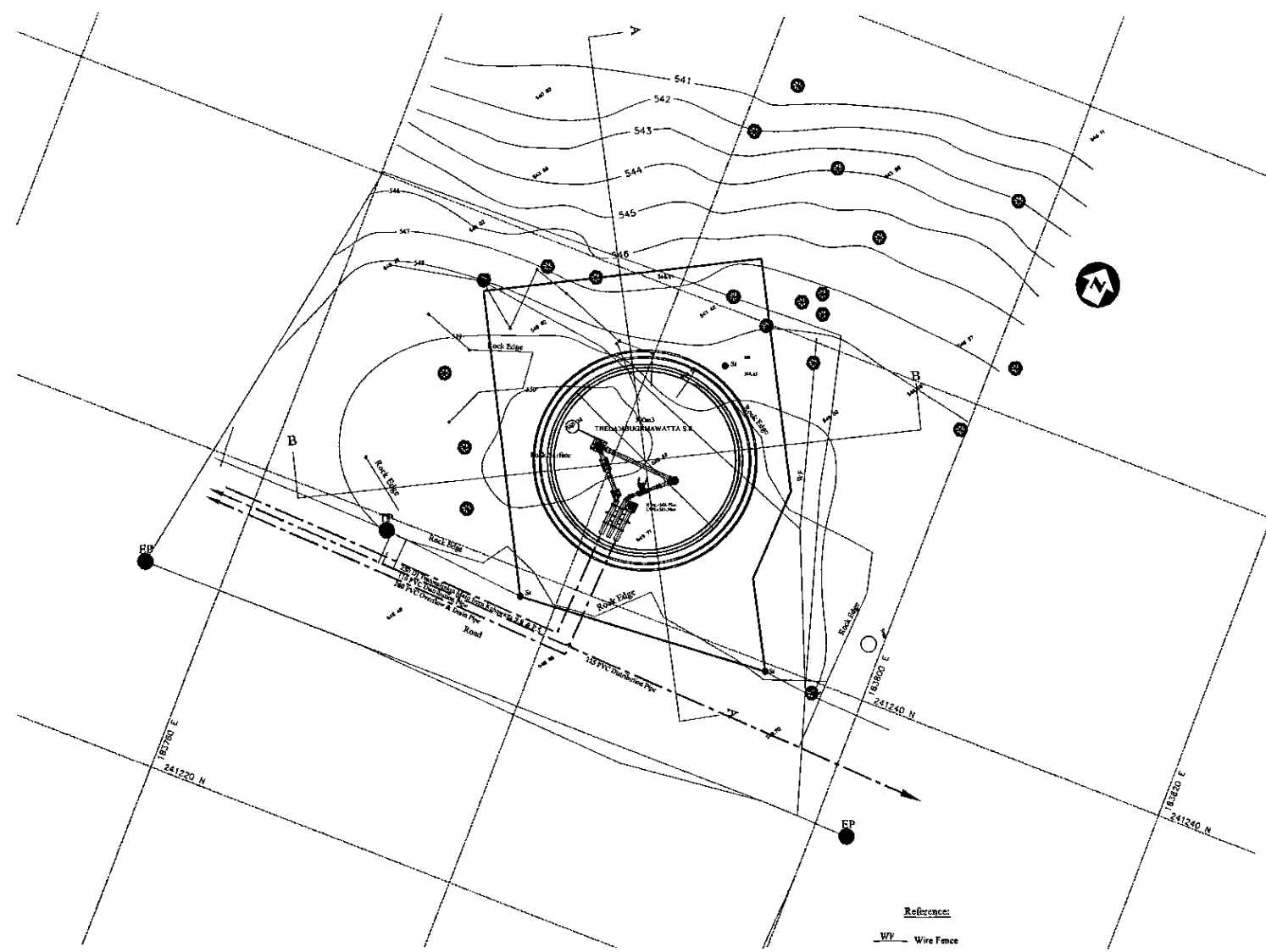
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>INLET FLOW METER &amp; CONTROL VALVE CHAMBER OF AKURANA S.R</b>								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-02-04
								DESIGN CHIEF:				



SECTION A-A  
1:200



SECTION B-B  
1:200



PLAN  
1:200

- Reference:
- WF Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - 1m Contour
  - TP Telephone Post
  - EP Electrical Post
  - St Stake
  - BH Stake
- DATUM - National Geodesic Datum S.L.D.99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF 500m<sup>3</sup> THELAMBUGAHAWATTA S.R.

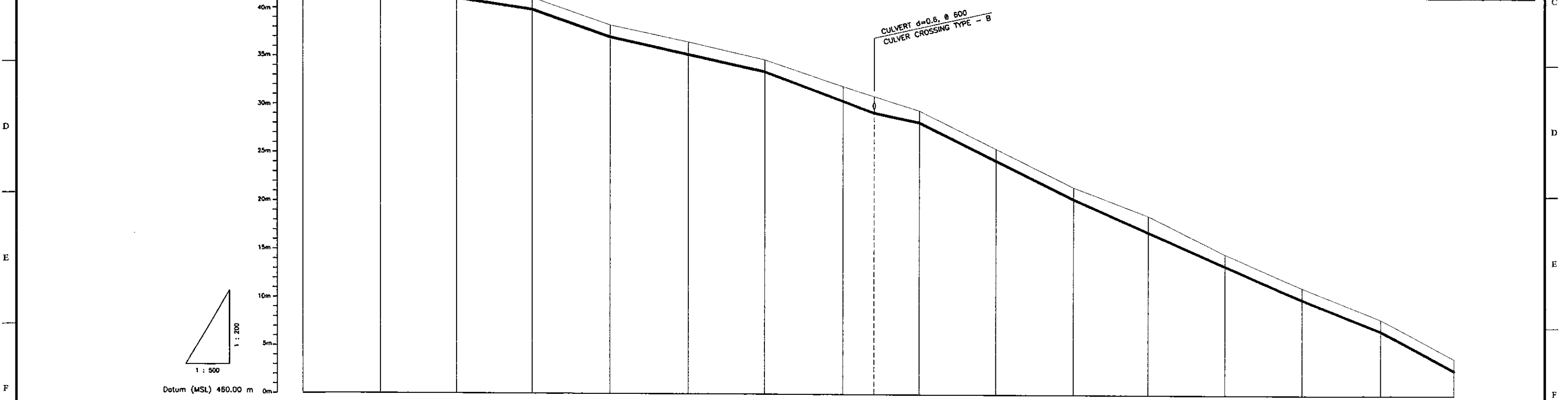
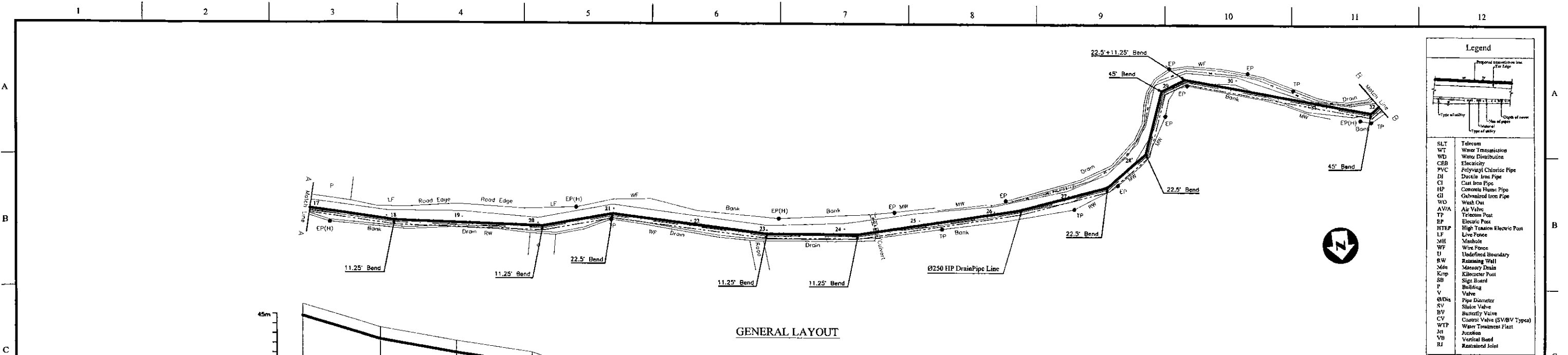
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



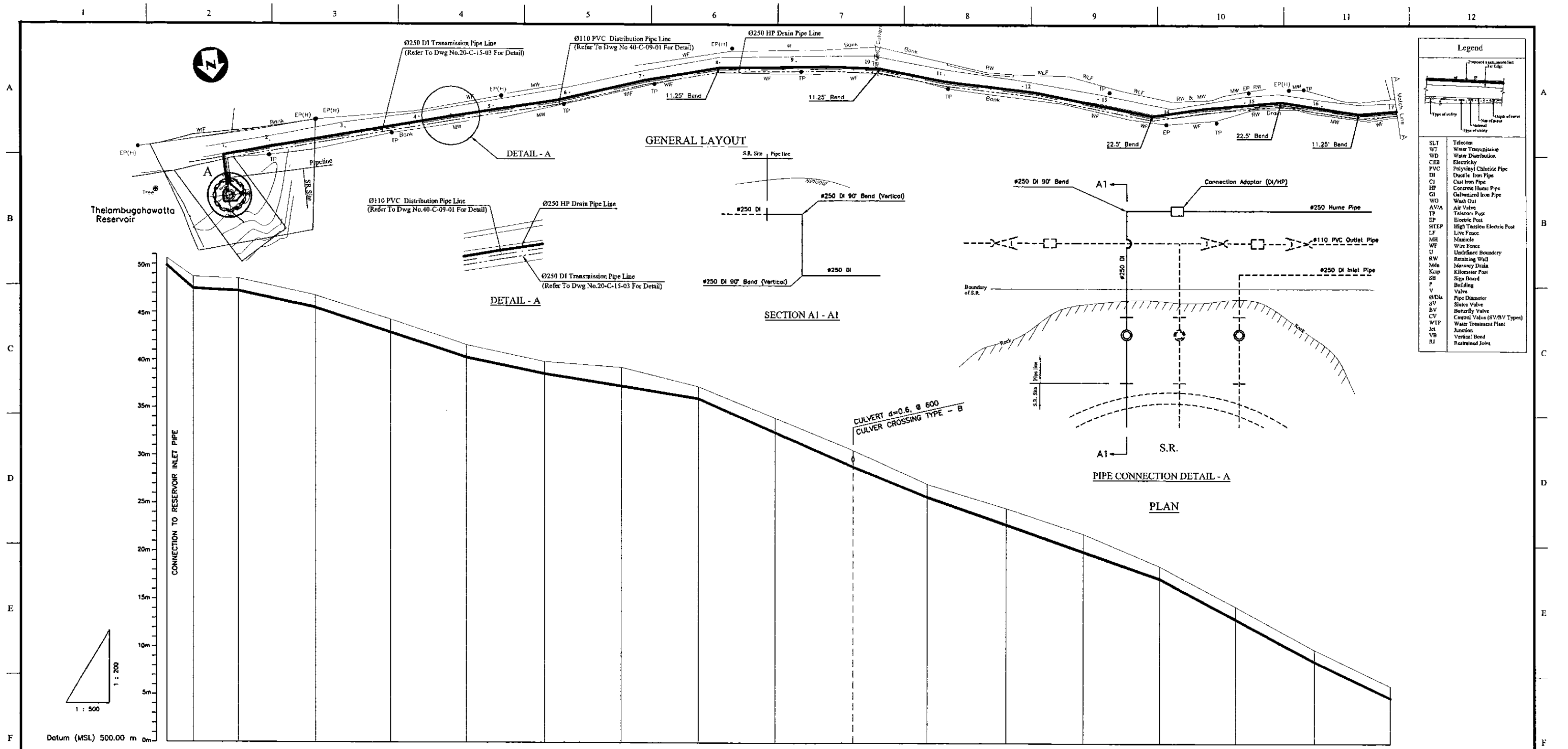
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				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:200
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-03-01



Ground Level (m)	506.05	503.61	502.25	501.06	498.24	498.50	494.67	492.41	491.09	489.44	488.92	481.57	476.65	474.89	471.23	467.96	463.05
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	504.77	502.33	500.97	499.80	496.96	494.67	493.39	489.31	488.16	480.29	473.41	469.95	466.96	465.57	462.57	457.57	452.57
Pipe Data	Ø 250 CONCRETE HUME PIPE																
Single Distance (m)	19.96	19.80	19.64	19.92	20.02	20.16	19.90	20.05	19.76	19.81	19.91	19.30	19.85	20.03	20.26	19.96	19.96
Cumulative Distance (m)	319.20	339.00	358.64	378.56	398.58	418.74	438.64	458.59	478.35	498.16	518.07	537.37	557.22	577.25	597.51	618.46	639.42
Station No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	32

LONGITUDINAL SECTION

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	TITLE: <b>WASHOUT FROM THELAMBUGAHAWATTA S.R.</b>	SHEET 1 OF 3																
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV.	DESCRIPTION	DATE	SIGN.					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>DESIGNED: <b>Koichi OKAZAKI</b></td> <td>DRAWN: <b>Ravi U.</b></td> <td>PM: (CONSULTANT) <b>Ikuo MIWA</b></td> <td>CE: (P&amp;D)</td> </tr> <tr> <td>CHECKED: <b>AGM: (P&amp;D)</b></td> <td>DGM: (P&amp;D)</td> <td>DATE: <b>31/05/2002</b></td> <td>DRAWING NO.: <b>30-C-03-02</b></td> </tr> </table>	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	CHECKED: <b>AGM: (P&amp;D)</b>	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-03-02</b>
REV.	DESCRIPTION	DATE	SIGN.																
DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)																
CHECKED: <b>AGM: (P&amp;D)</b>	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-03-02</b>																



Legend	
SLT	Telephone
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Home Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AV/A	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wave Fence
U	Underside Boundary
RW	Retaining Wall
Md	Manure Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant
Jet	Junction
VB	Vertical Bend
RJ	Restrained Joint

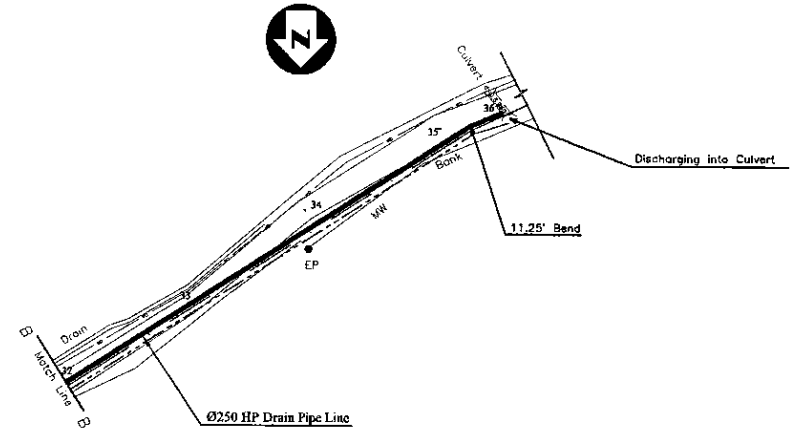
Station No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Ground Level (m)	550.63	548.70	546.55	546.82	544.29	541.59	539.80	539.27	537.30	533.95	530.71	527.03	524.58	521.96	518.63	514.23	509.89	508.05	
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	549.87	547.42	547.24	545.34	540.31	541.59	536.80	539.27	536.02	537.30	528.03	525.75	527.03	521.96	517.35	518.63	508.01	508.77	
Pipe Data	# 250 CONCRETE HUME PIPE																		
Single Distance (m)	0.00	7.00	11.00	20.04	19.56	19.87	20.18	19.90	20.27	20.03	20.28	19.47	20.41	20.14	19.96	19.89	20.63	19.96	
Cumulative Distance (m)	0.00	7.00	18.00	38.04	57.60	77.47	97.65	117.55	137.82	157.85	178.14	197.61	218.02	238.16	258.12	278.01	298.64	318.60	

LONGITUDINAL SECTION

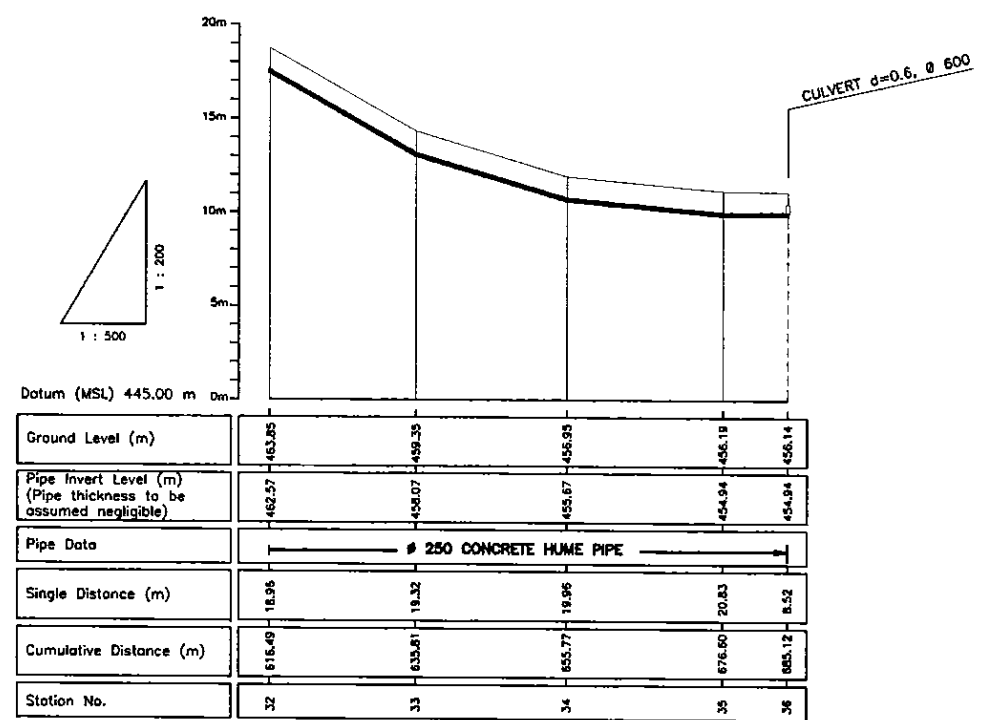
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WASHOUT FROM THELAMBUGAHAWATTA S.R.				SHEET 2 OF 3				
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-03-03



Legend	
SLI	Telephone
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete House Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
A/A	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
FW	Retaining Wall
Md	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant
Jct	Junction
VB	Vertical Bend
RJ	Reinforced Joint

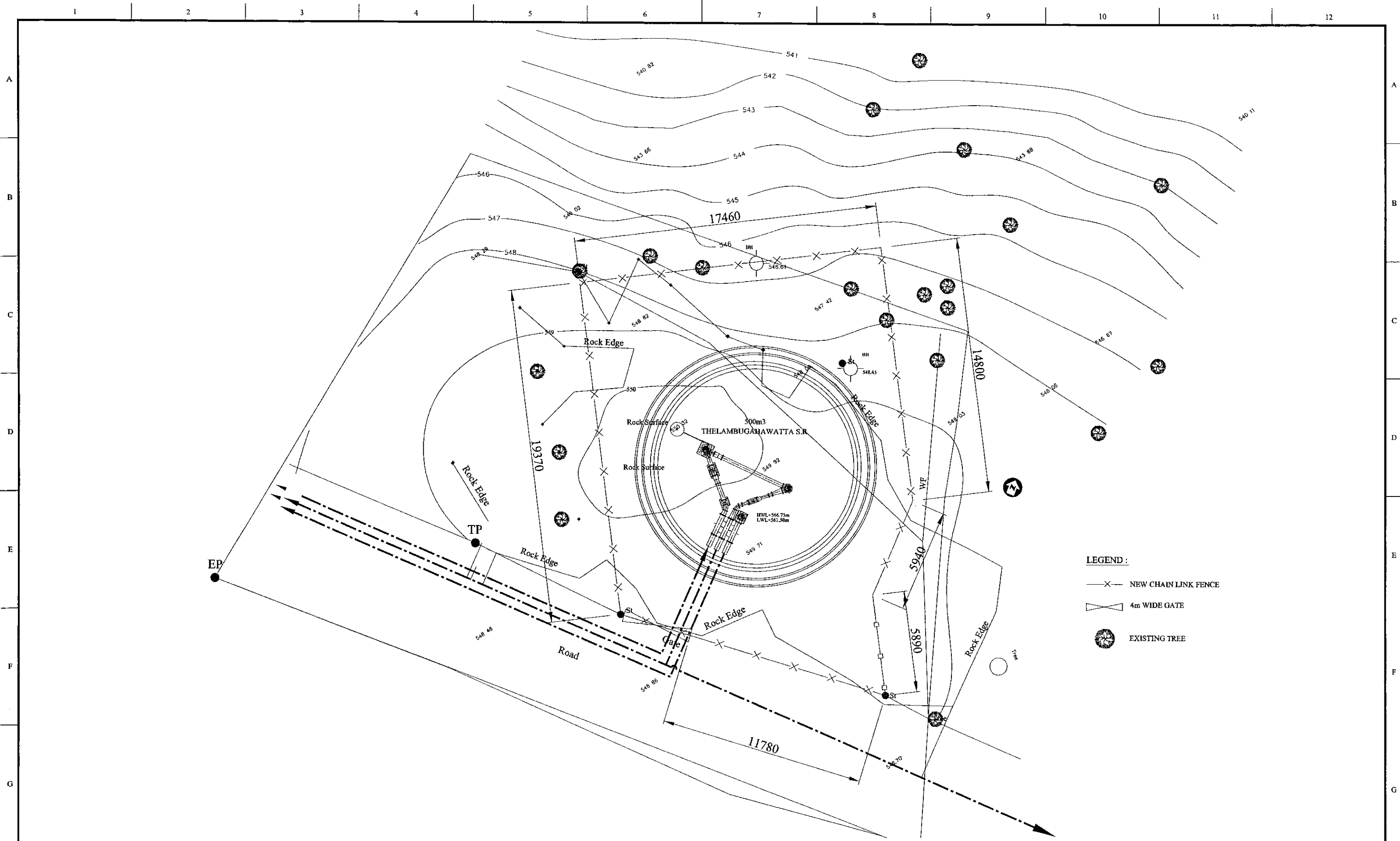


GENERAL LAYOUT



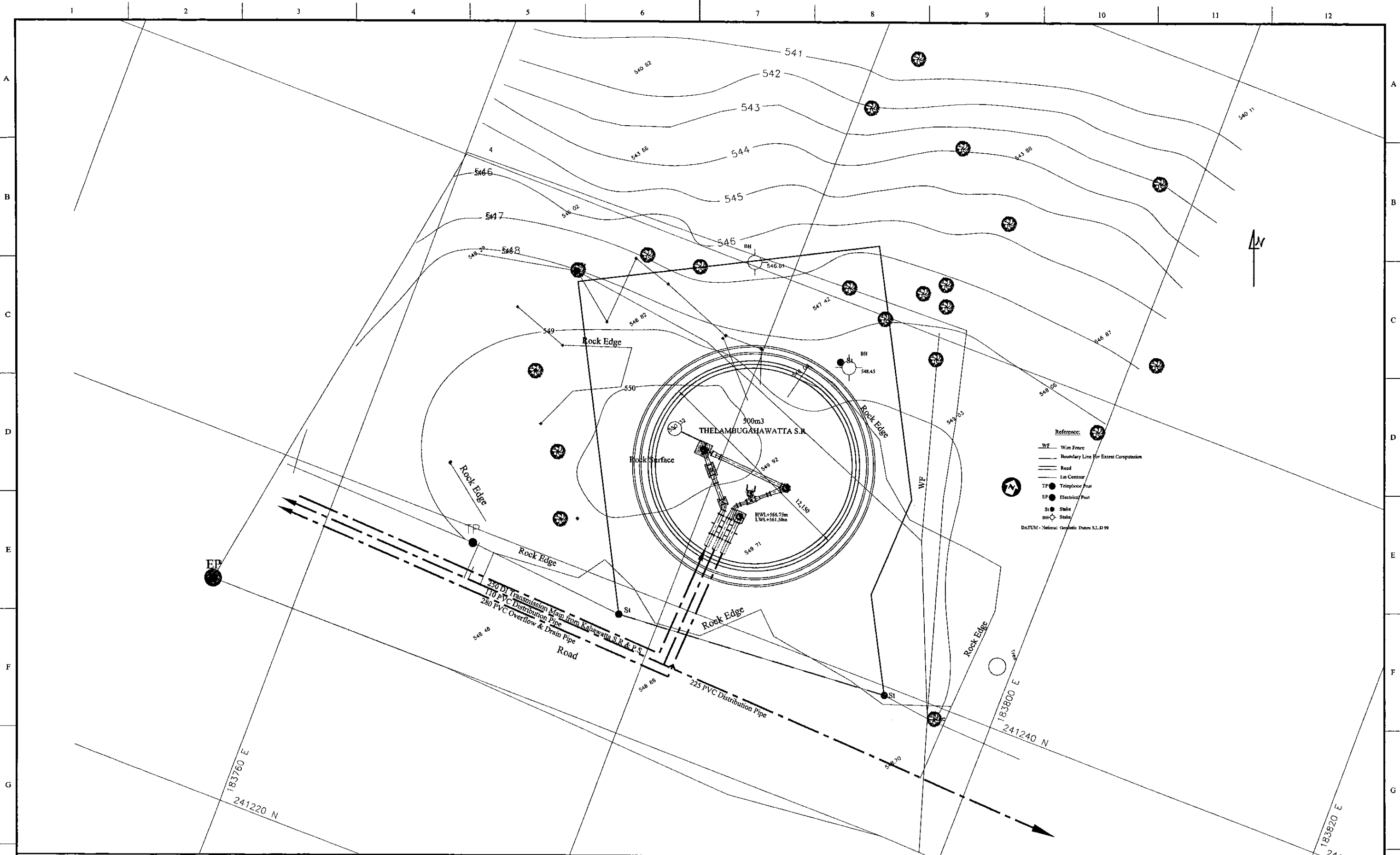
LONGITUDINAL SECTION

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: THELAMBUGAHAWATTA JUNCTION TO THELAMBUGAHAWATTA RESERVOIR - TRANSMISSION MAIN				SHEET 3 OF 3				
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-03-04



- LEGEND :**
- X — NEW CHAIN LINK FENCE
  - ⌞ 4m WIDE GATE
  - 🌳 EXISTING TREE

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	<b>TITLE:</b> 500m3 THELAMBUGAHAWATTA S.R. LANDSCAPING LAYOUT																									
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> POORNA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1:100
REV.	DESCRIPTION	DATE	SIGN.																								
		<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-C-03-05																					



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: THELAMBUGAHAWATTA SERVICE RESERVOIR SITE PLAN

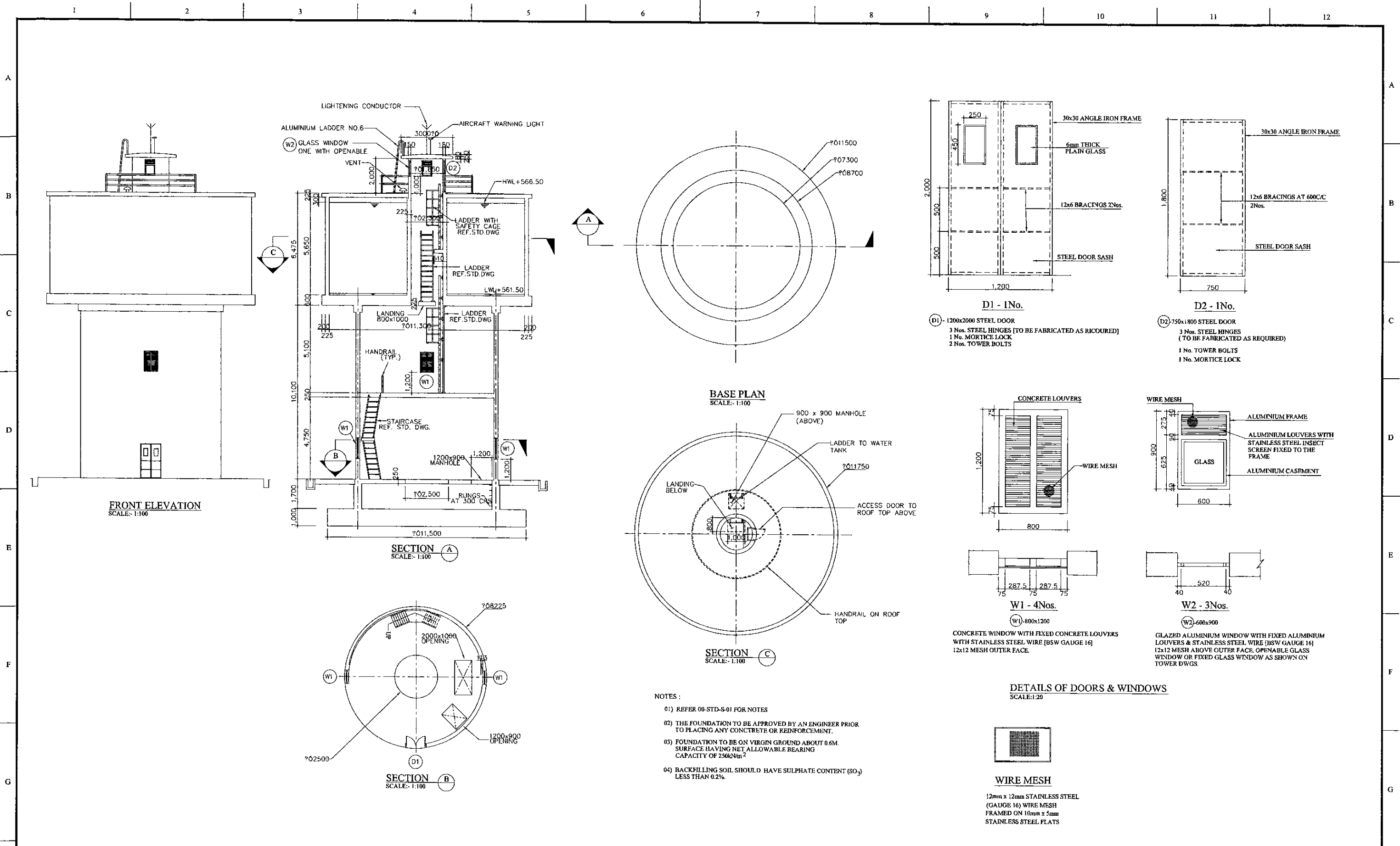
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		1:100
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				DESIGN CHIEF			31/05/2002	30-S-03-01

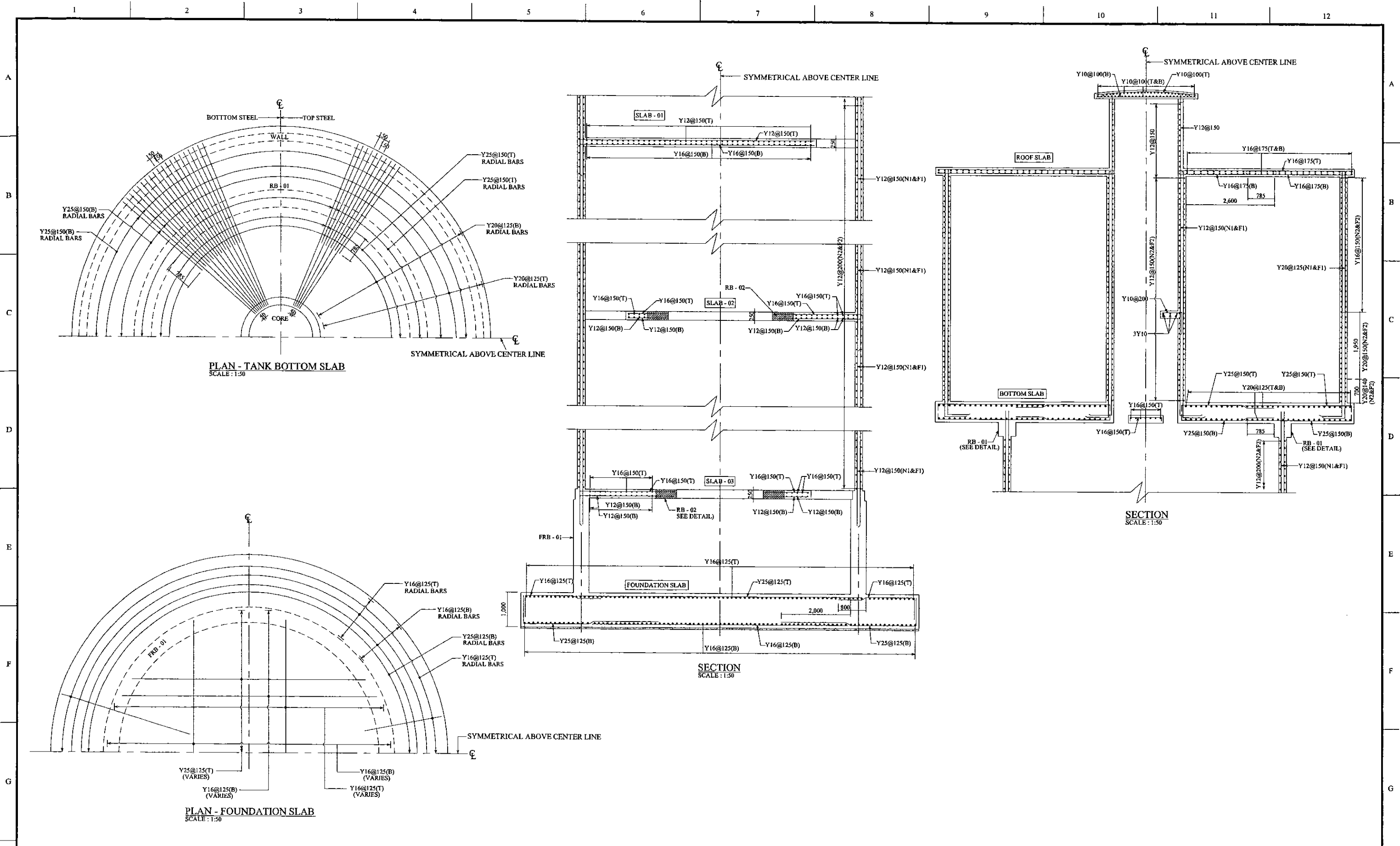


- NOTES :
- 01) REFER 00-STD-S-01 FOR NOTES
  - 02) THE FOUNDATION TO BE APPROVED BY AN ENGINEER PRIOR TO PLACING ANY CONCRETE OR REINFORCEMENT.
  - 03) FOUNDATION TO BE ON VIRGIN GROUND ABOUT 0.6M. SURFACE HAVING NET ALLOWABLE BEARING CAPACITY OF 250kN/m<sup>2</sup>
  - 04) BACKFILLING SOIL SHOULD HAVE SULPHATE CONTENT (SO<sub>3</sub>) LESS THAN 0.2%.

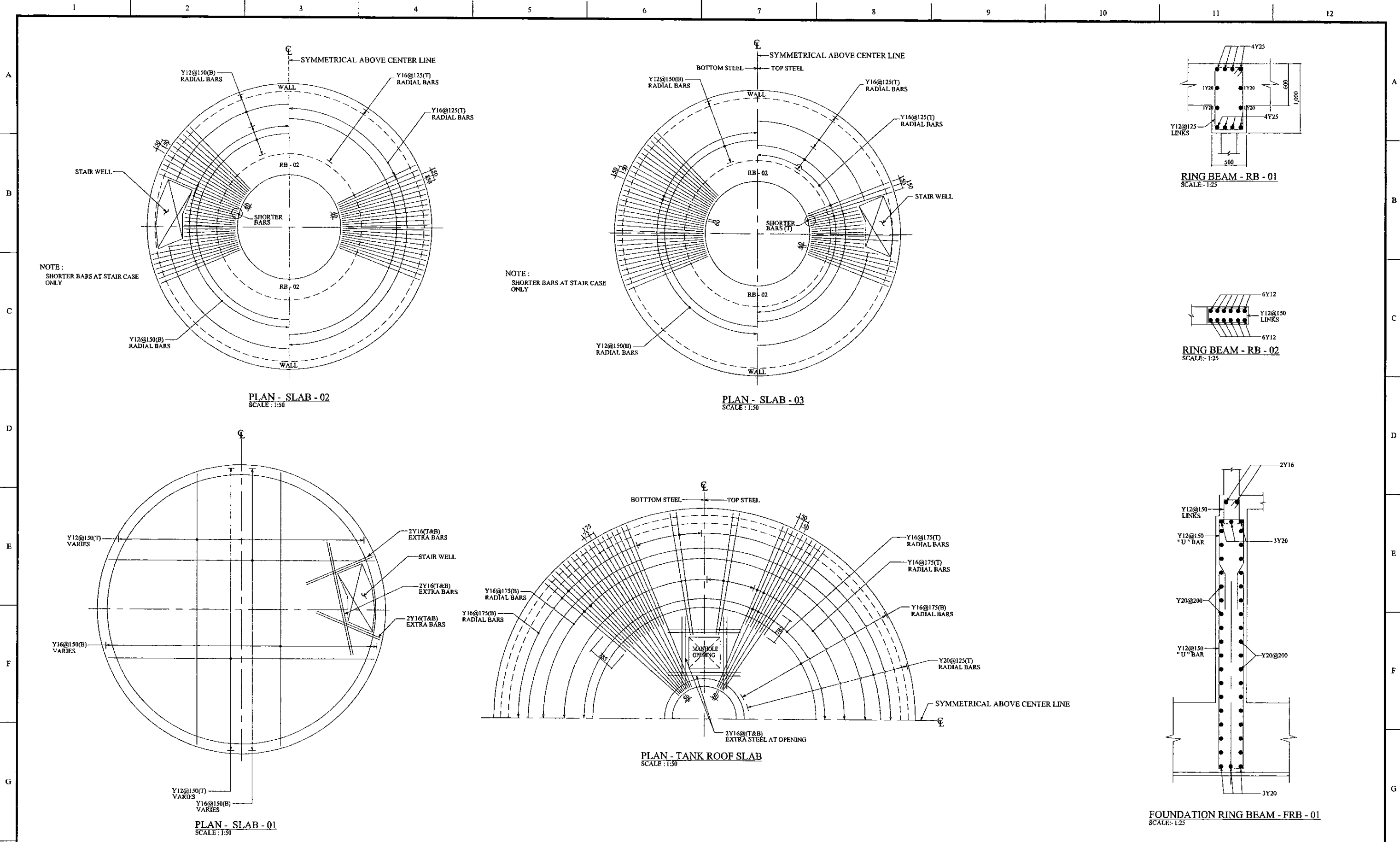
**DETAILS OF DOORS & WINDOWS**  
SCALE: 1:20

**WIRE MESH**  
12mm x 12mm STAINLESS STEEL  
(GAUGE 16) WIRE MESH  
FRAMED ON 10mm x 5mm  
STAINLESS STEEL PLATS

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: TELABUGAHAWATTA WATER TOWER - GENERAL ARRANGEMENT								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-03-02



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: THELAMBUGAHAWATTA SERVICE RESERVOIR - R/F DETAILS - FOUNDATION SLAB, TANK BOTTOM SLAB								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
				CHECKED: DESIGN CHIEF				AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-03-03	



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

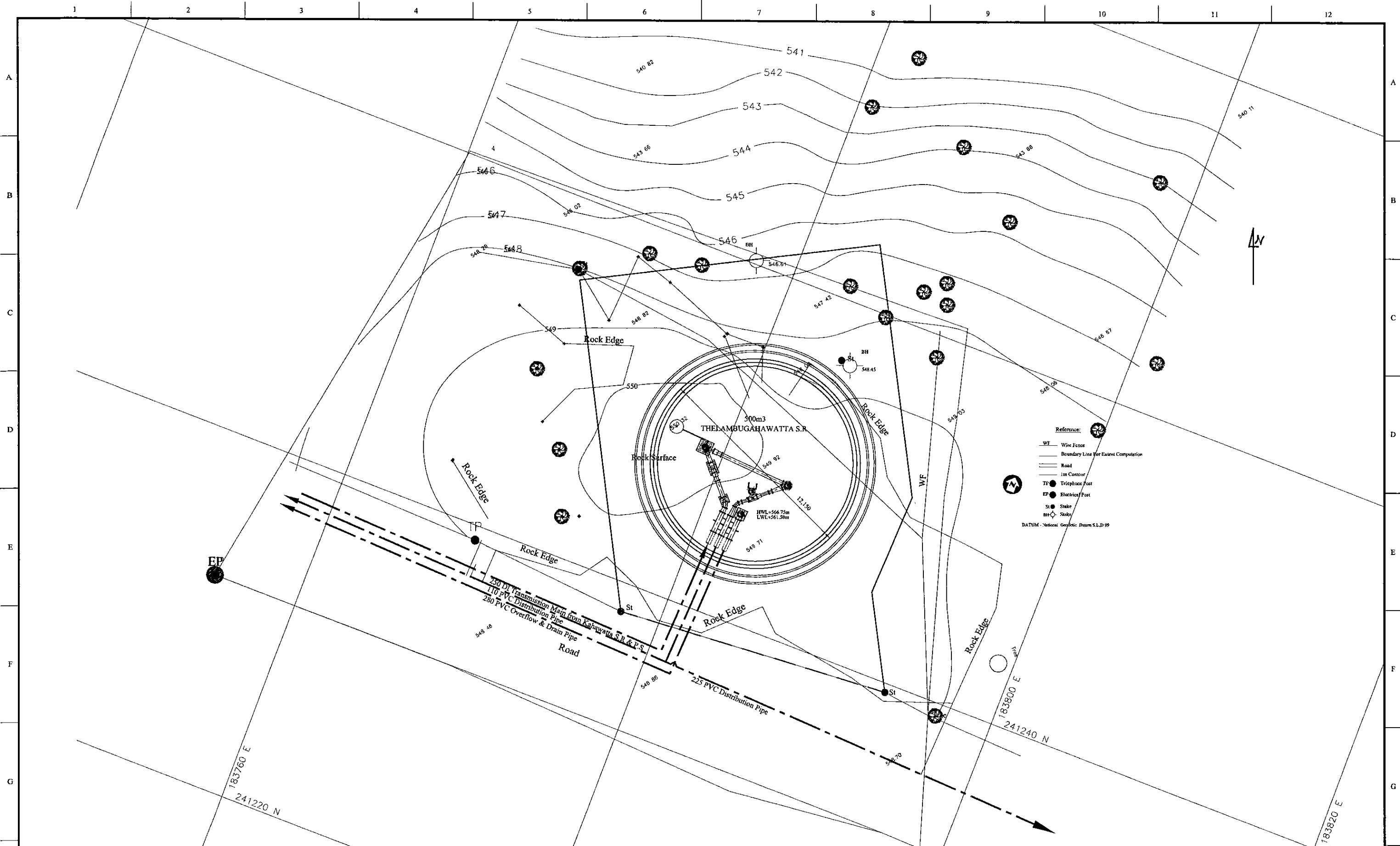
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: THELAMBUGAHAWATTA SERVICE RESERVOIR - R/F DETAILS - SLABS & RING BEAMS

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-03-04



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

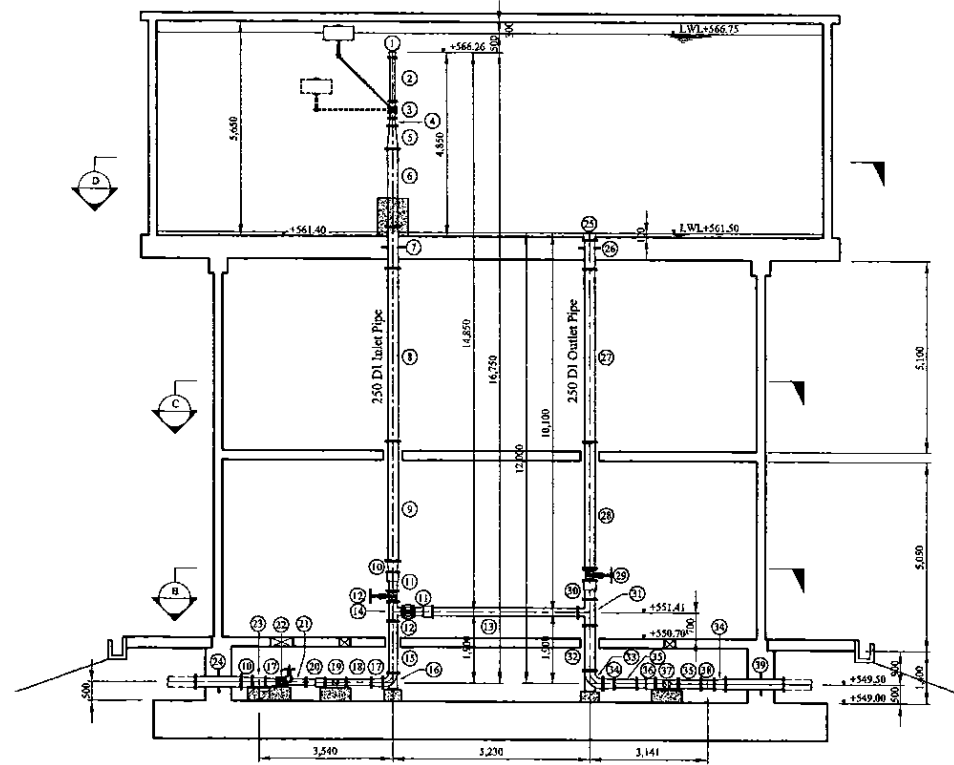
TITLE: PIPE LAYOUT PLAN OF 500m3 THELAMBUGAHAWATTA S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

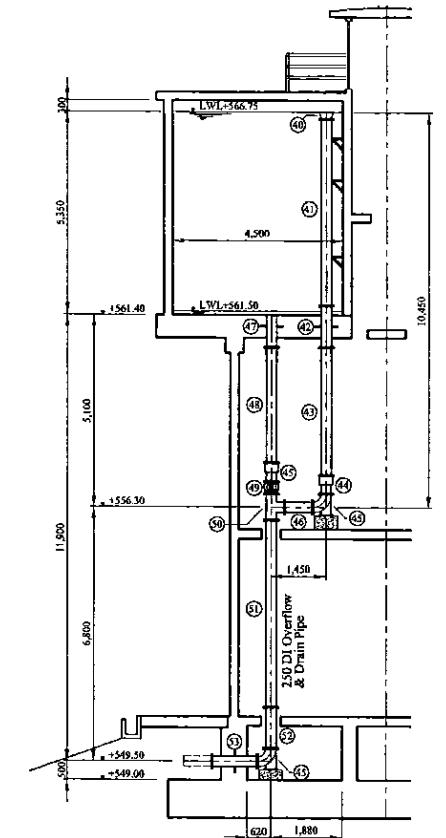
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-03-01

A  
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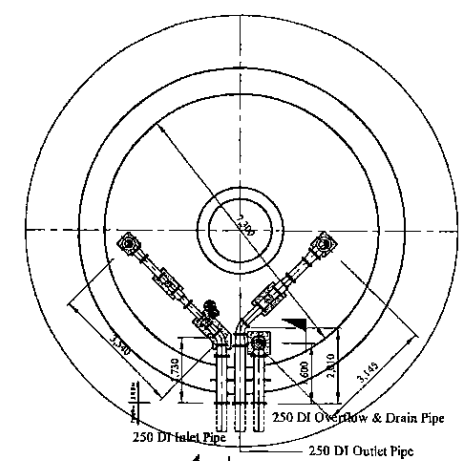
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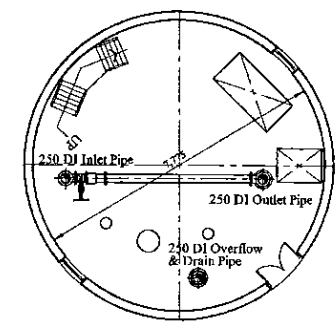
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Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	1
2	Double Flanged Piece	SP	125	L=1,150mm	PN10	1
3	Butterfly Floor Valve	SUS	125	L=450mm	PN10	1
4	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	1
5	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	1
6	Double Flanged Piece	DI	250	L=2,050mm	PN10	1
7	Double Flanged Piece with Puddle	DI	250	L=1,100mm	PN10	1
8	Double Flanged Piece	DI	250	L=4,600mm	PN10	1
9	Double Flanged Piece	DI	250	L=3,460mm	PN10	1
10	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
11	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
12	Sluice Valve	DI	200	L=290mm	PN10	3
13	Double Flanged Piece	DI	200	L=3,855mm	PN10	1
14	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
15	Double Flanged Piece	DI	250	L=1,380mm	PN10	1
16	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	1
17	Double Flanged 200 x 150 Taper	DI	200x150	L=300mm	PN10	2
18	Double Flanged Piece	DI	150	L=660mm	PN10	1
19	Flow Meter		150	L=560mm	PN10	1
20	Flange Adapter (DF)	DI	150	L=500mm	PN10	1
21	Double Flanged Piece	DI	150	L=500mm	PN10	1
22	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
23	Double Flanged 45 degree Bend	DI	200	L=180mm x 2	PN10	1
24	Double Flanged Piece with Puddle	DI	250	L=1,245mm	PN10	1
25	Flanged Bellmouth	DI	250	L=185mm	PN10	1
26	Double Flanged Piece with Puddle	DI	250	L=765mm	PN10	1
27	Double Flanged Piece	DI	250	L=2,600mm	PN10	1
28	Double Flanged Piece	DI	250	L=3,620mm	PN10	1
29	Sluice Valve	DI	250	L=330mm	PN10	1
30	Flange Adapter (DF)	DI	250	L=500mm	PN10	1
31	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
32	Double Flanged Piece	DI	250	L=1,200mm	PN10	1
33	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	1
34	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
35	Double Flanged Piece	DI	200	L=600mm	PN10	2
36	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
37	Flow Meter		200	L=610mm	PN10	1
38	Double Flanged 45 degree Bend	DI	200	L=180mm x 2	PN10	1
39	Double Flanged Piece with Puddle	DI	250	L=1,530mm	PN10	1
40	Flanged Bellmouth	DI	250	L=185mm	PN10	1
41	Double Flanged Piece	DI	250	L=4,915mm	PN10	1
42	Double Flanged Piece with Puddle	DI	250	L=1,100mm	PN10	1
43	Double Flanged Piece	DI	250	L=3,400mm	PN10	1
44	Socket Plain End Piece	DI	200	L=500mm	PN10	2
45	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	2
46	Double Flanged Piece	DI	250	L=750mm	PN10	1
47	Flanged Spigot Piece with Puddle	DI	250	L=850mm	PN10, Type-T	1
48	Double Flanged Piece	DI	250	L=3,070mm	PN10	1
49	Sluice Valve	DI	250	L=330mm	PN10	1
50	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
51	Double Flanged Piece	DI	250	L=5,000mm	PN10	1
52	Double Flanged Piece	DI	250	L=1,100mm	PN10	1
53	Double Flanged Piece with Puddle	DI	250	L=1,220mm	PN10	1

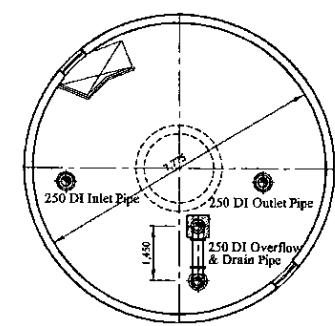
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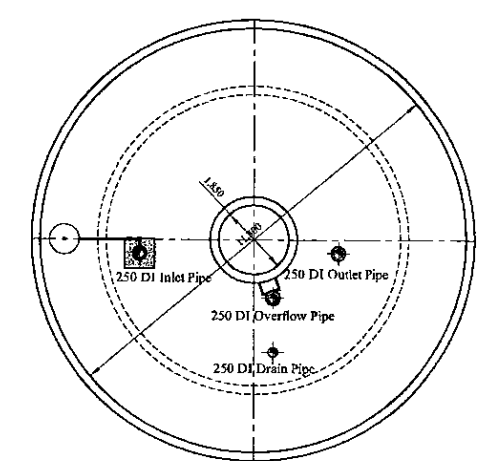
BASE PLAN  
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SECTION B  
SCALE: 1:100



SECTION C  
SCALE: 1:100

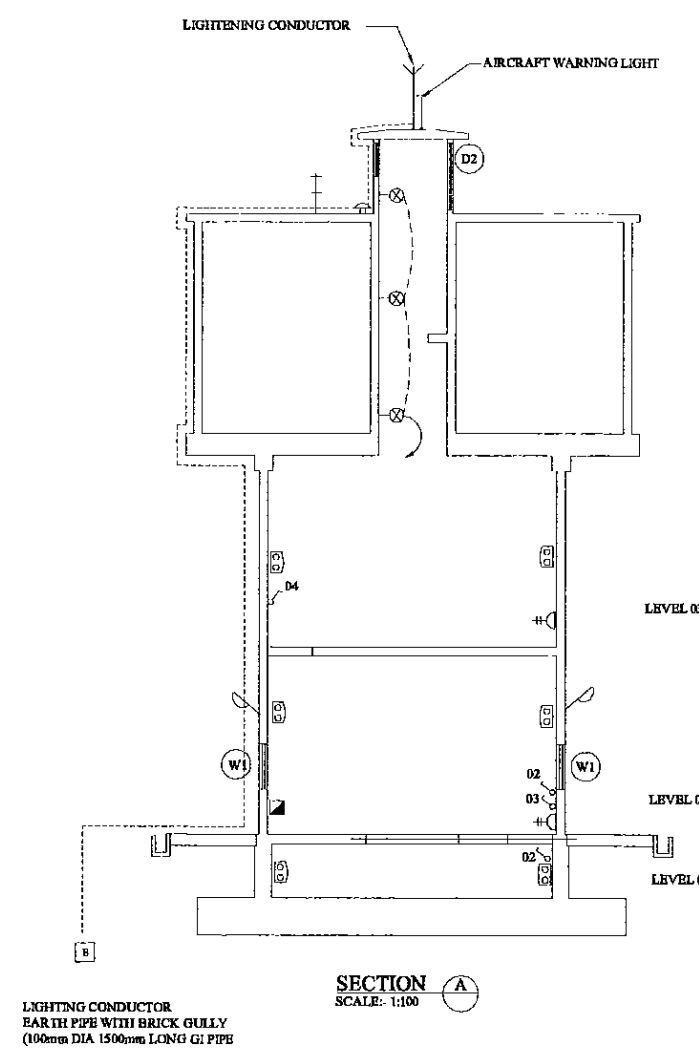


SECTION D  
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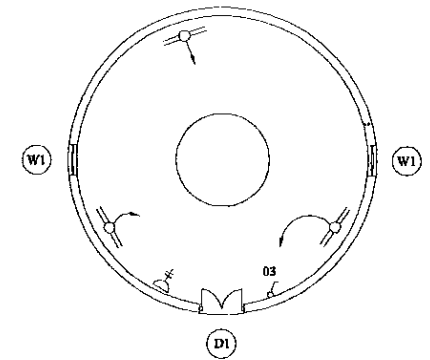
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF THE LAMBUGAHAWATTA S.R								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: 1:100
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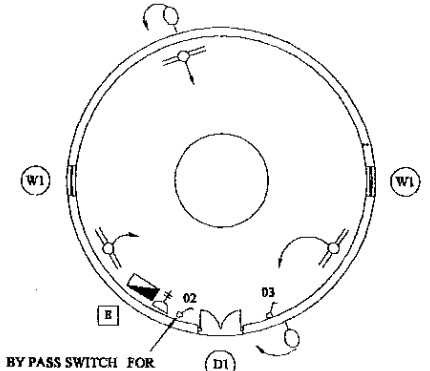




SECTION A  
SCALE: 1:100



LEVEL 3



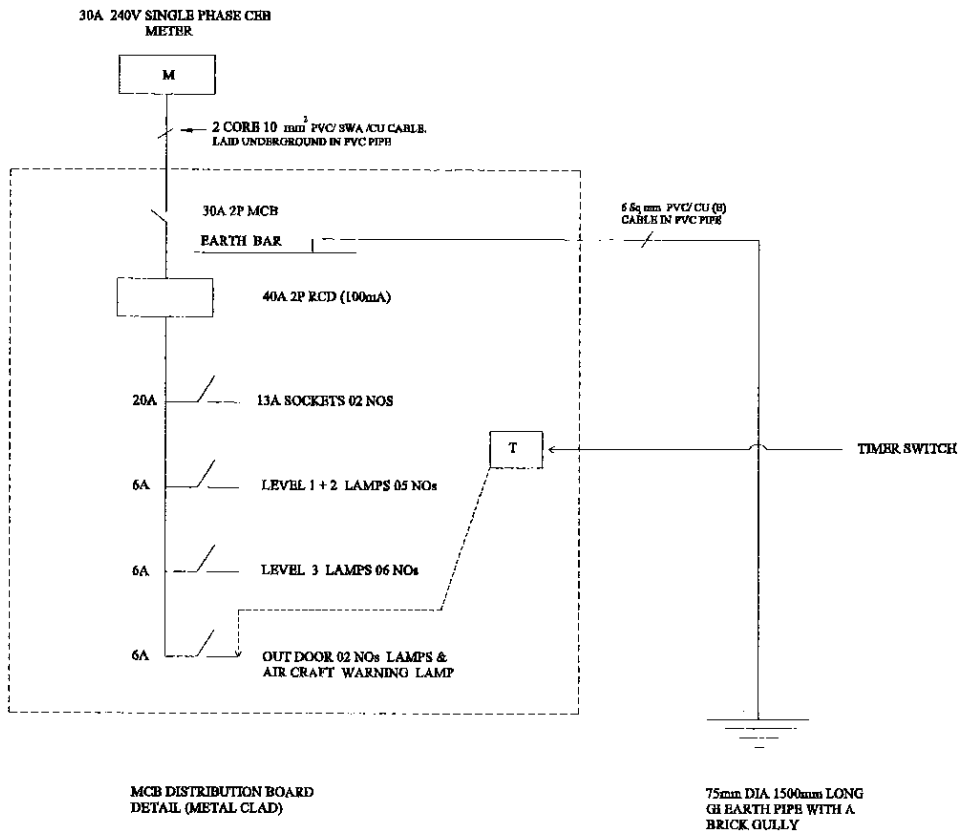
LEVEL 2

**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED BY A TIMER SWITCH

**LEGEND (Electrical)**

- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) w/ CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- ⊗ 60W OUT DOOR WALL BRACKET LAMP FITTING
- ⊙ 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
- METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
- ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- ⊗ 5A ONE WAY SWITCH (FFL + 1.5)
- EARTH PIPE



MCB DISTRIBUTION BOARD  
DETAIL (METAL CLAD)

75mm DIA 1500mm LONG  
GI EARTH PIPE WITH A  
BRICK GULLY

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

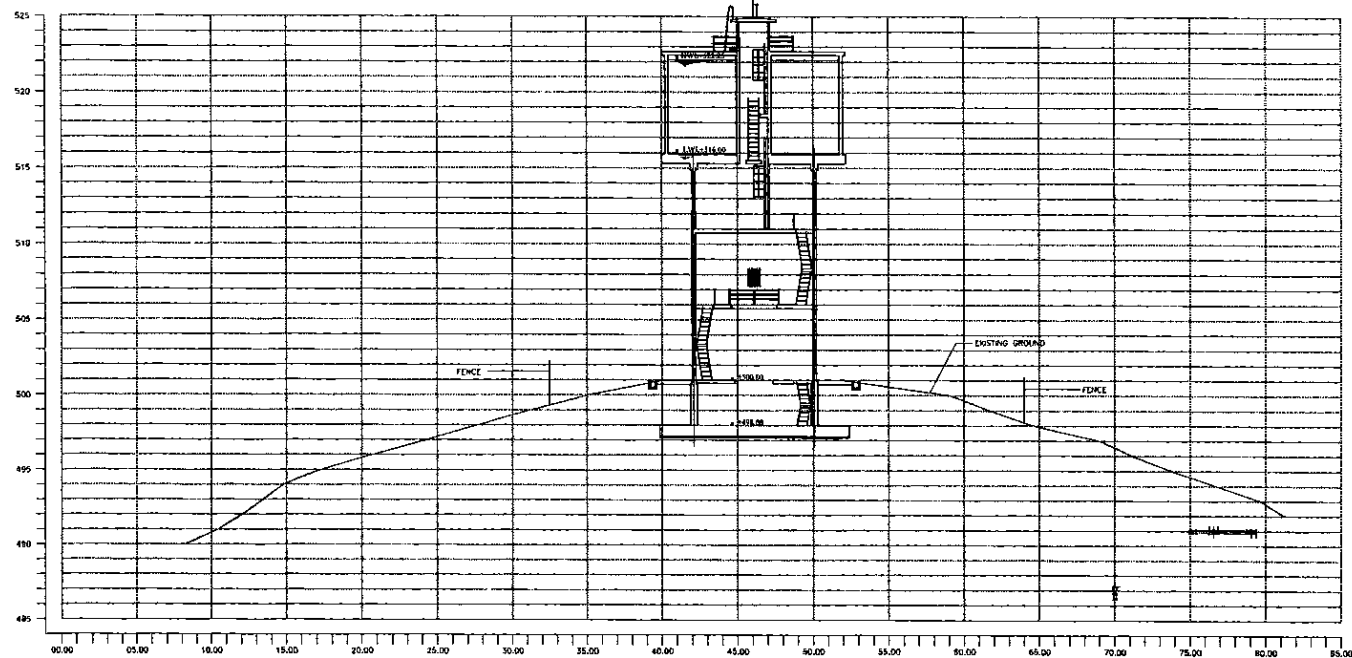
TITLE: ELECTRICAL PLAN FOR TELABUGAHAWATTA WATER TOWER

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

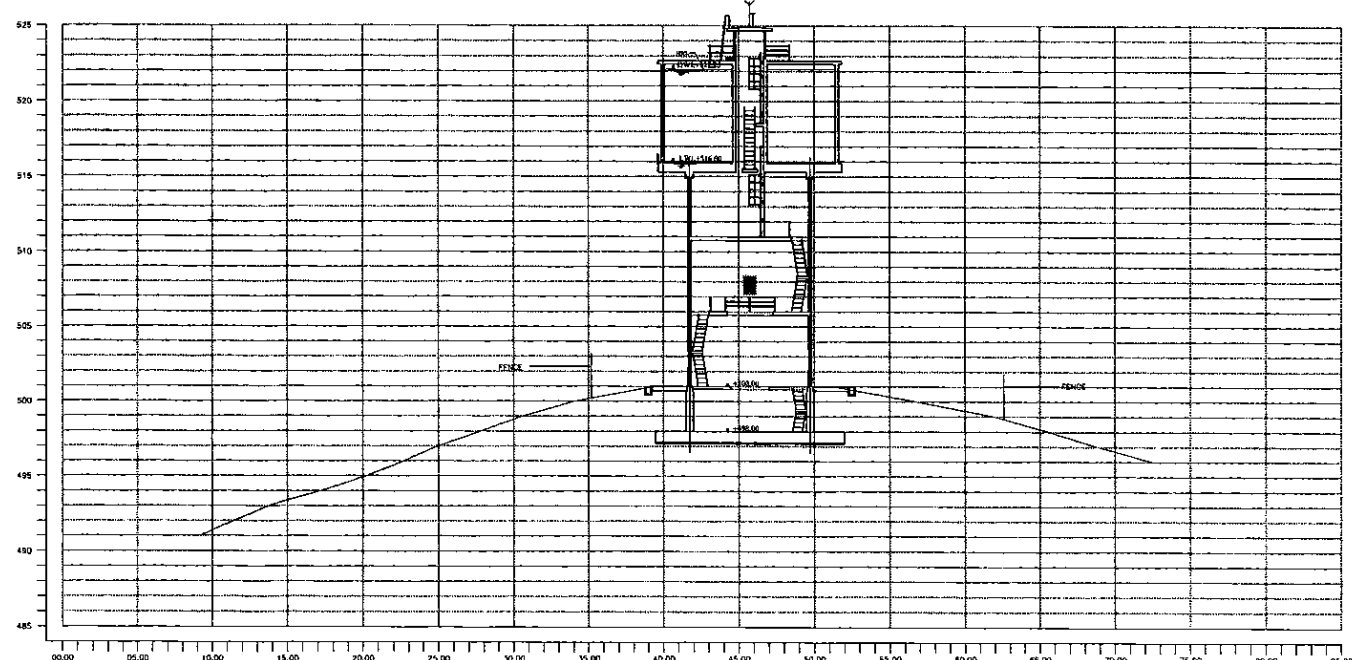
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

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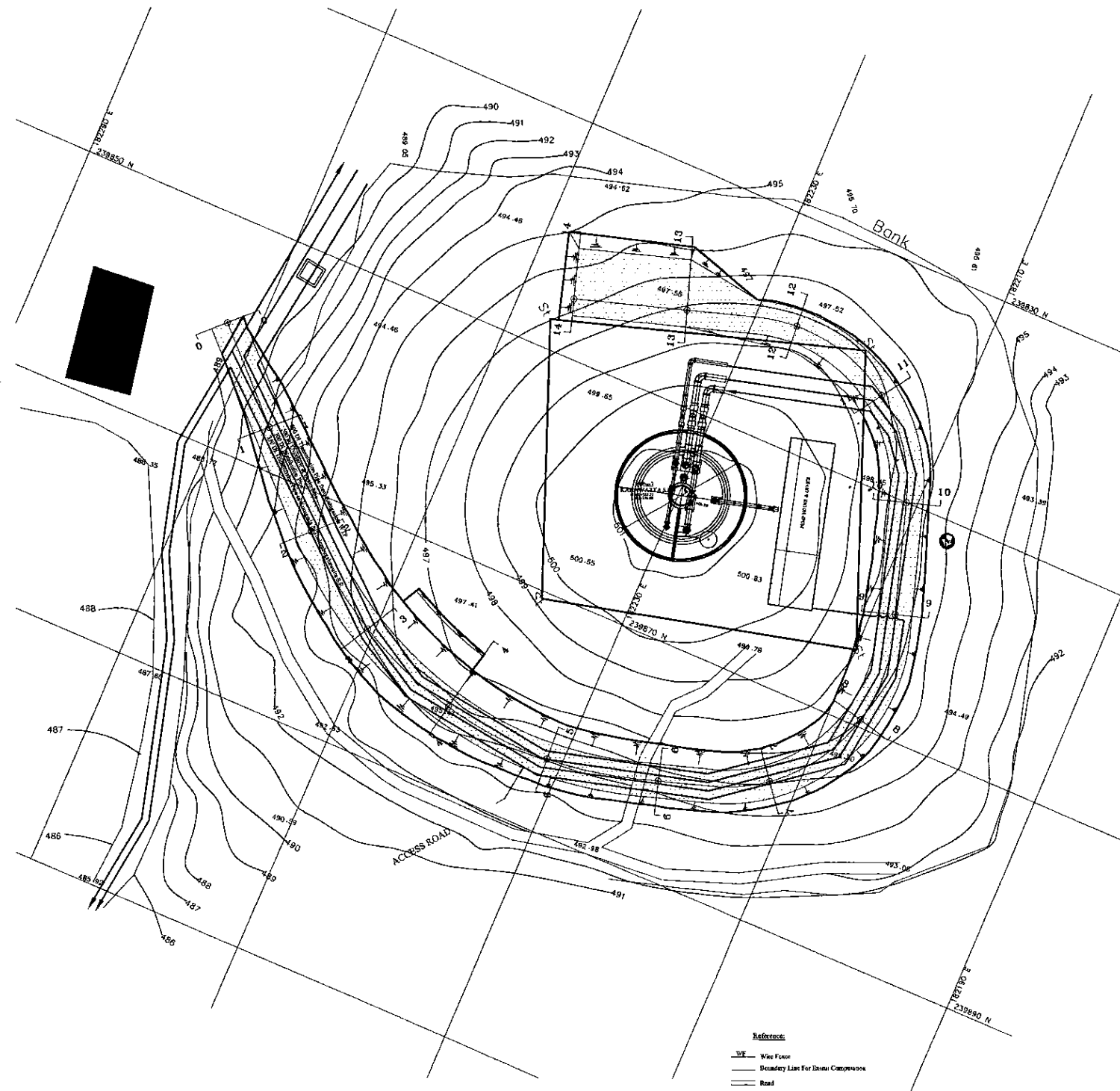
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SECTION A - A  
1:250



SECTION B - B  
1:250



PLAN  
1:250

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF PROPOSED 600 m<sup>3</sup> KAHAWATTA S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



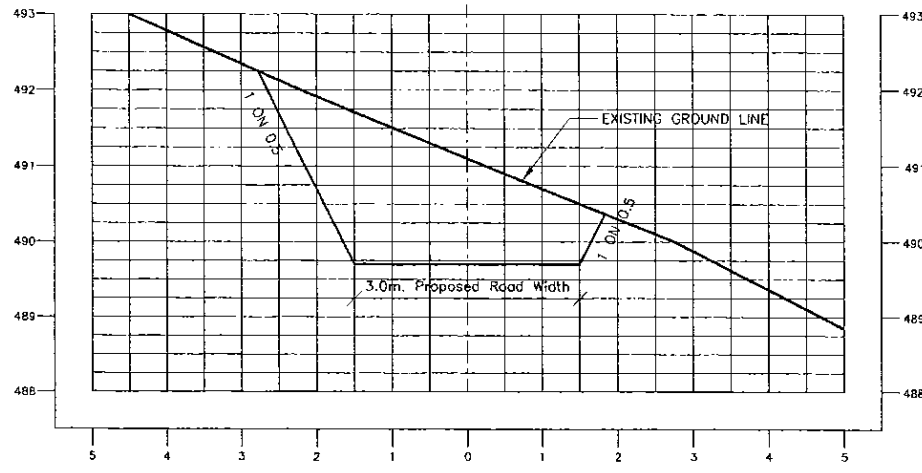
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NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



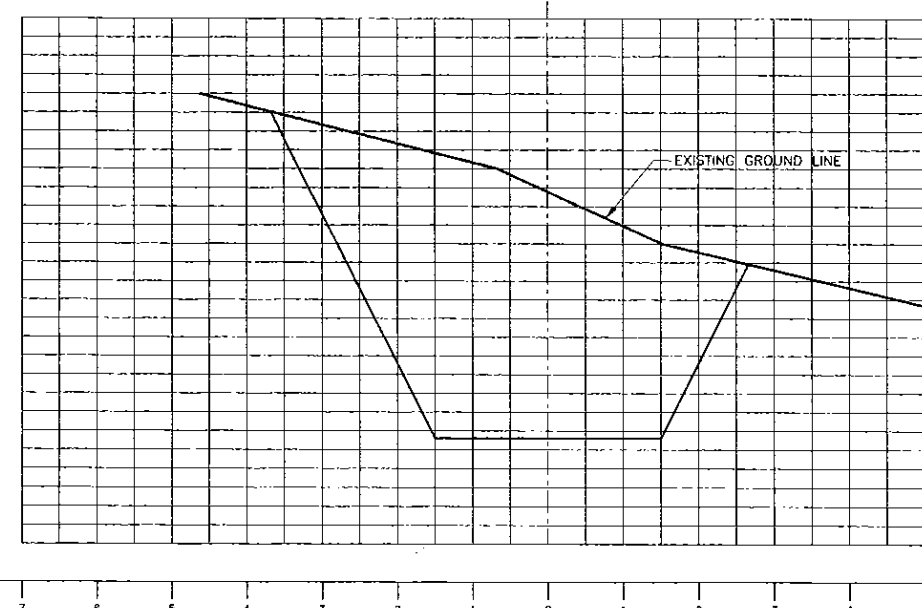
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				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:250
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
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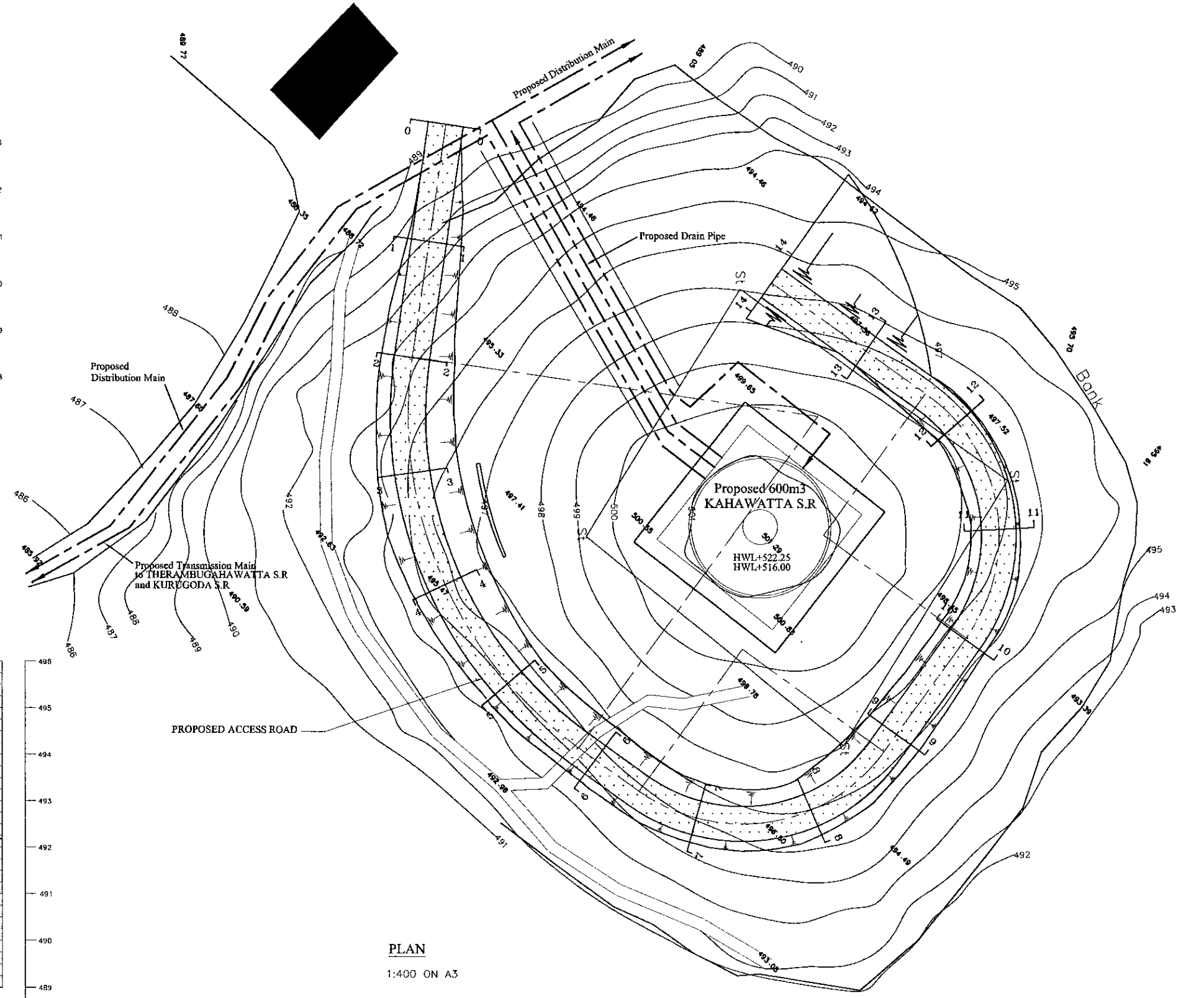
A  
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SECTION 1 - 1  
1:100 ON A3



SECTION 2 - 2  
1:100 ON A3



PLAN  
1:400 ON A3

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

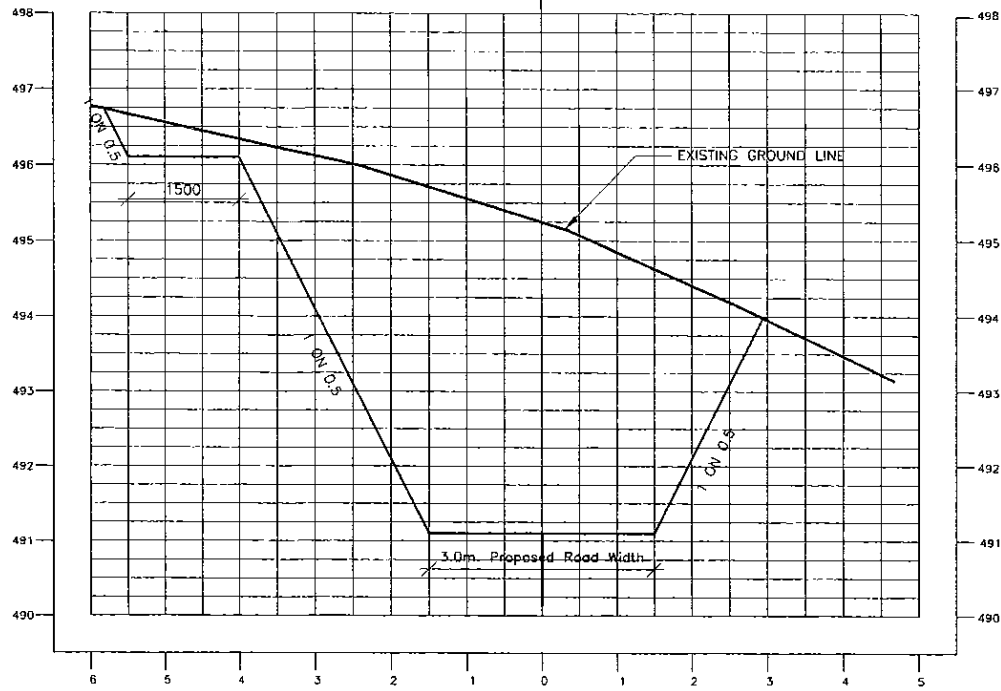
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CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

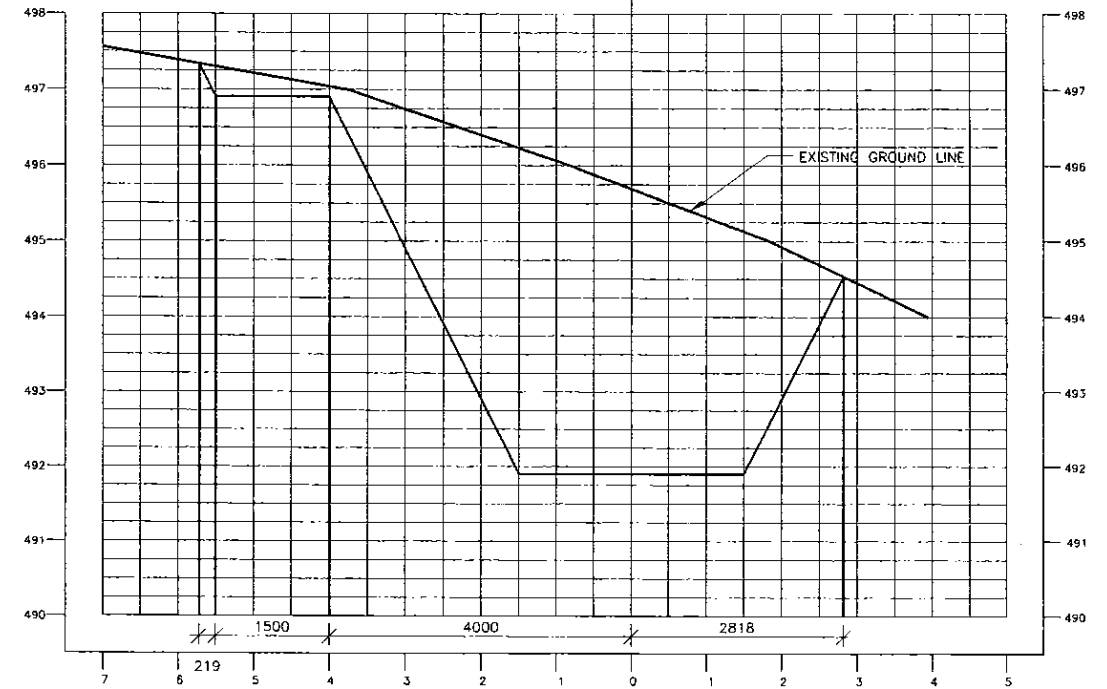
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX	Koichi OKAZAKI	Ravi	Ikuo MIWA		AS SHOWN
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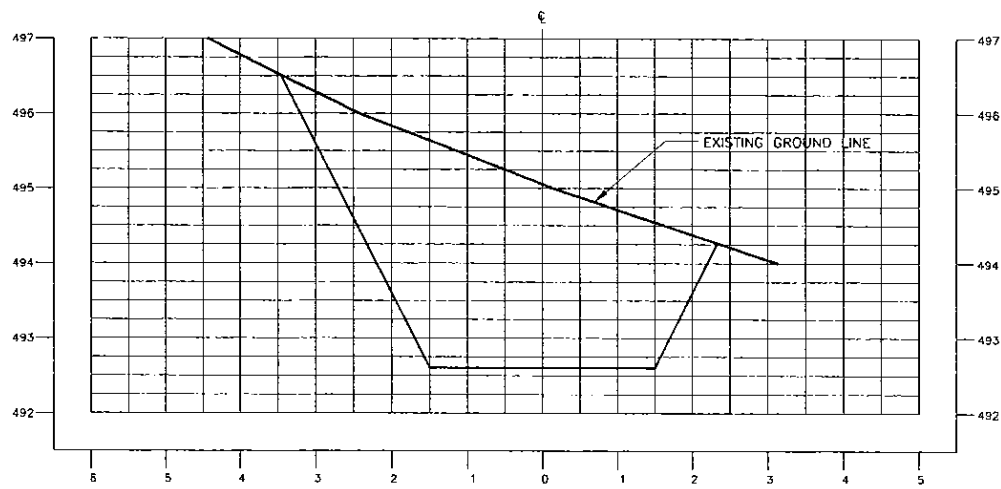
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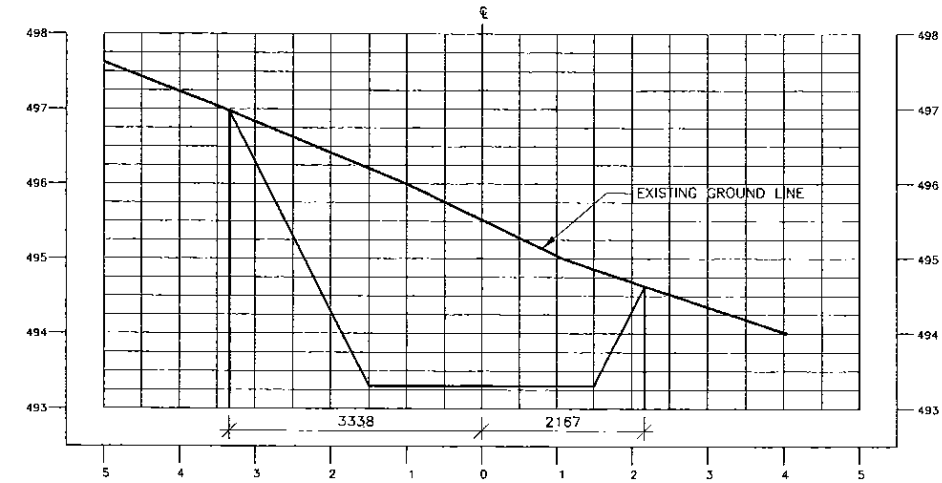
SECTION 3 - 3



SECTION 4 - 4



SECTION 5 - 5



SECTION 6 - 6

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

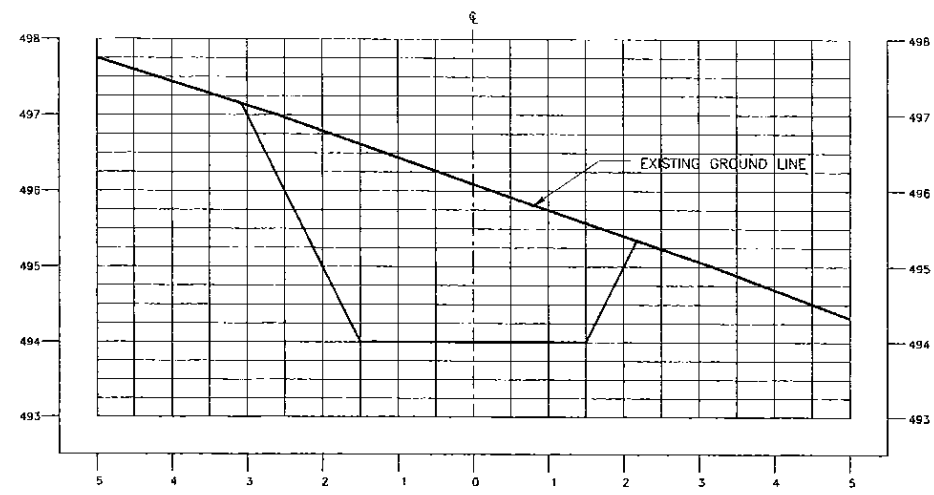
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CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

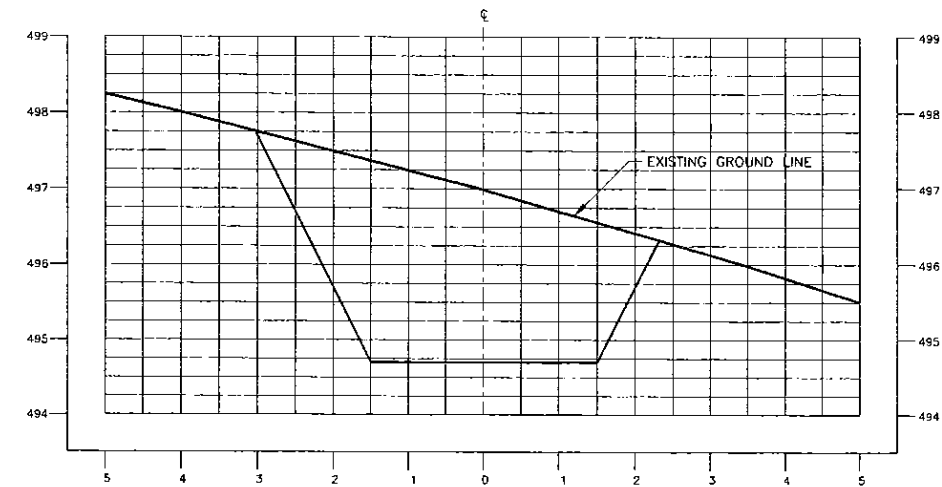


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

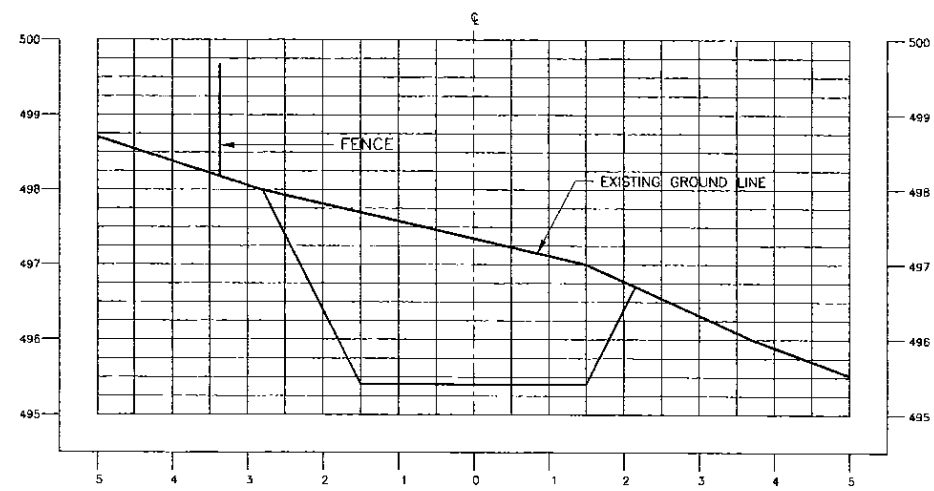
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XX	XXXX	XX	XX	Koichi OKAZAKI	Ravi	Ikuo MIWA		AS SHOWN
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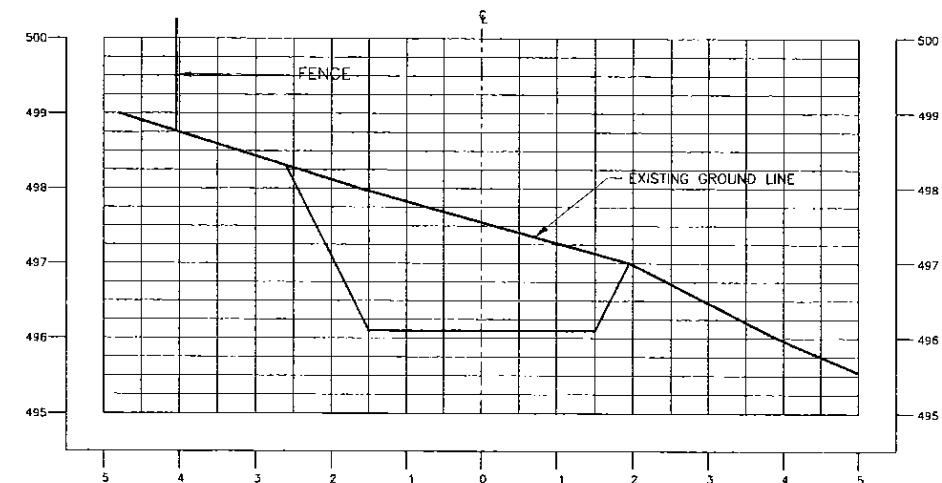
SECTION 7 - 7



SECTION 8 - 8



SECTION 9 - 9



SECTION 10 - 10

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PLAN AND CSS. OF PROPOSED ACCESS ROAD TO PROPOSED KAHAWATTA S.R

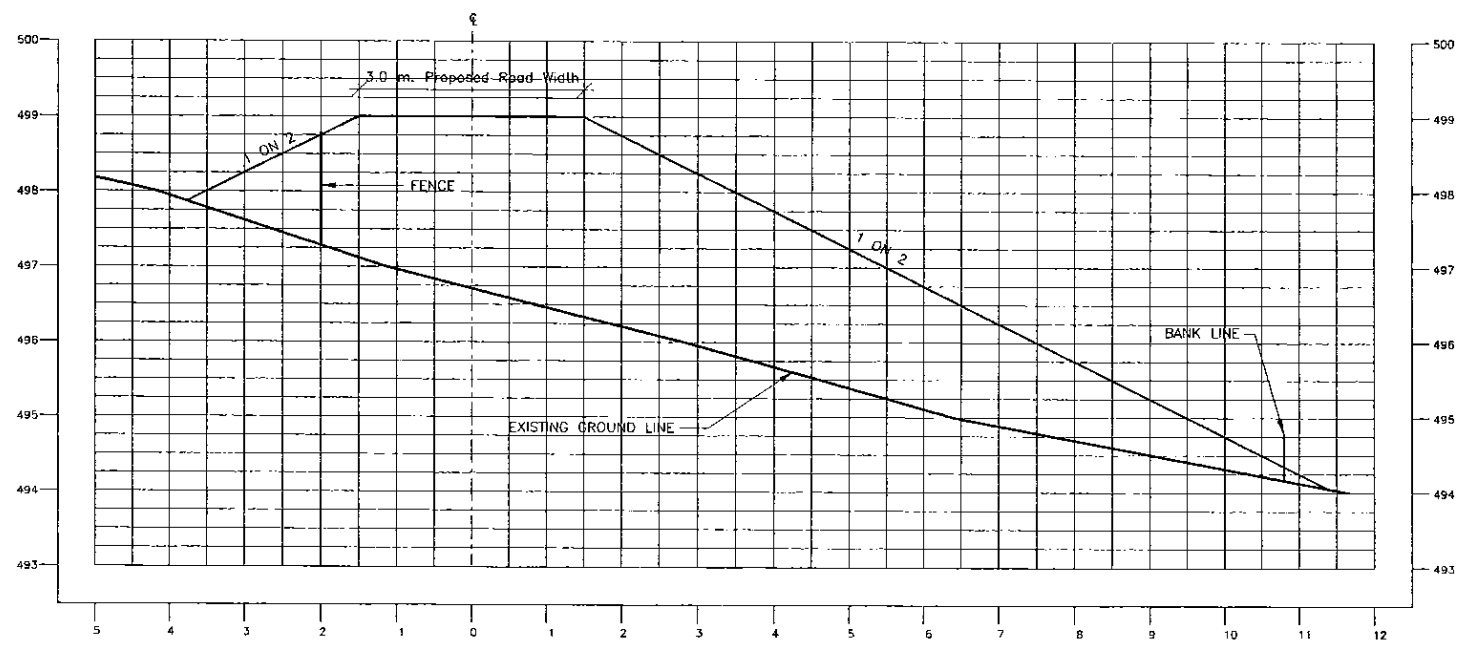
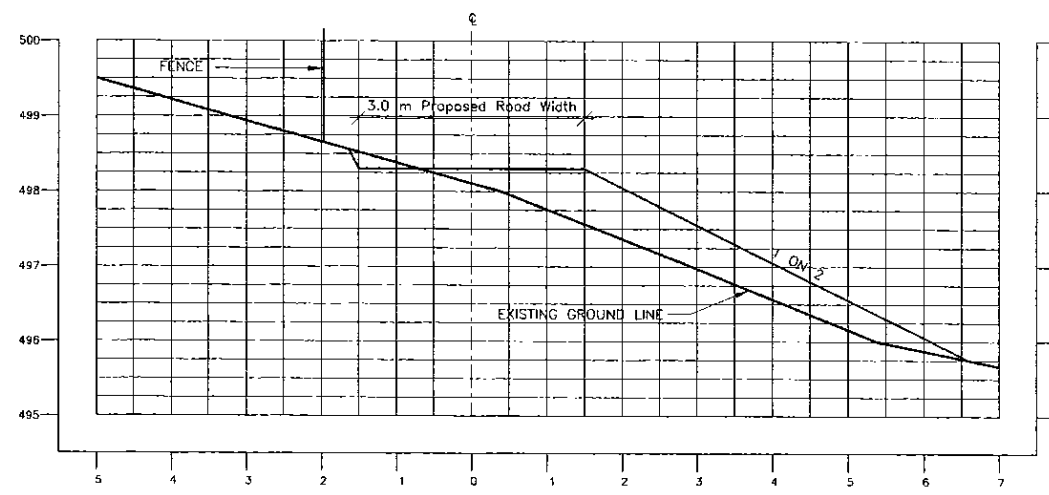
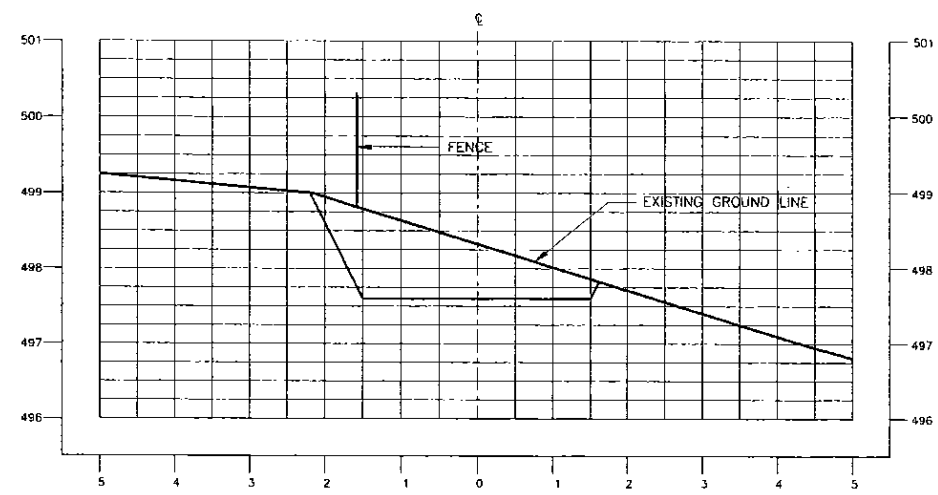
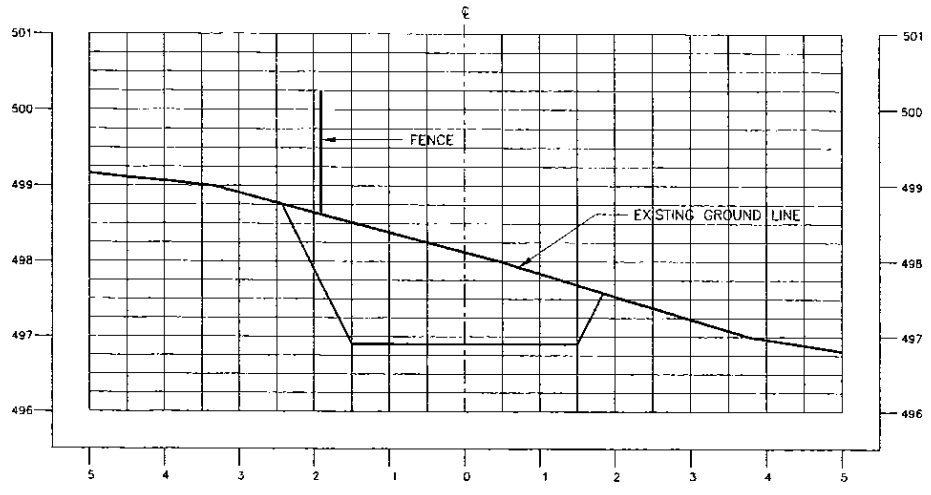
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-04-04



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PLAN AND CSS. OF PROPOSED ACCESS ROAD TO PROPOSED KAHAWATTA S.R

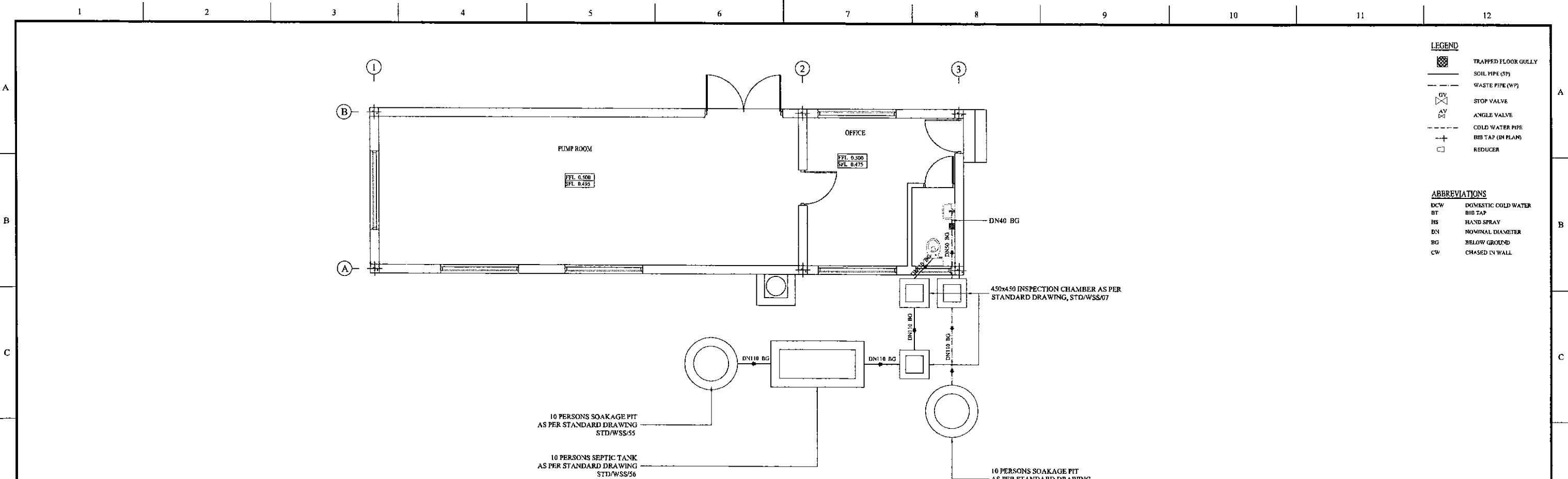
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



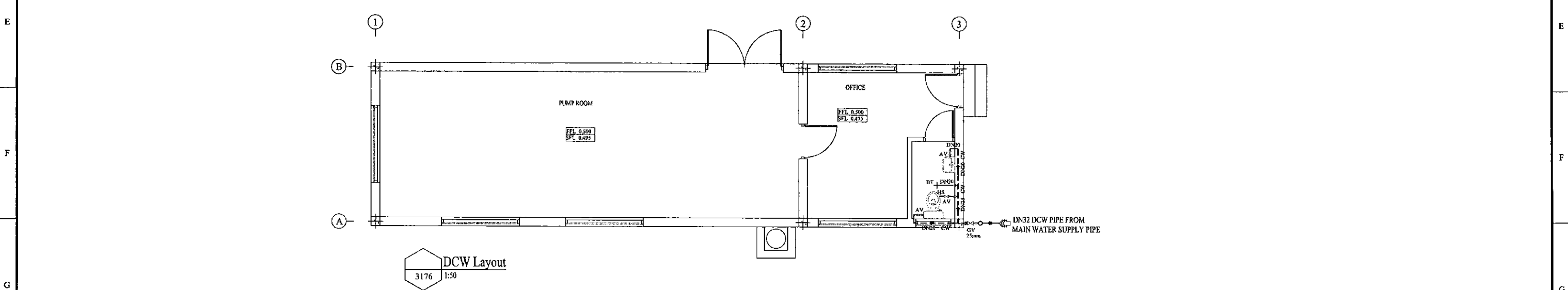
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-04-05



3176 1:50 Sewer & Waste Water Layout



3176 1:50 DCW Layout

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

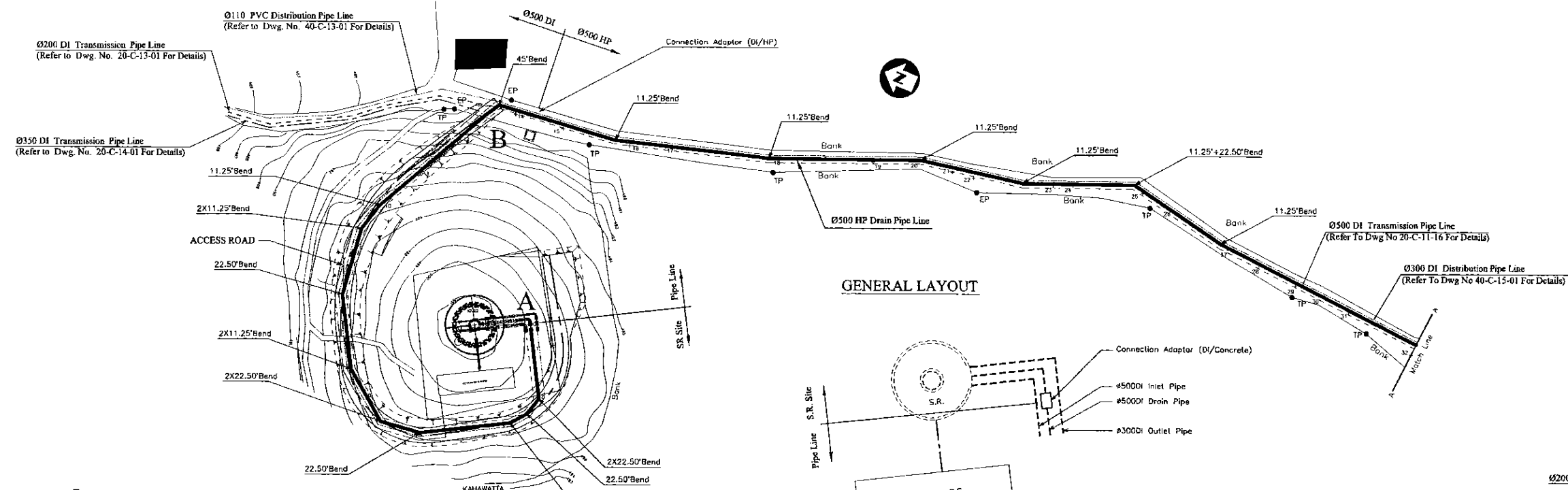
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: KAHAWATTA PUMP STATION DCW, SEWER & WASTE WATER LAYOUT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

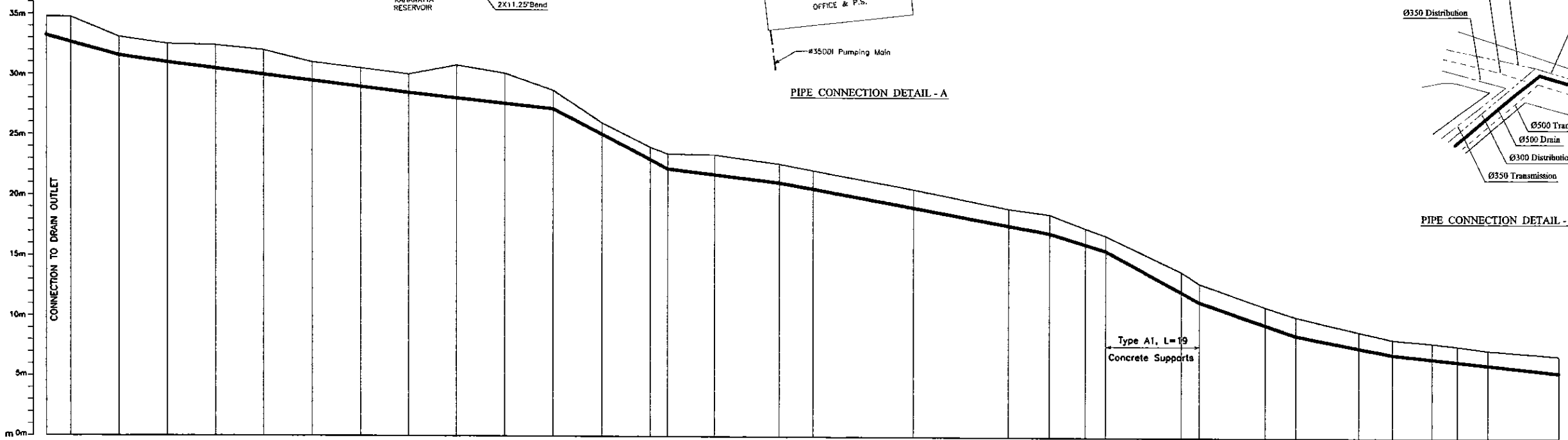
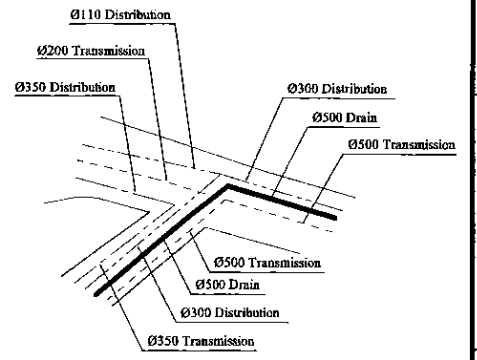
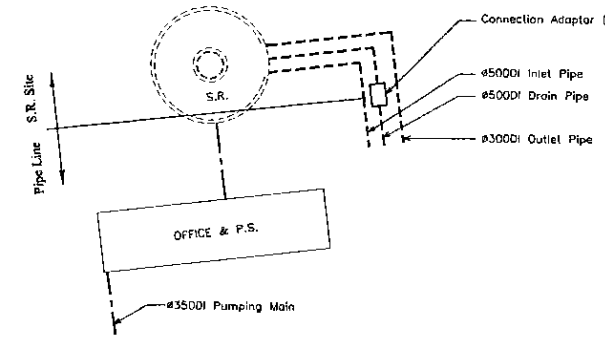
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	D.H.V.	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-04-06



**Legend**

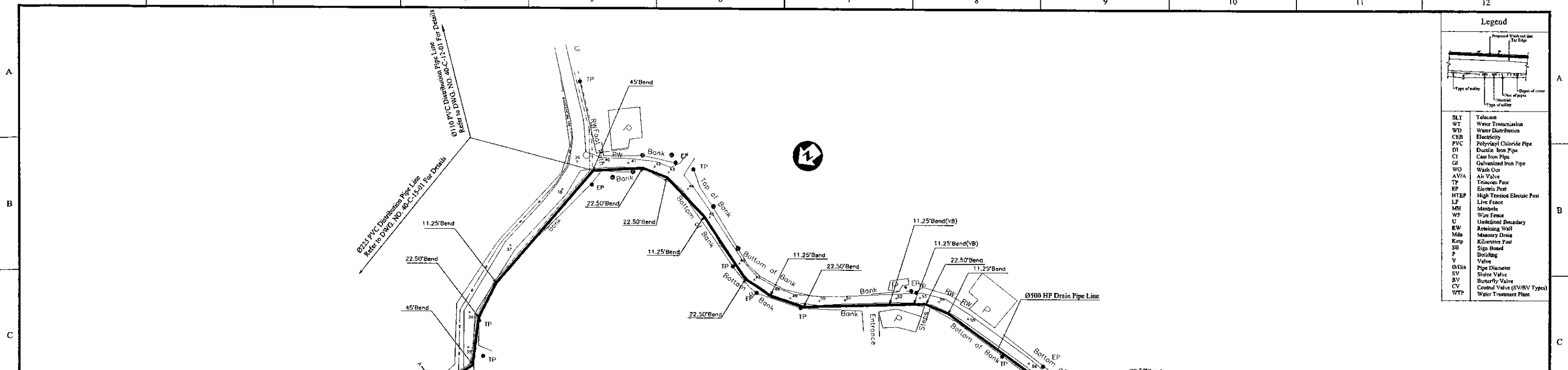
SLI	Telephone
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
HP	Concrete Hose Pipe
WO	Wash Out
AWA	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MRI	Mahale
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Kms	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Shut-off Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant



Datum (MSL) 465.00 m	469.75	469.75	468.10	467.50	467.40	467.60	466.00	465.50	465.00	465.75	465.10	463.70	461.00	460.00	468.45	466.37	467.64	467.10	465.58	464.01	463.55	462.42	461.60	476.84	477.86	475.94	475.10	473.66	473.24	472.86	472.71	472.26	471.86	
Ground Level (m)	469.22	469.57	468.97	468.40	468.47	467.47	466.45	465.47	464.47	463.47	462.47	461.47	460.47	459.47	458.47	457.47	456.47	455.47	454.47	453.47	452.47	451.47	450.47	449.47	448.47	447.47	446.47	445.47	444.47	443.47	442.47	441.47	440.47	439.47
Pipe Invert Level <small>[Pipe thickness to be assumed negligible]</small>	# 500 DI PUSH ON JOINT TYPE T, PN10																																	
Pipe Data	# 500 CONCRETE HUME PIPE																																	
Single Distance (m)	0.00	5.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	3.67	9.81	13.22	6.91	20.72	19.83	8.43	7.30	4.21	15.64	3.83	13.66	6.39	12.96	6.92	8.21	5.27	6.34	14.83	
Cumulative Distance (m)	0	5.00	15.00	25.00	35.00	45.00	55.00	65.00	75.00	85.00	95.00	105.00	115.00	125.00	128.67	138.48	151.70	158.61	179.33	199.16	207.59	214.89	219.10	234.74	238.57	252.23	258.63	271.59	278.51	286.72	292.00	298.34	313.18	
Station No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: <b>WASH OUT FROM KAHAWATHTHA S.R.</b>	SHEET 1 OF 3																
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	<table border="1"> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV.	DESCRIPTION	DATE	SIGN.					<table border="1"> <tr> <td>DESIGNED: <b>Koichi OKAZAKI</b></td> <td>DRAWN: <b>RAVI U.</b></td> <td>PM: (CONSULTANT) <b>Ikuo MIWA</b></td> <td>CE: (P&amp;D)</td> </tr> <tr> <td>CHECKED: <b>DESIGN CHIEF</b></td> <td>AGM: (P&amp;D)</td> <td>DGM: (P&amp;D)</td> <td>DATE: <b>31/05/2002</b></td> </tr> </table>	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>RAVI U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>
REV.	DESCRIPTION	DATE	SIGN.																
DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>RAVI U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)																
CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>																
SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200		DRAWING NO.: <b>30-C-04-07</b>																	

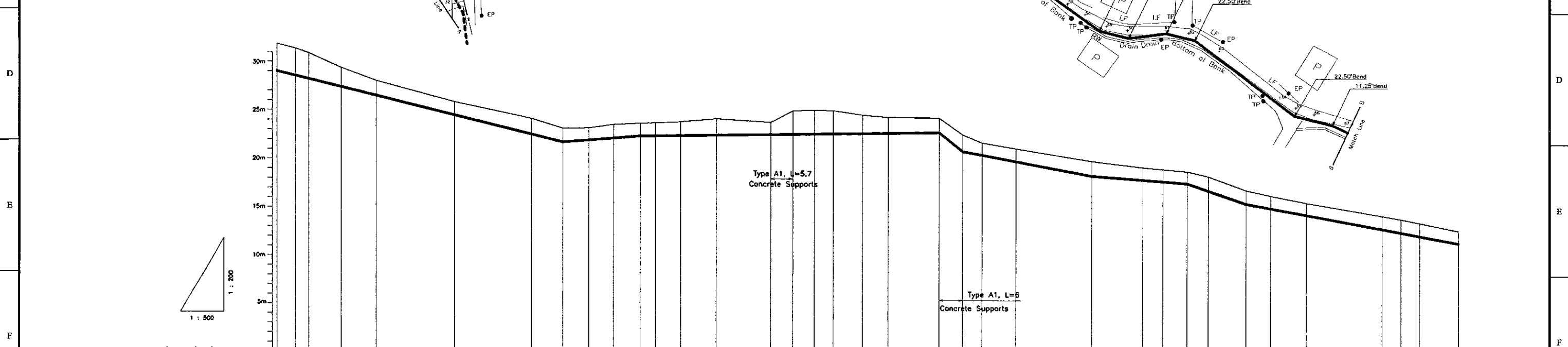




**Legend**

- SLY Telecom
- WT Water Transmission
- WD Water Distribution
- CEB Electricity
- PVC Polyvinyl Chloride Pipe
- D1 Ductile Iron Pipe
- C1 Cast Iron Pipe
- GI Galvanized Iron Pipe
- WO Wash Out
- AWA Air Valve
- TP Telecom Post
- EP Electric Post
- HTEP High Tension Electric Post
- LF Live Fence
- MH Manhole
- WF Wire Fence
- U Underfoot Boundary
- RW Retaining Wall
- Mda Masonry Drain
- Kmp Kilometer Post
- SB Sign Board
- P P
- V Valve
- ØDia Pipe Diameter
- SV Shave Valve
- BV Butterfly Valve
- CV Control Valve (SV/BV Types)
- WTP Water Treatment Plant

**GENERAL LAYOUT**



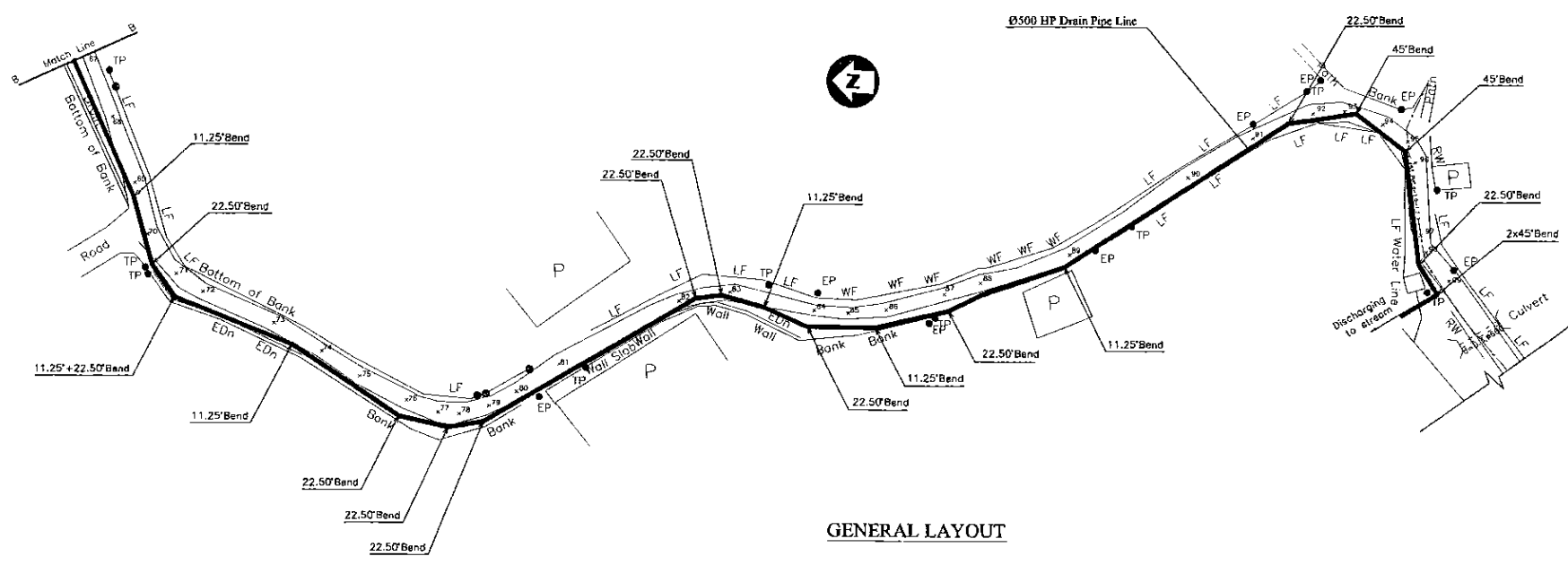
Station No.	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	
Ground Level (m)	471.86	471.36	470.92	469.39	468.06	465.89	464.21	463.19	463.25	463.61	463.74	463.79	463.90	464.24	463.89	465.09	465.20	465.13	464.71	464.47	464.42	462.70	461.88	461.28	460.03	458.40	459.22	459.00	458.31	457.09	456.32	455.79	454.44	454.11	453.72	452.85	
Pipe Invert Level <small>(Pipe thickness to be assumed negligible)</small>	469.03				466.53			461.73			462.44										462.92	461.00			458.53			457.77			455.69						
Pipe Data	Ø 500 CONCRETE HUME PIPE																																				
Single Distance (m)	14.83	4.78	3.37	8.35	9.10	20.30	19.72	6.16	6.74	6.35	6.89	3.93	6.49	9.20	14.08	5.71	5.49	4.85	7.32	6.35	13.22	6.08	5.05	6.69	19.43	13.14	5.21	6.35	5.48	9.71	6.31	9.09	19.76	4.84	4.97	10.12	
Cumulative Distance (m)	313.18	317.96	321.33	329.68	338.78	359.08	378.80	384.96	391.70	400.05	406.94	410.87	417.36	426.56	440.64	446.35	451.84	456.70	464.22	470.78	484.00	490.08	495.13	503.82	523.25	536.39	541.60	547.95	553.43	563.14	569.45	578.54	598.30	603.14	608.11	618.23	

**LONGITUDINAL SECTION**

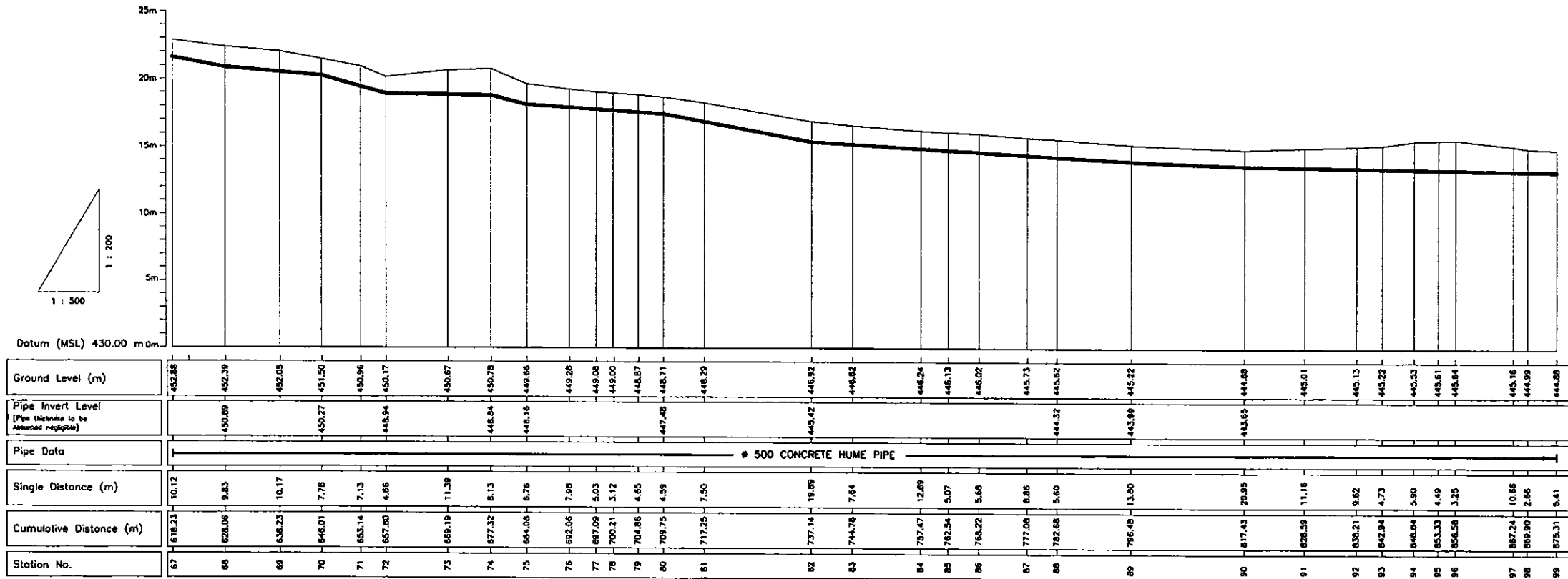
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: WASH OUT FROM KAHAWATHTHA S.R.					SHEET 2 OF 3			
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: RAVI U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
						CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-04-08

**Legend**

SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
HP	Concrete Home Pipe
WO	Wash Out
AV/A	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
EW	Retaining Wall
MD	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
F	Building
V	Valve
D/Dia	Pipe Diameter
SV	Shut-off Valve
BV	Butterfly Valve
CV	Control Valve (S/BV Types)
WTP	Water Treatment Plant

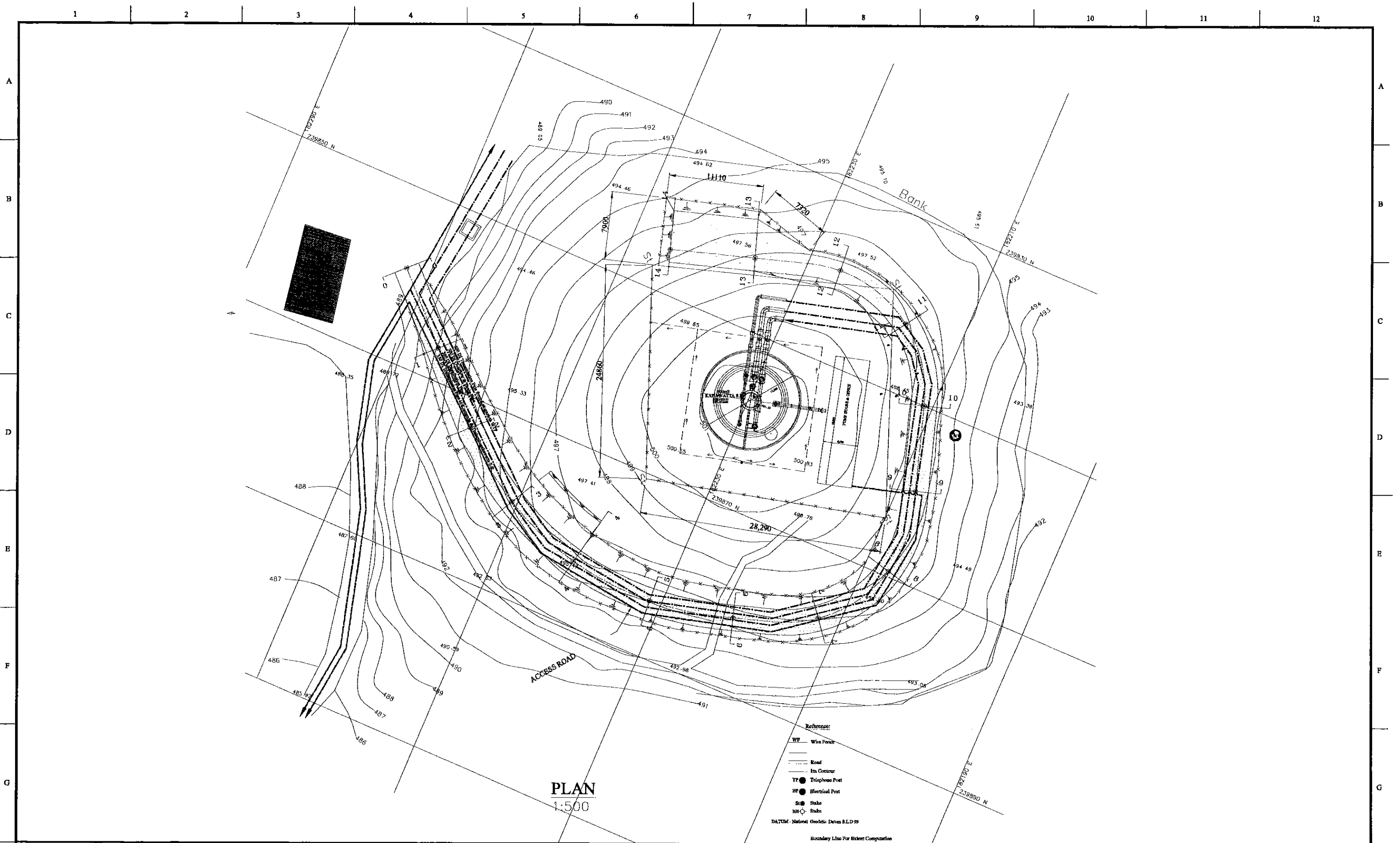


GENERAL LAYOUT



LONGITUDINAL SECTION


PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	TITLE: <b>WASH OUT FROM KAHAWATHTHA S.R.</b>	<b>SHEET 3 OF 3</b>							
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>RAVI U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>HORIZONTAL - 1:500 VERTICAL - 1:200</b>
						CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-04-09</b>





**PROJECT:**  
GREATER KANDY WATER SUPPLY  
AUGMENTATION PROJECT

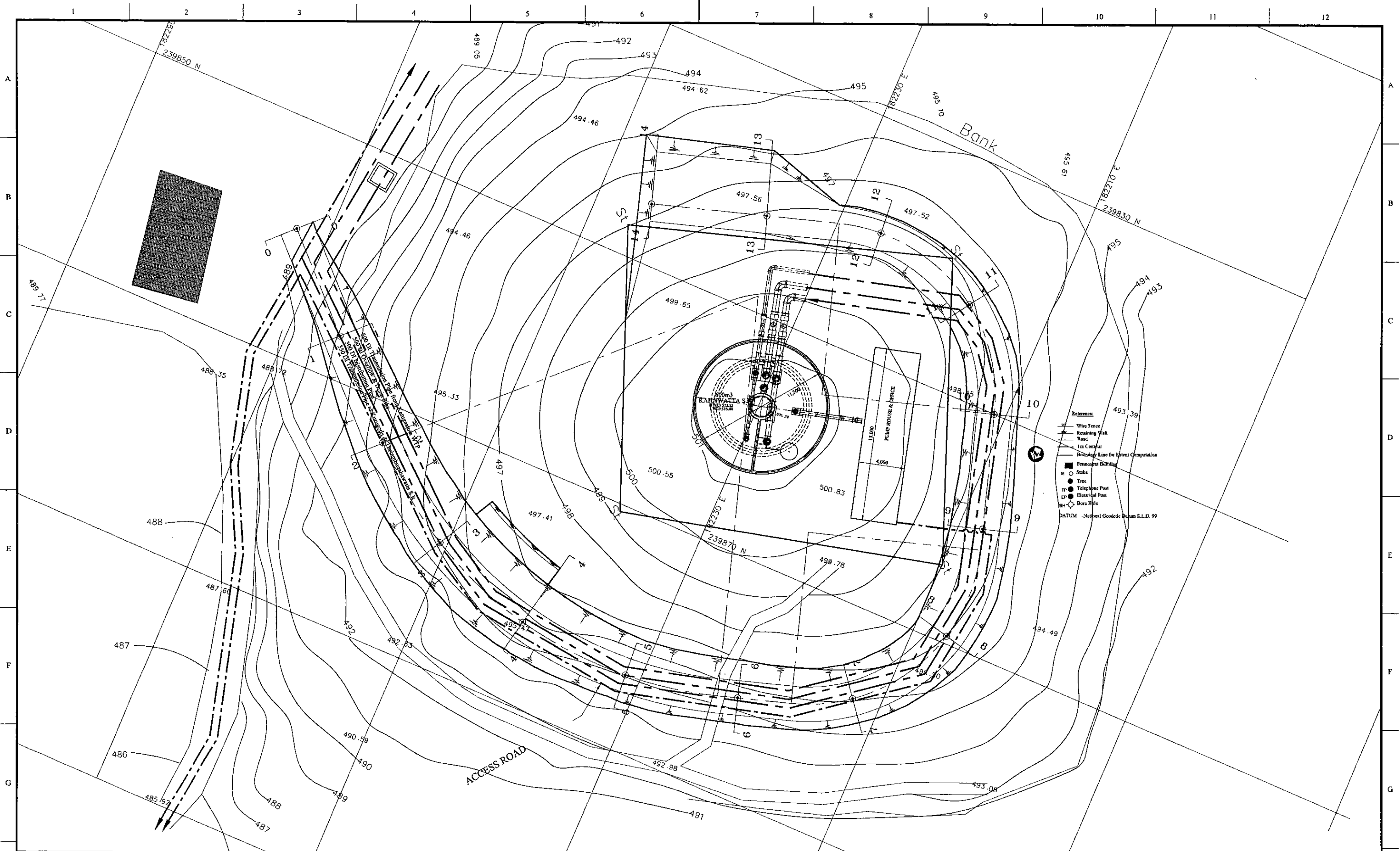
**JICA** JAPAN INTERNATIONAL  
COOPERATION AGENCY

**TITLE:** 600m<sup>3</sup> KAHAWATTA S.R.  
LANDSCAPING LAYOUT

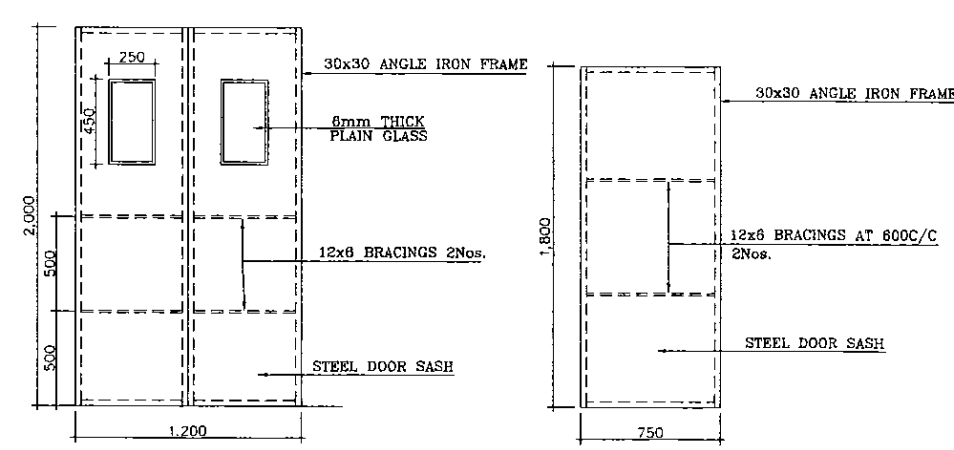
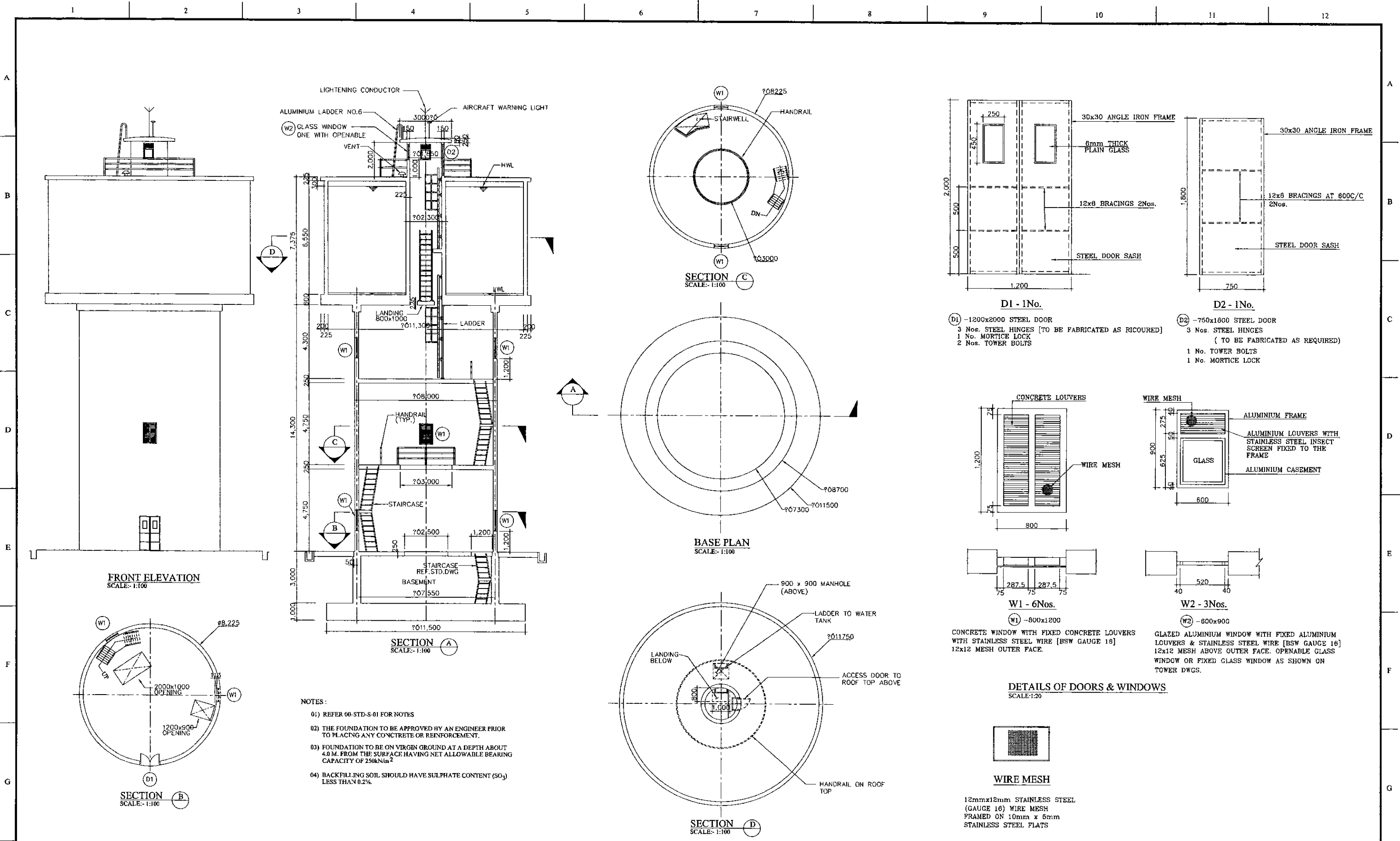
**CLIENT:**  
 NATIONAL WATER SUPPLY  
& DRAINAGE BOARD

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

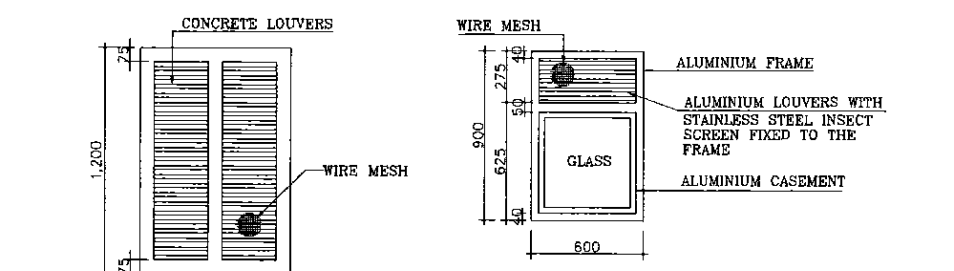
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-C-04-10



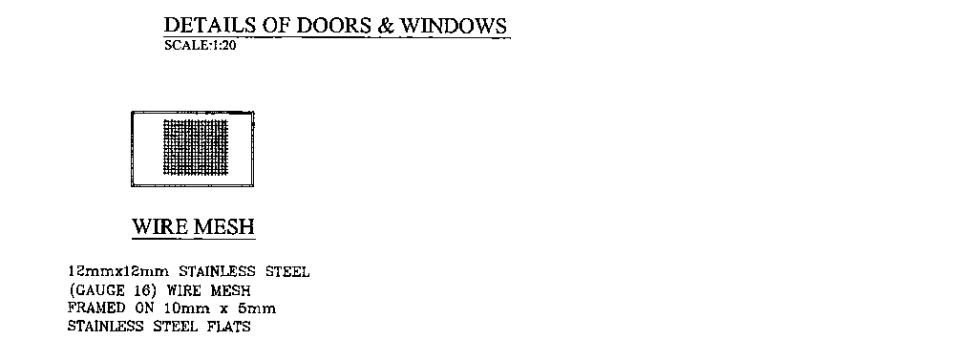
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KAHAWATTA SERVICER RESERVOIR AND PUMPING STATION SITE PLAN								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NCS NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:150
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-04-01



- D1 - 1No.**  
 (D1) - 1200x2000 STEEL DOOR  
 3 Nos. STEEL HINGES [TO BE FABRICATED AS REQUIRED]  
 1 No. MORTICE LOCK  
 2 Nos. TOWER BOLTS
- D2 - 1No.**  
 (D2) - 750x1800 STEEL DOOR  
 3 Nos. STEEL HINGES  
 (TO BE FABRICATED AS REQUIRED)  
 1 No. TOWER BOLTS  
 1 No. MORTICE LOCK

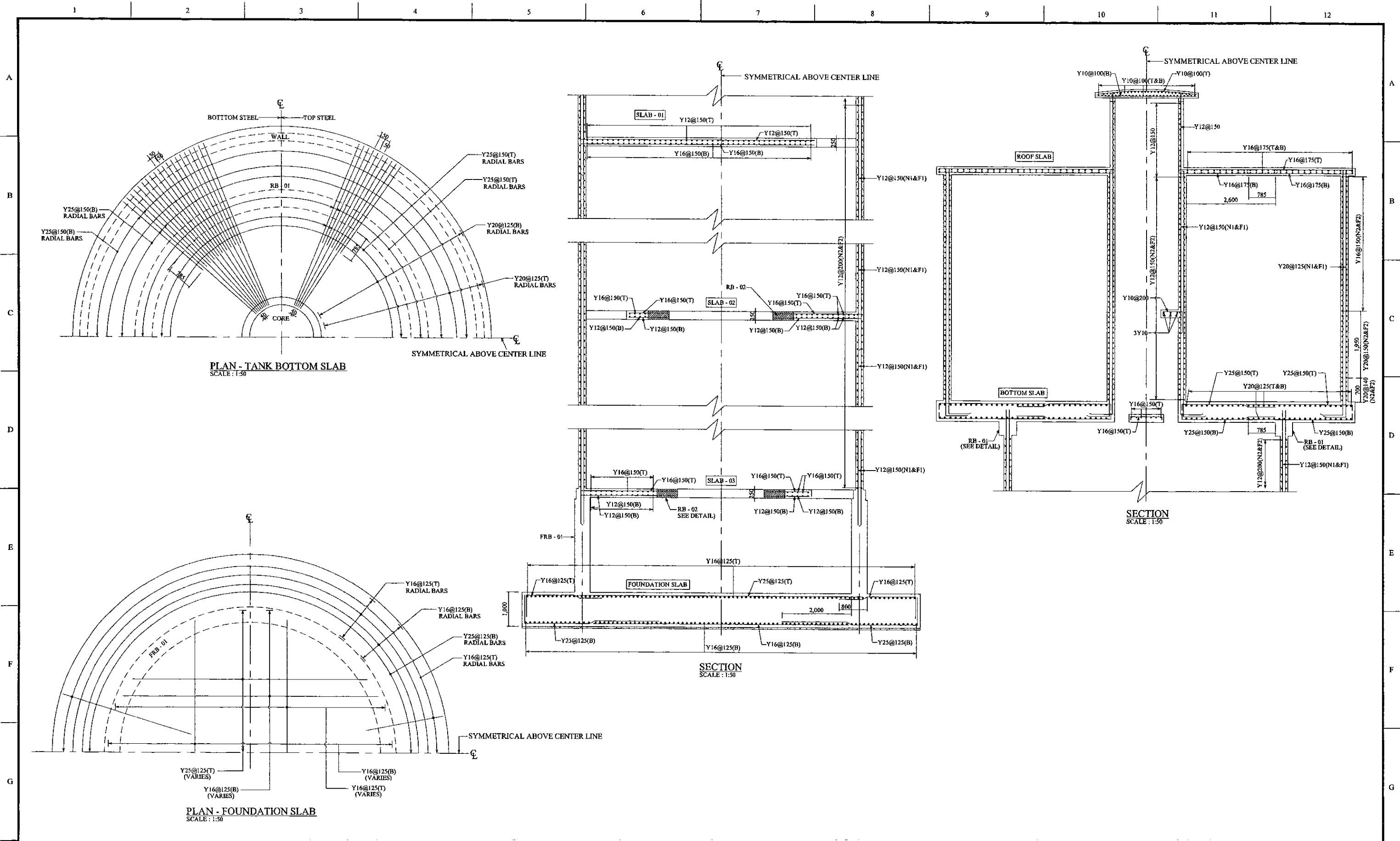


- W1 - 6Nos.**  
 (W1) - 800x1200  
 CONCRETE WINDOW WITH FIXED CONCRETE LOUVERS WITH STAINLESS STEEL WIRE [BSW GAUGE 18] 12x12 MESH OUTER FACE.
- W2 - 3Nos.**  
 (W2) - 800x900  
 GLAZED ALUMINIUM WINDOW WITH FIXED ALUMINIUM LOUVERS & STAINLESS STEEL WIRE [BSW GAUGE 18] 12x12 MESH ABOVE OUTER FACE. OPENABLE GLASS WINDOW OR FIXED GLASS WINDOW AS SHOWN ON TOWER DWGS.



- NOTES:**
- 01) REFER 00-STD-S-01 FOR NOTES
  - 02) THE FOUNDATION TO BE APPROVED BY AN ENGINEER PRIOR TO PLACING ANY CONCRETE OR REINFORCEMENT.
  - 03) FOUNDATION TO BE ON VIRGIN GROUND AT A DEPTH ABOUT 4.0 M. FROM THE SURFACE HAVING NET ALLOWABLE BEARING CAPACITY OF 250kN/m<sup>2</sup>
  - 04) BACKFILLING SOIL SHOULD HAVE SULPHATE CONTENT (SO<sub>3</sub>) LESS THAN 0.2%.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KAHAWATTE SERVICE RESERVOIR & PUMPING STATION - GENERAL ARRANGEMENT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-04-02



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

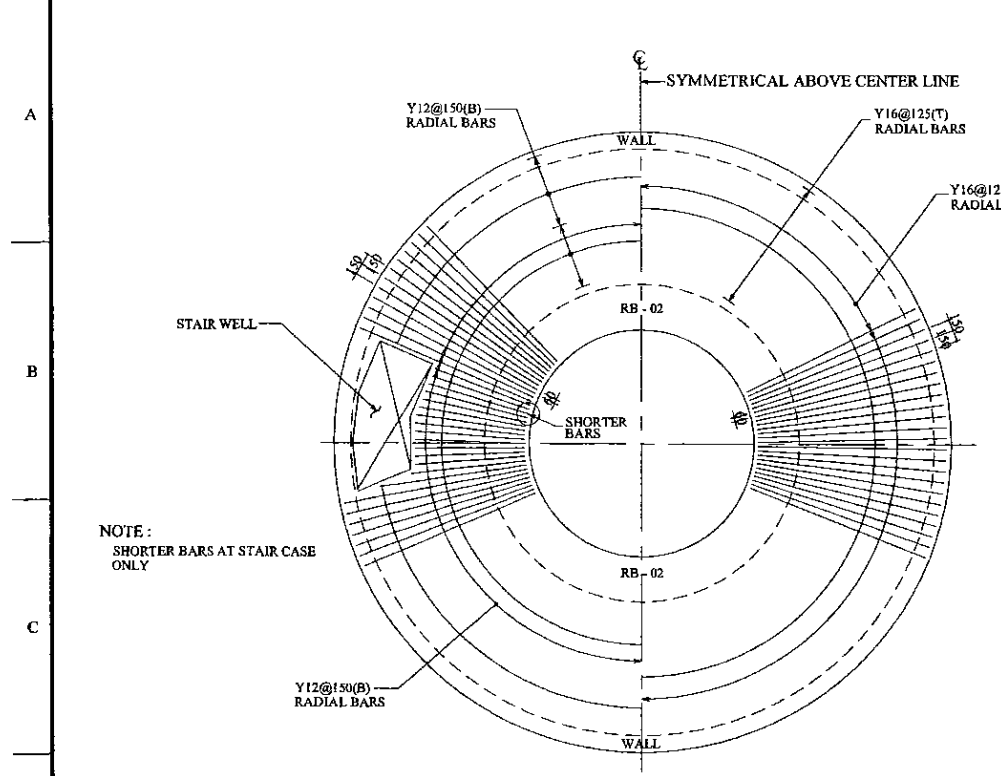
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: KAHAWATTE SERVICE RESERVOIR & PUMPING STATION - R/F DETAILS - FOUNDATION SLAB, TANK BOTTOM SLAB

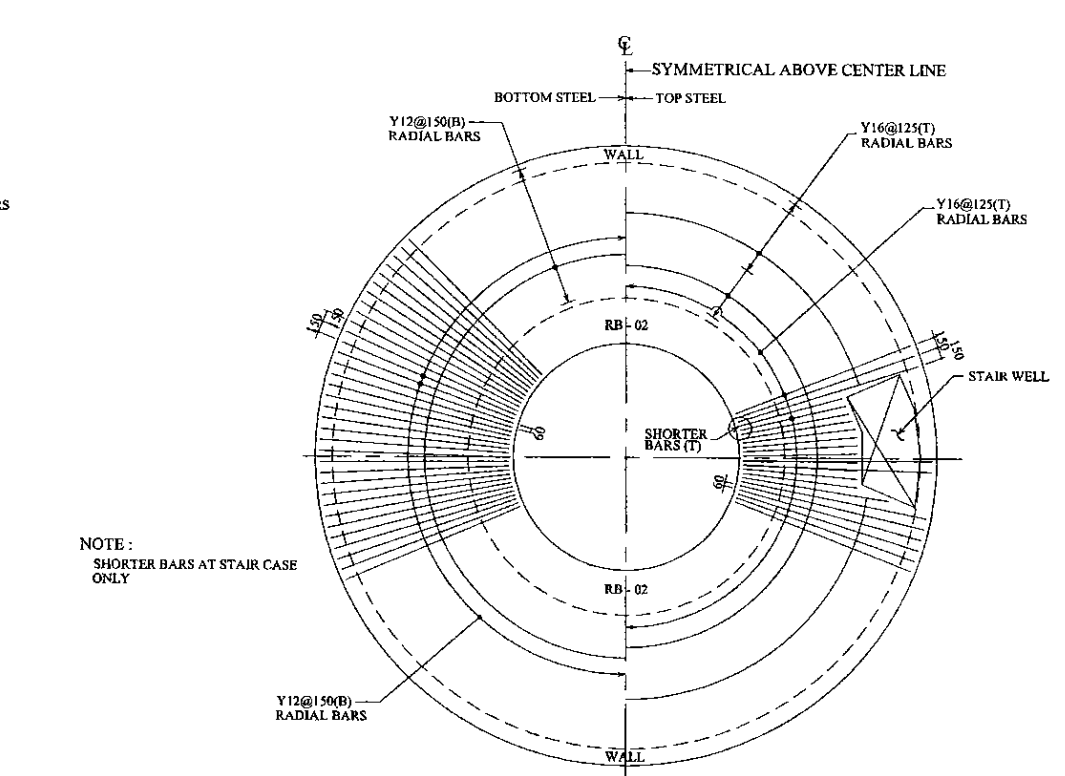
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

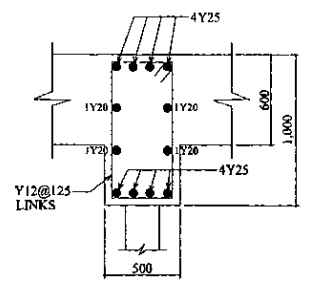
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-04-03



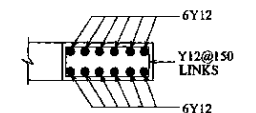
PLAN - SLAB - 02  
SCALE: 1:50



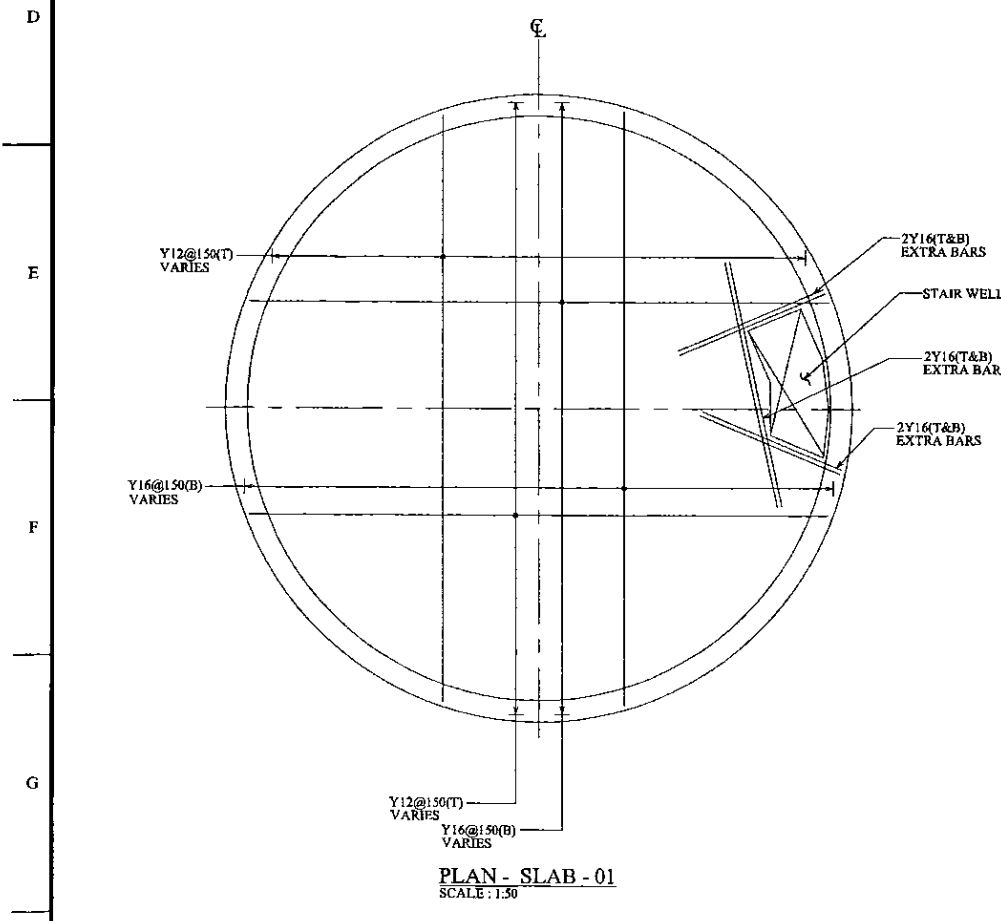
PLAN - SLAB - 03  
SCALE: 1:50



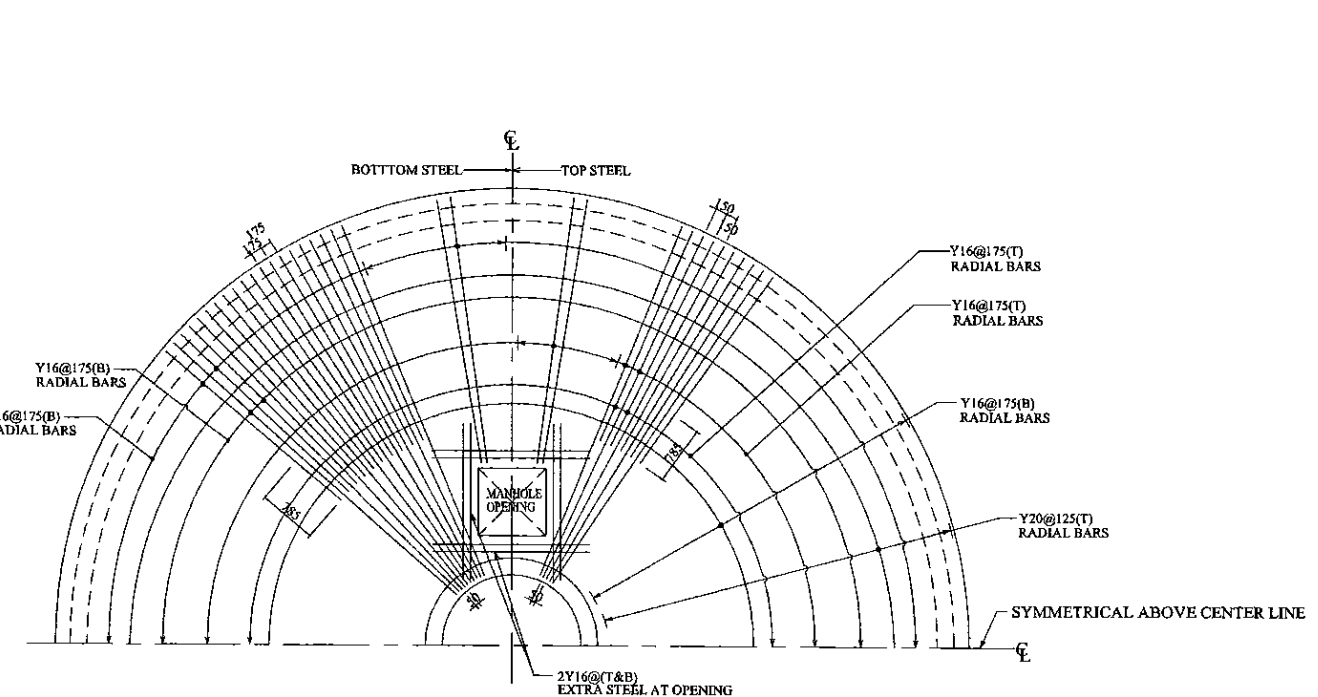
RING BEAM - RB - 01  
SCALE: 1:25



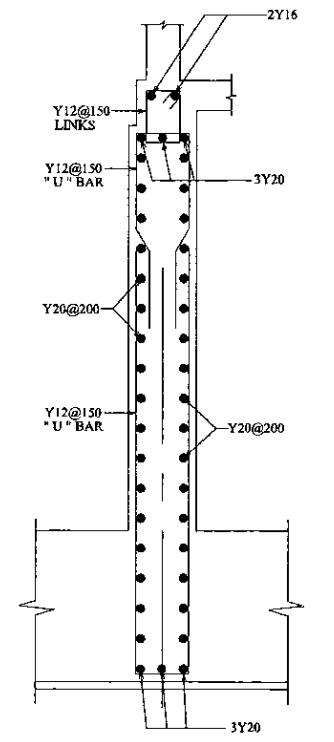
RING BEAM - RB - 02  
SCALE: 1:25



PLAN - SLAB - 01  
SCALE: 1:50



PLAN - TANK ROOF SLAB  
SCALE: 1:50

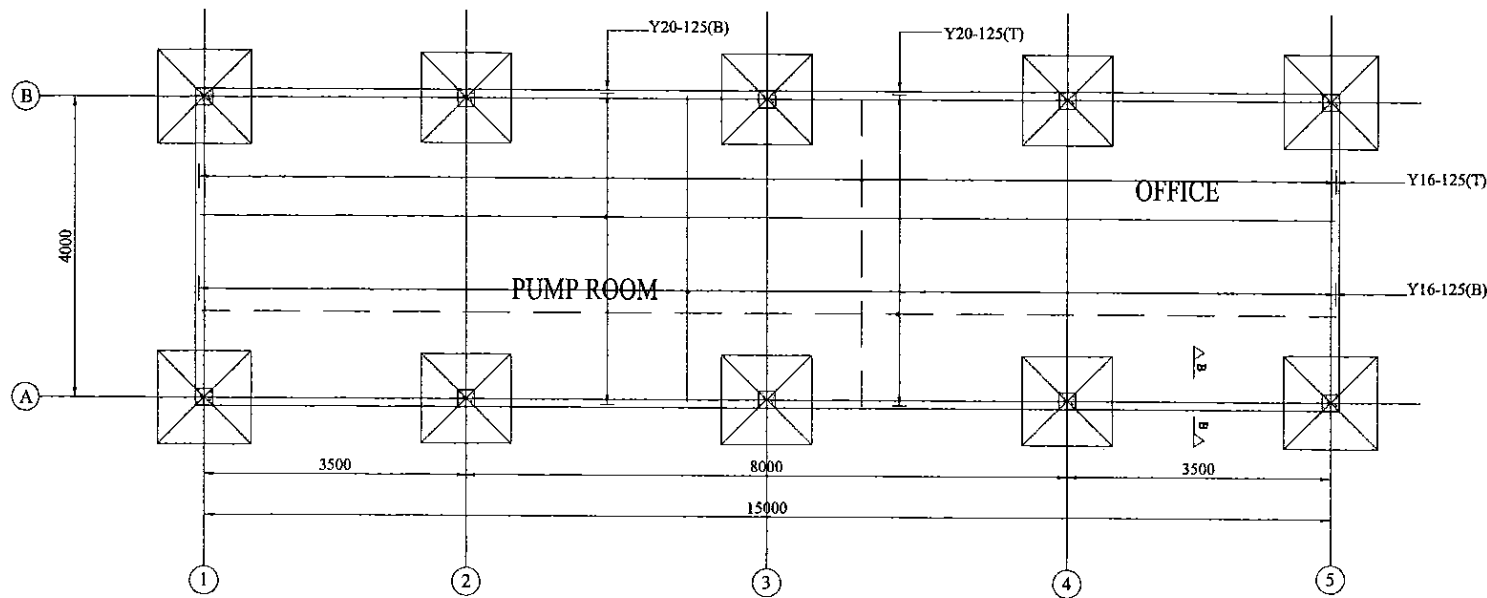
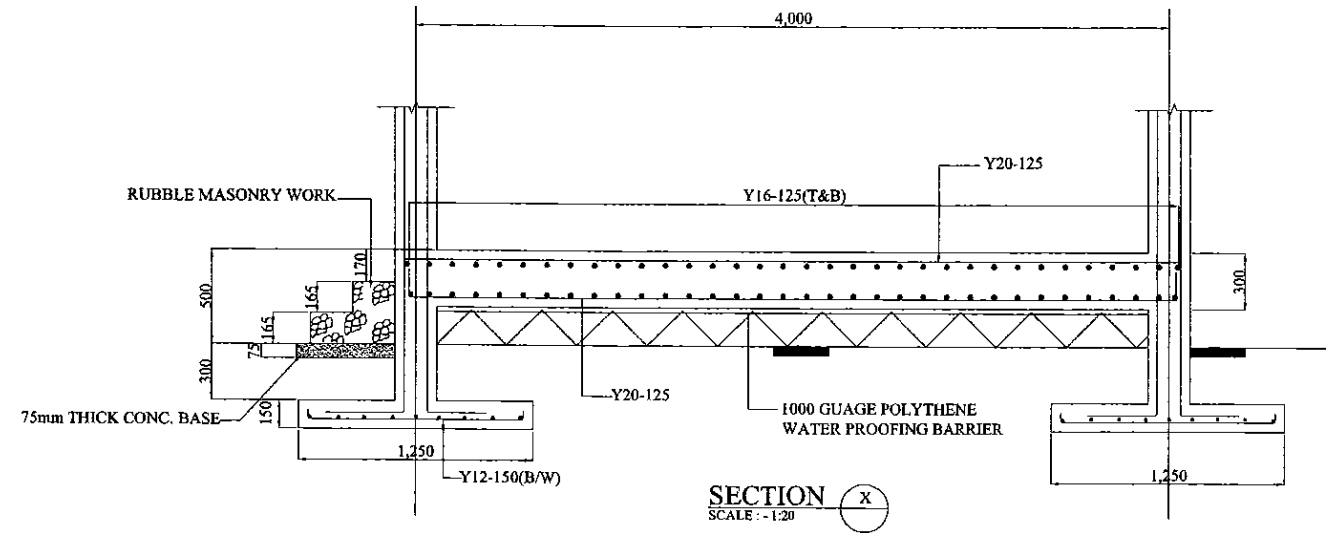


FOUNDATION RING BEAM - FRB - 01  
SCALE: 1:25

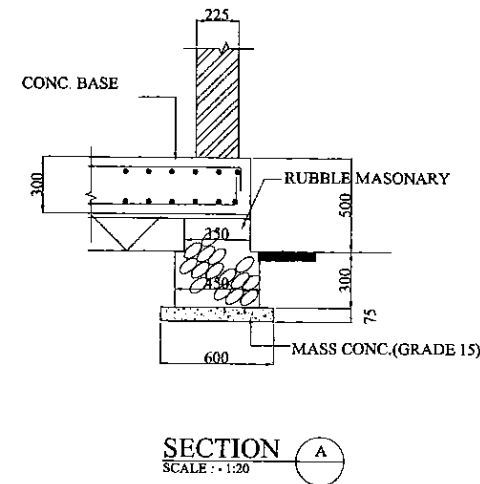
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KAHAWATTE SERVICE RESERVOIR & PUMPING STATION - R/F DETAILS - SLABS & RING BEAMS									
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN	
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-04-04	
								DESIGN CHIEF					

SCHEDULE OF FOOTINGS		
TYPE	SIZE / LOCATION	R/F DETAILS
F1	1250x1250 1/A, 1/B, 5/A, 5/B	Y12-150(B/W)
C2	1200x1200 2/A, 2/B, 3/A, 3/B 4/A, 4/B	Y12-150(B/W)

SCHEDULE OF COLUMNS		
TYPE	SIZE / LOCATION	R/F DETAILS
C1	225x225 1/A, 1/B, 5/A, 5/B	2Y16 2Y16 LINKS R6 @ 150
C2	225x225 2/A, 2/B, 3/A, 3/B 4/A, 4/B	2Y12 2Y12 LINKS R6 @ 150



1 FOUNDATION SLAB  
Dwg.No. 1:50



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

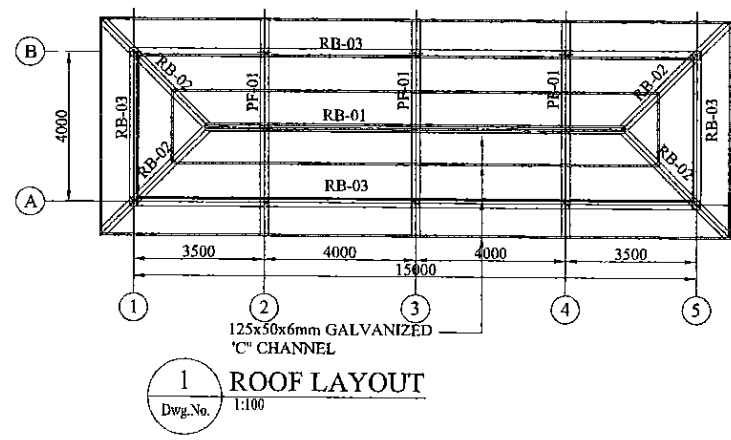
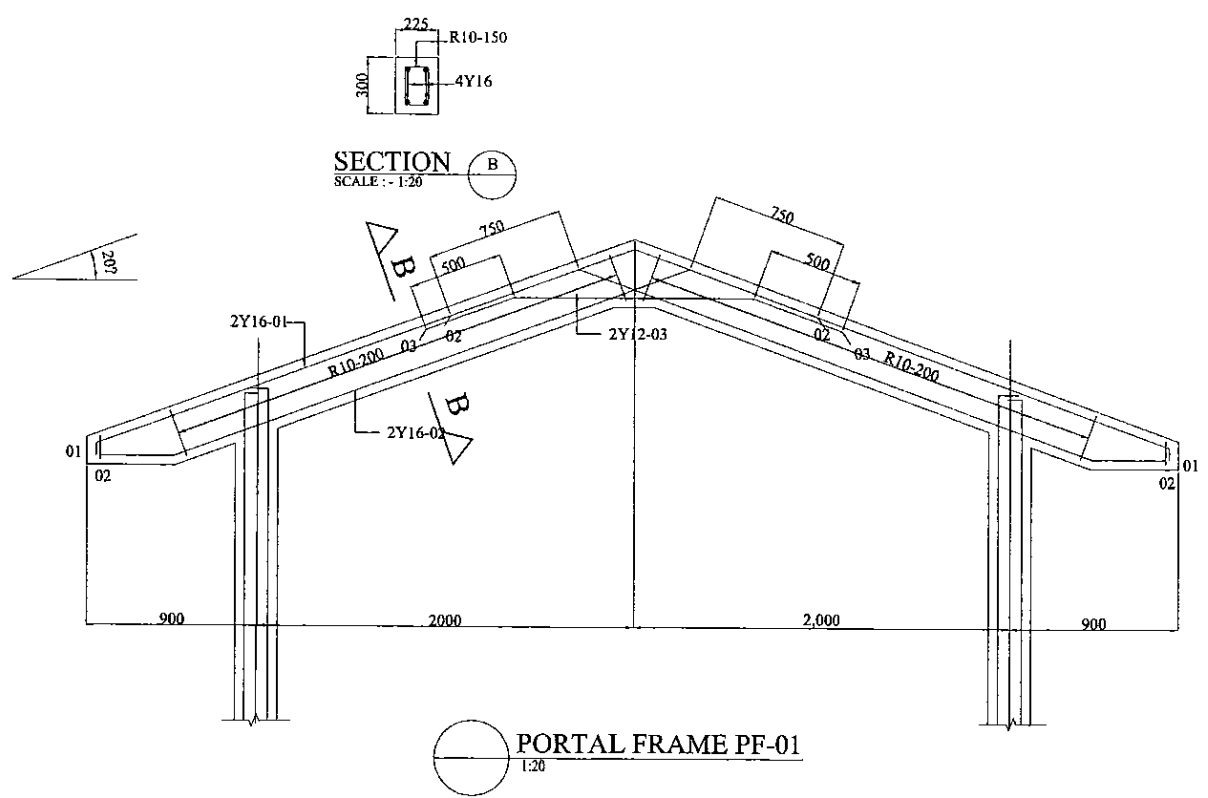
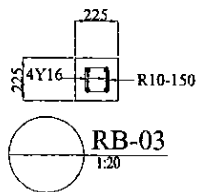
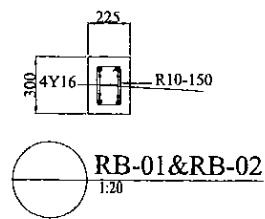
TITLE: KAHAWATTE PUMP STATION - R/F DETAILS FOUNDATION

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-04-05





1 ROOF LAYOUT  
Dwg.No. 1:100

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

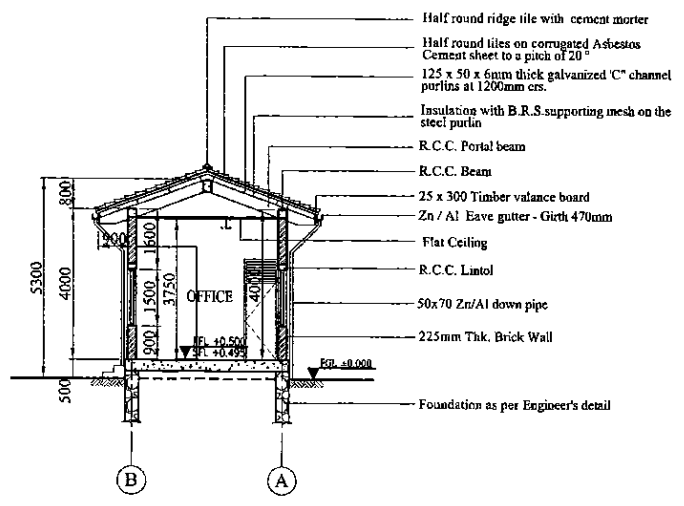
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: KAHAWATTE PUMP STATION - R/F DETAILS OF ROOF & ROOF BEAMS

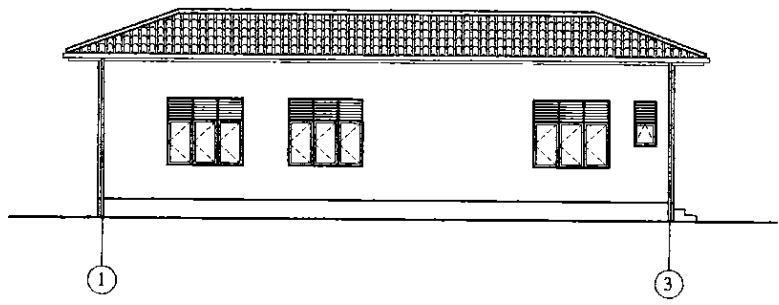
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SOVIS	Ikio MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-04-06

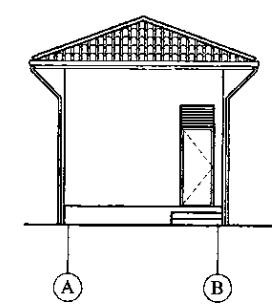
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	NO.
D1	900x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thk. clear float Glass single sash door with Aluminium louvers above.	01
D2	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
D3	2000x2700		Steel framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thk. clear float Glass double sash door with Aluminium louvers above.	01
D4	900x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
W1	600x1200	1500	Aluminium framed 5mm thk. clear float glass single sash windows with Aluminium louvers above.	01
W2	2000x1800	900	Aluminium framed 5mm thk. clear float glass 3 sash windows with Aluminium louvers above.	03



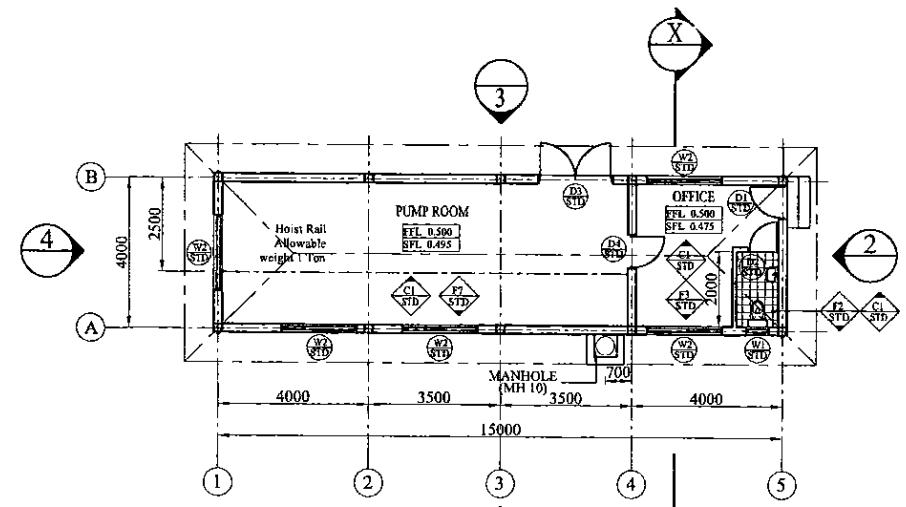
**SECTION X-X**  
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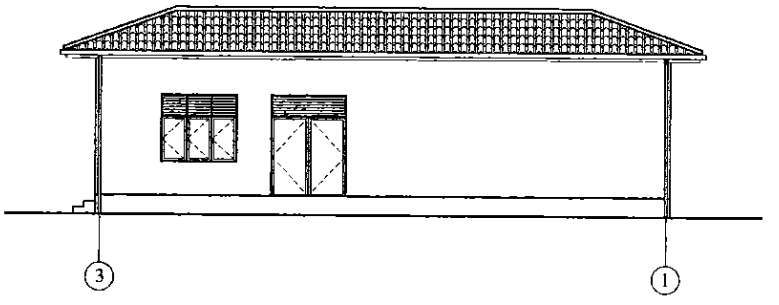
**ELEVATION - 1**  
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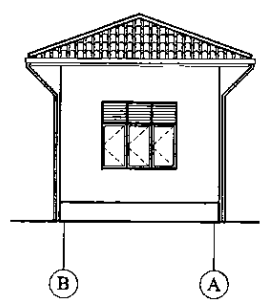
**ELEVATION - 2**  
1:100



**PLAN**  
1:100



**ELEVATION - 3**  
1:100



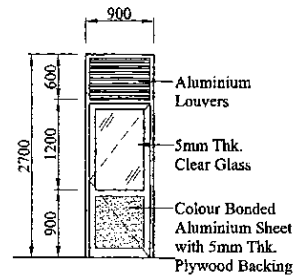
**ELEVATION - 4**  
1:100

**NOTE:**  
Platform Level of Building = +499.0  
Therefore FGL = 0.00 - 499.0 (AMSL)

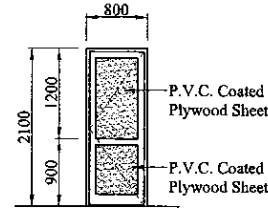
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>KAWATTA PUMP STATION PLAN, SECTION AND ELEVATIONS</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED:	DRAWN: <b>Poorna</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1 : 100</b>
								CHECKED: <b>Roshan</b> DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-A-04-01</b>

DATE: 17/02/2001

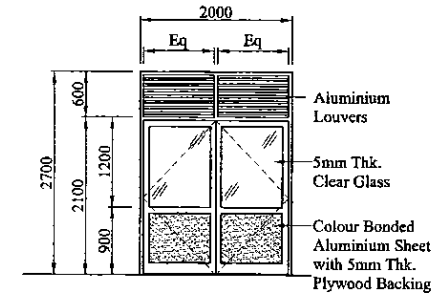
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	NOS
D1	900x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thk. clear float glass single sash door with Aluminium louvers above.	01
D2	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
D3	2000x2700		Steel framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thk. clear float glass double sash door with Aluminium louvers above.	01
D4	900x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
W1	600x1200	1500	Aluminium framed 5mm thk. clear float glass single sash windows with Aluminium louvers above.	01
W2	2000x1800	900	Aluminium framed 5mm thk. clear float glass 3 sash windows with Aluminium louvers above.	05



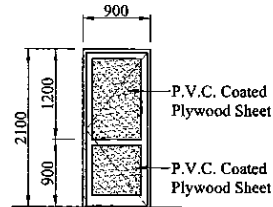
STD ELEVATION D1  
1:50



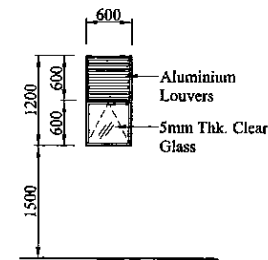
STD ELEVATION D2  
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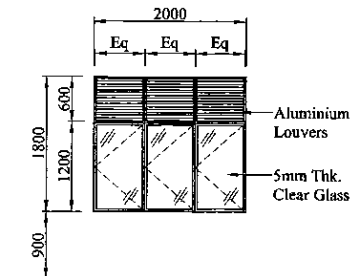
STD ELEVATION D3  
1:50



STD ELEVATION D4  
1:50



STD ELEVATION W1  
1:50



STD ELEVATION W2  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

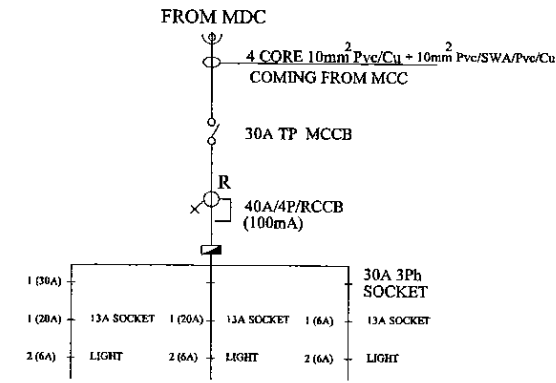
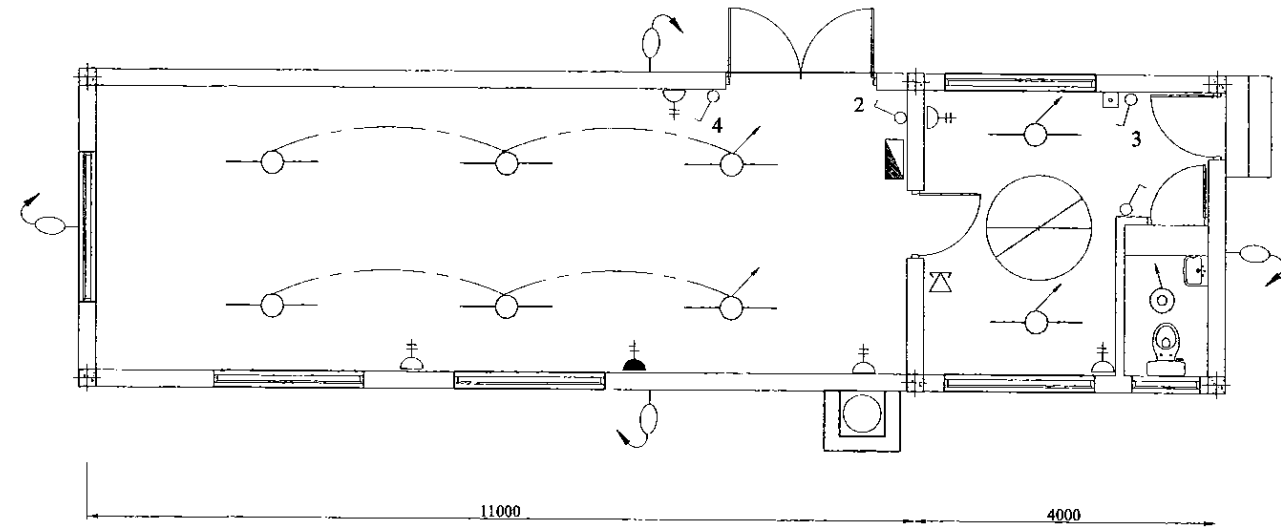
TITLE: KAHAWATTA PUMP STATION - DETAILS OF DOORS AND WINDOWS

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)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX			Ikuo MIWA		1 : 50
				CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-04-02

DATE: 17/07/2001



DISTRIBUTION DIAGRAM

LEGEND (Electrical)

- 1x36 Watt x 1200mm FLOURESCENT FITTING, IP65 TYPF (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 3 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
- WALL BRACKET LAMP FITTING c/w 18 Watt CFL, POLYCARBONATE GLOBE & ALUMINIUM BRACKET (IP Rating - IP 65)
- DOWN LIGHT
- 1x36 Watt x 1200mm
- PENDANT LAMP WITH 18 Watt CFL
- 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- 32A TPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- 125W MERCURY VAPOR COBRA HEAD TYPE OUT DOOR LAMP
- ONE WAY SWITCH (FFL + L.S)
- TWO WAY SWITCH (FFL + L.S)
- METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
- TELEPHONE SOCKET OUTLET
- 1400mm CEILING FAN
- FAN REGULATOR (FFL + L.S)
- EXHAUST FAN

LEGEND (Fire)

- 6kg DRY POWDER EXTINGUISHER
- 2kg CARBON DIOXIDE EXTINGUISHER

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

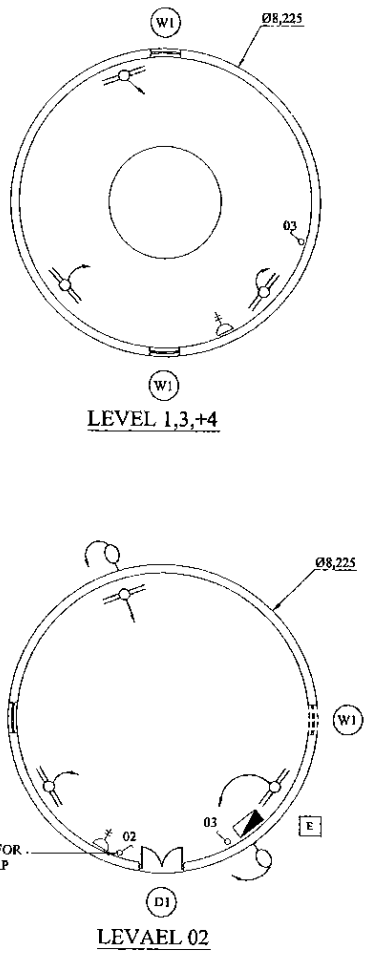
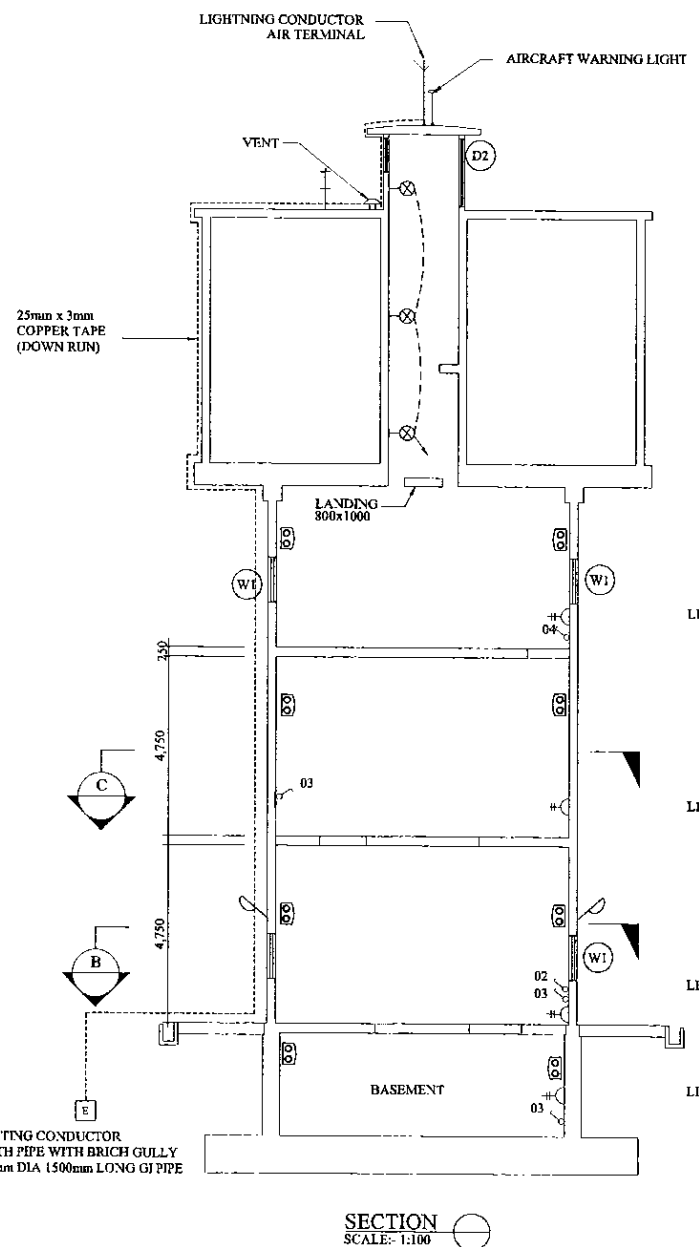
TITLE: KAHAWATTA PUMP STATION - ELECTRICAL LAYOUT

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)	CE: (P&D)	SCALE:
				ATG	lakmal			1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			06/03/2002	30-A-04-21

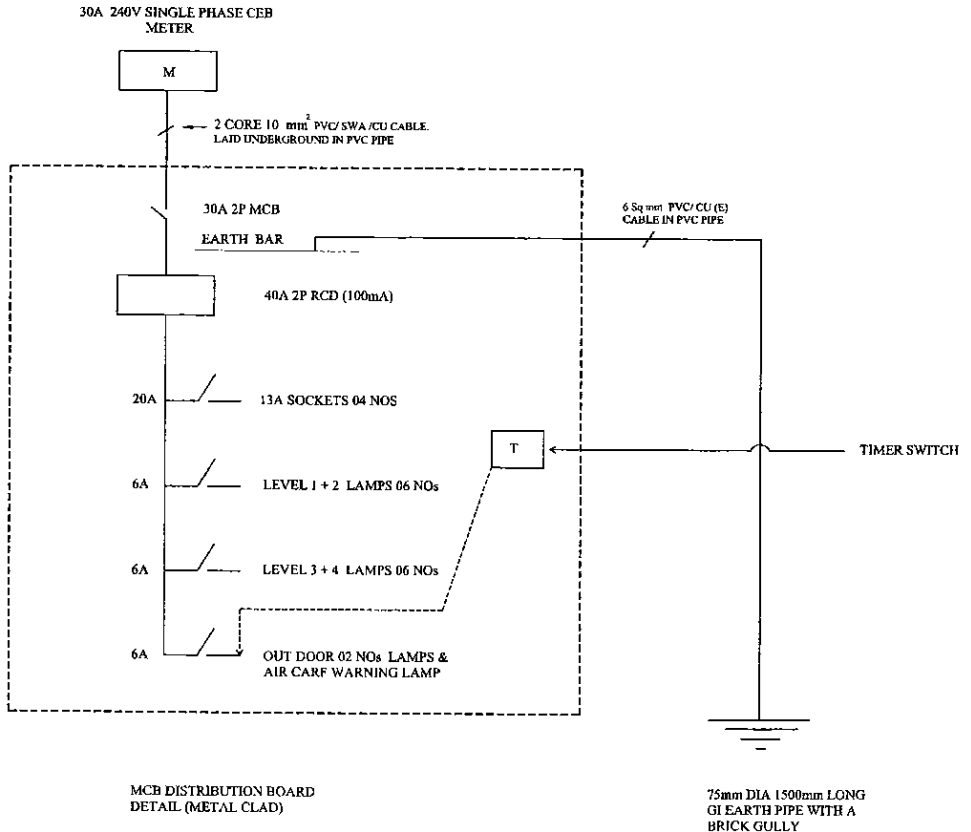
DATE: 17/07/2001 W.ani



**NOTE**

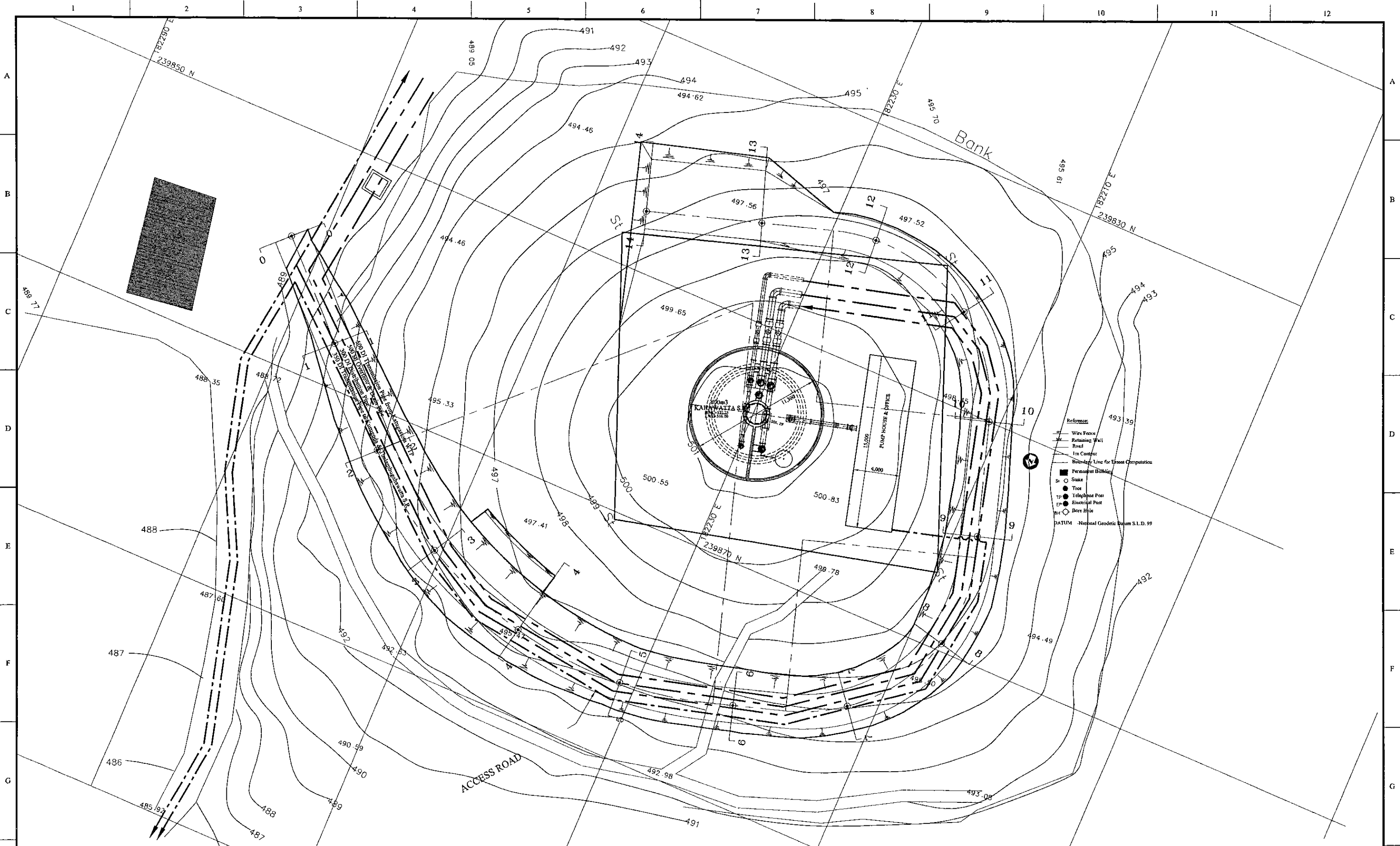
- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

- LEGEND (Electrical)**
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) e/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ⊗ 60W OUT DOOR WALL BRACKET LAMP FITTING
  - ⊕ 5A ONE WAY SWITCH (FFL + L.5)
  - 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
  - ⊕ EARTH PIPE
  - ▭ METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ELECTRICAL PLAN FOR KAHAWATTE WATER TOWER								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: ATG	DRAWN: lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-04-22

DATE: 07.08.2001 11:58 AM



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT PLAN OF 600m<sup>3</sup> KAHAWATTA S.R AND P.S

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

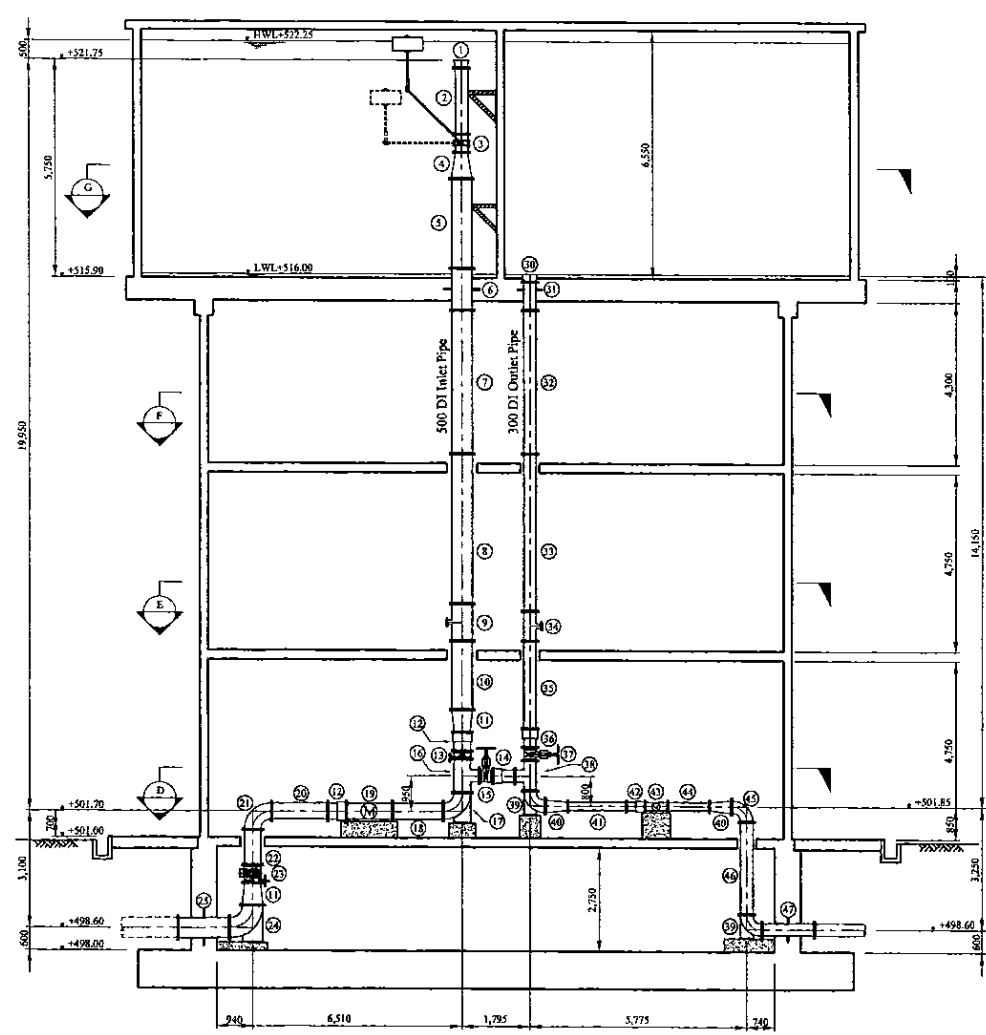


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

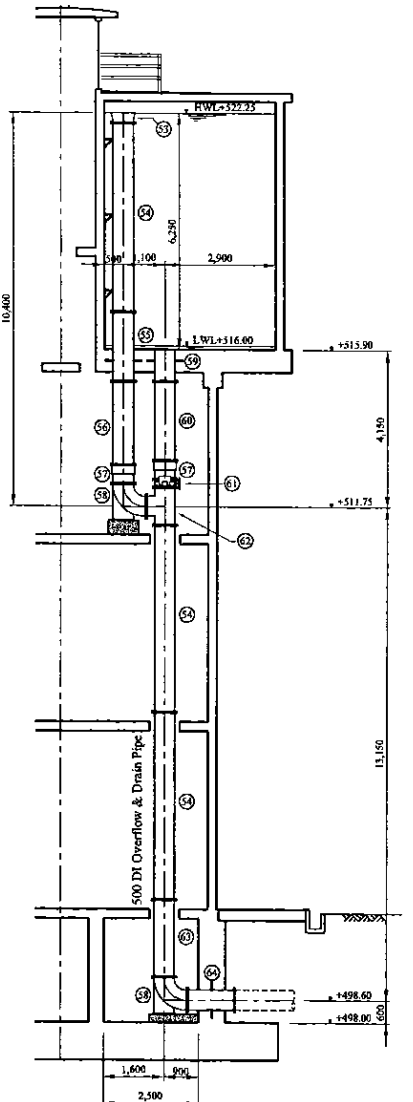


REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-04-01

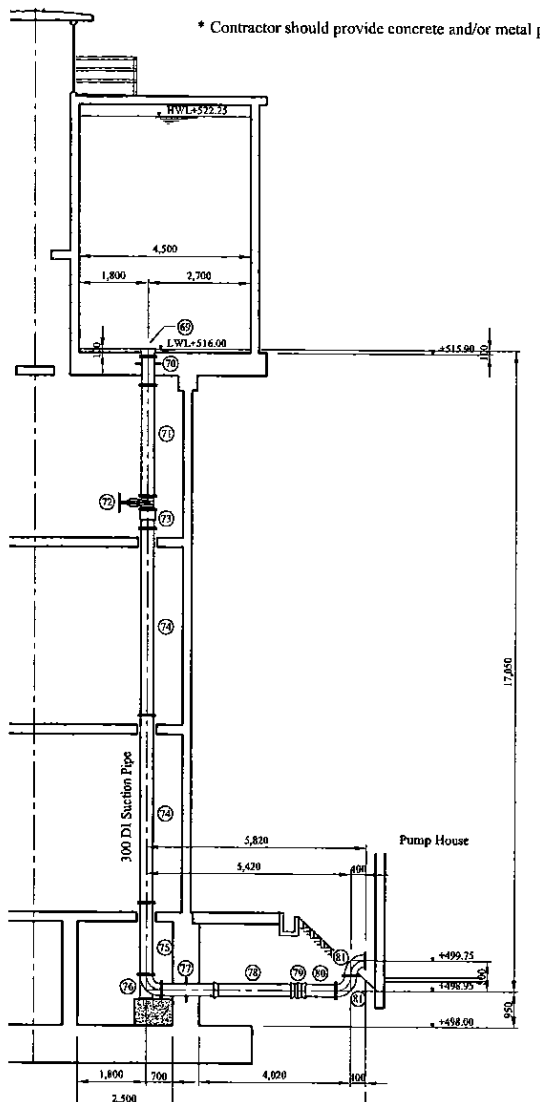
\* Contractor should provide concrete and/or metal pipe support.



SECTION A  
SCALE: 1:100



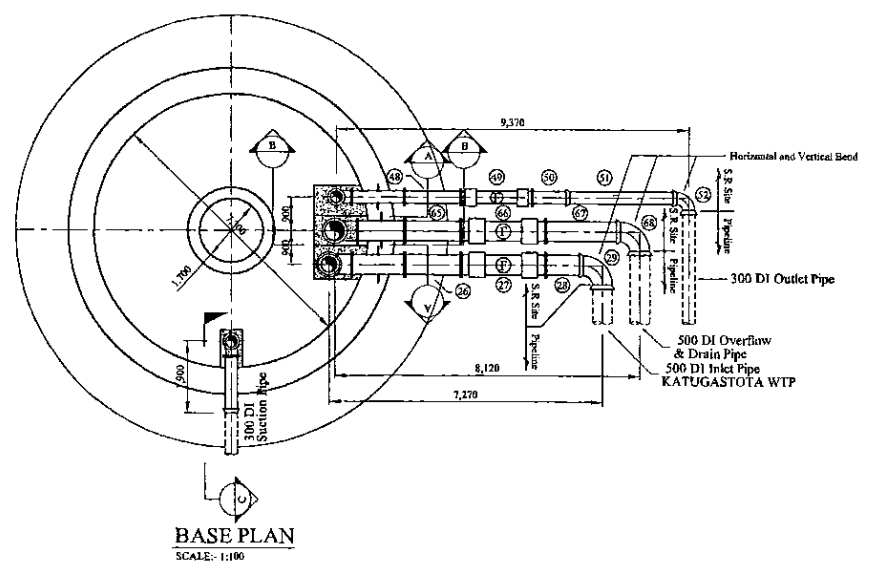
SECTION B  
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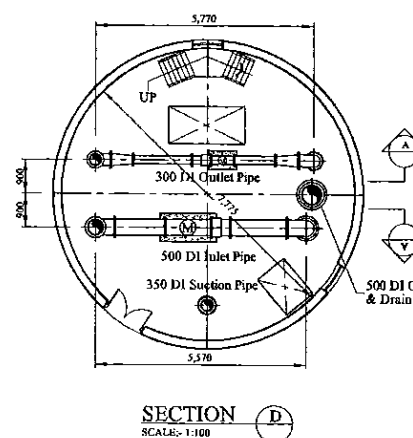
SECTION C  
SCALE: 1:100

Item	Material	Qty	Description-1	Description-2	Quantity
1	DN 300	1	Flanged Bellmouth	PN10	1
2	DN 300	1	Double Flanged Piece	PN10	1
3	DN 300	1	Butterfly Valve	PN10	1
4	DN 300	1	Double Flanged Piece with Puddle	PN10	1
5	DN 300	1	Double Flanged Piece	PN10	1
6	DN 300	1	Double Flanged Piece with Puddle	PN10	1
7	DN 300	1	Double Flanged Piece	PN10	1
8	DN 300	1	Double Flanged Piece	PN10	1
9	DN 300	1	Double Flanged Piece with Puddle	PN10	1
10	DN 300	1	Double Flanged Piece	PN10	1
11	DN 300	1	Double Flanged Piece with Puddle	PN10	1
12	DN 300	1	Double Flanged Piece	PN10	1
13	DN 300	1	Double Flanged Piece with Puddle	PN10	1
14	DN 300	1	Double Flanged Piece	PN10	1
15	DN 300	1	Double Flanged Piece	PN10	1
16	DN 300	1	Double Flanged Piece with Puddle	PN10	1
17	DN 300	1	Double Flanged Piece	PN10	1
18	DN 300	1	Double Flanged Piece	PN10	1
19	DN 300	1	Double Flanged Piece	PN10	1
20	DN 300	1	Double Flanged Piece	PN10	1
21	DN 300	1	Double Flanged Piece	PN10	1
22	DN 300	1	Double Flanged Piece	PN10	1
23	DN 300	1	Double Flanged Piece	PN10	1
24	DN 300	1	Double Flanged Piece	PN10	1
25	DN 300	1	Double Flanged Piece	PN10	1
26	DN 300	1	Double Flanged Piece	PN10	1
27	DN 300	1	Double Flanged Piece	PN10	1
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30	DN 300	1	Double Flanged Piece	PN10	1
31	DN 300	1	Double Flanged Piece	PN10	1
32	DN 300	1	Double Flanged Piece	PN10	1
33	DN 300	1	Double Flanged Piece	PN10	1
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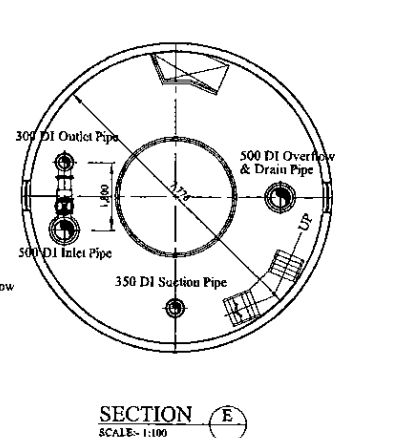
71	DN 300	1	Double Flanged Piece	PN10	1
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78	DN 300	1	Double Flanged Piece	PN10	1
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80	DN 300	1	Double Flanged Piece	PN10	1
81	DN 300	1	Double Flanged Piece	PN10	1



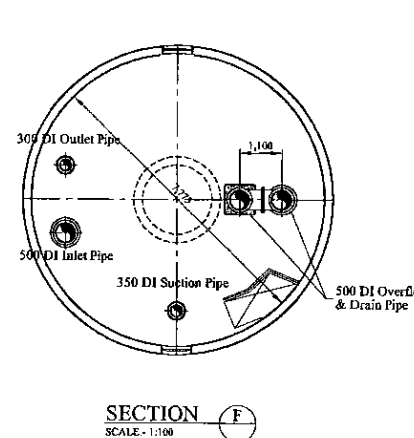
BASE PLAN  
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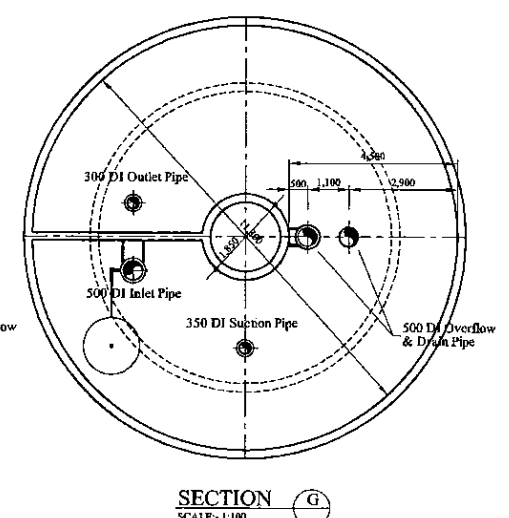
SECTION D  
SCALE: 1:100



SECTION E  
SCALE: 1:100

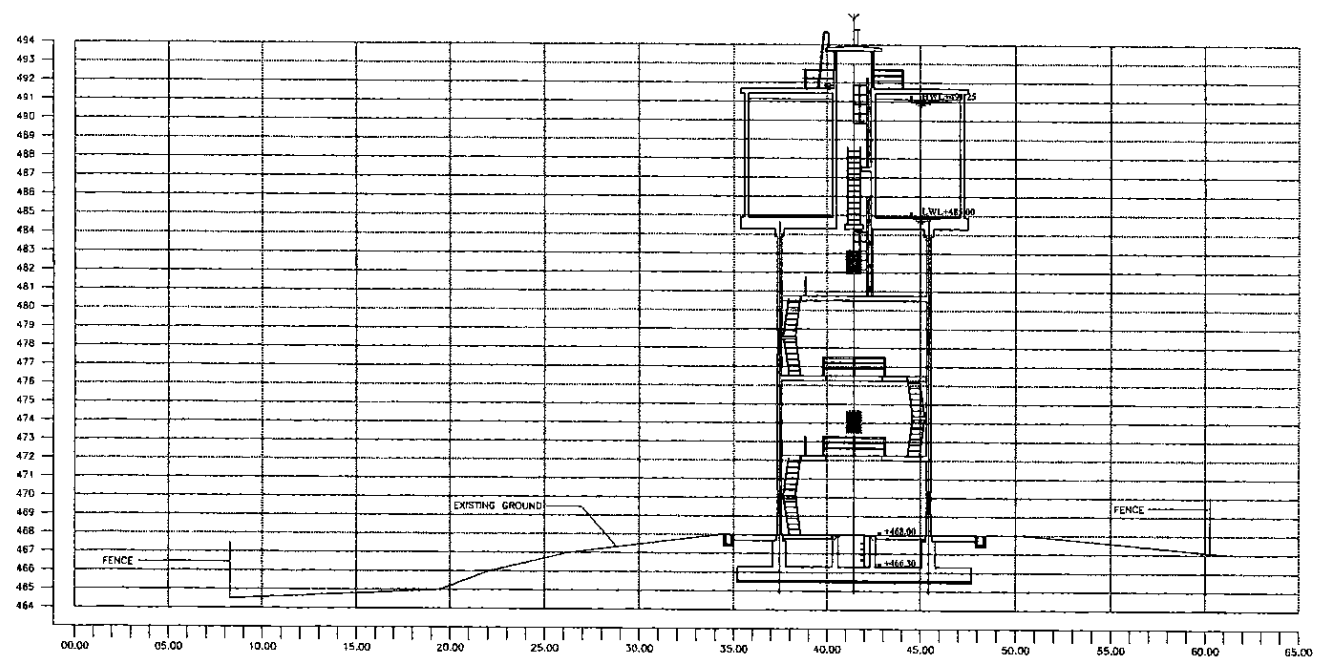


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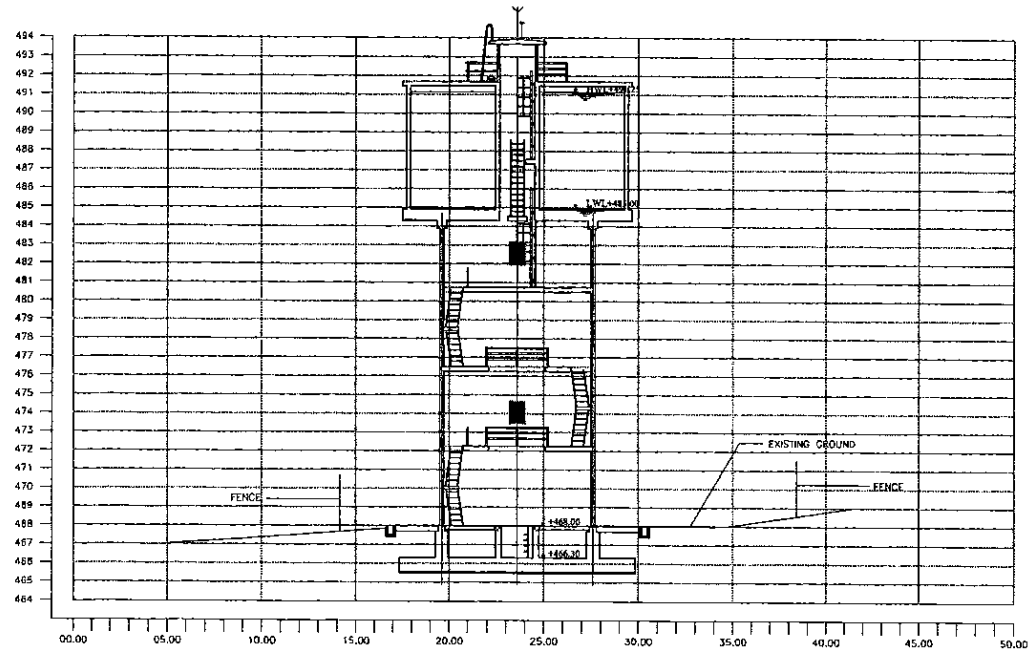


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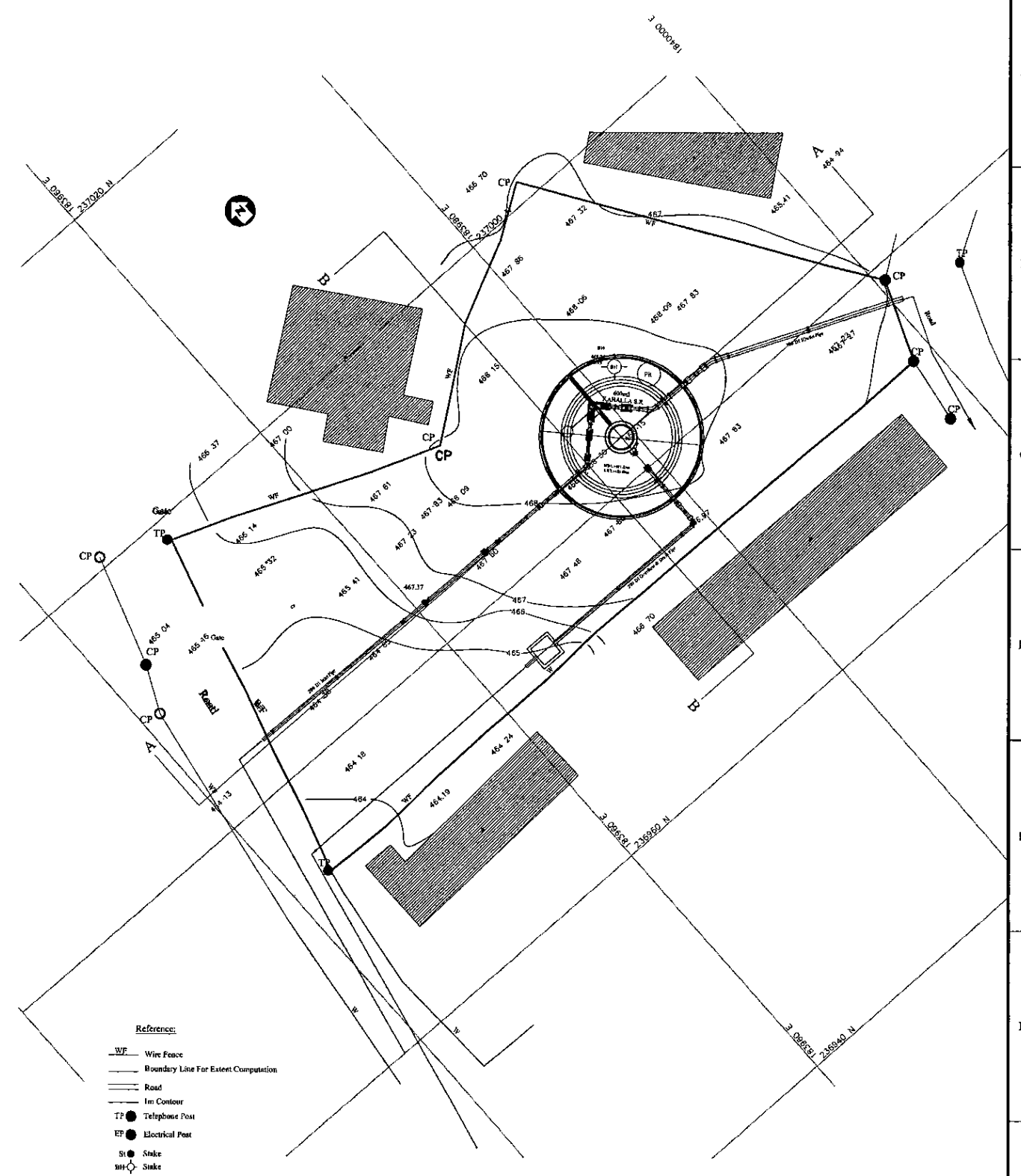
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF KAHAWATTA S.R & P.S									
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100	
				CHECKED: DESIGN CHIEF				AGM: (P&D)		DGM: (P&D)		DATE: 31/05/2002	DRAWING NO.: 31-C-04-02



SECTION A - A  
1:200



SECTION B - B  
1:200



PLAN  
1:200

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF 600m3 KAHALLA S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

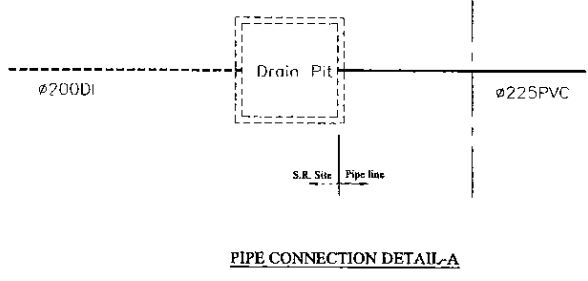
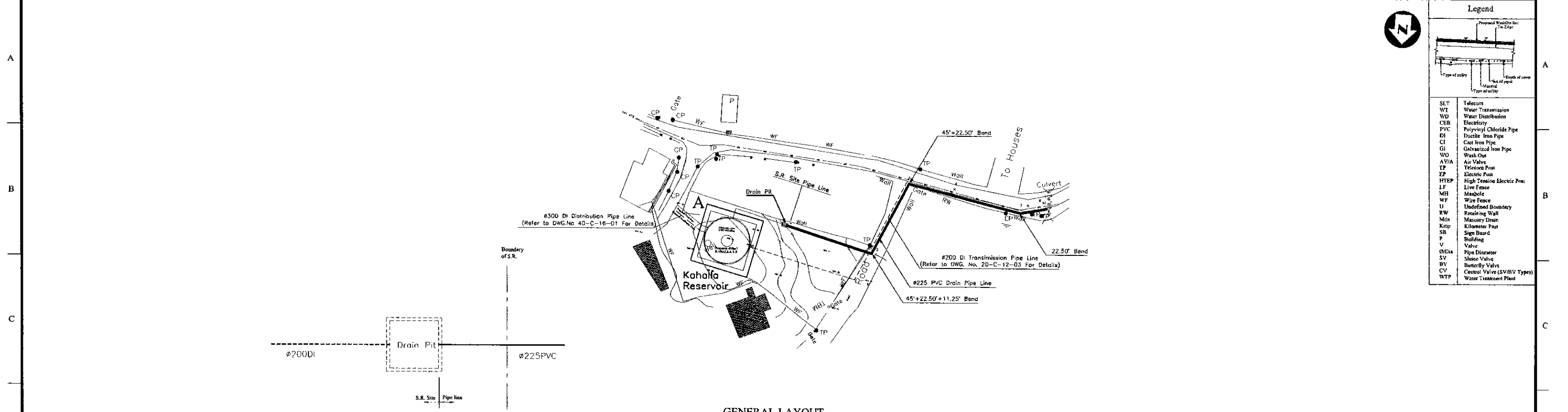


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

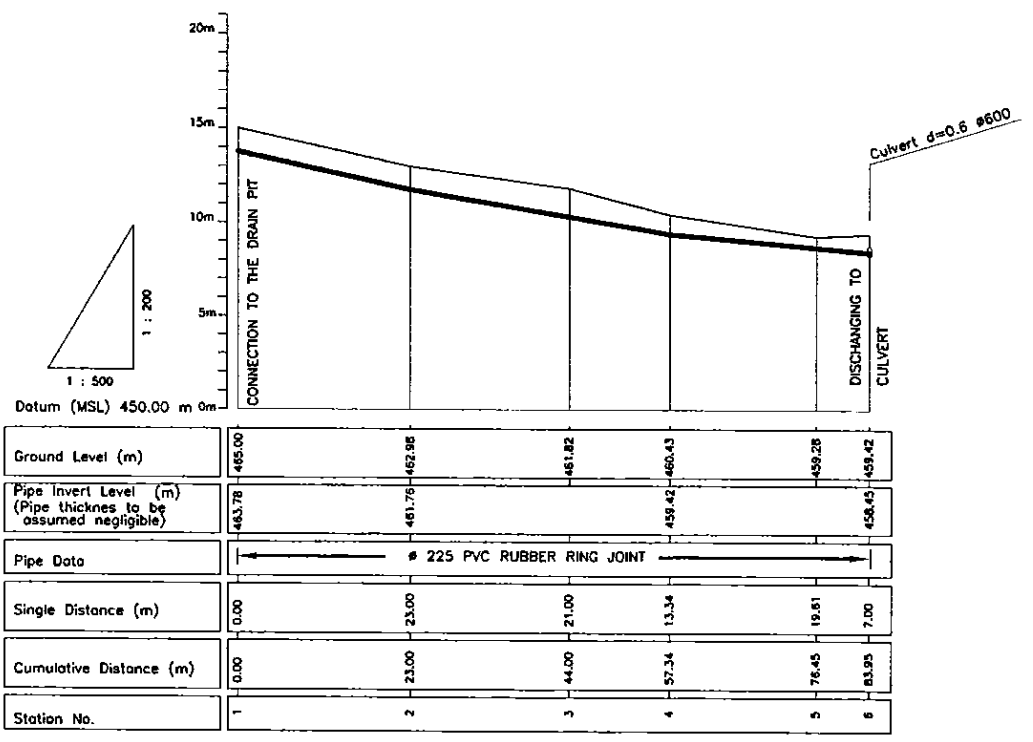


REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuno MIWA		1:200
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				DESIGN CHIEF			31/05/2002	30-C-05-01



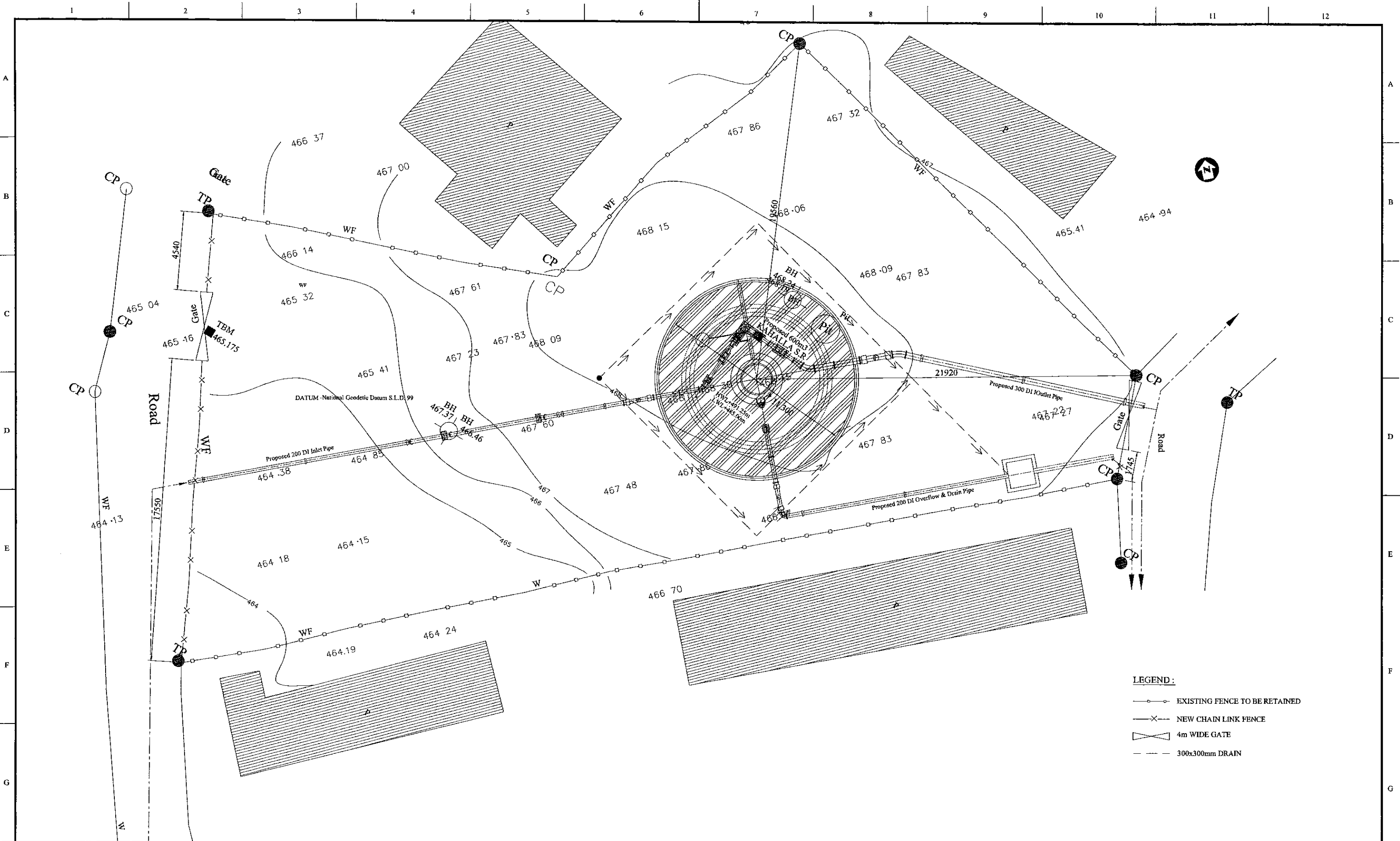


GENERAL LAYOUT



LONGITUDINAL SECTION

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WASHOUT FROM KAHALLA SERVICE RESEVOIR					SHEET 1 OF 1			
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-05-02






- LEGEND:**
- EXISTING FENCE TO BE RETAINED
  - X--- NEW CHAIN LINK FENCE
  - ⊞ 4m WIDE GATE
  - - - 300x300mm DRAIN

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

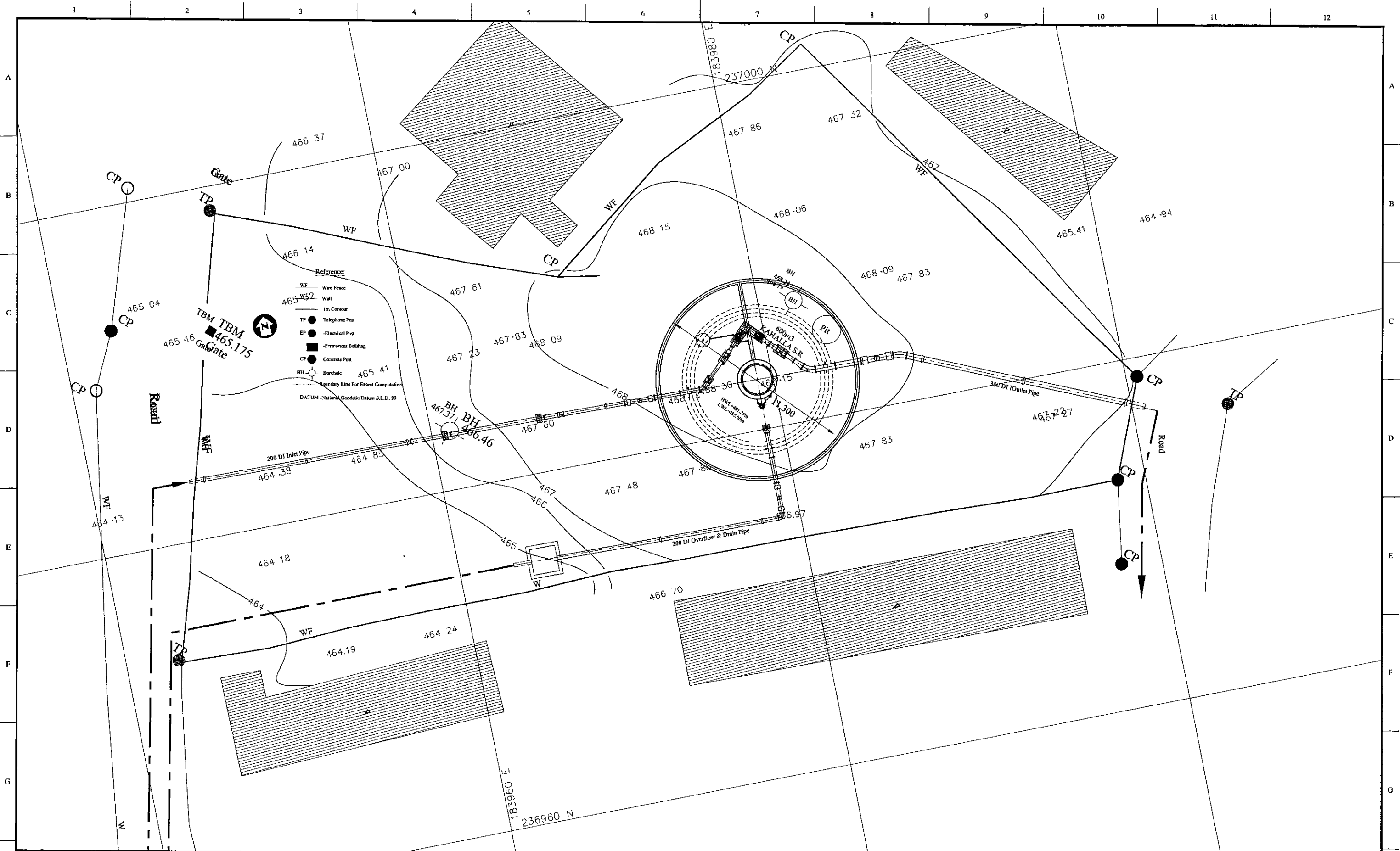
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **600m3 KAHALLA S.R. LANDSCAPING LAYOUT**

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)	CE: (P&D)	SCALE:
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-05-03



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



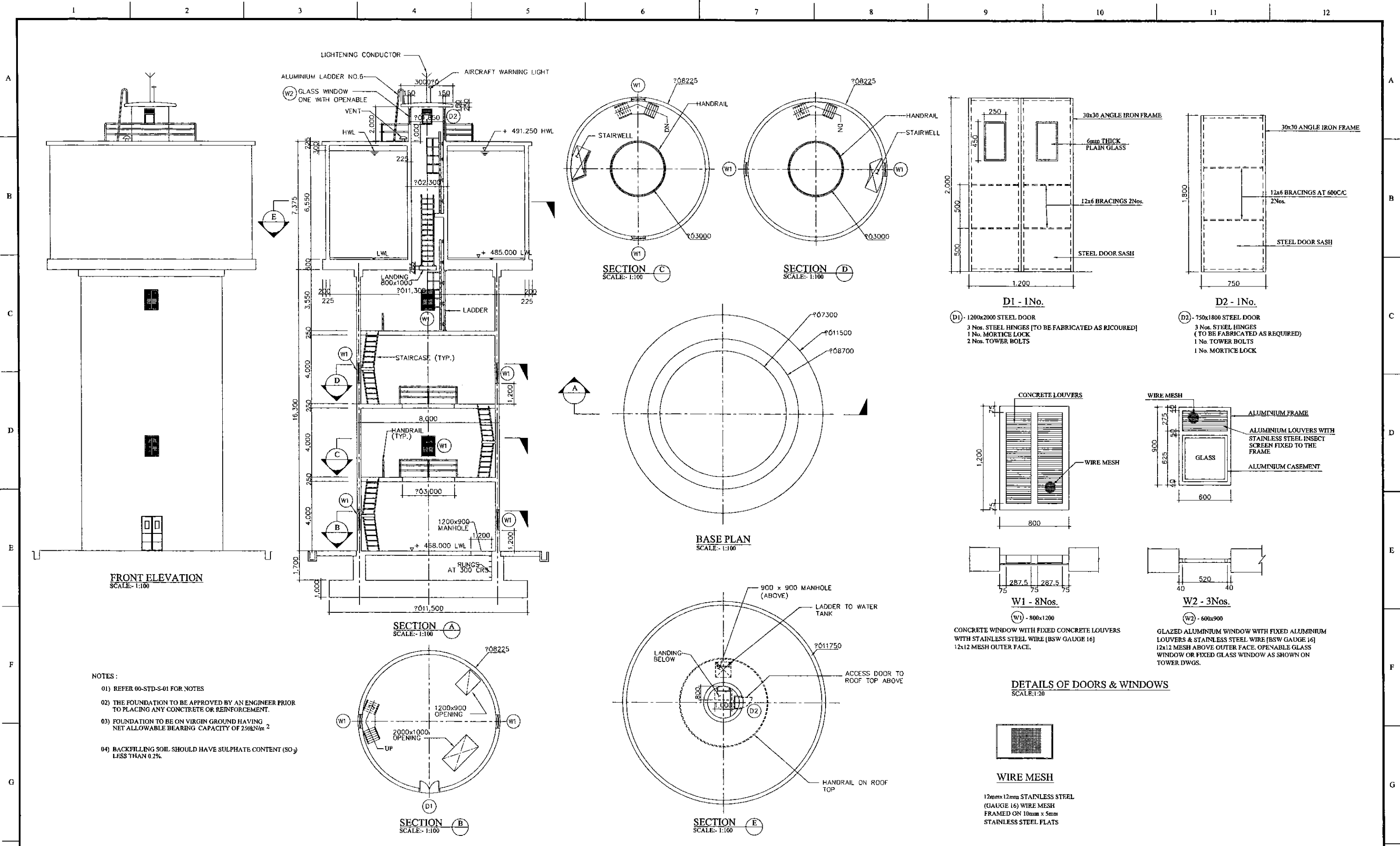
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **KAHALLA SERVICE RESERVOIR SITE PLAN**

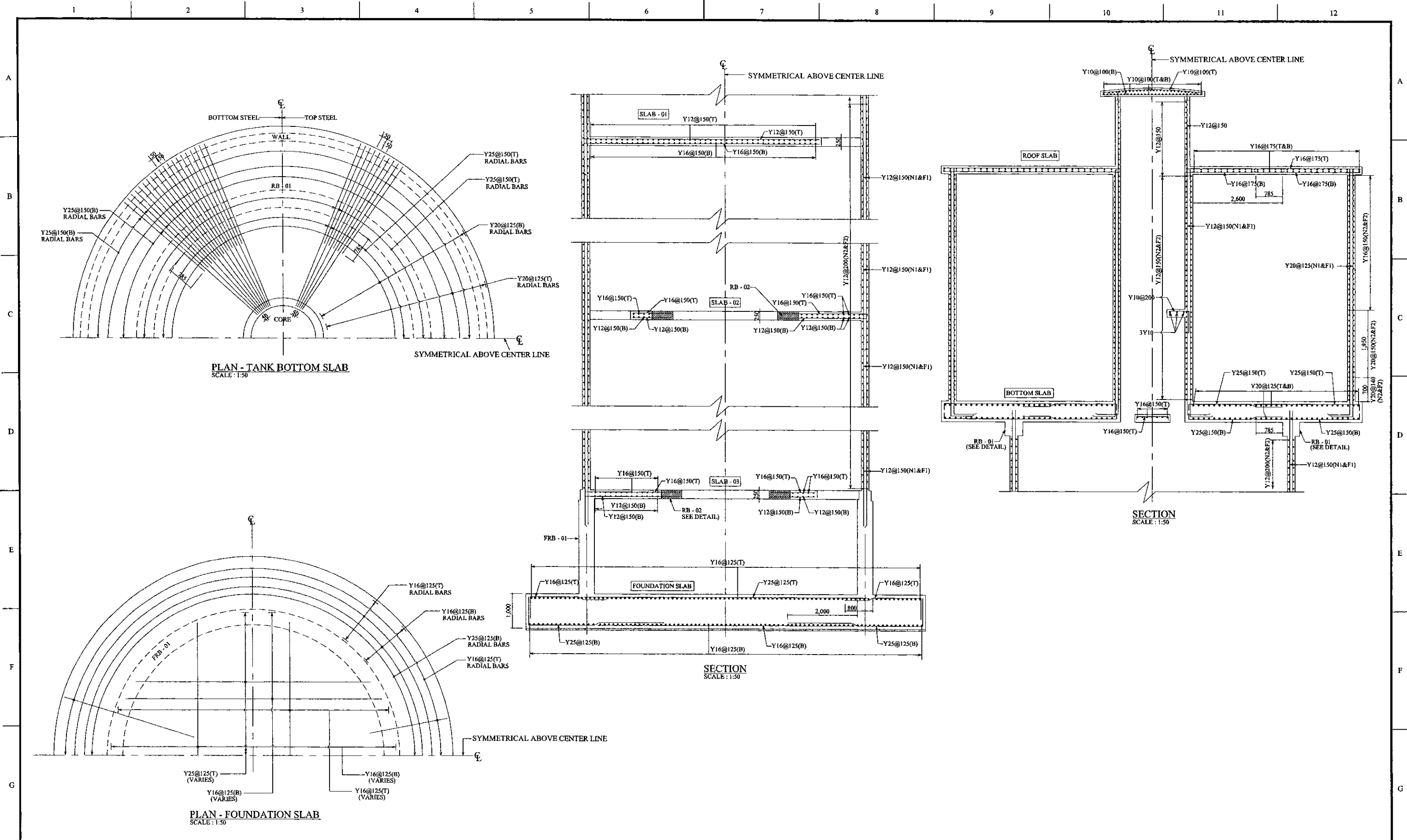
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

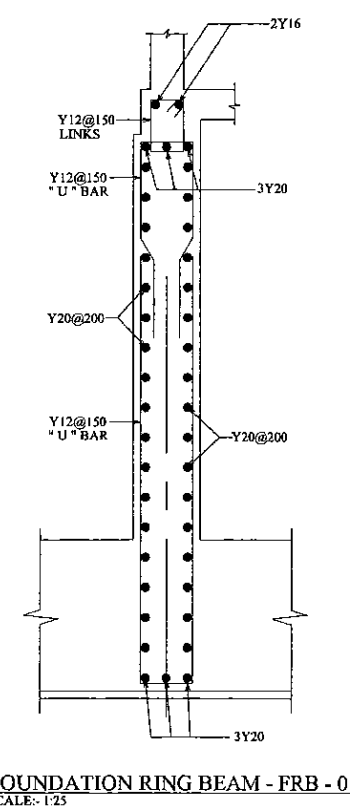
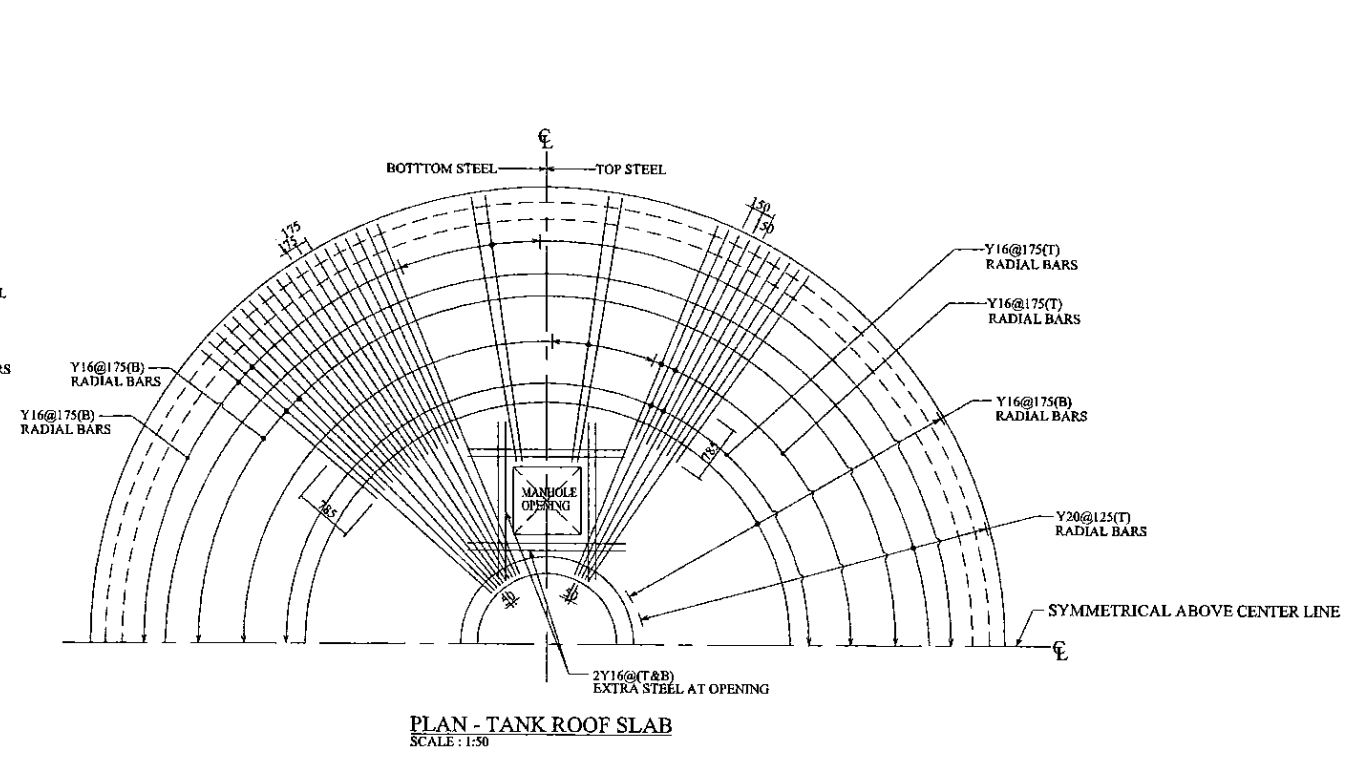
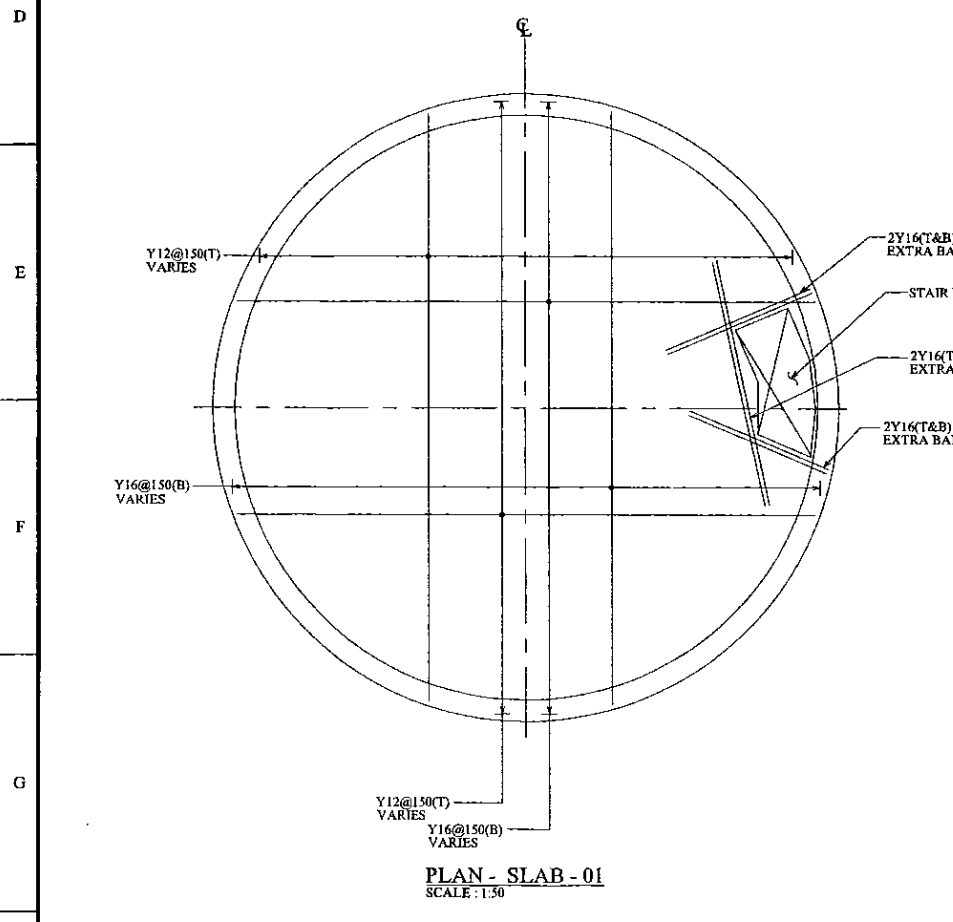
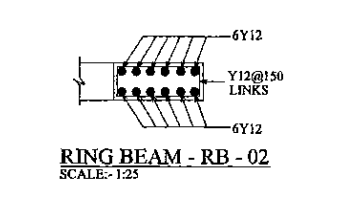
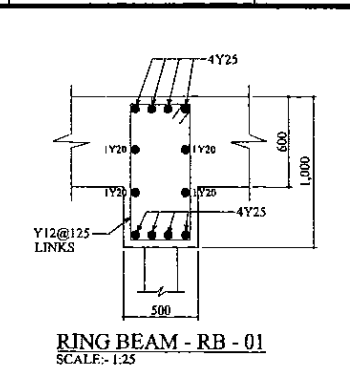
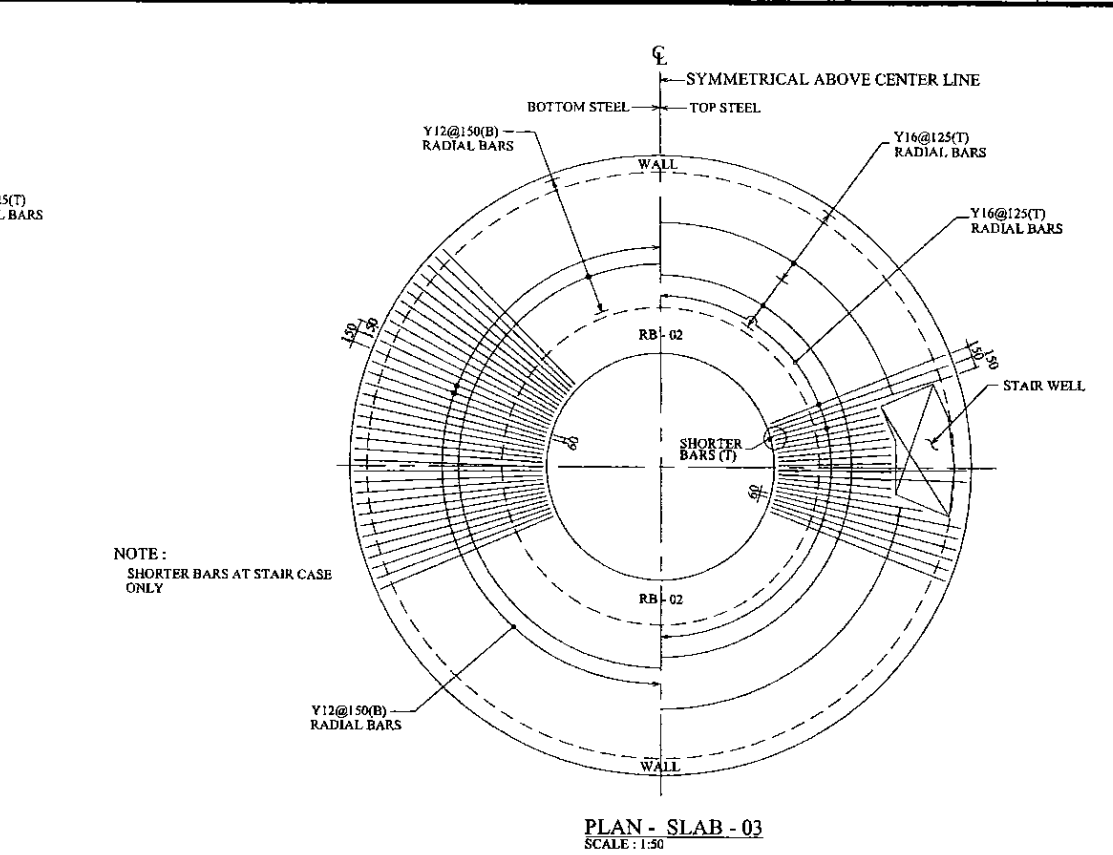
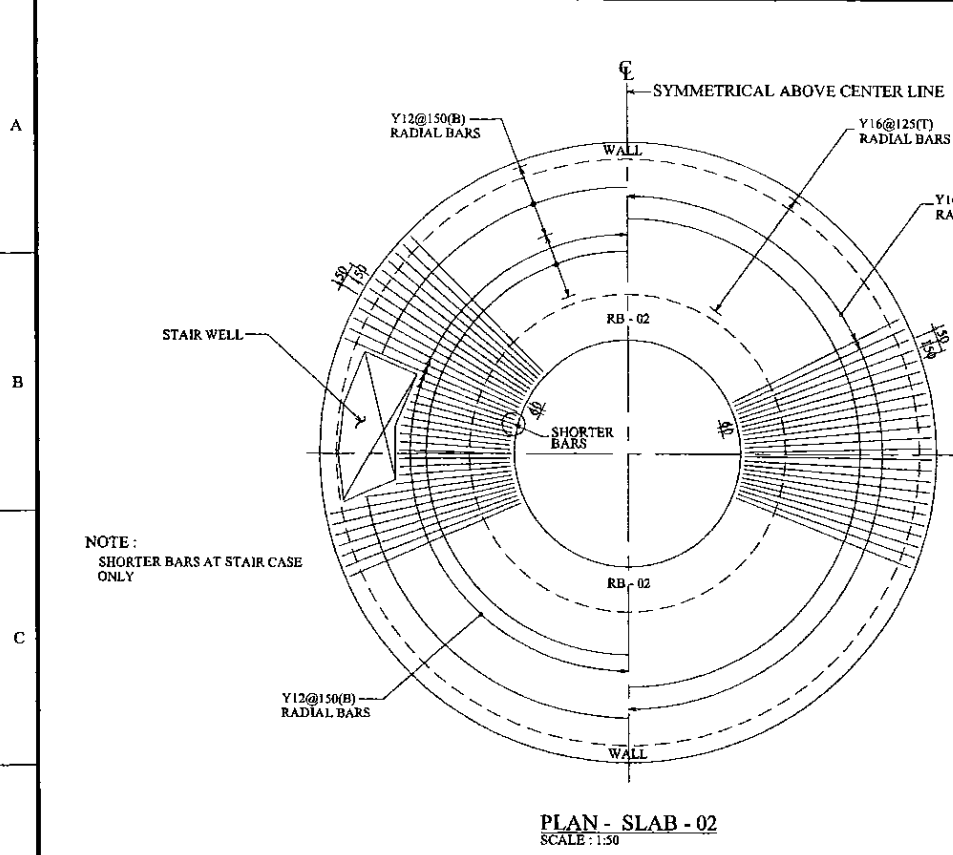
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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				DESIGN CHIEF			31/05/2002	30-S-05-01



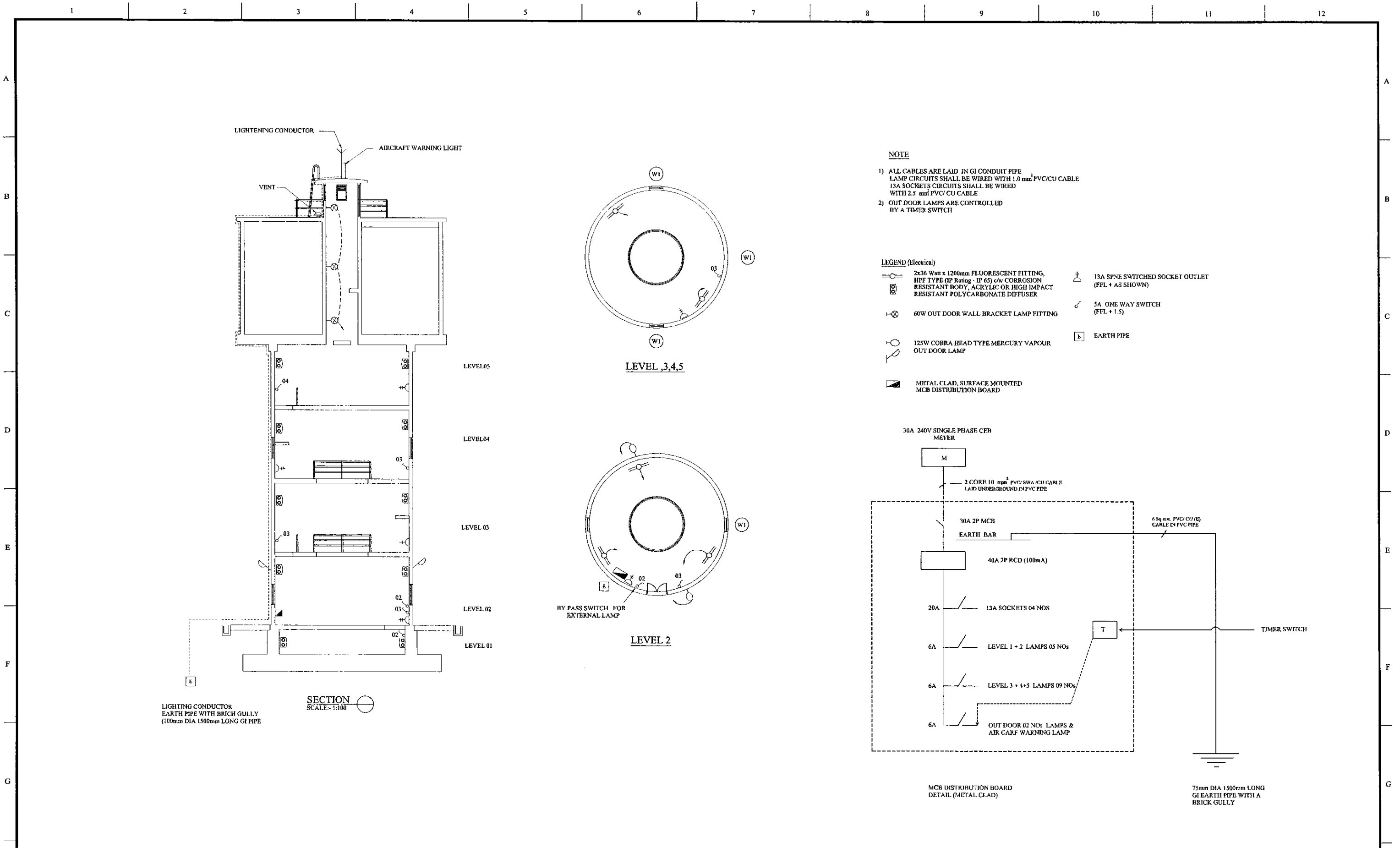
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>KAHALA SERVICE RESERVOIR - GENERAL ARRANGEMENT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>INSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAM</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
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<b>PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE: KAHALLA SERVICE RESERVOIR &amp; PUMPING STATION - R/F DETAILS - FOUNDATION SLAB , TANK BOTTOM SLAB</b>								
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAM	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1:50
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PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KAHALLA SERVICE RESERVOIR & PUMPING STATION - R/F DETAILS - SLABS & RING BEAMS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-05-04



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

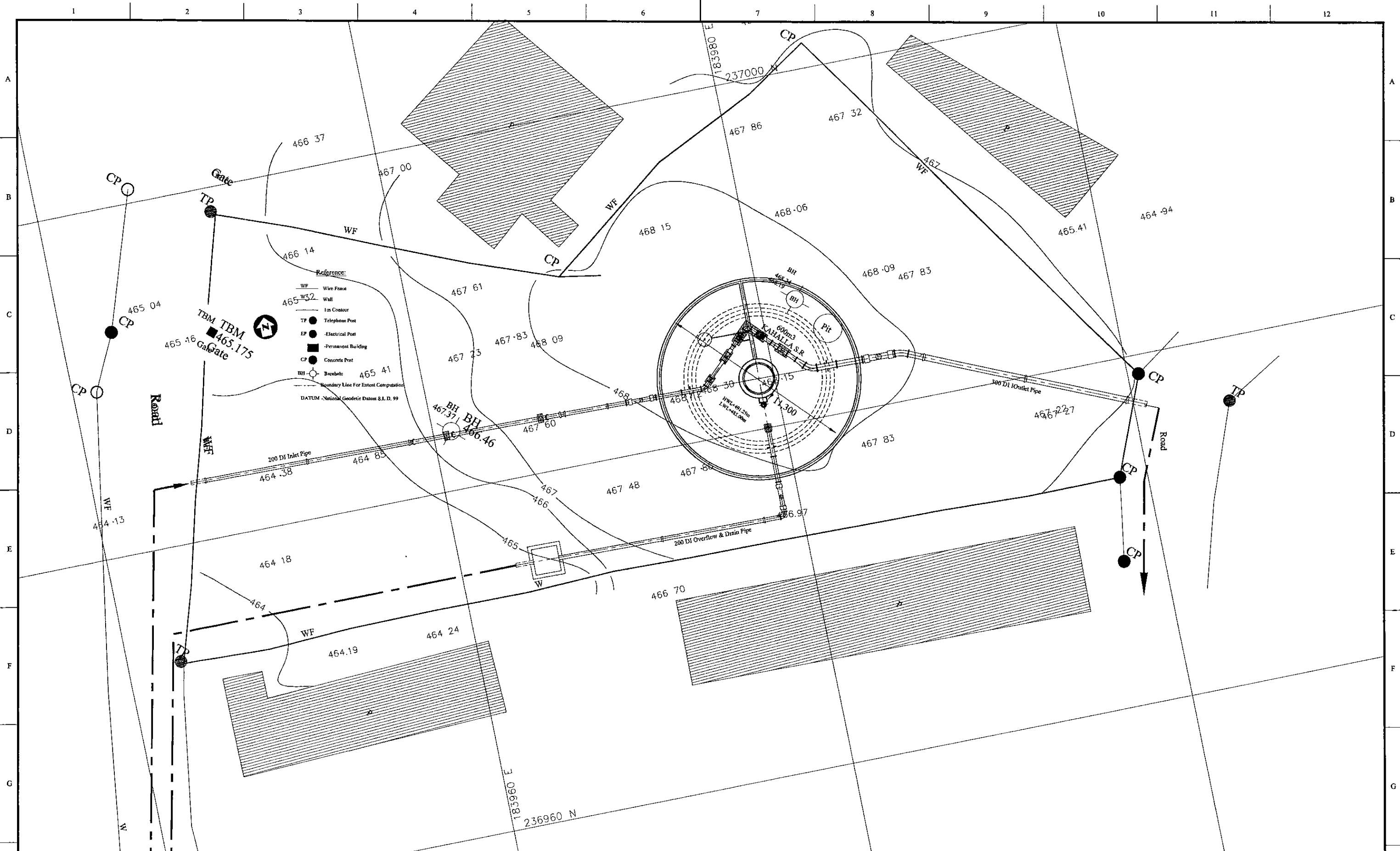
TITLE: KAHALA SERVICE RESERVOIR - ELECTRICAL LAYOUT

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)	CE: (P&D)	SCALE:
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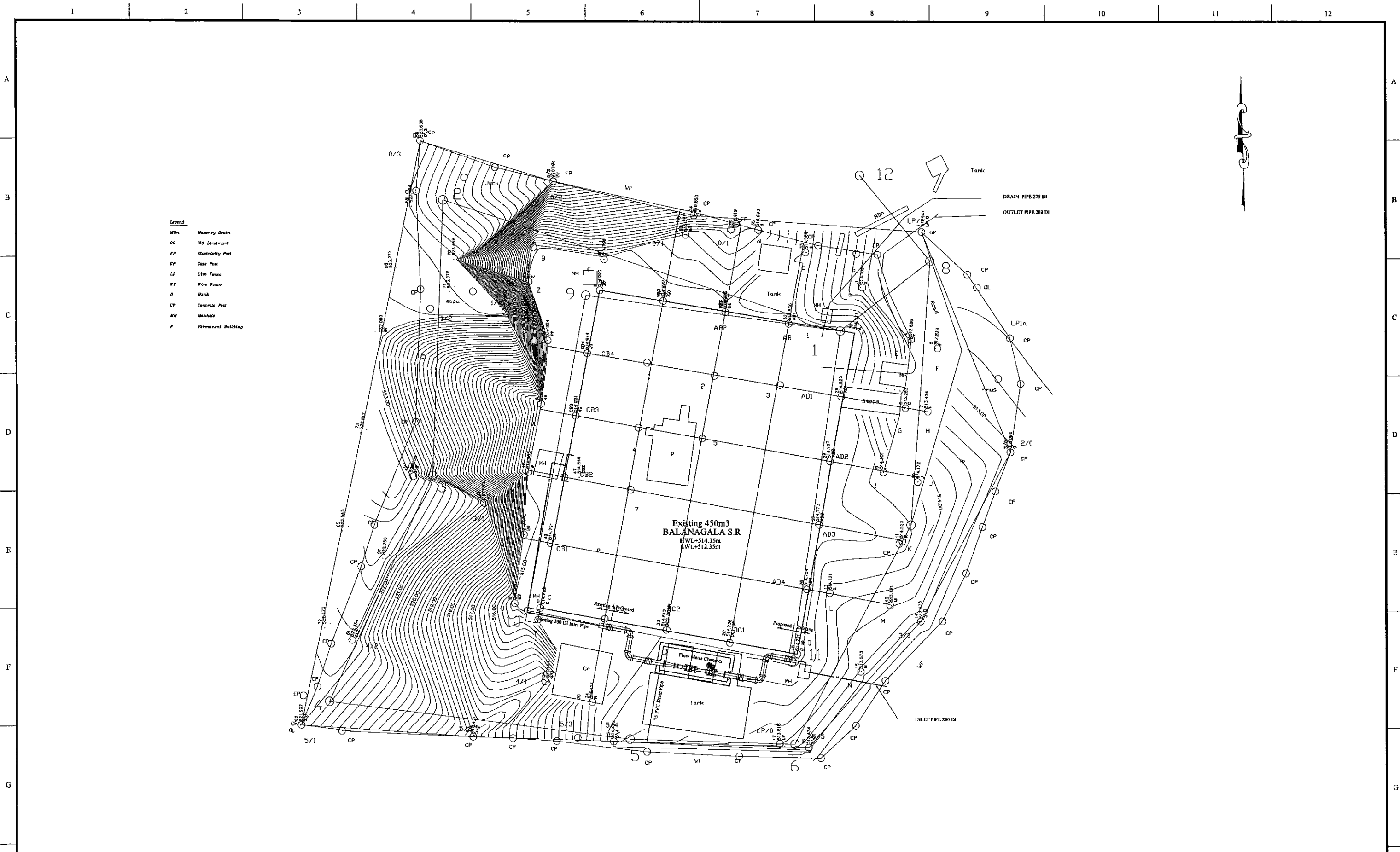
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PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF 600m3 KAHALLA S.R								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **BALANAGALA SERVICE RESERVOIR SITE PLAN**

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		1:100
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				DESIGN CHIEF			31/05/2002	30-S-06-01

1 2 3 4 5 6 7 8 9 10 11 12

A

B

C

D

E

F

G

A

B

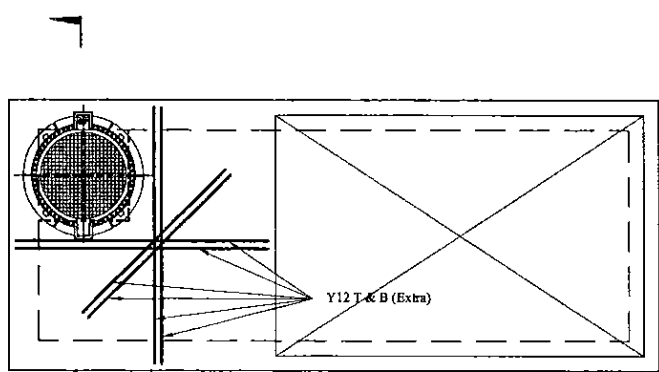
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D

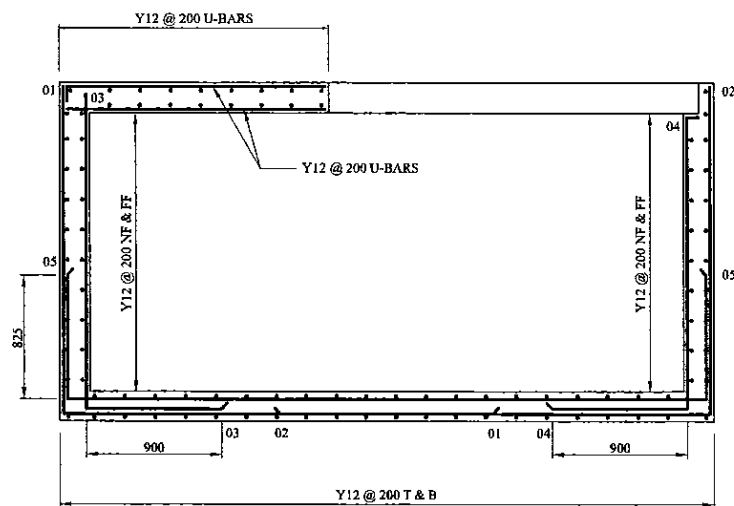
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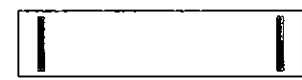
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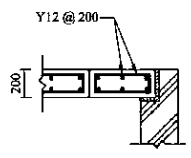
TOP SLAB PLAN



SECTION A



PLAN

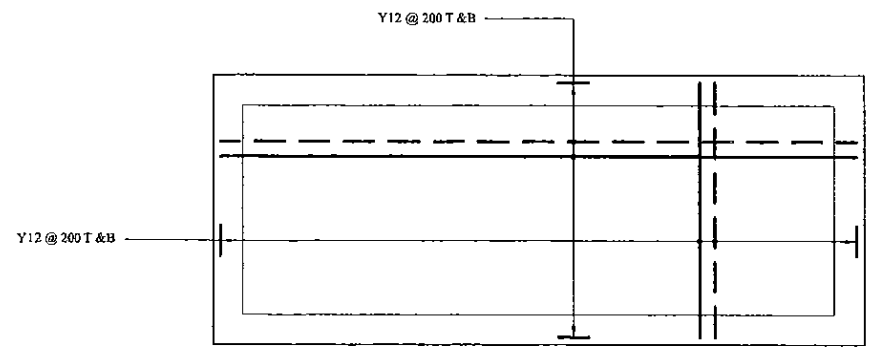


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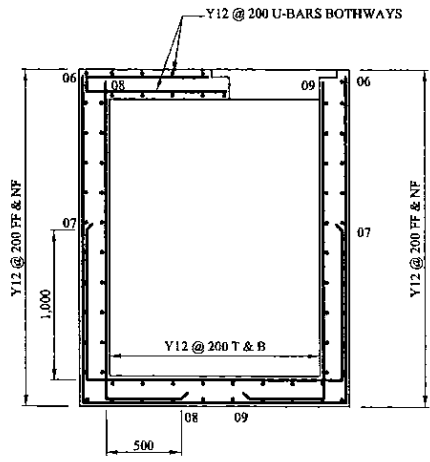


LONGITUDINAL SECTION

CONCRETE OPENING COVER



BASE SLAB PLAN



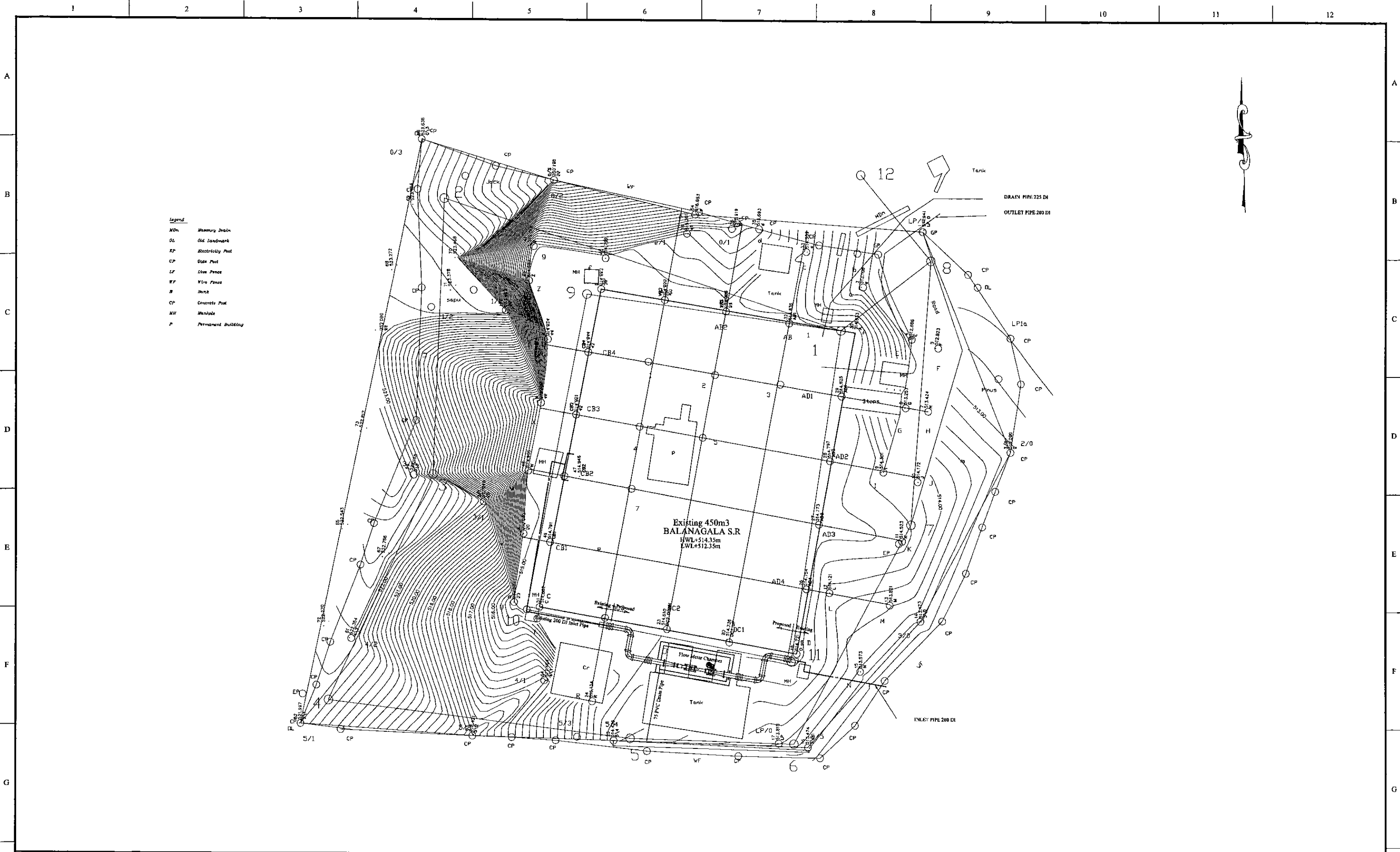
SECTION B

DESIGN CODE OF PRACTICE:

- A) BS 8110 - Design of RC Concrete Structures
- B) BS 8007 - Water Retaining Concrete Elements
- C) BS 5950 & BS 6399 - Structural Steel Work Elements
- D) Imposed Load to BS6399
- E) Wind Load to CP3, Chapter V
- F) Bearings to BS 5400
- G) CP 2004 - Nominal Earth Load
- H) Grade of Concrete - 25
- J) Cover 30 mm.

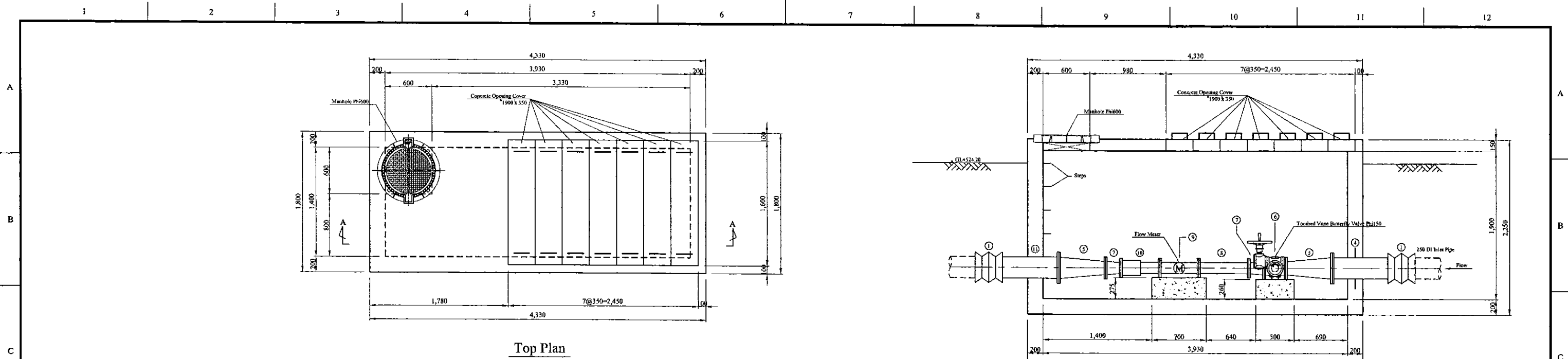
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: R/F DETAILS OF INLET VALVE CHAMBER - BALANAGALA S.R.								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-06-02

1 2 3 4 5 6 7 8 9 10 11 12



- Legend**
- MDn Manure Drain
  - OL Old Landmark
  - EP Electricity Post
  - GP Gate Post
  - CF Clay Fence
  - WF Wire Fence
  - W Well
  - CP Concrete Pond
  - MH Manhole
  - P Permanent Building

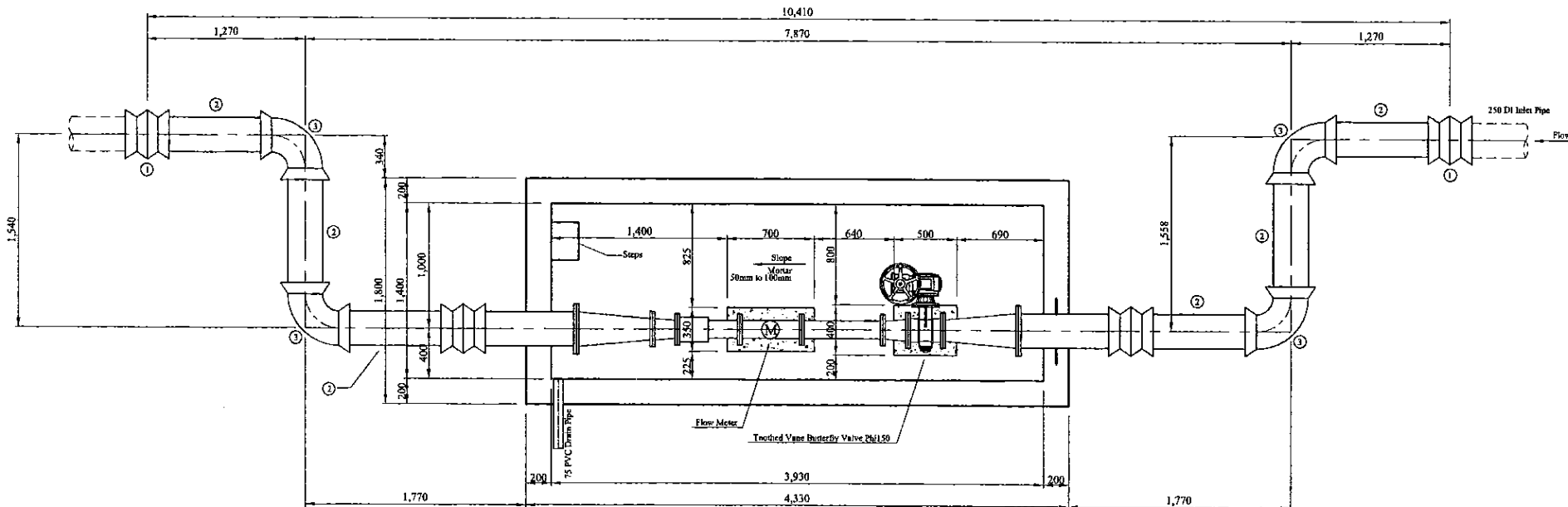
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT PLAN OF EXISTING 450m <sup>3</sup> BALANAGALA S.R								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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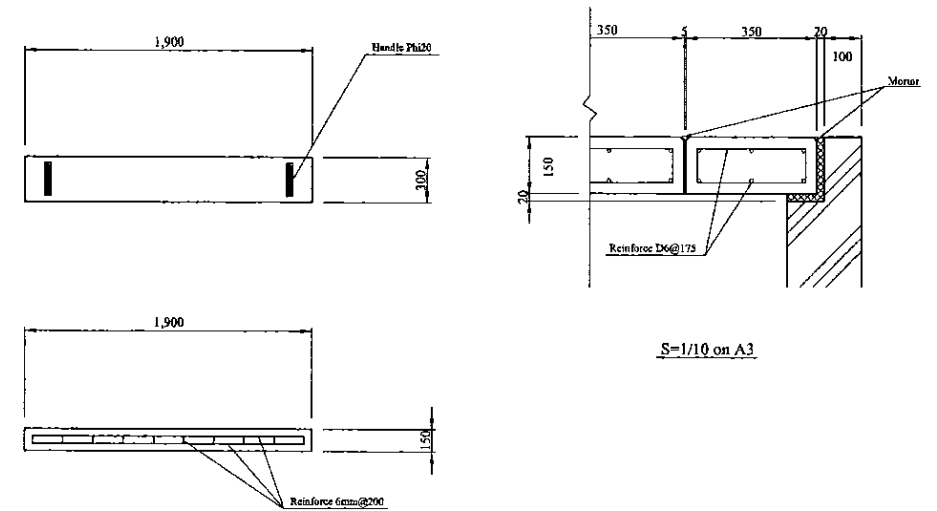
Top Plan

Section A-A

Concrete Opening Cover



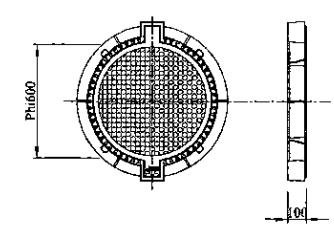
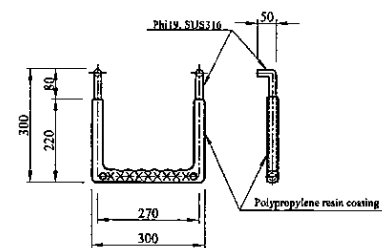
Plan



S=1/10 on A3

Step (W=300mm, Polypropylene resin coating)  
Scale=1:5

Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10



Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Collar	DI	250		Type-K	4
2	Plain Ends Piece	DI	250	L=1000mm	Type-T	6
3	Double Socket 90 degree Bend	DI	250	L=270mm x 2	Type-T	4
4	Flanged Spigot with Puddle	DI	250	L=900mm	PN10, Type-T	1
5	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	2
6	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
7	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	2
8	Double Flanged Piece	SP	125	L=650mm	PN10	1
9	Flow Meter		125	L=500mm	PN10	1
10	Flange Adapter (DF)	SP	125	L=500mm	PN10	1
11	Flanged Spigot	DI	250	L=900mm	PN10, Type-T	1

\* Contractor should provide concrete and/or metal pipe support.

Inlet Flow Meter & Control Valve Chamber

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:

INLET FLOW METER & CONTROL VALVE CHAMBER OF BALANAGALA S.R

CLIENT:



NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:



NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED:

Koichi OKAZAKI

CHECKED:

DESIGN CHIEF

DRAWN:

Koichi OKAZAKI

AGM: (P&D)

PM: (CONSULTANT)

Ikuo MIWA

DGM: (P&D)

CE: (P&D)

DATE:

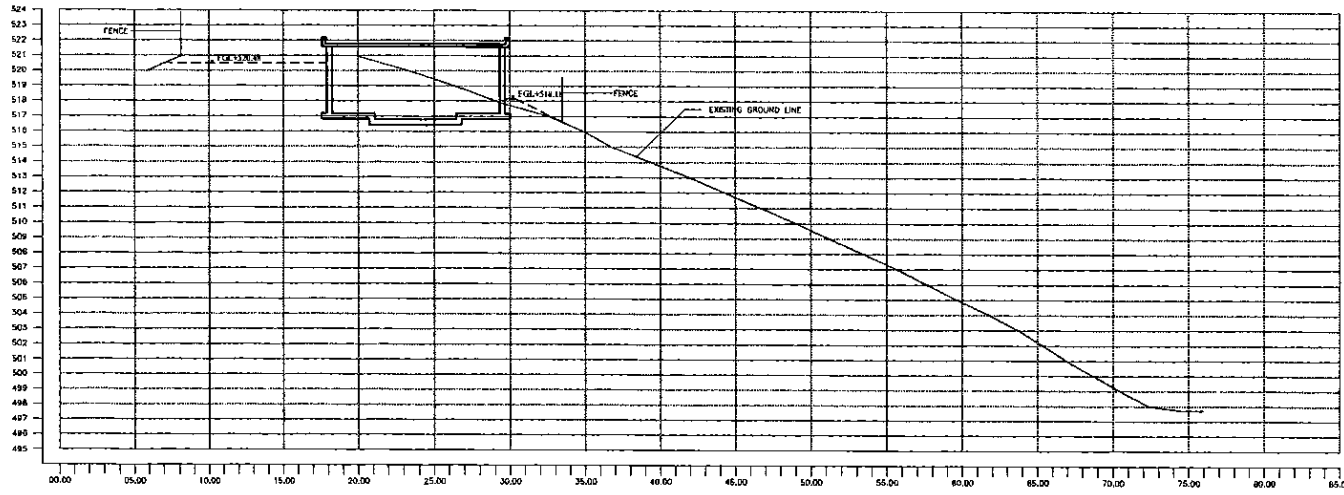
31/05/2002

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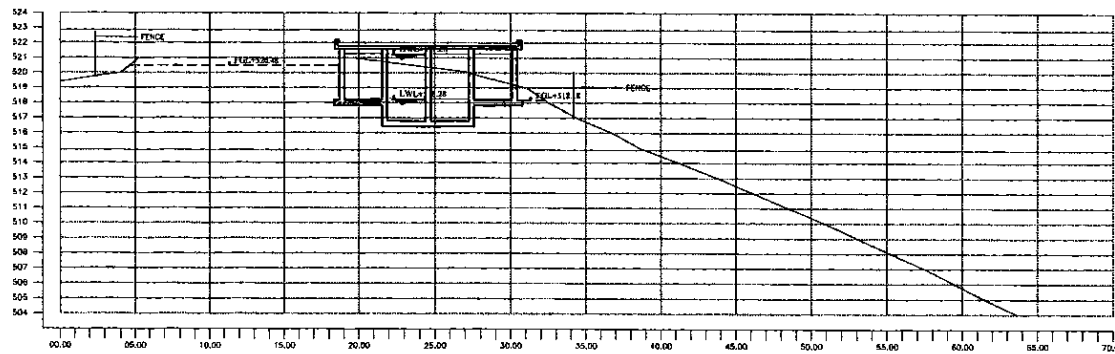
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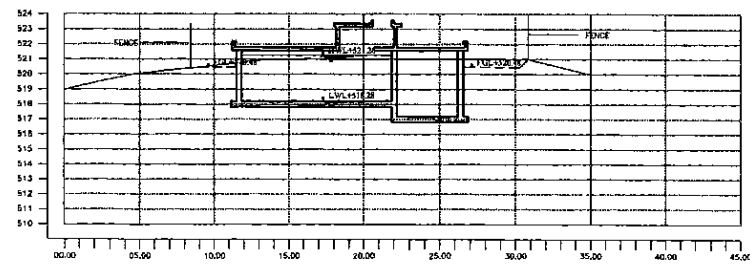
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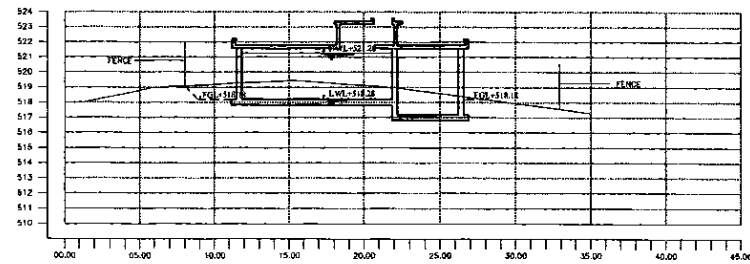
SECTION A - A



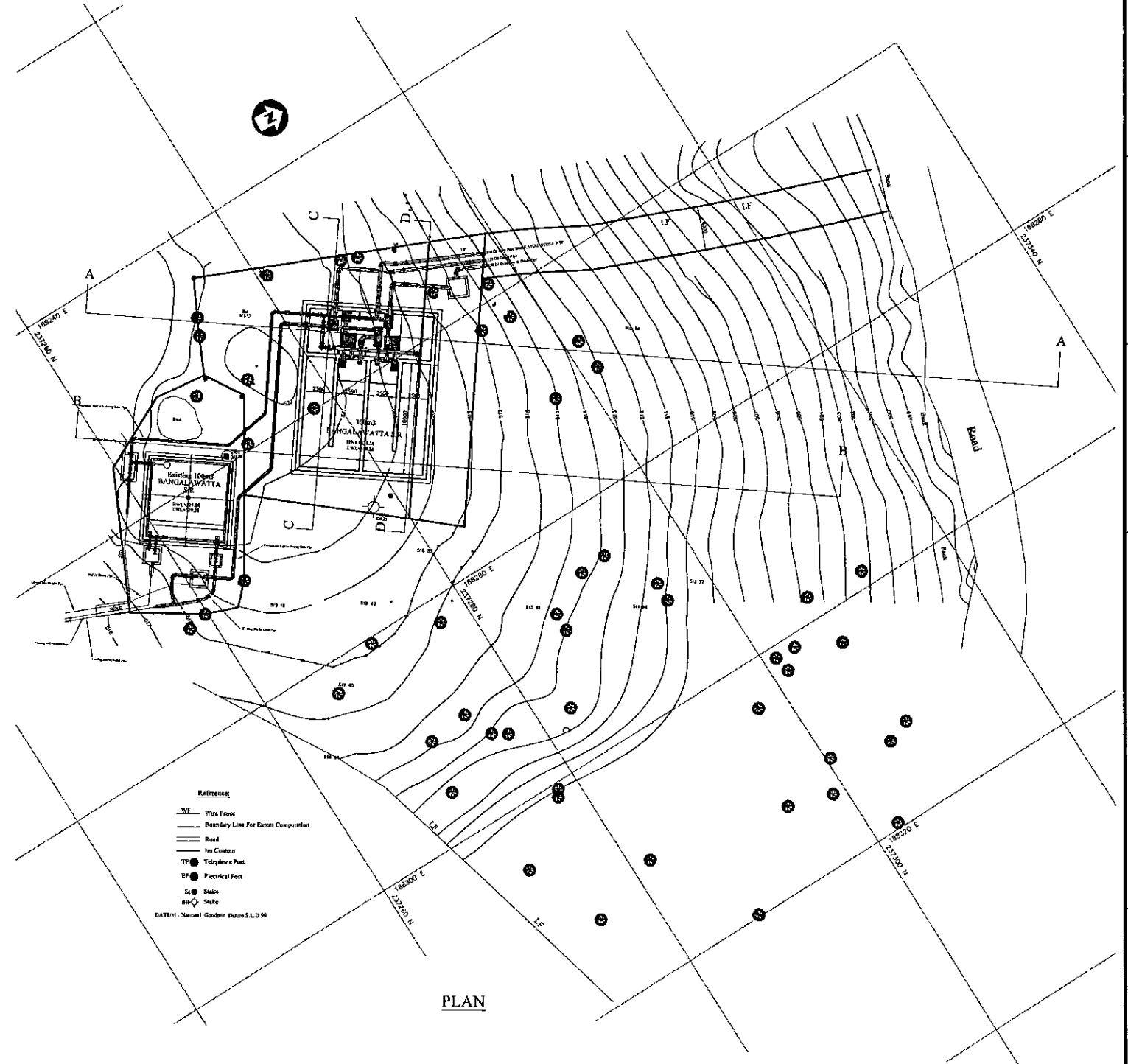
SECTION B - B



SECTION C - C



SECTION D - D



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



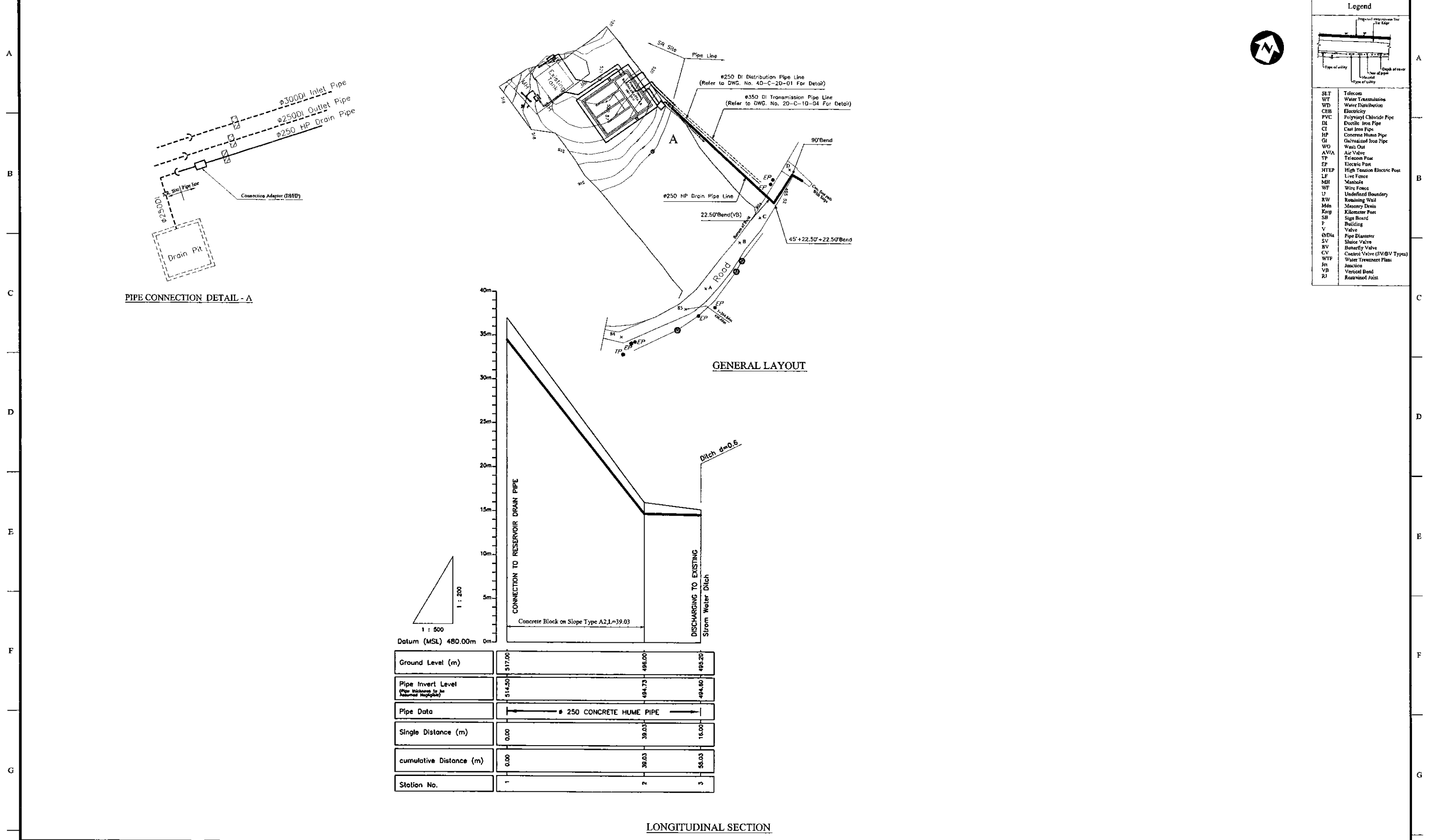
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN OF EXISTING 100m3 AND NEW 300m3 BANGALAWATTA S.R.

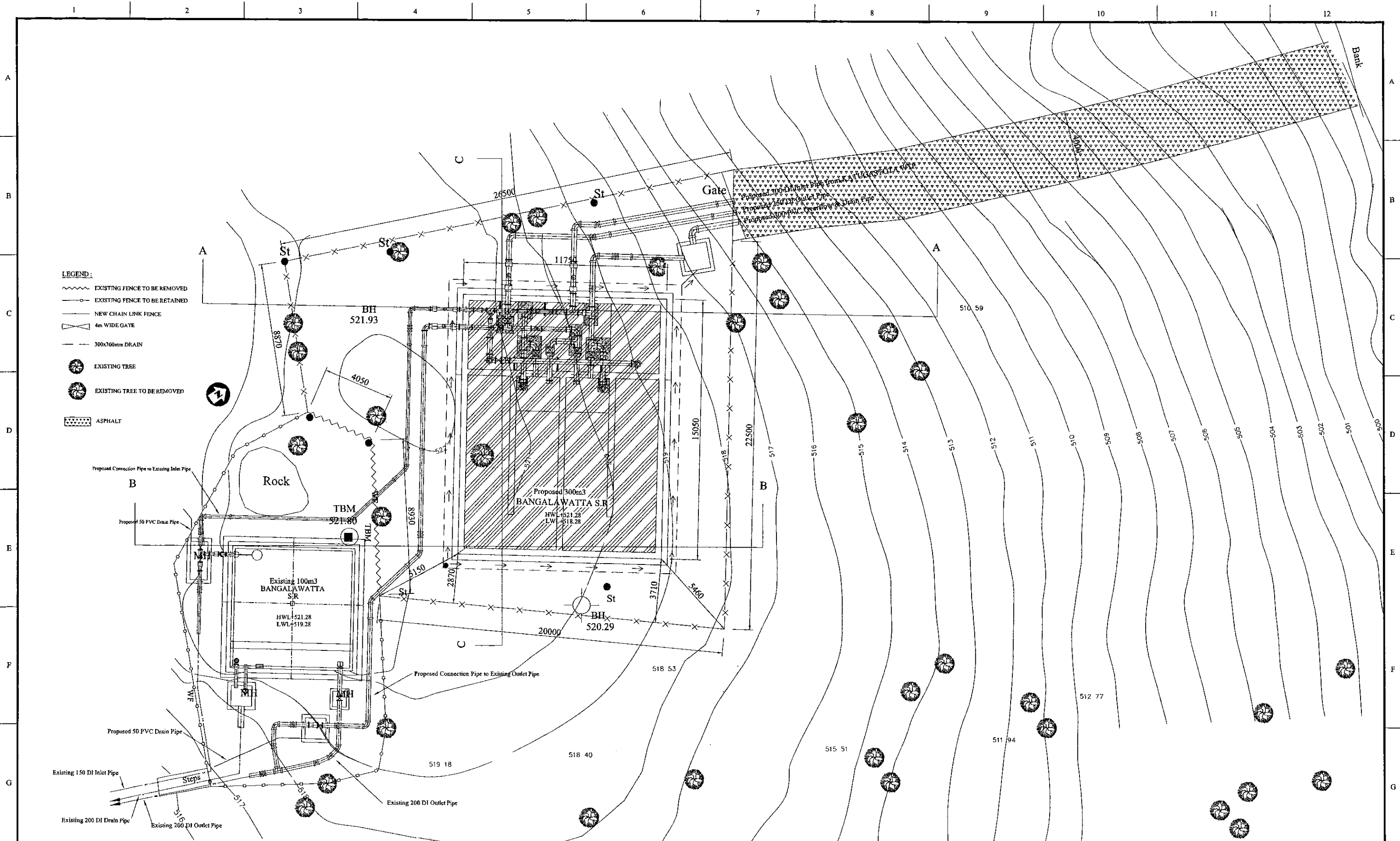
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuro MIWA		1:250
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-07-01



PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>WASHOUT FROM BANGALAWATTA S.R.</b>				SHEET 1 OF 1				
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>lakmal</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-07-02</b>
								DESIGN CHIEF				



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

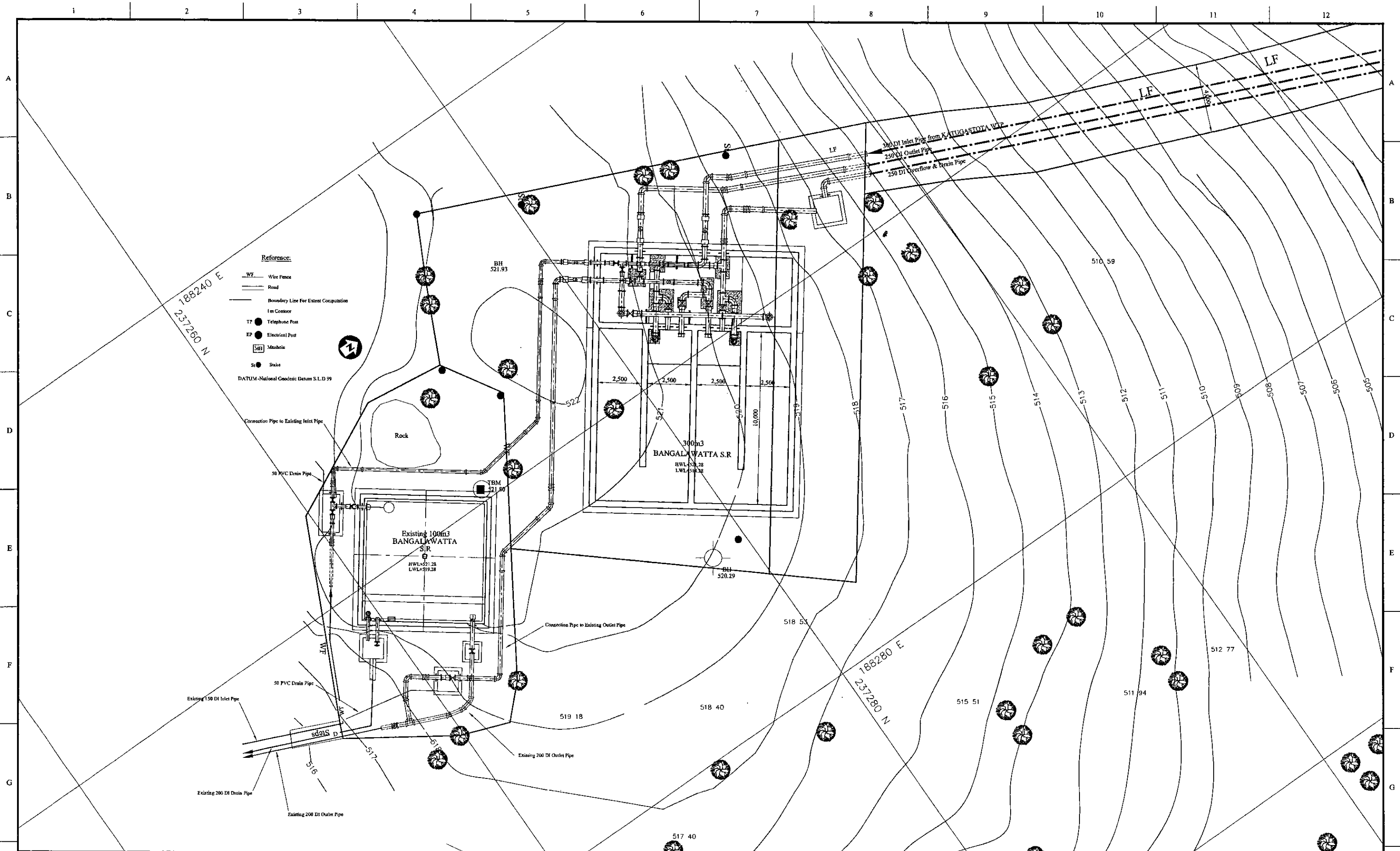
TITLE: **300m3 BANGALAWATTA S.R. LANDSCAPING LAYOUT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	POORNA	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-07-03





PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

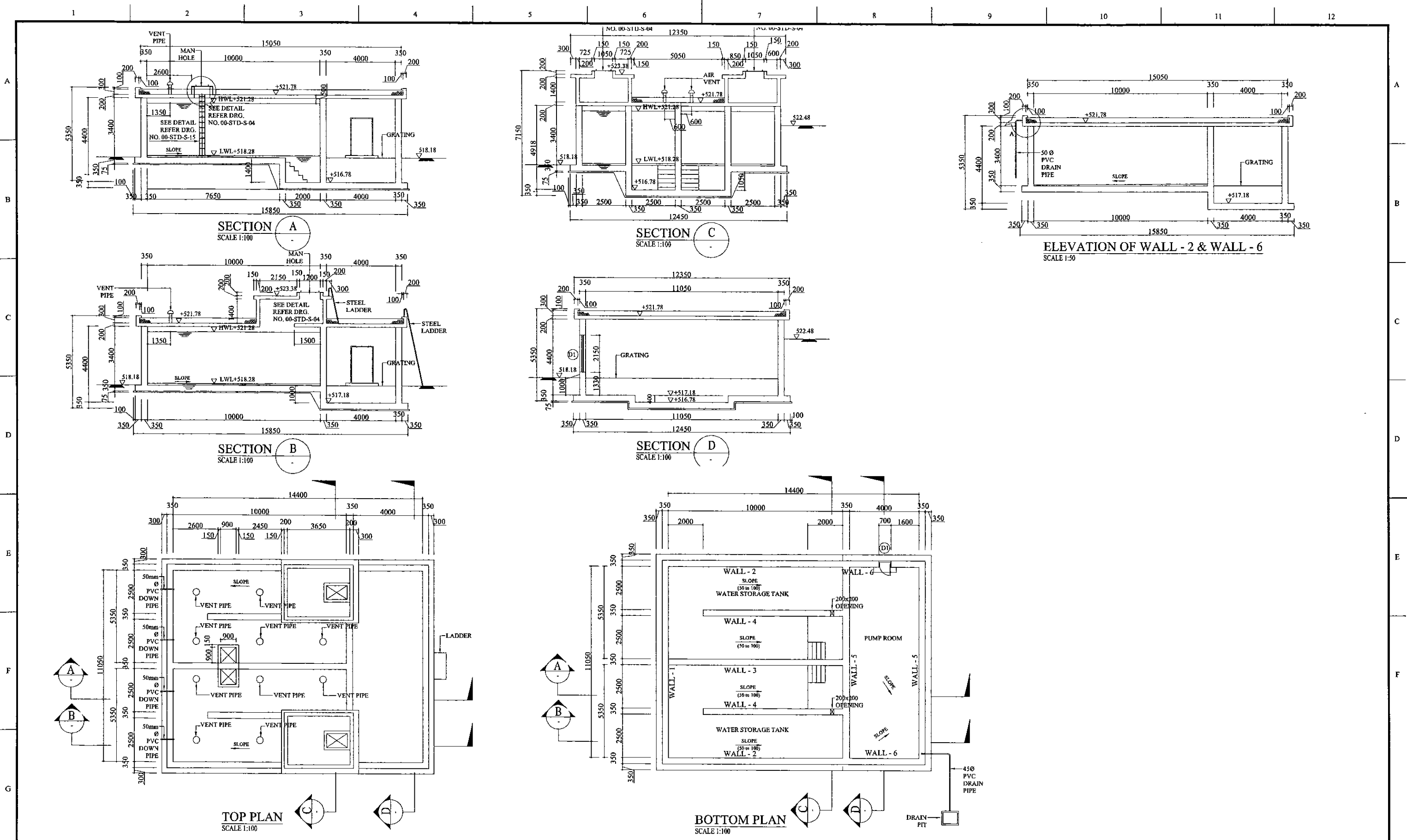
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: BANGALAWATTA SERVICE RESERVOIR SITE PLAN

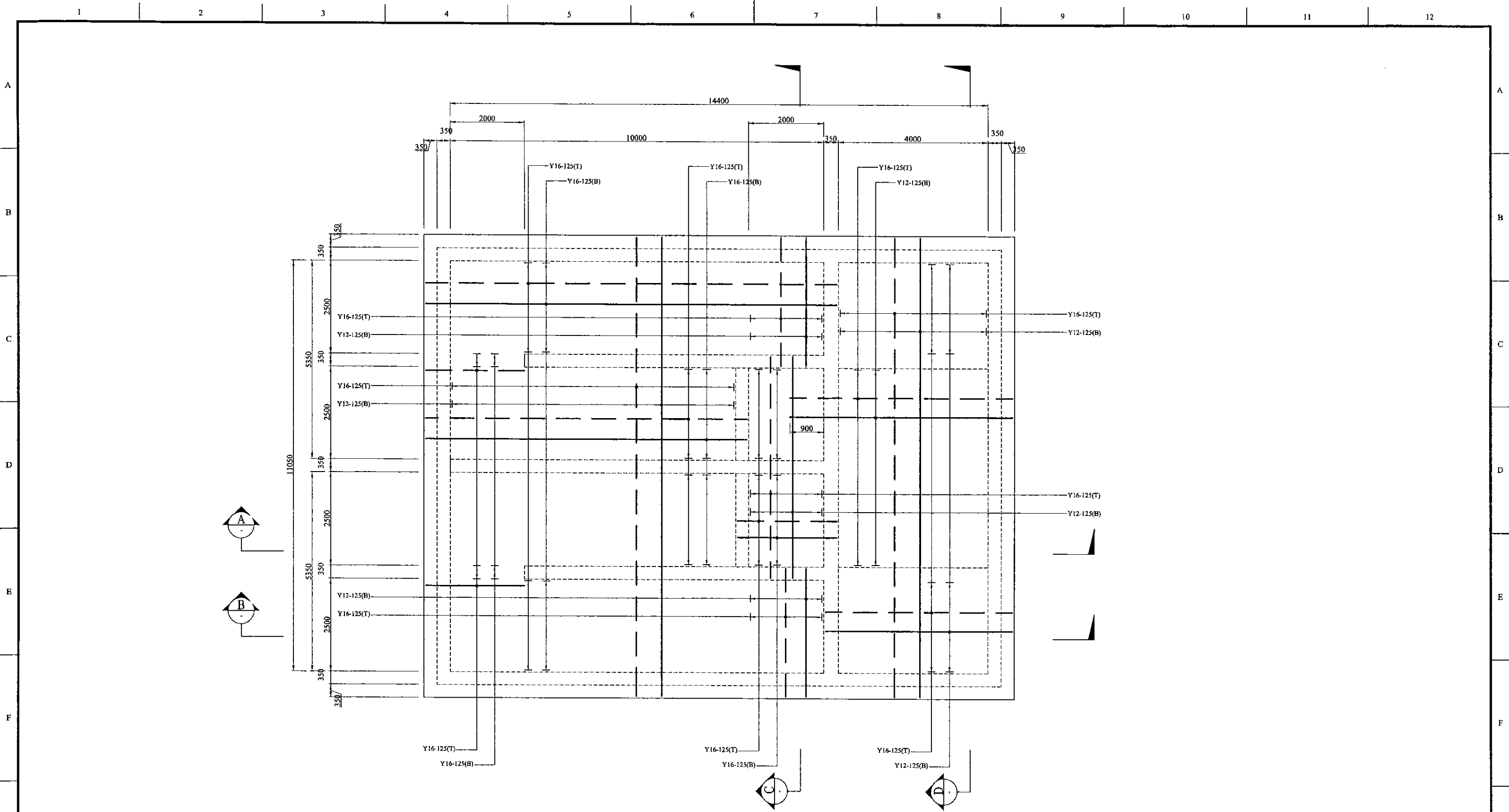
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		1:100
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				DESIGN CHIEF			31/05/2002	30-S-07-01

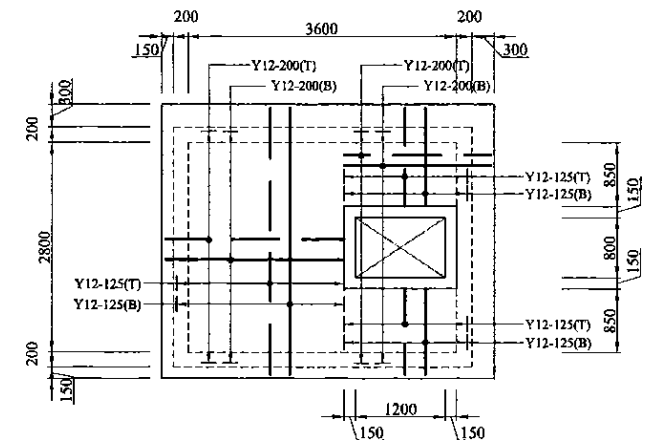
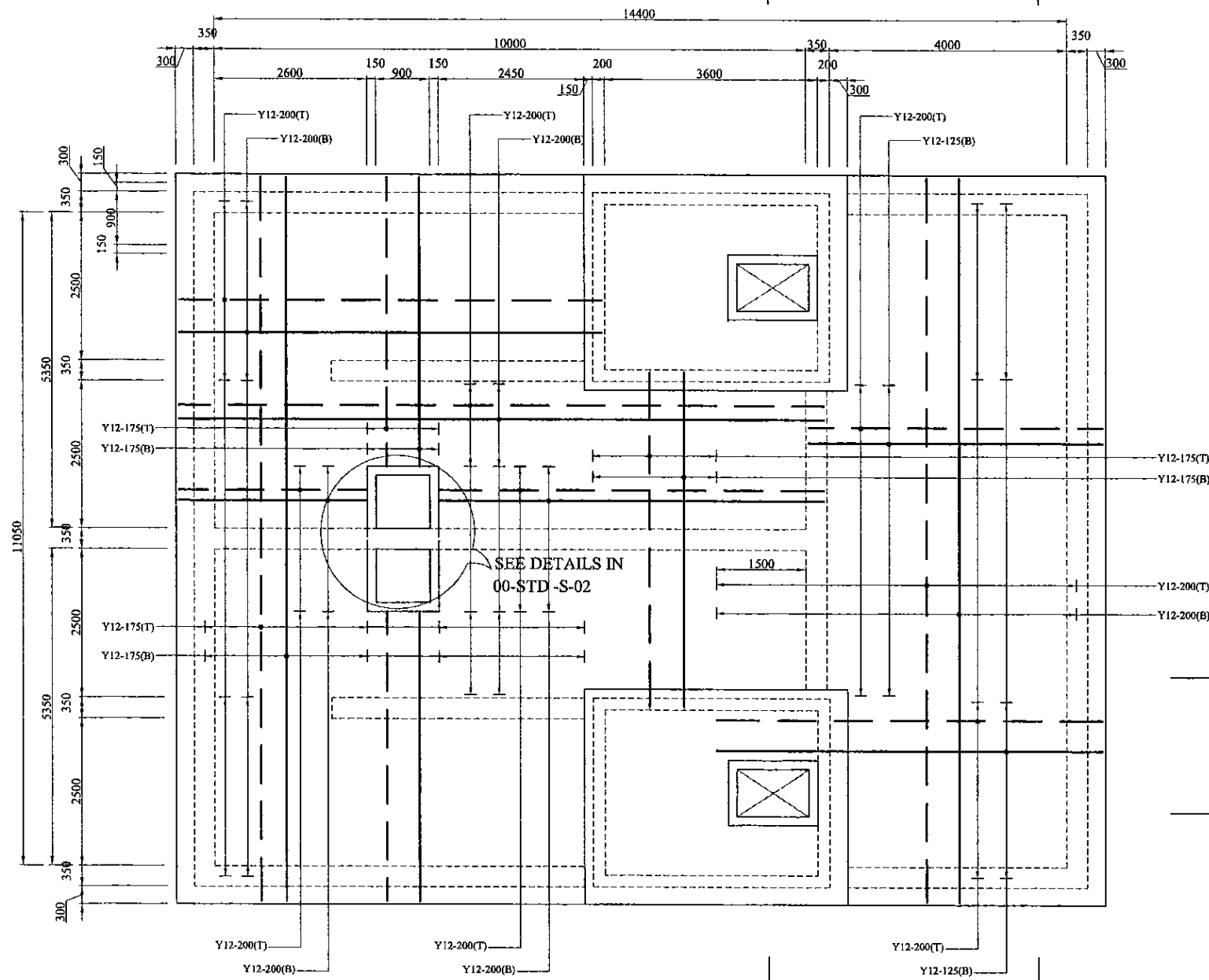


PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>BANGALAWATTA SERVICE RESERVOIR GENERAL ARRANGEMENT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo Ikuo MIWA	CE: (P&D)	SCALE: 1 : 100
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-07-02



**R/F DETAILS OF BOTTOM SLAB**  
SCALE 1:50

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> BANGALAWATTA SERVICE RESERVOIR BOTTOM SLAB																									
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. JAPAN NIHON SUIDO CONSULTANTS CO., LTD. JAPAN ENGINEERING CONSULTANTS LIMITED.-SRI LANKA		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> IRESHA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1 : 50,
REV.	DESCRIPTION	DATE	SIGN.																										
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**R/F DETAILS OF COVER SLAB  
IN TOP SLAB OPENING**  
SCALE 1:50

**R/F DETAILS OF TOP SLAB**  
SCALE 1:50

PROJECT: **GREATER KANDY WATER SUPPLY  
AUGMENTATION PROJECT**

CLIENT:  **NATIONAL WATER SUPPLY  
& DRAINAGE BOARD**

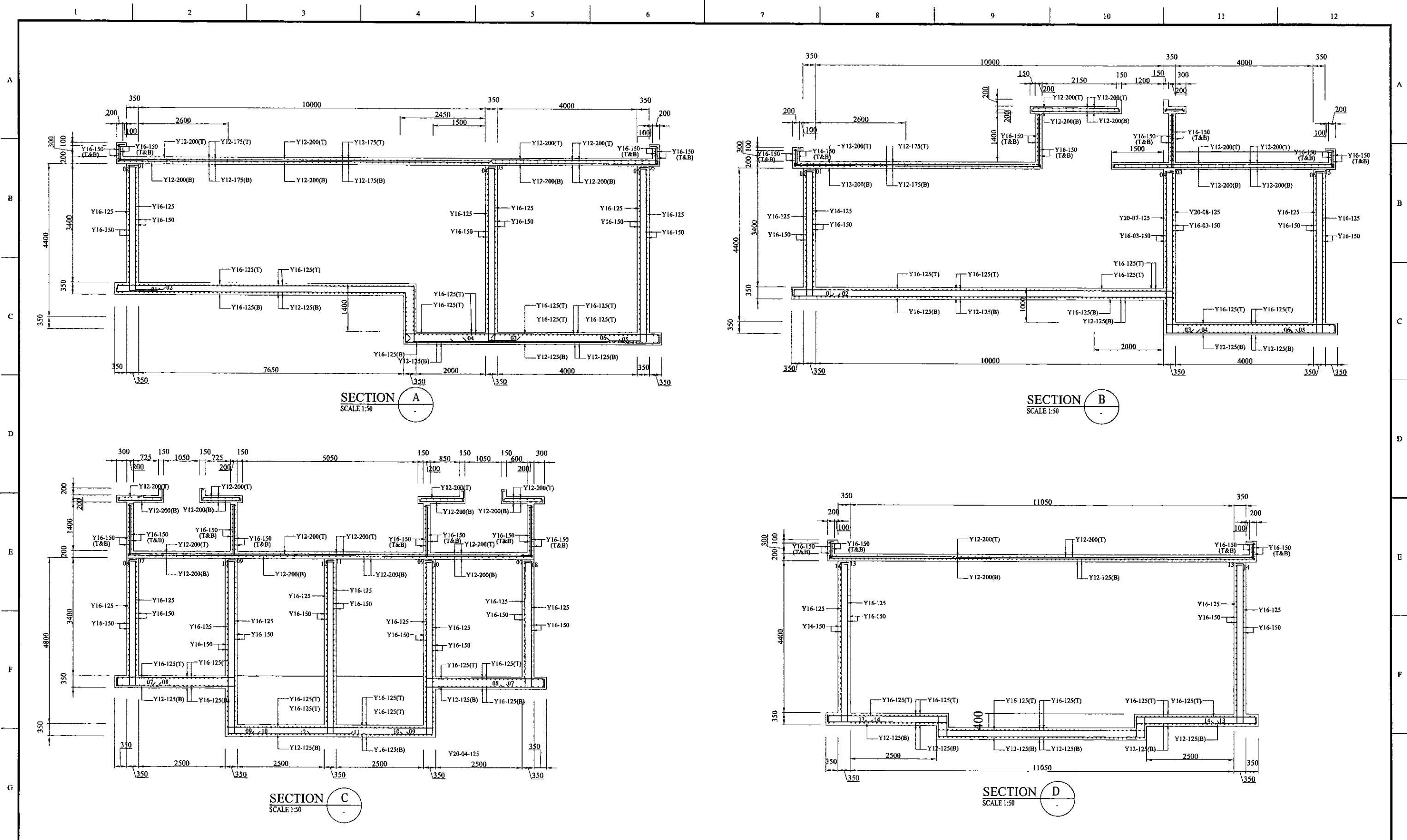
 **JAPAN INTERNATIONAL  
COOPERATION AGENCY**

CONSULTANTS:  
 **NJS CONSULTANTS CO., LTD. JAPAN**  
 **NIHON SUIDO CONSULTANTS CO., LTD. JAPAN**  
 **ENGINEERING CONSULTANTS LIMITED-SRI LANKA**

TITLE: **BANGALAWATTA SERVICE RESERVOIR  
TOP SLAB**

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>IRESHA</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1 : 50</b>
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-07-04</b>








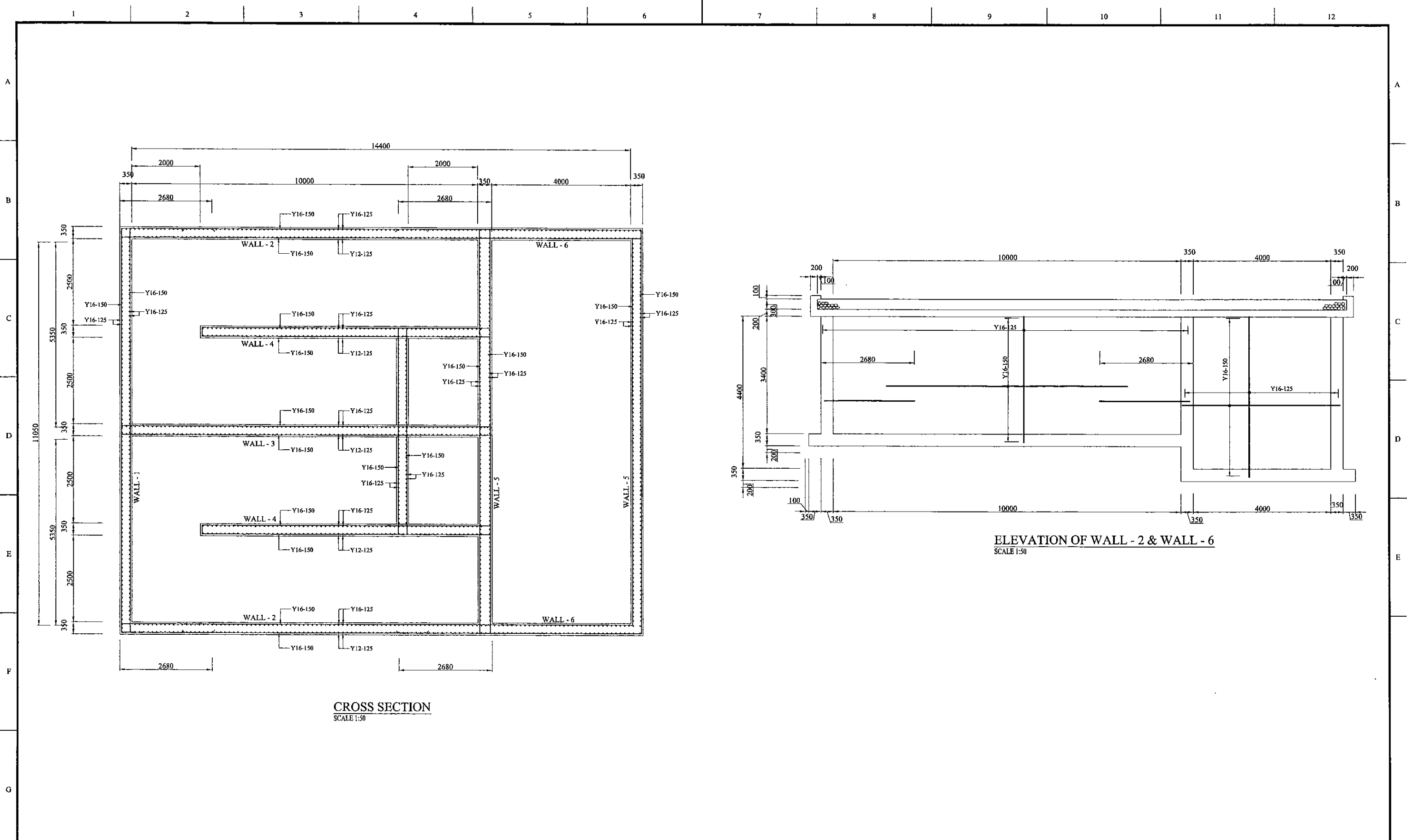
SECTION A  
SCALE 1:50

SECTION B  
SCALE 1:50

SECTION C  
SCALE 1:50






SECTION D  
SCALE 1:50

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>BANGALAWATTA SERVICE RESERVOIR SECTIONS</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. JAPAN</b>  <b>ENGINEERING CONSULTANTS LIMITED.-SRI LANKA</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 50
				CHECKED:				AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-07-05	



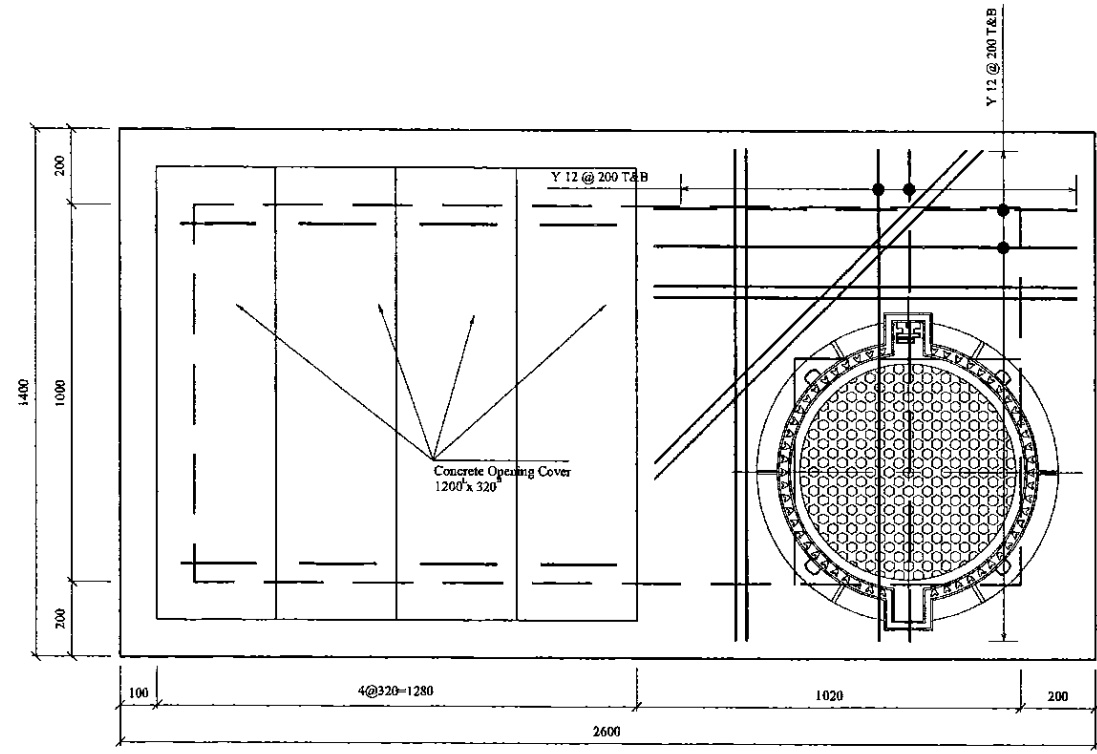
**CROSS SECTION**  
SCALE 1:50

**ELEVATION OF WALL - 2 & WALL - 6**  
SCALE 1:50

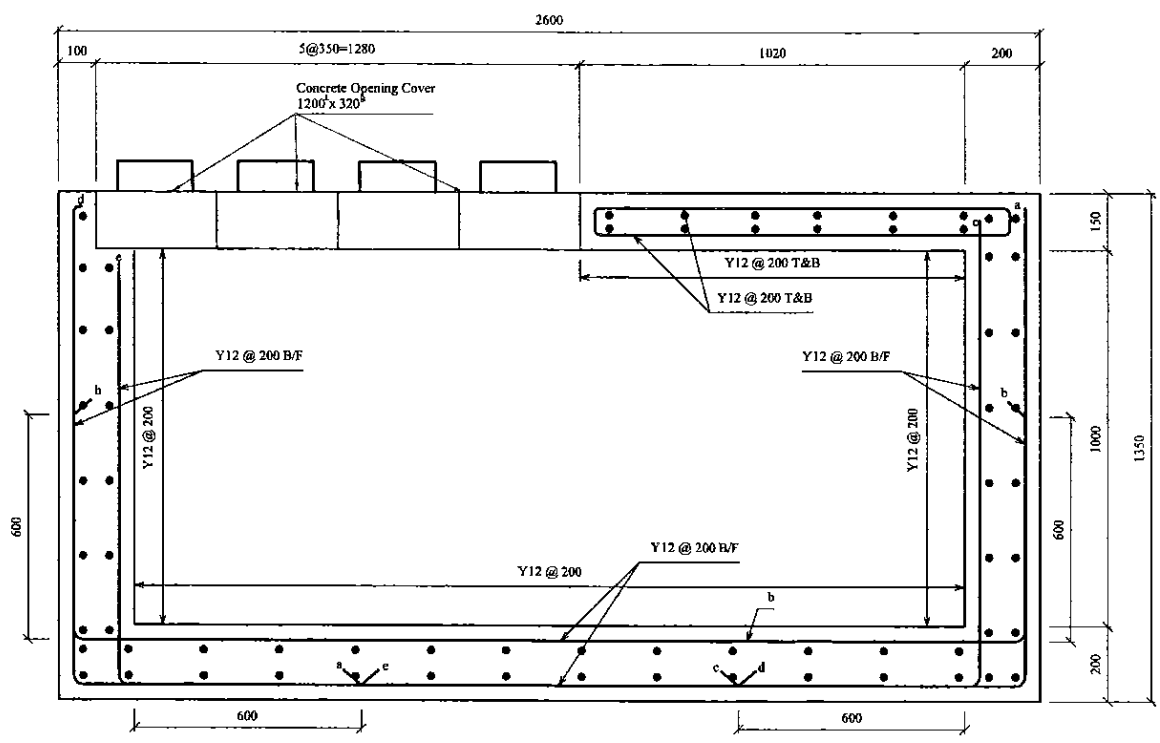
<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> BANGALAWATTA SERVICE RESERVOIR CROSS SECTION & ELEVATION																									
<b>CLIENT:</b>  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b>  <b>NJS CONSULTANTS CO., LTD. JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. JAPAN</b>  <b>ENGINEERING CONSULTANTS LIMITED.-SRI LANKA</b>		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> IRESHA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1 : 50
REV.	DESCRIPTION	DATE	SIGN.																										
				<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/200	<b>DRAWING NO.:</b> 30-S-07-06																					

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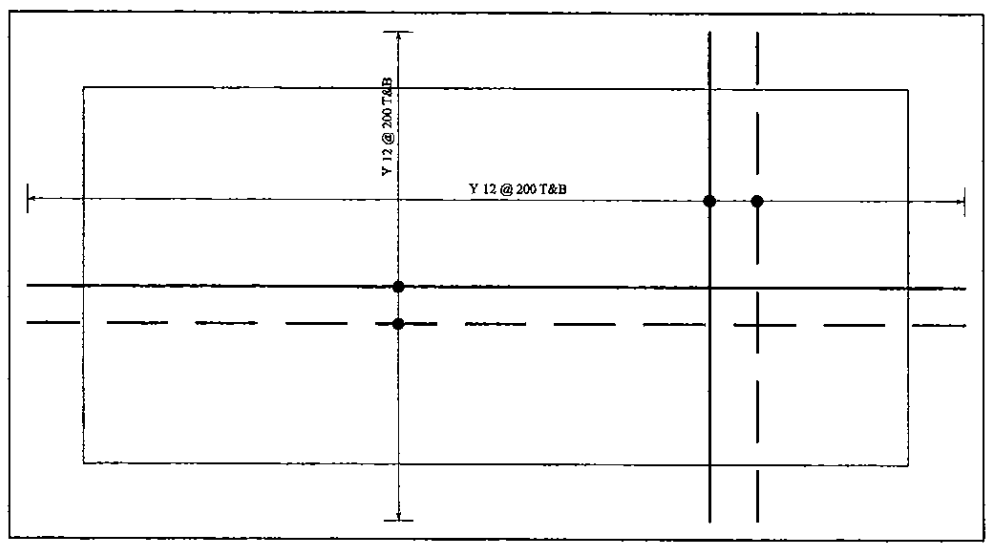
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B  
C  
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H



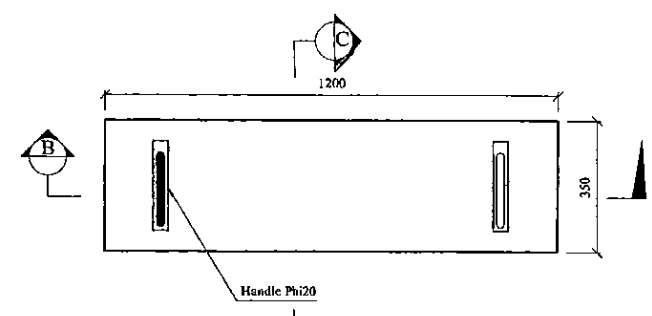
TOP SLAB PLAN



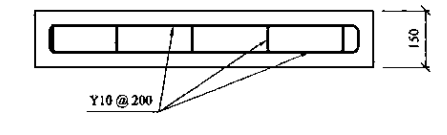
SECTION A



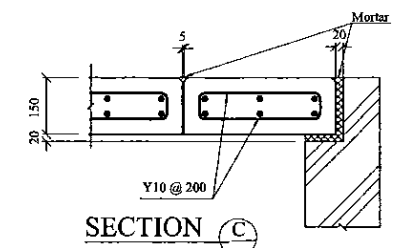
BASE SLAB PLAN



CONCRETE OPENIG COVER PLAN



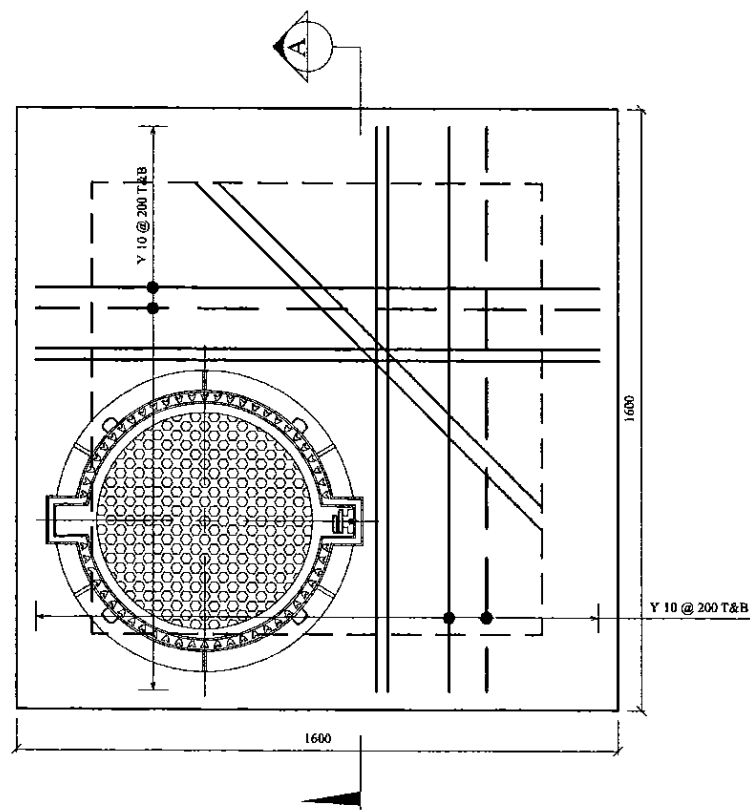
SECTION B



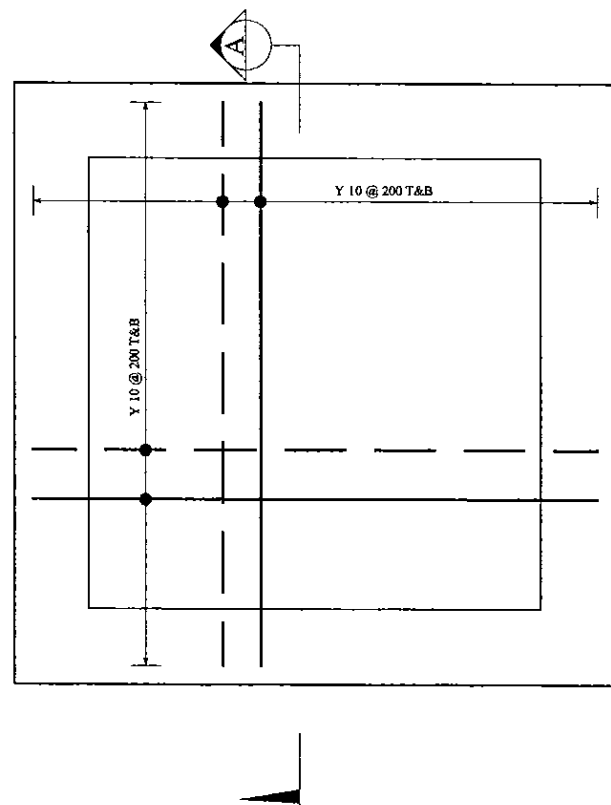
SECTION C

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: BANGALAWATTA S.R. - R/F DETAIL OF INLET VALVE CHAMBER								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:10
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-07-07

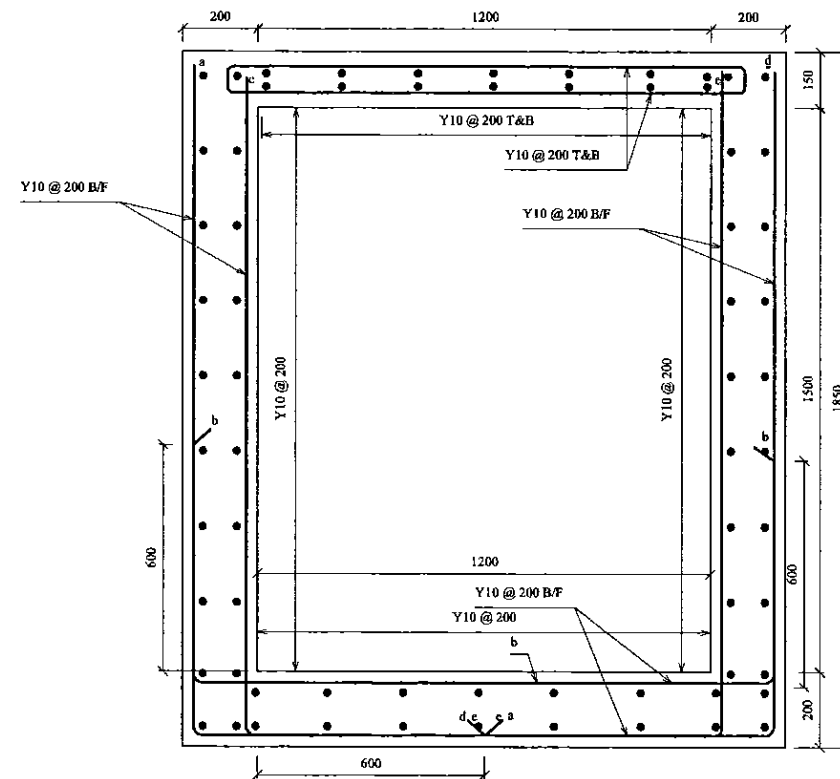
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TOP SLAB PLAN



BOTTOM SLAB PLAN



SECTION A

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: BANGALAWATTA S.R. - R/F DETAIL OF OUTLET VALVE CHAMBER

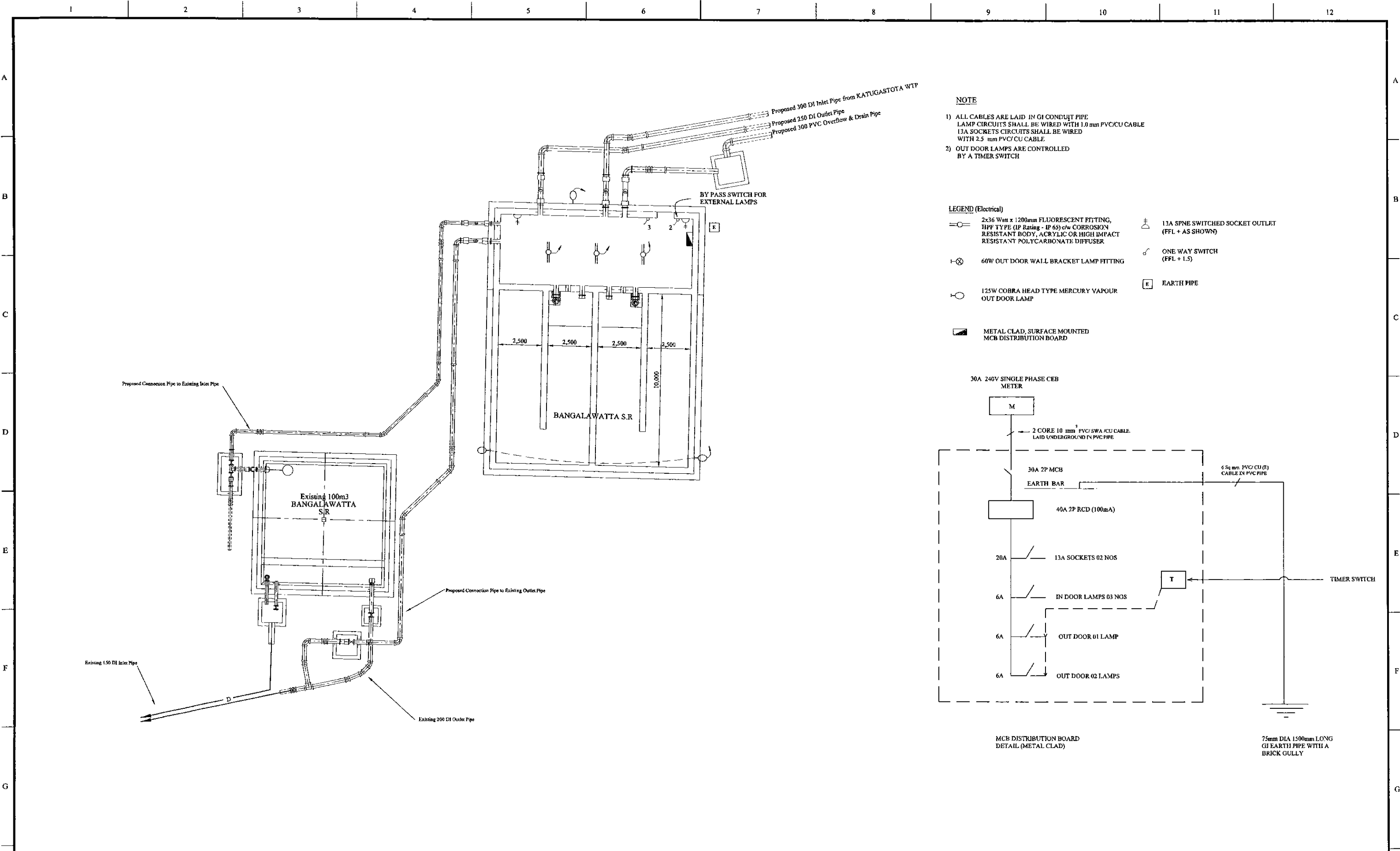
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



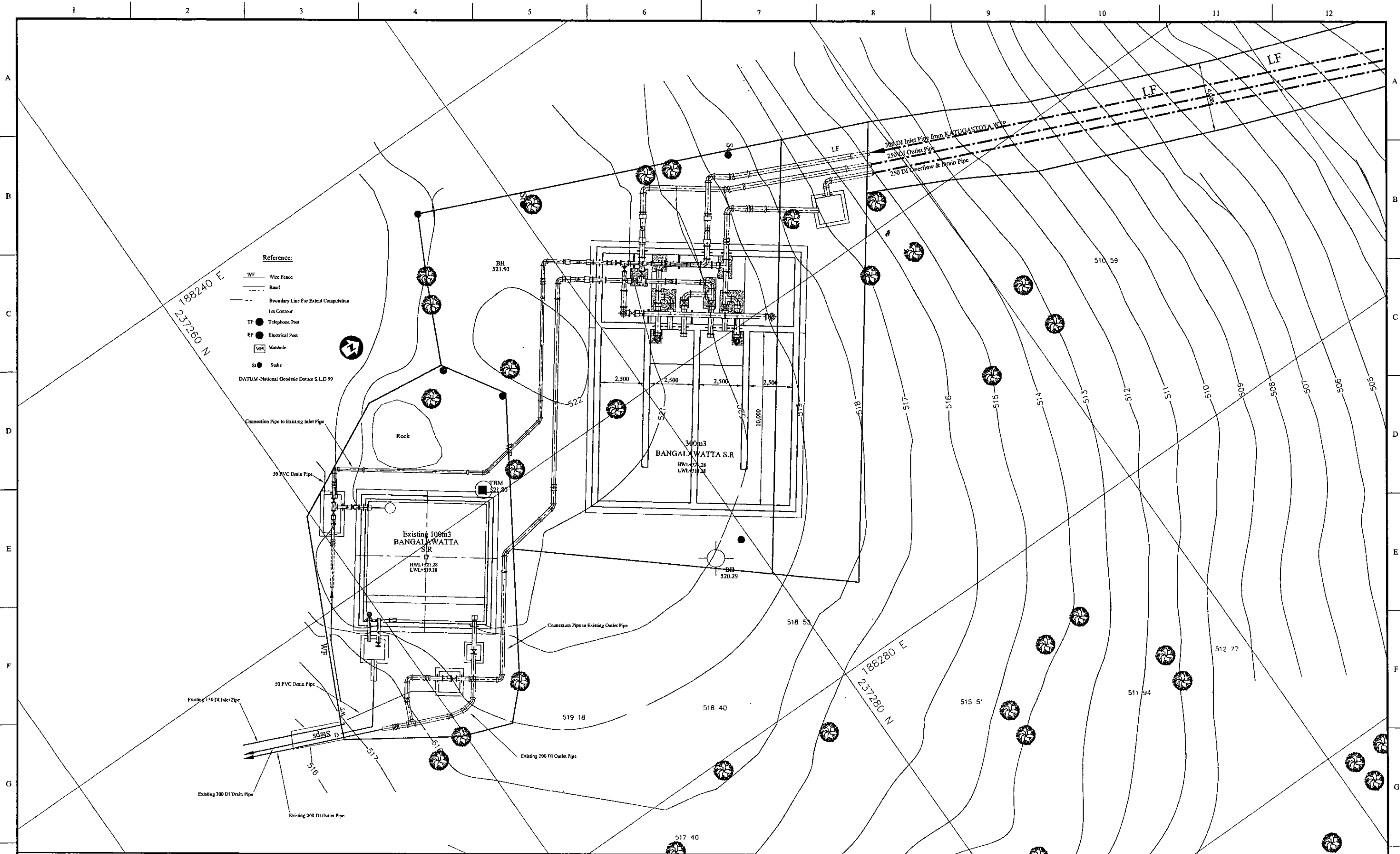
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		1:10
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-07-08





PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ELECTRICAL PLAN FOR (300m <sup>3</sup> ) BANGALAWATTA S.R								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: ATG	DRAWN: Iakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-07-21



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **PIPE LAYOUT PLAN OF EXISTING 100m³ AND NEW 300m³ BANGALAWATTA S.R**

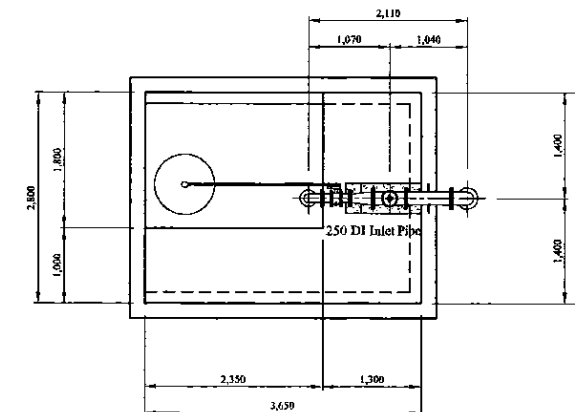
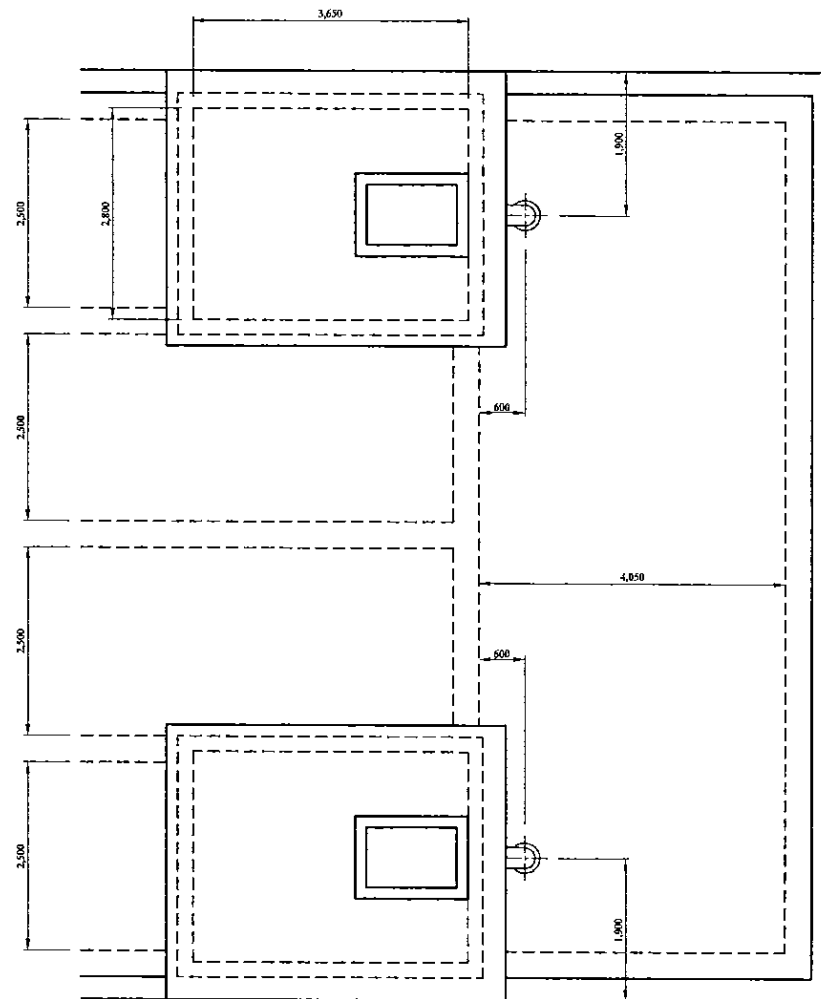
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-07-01

No	Item	Material	Qty	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	100	L=135mm	PN10	2
2	Double Flanged Piece	DI	100	L=600mm	PN10	2
3	Double Flanged 90 degree Bend	DI	100	L=180mm x 2	PN10	2
4	Butterfly Flap Valve	SS	100	L=370mm	PN10	2
5	Double Flanged 150 x 100 Taper	DI	150x100	L=300mm	PN10	2
6	All Flanged 150 x 100 Tee	DI	150x100	L=446x210mm	PN10	2
7	Ball Valve	DI	100	L=270mm	PN10	2
8	Single Orifice Air Valve	DI	100	L=370mm	PN10	2
9	Double Flanged Piece with Puddle	DI	150	L=600mm	PN10	4
10	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
11	Double Flanged Piece	DI	150	L=540mm	PN10	1
12	Flange Adapter (DF)	DI	150	L=500mm	PN10	4
13	Shut-off Valve	DI	150	L=330mm	PN10	6
14	Double Flanged Piece	DI	150	L=810mm	PN10	1
15	Double Flanged Piece	DI	150	L=2,340mm	PN10	1
16	Double Flanged Piece	DI	250	L=5,000mm	PN10	1
17	All Flanged 150 x 150 Tee	DI	150x150	L=446x220mm	PN10	2
18	Double Flanged Piece	DI	150	L=730mm	PN10	1
19	Double Flanged Piece	DI	150	L=1,820mm	PN10	1
20	Double Flanged Piece with Puddle	DI	150	L=810mm	PN10	1
21	Double Flanged Flexible Expansion Joint	DI	150		PN10	1
22	Flanged Spigot Piece	DI	150	L=1,000mm	PN10, Type-T	1
23	Double Socket 90 degree Bend	DI	150	L=170mm x 2	Type-T	2
24	Plain Ends Piece	DI	150	L=1,000mm	Type-T	4
25	Collar	DI	150		Type-K	3
26	Straight Pipe	DI	150	L=6,000mm	Type-T	2
27	Socket - Plain End Piece	DI	150	L=1,000mm	Type-T	1
28	Double Socket 45 degree Bend	DI	150	L=85mm x 2	Type-T	2
29	Socket - Plain End Piece	DI	150	L=3,210mm	Type-T	1
30	Socket - Plain End Piece	DI	150	L=1,463mm	Type-T	1
31	Plain End Piece	DI	150	L=70mm	Type-T	1
32	Flanged Spigot Piece with Puddle	DI	150	L=830mm	PN10, Type-T	1
33	Flanged Spigot Piece with Puddle	DI	150	L=900mm	PN10, Type-T	1
34	Flange Adapter (DF) with Puddle	SS	150	L=800mm	PN10	1
35	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
36	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	2
37	Flange Adapter (DF)	SS	125	L=500mm	PN10	1
38	Flow Meter		125	L=500mm	PN10	1
39	Double Flanged Piece	SP	125	L=1,000mm	PN10	1
40	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	1
41	Double Flanged Piece	DI	250	L=900mm	PN10	1
42	Double Flanged Piece with Puddle	DI	150	L=750mm	PN10	1
43	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
44	Flanged Spigot Piece	DI	250	L=1,880mm	PN10, Type-T	1
45	Double Socket 90 degree Bend	DI	250	L=270mm x 2	Type-T	1
46	Plain Ends Piece	DI	250	L=1,000mm	Type-T	2
47	Double Socket 11.25 degree Bend	DI	250	L=50mm x 2	Type-T	1
48	Straight Pipe	DI	250	L=6,000mm	Type-T	1
49	Flanged Bellmouth	DI	250	L=185mm	PN10	2
50	Double Flanged Piece with Puddle	DI	250	L=1,160mm	PN10	2
51	Flange Adapter (DF)	DI	250	L=600mm	PN10	2
52	Shut-off Valve	DI	250	L=330mm	PN10	2
53	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	2
54	Double Flanged Piece	DI	250	L=830mm	PN10	1
55	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
56	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
57	Double Flanged Piece	DI	200	L=1,400mm	PN10	1
58	Flow Meter		200	L=610mm	PN10	1
59	Double Flanged Piece	DI	200	L=1,120mm	PN10	1
60	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
61	Shut-off Valve	DI	200	L=300mm	PN10	3
62	Flange Adapter (DF)	DI	200	L=900mm	PN10	3
63	Double Flanged Piece	DI	200	L=1,000mm	PN10	1
64	Double Flanged Piece with Puddle	DI	200	L=750mm	PN10	1
65	Double Flanged Flexible Expansion Joint	DI	200		PN10	1
66	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	1
67	Flanged Spigot Piece	DI	200	L=1,000mm	PN10, Type-T	1
68	Straight Pipe	DI	200	L=6,000mm	Type-T	2
69	Socket - Plain End Piece	DI	200	L=4,870mm	Type-T	1
70	Collar	DI	200		Type-K	4
71	Plain Ends Piece	DI	200	L=1,000mm	Type-T	2
72	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	2
73	Socket - Plain End Piece	DI	200	L=2,680mm	Type-T	1
74	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	2
75	Plain Ends Piece	DI	200	L=1,500mm	Type-T	1
76	Flanged Spigot Piece with Puddle	DI	200	L=900mm	PN10, Type-T	2
77	Plain Ends Piece	DI	200	L=910mm	Type-T	1
78	Double Socket 11.25 degree Bend	DI	200	L=40mm x 2	Type-T	2
79	Plain Ends Piece	DI	200	L=1,260mm	Type-T	1
80	All Socket 150 x 150 Tee	DI	200	L=315 x 155mm	Type-T	1
81	Plain Ends Piece	DI	200	L=745mm	Type-T	1
82	Double Flanged Piece with Puddle	DI	250	L=750mm	PN10	1
83	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
84	Plain Ends Piece	DI	250	L=1,150mm	Type-T	3
85	Double Socket 90 degree Bend	DI	250	L=270mm x 2	Type-T	1
86	Plain Ends Piece	DI	250	L=3,500mm	Type-T	1
87	Double Socket 11.25 degree Bend	DI	250	L=50mm x 2	Type-T	1
88	Straight Pipe	DI	250	L=6,000mm	Type-T	1
89	Flanged Bellmouth	DI	250	L=185mm	PN10	2
90	Double Flanged Piece	DI	250	L=3,565mm	PN10	2
91	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	2
92	Double Flanged Piece with Puddle	DI	250	L=1,280mm	PN10	2
93	Flange Adapter (DF)	DI	250	L=500mm	PN10	5
94	Flanged Spigot Piece with Puddle	DI	250	L=750mm	PN10	2
95	Shut-off Valve	DI	250	L=330mm	PN10	2
96	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	4
97	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	3
98	Double Flanged Piece	DI	250	L=1,220mm	PN10	2
99	Double Flanged Piece	DI	250	L=2,700mm	PN10	1
100	Double Flanged Piece with Puddle	DI	250	L=750mm	PN10	1
101	Collar	DI	250		Type-K	1
102	Plain Ends Piece	DI	250	L=1,000mm	Type-T	1
103	Double Socket 90 degree Bend	DI	250	L=270mm x 2	Type-T	2
104	Plain Ends Piece	DI	250	L=1,000mm	Type-T	1
105	Socket - Plain End Piece	DI	250	L=4,000mm	Type-T	1
106	Plain Ends Piece	DI	250	L=500mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

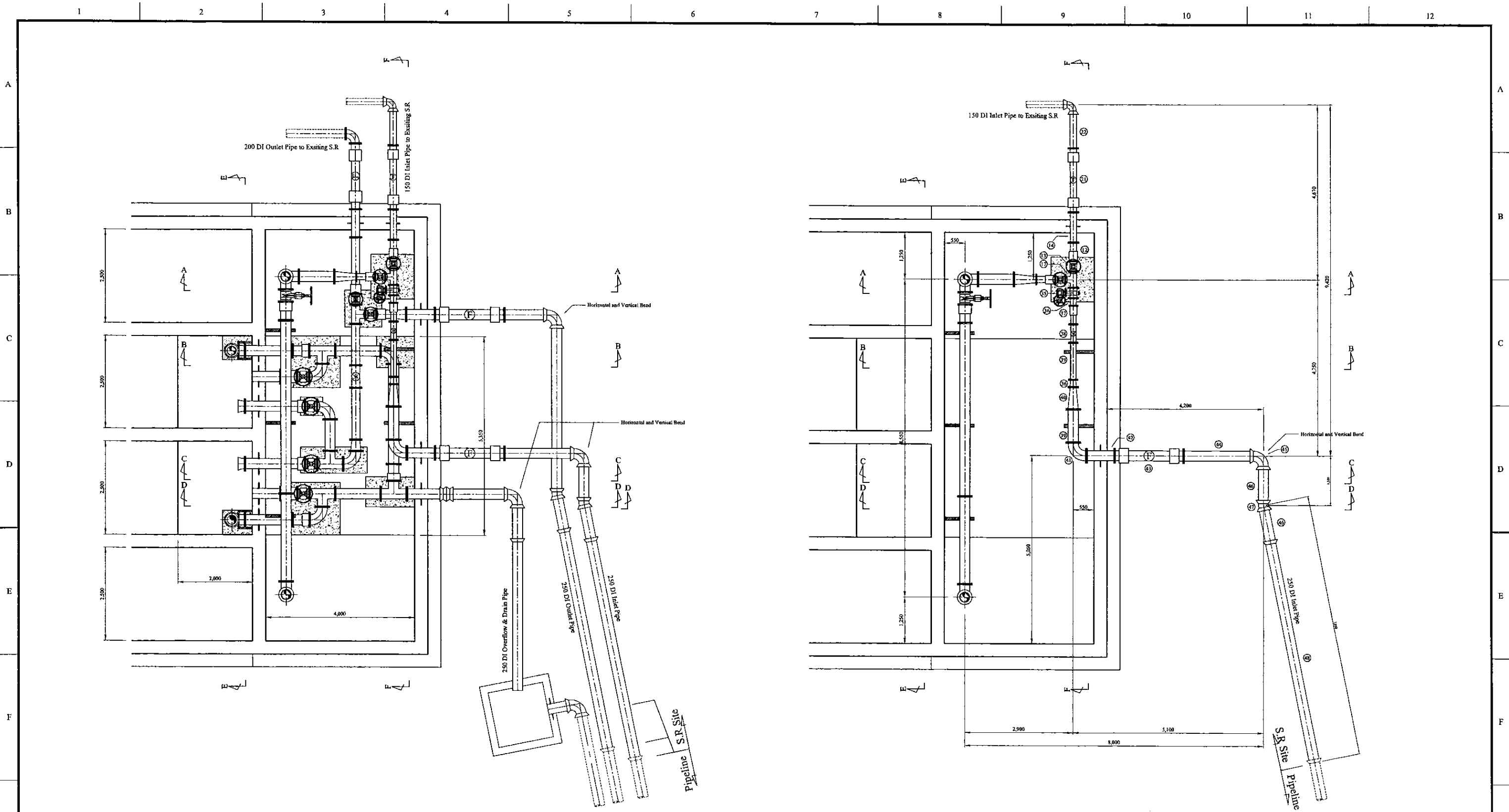
TITLE: PIPE LAYOUT OF BANGALAWATTA S.R - 1

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-07-02

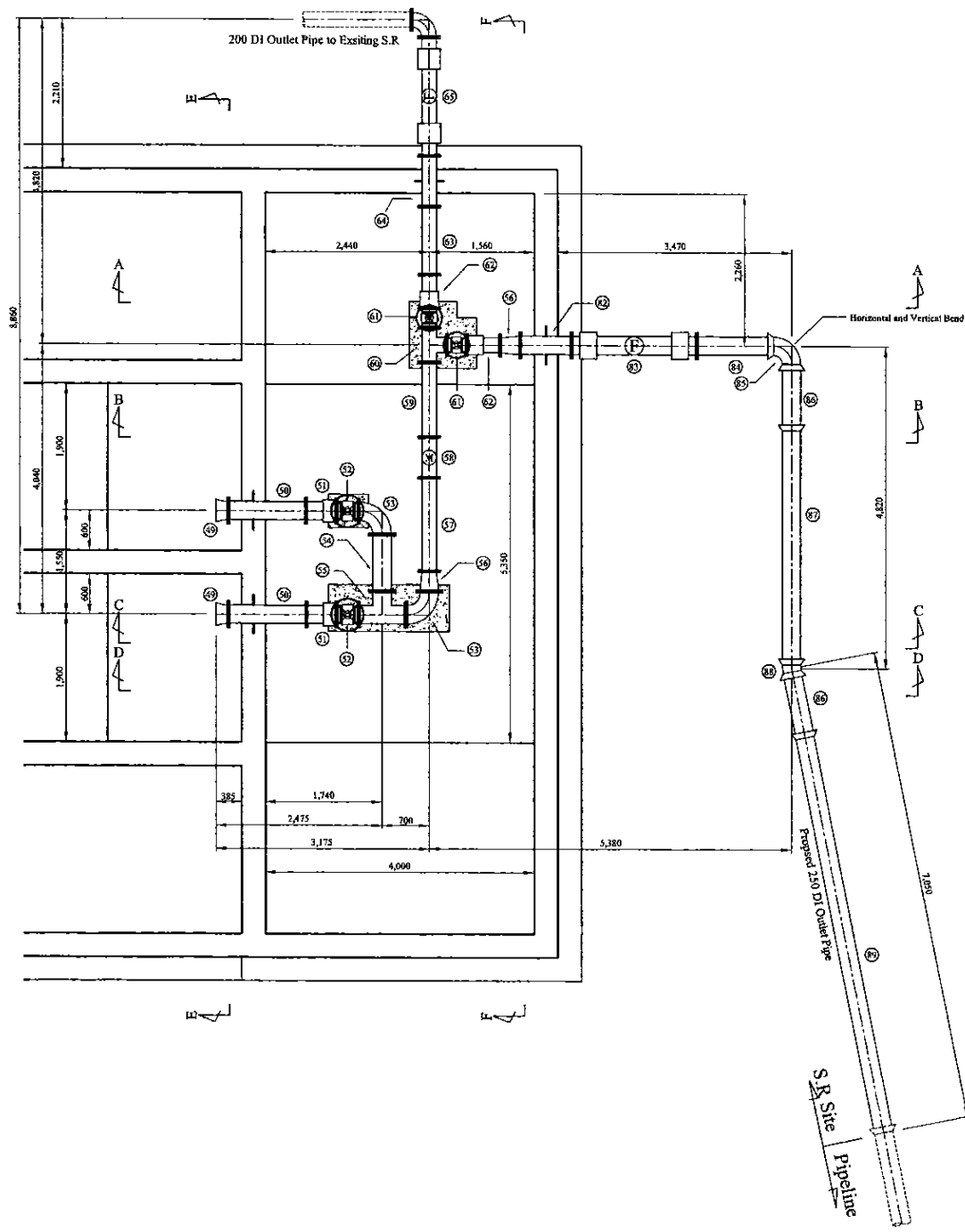


\* Contractor should provide concrete and/or metal pipe support.

Pipe Layout

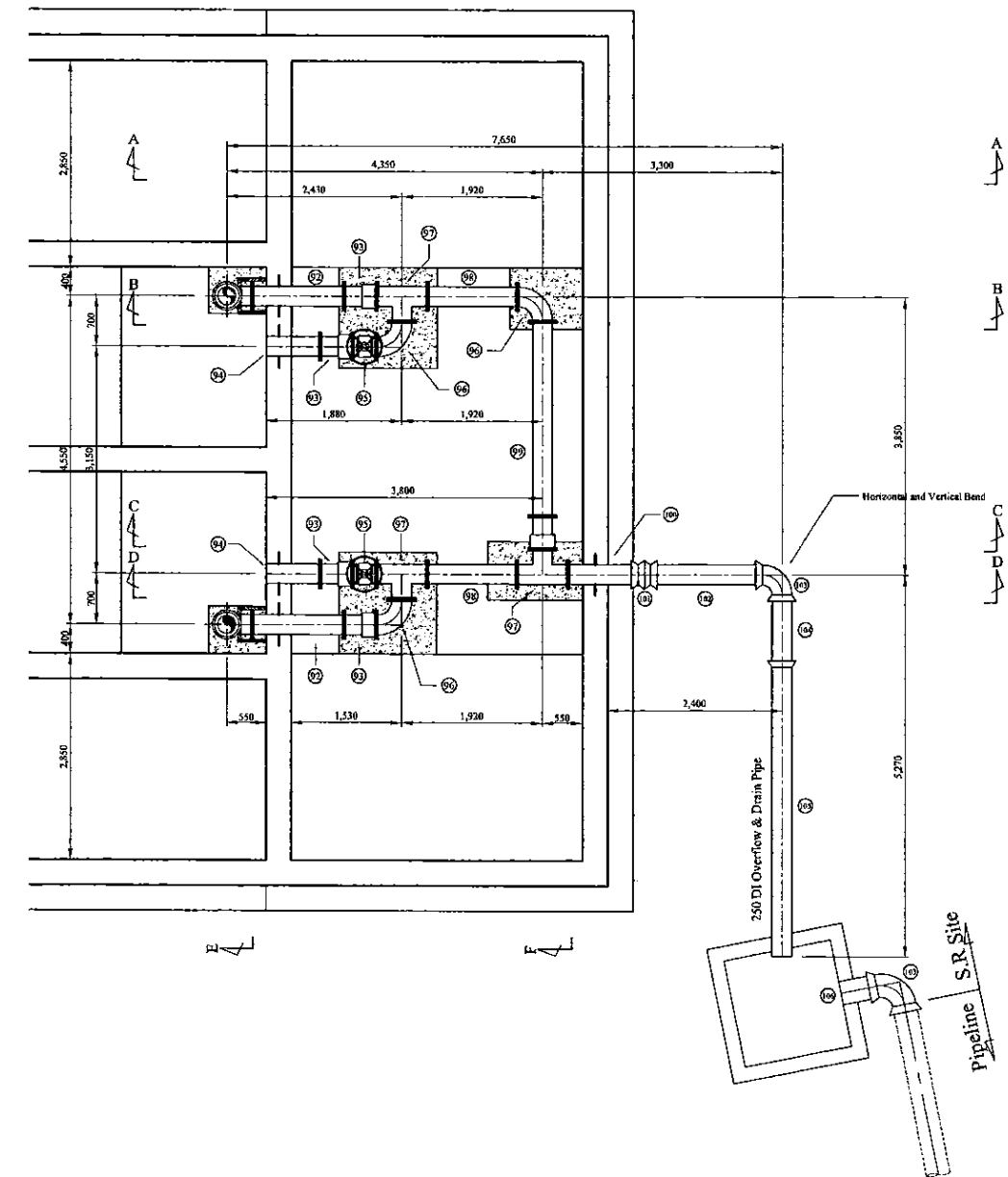
Inlet Pipe

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF BANGALAWATTA S.R. - 2</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
							CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-07-03</b>	
						DESIGN CHIEF						







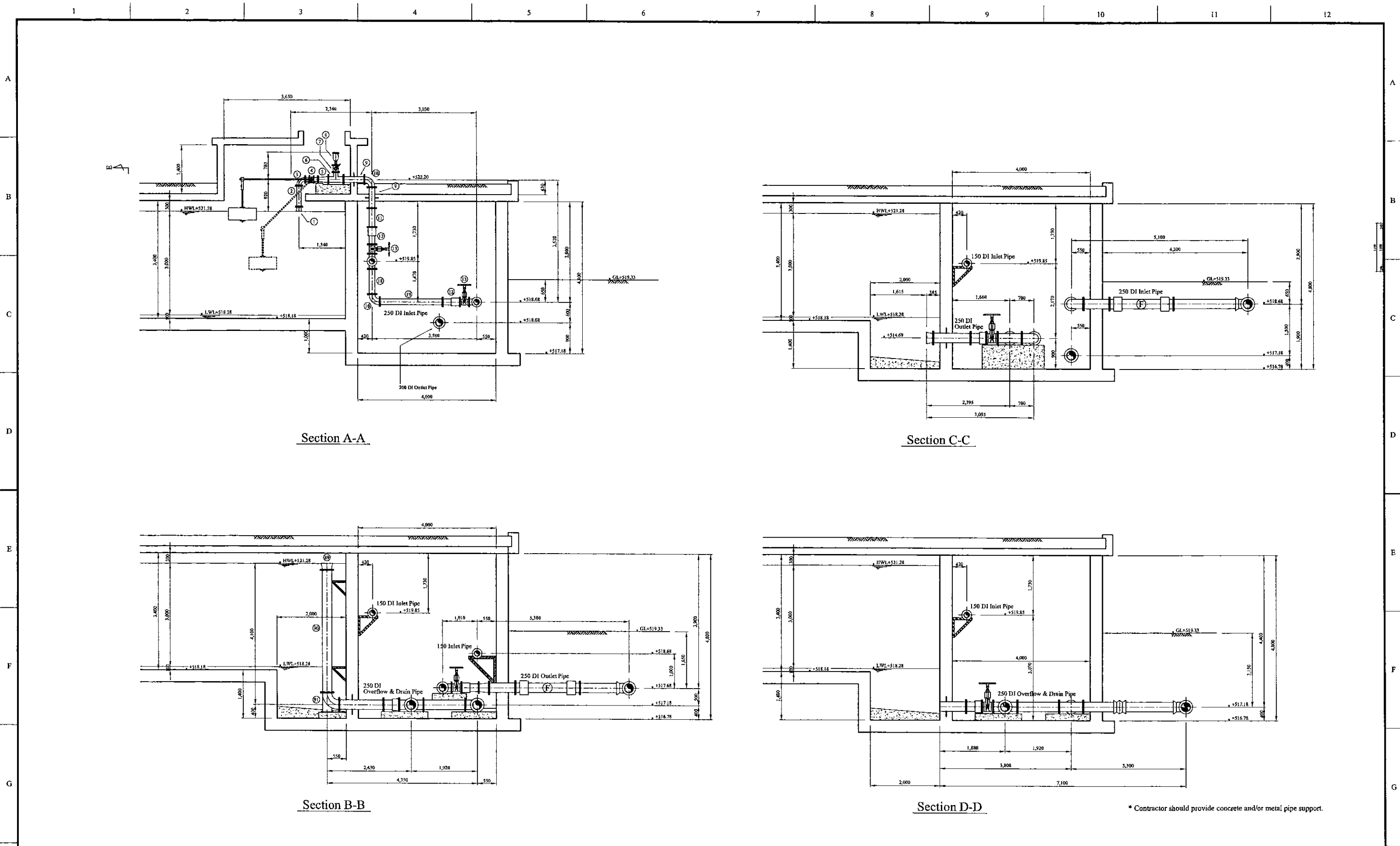
Outlet Pipe

\* Contractor should provide concrete and/or metal pipe support.







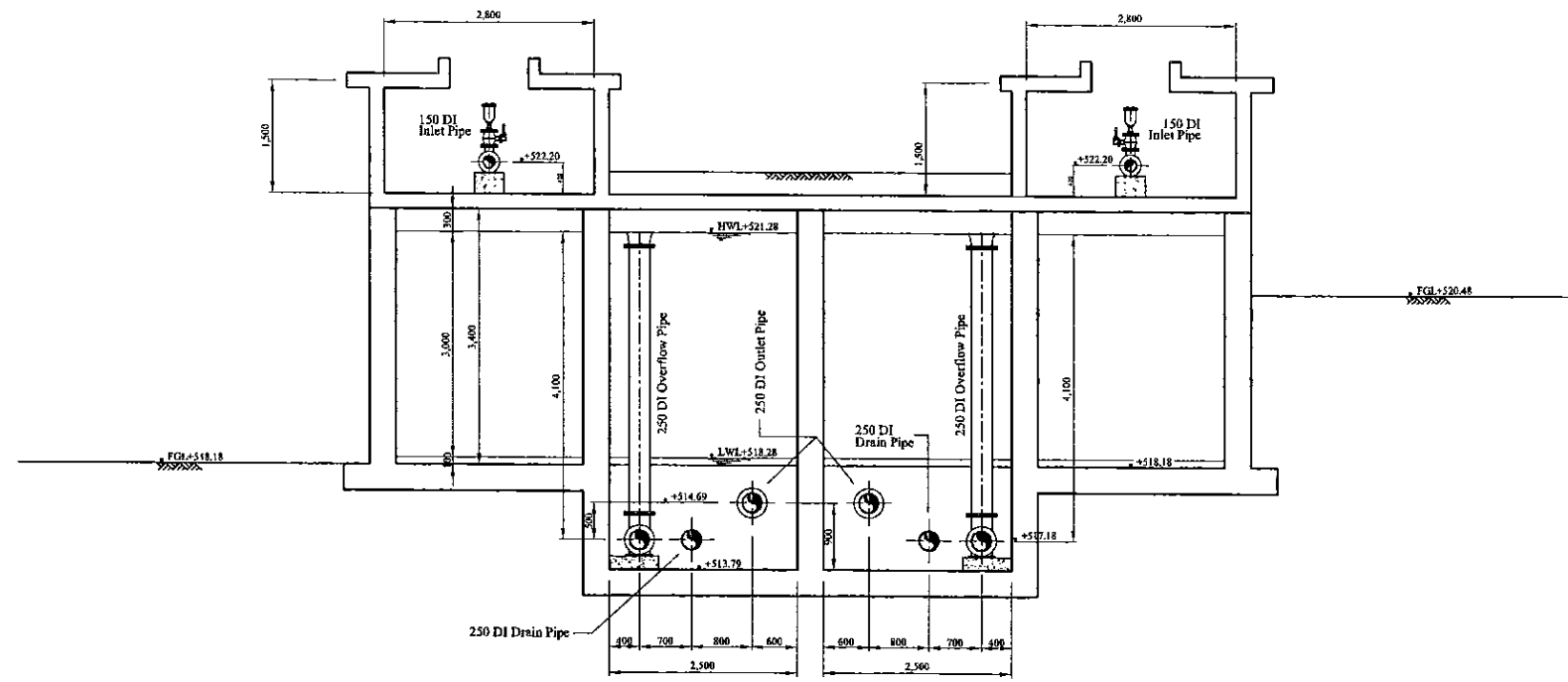
Overflow & Drain Pipe

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF BANGALAWATTA S.R. - 3</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-07-04</b>
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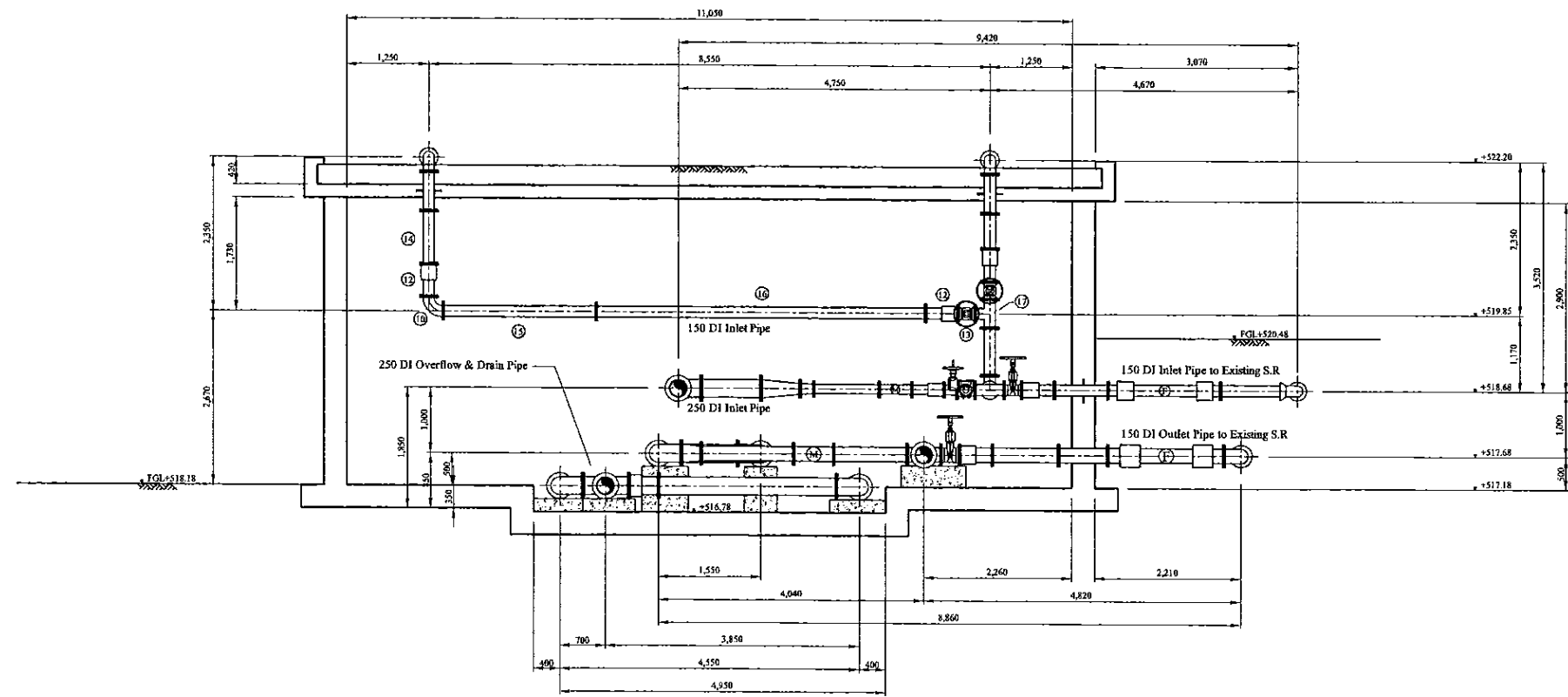


\* Contractor should provide concrete and/or metal pipe support.

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF BANGALAWATTA S.R - 4</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
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						DESIGN CHIEF						



Section E-E



Section F-F

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF BANGALAWATTA S.R - 5

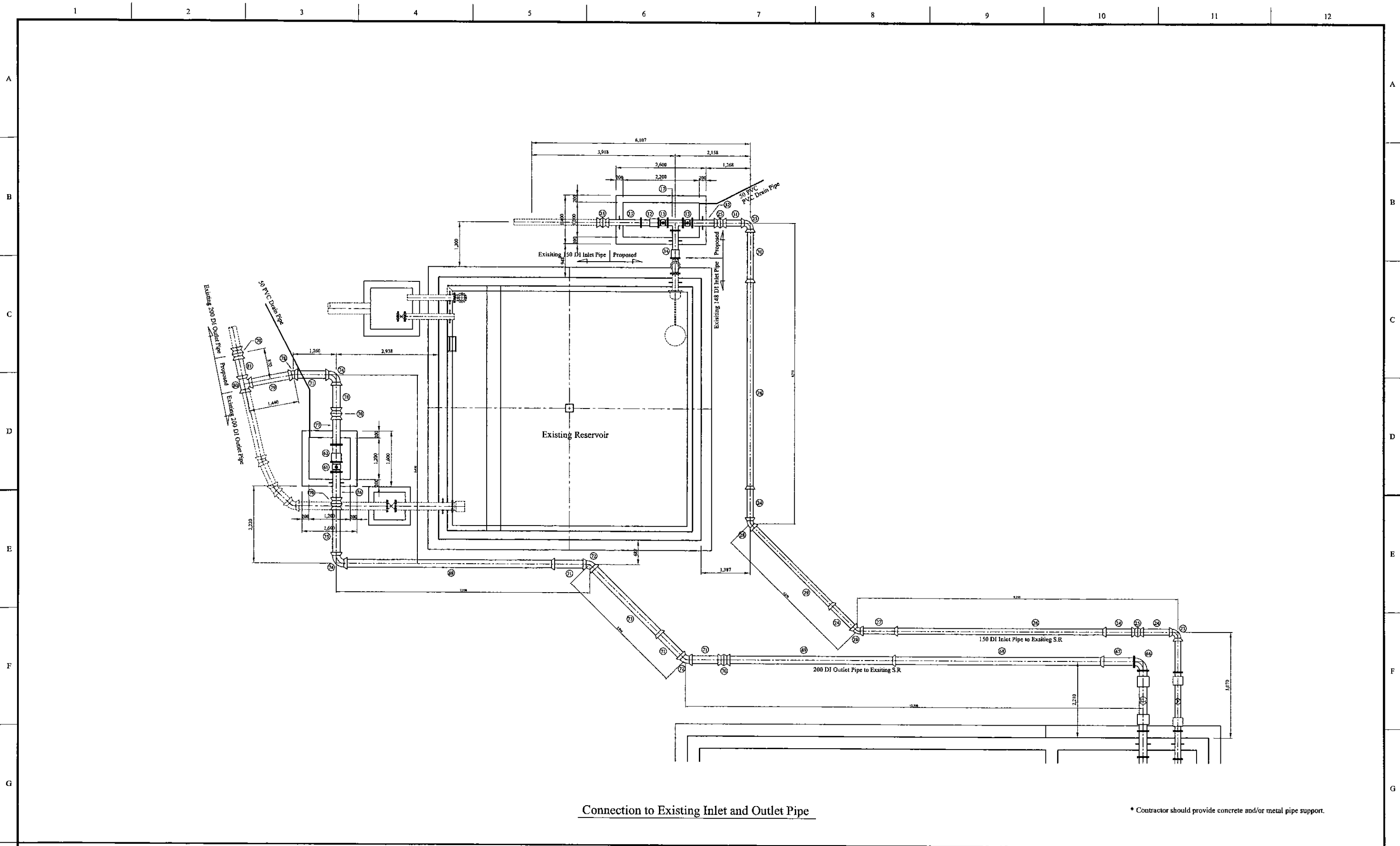
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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







REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-07-06

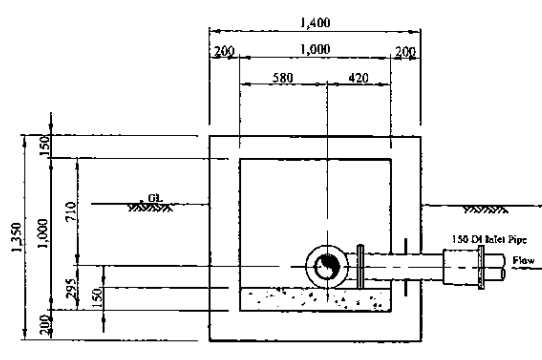
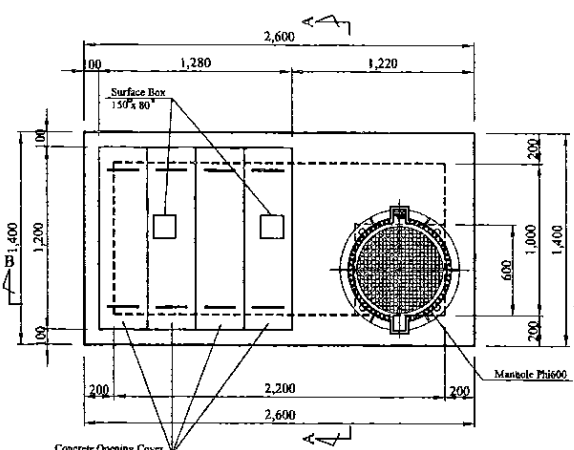


Connection to Existing Inlet and Outlet Pipe

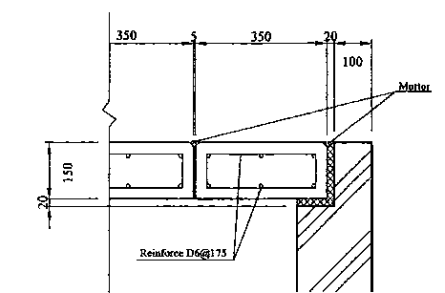
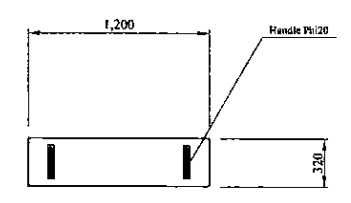
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF BANGALAWATTA S.R. - 6								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-07-07

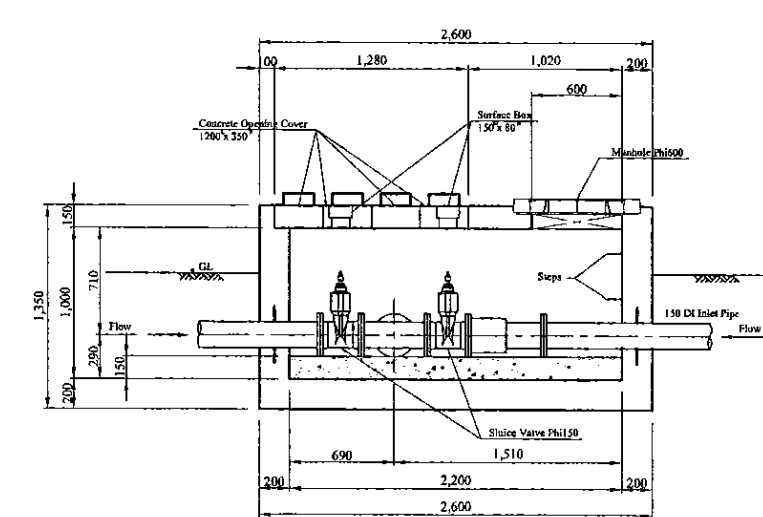
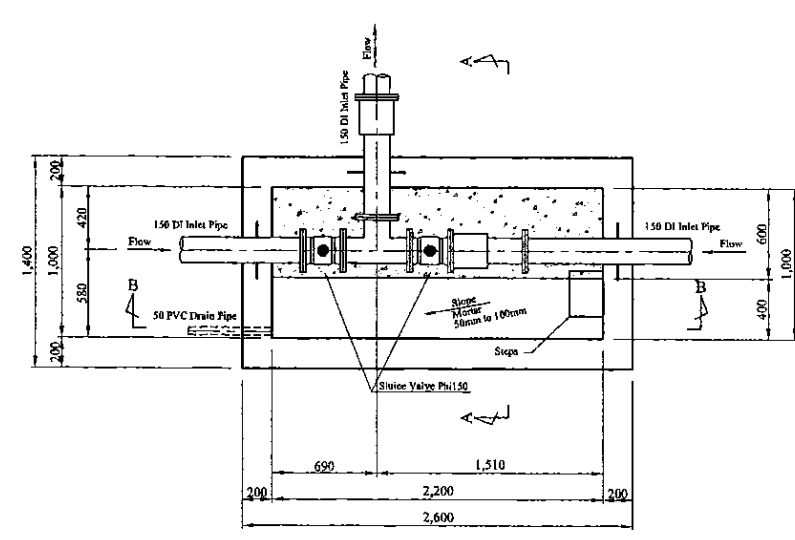




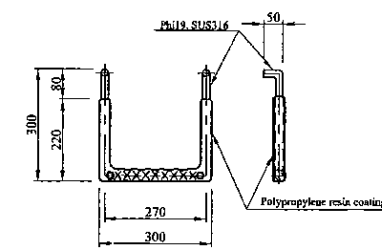
**Concrete Opening Cover**



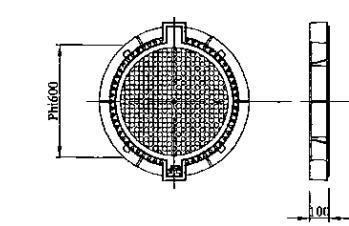
**S=1/10 on A3**



**Step (W=300mm, Polypropylene resin coating)**  
Scale=1:5



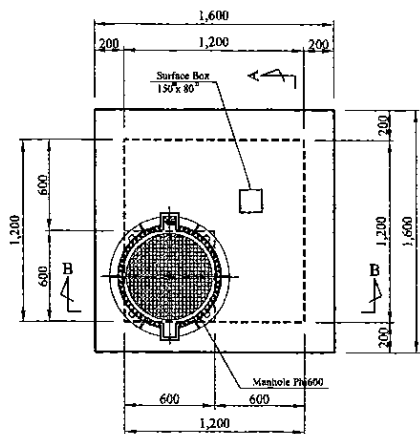
**Manhole ( $\Phi 600$ mm, Water proofing type with lock)**  
Scale=1:10



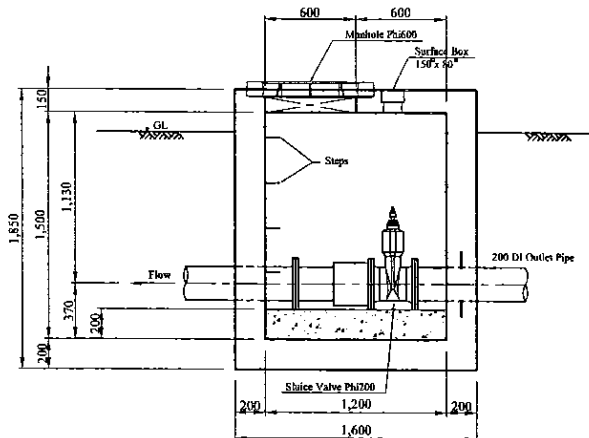
**Inlet Valve Chamber for Existing S.R**

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		TITLE: <b>INLET VALVE CHAMBER OF BANGALAWATTA S.R</b>	
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		DESIGNED: <b>Koichi OKAZAKI</b>		DRAWN: <b>Koichi OKAZAKI</b>	
		CHECKED: <b>DESIGN CHIEF</b>		PM: (CONSULTANT) <b>Ikuo MIWA</b>	
				CE: (P&D)	
				SCALE: <b>1:25</b>	
				DATE: <b>31/05/2002</b>	
				DRAWING NO.: <b>31-C-07-08</b>	

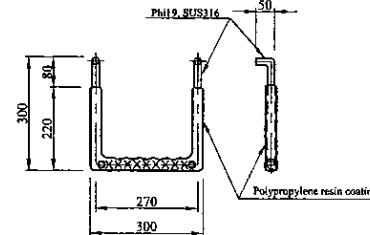


Top Plan

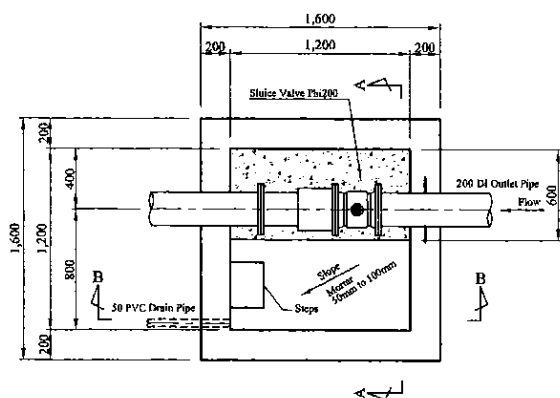
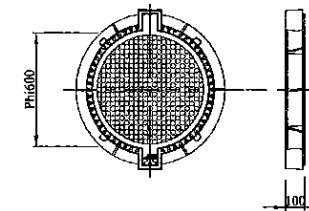


Section A-A

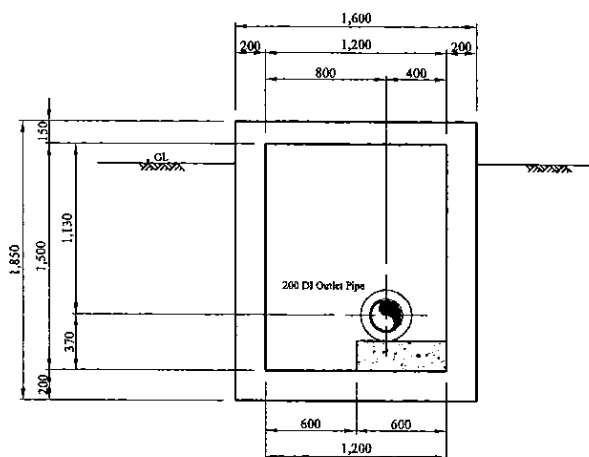
Step (W=300mm, Polypropylene resin coating)  
Scale=1:5



Manhole (Phi 600mm, Water proofing type with lock)  
Scale=1:10



Plan



Section B-B

Outlet Valve Chamber for Existing S.R

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: OUTLET VALVE CHAMBER OF BANGALAWATTA S.R

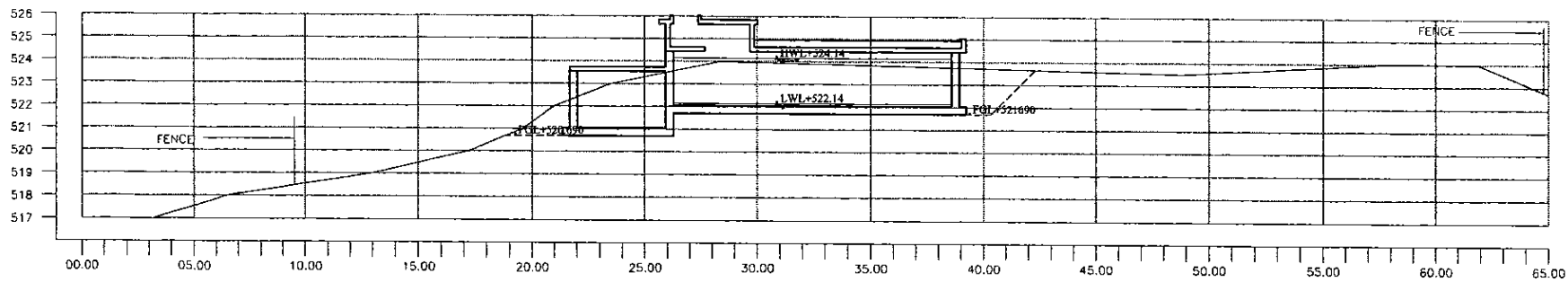
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



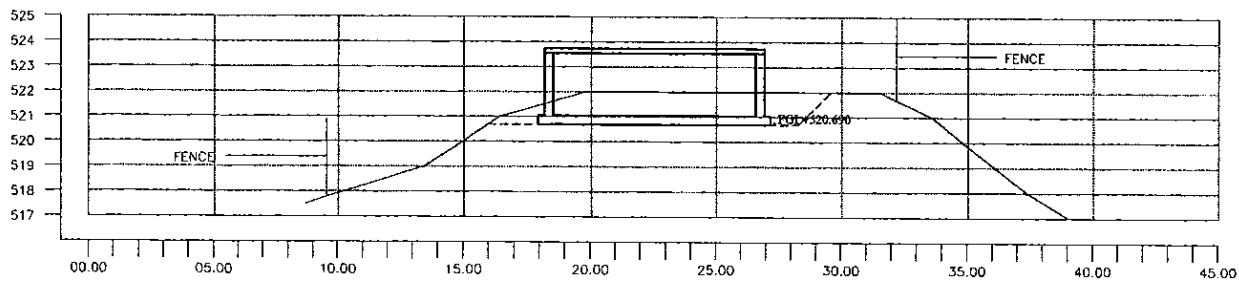
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



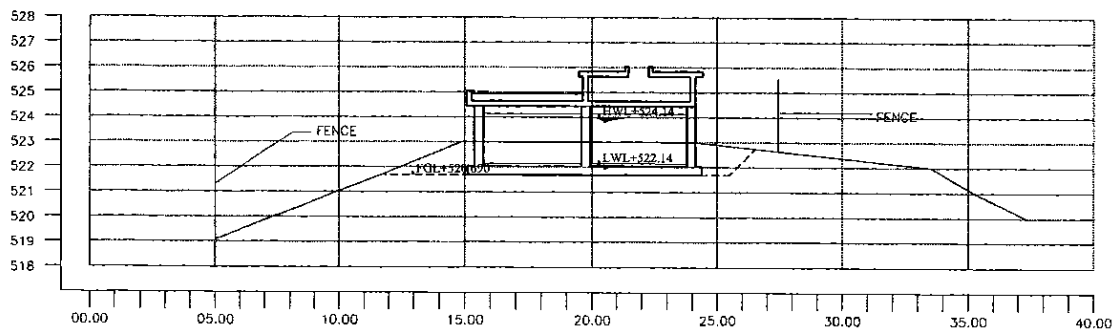
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:25
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-07-09



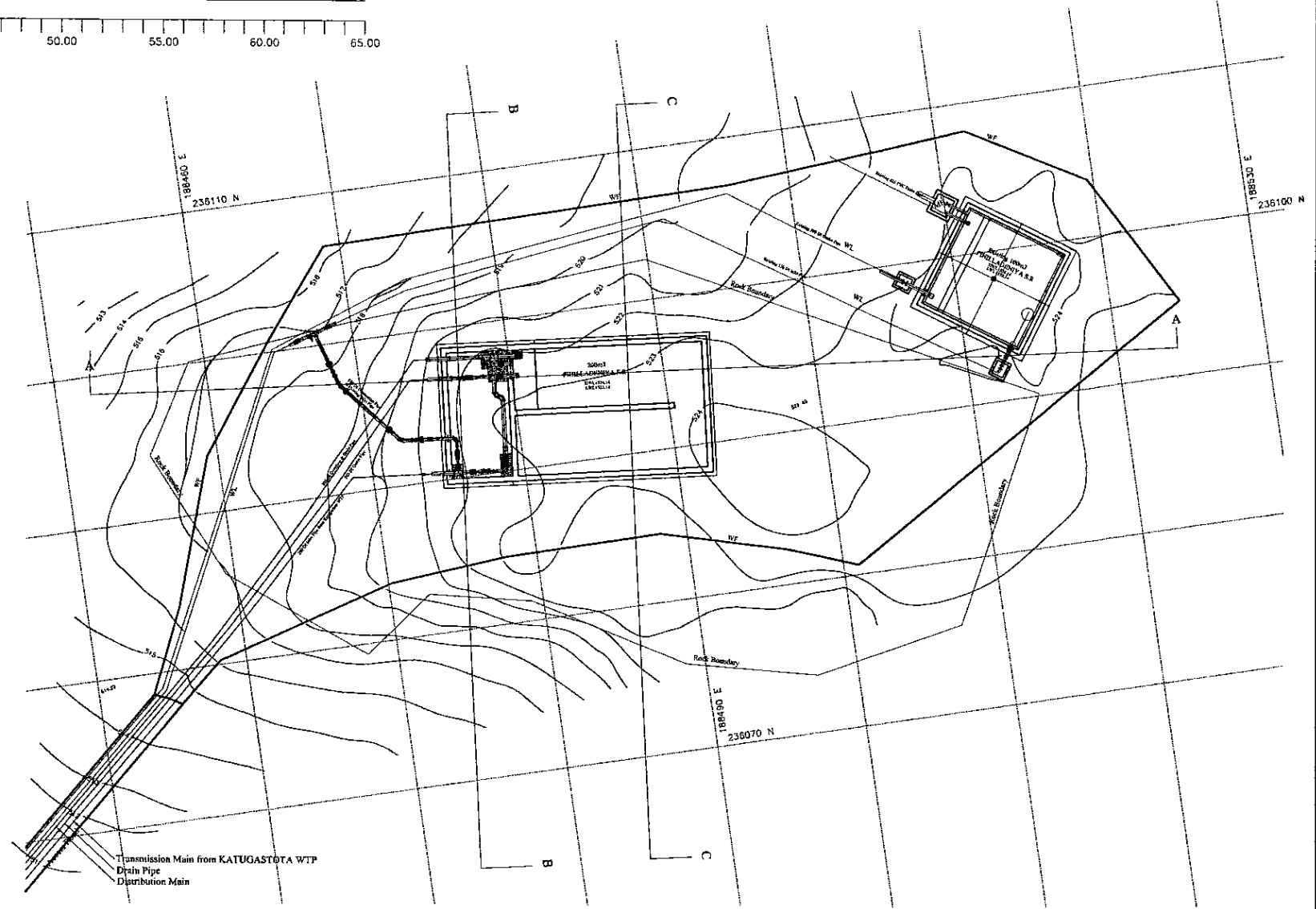
SECTION A-A  
1:150



SECTION B-B  
1:150



SECTION C-C  
1:150



PLAN  
1:200

- Reference:
- WF Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - 1m Contour
  - TP Telephone Post
  - EP Electrical Post
  - St Stake
  - St Stake
- DATUM : National Geodetic Datum S.L.D.99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF EXISTING 100m<sup>3</sup> & PROPOSED 200m<sup>3</sup> PIHILLADENIYA S.R.

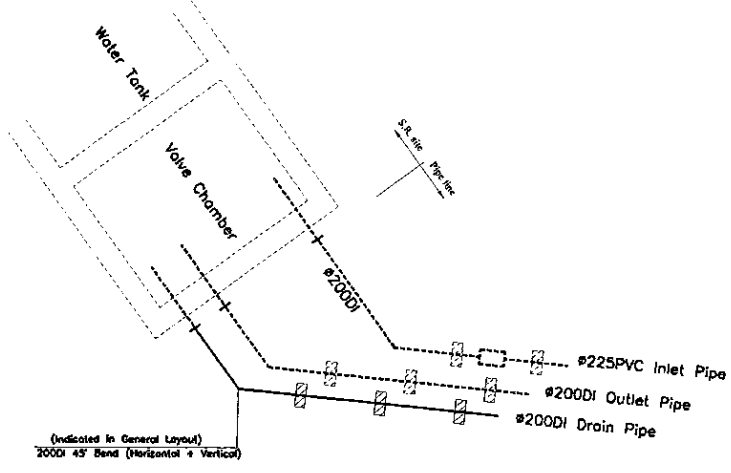
CLIENT:  
NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

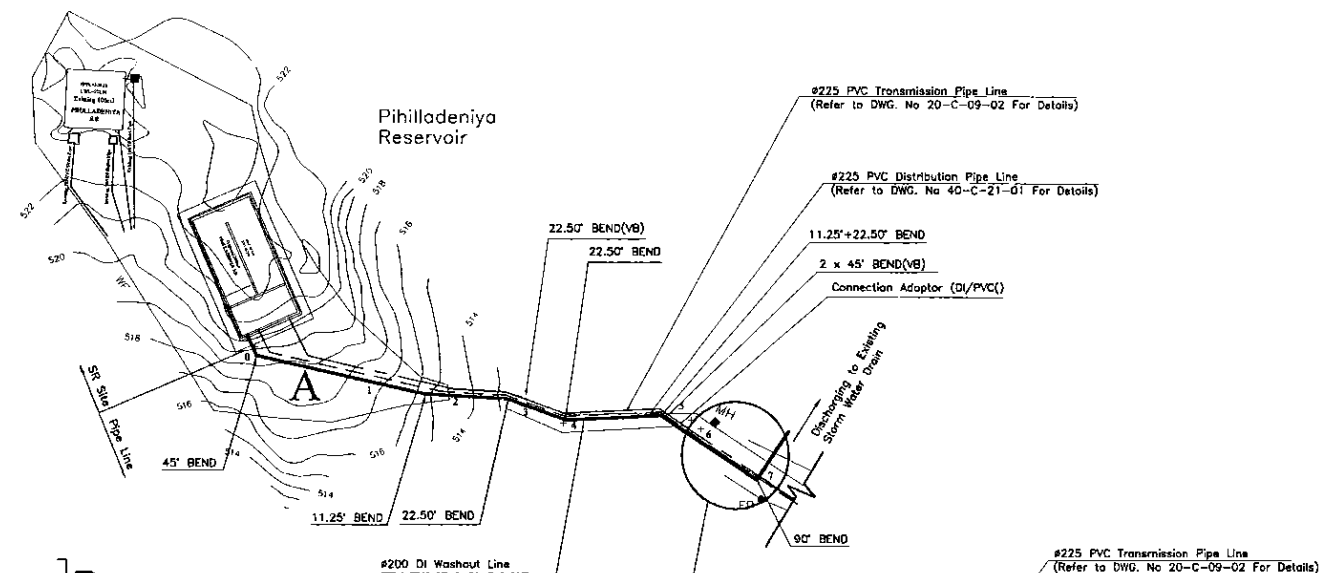
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150 1:200
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				DESIGN CHIEF			31/05/2002	30-C-08-01



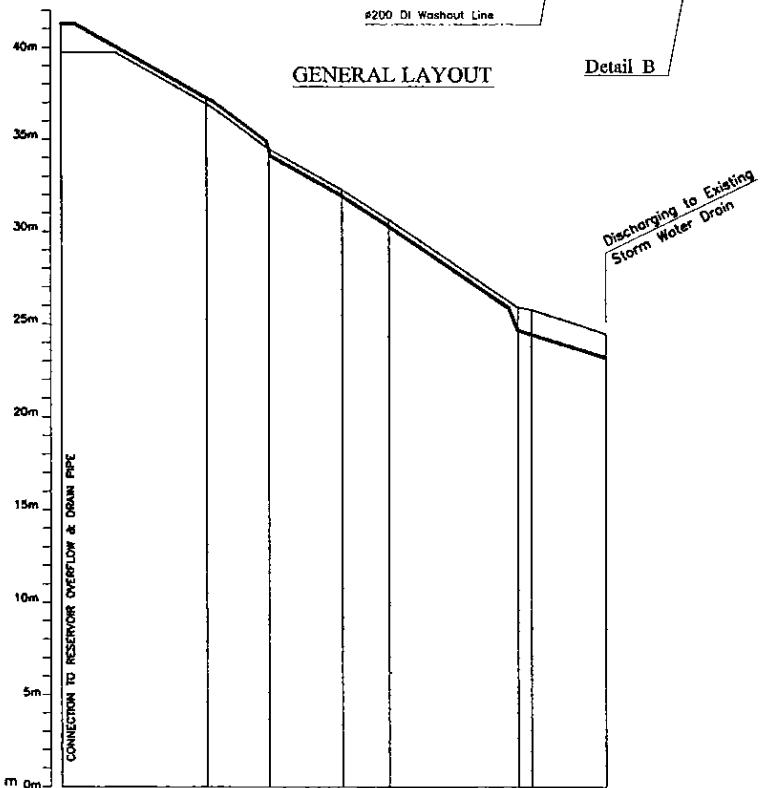
Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AV/A	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manshole
WF	Wire Fence
U	Undefined Boundary
KW	Retaining Wall
MD	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Type)
WTP	Water Treatment Plant



PIPE CONNECTION DETAIL - A

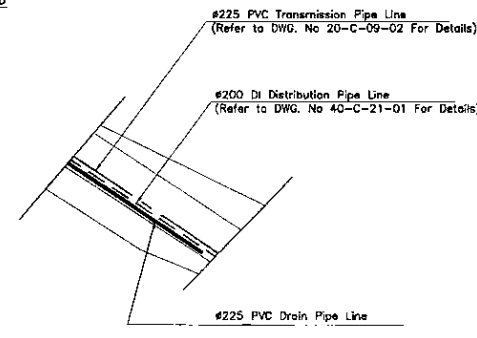


GENERAL LAYOUT



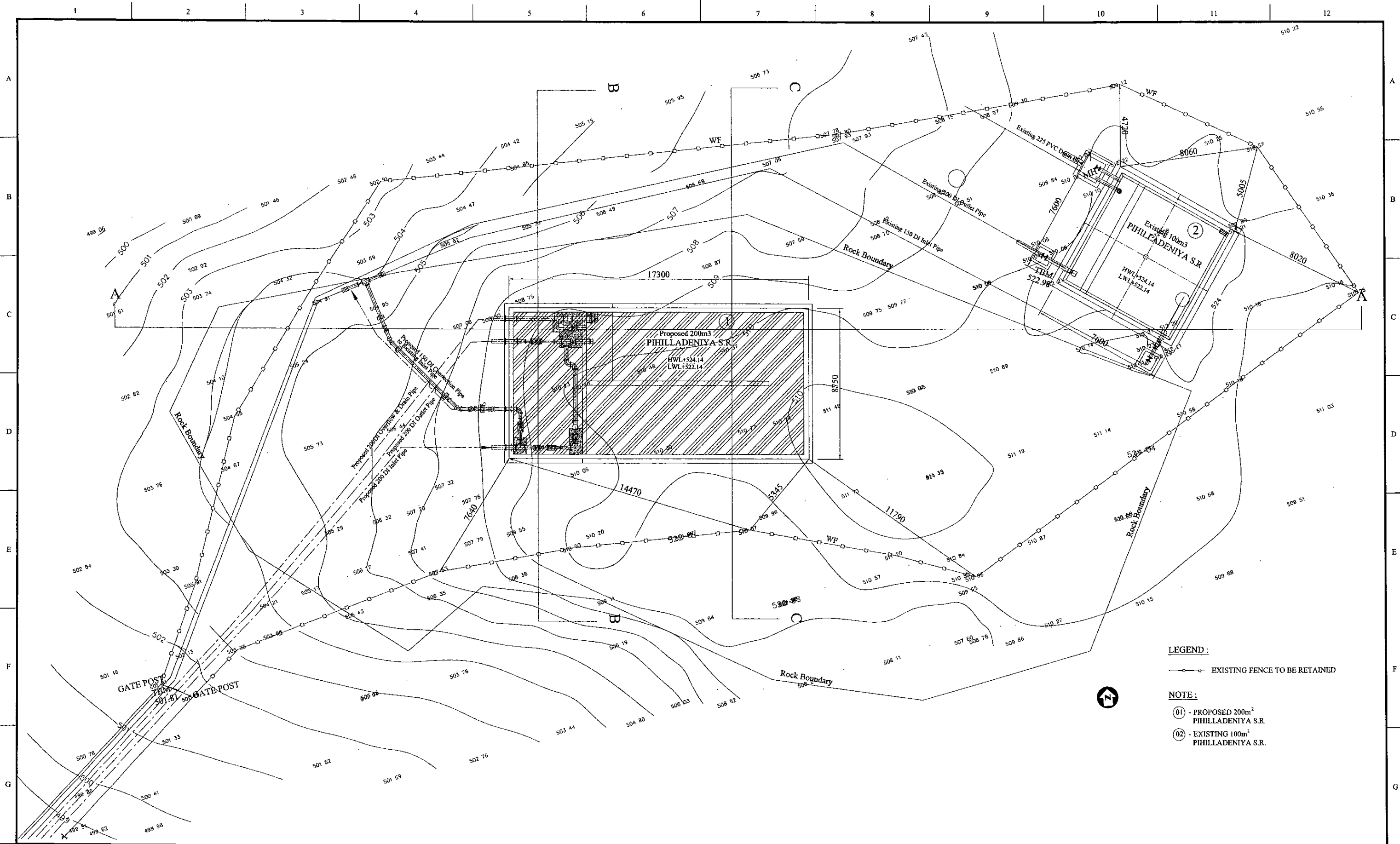
Station No.	0	1	2	3	4	5	6	7
Ground Level (m)	519.74	517.00	514.50	512.29	510.67	508.02	505.80	504.50
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	521.39	517.00	513.27	511.06	508.02	504.09	503.80	503.17
Pipe Data	— #200 DI PUSH ON JOINT TYPE T —							
Single Distance (m)	0.00	19.50	8.50	8.86	8.27	17.16	1.81	10.00
Cumulative Distance (m)	0.00	19.50	28.00	37.86	44.13	61.29	63.10	73.10

LONGITUDINAL SECTION



DETAIL B

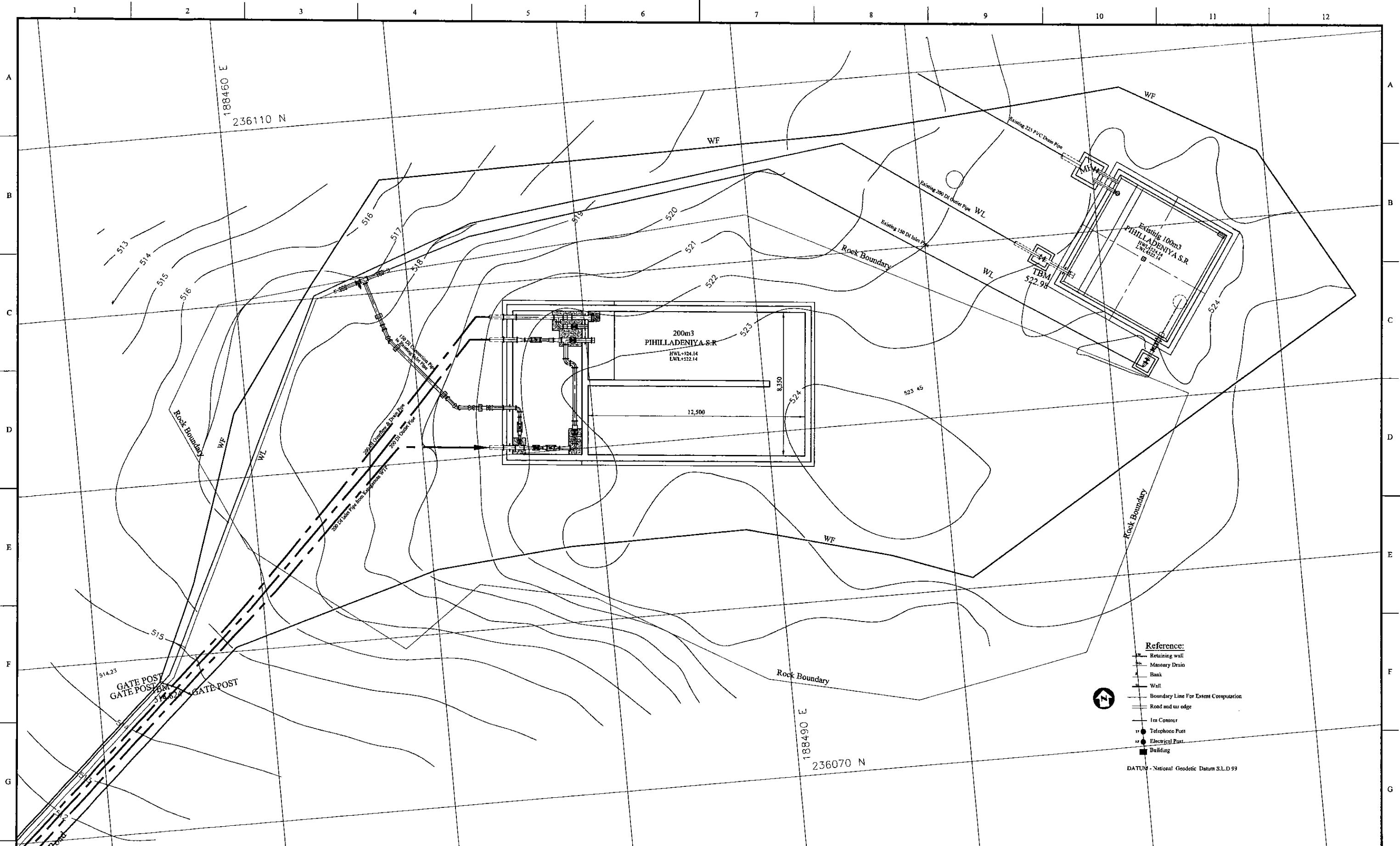
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WASHOUT FROM PIHILLADENIYA S.R.				SHEET 1 OF 1				
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-08-02



**LEGEND :**  
 —○— EXISTING FENCE TO BE RETAINED

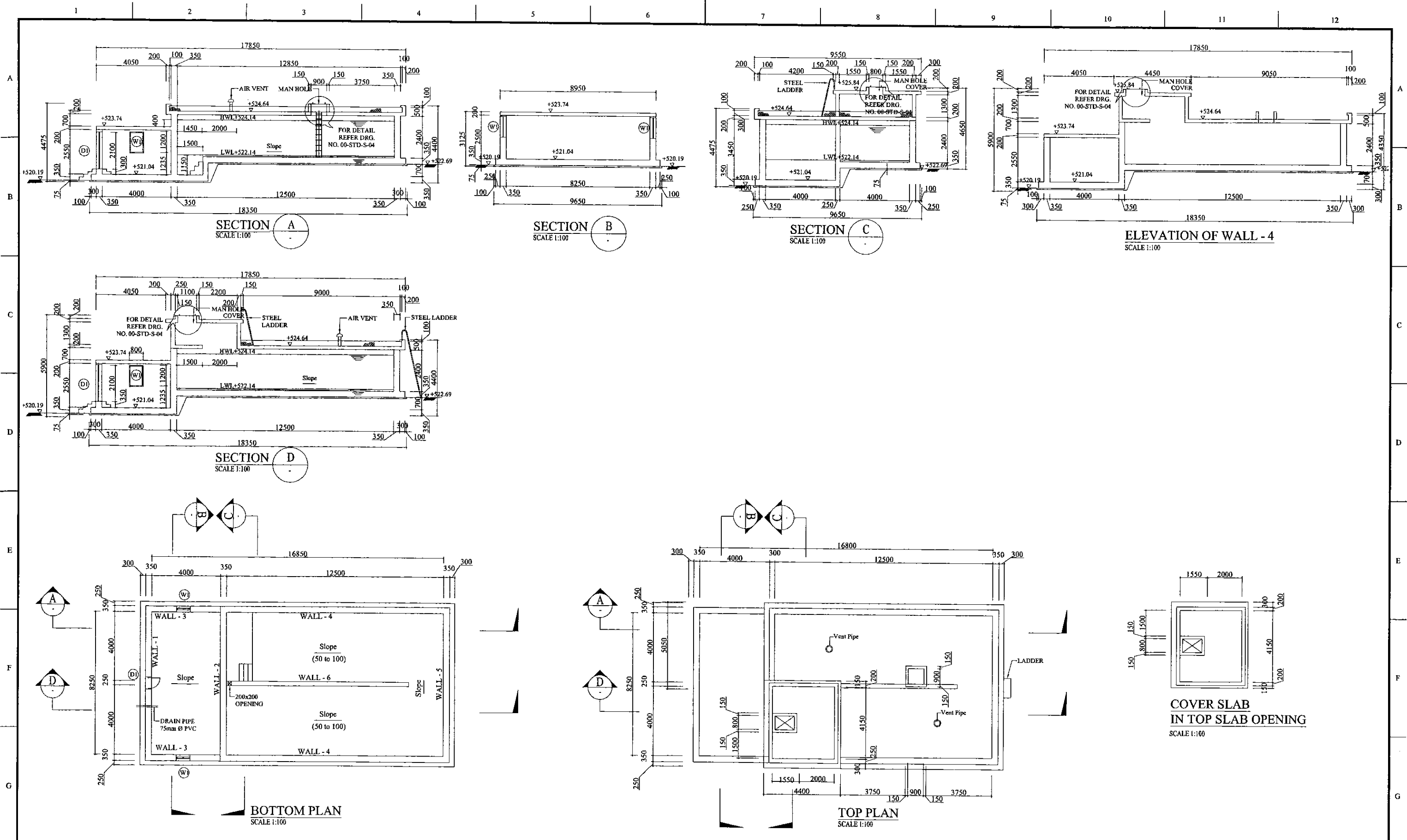
**NOTE :**  
 (01) - PROPOSED 200m<sup>2</sup> PHILLADENIYA S.R.  
 (02) - EXISTING 100m<sup>2</sup> PHILLADENIYA S.R.

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> 300m <sup>3</sup> PHILLADENIYA S.R. LANDSCAPING LAYOUT								
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<b>REV.</b>   	<b>DESCRIPTION</b>   	<b>DATE</b>   	<b>SIGN.</b>   	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> POORNA	<b>PM: (CONSULTANT)</b> Ikuro MIWA	<b>CE: (P&amp;D)</b>  	<b>SCALE:</b> 1:100
				<b>CHECKED:</b>  		<b>AGM: (P&amp;D)</b>  		<b>DGM: (P&amp;D)</b>  		<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-C-08-03	

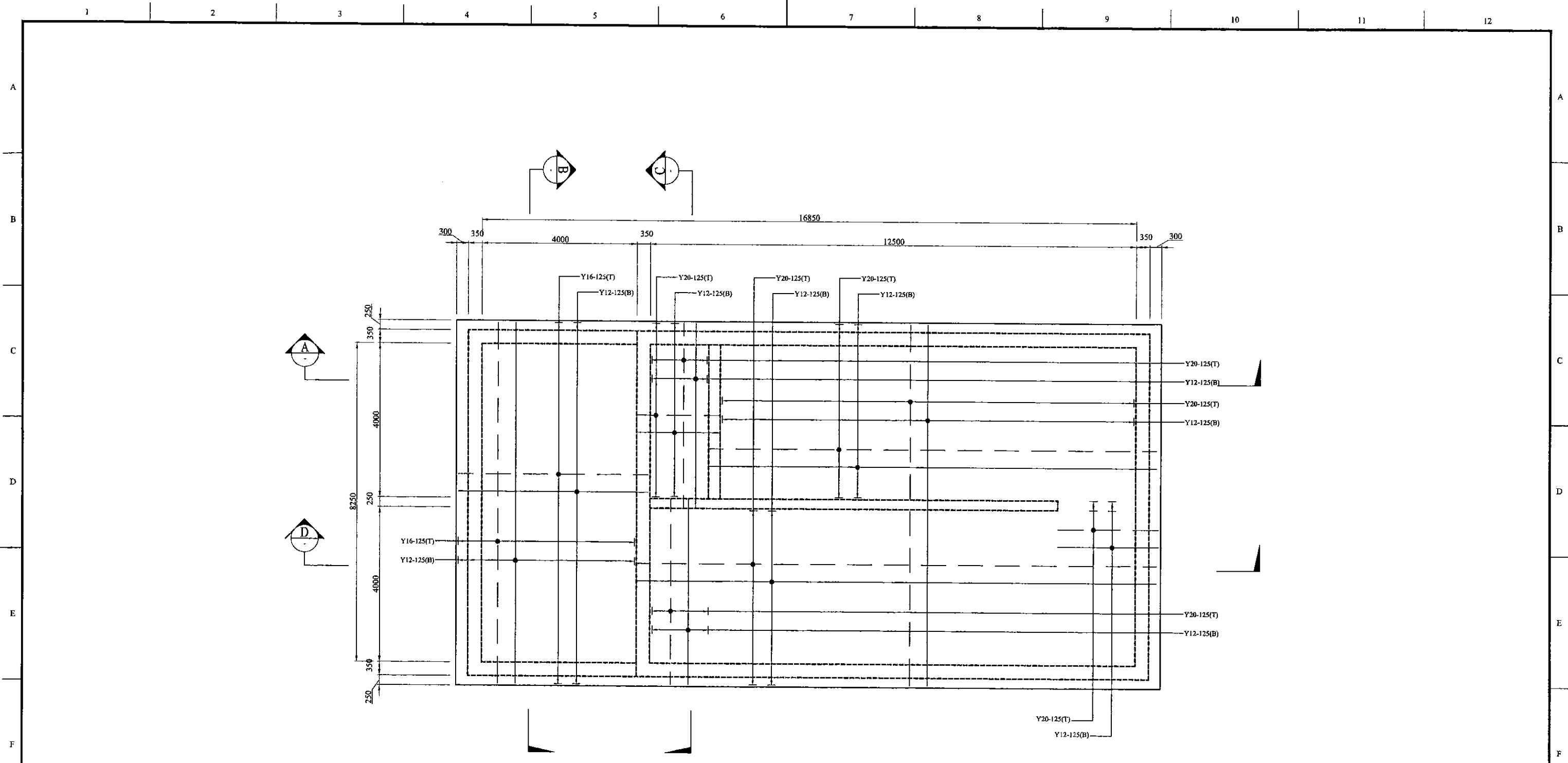


- Reference:**
- Retaining wall
  - Masonry Drain
  - Bank
  - Wall
  - Boundary Line For Extent Computation
  - Road and tar edge
  - 1m Contour
  - Telephone Post
  - Electrical Post
  - Building
- DATUM - National Geodetic Datum S.L.D 99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIHILLADENIYA SERVICE RESERVOIR SITE PLAN								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-08-01



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIHILLADENIYA SERVICE RESERVOIR GENERAL ARRANGEMENT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN nsc NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 100
				CHECKED:				AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-08-02	



R/F DETAILS OF BOTTOM SLAB  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

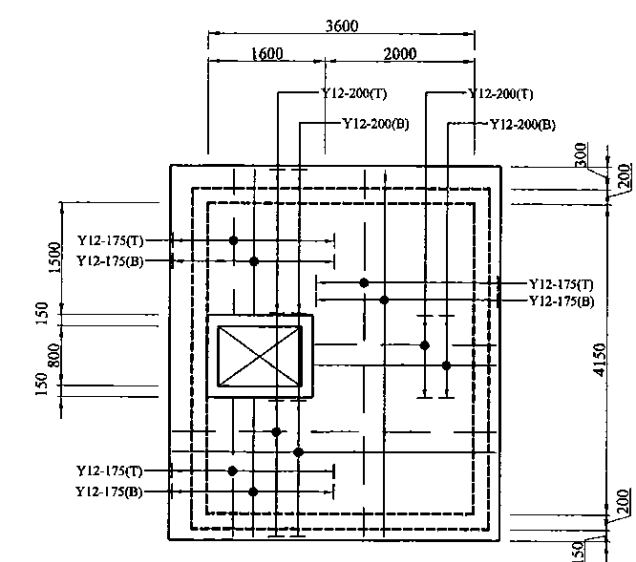
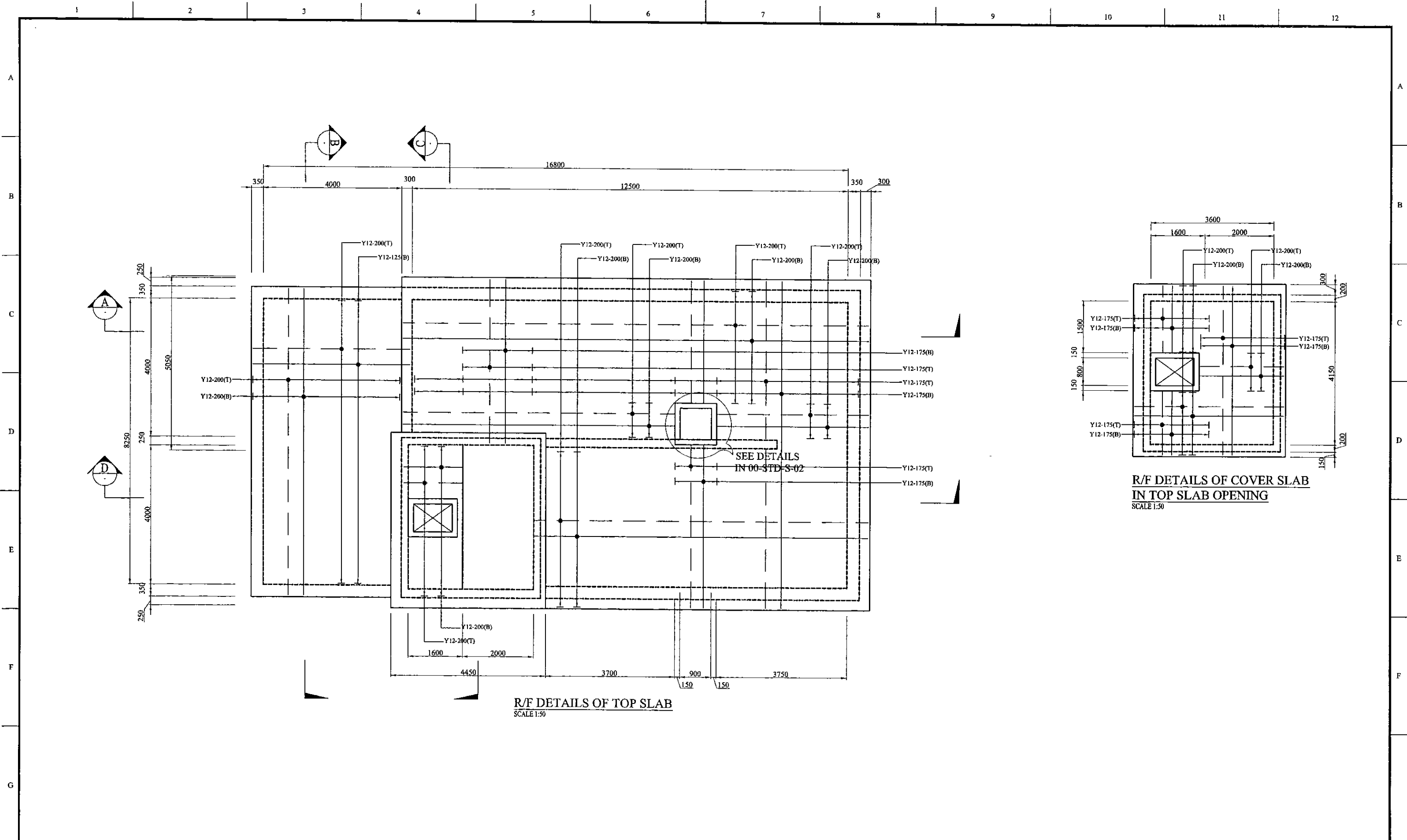
TITLE: PIHILLADENIYA SERVICE RESERVOIR BOTTOM SLAB

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-08-03







**R/F DETAILS OF COVER SLAB  
IN TOP SLAB OPENING**  
SCALE 1:50

**R/F DETAILS OF TOP SLAB**  
SCALE 1:50

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

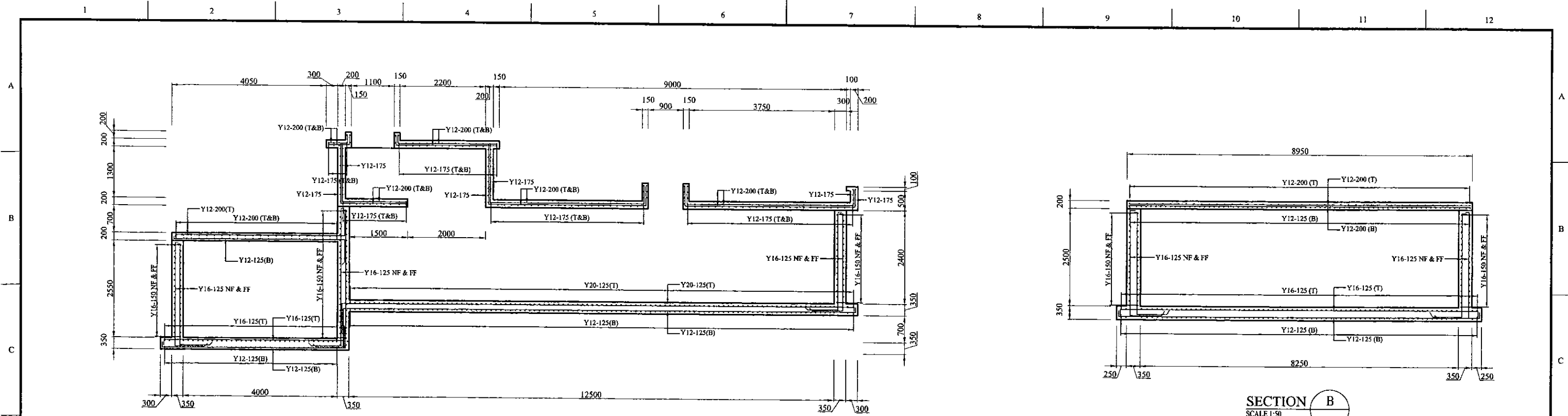
CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

 **JAPAN INTERNATIONAL COOPERATION AGENCY**

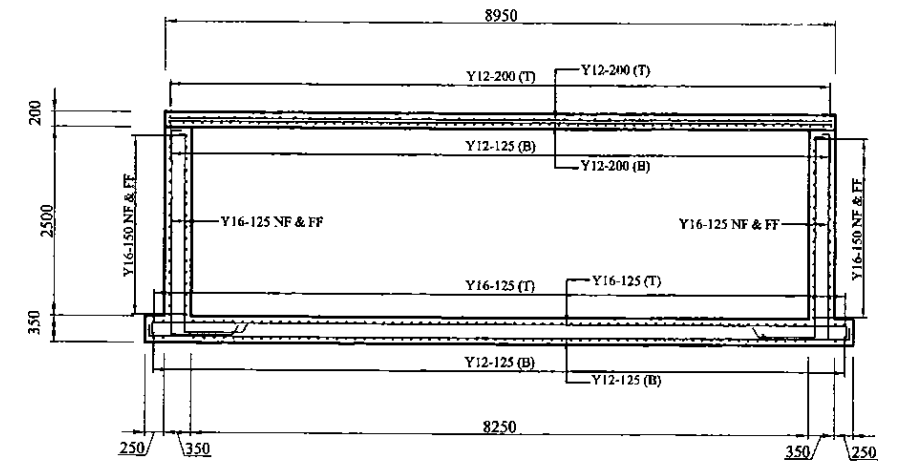
CONSULTANTS :  
 **NJS CONSULTANTS CO., LTD. - JAPAN**  
 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: **PIHILLADENIYA SERVICE RESERVOIR TOP SLAB**

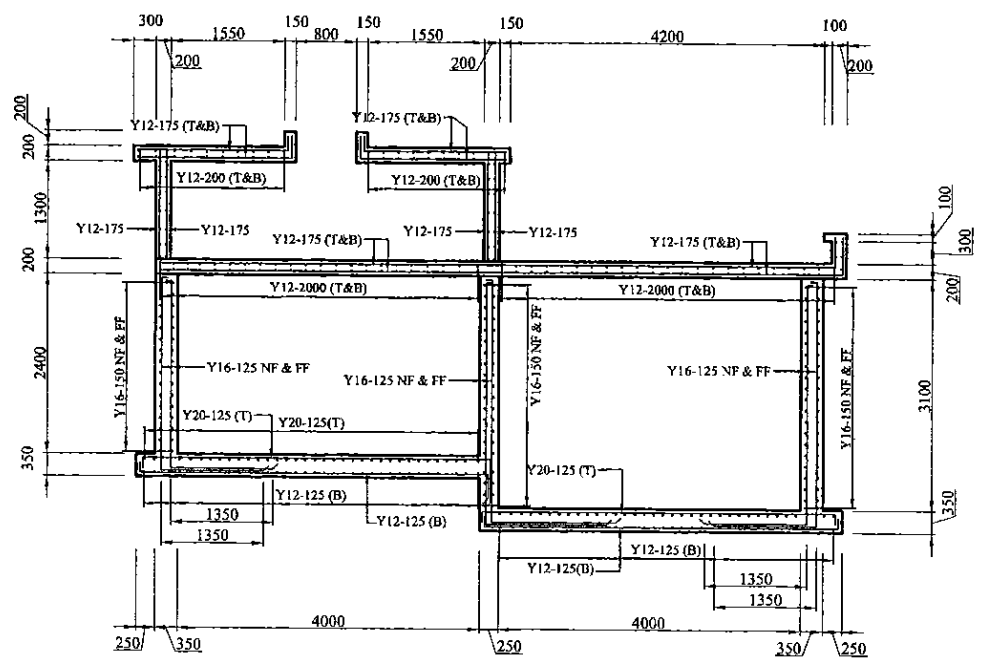
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				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-08-04



SECTION D  
SCALE 1:50



SECTION B  
SCALE 1:50



SECTION C  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

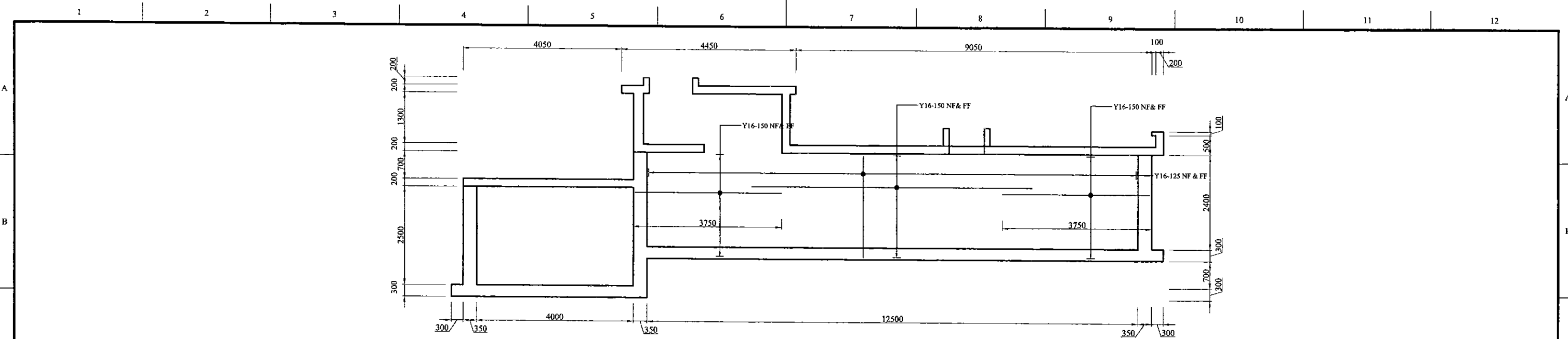
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

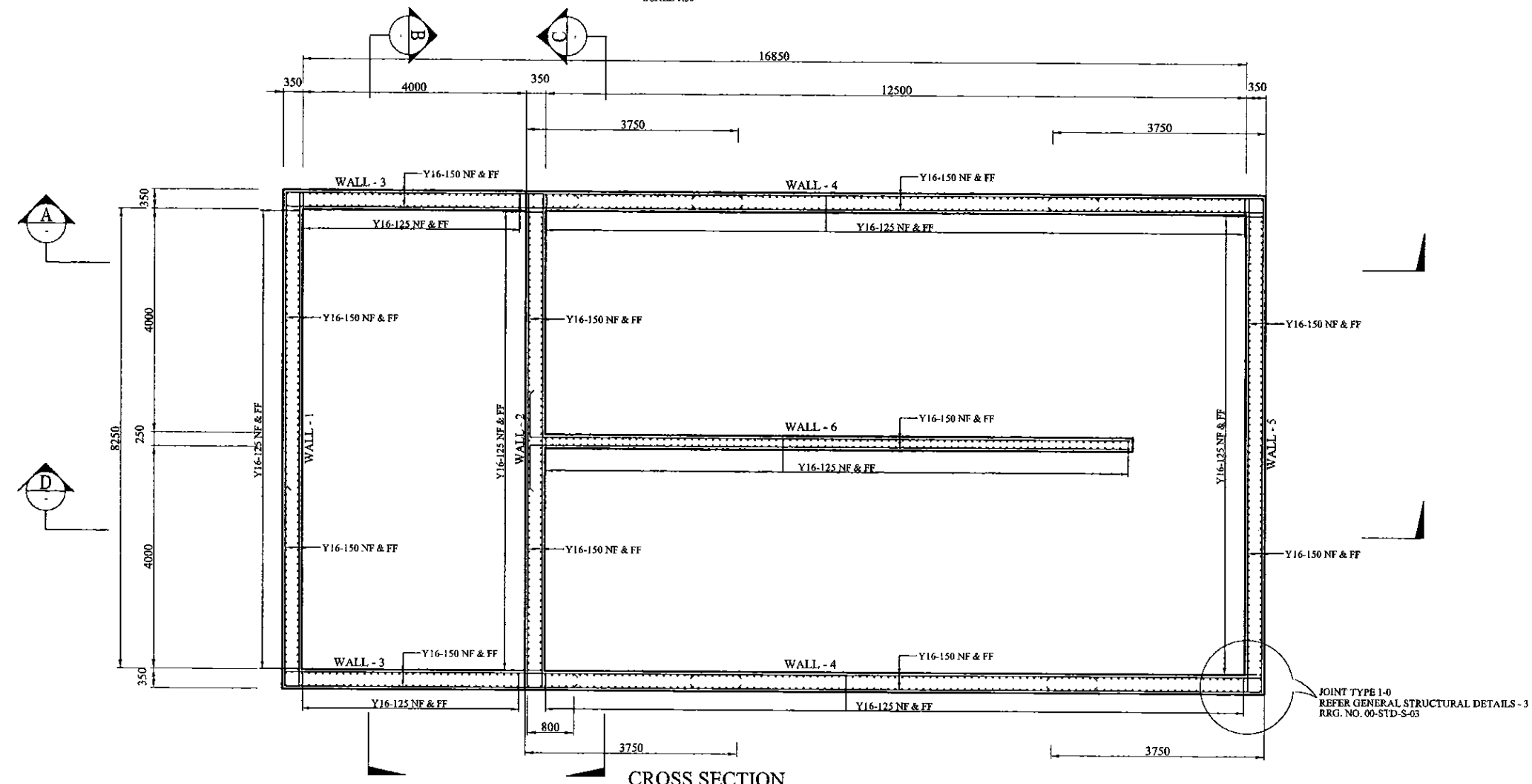
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

TITLE: PIHLLADENIYA SERVICE RESERVOIR SECTIONS

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-08-05

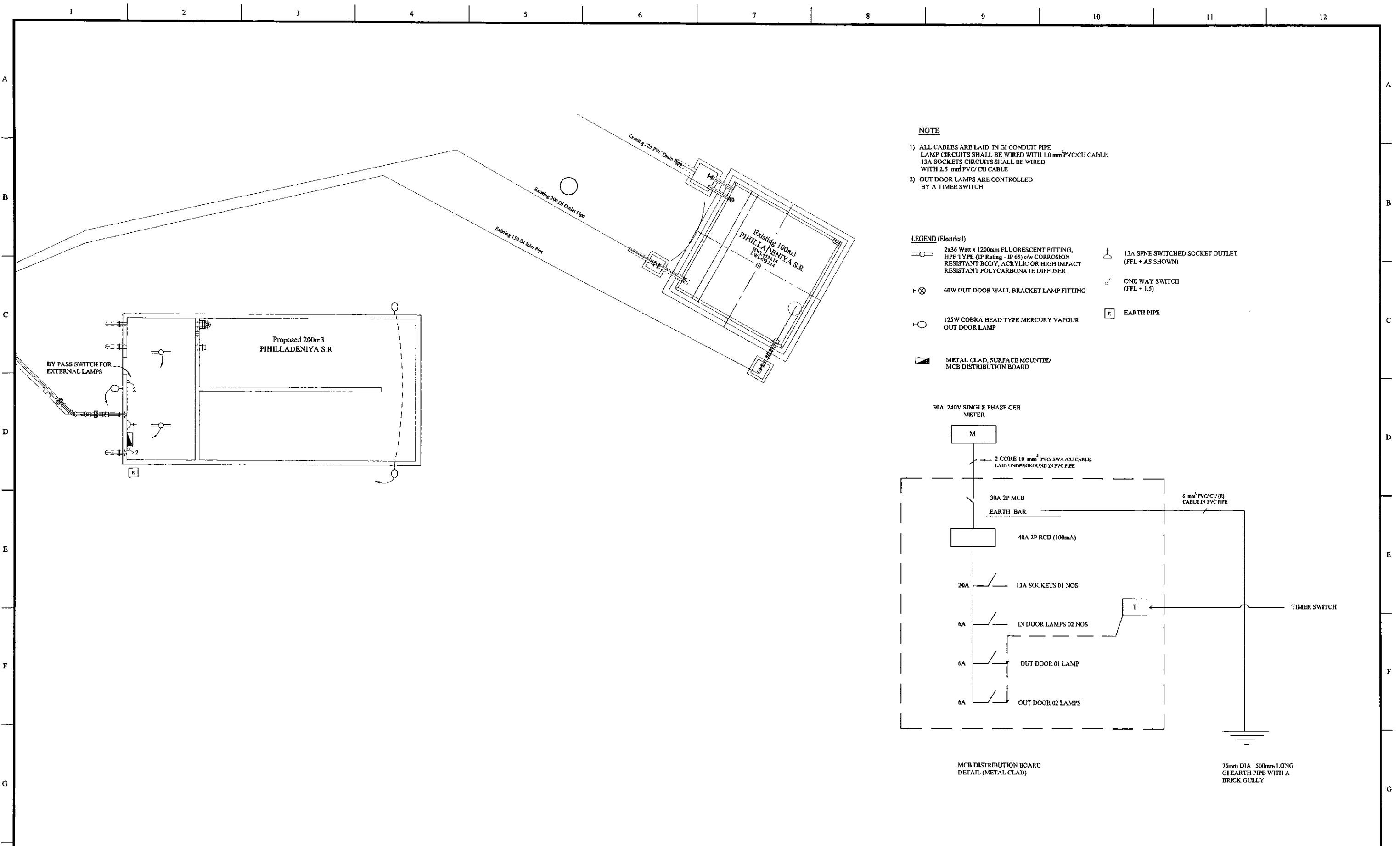


**ELEVATION OF WALL - 4**  
SCALE 1:50



**CROSS SECTION**  
SCALE 1:50

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> PIHILLADENIYA SERVICE RESERVOIR CROSS SECTION & ELEVATION																									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> IRESHA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1 : 50
REV.	DESCRIPTION	DATE	SIGN																										
				<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-S-08-06																					



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

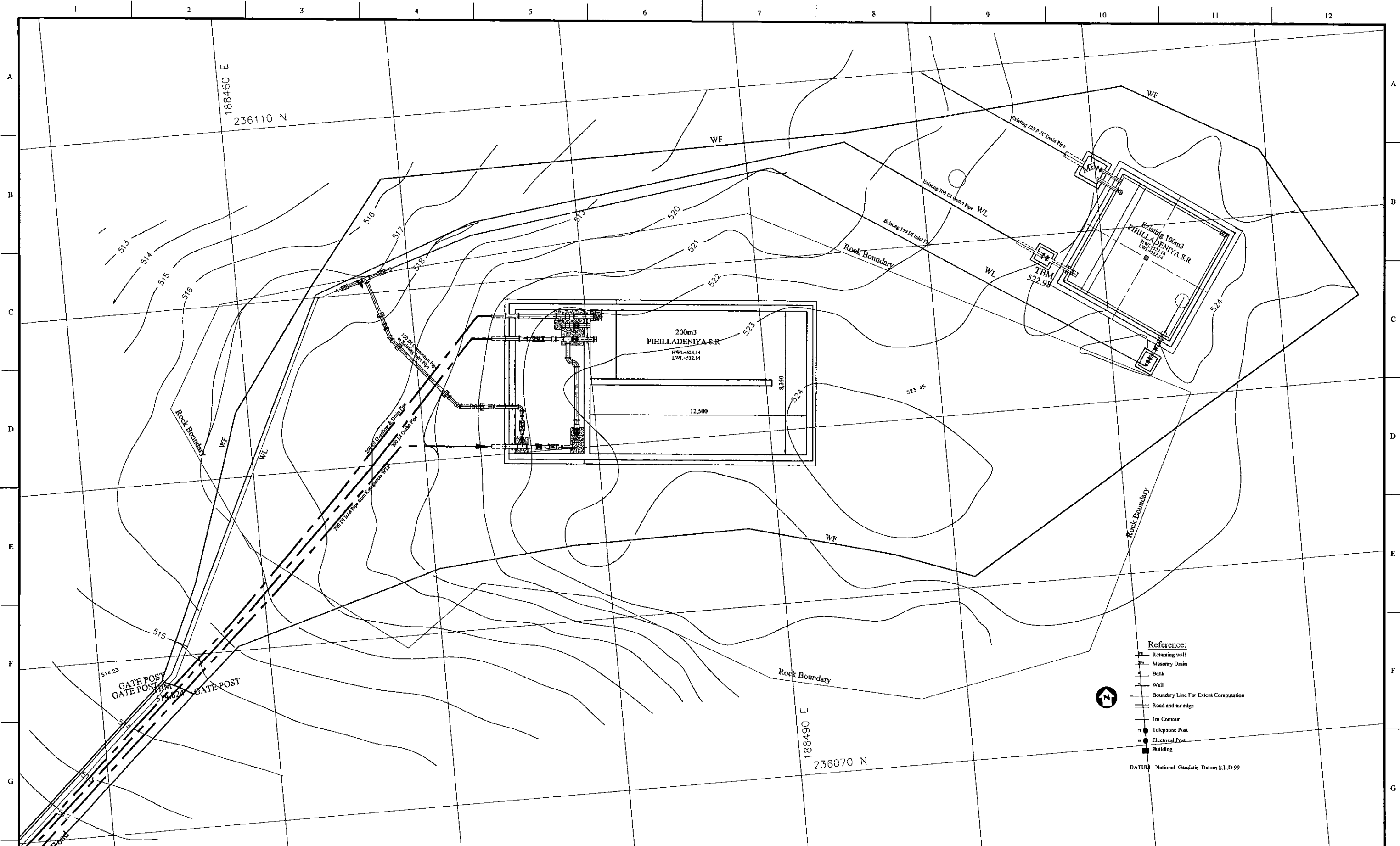
TITLE: ELECTRICAL PLAN FOR (200m3) PIHILLADENIYA S.R

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

DESIGNED: ATG	DRAWN:	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-08-21



- Reference:**
- Retaining wall
  - Masonry Drain
  - Bank
  - Wall
  - Boundary Line For Extent Computation
  - Road and tar edge
  - 1m Contour
  - Telephone Post
  - Electrical Post
  - Building
- DATUM - National Geodetic Datum S.L.D.99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

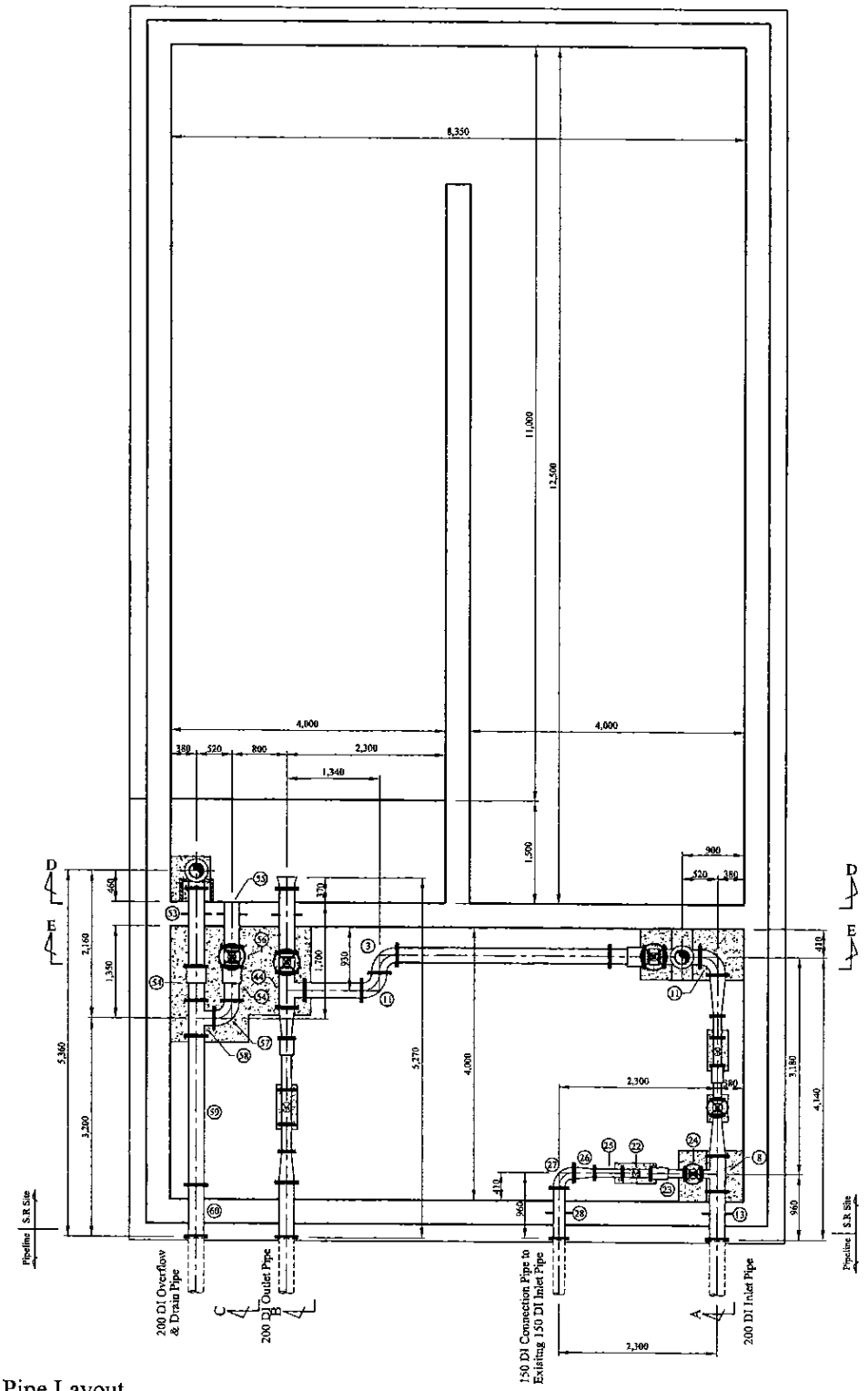
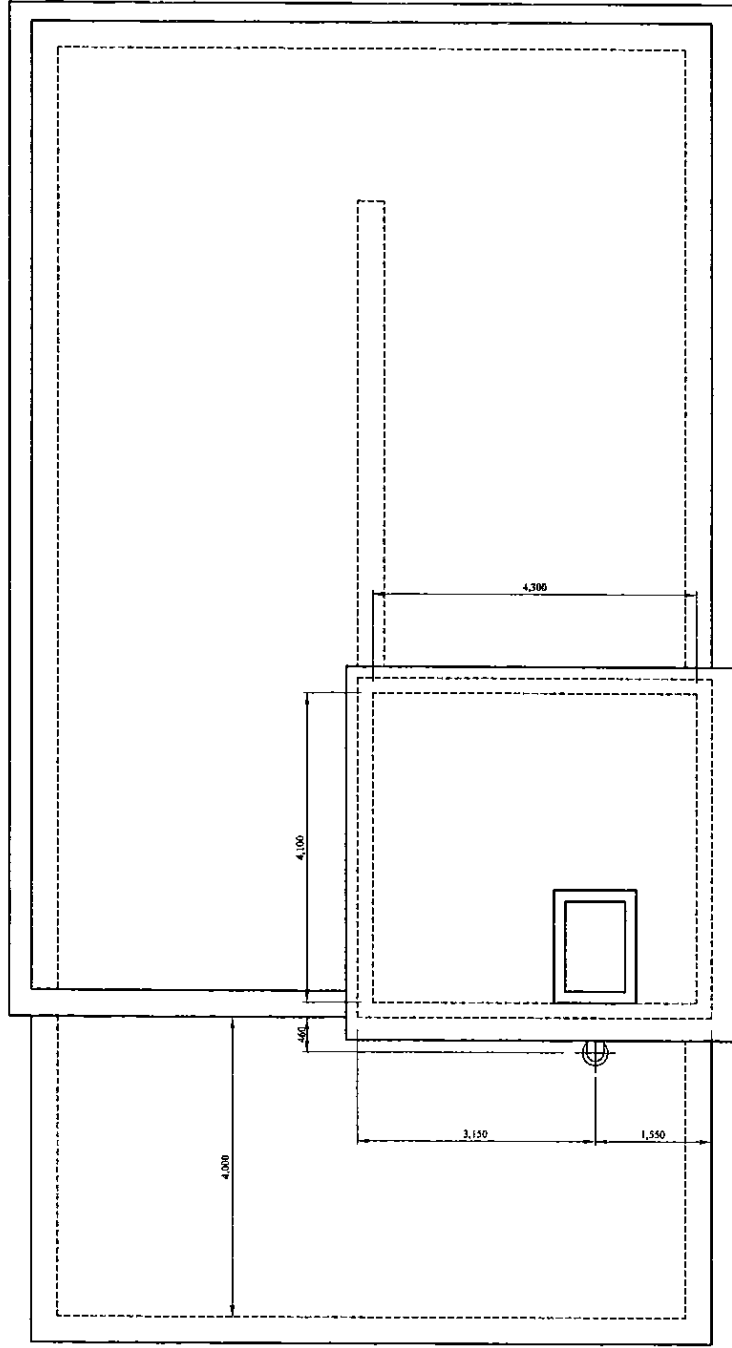
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT PLAN OF EXISTING 100m<sup>3</sup> & NEW 200m<sup>3</sup> PIHILLADENIYA S.R.

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-08-01



Pipe Layout

Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	80	L=130mm	PN10	1
2	Double Flanged Piece	DI	80	L=65mm	PN10	1
3	Double Flanged 90 degree Bend	DI	80	L=165mm x 2	PN10	1
4	Butterfly Float Valve	SUS	80	L=400mm	PN10	1
5	Double Flanged 150 x 80 Taper	DI	150x80	L=300mm	PN10	1
6	Double Flanged 200 x 150 Taper	DI	200x150	L=460mm	PN10	1
7	All Flanged 200 x 100 Tee	DI	200x100	L=520x260mm	PN10	1
8	Ball Valve	DI	100	L=200mm	PN10	1
9	Single Orifice Air Valve	DI	100	L=370mm	PN10	1
10	Double Flanged Piece with Puddle	DI	200	L=550mm	PN10	1
11	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	1
12	Flange Adapter (DF)	SS	200	L=890mm	PN10	1
13	Double Flanged Piece with Puddle	DI	200	L=700mm	PN10	1
14	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
15	Double Flanged Piece	DI	200	L=800mm	PN10	1
16	Shuice Valve	DI	200	L=290mm	PN10	2
17	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
18	Double Flanged Piece	DI	200	L=3,100mm	PN10	1
19	Double Flanged Piece	DI	200	L=820mm	PN10	1
20	Double Flanged 200 x 100 Taper	DI	200x100	L=600mm	PN10	2
21	Double Flanged Piece	DI	100	L=320mm	PN10	1
22	Flow Meter		100	L=410mm	PN10	2
23	Flange Adapter (DF)	DI	100	L=500mm	PN10	2
24	Shuice Valve	DI	100	L=230mm	PN10	2
25	Double Flanged Piece	DI	100	L=400mm	PN10	1
26	Double Flanged 150 x 100 Taper	DI	150x100	L=600mm	PN10	1
27	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	1
28	Double Flanged Piece with Puddle	DI	150	L=740mm	PN10	1
29	Flange Spigot Piece	DI	150	L=800mm	PN10, Type-T	3
30	Collar	DI	150		Type-K	3
31	Plain Ends Piece	DI	150	L=1,000mm	Type-T	1
32	Double Socket 22.5 degree Bend	DI	150	L=55mm x 2	Type-T	2
33	Plain Ends Piece	DI	150	L=800mm	Type-T	2
34	Double Socket 45 degree Bend	DI	150	L=85mm x 2	Type-T	1
35	Socket - Plain End Piece	DI	150	L=5,060mm	Type-T	1
36	Flange Spigot Piece	DI	150	L=640mm	PN10, Type-T	1
37	Double Flanged 22.5 degree Bend	DI	150	L=160mm x 2	PN10	2
38	Double Flanged Piece	DI	100	L=2,590mm	PN10	1
39	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
40	Shuice Valve	DI	150	L=270mm	PN10	1
41	Flanged Bellmouth	DI	200	L=170mm	PN10	1
42	Double Flanged Piece with Puddle	DI	200	L=930mm	PN10	1
43	Shuice Valve	DI	200	L=700mm	PN10	1
44	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
45	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	2
46	Flange Adapter (DF)	SS	125	L=760mm	PN10	1
47	Flow Meter		125	L=500mm	PN10	1
48	Double Flanged Piece	SP	125	L=400mm	PN10	1
49	Double Flanged Piece	DI	200	L=850mm	PN10	1
50	Flanged Bellmouth	DI	200	L=170mm	PN10	1
51	Double Flanged Piece	DI	200	L=2,320mm	PN10	1
52	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
53	Double Flanged Piece with Puddle	DI	200	L=1,140mm	PN10	1
54	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
55	Flange Spigot Piece with Puddle	DI	200	L=650mm	PN10, Type-T	1
56	Shuice Valve	DI	200	L=290mm	PN10	1
57	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	1
58	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
59	Double Flanged Piece	DI	200	L=2,190mm	PN10	1
60	Double Flanged Piece	DI	200	L=750mm	PN10	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

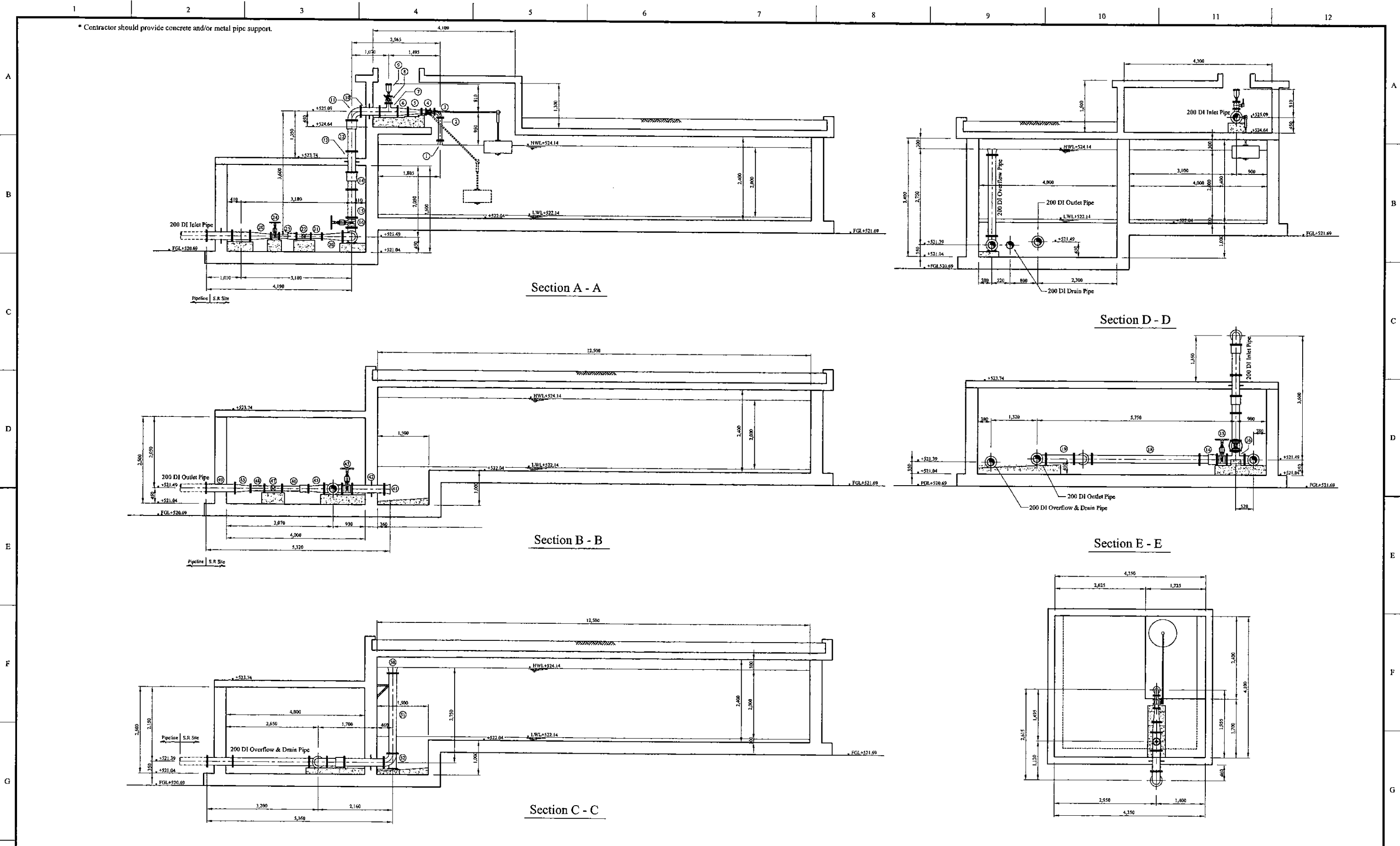
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF PIHILLADENIYA S.R - 1

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-08-02



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF PIHILLADENIYA S.R - 2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:



NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: Koichi OKAZAKI  
CHECKED: DESIGN CHIEF

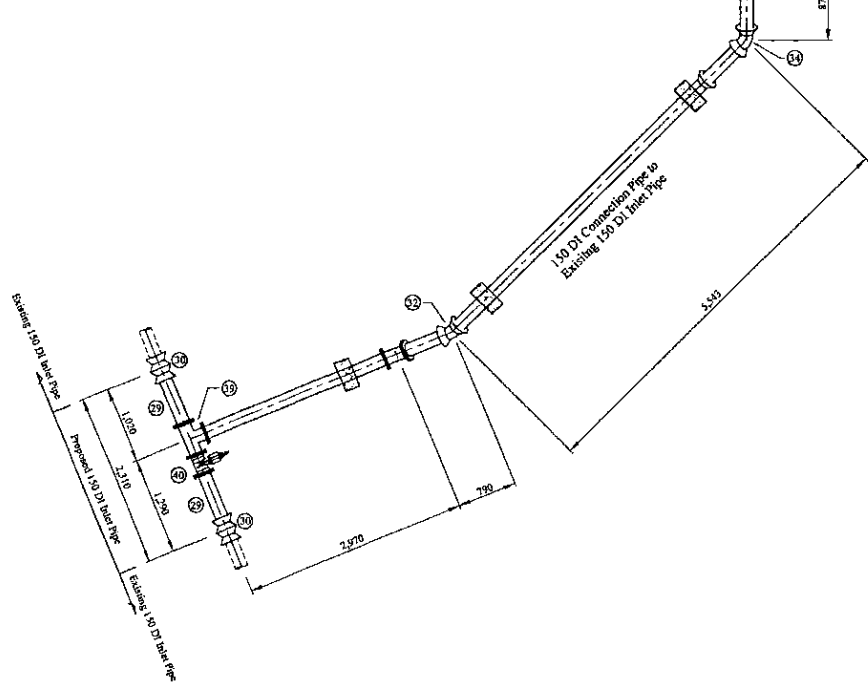
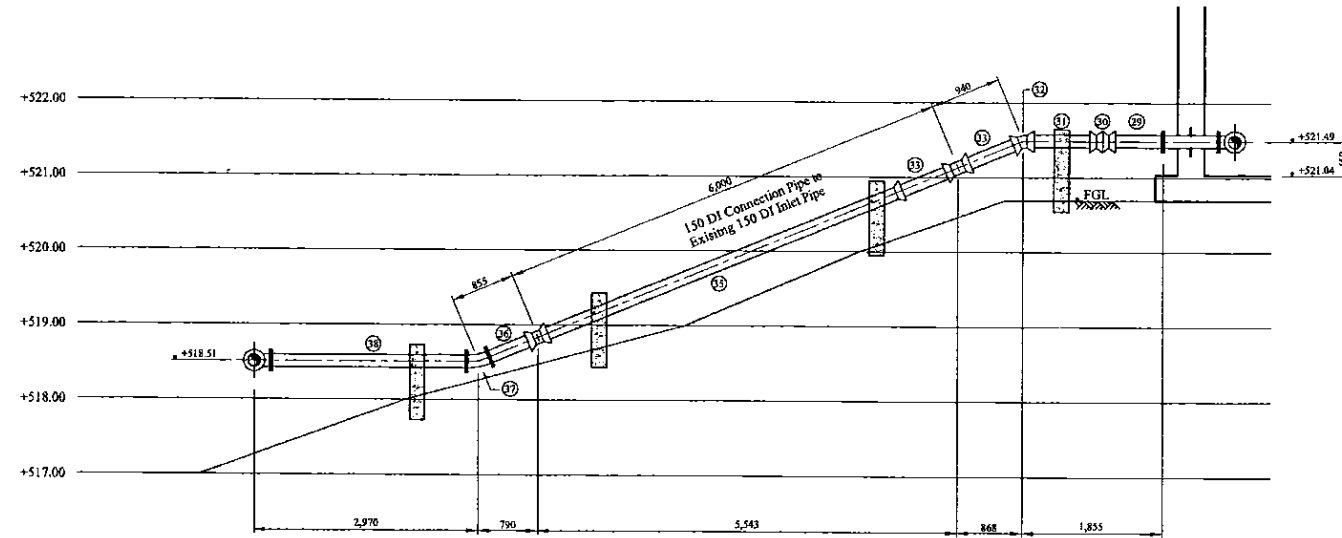
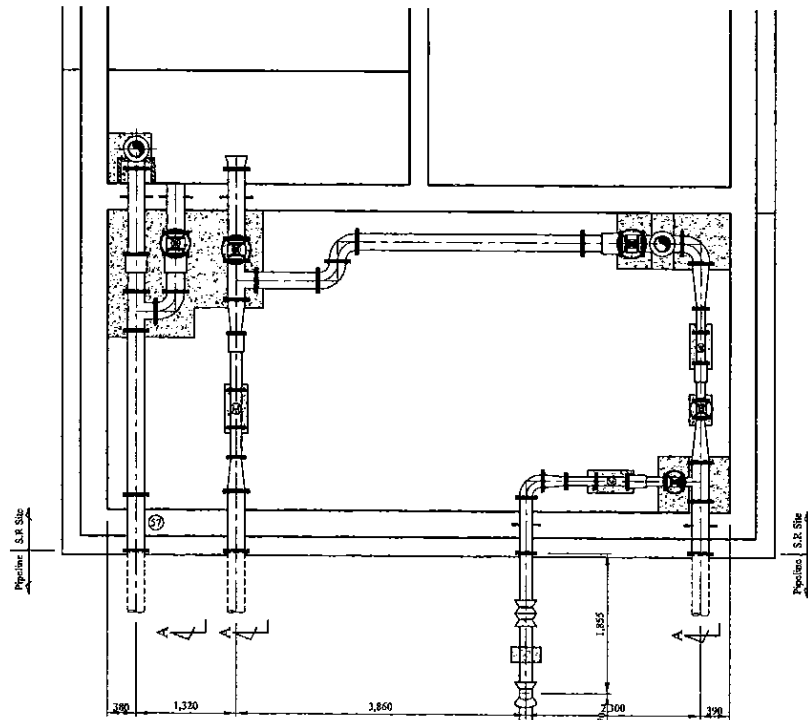
DRAWN: Koichi OKAZAKI  
AGM: (P&D)

PM: (CONSULTANT) Ikuo MIWA  
DGM: (P&D)

CE: (P&D)  
DATE: 31/05/2002

SCALE: 1:50  
DRAWING NO.: 31-C-08-03

\* Contractor should provide concrete and/or metal pipe support.



150 DI Connection Pipe to Existing 150 DI Inlet Pipe

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF PIHILLADENIYA S.R - 3

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

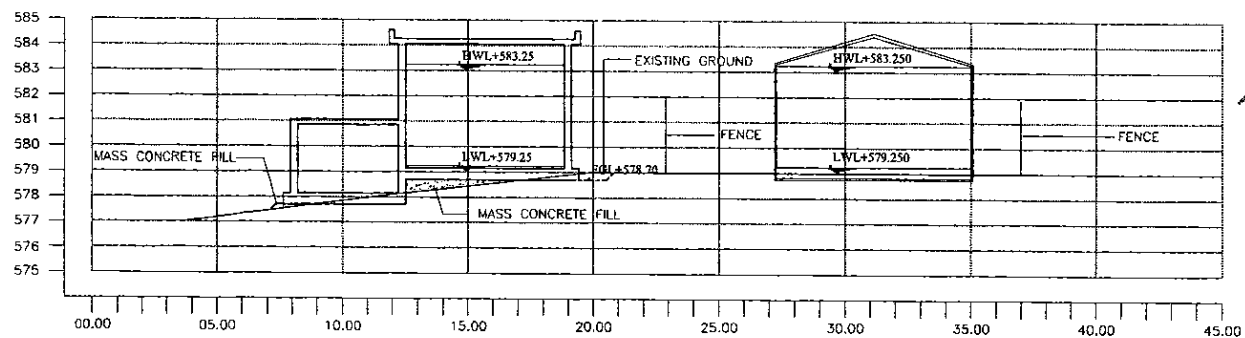


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

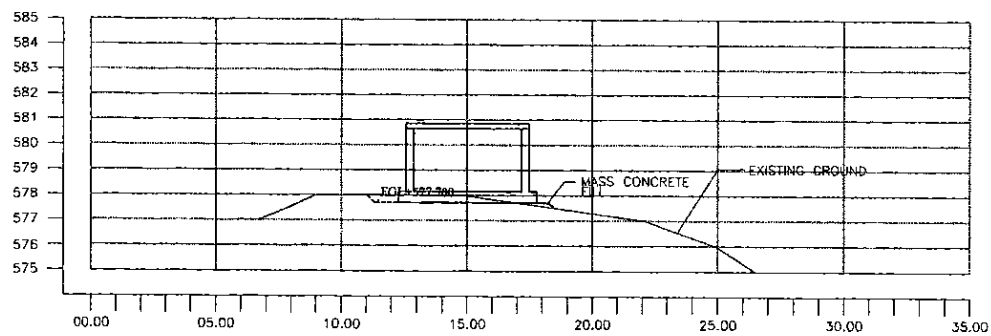


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				DESIGN CHIEF			31/05/2002	31-C-08-04

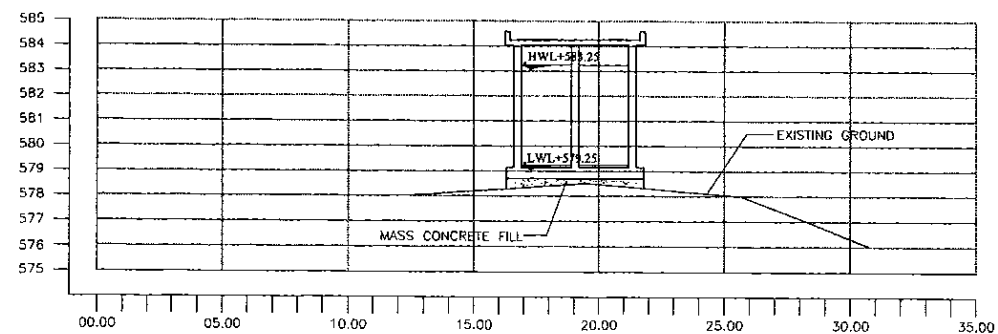




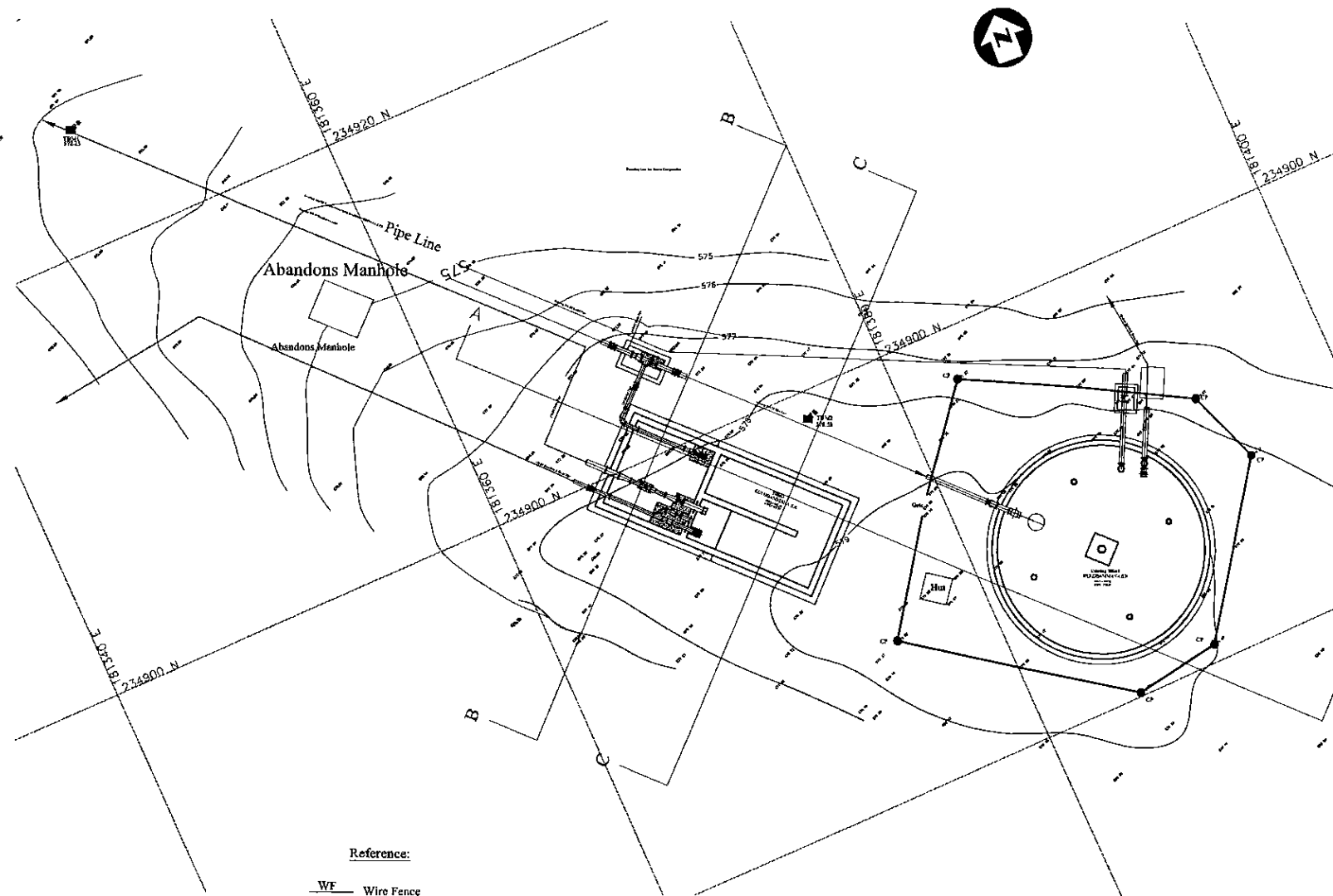
SECTION A - A  
1:150



SECTION B - B  
1:150



SECTION C - C  
1:150



Reference:

- WF Wire Fence
- Boundary Line For Extent Computation
- Road
- Im Contour
- TP Telephone Post
- EP Electrical Post
- St Stake
- BH Stake

DATUM - National Geodetic Datum S.L.D 99

PLAN  
1:150

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



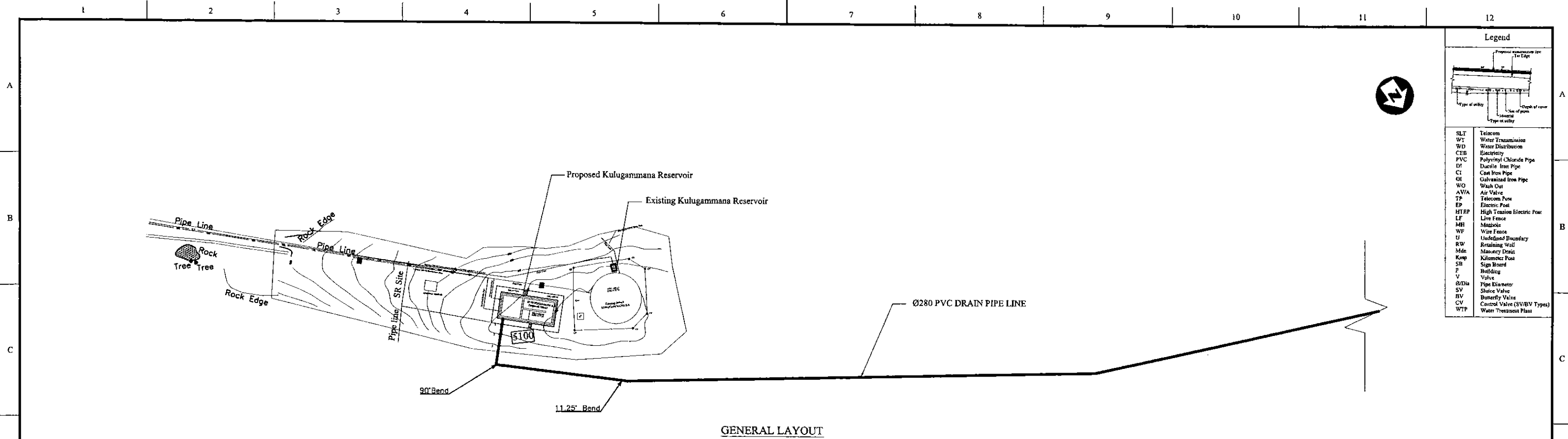
**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **SITE PLAN AND CSS OF EXISTING 300m3 AND PROPOSED 100m3 KULUGAMMANA S.R.**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

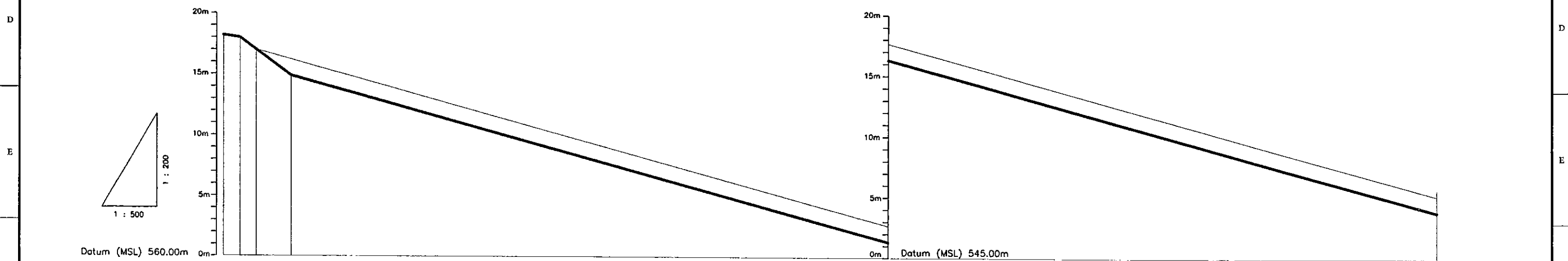
CONSULTANTS:  
**NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31 / 10 / 2001	30-C-09-01



Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AVA	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Masthole
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Kmp	Kilometric Post
SB	Sign Board
B	Building
V	Valve
ØDia	Pipe Diameter
SV	Slide Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant

GENERAL LAYOUT



Ground Level (m)	578.20	578.00	577.00	550.19
Pipe Invert Level (Pipe thickness to be assumed negligible)	578.20	578.00	577.00	548.91
Pipe Data	Ø 280 PVC DRAIN PIPE			
Single Distance (m)	0.00	3.40	2.90	243.70
Cumulative Distance (m)	0.00	3.40	6.30	250.00
Station No.	1	2	3	4

LONGITUDINAL SECTION

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> WASHOUT FROM KULUGAMMANA S.R.				SHEET 1 OF 3				
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> Ravi U.	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> HORIZONTAL - 1:500 VERTICAL - 1:200
				<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DESIGN CHIEF</b>			<b>DRAWING NO.:</b> 30-C-09-02	

A

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C

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E

F

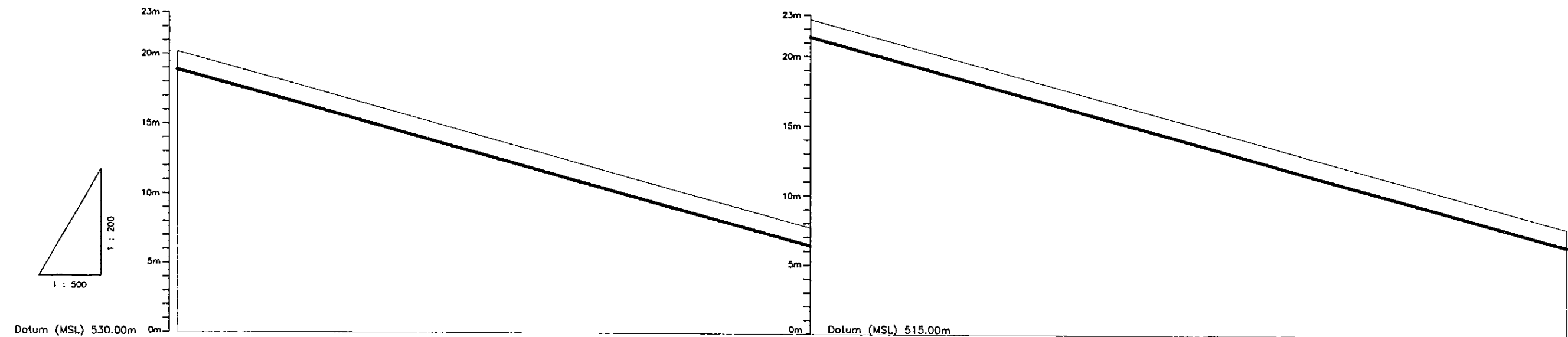
G

H



Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
A/V/A	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wave Fence
U	Undefined Boundary
RW	Retaining Wall
Mds	Masonry Drain
KMP	Kilometer Post
SB	Sign Board
P	Building
V	Valve
SDis	Pipe Dranner
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant

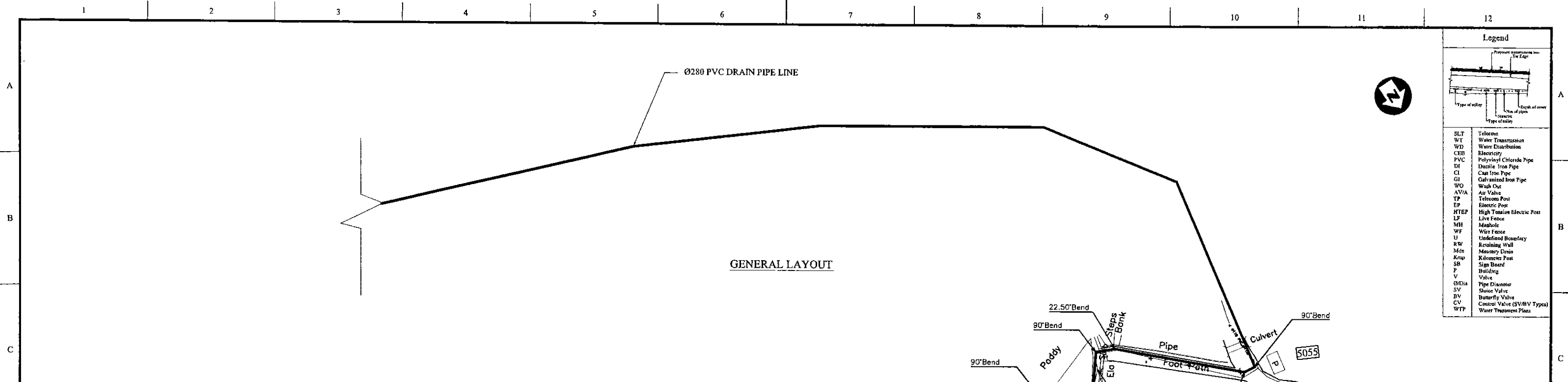
FOR GENERAL LAYOUT REFER DWG. NO. 30-C-09-02 & 30-C-09-04



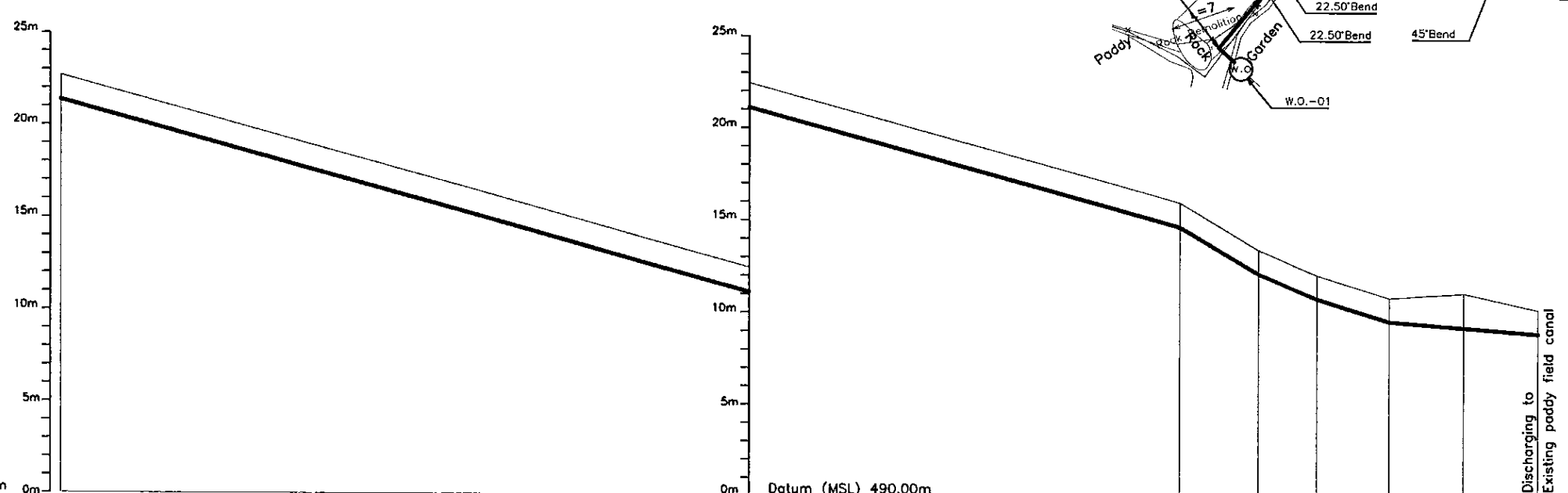
Ground Level (m)	550.19	522.69
Pipe Invert Level (Pipe thickness to be assumed negligible)	548.91	521.41
Pipe Data	← # 200 PVC DRAIN PIPE →	
Single Distance (m)	0.00	250.00
Cumulative Distance (m)	250.00	500.00
Station No.	4	5

LONGITUDINAL SECTION

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	TITLE: <b>WASHOUT FROM KULUGAMMANA S.R.</b>	SHEET 2 OF 3							
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>HORIZONTAL - 1:500</b> <b>VERTICAL - 1:200</b>
						CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-09-03</b>
						DESIGN CHIEF				



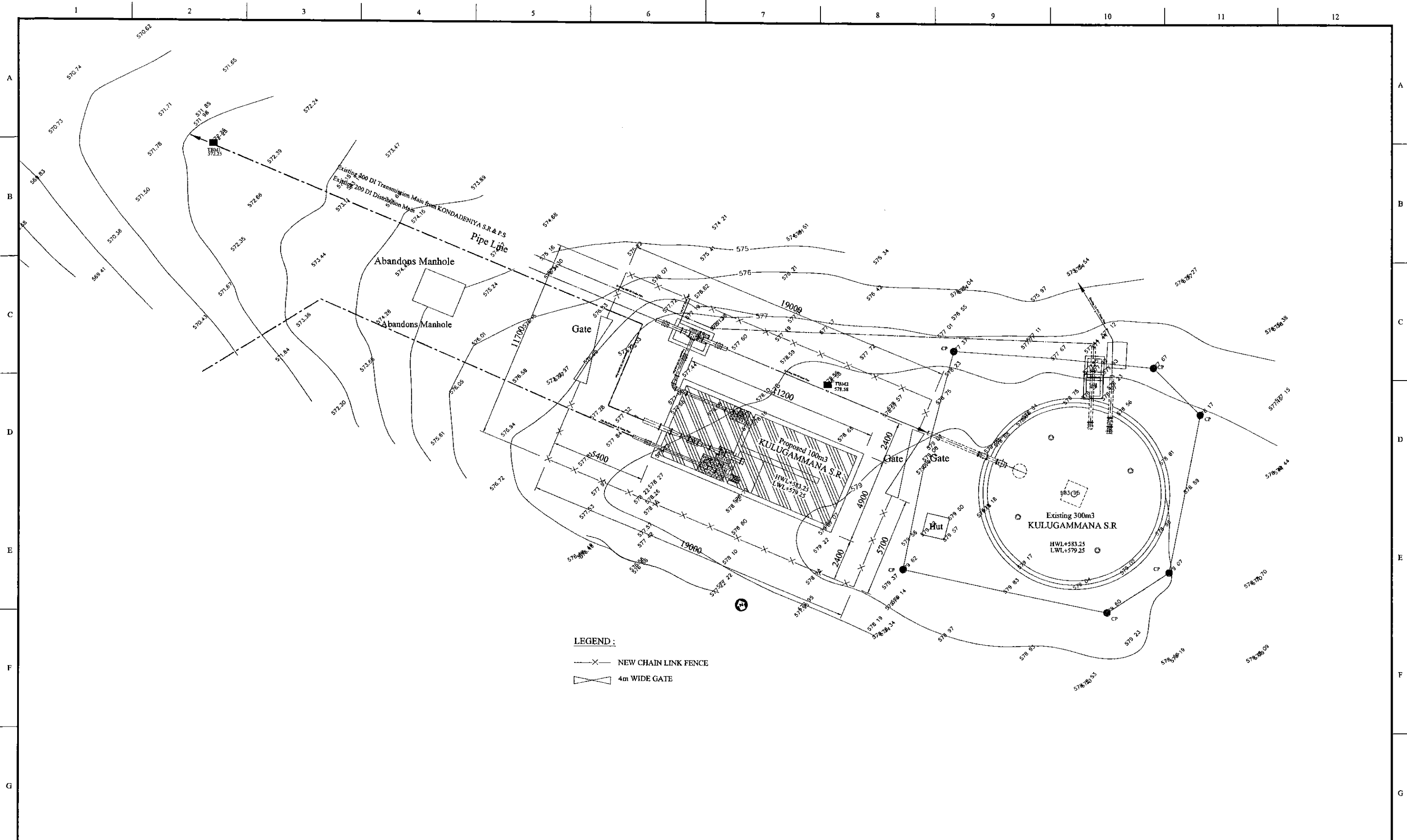
Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Walk Out
A/V/A	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
M/G	Masonry Drain
K/S	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Slack Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant



Ground Level (m)	522.89					506.03	503.48	502.14	500.92	501.17	500.27
Pipe Invert Level (Pipe thickness to be assumed negligible)	521.41					504.75	502.20	500.86	499.64		498.99
Pipe Data	← Ø 280 PVC DRAIN PIPE →										
Single Distance (m)	0.00					151.47	10.73	7.92	9.74	10.08	10.06
Cumulative Distance (m)	500.00					651.47	662.20	670.12	679.86	689.94	700.00
Station No.	5					6	7	8	9	10	11

LONGITUDINAL SECTION

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>WASHOUT FROM KULUGAMMANA S.R.</b>				SHEET 3 OF 3				
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-09-04</b>
								DESIGN CHIEF				




**LEGEND :**



- X— NEW CHAIN LINK FENCE
- ⌞ 4m WIDE GATE

**PROJECT:**  
GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

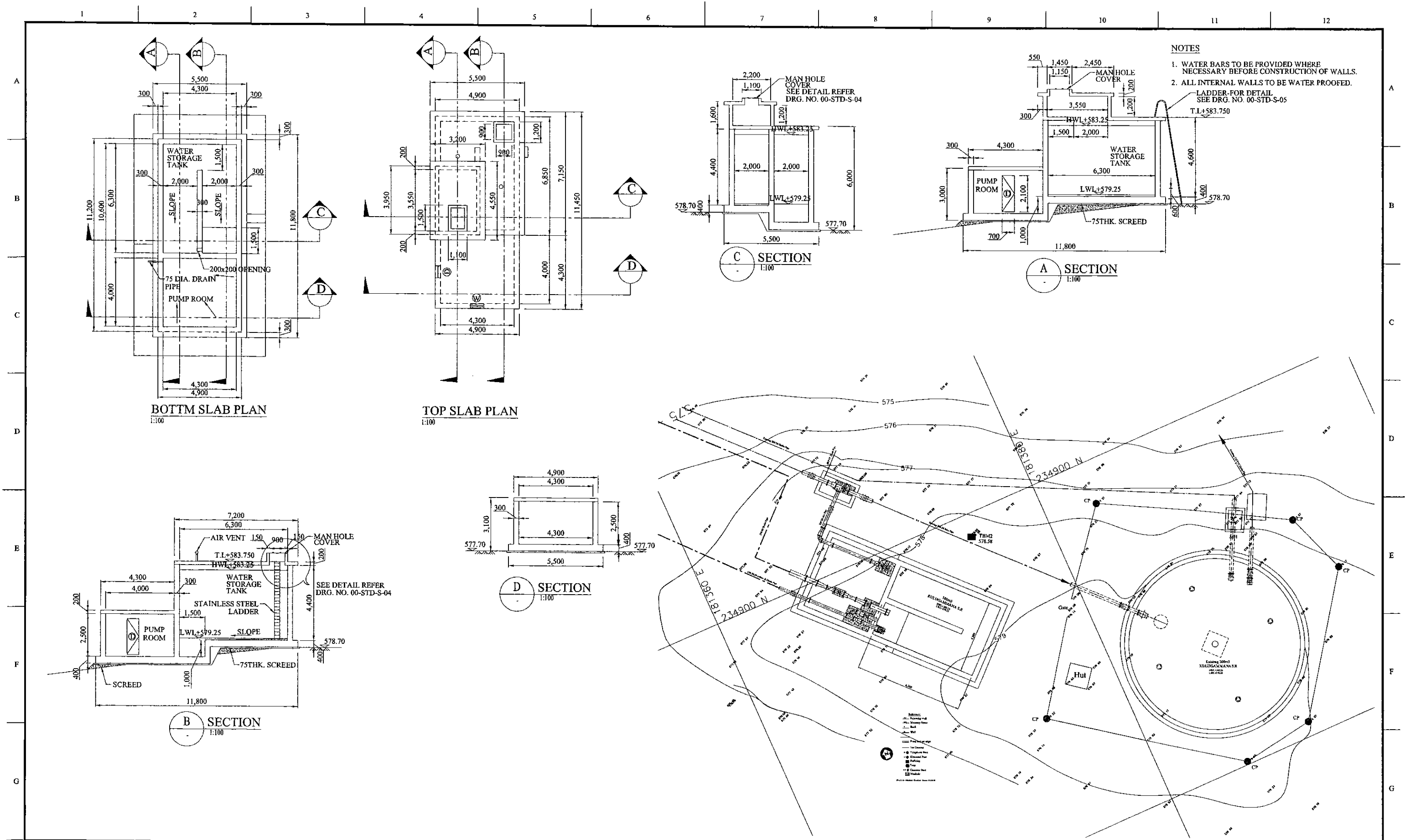
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

**TITLE:** EXISTING 300m3 AND NEW 100m3 KULUGAMMANA S.R. LANDSCAPING LAYOUT

**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)	CE: (P&D)	SCALE:
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PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

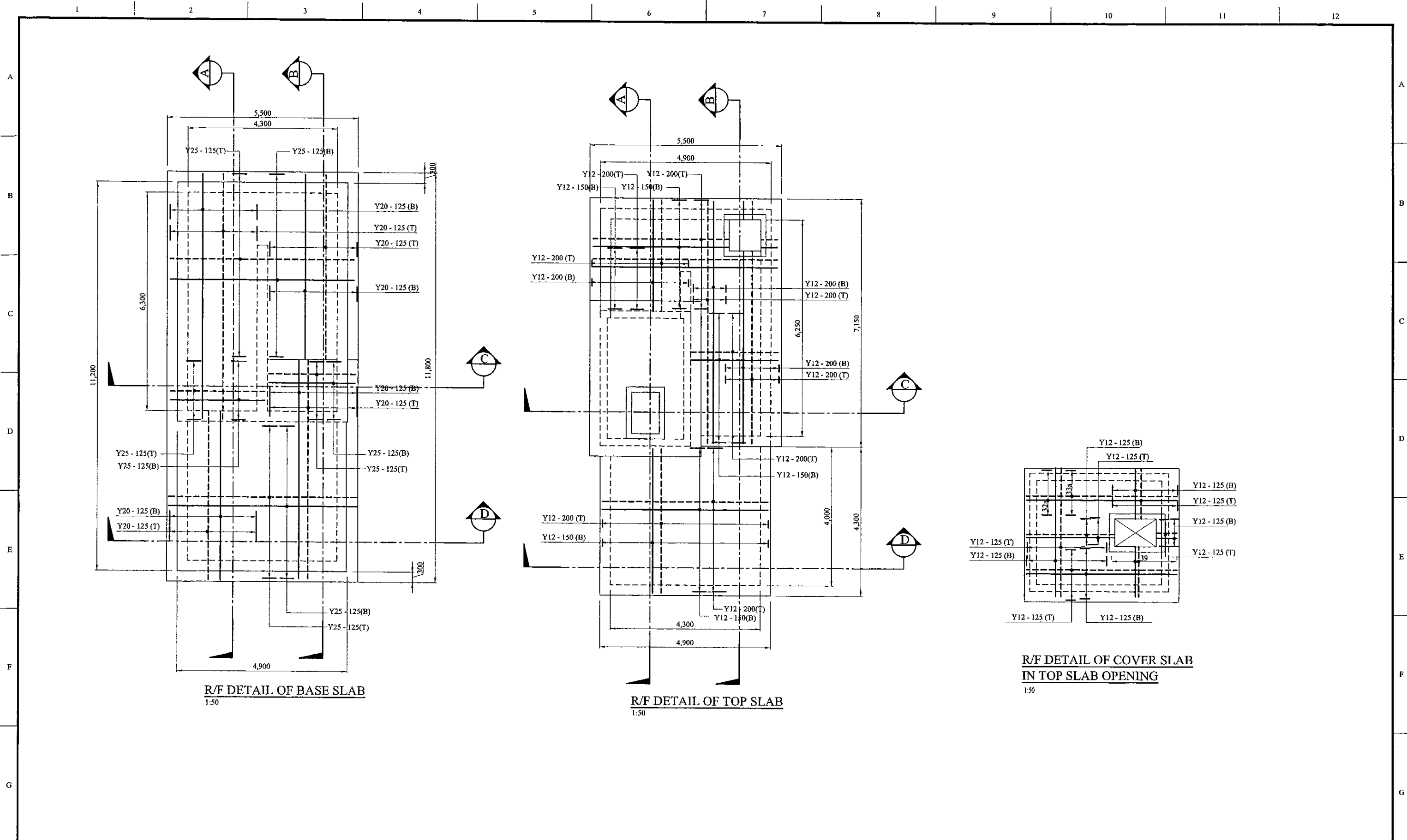
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

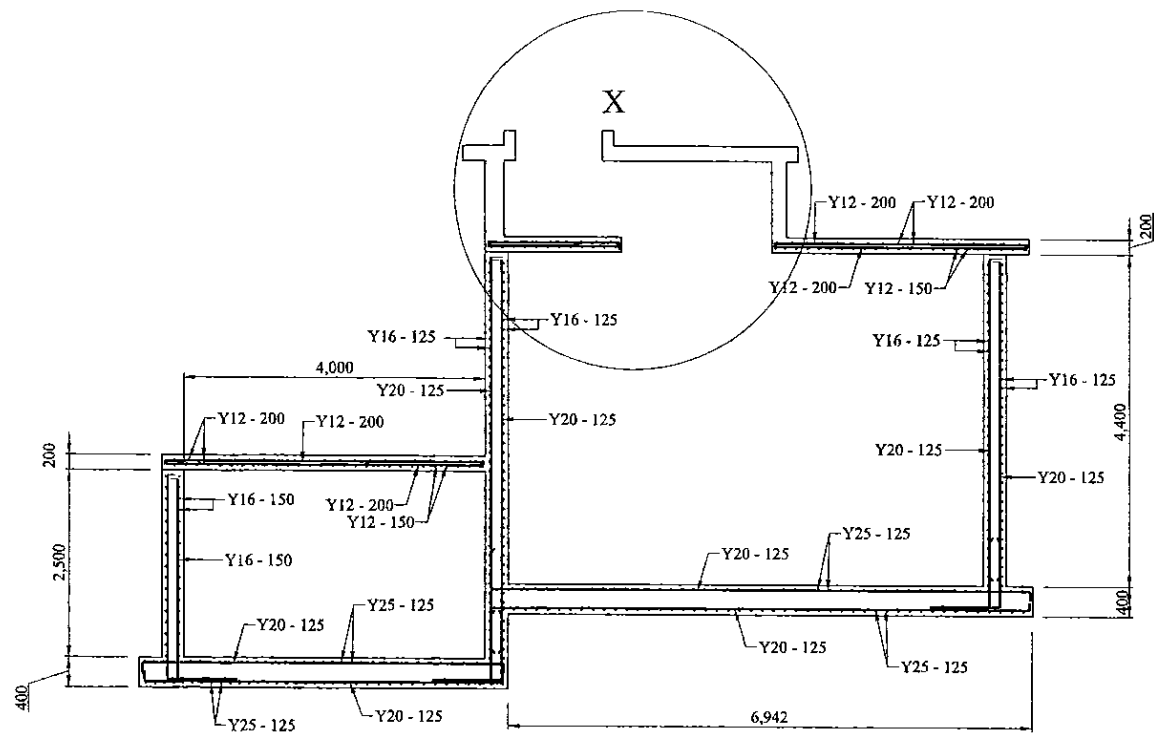
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**NSC NIHON SUDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: **KULUGAMMANA SERVICE RESERVOIR SITE PLAN & GENERAL ARRANGMENT**

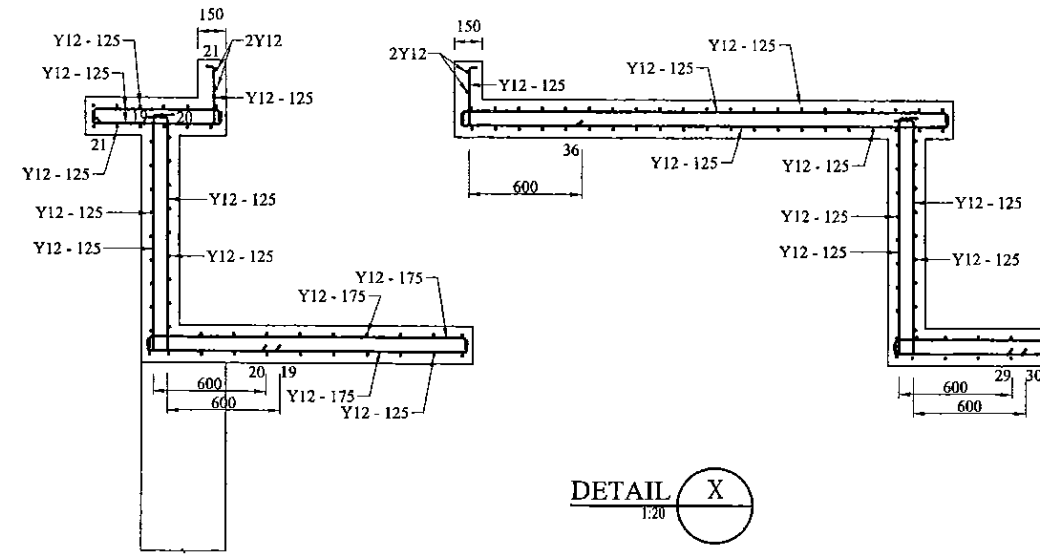
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				CHECKED:	AGM. (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-09-01



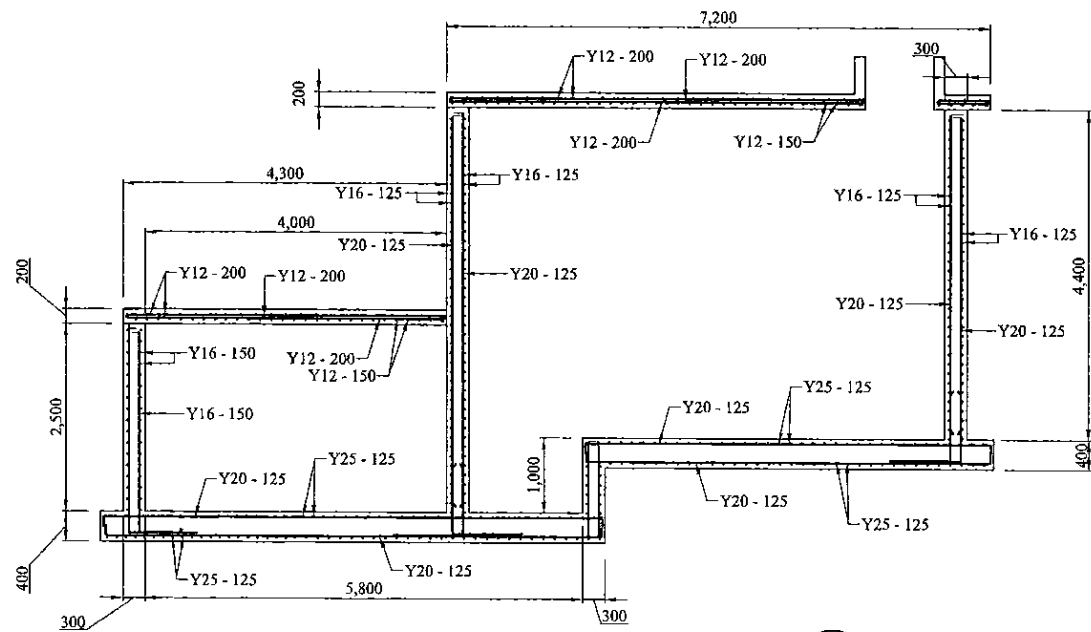
<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> KULUGAMMANA SERVICE RESERVOIR R/F DETAILS OF TOP SLAB & BOTTOM SLAB																									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAMANPALI	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> AS SHOWN
REV.	DESCRIPTION	DATE	SIGN.																										
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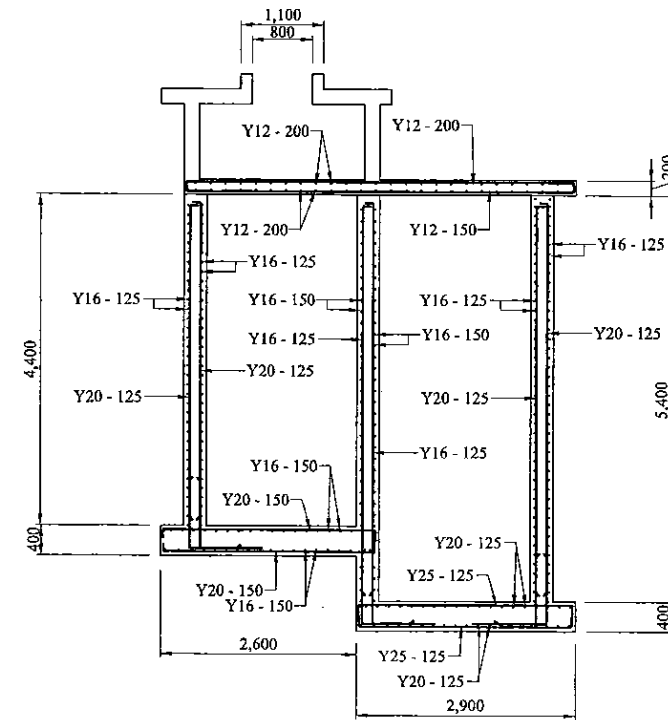
SECTION A  
1:50



DETAIL X  
1:20



SECTION B  
1:50



SECTION C  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

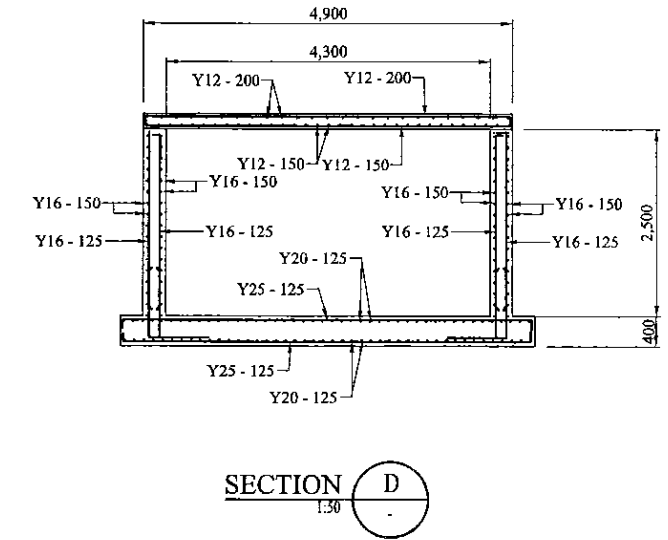
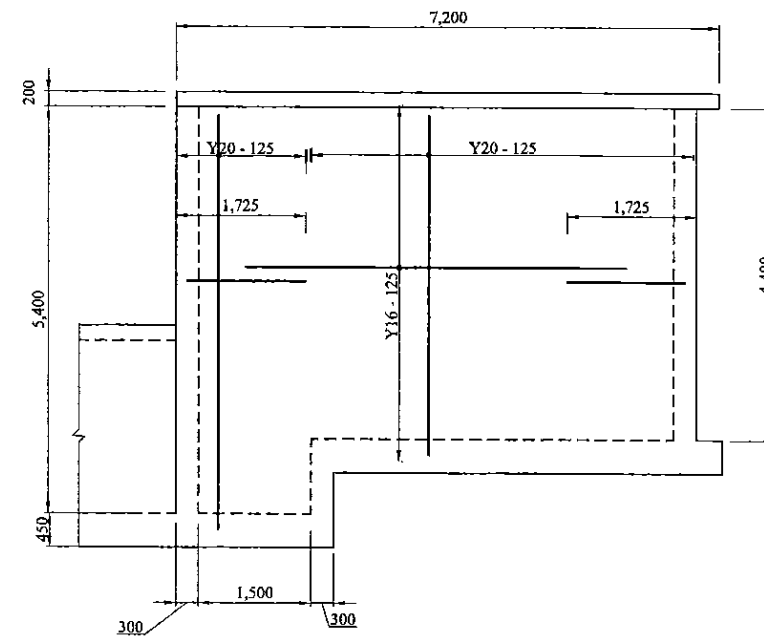
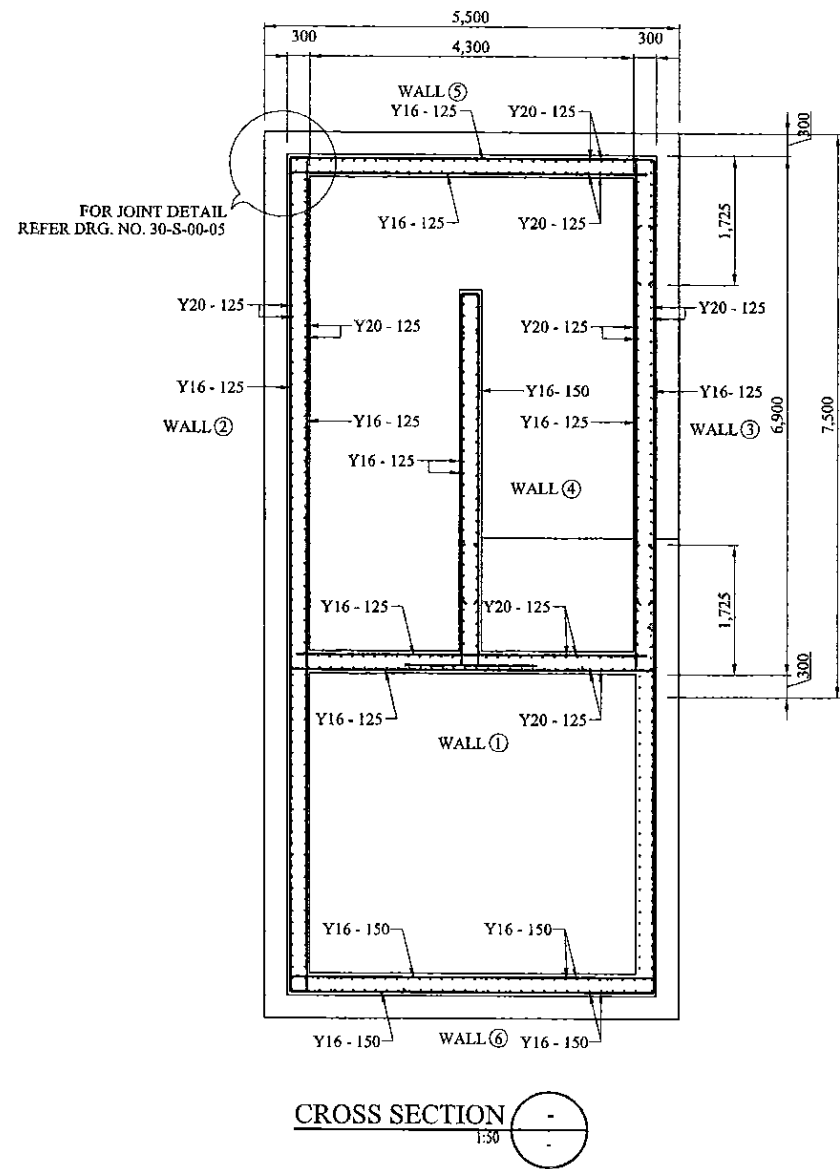
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

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


TITLE: KULUGAMMANA SERVICE RESERVOIR LAYOUT & GENERAL ARRANGMENT


REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-09-03







PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

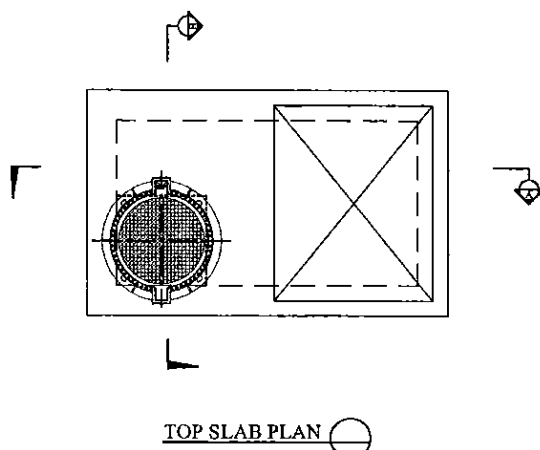
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CONSULTANTS:

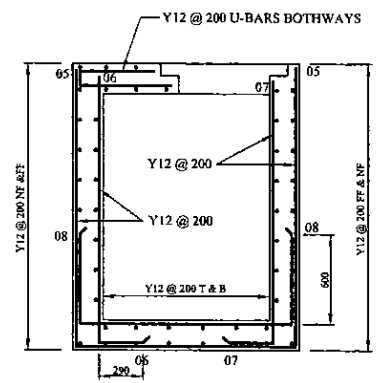
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 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

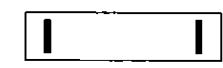
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REV.	DESCRIPTION	DATE	SIGN.	L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
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							31/05/2002	30-S-09-04



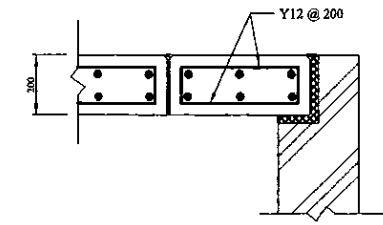
TOP SLAB PLAN



SECTION B



PLAN

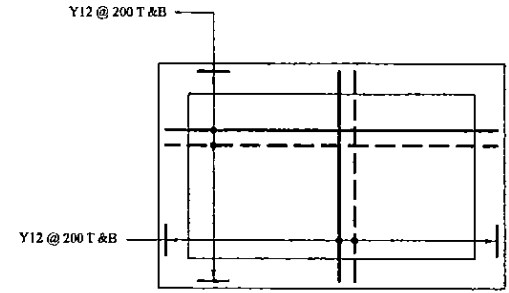


SECTION

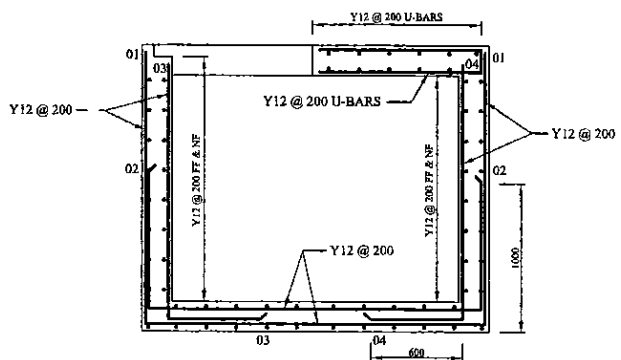


LONGITUDINAL SECTION

CONCRETE OPENING COVER



BASE SLAB PLAN



SECTION A

DESIGN CODE OF PRACTICE:

- A) BS 8110 - Design of RC Concrete Structures
- B) BS 8007 - Water Retaining Concrete Elements
- C) BS 5950 & BS 6399 - Structural Steel Work Elements
- D) Imposed Load to BS6399
- E) Wind Load to CP3, Chapter V
- F) Bearings to BS 5400
- G) CP 2004 - Nominal Earth Load
- H) Grade of Concrete - 25
- J) Cover 50 mm.

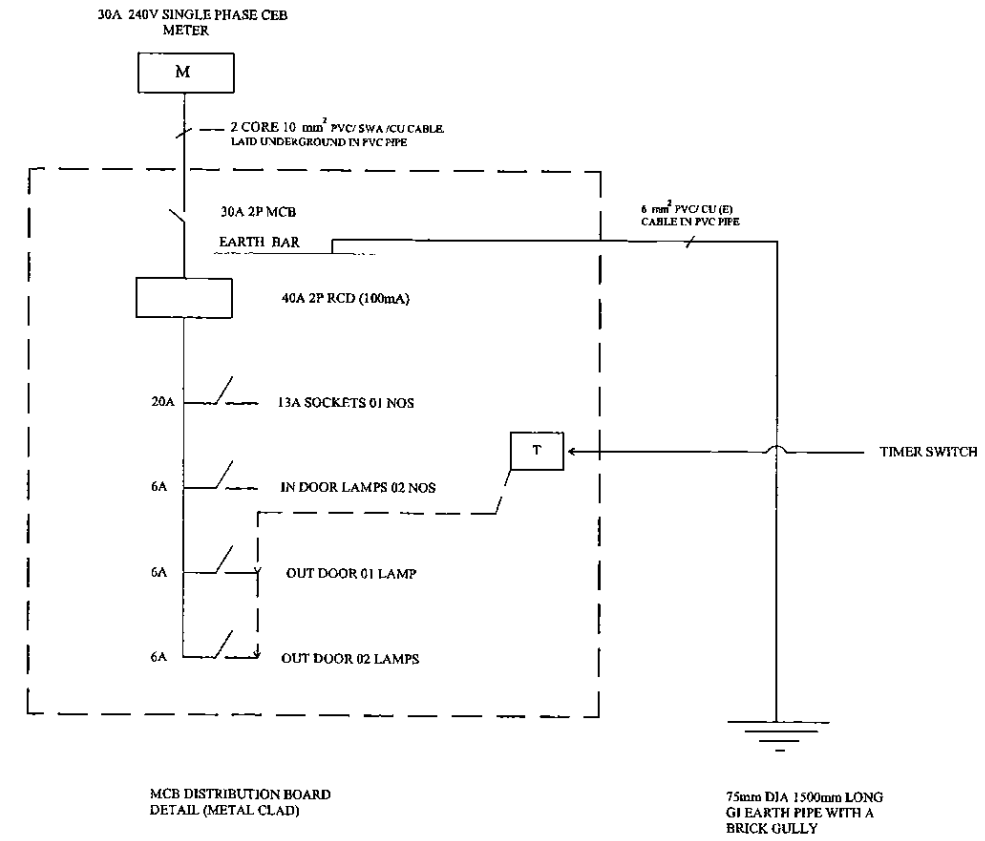
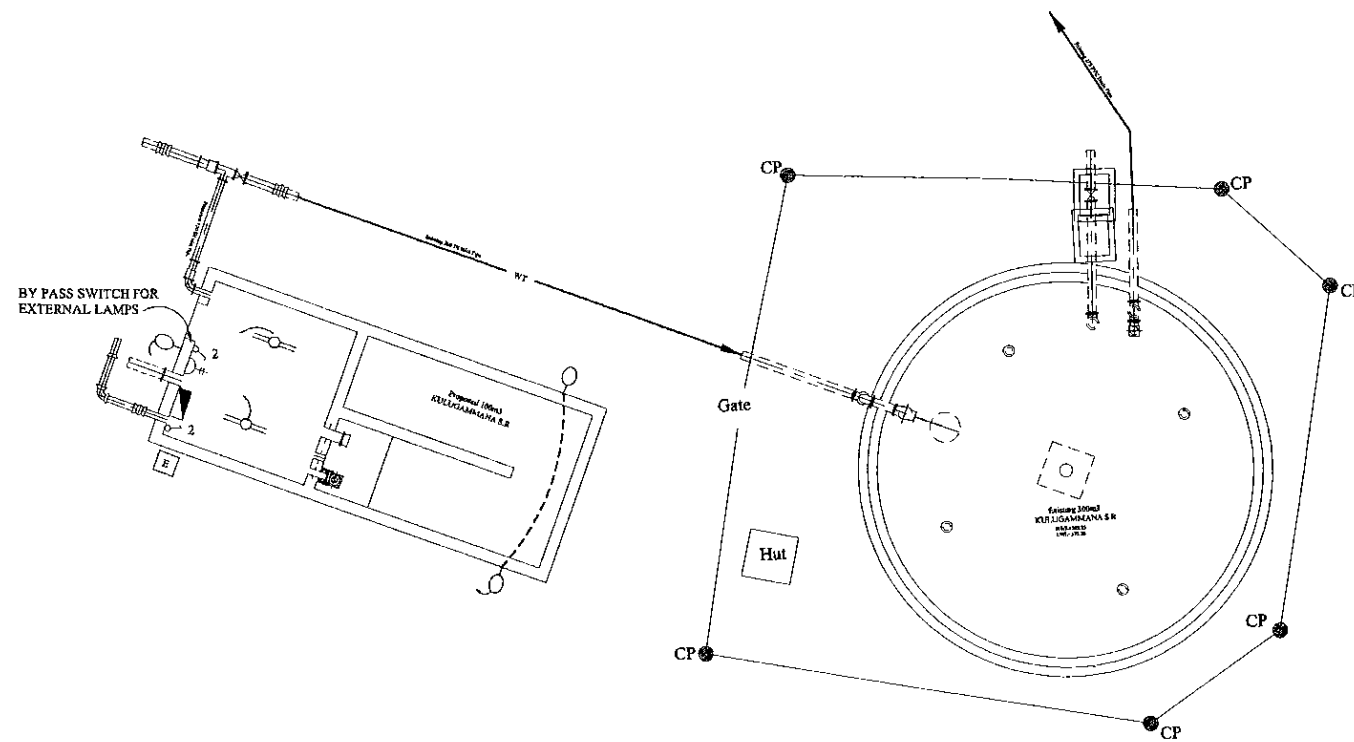
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>R/F DETAILS OF INLET VALVE CHAMBER - KURUGAMMANA S.R.</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. Jayawardane</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuro MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-09-05</b>
								DESIGN CHIEF				

**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

**LEGEND (Electrical)**

- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFP TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 60W OUT DOOR WALL BRACKET LAMP FITTING
- 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
- 13A SPNE SWITCHED SOCKET OUTLET (FLL + AS SHOWN)
- ONE WAY SWITCH (FLL + 1.5)
- EARTH PIPE
- METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

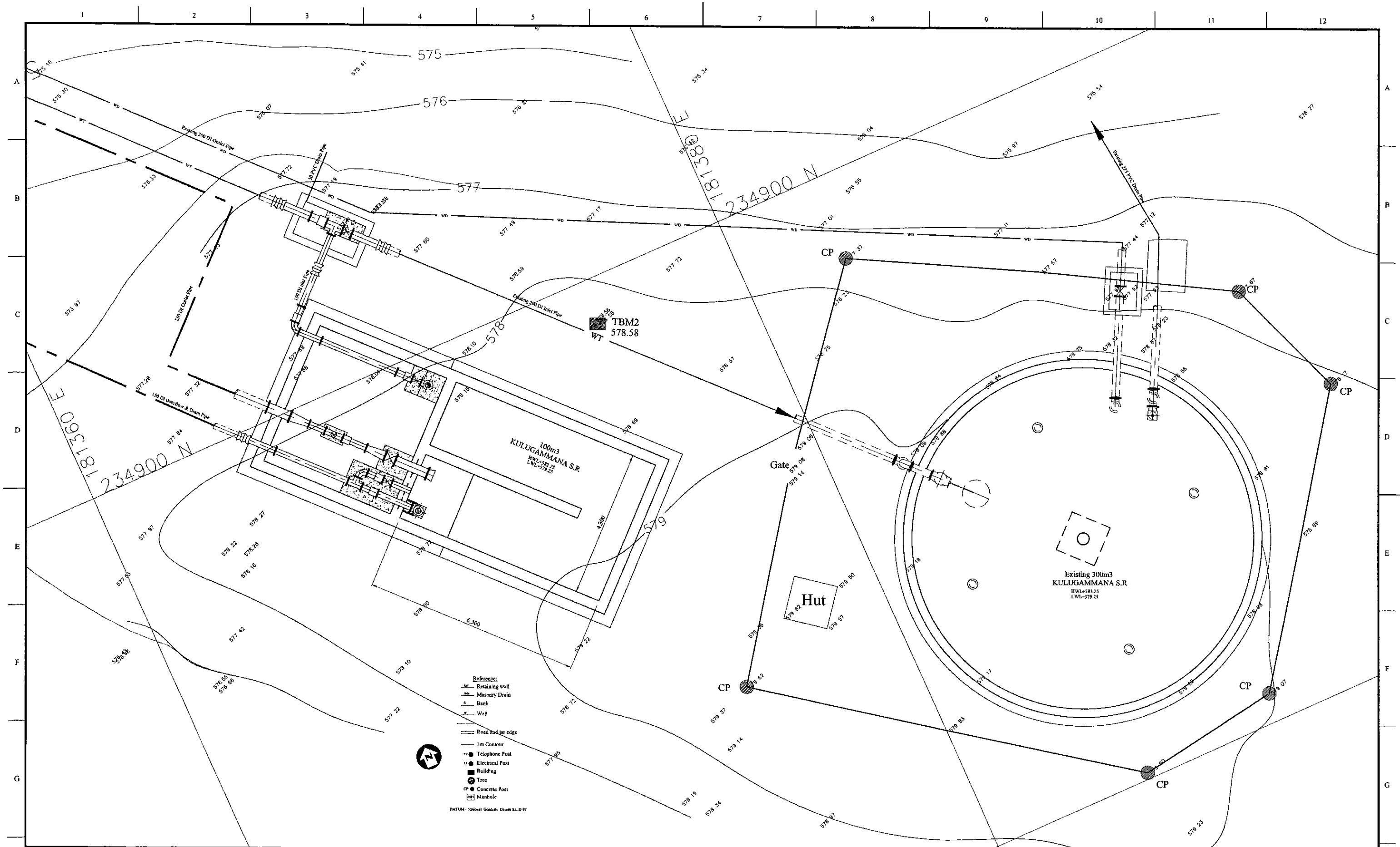
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ELECTRICAL PLAN FOR PROPOSED (100m3) KULUGAMMANA S.R

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

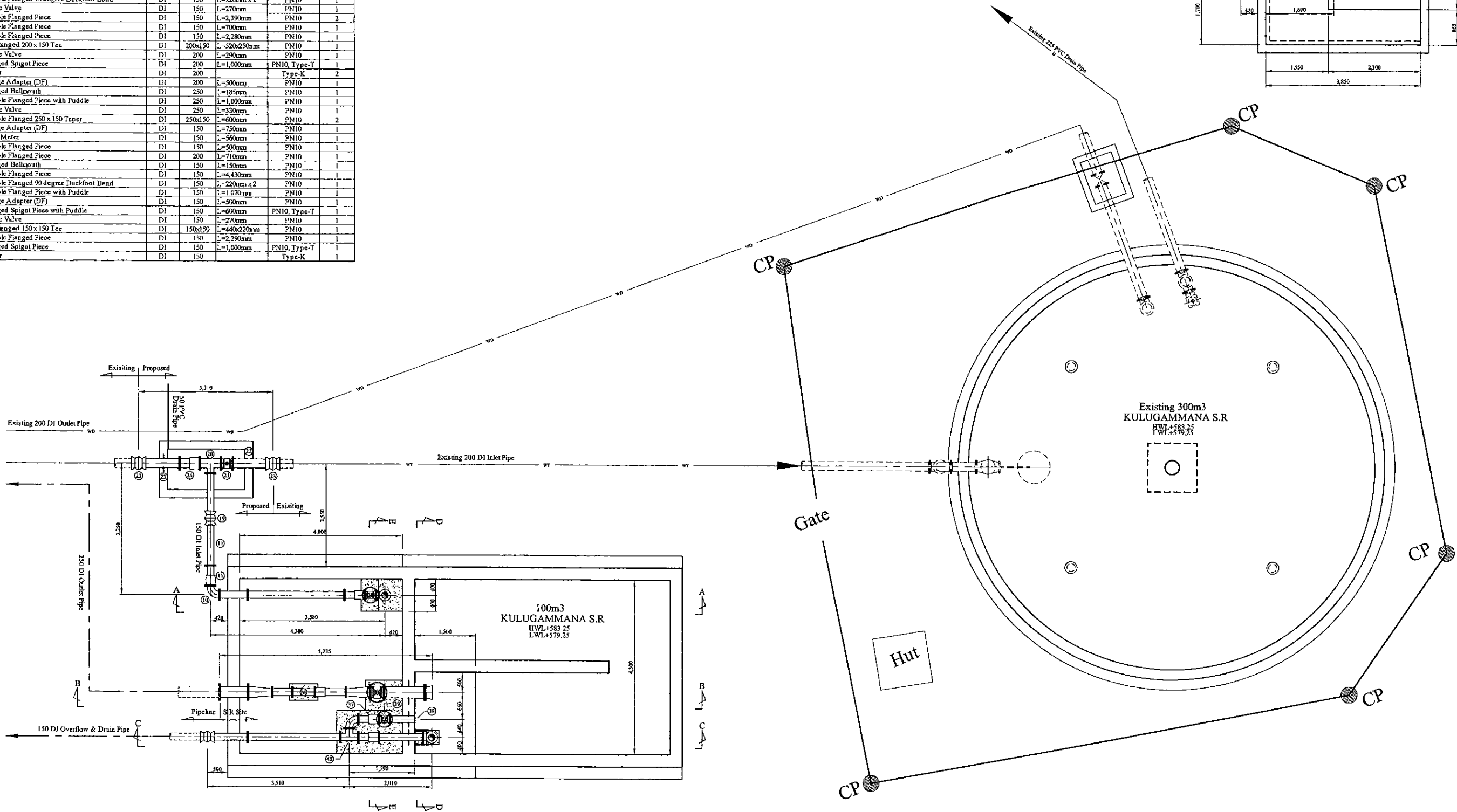
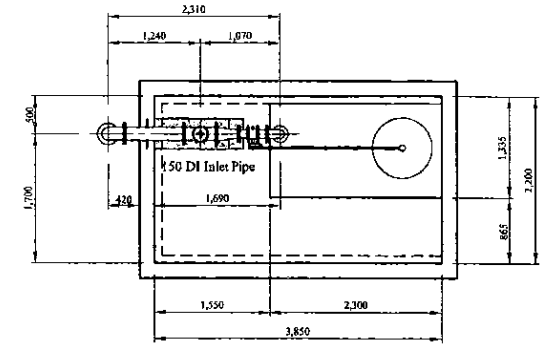
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				DESIGN CHIEF			31/05/2002	30-A-09-21



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF EXISTING 300m <sup>3</sup> & NEW 100m <sup>3</sup> KULUGAMMANA S.R.								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:25
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								DESIGN CHIEF				

Num	Item	Material	Dis (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	100	L=135mm	PN10	1
2	Double Flanged Piece	DI	100	L=605mm	PN10	1
3	Double Flanged 90 degree Bend	DI	100	L=185mm x 2	PN10	1
4	Butterfly Float Valve	SUS	100	L=370mm	PN10	1
5	Double Flanged 150 x 100 Taper	DI	150x100	L=300mm	PN10	1
6	A/I Flanged 200 x 100 Tee	DI	150x100	L=440x210mm	PN10	1
7	Ball Valve	DI	150	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	150	L=370mm	PN10	1
9	Double Flanged Piece with Puddle	DI	150	L=850mm	PN10	1
10	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
11	Flange Adapter (DF)	DI	150	L=500mm	PN10	4
12	Double Flanged Piece	DI	150	L=2,330mm	PN10	1
13	Double Flanged Piece with Puddle	DI	150	L=600mm	PN10	3
14	Double Flanged Piece	DI	150	L=980mm	PN10	1
15	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
16	Sluice Valve	DI	150	L=270mm	PN10	1
17	Double Flanged Piece	DI	150	L=2,390mm	PN10	2
18	Double Flanged Piece	DI	150	L=700mm	PN10	1
19	Double Flanged Piece	DI	150	L=2,280mm	PN10	1
20	A/I Flanged 200 x 150 Tee	DI	200x150	L=520x250mm	PN10	1
21	Sluice Valve	DI	200	L=290mm	PN10	1
22	Flanged Spigot Piece	DI	200	L=1,000mm	PN10, Type-T	1
23	Collar	DI	200		Type-K	2
24	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
25	Flanged Bellmouth	DI	250	L=185mm	PN10	1
26	Double Flanged Piece with Puddle	DI	250	L=1,000mm	PN10	1
27	Sluice Valve	DI	250	L=330mm	PN10	1
28	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	2
29	Flange Adapter (DF)	DI	150	L=750mm	PN10	1
30	Flow Meter	DI	150	L=560mm	PN10	1
31	Double Flanged Piece	DI	150	L=500mm	PN10	1
32	Double Flanged Piece	DI	200	L=710mm	PN10	1
33	Flanged Bellmouth	DI	150	L=150mm	PN10	1
34	Double Flanged Piece	DI	150	L=4,430mm	PN10	1
35	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
36	Double Flanged Piece with Puddle	DI	150	L=1,070mm	PN10	1
37	Flange Adapter (DF)	DI	150	L=500mm	PN10	1
38	Flanged Spigot Piece with Puddle	DI	150	L=600mm	PN10, Type-T	1
39	Sluice Valve	DI	150	L=270mm	PN10	1
40	A/I Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
41	Double Flanged Piece	DI	150	L=2,290mm	PN10	1
42	Flanged Spigot Piece	DI	150	L=1,000mm	PN10, Type-T	1
43	Collar	DI	150		Type-K	1

\* Contractor should provide concrete and/or metal pipe support.



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

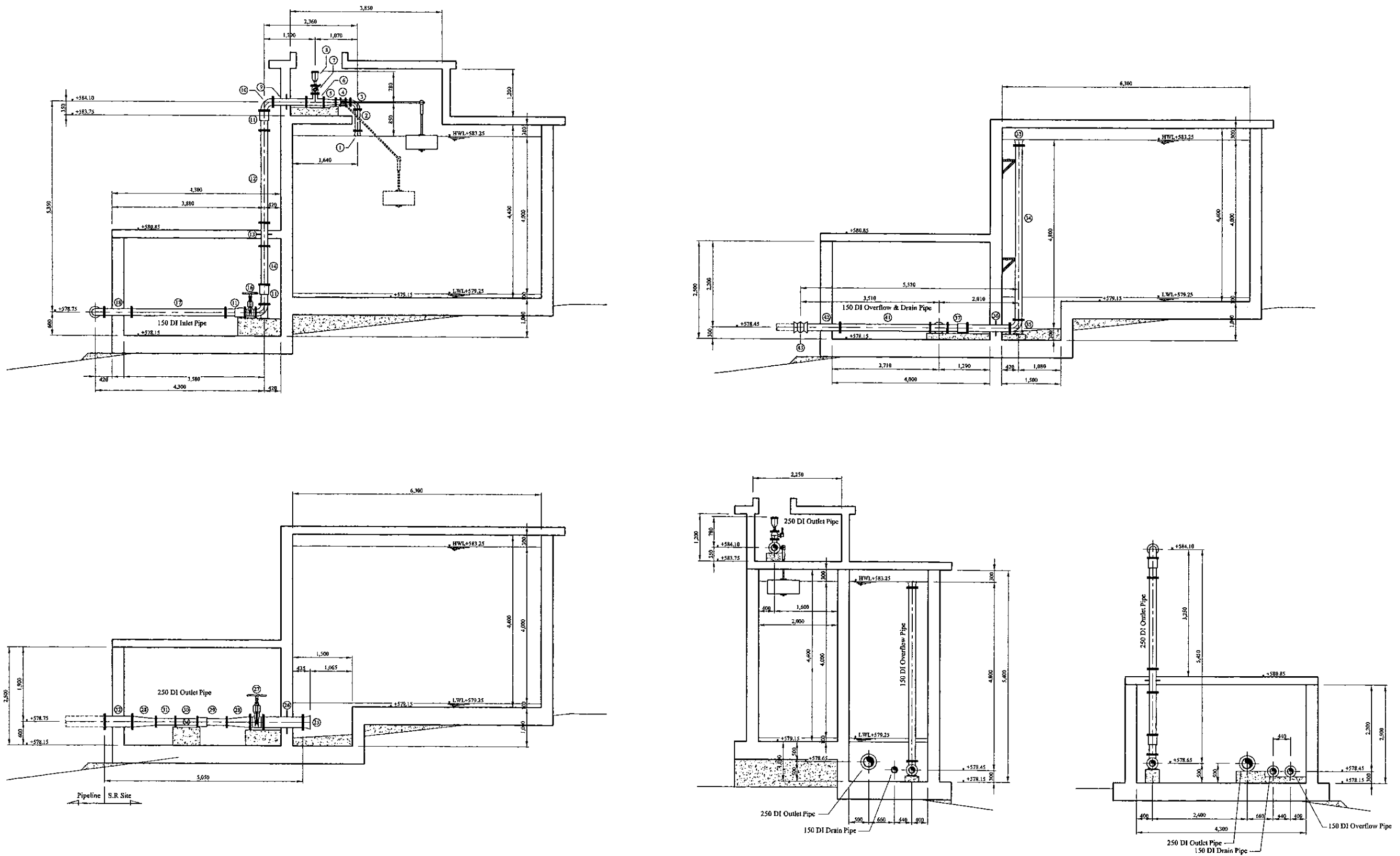
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF KULUGAMMANA S.R - 1

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

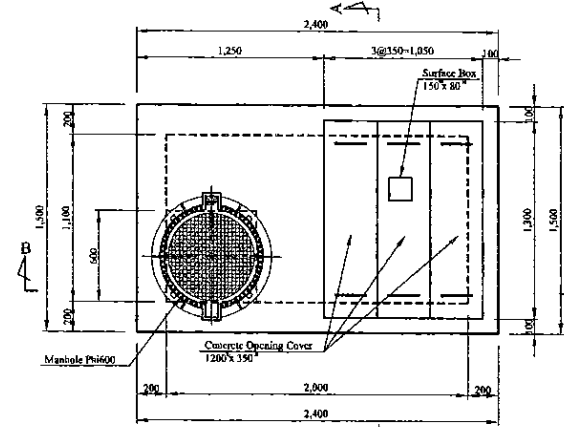
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
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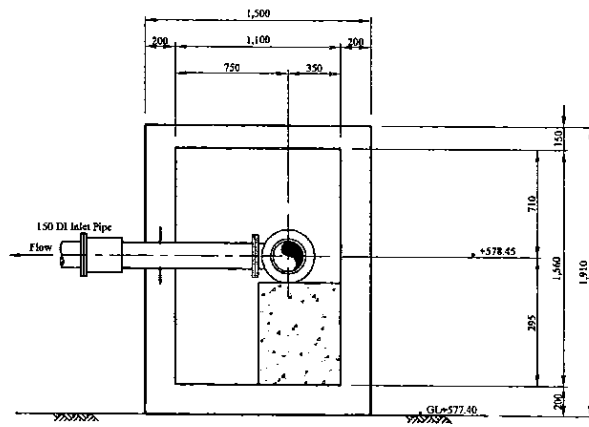


\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: PIPE LAYOUT OF KURUGAMMANA S.R PIPE - 2
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV. DESCRIPTION DATE SIGN. DESIGNED: Koichi OKAZAKI CHECKED: AGM: (P&D) DESIGN CHIEF
		DRAWN: Koichi OKAZAKI PM: (CONSULTANT) Ikuo MIWA CE: (P&D) DATE: 31/05/2002
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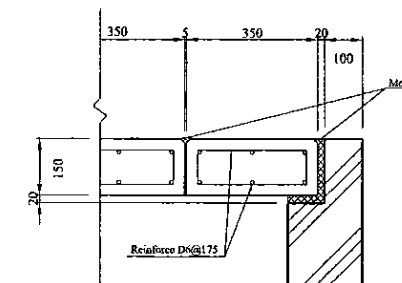
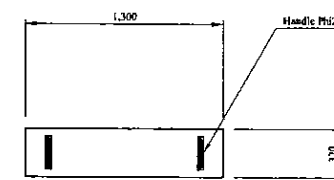


Top Plan

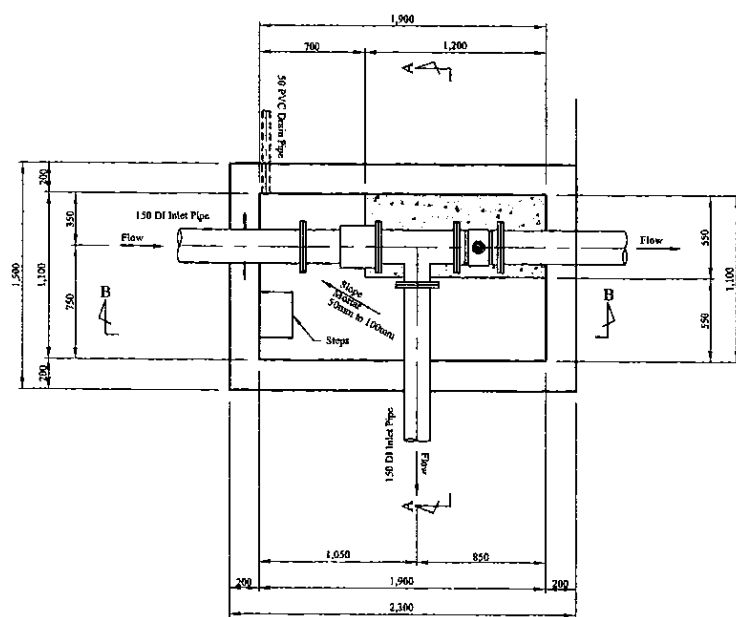


Section A-A

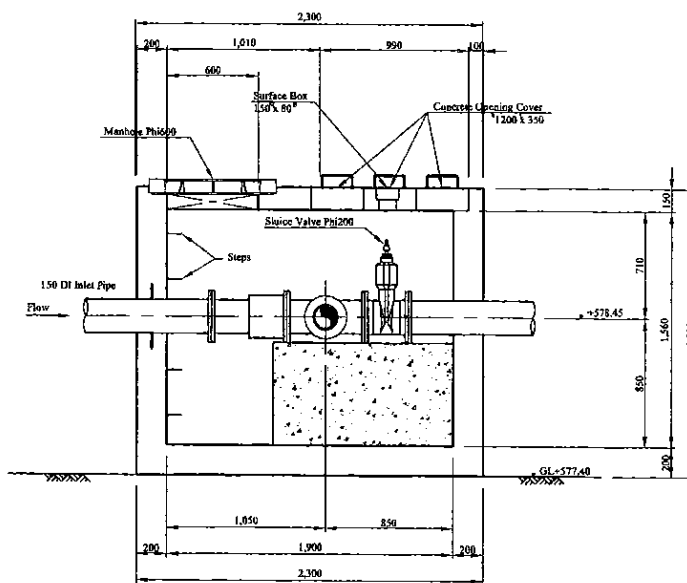
Concrete Opening Cover



S=1/10 on A3

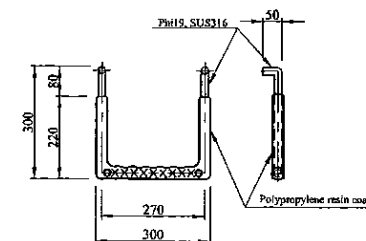


Plan

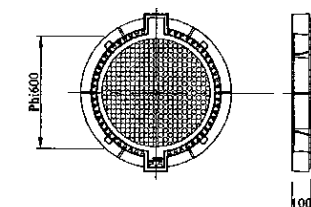


Section B-B

Step (W=300mm, Polypropylene resin coating)  
Scale=1:5



Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10



Inlet Valve Chamber for Existing S.R

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



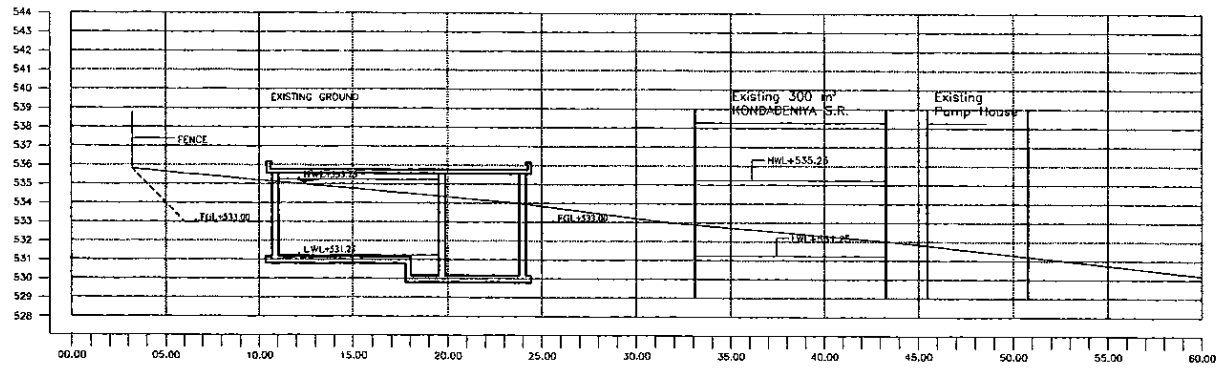
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: INLET VALVE CHAMBER OF KURUGAMMANA S.R

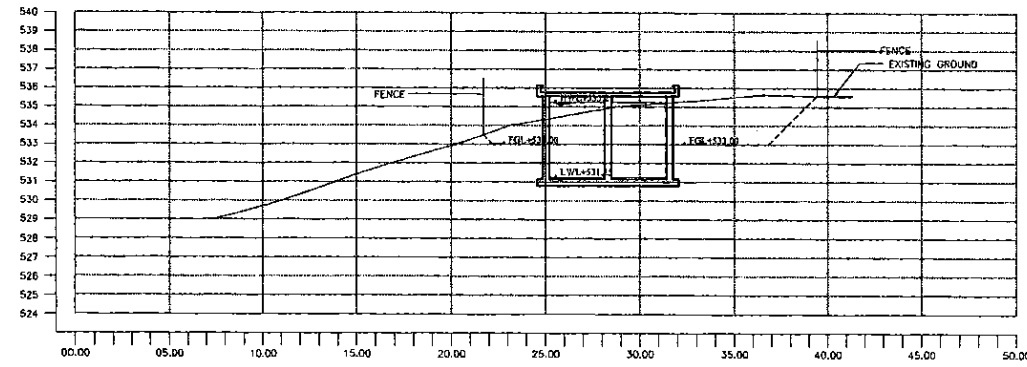
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

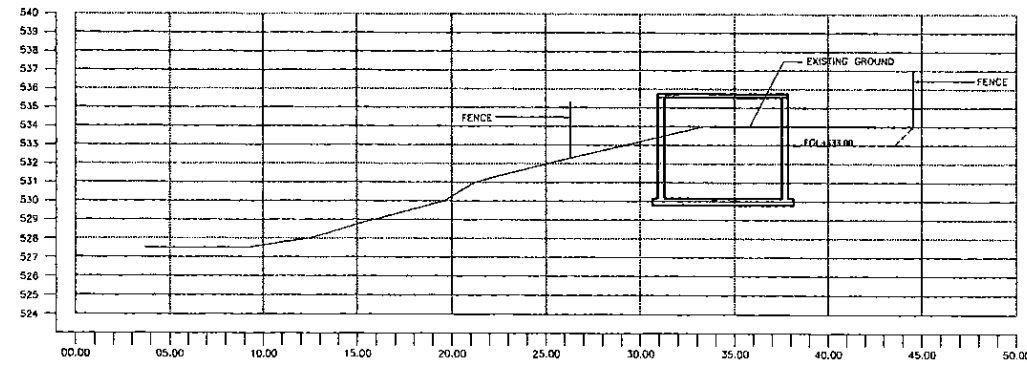
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-09-04



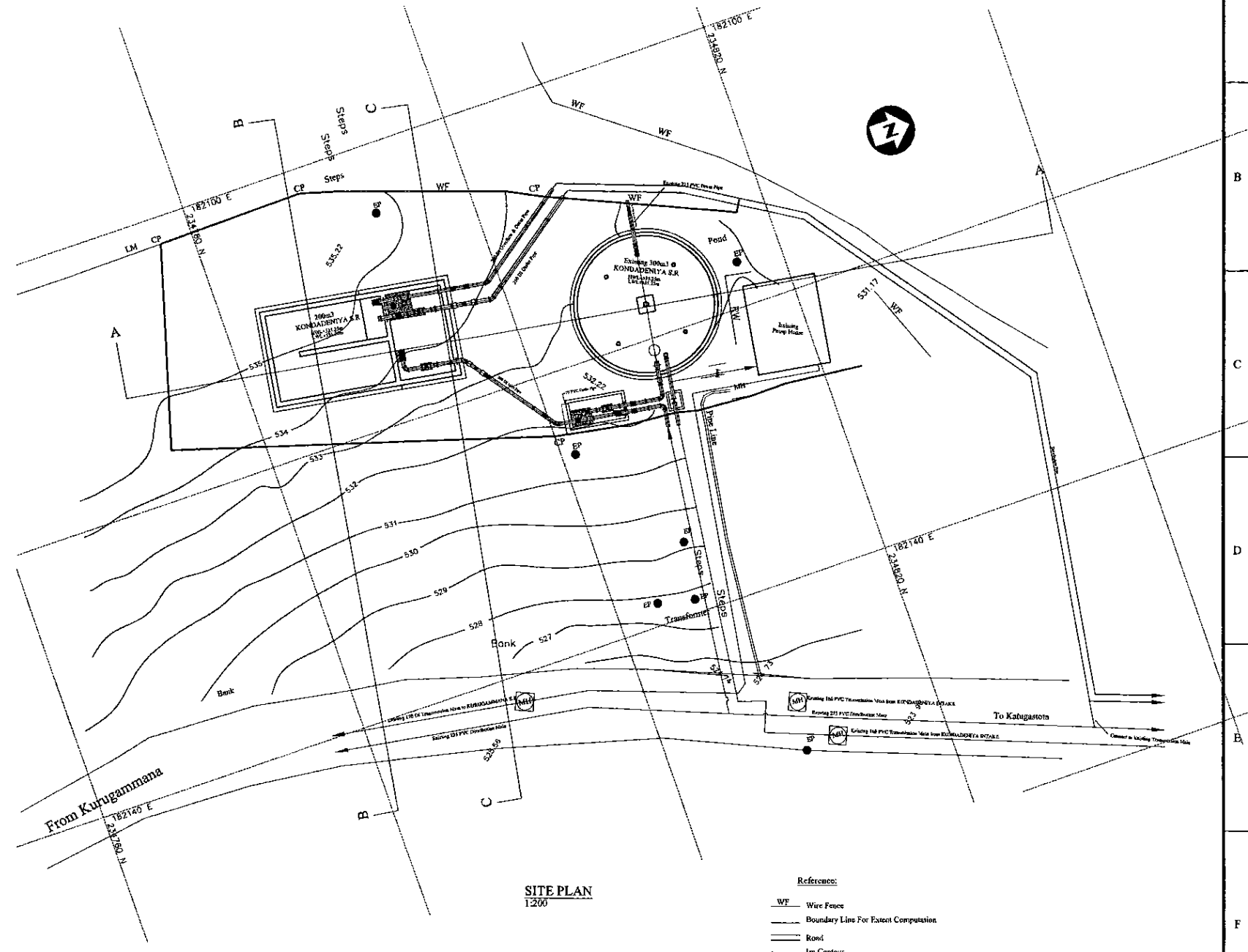
SECTION A-A  
1:200



SECTION B-B  
1:200



SECTION C-C  
1:200



SITE PLAN  
1:200

Reference:

- WF Wire Fence
- Boundary Lines For Facet Computation
- Road
- Im. Contour
- TP Telephone Post
- EP Electrical Post
- St Stake
- BR Stake

DATUM - National Geodetic Datum S.L.D.99

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

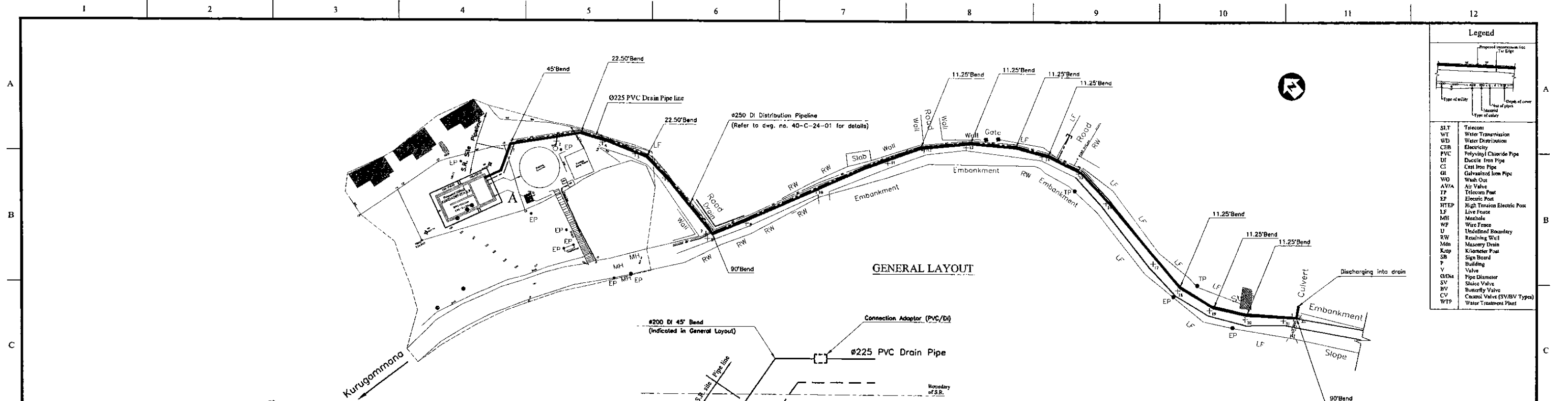
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

TITLE: **SITE PLAN OF 200m³ KONDADENIYA SERVICE RESERVOIR**

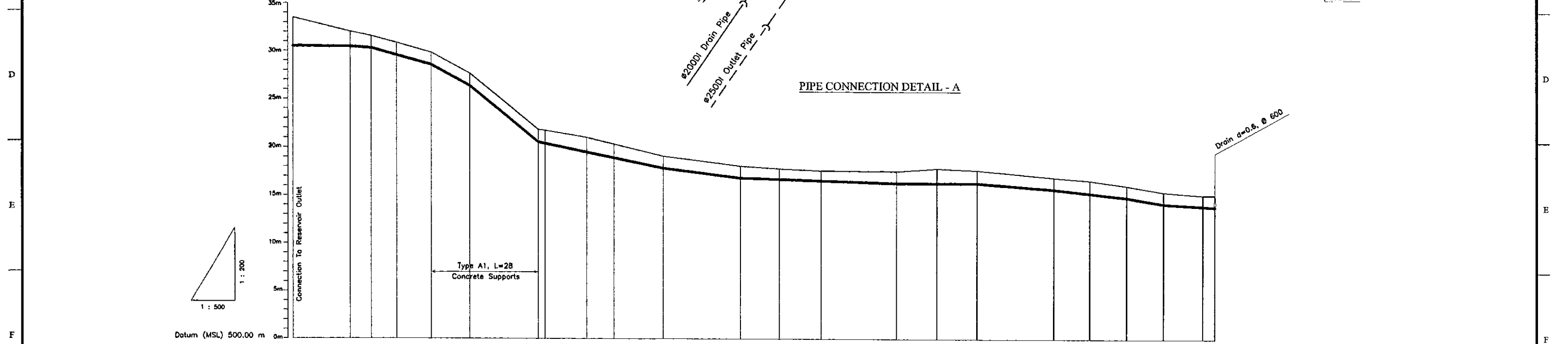
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-10-01





**Legend**

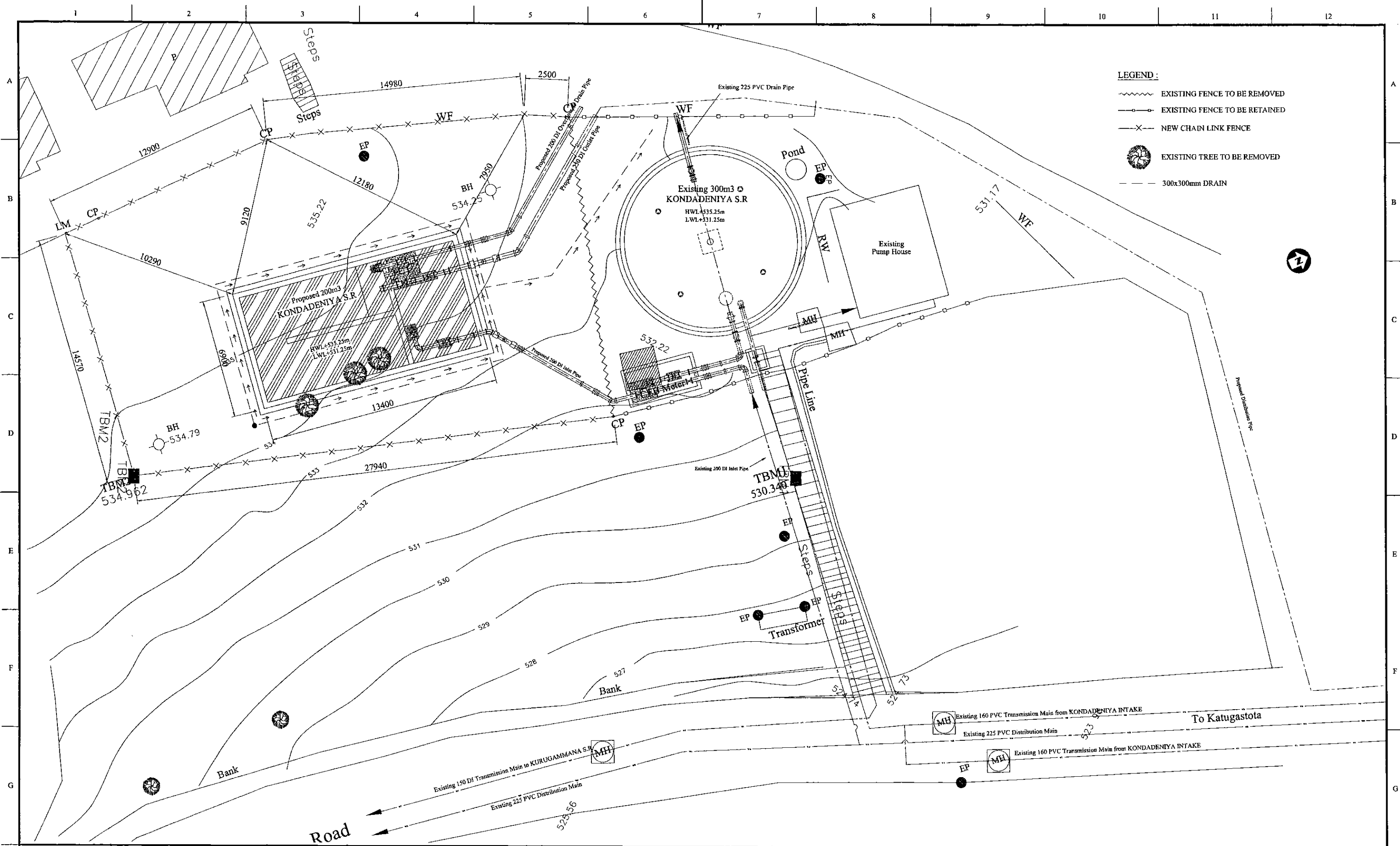
S.T	Telecom	Telecom Transmission Line
WT	Water Transmission	Water Transmission Line
WD	Water Distribution	Water Distribution Line
CEB	Electricity	Electricity Line
PVC	Polyvinyl Chloride Pipe	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe	Ductile Iron Pipe
CI	Cast Iron Pipe	Cast Iron Pipe
GI	Galvanized Iron Pipe	Galvanized Iron Pipe
WO	Wash Out	Wash Out
AVA	Air Valve	Air Valve
TP	Telecom Post	Telecom Post
EP	Electric Post	Electric Post
HTEP	High Tension Electric Post	High Tension Electric Post
LF	Live Fence	Live Fence
MH	Manhole	Manhole
WF	Wire Fence	Wire Fence
U	Undefined Boundary	Undefined Boundary
RW	Right of Way	Right of Way
Mdn	Masonry Drain	Masonry Drain
Ksp	Kilometer Post	Kilometer Post
SB	Sign Board	Sign Board
P	Building	Building
V	Valve	Valve
ØDn	Pipe Diameter	Pipe Diameter
SV	Sluice Valve	Sluice Valve
BV	Butterfly Valve	Butterfly Valve
CV	Control Valve (SV/BV Types)	Control Valve (SV/BV Types)
WTP	Water Treatment Plant	Water Treatment Plant



**LONGITUDINAL SECTION**

Ground Level (m)	533.50	532.00	531.57	530.97	529.85	527.67	521.84	521.75	521.03	519.09	518.08	517.81	517.60	517.54	517.86	517.67	516.93	516.63	516.08	515.42	515.09	515.09	
Pipe Invert Level <small>(Pipe thickness to be assumed negligible)</small>	530.53	530.48	530.32	530.07	528.57	528.39	520.56	521.75	517.86	517.86	516.85	517.81	517.60	516.33	517.86	516.33	515.71	516.63	514.86	514.20	515.42	515.09	515.09
Pipe Data	← #225 PVC RUBBER RING JOINT →																						
Single Distance (m)	0.00	15.00	5.52	6.80	8.99	9.94	17.94	1.78	10.86	18.88	20.09	10.06	10.83	19.76	10.52	10.43	18.88	9.44	9.71	9.52	10.18	3.16	3.16
Cumulative Distance (m)	0.00	15.00	20.52	27.12	36.11	46.05	63.99	65.77	76.63	95.51	115.60	125.66	136.49	156.25	166.77	177.18	196.06	205.50	215.21	224.73	234.91	240.19	243.35
Station No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> WASHOUT FROM KONDADENIYA S.R.				<b>SHEET 1 OF 1</b>									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		REV.	DESCRIPTION	DATE	SIGN.					<b>DESIGNED:</b> Koichi OKAZAKI <b>DRAWN:</b> Ravi U.		<b>PM: (CONSULTANT)</b> Ikio MIWA <b>CE: (P&amp;D)</b>	
REV.	DESCRIPTION	DATE	SIGN.														
				<b>CHECKED:</b> [Signature] <b>DESIGN CHIEF</b>		<b>AGM: (P&amp;D)</b> <b>DGM: (P&amp;D)</b>		<b>DATE:</b> 31/05/2002 <b>SCALE:</b> HORIZONTAL - 1:500 VERTICAL - 1:200 <b>DRAWING NO.:</b> 30-C-10-02									



- LEGEND:**
- EXISTING FENCE TO BE REMOVED
  - EXISTING FENCE TO BE RETAINED
  - NEW CHAIN LINK FENCE
  - EXISTING TREE TO BE REMOVED
  - 300x300mm DRAIN

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **200m3 KONDADENIYA S.R. LANDSCAPING LAYOUT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: **Koichi OKAZAKI**

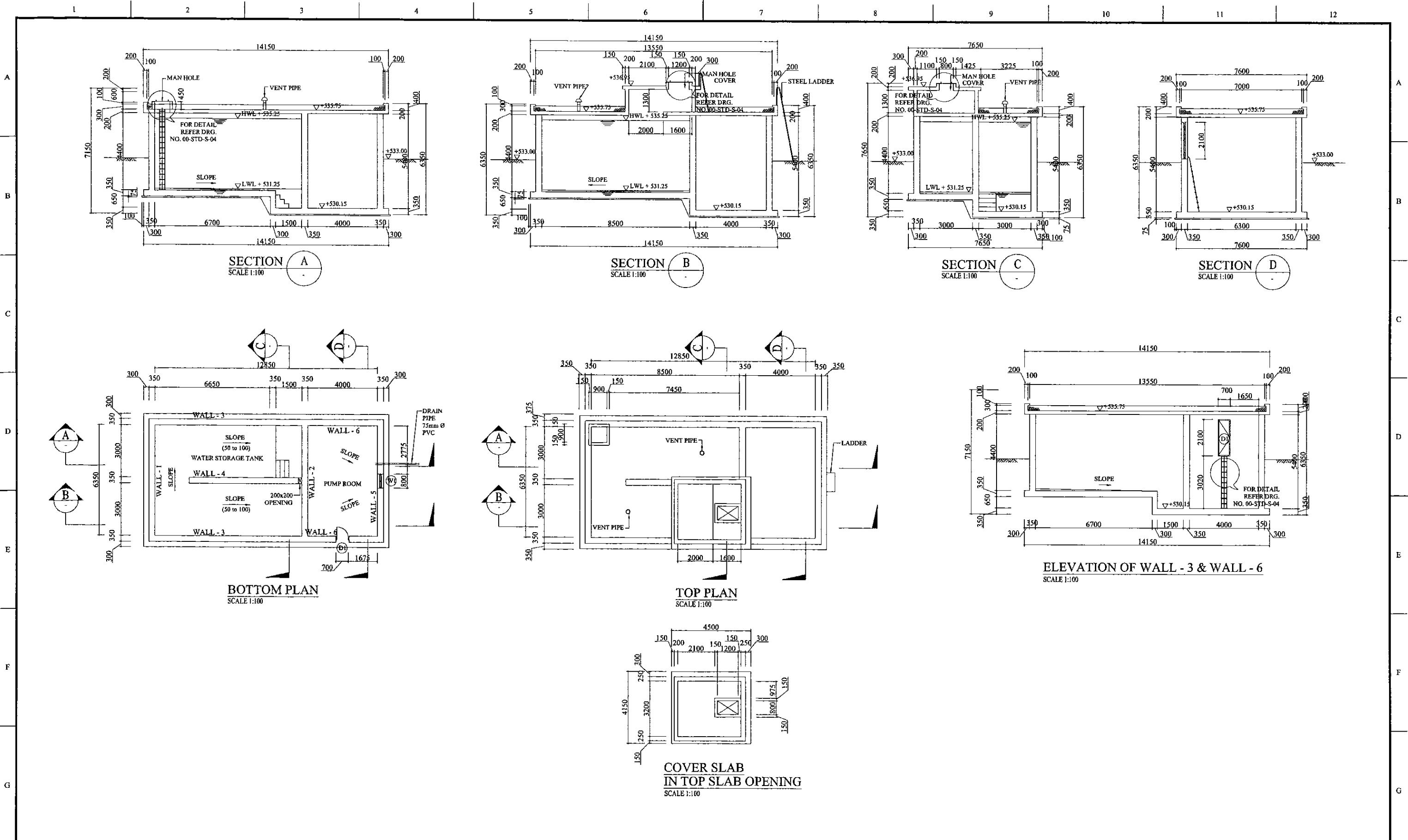
DRAWN: **POORNA**

PM: (CONSULTANT) **Ikuo MIWA**

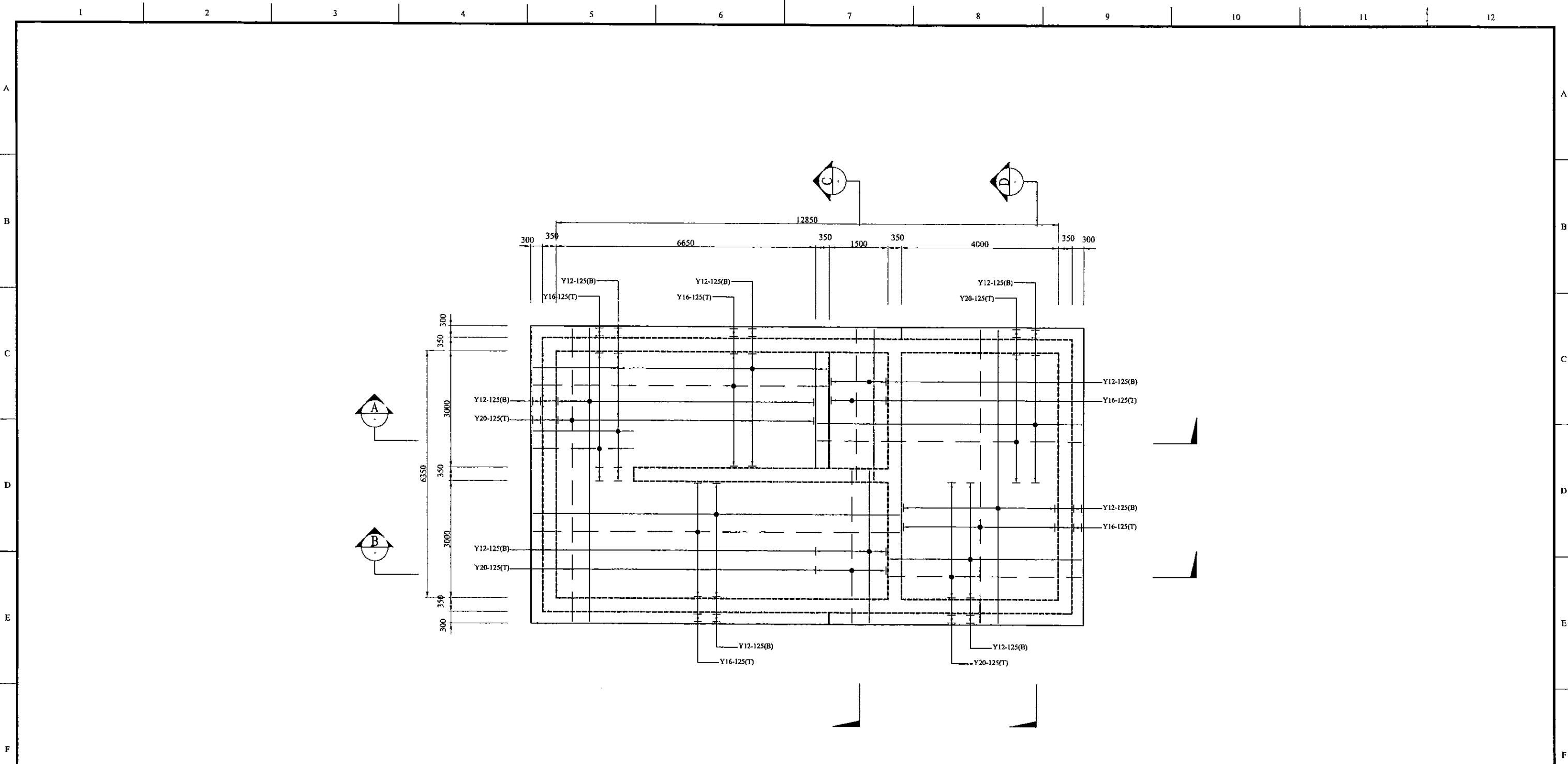
CE: (P&D) **DATE: 31/05/2002**

SCALE: **1:100**  
DRAWING NO.: **30-C-10-03**







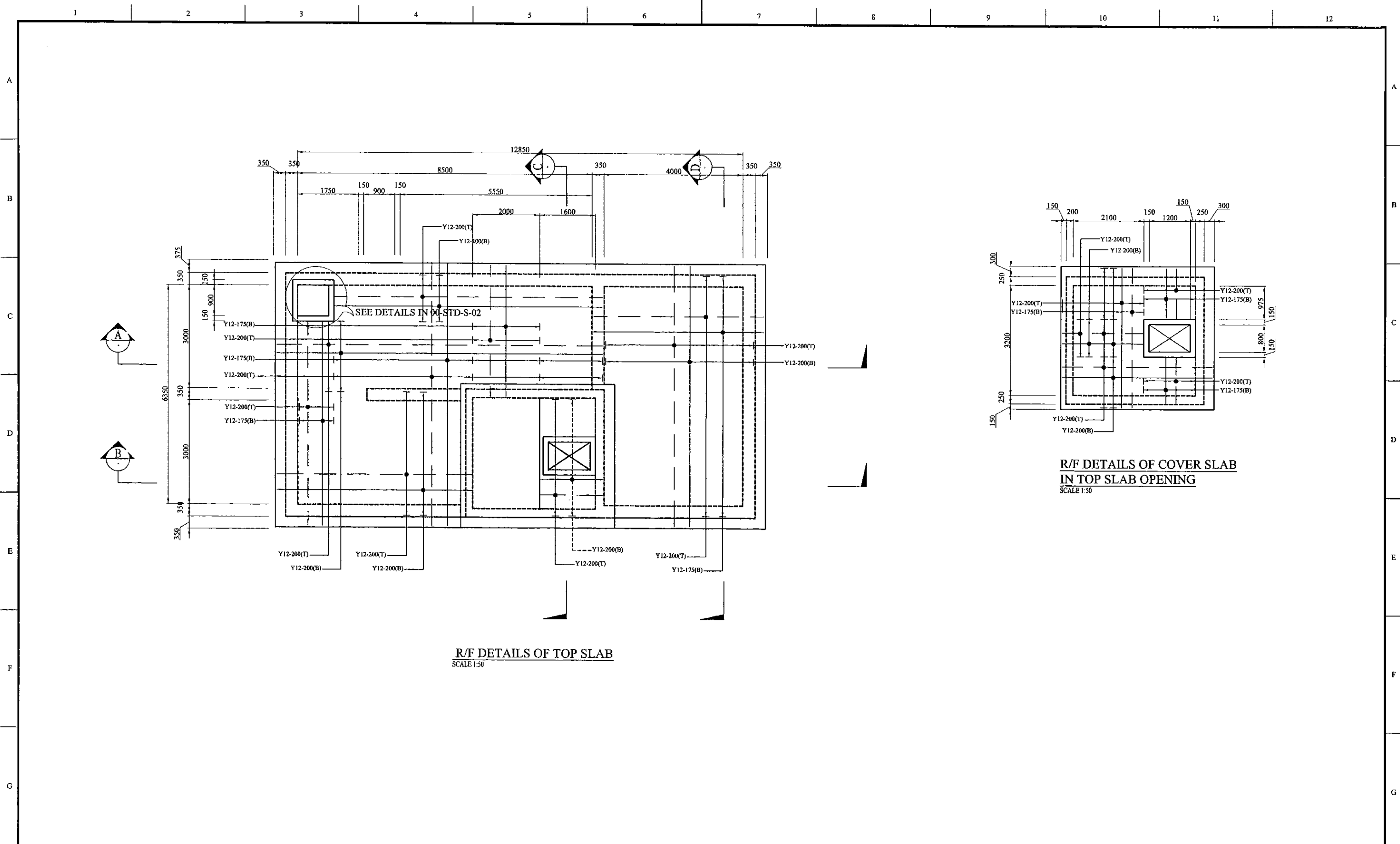


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDADENIYA SERVICE RESERVOIR GENERAL ARRANGEMENT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 100
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-10-02







R/F DETAILS OF BOTTOM SLAB  
SCALE 1:50

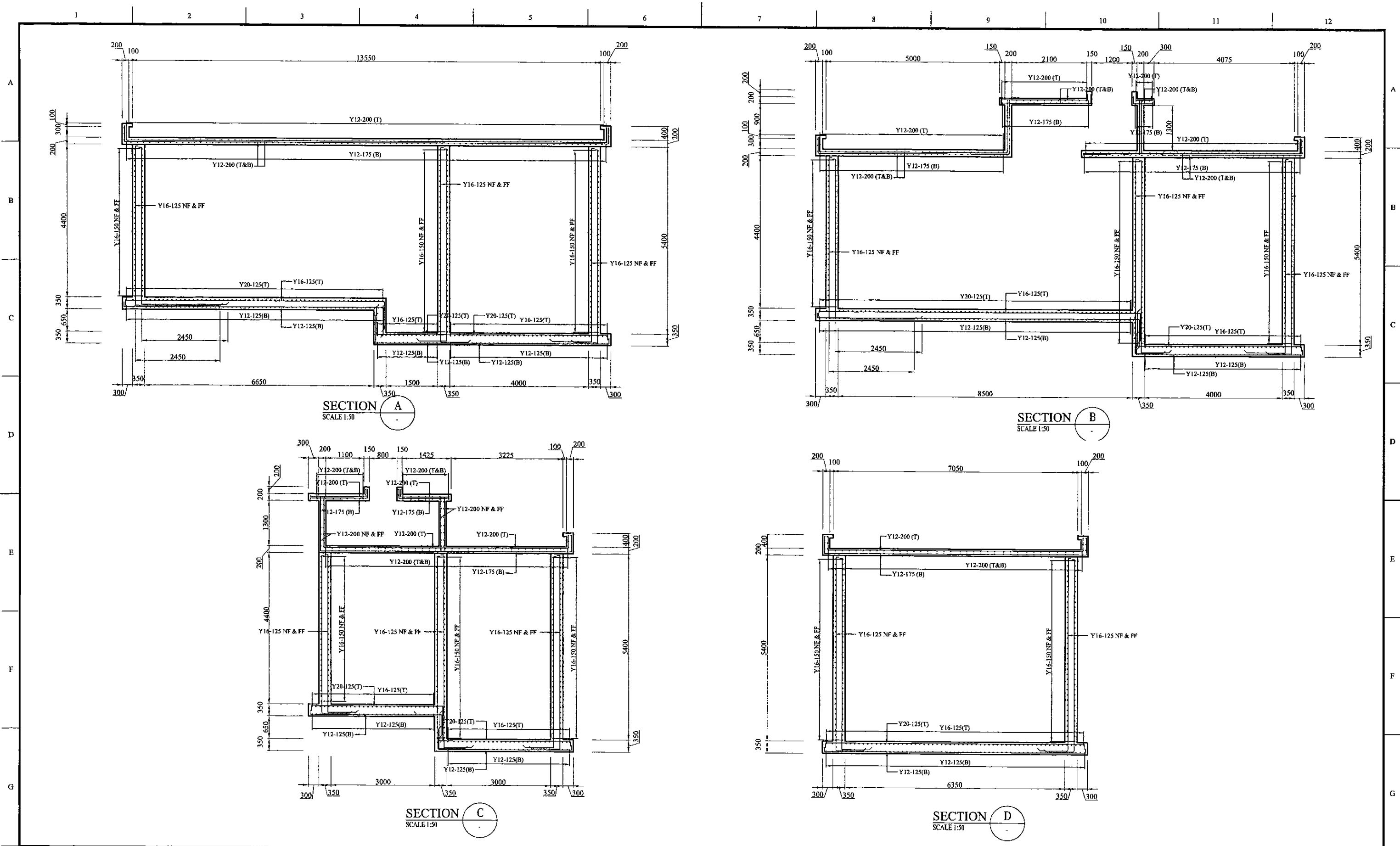
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDADENIYA SERVICE RESERVOIR BOTTOM SLAB								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 50
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-10-03



R/F DETAILS OF TOP SLAB  
SCALE 1:50

R/F DETAILS OF COVER SLAB  
IN TOP SLAB OPENING  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDADENIYA SERVICE RESERVOIR TOP SLAB								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 50
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-10-04







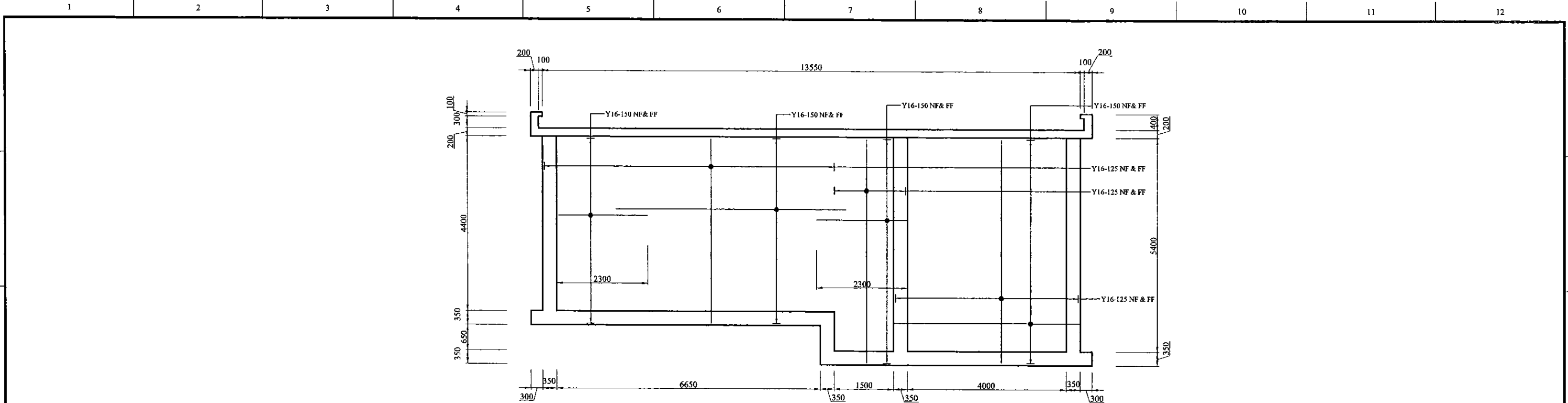
SECTION A  
SCALE 1:50

SECTION B  
SCALE 1:50

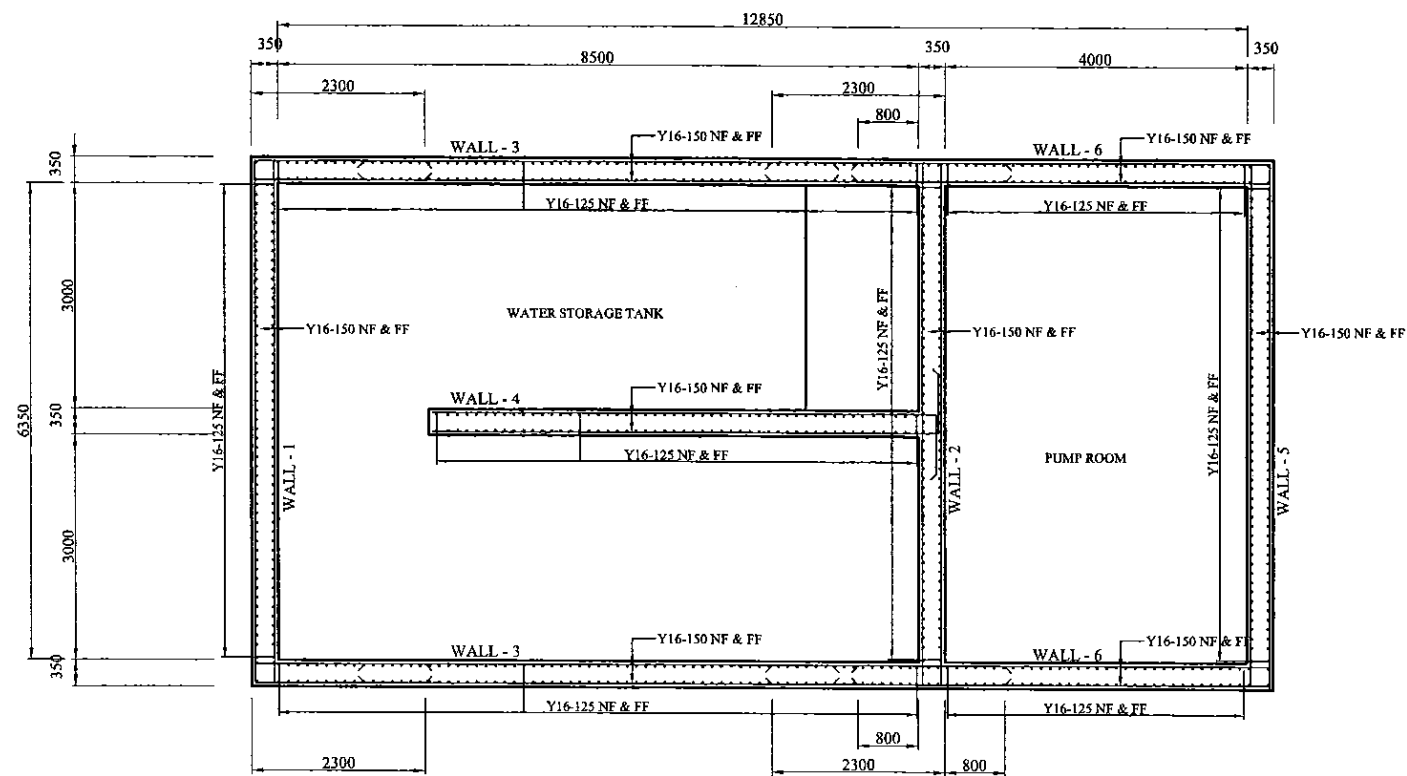
SECTION C  
SCALE 1:50

SECTION D  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDADENIYA SERVICE RESERVOIR SECTIONS								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: IRESHA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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ELEVATION OF WALL - 3 & WALL - 6  
SCALE 1:50



CROSS SECTION  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: KONDADENIYA SERVICE RESERVOIR CROSS SECTION & ELEVATION

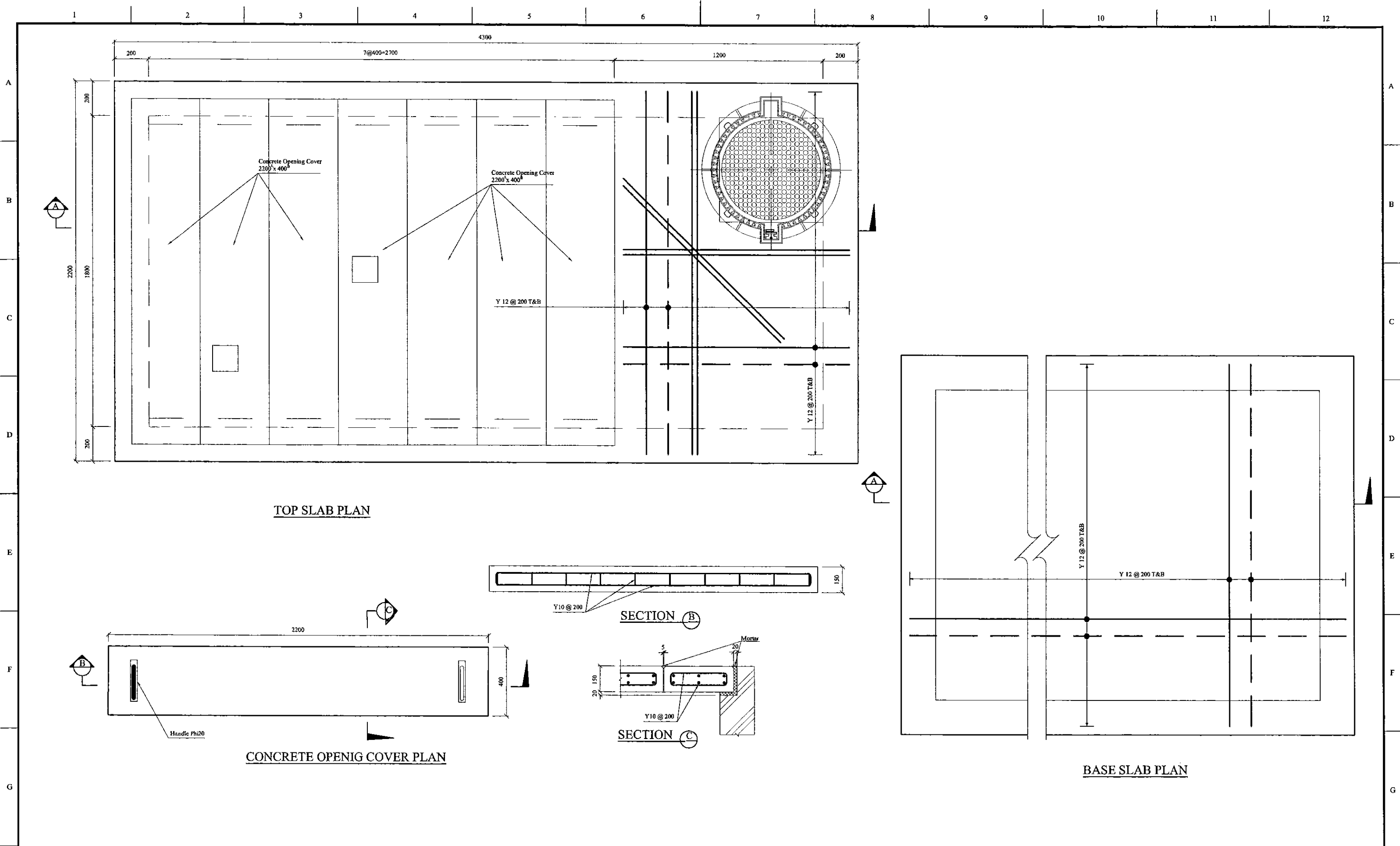
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
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**TOP SLAB PLAN**

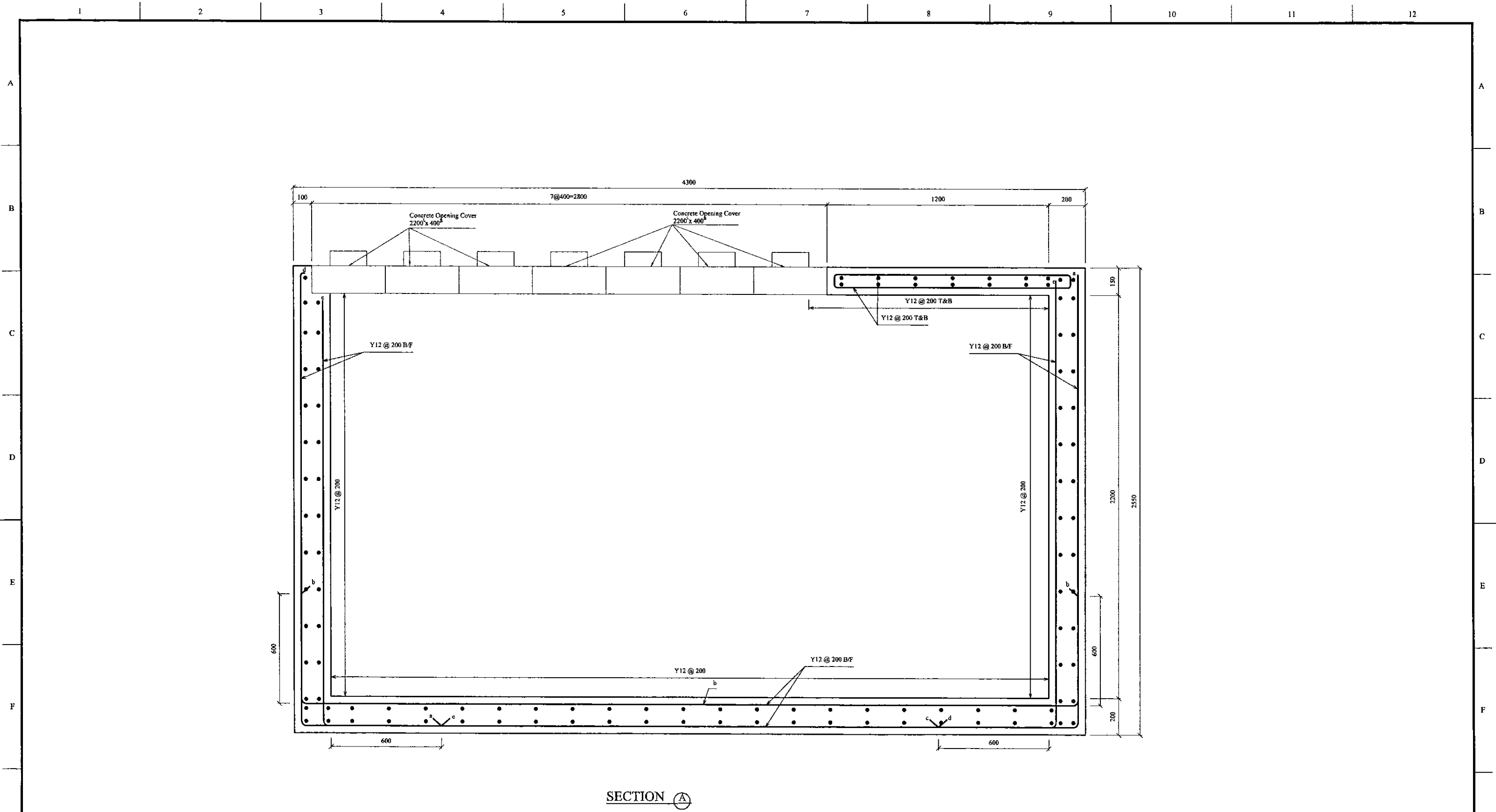
**CONCRETE OPENIG COVER PLAN**

**SECTION B**

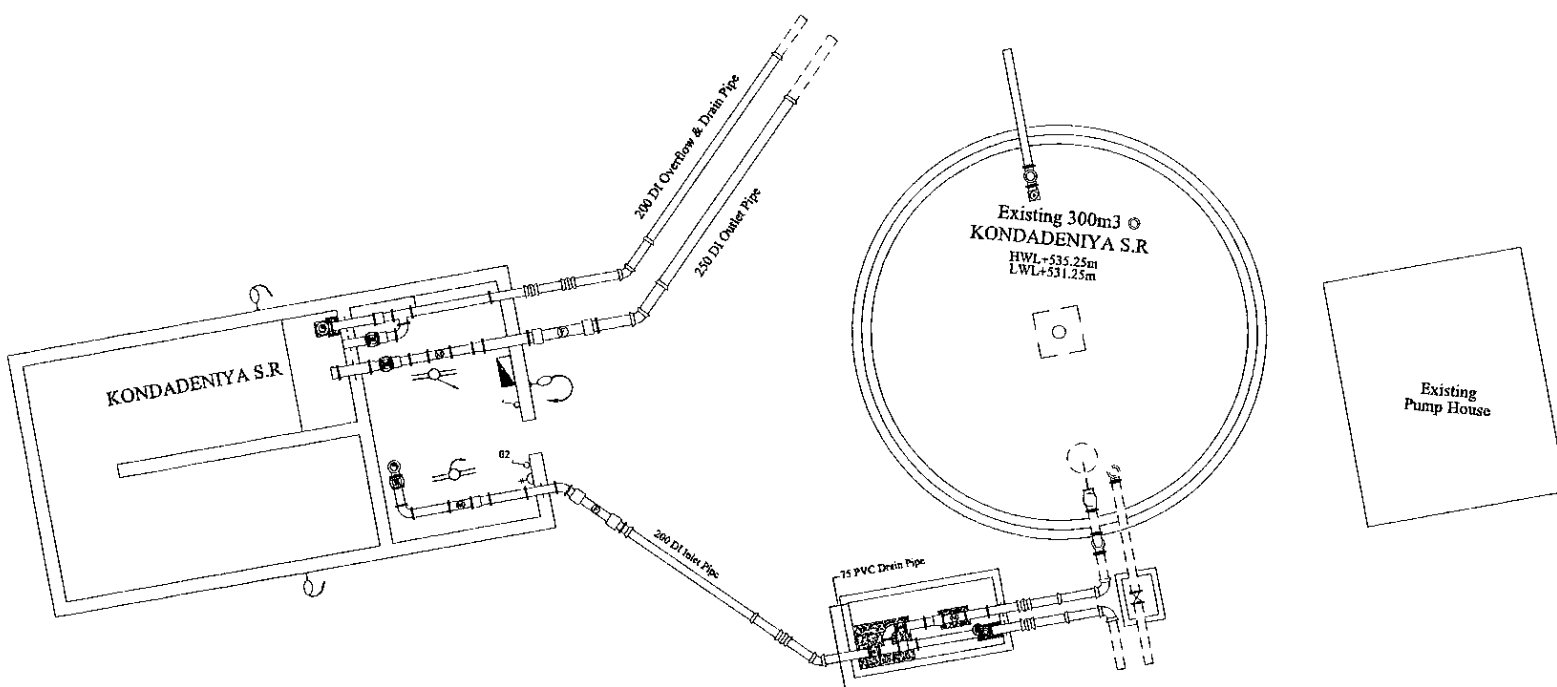
**SECTION C**

**BASE SLAB PLAN**

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDADENIYA S.R. - R/F DETAIL OF INLET VALVE CHAMBER - 1								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:10
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-10-07



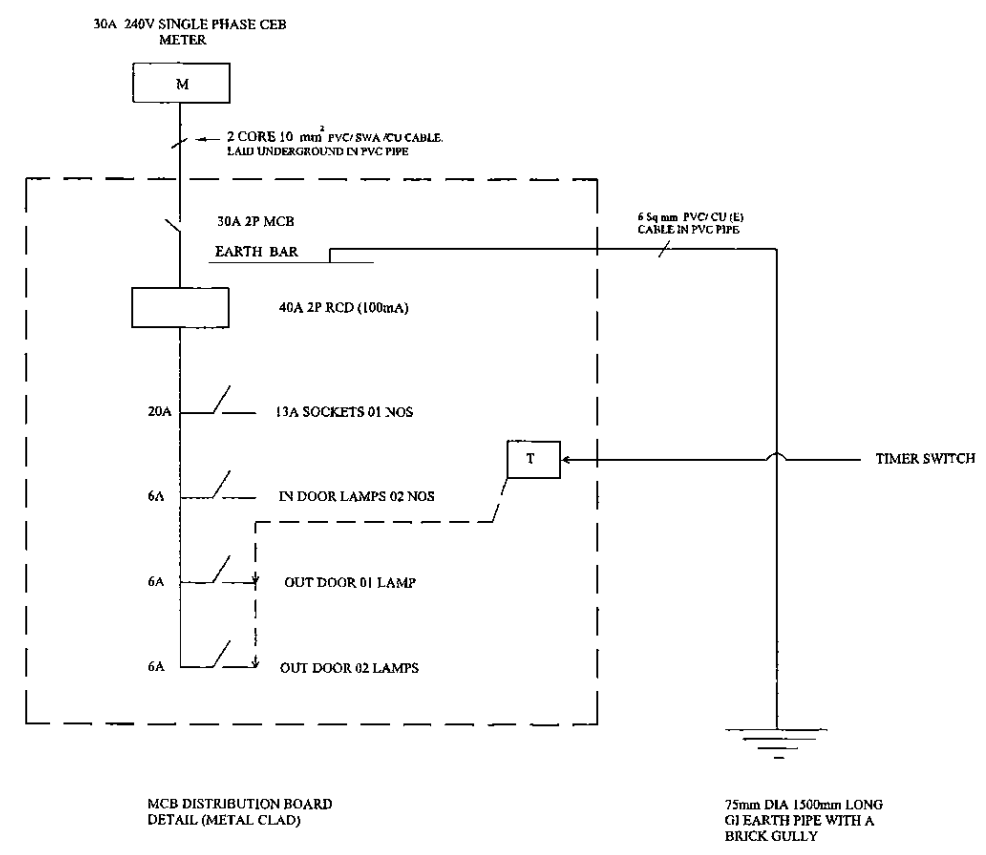
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: KONDADENIYA PUMPING STATION - R/F DETAIL OF INLET VALVE CHAMBER - 2								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:10
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						DESIGN CHIEF				



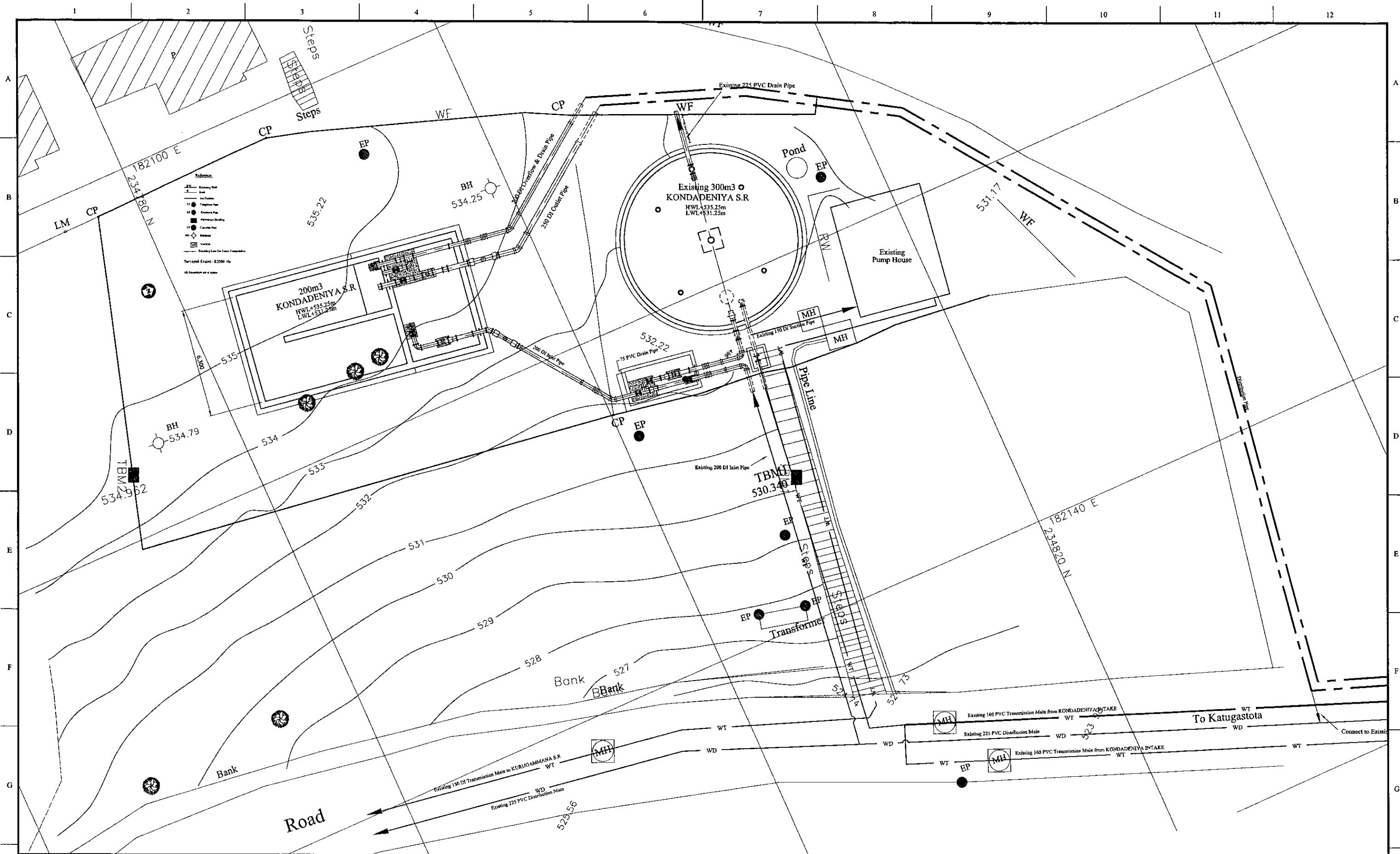
**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

- LEGEND (Electrical)**
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - 60W OUT DOOR WALL BRACKET LAMP FITTING
  - 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
  - METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
  - 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ONE WAY SWITCH (FFL + 1.5)
  - EARTH PIPE



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KONDANIYA SERVICE RESERVOIR -ELACTRICAL LAYOUT								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: ETG	DRAWN: Iakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
				XX	XXXX	XX	XX	CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-10-21



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:


PIPE LAYOUT PLAN OF EXISTING 300m3 S.R. & P.S AND NEW 200m3 KONDADENIYA S.R

CLIENT:




NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

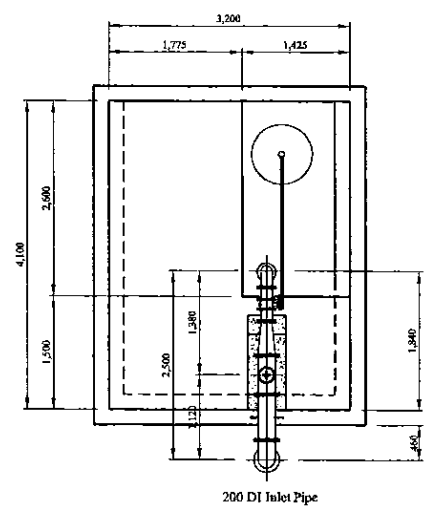
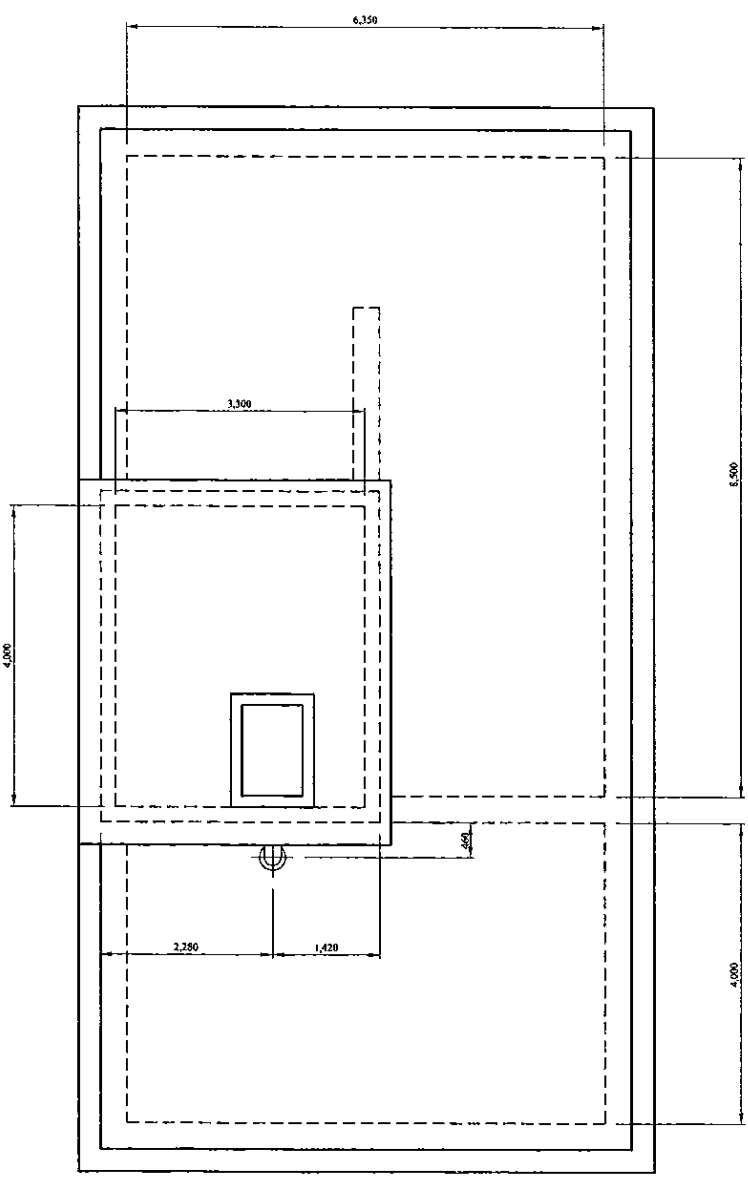


NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

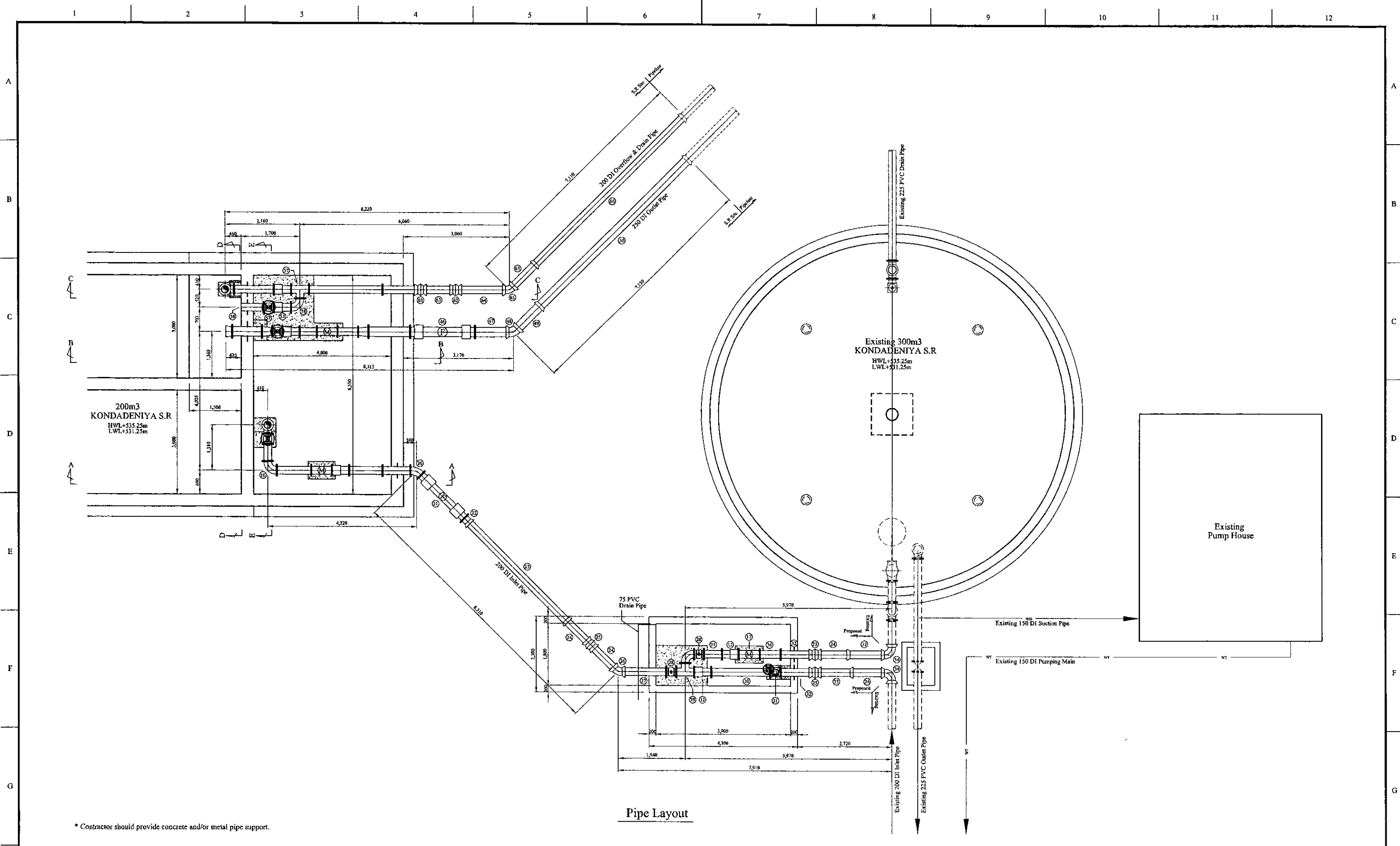
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-10-01



Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	1
2	Double Flanged Piece	SP	125	L=610mm	PN10	1
3	Double Flanged 90 degree Bend	SP	125	L=200mm x 2	PN10	1
4	Butterfly Float Valve	SUS	125	L=460mm	PN10	1
5	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	1
6	All Flanged 200 x 100 Tee	DI	200x100	L=520x260mm	PN10	1
7	Ball Valve	DI	100	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	100	L=370mm	PN10	1
9	Double Flanged Piece with Puddle	DI	200	L=550mm	PN10	1
10	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	3
11	Double Flanged Piece with Puddle	DI	200	L=600mm	PN10	1
12	Flange Adapter (DF)	DI	200	L=500mm	PN10	4
13	Double Flanged Piece	DI	200	L=4,090mm	PN10	1
14	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
15	Sluice Valve	DI	200	L=290mm	PN10	1
16	Double Flanged Piece	DI	200	L=1,000mm	PN10	1
17	Flow Meter	DI	200	L=610mm	PN10	2
18	Double Flanged Piece	DI	200	L=970mm	PN10	1
19	Double Flanged Piece with Puddle	DI	200	L=900mm	PN10	1
20	Double Flanged 45 degree Bend	DI	200	L=180mm x 2	PN10	1
21	Double Flanged Flexible Expansion Joint	DI	200		PN10	1
22	Flanged Socket	DI	200	L=140mm	PN10, Type-T	1
23	Socket - Plain End Piece	DI	200	L=4,000mm	Type-T	1
24	Plain Ends Piece	DI	200	L=1,000mm	Type-T	3
25	Collar	DI	200		Type-K	3
26	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	1
27	Flanged Spigot Piece	DI	200	L=1,280mm	PN10, Type-T	1
28	Sluice Valve	DI	200	L=290mm	PN10	2
29	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
30	Double Flanged Piece	DI	200	L=1,710mm	PN10	1
31	Toothed Vane Butterfly Valve	FCD	200	L=300mm	PN10	1
32	Flanged Spigot Piece with Puddle	DI	200	L=980mm	PN10	1
33	Socket - Plain End Piece	DI	200	L=1,000mm	Type-T	2
34	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	2
35	Double Flanged Piece	DI	200	L=520mm	PN10	1
36	Double Flanged Piece	DI	200	L=600mm	PN10	1
37	Flanged Bellmouth	DI	250	L=185mm	PN10	1
38	Double Flanged Piece with Puddle	DI	250	L=850mm	PN10	1
39	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
40	Sluice Valve	DI	200	L=290mm	PN10	1
41	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
42	Double Flanged Piece	DI	200	L=500mm	PN10	1
43	Flow Meter	DI	200	L=610mm	PN10	1
44	Double Flanged Piece	DI	200	L=600mm	PN10	1
45	Double Flanged Piece	DI	200	L=1,200mm	PN10	1
46	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
47	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	1
48	Double Socket 45 degree Bend	DI	250	L=130mm x 2	Type-T	1
49	Plain Ends Piece	DI	250	L=1,000mm	Type-T	1
50	Straight Pipe	DI	250	L=6,000mm	Type-T	1
51	Flanged Bellmouth	DI	200	L=170mm	PN10	1
52	Double Flanged Piece	DI	200	L=4,320mm	PN10	1
53	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
54	Double Flanged Piece with Puddle	DI	200	L=1,140mm	PN10	1
55	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
56	Flanged Spigot Piece	DI	200	L=650mm	PN10, Type-T	1
57	Sluice Valve	DI	200	L=290mm	PN10	1
58	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	1
59	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
60	Double Flanged Piece	DI	200	L=2,140mm	PN10	1
61	Flanged Spigot Piece	DI	200	L=1,100mm	PN10, Type-T	1
62	Collar	DI	200		Type-K	2
63	Plain Ends Piece	DI	200	L=1,000mm	Type-T	2
64	Plain Ends Piece	DI	200	L=1,450mm	Type-T	1
65	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	1
66	Straight Pipe	DI	200	L=6,000mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF KONDADNIYA S.R - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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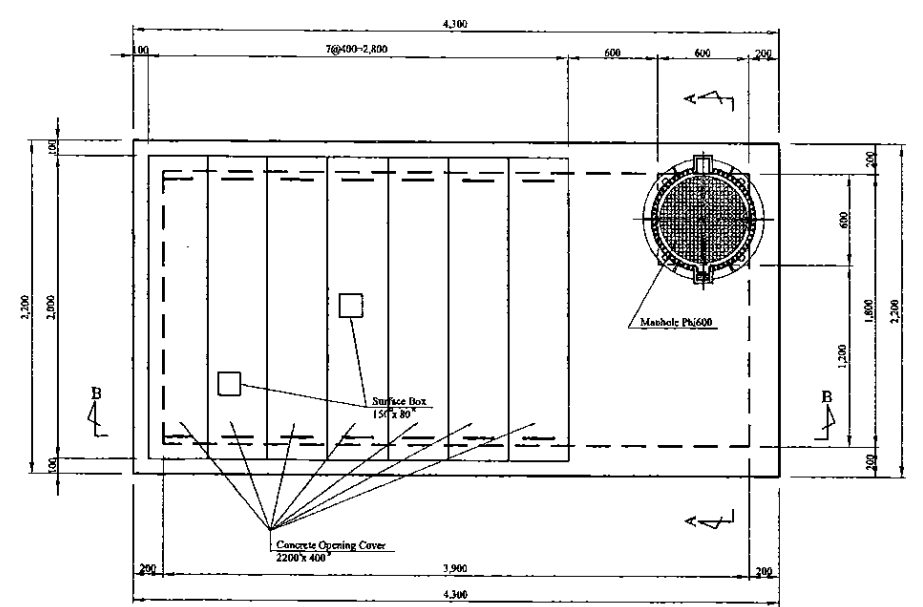


Pipe Layout

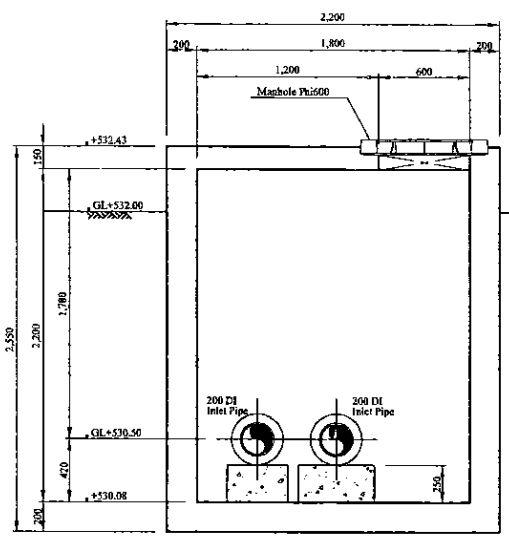
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF KONDADNIYA S.R - 2								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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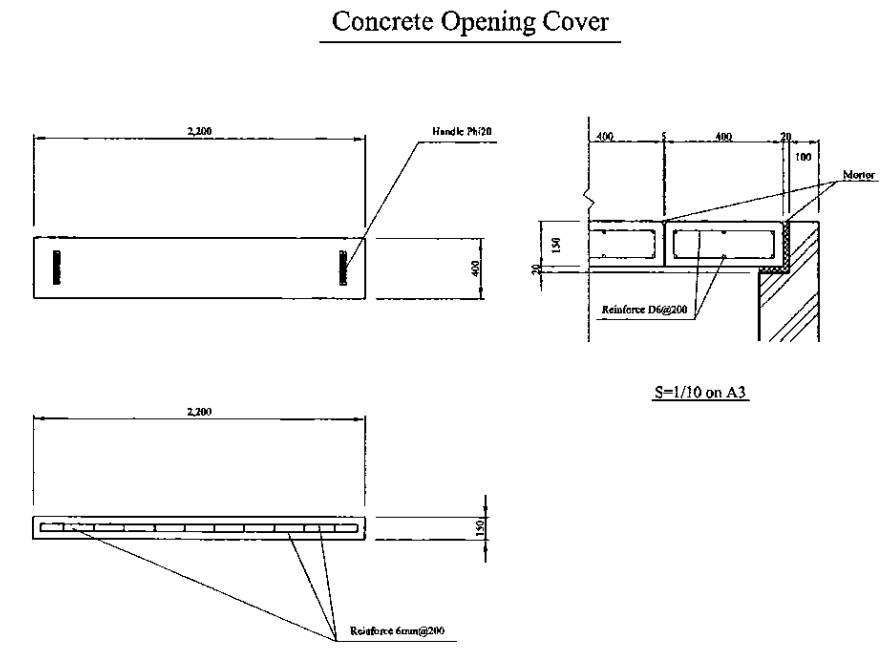




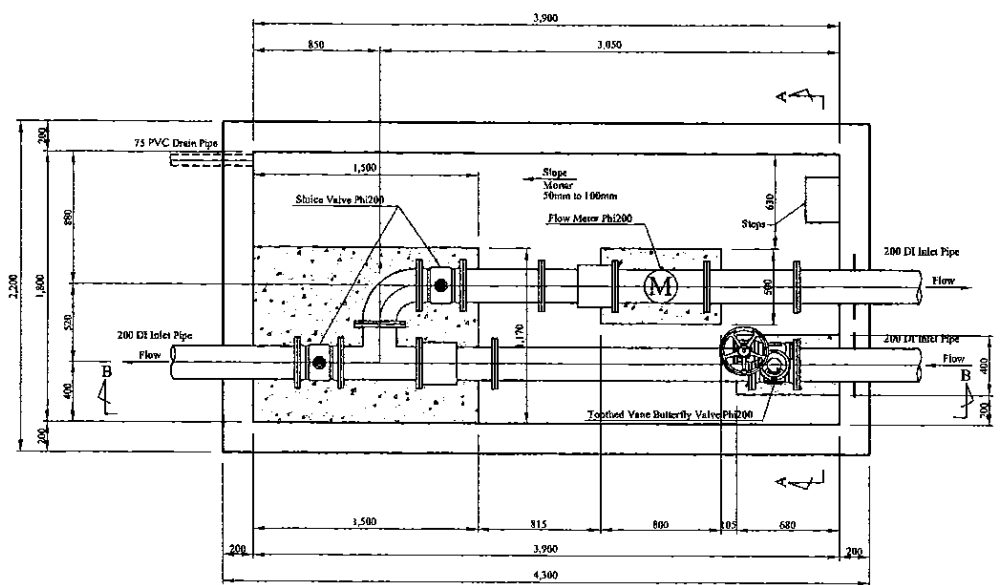
Top Plan



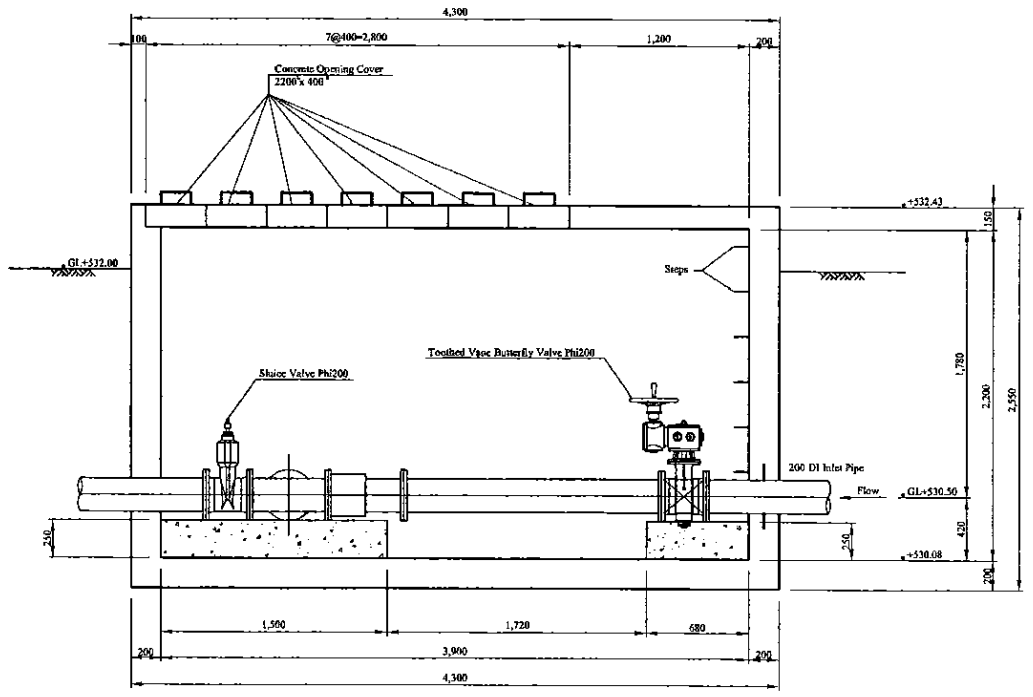
Section A-A



Concrete Opening Cover

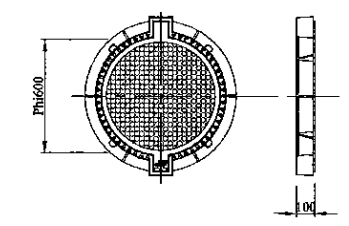


Plan

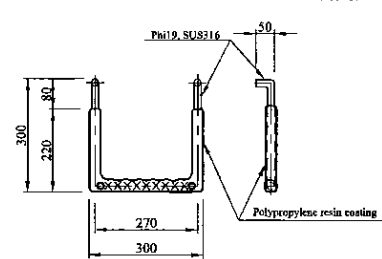


Section B-B

Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10






Step (W=300mm, Polypropylene resin coating)  
Scale=1:5

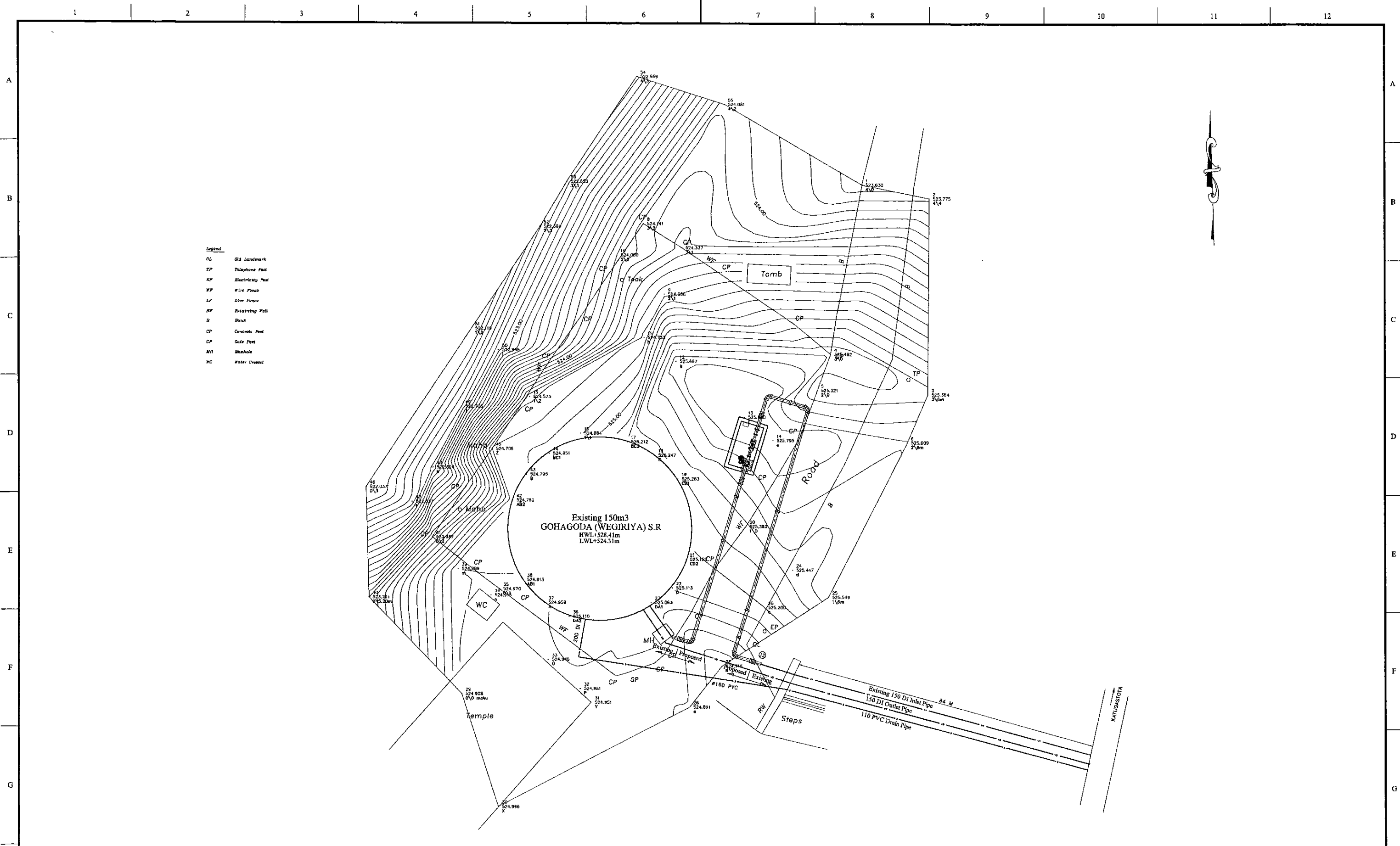


Inlet Valve Chamber

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>INLET FLOW METER &amp; CONTROL VALVE CHAMBER OF KONDADENIYA S.R</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:25</b>
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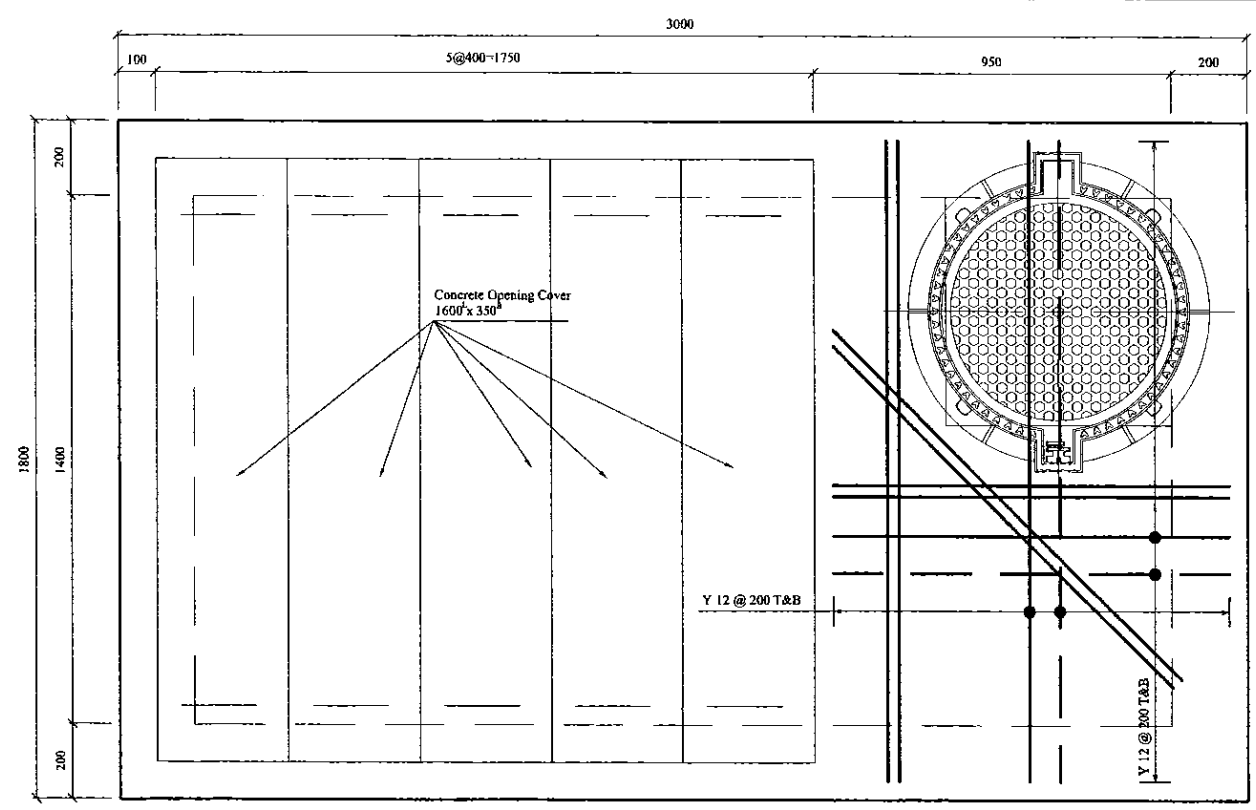


- Legend**
- OL Old Landmark
  - TP Telephone Post
  - EP Electricity Post
  - WP Wire Fence
  - LF Live Fence
  - RW Retaining Wall
  - B Bank
  - CP Concrete Post
  - GP Gate Post
  - MH Manhole
  - WC Water Closet

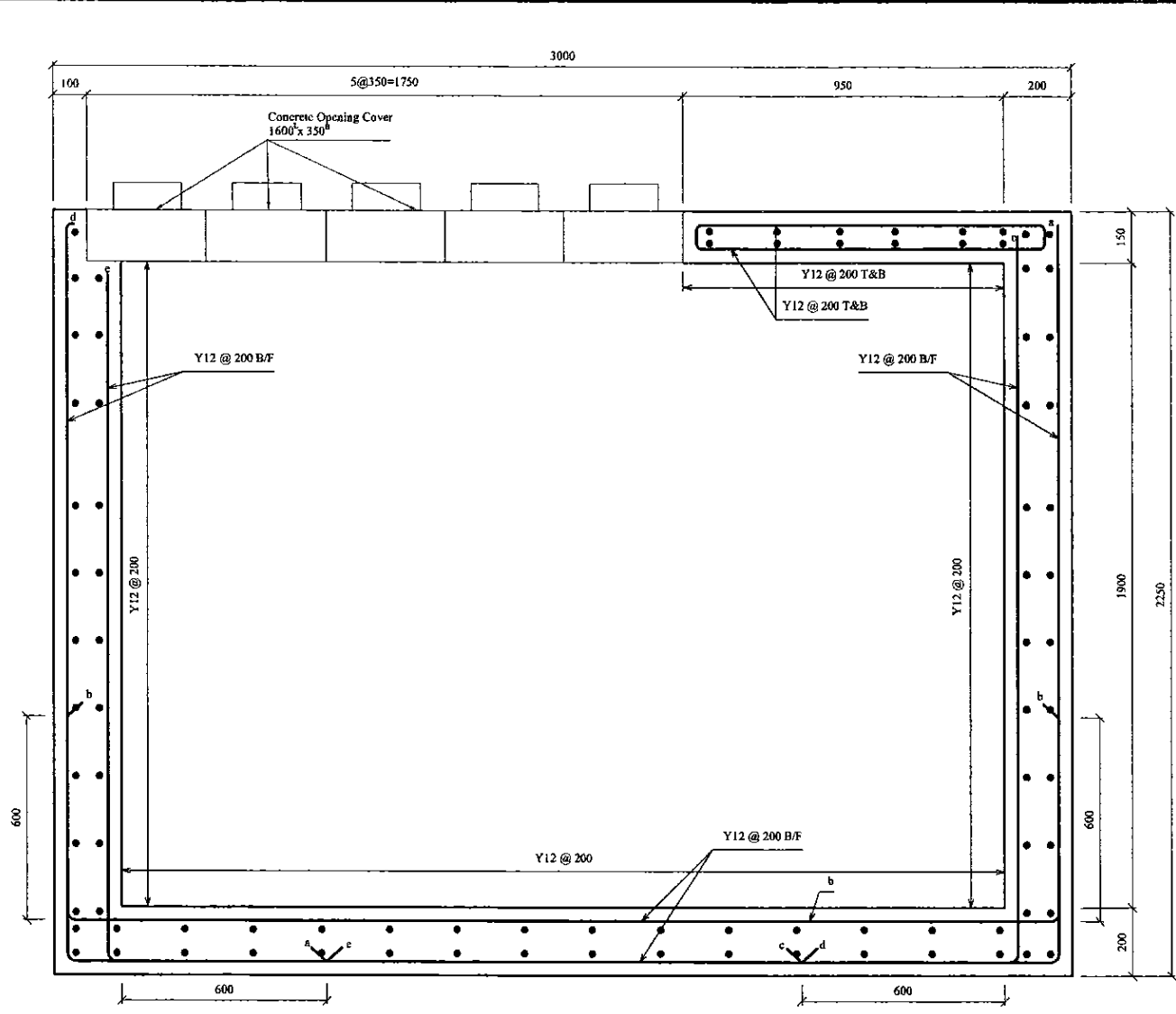


<b>PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE: GOHAGODA (WEGIRIYA) SERVICE RESERVOIR SITE PLAN</b>								
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> Udita	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1:100
								<b>CHECKED:</b> DESIGN CHIEF	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-S-11-01

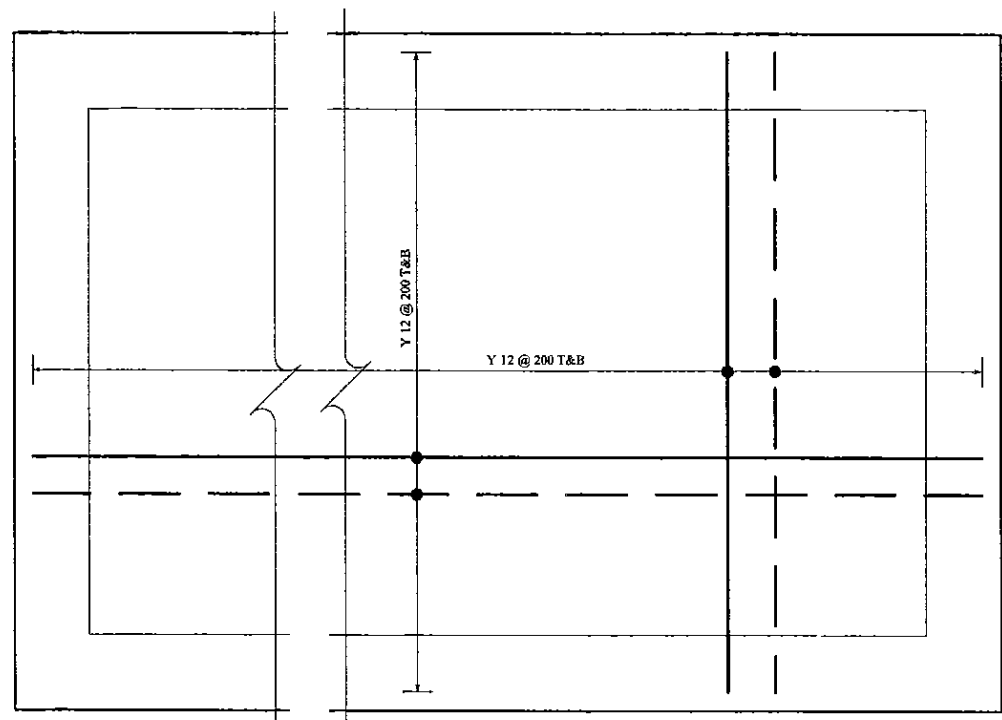
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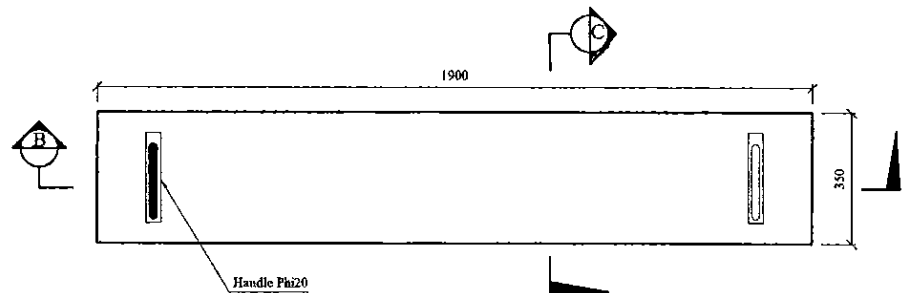
TOP SLAB PLAN



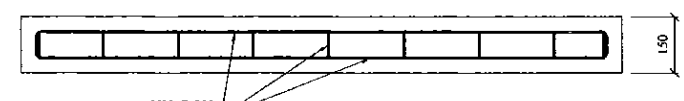
SECTION A



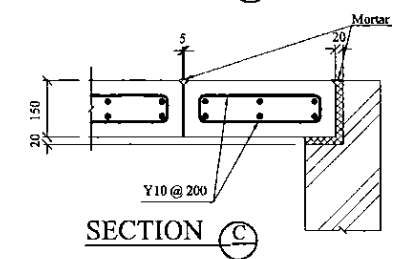
BASE SLAB PLAN



CONCRETE OPENING COVER PLAN



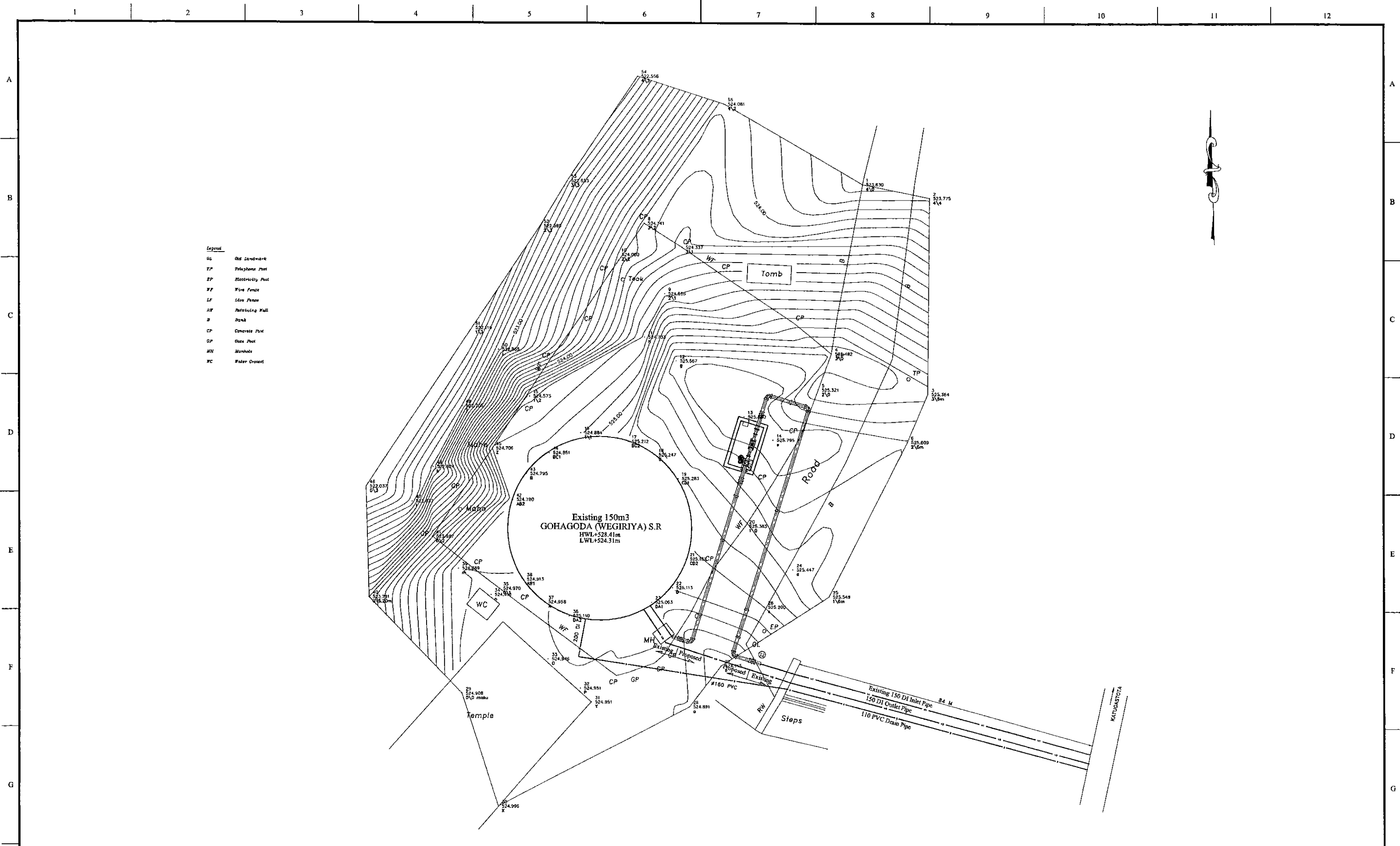
SECTION B



SECTION C

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: GOHAGODA SERVICE RESERVIOR (WEGIRIYA) - R/F DETAIL OF INLET FLOW METER CHAMBER									
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:10	
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								DESIGN CHIEF					

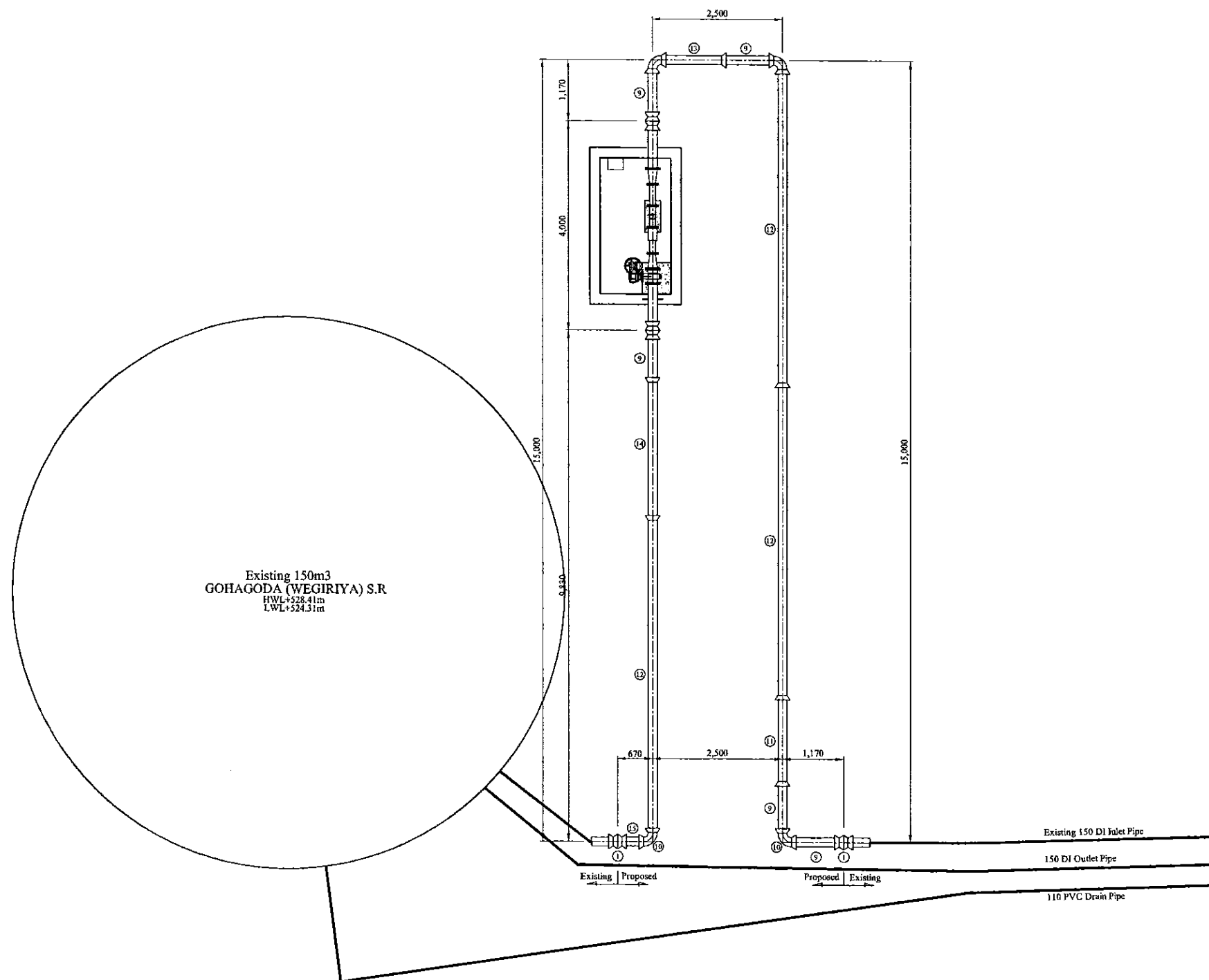
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PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF EXISTING 150m <sup>3</sup> GOHAGODA (WEGIRIYA) S.R								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-11-01
								DESIGN CHIEF				

Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Collar	DI	150		Type-K	4
2	Flanged Spigot with Puddle	DI	150	L=900mm	PN10, Type-T	1
3	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
4	Double Flanged 150 x 100 Taper	DI	150x100	L=300mm	PN10	2
5	Flange Adapter (DF)	DI	100	L=500mm	PN10	1
6	Flow Meter		100	L=410mm	PN10	1
7	Double Flanged Piece	DI	100	L=400mm	PN10	1
8	Flanged Spigot	DI	150	L=900mm	PN10, Type-T	1
9	Plain Ends Piece	DI	150	L=1,000mm	Type-T	5
10	Double Socket 90 degree Bend	DI	150	L=170mm x 2	Type-T	4
11	Socket - Plain End Piece	DI	150	L=1,650mm	Type-T	1
12	Straight Pipe	DI	150	L=6,000mm	Type-T	3
13	Socket - Plain End Piece	DI	150	L=1,160mm	Type-T	1
14	Socket - Plain End Piece	DI	150	L=2,650mm	Type-T	1
15	Plain Ends Piece	DI	150	L=500mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.



Existing 150m3  
GOHAGODA (WEGIRIYA) S.R.  
HWL+528.41m  
LWL+524.31m

PROJECT: GREATER KANDY WATER SUPPLY  
AUGMENTATION PROJECT



JAPAN INTERNATIONAL  
COOPERATION AGENCY

TITLE:

INLET PIPE ARRANGEMENT OF EXISTING GOHAGODA (WEGIRIYA) RESERVOIR

CLIENT:



NATIONAL WATER SUPPLY  
& DRAINAGE BOARD

CONSULTANTS:

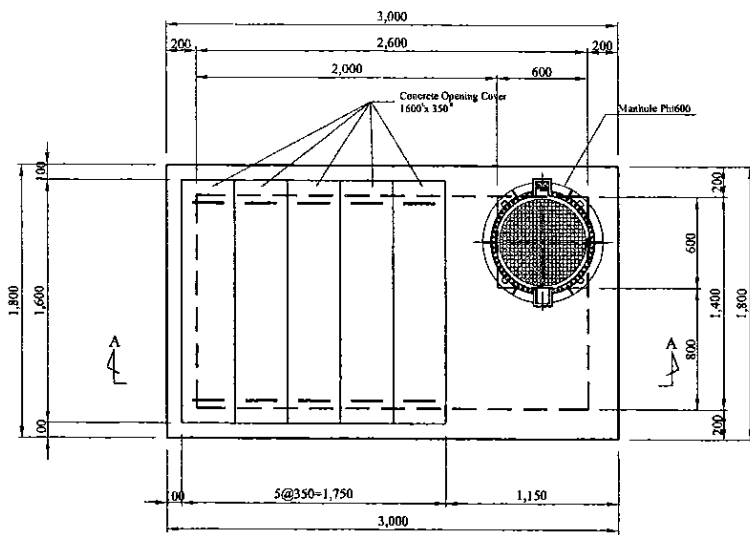


NJS CONSULTANTS CO., LTD. - JAPAN

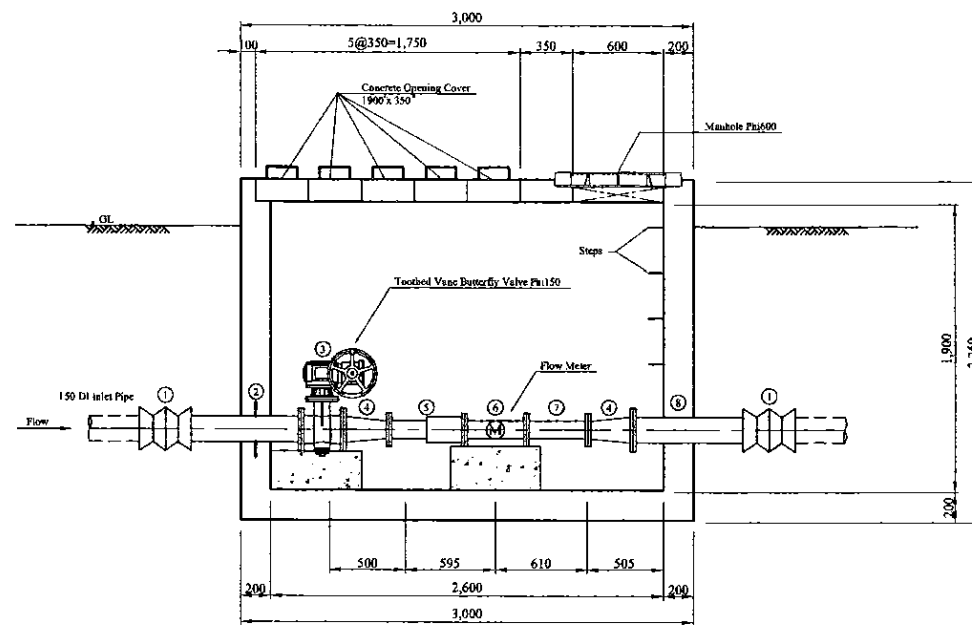


NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
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				DESIGN CHIEF			31/05/2002	31-C-11-02

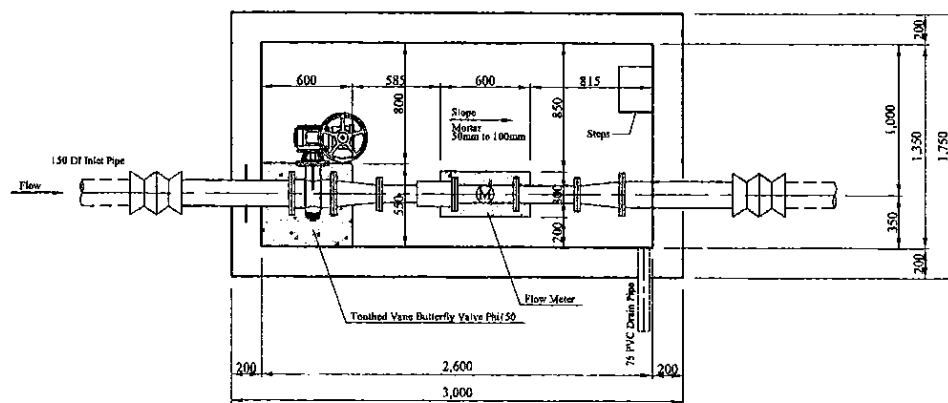


Top Plan

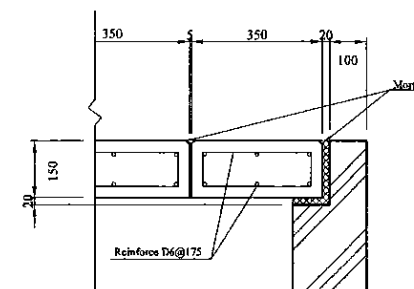
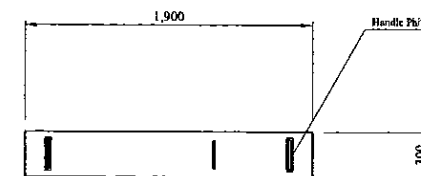


Section A-A

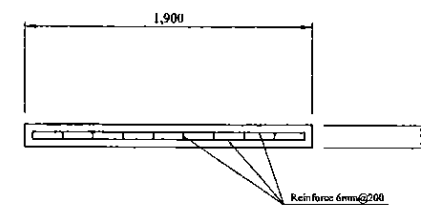
Concrete Opening Cover



Plan

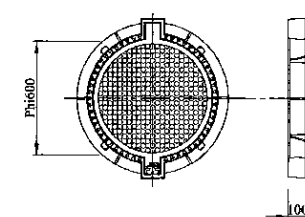
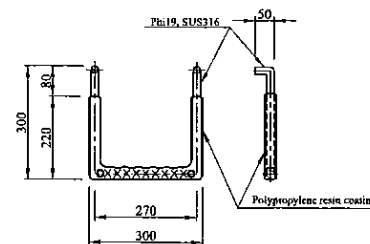


S=1/10 on A3



Step (W=300mm, Polypropylene resin coating)  
Scale=1:5

Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10



Inlet Flow Meter & Control Valve Chamber

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

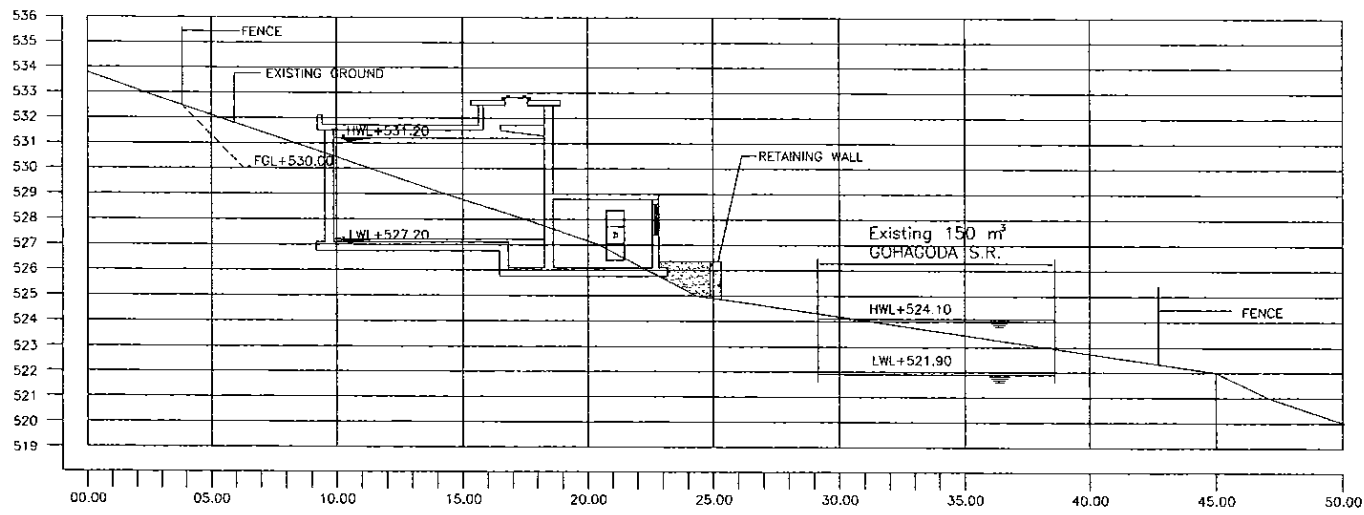
TITLE: INLET FLOW METER & CONTROL VALVE CHAMBER OF GOHAGODA (WEGIRIYA) S.R

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

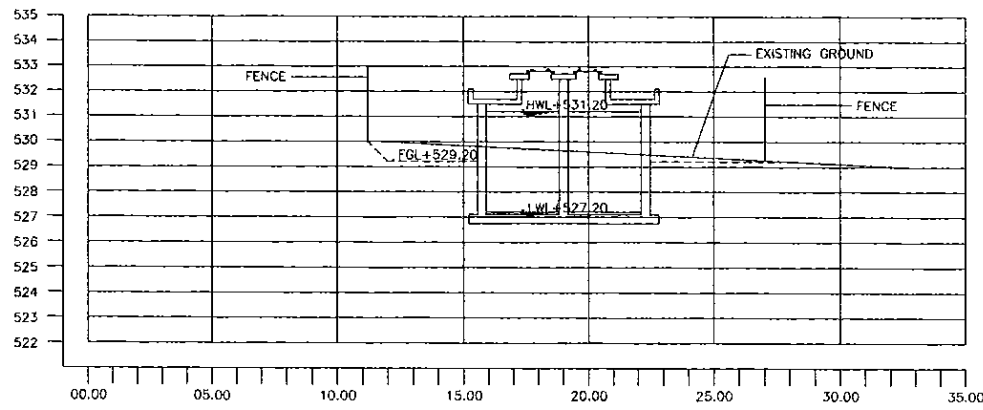


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

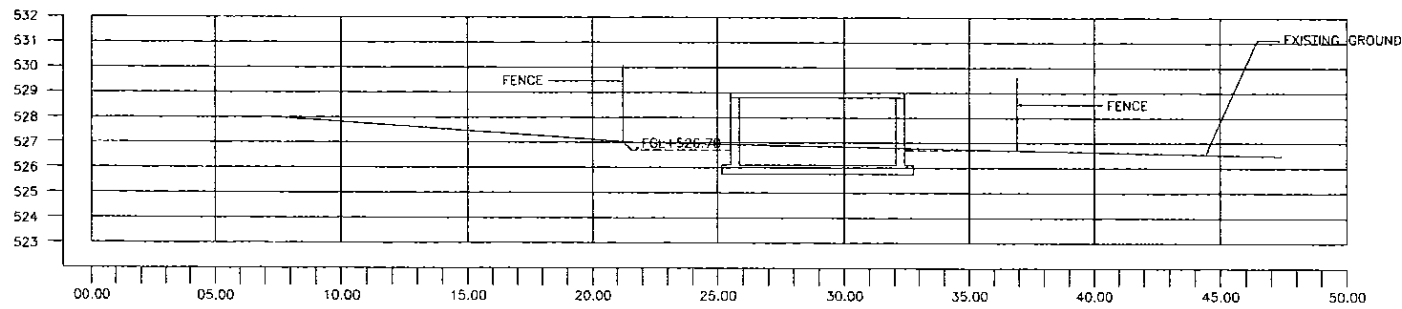
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:25
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				DESIGN CHIEF			31/05/2002	31-C-11-03



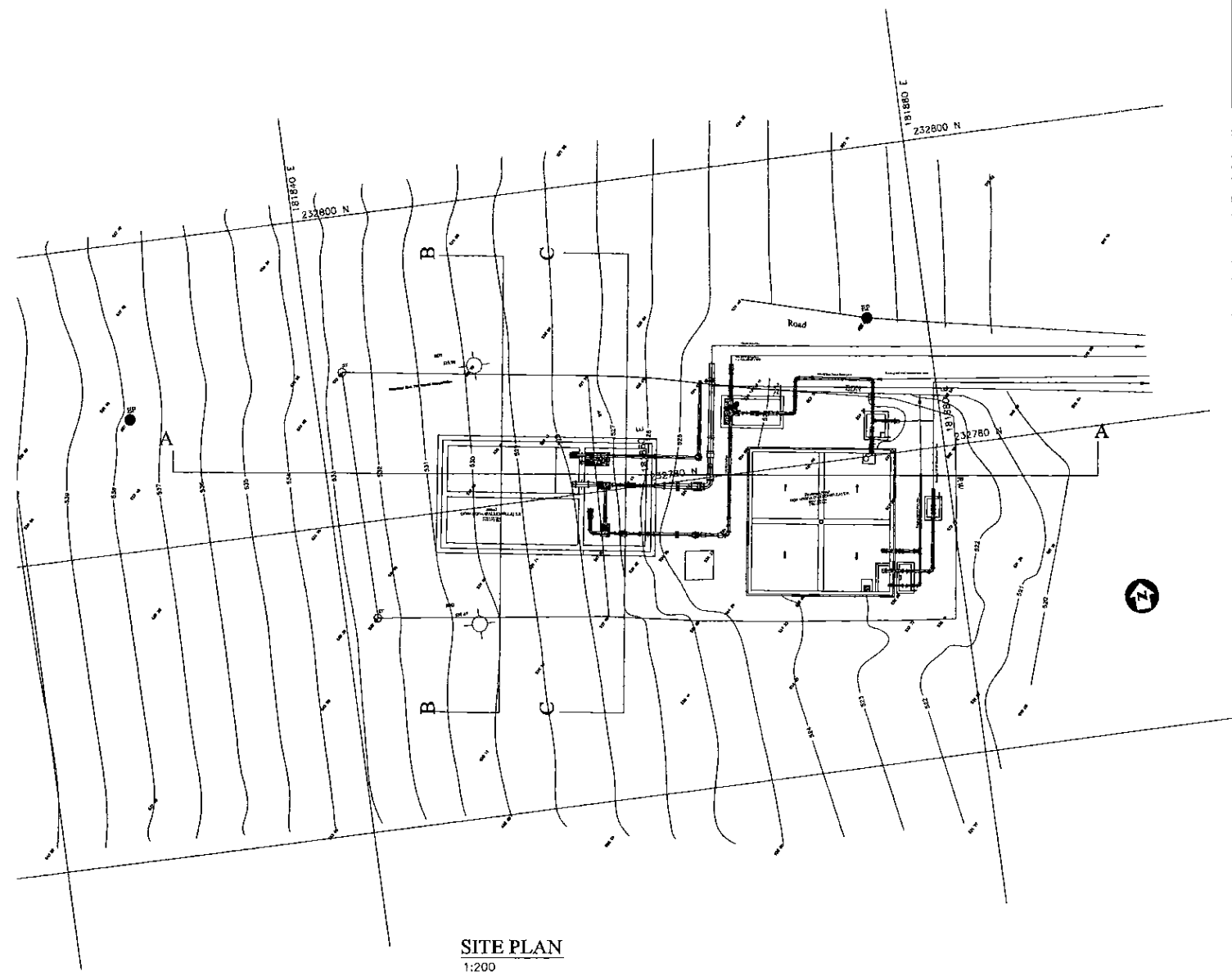
**SECTION A - A**  
1:150



**SECTION B - B**  
1:150



**SECTION C - C**  
1:150



**SITE PLAN**  
1:200


- Reference:
- WF Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - 1m Contour
  - TP Telephone Post
  - EP Electrical Post
  - SI Stake
  - SH Stake
- DATUM - National Geodetic Datum S.L.D.99



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **SITE PLAN AND LSS OF EXISTING 150m<sup>3</sup> AND NEW 200m<sup>3</sup> GOHAGODA SERVICE RESERVOIR**

CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

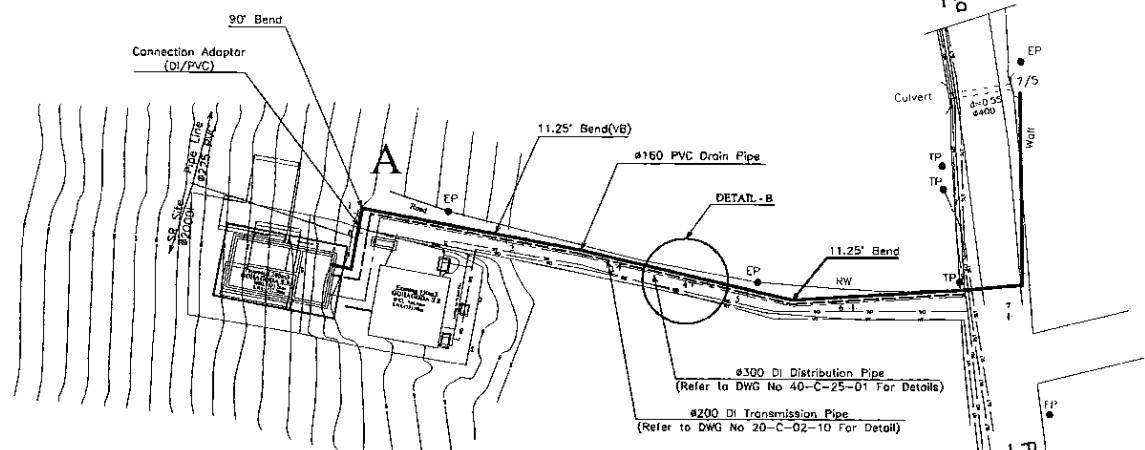
CONSULTANTS:  **NJS CONSULTANTS CO., LTD. - JAPAN**  
 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150 1:200
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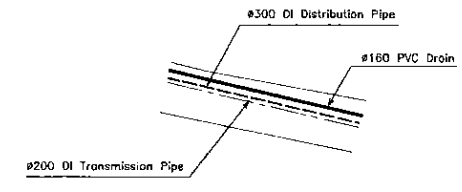


**Legend**

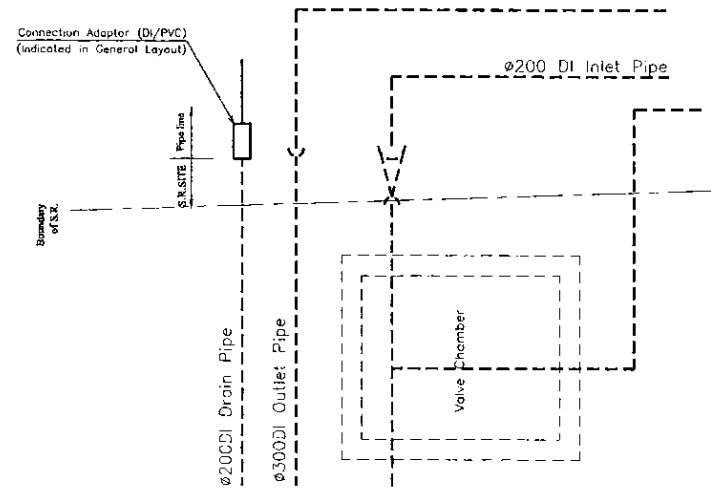
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WG	Wash Out
AV/A	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Line Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
KW	Retaining Wall
Mdn	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dn	Pipe Diameter
SV	Shut-off Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant



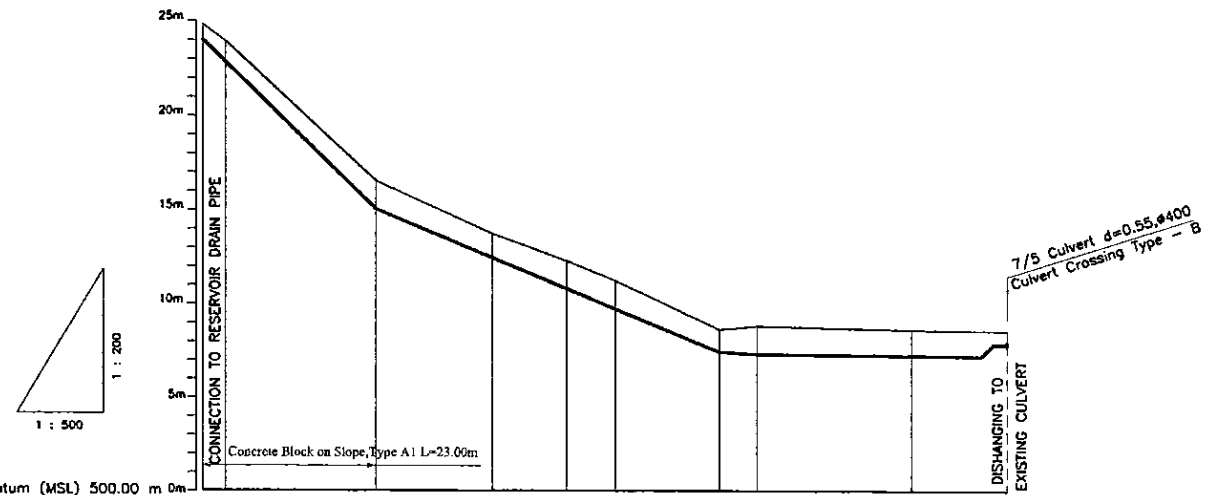
GENERAL LAYOUT



DETAIL - B



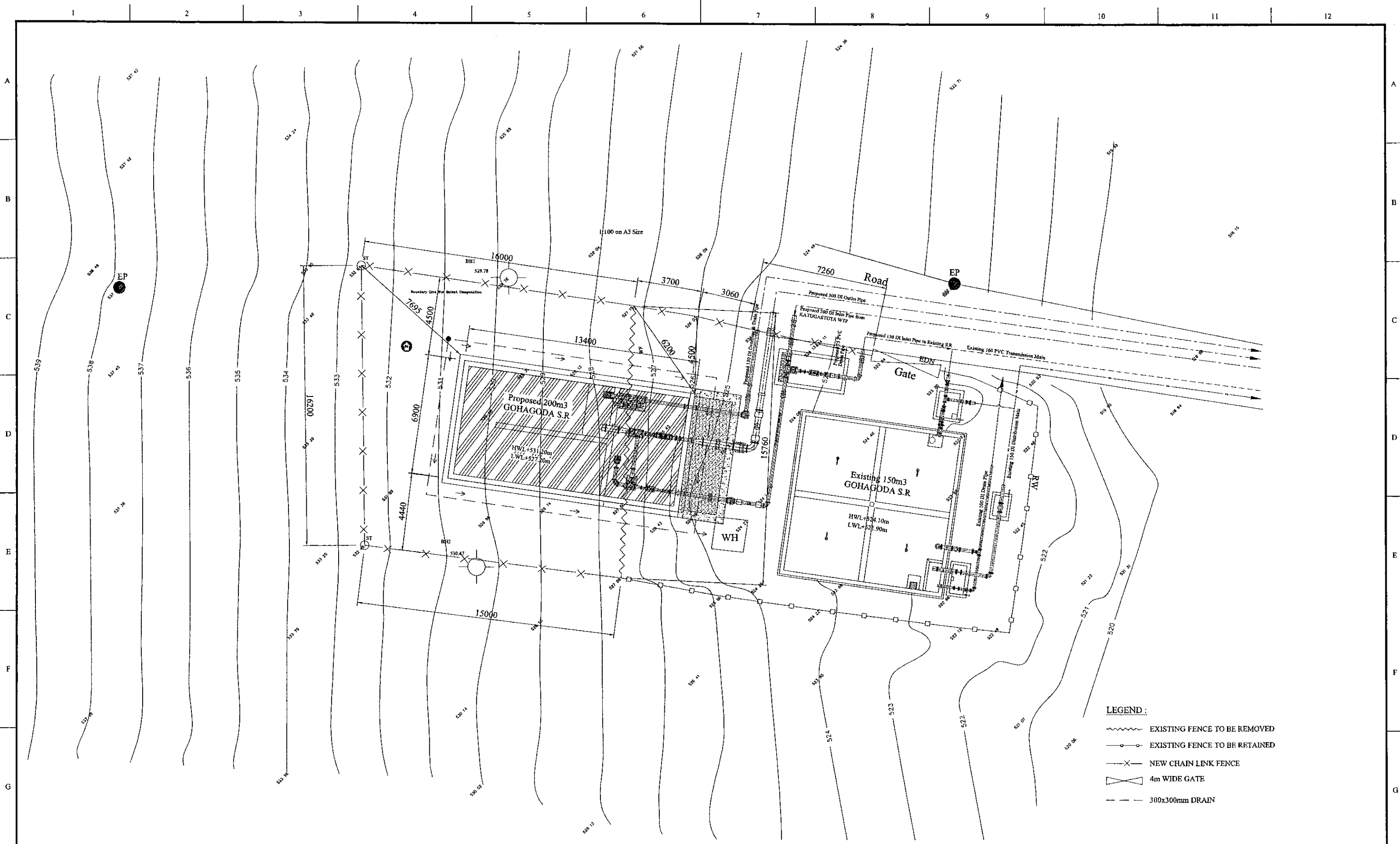
PIPE CONNECTION DETAIL - A



Datum (MSL) 500.00 m 0m	
Ground Level (m)	524.30, 523.92, 518.54, 513.73, 512.30, 511.25, 508.64, 508.80, 508.61, 508.54
Pipe Invert Level <small>[Pipe thickness to be Assume negligible]</small>	524.00, 515.32, 507.42, 507.30, 507.24, 507.59
Pipe Data	160 PVC RUBBER RING JOINT
Single Distance (m)	0.00, 3.00, 20.00, 15.48, 9.79, 7.33, 14.17, 5.00, 20.62, 12.80
Cumulative Distance (m)	0.00, 3.00, 23.00, 38.48, 48.26, 55.59, 69.76, 74.76, 95.38, 108.18
Station No.	0, 1, 2, 3, 4, 5, 6, 7, 8, 9

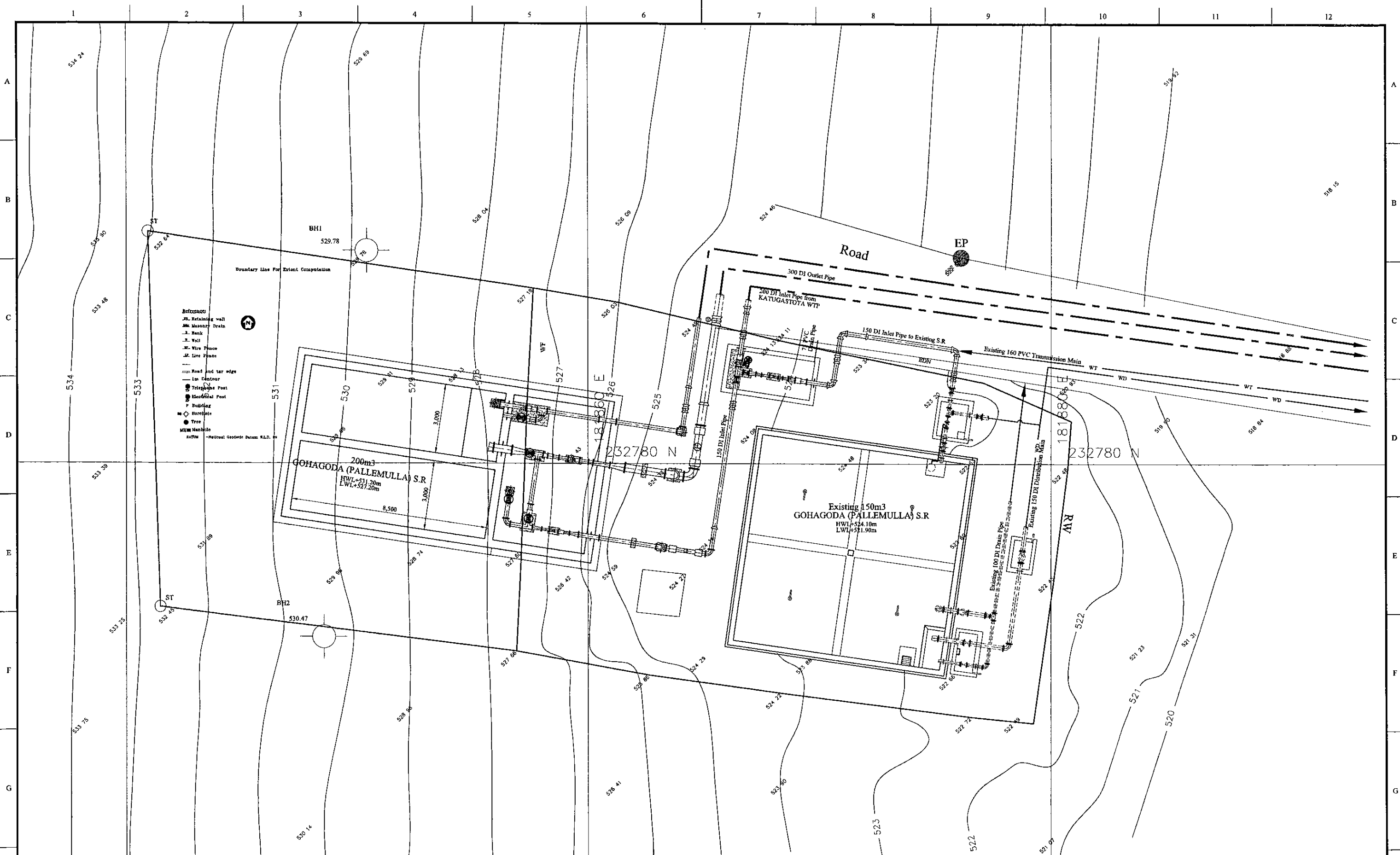
LONGITUDINAL SECTION

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>WASHOUT FROM GOHAGODA S.R.</b>				SHEET 1 OF 1				
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Lakmal</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>HORIZONTAL - 1:500</b> <b>VERTICAL - 1:200</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-13-02</b>



<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	 <b>JAPAN INTERNATIONAL          COOPERATION AGENCY</b>	<b>TITLE:</b> 200m3 GOHAGODA S.R. LANDSCAPING LAYOUT								
<b>CLIENT:</b>  <b>NATIONAL WATER SUPPLY          &amp; DRAINAGE BOARD</b>	<b>CONSULTANTS :</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> POORNA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1:100
						<b>CHECKED:</b>	AGM: (P&D)	DGM: (P&D)	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-C-13-03





- Reference**
- 1. Retaining wall
  - 2. Masonry Drain
  - 3. Bank
  - 4. Wall
  - 5. Wire Fence
  - 6. Live Fence
  - 7. Road and tar edge
  - 8. Line Contour
  - 9. Telephone Post
  - 10. Electrical Post
  - 11. Building
  - 12. Storehouse
  - 13. Tree
  - 14. Manhole
  - 15. Natural Gradient Datum R.L.D. on

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

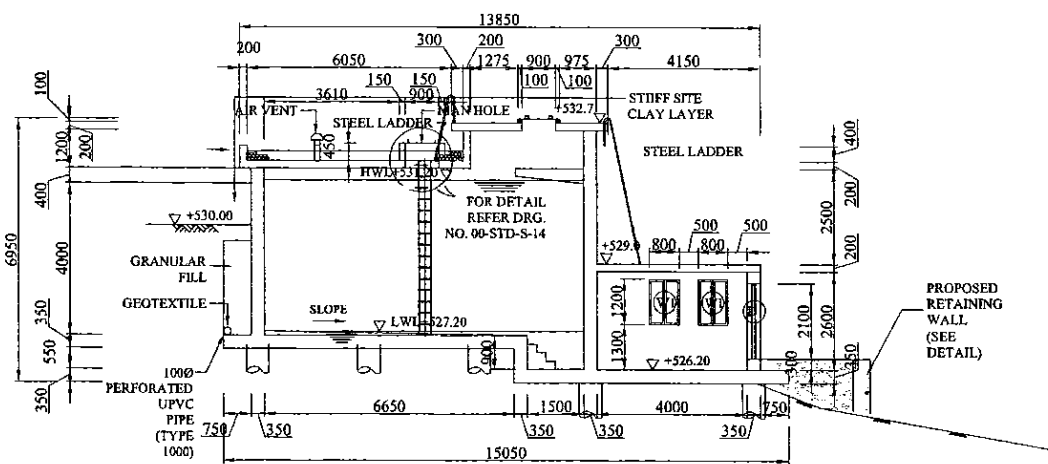
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **GOHAGODA (PALLEMULLA) SERVICE RESERVOIR SITE PLAN**

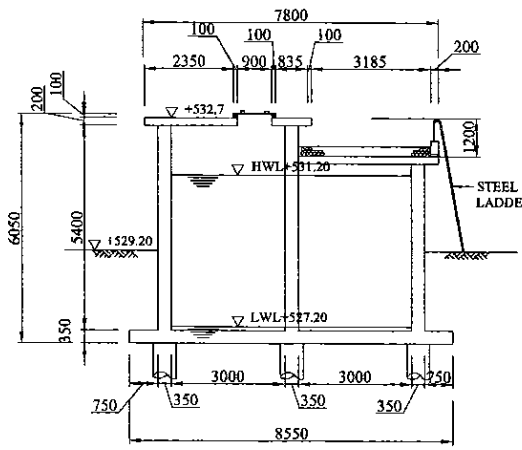
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

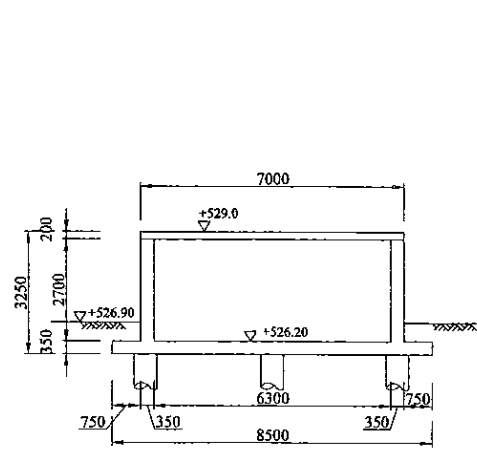
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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				DESIGN CHIEF			31/05/2002	30-S-13-01



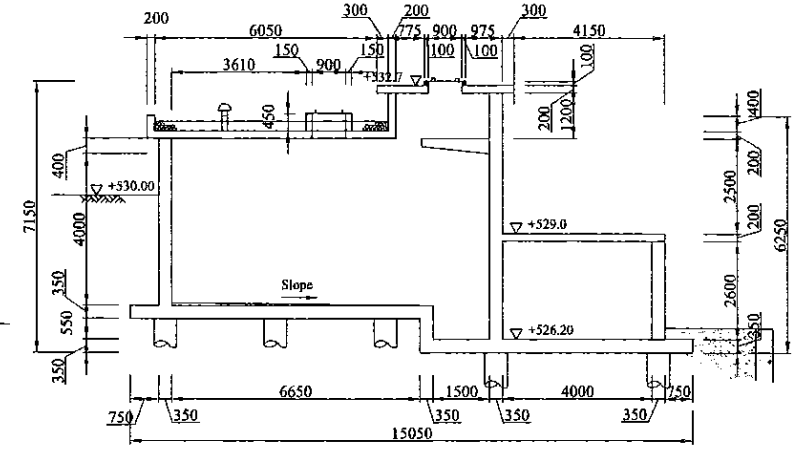
SECTION A  
SCALE 1:100



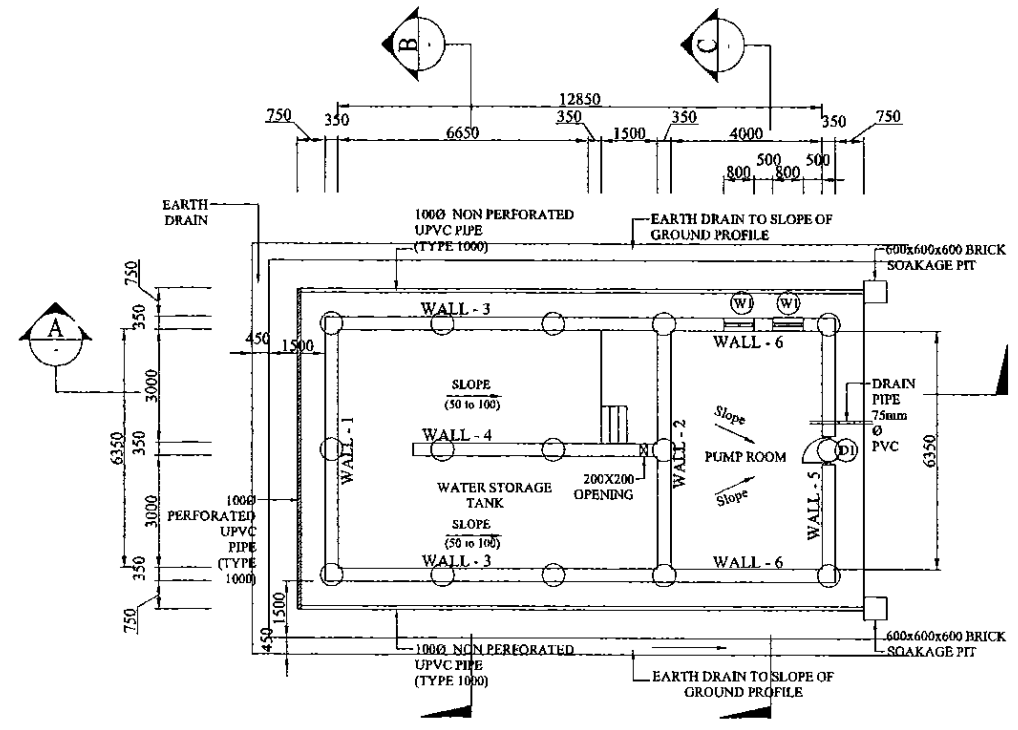
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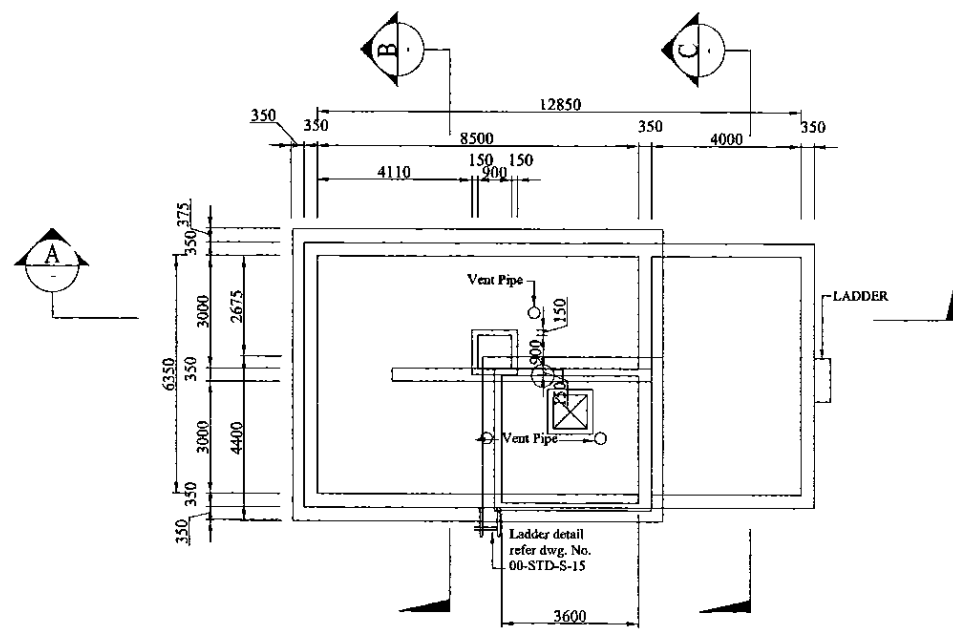
SECTION C  
SCALE 1:100



ELEVATION OF WALL - 3 & WALL - 6  
SCALE 1:100



BOTTOM PLAN  
SCALE 1:100



TOP SLAB  
SCALE 1:100

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



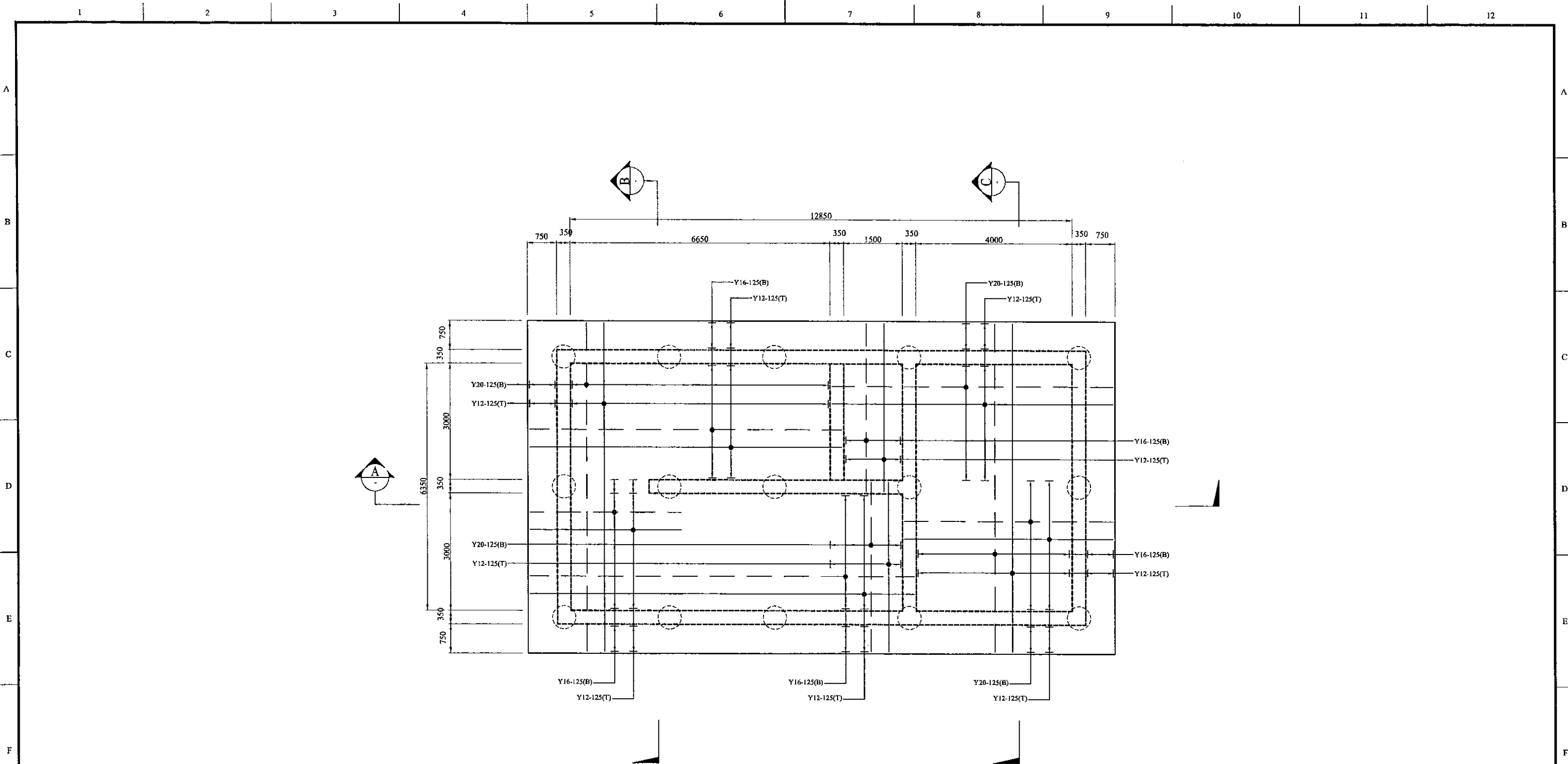
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULA NEW) - GENERAL ARRANGEMENT

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-13-02



R/F DETAILS OF BOTTOM SLAB  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT





JAPAN INTERNATIONAL COOPERATION AGENCY

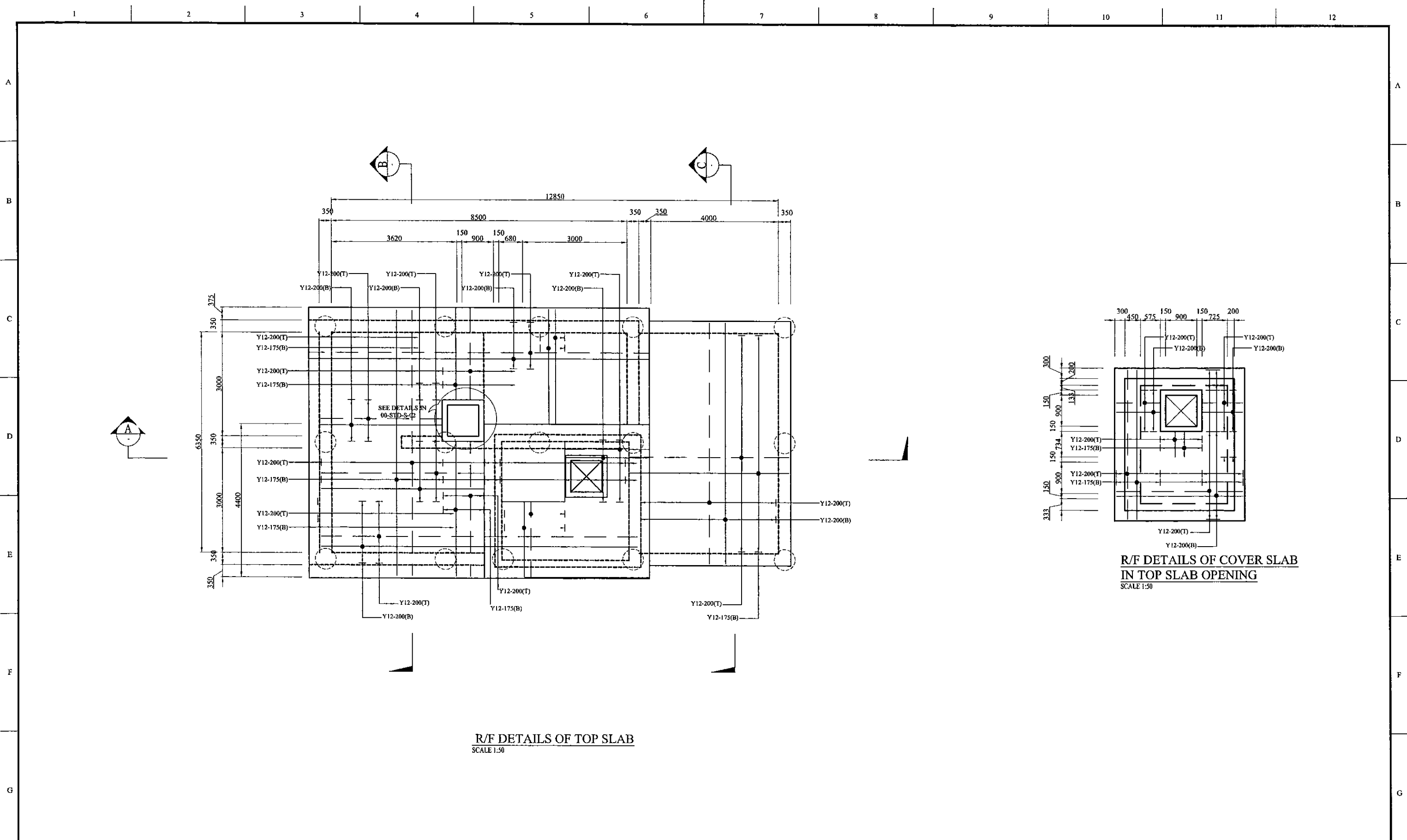
TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULLA NEW) - BOTTOM SLAB

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
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R/F DETAILS OF TOP SLAB  
SCALE 1:50

R/F DETAILS OF COVER SLAB  
IN TOP SLAB OPENING  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT





JAPAN INTERNATIONAL COOPERATION AGENCY

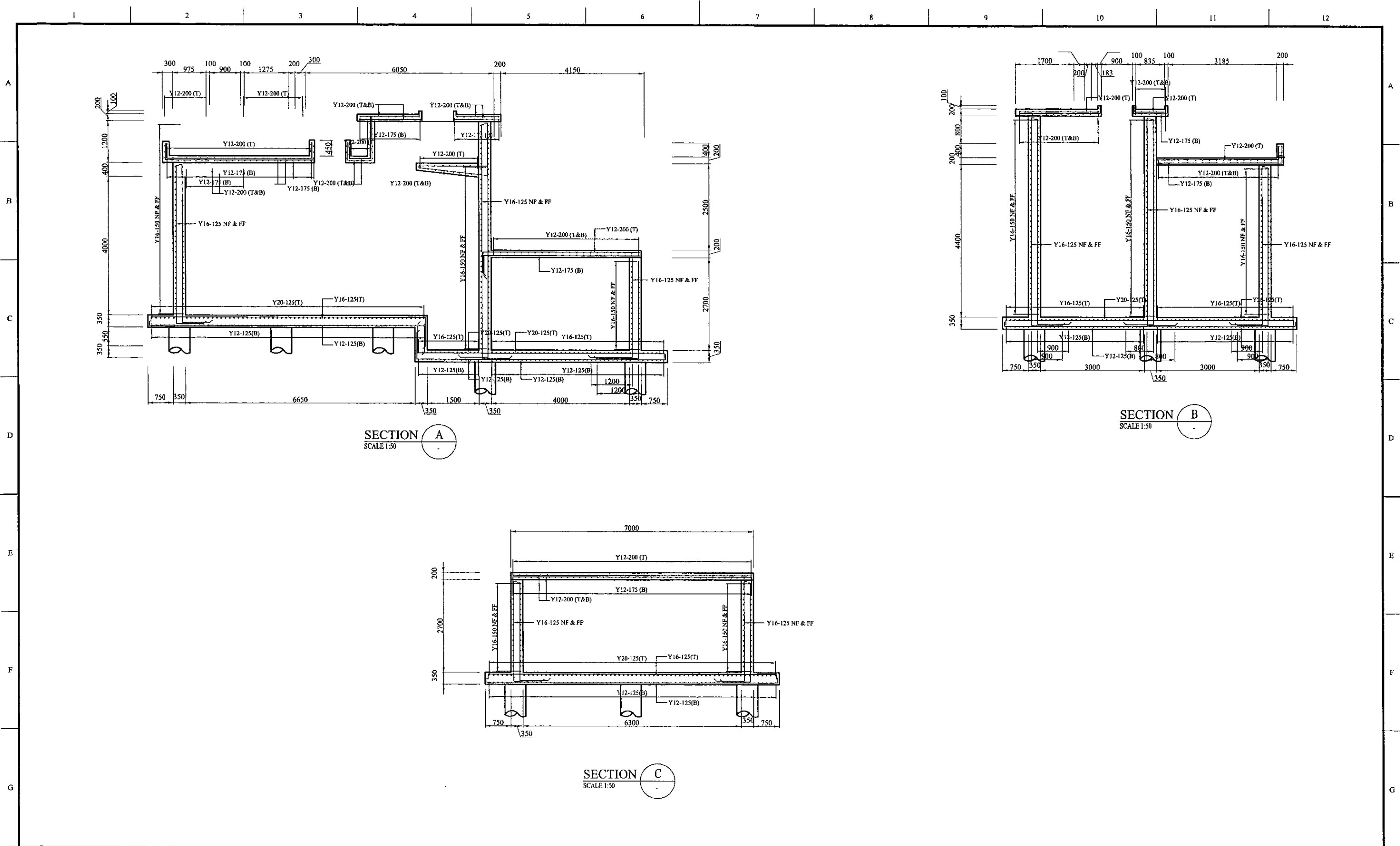
TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULLA NEW) - TOP SLAB

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
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							31/05/2002	30-S-13-04



SECTION A  
SCALE 1:50

SECTION B  
SCALE 1:50

SECTION C  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

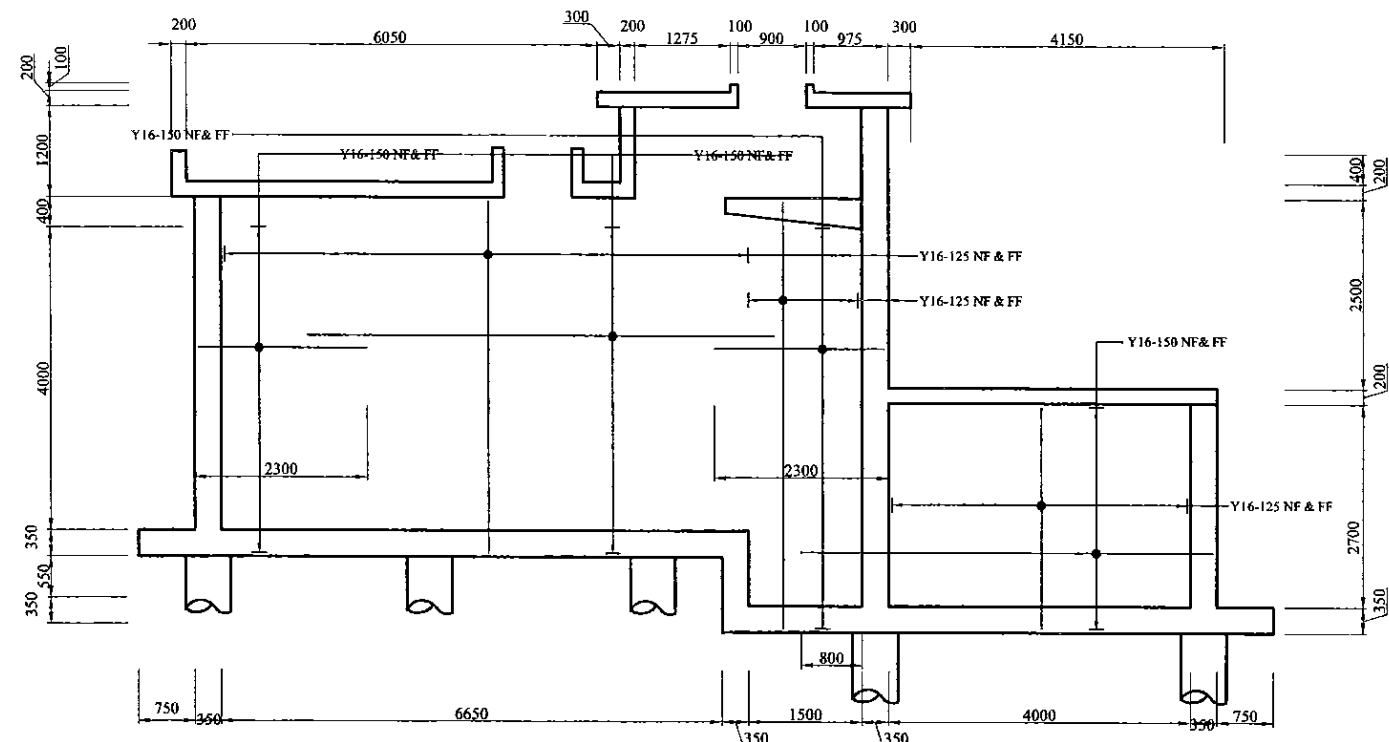
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULLA NEW) - SECTION

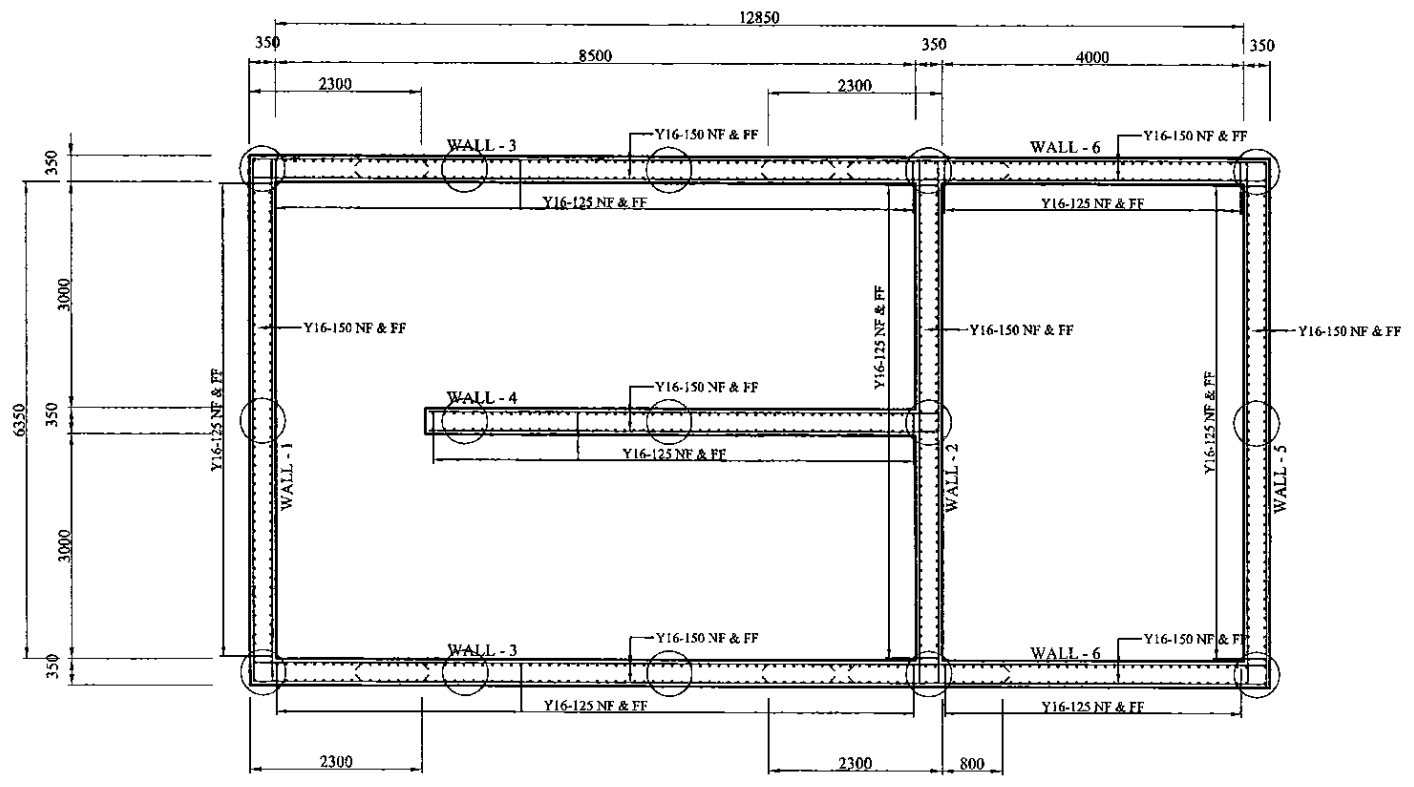
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-13-05



ELEVATION OF WALL - 3 & WALL - 6  
SCALE 1:50



CROSS SECTION  
SCALE 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

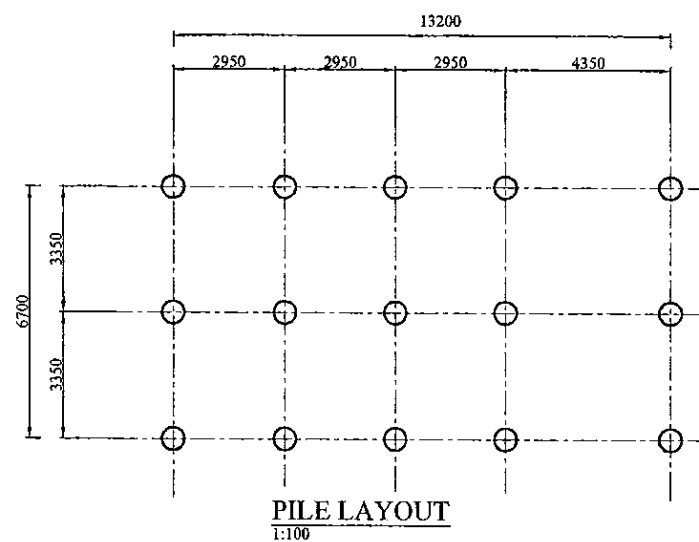
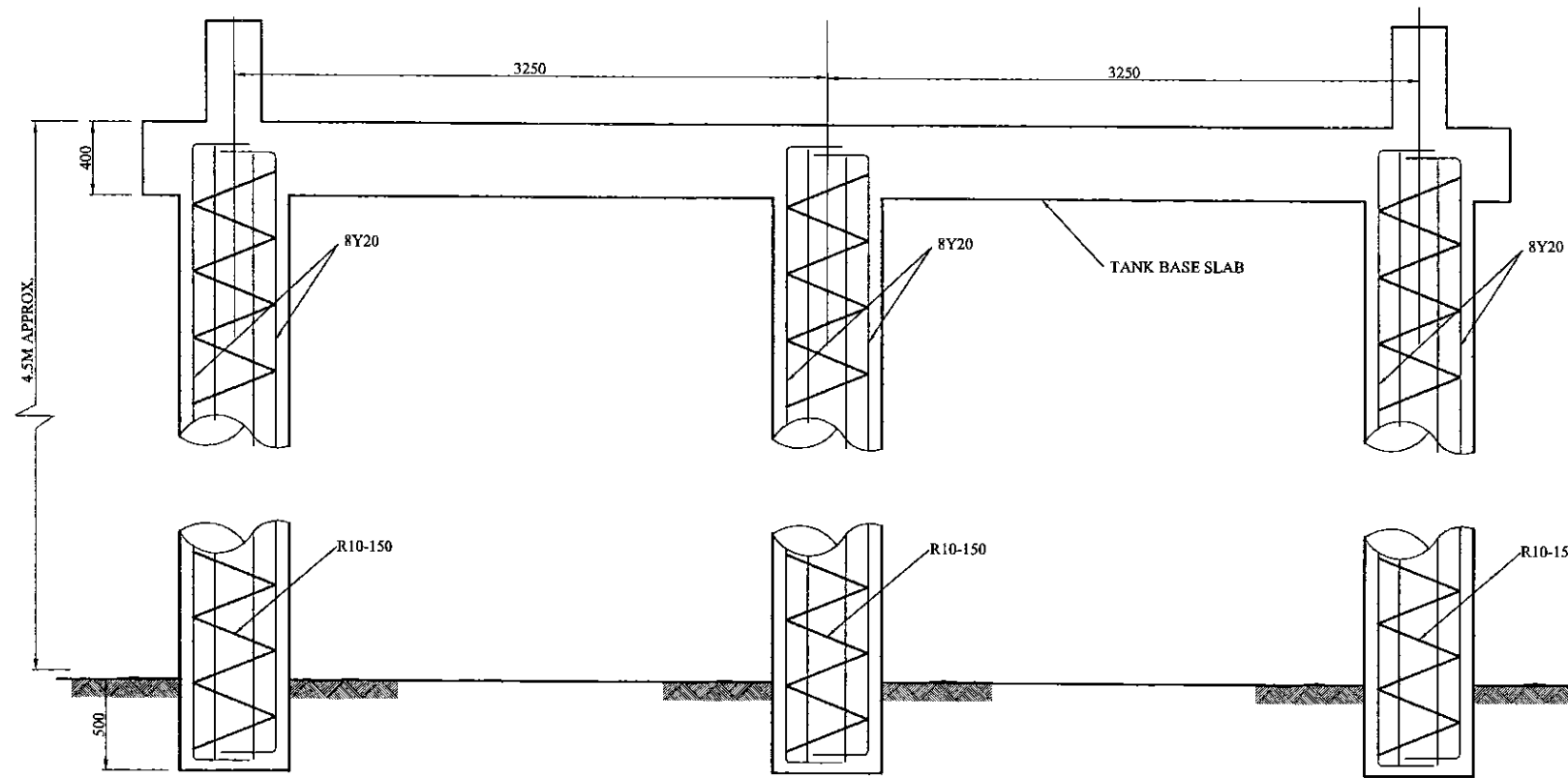
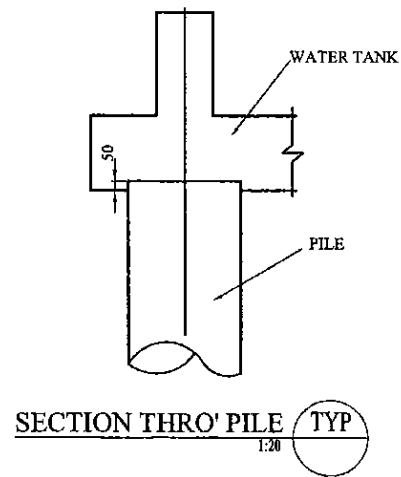
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULLA NEW) - SECTION & ELEVATION

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-13-06



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

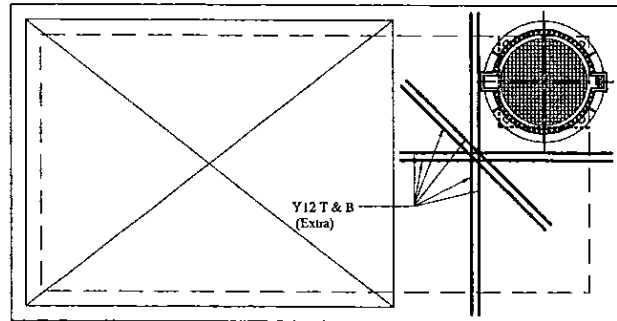
TITLE: GOHAGODA SERVICE RESERVOIR (PALLEMULLA NEW) - PILING LATOUT & DETAIL

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

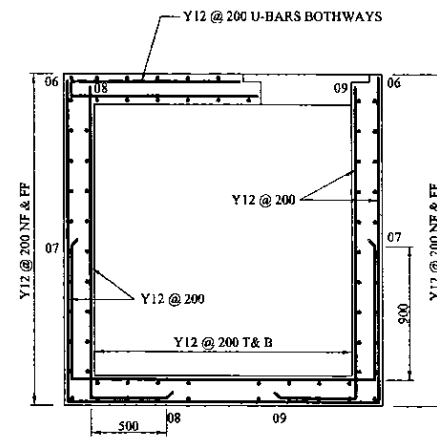


CONSULTANTS:  
NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SUDATH	Ikuo MIWA		1 : 100, 1 : 20
				CHECKED: R.W.	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-13-07



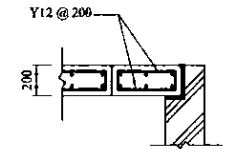
TOP SLAB PLAN



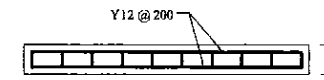
SECTION B



PLAN

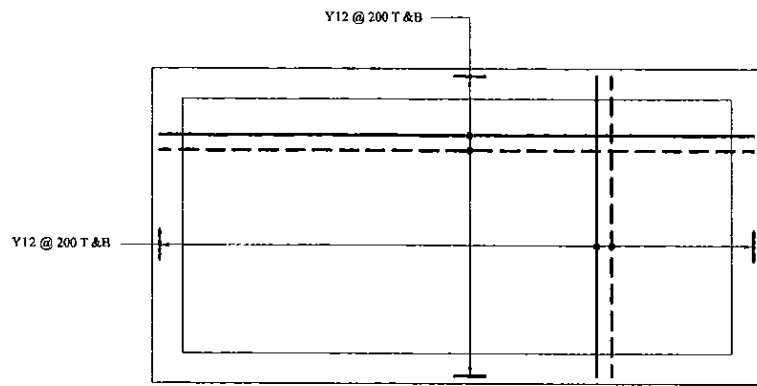


SECTION

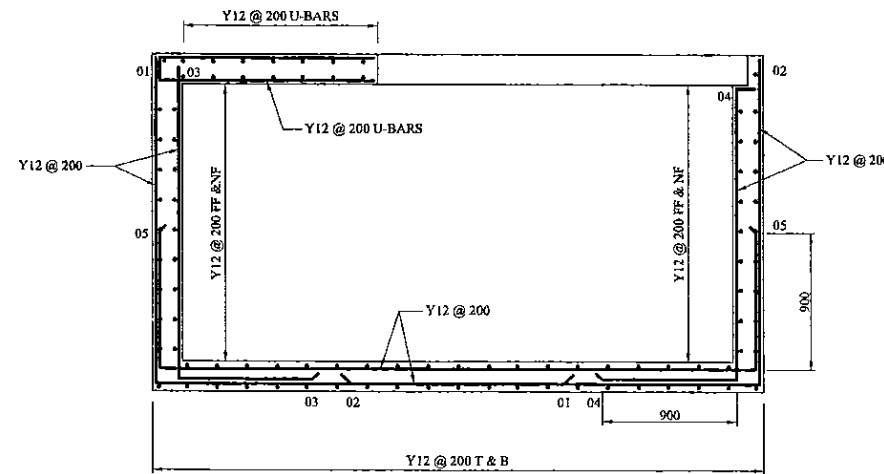


LONGITUDINAL SECTION

CONCRETE OPENING COVER



BASE SLAB PLAN



SECTION A

DESIGN CODE OF PRACTICE:

- A) BS 8110 - Design of RC Concrete Structures
- B) BS 8007 - Water Retaining Concrete Elements
- C) BS 5950 & BS 6399 - Structural Steel Work Elements
- D) Imposed Load to BS6399
- E) Wind Load to CP3, Chapter V
- F) Bearings to BS 5400
- G) CP 2004 - Nominal Earth Load
- H) Grade of Concrete - 25
- J) Cover 50 mm.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: R/F DETAILS OF INLET VALVE CHAMBER - GOHAGODA S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

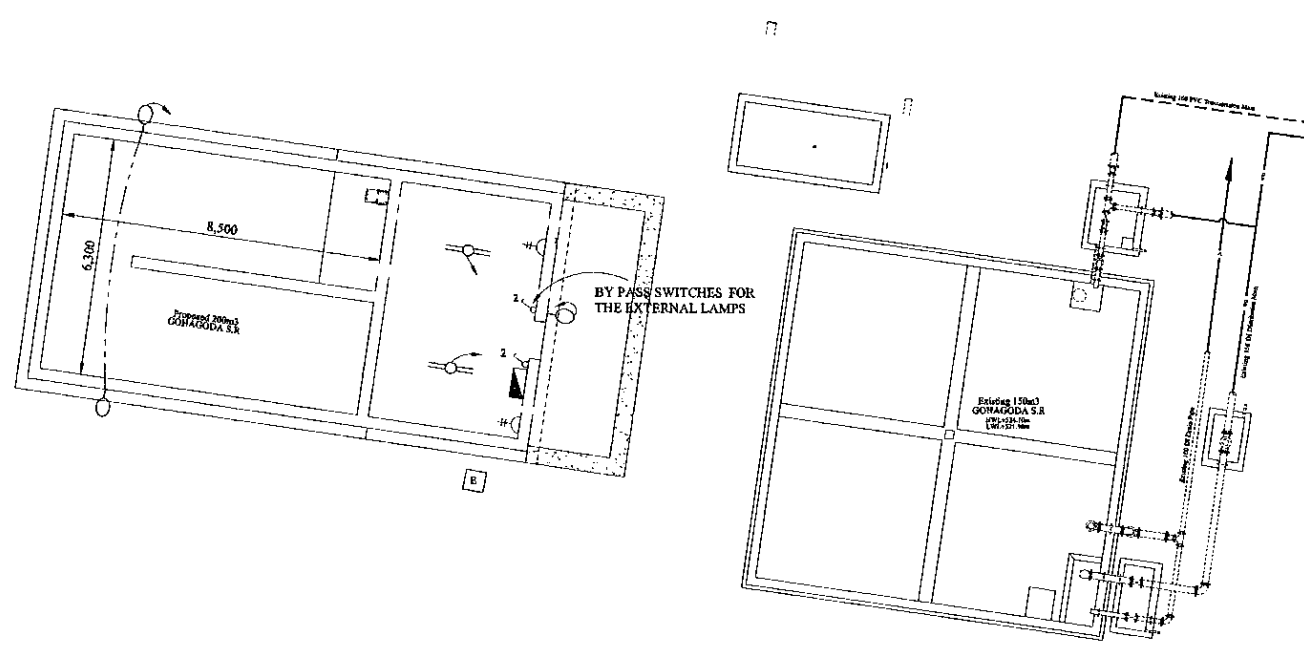


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. Jayawardane	Ravi U.	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-13-08

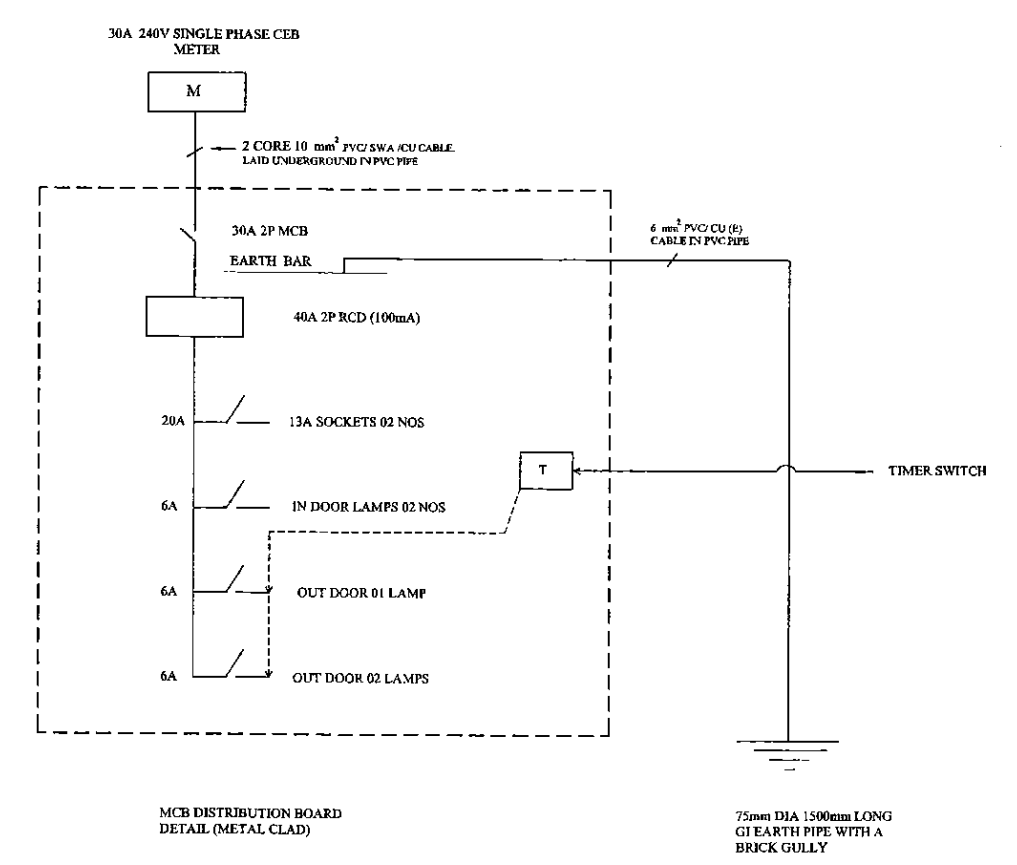




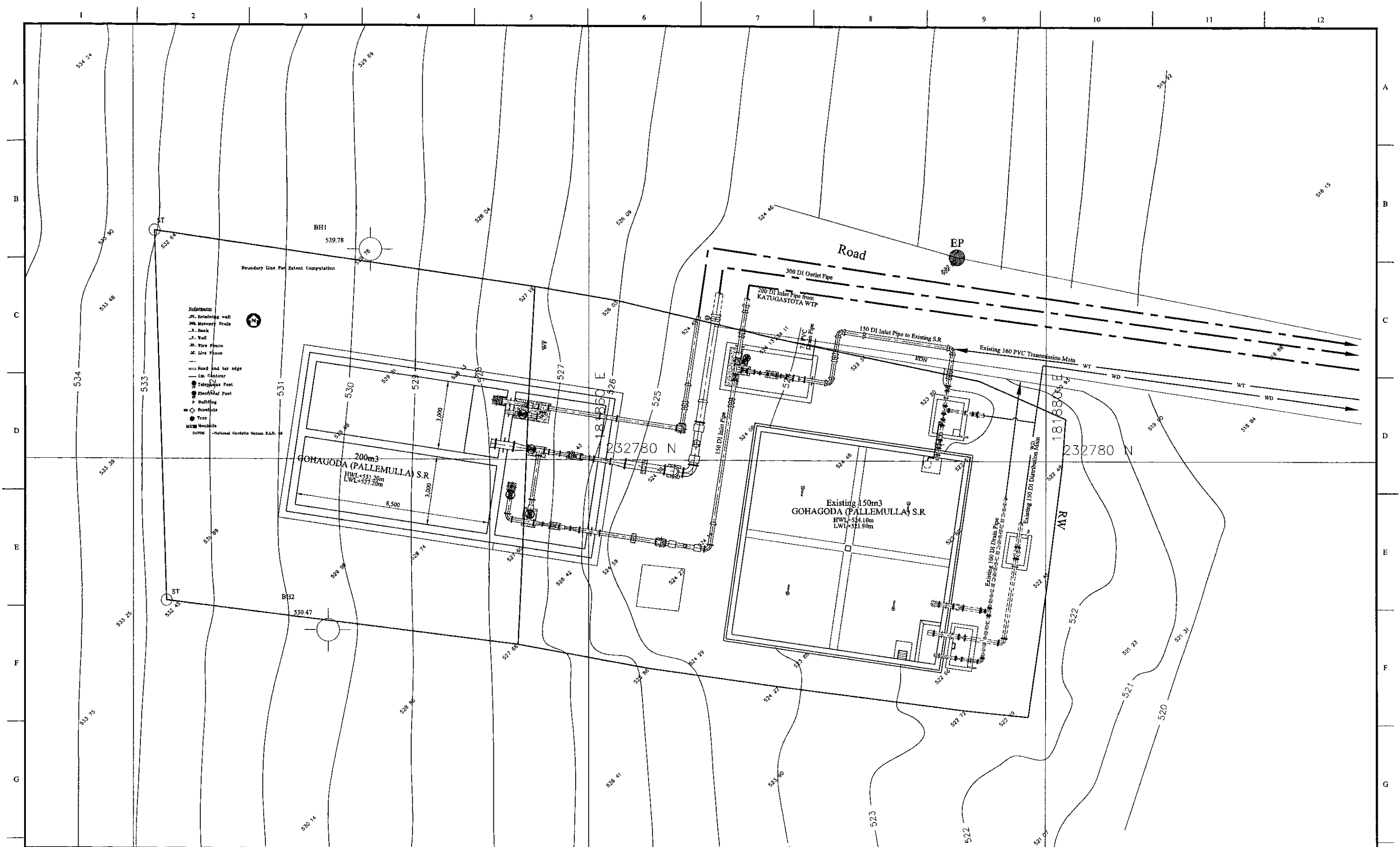
**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE. LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE. 13A SOCKETS CIRCUITS SHALL BE WIRED WITH 2.5 mm<sup>2</sup> PVC/CU CABLE.
- 2) OUT DOOR LAMPS ARE CONTROLLED BY A TIMER SWITCH.

- LEGEND (Electrical)**
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - 60W OUT DOOR WALL BRACKET LAMP FITTING
  - 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
  - METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
  - 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ONE WAY SWITCH (FFL + 1.5)
  - EARTH PIPE



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY			TITLE: (200m3) GOHAGODA SERVICE RESEVOIR-ELECTRICAL LAYOUT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN			REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: ATG	DRAWN:	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-13-21	



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

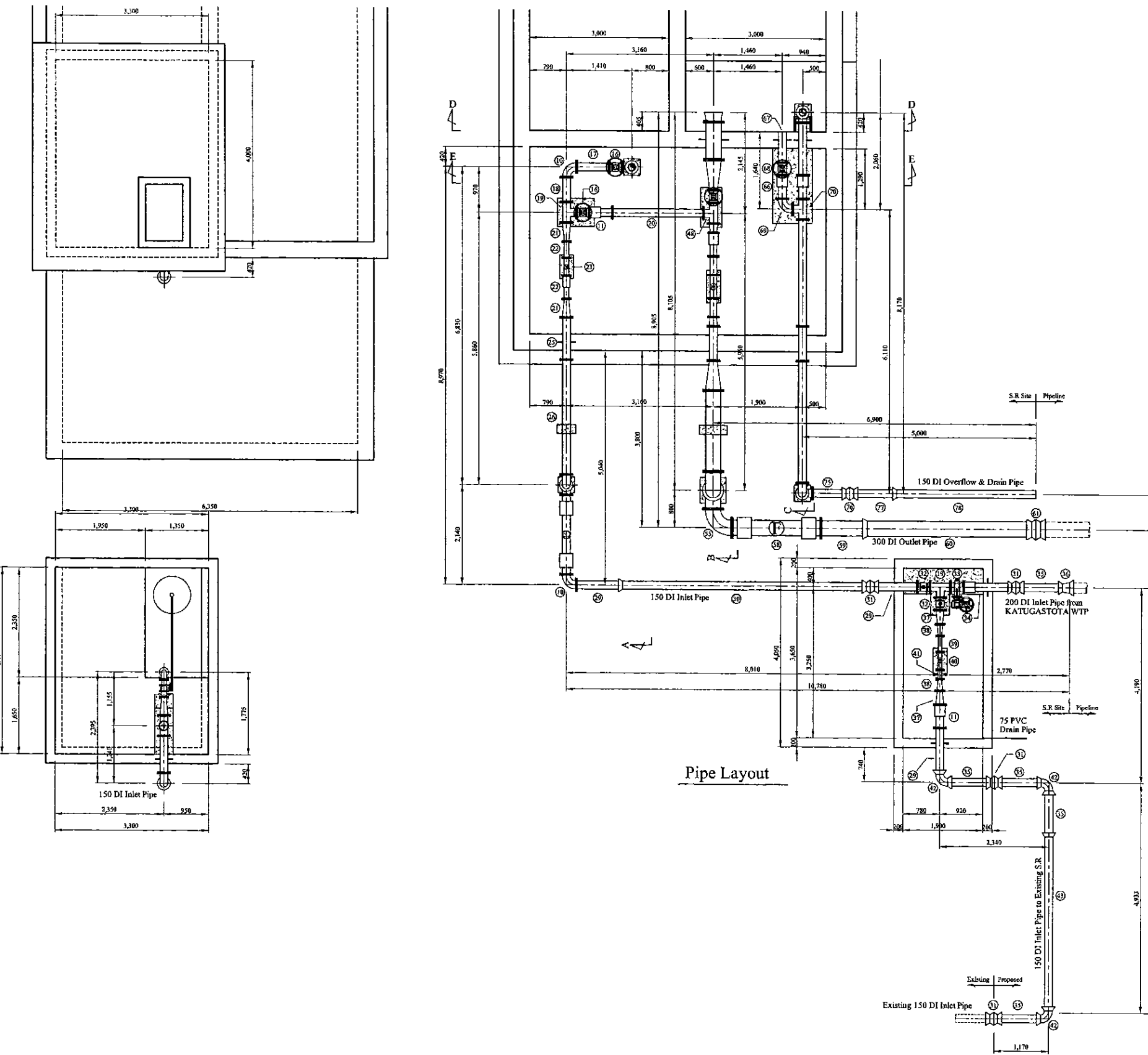
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **PIPE LAYOUT PLAN OF EXISTING 150m³ & NEW 200m³ GOHAGODA (PALLEMULLA) S.R**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

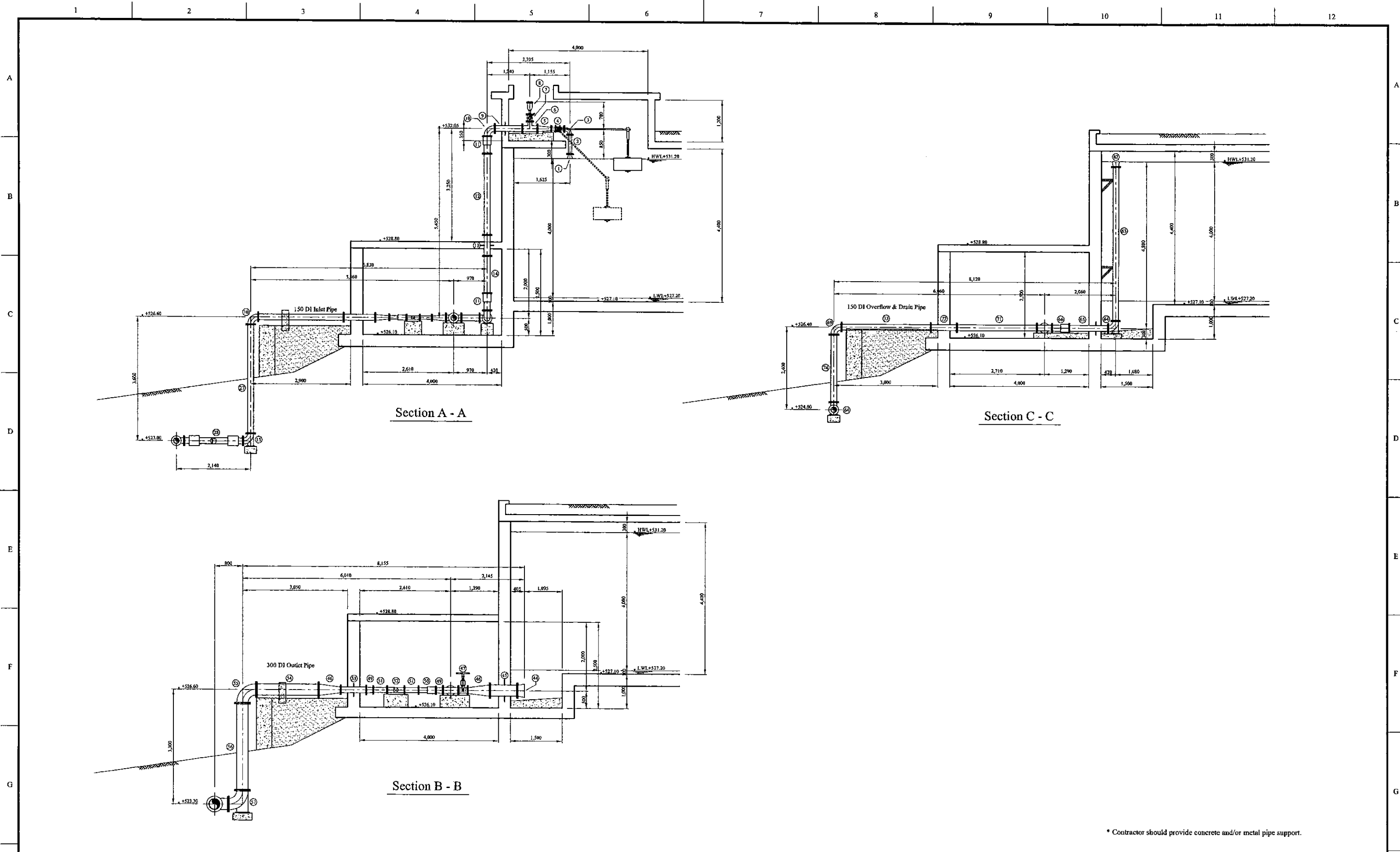
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:75
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-13-01



Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	80	L=130mm	PN10	1
2	Double Flanged Piece	DI	80	L=655mm	PN10	1
3	Double Flanged 90 degree Bend	DI	80	L=165mm x 2	PN10	1
4	Butterfly Float Valve	SUS	80	L=400mm	PN10	1
5	Double Flanged 150 x 80 Taper	DI	150x80	L=300mm	PN10	1
6	All Flanged 150 x 100 Tee	DI	150x100	L=440x210mm	PN10	1
7	Ball Valve	DI	150	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	150	L=370mm	PN10	1
9	Double Flanged Piece with Puddle	DI	150	L=800mm	PN10	1
10	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	5
11	Flange Adapter (DF)	DI	150	L=500mm	PN10	5
12	Double Flanged Piece	DI	150	L=2,330mm	PN10	1
13	Double Flanged Piece with Puddle	DI	150	L=600mm	PN10	3
14	Double Flanged Piece	DI	150	L=1,080mm	PN10	1
15	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	2
16	Sluice Valve	DI	150	L=270mm	PN10	2
17	Double Flanged Piece	DI	150	L=700mm	PN10	2
18	Double Flanged Piece	DI	150	L=530mm	PN10	1
19	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	2
20	Double Flanged Piece	DI	150	L=1900mm	PN10	1
21	Double Flanged 150 x 80 Taper	DI	150x80	L=400mm	PN10	2
22	Double Flanged Piece	DI	80	L=350mm	PN10	1
23	Flow Meter	80	80	L=380mm	PN10	1
24	Flange Adapter (DF)	DI	80	L=500mm	PN10	1
25	Double Flanged Piece with Puddle	DI	150	L=910mm	PN10	1
26	Double Flanged Piece	DI	150	L=2,480mm	PN10	1
27	Double Flanged Piece	DI	150	L=3,160mm	PN10	1
28	Double Flanged Flexible Expansion Joint	DI	150		PN10	1
29	Flanged Spigot Piece	DI	150	L=1,000mm	PN10, Type-T	2
30	Socket - Plain End Piece	DI	150	L=5,300mm	PN10, Type-T	1
31	Collar	DI	150		Type-K	4
32	Sluice Valve	DI	150	L=270mm	PN10	2
33	Toothed Vane Butterfly Valve	FCD	150	L=280mm	PN10	1
34	Flange Adapter (F/PE) with Puddle	DI	150	L=1,120mm	PN10, Type-T	1
35	Plain Ends Piece	DI	150	L=1,000mm	Type-T	5
36	Double Socket 200 x 150 Taper	DI	200x150	L=150mm	Type-T	1
37	Double Flanged 150 x 100 Taper	DI	150x100	L=300mm	PN10	2
38	Double Flanged 100 x 65 Taper	SP	100x65	L=250mm	PN10	2
39	Double Flanged Piece	SP	65	L=350mm	PN10	1
40	Flow Meter	65	65	L=380mm	PN10	1
41	Double Flanged Piece	SP	65	L=200mm	PN10	1
42	Double Socket 90 degree Bend	DI	150	L=170mm x 2	Type-T	3
43	Socket - Plain End Piece	DI	150	L=3,720mm	Type-T	1
44	Flanged bellmouth	DI	300	L=420mm	PN10	1
45	Double Flanged Piece with Puddle	DI	300	L=800mm	PN10	1
46	Double Flanged 300 x 150 Taper	DI	300x150	L=650mm	PN10	2
47	Sluice Valve	DI	150	L=270mm	PN10	1
48	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
49	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	2
50	Flange Adapter (DF)	DI	125	L=500mm	PN10	1
51	Double Flanged Piece	SP	125	L=460mm	PN10	2
52	Flow Meter	125	125	L=500mm	PN10	1
53	Double Flanged Piece with Puddle	DI	150	L=740mm	PN10	1
54	Double Flanged Piece	DI	300	L=1,800mm	PN10	1
55	Double Flanged 90 degree Bend	DI	300	L=400mm x 2	PN10	2
56	Double Flanged Piece	DI	300	L=2,500mm	PN10	1
57	Double Flanged 90 degree Duckfoot Bend	DI	300	L=400mm x 2	PN10	1
58	Double Flanged Flexible Expansion Joint	DI	300		PN10	1
59	Flanged Spigot Piece	DI	300	L=1,000mm	PN10, Type-T	1
60	Socket - Plain End Piece	DI	300	L=3,600mm	Type-T	1
61	Collar	DI	300		Type-K	1
62	Flanged Bellmouth	DI	150	L=150mm	PN10	1
63	Double Flanged Piece	DI	150	L=4,430mm	PN10	1
64	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	2
65	Double Flanged Piece with Puddle	DI	150	L=1,120mm	PN10	1
66	Flange Adapter (DF)	DI	150	L=500mm	PN10	2
67	Flanged Spigot Piece	DI	150	L=650mm	PN10, Type-T	1
68	Sluice Valve	DI	150	L=270mm	PN10	1
69	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
70	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
71	Double Flanged Piece	DI	150	L=2,290mm	PN10	1
72	Double Flanged Piece	DI	150	L=750mm	PN10	1
73	Double Flanged Piece	DI	150	L=2,580mm	PN10	1
74	Double Flanged Piece	DI	150	L=1,960mm	PN10	1
75	Flanged Spigot Piece	DI	150	L=800mm	PN10, Type-T	1
76	Collar	DI	150		Type-K	1
77	Plain Ends Piece	DI	150	L=1,000mm	Type-T	1
78	Socket - Plain End Piece	DI	150	L=2,980mm	Type-T	1

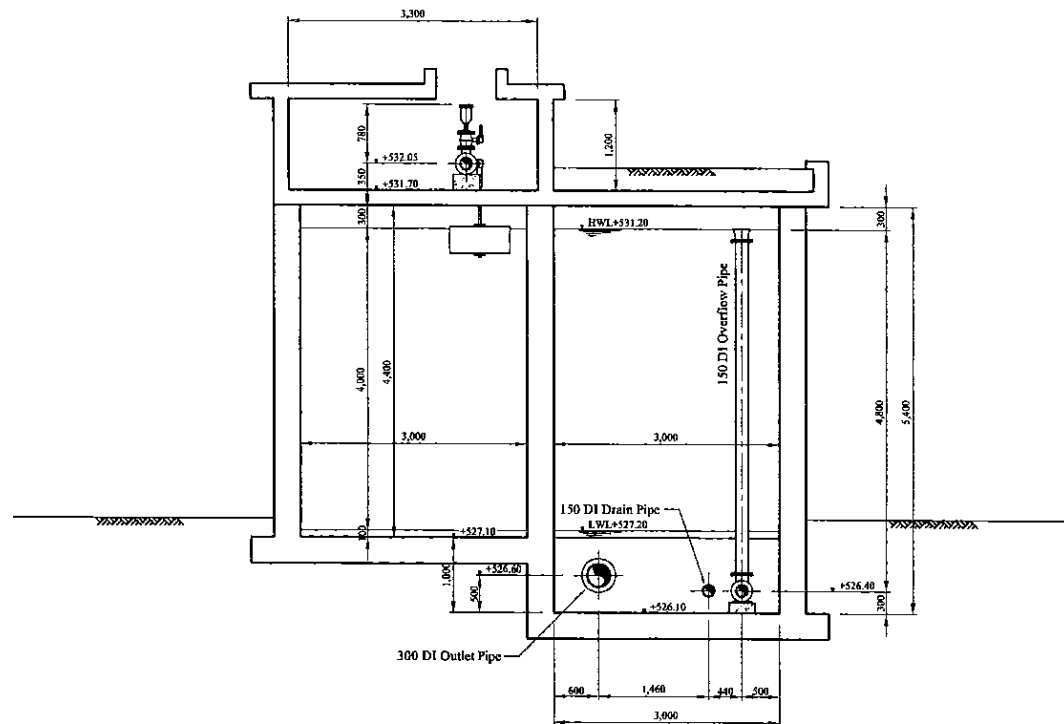
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF GAOHAGODA (PALLEMULLA) S.R. - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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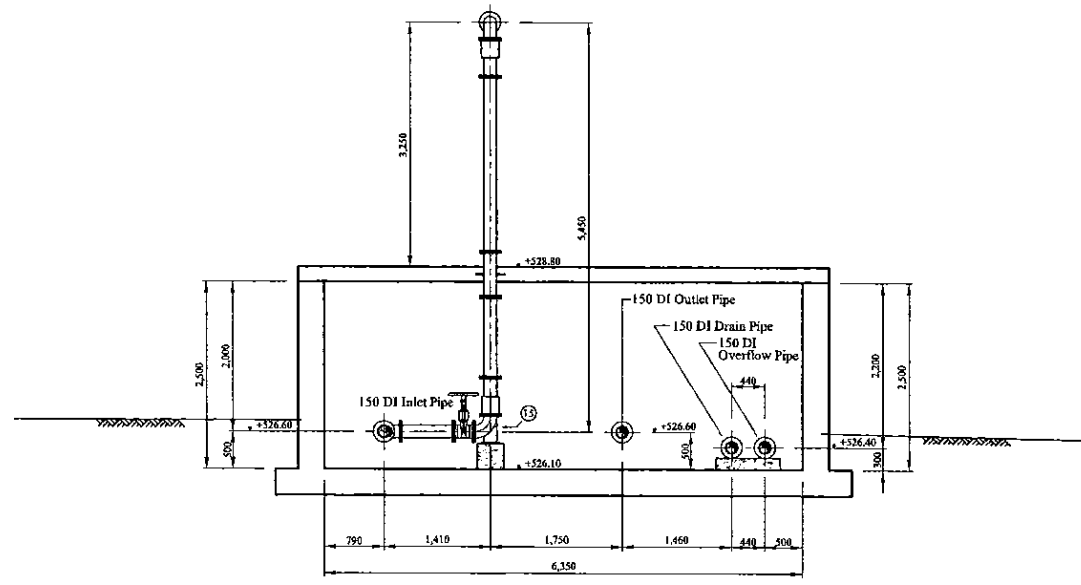


\* Contractor should provide concrete and/or metal pipe support.

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF GAOHAGODA (PALLEMULLA) S.R - 2</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
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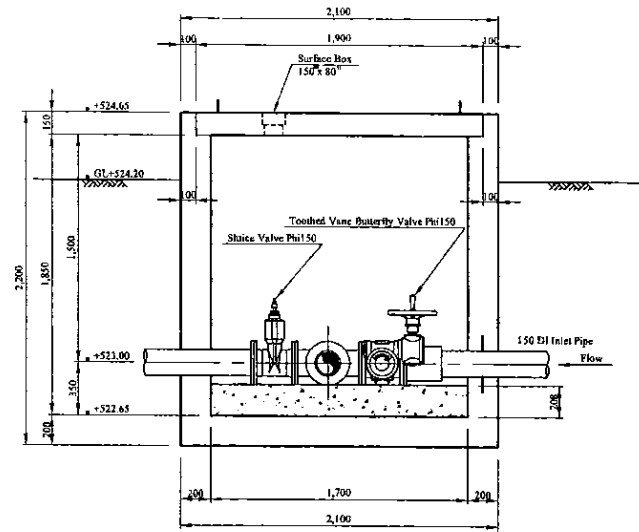
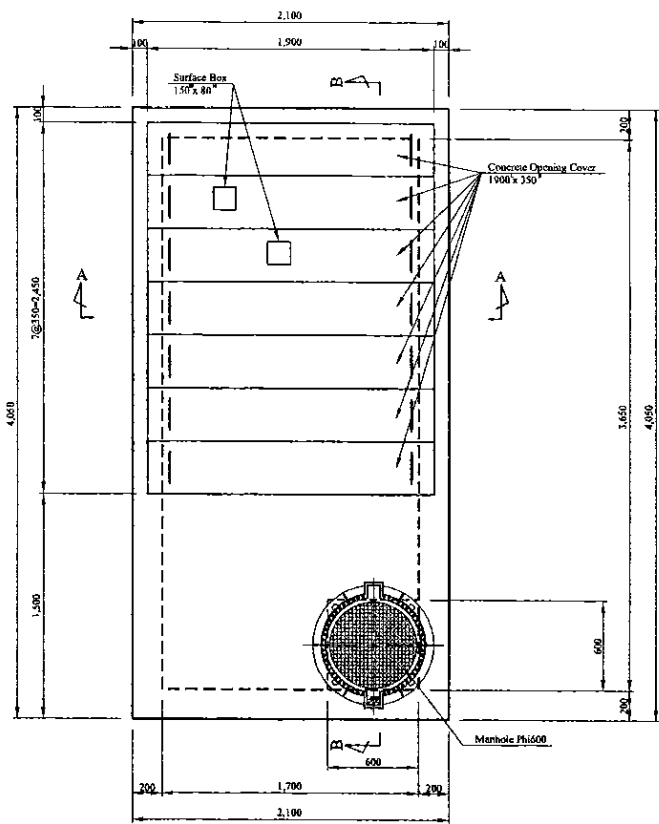
Section D - D



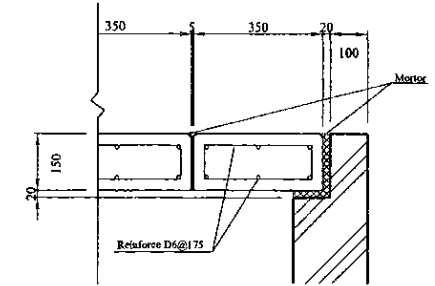
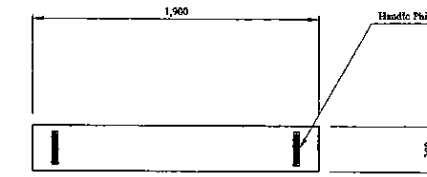
Section E - E

\* Contractor should provide concrete and/or metal pipe support.

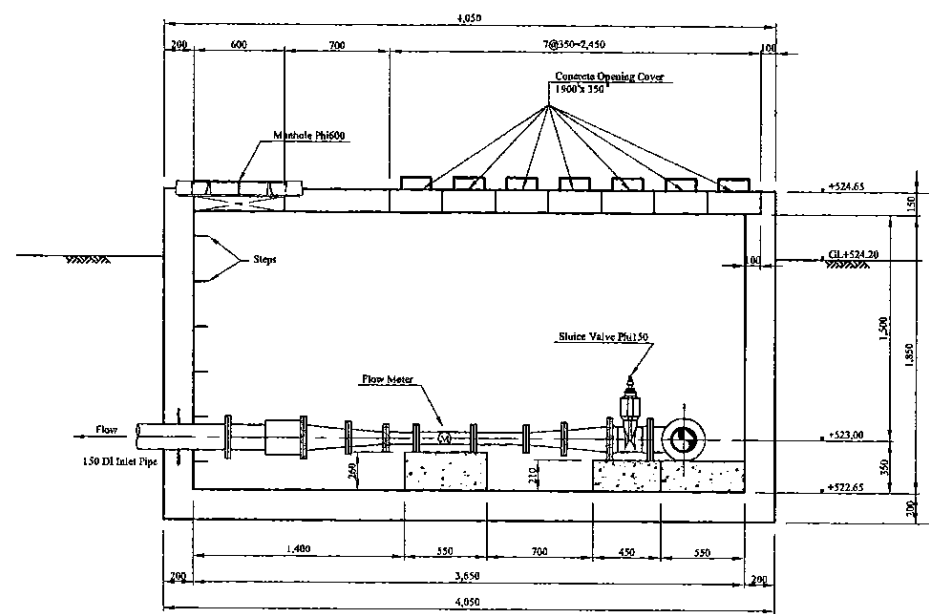
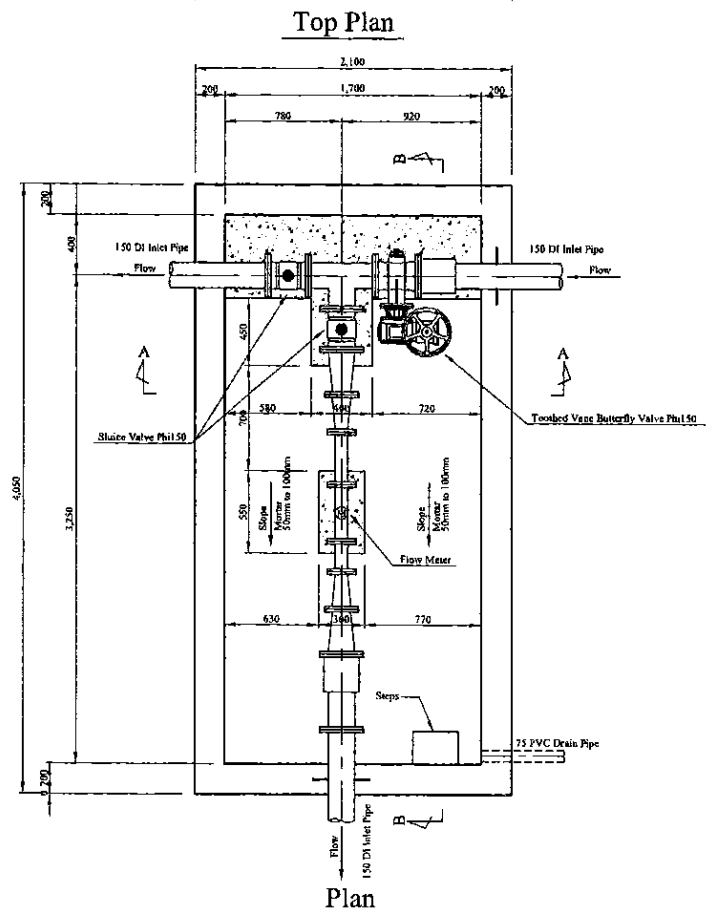
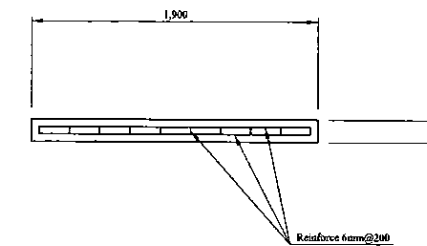
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF GAOHAGODA (PALLEMULLA) S.R - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NCS NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-13-04
								DESIGN CHIEF				



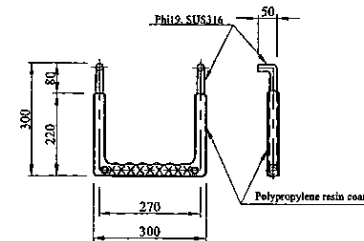
Concrete Opening Cover



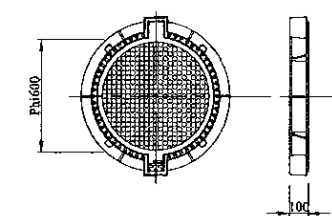
S=i/10 on A3



Step (w=300mm, Polypropylene resin coating)  
Scale=1:5



Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10



Inlet Valve Chamber

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

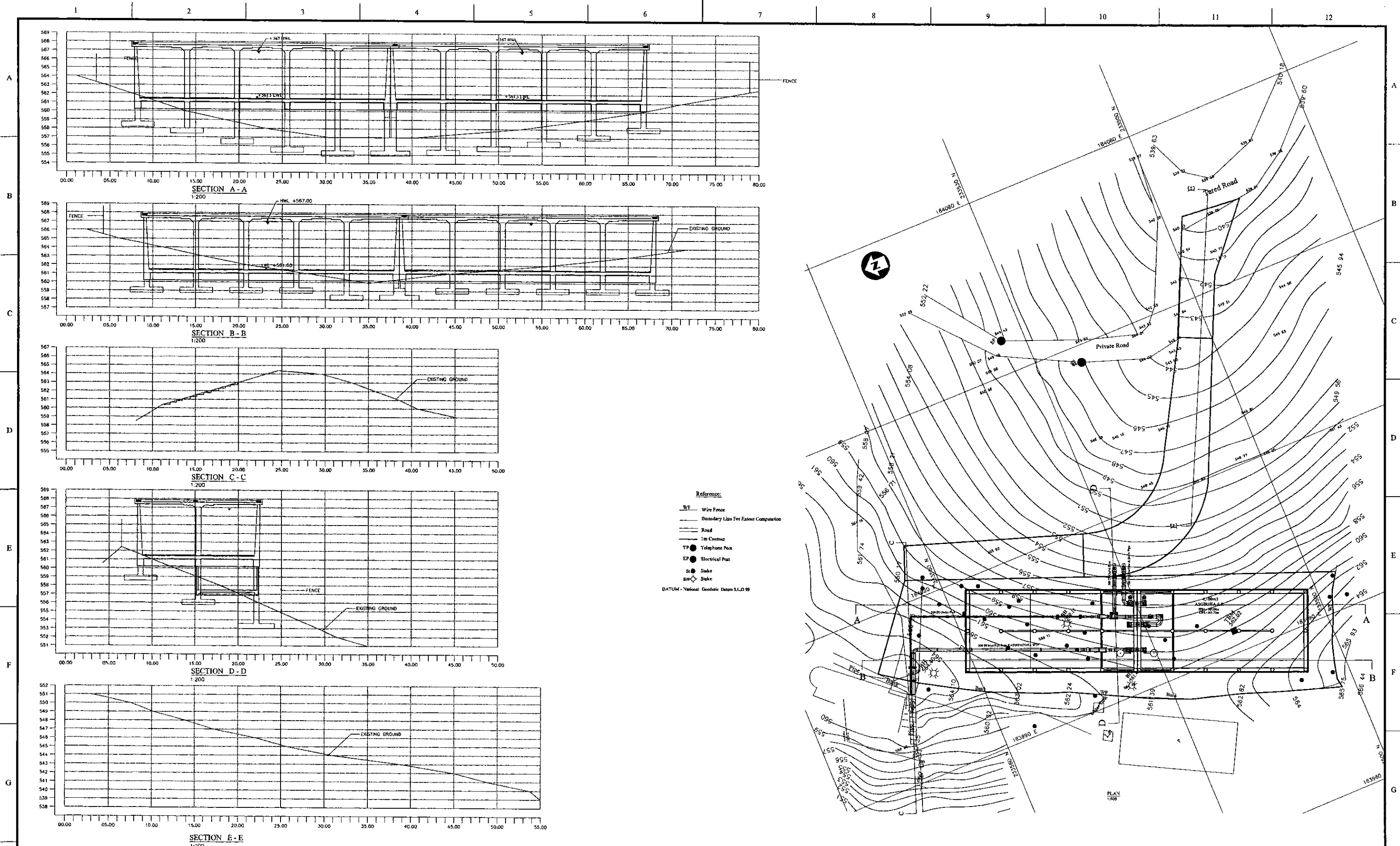
TITLE: INLET FLOW METER & CONTROL VALVE CHAMBER OF GOHAGODA (PALLEMULLA) S.R

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:25
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-13-05



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

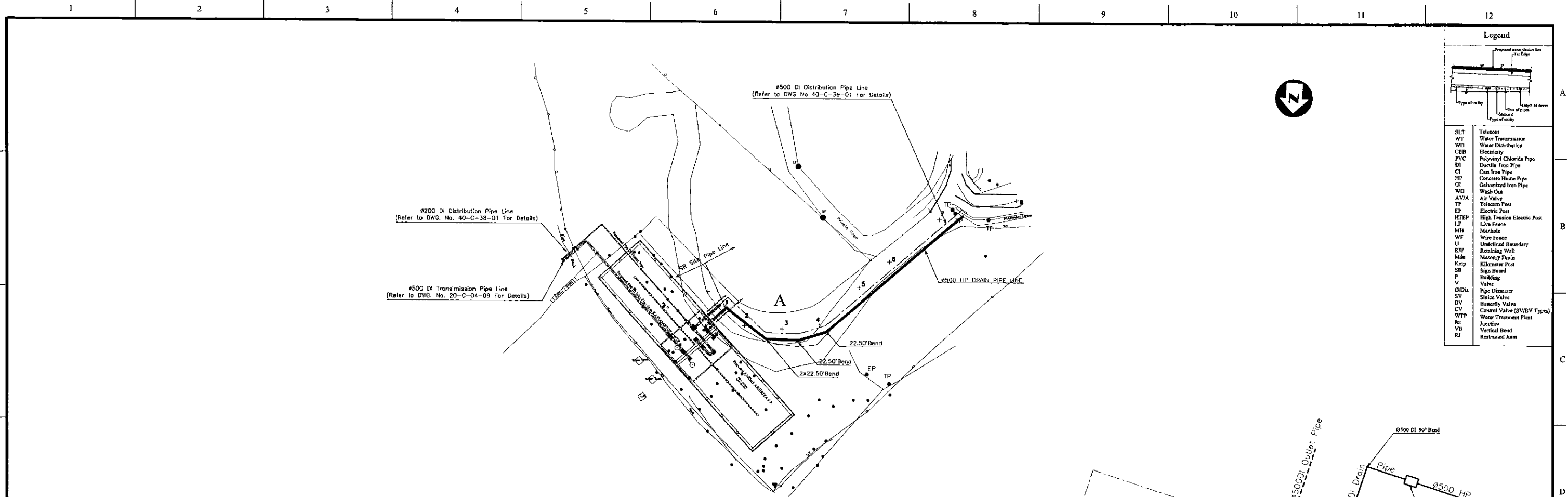
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **SITE PLAN AND CSS OF 4100m<sup>3</sup> ASGIRIYA S.R.**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

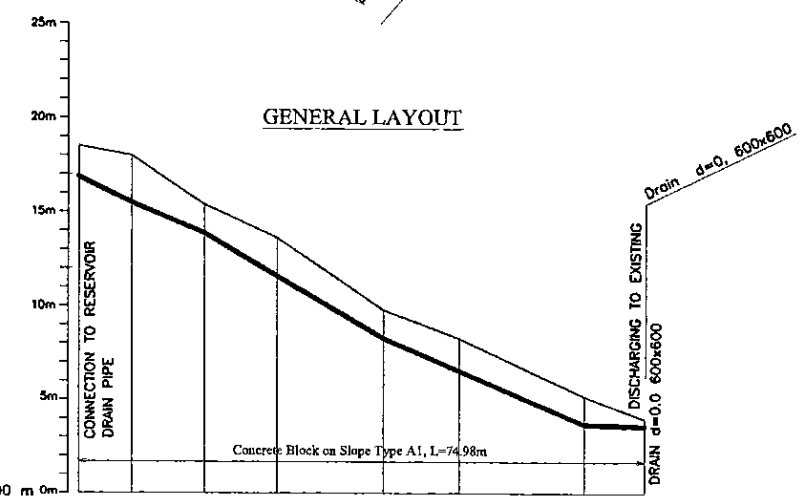
CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				<b>Koichi OKAZAKI</b>	<b>Ravi U.</b>	<b>Ikuo MIWA</b>		<b>1:200</b> <b>1:600</b>
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			<b>31/05/2002</b>	<b>30-C-14-01</b>



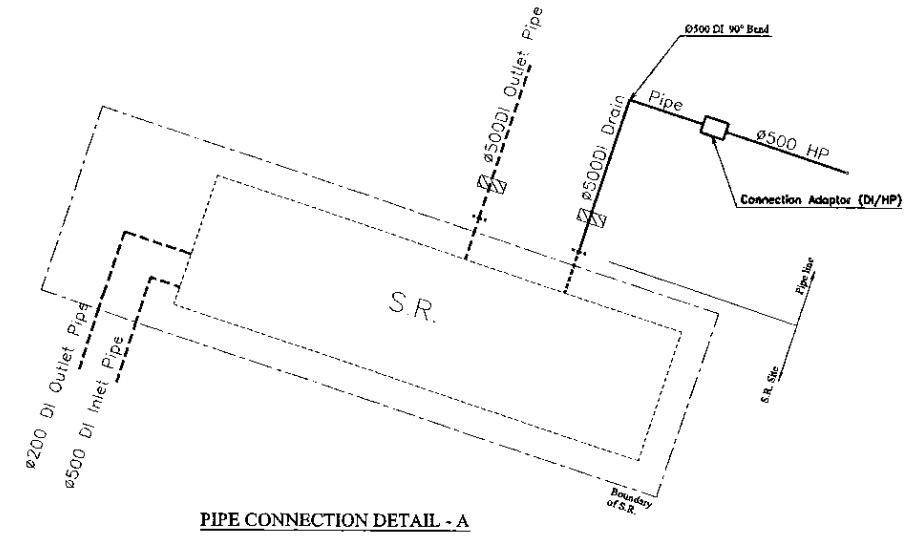
**Legend**

SLT	Telephone
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Hume Pipe
GI	Galvanized Iron Pipe
WD	Wash Out
AVA	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Underground Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
GDia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant
Jc	Junction
VB	Vertical Bend
RJ	Restrained Joint



Ground Level (m)	533.50	533.00	530.40	548.65	544.80	543.30	540.20	539.00
Pipe Invert Level <small>(Pipe thickness to be assumed negligible)</small>	551.96	551.50	548.80	543.30	543.30	538.70	538.00	538.00
Pipe Data	← # 500 CONCRETE HUME PIPE →							
Single Distance (m)	0.00	7.00	9.53	9.65	14.03	10.09	16.68	8.00
Cumulative Distance (m)	0.00	7.00	16.53	26.18	40.21	50.30	66.98	74.98
Station No.	1	2	3	4	5	6	7	8

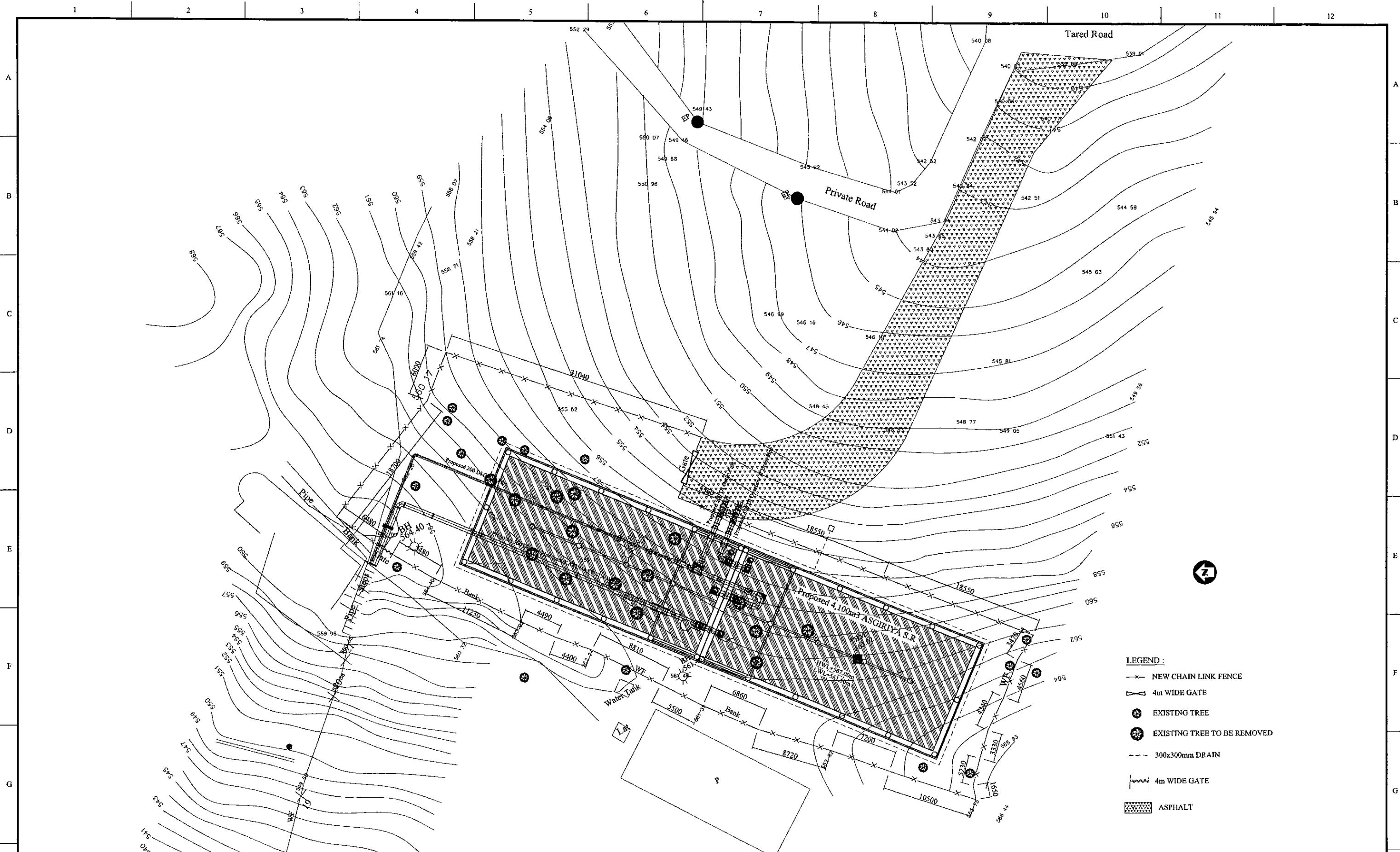
LONGITUDINAL SECTION



PIPE CONNECTION DETAIL - A

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>WASHOUT FROM ASGIRIYA S.R.</b>				SHEET 1 OF 1				
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Lakmal</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>HORIZONTAL - 1:500 VERTICAL - 1:200</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-14-02</b>
								DESIGN CHIEF				





- LEGEND :**
- x—x— NEW CHAIN LINK FENCE
  - /—/— 4m WIDE GATE
  - EXISTING TREE
  - ⊗ EXISTING TREE TO BE REMOVED
  - - - 300x300mm DRAIN
  - /—/— 4m WIDE GATE
  - ▨ ASPHALT

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

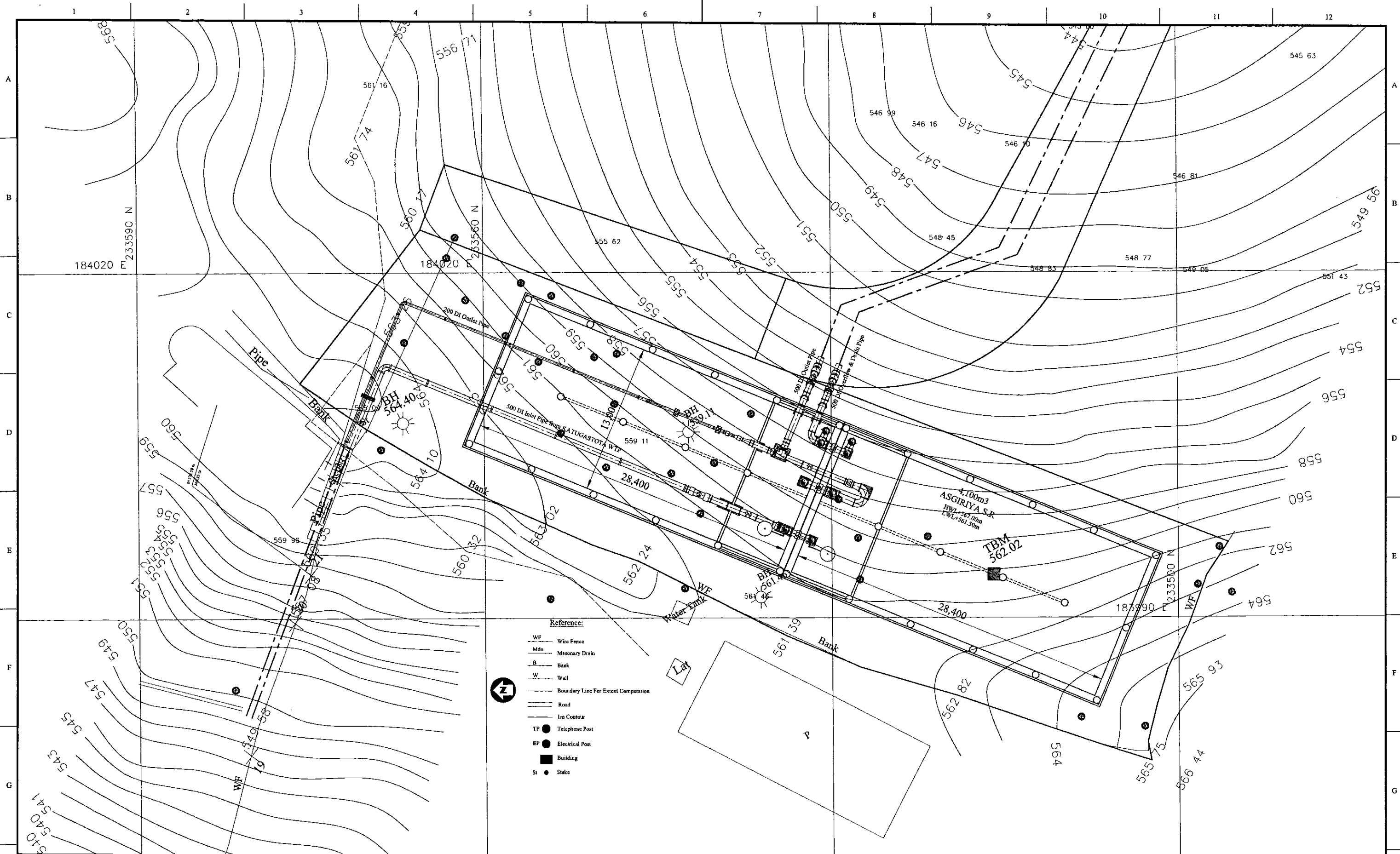
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **SITE PLAN OF 4,100m<sup>3</sup> ASGIRIYA S.R.**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:300
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-14-03



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **ASGIRIYA SERVICE RESERVOIR SITE PLAN**

CLIENT:



**NATIONAL WATER SUPPLY & DRAINAGE BOARD**

CONSULTANTS:

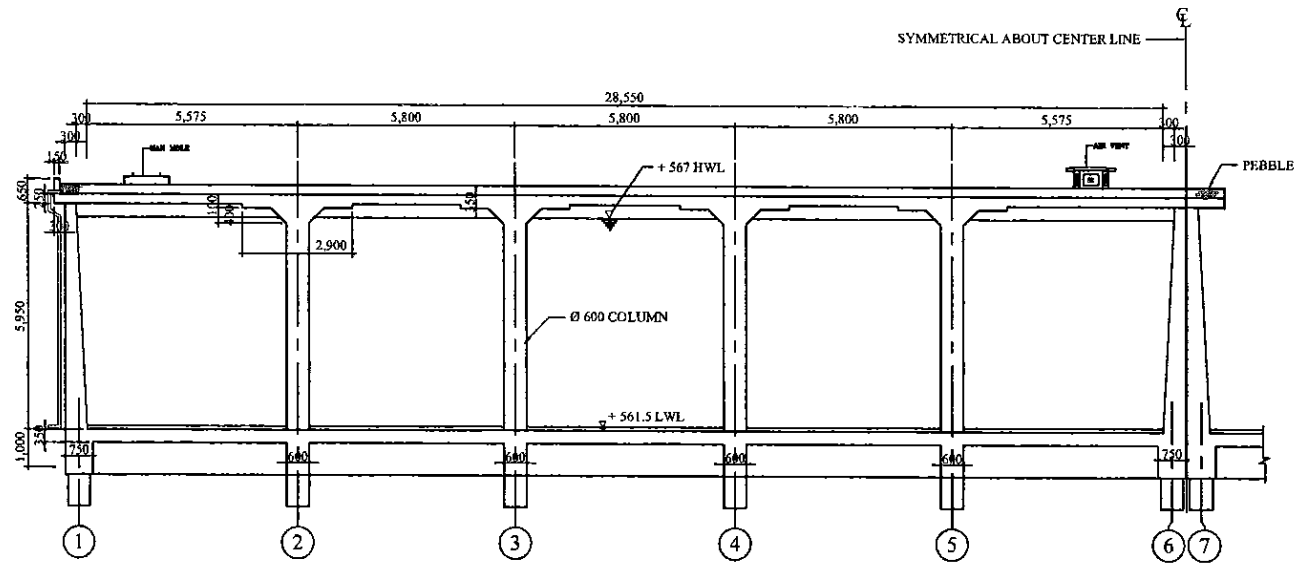


**NJS CONSULTANTS CO., LTD. - JAPAN**

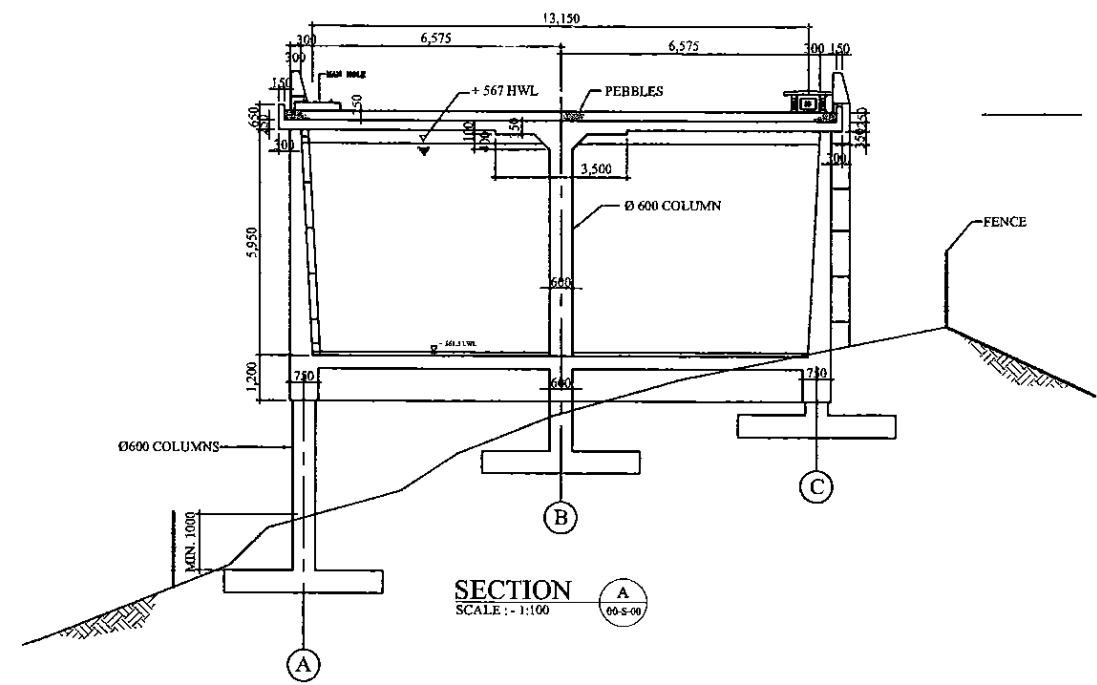


**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

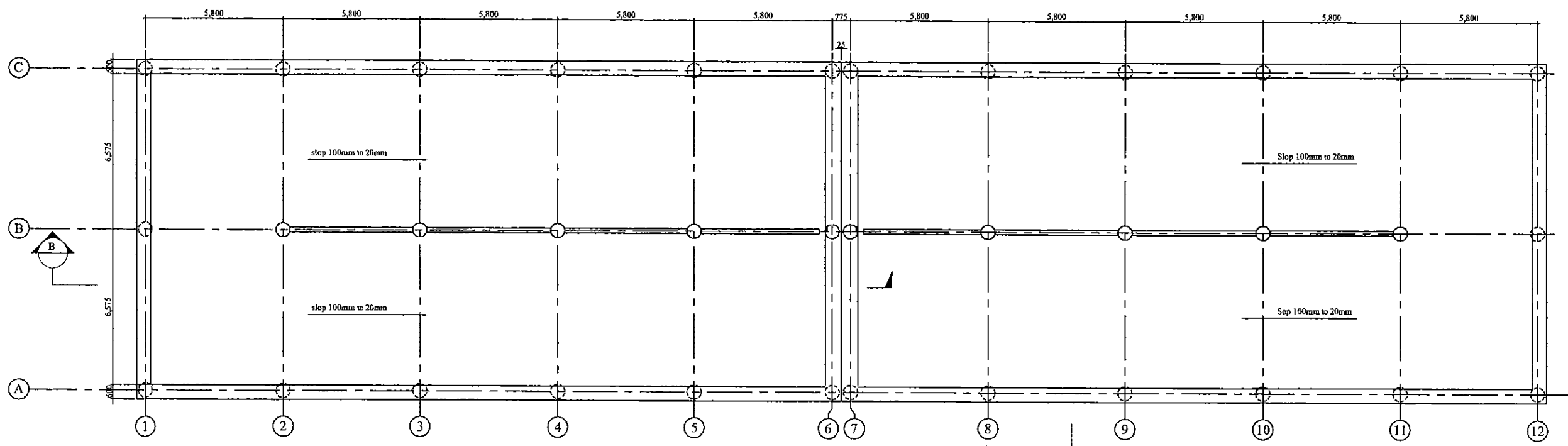
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-14-01



SECTION B  
SCALE: 1:100



SECTION A  
SCALE: 1:100

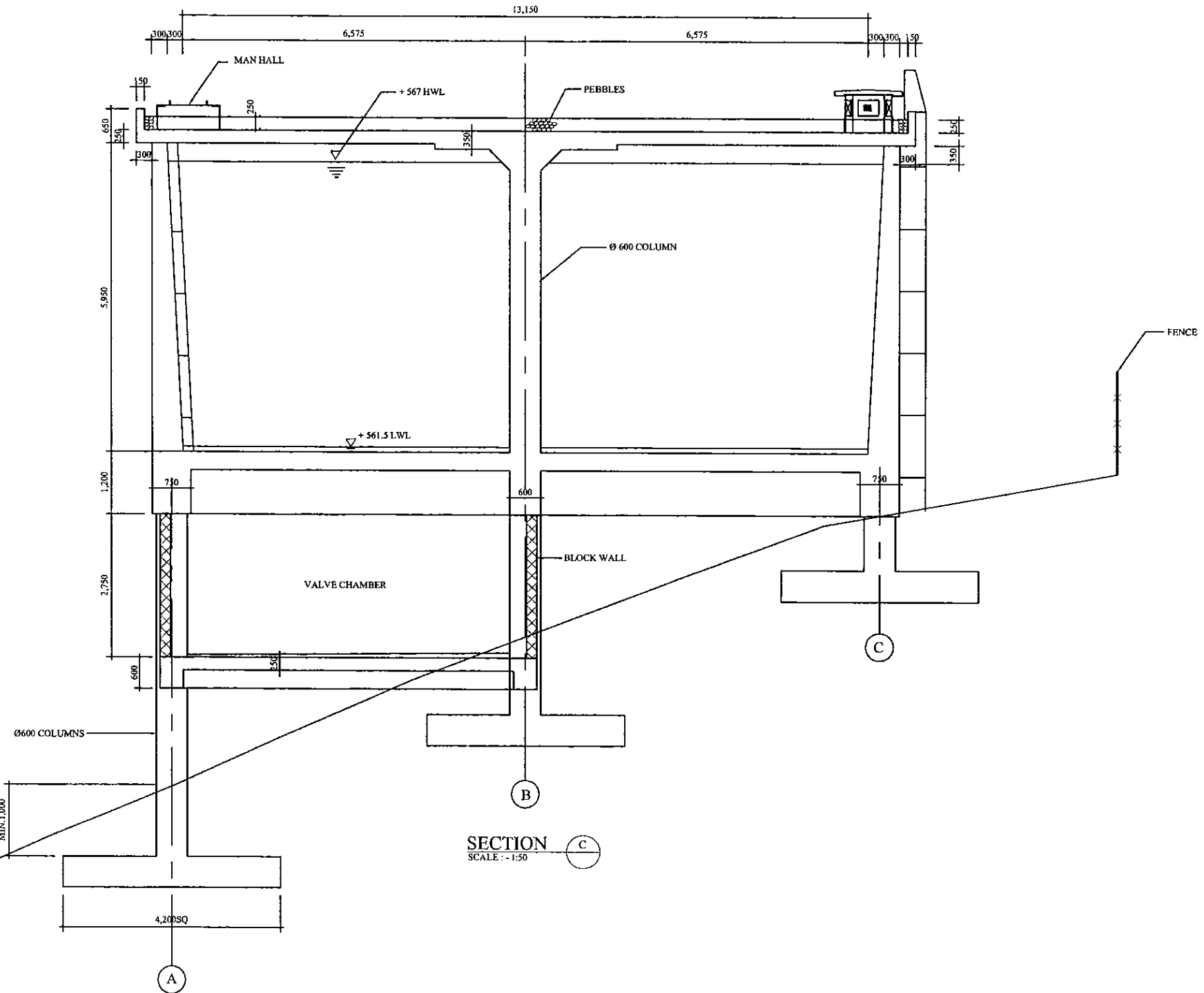


BOTTOM PLAN  
SCALE: 1:100

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA RESERVOIR - BOTTOM PLAN AND SECTIONS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-14-02

NOTES:-

- 01) THE FOUNDATION TO BE APPROVED BY AN ENGINEER PRIOR TO PLACING ANY CONCRETE OR REINFORCEMENT.
- 02) FOUNDATION TO BE ON VIRGIN GROUND AT A DEPTH OF 1.0 M. (MINIMUM) FROM THE SURFACE HAVING NET ALLOWABLE BEARING CAPACITY OF 250 KN/M<sup>2</sup>.



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ASGIRIYA RESERVOIR - SECTION C

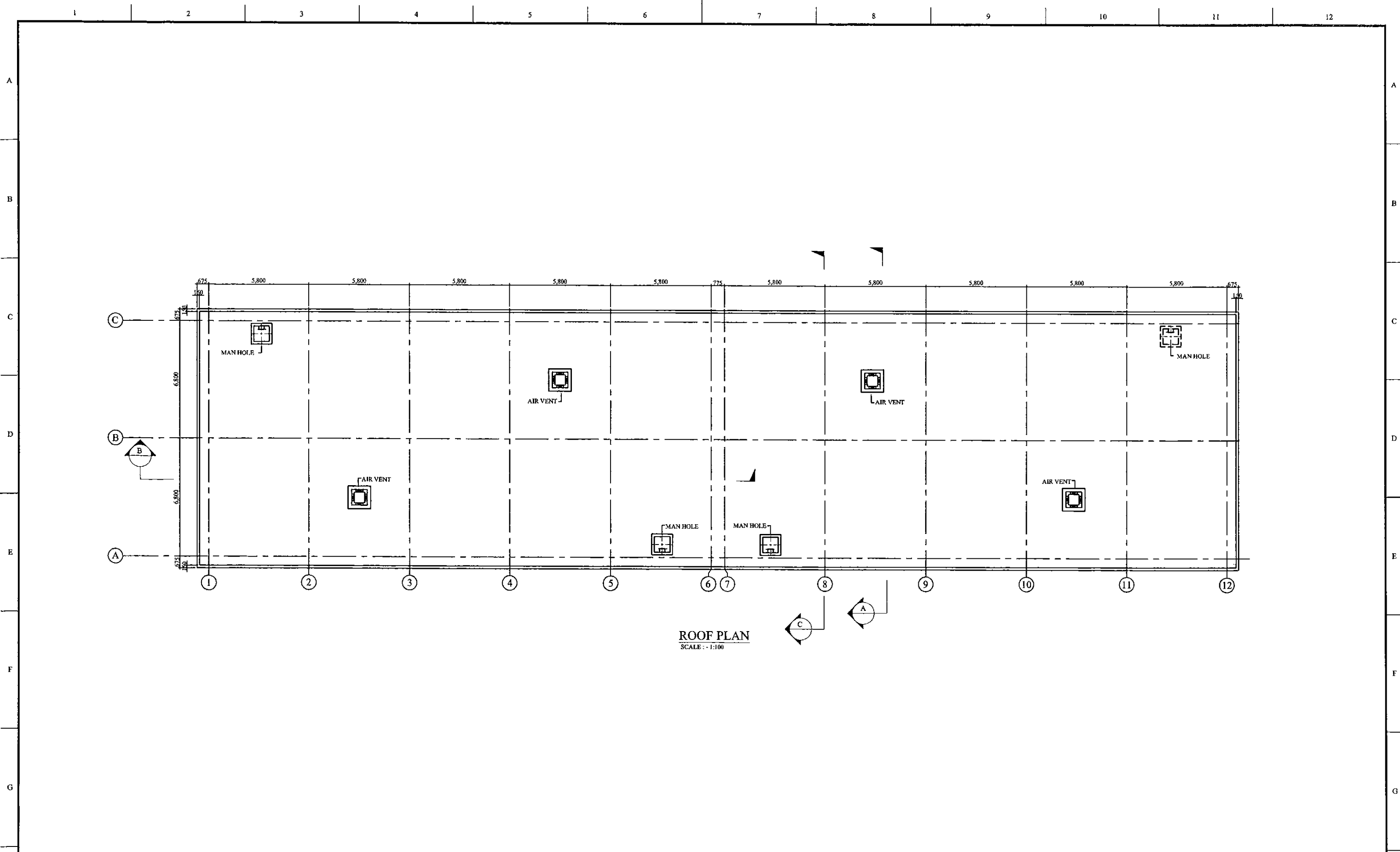
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-14-03



ROOF PLAN  
SCALE: 1:100

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ASGIRIYA RESERVOIR - ROOF PLAN

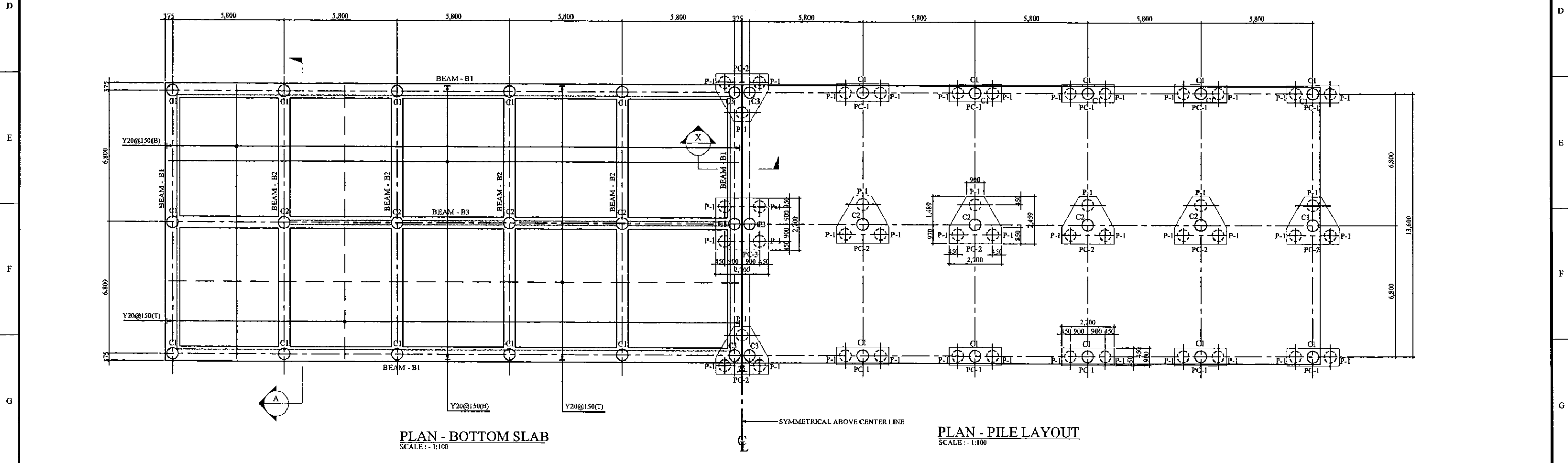
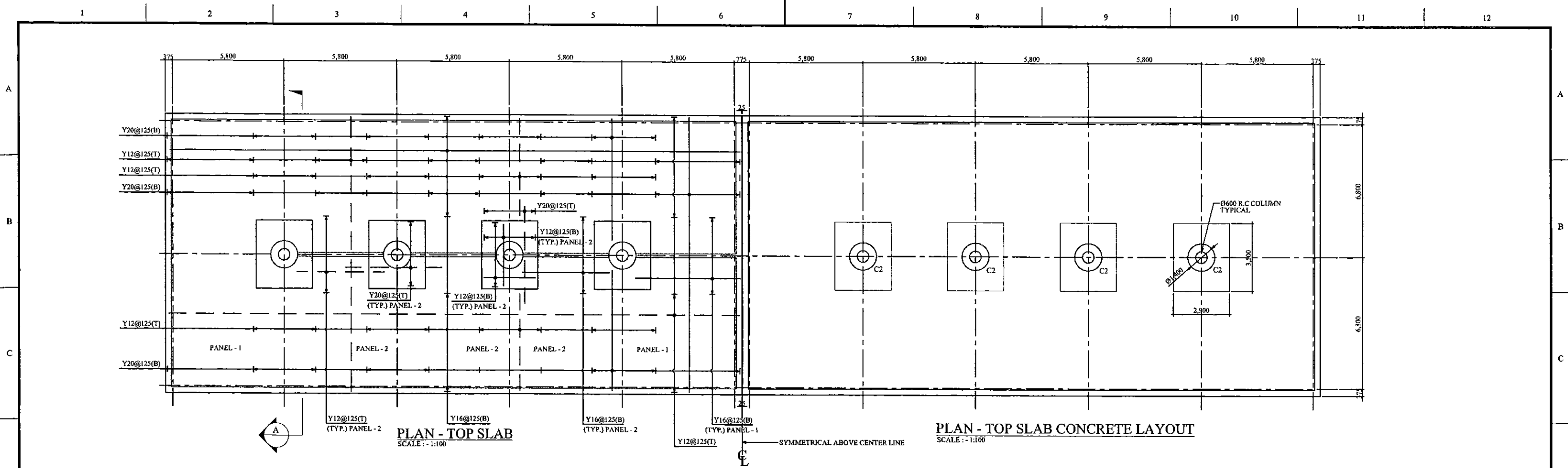
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



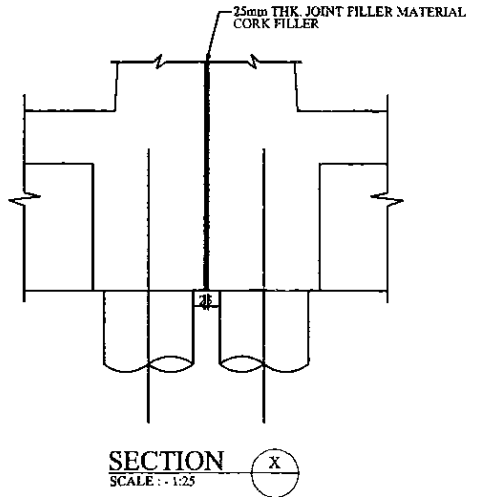
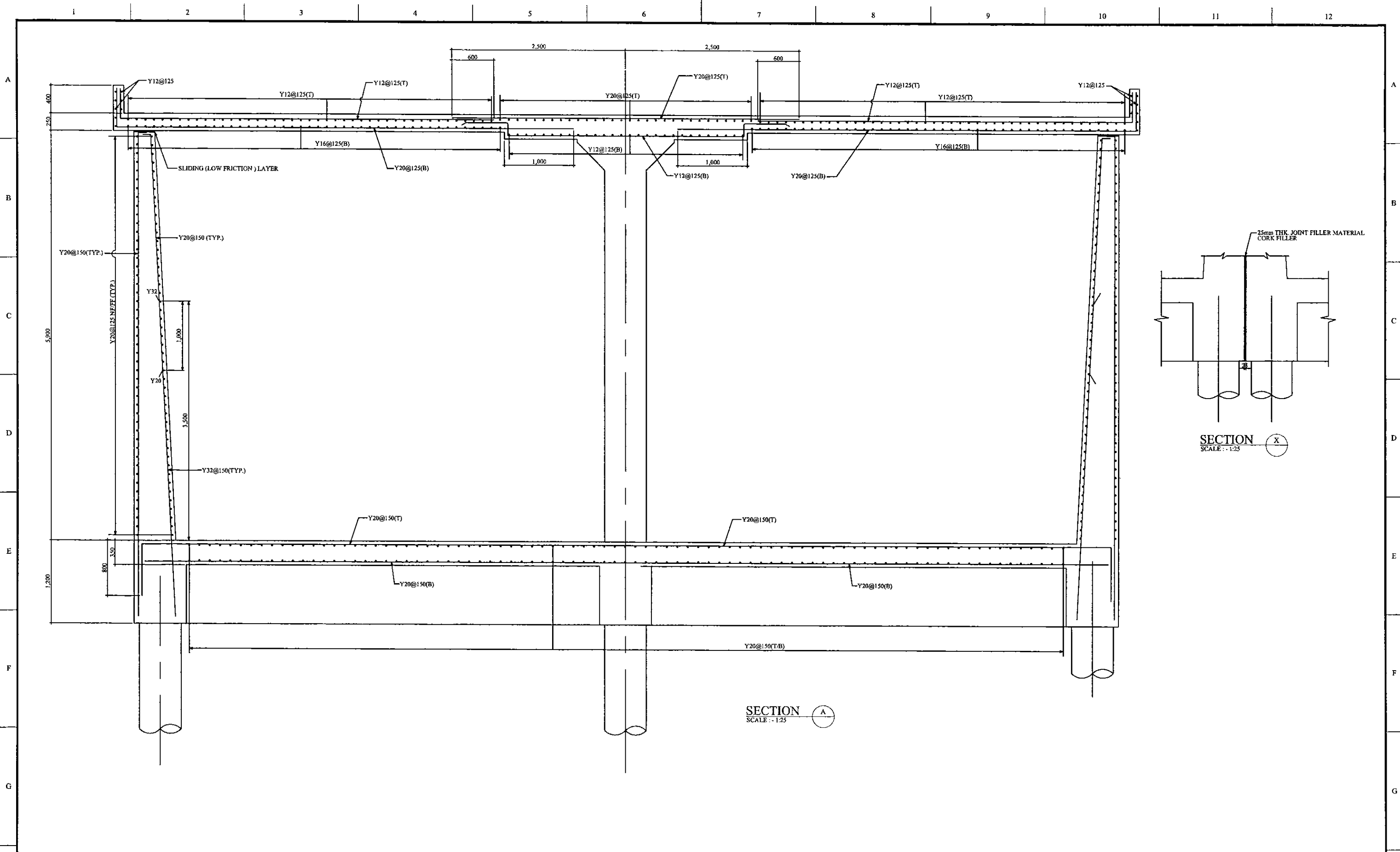
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-14-04



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA RESERVOIR - REINFORCEMENT DETAILS - TOP AND BOTTOM SLAB								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-14-05



SECTION A  
SCALE: 1:25

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

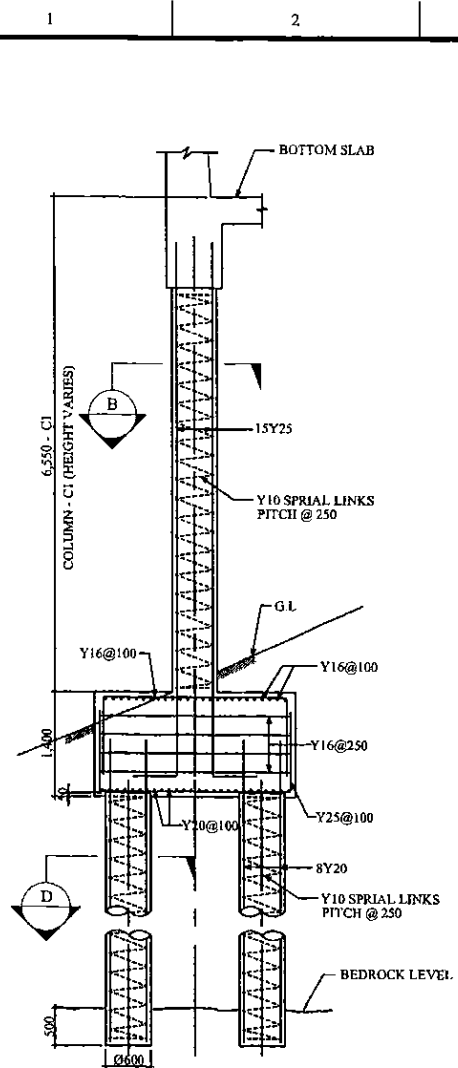
TITLE: ASGIRIYA RESERVOIR - REINFORCEMENT DETAILS - SECTION - A

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

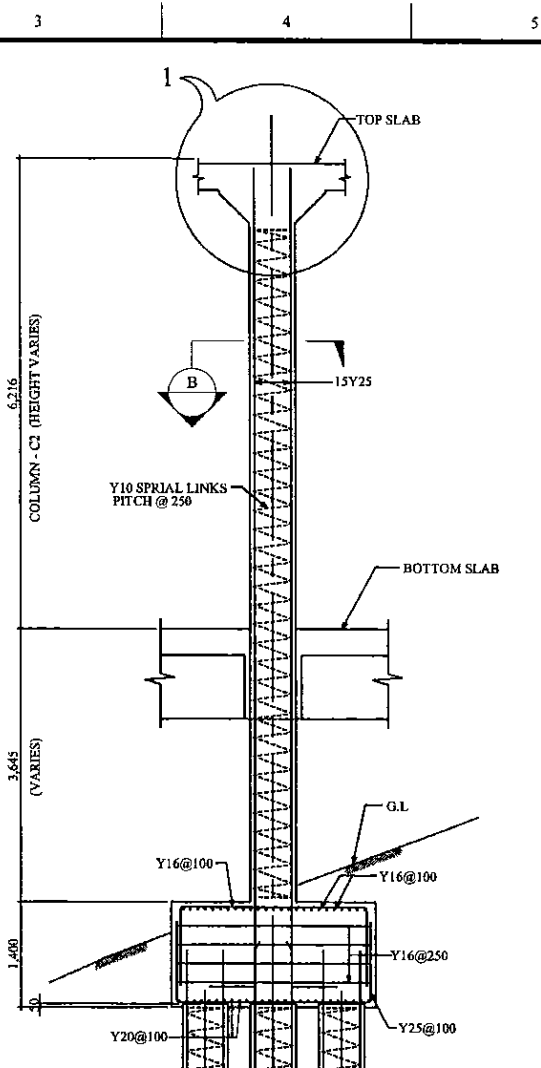


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

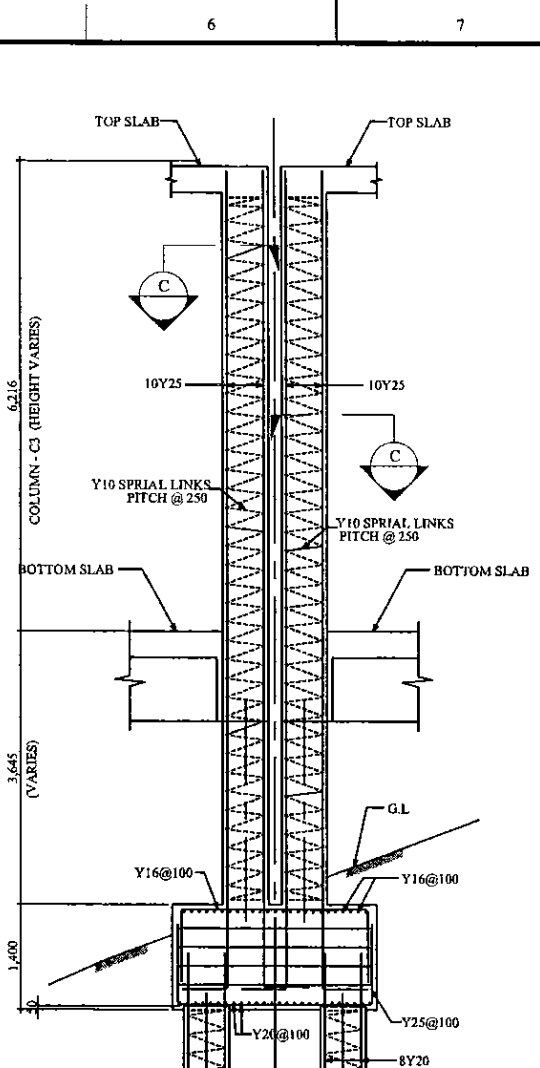
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM; (P&D)	DGM; (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-14-06



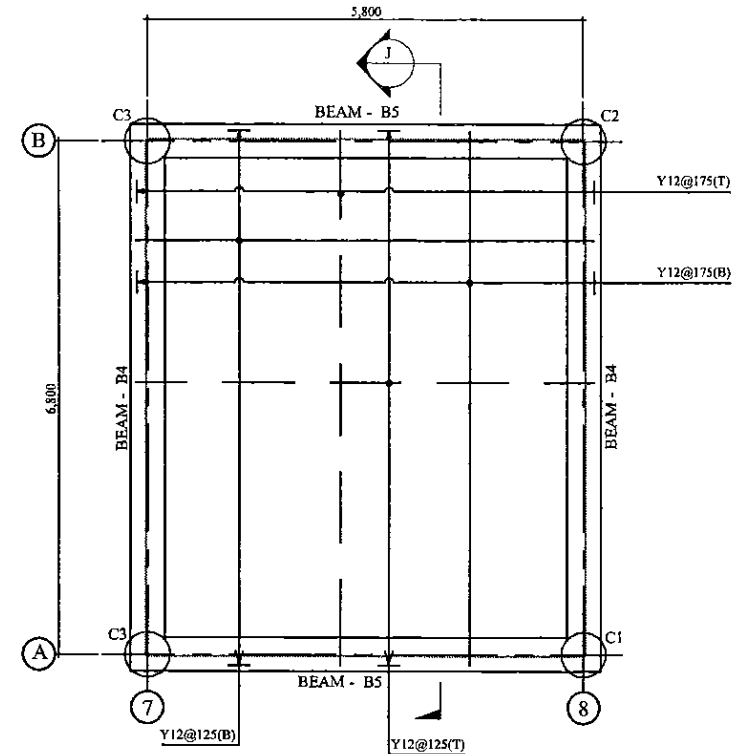
**COLUMN - C1 / PILE - P1 / PILE CAP - PC-1**  
SCALE : - 1:50



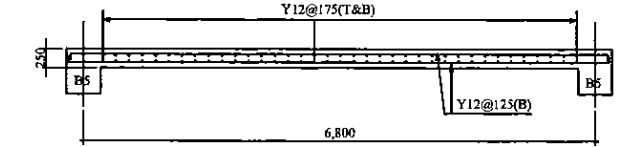
**COLUMN - C2 / PILE - P1 / PILE CAP - PC-2**  
SCALE : - 1:50



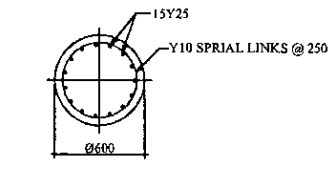
**COLUMN - C3 / PILE - P1 / PILE CAP - PC-3**  
SCALE : - 1:50



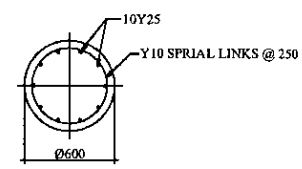
**VALVE CHAMBER - FLOOR SLAB**  
SCALE : - 1:50



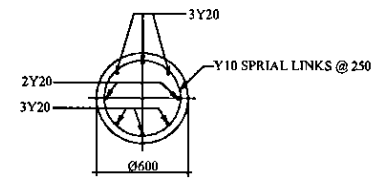
**SECTION J**  
SCALE : - 1:50



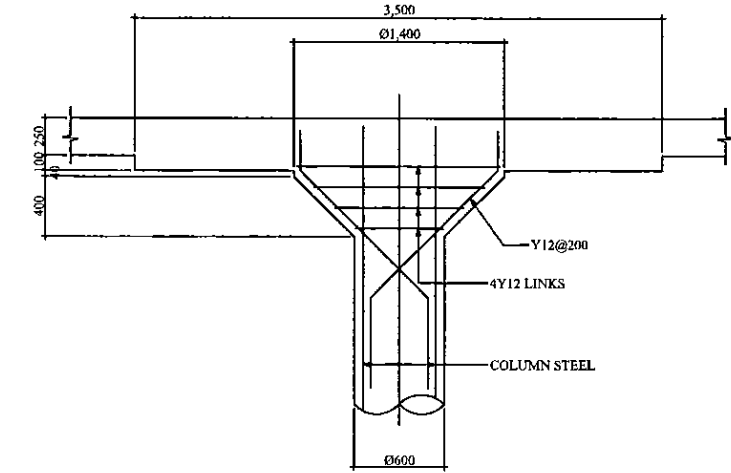
**SECTION B**  
SCALE : - 1:25



**SECTION C**  
SCALE : - 1:25



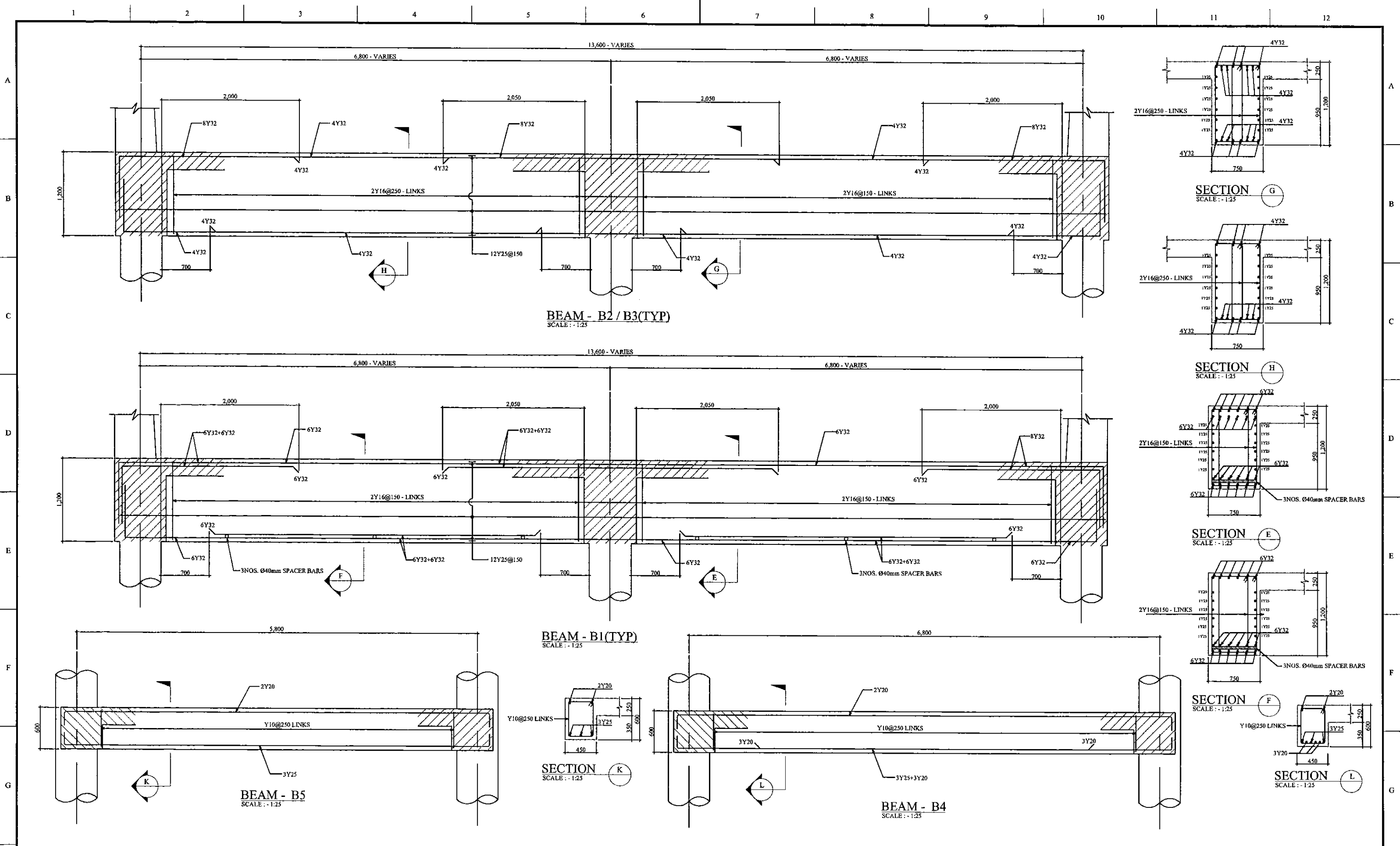
**SECTION D**  
SCALE : - 1:25



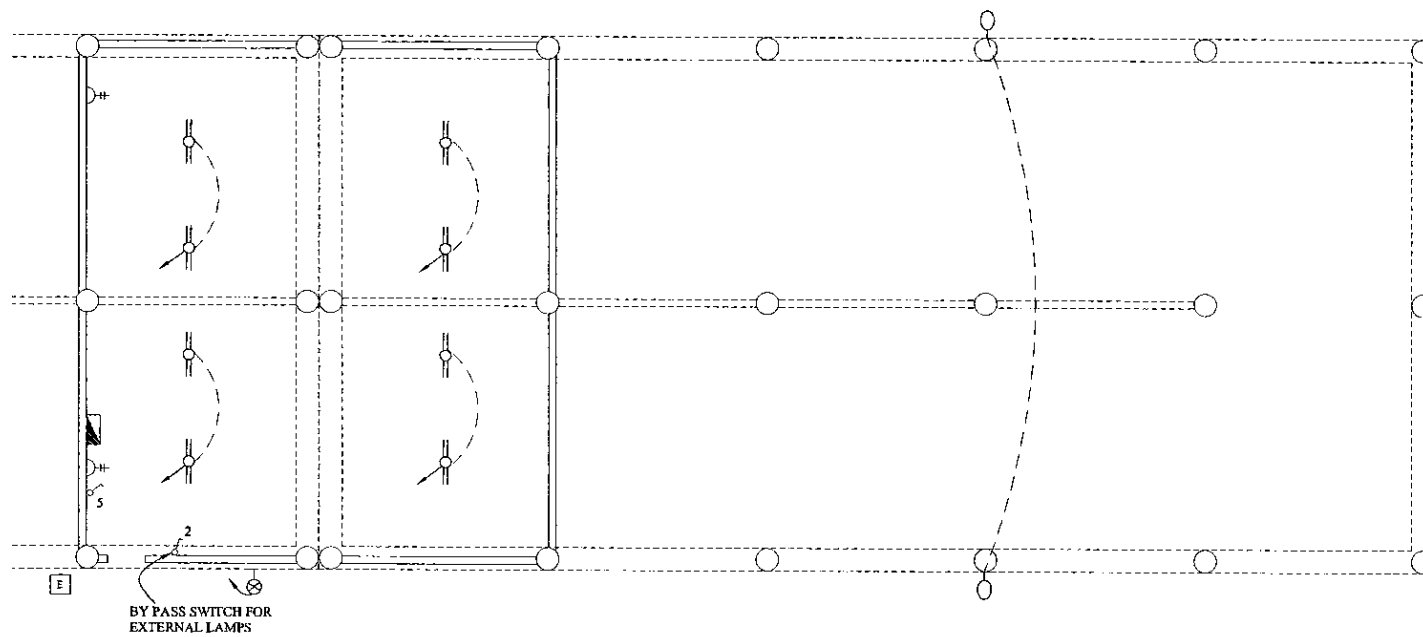
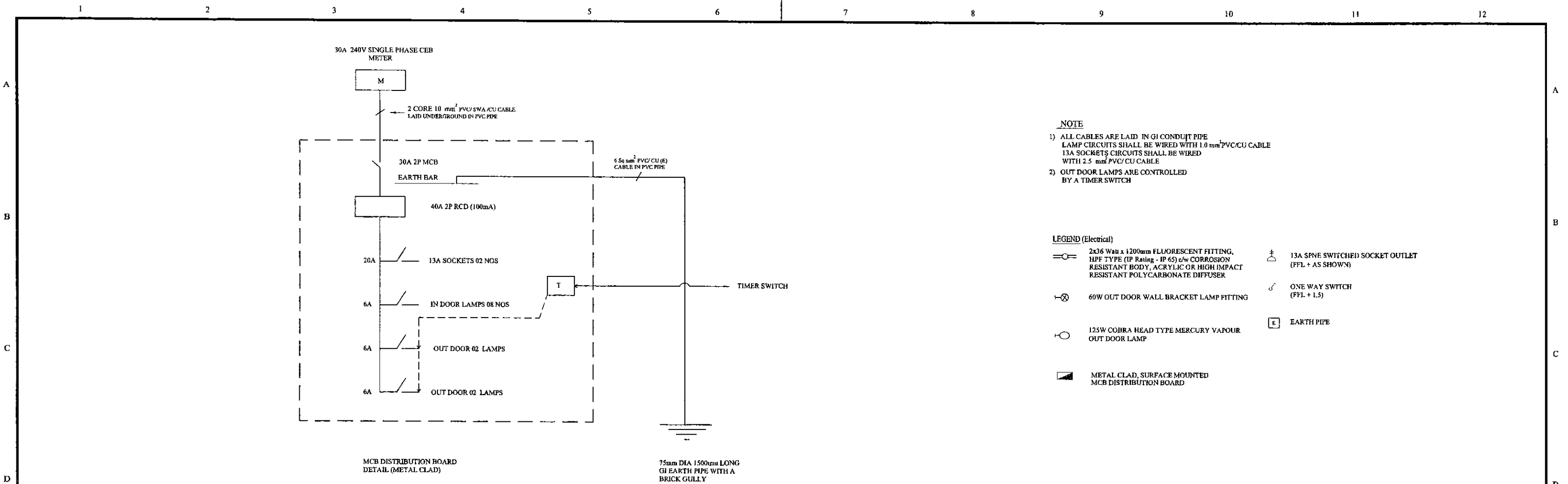
**DETAIL - 1**  
SCALE : - 1:25

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA RESERVOIR - REINFORCEMENT DETAILS - COLUMNS, FOOTINGS, VALVE CHAMBER FLOOR SLAB & SECTIONS							
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN	
						CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-14-07	





PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA RESERVOIR - REINFORCEMENT DETAILS - BEAMS & SECTIONS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-14-08



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

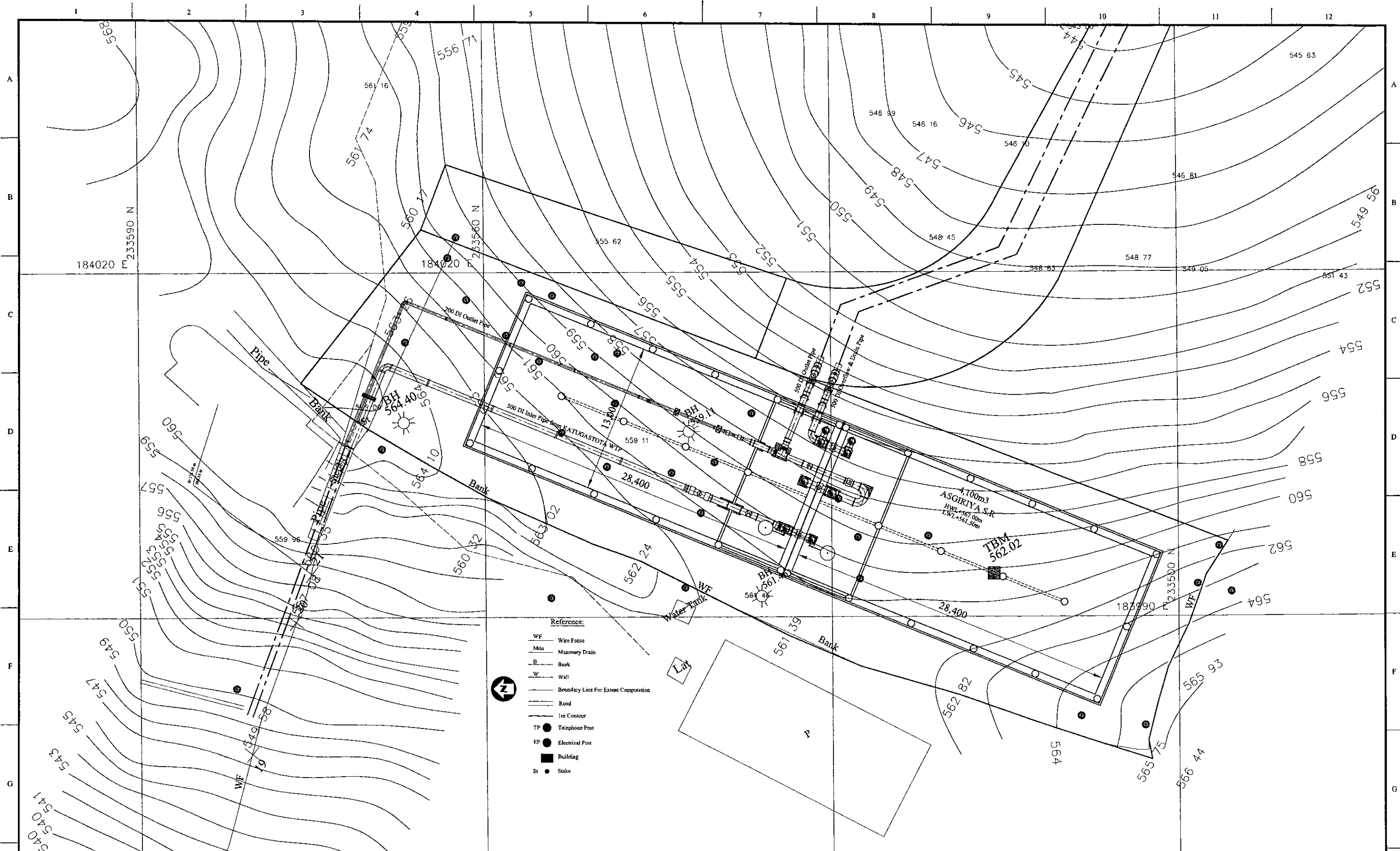
TITLE: ASGIRIYA S.R ELECTRICAL PLAN

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

DESIGNED: ATG	DRAWN: lakmal	PM: (CONSULTANT)	CE: (P&D)	SCALE: 1:200 on A3 Size
CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 11 / 12 / 2001	DRAWING NO.: 30-A-14-21



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **PIPE LAYOUT PLAN OF 4,100m<sup>3</sup> ASGIRIYA S.R.**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

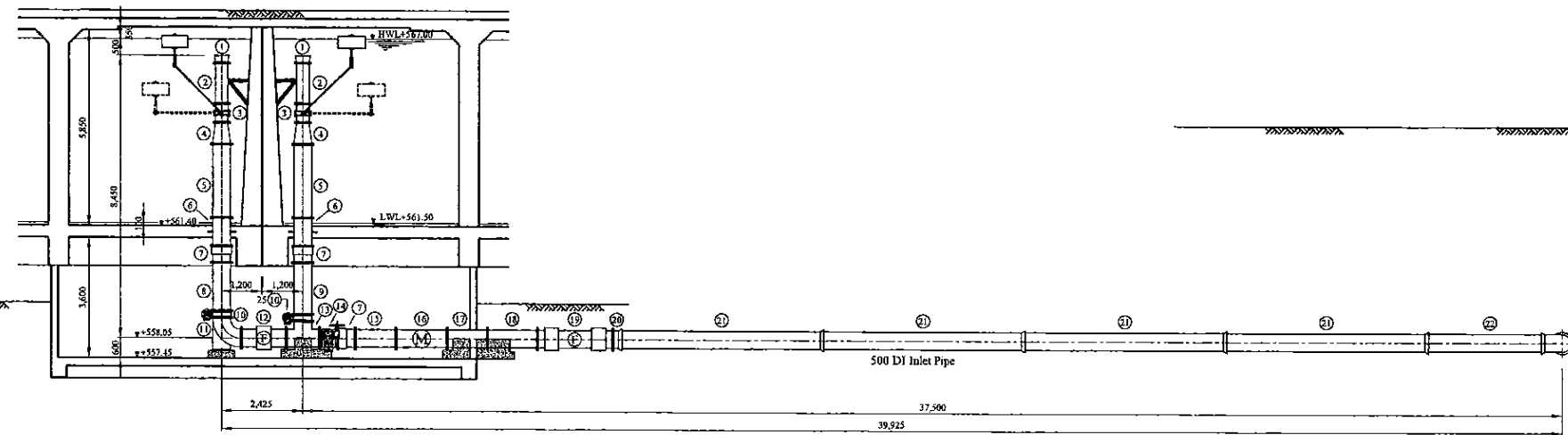
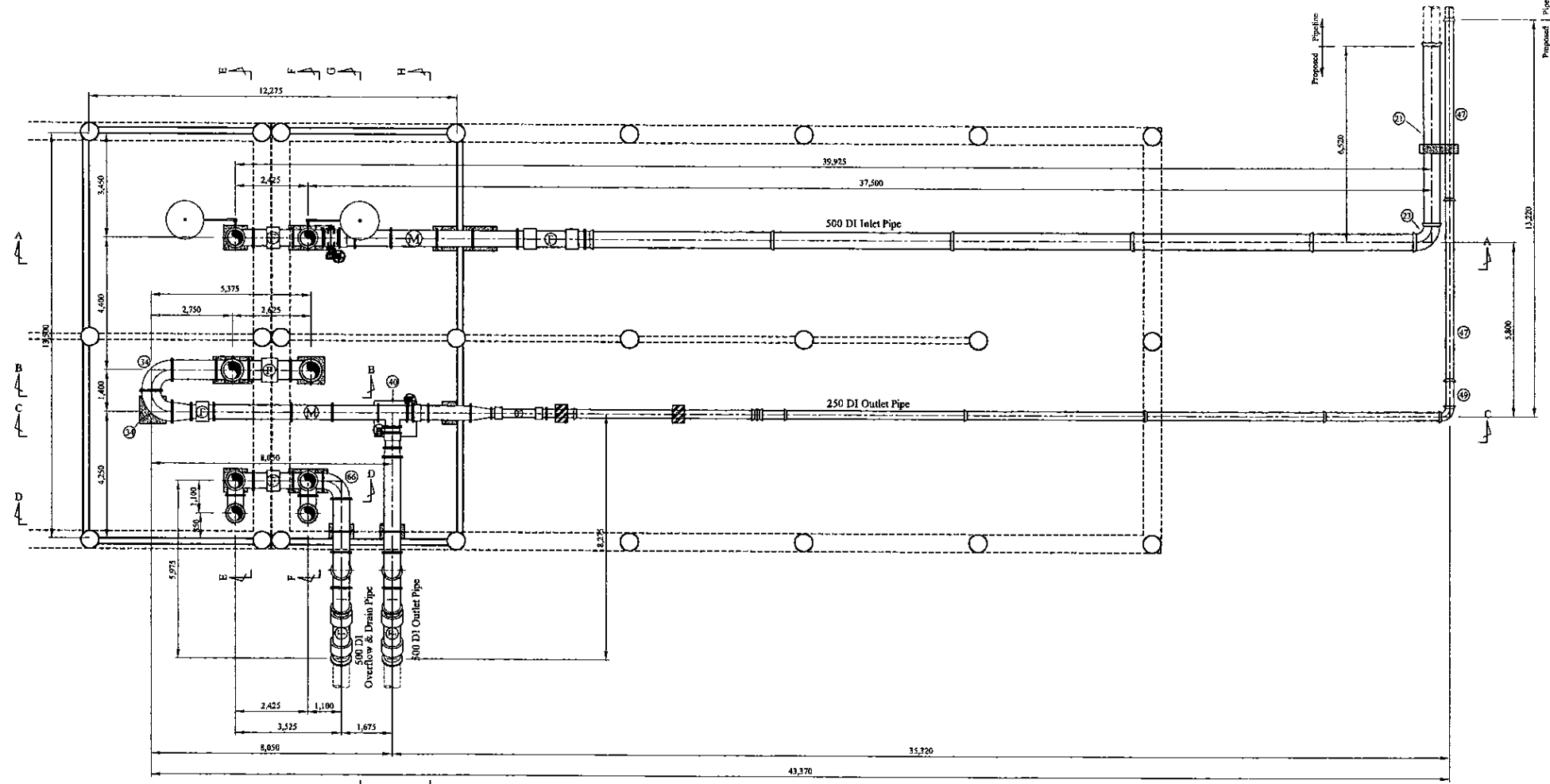
CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:150</b>
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-14-01</b>
DESIGN CHIEF				

Nun.	Item	Material	Dia (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	350	L=220mm	PN10	2
2	Double Flanged Piece	DI	350	L=1,220mm	PN10	2
3	Butterfly Valve	SUS	350	L=940mm	PN10	2
4	Double Flanged 90° x 45° Taper	DI	500x350	L=650mm	PN10	2
5	Double Flanged Piece	DI	500	L=2,200mm	PN10	2
6	Double Flanged Piece with Puddle	DI	500	L=850mm	PN10	2
7	Flange Adapter (DF)	SS	500	L=900mm	PN10	3
8	Double Flanged Piece	DI	500	L=1,440mm	PN10	1
9	Double Flanged Piece	DI	500	L=1,540mm	PN10	1
10	Butterfly Valve	DI	500	L=210mm	PN10	2
11	Double Flanged 90 degree Duckfoot Bend	DI	500	L=600mm x 2	PN10	1
12	Double Flanged Flexible Expansion Single Joint	DI	500		PN10	1
13	All Flanged 500 x 500 Tee	DI	500x500	L=1,000x500mm	PN10	1
14	Toothed Vane Butterfly Valve	FCD	500	L=530mm	PN10	1
15	Double Flanged Piece	DI	500	L=1,200mm	PN10	1
16	Flow Meter	DI	500	L=1,520mm	PN10	1
17	Double Flanged Piece	DI	500	L=1,200mm	PN10	1
18	Double Flanged Piece	DI	500	L=1,500mm	PN10	1
19	Double Flanged Flexible Expansion Joint	DI	500		PN10	1
20	Flanged Socket	DI	500	L=170mm	PN10, Type-T	1
21	Straight Pipe	DI	500	L=6,000mm	Type-T	5
22	Plain Ends Piece	DI	500	L=3,610mm	Type-T	1
23	Double Socket 90 degree Bend	DI	500	L=520mm x 2	Type-T	1
24	Flanged Bellmouth	DI	600	L=310mm	PN10	2
25	Double Flanged Piece with Puddle	DI	600	L=850mm	PN10	2
26	Flange Adapter (DF)	SS	600	L=900mm	PN10	2
27	Double Flanged Piece	DI	600	L=1,340mm	PN10	2
28	Double Flanged Piece	DI	600	L=1,540mm	PN10	1
29	Butterfly Valve	DI	600	L=210mm	PN10	2
30	Double Flanged 90 degree Duckfoot Bend	DI	600	L=700mm x 2	PN10	2
31	Double Flanged Flexible Expansion Single Joint	DI	600		PN10	1
32	All Flanged 600 x 600 Tee	DI	600x600	L=1,100x600mm	PN10	1
33	Double Flanged Piece	DI	600	L=1,500mm	PN10	1
34	Double Flanged 90 degree Bend	DI	600	L=700mm x 2	PN10	2
35	Double Flanged 600 x 450 Taper	DI	600x450	L=650mm	PN10	1
36	Double Flanged Flexible Expansion Single Joint	DI	450		PN10	1
37	Double Flanged Piece	DI	450	L=2,585mm	PN10	1
38	Flow Meter	DI	450	L=1,370mm	PN10	1
39	Double Flanged Piece	DI	450	L=1,500mm	PN10	1
40	All Flanged 450 x 450 Tee	DI	450x450	L=950x475mm	PN10	1
41	Butterfly Valve	DI	450	L=210mm	PN10	2
42	Flange Adapter (DF)	SS	450	L=900mm	PN10	2
43	Double Flanged Piece	DI	450	L=1,415mm	PN10	1
44	Double Flanged 450 x 250 Taper	DI	450x250	L=700mm	PN10	1
45	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
46	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	1
47	Straight Pipe	DI	250	L=6,000mm	Type-T	6
48	Collar	DI	250		Type-K	1
49	Plain Ends Piece	DI	250	L=1,000mm	Type-T	2
50	Socket - Plain End Piece	DI	250	L=3,900mm	Type-T	1
51	Double Socket 90 degree Bend	DI	250	L=520mm x 2	Type-T	1
52	Double Flanged 500 x 450 Taper	DI	500x450	L=300mm	PN10	1
53	Double Flanged Piece	DI	500	L=2,515mm	PN10	1
54	Double Flanged Piece	DI	500	L=700mm	PN10	1
55	Double Flanged 90 degree Bend	DI	500	L=600mm x 2	PN10	1
56	Double Flanged Piece	DI	500	L=3,115mm	PN10	1
57	Double Flanged 90 degree Duckfoot Bend	DI	500	L=600mm x 2	PN10	1
58	Double Flanged 45 degree Bend	DI	500	L=375mm x 2	PN10	1
59	Double Flanged Flexible Expansion Joint	DI	500		PN10	1
61	Flanged Bellmouth	DI	500	L=275mm	PN10	2
62	Double Flanged Piece	DI	500	L=5,075mm	PN10	2
63	Double Flanged Piece with Puddle	DI	500	L=850mm	PN10	2
64	Double Flanged Piece	DI	500	L=550mm	PN10	2
65	Flange Adapter (DF)	SS	500	L=900mm	PN10	4
66	Double Flanged 90 degree Bend	DI	500	L=600mm x 2	PN10	4
67	Flanged Spigot Piece with Puddle	DI	500	L=1,040mm	PN10, Type-T	2
68	Butterfly Valve	DI	500	L=210mm	PN10	2
69	All Flanged 500 x 500 Tee	DI	500x500	L=1,000x500mm	PN10	3
70	Double Flanged 90 degree Duckfoot Bend	DI	500	L=600mm x 2	PN10	2
71	Double Flanged Flexible Expansion Single Joint	DI	500		PN10	1
72	Double Flanged Piece	DI	500	L=1,100mm	PN10	2
73	Double Flanged Piece	DI	500	L=700mm	PN10	1
74	Double Flanged Piece	DI	500	L=3,115mm	PN10	1
75	Double Flanged 45 degree Bend	DI	500	L=375mm x 2	PN10	1
76	Double Flanged Flexible Expansion Joint	DI	500		PN10	1

\* Contractor should provide concrete and/or metal pipe support.



Section A-A

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



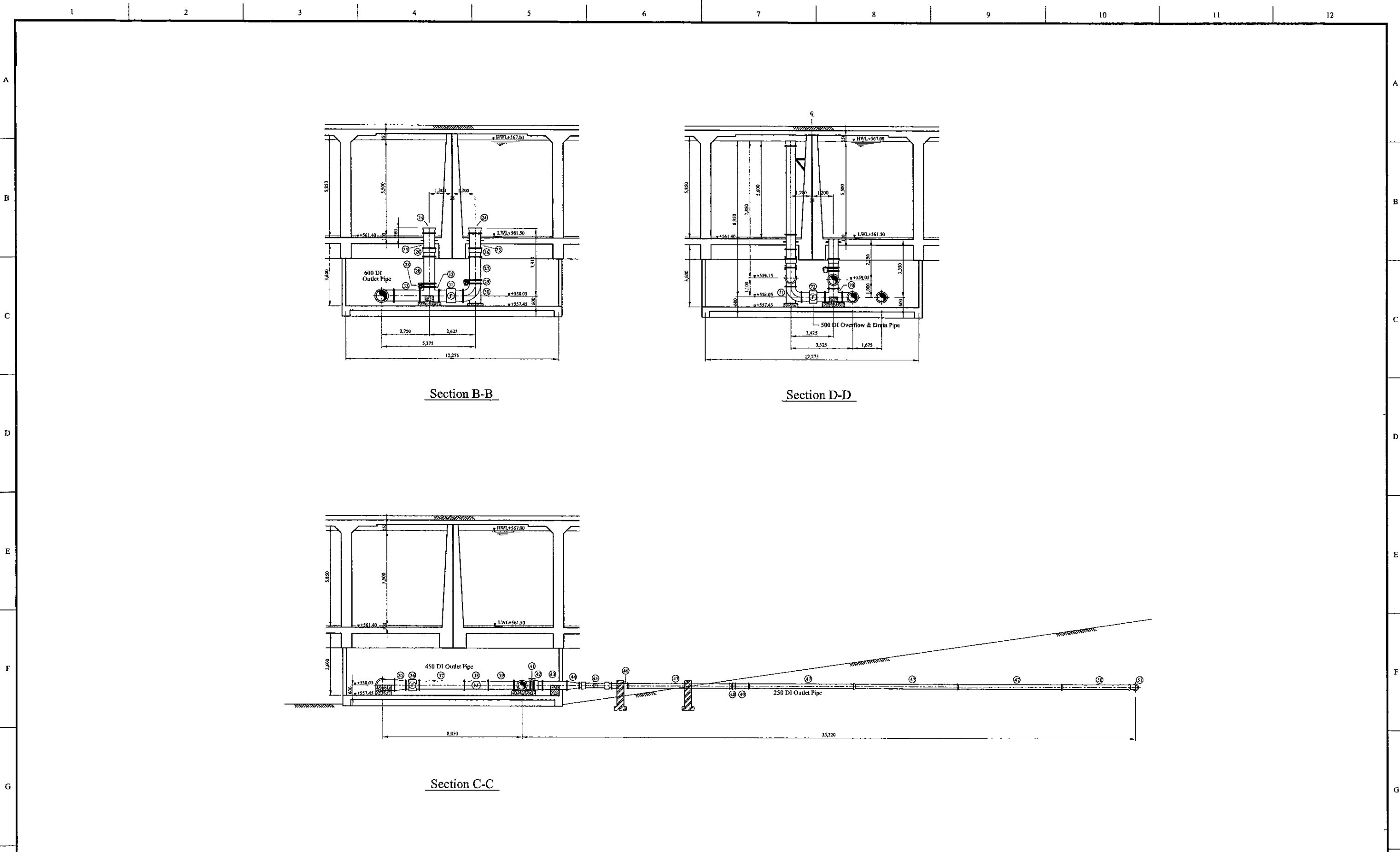
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF ASGIRIYA S.R - 1

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-14-02



Section B-B

Section D-D

Section C-C

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF ASGIRIYA S.R - 2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



REV.	DESCRIPTION	DATE	SIGN.

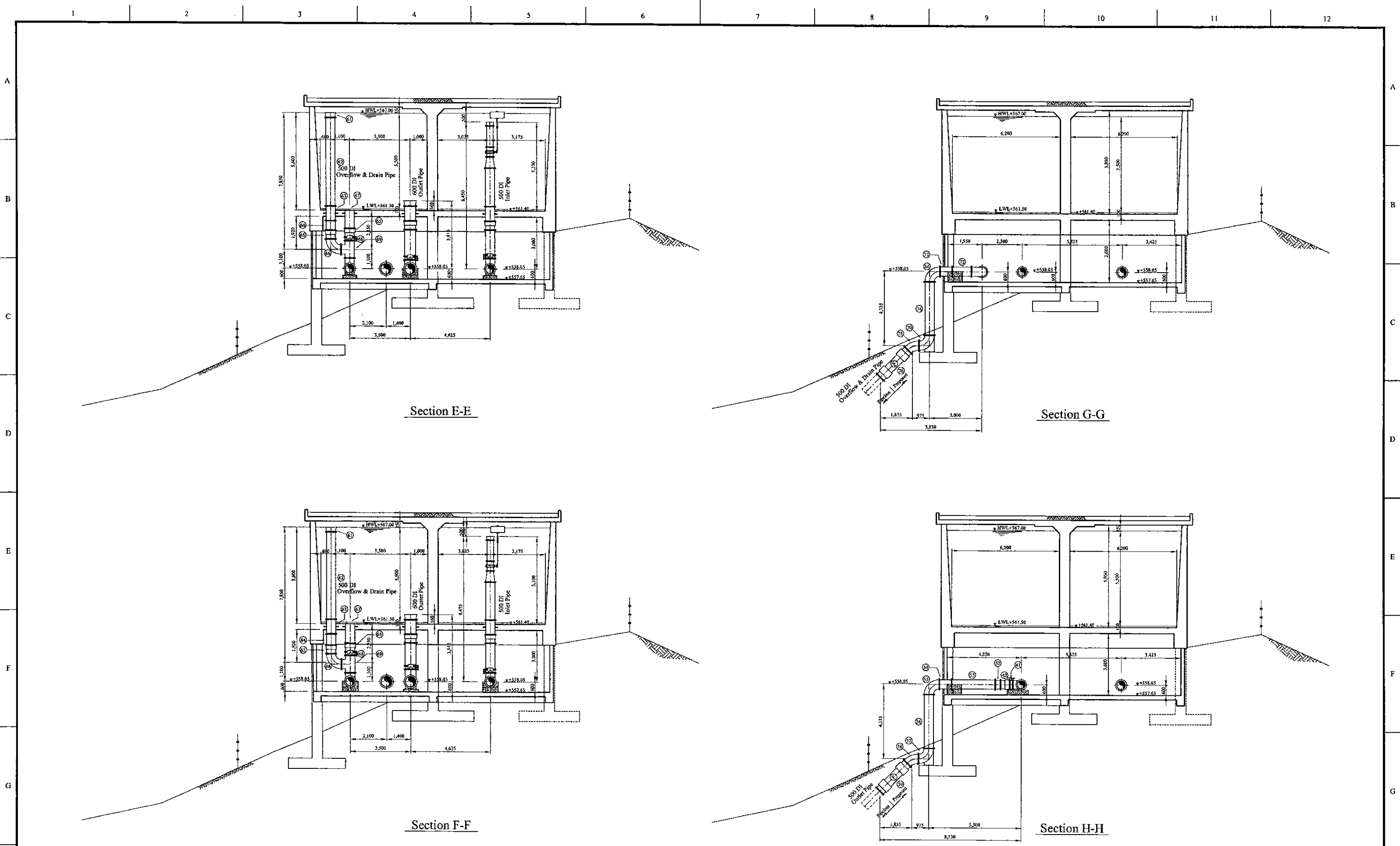
DESIGNED: Koichi OKAZAKI  
CHECKED: [Signature]  
DESIGN CHIEF

DRAWN: Koichi OKAZAKI

PM: (CONSULTANT) Ikuo MIWA  
DGM: (P&D)

CE: (P&D)  
DATE: 31/05/2002

SCALE: 1:100  
DRAWING NO.: 31-C-14-03



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF ASGIRIYA S.R - 3

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

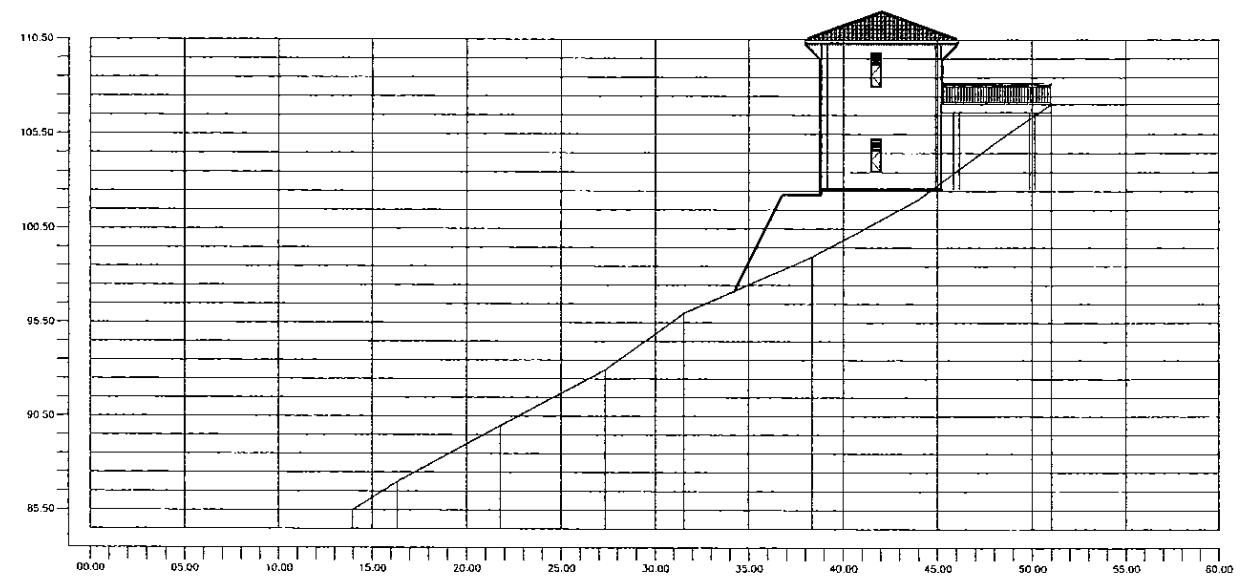
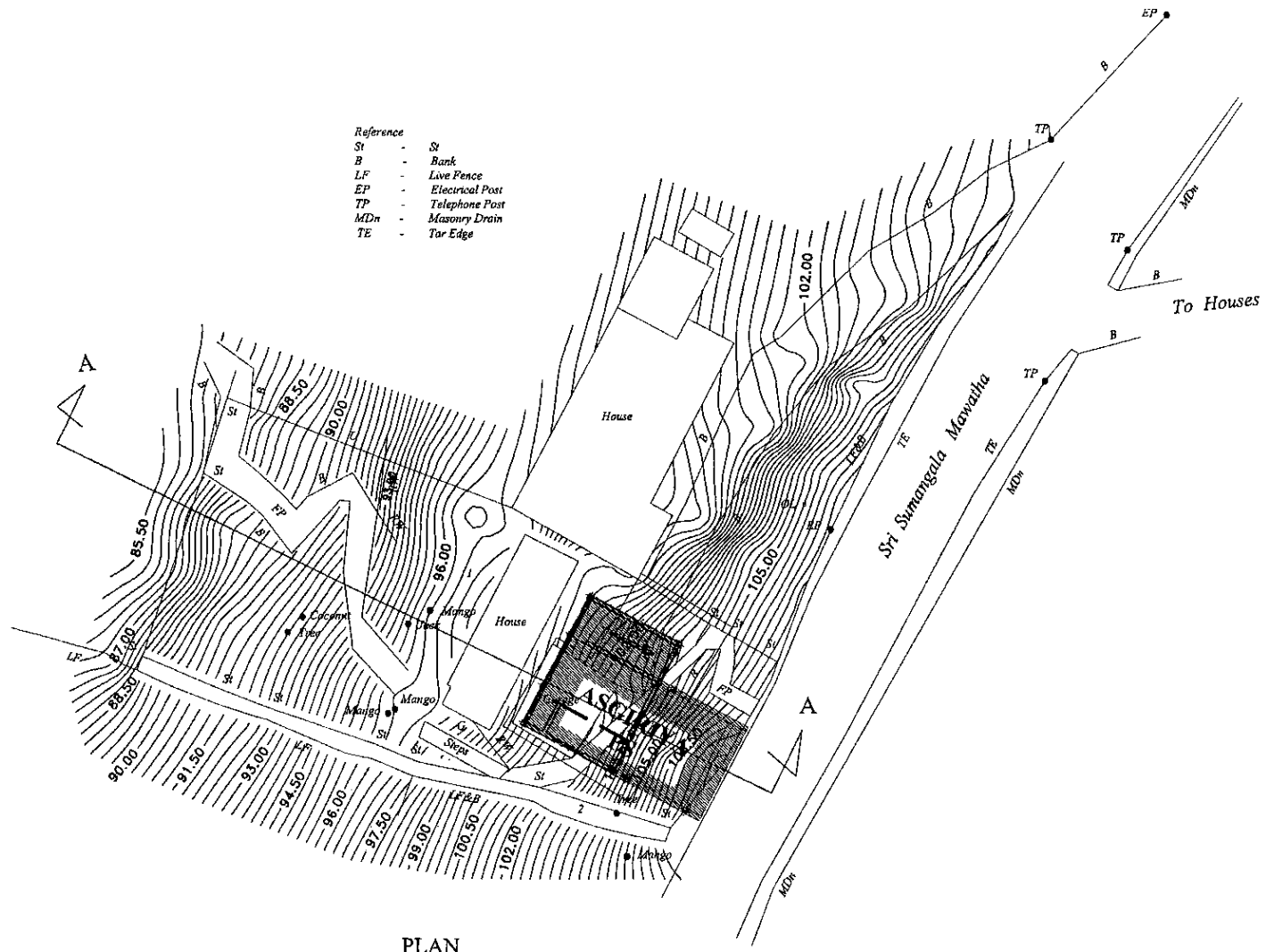


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN







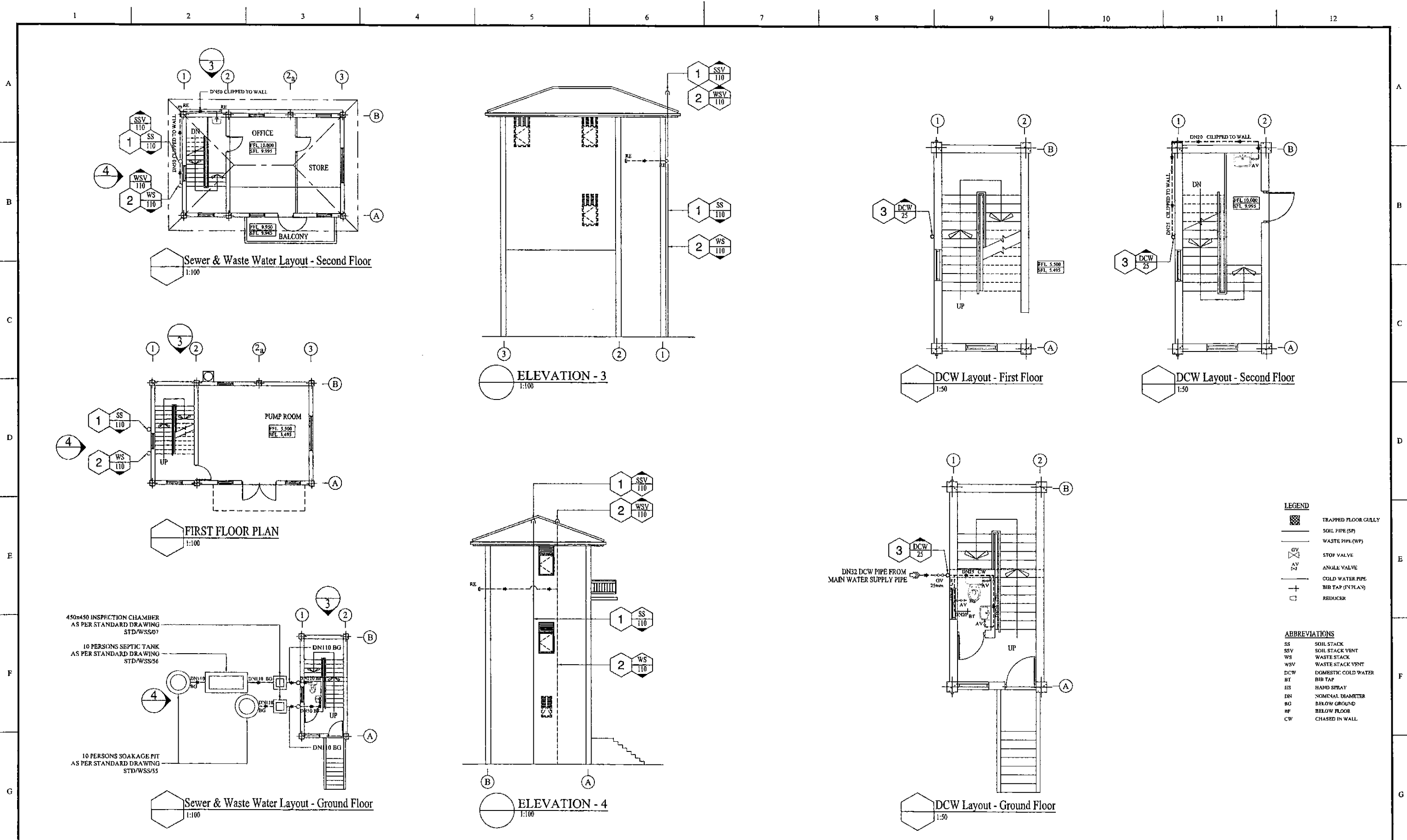
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-14-04

- Reference  
 St - St  
 B - Bank  
 LF - Live Fence  
 EP - Electrical Post  
 TP - Telephone Post  
 MDn - Masonry Drain  
 TE - Tar Edge



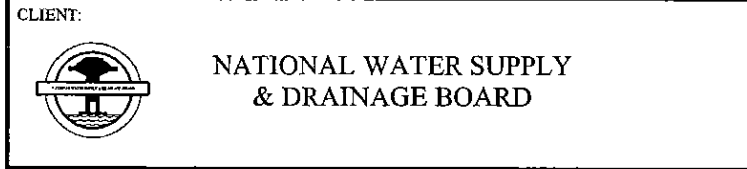
SECTION A - A

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: SITE PLAN AND C.S. OF ASGIRIYA PUMPING STATION								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-15-01



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

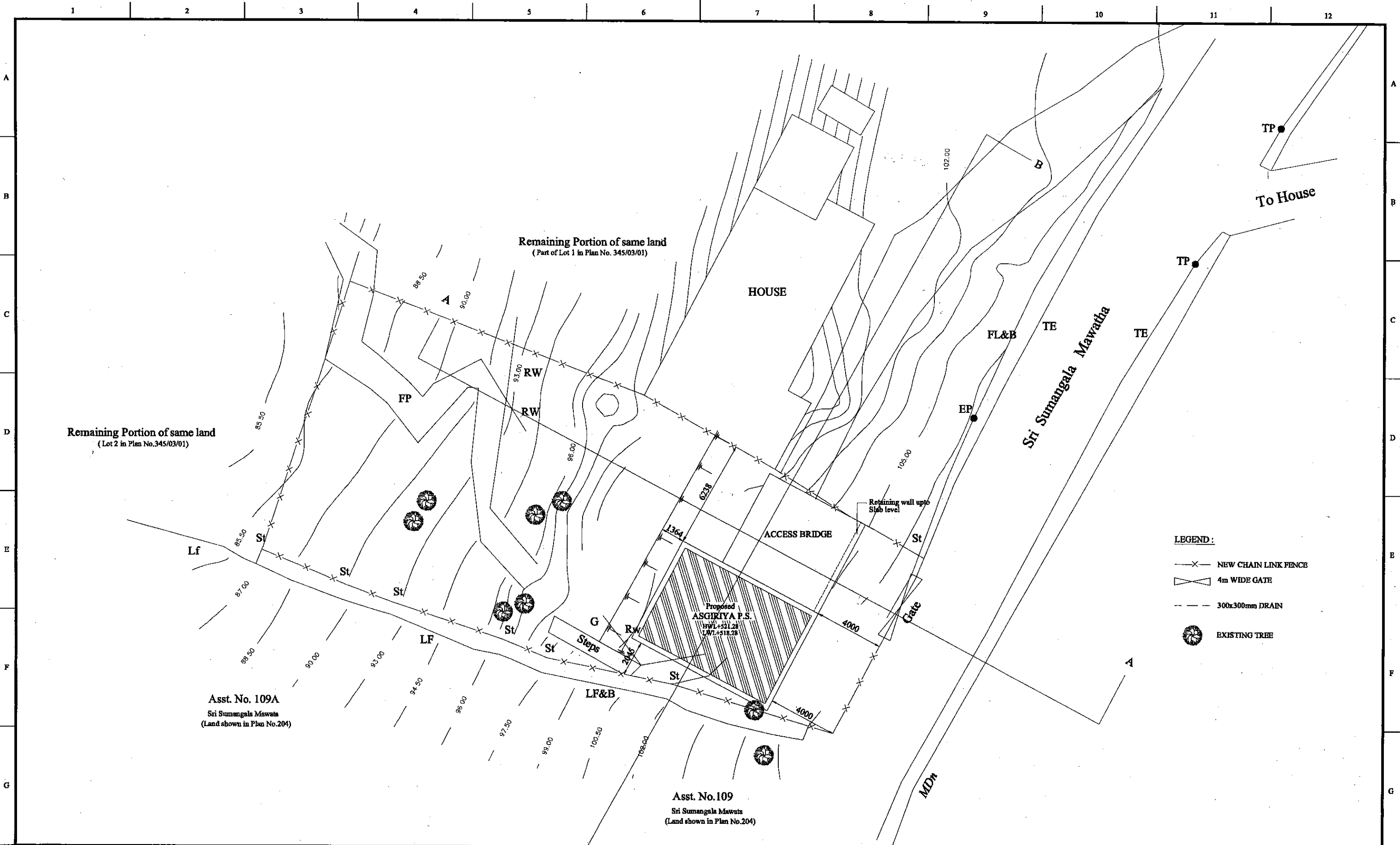


CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: **ASGIRIYA PUMP STATION DCW, SEWER & WASTE WATER LAYOUT**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	D.H.V.	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-C-15-02





<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> PROPOSED ASGIRIYA P.S. LANDSCAPING LAYOUT																									
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr> <td>XX</td> <td>XXXXX</td> <td>00/00/00</td> <td>XXX</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.	XX	XXXXX	00/00/00	XXX													<b>DESIGNED:</b>  <b>CHECKED:</b> ROSHAN	<b>DRAWN:</b> POORNA AGM: (P&D)	<b>PM: (CONSULTANT)</b> Ikuo MIWA DGM: (P&D)	<b>CE: (P&amp;D)</b>  <b>DATE:</b> 31/05/2002	<b>SCALE:</b> 1:100 <b>DRAWING NO.:</b> 30-C-15-03
REV.	DESCRIPTION	DATE	SIGN.																										
XX	XXXXX	00/00/00	XXX																										

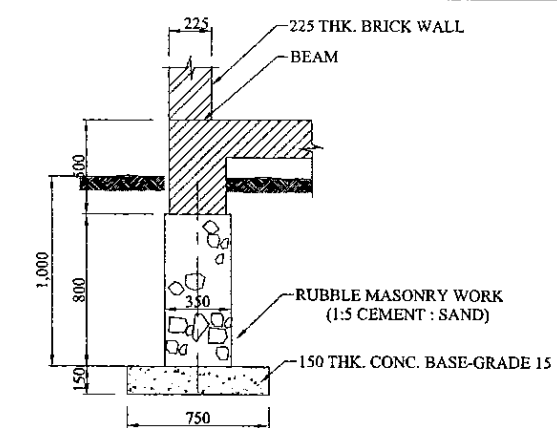


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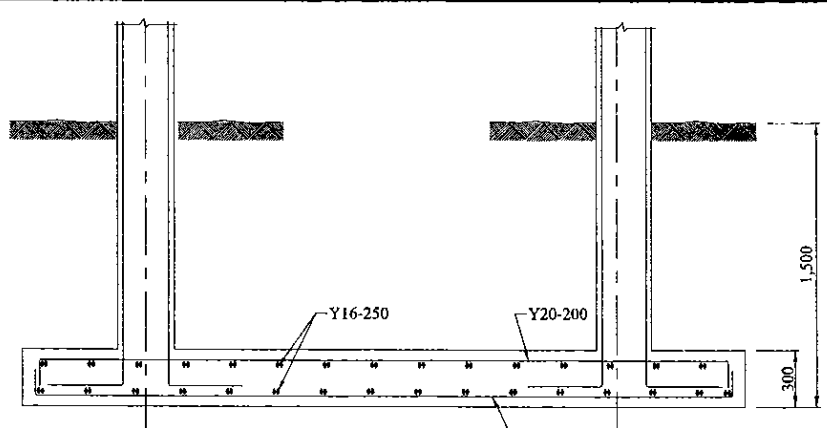
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B	-	Bank
LF	-	Live Fence
EP	-	Electrical Post
TP	-	Telephone Post
MDn	-	Masonry Drain
TE	-	Tar Edge

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA PUMPING STATION - SITE PLAN								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Taketoshi FUJUYAMA	DRAWN: Wann	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-15-01

SCHEDULE OF COLUMNS						
TYPE	LOCATION	FOOTING TO D.P.C LEVEL	D.P.C TO +1ST FLOOR LV.	1ST FLOOR LV. TO ROOF LV.	ROOF LEVEL	REMARKS
C1	A/1, A/2, A/2a, A/3 B/1, B/2, B/2a, B/3	300x300 2Y16+1Y12 1Y12 2Y16+1Y12 LINKS R6 @ 150	300x300 2Y16 2Y16 LINKS R6 @ 150	300x300 2Y16 2Y16 LINKS R6 @ 150	UP TO ROOF	
C2	2/B, 2/C, 2/D	300x300 2Y16 2Y16 LINKS R6 @ 150	300x300 2Y16 2Y16 LINKS R6 @ 150	300x300 2Y16 2Y16 LINKS R6 @ 150	UP TO ROOF	

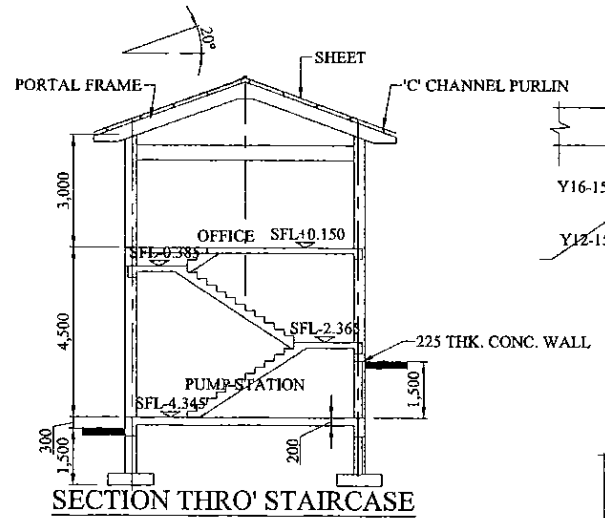


TYP SECTION THRO' BRICK WALL  
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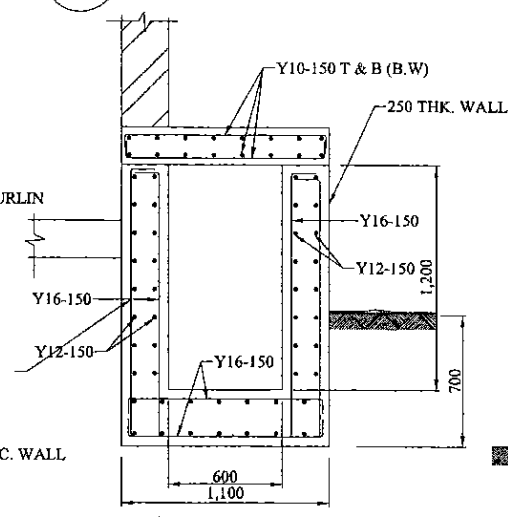


SECTION OF CF2  
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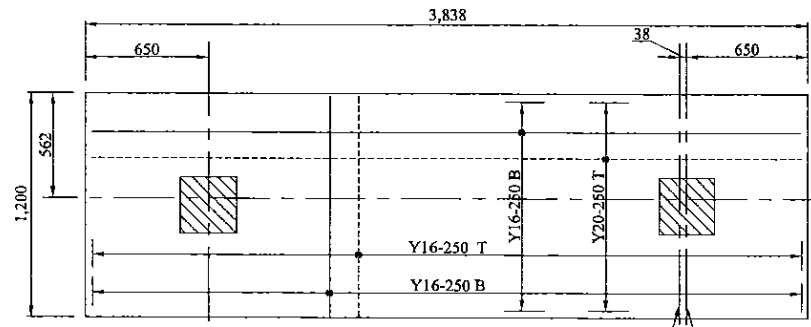
SCHEDULE OF FOOTING			
TYPE	LOCATION	FOOTING SIZE	REINFORCEMENT
F1	A/2	1900 x 1900 x 300	Y12 @ 250 (B/W)
F2	A/1	1500 x 1700 x 300	Y12 @ 250 (B/W)
F3 & F4	C/2, C/3 C/2, C/3	2000 x 2000 x 300	Y16 @ 200 Y12 @ 250
CF1	ALONG GRID 'B'	SEE DETAIL	SEE DETAIL
CF2	A/N BET. GRID 2a & 3	SEE DETAIL	SEE DETAIL



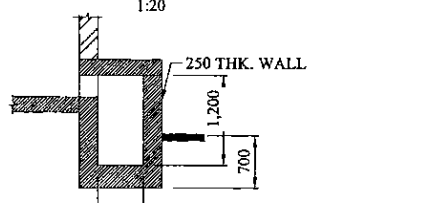
SECTION THRO' STAIRCASE



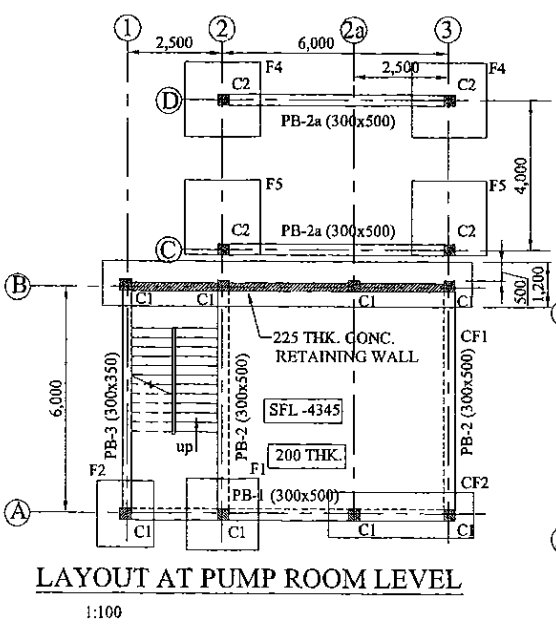
R/F DETAIL OF MANHOLE  
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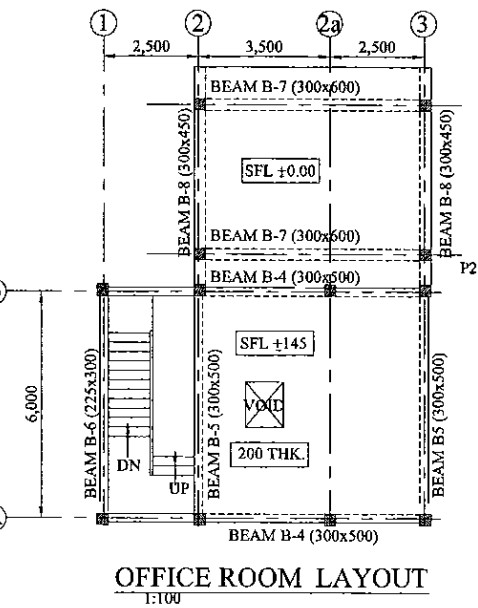
FOOTING CF2  
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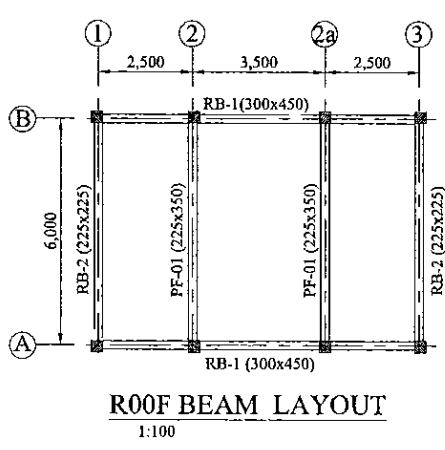
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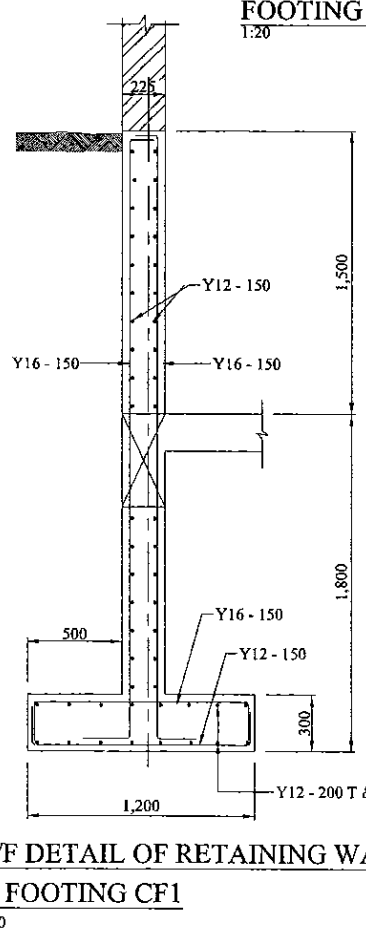
LAYOUT AT PUMP ROOM LEVEL  
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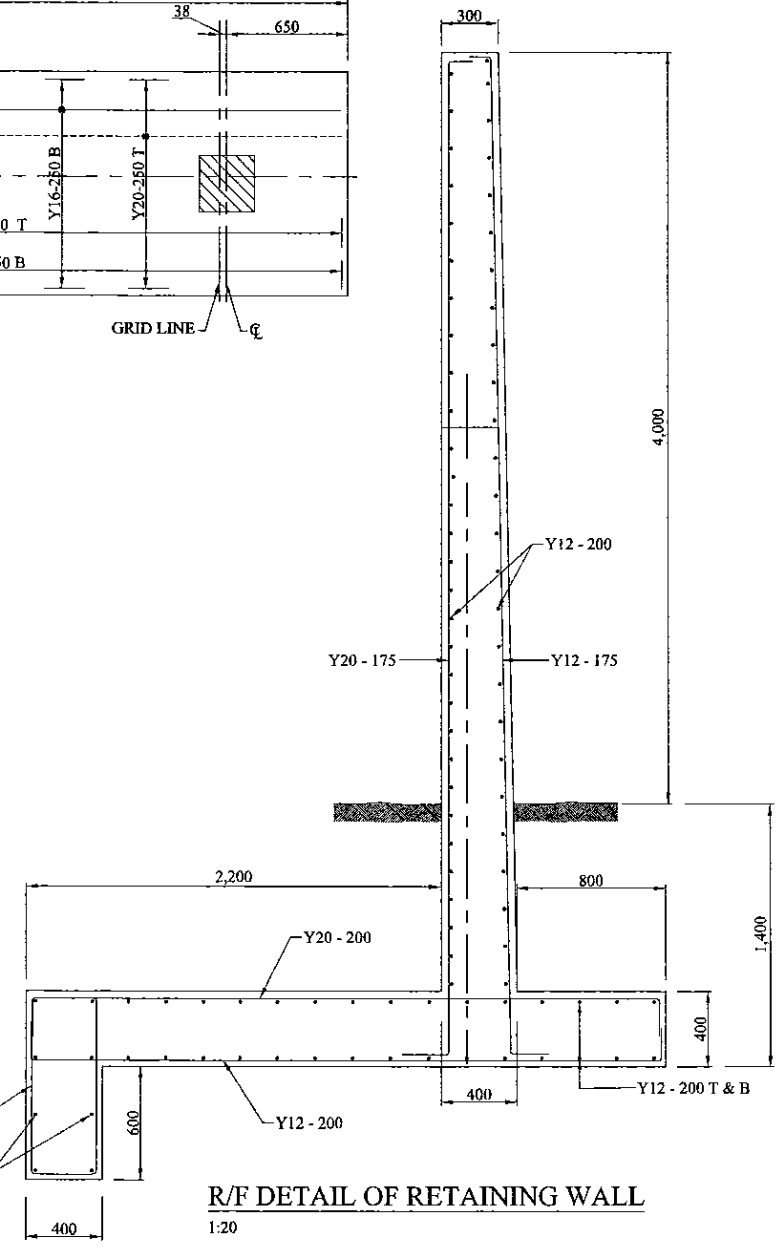
OFFICE ROOM LAYOUT  
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ROOF BEAM LAYOUT  
1:100

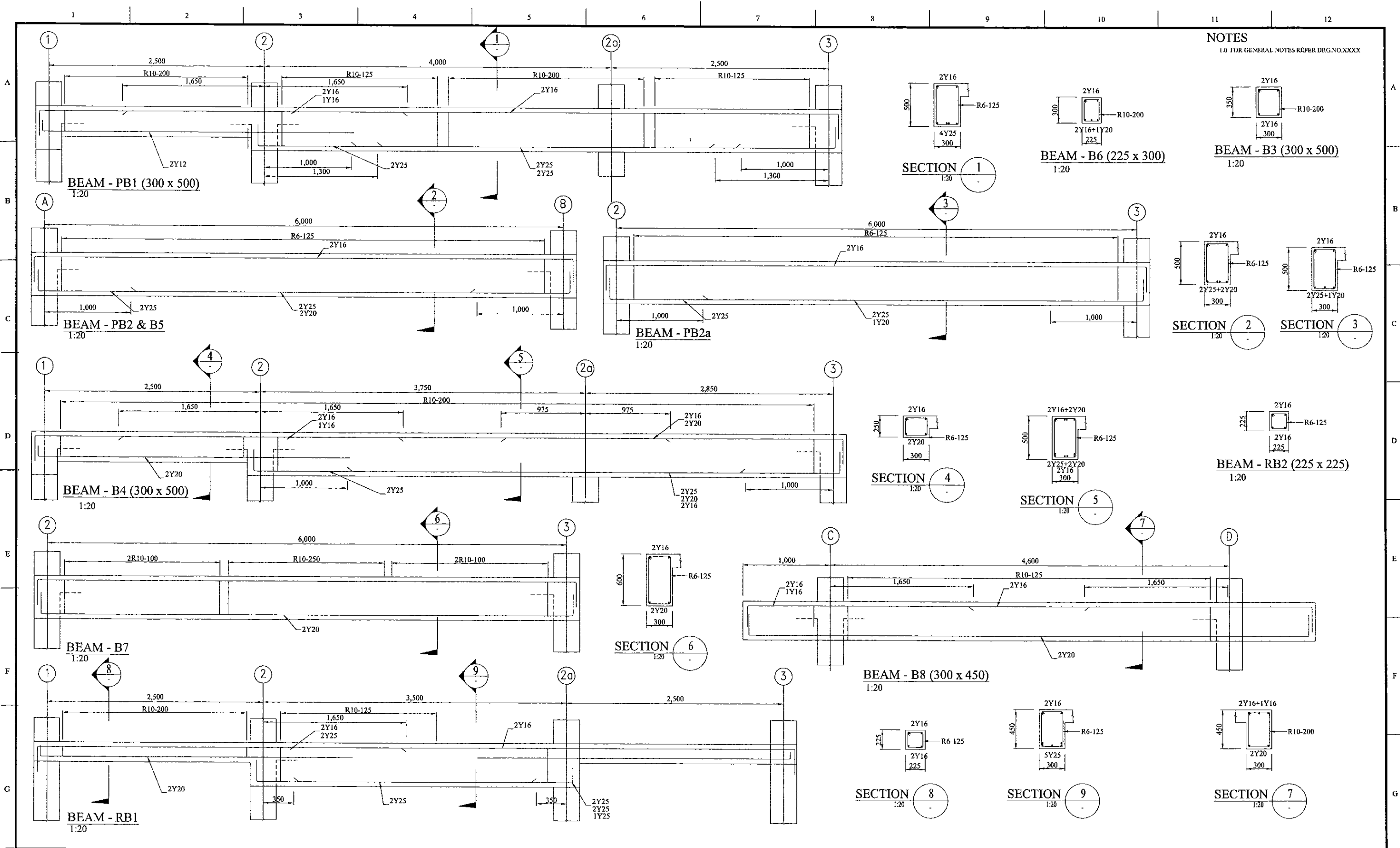


R/F DETAIL OF RETAINING WALL & FOOTING CF1  
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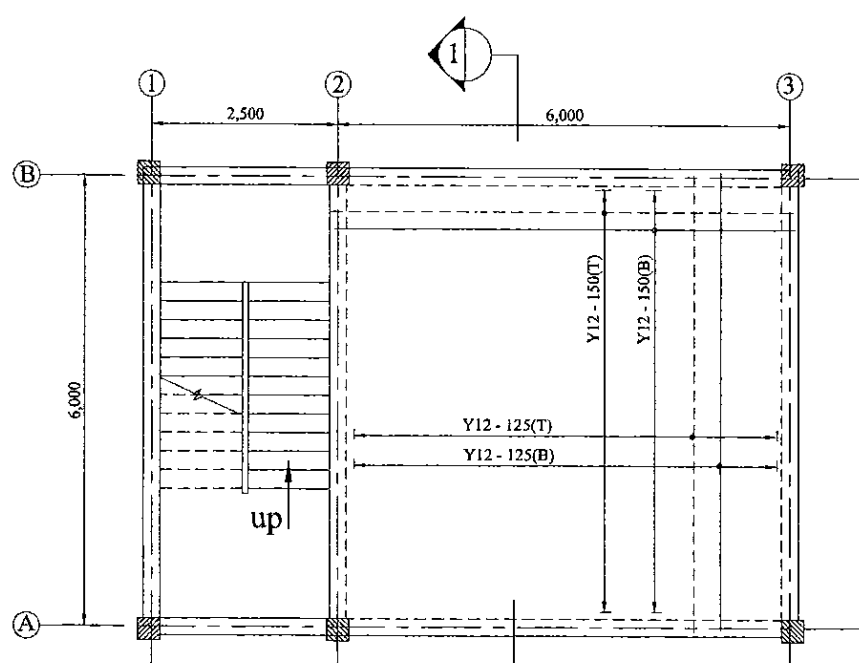
R/F DETAIL OF RETAINING WALL  
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PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA PUMPING STATION GENERAL ARRANGMENT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXXX	DATE 00/00/00	SIGN. XXX	DESIGNED: L. JAYAWARDENA	DRAWN: SAMANPALI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
				CHECKED:				AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-15-02	

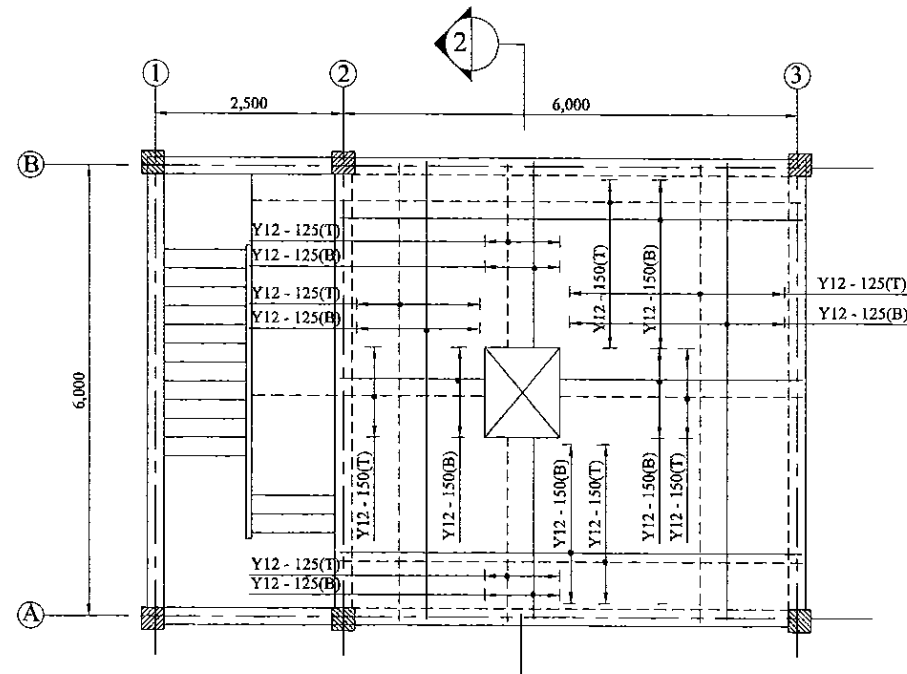


**NOTES**  
1.0 FOR GENERAL NOTES REFER DRG.NO.XXXX

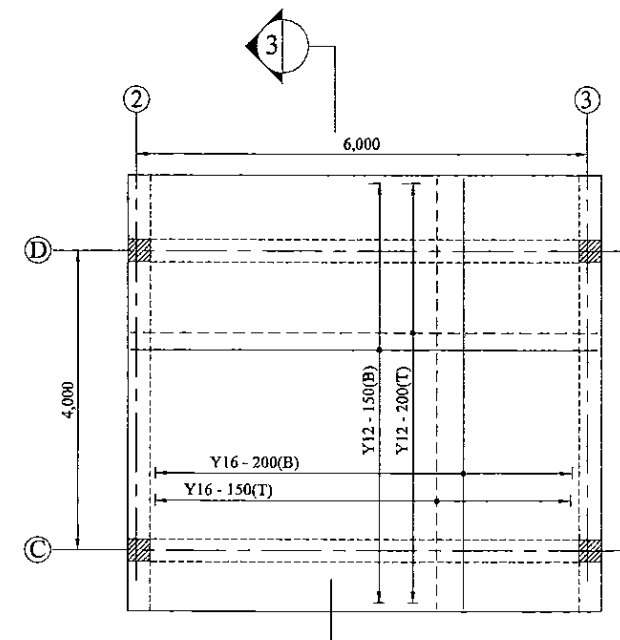
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>ASGIRIYA PUMPING STATION R/F DETAILS OF BEAMS</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAMANPALI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
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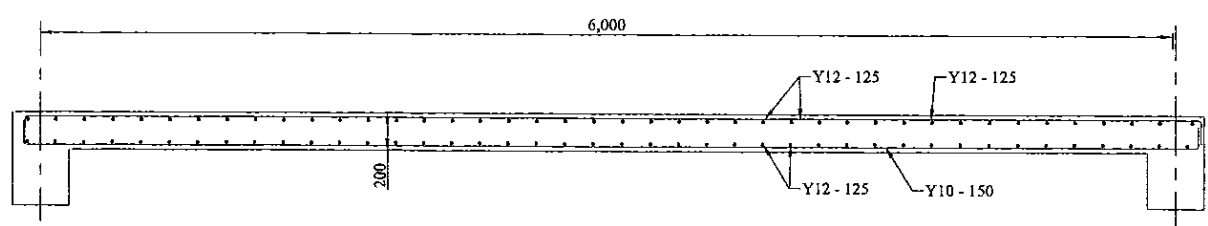
R/F DETAIL OF PUMP ROOM SLAB  
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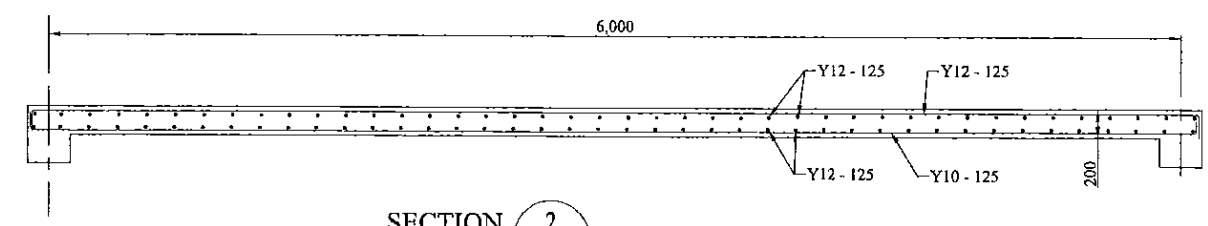
R/F DETAIL OF OFFICE ROOM SLAB  
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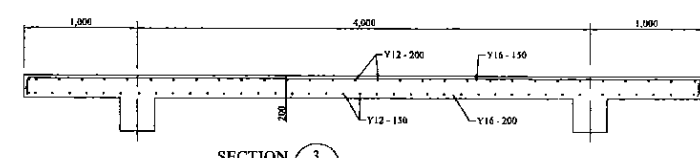
R/F DETAIL OF BRIDGE SLAB  
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SECTION 1  
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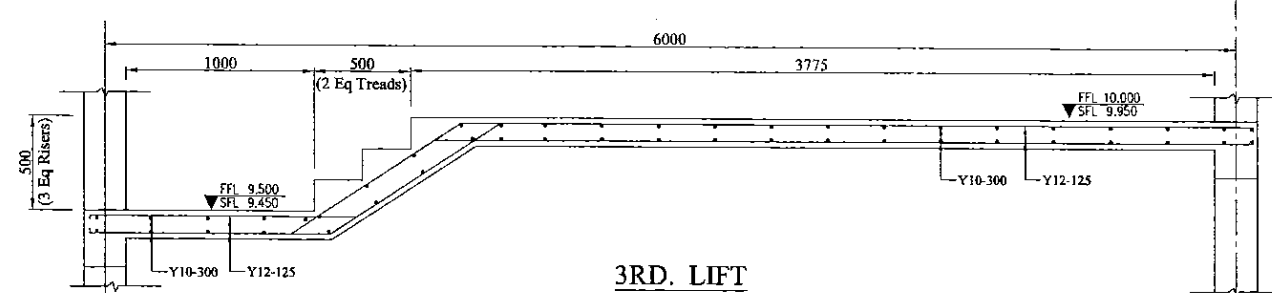


SECTION 2  
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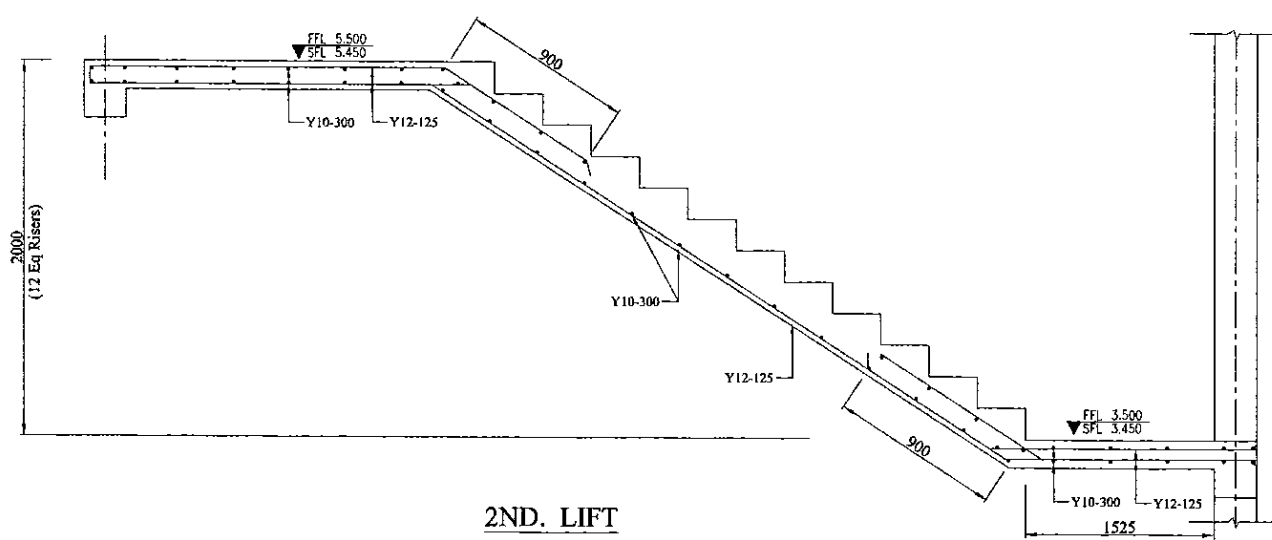


SECTION 3  
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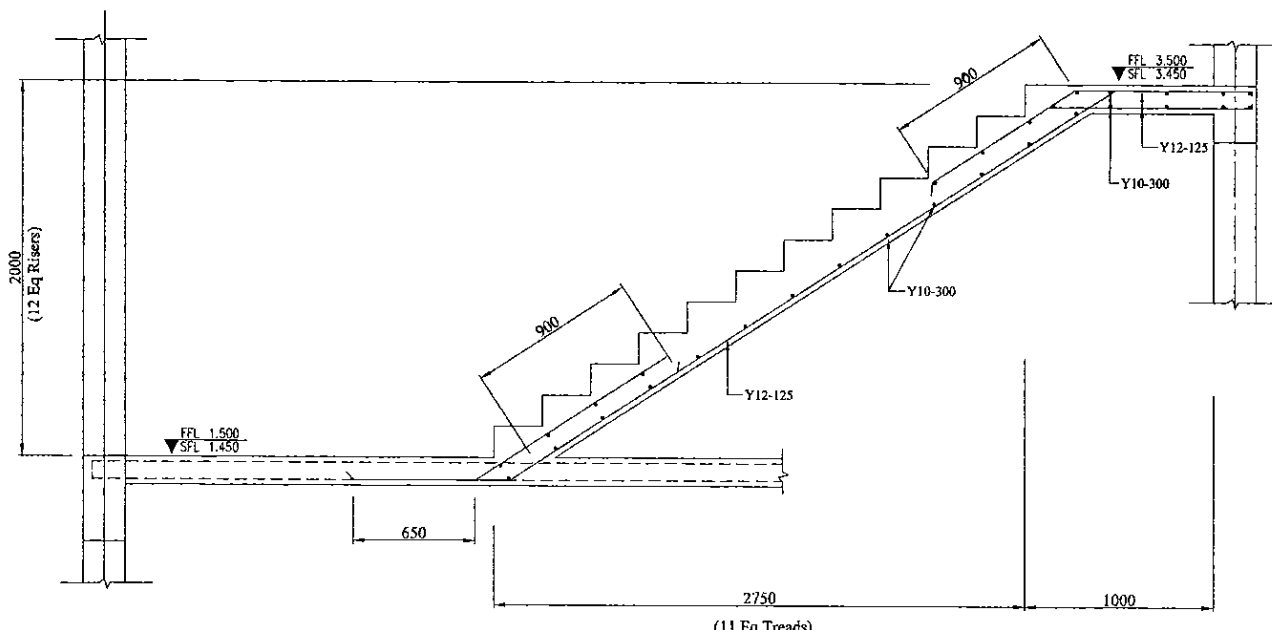
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ASGIRIYA PUMPING STATION R/F DETAIL OF SLAB								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAMANPALI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
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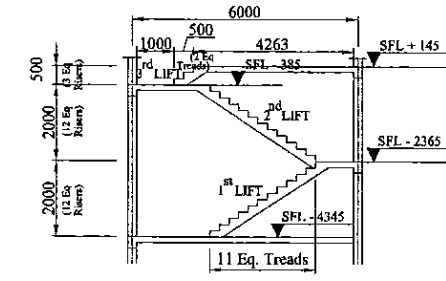
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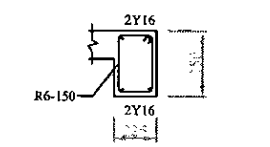
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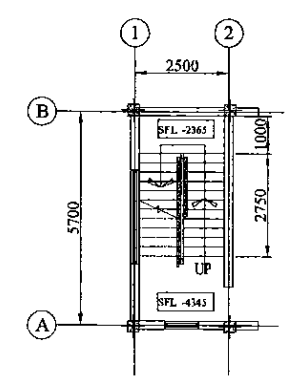
**1ST. LIFT**  
SCALE 1:20



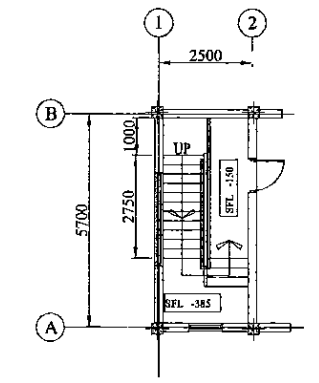
**SECTION**  
SCALE 1:100



**LANDING BEAM  
DETAIL**  
SCALE 1:20




**FIRST FLOOR PLAN**  
SCALE 1:100





**SECOND FLOOR PLAN**  
SCALE 1:100

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

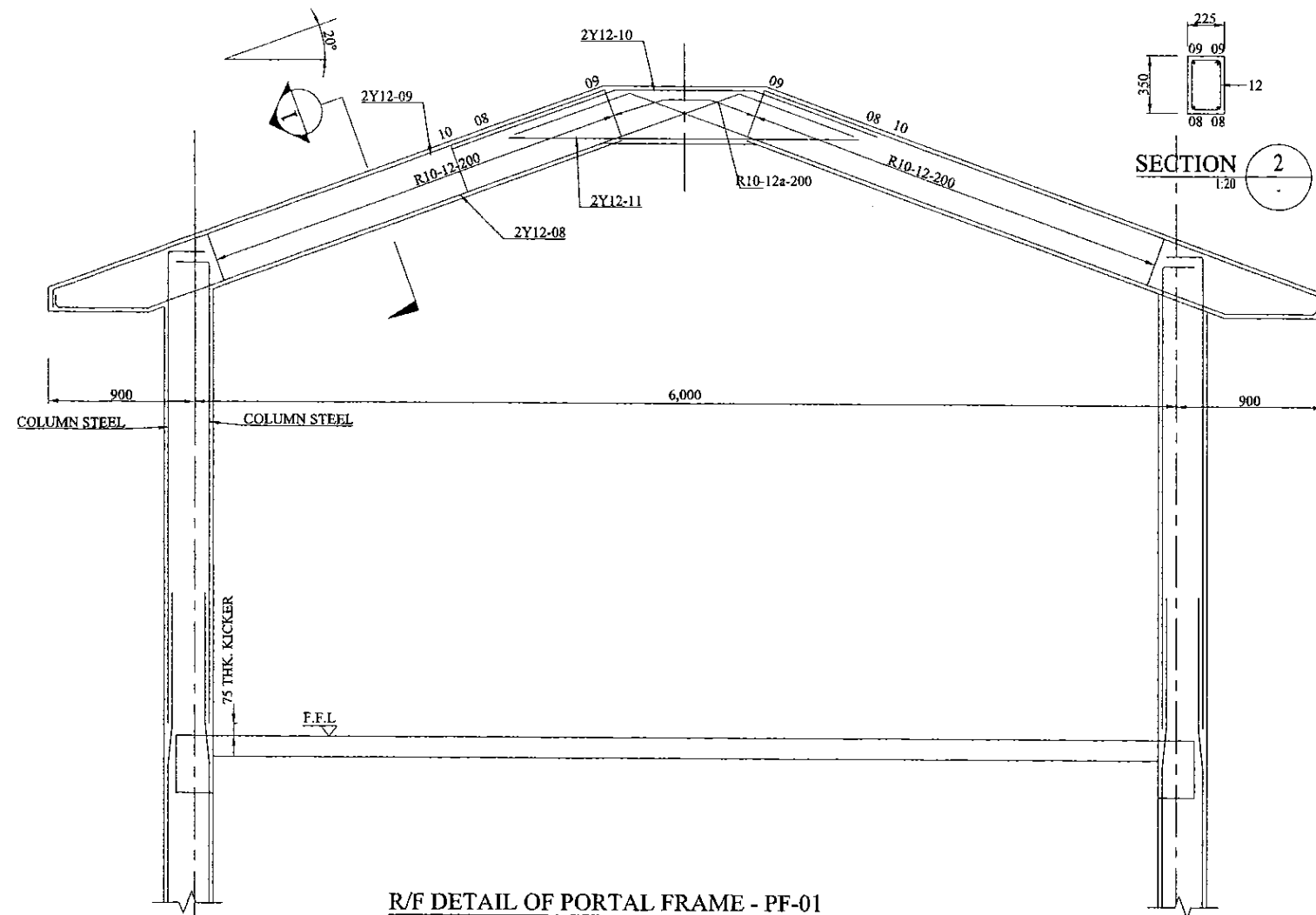
CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

 **JAPAN INTERNATIONAL COOPERATION AGENCY**

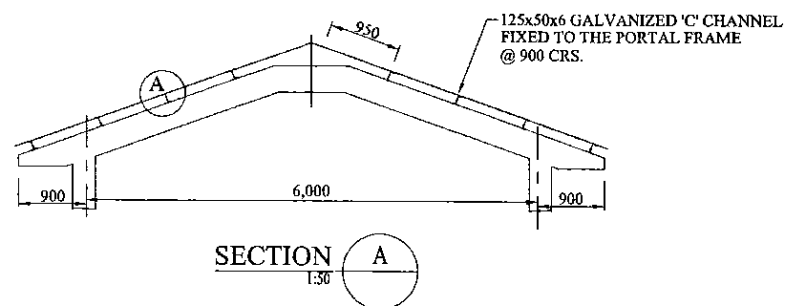
CONSULTANTS:  **NJS CONSULTANTS CO., LTD. - JAPAN**  
 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: **ASGIRIYA PUMPING STATION R/F DETAILS OF STAIRCASE**

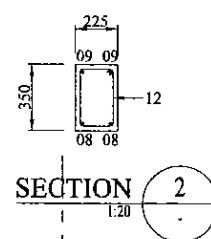
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50, 1:20
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-15-05



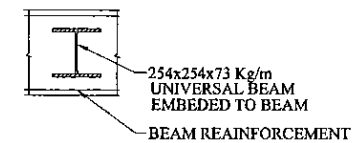
R/F DETAIL OF PORTAL FRAME - PF-01  
1:20



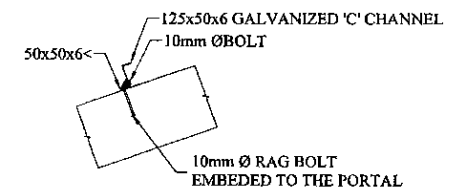
SECTION A  
1:30



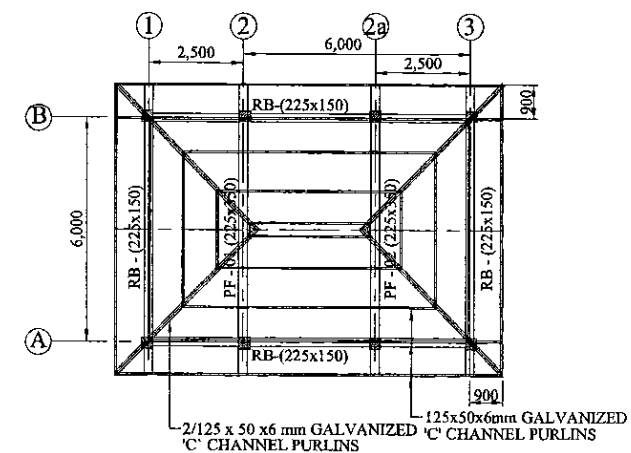
SECTION 2  
1:20



TYP FIXING DETAIL OF HOIST BEAM  
1:20



DETAIL AT 'A'  
1:20



ROOF LAYOUT  
1:100

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

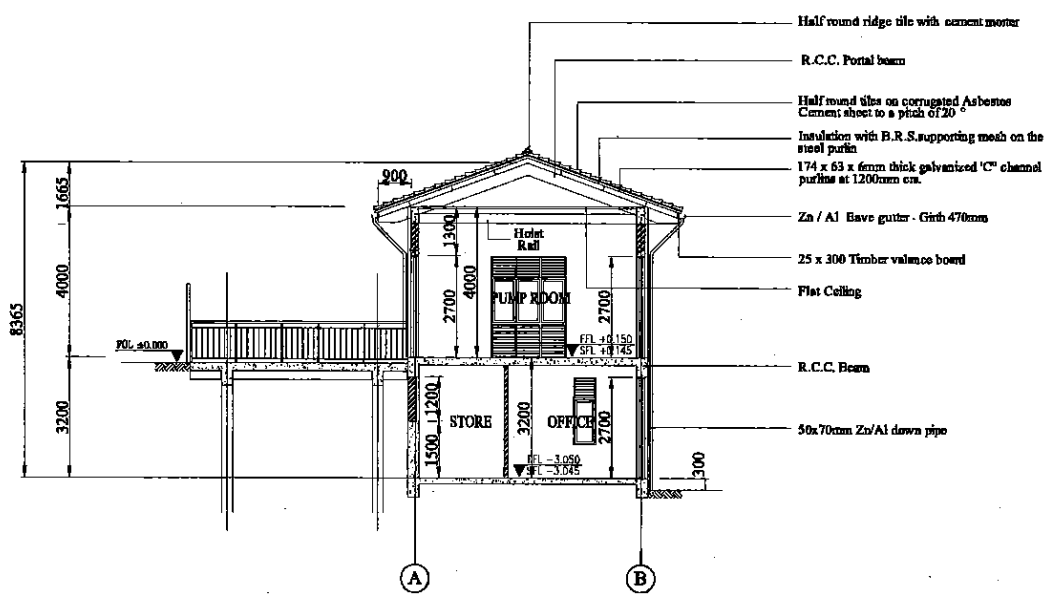
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

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

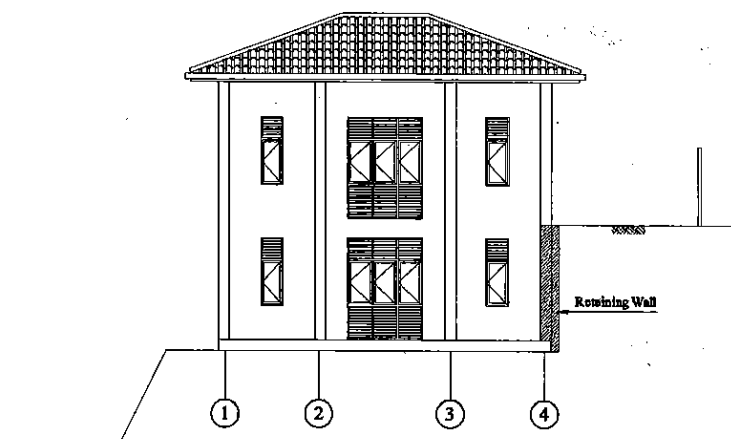
TITLE: ASGIRIYA PUMPING STATION R/F DETAIL OF PORTAL FRAMS & ROOF LAYOUT

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-15-06

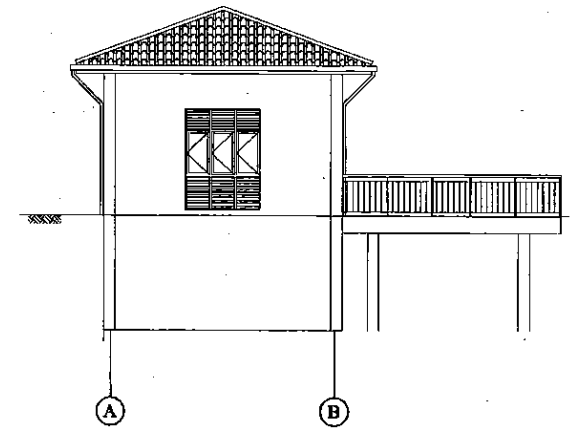
Schedule of Doors and Windows				
TYPE	SIZE	QTY	DESCRIPTION	NO.
D1	2000x2700	1	Steel framed 20 gauge color coated Aluminum door double end door.	01
D2	900x2100	1	Aluminum framed 20mm PVC coated plywood sheet (both sides) single end door.	02
D3	800x2100	1	Aluminum framed 20mm PVC coated plywood sheet (both sides) single end door.	01
W1	2000x2700	1	Aluminum framed 20mm clear float glass single end windows with Aluminum louvers above and below.	03
W2	600x1800	3	Aluminum framed 20mm clear float glass single end windows with Aluminum louvers above.	06
W3	800x1200	1	Aluminum framed 20mm clear float glass single end windows with Aluminum louvers above.	02



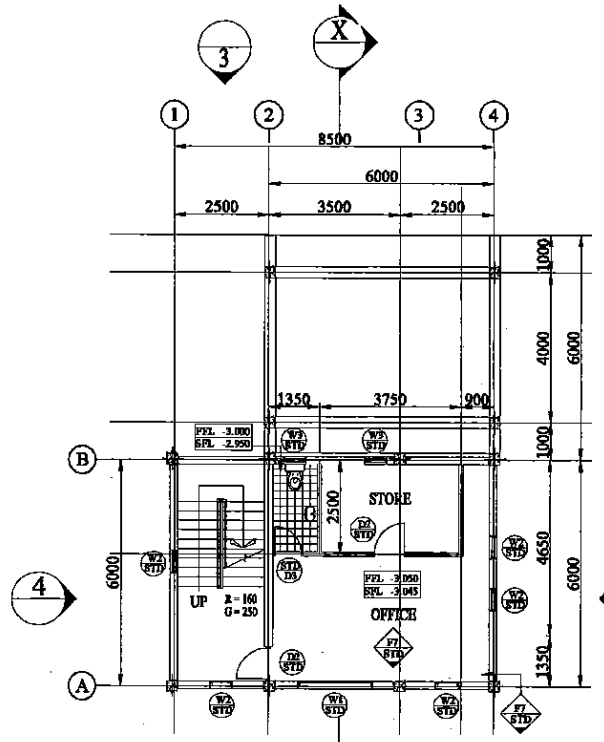
SECTION X-X  
1:100



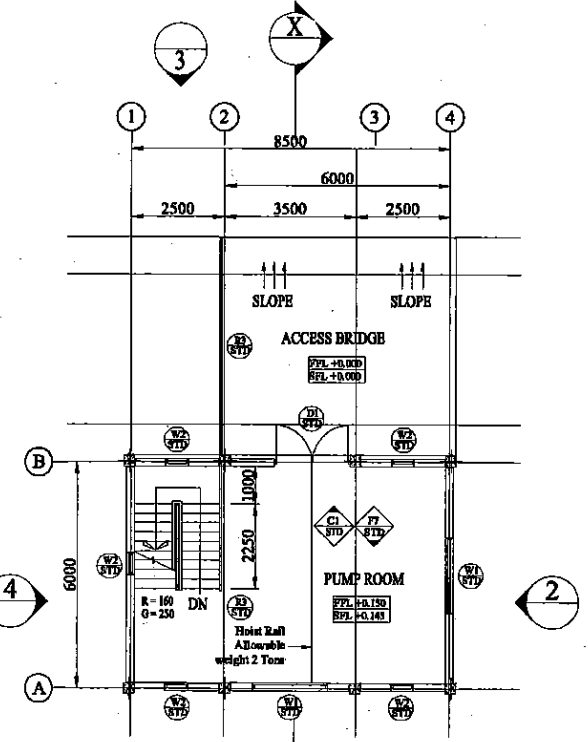
ELEVATION - 1  
1:100



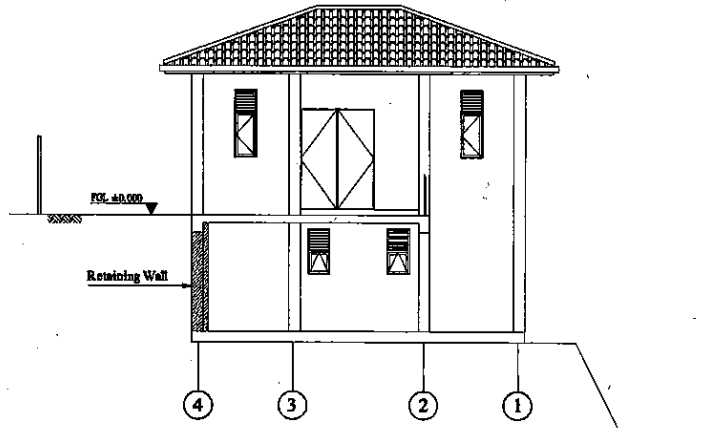
ELEVATION - 2  
1:100



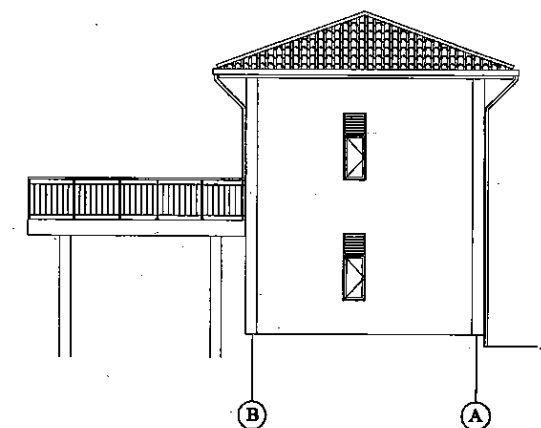
BASEMENT FLOOR PLAN  
1:100



GROUND FLOOR PLAN  
1:100



ELEVATION - 3  
1:100



ELEVATION - 4  
1:100

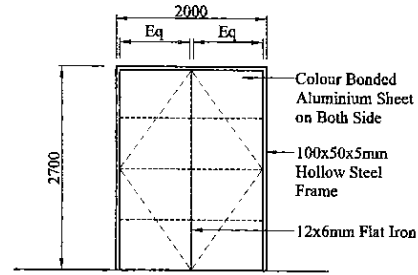
NOTE:  
Platform Level of Building = +5362  
Therefore FGL = 0.00 = 5362 (AMSL)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: Asgiriya Pump Station - Plan, Section and Elevations							
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED:	DRAWN: Poorna	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 100	
						CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-15-01	

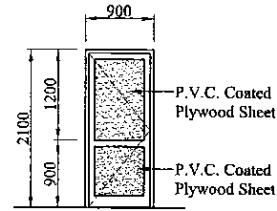
DATE: 17/07/2001



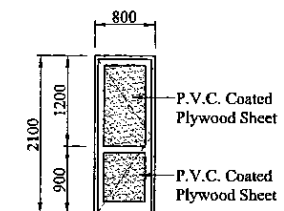
Schedule of Doors and Windows				
TYPE	SIZE	SHL	DESCRIPTION	NOS
D1	2000x2700		Steel framed 20 gauge colour bonded Aluminium sheet double sash door.	01
D2	900x2100		Aluminium framed 5mm PVC coated plywood sheet (both side) single sash door.	02
D3	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both side) single sash door.	01
W1	2000x2700		Aluminium framed 5mm thk. clear float glass single sash windows with Aluminium louvers above and below.	03
W2	600x1800	900	Aluminium framed 5mm thk. clear float glass single sash windows with Aluminium louvers above.	07
W3	600x1200	1500	Aluminium framed 5mm thk. clear float glass single sash windows with Aluminium louvers above.	01



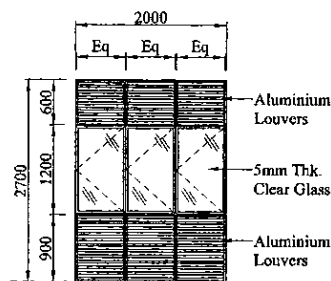
STD ELEVATION D1  
1:30



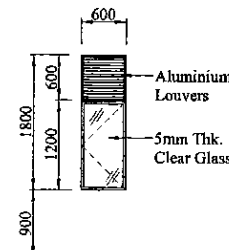
STD ELEVATION D2  
1:30



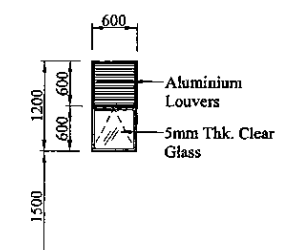
STD ELEVATION D3  
1:30



STD ELEVATION W1  
1:30



STD ELEVATION W2  
1:30



STD ELEVATION W3  
1:30

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ASGIRIYA PUMP STATION - DETAILS OF DOORS AND WINDOWS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

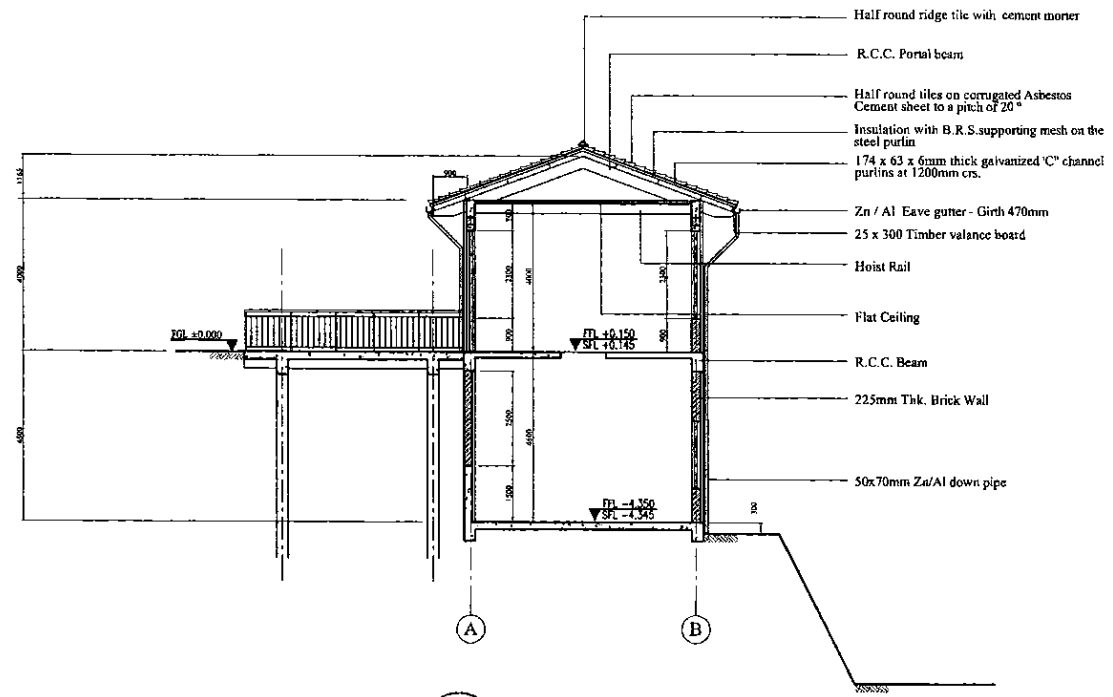
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

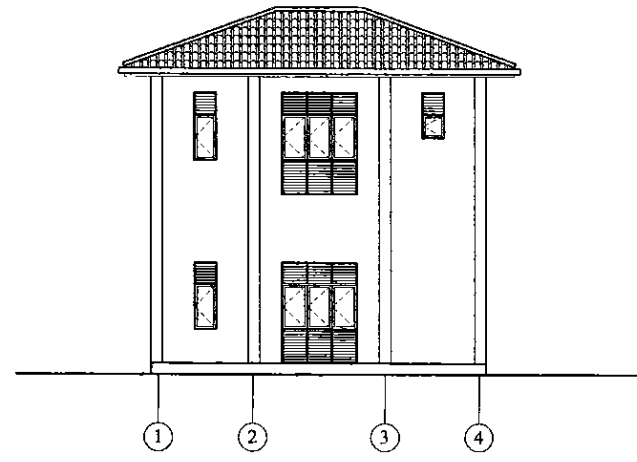
DESIGNED: Shigenori OGAWA	DRAWN: Poorna	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 50
CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-15-02

DATE: 17/07/2001

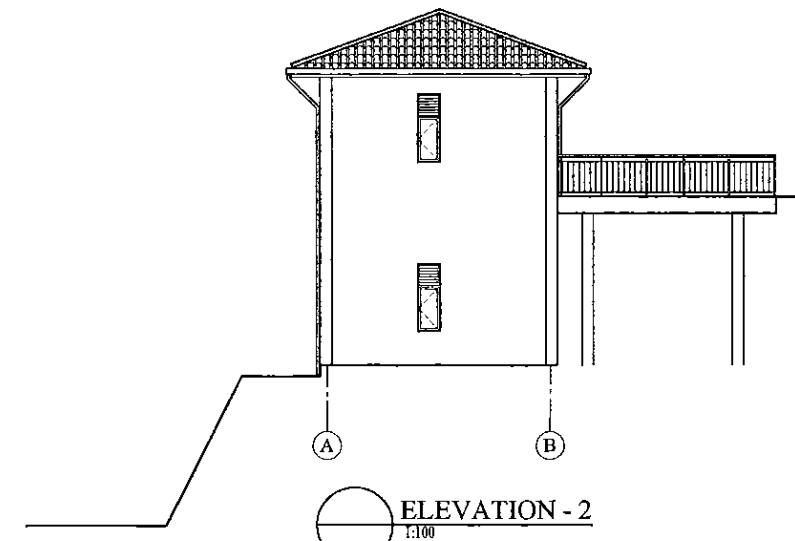
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	NO.
D1	2000x2700		Steel framed 20 gauge colour bonded Aluminium sheet double sash door.	01
D2	900x2100		Aluminium framed 5mm PVC coated plywood sheet (both side) single sash door.	02
D3	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both side) single sash door.	01
W1	2000x2700		Aluminium framed 5mm thick clear float glass single sash windows with Aluminium louvers above and below.	03
W2	600x1800	900	Aluminium framed 5mm thick clear float glass single sash windows with Aluminium louvers above.	07
W3	600x1200	1500	Aluminium framed 5mm thick clear float glass single sash windows with Aluminium louvers above.	01



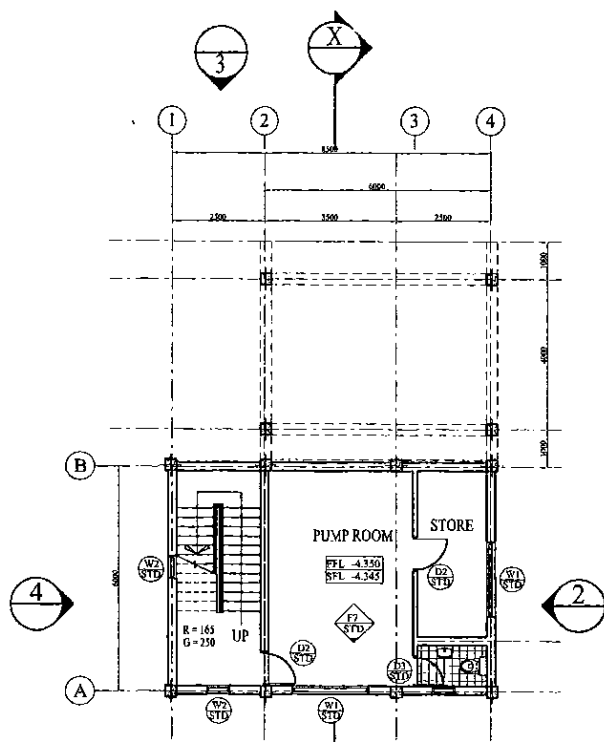
SECTION X-X  
1:100



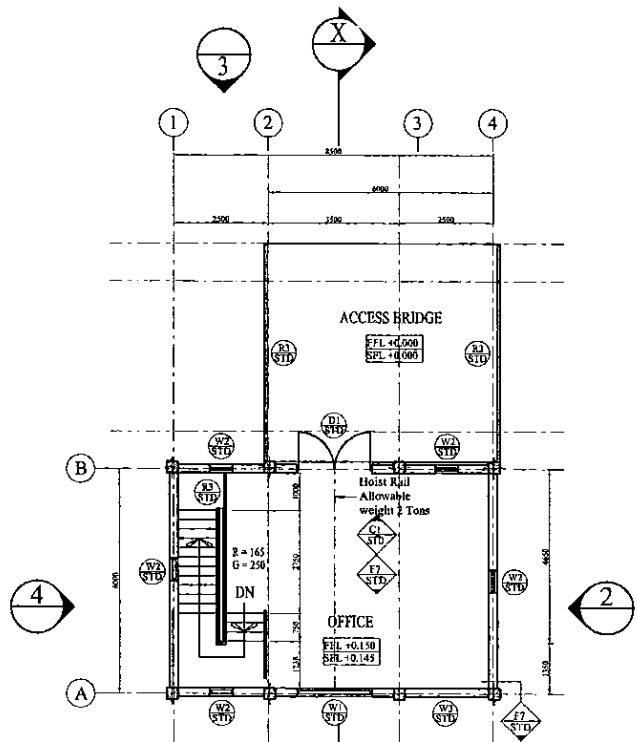
ELEVATION - 1  
1:100



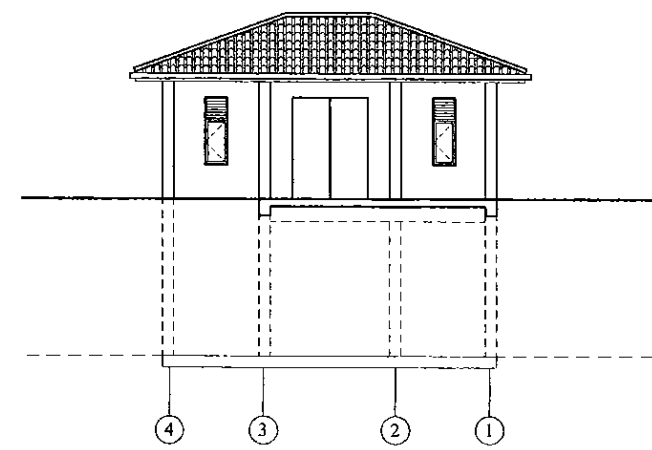
ELEVATION - 2  
1:100



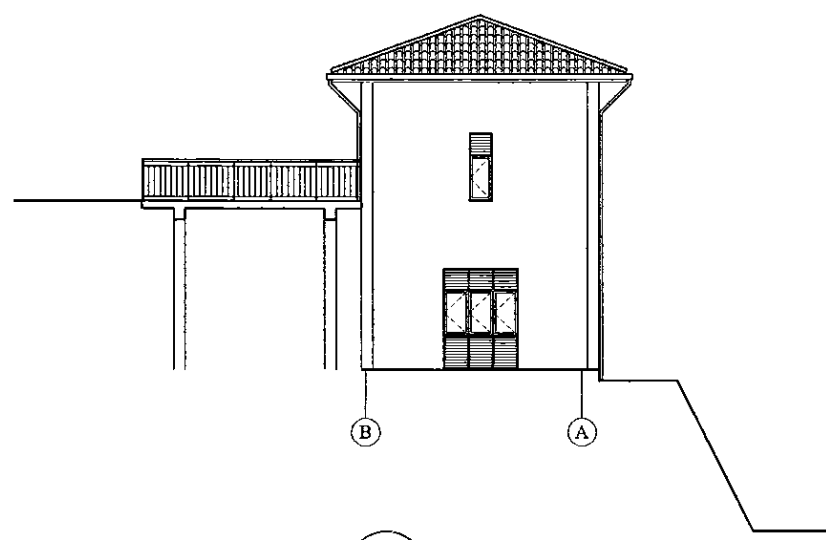
BASEMENT FLOOR PLAN  
1:100



GROUND FLOOR PLAN  
1:100



ELEVATION - 3  
1:100

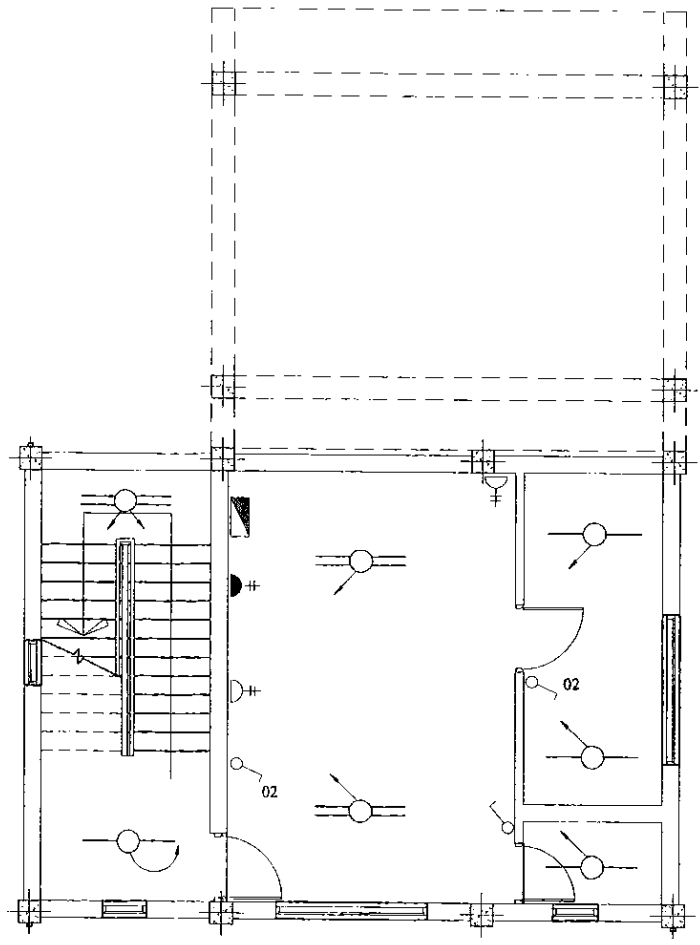


ELEVATION - 4  
1:100

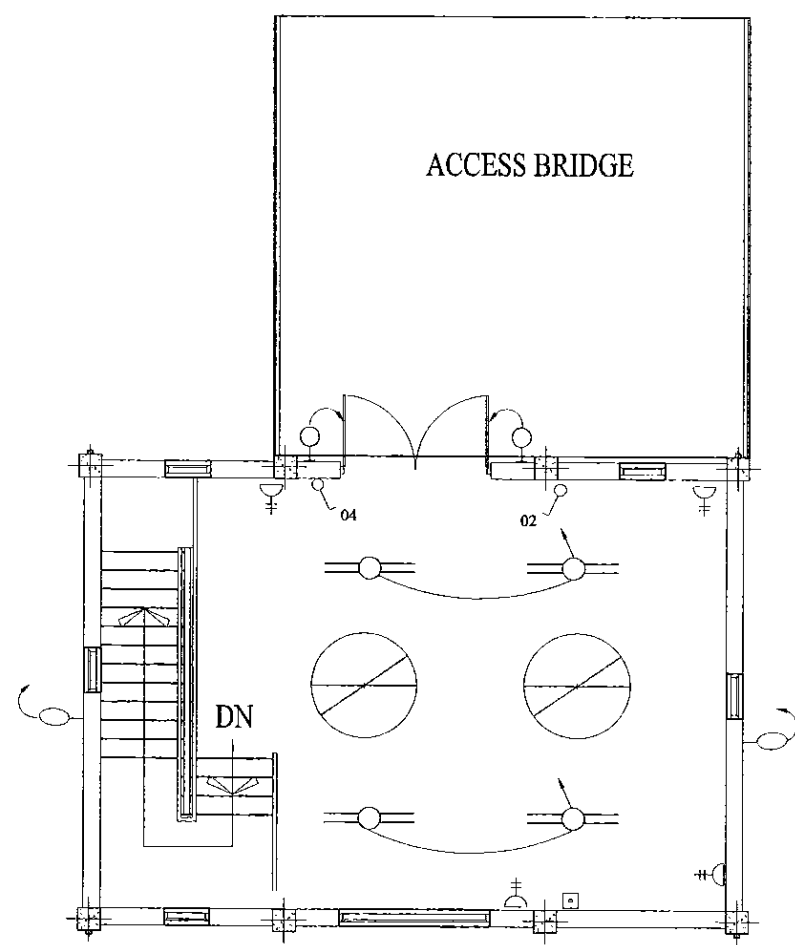
NOTE:  
Platform Level of Building = +52.70  
Therefore FGL = 0.00 = 52.70 (AMSL)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: FIRE HYDRANT AND WASTE METER CHAMBERS STRUCTURAL DETAILS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED:	DRAWN: Pooma	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-15-03

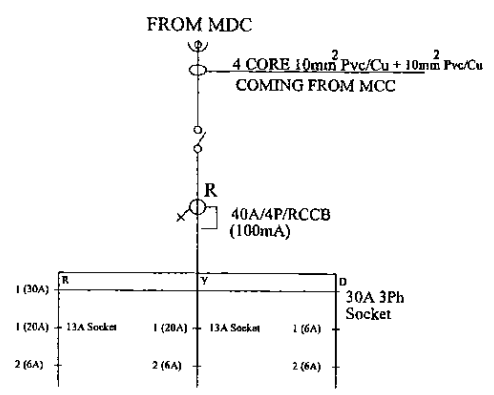
DATE: 17/07/2001



**BASEMENT FLOOR PLAN**  
SCALE : - 1:50



**GROUND FLOOR PLAN**  
SCALE : - 1:50



**DISTRIBUTION DIAGRAM**

**LEGEND (Electrical)**

- 1x36 Watt x 1200mm FLOURESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY - ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 2x36 Watt x 1200mm FLOURESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY - ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- ⊗ 250 Watt METAL HALIDE HI-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER. (IP Rating - IP 65)
- ⊗ 250 Watt METAL HALIDE WIDE ANGLE, WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION. (IP Rating - IP 65)
- ⊗ 600 x 600mm FLOURESCENT FITTING 3x18 Watt, HFF TYPE WITH ACRYLIC DIFFUSER.
- ⊞ 8 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
- WALL BRACKET LAMP FITTING c/w 18 Watt CFL, 6400mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET. (IP Rating - IP 65)
- ⬇ DOWN LIGHT
- 1x36 Watt x 1200mm
- ⊙ PENDANT LAMP WITH 18 Watt CFL
- ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- ⊕ 32A TYPE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- 125W MERCURY VAPOR COSRA HEAD TYPE OUT DOOR LAMP
- ⊕ ONE WAY SWITCH (FFL + 1.5)
- ⊕ TWO WAY SWITCH (FFL + 1.5)
- ⊞ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
- ⊞ TELEPHONE SOCKET OUTLET
- ⊗ 1400mm CEILING FAN
- ⊞ FAN REGULATOR (FFL + 1.5)
- ⊗ EXHAUST FAN

**LEGEND (Fire)**

- ⊞ 6kg DRY POWDER EXTINGUISHER
- ⊞ 2kg CARBONDIOXIDE EXTINGUISHER

**NOTE :**

01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **ASGIRIYA PUMP STATION- ELECTRICAL LAYOUT**

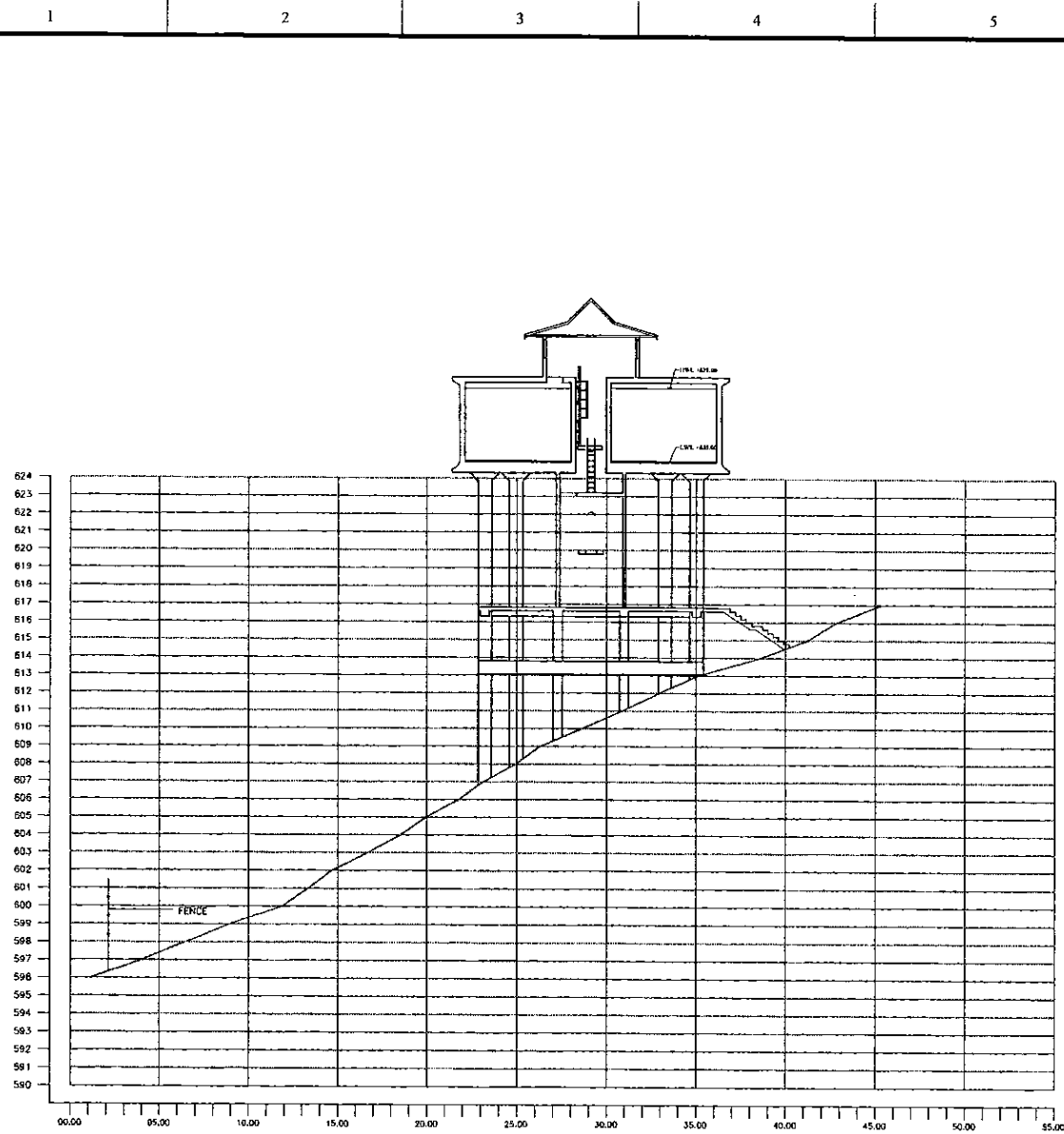
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

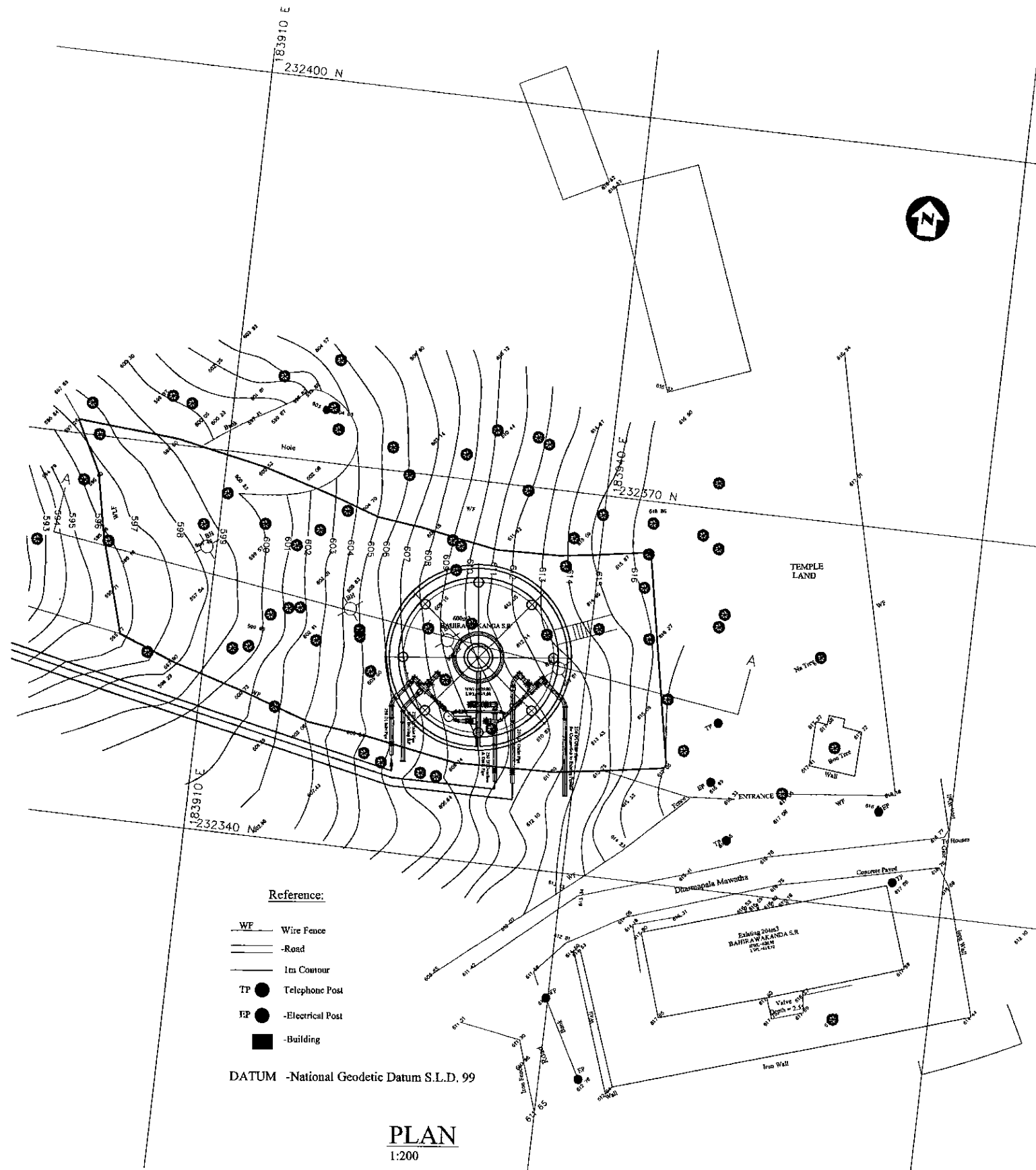
REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: <b>ATG</b>	DRAWN: <b>Lakmal</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-A-15-21</b>

DATE: 1/07/2001



SECTION A - A  
1:200



PLAN  
1:200

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

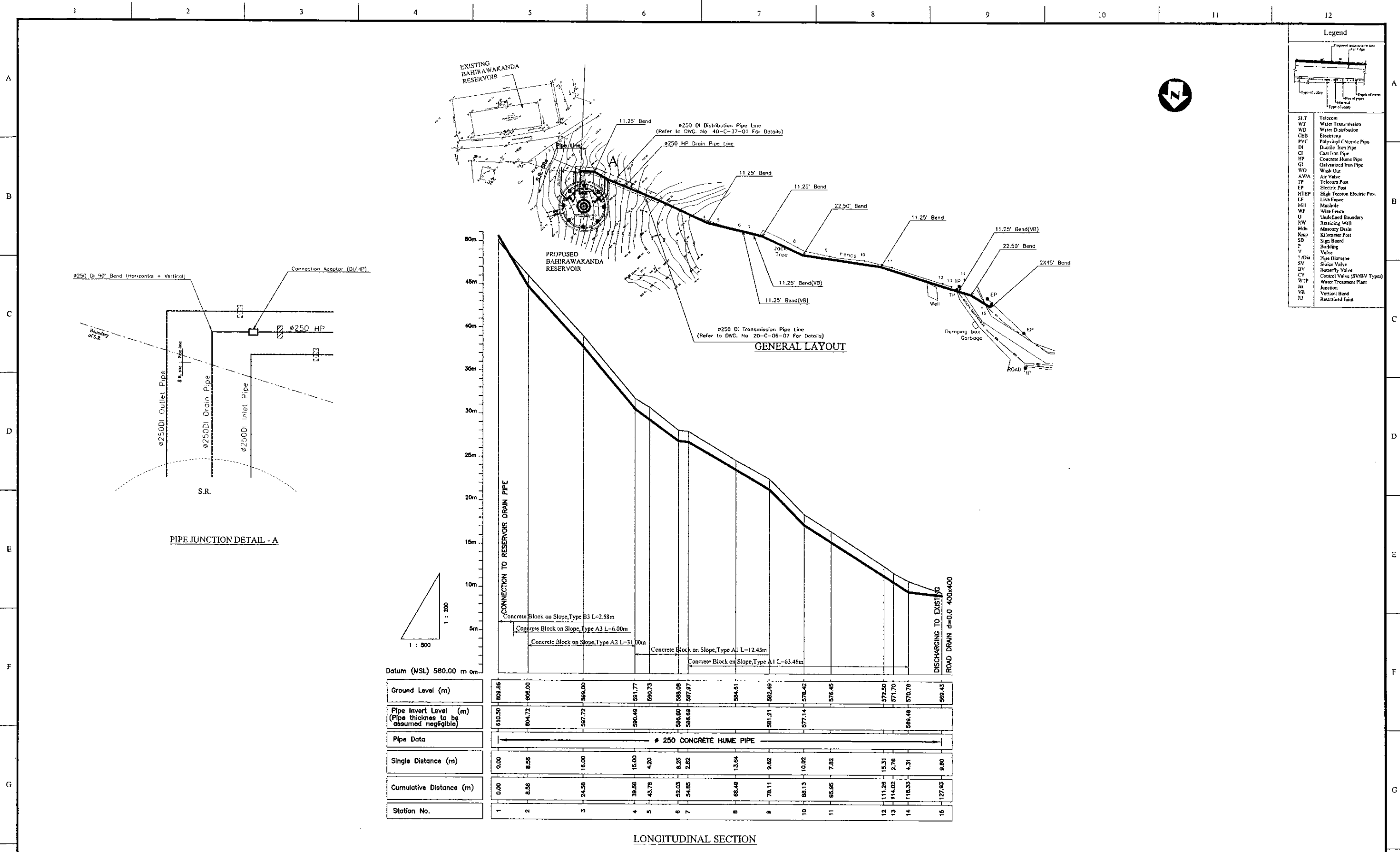
TITLE: SITE PLAN AND CS OF 600m3 BAHIRAWAKANDA S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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

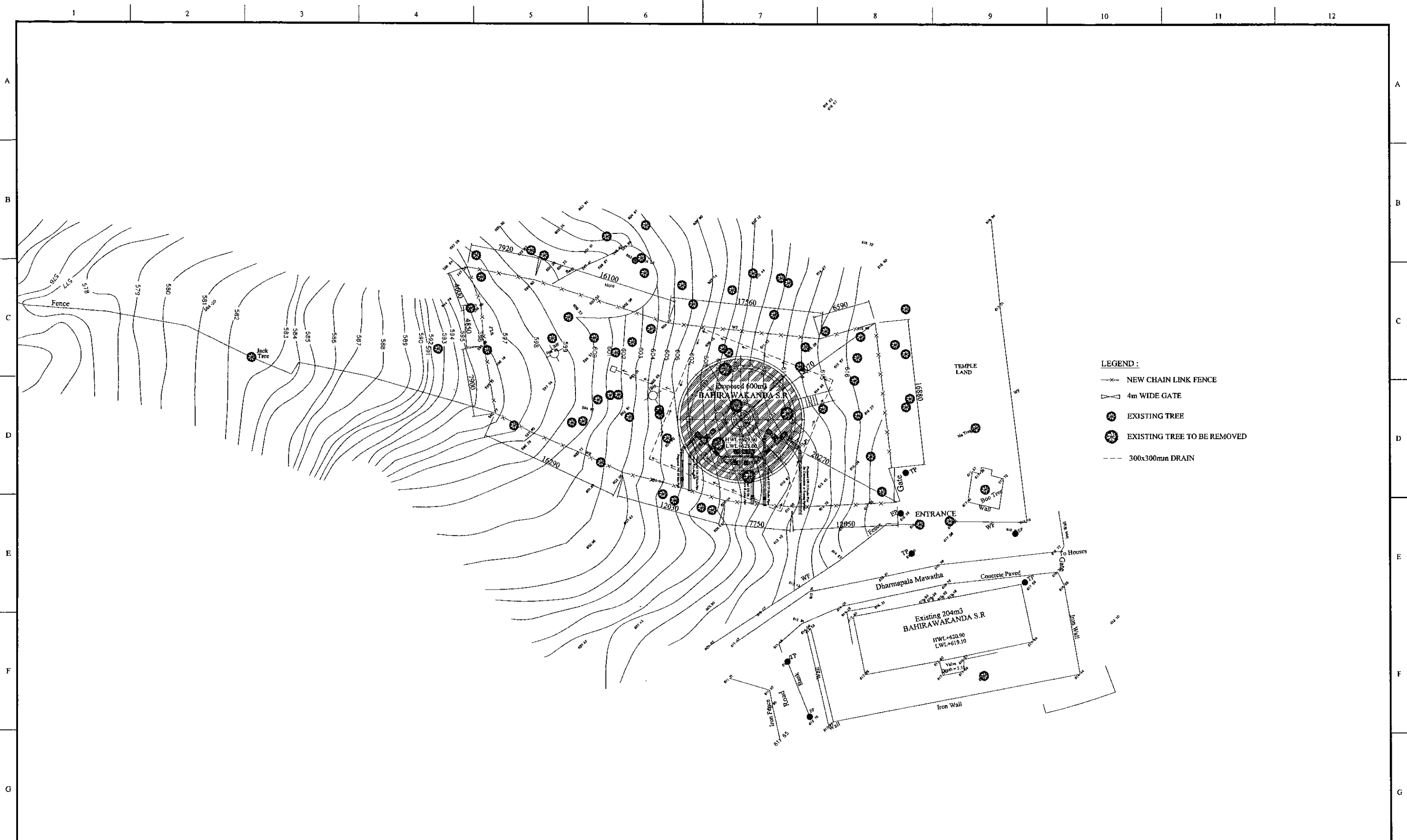
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:200
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-16-01



**Legend**

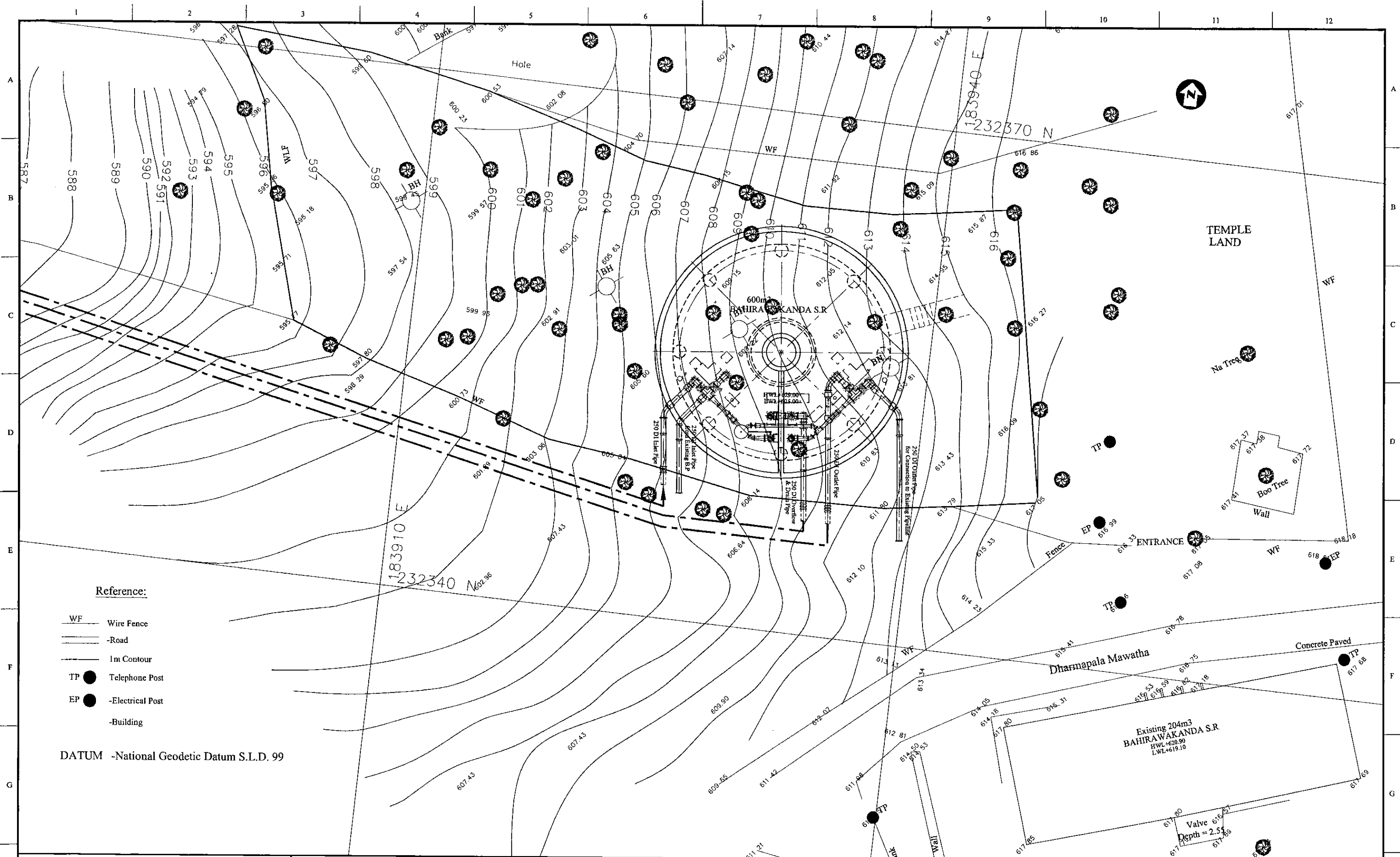
ST	Telephone
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Home Pipe
GT	Galvanized Iron Pipe
WO	Wash Out
AV/A	Air Valve
TF	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Mashie
WF	Wire Fence
U	Undefined Boundary
EW	Retaining Wall
MD	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
V	Valve
∅/dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CY	Control Valve (SV/BV Type)
WTP	Water Treatment Plant
Jc	Junction
VB	Vertical Bend
RJ	Resin Joint

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>	<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: <b>WASH OUT FROM BAHIRAWAKANDA S.R.</b>	SHEET 1 OF 1							
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	REV.:	DESCRIPTION:	DATE:	SIGN.:	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Ravi U.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>HORIZONTAL - 1:500</b> <b>VERTICAL - 1:200</b>
						CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-16-02</b>
						DESIGN CHIEF				



- LEGEND :**
- x— NEW CHAIN LINK FENCE
  - ∠ 4m WIDE GATE
  - EXISTING TREE
  - ⊗ EXISTING TREE TO BE REMOVED
  - - - 300x300mm DRAIN

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	<b>JAPAN INTERNATIONAL          COOPERATION AGENCY</b>	<b>TITLE:</b> 600m3 BAHIRAWAKANDA S.R. LANDSCAPING LAYOUT																																										
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY          &amp; DRAINAGE BOARD</b>	<b>CONSULTANTS :</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">DESIGNED:</td> <td style="font-size: small;">DRAWN:</td> <td style="font-size: small;">PM: (CONSULTANT)</td> <td style="font-size: small;">CE: (P&amp;D)</td> <td style="font-size: small;">SCALE:</td> </tr> <tr> <td style="text-align: center;">Koichi OKAZAKI</td> <td style="text-align: center;">POORNA</td> <td style="text-align: center;">Ikuro MIWA</td> <td> </td> <td style="text-align: center;">1:200</td> </tr> <tr> <td style="font-size: small;">CHECKED:</td> <td style="font-size: small;">AGM: (P&amp;D)</td> <td style="font-size: small;">DGM: (P&amp;D)</td> <td style="font-size: small;">DATE:</td> <td style="font-size: small;">DRAWING NO.:</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td style="text-align: center;">31/05/2002</td> <td style="text-align: center;">30-C-16-03</td> </tr> </table>	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:	Koichi OKAZAKI	POORNA	Ikuro MIWA		1:200	CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:				31/05/2002	30-C-16-03	
REV.	DESCRIPTION	DATE	SIGN.																																									
DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:																																								
Koichi OKAZAKI	POORNA	Ikuro MIWA		1:200																																								
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:																																								
			31/05/2002	30-C-16-03																																								

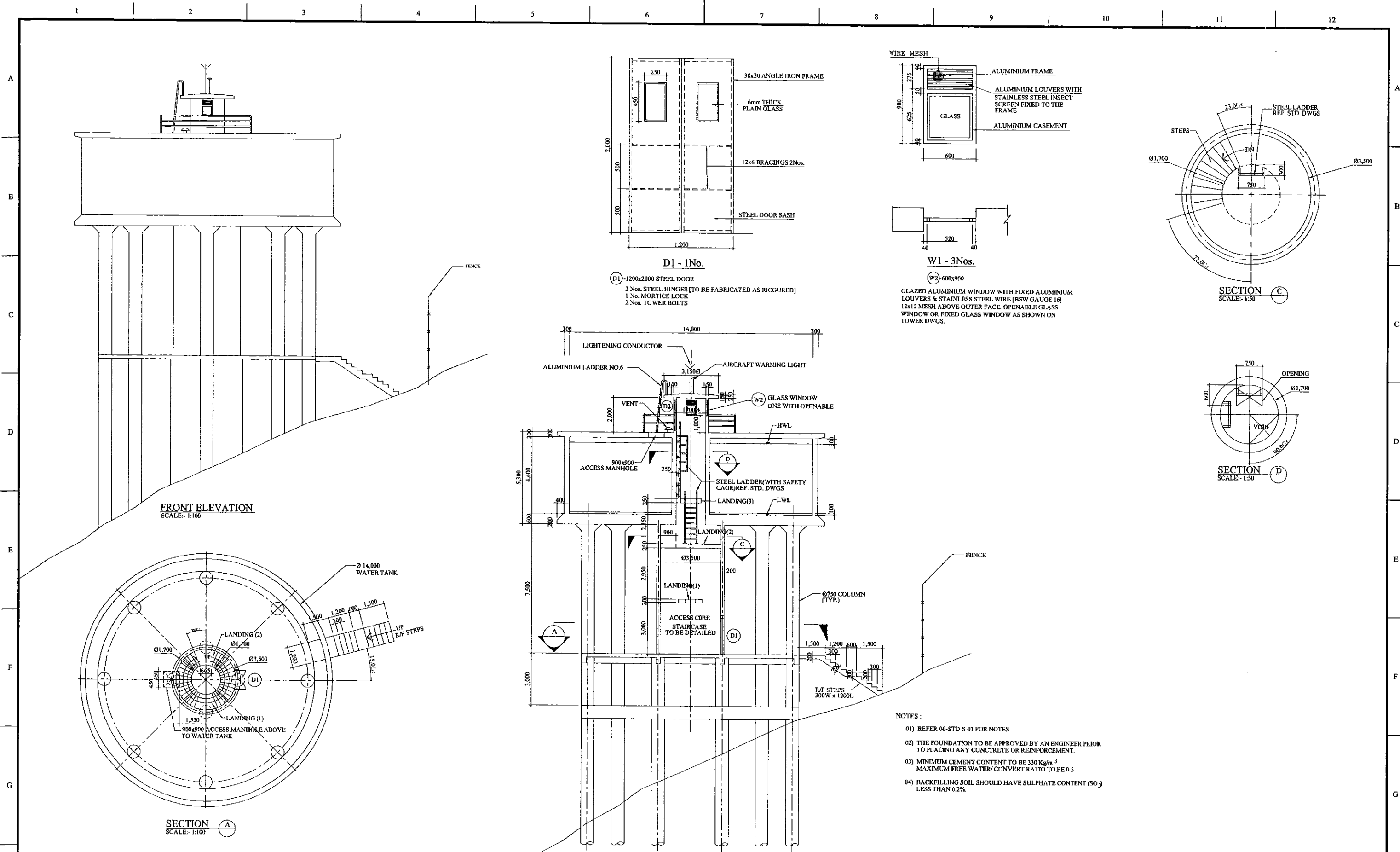


**Reference:**

- WF — Wire Fence
- — Road
- — 1m Contour
- TP ● Telephone Post
- EP ● -Electrical Post
- — Building

DATUM -National Geodetic Datum S.L.D. 99

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>BAHIRAWAKANDA SERVICE RESERVOIR SITE PLAN</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-16-01



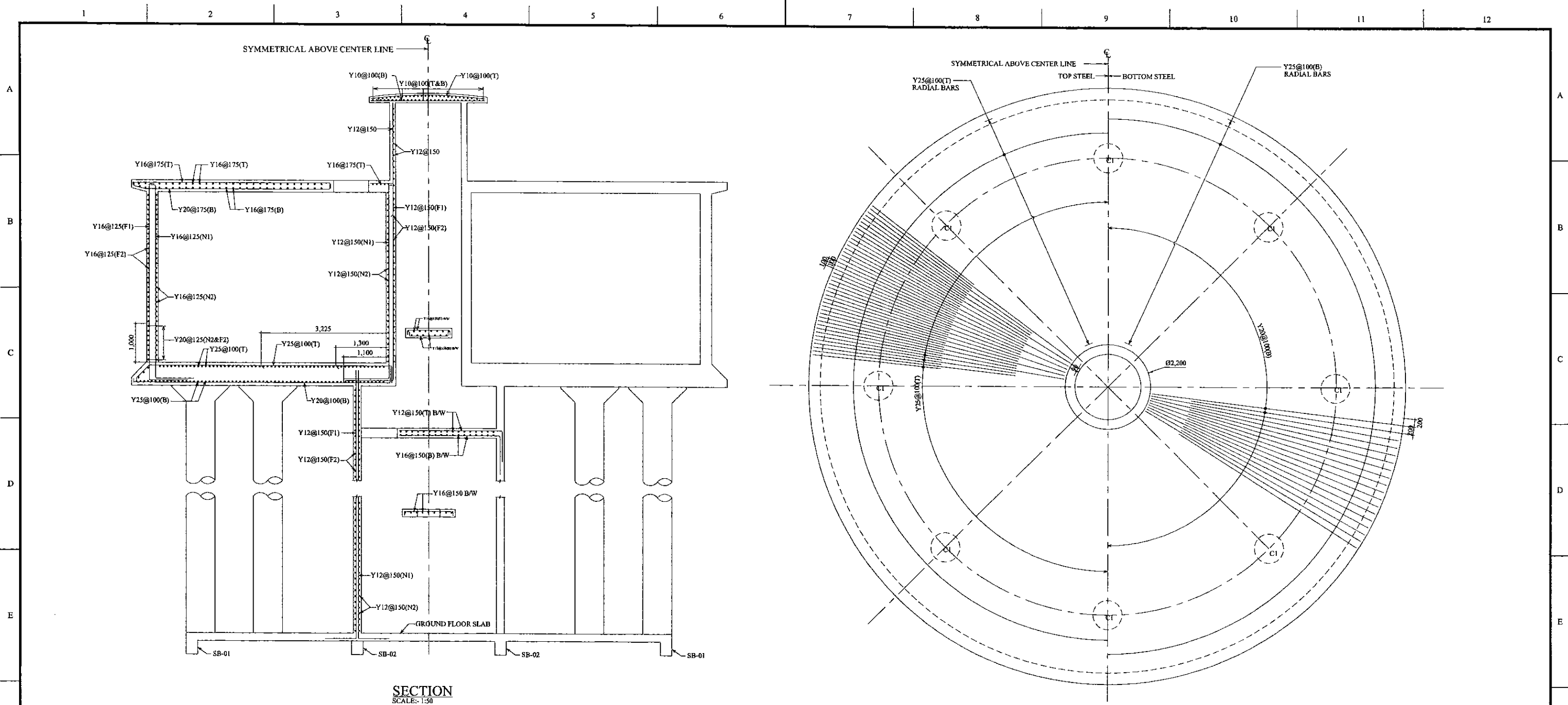
**D1 - 1No.**  
 (D1)-1200x2000 STEEL DOOR  
 3 Nos. STEEL HINGES [TO BE FABRICATED AS RICOURED]  
 1 No. MORTICE LOCK  
 2 Nos. TOWER BOLTS

**W1 - 3Nos.**  
 (W1)-600x900  
 GLAZED ALUMINIUM WINDOW WITH FIXED ALUMINIUM LOUVERS & STAINLESS STEEL WIRE [BSW GAUGE 16] 12x12 MESH ABOVE OUTER FACE. OPENABLE GLASS WINDOW OR FIXED GLASS WINDOW AS SHOWN ON TOWER DWGS.

- NOTES :**
- 01) REFER 00-STD-S-01 FOR NOTES
  - 02) THE FOUNDATION TO BE APPROVED BY AN ENGINEER PRIOR TO PLACING ANY CONCRETE OR REINFORCEMENT.
  - 03) MINIMUM CEMENT CONTENT TO BE 330 Kg/m<sup>3</sup>  
 MAXIMUM FREE WATER/CONVERT RATIO TO BE 0.5
  - 04) BACKFILLING SOIL SHOULD HAVE SULPHATE CONTENT (SO<sub>3</sub>) LESS THAN 0.2%.

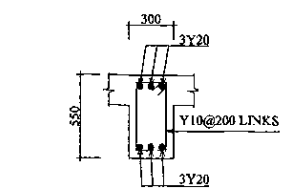
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>BAHIRAWAKANDA RESERVOIR AND DETAILS</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAM</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
								CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-16-02</b>



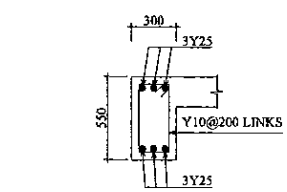


**SECTION**  
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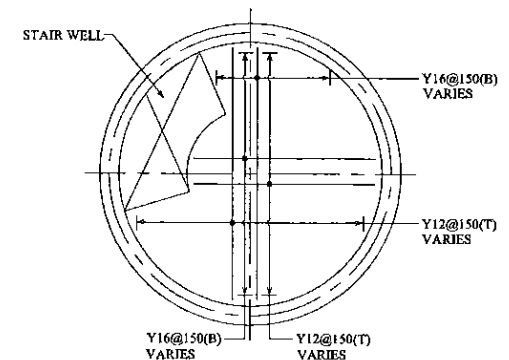
**PLAN - TANK BOTTOM SLAB**  
SCALE:- 1:50



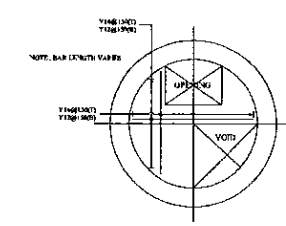
**SLAB BEAM - SB-02**  
SCALE:- 1:25



**SLAB BEAM - SB-01**  
SCALE:- 1:25

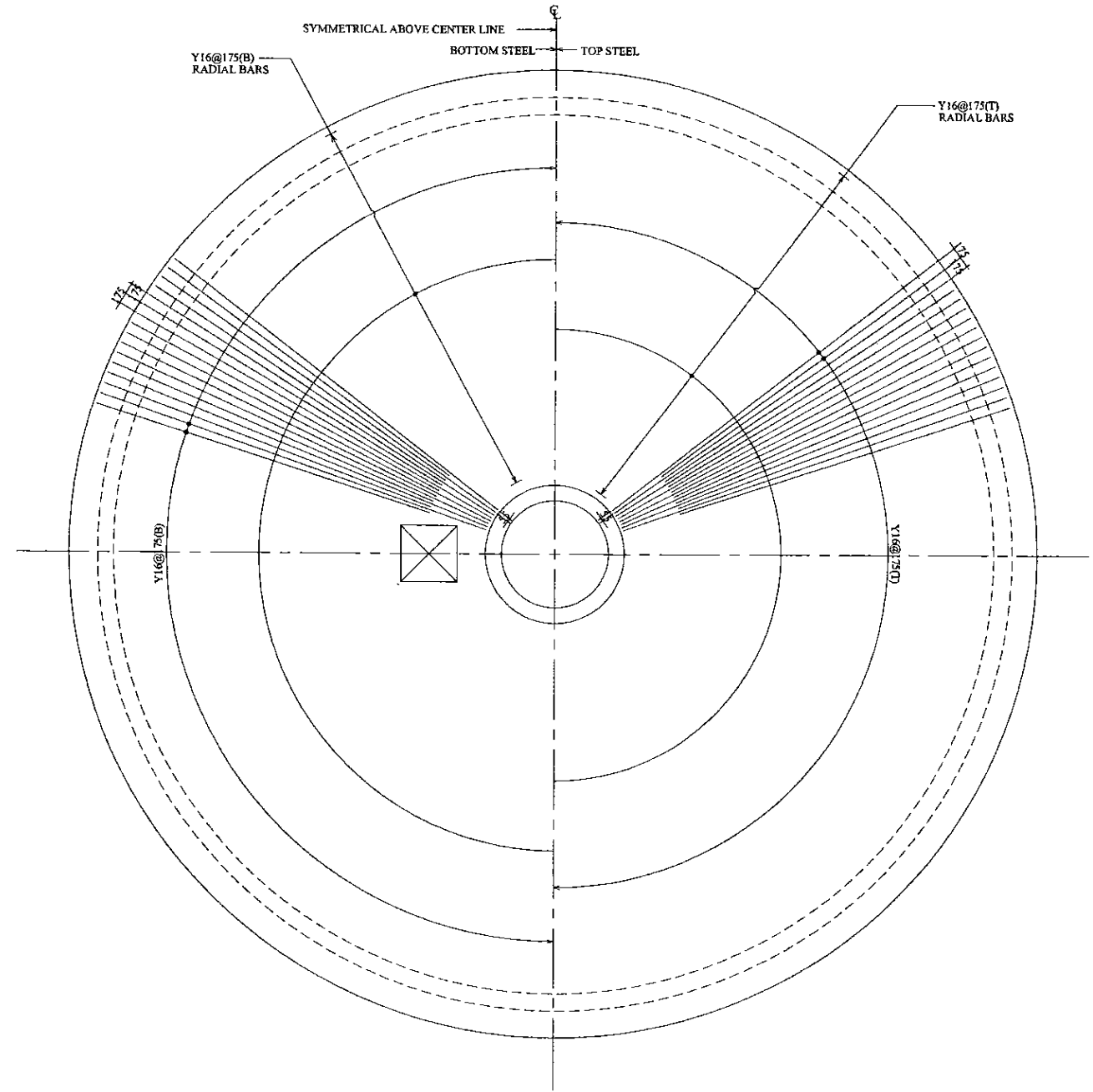
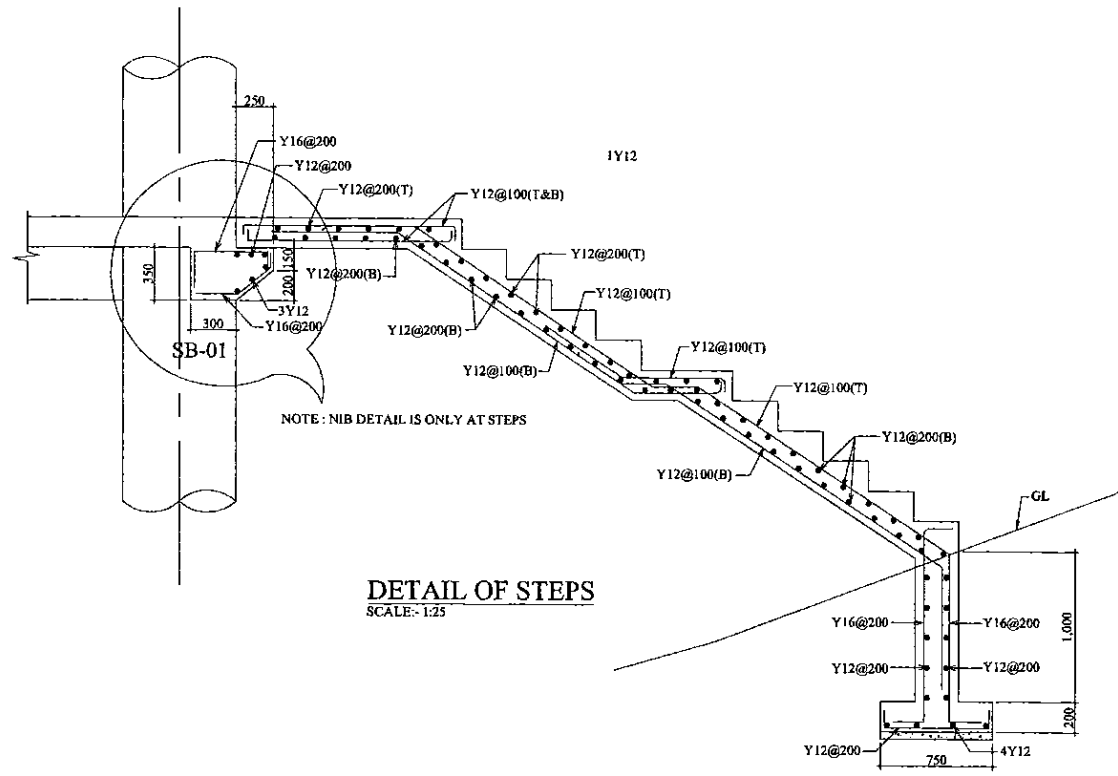


**PLAN - LANDING SLAB 2**  
SCALE:- 1:50



**PLAN - LANDING SLAB 3**  
SCALE:- 1:50

<b>PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE: BAHIRAWAKANDA RESERVOIR - REINFORCEMENT DETAILS - SECTION, LANDING SLABS &amp; BEAMS</b>								
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> L. Jayawardane	<b>DRAWN:</b> SAM	<b>PM: (CONSULTANT)</b> Ikuro MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> AS SHOWN
								<b>CHECKED:</b>	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-S-16-03
								<b>DESIGN CHIEF</b>				





PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



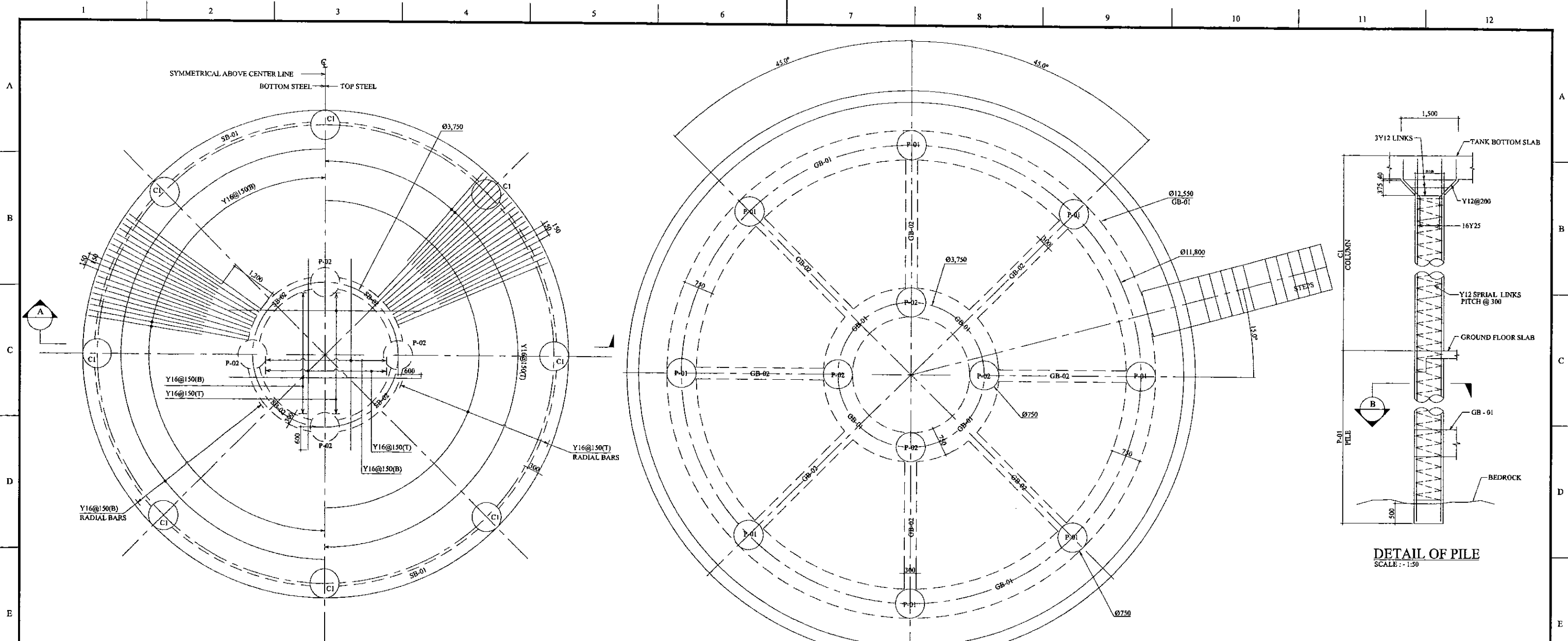
**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **BAHIRAWAKANDA RESERVOIR - REINFORCEMENT DETAILS - STEPS & TANK ROOF SLAB**

CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

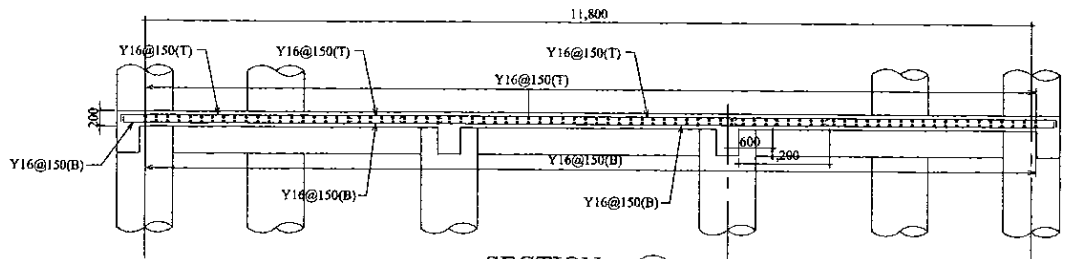
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				DESIGN CHIEF			06-03-2002.	30-S-16-04



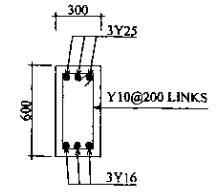
**PLAN - GROUND FLOOR SLAB**  
SCALE: 1:50

**PLAN - PILE LAYOUT & GROUND BEAMS**  
SCALE: 1:50

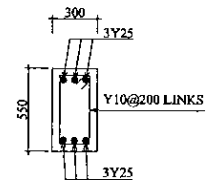
**DETAIL OF PILE**  
SCALE: 1:50



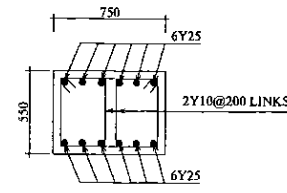
**SECTION A**  
SCALE: 1:50



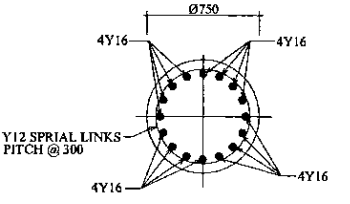
**GROUND BEAM - GB-03**  
SCALE: 1:25  
NOTE: TO SUPPORT R/F STEPS



**GROUND BEAM - GB-02**  
SCALE: 1:25

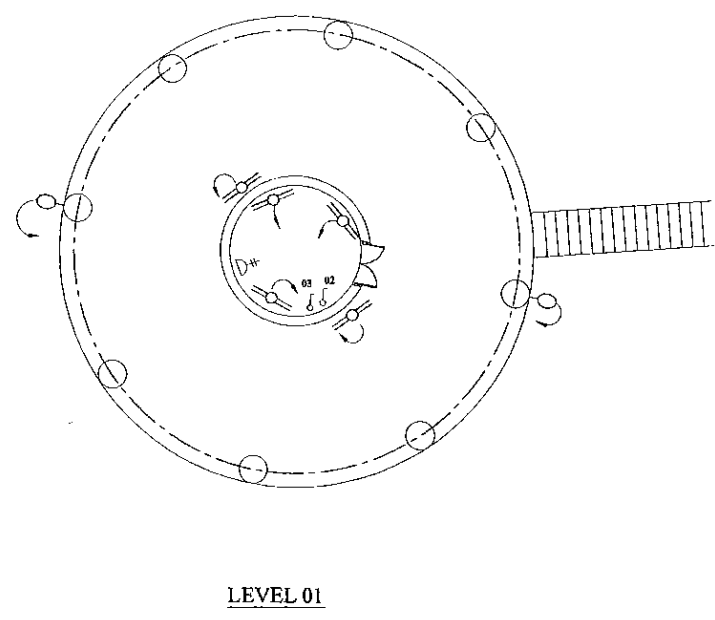
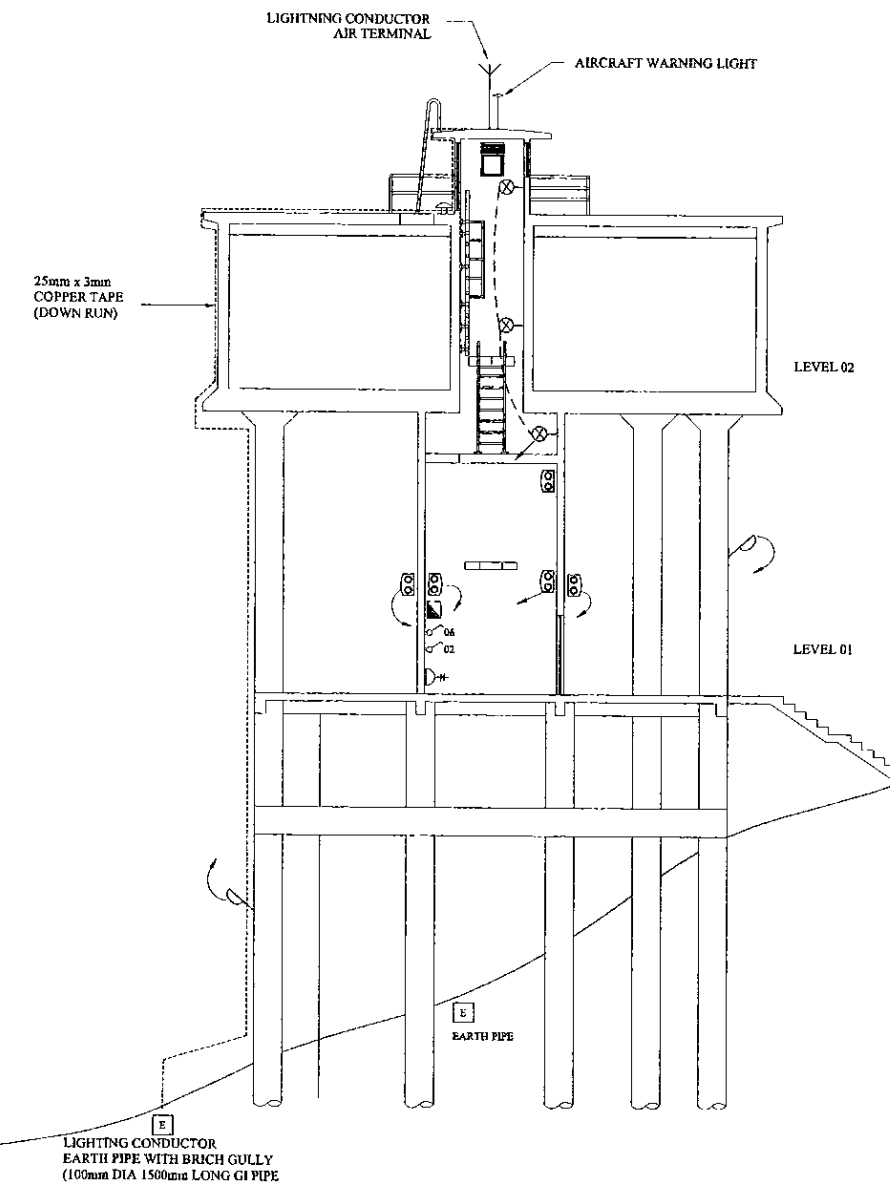


**GROUND BEAM - GB-01**  
SCALE: 1:25



**SECTION B**  
SCALE: 1:25

<b>PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE: BAHIRAWAKANDA RESERVOIR - REINFORCEMENT DETAILS - PILE LAYOUT, PILE, BEAMS &amp; SLAB SECTION</b>								
<b>CLIENT:</b> <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		<b>CONSULTANTS:</b> <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAM	<b>PM: (CONSULTANT)</b> Ikuro MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> AS SHOWN
								<b>CHECKED:</b> DESIGN CHIEF	<b>AGM: (P&amp;D)</b>	<b>DGM: (P&amp;D)</b>	<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-S-16-05

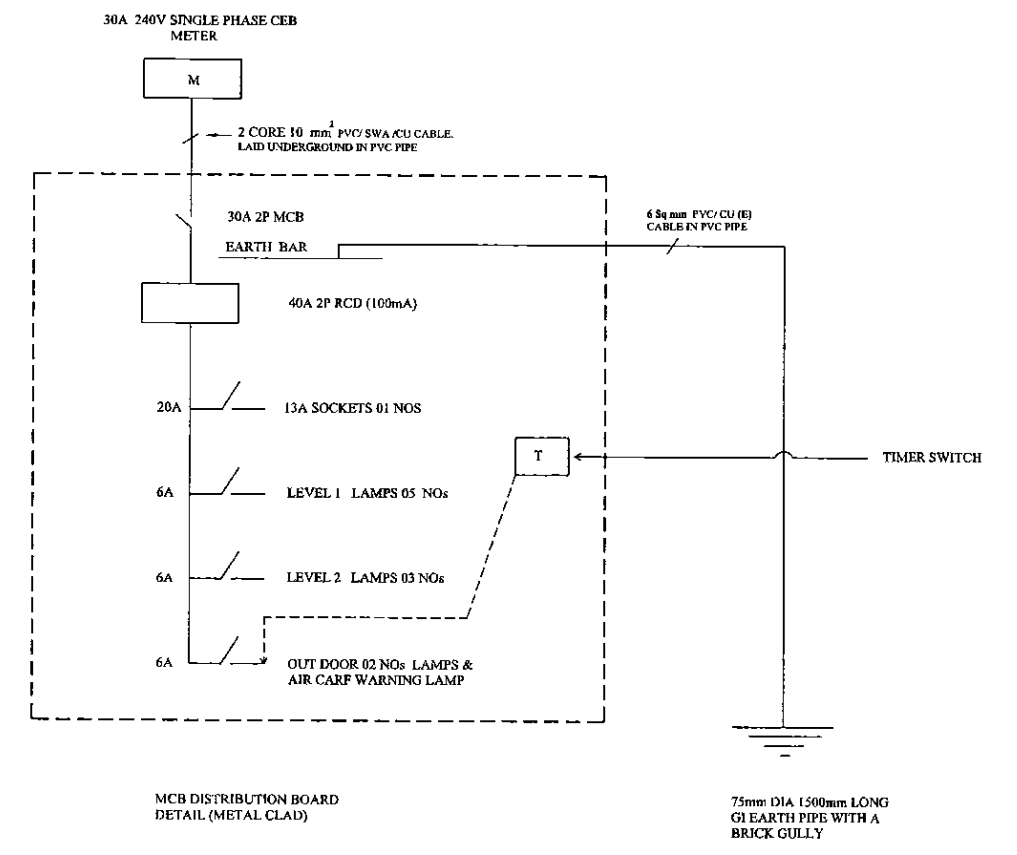


**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

**LEGEND (Electrical)**

- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 60W OUT DOOR WALL BRACKET LAMP FITTING
- 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
- METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
- 13A SPNE SWITCHED SOCKET OUTLET (FEL + AS SHOWN)
- 5A ONE WAY SWITCH (FEL + L.S)
- EARTH PIPE



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

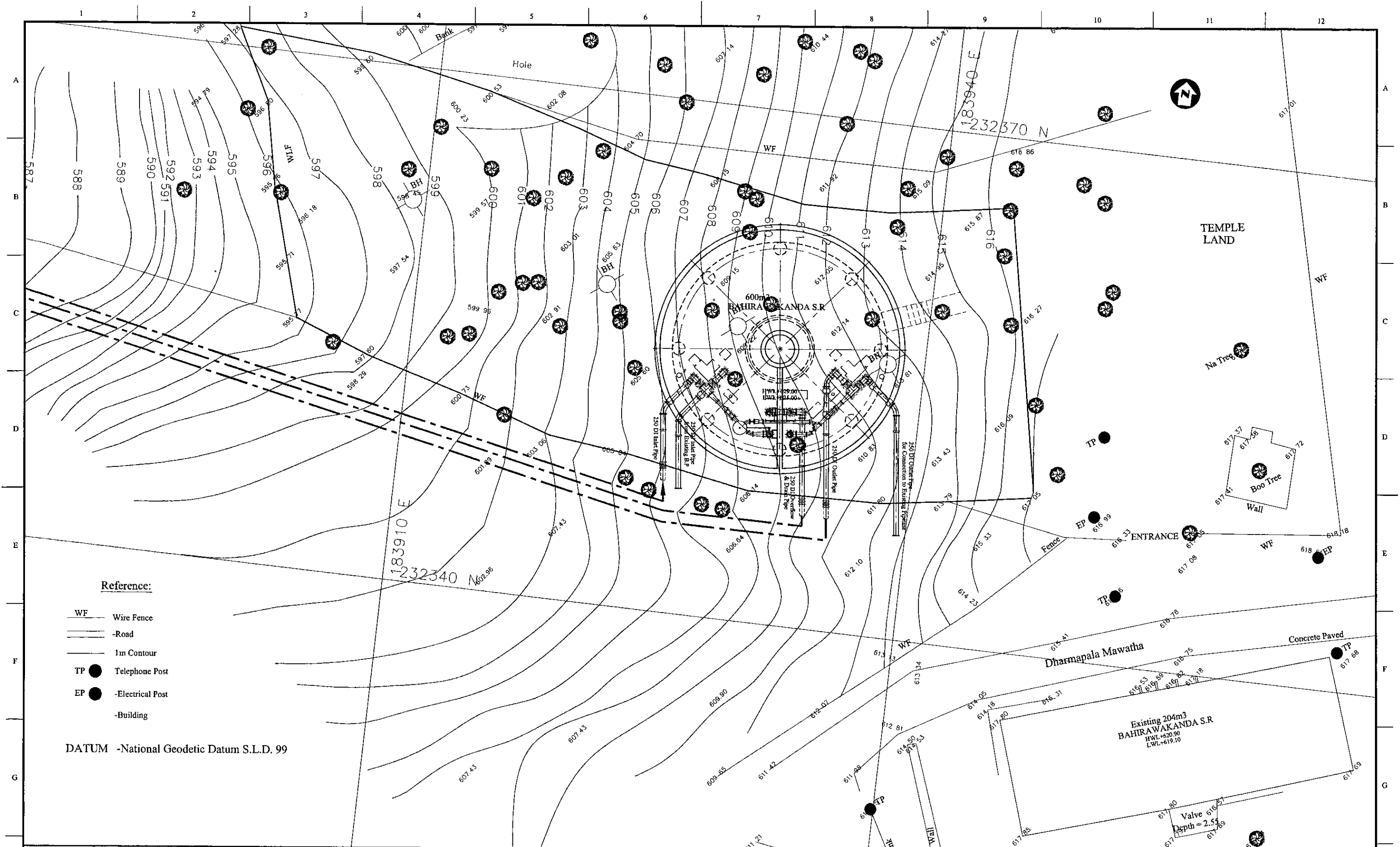
TITLE: BAHIRAWAKANDA SERVICE RESEVOIR-ELECTRICAL LAYOUT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

DESIGNED: ATG	DRAWN: lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-16-21

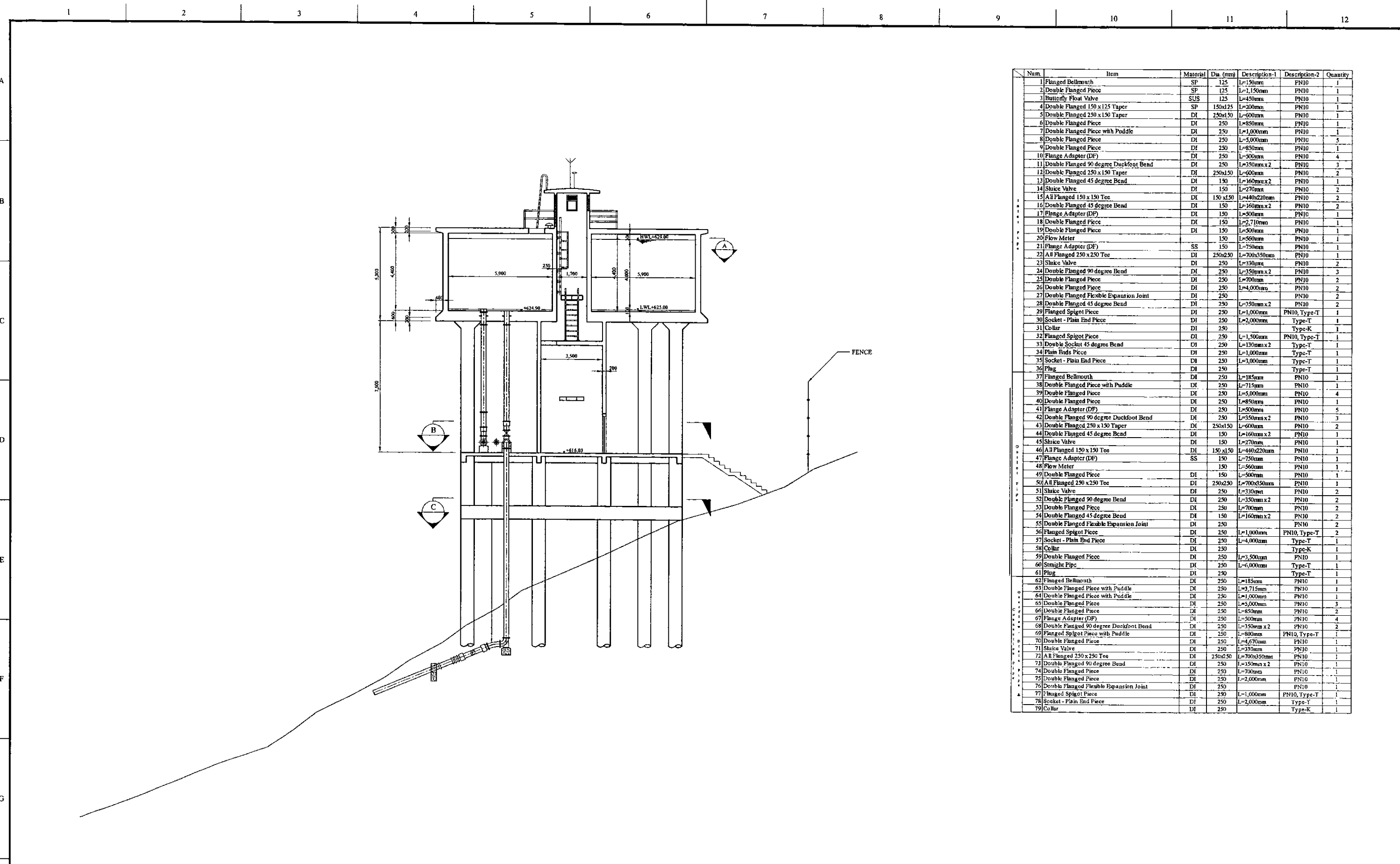


**Reference:**

- WF — Wire Fence
- Road
- 1m Contour
- TP ● Telephone Post
- EP ● -Electrical Post
- Building

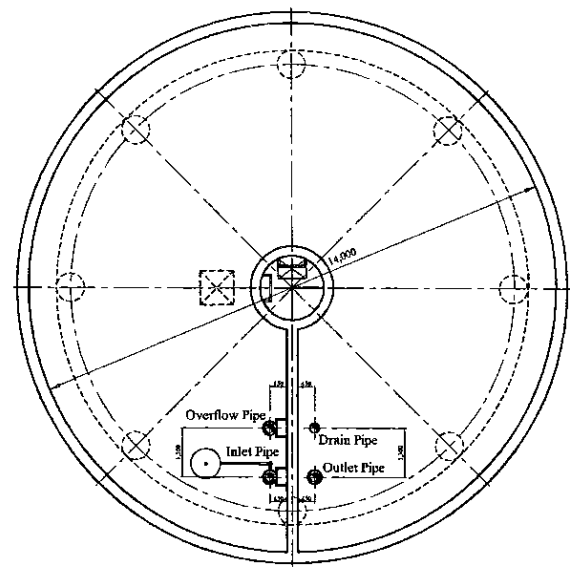
DATUM -National Geodetic Datum S.L.D. 99

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT PLAN OF EXISTING 204m<sup>3</sup> &amp; NEW 600m<sup>3</sup> BAHIRAWAKANDA S.R</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:100</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-16-01</b>
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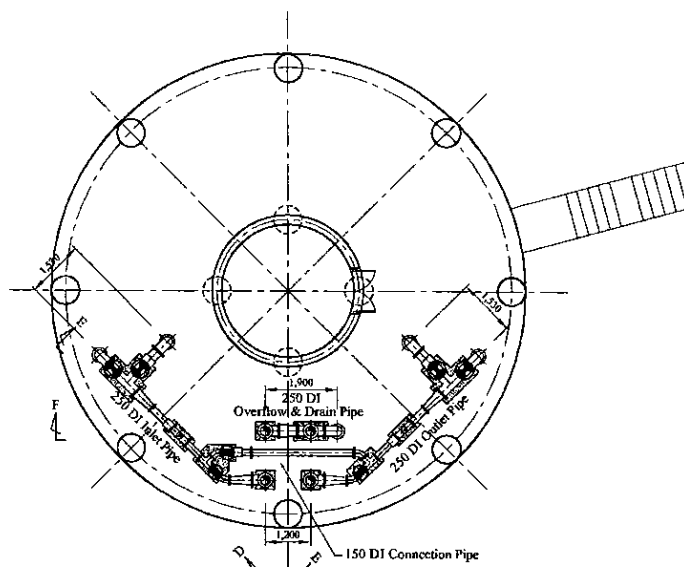


Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	1
2	Double Flanged Piece	SP	125	L=1,150mm	PN10	1
3	Butterfly Float Valve	SUS	125	L=450mm	PN10	1
4	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	1
5	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	1
6	Double Flanged Piece	DI	250	L=850mm	PN10	1
7	Double Flanged Piece with Puddle	DI	250	L=1,000mm	PN10	1
8	Double Flanged Piece	DI	250	L=5,000mm	PN10	5
9	Double Flanged Piece	DI	250	L=850mm	PN10	1
10	Flange Adapter (DF)	DI	250	L=500mm	PN10	4
11	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	3
12	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	2
13	Double Flanged 45 degree Bend	DI	150	L=160mm x 2	PN10	1
14	Sluice Valve	DI	150	L=270mm	PN10	2
15	All Flanged 150 x 150 Tee	DI	150 x 150	L=440x220mm	PN10	2
16	Double Flanged 45 degree Bend	DI	150	L=160mm x 2	PN10	2
17	Flange Adapter (DF)	DI	150	L=500mm	PN10	1
18	Double Flanged Piece	DI	150	L=2,710mm	PN10	1
19	Double Flanged Piece	DI	150	L=500mm	PN10	1
20	Flow Meter	DI	150	L=560mm	PN10	1
21	Flange Adapter (DF)	SS	150	L=750mm	PN10	1
22	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
23	Sluice Valve	DI	250	L=330mm	PN10	2
24	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	3
25	Double Flanged Piece	DI	250	L=700mm	PN10	2
26	Double Flanged Piece	DI	250	L=4,000mm	PN10	2
27	Double Flanged Flexible Expansion Joint	DI	250		PN10	2
28	Double Flanged 45 degree Bend	DI	250	L=350mm x 2	PN10	2
29	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	1
30	Socket - Plain End Piece	DI	250	L=2,000mm	Type-T	1
31	Collar	DI	250		Type-K	1
32	Flanged Spigot Piece	DI	250	L=1,500mm	PN10, Type-T	1
33	Double Socket 45 degree Bend	DI	250	L=130mm x 2	Type-T	1
34	Plain End Piece	DI	250	L=1,000mm	Type-T	1
35	Socket - Plain End Piece	DI	250	L=3,000mm	Type-T	1
36	Plug	DI	250		Type-T	1
37	Flanged Bellmouth	DI	250	L=185mm	PN10	1
38	Double Flanged Piece with Puddle	DI	250	L=715mm	PN10	1
39	Double Flanged Piece	DI	250	L=5,000mm	PN10	4
40	Double Flanged Piece	DI	250	L=850mm	PN10	1
41	Flange Adapter (DF)	DI	250	L=500mm	PN10	5
42	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	3
43	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	2
44	Double Flanged 45 degree Bend	DI	150	L=160mm x 2	PN10	1
45	Sluice Valve	DI	150	L=270mm	PN10	1
46	All Flanged 150 x 150 Tee	DI	150 x 150	L=440x220mm	PN10	1
47	Flange Adapter (DF)	SS	150	L=750mm	PN10	1
48	Flow Meter	DI	150	L=560mm	PN10	1
49	Double Flanged Piece	DI	150	L=500mm	PN10	1
50	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
51	Sluice Valve	DI	250	L=330mm	PN10	2
52	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	2
53	Double Flanged Piece	DI	250	L=700mm	PN10	2
54	Double Flanged 45 degree Bend	DI	150	L=160mm x 2	PN10	2
55	Double Flanged Flexible Expansion Joint	DI	250		PN10	2
56	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	2
57	Socket - Plain End Piece	DI	250	L=4,000mm	Type-T	1
58	Collar	DI	250		Type-K	1
59	Double Flanged Piece	DI	250	L=3,500mm	PN10	1
60	Straight Pipe	DI	250	L=6,000mm	Type-T	1
61	Plug	DI	250		Type-T	1
62	Flanged Bellmouth	DI	250	L=185mm	PN10	1
63	Double Flanged Piece with Puddle	DI	250	L=3,715mm	PN10	1
64	Double Flanged Piece with Puddle	DI	250	L=1,000mm	PN10	1
65	Double Flanged Piece	DI	250	L=5,000mm	PN10	3
66	Double Flanged Piece	DI	250	L=850mm	PN10	2
67	Flange Adapter (DF)	DI	250	L=500mm	PN10	4
68	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	2
69	Flanged Spigot Piece with Puddle	DI	250	L=800mm	PN10, Type-T	1
70	Double Flanged Piece	DI	250	L=4,670mm	PN10	1
71	Sluice Valve	DI	250	L=330mm	PN10	1
72	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
73	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	1
74	Double Flanged Piece	DI	250	L=700mm	PN10	1
75	Double Flanged Piece	DI	250	L=2,000mm	PN10	1
76	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
77	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	1
78	Socket - Plain End Piece	DI	250	L=2,000mm	Type-T	1
79	Collar	DI	250		Type-K	1

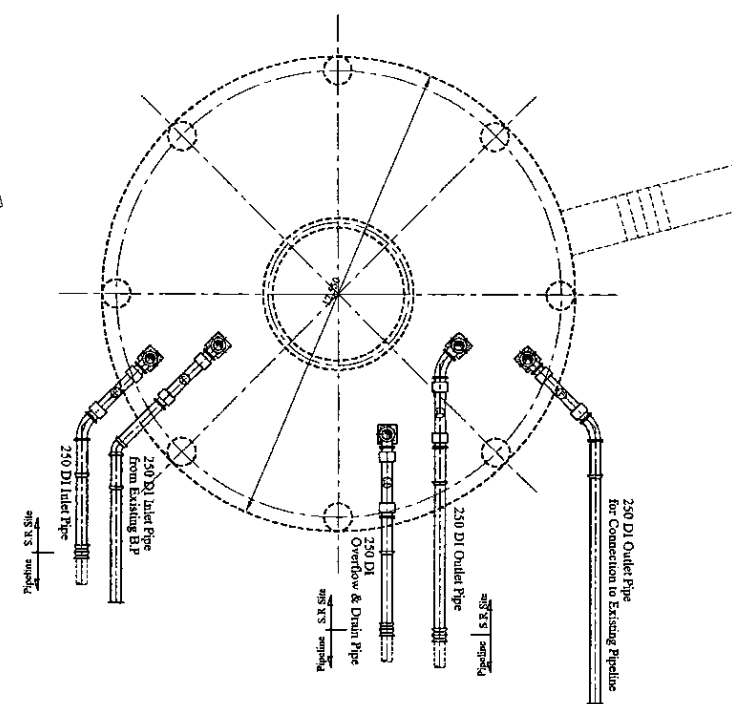
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF BAHIRAWAKANDA S.R - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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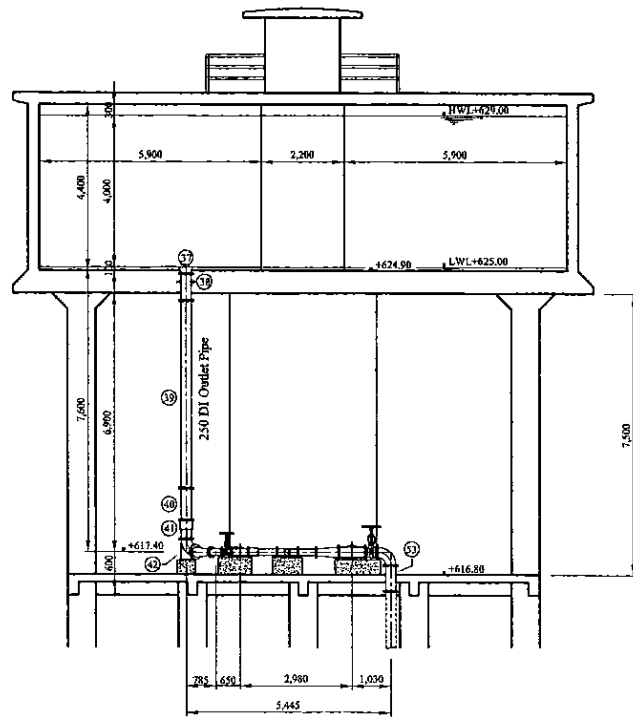
SECTION A  
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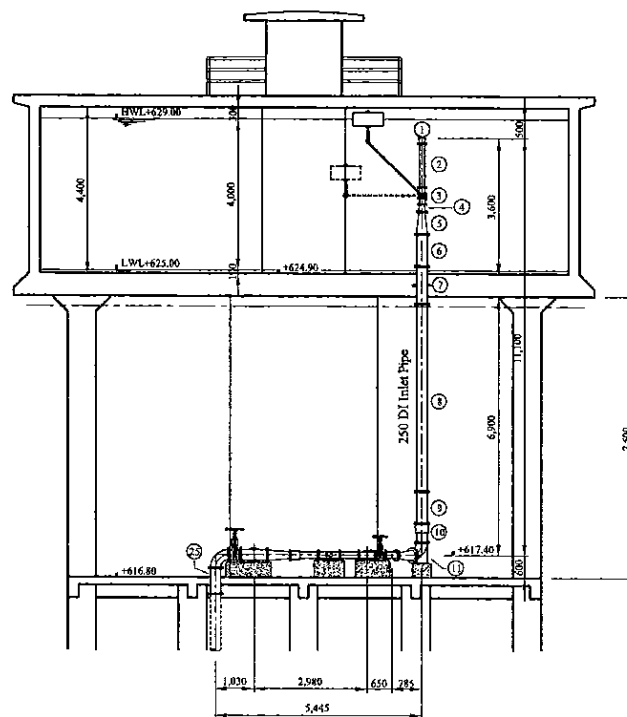
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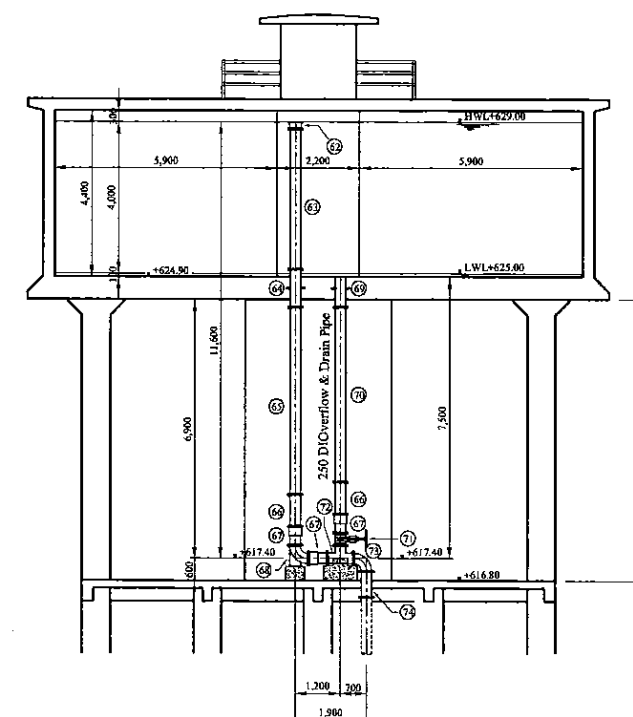
SECTION C  
SCALE: 1:100onA3



Section D-D



Section E-E



Section F-F

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



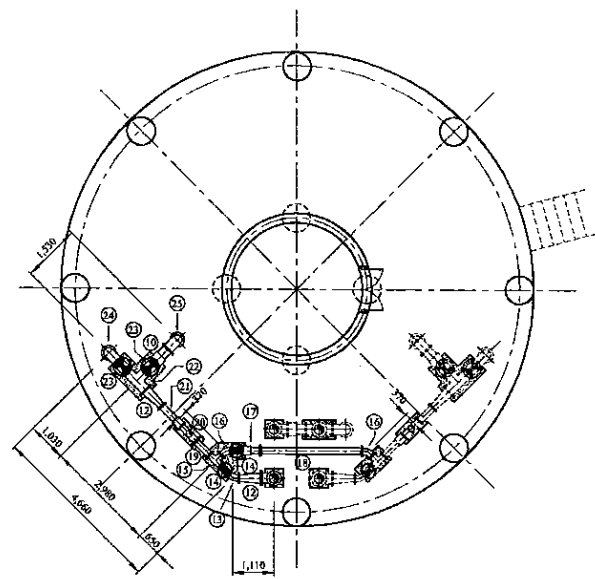
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF BAHIRAWAKANDA S.R - 2

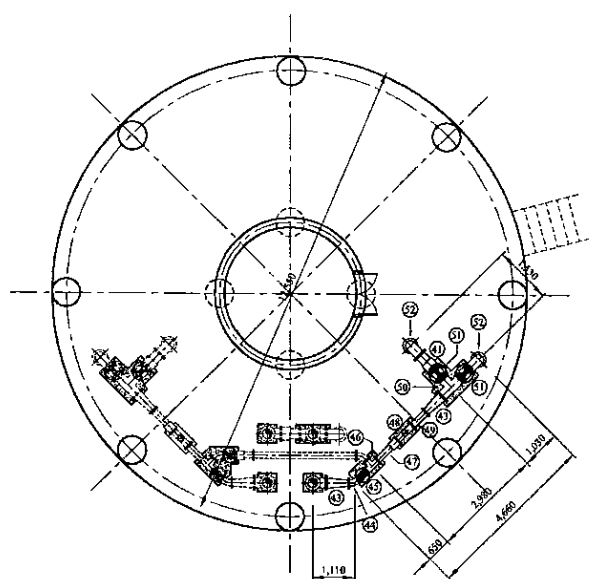
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

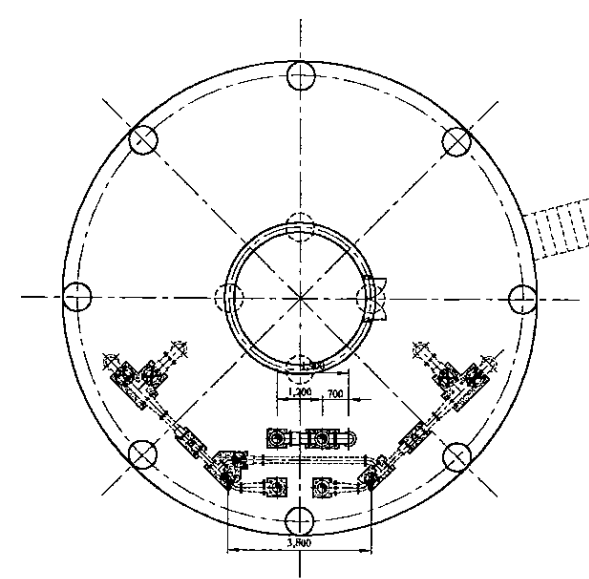
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-16-03



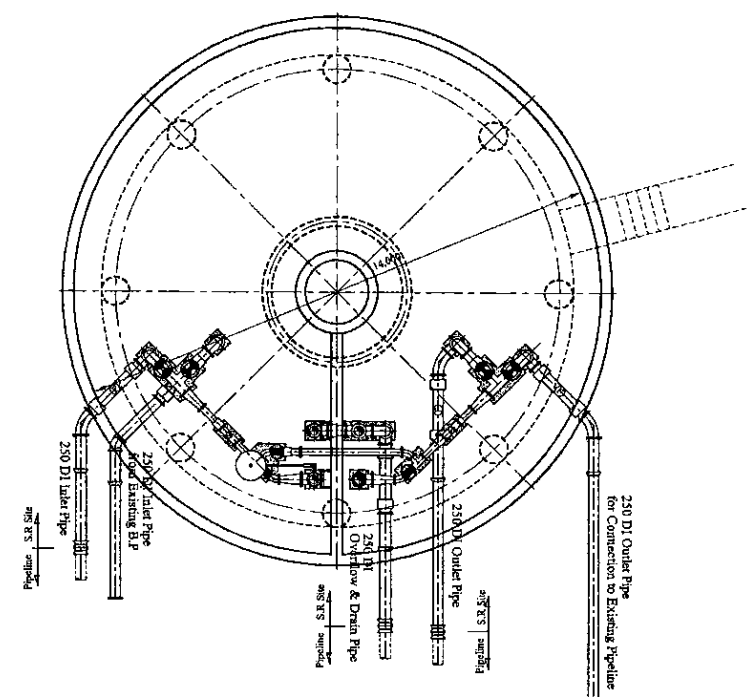
Inlet Pipe



Outlet Pipe







Overflow & Drain Pipe

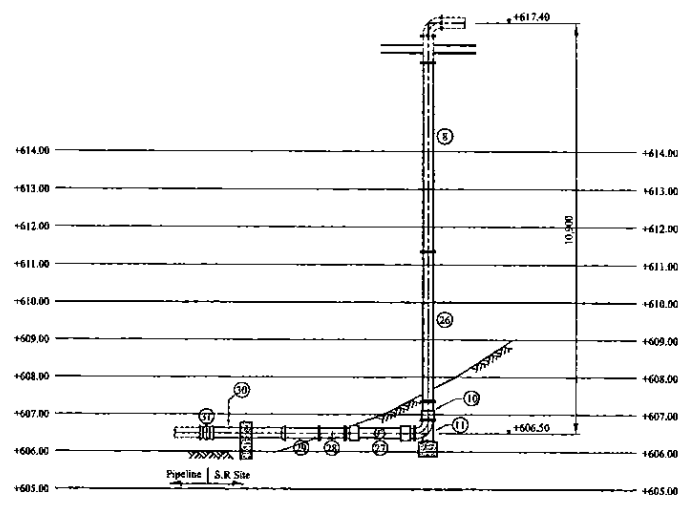


Pipe Layout

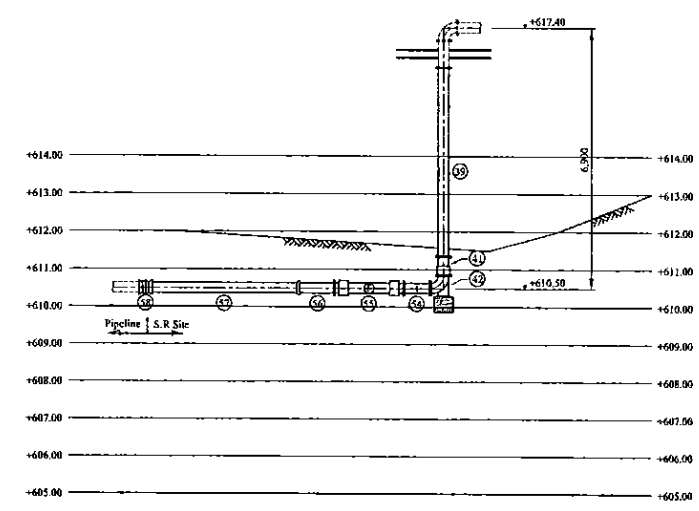
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF BAHIRAWAKANDA S.R - 3								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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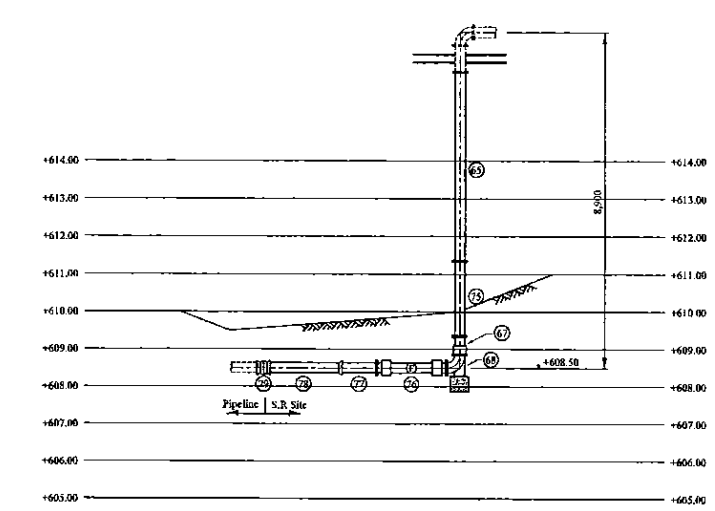




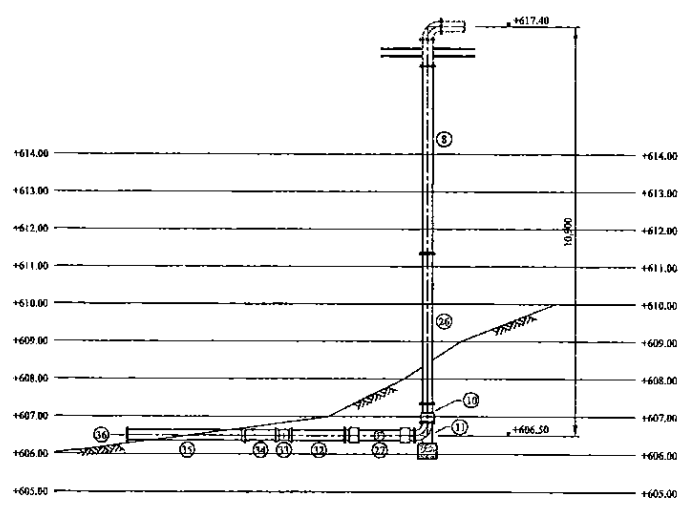
Inlet Pipe



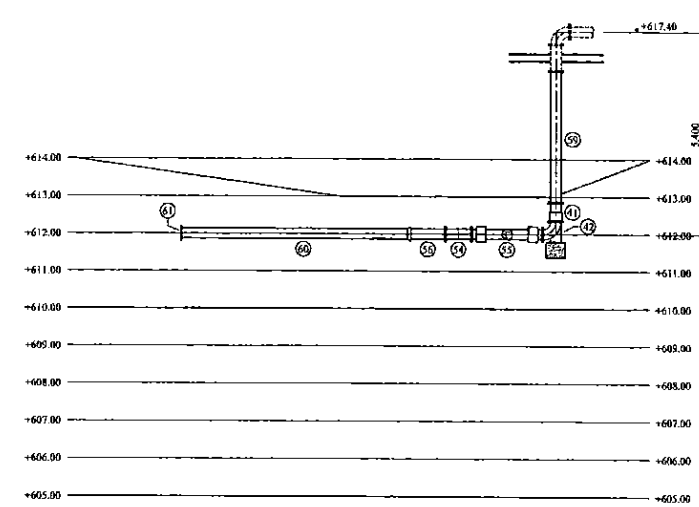
Outlet Pipe



Overflow & Drain Pipe



Inlet Pipe from Existing B.P



Outlet Pipe to Existing Pipeline

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

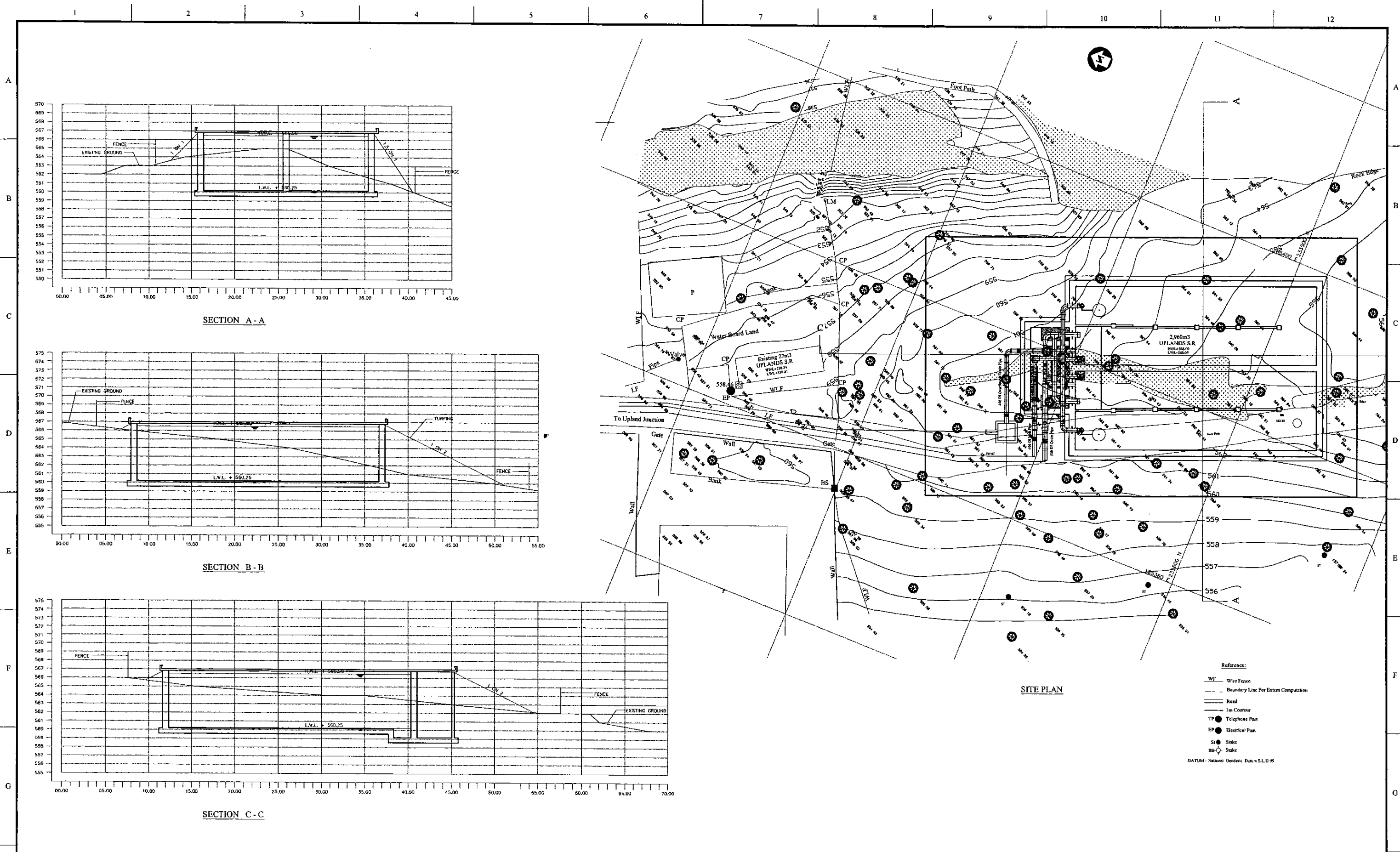
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF BAHIRAWAKANDA S.R - 4

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-16-05



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



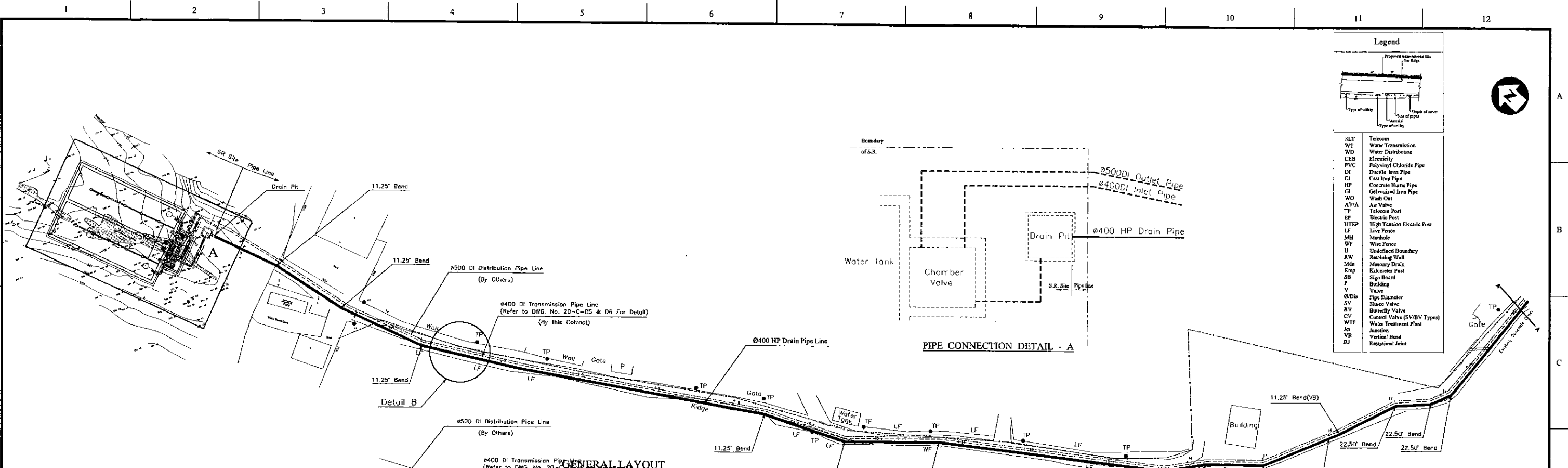
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF 2960m3 UPLANDS S.R.

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:200
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				DESIGN CHIEF			31/05/2002	30-C-17-01



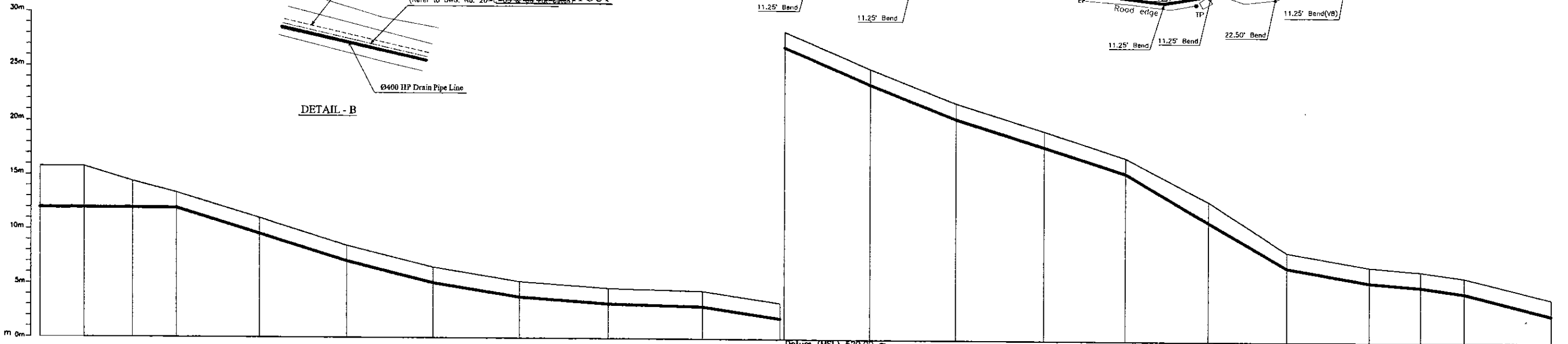
**Legend**

SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Hume Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AWA	Air Valve
TP	Telecom Post
EP	Electric Post
ITEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Knj	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTF	Water Treatment Plant
Jn	Junction
VB	Vertical Bend
RJ	Required Joint

**PIPE CONNECTION DETAIL - A**

**GENERAL LAYOUT**

**DETAIL - B**



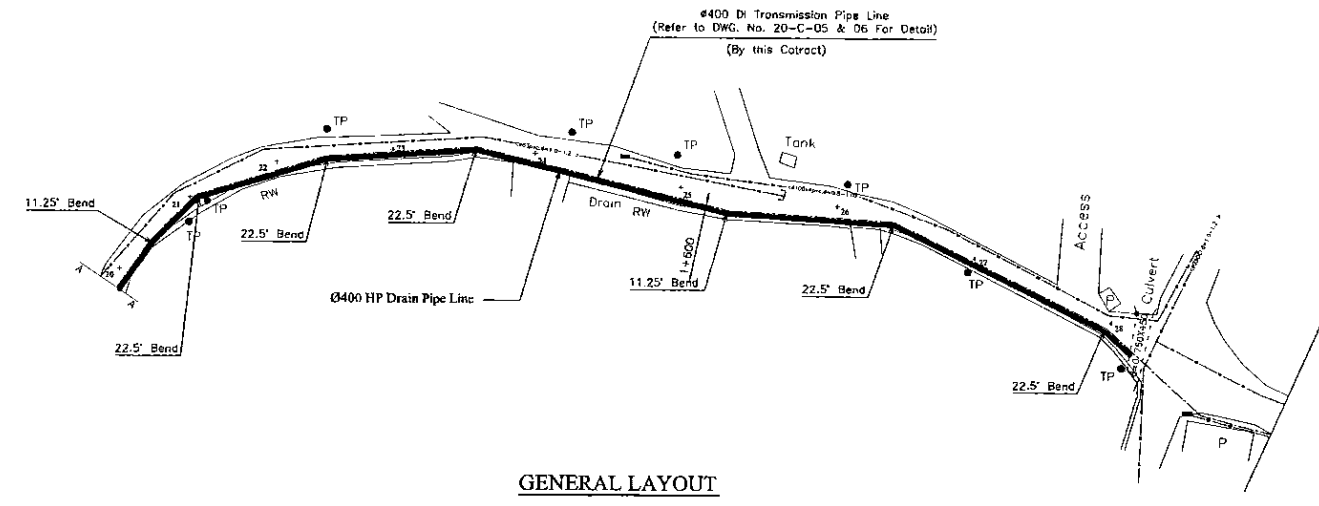
Ground Level (m)	550.78	550.79	550.42	550.37	550.04	553.52	551.53	548.23	549.84	549.42	548.35	545.01	541.90	539.38	536.97	532.99	528.30	526.95	526.54	525.97	523.99	
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	537.00			536.94		532.09	530.10	548.00	548.21	547.99	546.92	543.55	540.47	539.38	535.54	532.99	528.87	525.52	525.11	524.54	522.56	522.56
Pipe Data	• 400 CONCRETE HUME PIPE																					
Single Distance (m)	0.00	10.16	11.00	10.07	19.11	20.14	19.90	19.82	20.42	21.70	17.67	19.71	19.68	20.06	18.63	19.14	17.97	18.98	11.85	10.04	20.18	
Cumulative Distance (m)	0.00	10.16	21.16	31.23	50.34	70.48	90.38	110.20	130.62	152.32	169.99	189.70	209.38	229.44	248.07	267.21	285.18	304.16	316.01	326.05	346.23	
Station No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	

**LONGITUDINAL SECTION**

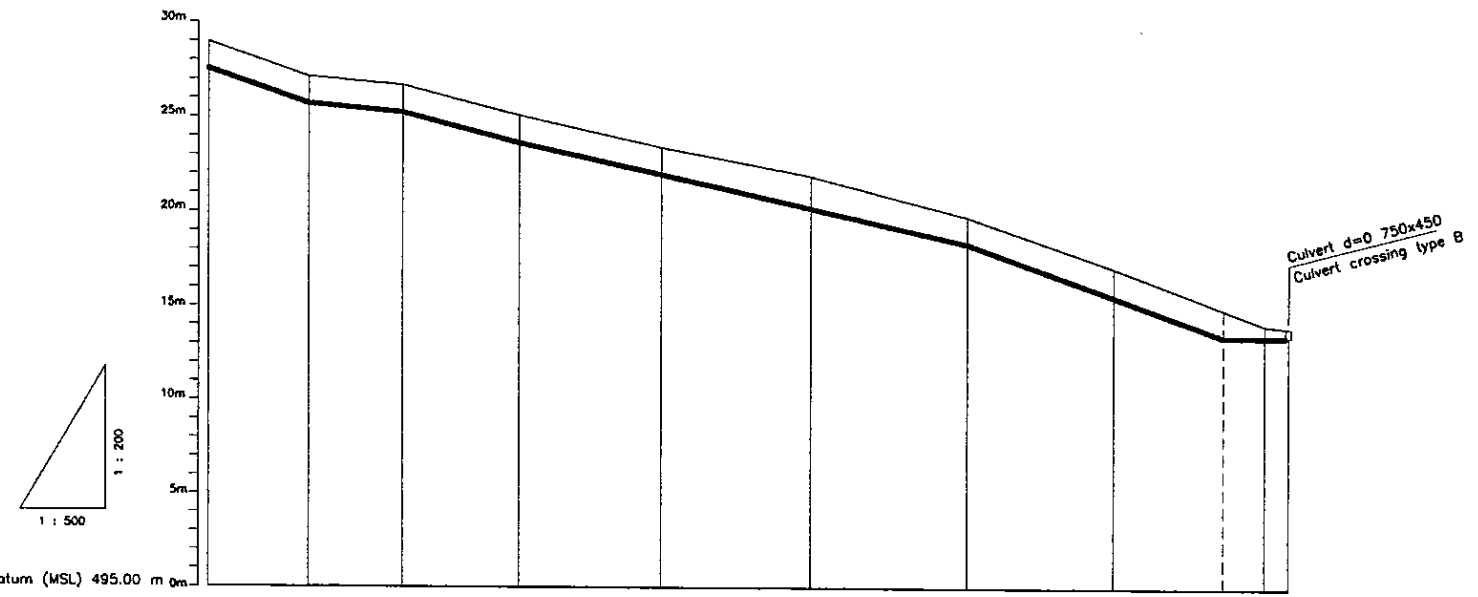
<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> WASH OUT FROM UPLAND S.R.				<b>SHEET 1 OF 2</b>																							
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <tr><th>REV.</th><th>DESCRIPTION</th><th>DATE</th><th>SIGN.</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>		REV.	DESCRIPTION	DATE	SIGN.													<b>DESIGNED:</b> Koichi OKAZAKI <b>CHECKED:</b> DESIGN CHIEF		<b>DRAWN:</b> Ravi U. <b>AGM:</b> (P&D)		<b>PM:</b> (CONSULTANT) Ikuo MIWA <b>DGM:</b> (P&D)		<b>CE:</b> (P&D) <b>DATE:</b> 31/05/2002		<b>SCALE:</b> HORIZONTAL - 1:500 VERTICAL - 1:200 <b>DRAWING NO.:</b> 30-C-17-02	
REV.	DESCRIPTION	DATE	SIGN.																												



Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete Hume Pipe
GI	Galvanized Iron Pipe
WD	Wash Out
AV/A	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Manhole
WF	Wire Fence
U	Unfinished Boundary
RW	Retaining Wall
Mdn	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
F	Finding
V	Valve
ØDia	Pipe Diameter
SV	Shut Valve
BV	Butterfly Valve
CV	Control Valve (S/B/V Types)
WTP	Water Treatment Plant
Jct	Junction
VB	Vertical Bend
RJ	Restrained Joint



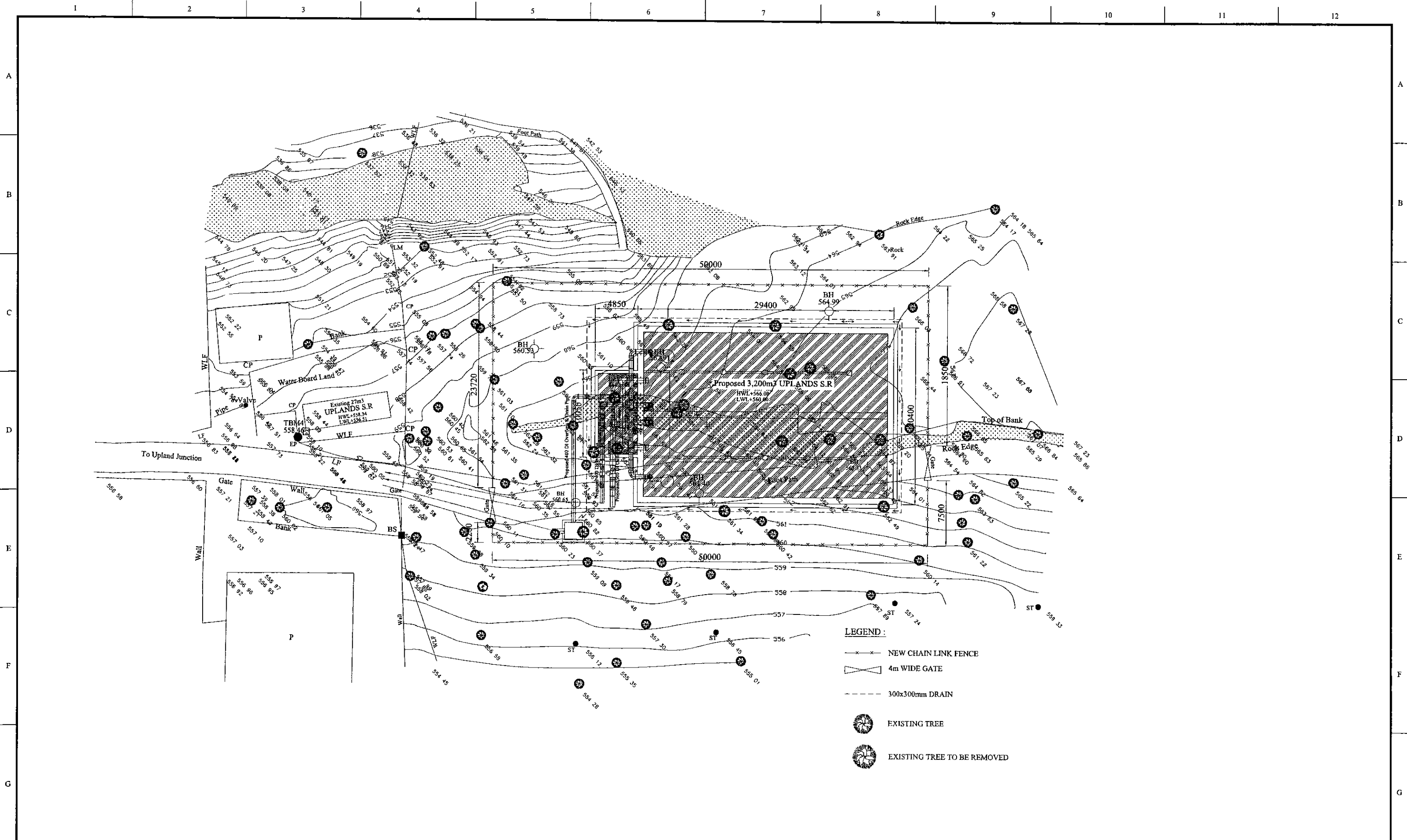
GENERAL LAYOUT



Station No.	20	21	22	23	24	25	26	27	28
Ground Level (m)	523.99	522.15	521.70	520.11	518.44	516.93	514.80	512.10	509.10
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	522.38	520.72	520.27	518.68	517.01	515.53	513.37	511.80	508.48
Pipe Data	Ø 400 CONCRETE HUME PIPE								
Single Distance (m)	20.18	13.33	12.48	15.42	18.72	19.87	20.82	19.29	20.15
Cumulative Distance (m)	346.43	359.76	372.24	387.66	406.38	426.25	447.07	466.34	486.51

LONGITUDINAL SECTION

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: WASH OUT FROM UPLAND S.R				SHEET 2 OF 2													
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	<table border="1" style="width: 100%;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.									DESIGNED: Koichi OKAZAKI CHECKED: DESIGN CHIEF	DRAWN: Ravi U. AGM: (P&D)	PM: (CONSULTANT) Ikuo MIWA DGM: (P&D)	CE: (P&D) DATE: 31/05/2002	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200 DRAWING NO.: 30-C-17-03
REV.	DESCRIPTION	DATE	SIGN.																



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

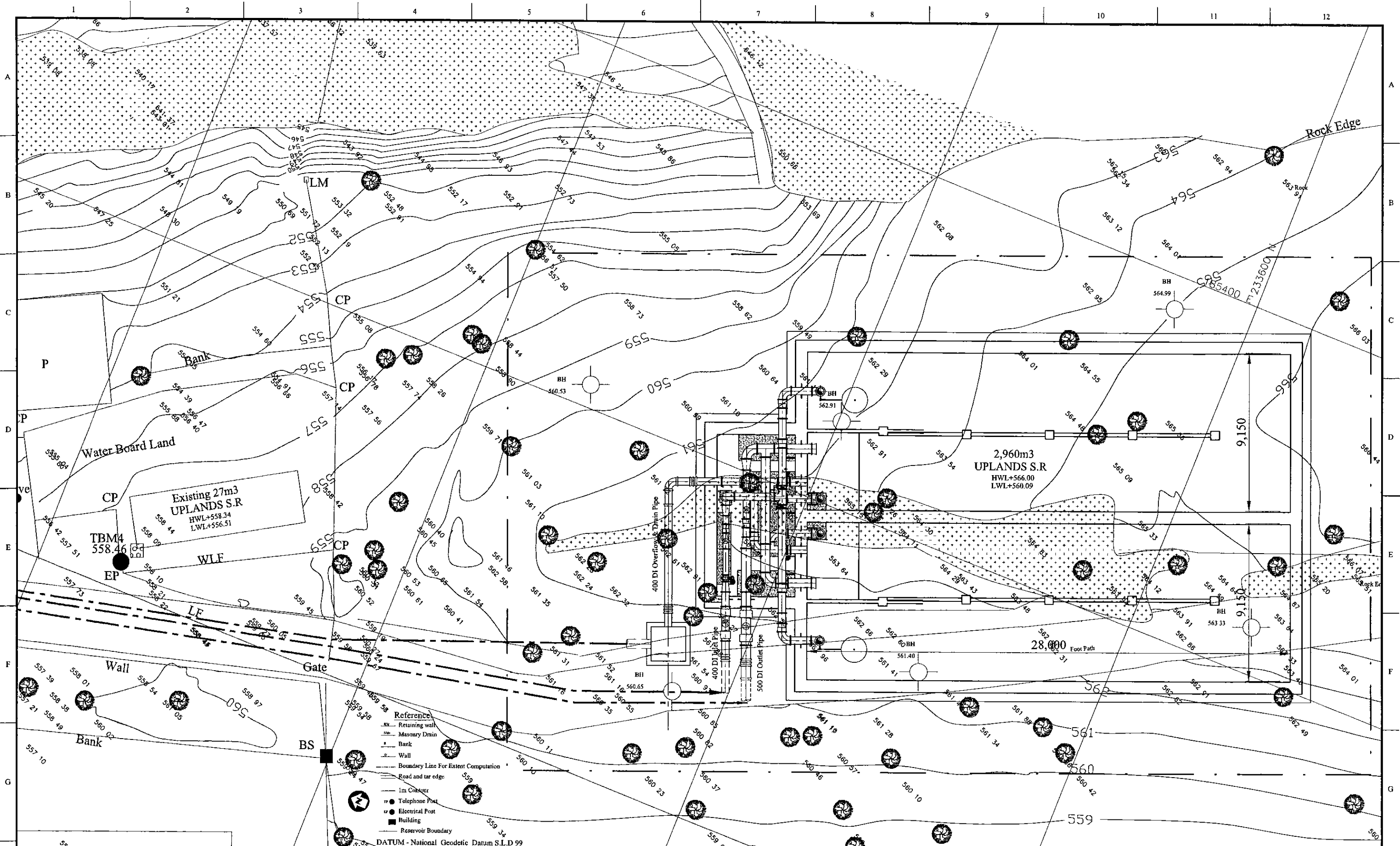
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **2960m3 UPLANDS S.R. LANDSCAPING LAYOUT**

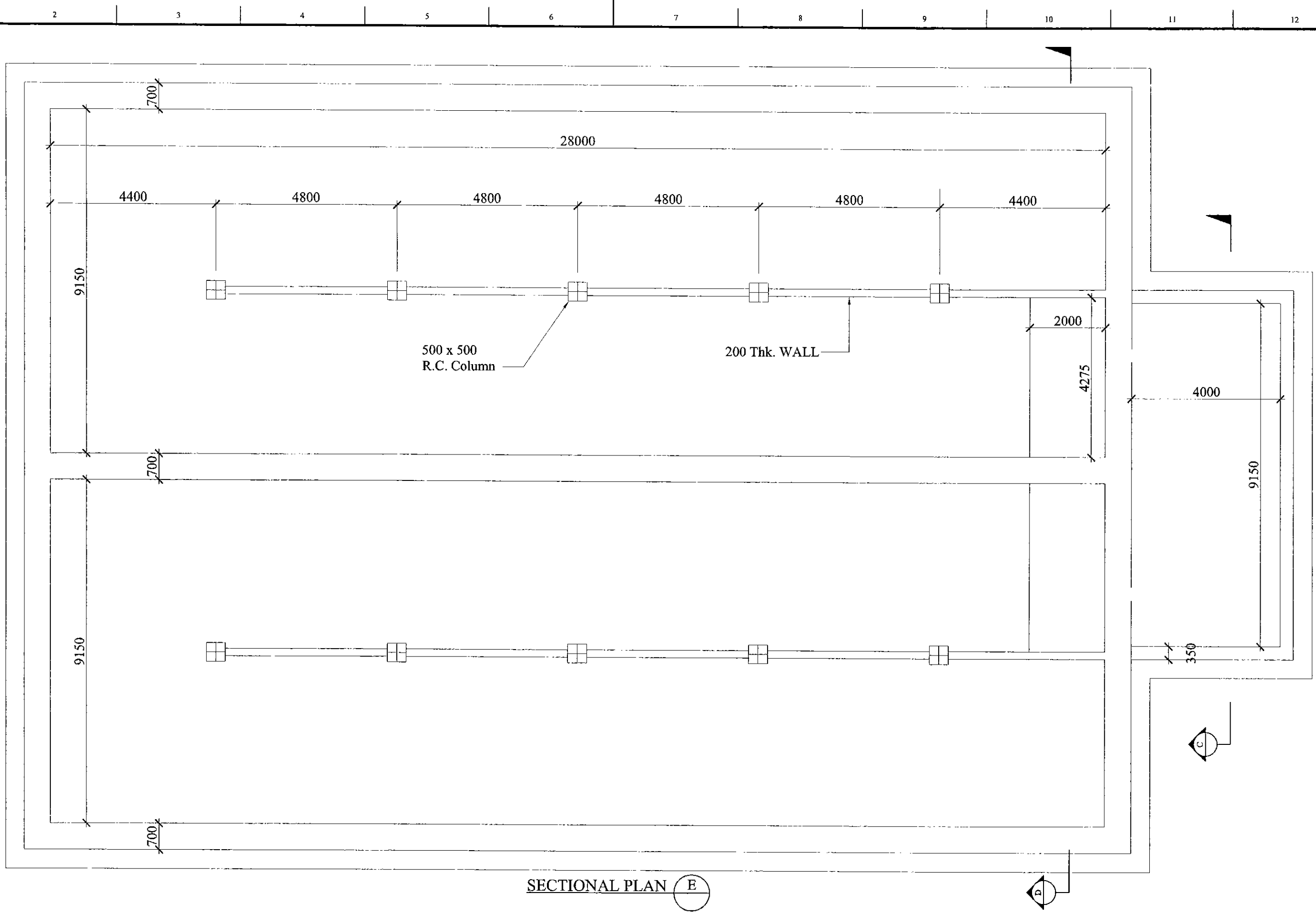
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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





REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	POORNA	Ikuo MIWA		1:100
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							31/05/2002	30-C-17-04

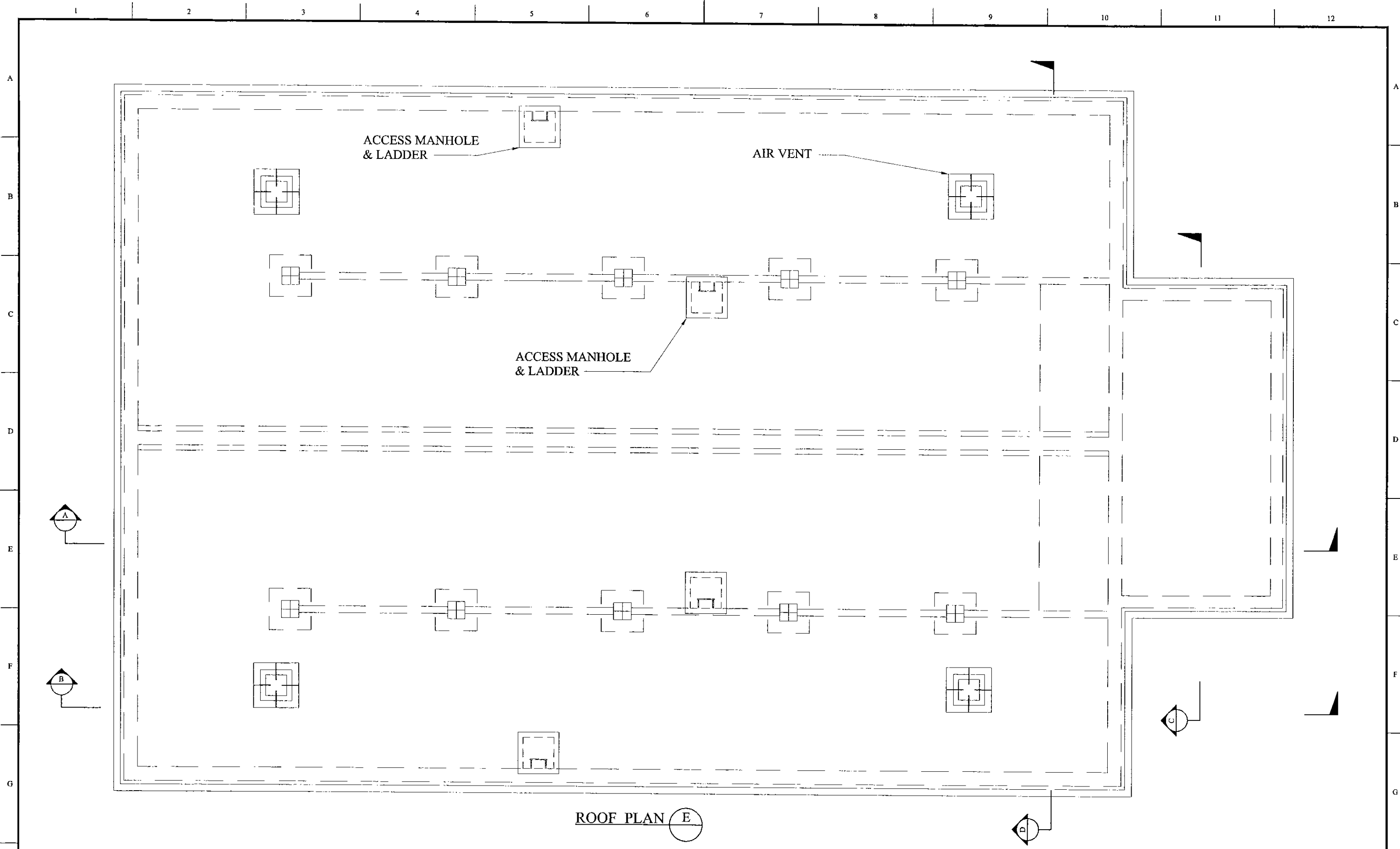


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: UPLANDS SERVICE RESERVOIR SITE PLAN								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Udita	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-17-01







SECTIONAL PLAN (E)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: UPLANDS SERVICE RESERVOIR - GENERAL ARRANGEMENT - 1								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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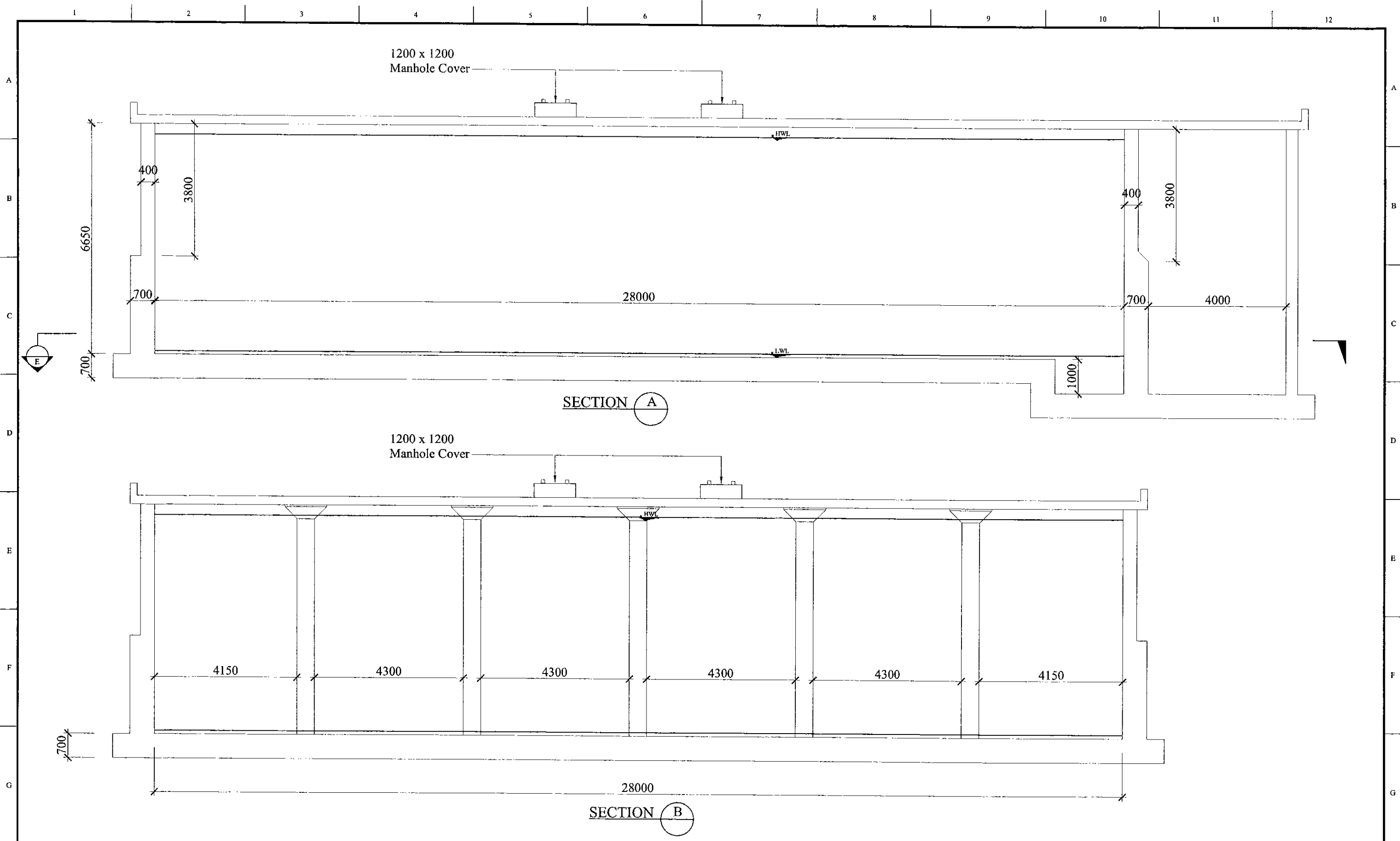






ROOF PLAN (E)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: UPLANDS SERVICE RESERVOIR - GENERAL ARRANGEMENT - 2								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>			REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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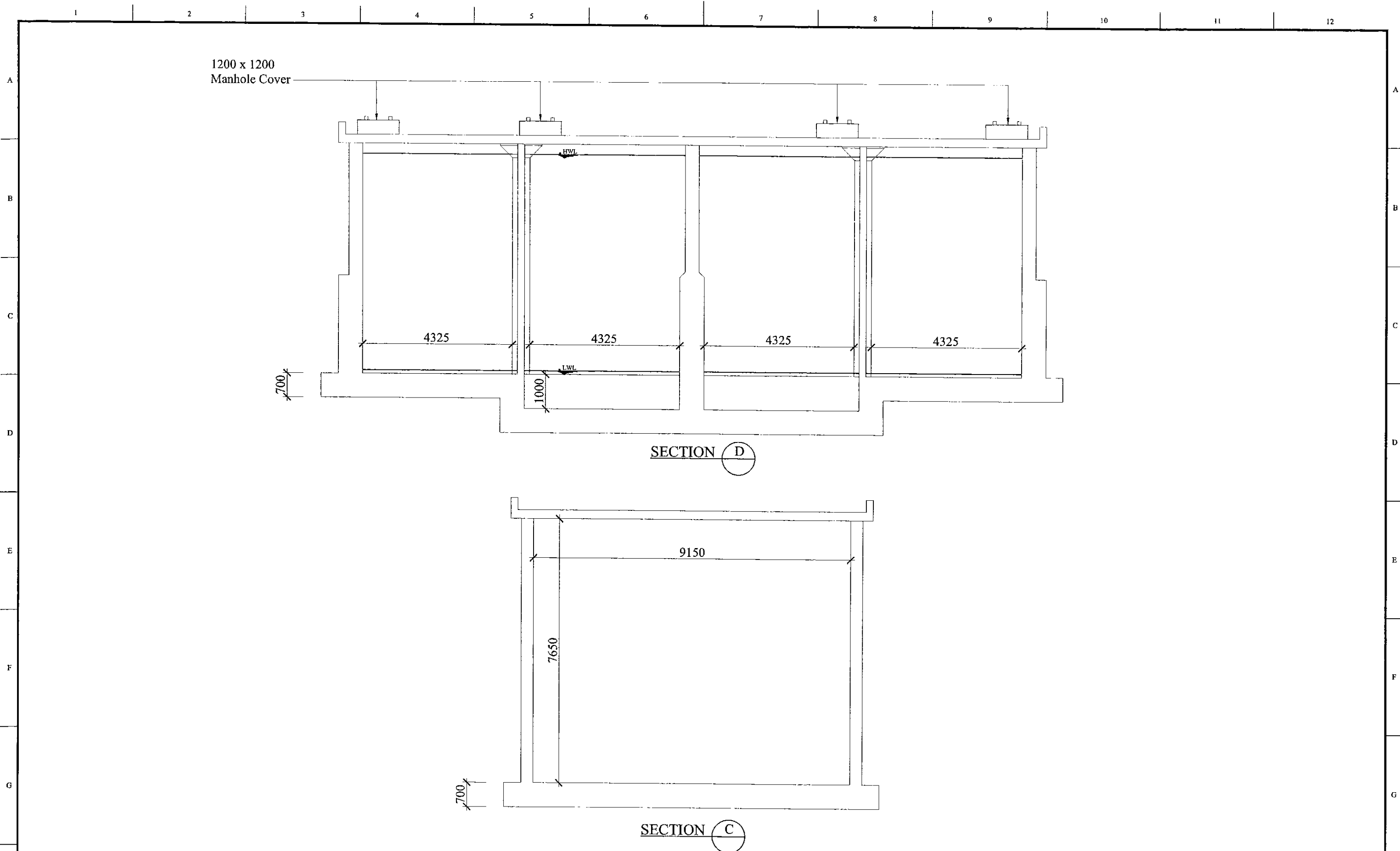
DATE: 17/07/2001 W.s.m









PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: UPLANDS SERVICE RESERVOIR - GENERAL ARRANGEMENT - 3							
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U	PM: (CONSULTANT) Ikio MIWA	CE: (P&D)	SCALE: 1:100
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DATE: 1/07/2001



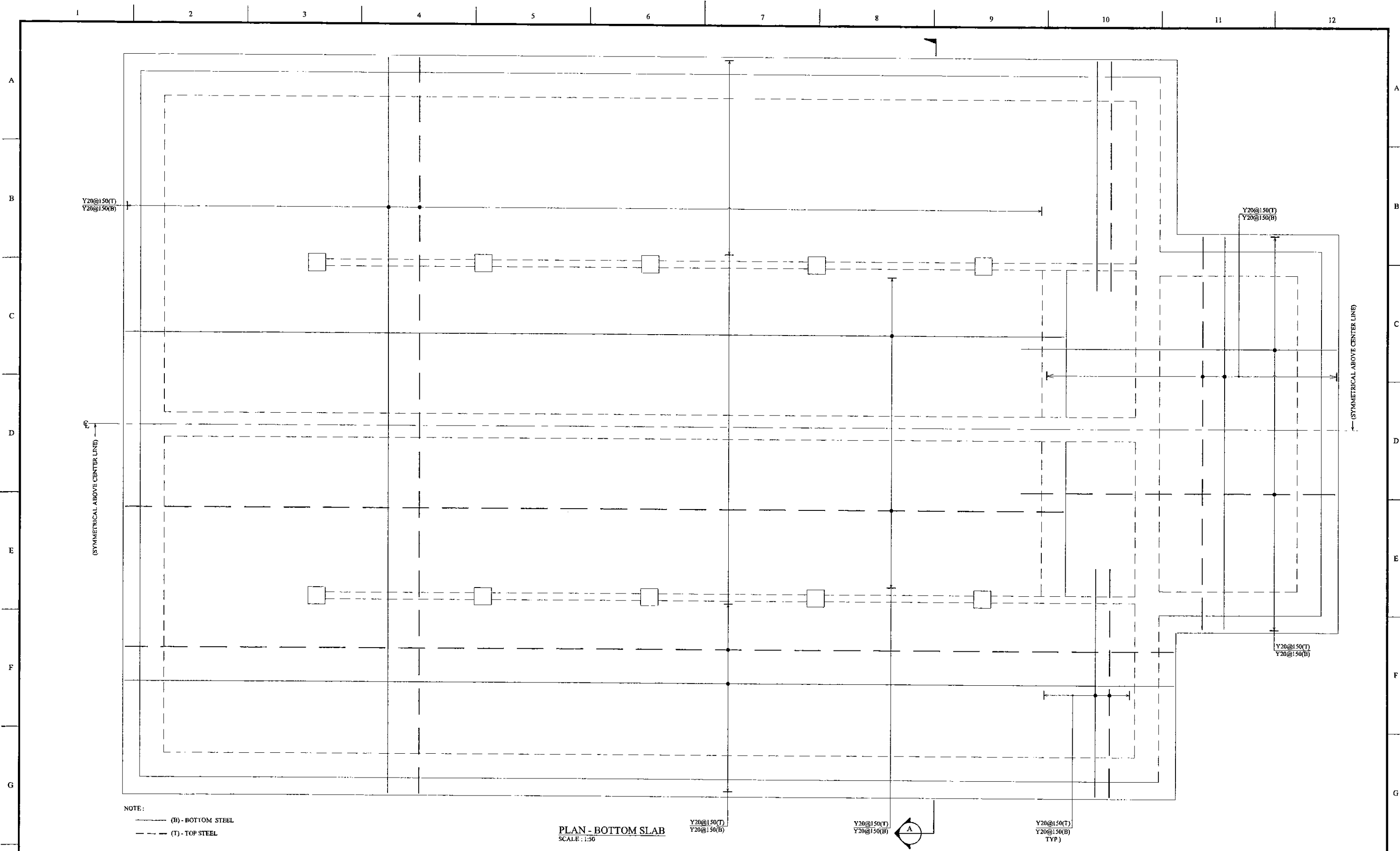
SECTION D





SECTION C

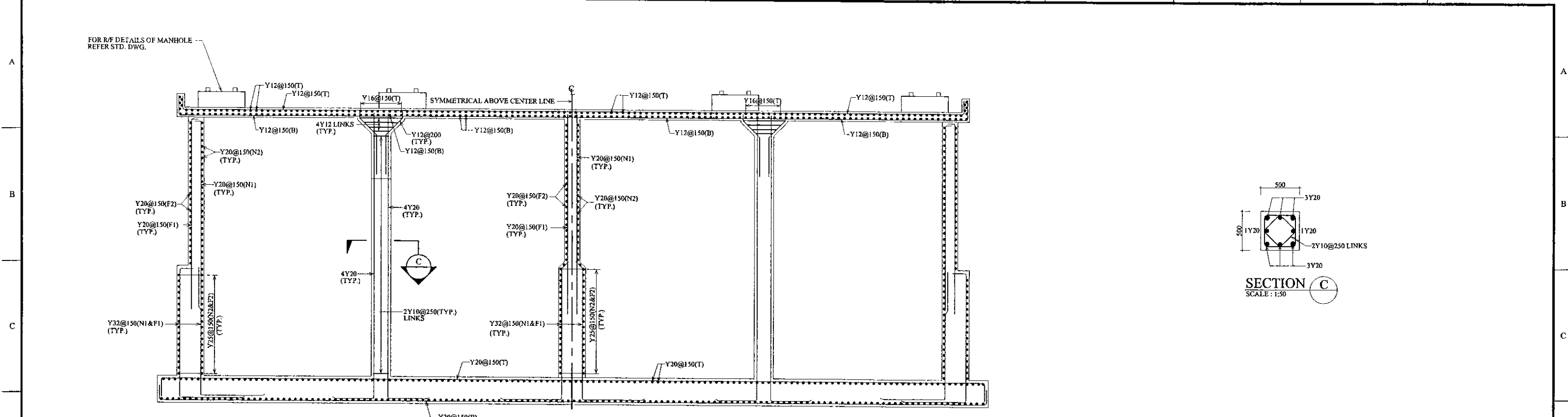
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: UPLANDS SERVICE RESERVOIR - GENERAL ARRANGEMENT - 4							
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: Ravi U	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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DATE: 17/07/2001

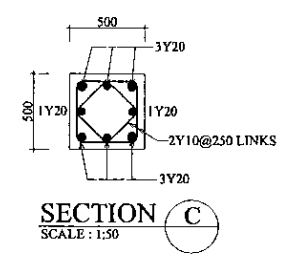




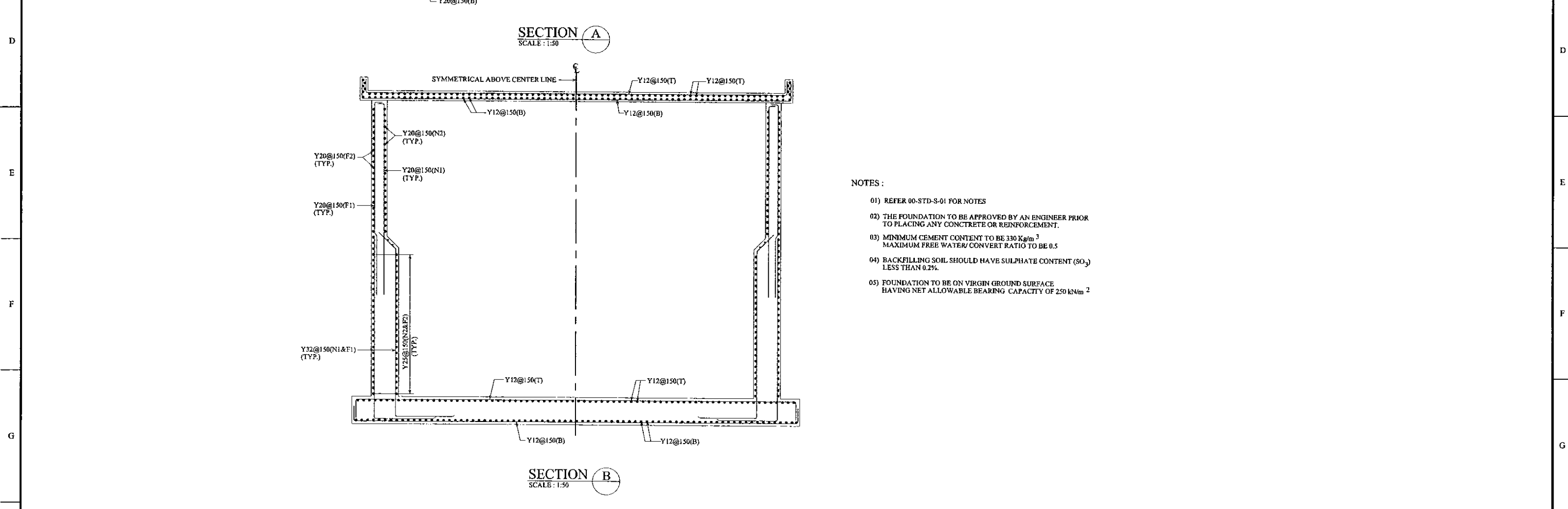
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PROPOSED 3200m <sup>3</sup> UPLAND S.R. - REINFORCEMENT DETAILS - BOTTOM SLAB								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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SECTION A  
SCALE: 1:50



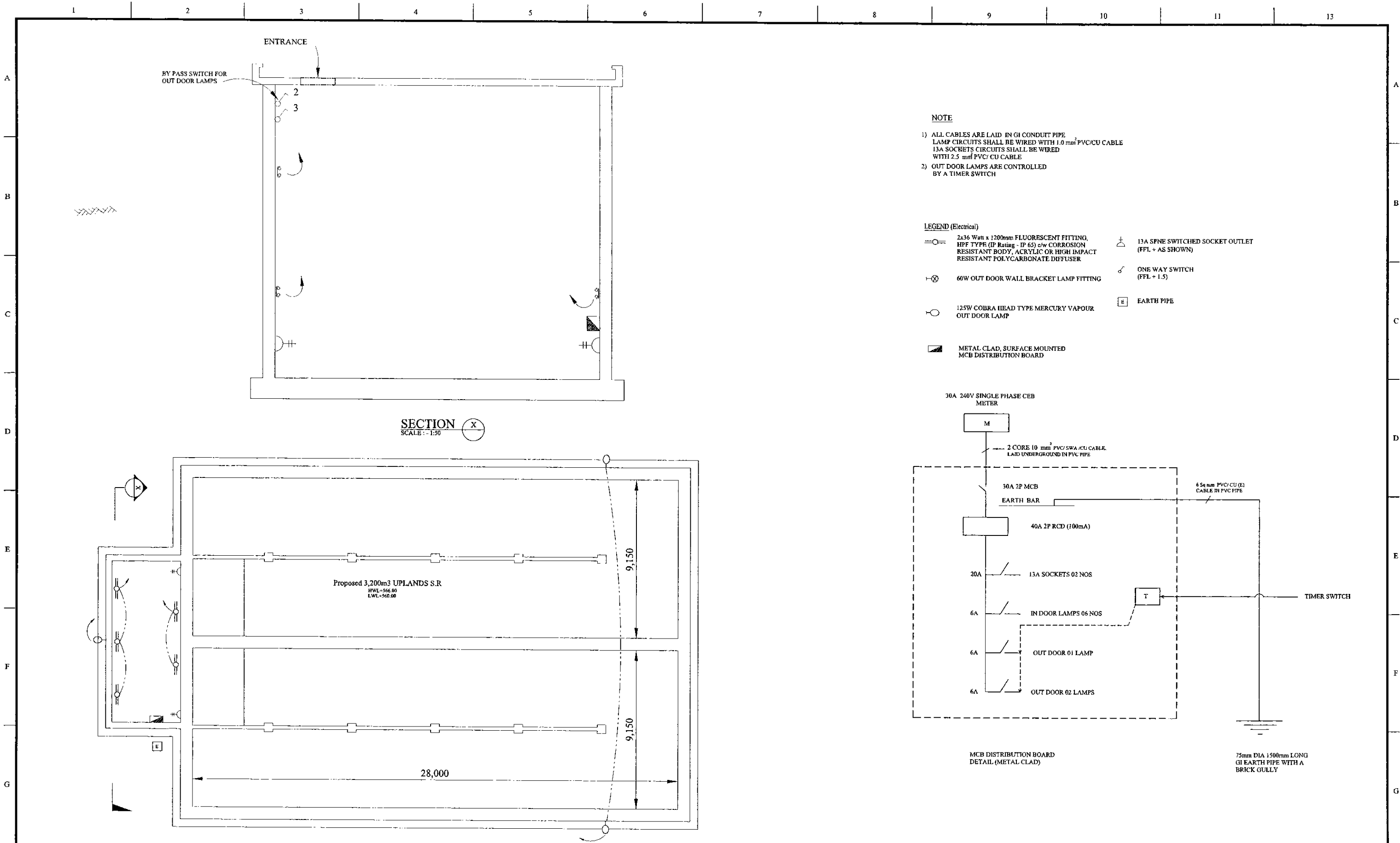
SECTION C  
SCALE: 1:50



SECTION B  
SCALE: 1:50

- NOTES :
- 01) REFER 00-STD-S-01 FOR NOTES
  - 02) THE FOUNDATION TO BE APPROVED BY AN ENGINEER PRIOR TO PLACING ANY CONCRETE OR REINFORCEMENT.
  - 03) MINIMUM CEMENT CONTENT TO BE 330 Kg/m<sup>3</sup>  
MAXIMUM FREE WATER/ CONWERT RATIO TO BE 0.5
  - 04) BACKFILLING SOIL SHOULD HAVE SULPHATE CONTENT (SO<sub>2</sub>) LESS THAN 0.2%.
  - 05) FOUNDATION TO BE ON VIRGIN GROUND SURFACE HAVING NET ALLOWABLE BEARING CAPACITY OF 250 kN/m<sup>2</sup>

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PROPOSED 3200m <sup>3</sup> UPLAND S.R. - REINFORCEMENT DETAILS - SECTIONS								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. Jayawardane	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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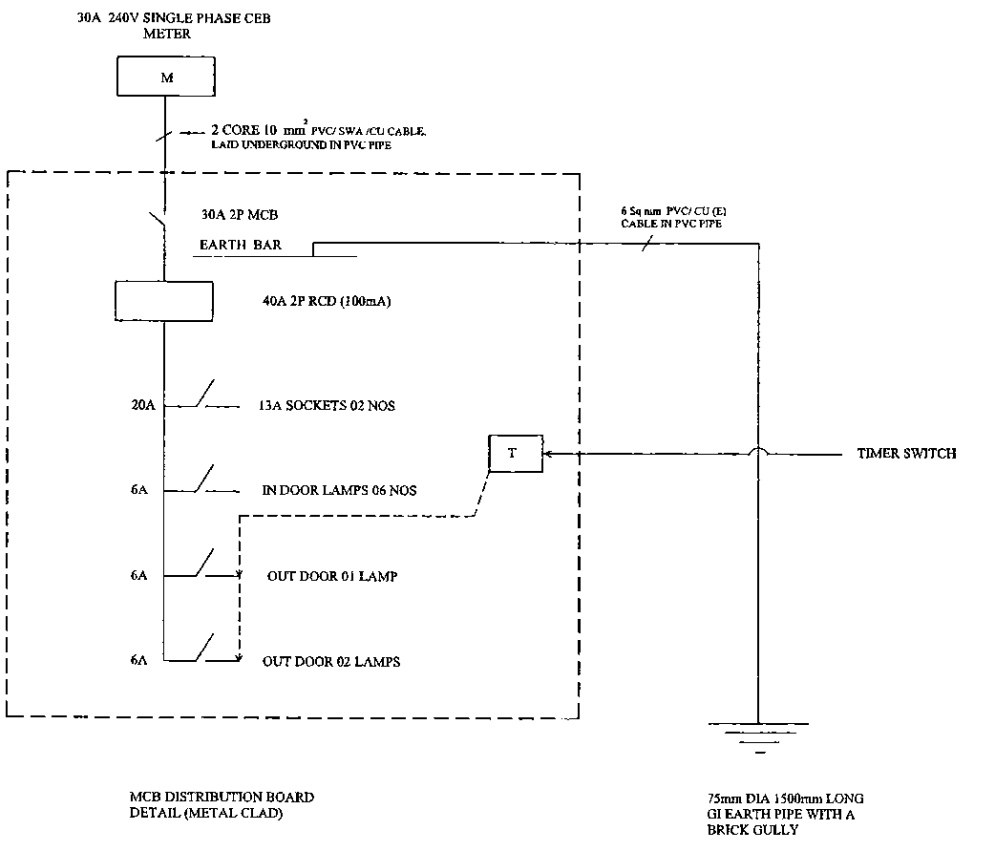
**NOTE**

1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
 LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
 13A SOCKETS CIRCUITS SHALL BE WIRED WITH 2.5 mm<sup>2</sup> PVC/ CU CABLE

2) OUT DOOR LAMPS ARE CONTROLLED BY A TIMER SWITCH

**LEGEND (Electrical)**

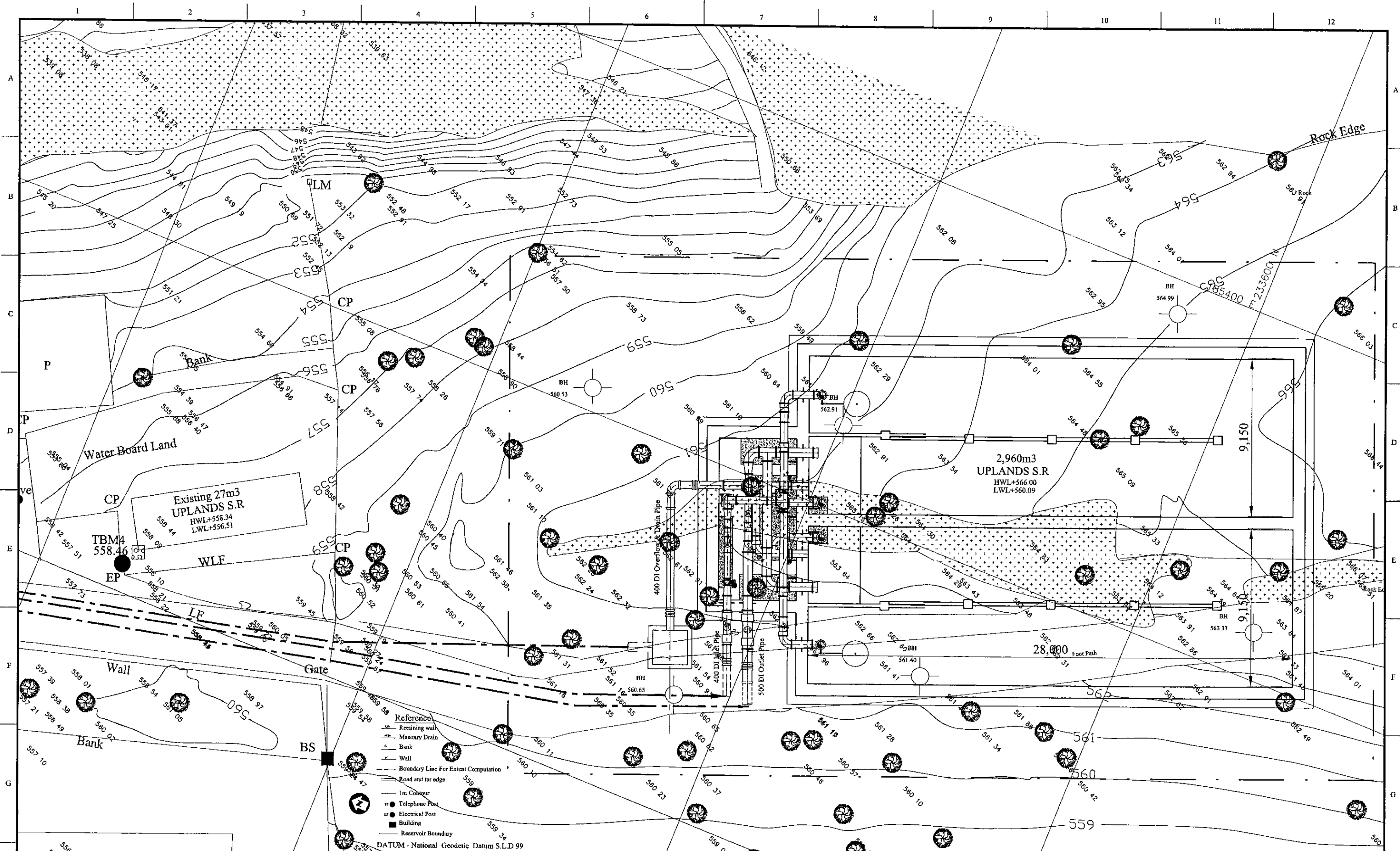
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 60W OUT DOOR WALL BRACKET LAMP FITTING
- 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
- METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
- 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- ONE WAY SWITCH (FFL + 1.5)
- EARTH PIPE



**SECTION X**  
SCALE: 1:50

Proposed 3,200m<sup>3</sup> UPLANDS S.R  
 HWL-566.00  
 LWL-508.00

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		CONSULTANTS: JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: UPLANDS SERVICE RESEVOIR-ELECTRICAL LAYOUT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: ATG	DRAWN: lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-17-21



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

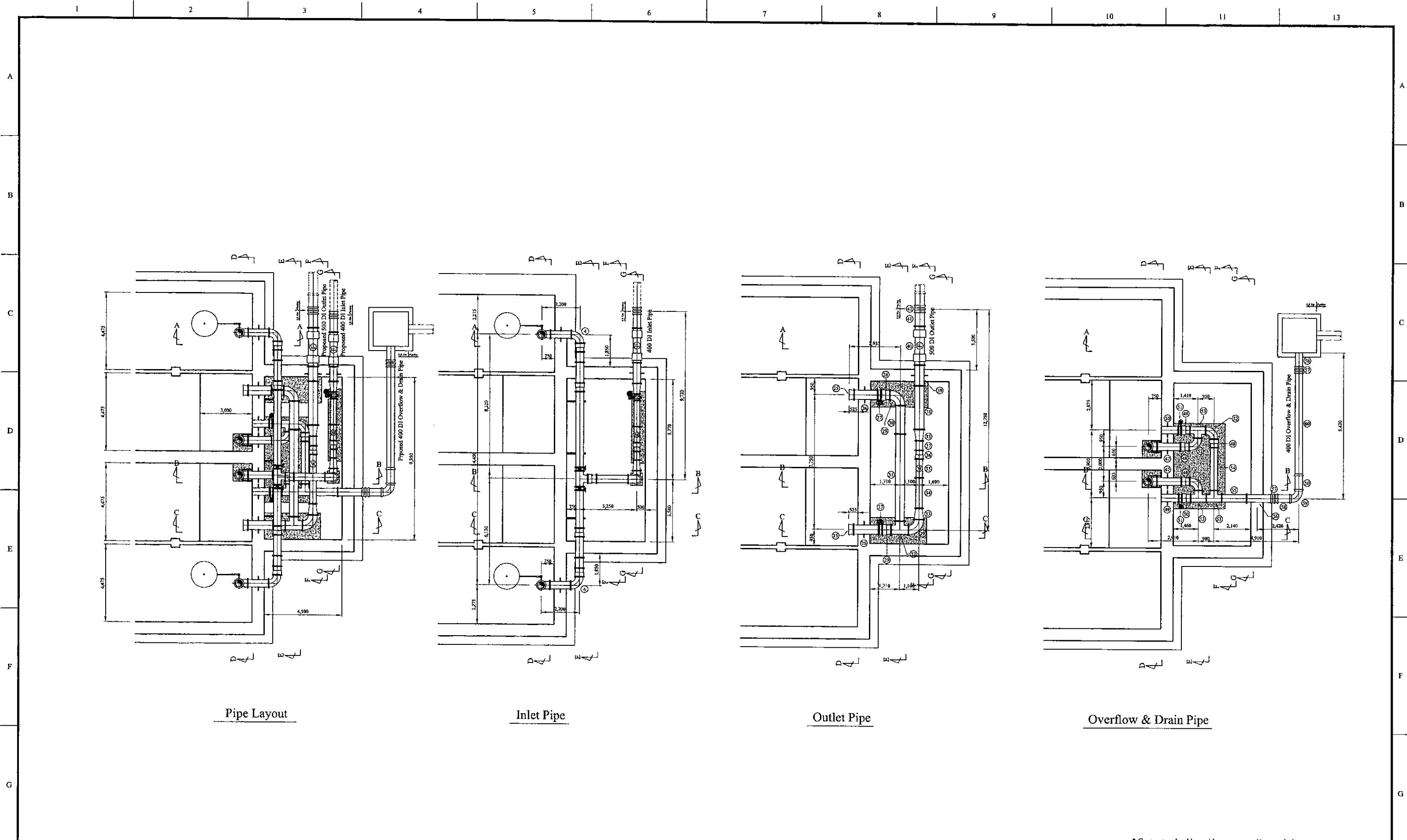
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **PIPE LAYOUT PLAN OF EXISTING 27m3 & NEW 2,960m3 UPLANDS S.R**





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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-17-01

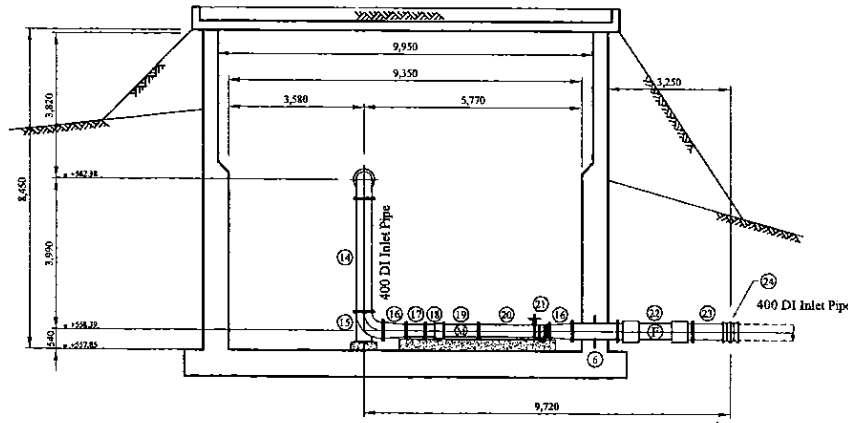


\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF UPLANDS S.R - 1									
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100	
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-17-02	
								DESIGN CHIEF					







Section G-G

Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	200	L=170mm	PN10	2
2	Double Flanged Piece	DI	200	L=1,290mm	PN10	2
3	Butterfly Float Valve	SUS	200	L=460mm	PN10	2
4	Double Flanged 400 x 200 Taper	DI	400x200	L=700mm	PN10	2
5	Double Flanged 90 degree Bend	DI	400	L=500mm x 2	PN10	5
6	Double Flanged Piece with Puddle	DI	400	L=1,200mm	PN10	3
7	Flange Adapter (DF)	SS	400	L=500mm	PN10	5
8	Double Flanged Piece	DI	400	L=600mm	PN10	2
9	Double Flanged Piece	DI	400	L=1,200mm	PN10	2
10	Double Flanged Piece	DI	400	L=4,320mm	PN10	1
11	Butterfly Valve	DI	400	L=210mm	PN10	2
12	Double Flanged Piece	DI	400	L=2,210mm	PN10	1
13	Double Flanged Piece	DI	400	L=1,800mm	PN10	1
14	Double Flanged Piece	DI	400	L=2,990mm	PN10	1
15	Double Flanged 90 degree Duckfoot Bend	DI	400	L=500mm x 2	PN10	1
16	Double Flanged 400 x 300 Taper	DI	400x300	L=600mm	PN10	2
17	Double Flanged Piece	DI	300	L=500mm	PN10	1
18	Flange Adapter (DF)	DI	300	L=500mm	PN10	1
19	Flow Meter		300	L=920mm	PN10	1
20	Double Flanged Piece	DI	300	L=1,500mm	PN10	1
21	Toothed Vane Butterfly Valve	FCD	300	L=400mm	PN10	1
22	Double Flanged Flexible Expansion Joint	DI	400		PN10	1
23	Flanged Spigot Piece	DI	400	L=1,000mm	PN10, Type-T	1
24	Collar	DI	400		Type-K	1
25	Flanged Bellmouth	DI	500	L=275mm	PN10	2
26	Double Flanged Piece with Puddle	DI	500	L=1,450mm	PN10	1
27	Butterfly Valve	DI	500	L=210mm	PN10	2
28	Flange Adapter (DF)	SS	500	L=500mm	PN10	2
29	Double Flanged 90 degree Bend	DI	500	L=600mm x 2	PN10	4
30	Double Flanged Piece	DI	500	L=1,650mm	PN10	1
31	Double Flanged Piece	DI	500	L=5,000mm	PN10	1
32	All Flanged 500 x 500 Tee	DI	500x500	L=1,000x500mm	PN10	1
33	Double Flanged 500 x 350 Taper	DI	500x350	L=650mm	PN10	2
34	Double Flanged Piece	DI	350	L=1,750mm	PN10	1
35	Flow Meter		350	L=1,070mm	PN10	1
36	Flange Adapter (DF)	SS	350	L=500mm	PN10	1
37	Double Flanged Piece	DI	350	L=550mm	PN10	1
38	Double Flanged Piece	DI	500	L=2,530mm	PN10	1
39	Double Flanged Piece with Puddle	DI	500	L=1,100mm	PN10	1
40	Double Flanged Flexible Expansion Joint	DI	500		PN10	1
41	Flanged Spigot Piece	DI	500	L=1,000mm	PN10, Type-T	1
42	Collar	DI	500		Type-K	1
43	Flanged Bellmouth	DI	400	L=240mm	PN10	2
44	Double Flanged Piece	DI	400	L=5,000mm	PN10	2
45	Double Flanged Piece	DI	400	L=1,870mm	PN10	2
46	Double Flanged 90 degree Duckfoot Bend	DI	400	L=500mm x 2	PN10	2
47	Double Flanged Piece with Puddle	DI	400	L=1,510mm	PN10	2
48	Flange Adapter (DF)	SS	400	L=500mm	PN10	5
49	Flanged Spigot Piece with Puddle	DI	400	L=1,000mm	PN10	1
50	Flanged Spigot Piece with Puddle	DI	400	L=950mm	PN10	1
51	Butterfly Valve	DI	400	L=210mm	PN10	2
52	Double Flanged 90 degree Bend	DI	400	L=500mm x 2	PN10	3
53	All Flanged 400 x 400 Tee	DI	400	L=900x450mm	PN10	3
54	Double Flanged Piece	DI	400	L=2,450mm	PN10	1
55	Double Flanged Piece	DI	400	L=1,440mm	PN10	1
56	Flanged Spigot Piece	DI	400	L=1,600mm	PN10	1
57	Collar	DI	400		Type-K	1
58	Plain Ends Piece	DI	400	L=1,000mm	Type-T	3
59	Double Socket 90 degree Bend	DI	400	L=420mm x 2	Type-T	1
60	Straight Pipe	DI	400	L=6,000mm	Type-T	1

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

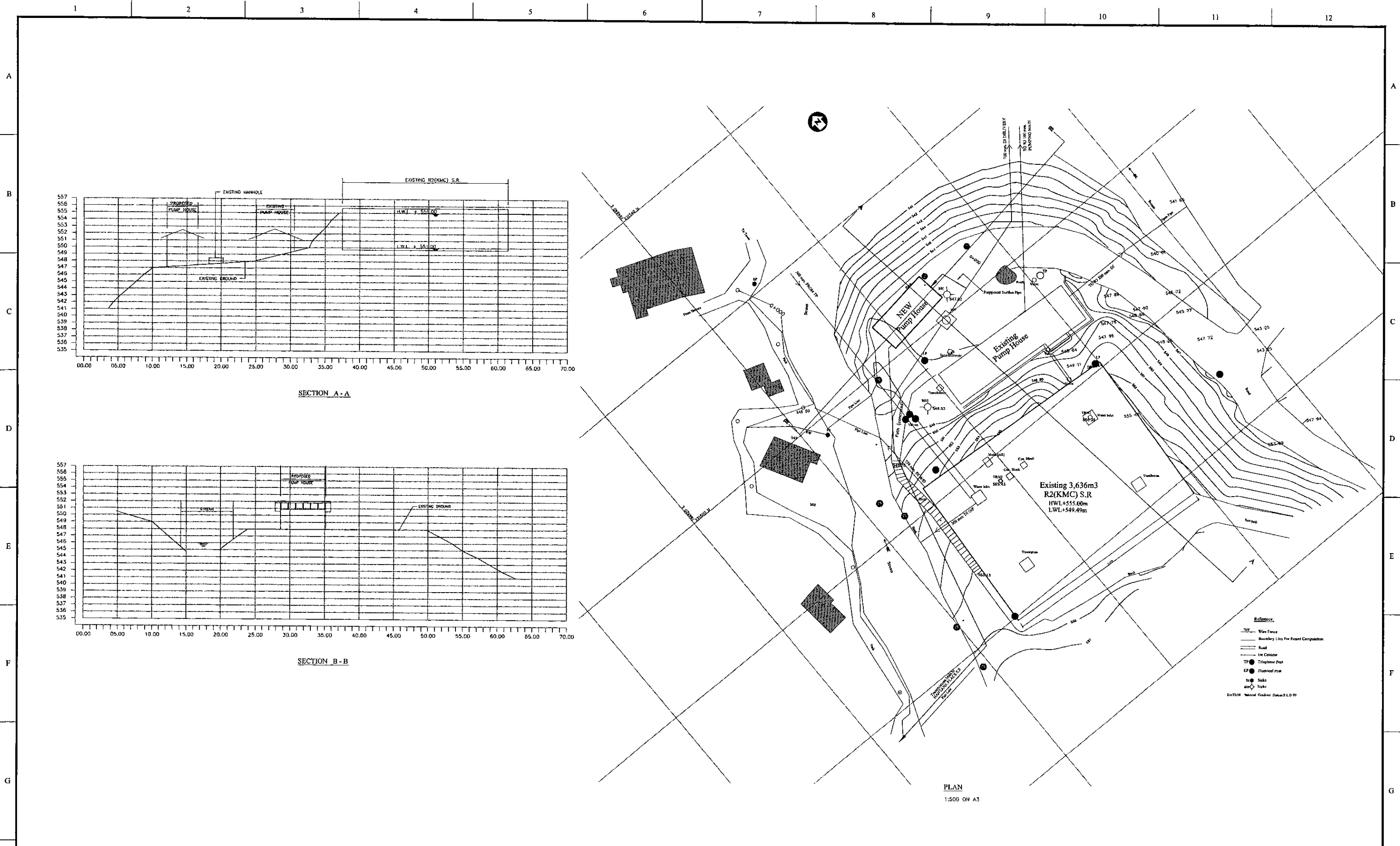
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF UPLANDS S.R - 3

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI			1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-17-04






PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



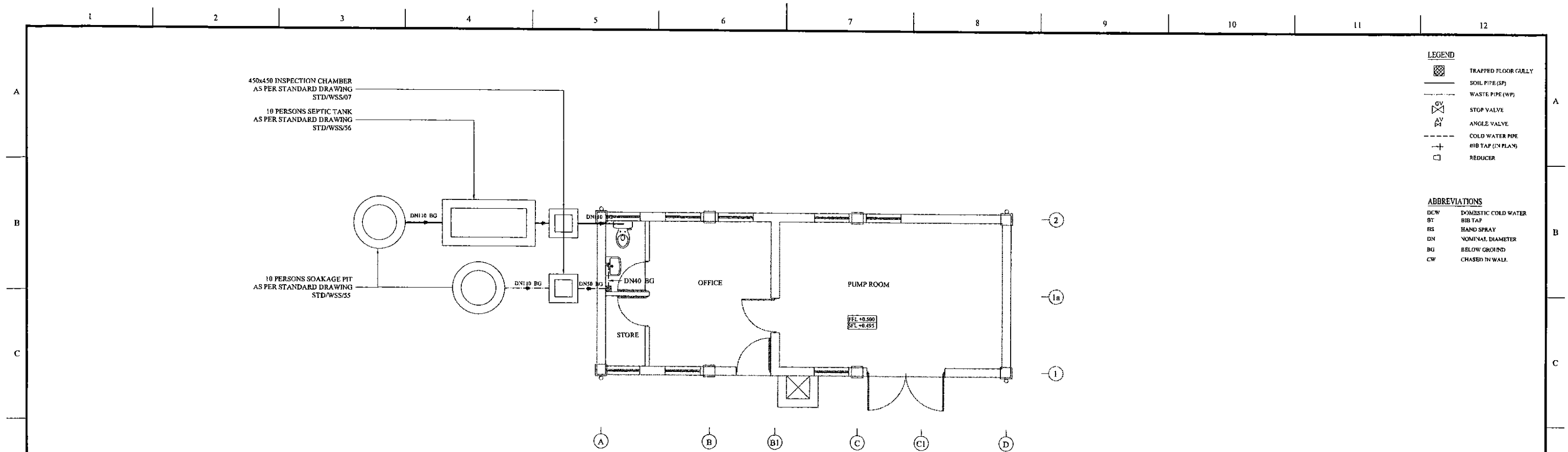
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **SITE PLAN AND CSS OF EXISTING 3636m<sup>3</sup> R2 (KMC) S.R. AND PUMP STATION**

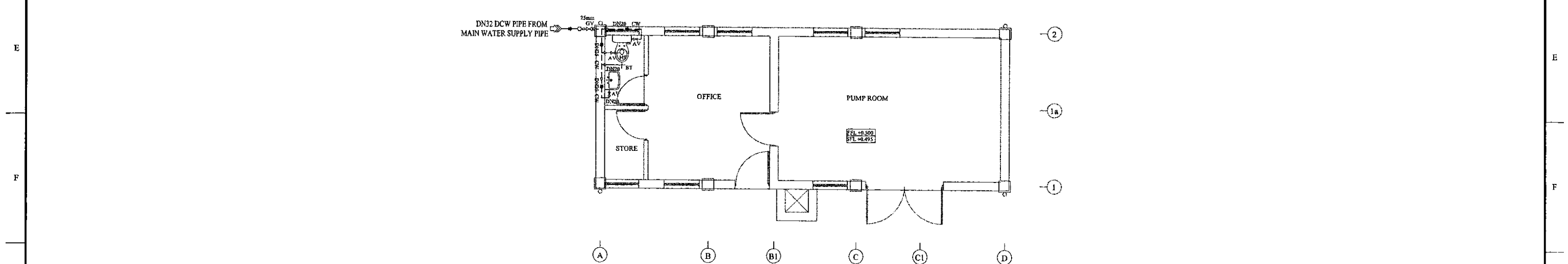
CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				<b>Koichi OKAZAKI</b>	<b>Ravi U.</b>	<b>Ikuo MIWA</b>		<b>1:500</b>
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			<b>31/05/2002</b>	<b>30-C-18-01</b>

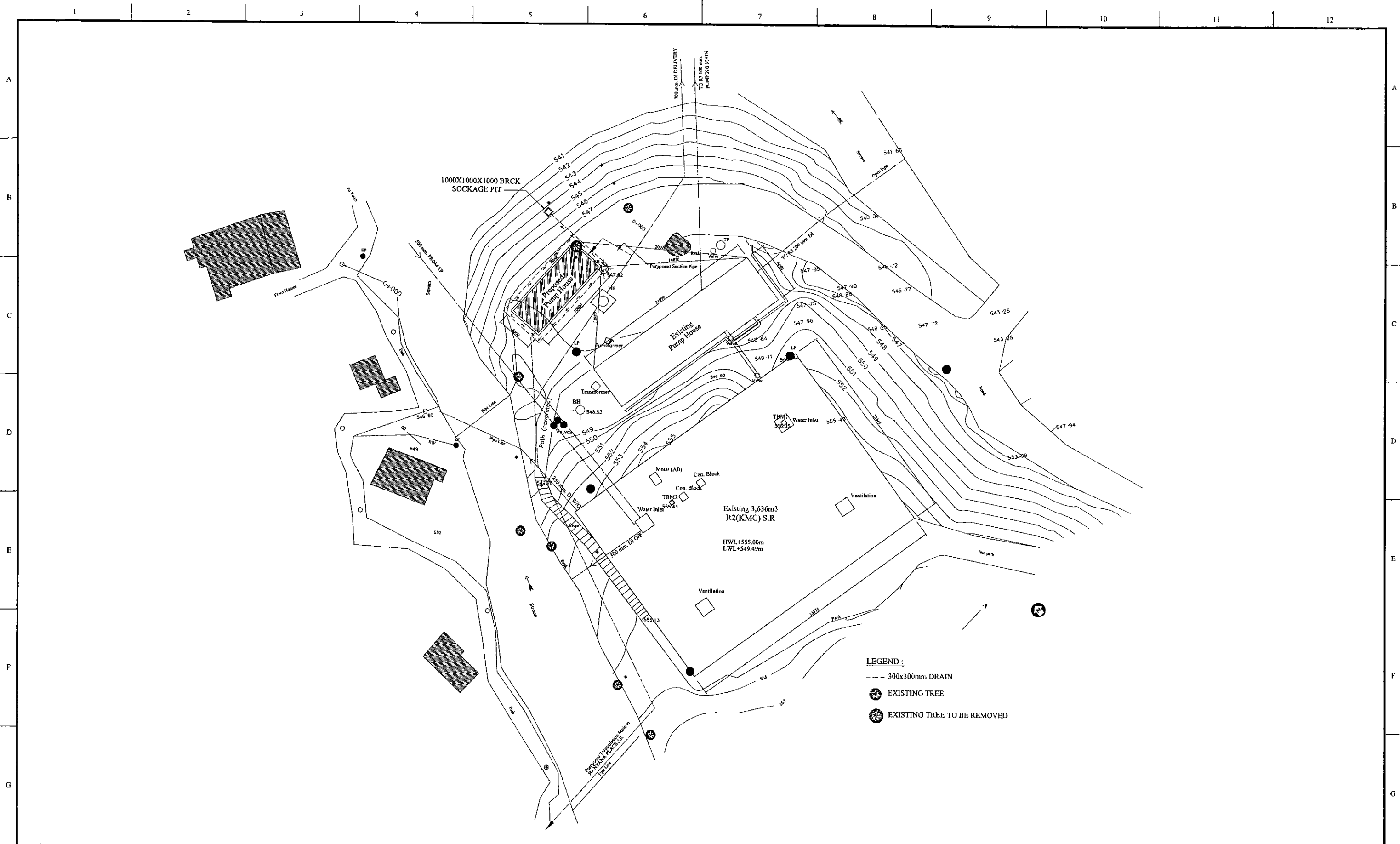


**Sewer & Waste Water Layout**  
3176 1:50

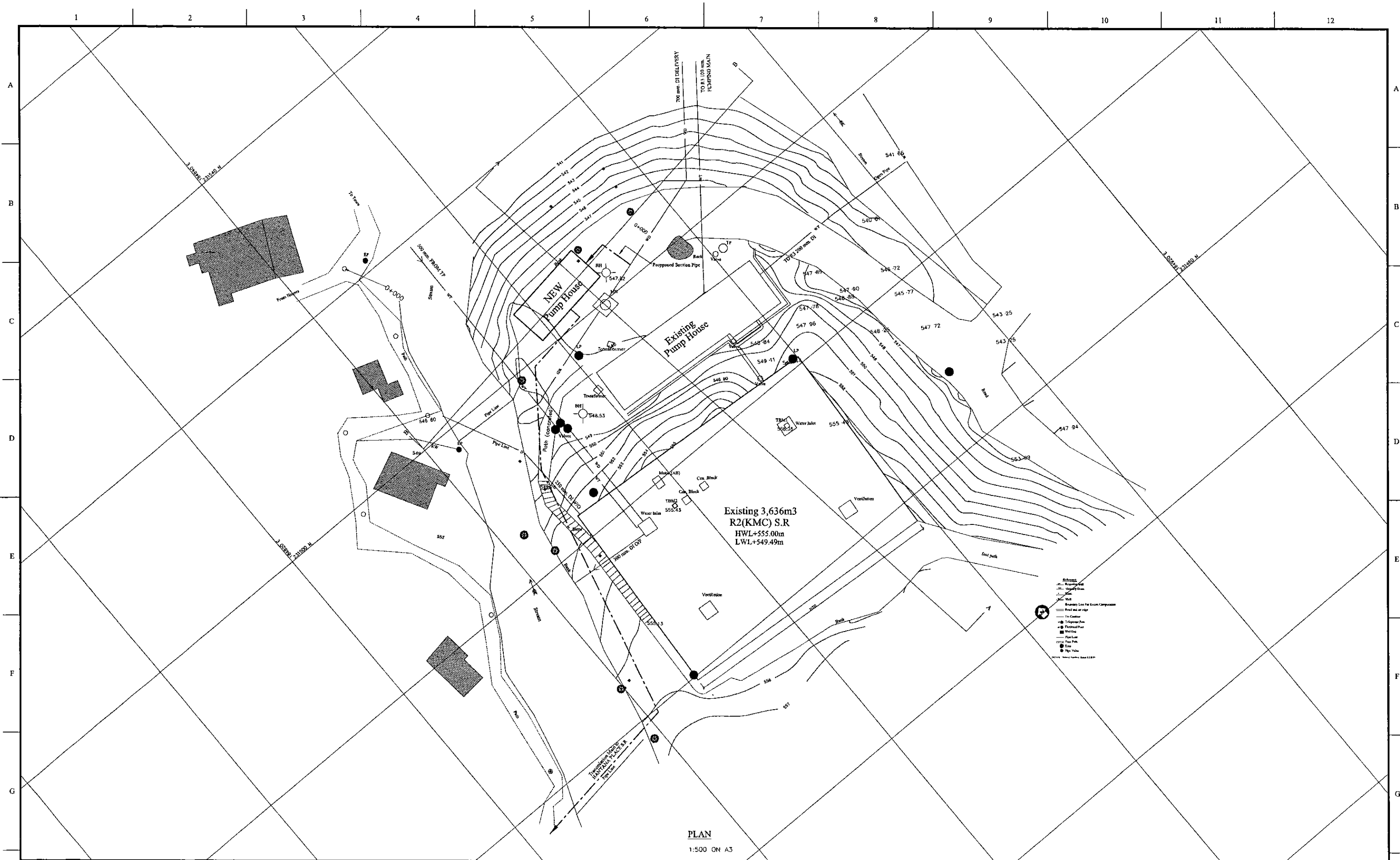


**DCW Layout**  
3176 1:50

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>KMC R2 PUMP STATION DCW, SEWER &amp; WASTE WATER LAYOUT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>D.H.V.</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-18-02</b>



PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		CONSULTANTS: <b>JICA JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>EXISTING 363m3 R2 (KMC) S.R.AND P.S. LANDSCAPING LAYOUT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>POORNA</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:200</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-C-18-03</b>




PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**


TITLE: **KMC R2 SPUMPING STATIN SITE PLAN**

CLIENT:




**NATIONAL WATER SUPPLY & DRAINAGE BOARD**

CONSULTANTS:



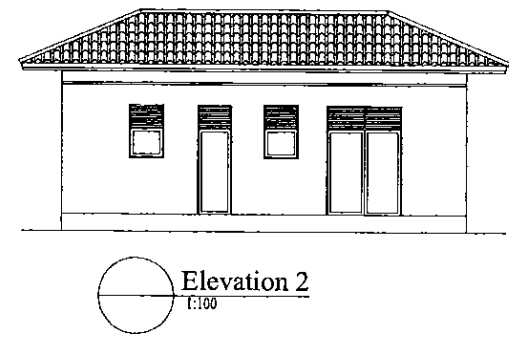
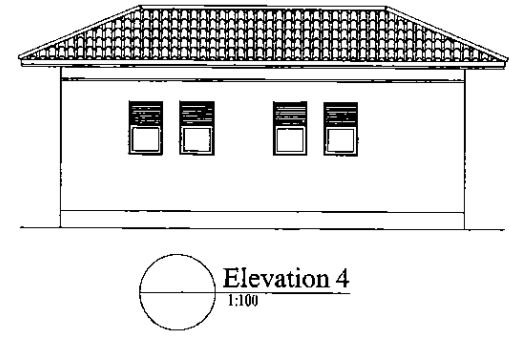
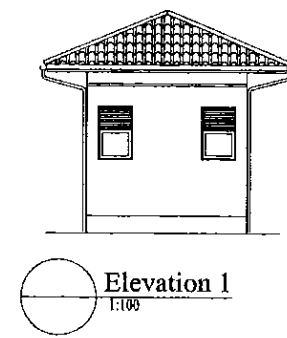
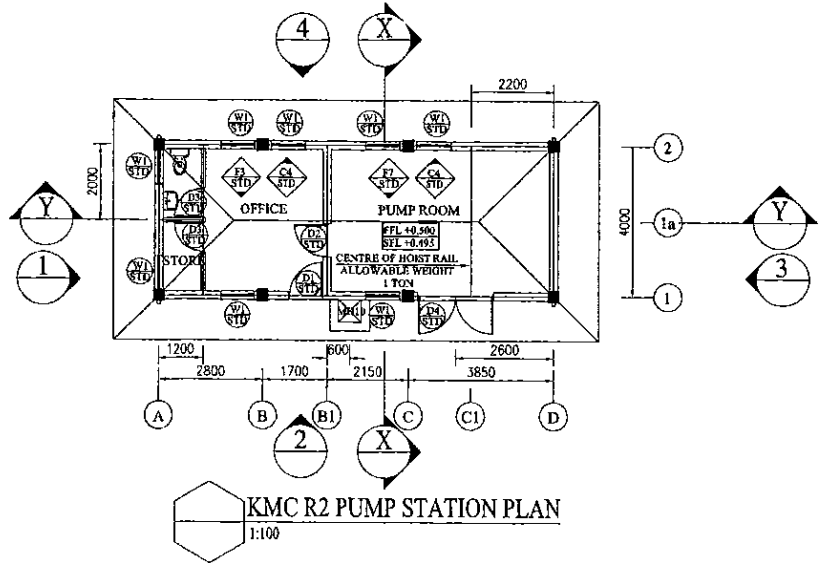
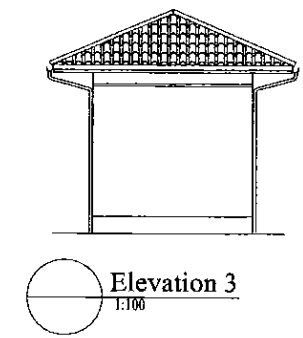
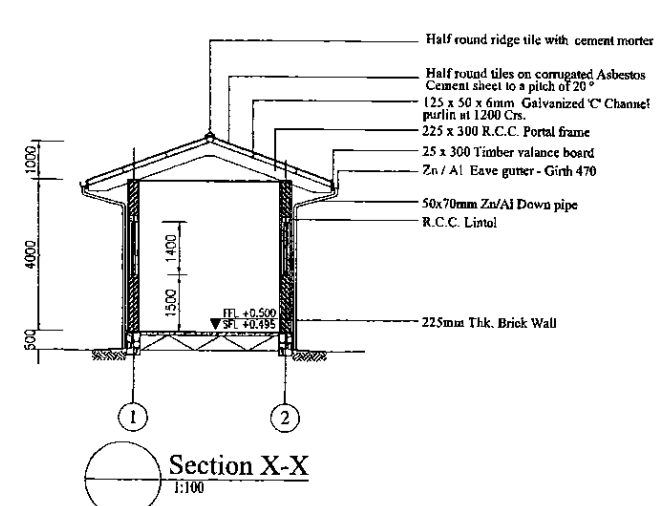
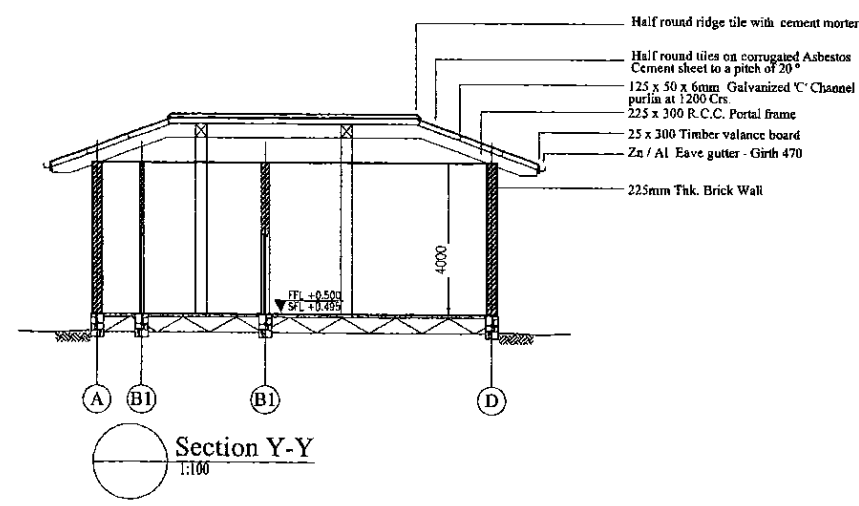
**NJS CONSULTANTS CO., LTD. - JAPAN**



**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

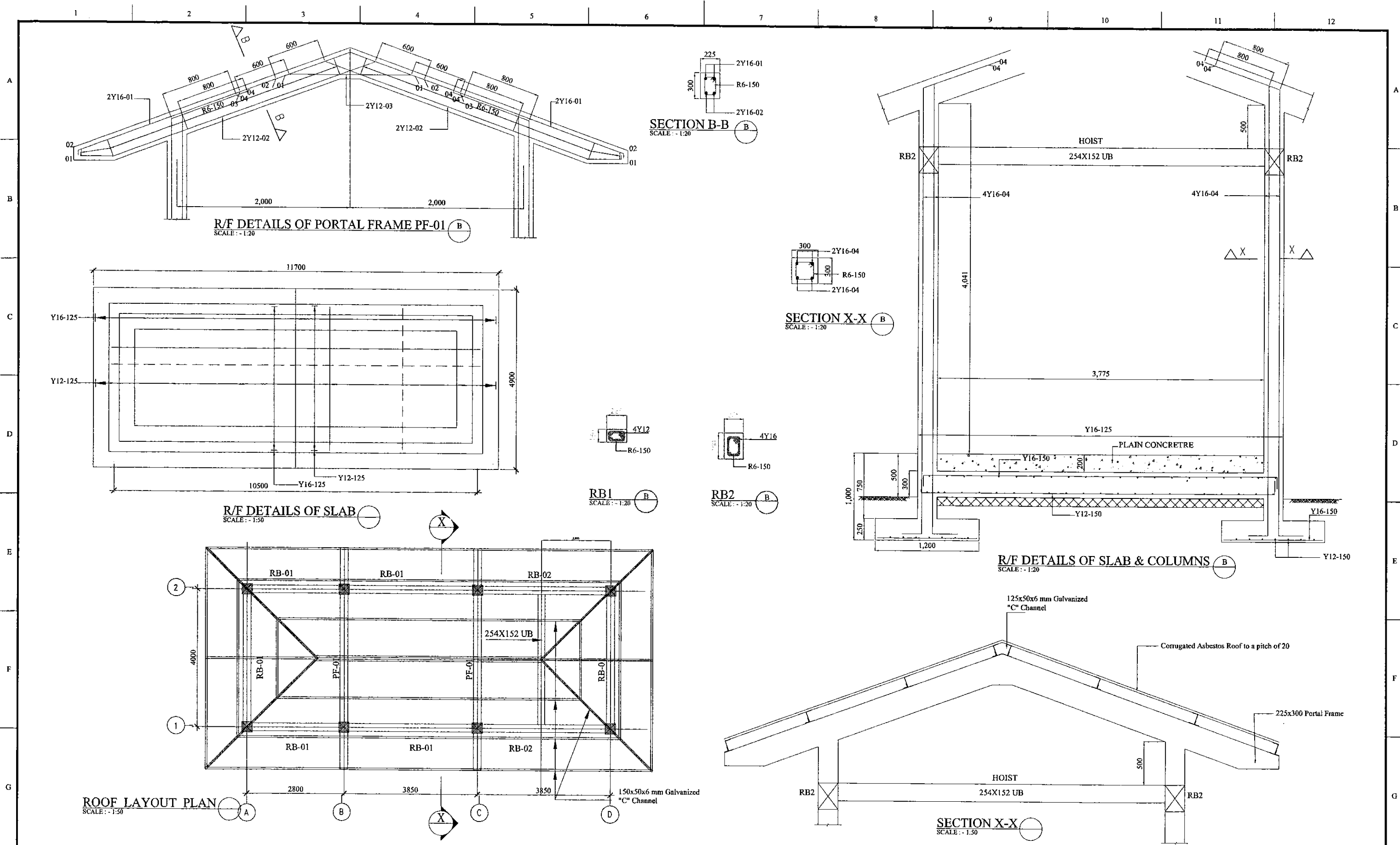
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		1:200
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-18-01

Schedule of Doors				
TYPE	SIZE	SILL	DESCRIPTION	NGS
D1	900x2900		Aluminium framed 20 gauge colour bonded Zinc Aluminium with 3mm thick plywood backing single sash door with Aluminium louvers above	01
D2	900x2100		Aluminium framed 50mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door	01
D3	800x2100		Aluminium framed 50mm thick PVC coated plywood sheet (both sides) single sash door	02
D4	2000x2900		Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 3mm thick plywood backing double sash door with Aluminium louvers above	01
W1	900x1400	1500	Aluminium framed 50mm thick float glass window with fixed Aluminium louver panels above	08



Note:  
 Platform level of Building = +547.5  
 Therefore FGL = +0.00 = +547.5

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KMC R2 PUMP STATION. GENERAL ARRANGEMENT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD				REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: POORNA	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-18-02



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

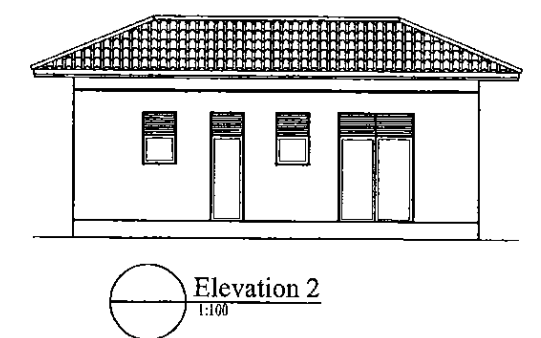
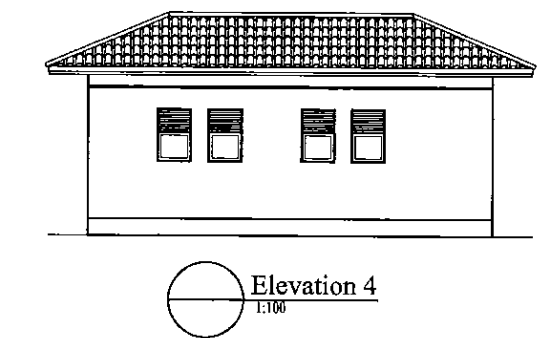
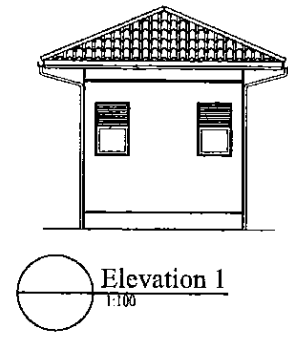
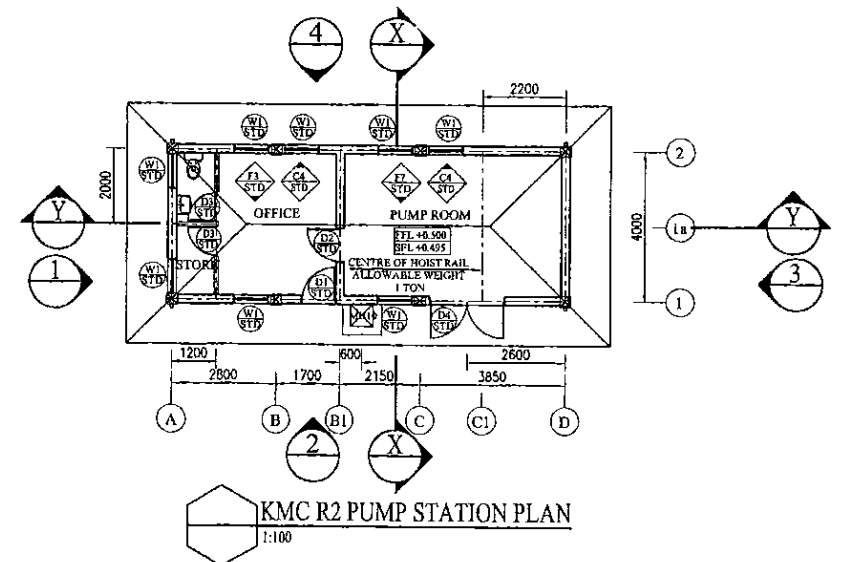
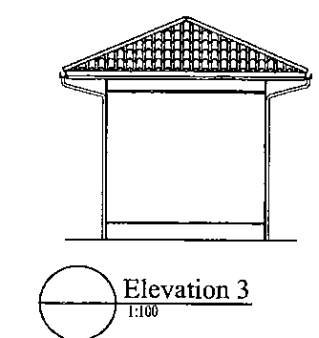
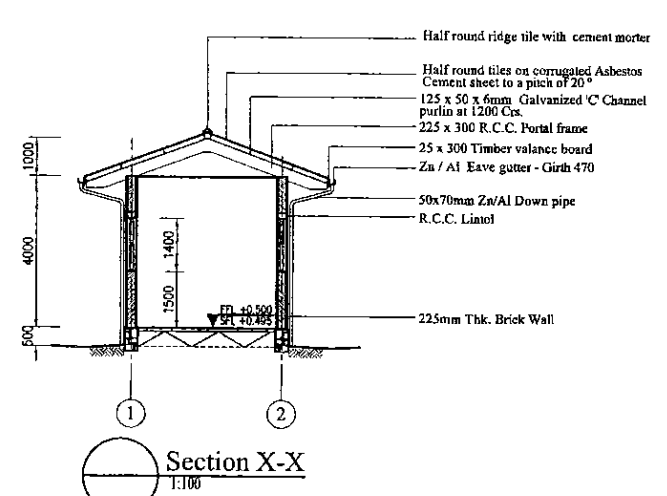
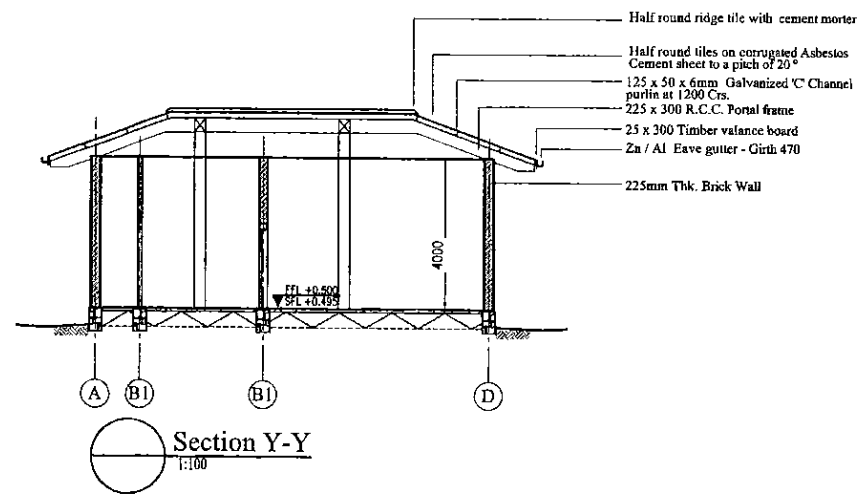
CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: **R2 PUMPING STATION - R/F DETAIL OF SLAB AND ROOF**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-18-03



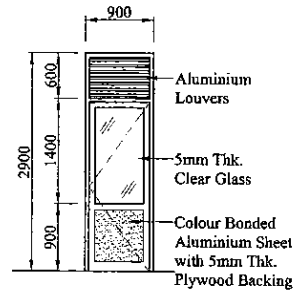
Schedule of Doors				
TYPE	SIZE	SILL	DESCRIPTION	NOS
D1	900x2900		Aluminium framed 20 gauge colour bonded Zinc Aluminium with 5mm thick plywood backing single sash door with Aluminium louvers above	01
D2	900x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door	01
D3	800x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single sash door	02
D4	2000x2900		Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick plywood backing double sash door with Aluminium louvers above	01
W1	900x1400	1500	Aluminium framed 5mm thick float glass window with fixed Aluminium louver panels above	08



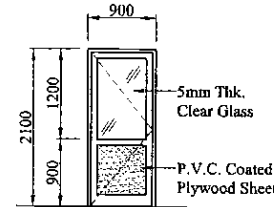
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: KMC R2 - PUMP STATION - PLANS, SECTIONS AND ELEVATIONS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: Shigenori OGAWA	DRAWN: T. S. P.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 100
								CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-18-01

DATE: 17/07/2001 W.m.m

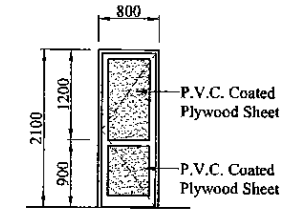
Schedule of Doors				
TYPE	SIZE	SILL	DESCRIPTION	QOS
D1	900x2900		Aluminium framed 20 gauge colour coated zinc Aluminium with 5mm thick plywood backing single sash door with Aluminium louvers above	01
D2	900x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door	01
D3	800x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single sash door	02
D4	2000x2900		Steel framed 20 gauge colour coated zinc Aluminium sheet with 5mm thick plywood backing double sash door with Aluminium louvers above	01
W1	900x1400	1500	Aluminium framed 5mm thick float glass window with fixed Aluminium louvers panels above	08



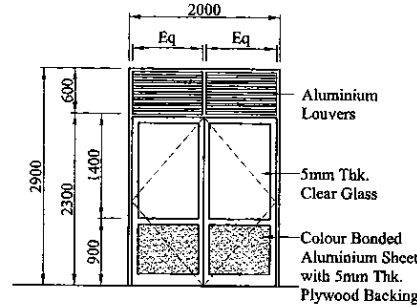
STD ELEVATION D1  
1:50



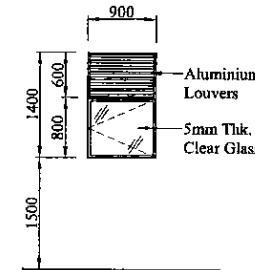
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STD ELEVATION D3  
1:50



STD ELEVATION D4  
1:50



STD ELEVATION W1  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: KMC R2 PUMP STATION - DETAILS OF DOORS AND WINDOWS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

DESIGNED: Shigenori OGAWA

DRAWN: Poorna

PM: (CONSULTANT) Ikuo MIWA

CE: (P&D)

SCALE: 1 : 50

CHECKED: Roshan DESIGN CHIEF

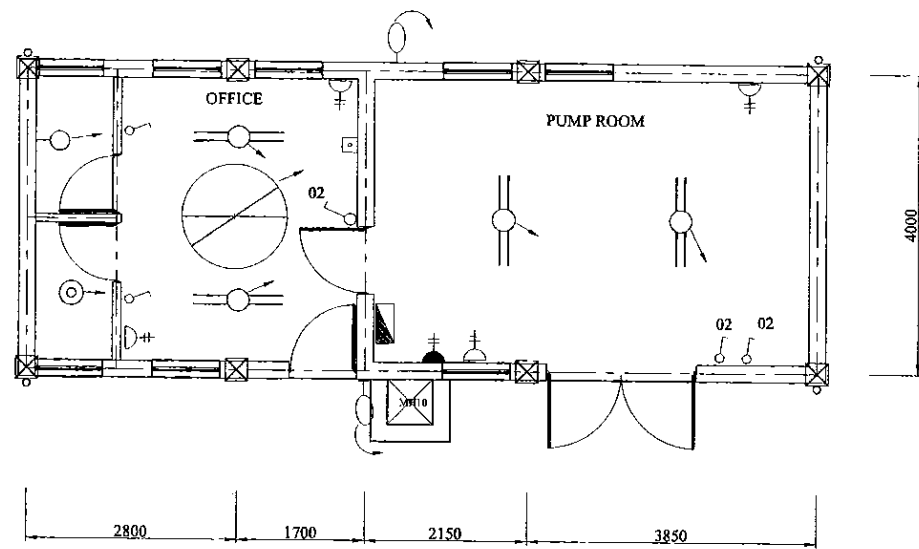
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DGM: (P&D)

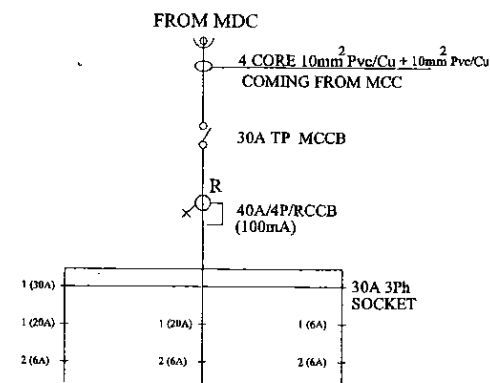
DATE: 31/05/2002

DRAWING NO.: 30-A-18-02

DATE: 17/07/2001 W.s.m



PLAN  
SCALE: 1:150



DISTRIBUTION DIAGRAM

- LEGEND (Electrical)**
- 1x36 Watt x 1200mm FLOURESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER.
  - ⊖ 2x36 Watt x 1200mm FLOURESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER.
  - ⊗ 250 Watt METAL HALIDE HI-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER. (IP Rating - IP 65)
  - ⊗ 250 Watt METAL HALIDE WIDE ANGLE WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION. (IP Rating - IP 65)
  - ⊗ 600 x 600mm FLOURESCENT FITTING 1x18 Watt, HFF TYPE WITH ACRYLIC DIFFUSER.
  - ⊖ 8 Watt EMERGENCY LAMP FITTING 1 Hour, NON-MAINTAINED TYPE. (IP Rating - IP 65)
  - WALL BRACKET LAMP FITTING c/w 18 Watt CFL, 0400mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET. (IP Rating - IP 65)
  - ⊕ DOWN LIGHT
  - 1x36 Watt x 1200mm
  - ⊖ PENDANT LAMP WITH 18 Watt CFL
  - ⊖ 13A 1P/NE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ⊖ 22A 1P/NE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - 125W MERCURY VAPOR COBRA HEAD TYPE OUT DOOR LAMP
  - ONE WAY SWITCH (FFL + 1.5)
  - TWO WAY SWITCH (FFL + 1.5)
  - ⊖ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
  - ⊖ TELEPHONE SOCKET OUTLET
  - ⊖ 1400mm CEILING FAN
  - ⊖ FAN REGULATOR (FFL + 1.5)
  - ⊖ EXHAUST FAN

- LEGEND (Fire)**
- ⊖ 6Kg DRY POWDER EXTINGUISHER
  - ⊖ 2Kg CARBONDIOXIDE EXTINGUISHER

**NOTE :**  
01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

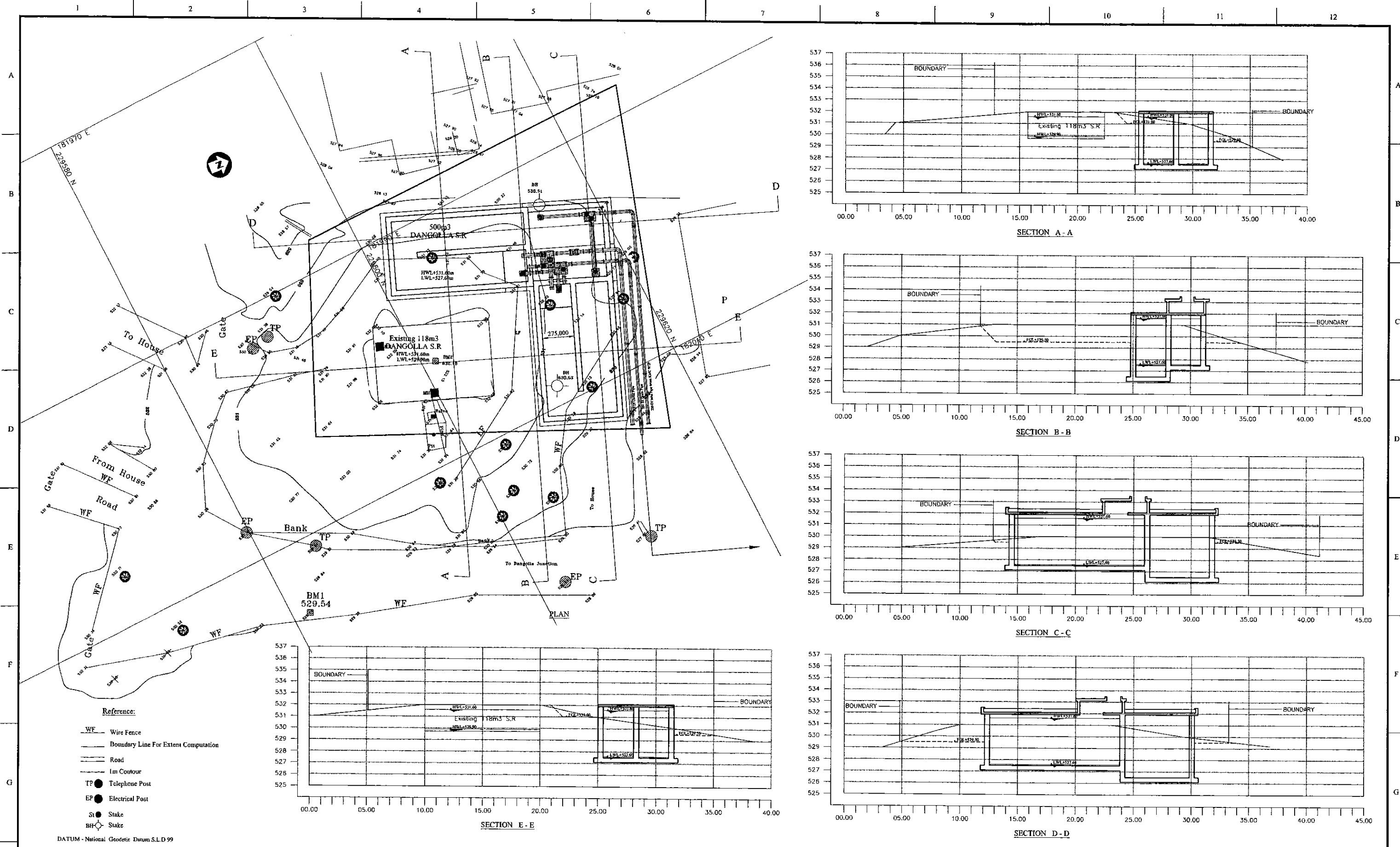
TITLE: KMC R2 PUMP STATION- ELECTRICAL LAYOUT

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)	CE: (P&D)	SCALE:
				ATG	LAKMAL	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-A-18-21

DATE: 17/02/2001 W:am



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **SITE PLAN AND CSS OF 500m³ DANGOLLA S.R.**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

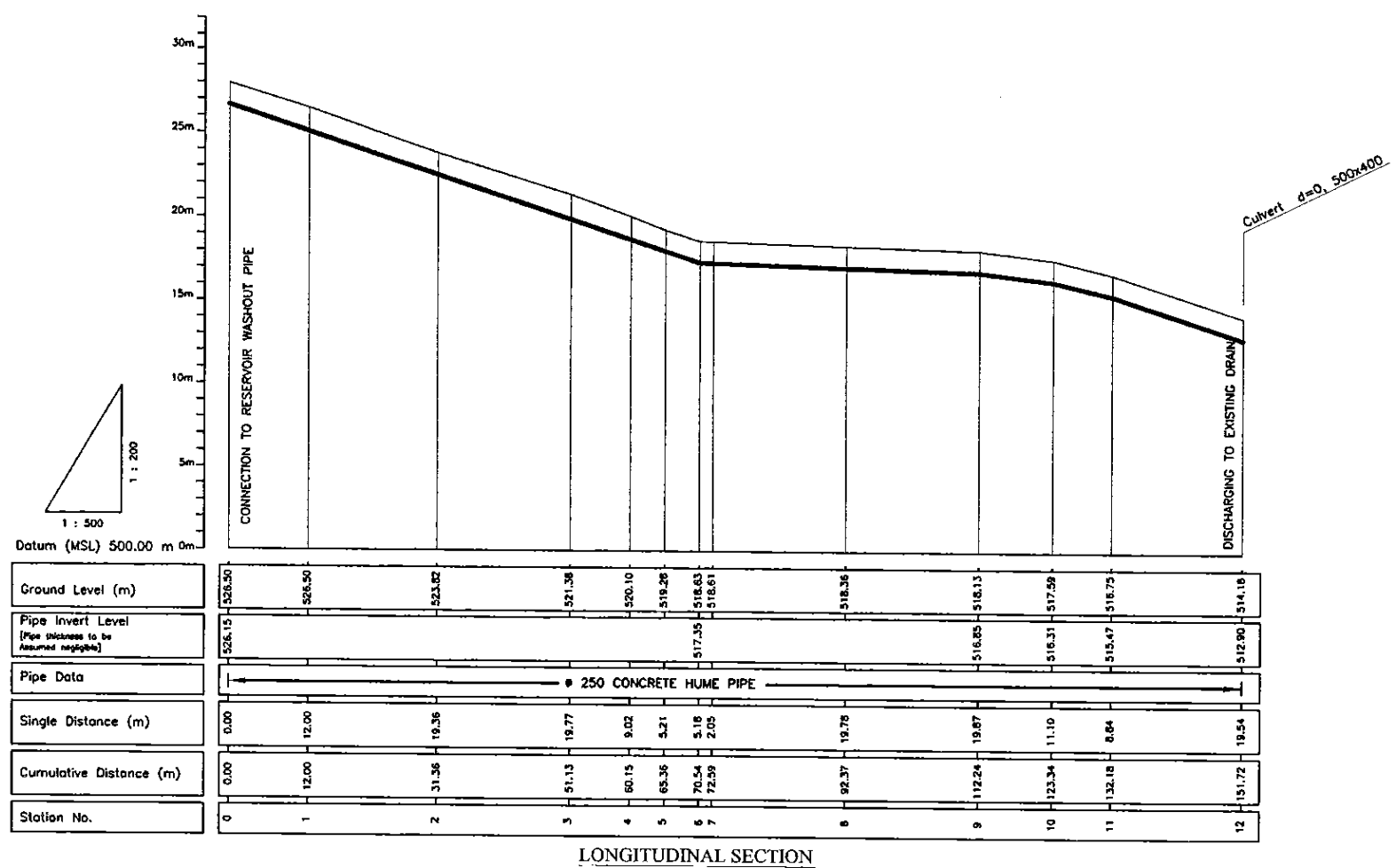
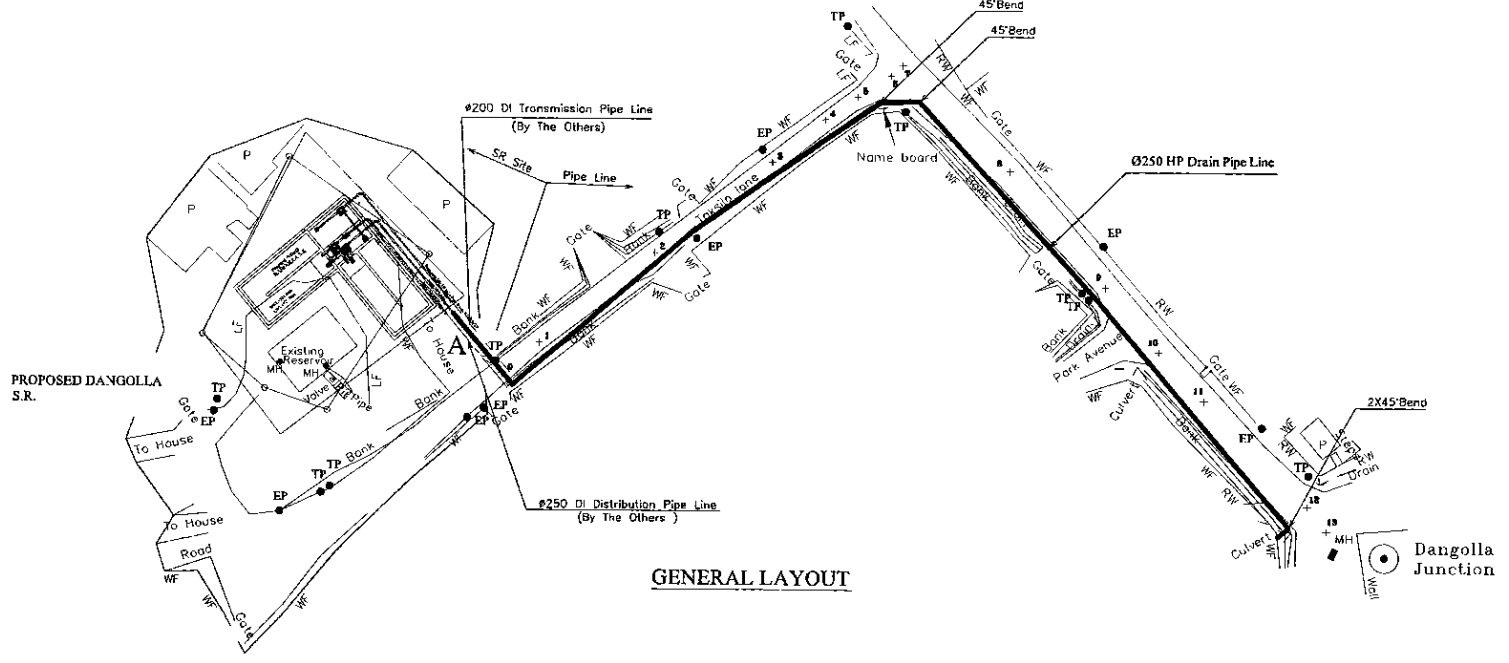
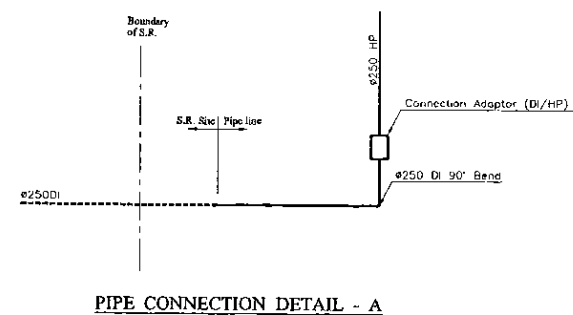
CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150
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				DESIGN CHIEF			31/05/2002	30-C-19-01

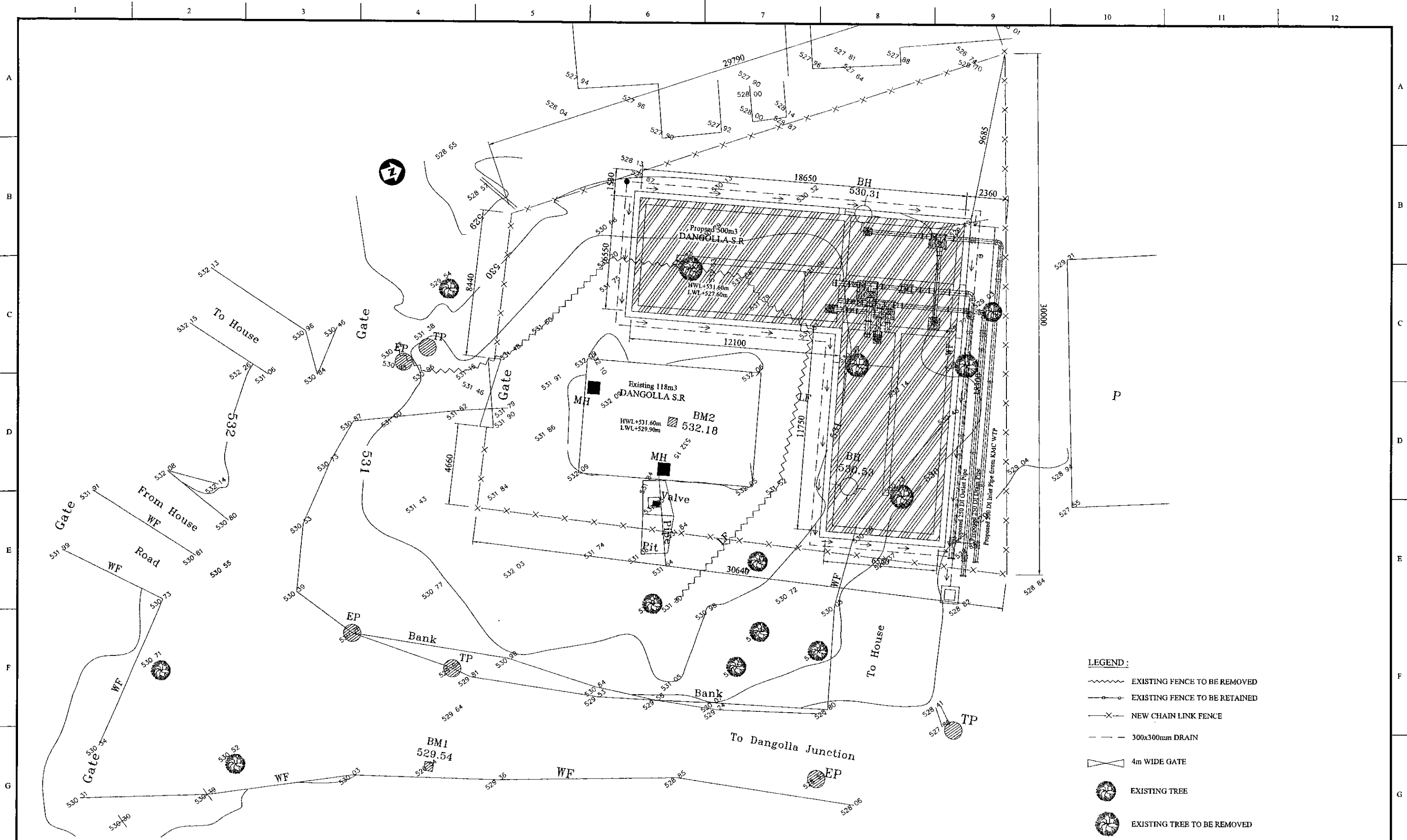
DATUM - National Geodetic Datum S.L.D.99



Legend	
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
HP	Concrete House Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
A/V	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Line Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Md	Masonry Drain
Kp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
Ø/Di	Pipe Diameter
SV	Slide Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Type)
WTP	Water Treatment Plant
J	Junction
VB	Vertical Bend
RJ	Restrained Joint

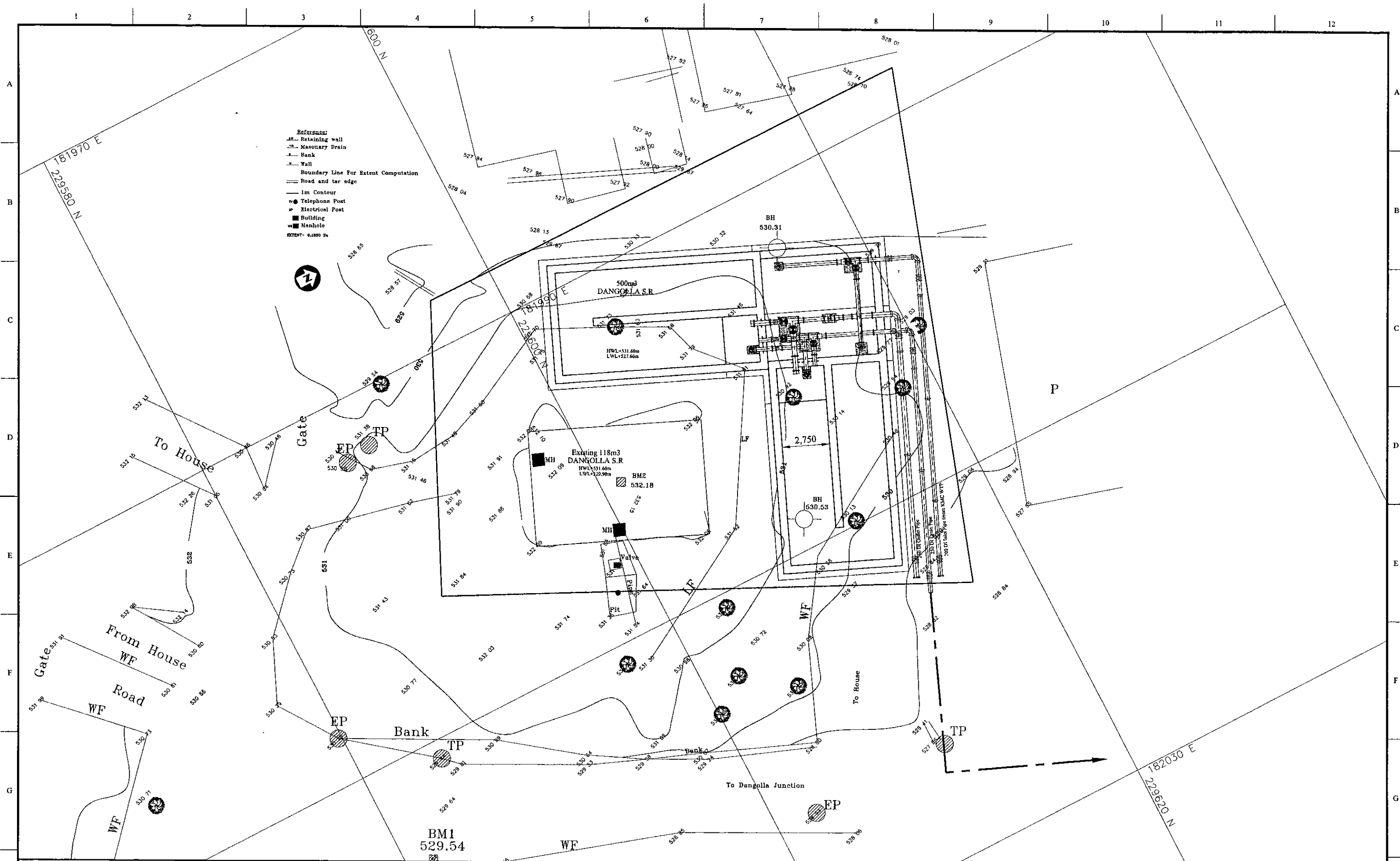


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WASHOUT FROM DANGOLLA S.R.				SHEET 1 OF 1				
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-19-02



- LEGEND :**
- EXISTING FENCE TO BE REMOVED
  - EXISTING FENCE TO BE RETAINED
  - NEW CHAIN LINK FENCE
  - 300x300mm DRAIN
  - 4m WIDE GATE
  - EXISTING TREE
  - EXISTING TREE TO BE REMOVED

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> 500m3 DANGOLLA S.R. LANDSCAPING LAYOUT									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS :</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>SIGN.</b>	<b>DESIGNED:</b> Koichi OKAZAKI	<b>DRAWN:</b> POORNA	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> 1:100	
				<b>CHECKED:</b>				<b>AGM: (P&amp;D)</b>		<b>DGM: (P&amp;D)</b>		<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-C-19-03




PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY


TITLE: DANGOLLA SERVICE RESERVOIR SITE PLAN

CLIENT:




NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

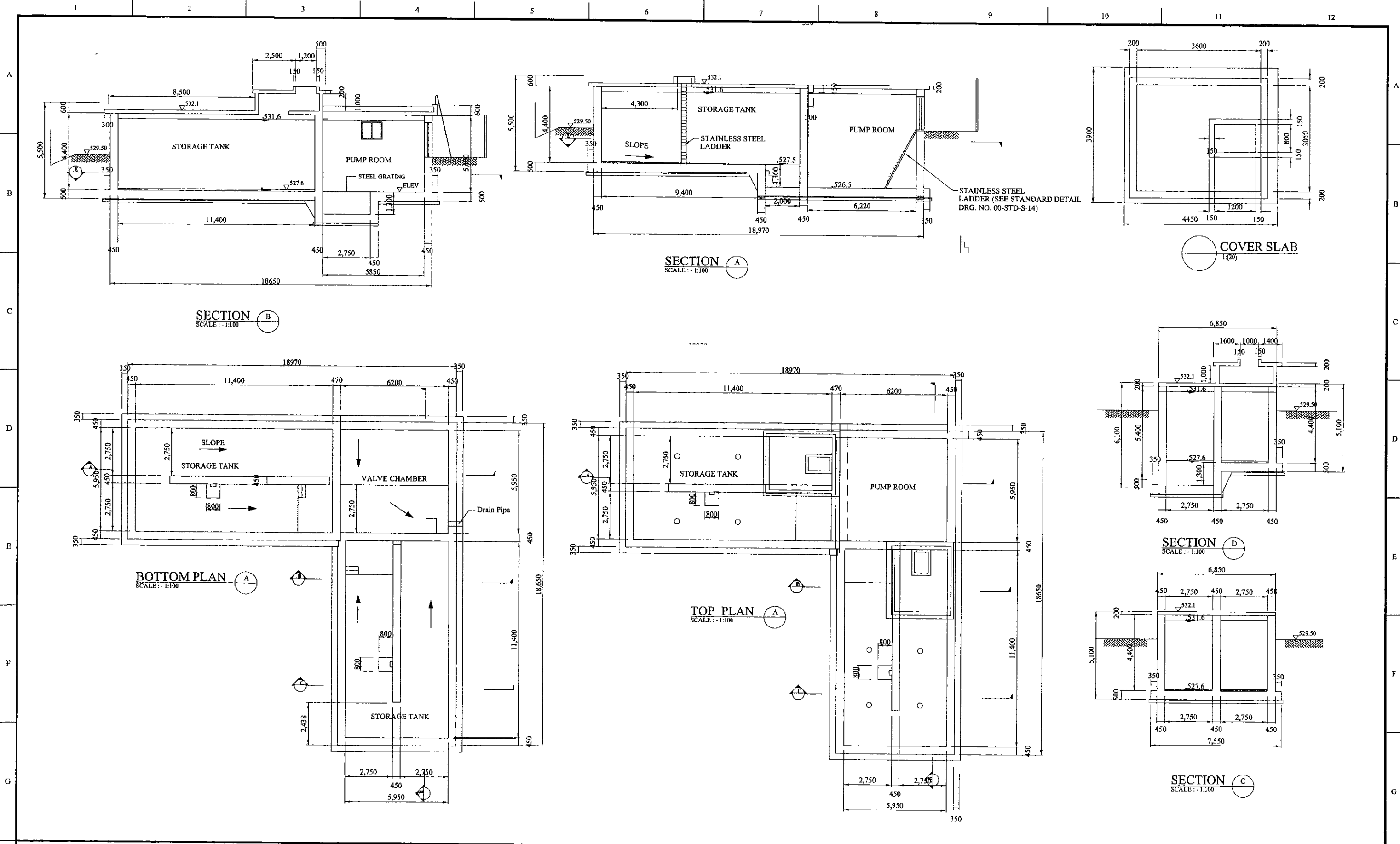


NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Kalinga	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-19-01



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

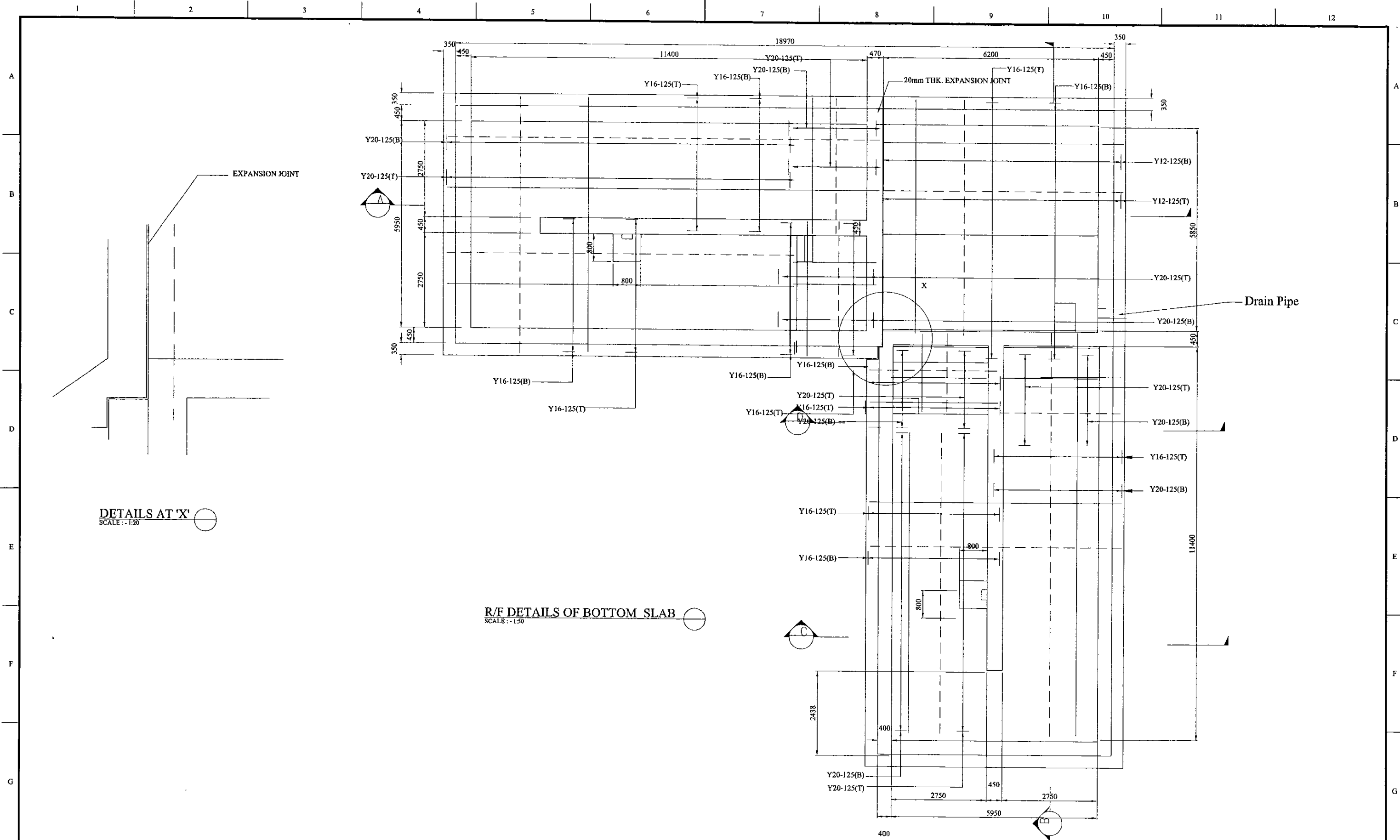
TITLE: **DANGOLLA RESERVOIR - GENERAL ARRANGEMENT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

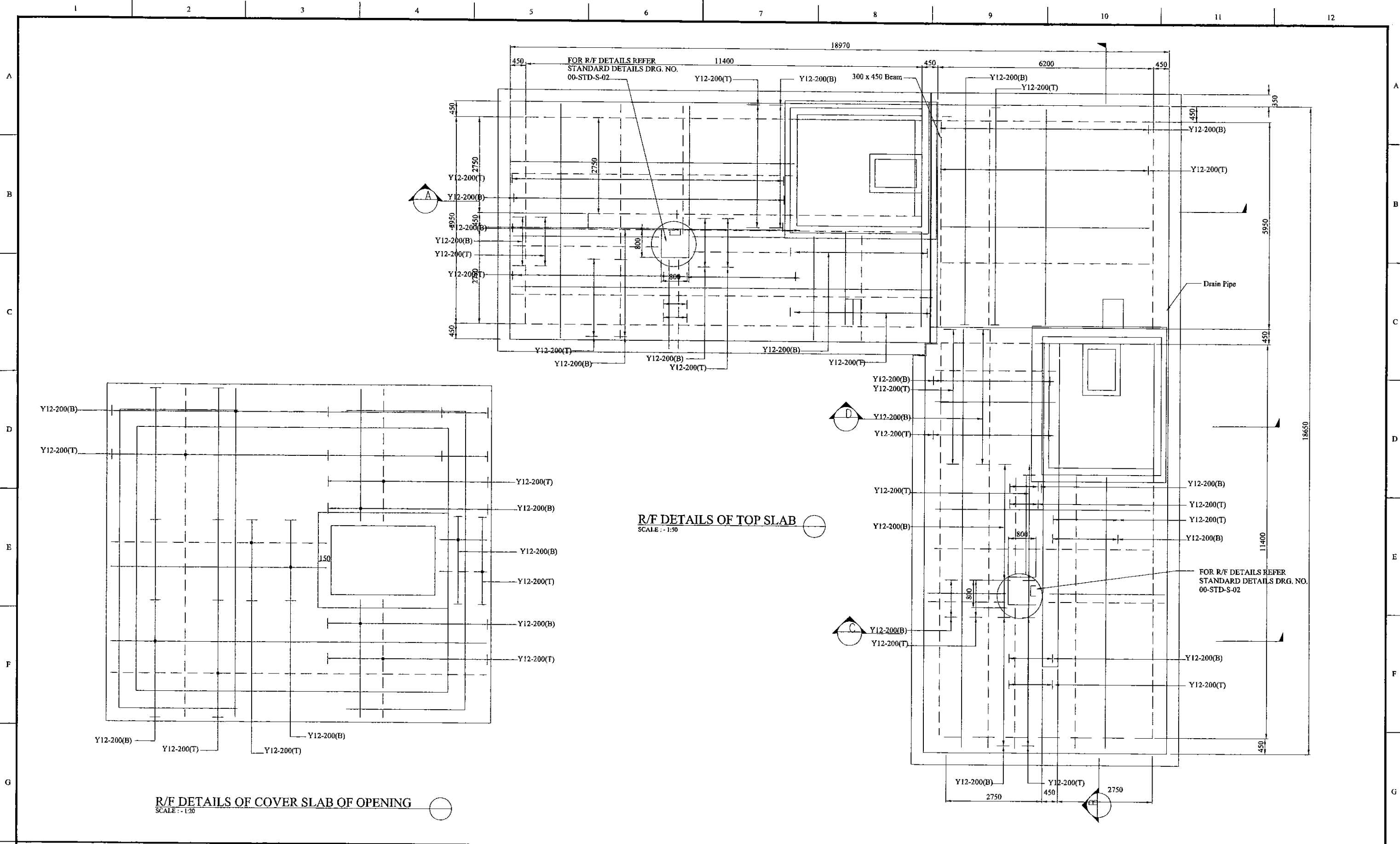
CONSULTANTS:  
**NJS** NJS CONSULTANTS CO., LTD. - JAPAN  
**NSC** NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-19-02

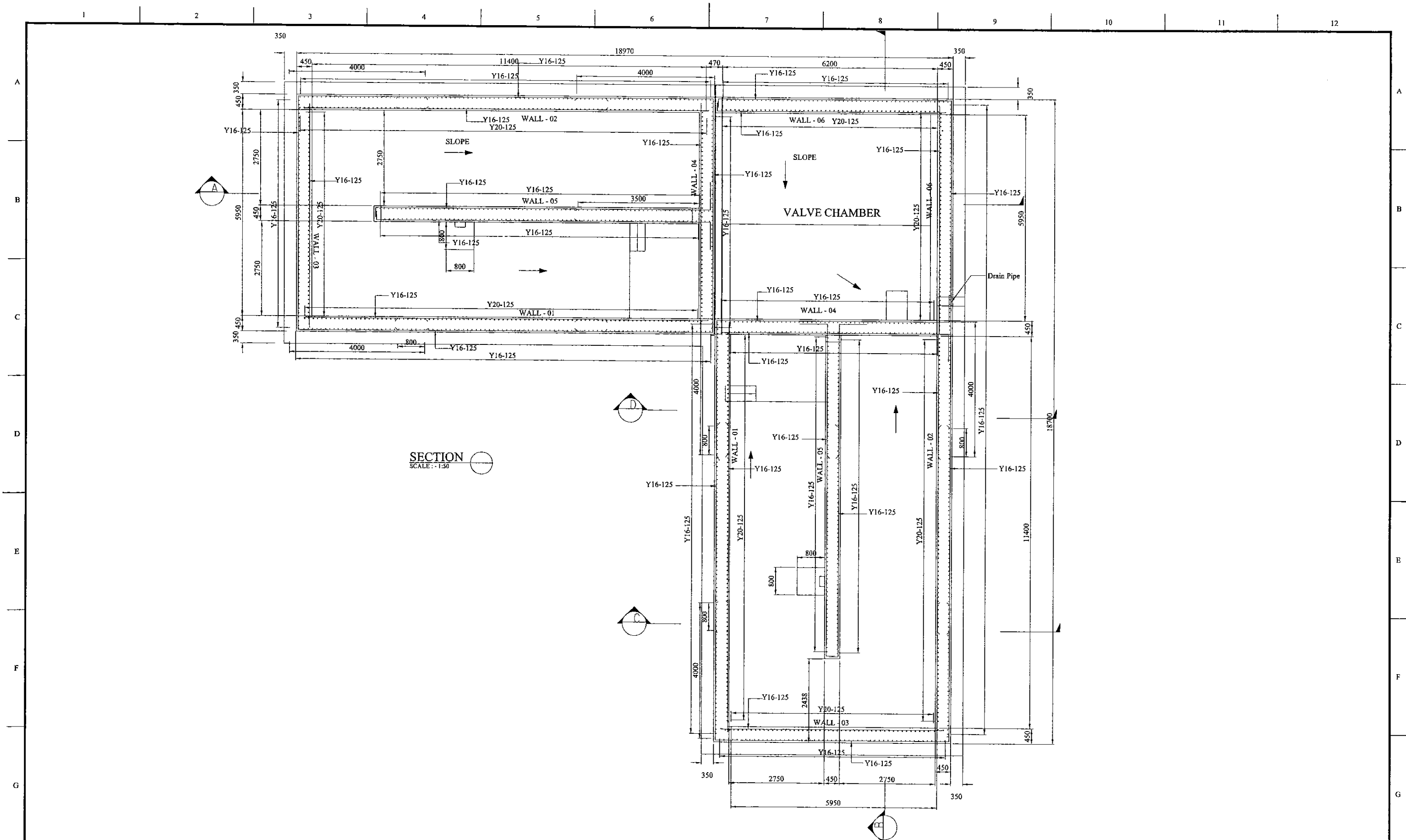




<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> DANGOLLA SERVICES RESERVOIR - REINFORCEMENT DETAILS - BOTTOM SLAB																									
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAM	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>	<b>SCALE:</b> AS SHOWN
REV.	DESCRIPTION	DATE	SIGN.																										
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PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>DANGOLLA SERVICES RESERVOIR - REINFORCEMENT DETAILS - TOP SLAB</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAM</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-19-04</b>



SECTION  
SCALE: 1:30

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

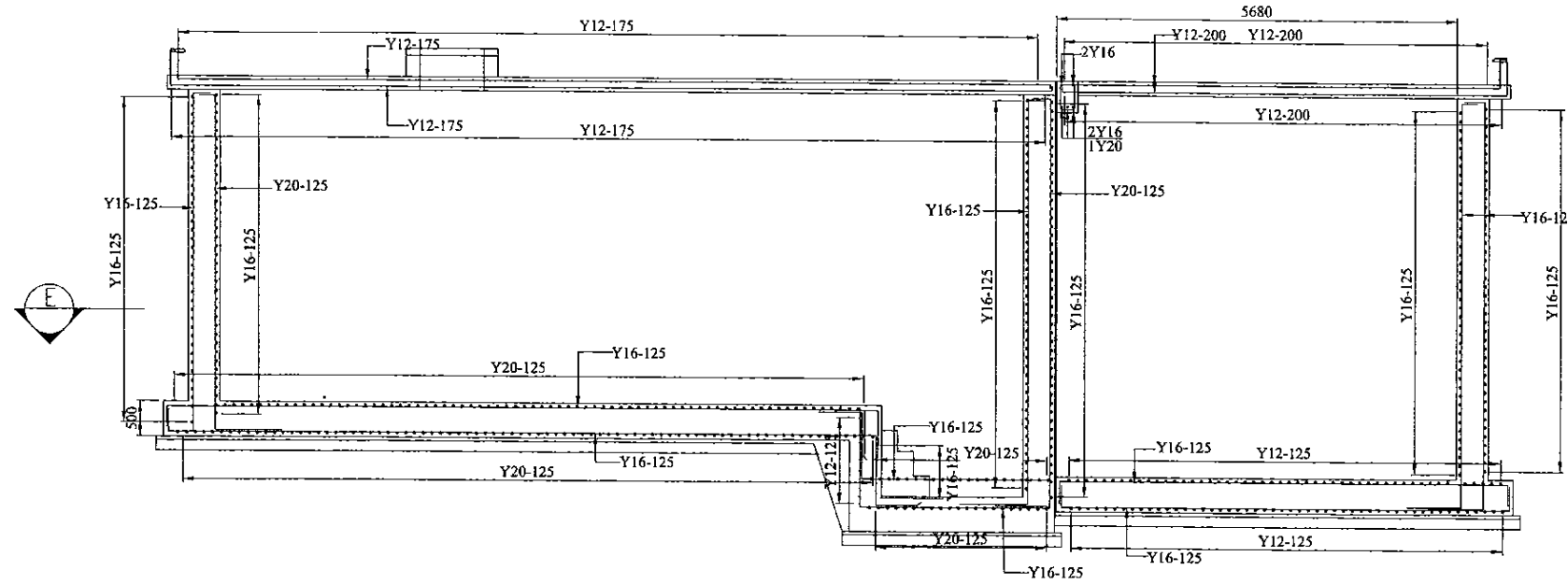
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **DANGOLLA SERVICES RESERVOIR - REINFORCEMENT DETAILS - SECTIONS - 1**

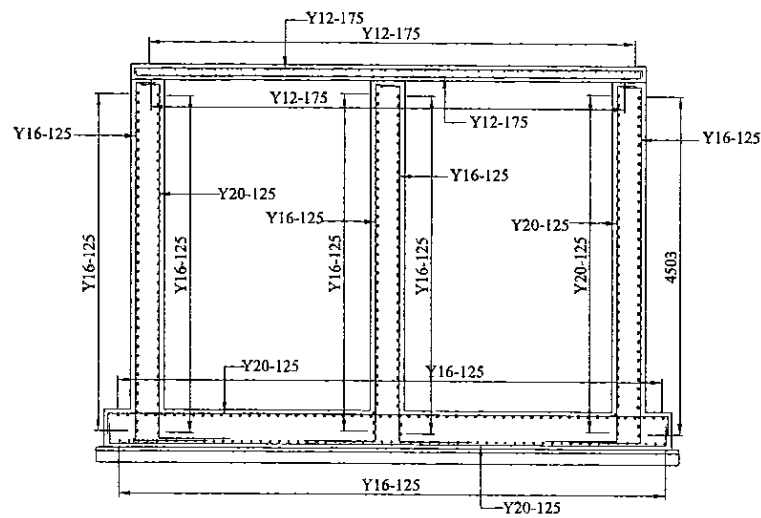
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

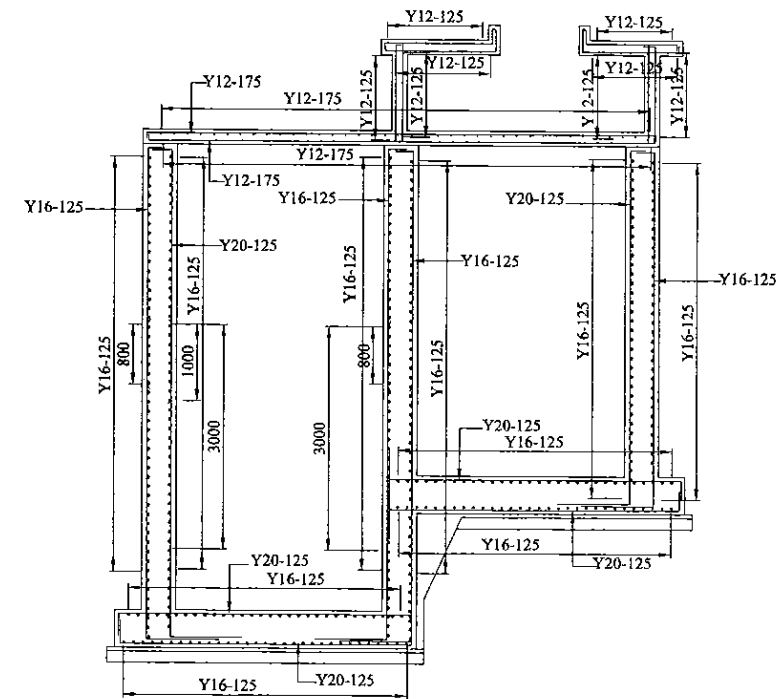
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							31/05/2002	30-S-19-05



SECTION A  
SCALE: - 1:50



SECTION C  
SCALE: - 1:50



SECTION D  
SCALE: - 1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

3

TITLE: (500m)DANGOLLA SERVICES RESERVOIR - REINFORCEMENT DETAILS - SECTION - 2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

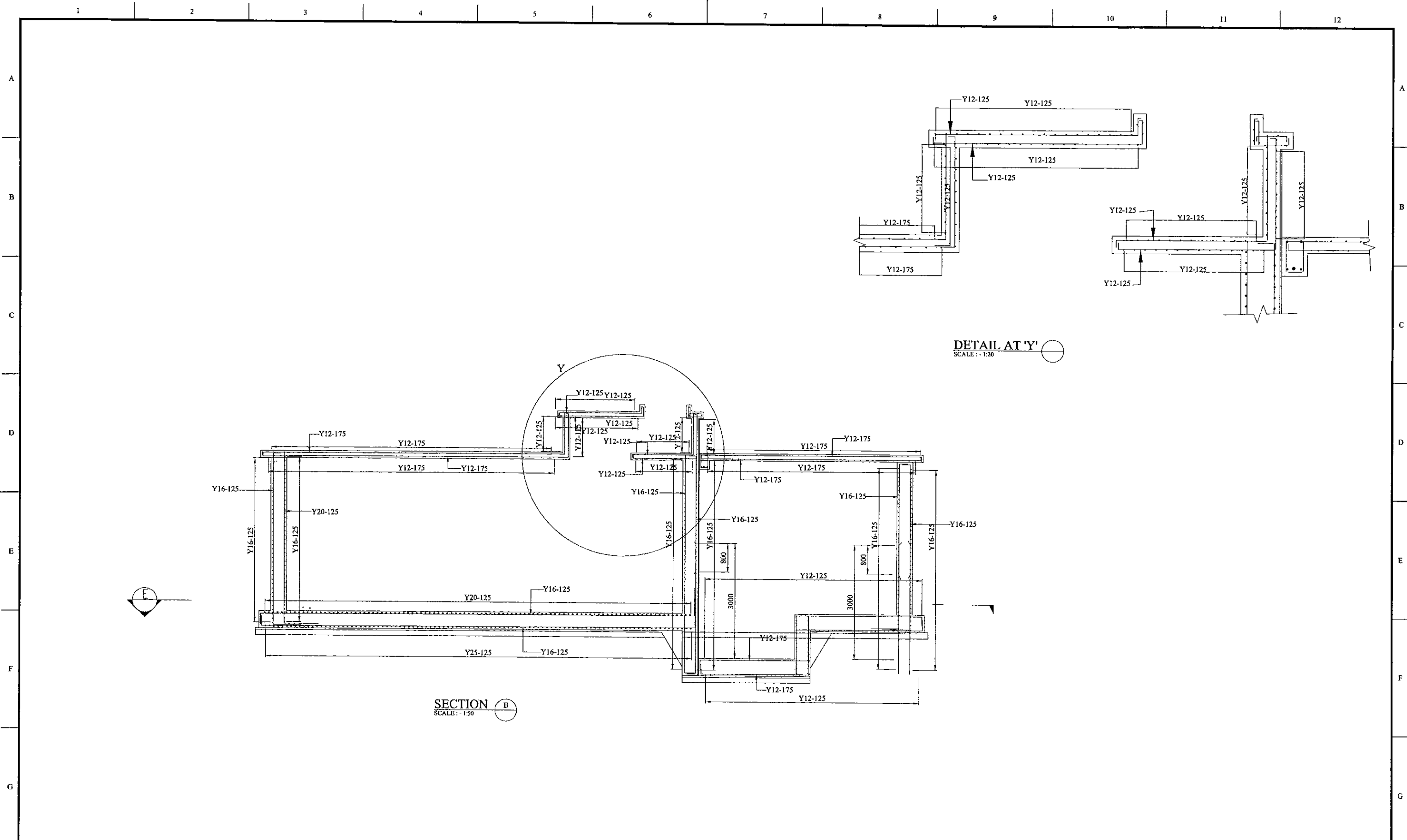


NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

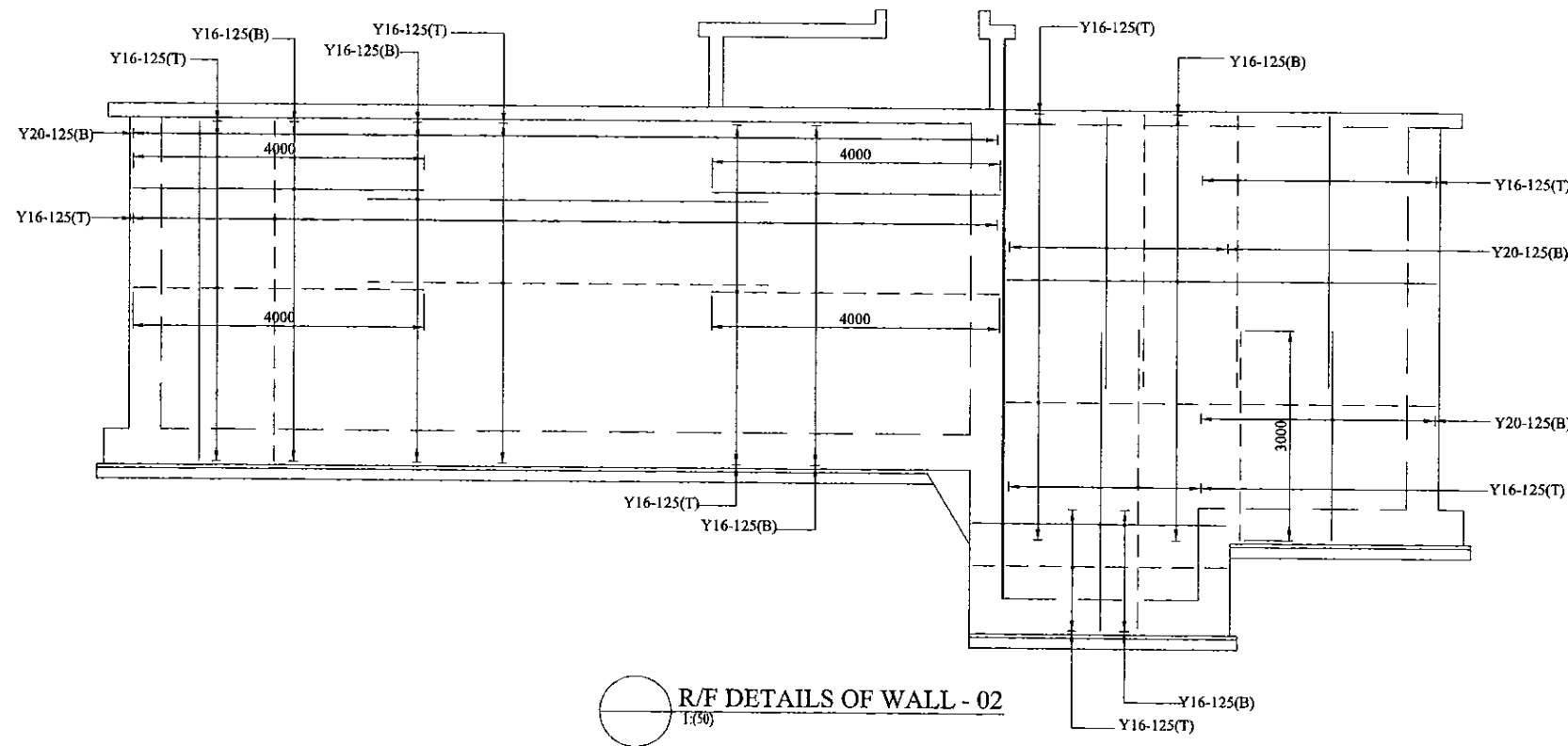
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				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-19-06



DETAIL AT 'Y'  
SCALE: - 1:20

SECTION B  
SCALE: - 1:50

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		CONSULTANTS: <b>JICA JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>DANGOLLA SERVICES RESERVOIR - REINFORCEMENT DETAILS - SECTION - 3</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAM</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-19-07</b>



○ R/F DETAILS OF WALL - 02  
T(50)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

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








TITLE: DANGLOLLA SEVICES RESERVOIR - R/F DETAILS OF SECTION - WALL DETAIL

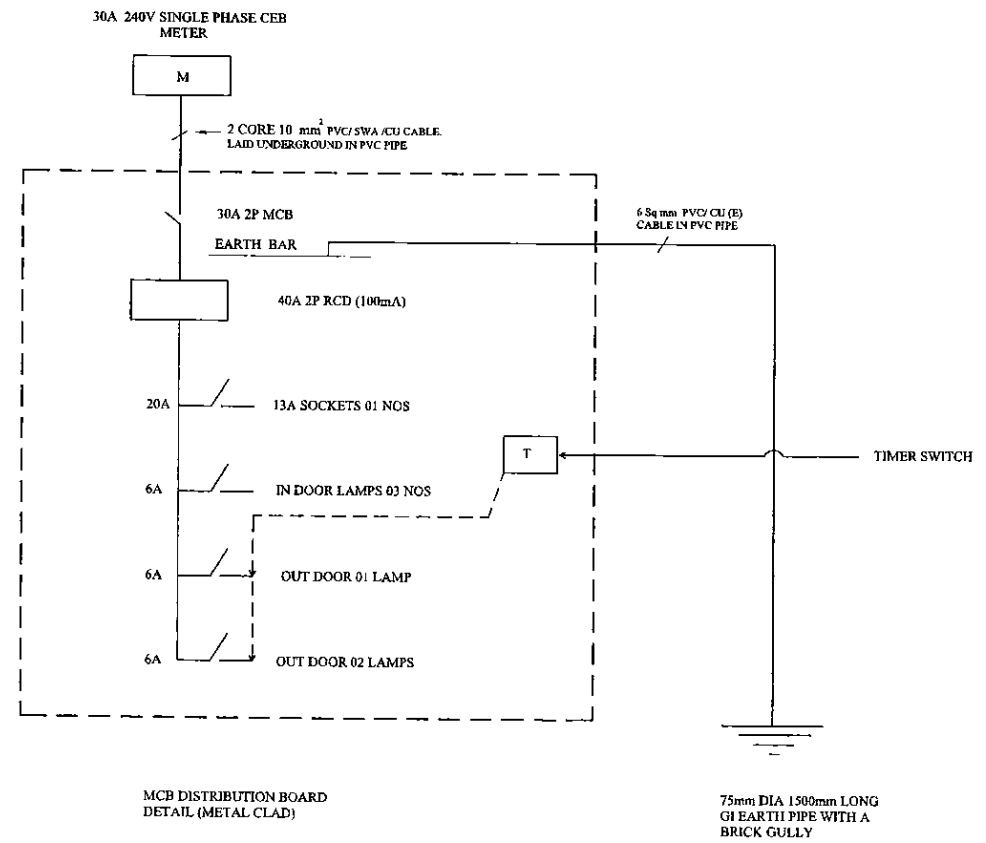
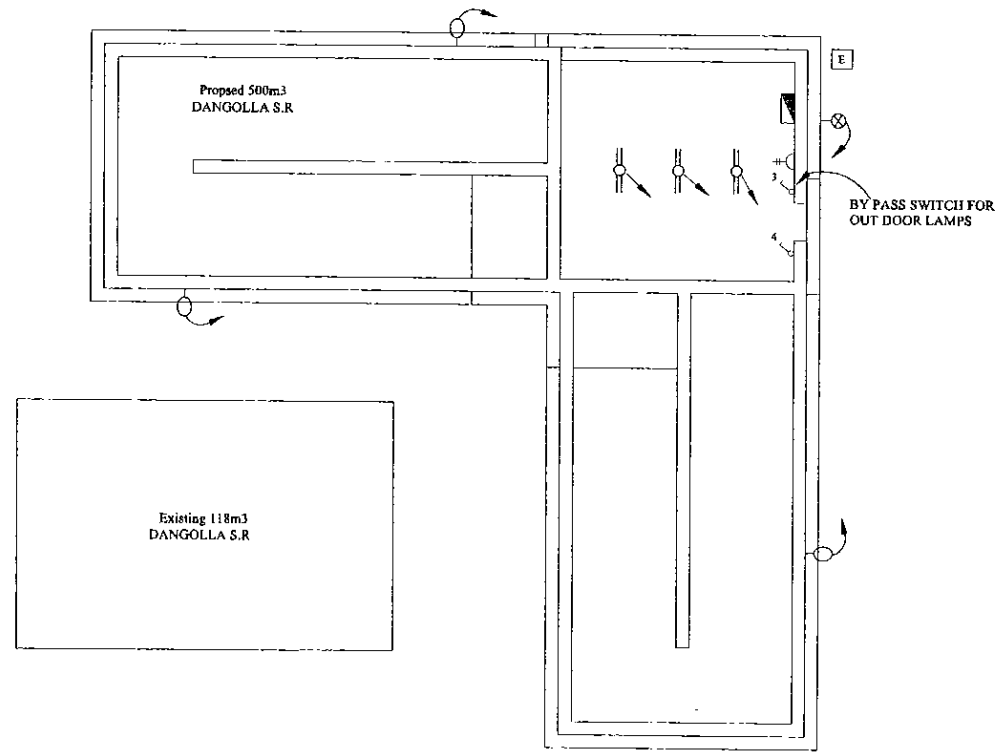
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-19-08

**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED BY A TIMER SWITCH

**LEGEND (Electrical)**

-  2x36 Watt x 1200mm FLUORESCENT FITTING, HPF TYPE (IP Rating -IP 65) e/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
-  60W OUT DOOR WALL BRACKET LAMP FITTING
-  125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
-  METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
-  13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
-  ONE WAY SWITCH (FFL + 1.5)
-  EARTH PIPE



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

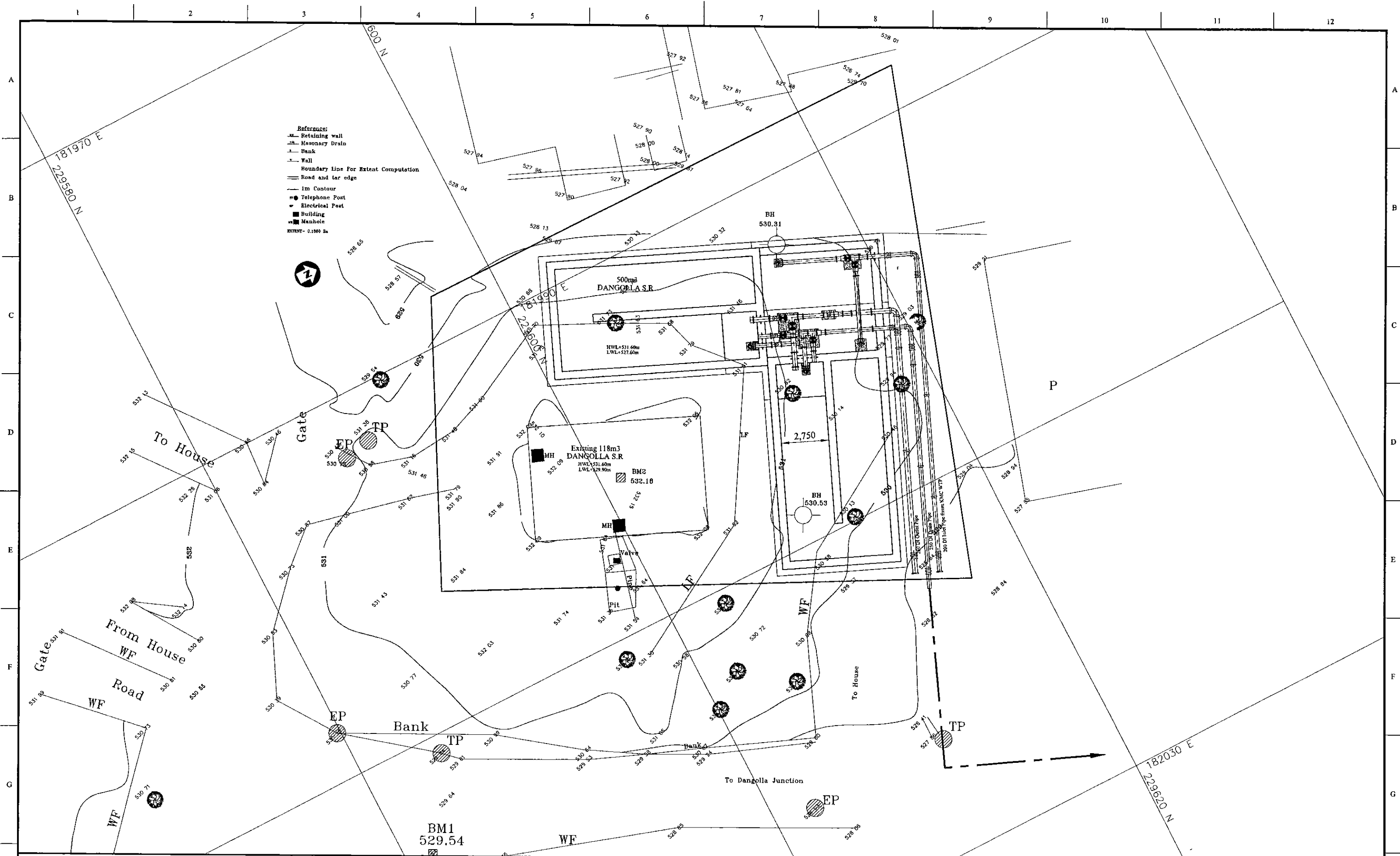
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ELECTRICAL PLAN FOR PROPOSED (260m3) DANGOLLA S.R

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)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX	ATG		Ikuo MIWA		1:200 on A3 Size
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-A-19-21



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF EXISTING 118m <sup>3</sup> & NEW 260m <sup>3</sup> DANGOLLA S.R.									
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100	
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A

B

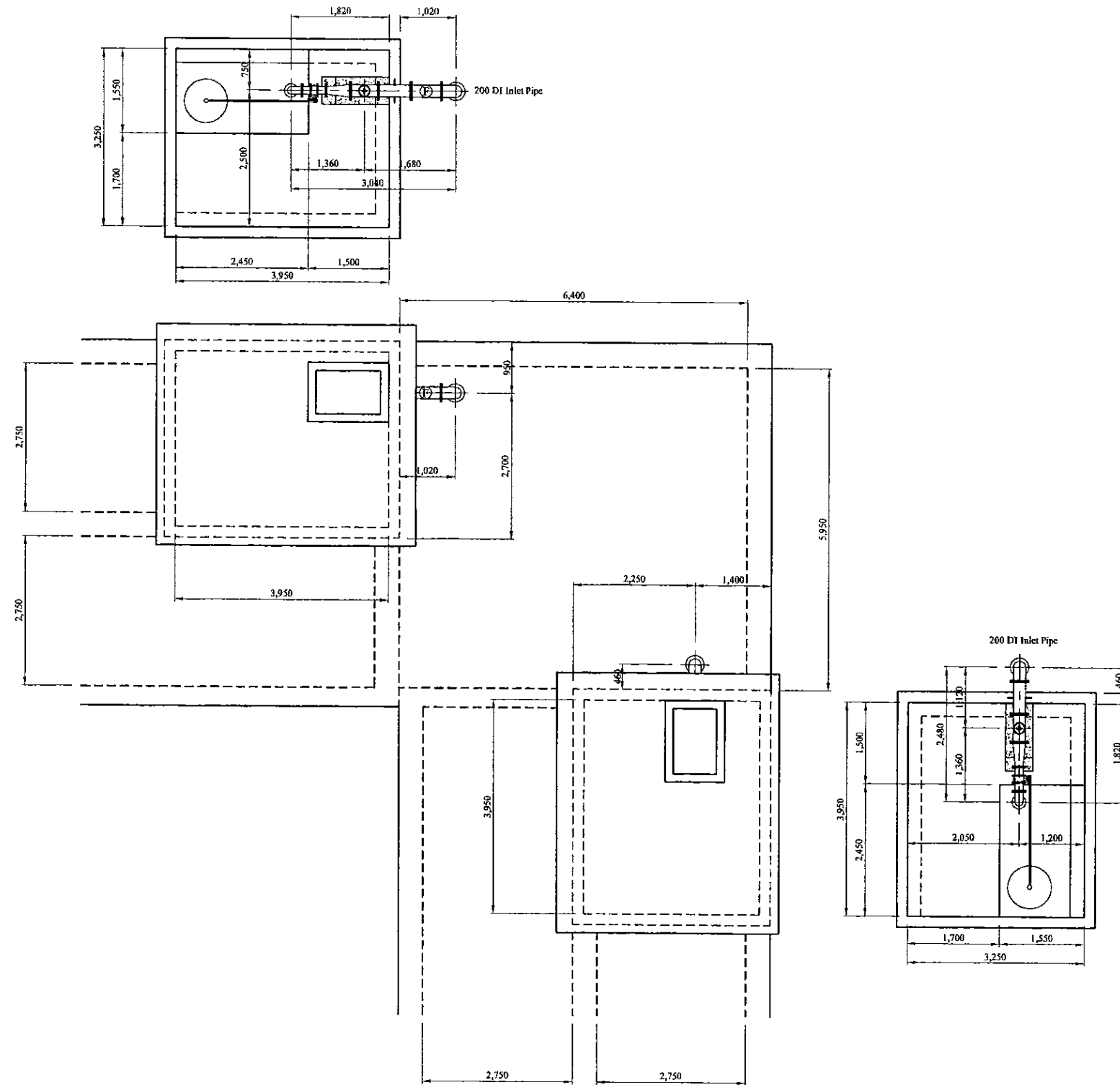
C

D

E

F

G

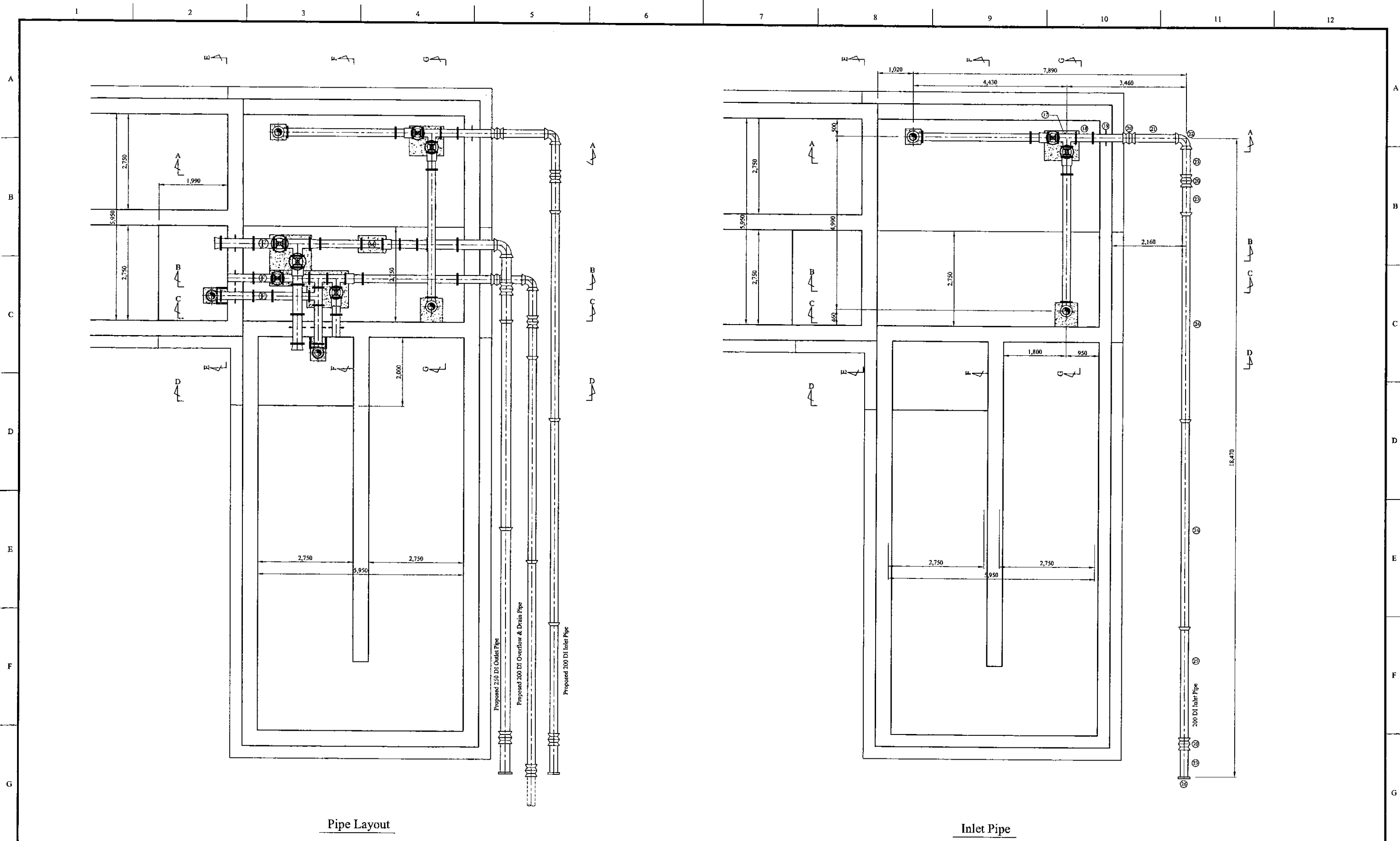


Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	2
2	Double Flanged Piece	SP	125	L=610mm	PN10	2
3	Double Flanged 90 degree Bend	SP	125	L=200mm x 2	PN10	2
4	Butterfly Float Valve	SUS	125	L=460mm	PN10	2
5	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	2
6	All Flanged 200 x 100 Tee	DI	200x100	L=520x260mm	PN10	2
7	Ball Valve	DI	100	L=200mm	PN10	2
8	Single On/off Air Valve	DI	100	L=370mm	PN10	2
9	Double Flanged Piece with Puddle	DI	200	L=600mm	PN10	4
10	Double Flanged Flexible Expansion Sngle Joint	DI	200		PN10	1
11	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	3
12	Double Flanged Piece	DI	200	L=3,780mm	PN10	3
13	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	2
14	Double Flanged Piece	DI	200	L=3,020mm	PN10	1
15	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
16	Sluice Valve	DI	200	L=290mm	PN10	2
17	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
18	Double Flanged Piece	DI	200	L=490mm	PN10	1
19	Double Flanged Piece with Puddle	DI	200	L=1,150mm	PN10	1
20	Collar	DI	200		Type-K	3
21	Plain Ends Piece	DI	200	L=1,440mm	Type-T	1
22	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	1
23	Plain Ends Piece	DI	200	L=1,000mm	Type-T	3
24	Straight Pipe	DI	200	L=6,000mm	Type-T	2
25	Socket - Plain End Piece	DI	200	L=3,300mm	Type-T	1
26	Plug	DI	200		Type-T	1
27	Flanged Bellmouth	DI	250	L=185mm	PN10	2
28	Double Flanged Piece with Puddle	DI	250	L=950mm	PN10	2
29	Double Flanged Flexible Expansion Sngle Joint	DI	250		PN10	1
30	Sluice Valve	DI	250	L=330mm	PN10	2
31	Double Flanged Piece	DI	250	L=870mm	PN10	2
32	Flange Adapter (DF)	DI	250	L=500mm	PN10	1
33	All Flanged 250 x 250 Tee	DI	250x250	L=700x350mm	PN10	1
34	Double Flanged 250 x 200 Taper	DI	250	L=300mm	PN10	2
35	Double Flanged Piece	DI	200	L=1,190mm	PN10	1
36	Flow Meter	DI	200	L=610mm	PN10	1
37	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
38	Double Flanged Piece	DI	200	L=500mm	PN10	1
39	Flanged Spigot Piece	DI	250	L=1,150mm	PN10, Type-T	1
40	Double Socket 90 degree Bend	DI	250	L=270mm x 2	Type-T	1
41	Plain Ends Piece	DI	250	L=1,000mm	Type-T	3
42	Collar	DI	250		Type-K	2
43	Straight Pipe	DI	250	L=6,000mm	Type-T	2
44	Plug	DI	250		Type-T	1
45	Flanged Bellmouth	DI	200	L=170mm	PN10	2
46	Double Flanged Piece	DI	200	L=4,570mm	PN10	2
47	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	2
48	Flanged Spigot Piece with Puddle	DI	200	L=750mm	PN10, Type-T	2
49	Double Flanged Flexible Expansion Sngle Joint	DI	200		PN10	2
50	Sluice Valve	DI	200	L=290mm	PN10	2
51	Double Flanged Piece	DI	200	L=770mm	PN10	1
52	Double Flanged Piece with Puddle	DI	200	L=950mm	PN10	1
53	Double Flanged Piece with Puddle	DI	200	L=1,060mm	PN10	1
54	Double Flanged Piece with Puddle	DI	200	L=1,120mm	PN10	1
55	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	3
56	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
57	Double Flanged Piece	DI	200	L=2,740mm	PN10	1
58	Flanged Spigot Piece	DI	200	L=1,150mm	PN10, Type-T	1
59	Collar	DI	200		Type-K	3
60	Plain Ends Piece	DI	200	L=800mm	Type-T	2
61	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	1
62	Plain Ends Piece	DI	200	L=1,740mm	Type-T	2
63	Straight Pipe	DI	200	L=6,000mm	Type-T	2

Pipe Layout on the Roof

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF DANGOLLA S.R - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS : NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-19-02



Pipe Layout

Inlet Pipe

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

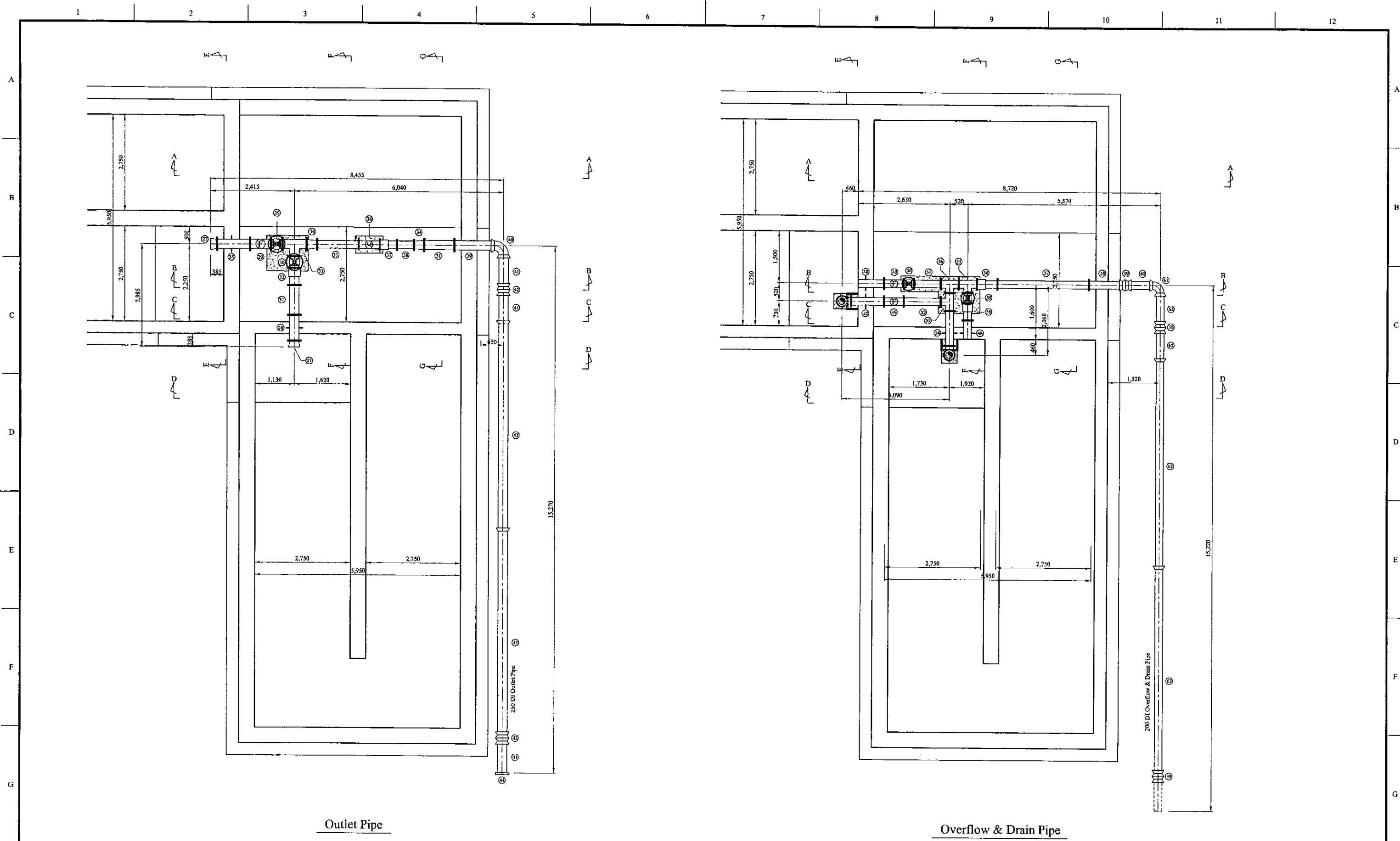
TITLE: PIPE LAYOUT OF DANGOLLA S.R - 2

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-19-03

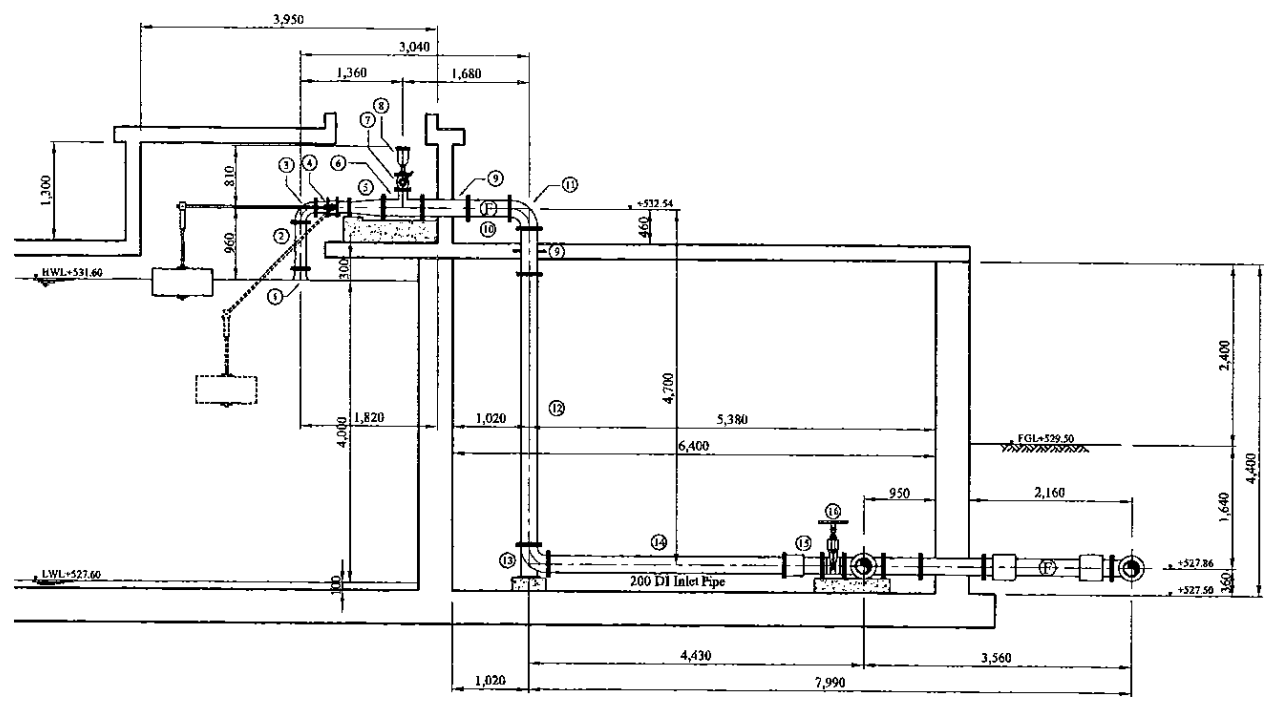


Outlet Pipe

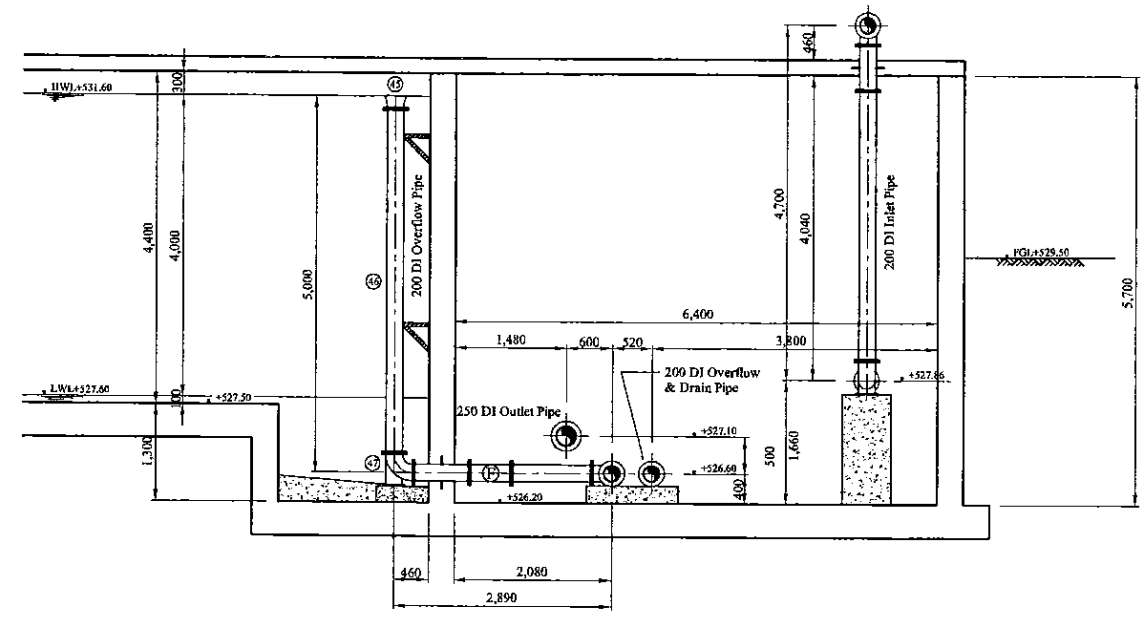
Overflow & Drain Pipe

\* Contractor should provide concrete and/or metal pipe support.

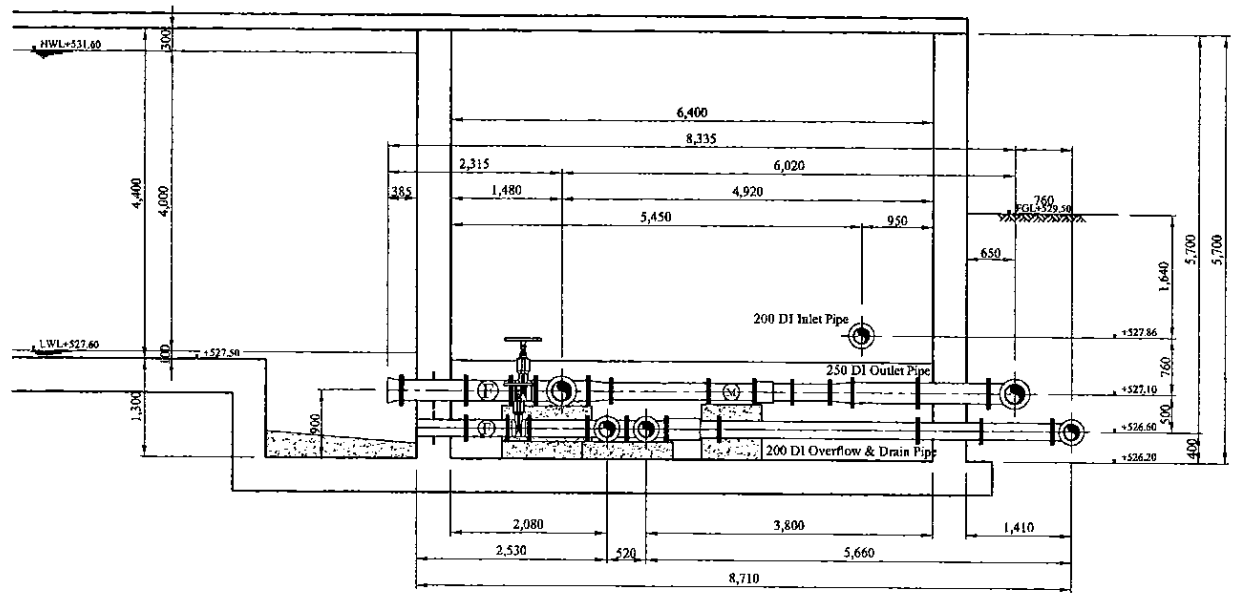
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF DANGOLLA S.R - 3								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
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								DESIGN CHIEF				



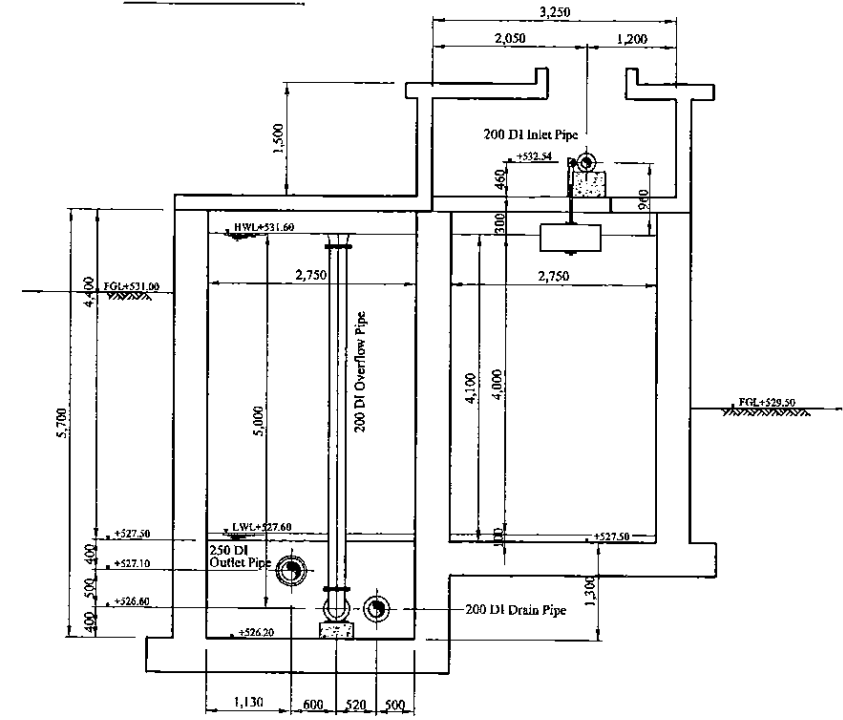
Section A - A



Section C - C



Section B - B



Section D - D

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

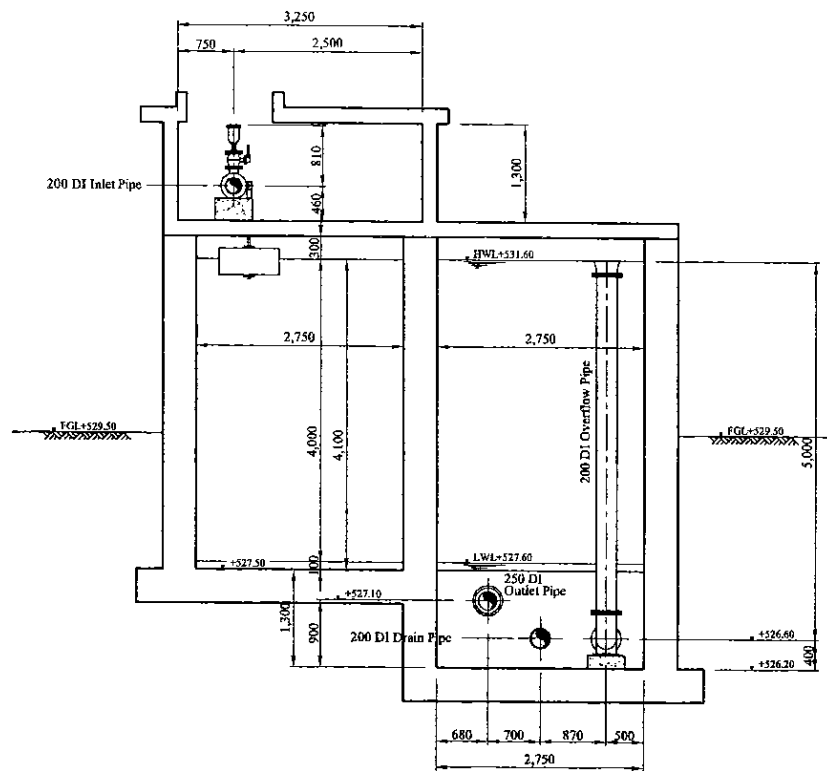
TITLE: PIPE LAYOUT OF DANGOLLA S.R - 4

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

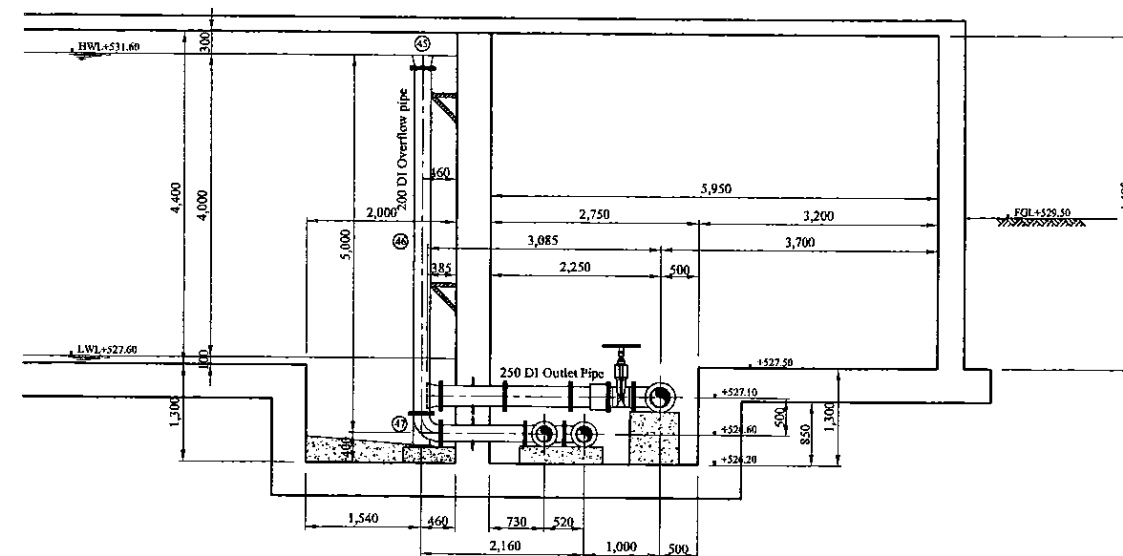


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

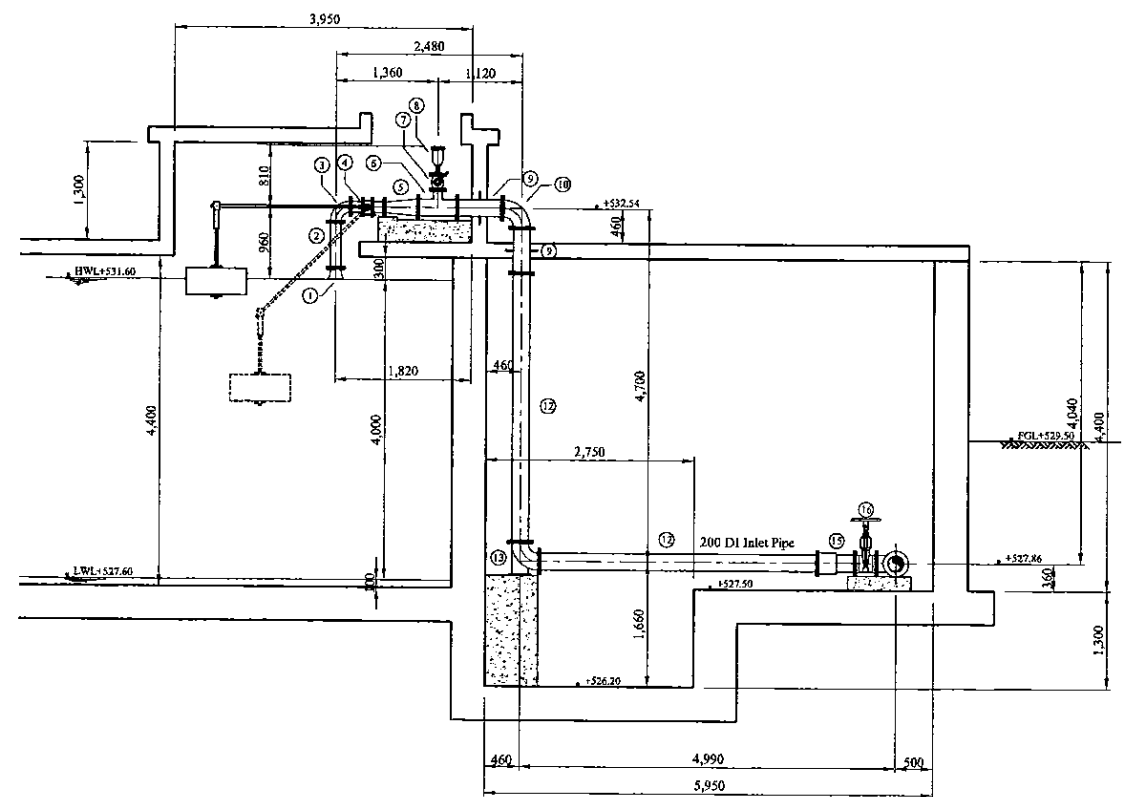
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-19-05



Section E - E



Section F - F



Section G - G

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

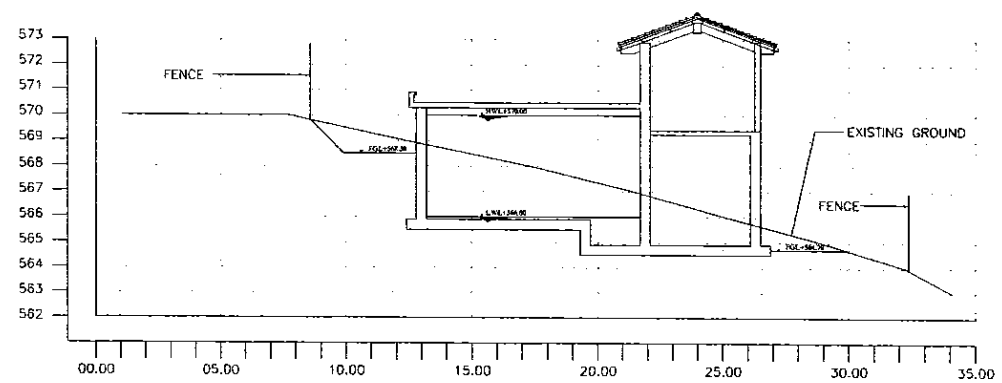
TITLE: PIPE LAYOUT OF DANGOLLA S.R - 5

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

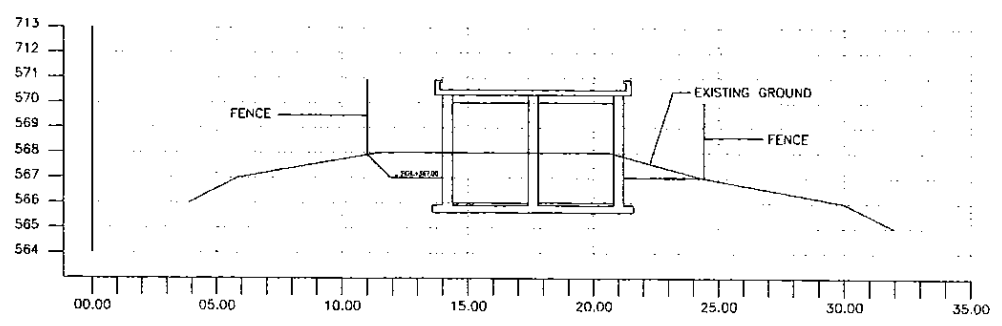


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

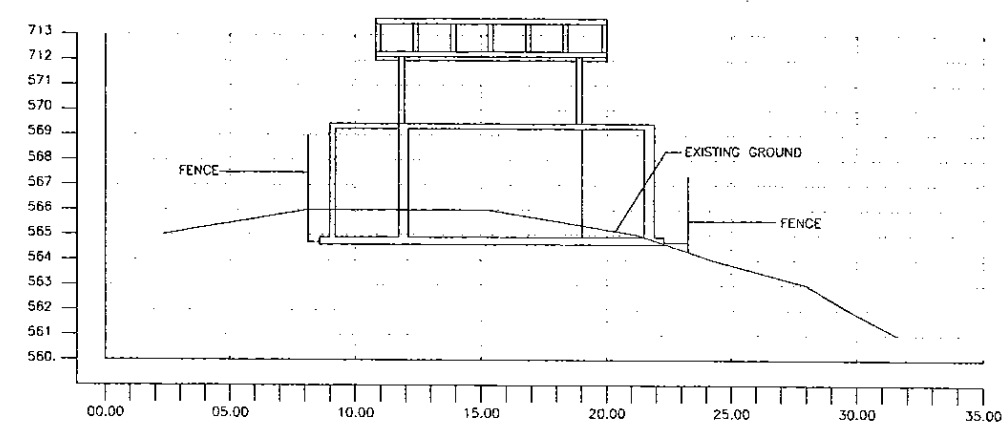
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				DESIGN CHIEF			31/05/2002	31-C-19-06



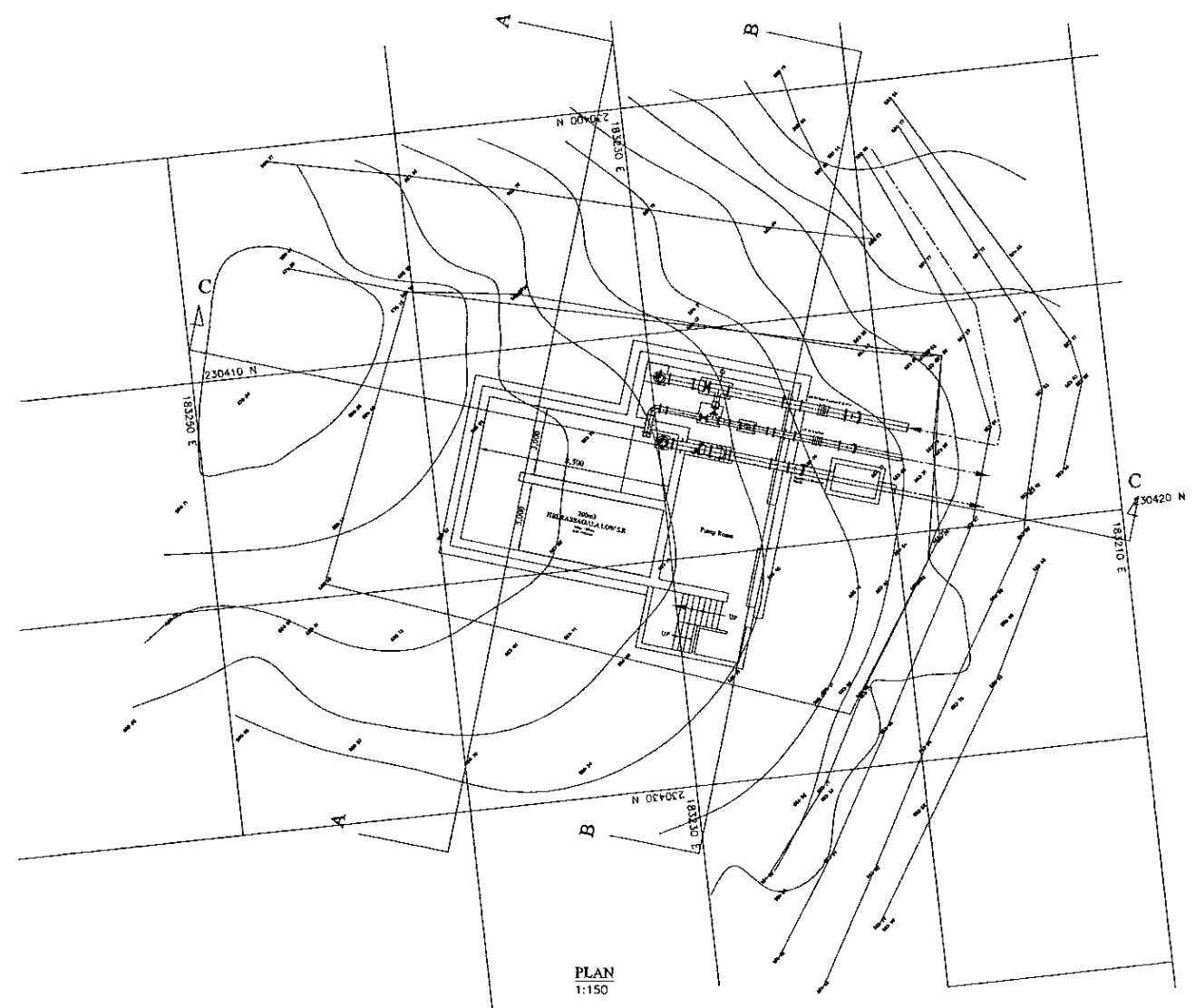
SECTION C-C  
1:150



SECTION A-A  
1:150



SECTION B-B  
1:150



PLAN  
1:150


Reference:

- WF Wire Fence
- Boundary Line For Extent Computation
- Road
- Im Contour
- TP Telephone Post
- EP Electrical Post
- St Stake
- BII Stake

DATUM - National Geodetic Datum S.L.D 99


PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT** TITLE: **SITE PLAN AND CSS OF 200m<sup>3</sup> HEERASSAGALA LOW S.R. AND PUMPING STATION**

CLIENT:




**NATIONAL WATER SUPPLY & DRAINAGE BOARD**

CONSULTANTS:

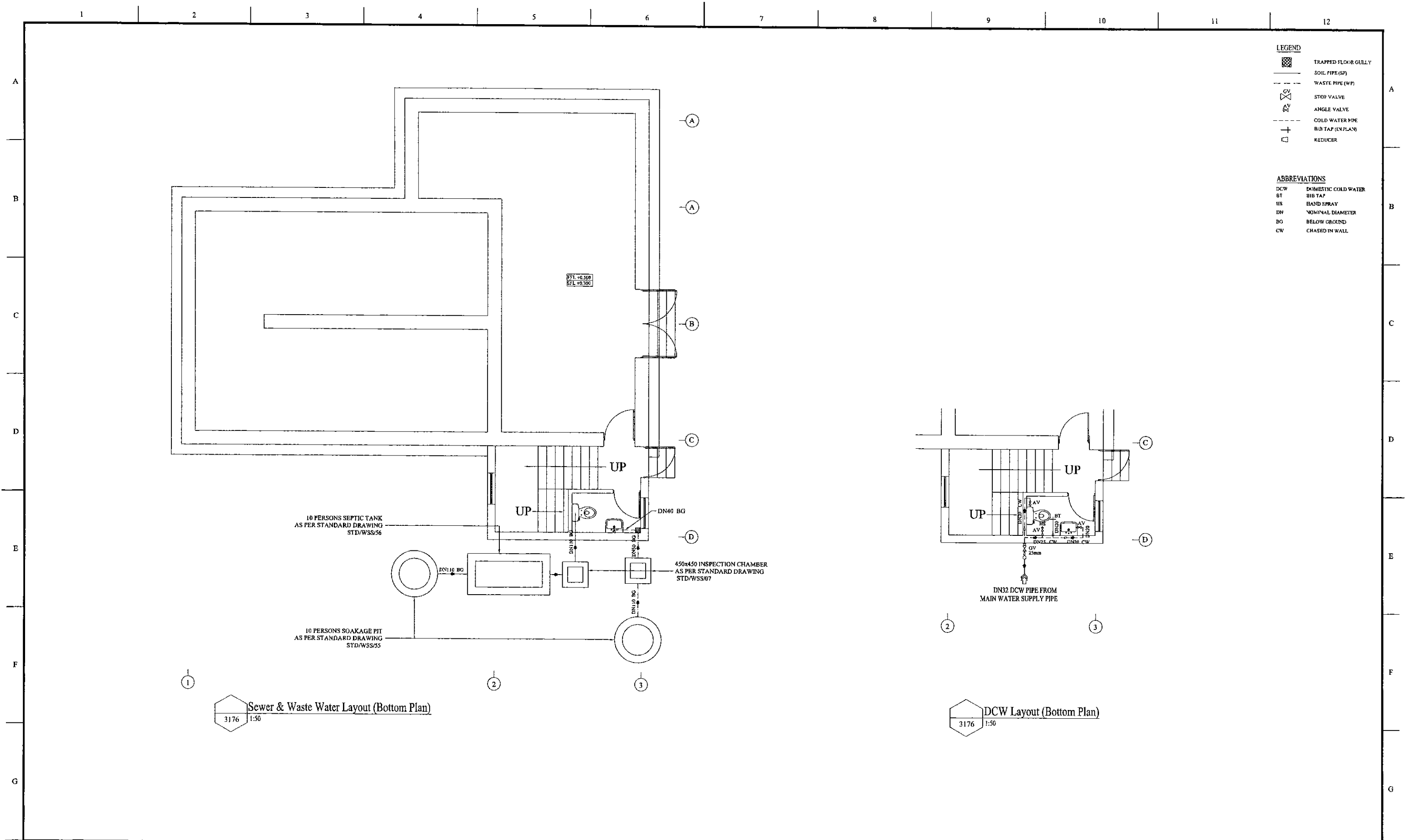


**NJS CONSULTANTS CO., LTD. - JAPAN**



**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

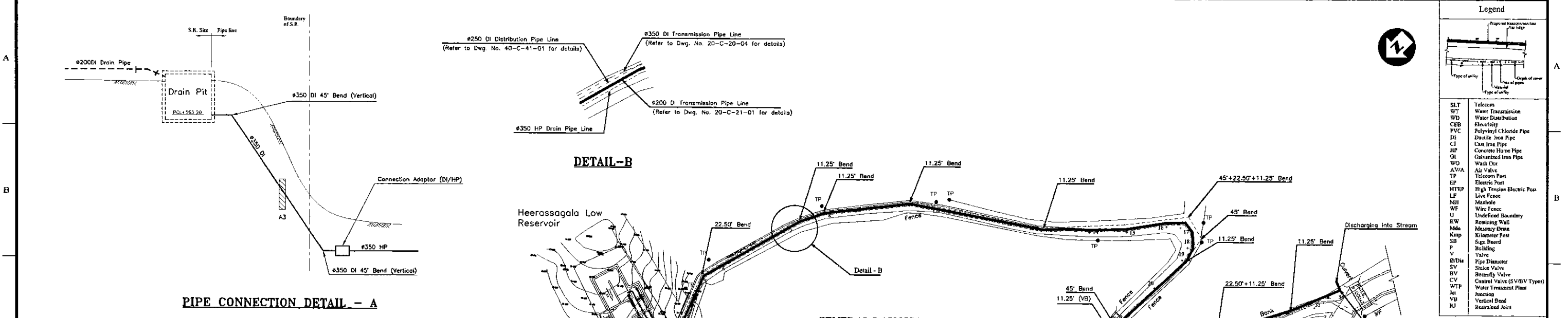
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				<b>Koichi OKAZAKI</b>	<b>Ravi U.</b>	<b>Ikuo MIWA</b>		<b>1:150</b>
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			<b>31/05/2002</b>	<b>30-C-20-01</b>



3176 1:50 Sewer & Waste Water Layout (Bottom Plan)

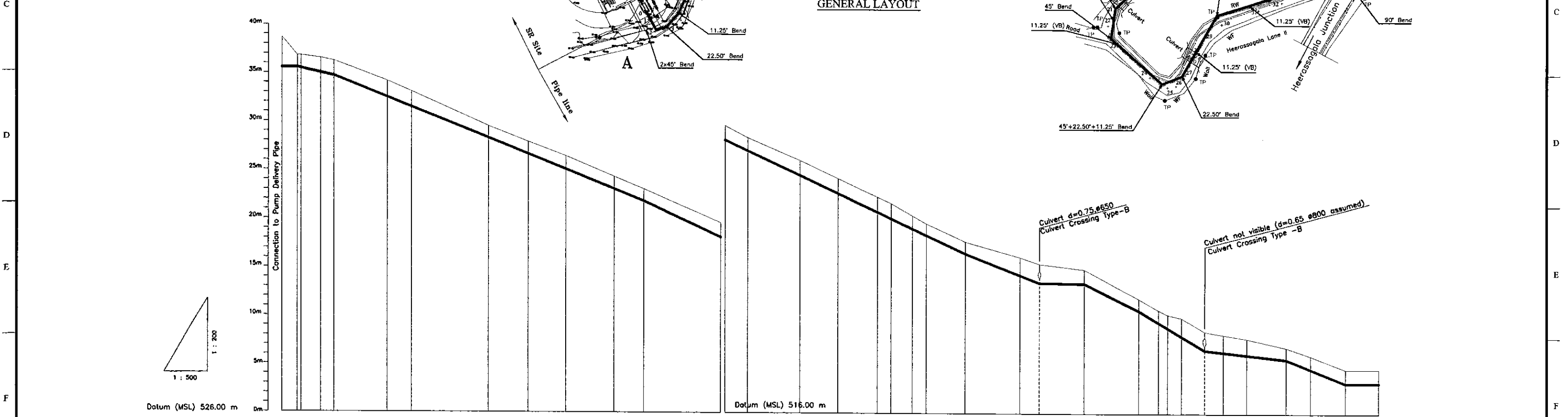
3176 1:50 DCW Layout (Bottom Plan)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: HEERASAGALA LOW PUMP STATION DCW, SEWER & WASTE WATER LAYOUT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: D.H.V.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-20-02



**Legend**

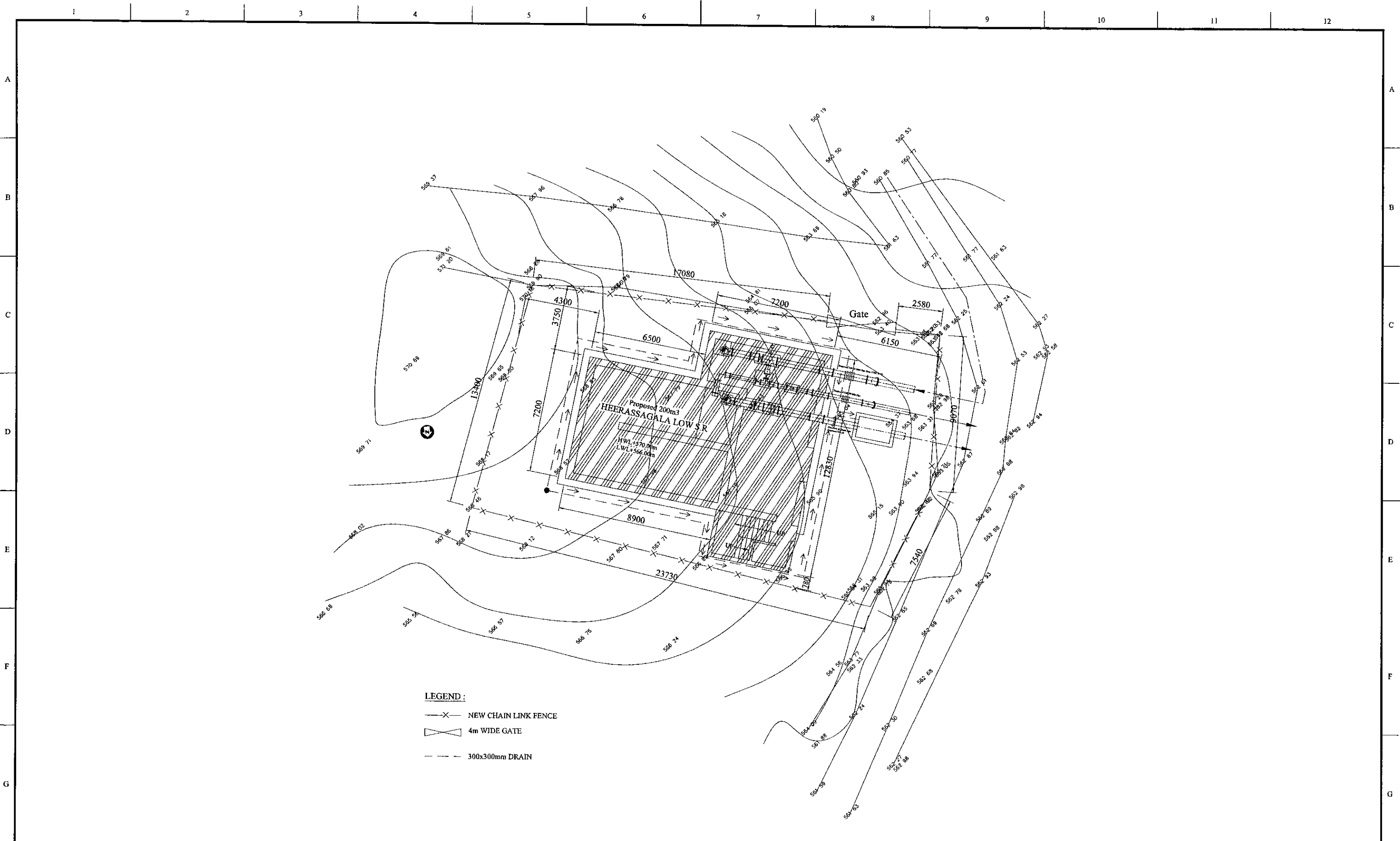
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CJ	Cast Iron Pipe
HP	Concrete Hume Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
A/V/A	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MH	Masthead
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Mds	Massy Drain
Kmp	Kilometer Post
SB	Sign Board
F	Fence
V	Valve
B/Dia	Pipe Diameter
SV	Shut-off Valve
BV	Butterfly Valve
CV	Control Valve (S/V/BV Type)
WTP	Water Treatment Plant
Jc	Junction
VB	Vertical Bend
RJ	Restrained Joint



Ground Level (m)	564.70	562.82	562.36	562.27	560.18	559.08	555.51	553.92	552.47	550.36	548.10	545.88	544.41	542.09	540.25	538.34	537.71	536.44	535.64	533.78	532.18	531.50	530.94	527.93	526.76	526.29	525.95	524.55	524.20	523.81	522.89	522.03	520.82	520.82			
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	551.40	551.40	551.01	551.01	550.18	550.08	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88	547.88
Pipe Data	#350 CONCRETE HUME PIPE																																				
Single Distance (m)	0.00	1.88	5.02	3.47	13.84	6.29	19.74	10.27	9.72	12.53	7.67	19.80	5.84	13.36	9.79	10.20	3.57	5.49	3.57	10.04	14.09	5.00	11.89	14.11	5.13	2.25	3.64	5.90	4.82	5.97	10.17	6.29	9.12	8.62			
Cumulative Distance (m)	0.00	1.88	6.90	10.37	24.21	30.50	50.24	70.04	79.76	92.29	100.00	119.80	125.64	139.00	148.79	158.99	162.56	168.05	171.62	175.19	185.23	199.32	204.32	216.21	230.32	235.45	237.70	243.64	248.54	254.51	264.70	273.87	283.16	292.28	301.31	310.33	
Station No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34		

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: WASHOUT FROM HEERASSAGALA LOW RESERVOIR	SHEET 01 OF 01																
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN; NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	<table border="1"> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV.	DESCRIPTION	DATE	SIGN.					<table border="1"> <tr> <td>DESIGNED: Koichi OKAZAKI</td> <td>DRAWN: Ravi U.</td> <td>PM: (CONSULTANT) Ikuo MIWA</td> <td>CE: (P&amp;D)</td> </tr> <tr> <td>CHECKED: AGM: (P&amp;D)</td> <td>DGM: (P&amp;D)</td> <td>DATE: 31/05/2002</td> <td>DRAWING NO.: 30-C-20-03</td> </tr> </table>	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	CHECKED: AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-20-03
REV.	DESCRIPTION	DATE	SIGN.																
DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)																
CHECKED: AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-20-03																








- LEGEND :**
- X— NEW CHAIN LINK FENCE
  - ⌞ 4m WIDE GATE
  - - - 300x300mm DRAIN

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

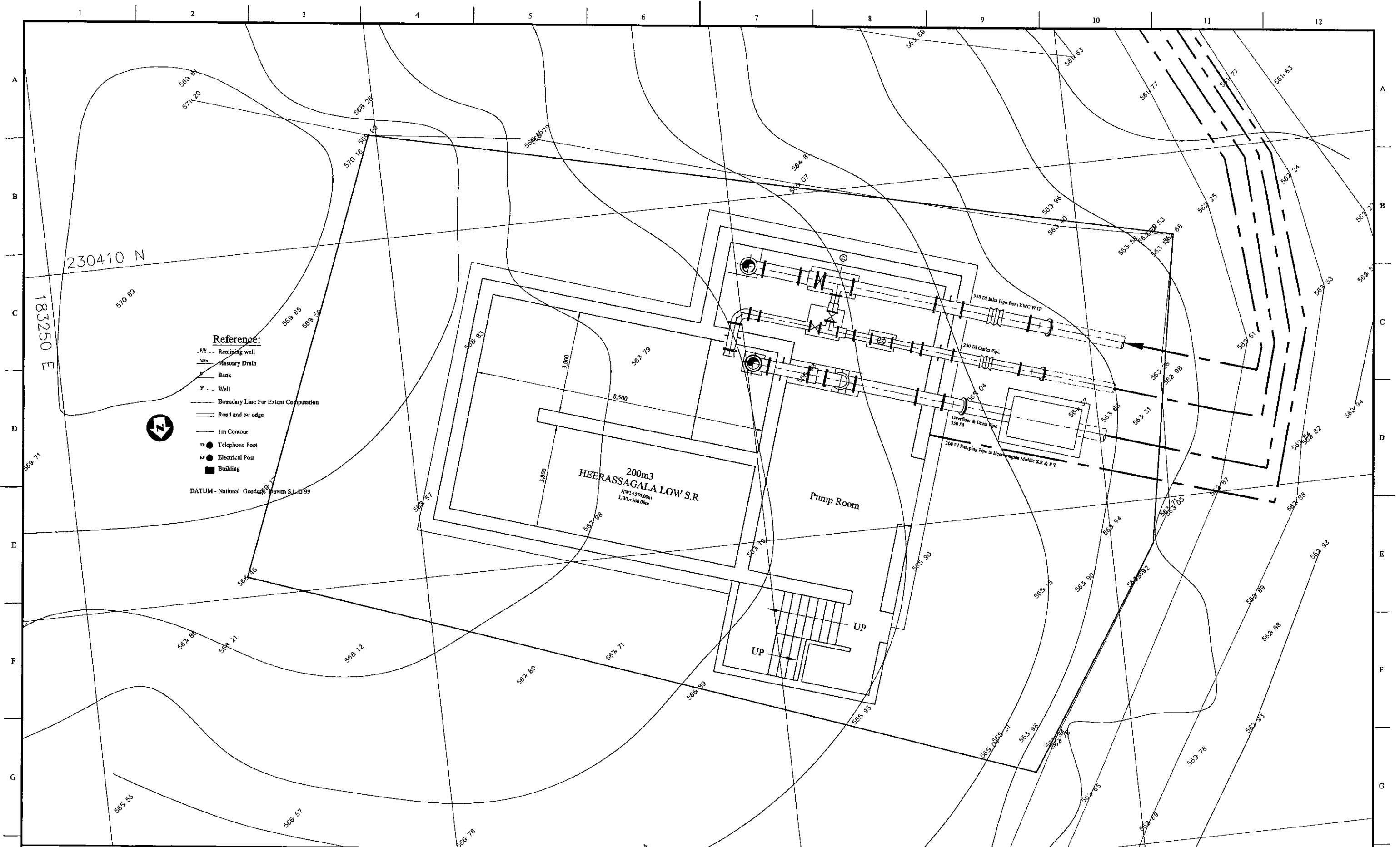
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **200m2 HEERASSAGALA LOW S.R. AND P.S. LANDSCAPING LAYOUT**

CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

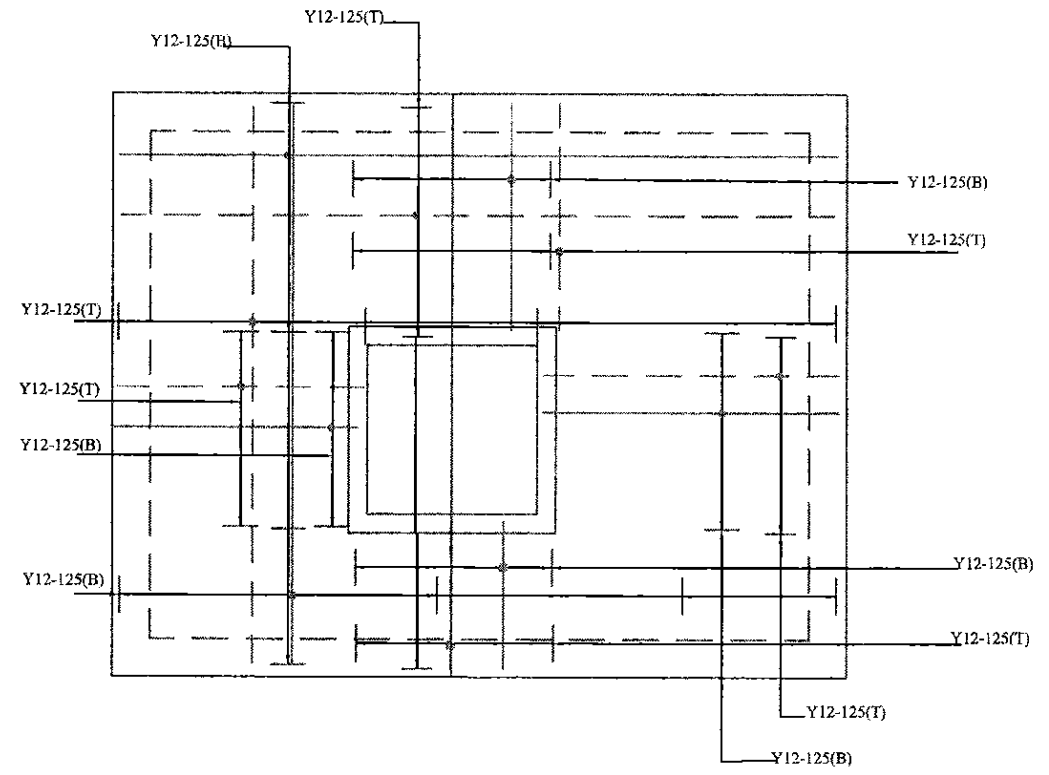
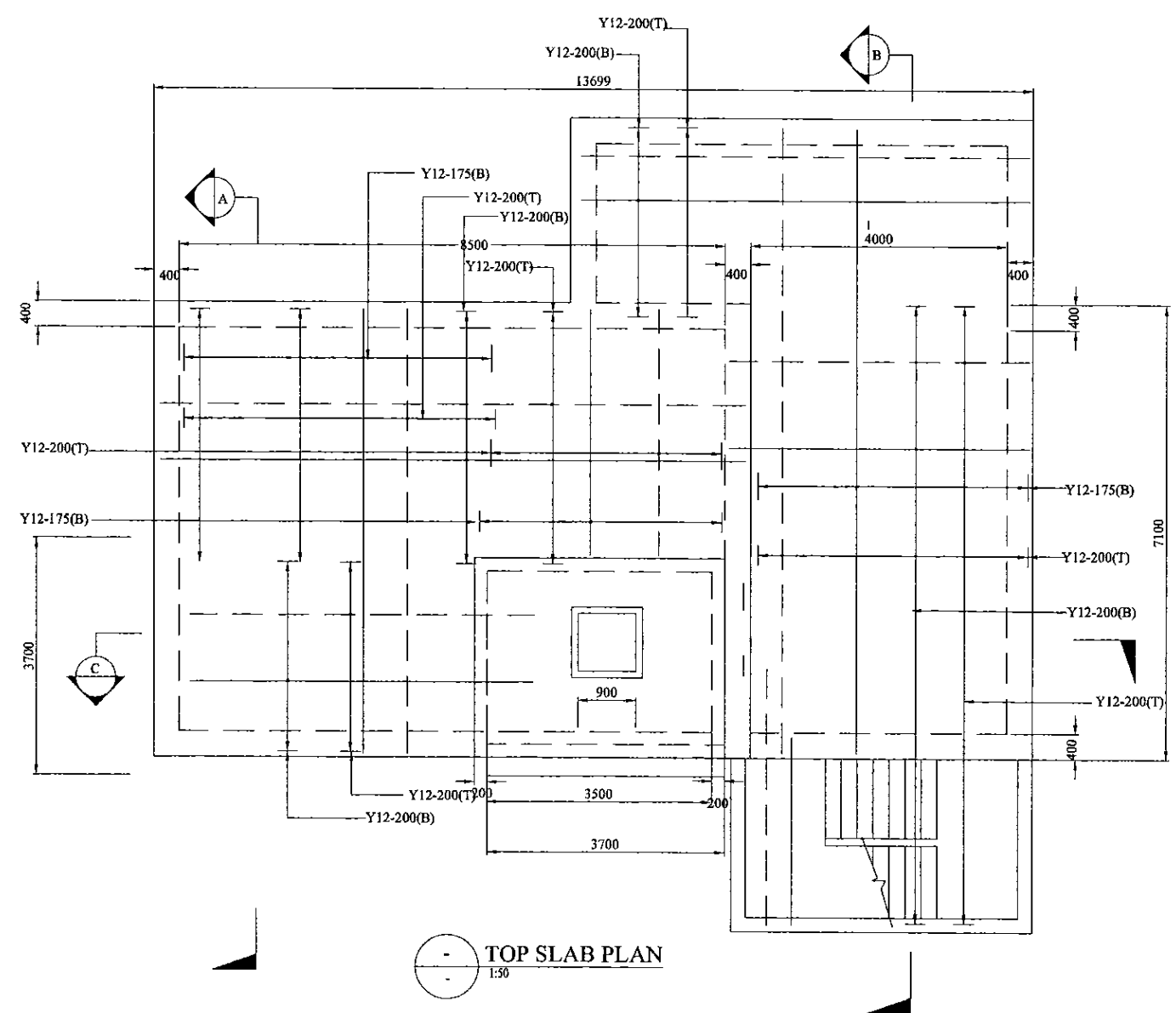
CONSULTANTS :  
 **NJS CONSULTANTS CO., LTD. - JAPAN**  
 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				<b>Koichi OKAZAKI</b>	<b>POORNA</b>	<b>Ikuo MIWA</b>		<b>1:100</b>
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							<b>31/05/2002</b>	<b>30-C-20-04</b>

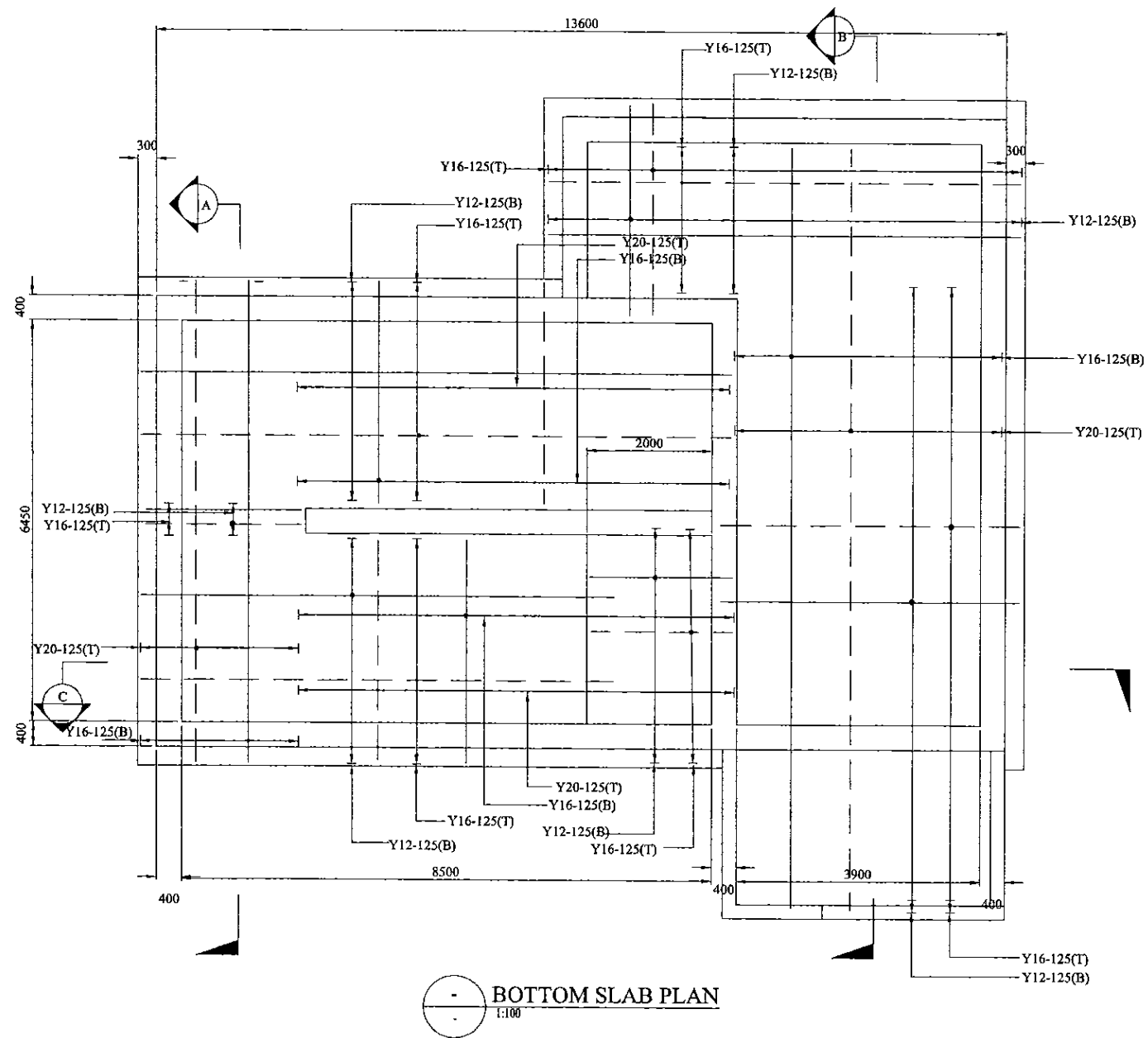


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY			TITLE: HEERASSAGALA LOW SERVICE RESERVOIR AND PUMPING STATION SITE PLAN								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN			REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Kalinga	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
									CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-20-01





<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		<b>TITLE:</b> HEERASSAGALA LOW RESERVOIR & PUMPING STATION - TOP SLAB								
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<b>REV.</b>    	<b>DESCRIPTION</b>    	<b>DATE</b>    	<b>SIGN.</b>    	<b>DESIGNED:</b> L. JAYAWARDENA	<b>DRAWN:</b> SAM	<b>PM: (CONSULTANT)</b> Ikuo MIWA	<b>CE: (P&amp;D)</b>  	<b>SCALE:</b> AS SHOWN
				<b>CHECKED:</b> DESIGN CHIEF		<b>AGM: (P&amp;D)</b>  		<b>DGM: (P&amp;D)</b>  		<b>DATE:</b> 31/05/2002	<b>DRAWING NO.:</b> 30-S-20-03	



○ BOTTOM SLAB PLAN  
1:100

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

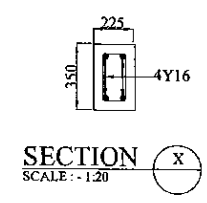
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **HEERASSAGALA LOW RESERVOIR & PUMPING STATION - BOTTOM SLAB**

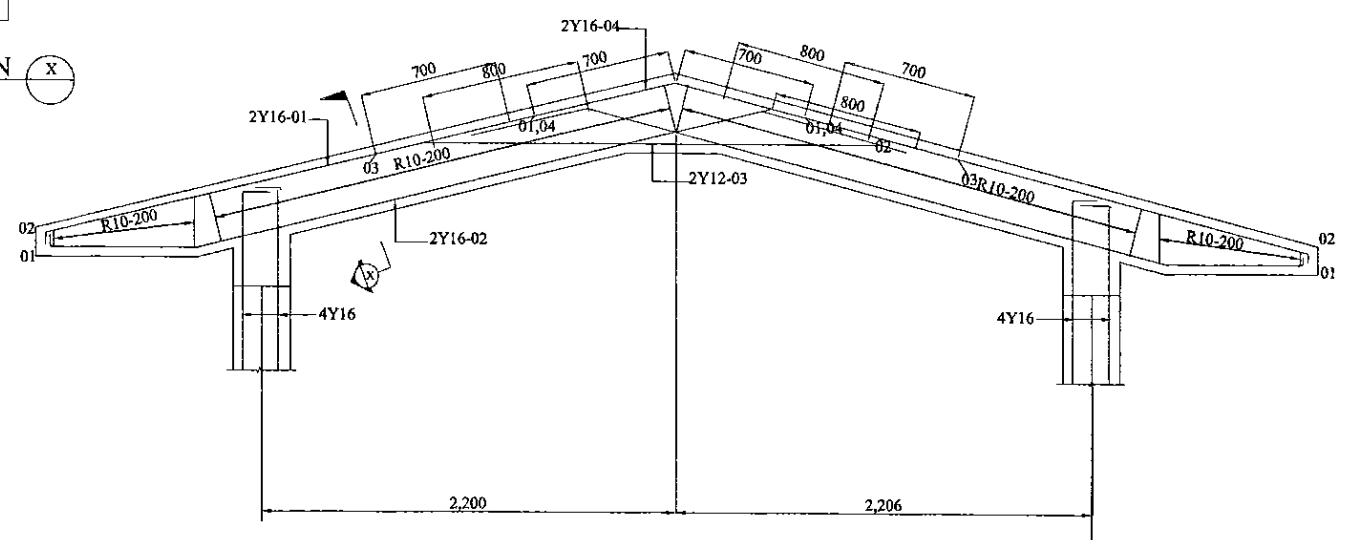
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

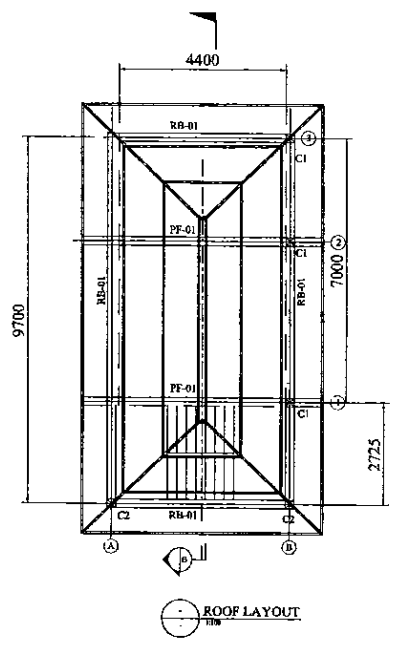
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-20-04



SECTION X  
SCALE: - 1:20

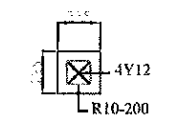


R/F DETAILS OF PORTAL FRAME  
SCALE: - 1:20

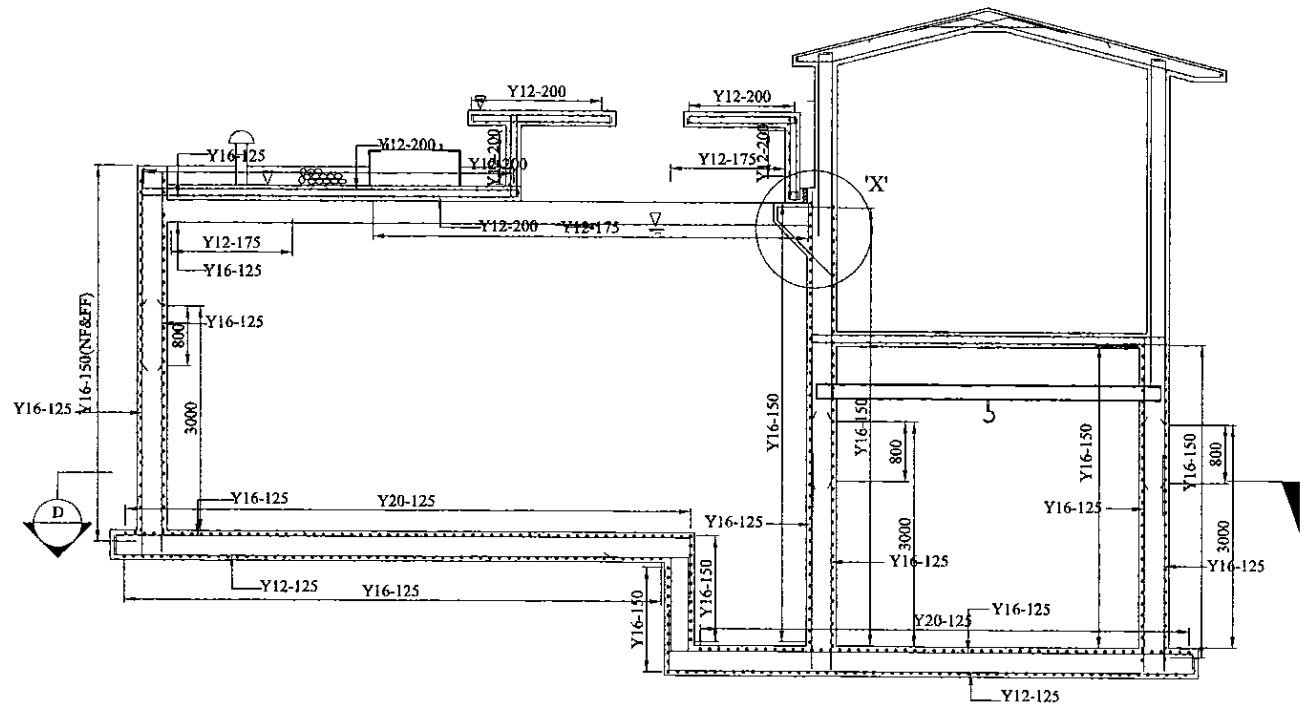


ROOF LAYOUT

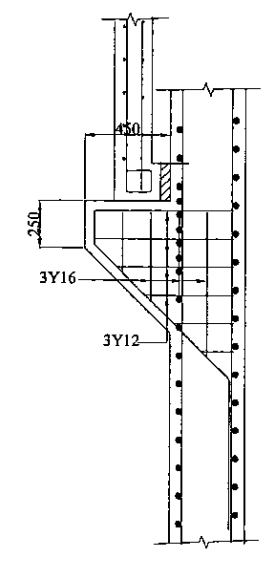
SCHEDULE OF COLUMNS			
TYPE	LOCATION	G.F TO SLAB	SLAB TO ROOF
C1	1/A,2/A, 3/C	225x225 2Y12 LINKS R6 @ 150	225x225 2Y12 LINKS R6 @ 150
C2	1/A,1/B	225x225 2Y12 LINKS R6 @ 150	225x225 2Y12 LINKS R6 @ 150



RB-01  
SCALE: - 1:20

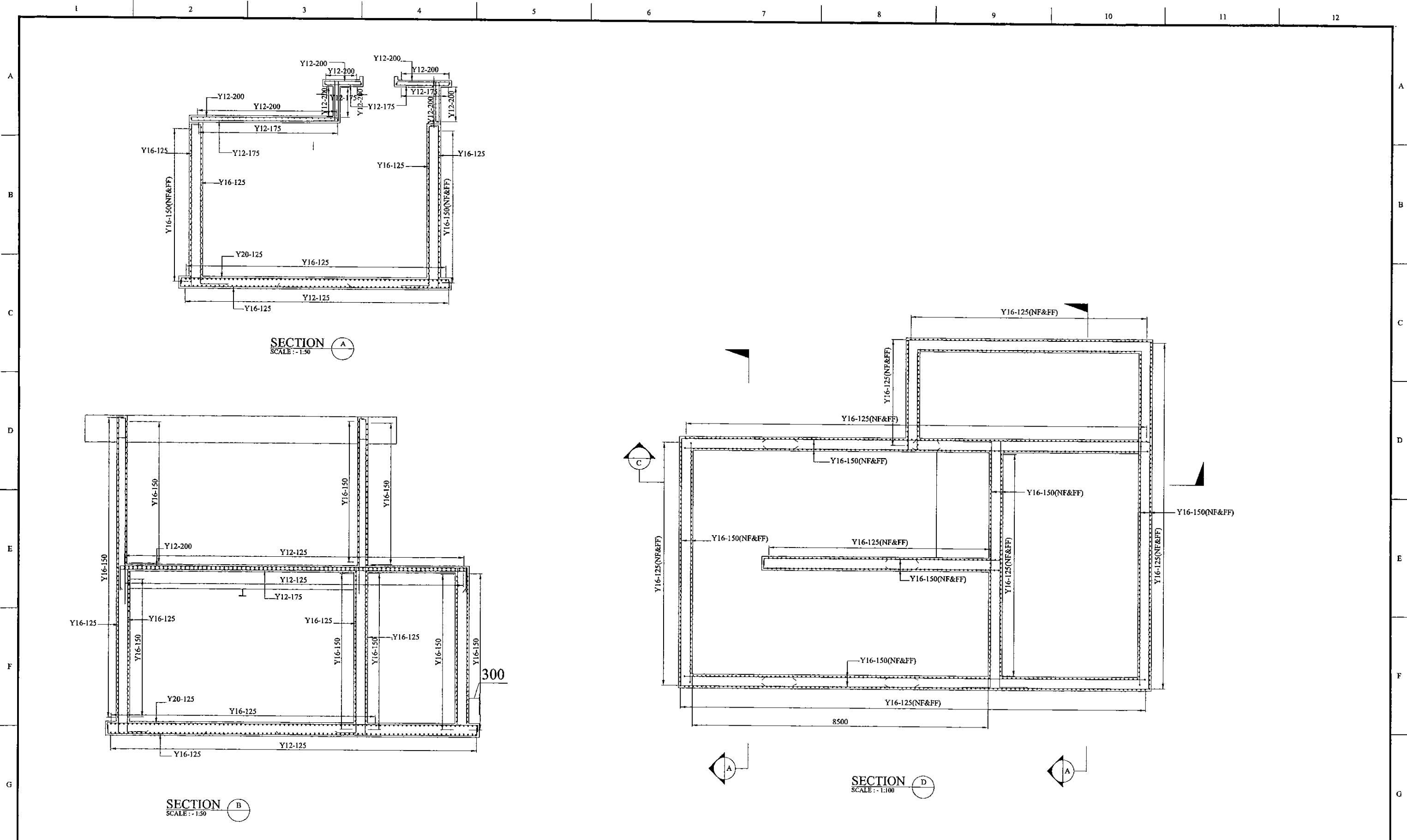


SECTION C  
SCALE: - 1:50



DETAIL AT X  
SCALE: - 1:20

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> HEERASSAGALA LOW RESERVOIR & PUMPSTATION - SECTIONS								
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-20-05





SECTION A  
SCALE: 1:50

SECTION B  
SCALE: 1:50


SECTION D  
SCALE: 1:100


PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

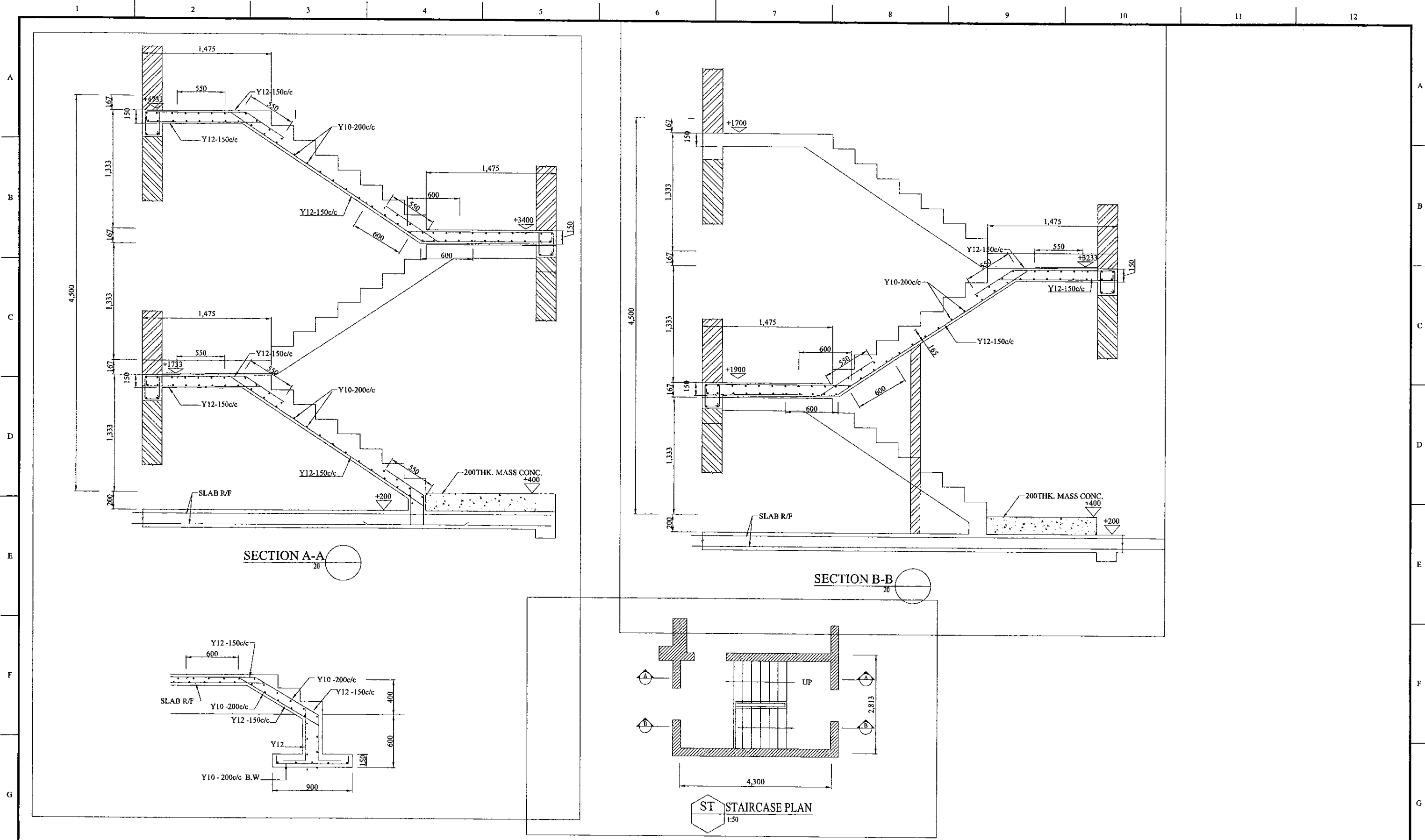
 **JAPAN INTERNATIONAL COOPERATION AGENCY**





CONSULTANTS:

 **NJS CONSULTANTS CO., LTD. - JAPAN**

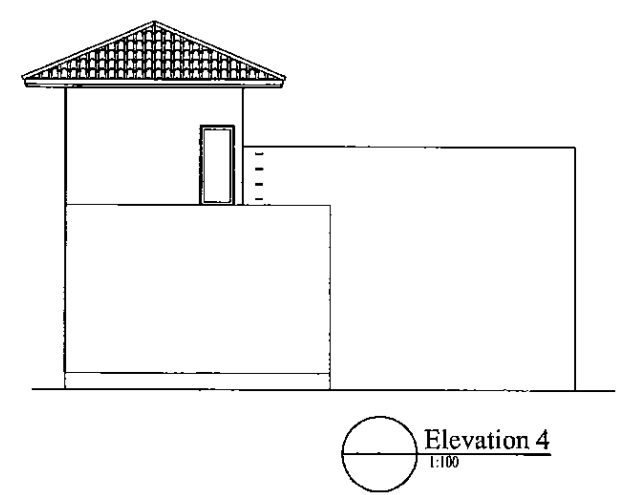
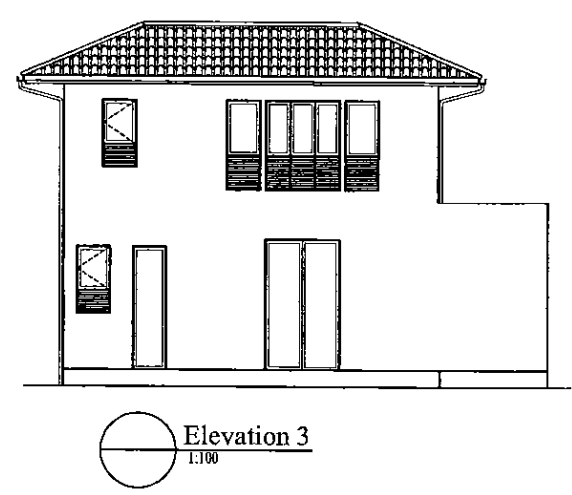
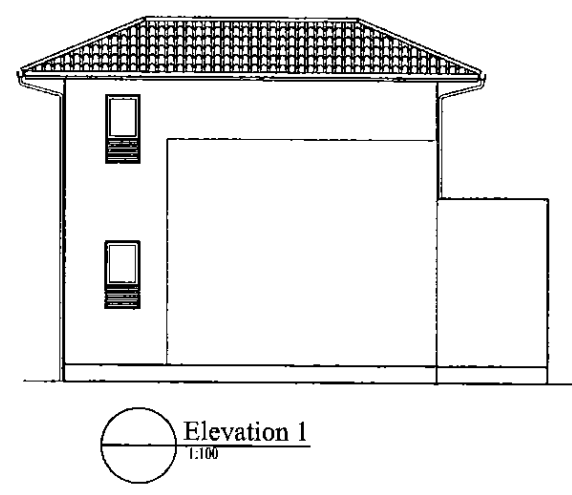
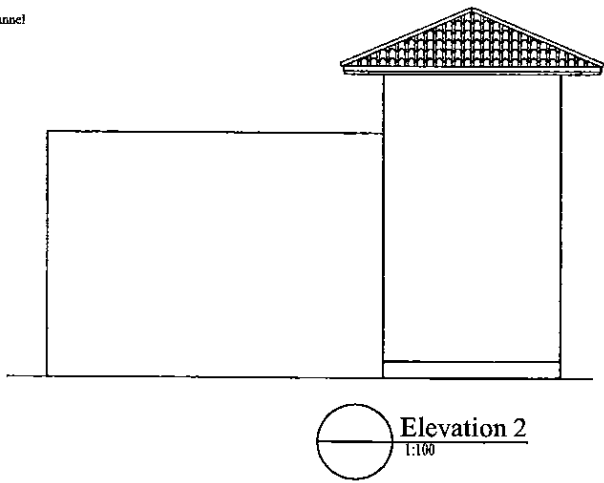
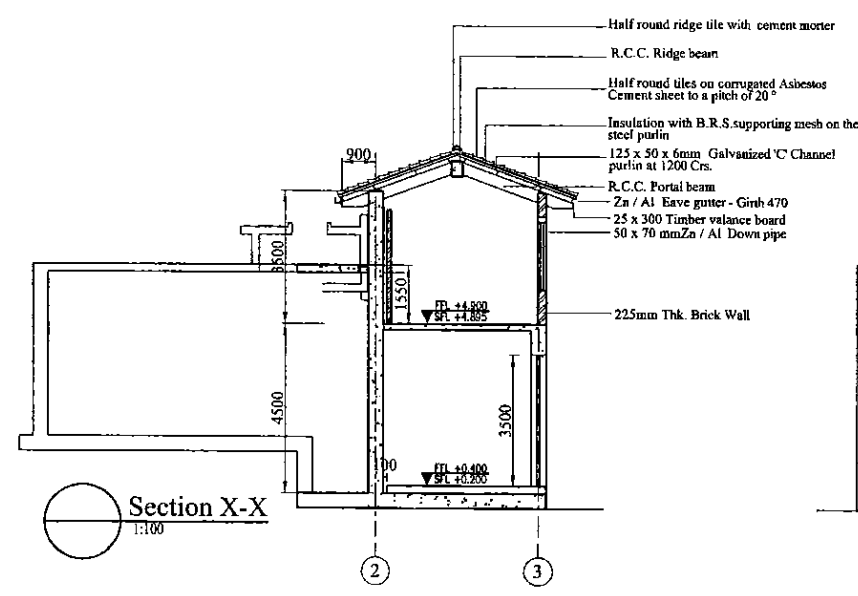
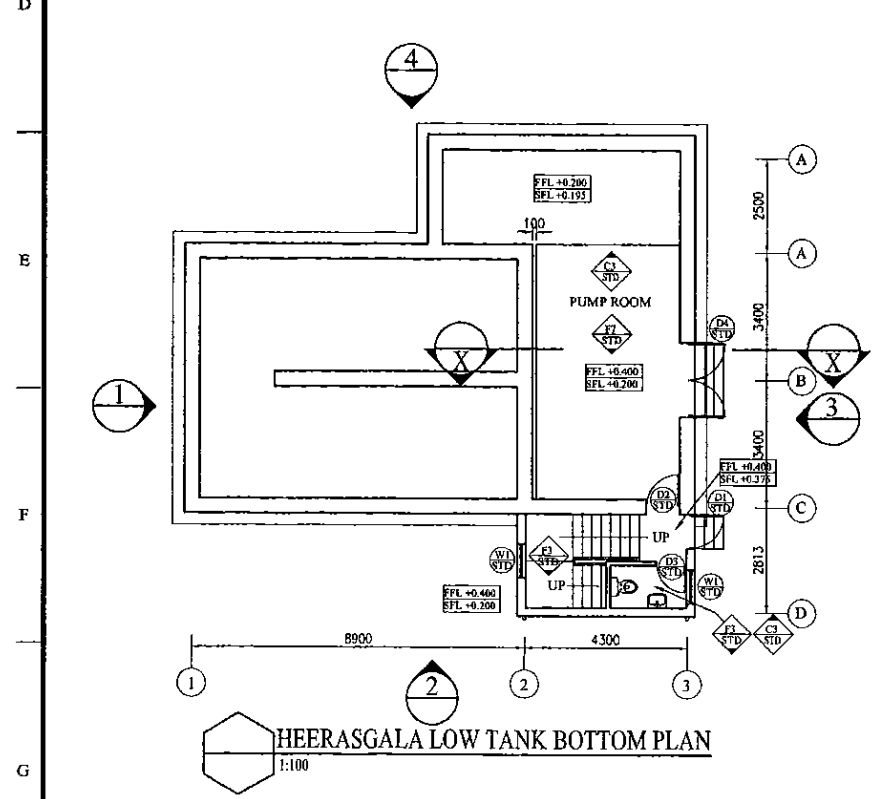
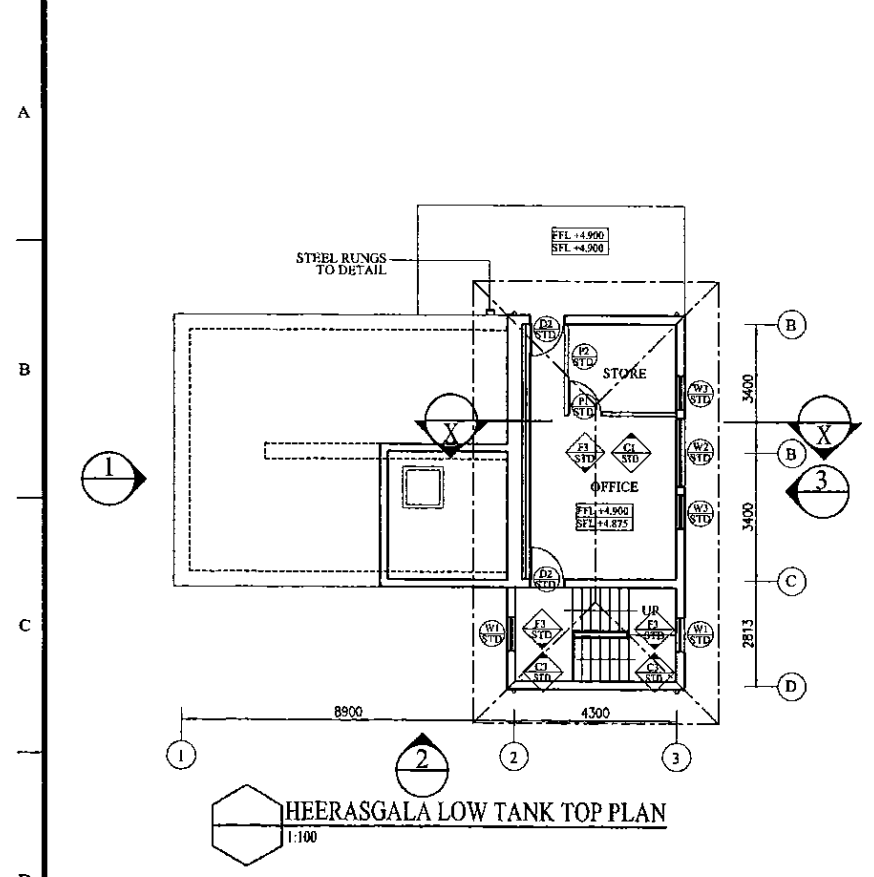
 **NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

TITLE: <b>HEERASSAGALA LOW RESERVOIR PUMP STATION - SECTIONS</b>				DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
REV.	DESCRIPTION	DATE	SIGN.	L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-20-06



PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>HEERASSAGALA LOW RESERVOIR &amp; PUMPING STATION - R/F DETAILS OF STAIRCASE</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
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								DESIGN CHIEF				





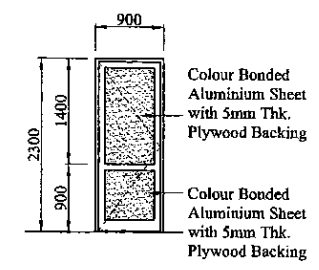
Schedule of Doors and Windows			
TYPE	SIZE	SILL. DESCRIPTION	NOS
D1	900x2700	Aluminium framed 20 gauge colour bonded Zinc Aluminium with 5mm thick plywood backing single sash door	01
D2	900x2100	Aluminium framed 3mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door	03
D3	800x2100	Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single sash door	03
D4	2000x2300	Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick louvers above	01
W1	900x1400	900	Aluminium framed 5mm thick float glass single sash window with fixed Aluminium louvre panels below
W2	2000x 2300	Aluminium framed 5mm thick float glass 3 sahes top hung window with fixed Aluminium louvre panels below	01
W3	900x 2300	Aluminium framed 5mm thick float glass single sash top hung window with fixed Aluminium louvre panels below	02
P1	2550x 2100	Aluminium framed 5mm thick float glass with PVC coated plywood sheet partition including single sash door	01
P2	2400x 2300	Aluminium framed 5mm thick float glass with PVC coated plywood sheet partition	01

Note:  
Platform level of Building = +564.7  
Therefore FGL = 40.00 = +564.7 (AMSL)

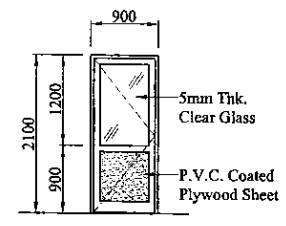
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: HEERASAGALA LOW PUMP STATION - PLANS, SECTIONS AND ELEVATIONS							
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:	
		XX	XXXX	XX	XX		T. S. P.	Ikuo MIWA		1 : 100	
						CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-20-01	

DATE: 17/07/2001 W:ammi

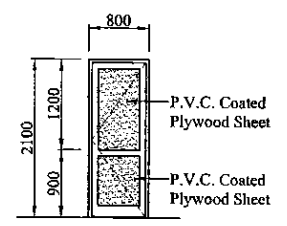
Schedule of Doors and Windows				
TYPE	SIZE	SILL.	DESCRIPTION	QOS
D1	900x2300		Aluminium framed 20 gauge colour bonded Zinc Aluminium with 5mm thick plywood backing single ash door	01
D2	900x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single ash door	03
D3	800x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single ash door	03
D4	2000x2300		Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick louvers above	01
W1	900x1400	900	Aluminium framed 5mm thick float glass single ash window with fixed Aluminium louver panels below	04
W2	2000x2300		Aluminium framed 5mm thick float glass 3 sashes top hung window with fixed Aluminium louver panels below	01
W3	900x2300		Aluminium framed 5mm thick float glass single ash top hung window with fixed Aluminium louver panels below	02
P1	2950x2100		Aluminium framed 5mm thick float glass with PVC coated plywood sheet partition including single ash door	01
P2	2400x2300		Aluminium framed 5mm thick float glass with PVC coated plywood sheet partition	01



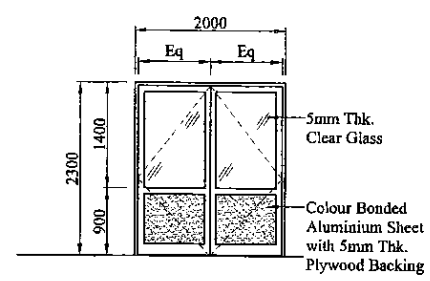
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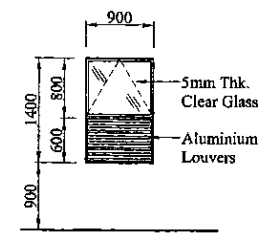
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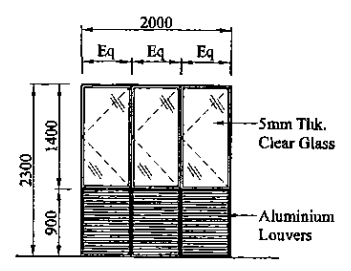
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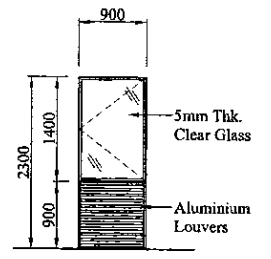
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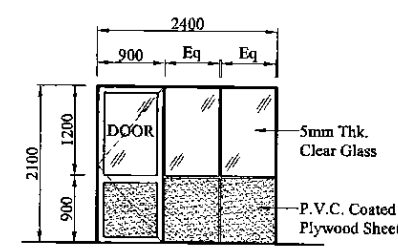
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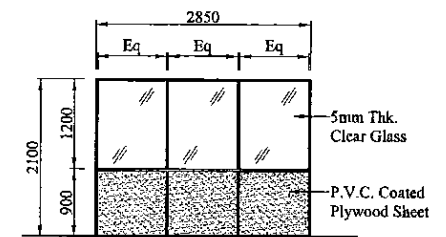
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STD ELEVATION W3  
1:50



STD ELEVATION P1  
1:50



STD ELEVATION P2  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

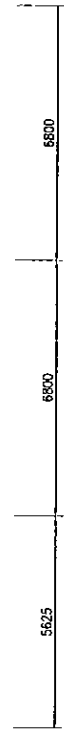
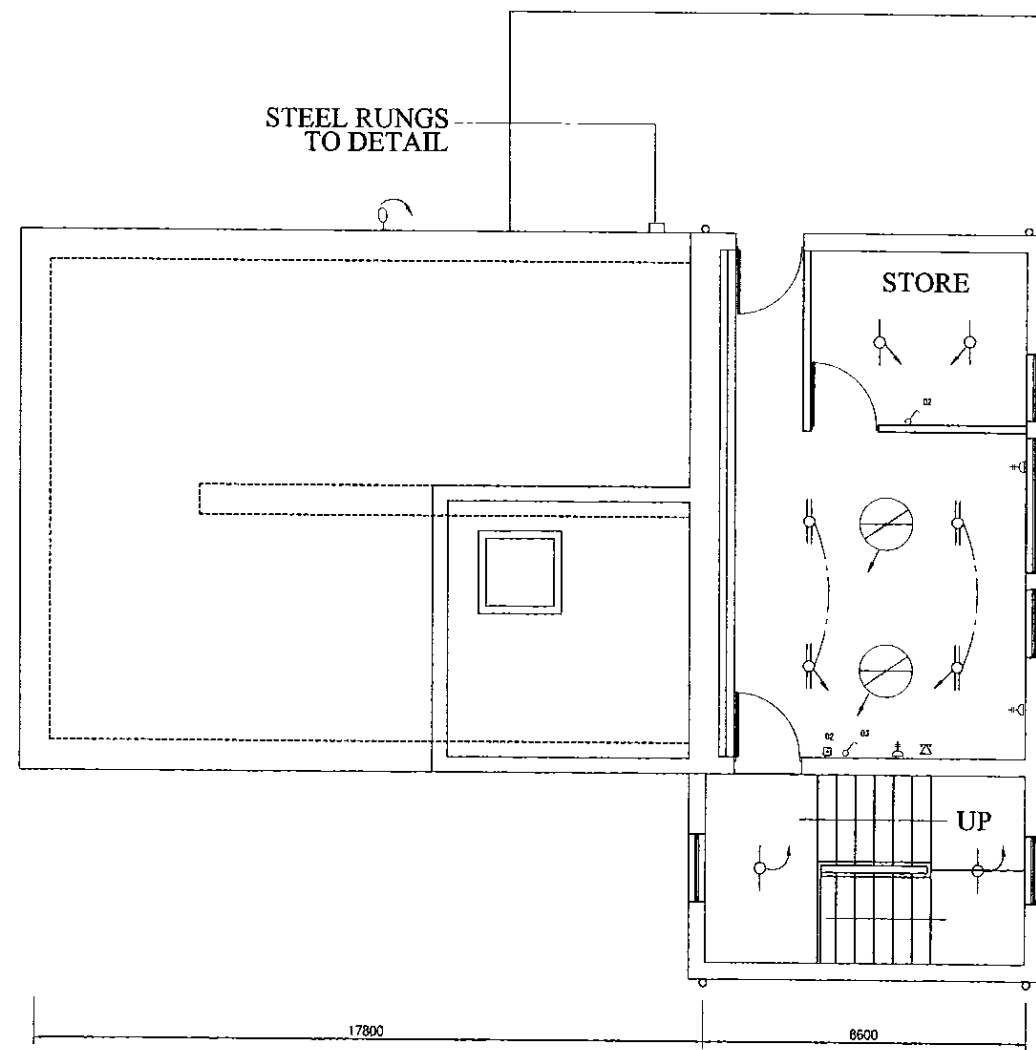
TITLE: HEERASAGALA LOW PUMP STATION- DETAILS OF DOORS AND WINDOWS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

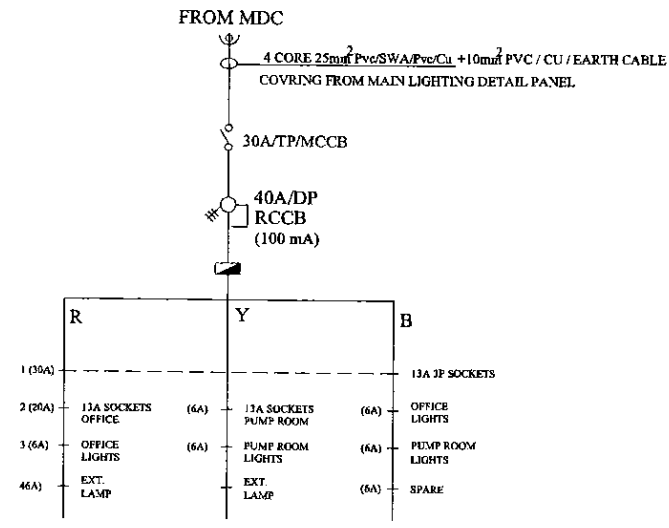
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX	Shigenori OGAWA	Poorna	Ikuo MIWA		1 : 50
				CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-20-02

DATE: 17/07/2001



TOP PLAN



DISTRIBUTION DIAGRAM

LEGEND (Electrical)

- 1x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- ⊗ 250 Watt METAL HALIDE HI-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER (IP Rating - IP 65)
- ⊗ 250 Watt METAL HALIDE WIDE ANGLE, WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION (IP Rating - IP 65)
- ⊗ 600 x 600mm FLUORESCENT FITTING 3x18 Watt, HFF TYPE WITH ACRYLIC DIFFUSER
- ⊗ 8 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
- WALL BRACKET LAMP FITTING c/w 18 Watt CFL, 0400mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET (IP Rating - IP 65)
- ⬇ DOWN LIGHT
- 1x36 Watt x 1200mm
- ⊙ PENDANT LAMP WITH 18 Watt CFL
- ⊙ 13A SPNFC SWITCHED SOCKET OUTLET (PFL + AS SHOWN)
- ⊙ 32A TYPNFC SWITCHED SOCKET OUTLET (PFL + AS SHOWN)
- 125W MERCURY VAPOR CONRA HEAD TYPE OUT DOOR LAMP
- ONE WAY SWITCH (PFL + 1.5)
- TWO WAY SWITCH (PFL + 1.5)
- ⊠ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
- ⊠ TELEPHONE SOCKET OUTLET
- 1400mm CEILING FAN
- ⊠ FAN REGULATOR (PFL + 1.5)
- EXHAUST FAN

LEGEND (Fire)

- 6Kg DRY POWDER EXTINGUISHER
- ⊠ 2Kg CARBONDIOXIDE EXTINGUISHER

NOTE:

01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

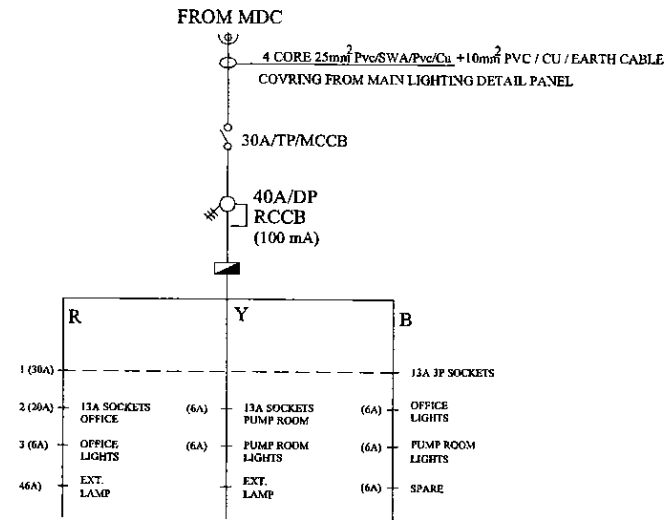
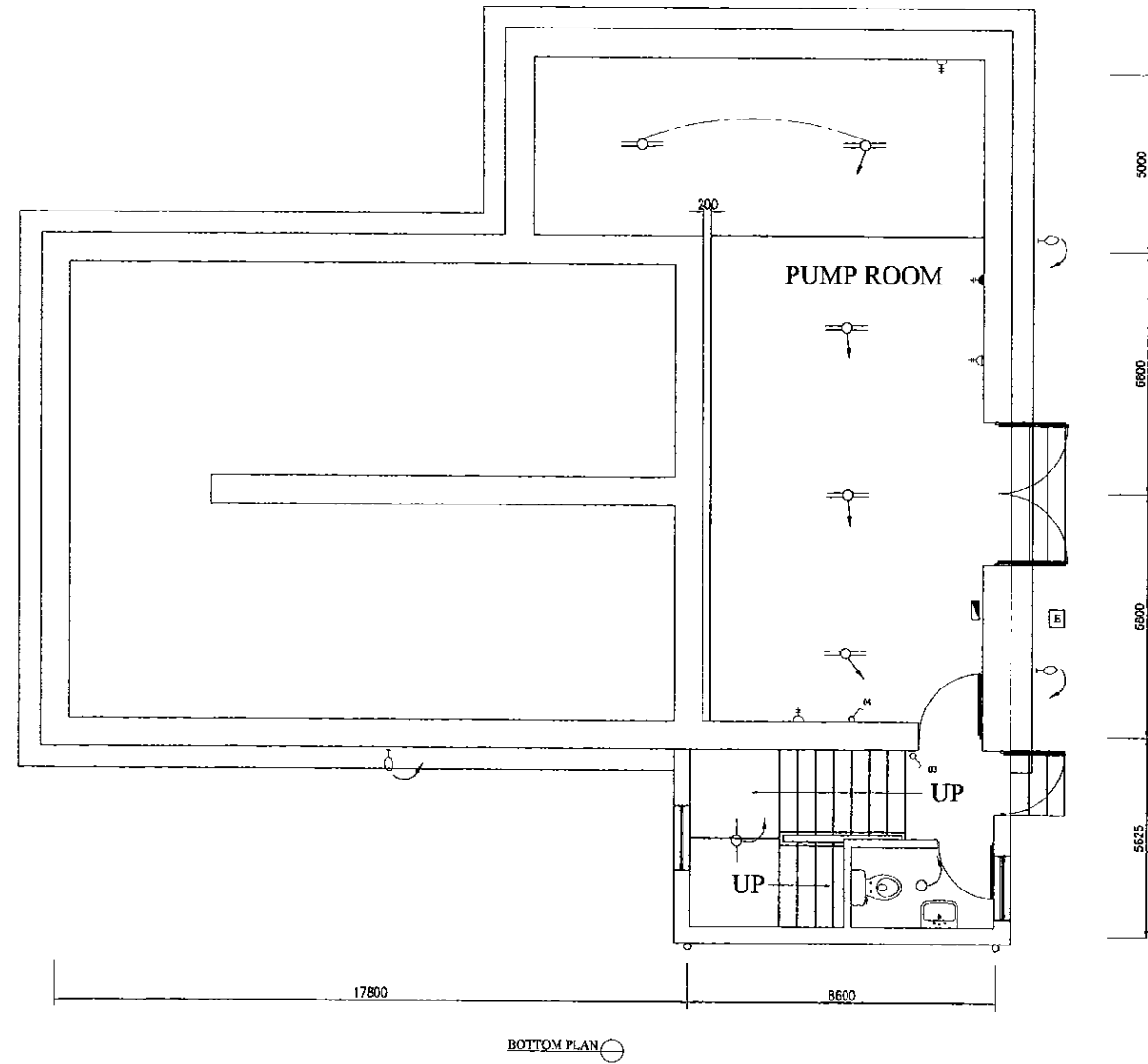
TITLE: HEERASSAGALA LOW PUMP STATION ELECTRICAL LAYOUT

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)	CE: (P&D)	SCALE:
					Lakmal	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-A-20-21

DATE: 17/07/2001



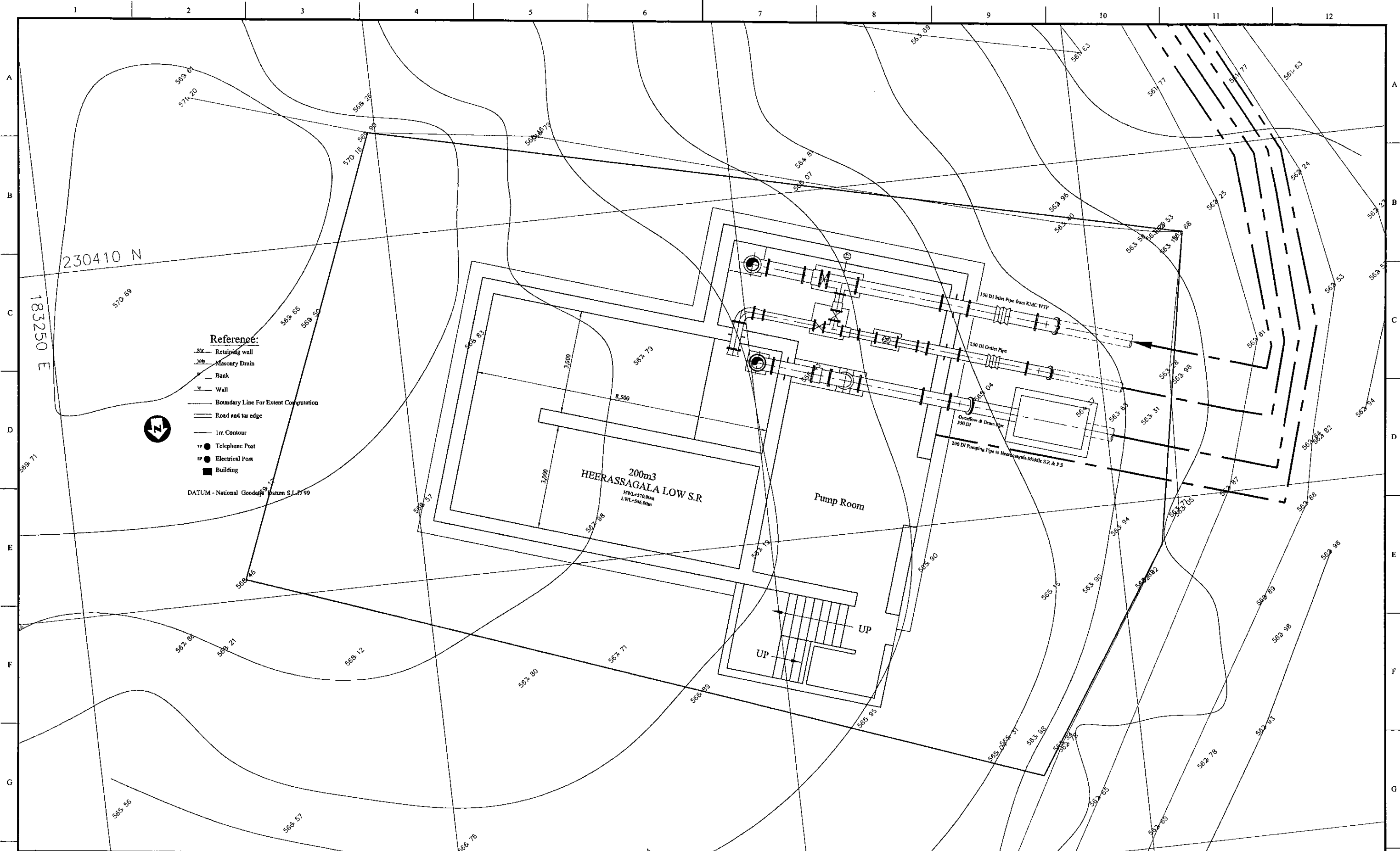
- LEGEND (Electrical)**
- 1x36 Watt x 1200mm FLUORESCENT FITTING, IPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - ⊖ 2x36 Watt x 1200mm FLUORESCENT FITTING, IPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - ⊗ 250 Watt METAL HALIDE 4B-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER. (IP Rating - IP 65)
  - ⊕ 250 Watt METAL HALIDE WIDE ANGLE, WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION. (IP Rating - IP 65)
  - ⊠ 600 x 600mm FLUORESCENT FITTING 3x18 Watt, IPF TYPE WITH ACRYLIC DIFFUSER.
  - ⊞ 8 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
  - ⊙ WALL BRACKET LAMP FITTING c/w 18 Watt CFL, Ø100mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET. (IP Rating - IP 65)
  - ⬇ DOWN LIGHT
  - ⊖ 1x36 Watt x 1200mm
  - ⊙ PENDANT LAMP WITH 18 Watt CFL
  - ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FPL + AS SHOWN)
  - ⊕ 32A TPNE SWITCHED SOCKET OUTLET (FPL + AS SHOWN)
  - ⊖ 125W MERCURY VAPOR COBRA HEAD TYPE OUT DOOR LAMP
  - ⊖ ONE WAY SWITCH (FPL + 1.5)
  - ⊖ TWO WAY SWITCH (FPL + 1.5)
  - ⊞ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
  - ⊞ TELEPHONE SOCKET OUTLET
  - ⊖ 1400mm CEILING FAN
  - ⊞ FAN REGULATOR (FPL + 1.5)
  - ⊖ EXHAUST FAN
- LEGEND (Fire)**
- ⊖ 6Kg DRY POWDER EXTINGUISHER
  - ⊖ 2Kg CARBONDIOXIDE EXTINGUISHER

**NOTE :**

01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

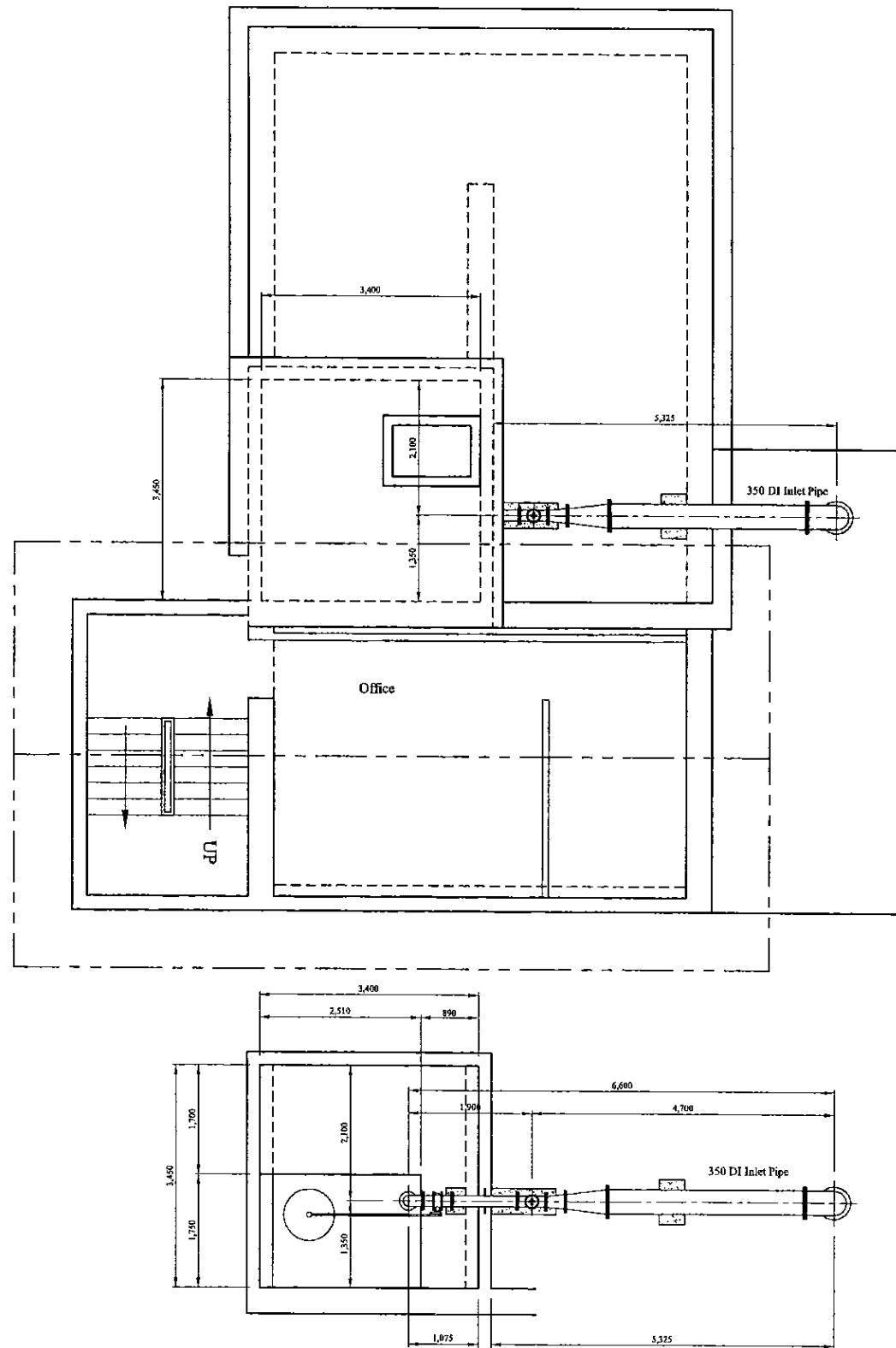
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: HEERASSAGALA LOW PUMP STATION ELECTRICAL LAYOUT									
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN: Lakaml	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100	
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-20-22	
								DESIGN CHIEF					

DATE: 17/07/2001 W:amk

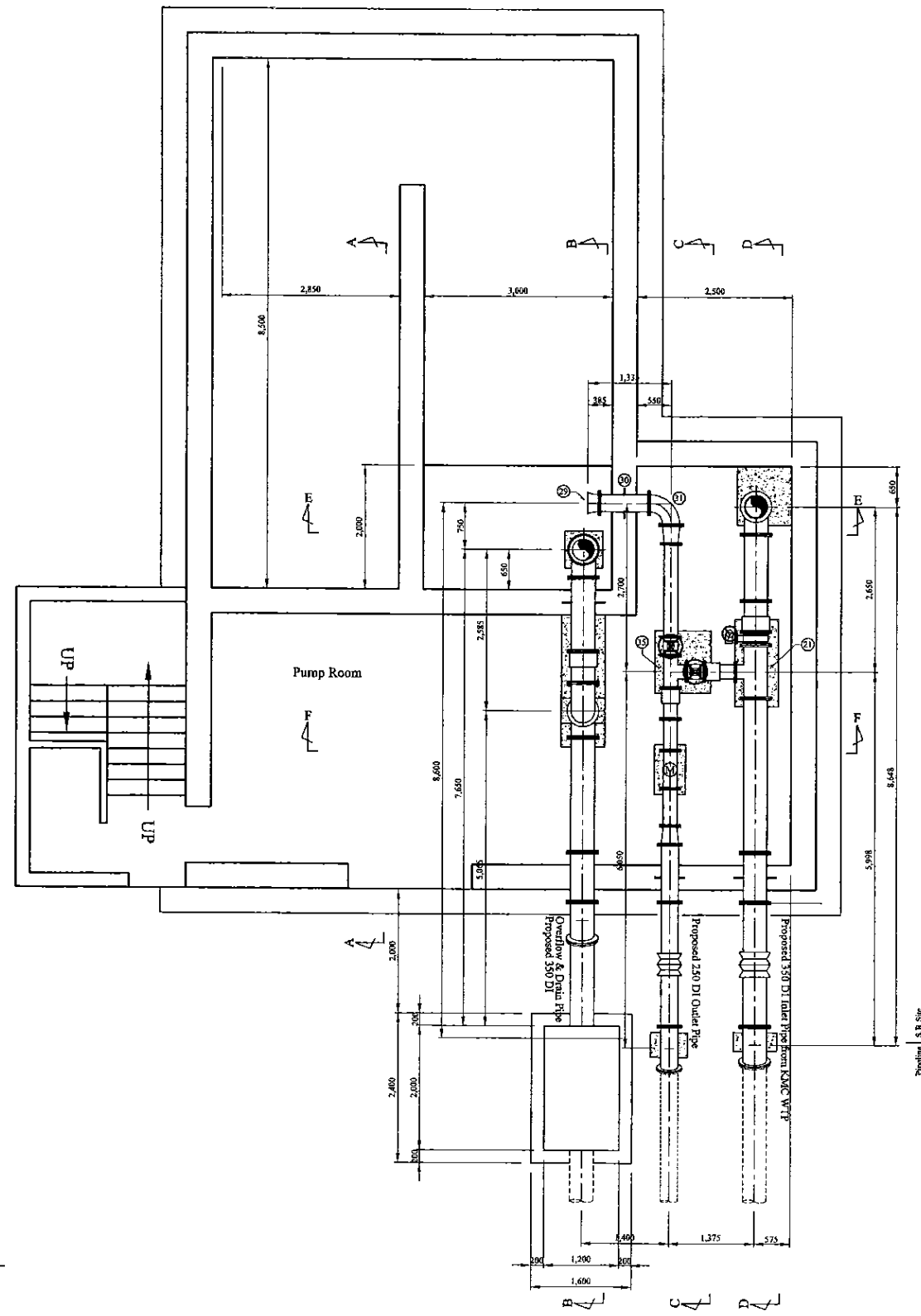


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF 200m <sup>3</sup> HEERASSAGALA LOW S.R. & P.S.								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-20-01
								DESIGN CHIEF				

\* Contractor should provide concrete and/or metal pipe support.



Pipe Layout



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF HEERASSAGALA LOW S.R & P.S PIPE LAYOUT - 1

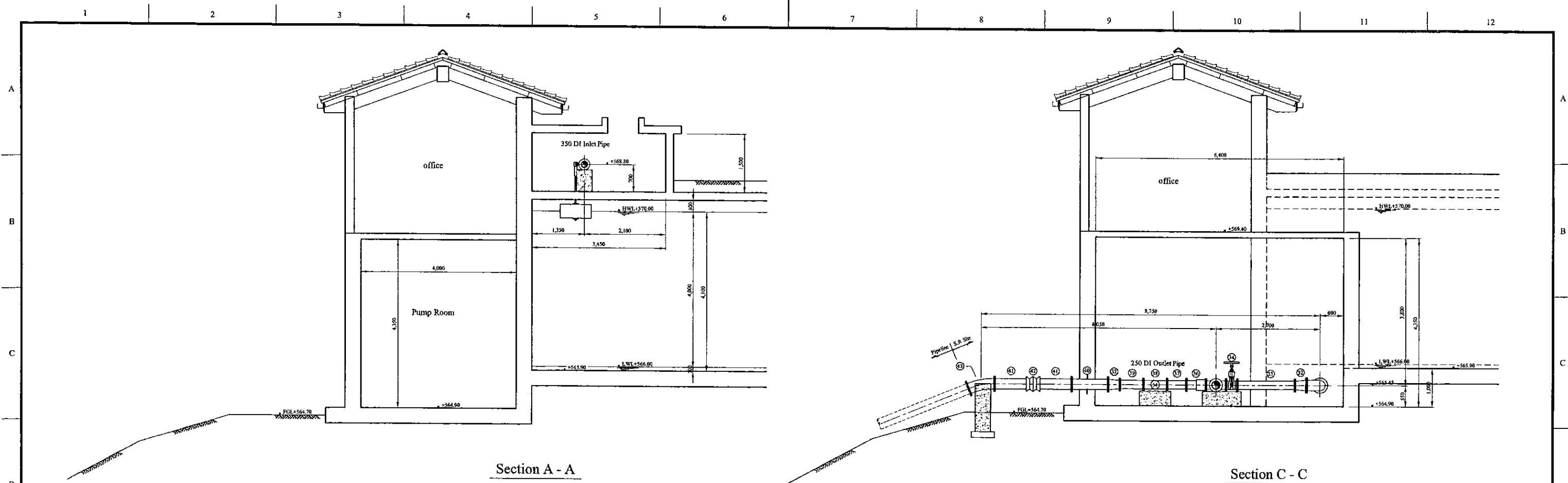
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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

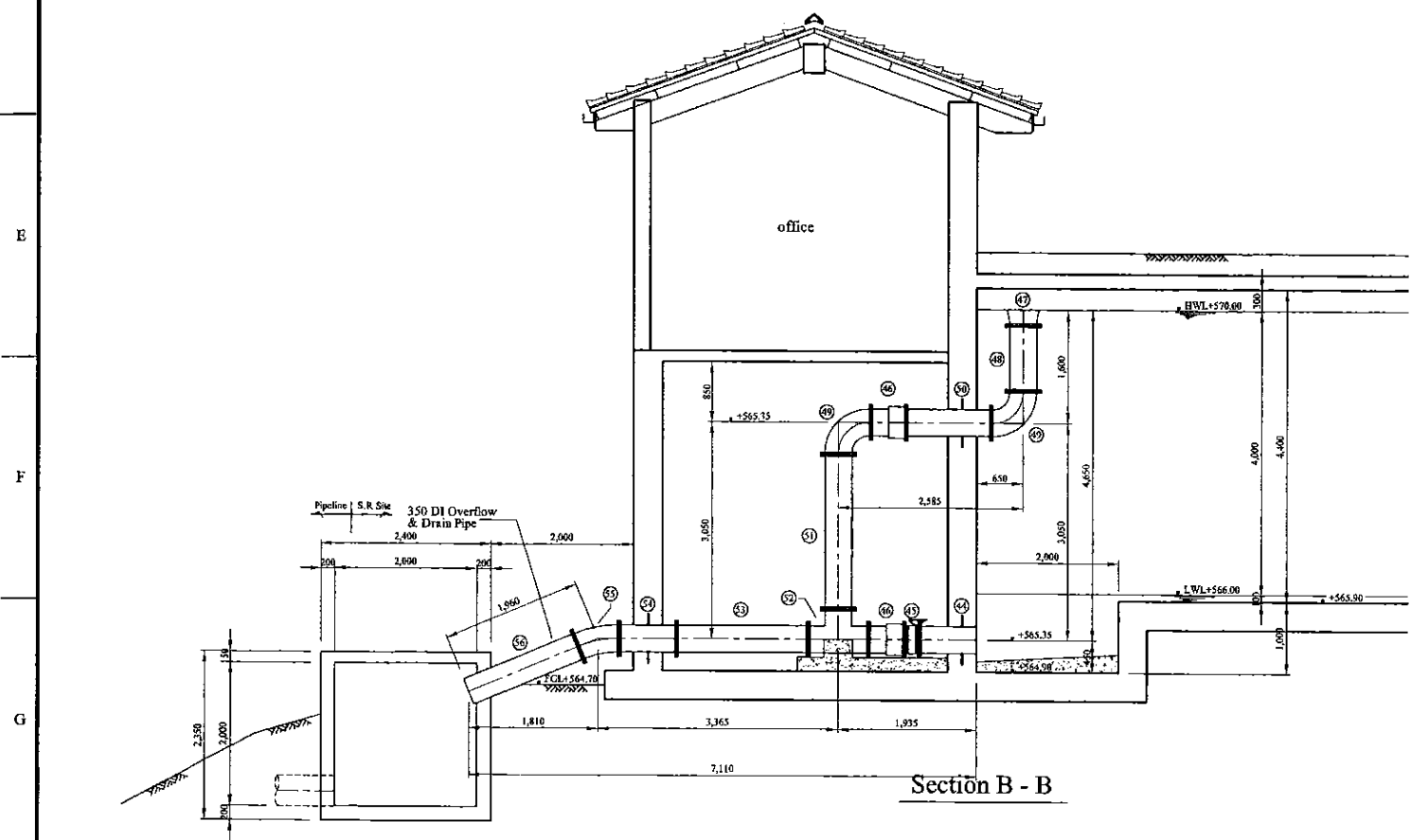


REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
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				DESIGN CHIEF			31/05/2002	31-C-20-02

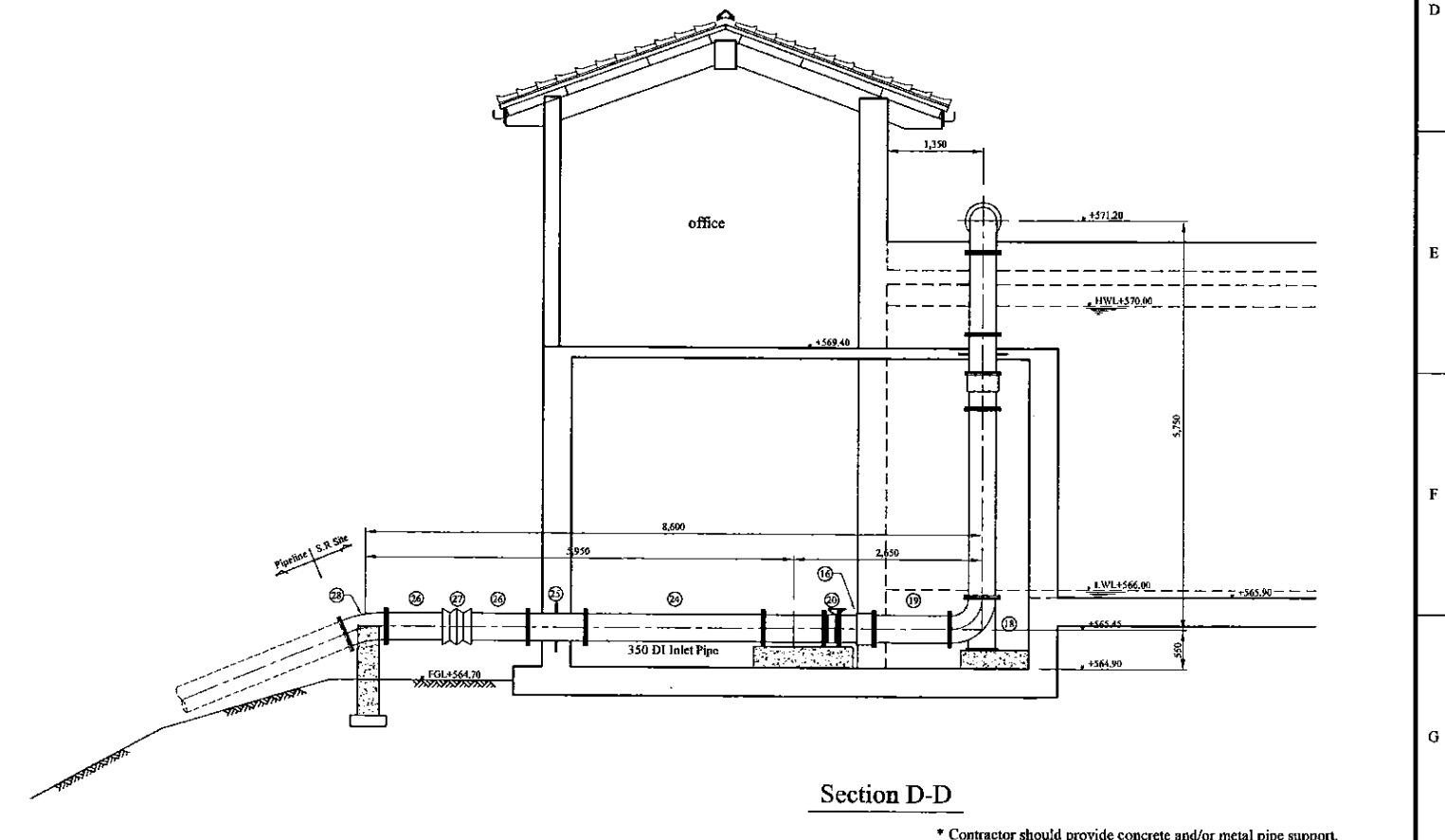


Section A - A

Section C - C



Section B - B



Section D - D

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



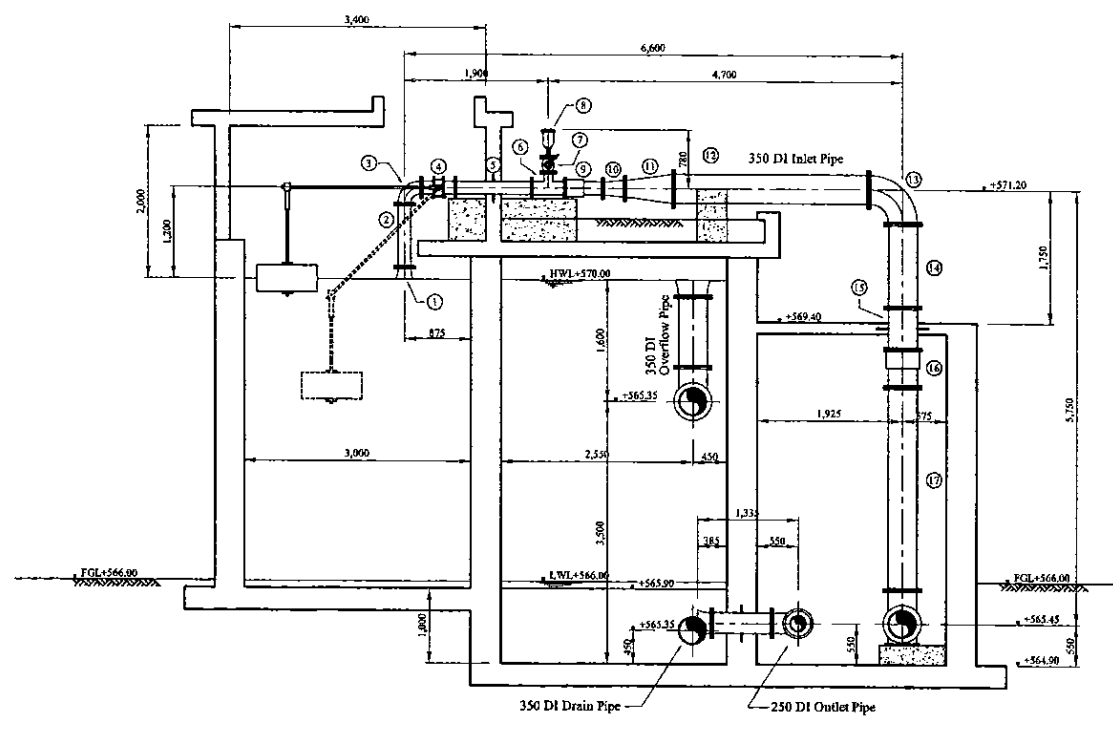
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF HEERASSAGALA LOW S.R & P.S PIPE LAYOUT - 2

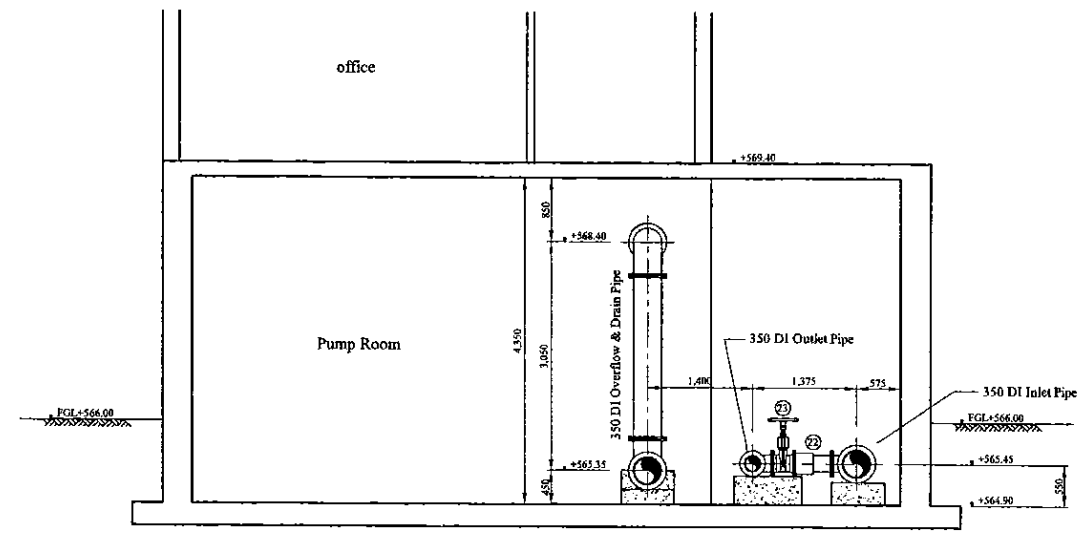
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-20-03



Section E - E



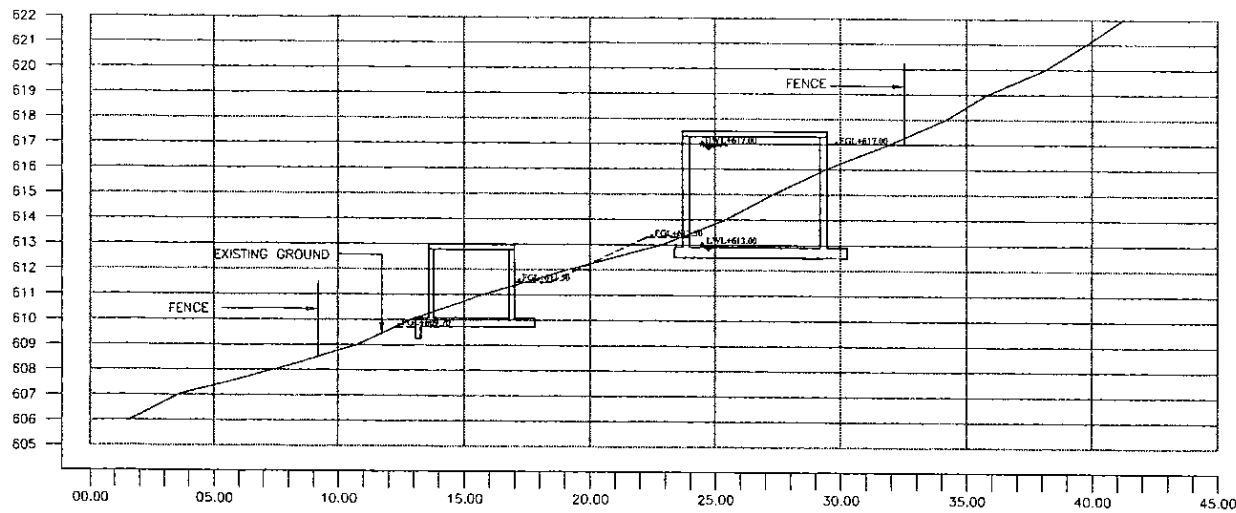
Section F - F

Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	150	L=150mm	PN10	1
2	Double Flanged Piece	DI	150	L=830mm	PN10	1
3	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
4	Butterfly Float Valve	SUS	150	L=450mm	PN10	1
5	Double Flanged Piece with Puddle	DI	150	L=1,010mm	PN10	1
6	All Flanged 150 x 100 Tee	DI	150x100	L=440x210mm	PN10	1
7	Ball Valve	DI	100	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	100	L=370mm	PN10	1
9	Flange Adapter (DF)	DI	150	L=500mm	PN10	2
10	Double Flanged 200 x 150 Taper	DI	200x150	L=300mm	PN10	1
11	Double Flanged 350 x 200 Taper	DI	350x200	L=650mm	PN10	1
12	Double Flanged 90 degree Bend	DI	350	L=450mm x 2	PN10	1
13	Double Flanged Piece	DI	350	L=3,080mm	PN10	1
14	Double Flanged Piece	DI	350	L=1,100mm	PN10	1
15	Double Flanged Piece with Puddle	DI	350	L=550mm	PN10	1
16	Flange Adapter (DF)	DI	350	L=500mm	PN10	2
17	Double Flanged Piece	DI	350	L=2,700mm	PN10	1
18	Double Flanged 90 degree Duckfoot Bend	DI	350	L=450mm x 2	PN10	1
19	Double Flanged Piece	DI	350	L=1,000mm	PN10	1
20	Butterfly Valve	DI	350	L=210mm	PN10	1
21	All Flanged 350 x 200 Tee	DI	350x200	L=850x325mm	PN10	1
22	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
23	Sluice Valve	DI	200	L=290mm	PN10	1
24	Double Flanged Piece	DI	350	L=2,475mm	PN10	1
25	Double Flanged Piece with Puddle	DI	350	L=800mm	PN10	1
26	Flanged Spigot Piece	DI	350	L=1,000mm	PN10, Type-T	2
27	Collar	DI	350		Type-K	1
28	Double Flanged 22.5 degree Bend	DI	350	L=298mm x 2	PN10	1
29	Flanged Bellmouth	DI	250	L=185mm	PN10	1
30	Double Flanged Piece with Puddle	DI	250	L=800mm	PN10	1
31	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	1
32	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
33	Double Flanged Piece	DI	200	L=1,500mm	PN10	1
34	Sluice Valve	DI	200	L=290mm	PN10	1
35	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
36	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
37	Double Flanged Piece	DI	200	L=500mm	PN10	1
38	Flow Meter	DI	200	L=610mm	PN10	1
39	Double Flanged Piece	DI	200	L=600mm	PN10	1
40	Double Flanged Piece with Puddle	DI	250	L=980mm	PN10	1
41	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	2
42	Collar	DI	250		Type-K	1
43	Double Flanged 22.5 degree Bend	DI	250	L=350mm x 2	PN10	1
44	Flanged Spigot Piece with Puddle	DI	350	L=800mm	PN10, Type-T	1
45	Butterfly Valve	DI	350	L=210mm	PN10	1
46	Flange Adapter (DF)	DI	350	L=500mm	PN10	2
47	Flanged Bellmouth	DI	350	L=220mm	PN10	1
48	Socket Plain End Piece	DI	350	L=930mm	PN10	1
49	Double Flanged 90 degree Bend	DI	350	L=450mm x 2	PN10	2
50	Double Flanged Piece with Puddle	DI	350	L=1,185mm	PN10	1
51	Double Flanged Piece	DI	350	L=2,175mm	PN10	1
52	All Flanged 350 x 350 Tee	DI	350x350	L=850x425mm	PN10	1
53	Double Flanged Piece	DI	350	L=1,840mm	PN10	1
54	Double Flanged Piece with Puddle	DI	350	L=800mm	PN10	1
55	Double Flanged 22.5 degree Bend	DI	350	L=298mm x 2	PN10	1
56	Flanged Spigot Piece	DI	350	L=1,660mm	PN10, Type-T	1

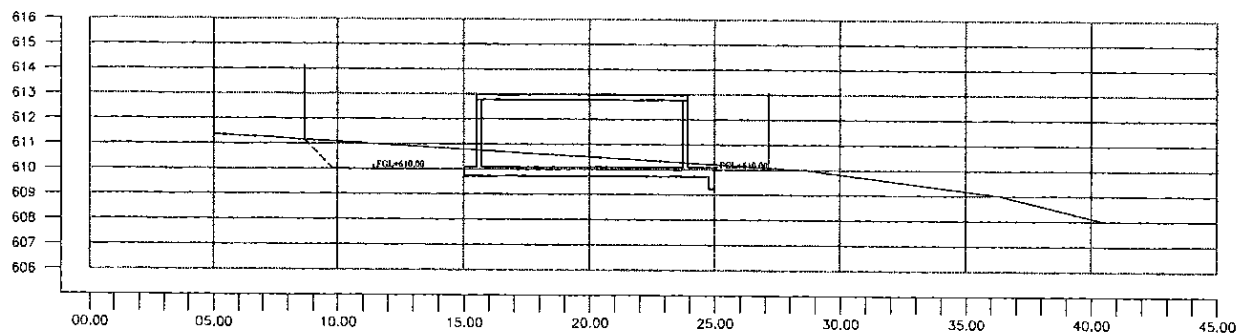
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HEERASSAGALA LOW S.R & P.S PIPE LAYOUT - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-20-04

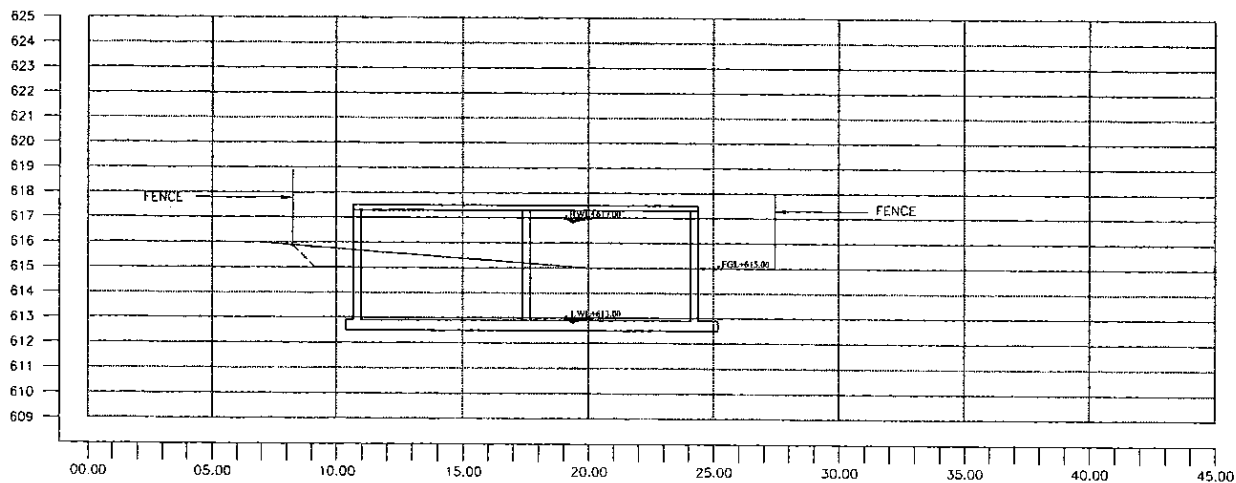




SECTION A - A  
1:150



SECTION B - B  
1:150



SECTION C - C  
1:150



- Reference:
- WF Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - 1m Contour
  - TP Telephone Post
  - EP Electrical Post
  - St Stake
  - BH Stake
  - DATUM - National Geodetic Datum S.I.D.99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF 250m3 HEERESSAGALE MIDDLE S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

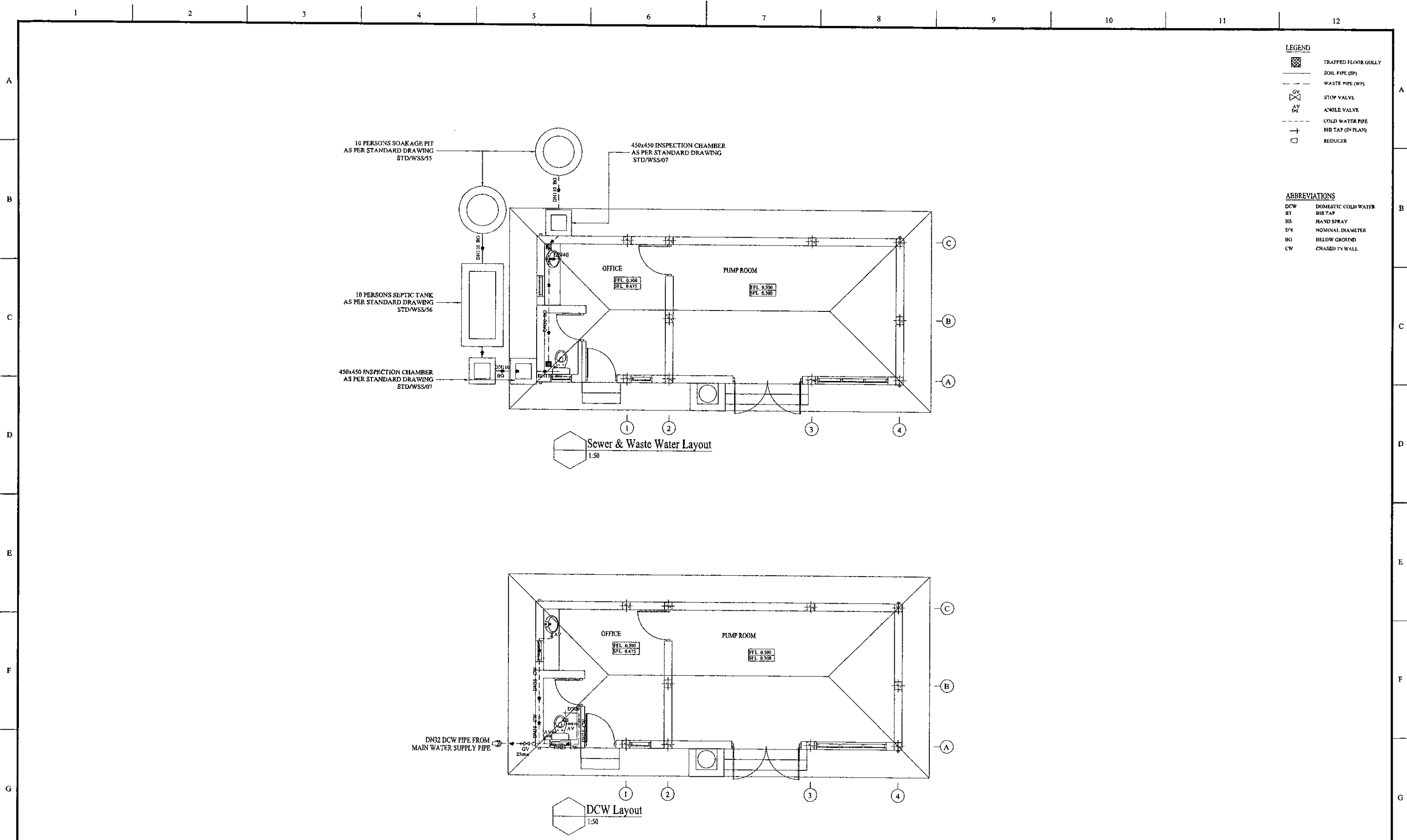


NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-21-01



**LEGEND**

	TRAPPED FLOOR GULLY
	SOIL PIPE (SP)
	WASTE PIPE (WP)
	STOP VALVE
	ANGLE VALVE
	COLD WATER PIPE
	BIB TAP (IN PLAN)
	REDUCER

**ABBREVIATIONS**

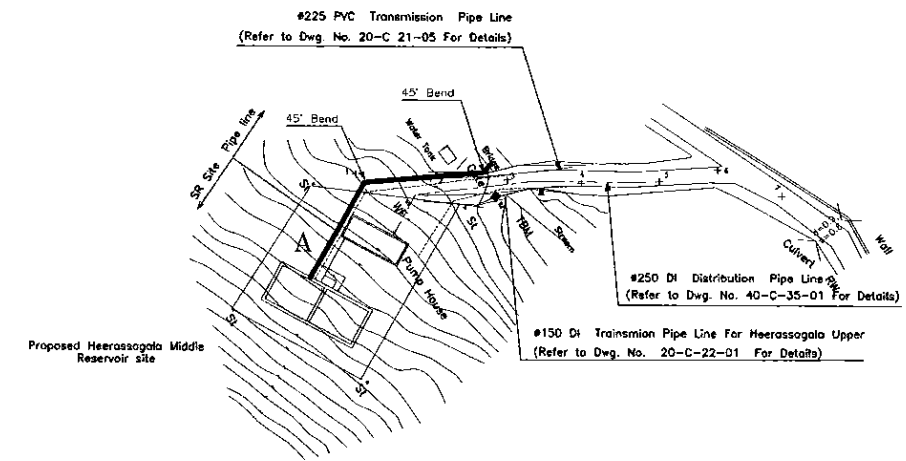
DCW	DOMESTIC COLD WATER
BT	BIB TAP
HS	HAND SPRAY
DN	NOMINAL DIAMETER
BG	BELOW GROUND
CW	CHASED IN WALL

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: HEERASAGALA MIDDLE PUMP STATION DCW, SEWER & WASTE WATER LAYOUT								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: D.H.V.	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
		NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN						CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-21-02

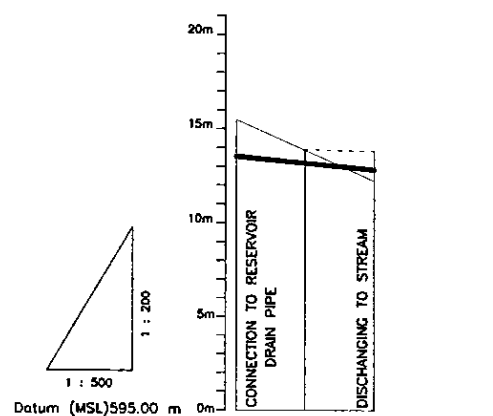


**Legend**

SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AWA	Air Valve
TP	Telecom Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Level Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
RW	Raising Wall
Md	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
ØDia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant

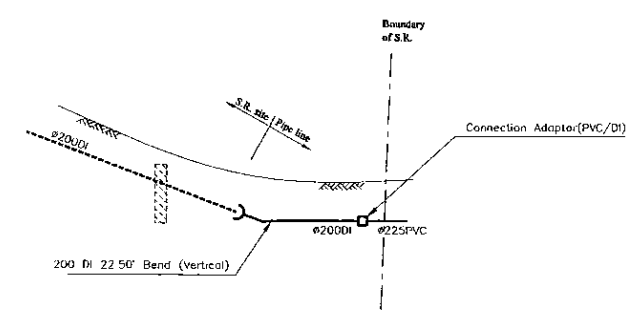


**GENERAL LAYOUT**



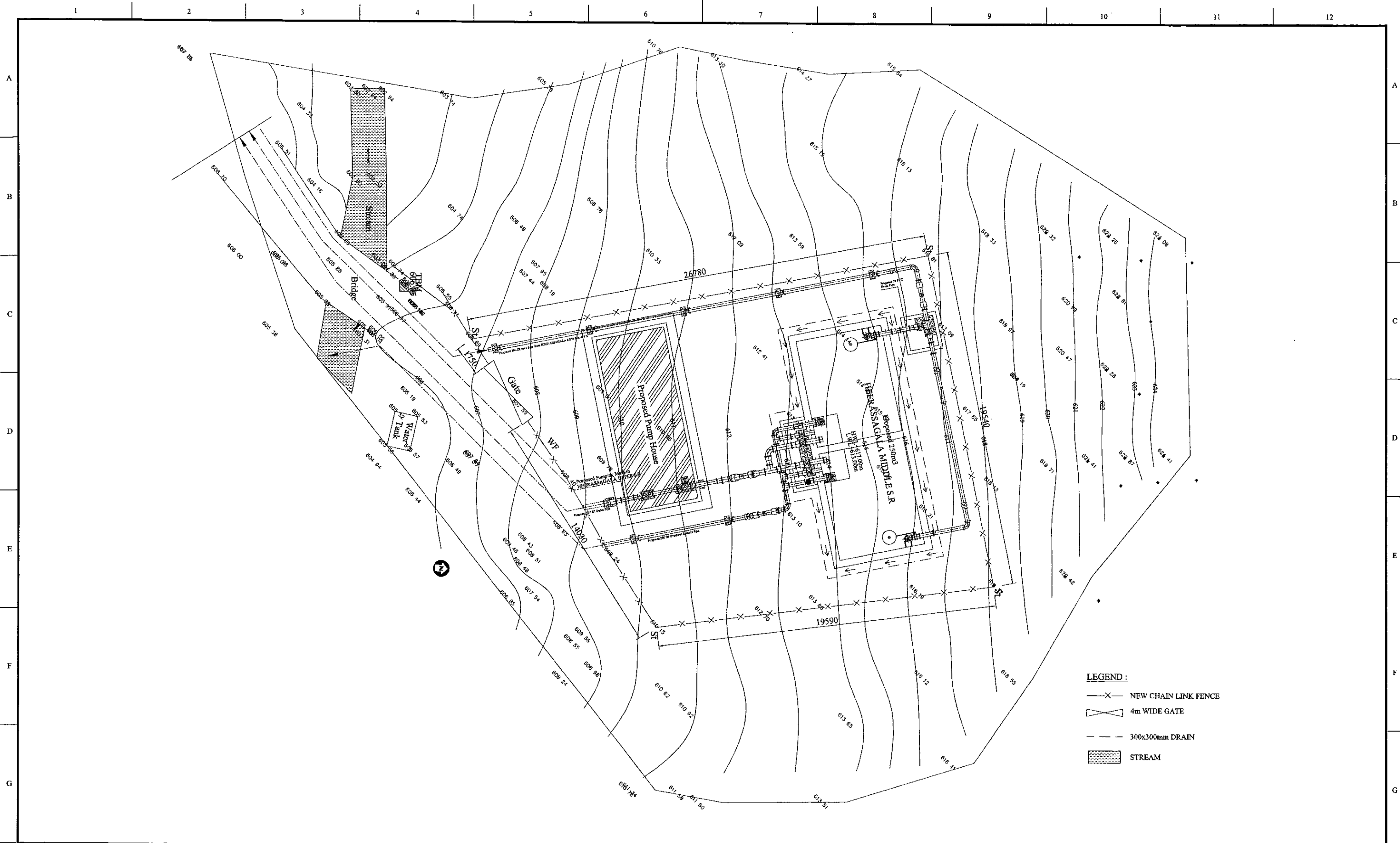
Datum (MSL)	595.00 m		
Ground Level (m)	610.50	608.89	607.27
Pipe Invert Level (m) (Pipe thickness to be assumed negligible)	608.25	608.20	608.10
Pipe Data	# 225 PVC RUBBER RING JOINT		
Single Distance (m)	0.00	9.17	9.17
Cumulative Distance (m)	0.00	9.17	18.34
Station No.	1	2	3

**LONGITUDINAL SECTION**



**PIPE CONNECTION DETAIL - A**

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WASH OUT FROM HEERASSAGALA MIDDLE S.R.					SHEET 01 OF 01			
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-21-03




PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **250m2 HEERASSAGALA MIDDLE S.R. AND P.S. LANDSCAPING LAYOUT**

CLIENT:



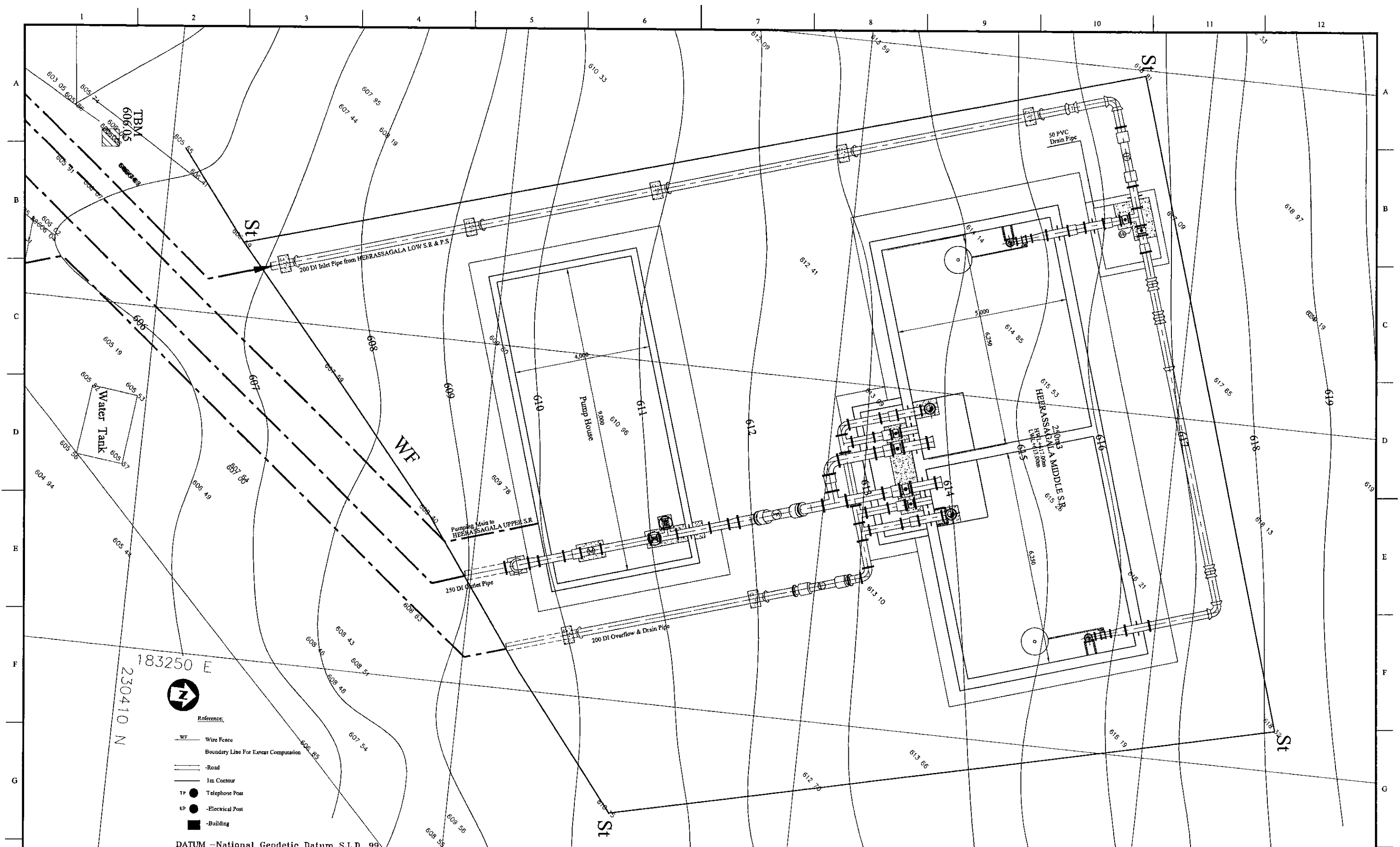
**NATIONAL WATER SUPPLY & DRAINAGE BOARD**

CONSULTANTS:



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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	POORNA	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-21-04



- Reference:
- WF Wire Fence
  - Boundary Line For Easement Computation
  - Road
  - Im Contour
  - TP ● Telephone Post
  - EP ● Electrical Post
  - Building



DATUM - National Geodetic Datum S.L.D. 99

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **HEERASSAGALA MIDDLE SERVICE RESERVOIR AND PUMPING STATIN SITE PLAN**

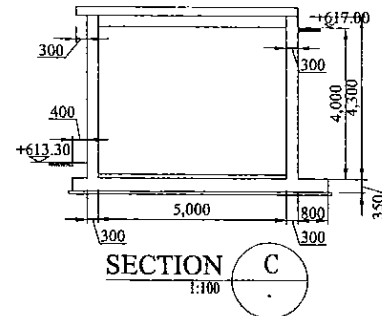
CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

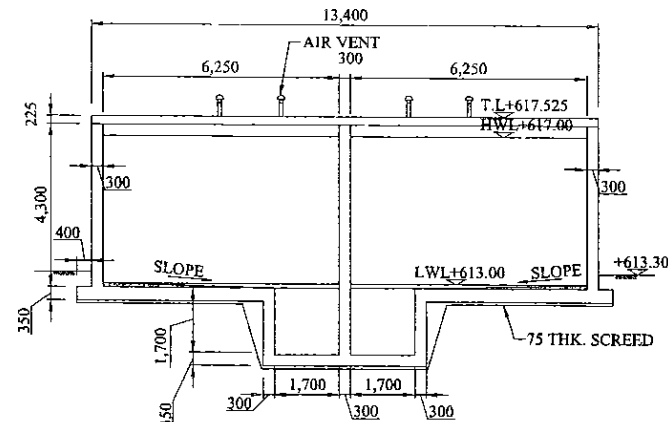
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-21-01

**NOTES**

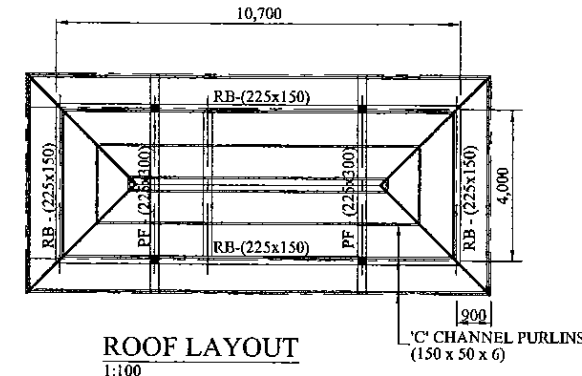
1. WATER BARS TO BE PROVIDED WHERE NECESSARY BEFORE CONSTRUCTION OF WALLS.
2. ALL INTERNAL WALLS TO BE WATER PROOFED.



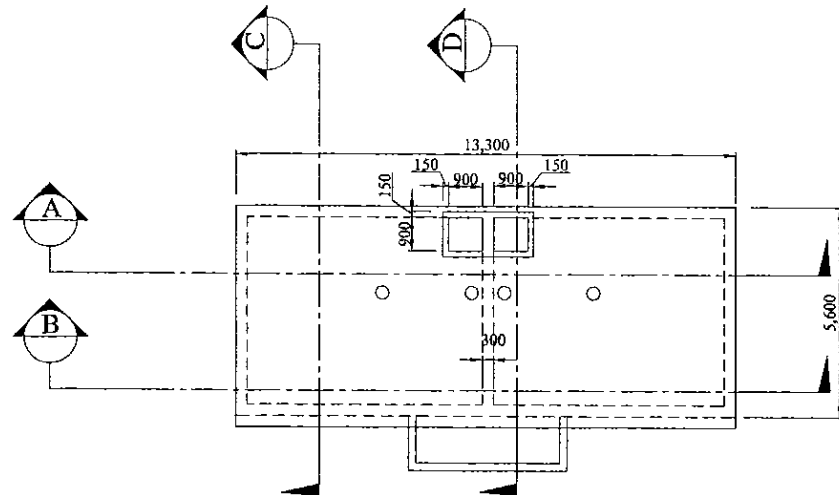
**SECTION C**  
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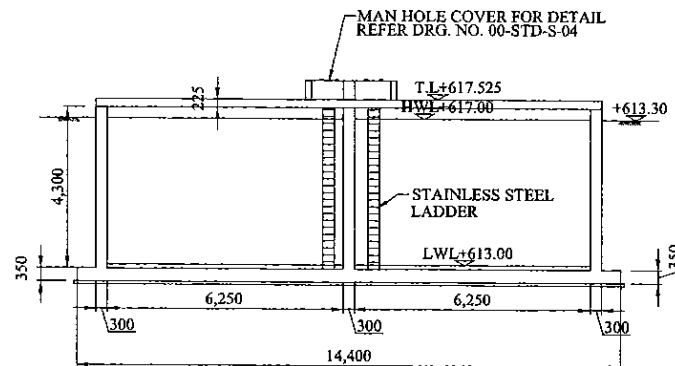
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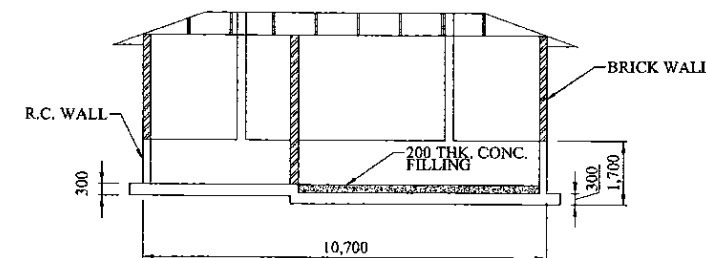
**ROOF LAYOUT**  
1:100



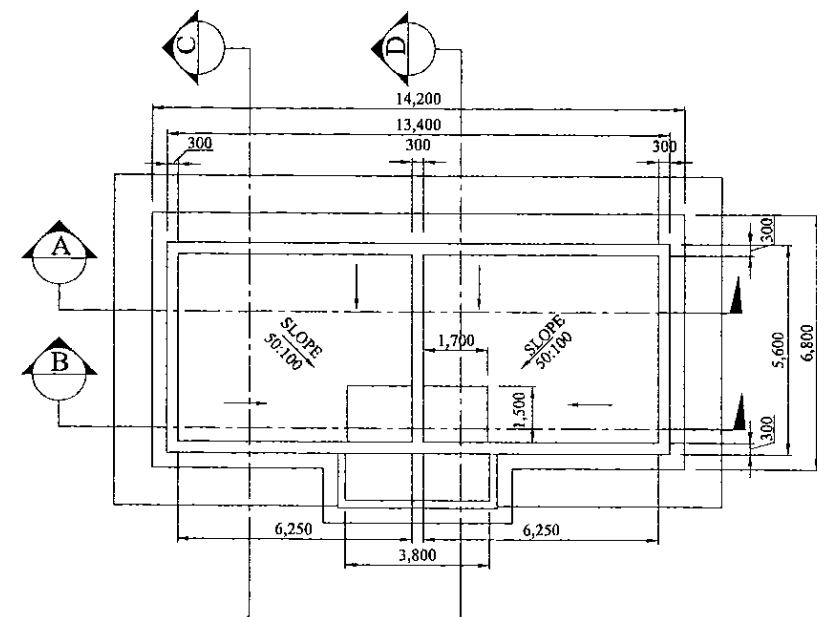
**TOP SLAB PLAN**  
1:100



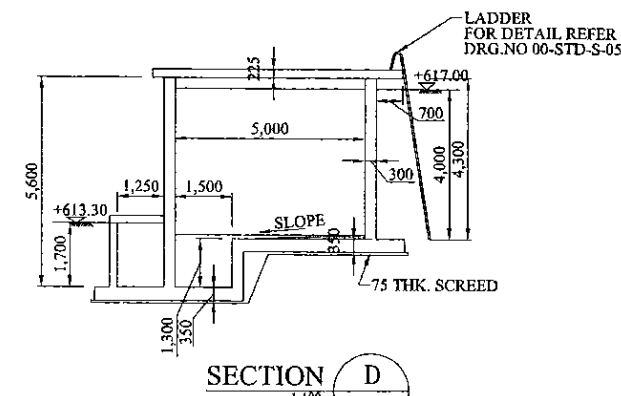
**SECTION A**  
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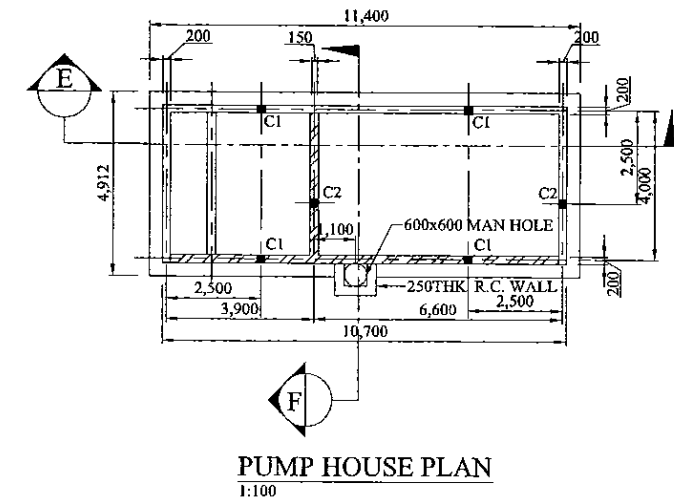
**SECTION E**  
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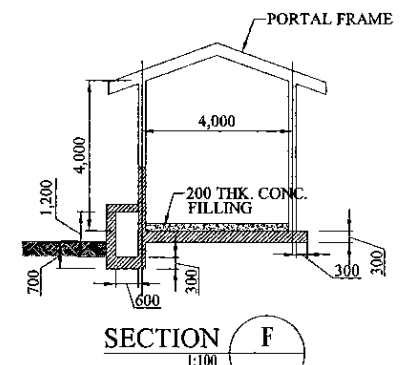
**BOTTM SLAB PLAN**  
1:100



**SECTION D**  
1:100



**PUMP HOUSE PLAN**  
1:100



**SECTION F**  
1:100

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

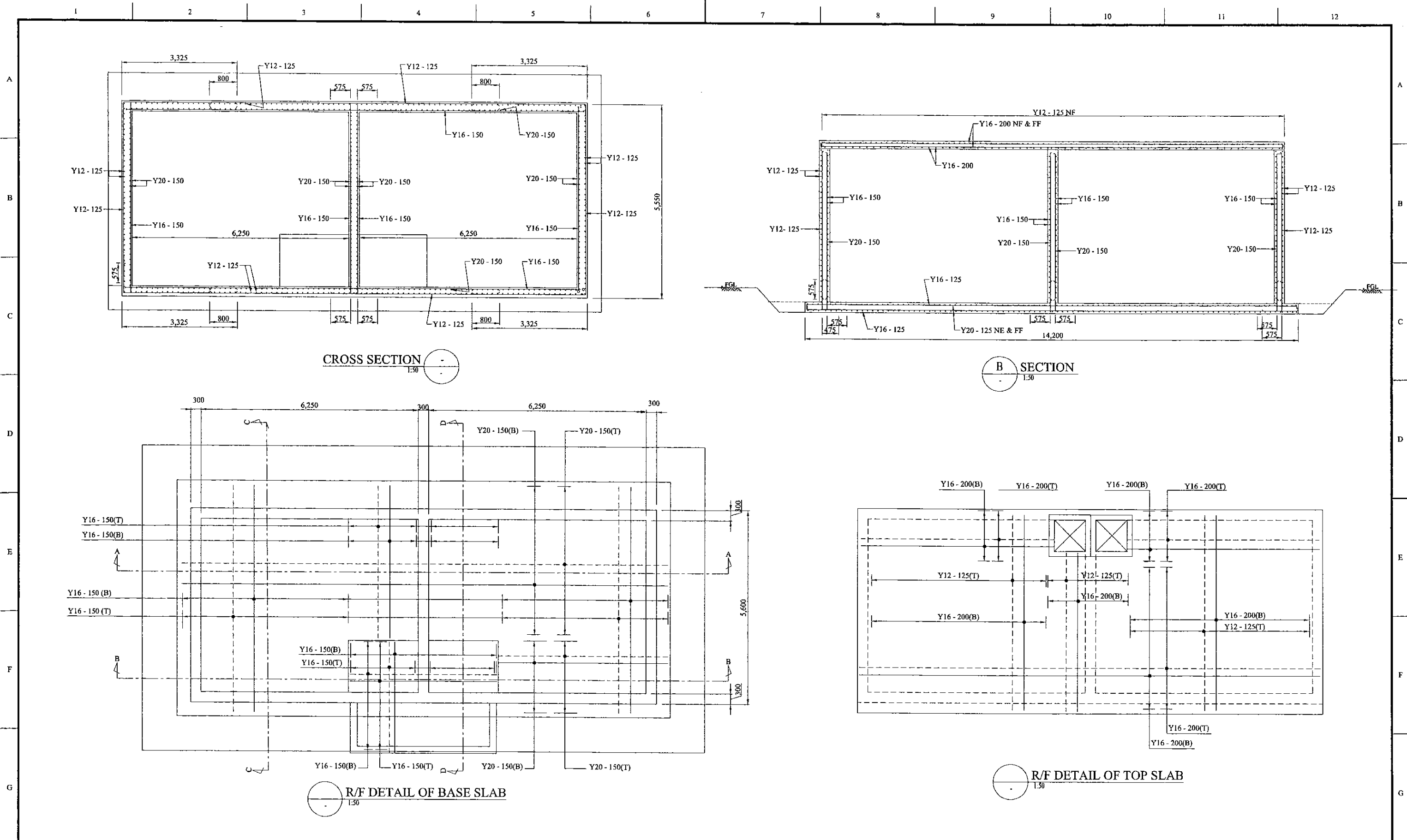
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **HEERASSAGALA MIDDLE PUMP STATION AND SERVICE RESERVOIR GENERAL ARRANGEMENT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002.	DRAWING NO.: 30-S-21-02



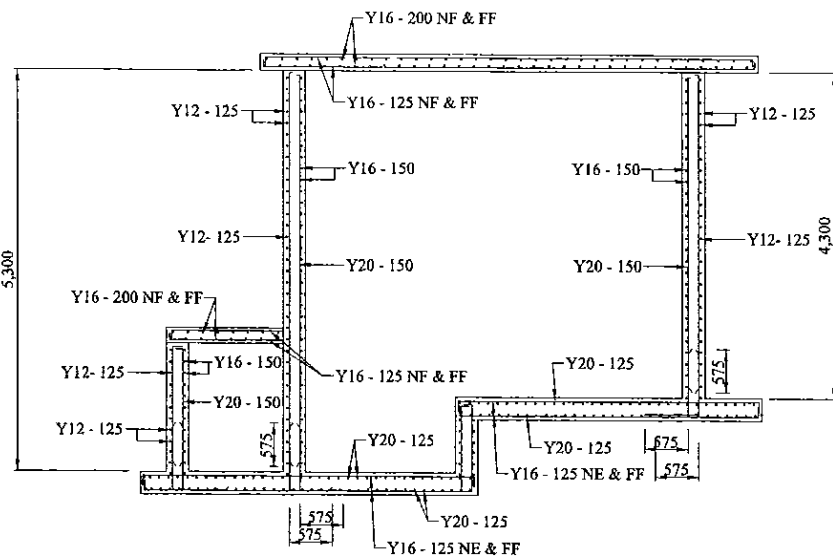
CROSS SECTION  
1:30

B SECTION  
1:30

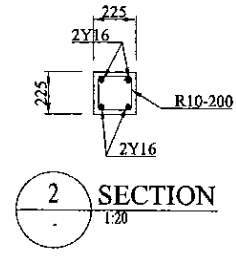
R/F DETAIL OF BASE SLAB  
1:30

R/F DETAIL OF TOP SLAB  
1:30

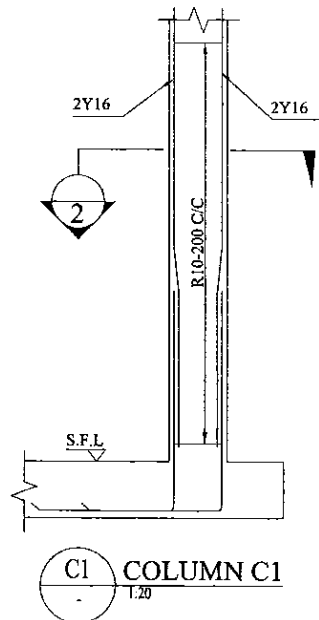
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>HEERASSAGALA MIDDLE PUMP STATION AND SERVICE RESERVOIR R/F DETAILS OF TOP SLAB, BOTTOM SLAB &amp; SECTIONS</b>													
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr> <td>XX</td> <td>XXXXX</td> <td>00/00/00</td> <td>XXX</td> </tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.	XX	XXXXX	00/00/00	XXX	DESIGNED: L. JAYAWARDENA	DRAWN: SAMANPALI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
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XX	XXXXX	00/00/00	XXX														
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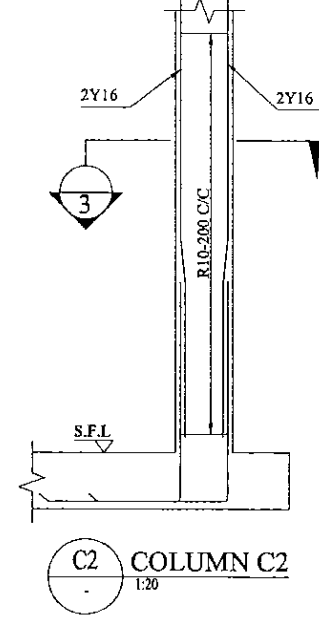
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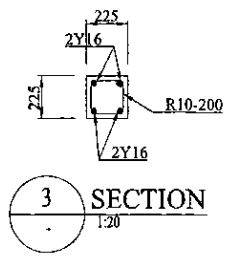
2 SECTION  
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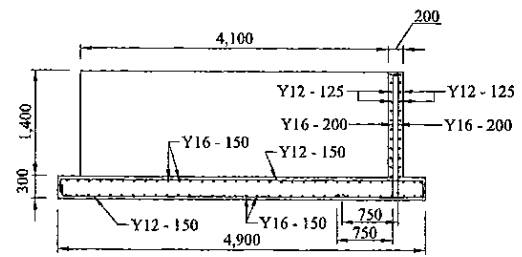
C1 COLUMN C1  
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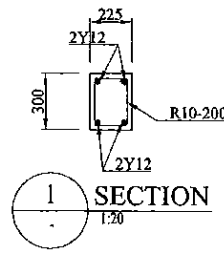
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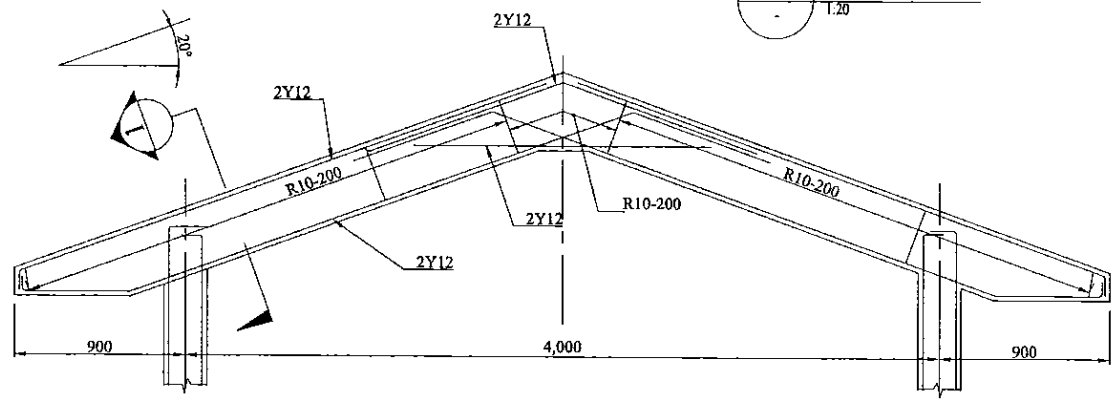
3 SECTION  
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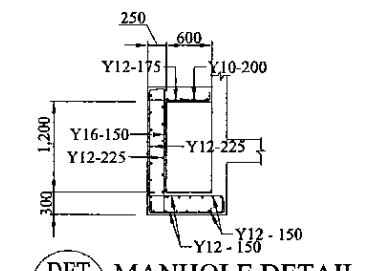
E SECTION  
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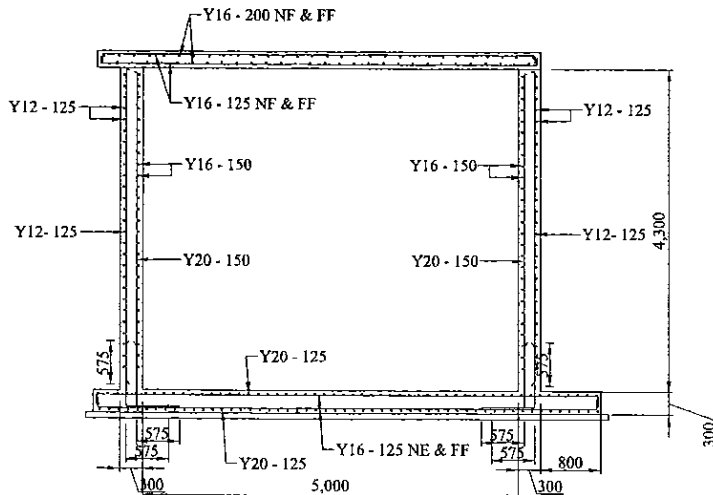
1 SECTION  
1:20



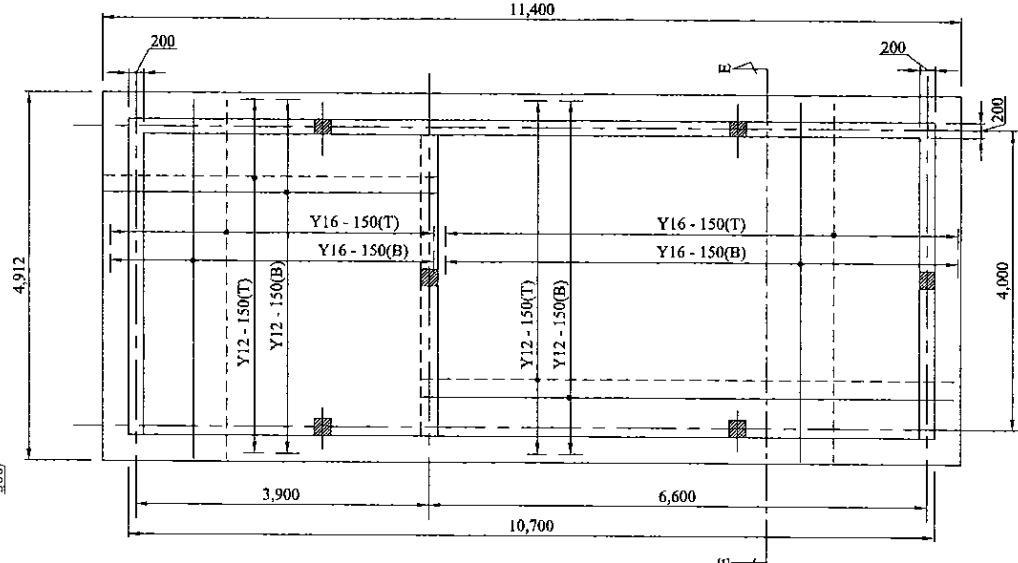
R/F DETAIL OF PORTAL FRAME - PF  
1:20



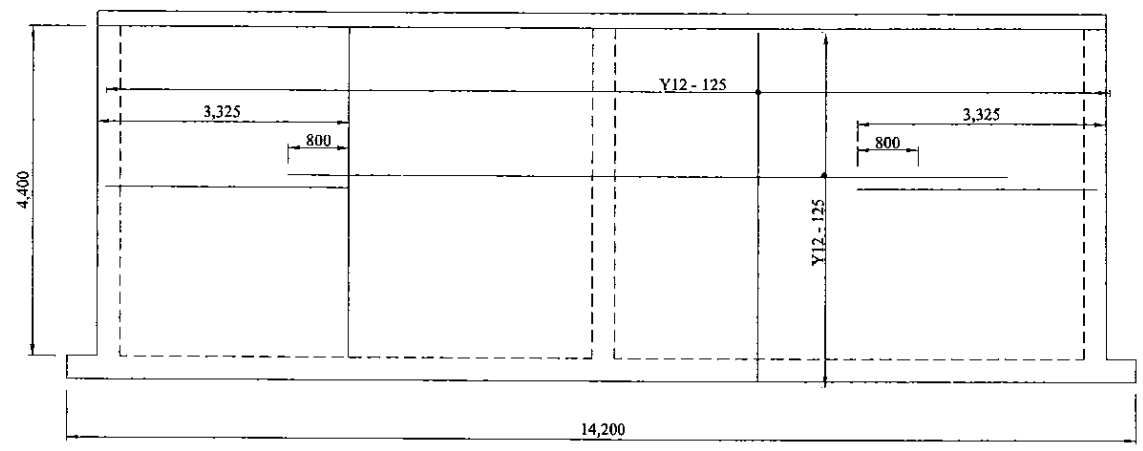
DET MANHOLE DETAIL  
1:50



C SECTION  
1:30



PUMP HOUSE - R/F DETAIL OF BOT. SLAB  
1:50



ELEVATION OF WALL  
1:30

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

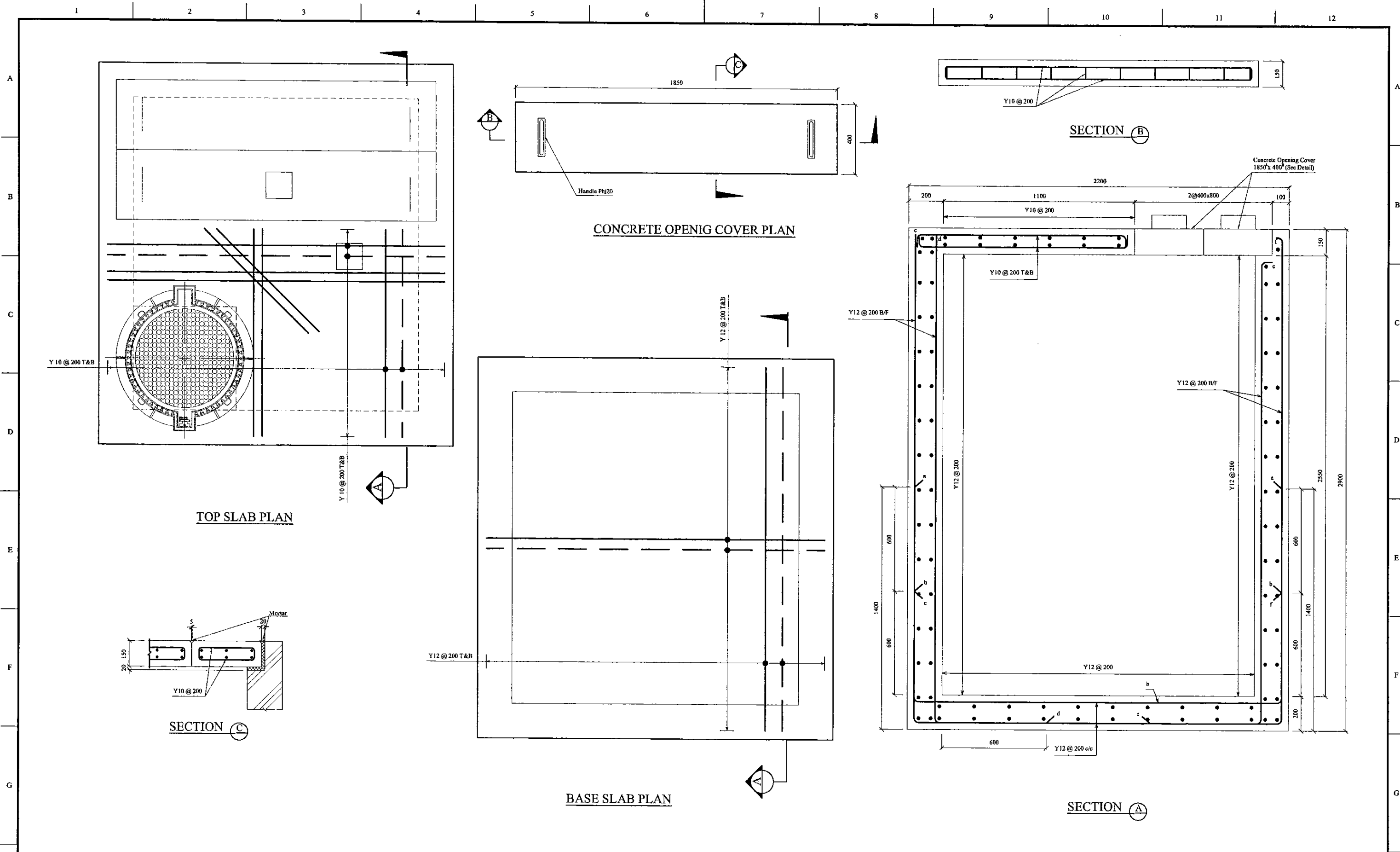
TITLE: HEERASSAGALA MIDDLE PUMPING STATION AND SERVICE RESERVOIR  
R/F DETAILS OF PUMP STATION AND SERVICE RESERVOIR

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-21-04





PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HEERESSAGALA MIDDLE S.R. & P.S. - R/F DETAIL OF INLET VALVE CHAMBER

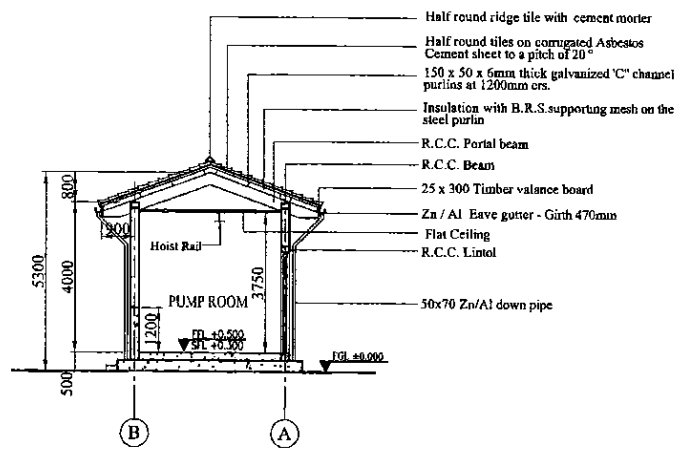
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



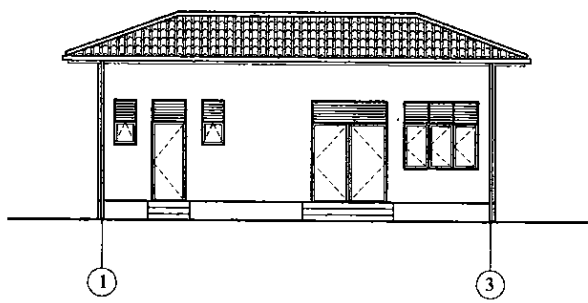
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		1:10
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				DESIGN CHIEF			31/05/2002	30-S-21-05

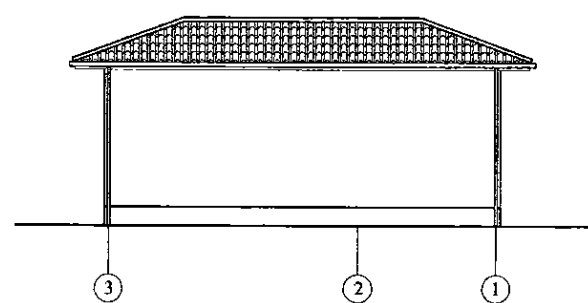
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	QGS
D1	900x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thick clear float Glass double sash door with Aluminium louvers above.	01
D2	2000x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet double sash door with Aluminium louvers above.	01
D3	900x2100		Steel framed 20 gauge colour bonded Aluminium sheet single sash door.	01
D4	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
W1	600x1200	1500	Aluminium framed 3mm thick clear float glass single sash window with Aluminium louvers above.	03
W2	2000x1800	900	Aluminium framed 3mm thick clear float glass single sash window with Aluminium louvers above.	01



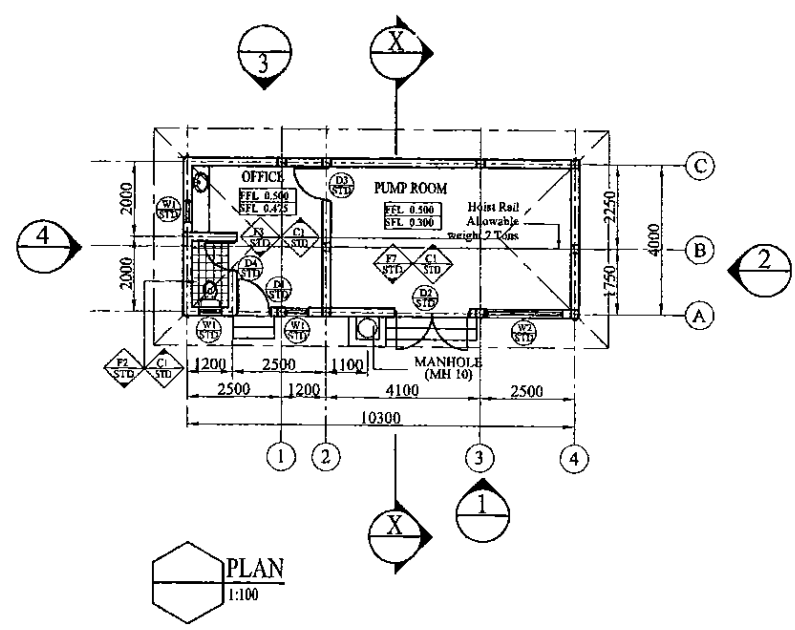
SECTION X-X  
1:100



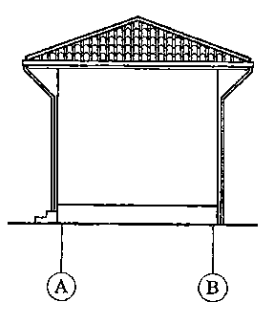
ELEVATION - 1  
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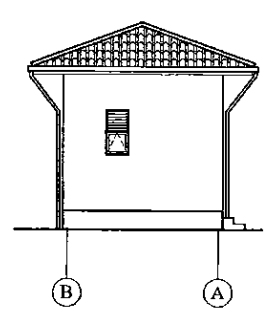
ELEVATION - 3  
1:100



PLAN  
1:100



ELEVATION - 2  
1:100



ELEVATION - 4  
1:100

NOTE:  
Platform Level of Building = +609.7  
Therefore FGL = 0.00 = 609.7 (AMSL)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: FIRE HYDRANT AND WASTE METER CHAMBERS STRUCTURAL DETAILS

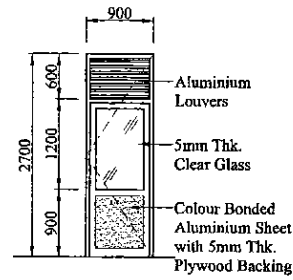
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

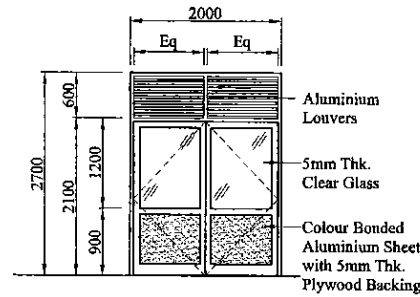
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX		Poorna	Ikuo MIWA		1 : 100
				CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-21-01

DATE: 10/07/2001

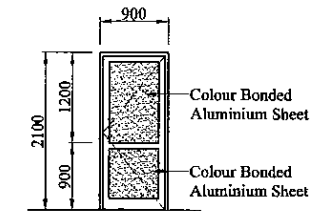
Schedule of Doors and Windows				
TYPE	SIZE	QTY.	DESCRIPTION	NO.
D1	900x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet with 5mm Plywood backing and 5mm thk. clear float glass double sash door with Aluminium louvers above.	01
D2	2000x2700		Aluminium framed 20 gauge colour bonded Aluminium sheet double sash door with Aluminium louvers above.	01
D3	900x2100		Steel framed 20 gauge colour bonded Aluminium sheet single sash door.	01
D4	800x2100		Aluminium framed 5mm PVC coated plywood sheet (both sides) single sash door.	01
W1	600x1200	1500	Aluminium framed 5mm thk. clear float glass single sash window with Aluminium louvers above.	03
W2	2000x1800	900	Aluminium framed 5mm thk. clear float glass single sash window with Aluminium louvers above.	01



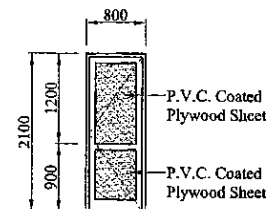
STD ELEVATION D1  
1:50



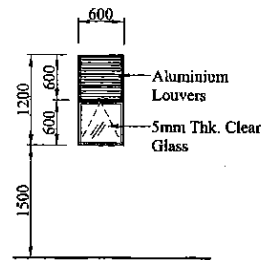
STD ELEVATION D2  
1:50



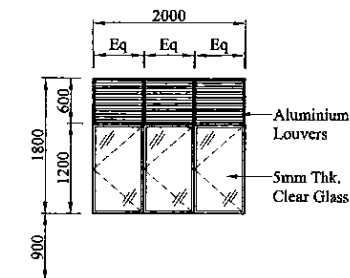
STD ELEVATION D3  
1:50



STD ELEVATION D4  
1:50



STD ELEVATION W1  
1:50



STD ELEVATION W2  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HEERASAGALA MID PUMP STATION - DETAILS OF DOORS AND WINDOWS

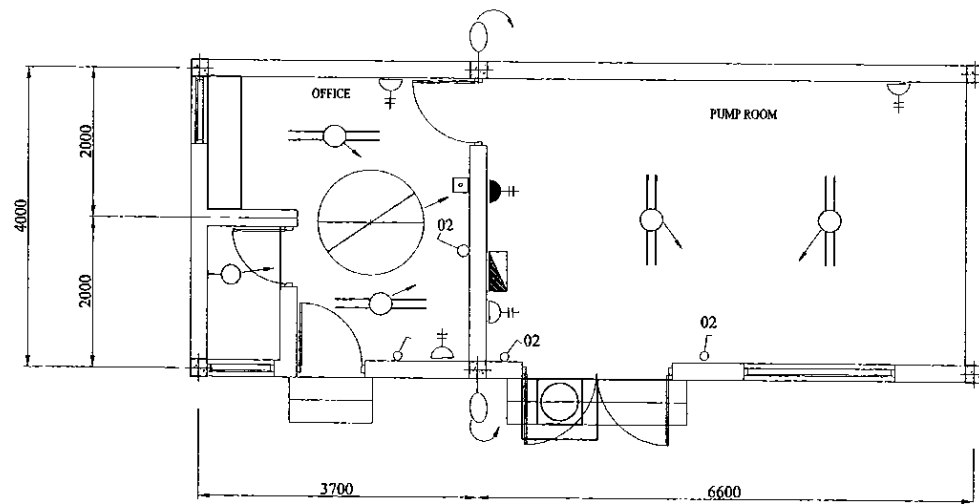
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

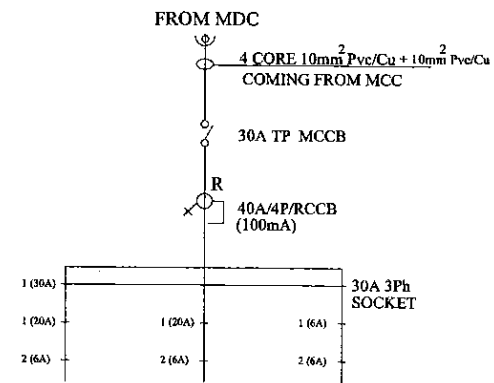
REV.	DESCRIPTION	DATE	SIGN.
XX	XXXX	XX	XX

DESIGNED: Shigenori OGAWA	DRAWN: Poorna	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1 : 50
CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-21-02

DATE: 17/07/2001 10:41 AM



PLAN  
SCALE: 1:150



DISTRIBUTION DIAGRAM

LEGEND (Electrical)

- 1x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- ⊗ 250 Watt METAL HALIDE HI-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER (IP Rating - IP 65)
- ⊗ 250 Watt METAL HALIDE WIDE ANGLE, WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION (IP Rating - IP 65)
- ⊗ 600 x 600mm FLUORESCENT FITTING 3x18 Watt, HFF TYPE WITH ACRYLIC DIFFUSER
- ⊗ 8 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
- WALL BRACKET LAMP FITTING c/w 18 Watt CFL, 0400mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET (IP Rating - IP 65)
- ⬇ DOWN LIGHT
- 1x36 Watt x 1200mm
- ⊙ PENDANT LAMP WITH 18 Watt CFL
- ⊙ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- ⊙ 32A TPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
- 125W MERCURY VAPOR COBRA HEAD TYPE OUT DOOR LAMP
- ONE WAY SWITCH (FFL + 1.5)
- TWO WAY SWITCH (FFL + 1.5)
- ⊗ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
- ⊗ TELEPHONE SOCKET OUTLET
- ⊗ 1400mm CFH, ENG FAN
- ⊗ FAN REGULATOR (FFL + 1.5)
- ⊗ EXHAUST FAN

LEGEND (Fire)

- ⊗ 6Kg DRY POWDER EXTINGUISHER
- ⊗ 2Kg CARBONDIOXIDE EXTINGUISHER

NOTE:

01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HERASAGALA MIDDLE PUMP STATION - ELECTRICAL LAYOUT

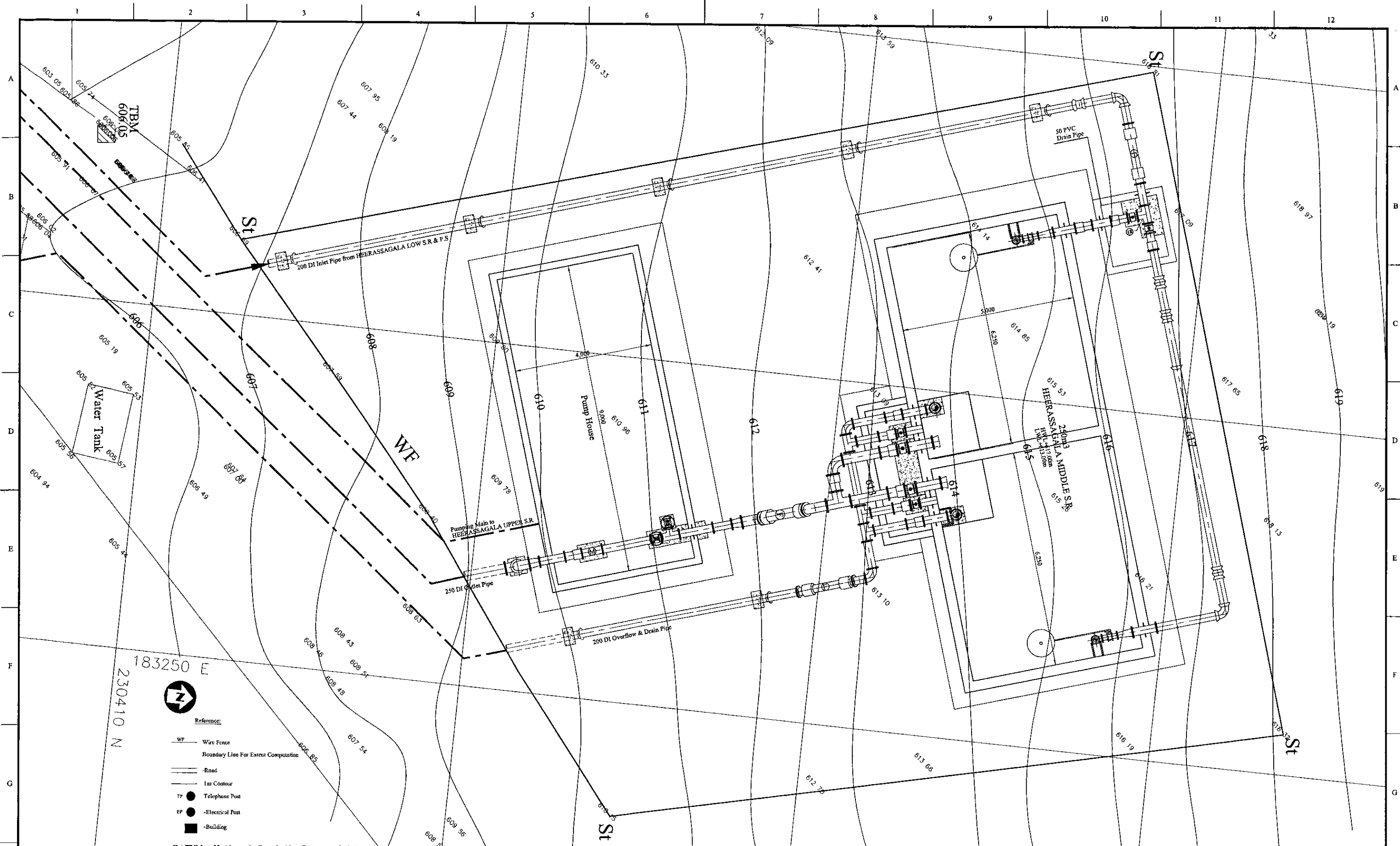
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: ATG	DRAWN: LAKMAL	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 ON A3
CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-21-21

DATE: 17/07/2001 W:amh



- Reference:
- WF Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - Lin Contour
  - TP ● Telephone Post
  - EP ● Electrical Post
  - Building

DATUM -National Geodetic Datum S.L.D. 99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

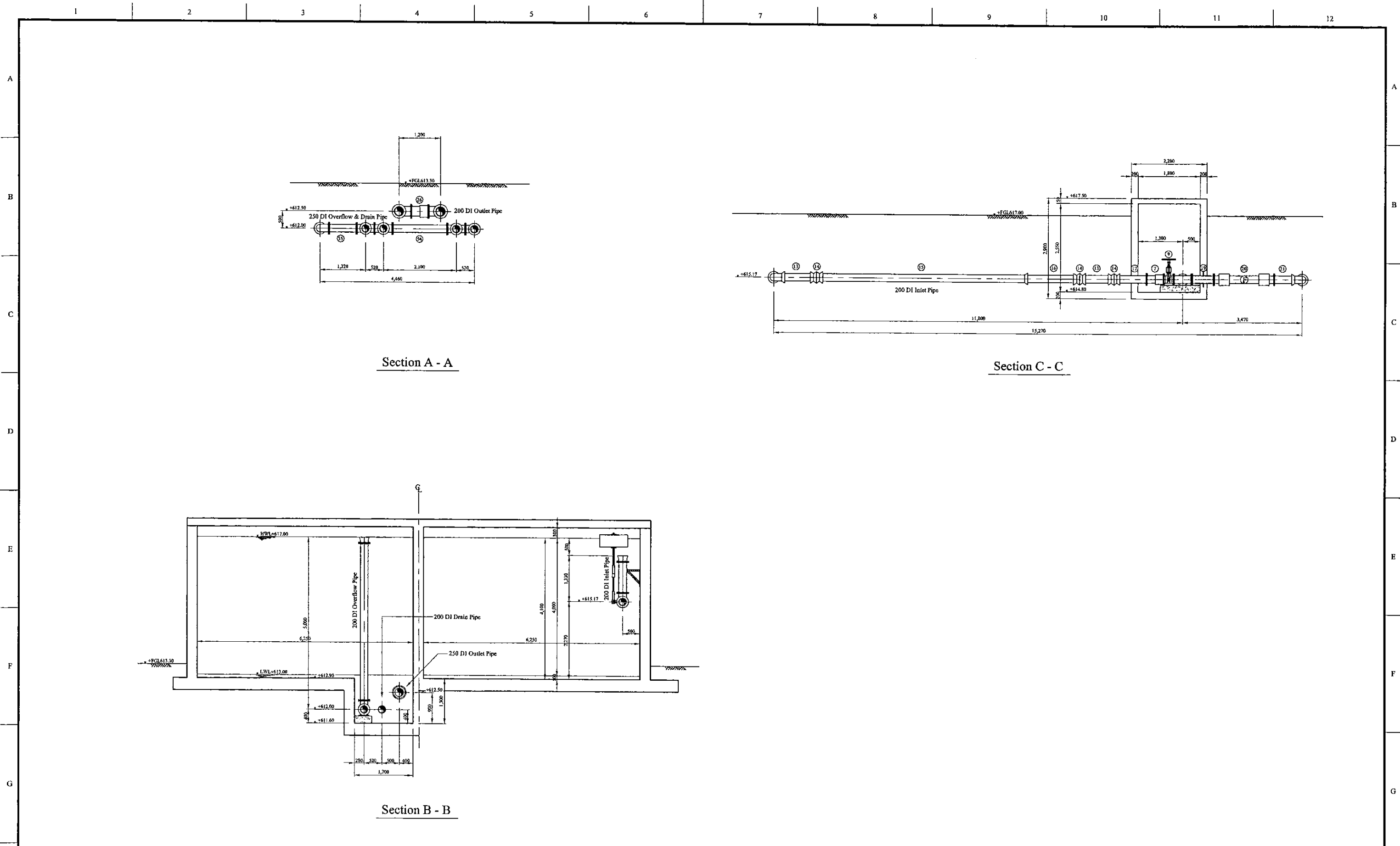
TITLE: PIPE LAYOUT PLAN OF 250m<sup>3</sup> HEERASSAGALA MIDDLE S.R. & P.S.

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-21-01





Section A - A

Section C - C

Section B - B

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

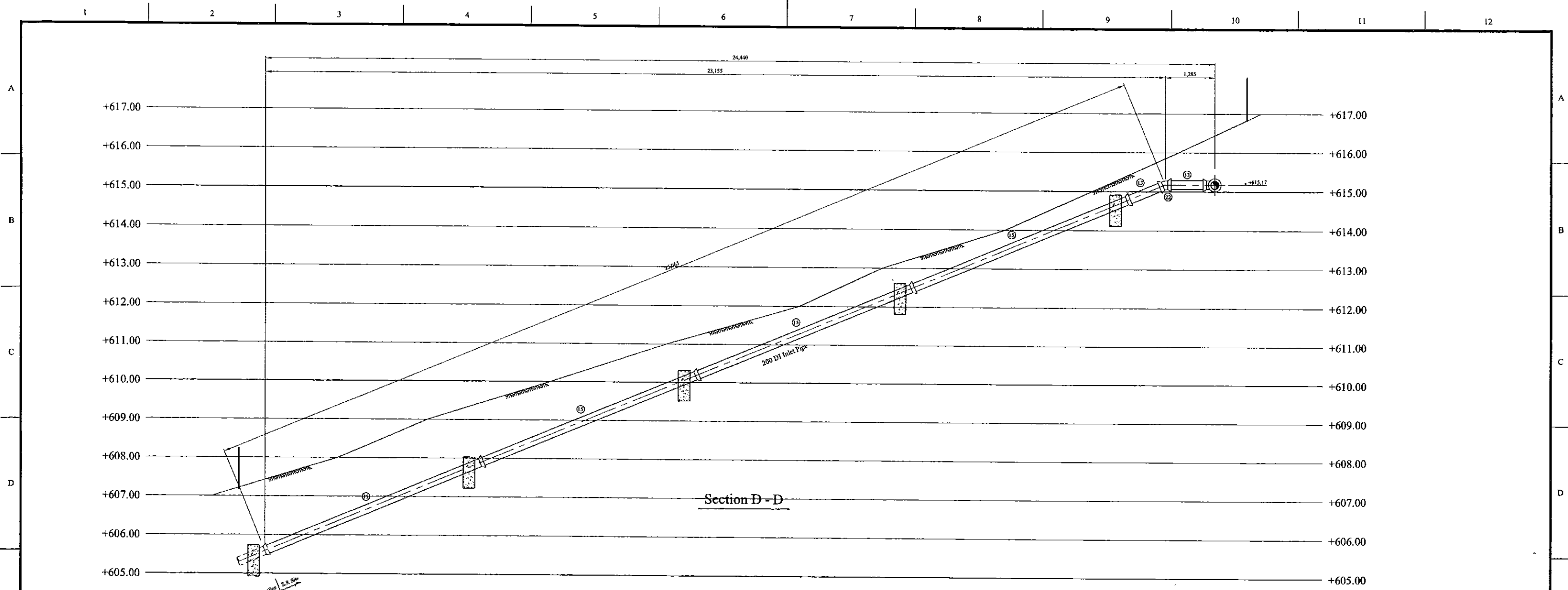
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF HEERASSAGALA MIDDLE S.R & P.S - 2

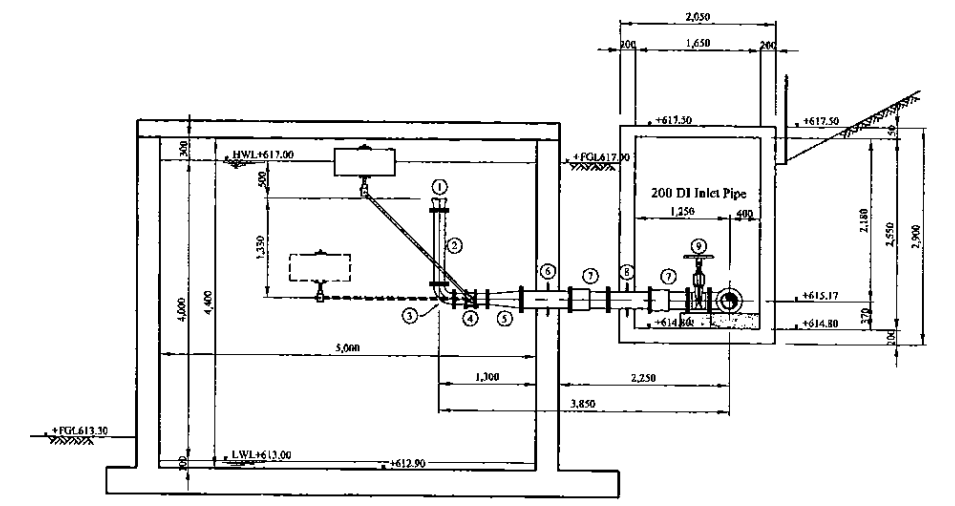
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-21-03



Section D - D

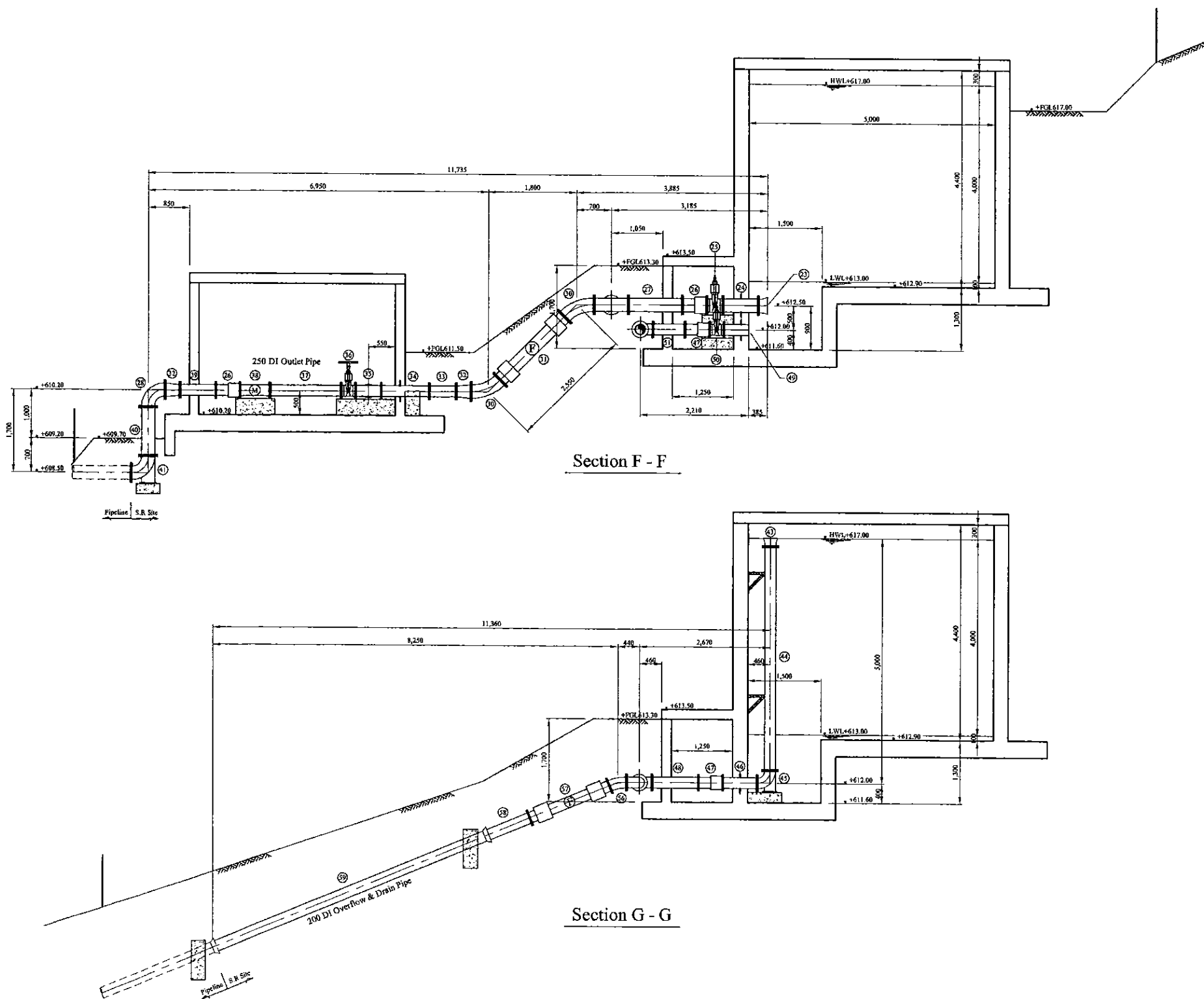


Section E - E

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HEERASSAGALA MIDDLE S.R & P.S - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-21-04

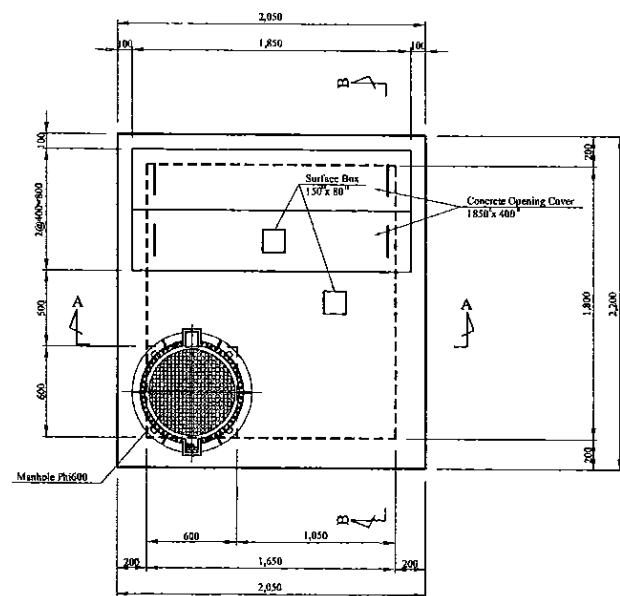




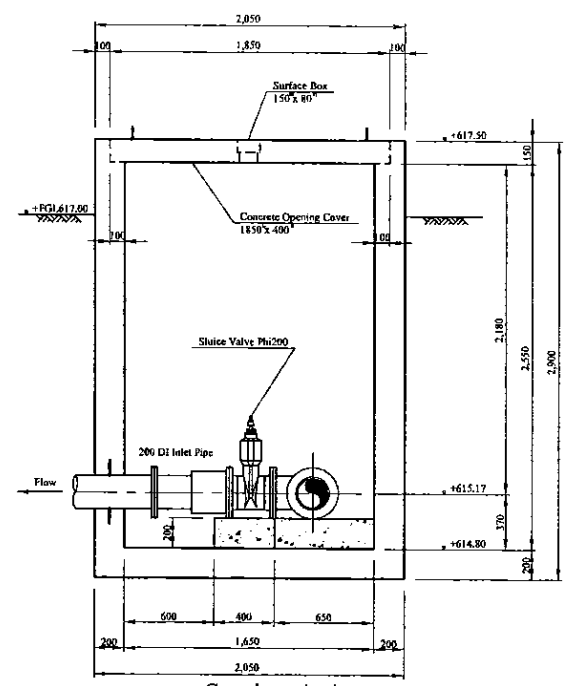
Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	SP	125	L=150mm	PN10	2
2	Double Flanged Piece	SP	125	L=980mm	PN10	2
3	Double Flanged 90 degree Bend	SP	125	L=200mm x 2	PN10	2
4	Butterfly Float Valve	SUS	125	L=450mm	PN10	2
5	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	2
6	Double Flanged Piece with Puddle	DI	200	L=650mm	PN10	1
7	Flange Adapter (DF)	DI	200	L=500mm	PN10	3
8	Double Flanged Piece with Puddle	DI	200	L=550mm	PN10	1
9	Sluice Valve	DI	200	L=290mm	PN10	2
10	Double Flanged Piece with Puddle	DI	200	L=700mm	PN10	1
11	Flanged Spigot Piece	DI	200	L=1,830mm	PN10, Type-T	1
12	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	2
13	Plain Ends Piece	DI	200	L=1,000mm	Type-T	4
14	Collar	DI	200		Type-K	3
15	Straight Pipe	DI	200	L=6,000mm	Type-T	5
16	Plain Ends Piece	DI	200	L=1,580mm	Type-T	1
17	Flanged Spigot Piece	DI	200	L=950mm	PN10, Type-T	1
18	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
19	Double Flanged Piece with Puddle	DI	200	L=640mm	PN10	1
20	Double Flanged Flexible Expansion Joint	DI	200		PN10	1
21	Flanged Spigot Piece	DI	200	L=600mm	PN10, Type-T	1
22	Double Socket 22.5 degree Bend	DI	200	L=65mm x 2	Type-T	1
23	Flanged Bellmouth	DI	250	L=185mm	PN10	2
24	Double Flanged Piece with Puddle	DI	250	L=720mm	PN10	2
25	Sluice Valve	DI	250	L=330mm	PN10	2
26	Flange Adapter (DF)	DI	250	L=500mm	PN10	4
27	Double Flanged Piece	DI	250	L=1,100mm	PN10	2
28	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	3
29	All Flanged 250 x 250 Tee	DI	250x250	L=700 x 350mm	PN10	1
30	Double Flanged 45 degree Bend	DI	250	L=350mm x 2	PN10	2
31	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
32	Double Flanged 250 x 200 Taper	DI	250x200	L=300mm	PN10	2
33	Double Flanged Piece	DI	200	L=560mm	PN10	1
34	Double Flanged Piece with Puddle	DI	200	L=980mm	PN10	1
35	All Flanged 200 x 150 Tee	DI	200x150	L=520x250mm	PN10	1
36	Sluice Valve	DI	200	L=290mm	PN10	1
37	Double Flanged Piece	DI	200	L=1,440mm	PN10	1
38	Flow Meter	DI	200	L=610mm	PN10	1
39	Double Flanged Piece	DI	200	L=750mm	PN10	1
40	Double Flanged Piece	DI	200	L=1,000mm	PN10	1
41	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
42	Sluice Valve	DI	150	L=270mm	PN10	1
43	Flanged Bellmouth	DI	200	L=170mm	PN10	2
44	Double Flanged Piece	DI	200	L=4,570mm	PN10	2
45	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	2
46	Double Flanged Piece with Puddle	DI	200	L=700mm	PN10	2
47	Flange Adapter (DF)	DI	200	L=500mm	PN10	4
48	Double Flanged Piece	DI	200	L=950mm	PN10	2
49	Flanged Spigot Piece with Puddle	DI	200	L=500mm	PN10, Type-T	2
50	Sluice Valve	DI	200	L=290mm	PN10	2
51	Double Flanged Piece	DI	200	L=660mm	PN10	2
52	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	2
53	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	3
54	Double Flanged Piece	DI	200	L=1,580mm	PN10	1
55	Double Flanged Piece	DI	200	L=800mm	PN10	1
56	Double Flanged 22.5 degree Bend	DI	200	L=130mm x 2	PN10	1
57	Double Flanged Flexible Expansion Joint	DI	200		PN10	1
58	Flanged Spigot Piece	DI	200	L=1,000mm	PN10, Type-T	1
59	Straight Pipe	DI	200	L=6,000mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HEERASSAGALA MIDDLE S.R. & P.S. - 4								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-21-05

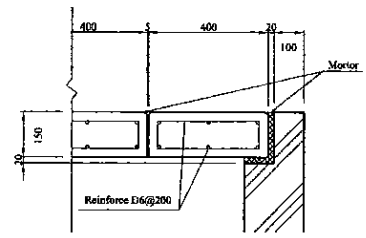
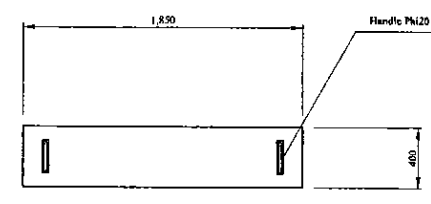


Top Plan

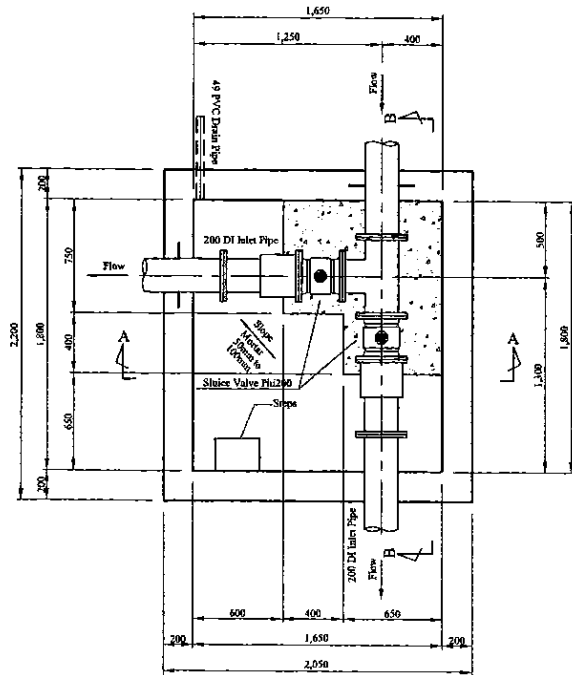
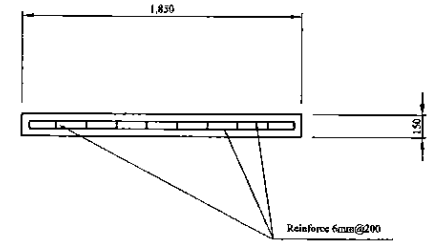


Section A-A

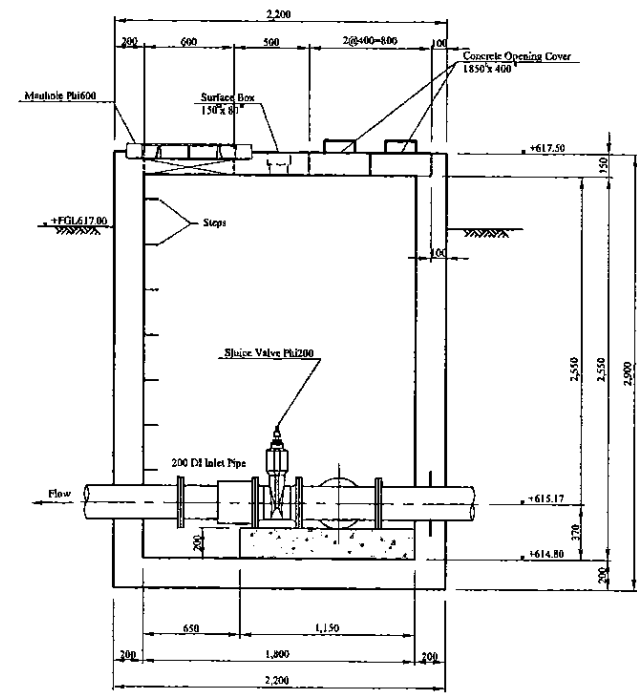
Concrete Opening Cover



S=1/10 on A3

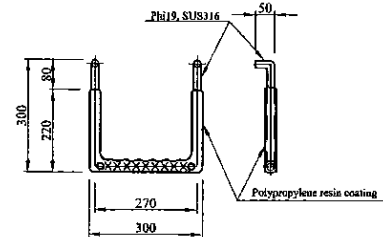


Plan

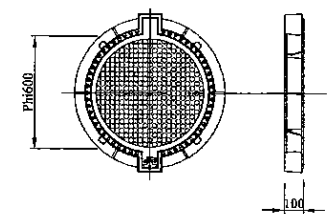


Section B-B

Step (W=300mm, Polypropylene resin coating)  
Scale=1:5



Manhole (Phi 600mm, Water proofing type with lock)  
Scale=1:10



Inlet Valve Chamber

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

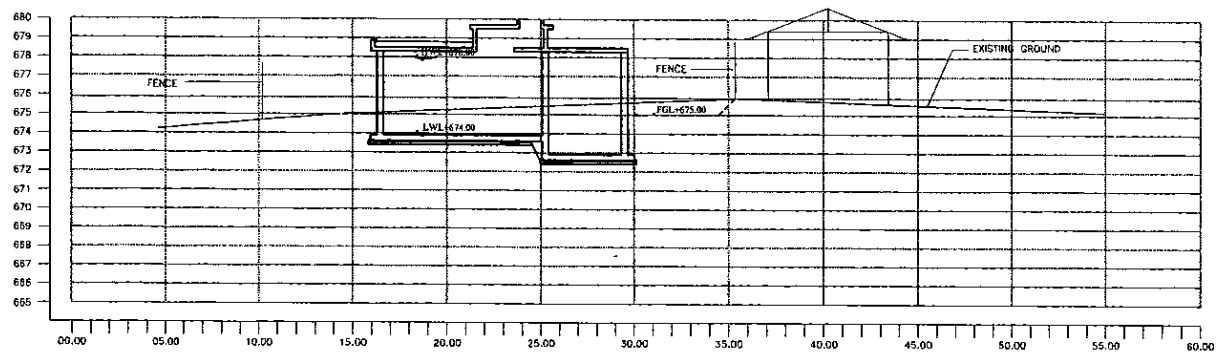
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: INLET VALVE CHAMBER OF HEERASSAGALA MIDDLE S.R

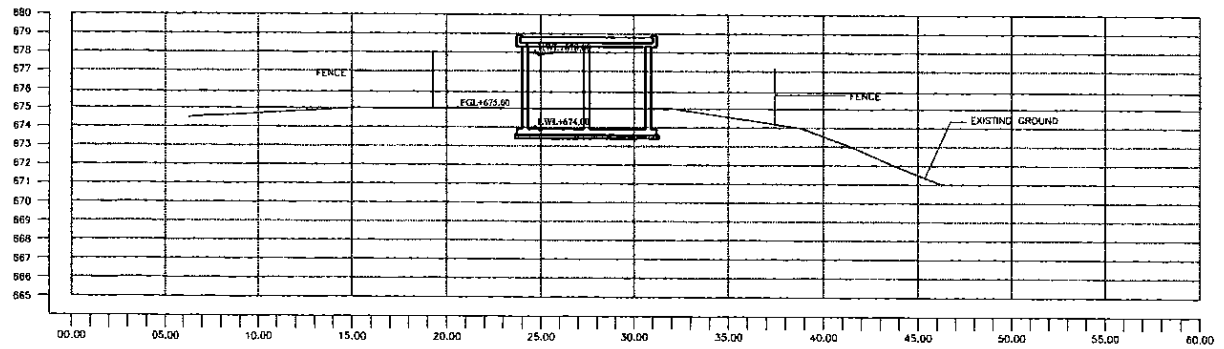
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

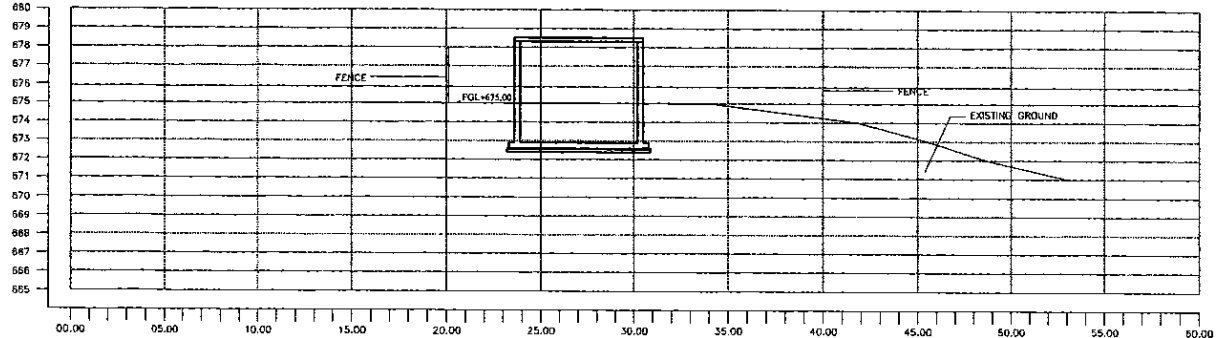
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI			1:25
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-21-06



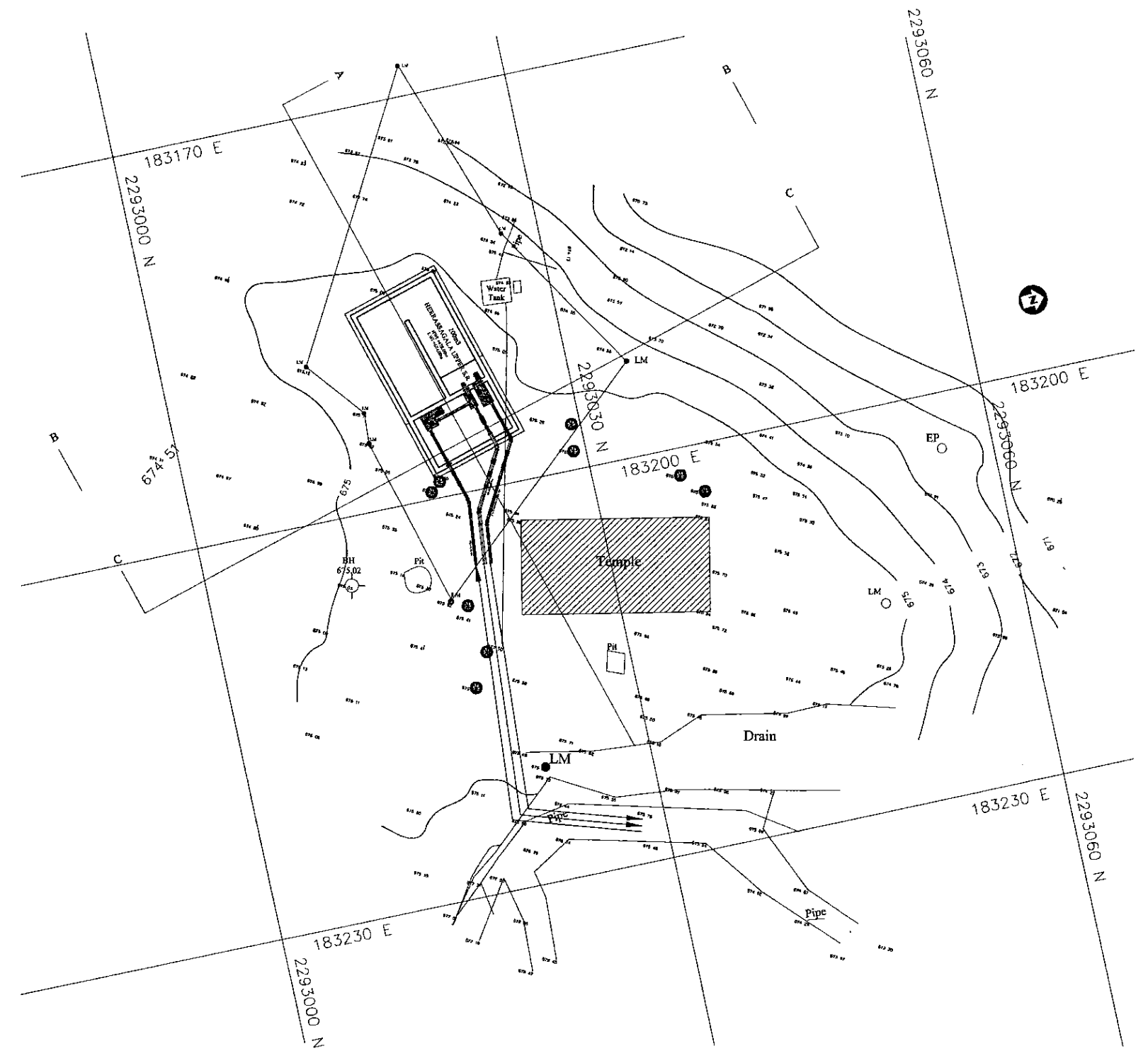
SECTION A-A  
1:200



SECTION B-B  
1:200



SECTION C-C  
1:200



PLAN  
1:200

- Reference:
- WF — Wire Fence
  - Boundary Line For Extent Computation
  - Road
  - In Centre
  - TP ● Telephone Post
  - EP ● Electrical Post
  - S ● Stake
  - BH ● Stake
- DATUM - National Geodetic Datum S.L.D. 99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

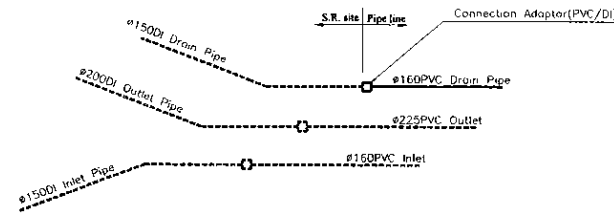
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN AND CSS OF 200m<sup>3</sup> HEERASSAGALA UPPER S.R.

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

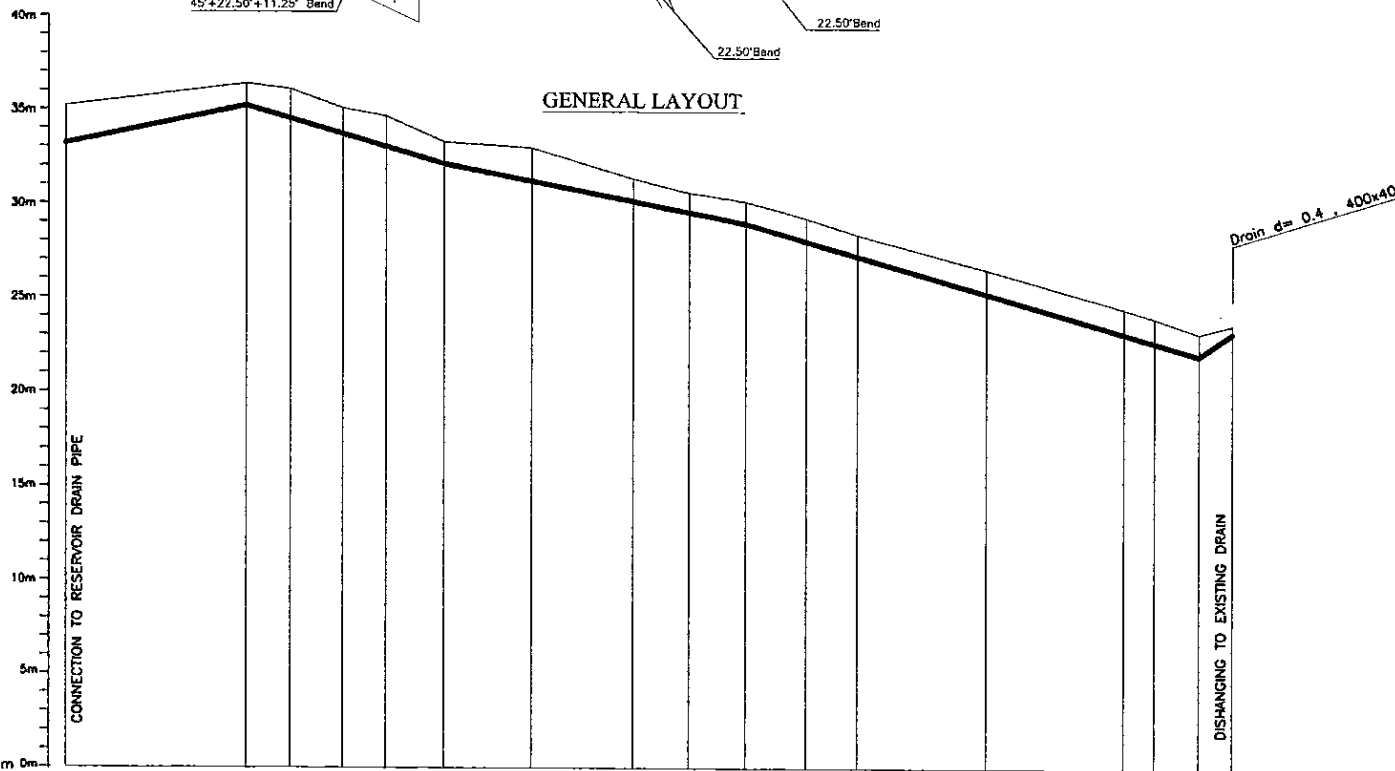
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Ravi U.	Ikuto MIWA		1:200
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-22-01



PIPE CONNECTION DETAIL - A

Heerassagala Upper Res.

Ø160 PVC Transmission Pipe Line  
(Refer to Dwg. No. 20-C-22-03)  
Ø225 PVC Distribution Pipe Line  
(Refer to Dwg. No. 40-C-33-01)



GENERAL LAYOUT

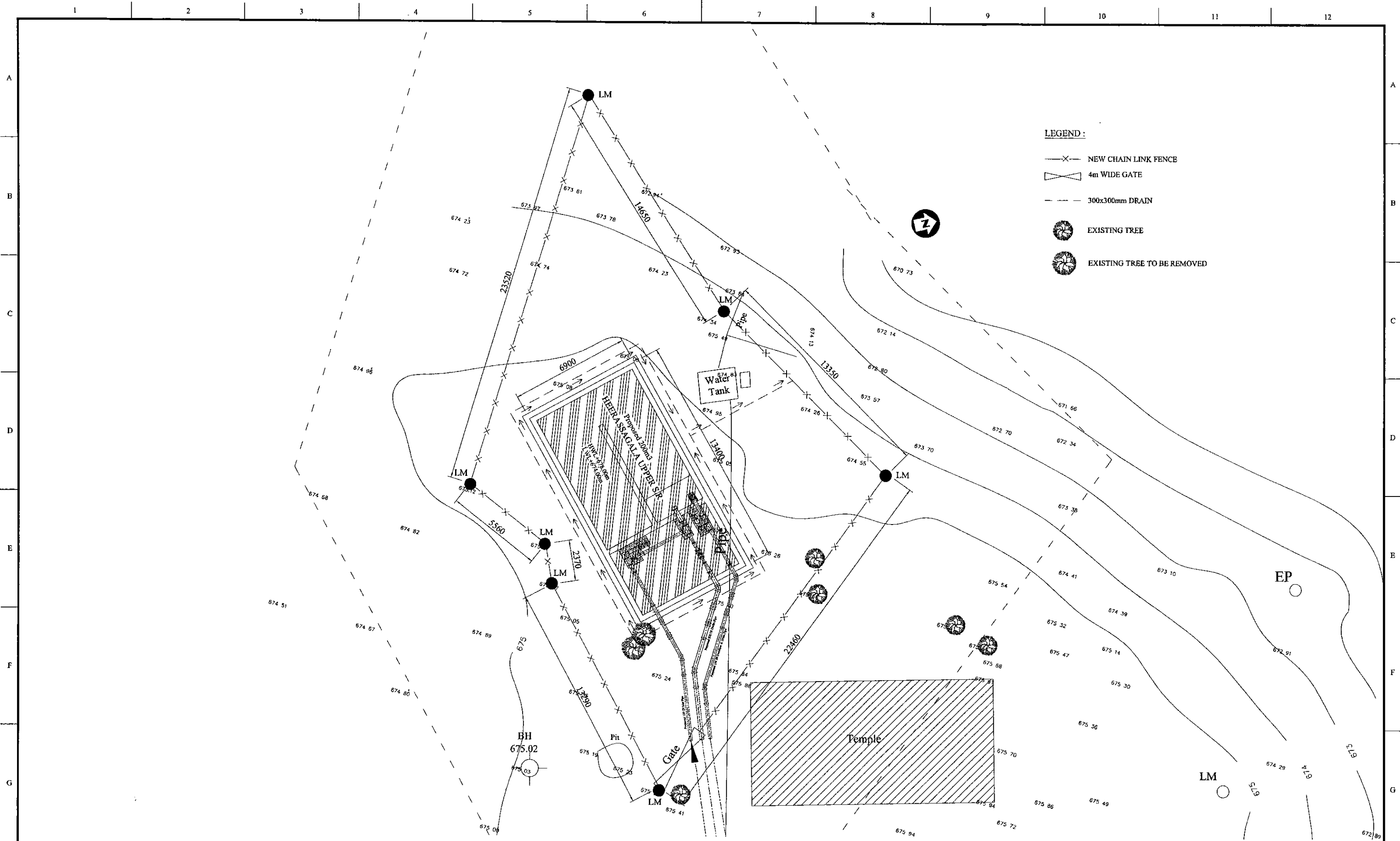
Ground Level (m)	675.20	676.39	676.11	675.09	674.67	673.30	672.98	671.35	670.60	670.14	669.27	668.39	666.54	664.48	663.98	663.17	663.63
Pipe Invert Level (Pipe thickness to be assumed negligible)	673.20	675.23	676.11	675.09	674.67	672.14	672.98	671.35	670.60	670.14	669.27	668.39	666.54	664.48	663.98	663.17	663.63
Pipe Data	Ø160 PVC RUBBER RING JOINT																
Single Distance (m)	0.00	24.00	5.73	6.92	3.75	7.67	11.71	13.44	7.41	7.42	8.06	6.81	17.03	18.21	4.07	5.95	4.38
Cumulative Distance (m)	0.00	24.00	29.73	36.65	40.40	48.07	61.78	75.22	82.63	90.05	98.11	104.92	121.97	140.18	144.25	150.20	154.58
Station No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

LONGITUDINAL SECTION

Legend

SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AWA	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Line Fence
MH	Manhole
WF	Wire Fence
U	Undefined Boundary
EW	Existing Wall
Md	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
B	Building
V	Valve
Ø/Dia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Type)
WTP	Water Treatment Plant

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE: WASHOUT FROM HEERASSAGALA UPPER S.R.	SHEET 1 OF 1							
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Iakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
						CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-22-02



- LEGEND :**
- NEW CHAIN LINK FENCE
  - 4m WIDE GATE
  - 300x300mm DRAIN
  - EXISTING TREE
  - EXISTING TREE TO BE REMOVED

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

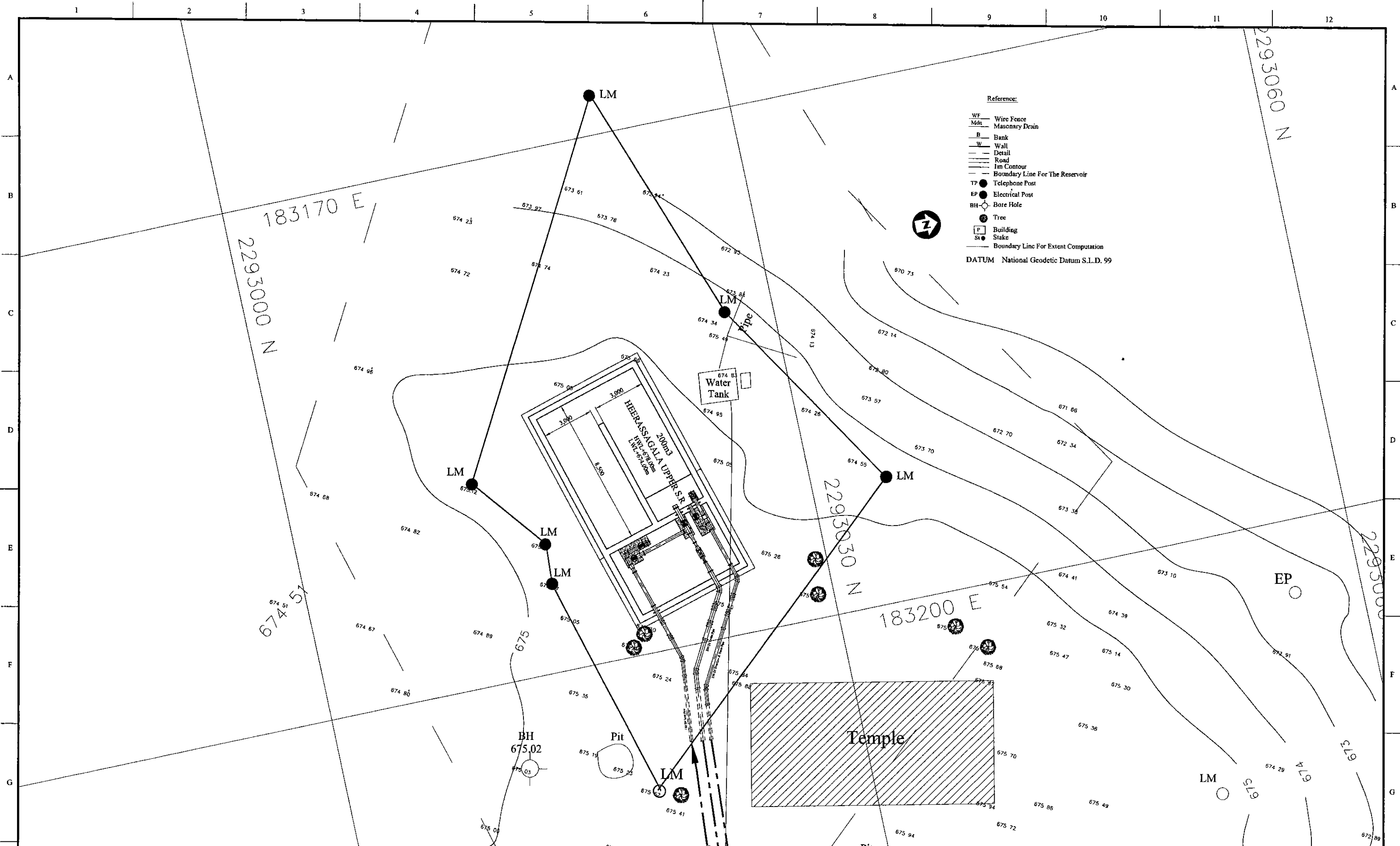
**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **200m2 HEERASSAGALA UPPER S.R. AND P.S. LANDSCAPING LAYOUT**

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	POORNA	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-C-22-03



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

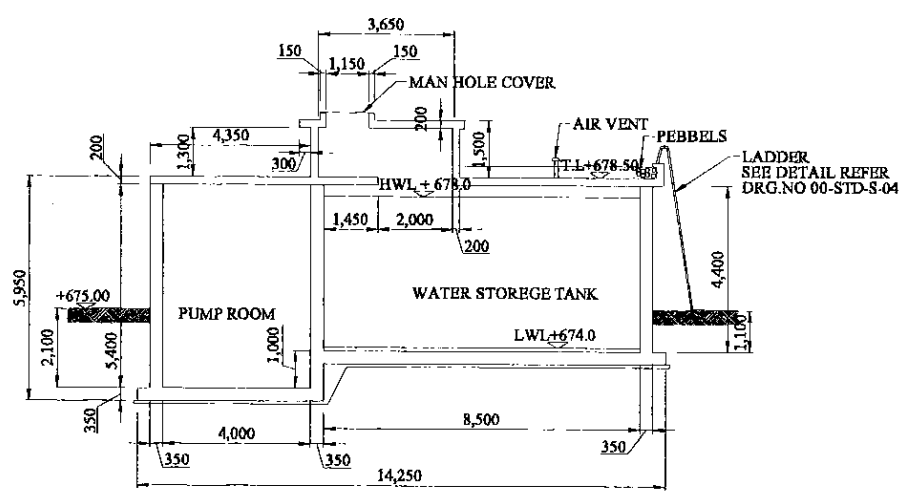
TITLE: HEERASSAGALA UPPER SERVICE RESERVOIR SITE PLAN

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

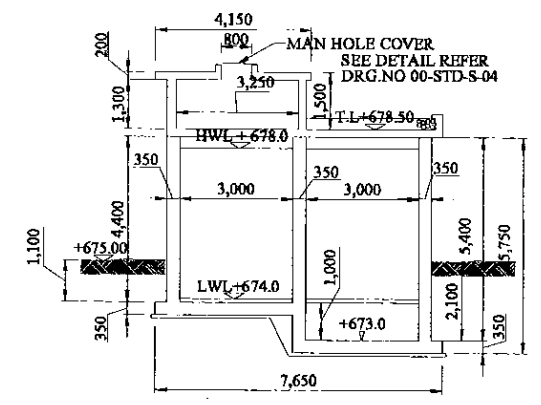
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Kalinga	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-22-01

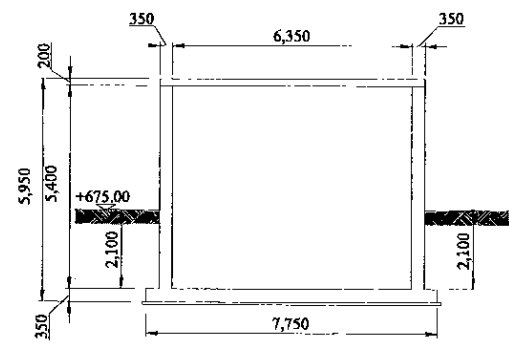
- NOTES**
1. WATER BARS TO BE PROVIDED WHERE NECESSARY BESEBE CONSTRUCTION OF WALLS.
  2. ALL INTERNAL WALLS TO BE WATER PROOFED.



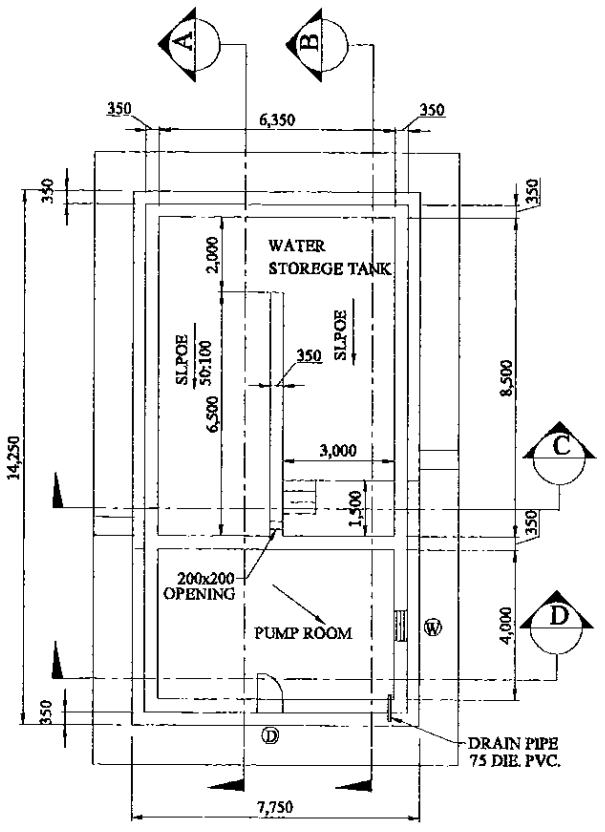
SECTION A  
1:100



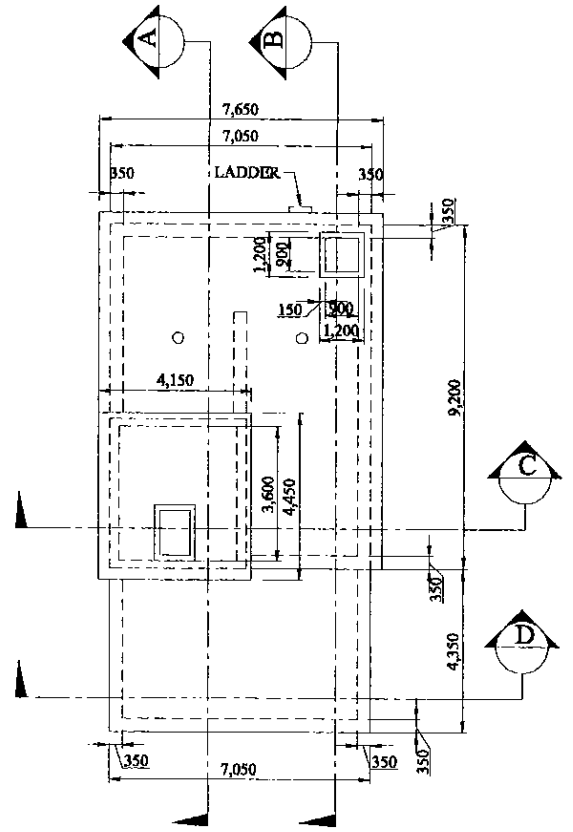
SECTION C  
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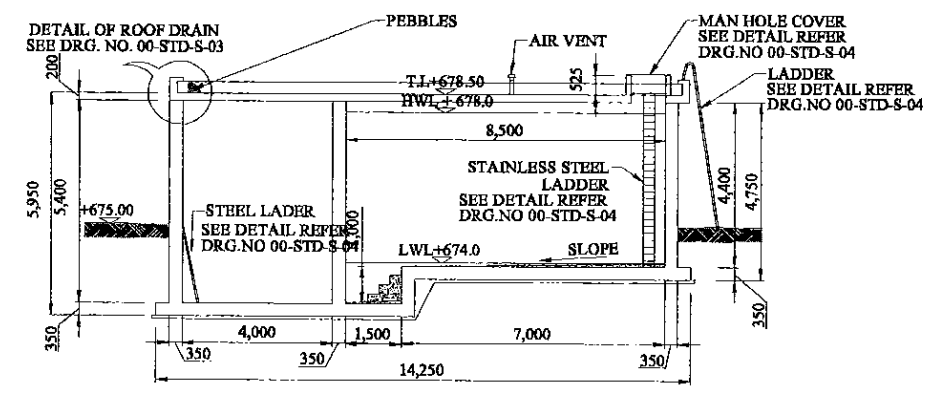
SECTION D  
1:100



BOTTOM SLAB PLAN  
1:100

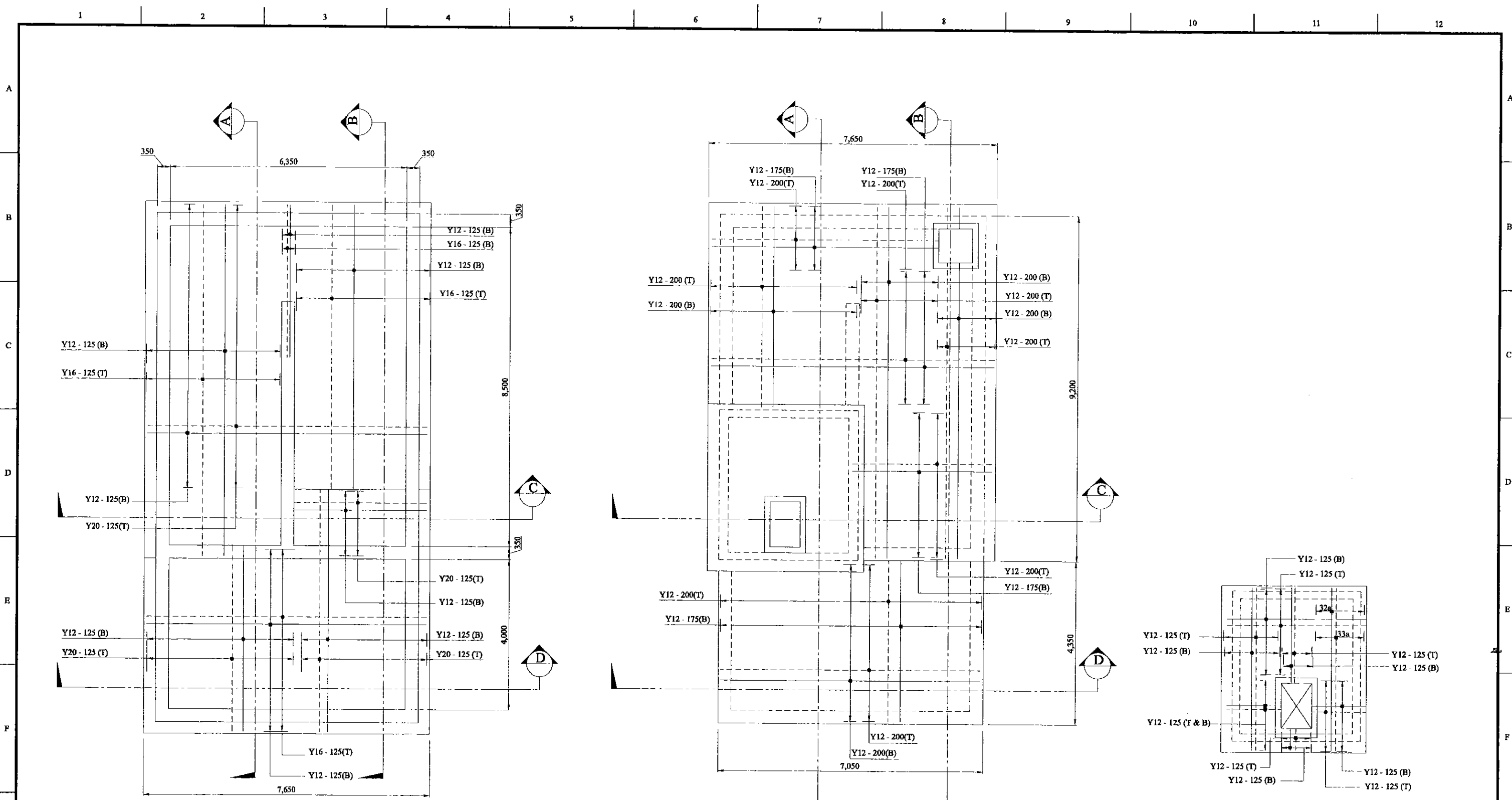


TOP SLAB PLAN  
1:100



SECTION B  
1:100

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: <b>HEERASSAGALA UPPER SERVICE RESORVOIR GENERAL ARRANGEMENT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAMANPALI</b>	PM: CONSULTANT <b>Ikuo MIWA</b>	CB: P&D	SCALE: <b>AS SHOWN</b>
								CHECKED:	AGM: P&D	DGM: P&D	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-22-02</b>



**R/F DETAIL OF BASE SLAB**  
1:100

**R/F DETAIL OF TOP SLAB**  
1:100

**R/F DETAIL OF COVER SLAB  
IN TOP SLAB OPENING**  
1:100

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

CONSULTANTS: **JICA JAPAN INTERNATIONAL COOPERATION AGENCY**

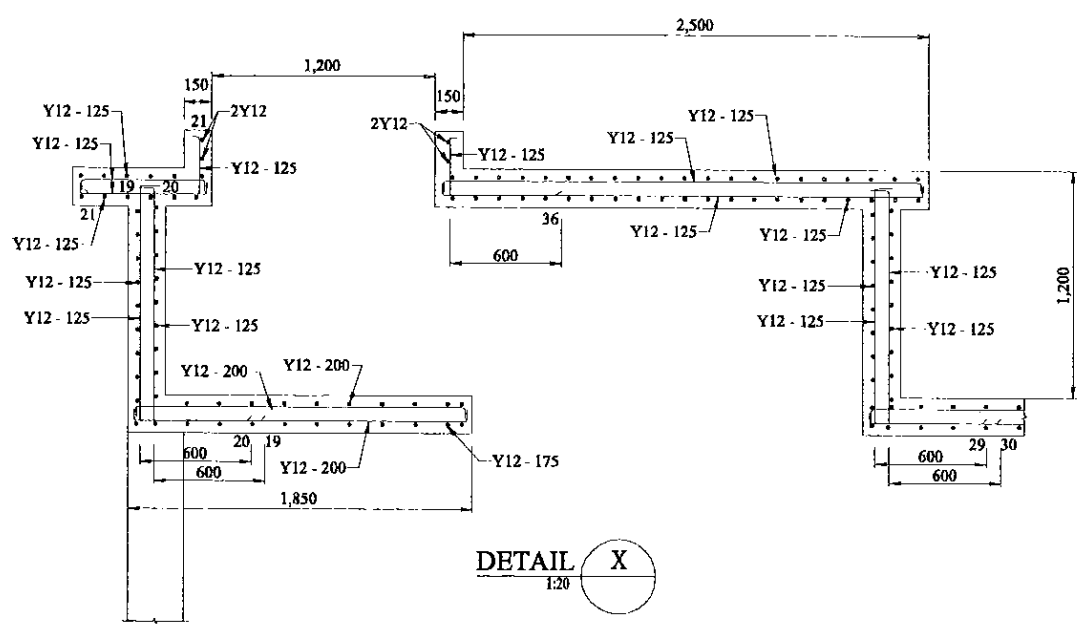
TITLE: **HEERASSAGALA UPPER SERVICE RESORVOIR R/F DETAILS OF TOP & BOTTOM SLAB**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

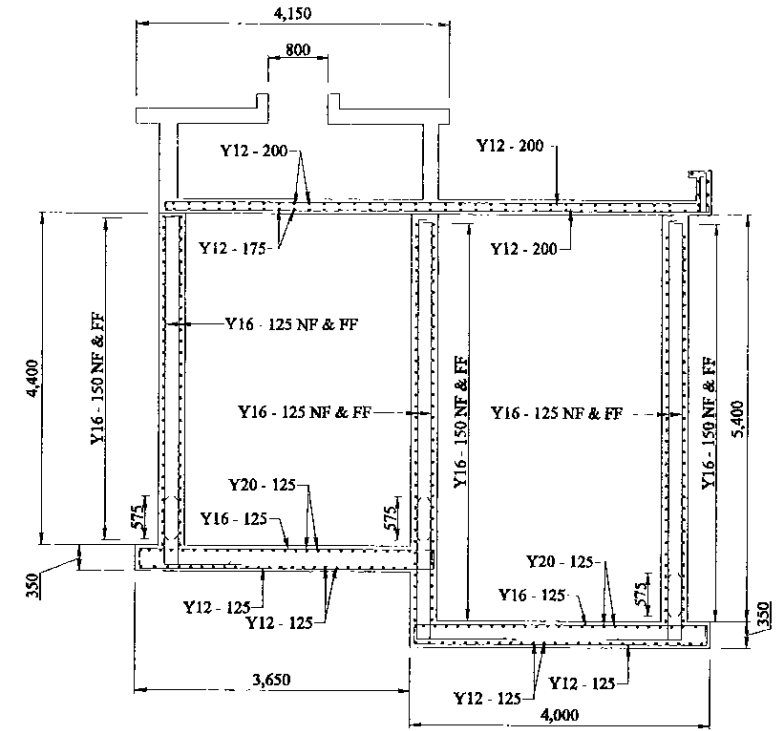
CONSULTANTS: **NJS CONSULTANTS CO., LTD. - JAPAN**  
**NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
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							31/05/2002	30-S-22-03

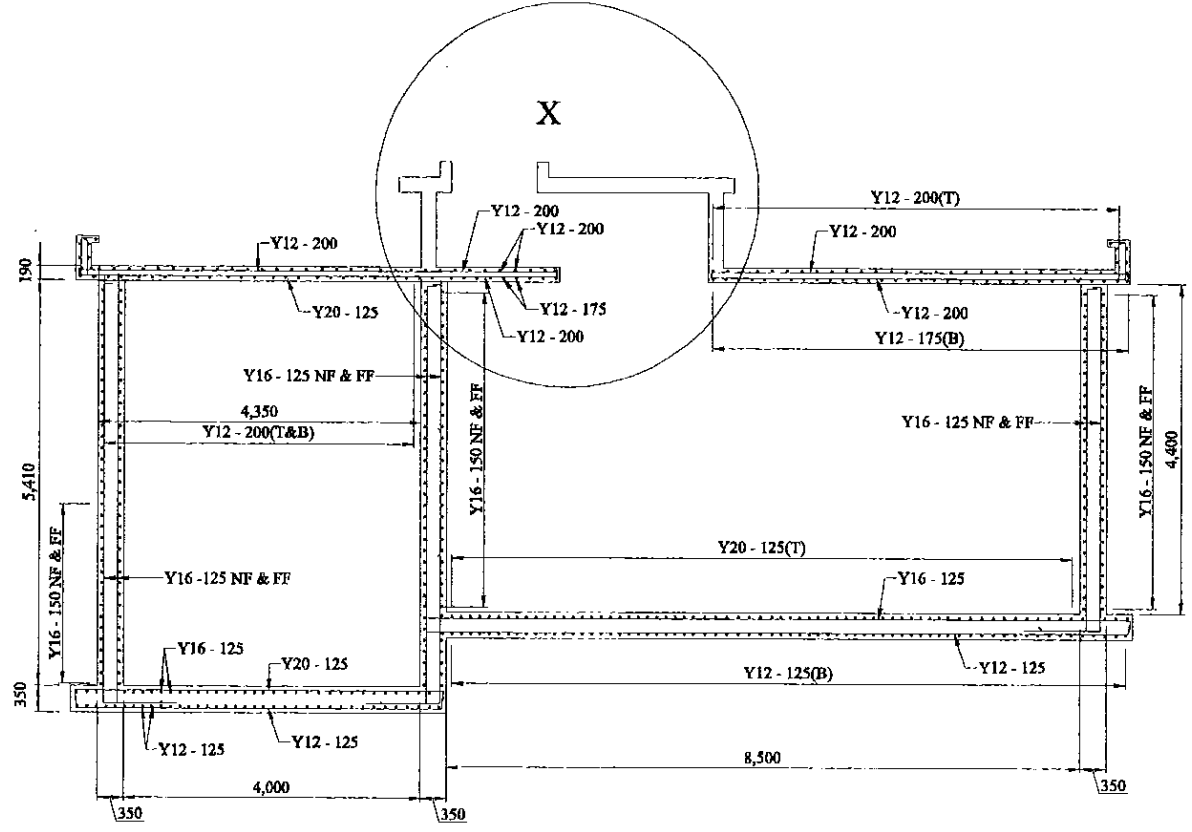




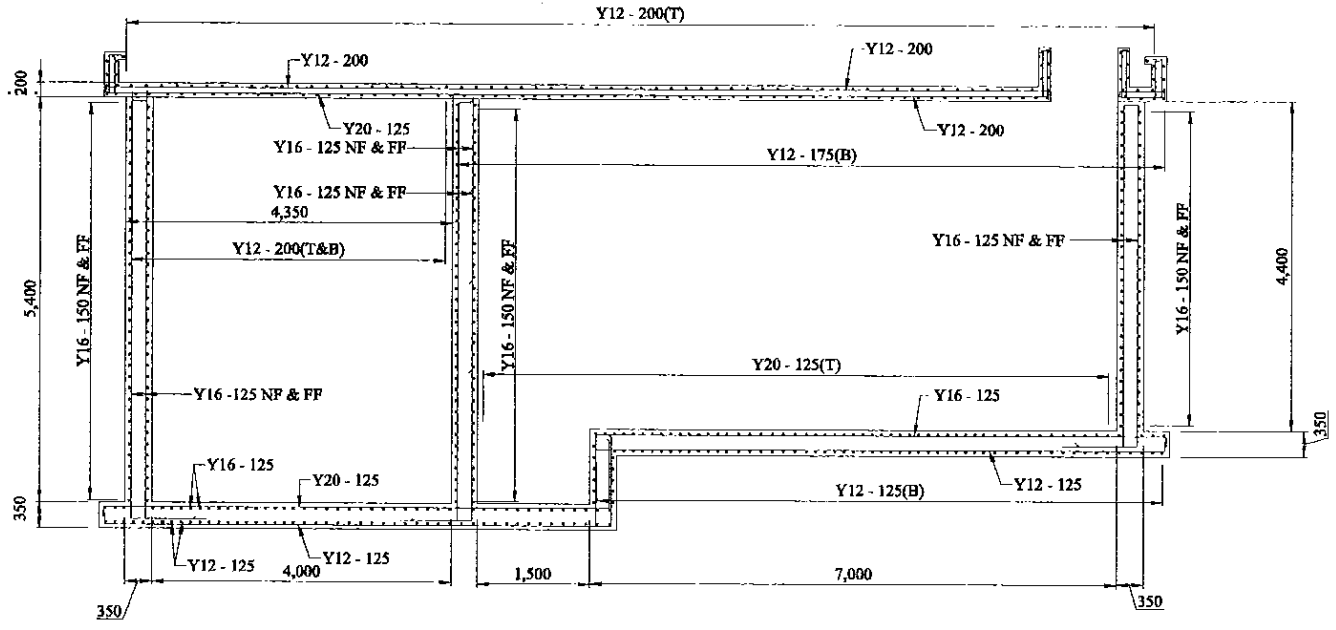
DETAIL X  
1:20






SECTION C  
1:50

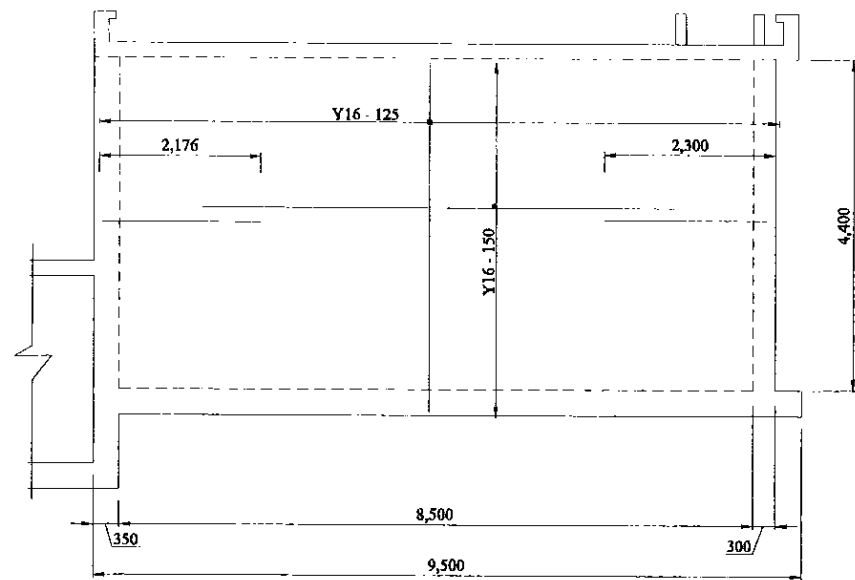


SECTION A  
1:50

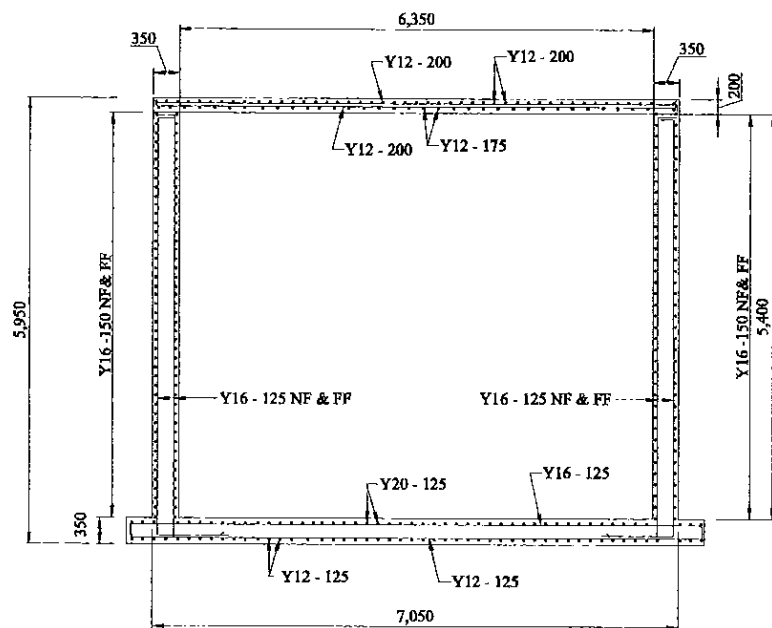


SECTION B  
1:50

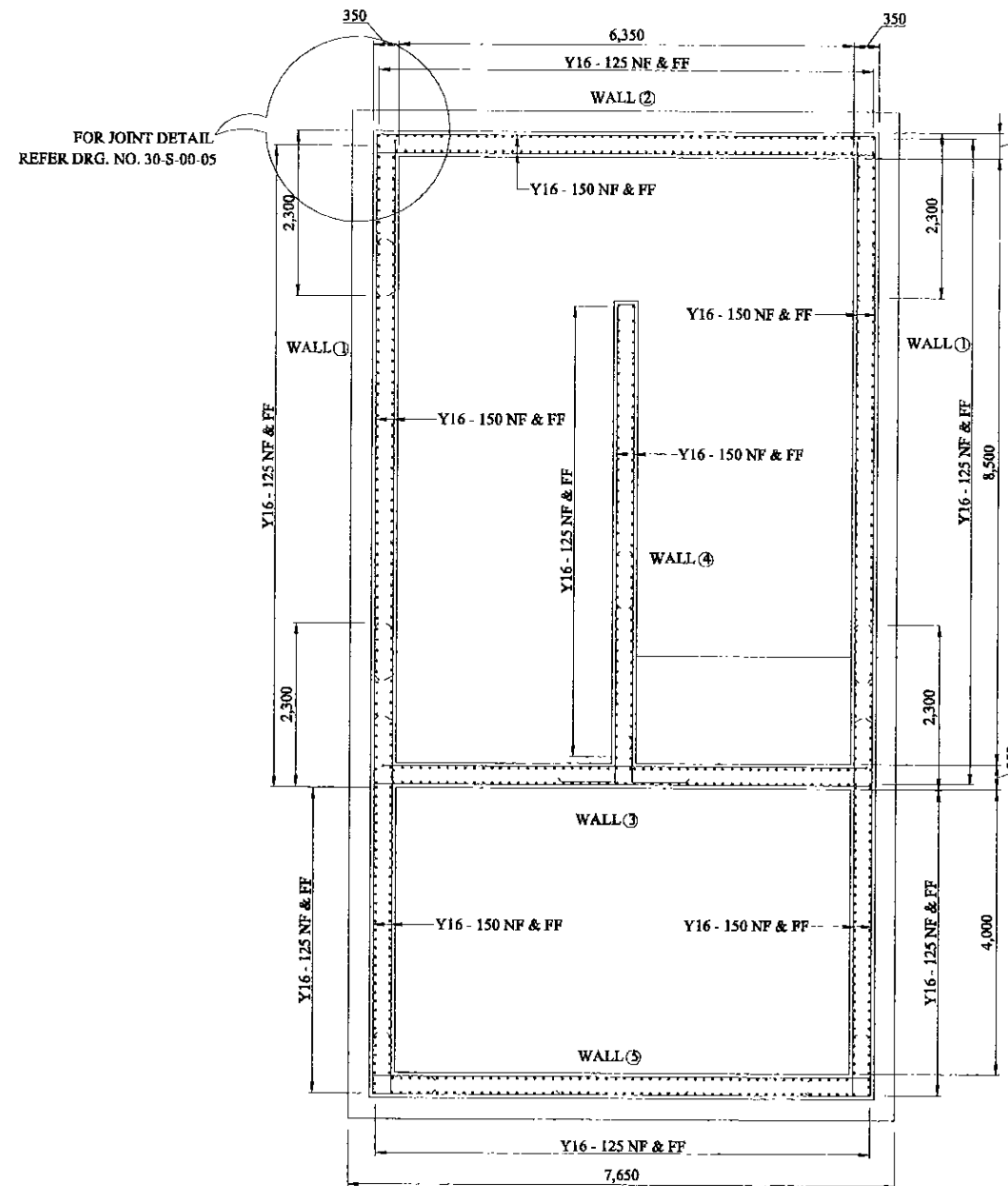
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>HEERASSAGALA UPPER SERVICE RESORVOIR R/F DETAILS OF SECTIONS - 1</b>									
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>		 <b>NIHON SUIDO CONSULTANTS CO., LTD. JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAMANPALI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>AS SHOWN</b>
					CHECKED:					AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-22-04</b>



ELEVATION OF WALL 1  
1:50



SECTION D  
1:50



R/F DETAIL OF CROSS SECTION  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HEBRASSAGALA UPPER SERVICE RESORVOIR R/F DETAILS OF SECTIONS - 2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD








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

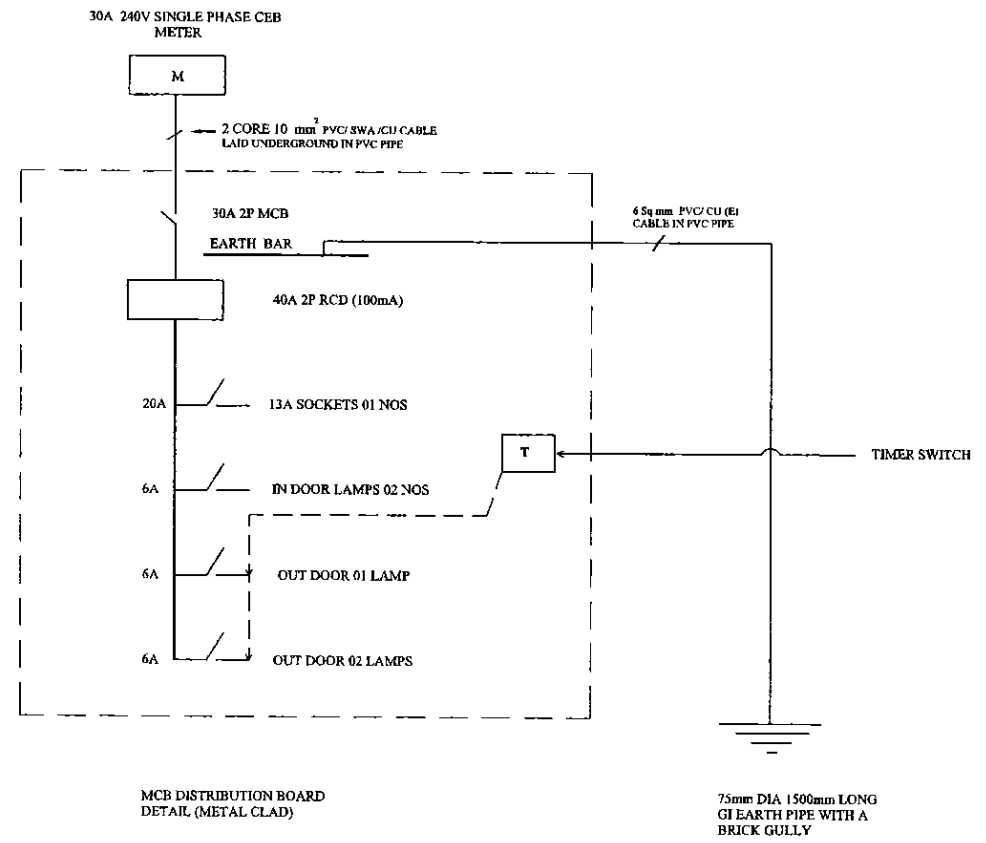
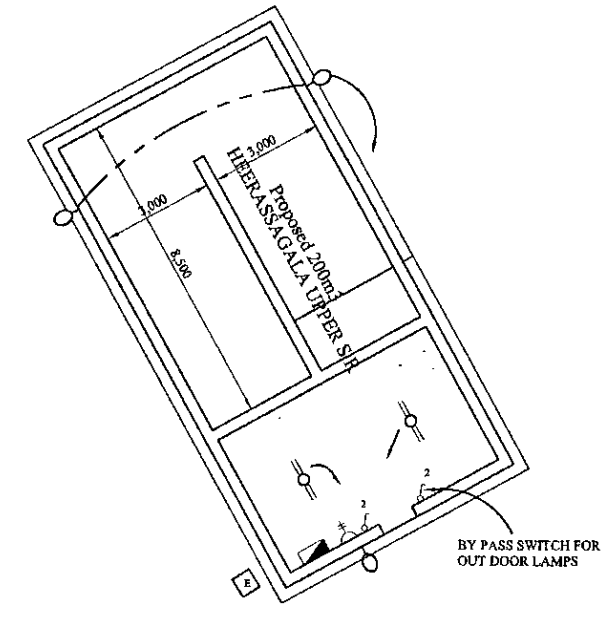
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				L. JAYAWARDENA	SAMANPALI	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-22-05
				DESIGN CHIEF				

**NOTE**

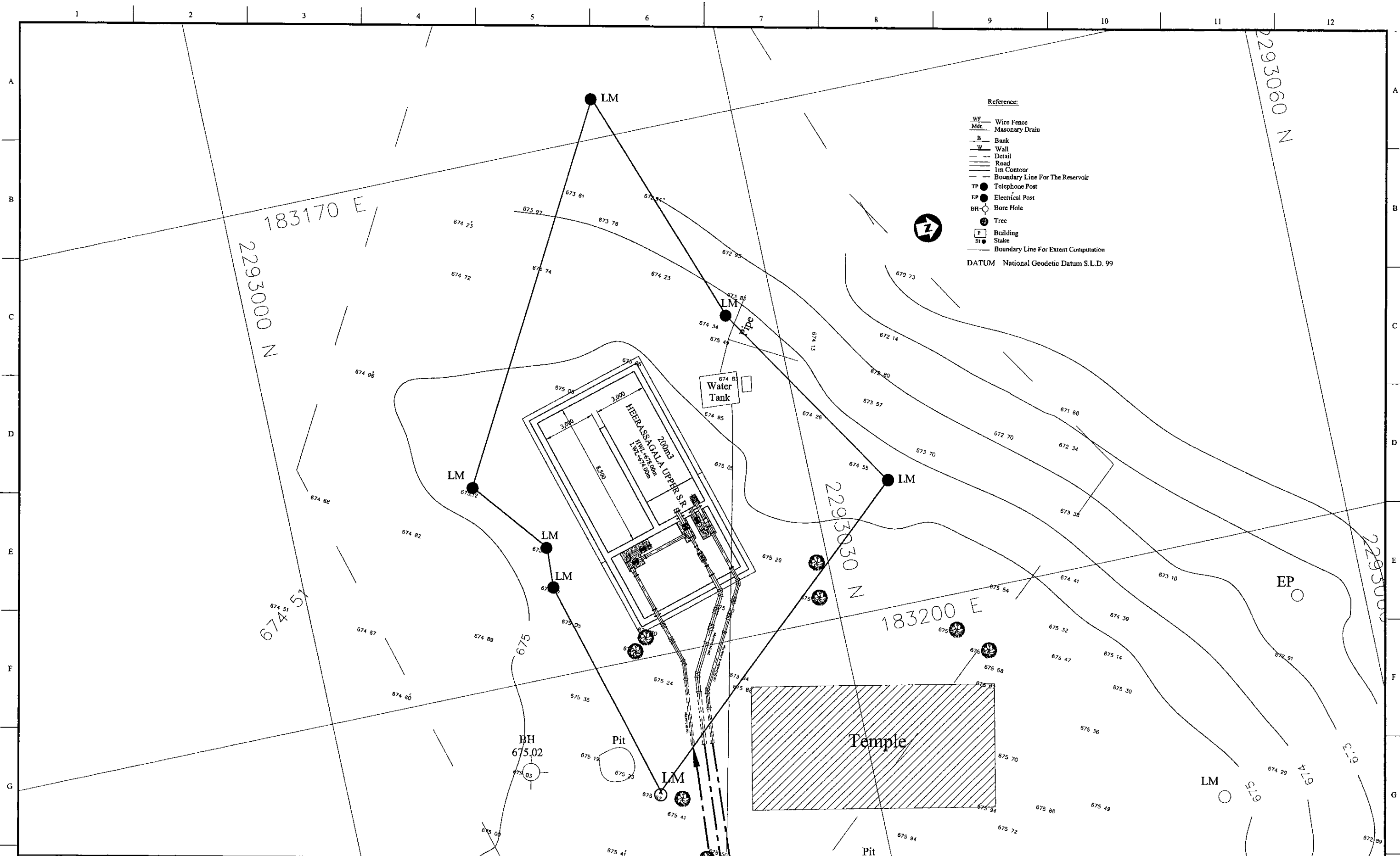
- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

**LEGEND (Electrical)**

-  2x36 Watt x 1200mm FLUORSCENT FITTING, HPF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
-  60W OUT DOOR WALL BRACKET LAMP FITTING
-  125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
-  METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
-  13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
-  ONE WAY SWITCH (FEL + 1.5)
-  EARTH PIPE

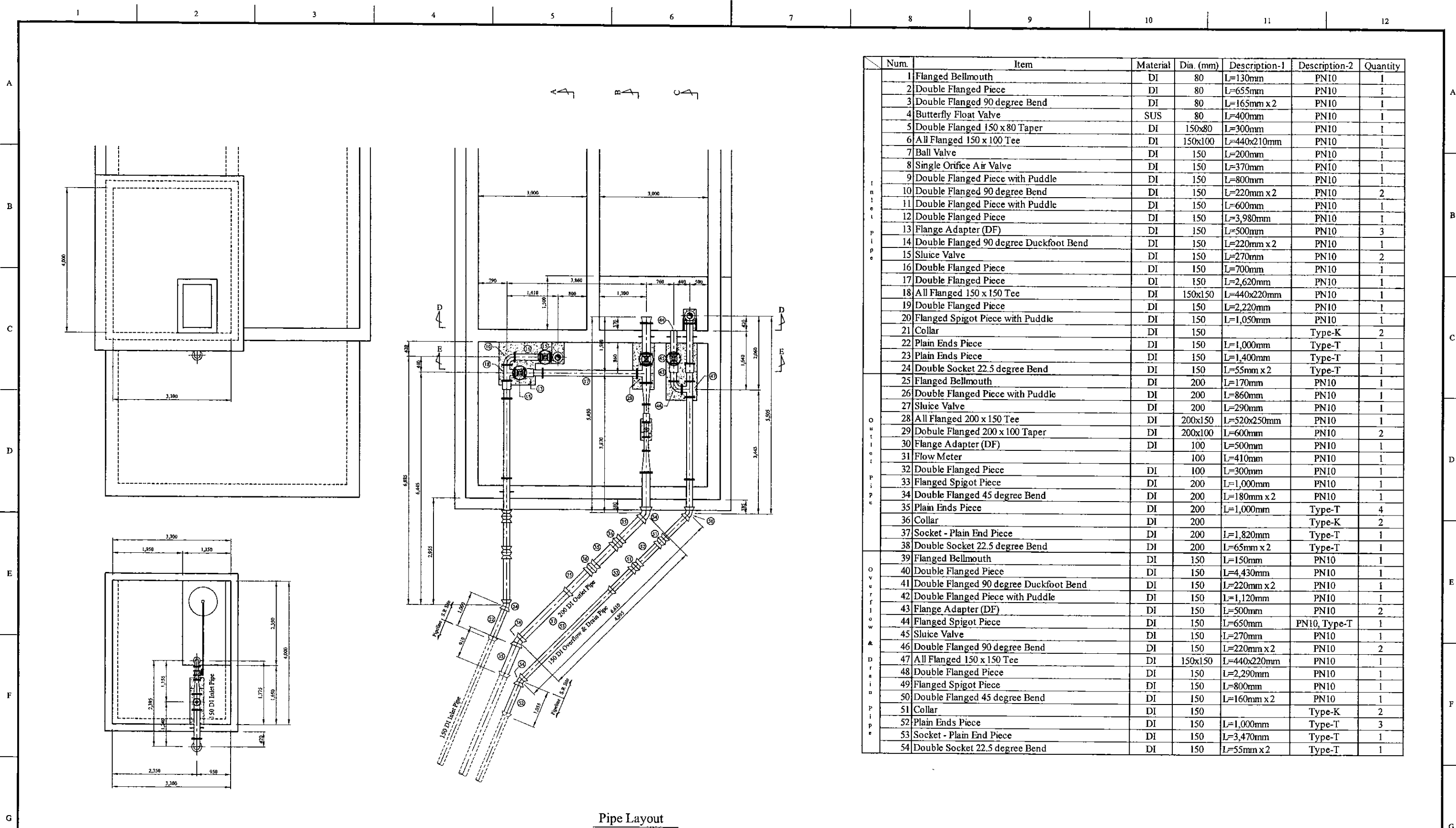


PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ELECTRICAL PLAN FOR PROPOSED (200m3) HEERASSAGALA UPPER S.R								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: ETG	DRAWN: lakmal	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:200 on A3 Size
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-22-21



- Reference:
- WF Wire Fence
  - Md Masonry Drain
  - B Bank
  - W Wall
  - Detail
  - Road
  - 1m Contour
  - Boundary Line For The Reservoir
  - TP Telephone Post
  - EP Electrical Post
  - BH Bore Hole
  - Tree
  - Building
  - Stake
  - Boundary Line For Extent Computation
- DATUM National Geodetic Datum S.L.D. 99

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT PLAN OF 200m3 HEERASSAGALA UPPER S.R.								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-22-01

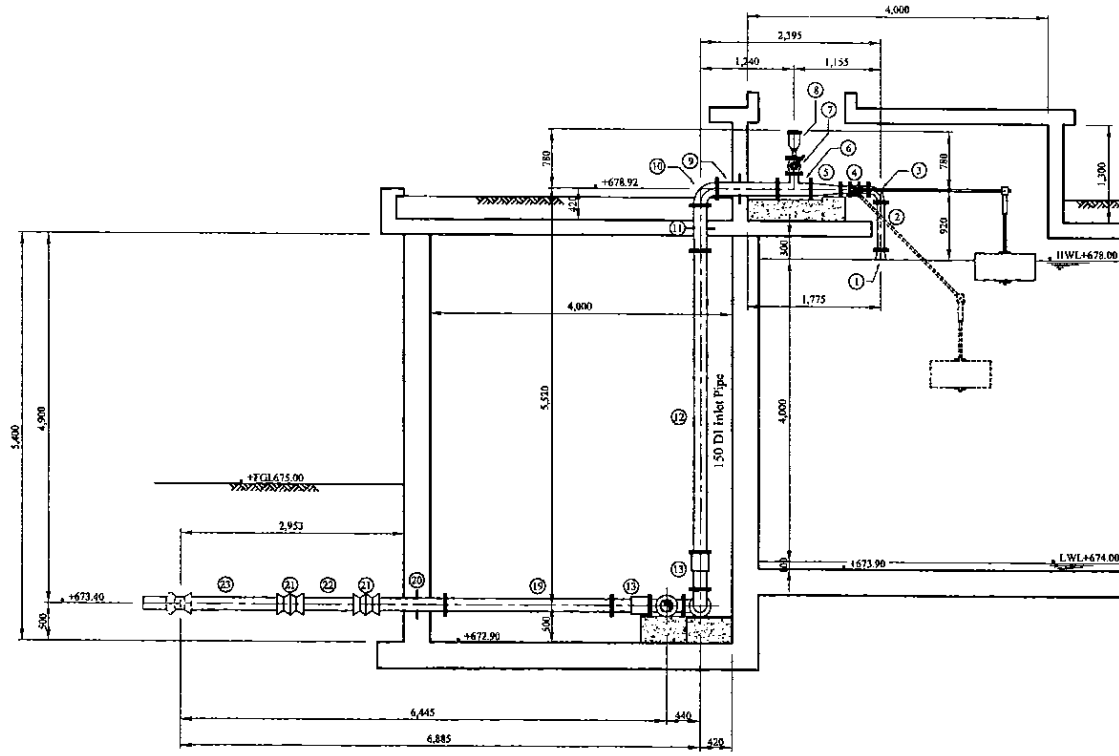


Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	80	L=130mm	PN10	1
2	Double Flanged Piece	DI	80	L=655mm	PN10	1
3	Double Flanged 90 degree Bend	DI	80	L=165mm x 2	PN10	1
4	Butterfly Float Valve	SUS	80	L=400mm	PN10	1
5	Double Flanged 150 x 80 Taper	DI	150x80	L=300mm	PN10	1
6	All Flanged 150 x 100 Tee	DI	150x100	L=440x210mm	PN10	1
7	Ball Valve	DI	150	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	150	L=370mm	PN10	1
9	Double Flanged Piece with Puddle	DI	150	L=800mm	PN10	1
10	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
11	Double Flanged Piece with Puddle	DI	150	L=600mm	PN10	1
12	Double Flanged Piece	DI	150	L=3,980mm	PN10	1
13	Flange Adapter (DF)	DI	150	L=500mm	PN10	3
14	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
15	Sluice Valve	DI	150	L=270mm	PN10	2
16	Double Flanged Piece	DI	150	L=700mm	PN10	1
17	Double Flanged Piece	DI	150	L=2,620mm	PN10	1
18	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
19	Double Flanged Piece	DI	150	L=2,220mm	PN10	1
20	Flanged Spigot Piece with Puddle	DI	150	L=1,050mm	PN10	1
21	Collar	DI	150		Type-K	2
22	Plain Ends Piece	DI	150	L=1,000mm	Type-T	1
23	Plain Ends Piece	DI	150	L=1,400mm	Type-T	1
24	Double Socket 22.5 degree Bend	DI	150	L=55mm x 2	Type-T	1
25	Flanged Bellmouth	DI	200	L=170mm	PN10	1
26	Double Flanged Piece with Puddle	DI	200	L=860mm	PN10	1
27	Sluice Valve	DI	200	L=290mm	PN10	1
28	All Flanged 200 x 150 Tee	DI	200x150	L=520x250mm	PN10	1
29	Double Flanged 200 x 100 Taper	DI	200x100	L=600mm	PN10	2
30	Flange Adapter (DF)	DI	100	L=500mm	PN10	1
31	Flow Meter		100	L=410mm	PN10	1
32	Double Flanged Piece	DI	100	L=300mm	PN10	1
33	Flanged Spigot Piece	DI	200	L=1,000mm	PN10	1
34	Double Flanged 45 degree Bend	DI	200	L=180mm x 2	PN10	1
35	Plain Ends Piece	DI	200	L=1,000mm	Type-T	4
36	Collar	DI	200		Type-K	2
37	Socket - Plain End Piece	DI	200	L=1,820mm	Type-T	1
38	Double Socket 22.5 degree Bend	DI	200	L=65mm x 2	Type-T	1
39	Flanged Bellmouth	DI	150	L=150mm	PN10	1
40	Double Flanged Piece	DI	150	L=4,430mm	PN10	1
41	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
42	Double Flanged Piece with Puddle	DI	150	L=1,120mm	PN10	1
43	Flange Adapter (DF)	DI	150	L=500mm	PN10	2
44	Flanged Spigot Piece	DI	150	L=650mm	PN10, Type-T	1
45	Sluice Valve	DI	150	L=270mm	PN10	1
46	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	2
47	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
48	Double Flanged Piece	DI	150	L=2,290mm	PN10	1
49	Flanged Spigot Piece	DI	150	L=800mm	PN10	1
50	Double Flanged 45 degree Bend	DI	150	L=160mm x 2	PN10	1
51	Collar	DI	150		Type-K	2
52	Plain Ends Piece	DI	150	L=1,000mm	Type-T	3
53	Socket - Plain End Piece	DI	150	L=3,470mm	Type-T	1
54	Double Socket 22.5 degree Bend	DI	150	L=55mm x 2	Type-T	1

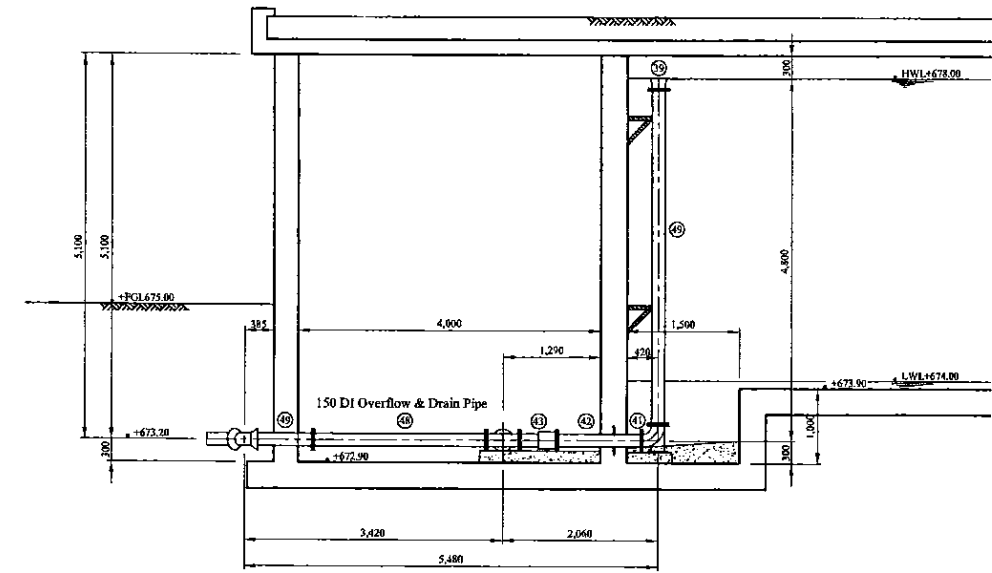
Pipe Layout

\* Contractor should provide concrete and/or metal pipe support.

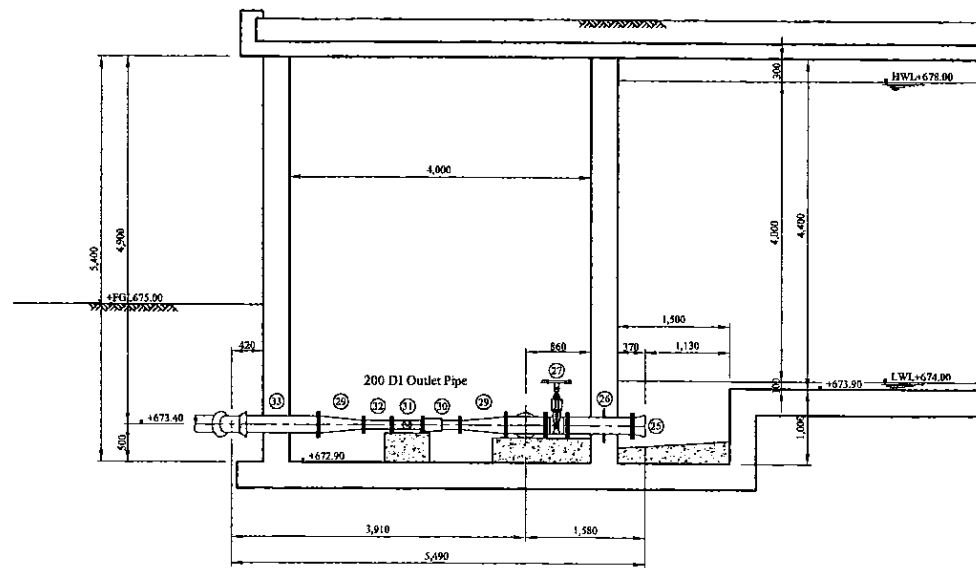
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HEERASSAGALA UPPER S.R. - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-22-02



Section A - A



Section C - C



Section B - B

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

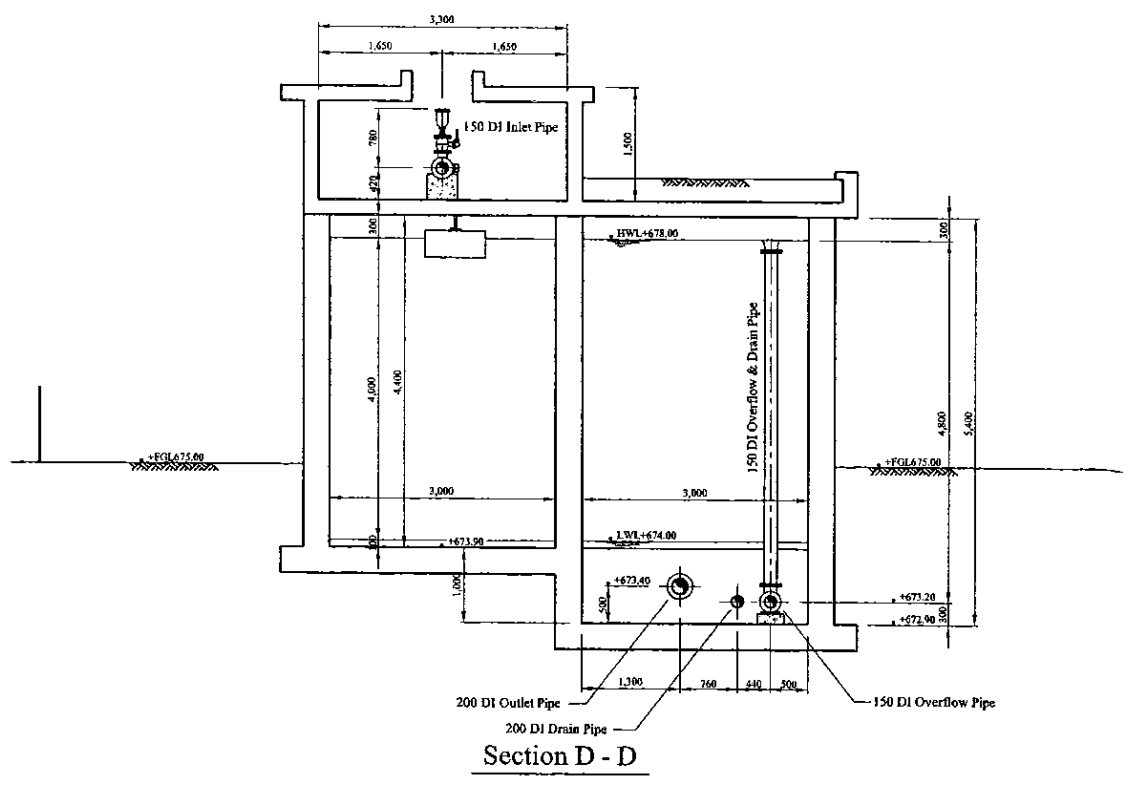
TITLE: PIPE LAYOUT OF HEERASSAGALA UPPER S.R - 2

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

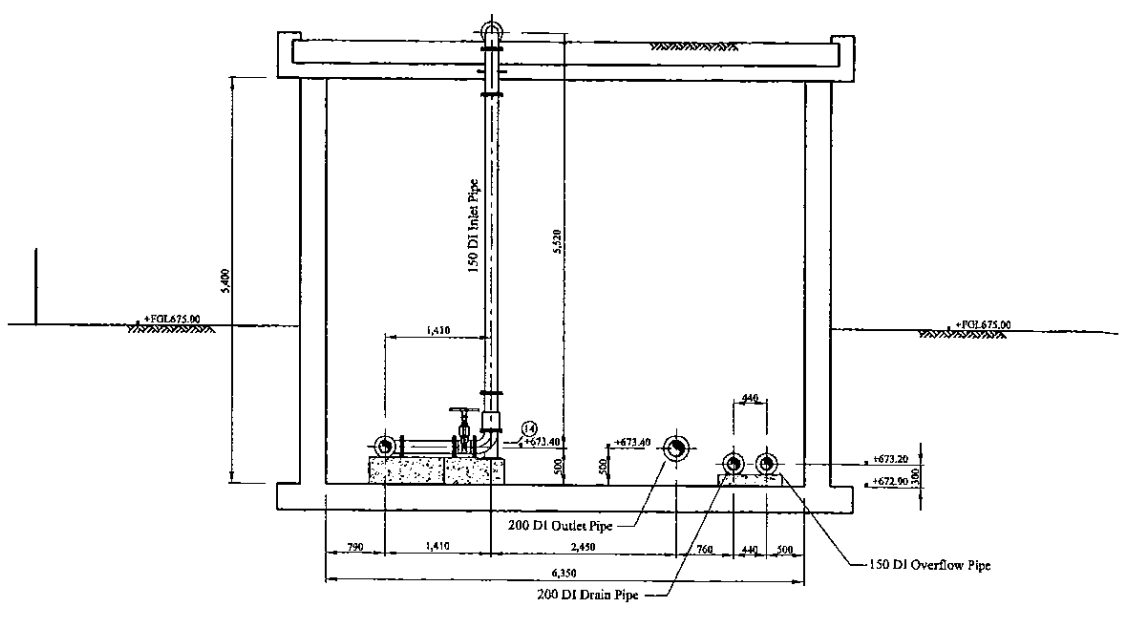


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-22-03



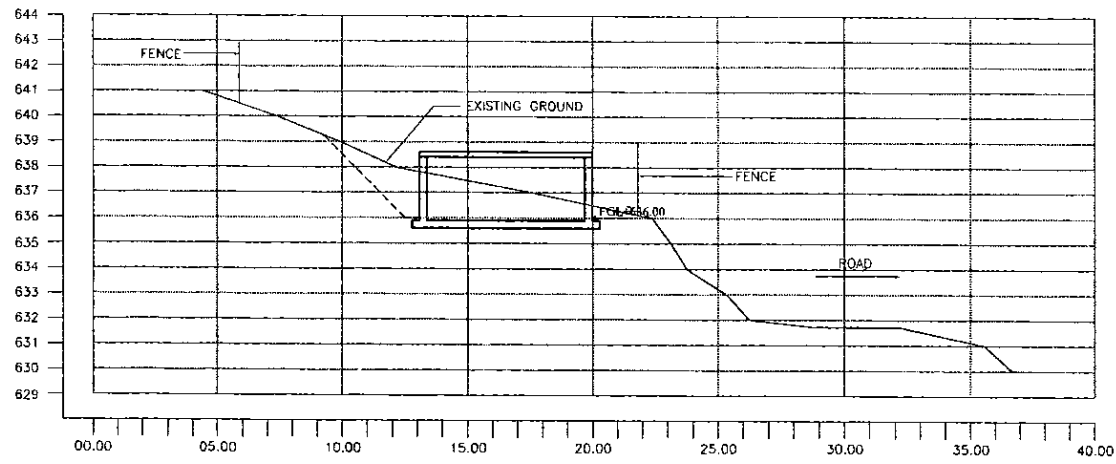
Section D - D



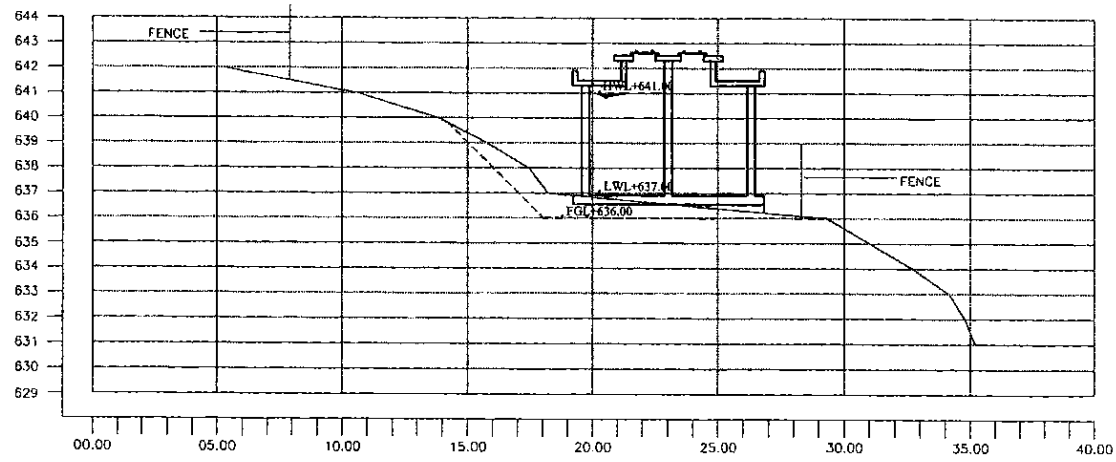
Section E - E

\* Contractor should provide concrete and/or metal pipe support.

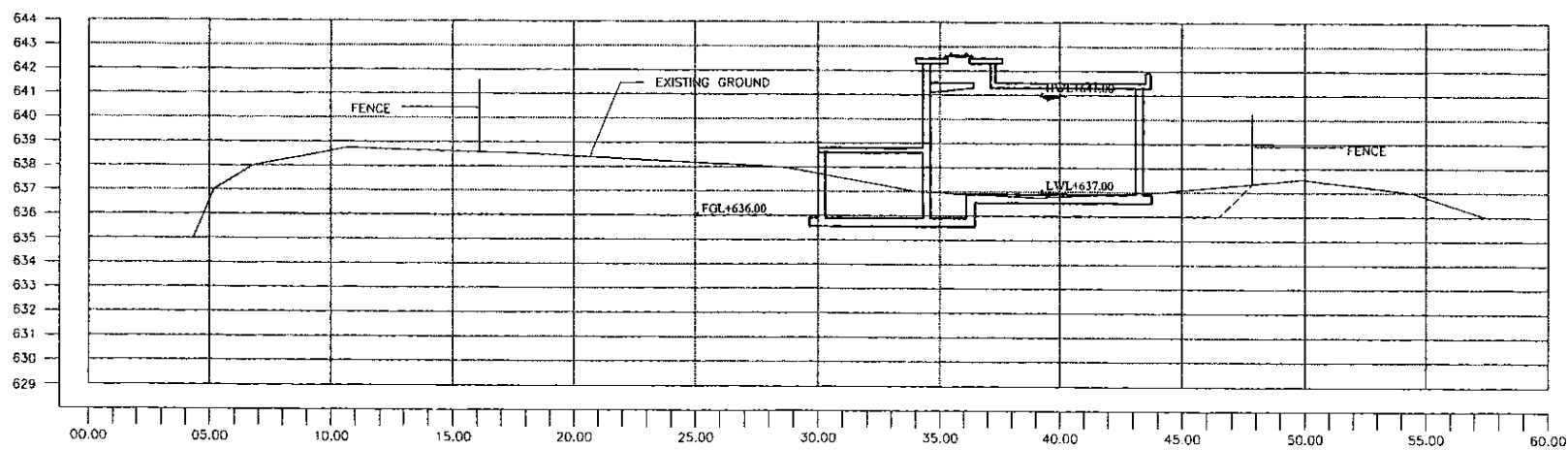
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HEERASSAGALA UPPER S.R - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-22-04



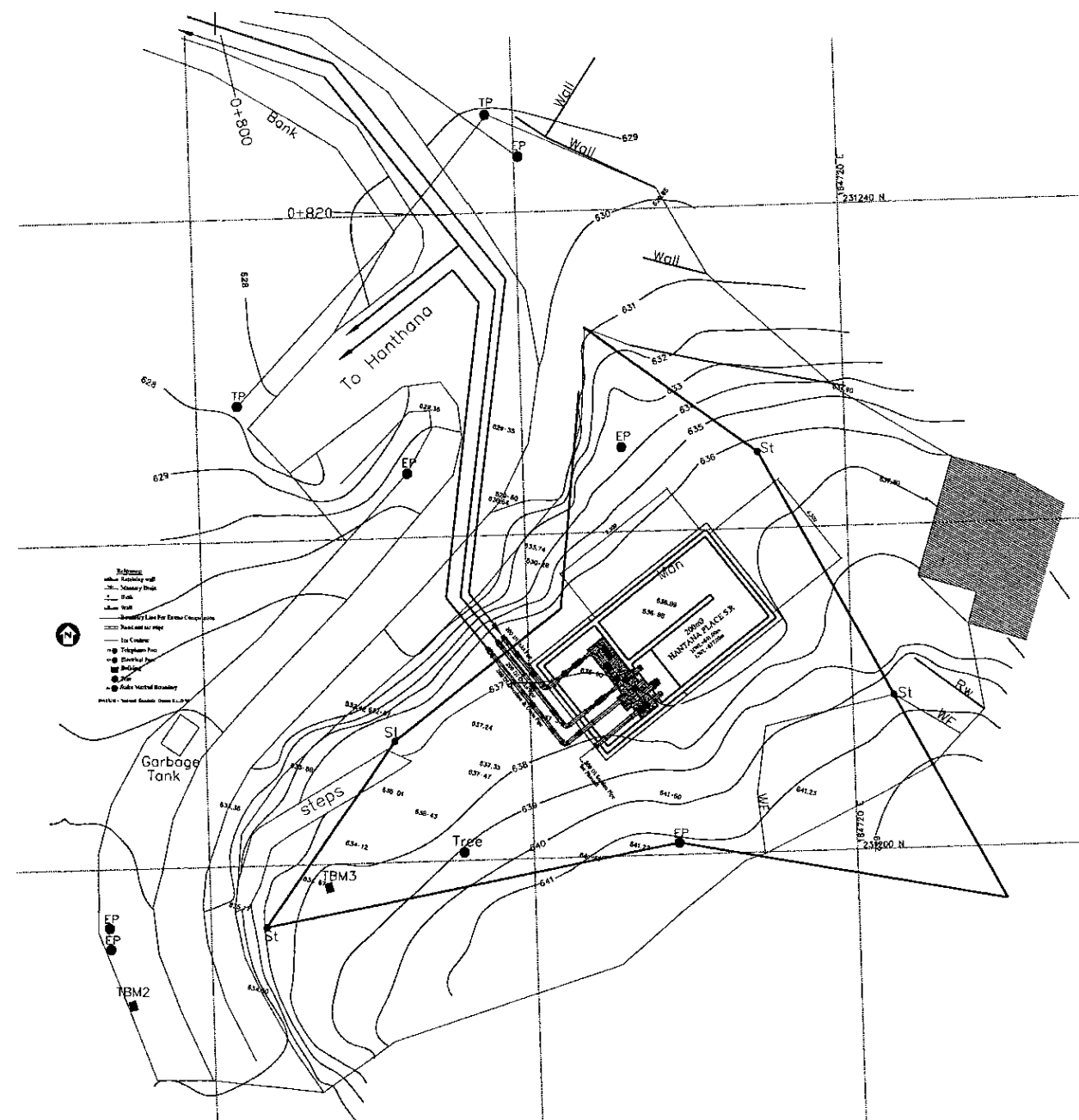
SECTION A - A  
1:150



SECTION B - B  
1:150



SECTION C - C  
1:150



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



**JAPAN INTERNATIONAL COOPERATION AGENCY**

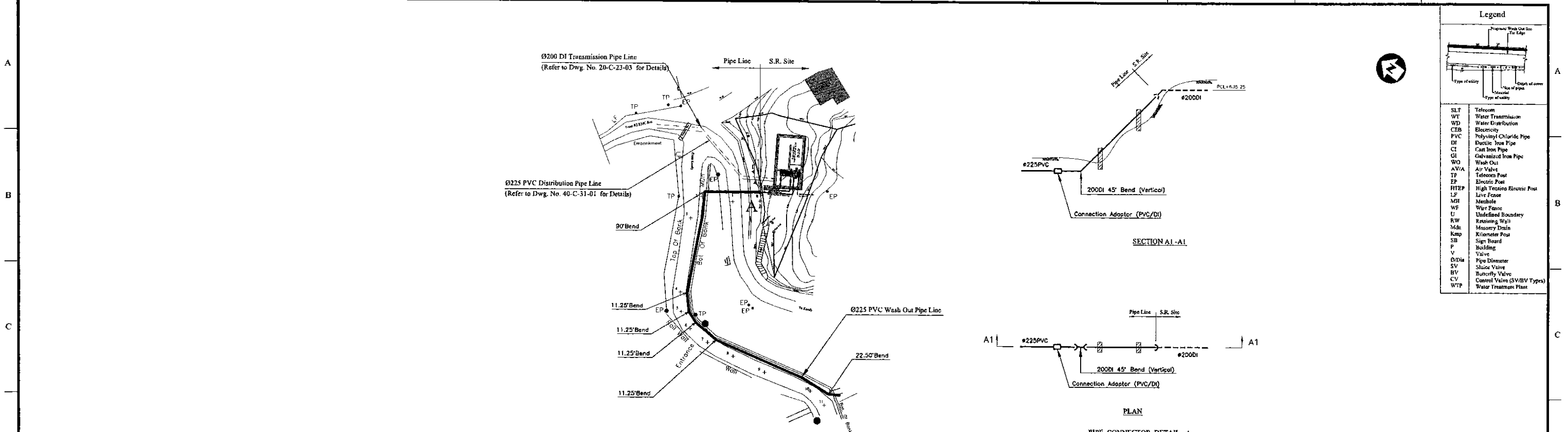
TITLE: **PLAN AND CSS OF 200m3 HANTANA PLACE S.R**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

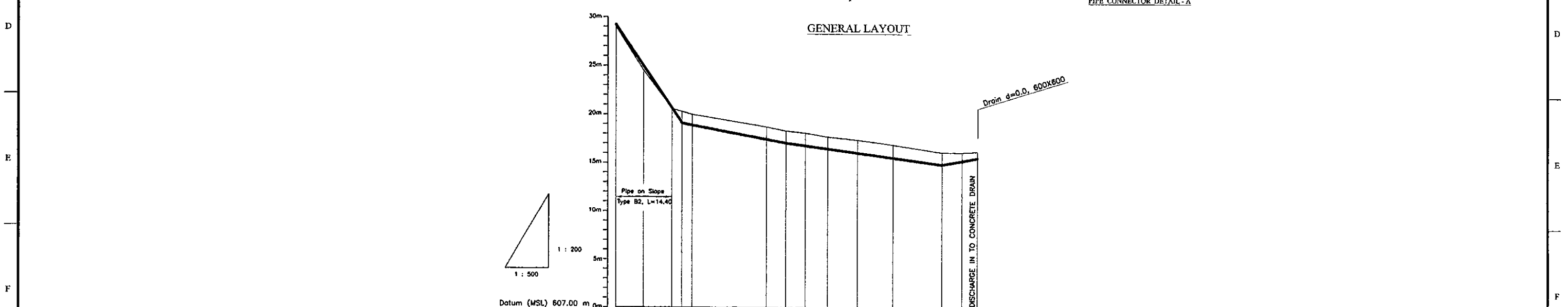
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				Koichi OKAZAKI	Ravi	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-23-01





**Legend**

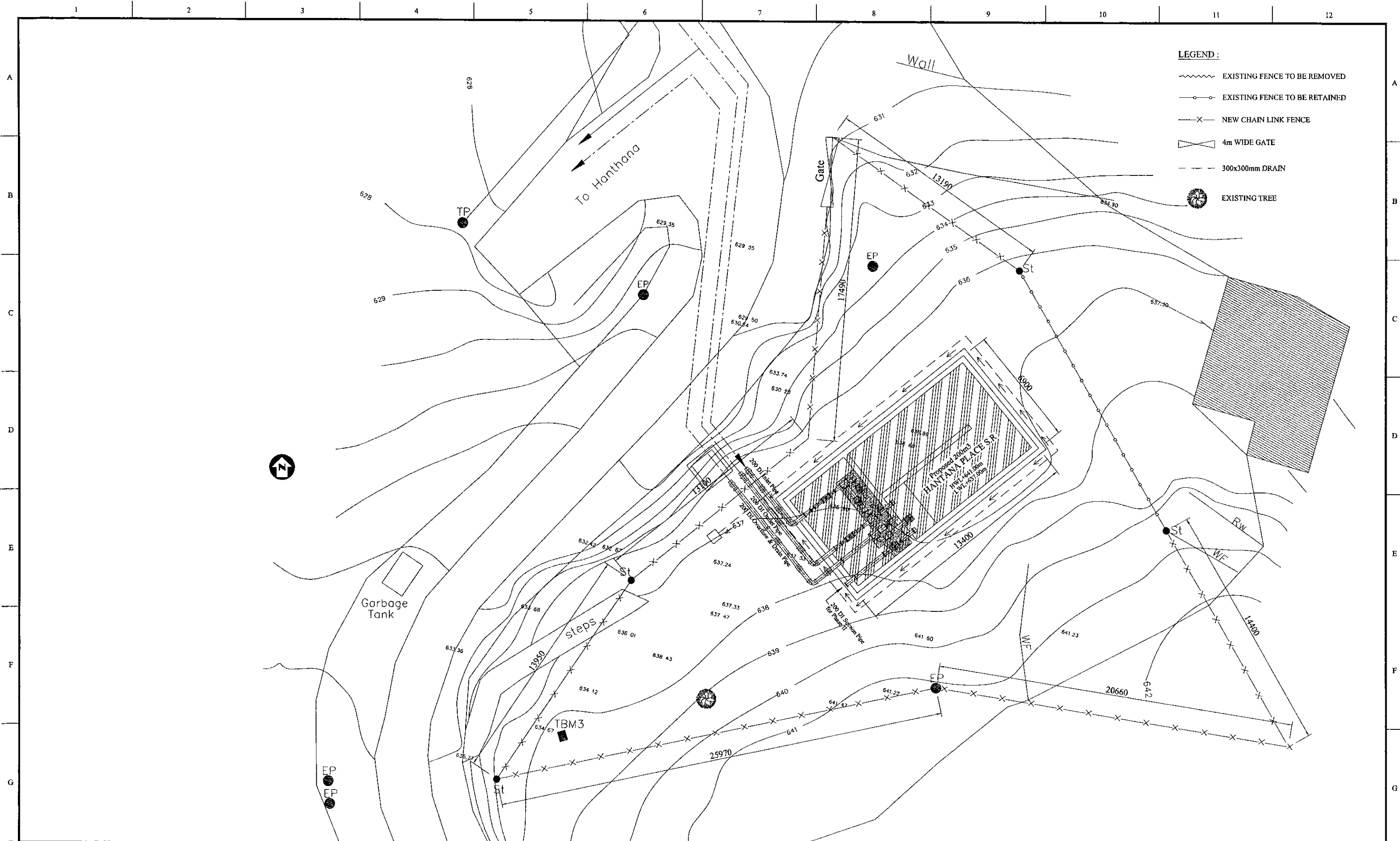
SLT	Telecom
WT	Water Transmission
WD	Water Distribution
CEB	Electricity
PVC	Polyvinyl Chloride Pipe
DI	Ductile Iron Pipe
CI	Cast Iron Pipe
GI	Galvanized Iron Pipe
WO	Wash Out
AV/A	Air Valve
TP	Telephone Post
EP	Electric Post
HTEP	High Tension Electric Post
LF	Live Fence
MF	Manhole
WF	Wire Fence
U	Undefined Boundary
RW	Retaining Wall
Md	Masonry Drain
Kmp	Kilometer Post
SB	Sign Board
P	Building
V	Valve
ØDia	Pipe Diameter
SV	Sluice Valve
BV	Butterfly Valve
CV	Control Valve (SV/BV Types)
WTP	Water Treatment Plant



Datum (MSL)	607.00 m												
Ground Level (m)	636.00	631.32	627.50	627.00	628.65	628.30	625.10	624.70	624.40	623.85	623.10	623.04	623.16
Pipe Invert Level <small>(Pipe thickness to be deducted wherever applicable)</small>	636.25		626.12	625.88		624.07		623.47		621.87		622.56	
Pipe Data	Ø 225 PVC RUBBER RING JOINT												
Single Distance (m)	0.00	7.10	7.30	5.20	19.50	5.04	4.88	5.74	7.58	9.12	12.68	5.15	4.06
Cumulative Distance (m)	0.00	7.10	14.40	19.60	39.10	43.94	48.82	54.56	62.14	71.26	83.94	89.09	93.25
Station No.	0	1	2	3	4	5	6	7	8	9	10	11	12

LONGITUDINAL SECTION

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> WASHOUT FROM HANTANA PLACE S.R.				SHEET 1 OF 1				
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi U.	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-23-02



- LEGEND :**
- EXISTING FENCE TO BE REMOVED
  - EXISTING FENCE TO BE RETAINED
  - NEW CHAIN LINK FENCE
  - 4m WIDE GATE
  - 300x300mm DRAIN
  - EXISTING TREE

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

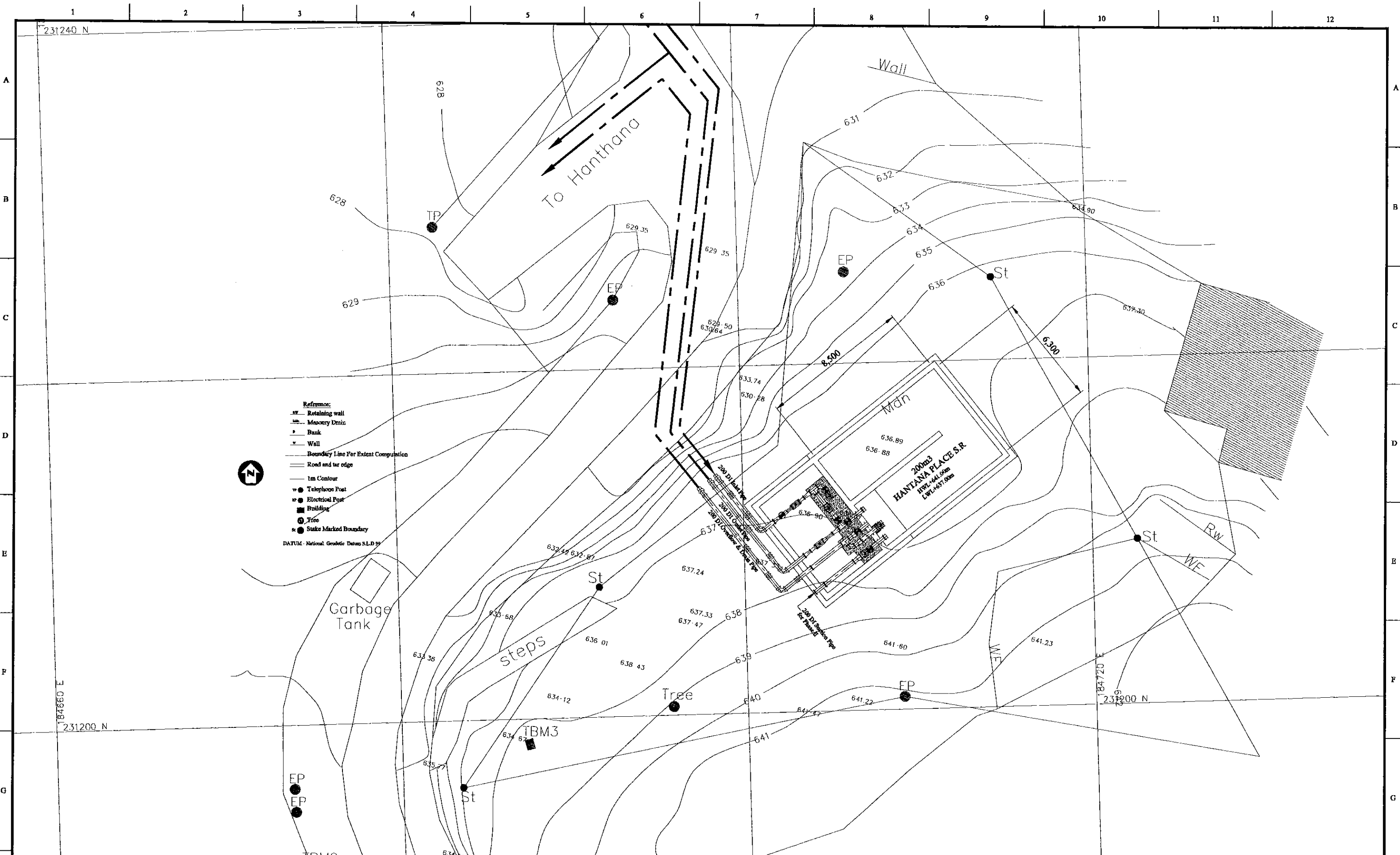
**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **200m2 HEERASSAGALA UPPER S.R. AND P.S. LANDSCAPING LAYOUT**

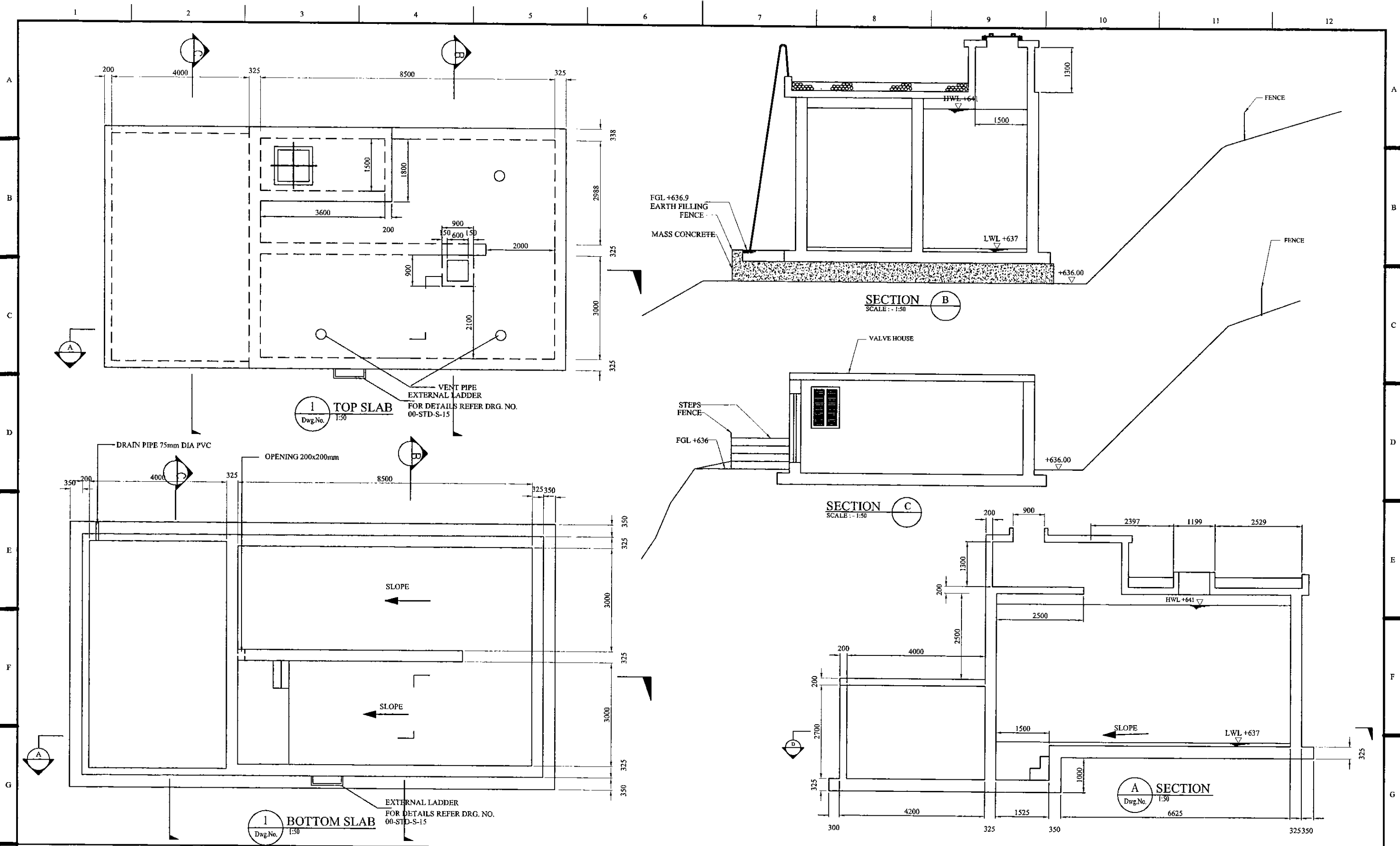
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

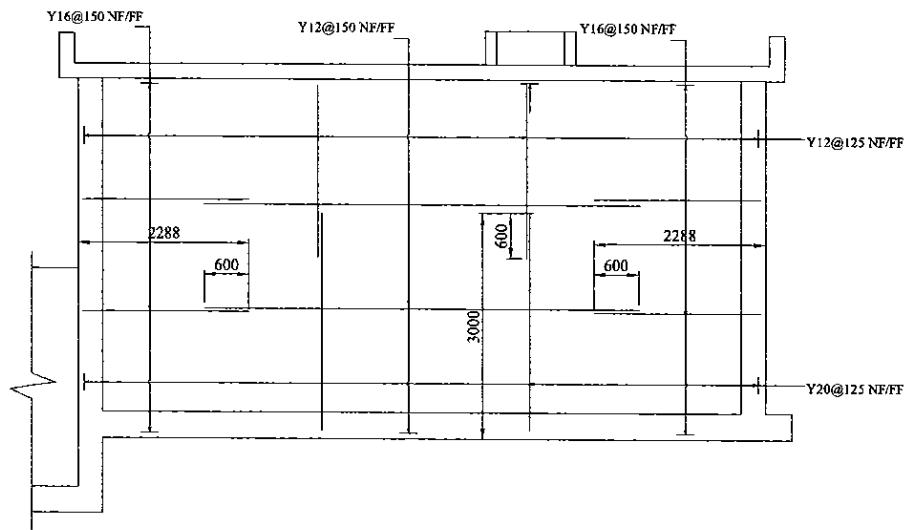
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	POORNA	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-23-03



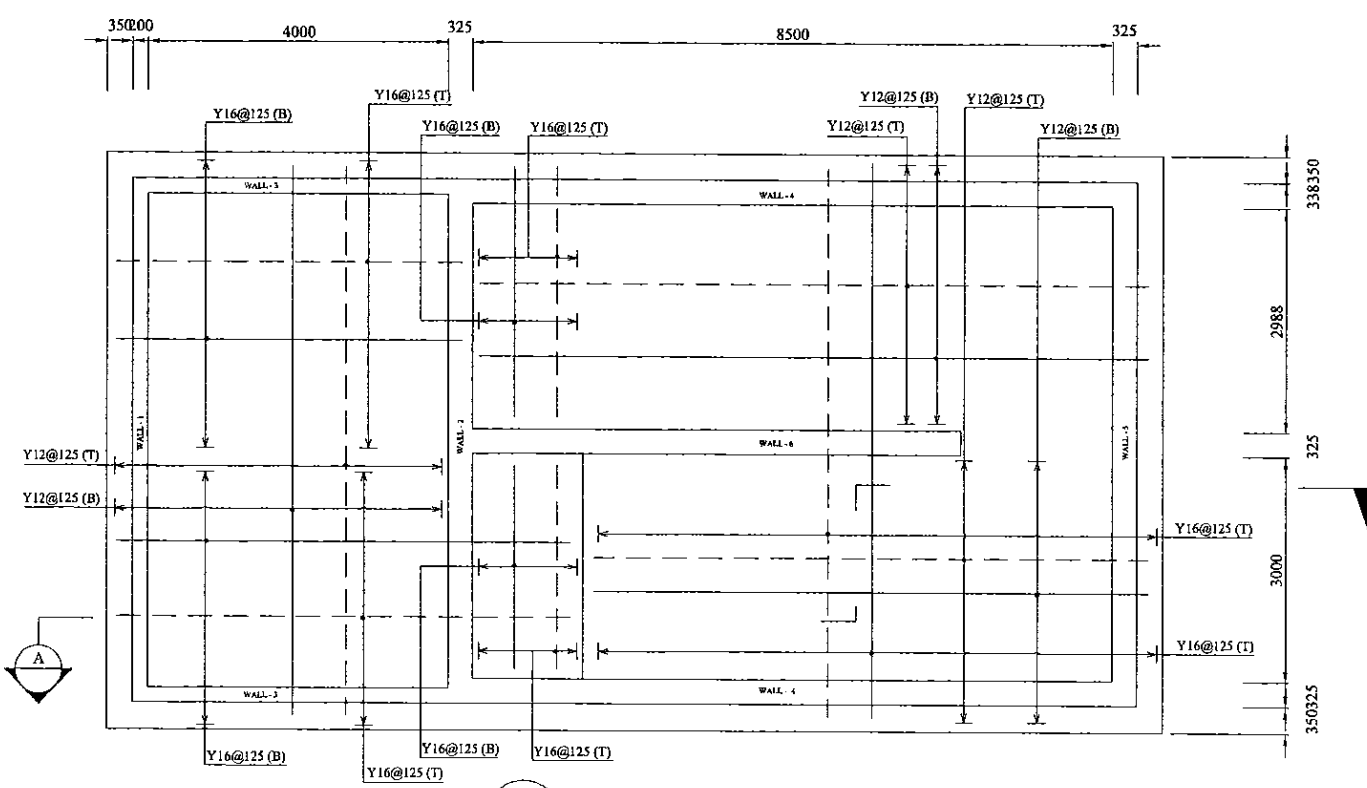
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: HANTANA PLACE SERVICE RESERVOIR SITE PLAN								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NCS NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: Kalinga	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
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								DESIGN CHIEF				



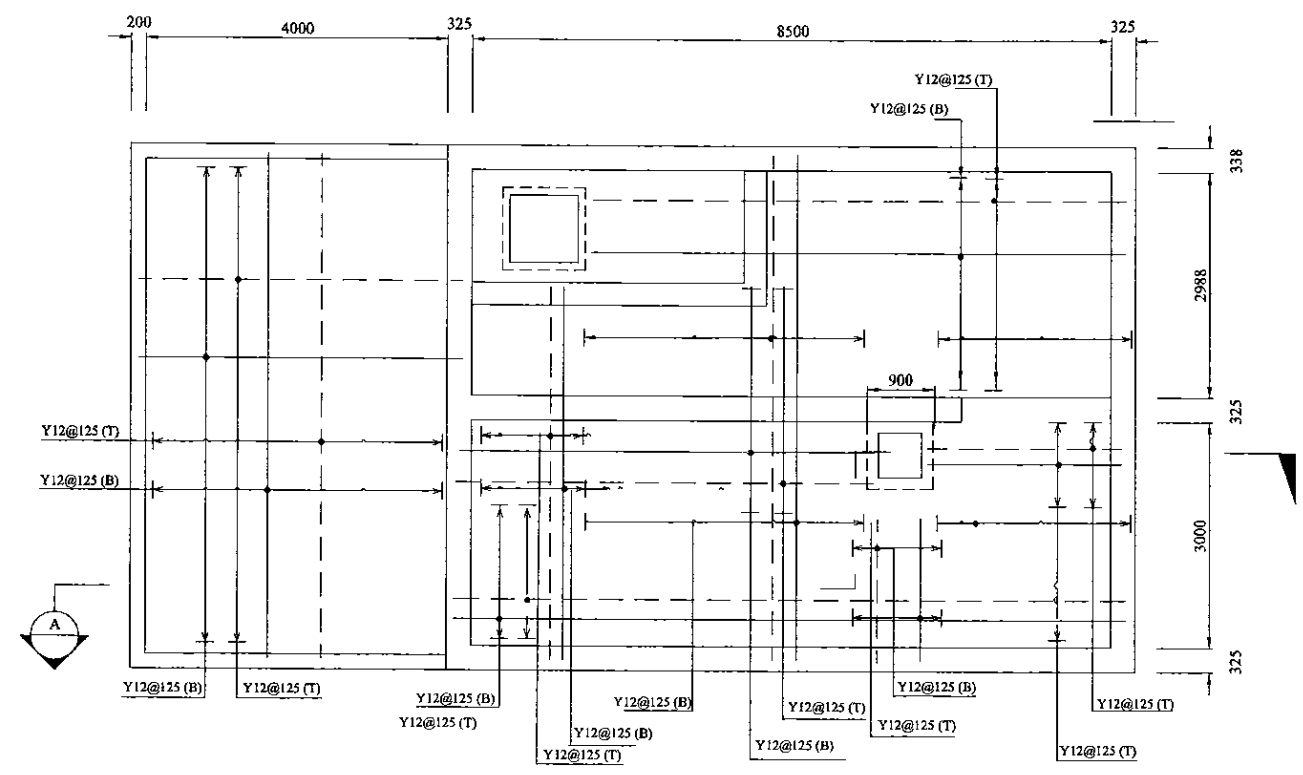
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>HANTANA PALCE RESERVOIR - GENERAL ARRANGEMENT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>Udita</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-23-02</b>



1 ELEVATION OF WALL - 4 (TYP. FOR WALL - 6)  
Dwg.No. T:50



1 BOTTOM SLAB  
Dwg.No. T:50



1 TOP SLAB  
Dwg.No. T:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

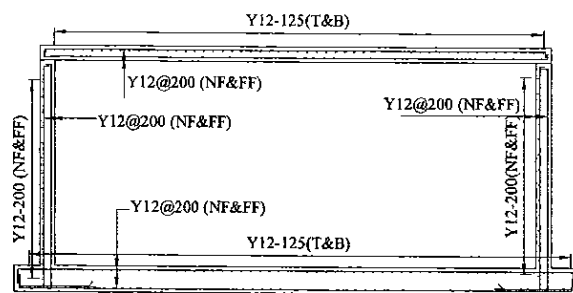
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HANTANA PLACE RESERVOIR - REINFORCEMENT DETAILS - WALL ELEVATION

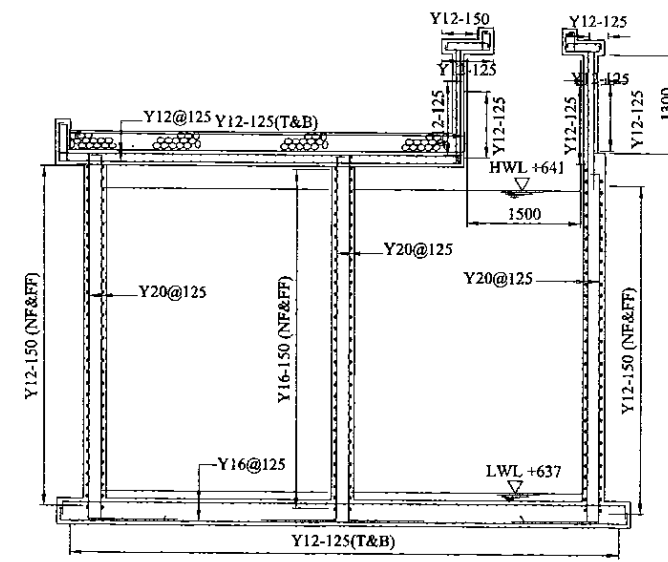
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. JAPAN  
ENGINEERING CONSULTANTS LIMITED.-SRI LANKA

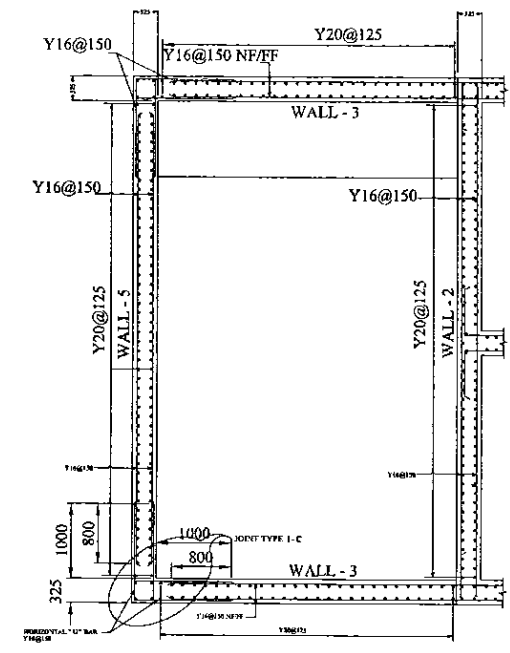
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-23-03



1 SECTION C  
Dwg.No. 1:50

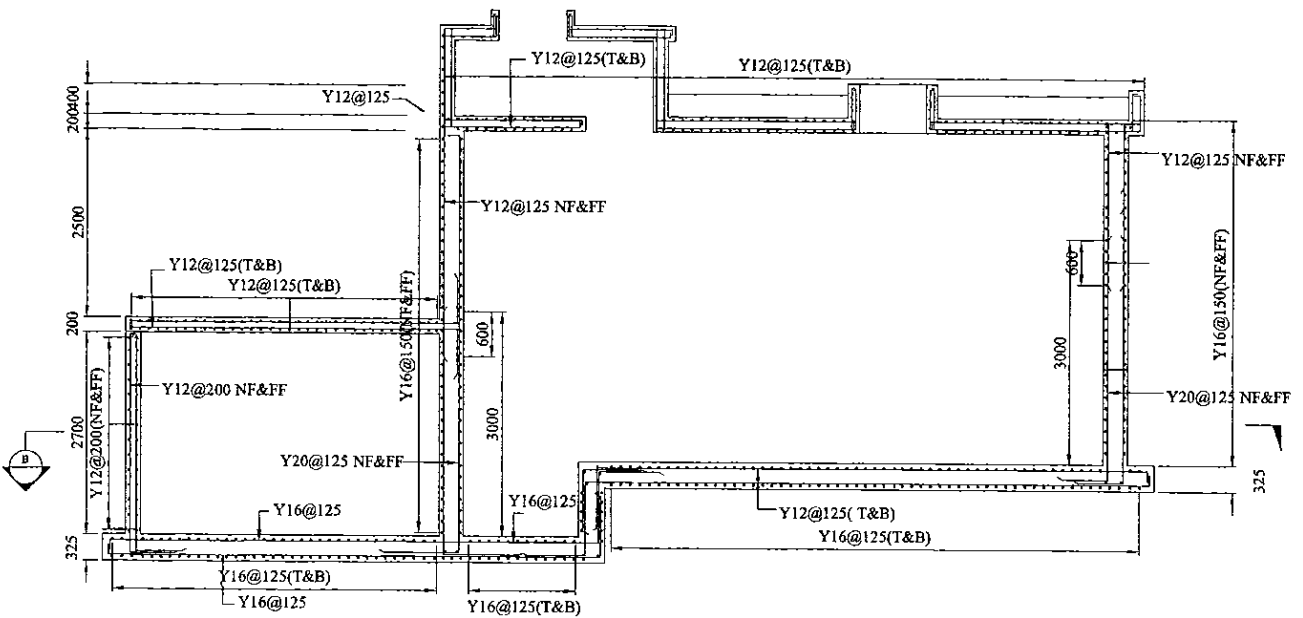


1 SECTION B  
Dwg.No. 1:50

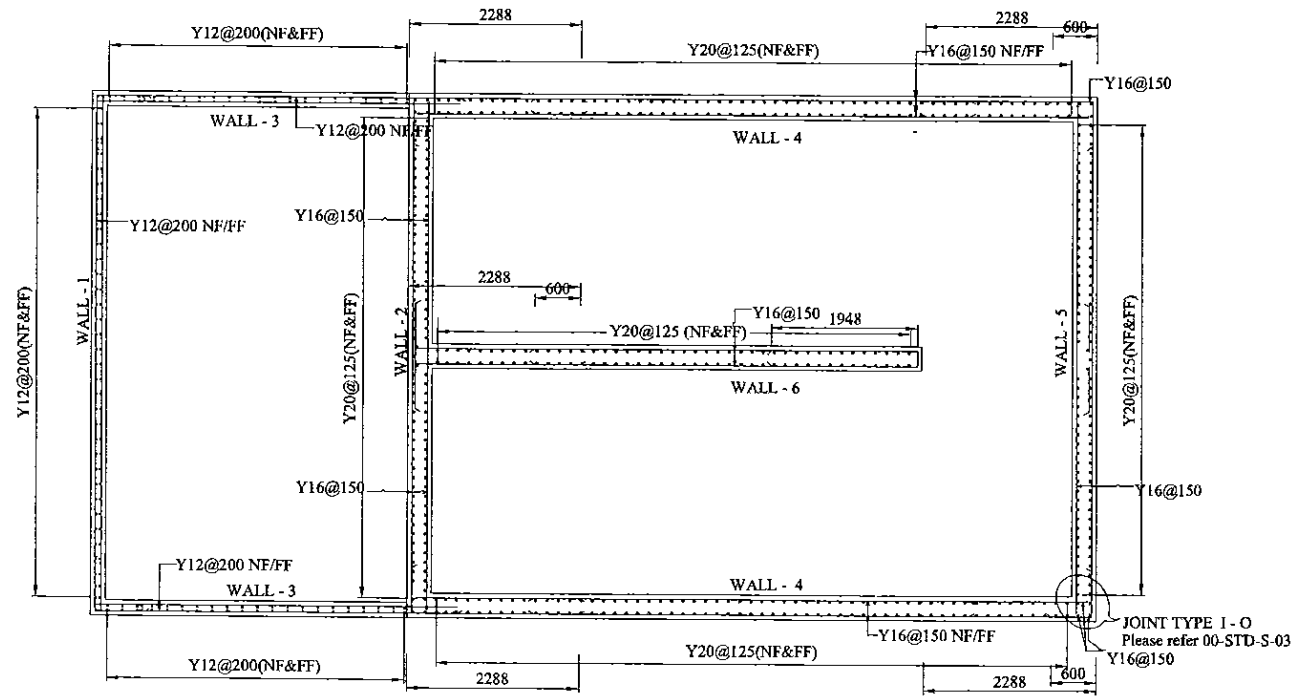


SECTIONAL PLAN OF VALVE HOUSE  
Dwg.No. 1:50

NOTE:  
1. FOR STRUCTURAL DETAILS REFER DWG. NO. 35-5-00-01 TO 04 (DWG. RESERVOIR STANDARD DRAWINGS)  
2. WALL - 1 AND WALL - 2 TO BE INCREASED TO 325 AND DETAILS AS SHOWN.



1 SECTION A  
Dwg.No. 1:50



1 SECTION D  
Dwg.No. 1:50

JOINT TYPE 1 - O  
Please refer 00-STD-S-03  
Y16@150

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

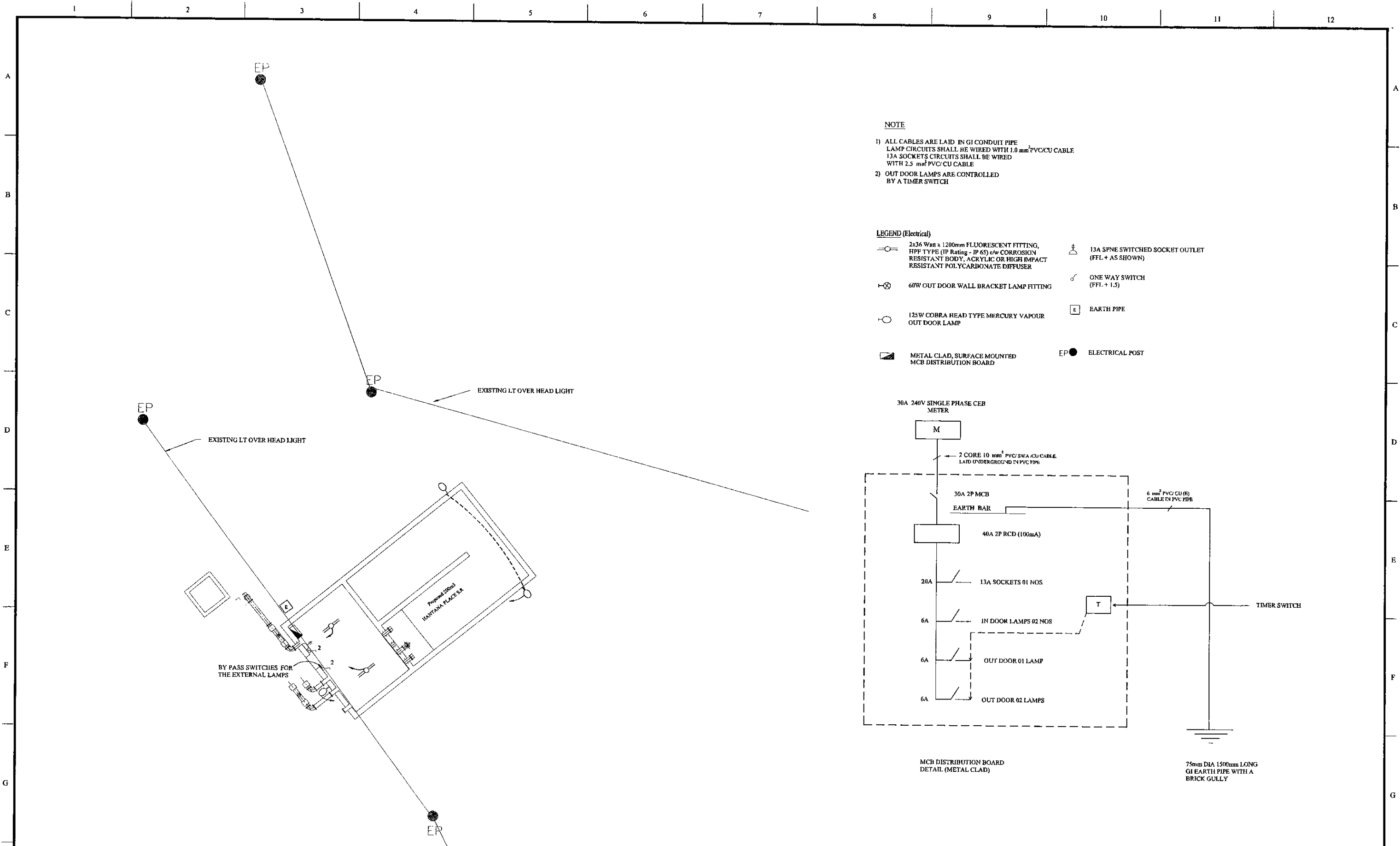
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: HANTANA PLACE RESERVOIR - REINFORCEMENT DETAILS - SECTION

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:  
NJS CONSULTANTS CO., LTD. JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. JAPAN  
ENGINEERING CONSULTANTS LIMITED.-SRI LANKA

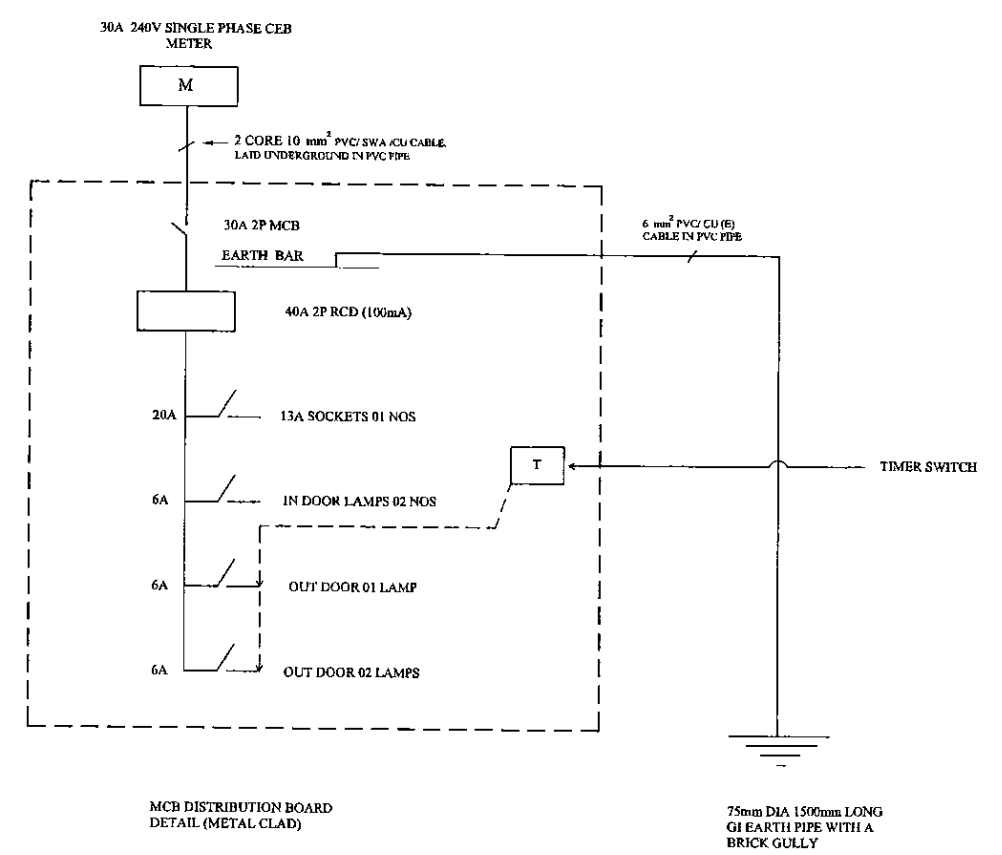
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-23-04



**NOTE**

- 1) ALL CABLES ARE LAID IN GI CONDUIT PIPE  
LAMP CIRCUITS SHALL BE WIRED WITH 1.0 mm<sup>2</sup> PVC/CU CABLE  
13A SOCKETS CIRCUITS SHALL BE WIRED  
WITH 2.5 mm<sup>2</sup> PVC/CU CABLE
- 2) OUT DOOR LAMPS ARE CONTROLLED  
BY A TIMER SWITCH

- LEGEND (Electrical)**
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
  - ⊗ 60W OUT DOOR WALL BRACKET LAMP FITTING
  - 125W COBRA HEAD TYPE MERCURY VAPOUR OUT DOOR LAMP
  - ☐ METAL CLAD, SURFACE MOUNTED MCB DISTRIBUTION BOARD
  - ⊕ 13A SPNE SWITCHED SOCKET OUTLET (FFL + AS SHOWN)
  - ⌞ ONE WAY SWITCH (FFL + 1.5)
  - ☐ EARTH PIPE
  - EP ELECTRICAL POST



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

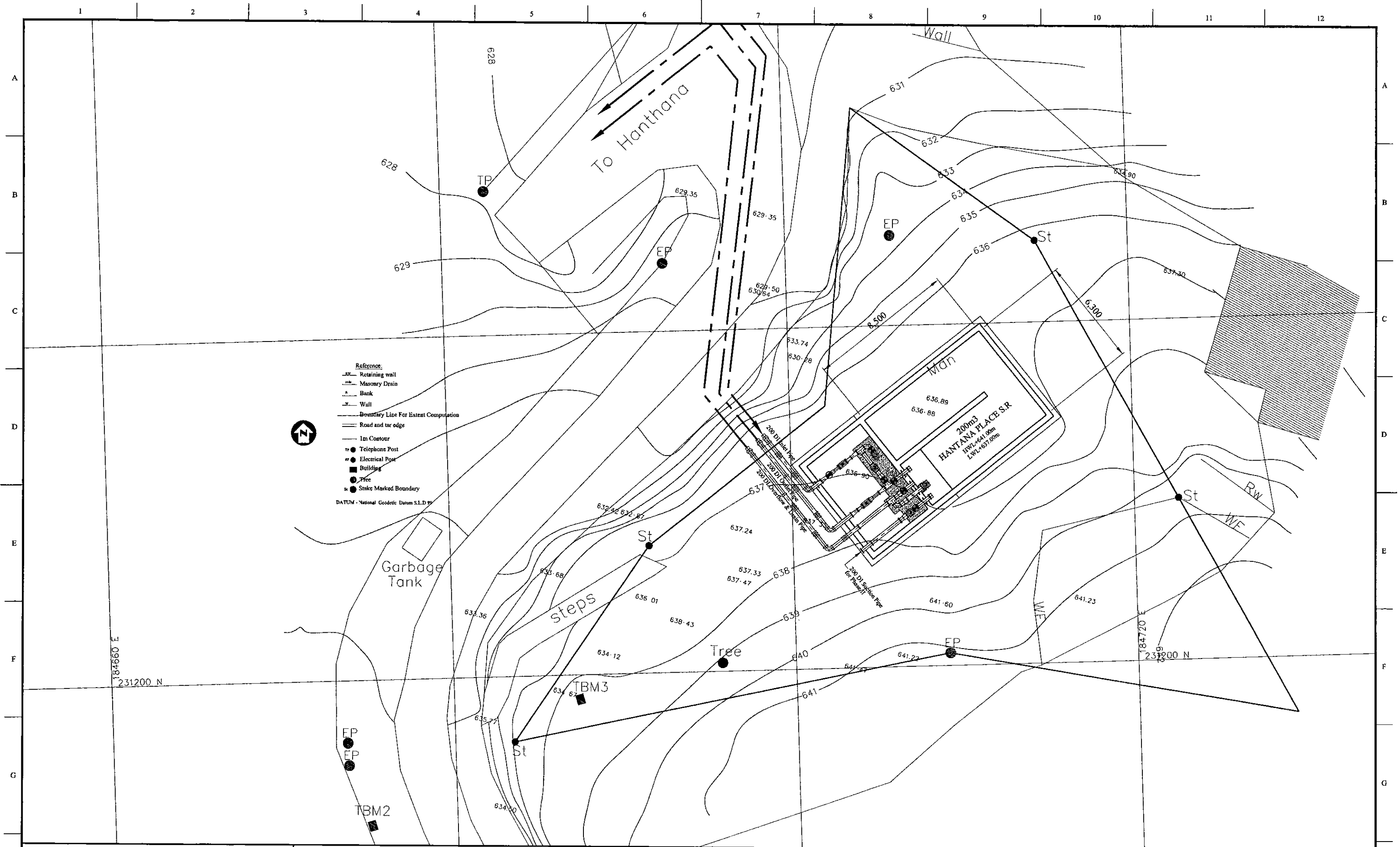
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ELECTRICAL PLAN FOR PROPOSED (200m<sup>3</sup>) HANTANA PLACE S.R

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	FM: (CONSULTANT)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX	ATG		Ikuo MIWA		1:200 on A3 Size
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-A-3-23-21



- Reference:**
- Retaining wall
  - Masonry Drain
  - Bank
  - Wall
  - Boundary Line For Extent Computation
  - Road and tar edge
  - 1m Contour
  - Telephone Post
  - Electrical Post
  - Building
  - Tree
  - Stake Marked Boundary
- DATUM - National Geodetic Datum S.L.D. 97

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

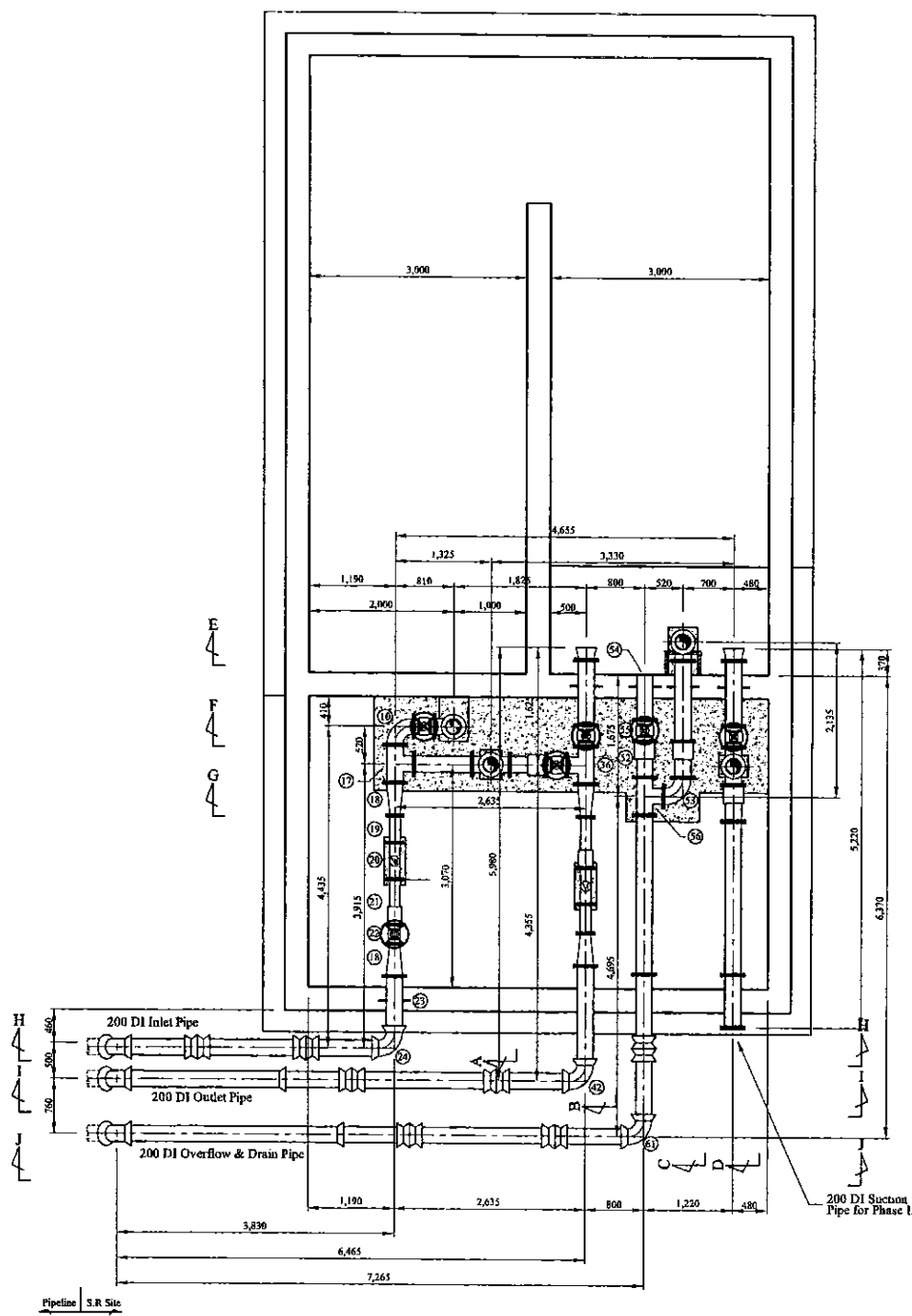
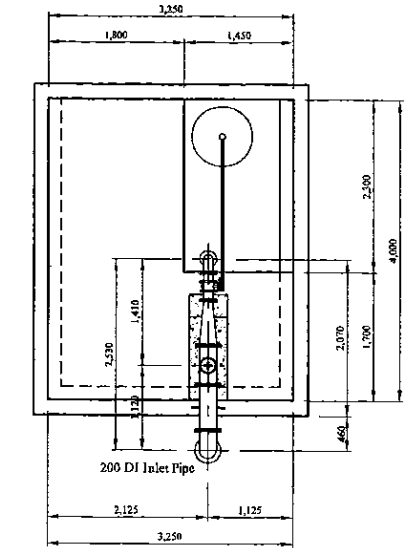
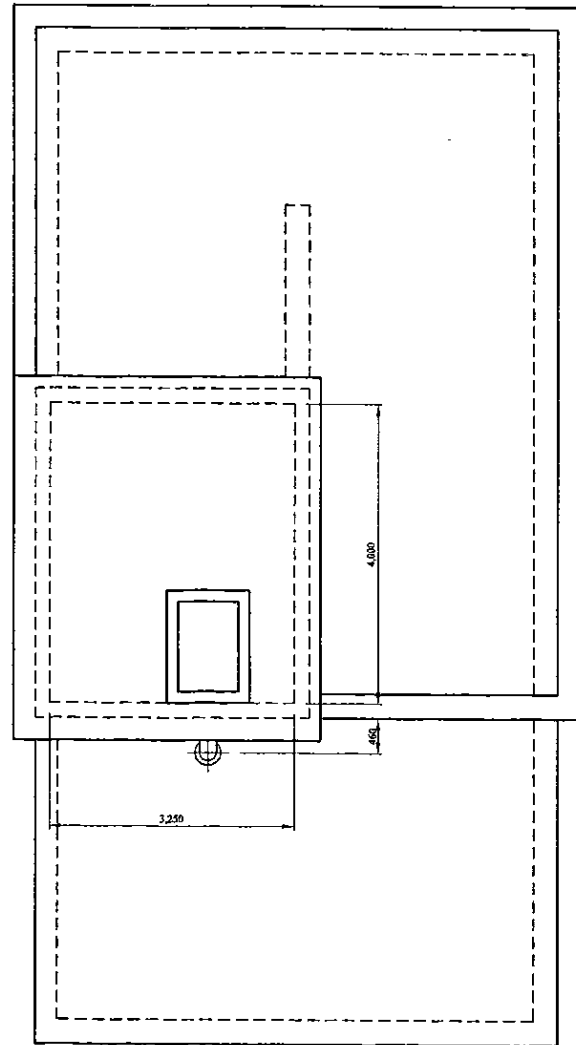
TITLE: PIPE LAYOUT PLAN OF 200m<sup>3</sup> HANTANA PLACE S.R

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-23-01





Pipe Layout

Num.	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	100	L=135mm	PN10	1
2	Double Flanged Piece	DI	100	L=605mm	PN10	1
3	Double Flanged 90 degree Bend	DI	100	L=180mm x 2	PN10	1
4	Butterfly Float Valve	SUS	100	L=370mm	PN10	1
5	Double Flanged 200 x 100 Taper	DI	100	L=600mm	PN10	1
6	All Flanged 200 x 100 Tee	DI	200x100	L=520x260mm	PN10	2
7	Ball Valve	DI	100	L=200mm	PN10	1
8	Single Orifice Air Valve	DI	100	L=370mm	PN10	1
9	Double Flanged Piece with Puddle	DI	200	L=550mm	PN10	1
10	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	5
11	Flange Adapter (DF)	DI	200	L=500mm	PN10	3
12	Double Flanged Piece	DI	200	L=2,390mm	PN10	1
13	Double Flanged Piece with Puddle	DI	200	L=600mm	PN10	1
14	Double Flanged Piece	DI	200	L=1,190mm	PN10	1
15	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
16	Sluice Valve	DI	200	L=290mm	PN10	3
17	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	2
18	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	2
19	Double Flanged Piece	SP	125	L=375mm	PN10	1
20	Flow Meter		125	L=500mm	PN10	1
21	Flange Adapter (DF)	SS	125	L=625mm	PN10	1
22	Sluice Valve	DI	125	L=260mm	PN10	1
23	Flanged Spigot Piece with Puddle	DI	200	L=775mm	PN10, Type-T	1
24	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	1
25	Plain Ends Piece	DI	200	L=1,000mm	Type-T	2
26	Collar	DI	200		Type-K	2
27	Plain Ends Piece	DI	200	L=1,500mm	Type-T	1
28	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	1
29	Double Flanged Piece	DI	200	L=805mm	PN10	1
30	Single Orifice Air Valve with Cock	DI	100	L=350mm	PN10	1
31	Double Flanged Piece	DI	200	L=2,290mm	PN10	1
32	Double Flanged Piece	DI	200	L=790mm	PN10	1
33	Flanged Bellmouth	DI	200	L=170mm	PN10	1
34	Double Flanged Piece with Puddle	DI	200	L=905mm	PN10	1
35	Sluice Valve	DI	200	L=290mm	PN10	1
36	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
37	Double Flanged 200 x 125 Taper	SP	200x125	L=450mm	PN10	2
38	Flange Adapter (DF)	SS	125	L=700mm	PN10	1
39	Flow Meter		125	L=500mm	PN10	1
40	Double Flanged Piece	SP	125	L=400mm	PN10	1
41	Flanged Spigot Piece	DI	200	L=1,350mm	PN10, Type-T	1
42	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	1
43	Plain Ends Piece	DI	200	L=1,000mm	Type-T	2
44	Collar	DI	200		Type-K	2
45	Plain Ends Piece	DI	200	L=2,000mm	Type-T	1
46	Socket - Plain End Piece	DI	200	L=2,135mm	Type-T	1
47	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	1
48	Flanged Bellmouth	DI	200	L=170mm	PN10	1
49	Double Flanged Piece	DI	200	L=4,320mm	PN10	1
50	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mm x 2	PN10	1
51	Double Flanged Piece with Puddle	DI	200	L=1,115mm	PN10	1
52	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
53	Double Flanged 90 degree Bend	DI	200	L=260mm x 2	PN10	1
54	Flanged Spigot Piece with Puddle	DI	200	L=625mm	PN10, Type-T	1
55	Sluice Valve	DI	200	L=290mm	PN10	1
56	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
57	Double Flanged Piece	DI	200	L=2,190mm	PN10	1
58	Flanged Spigot Piece	DI	200	L=1,000mm	PN10, Type-T	1
59	Collar	DI	200		Type-K	3
60	Plain Ends Piece	DI	200	L=1,000mm	Type-T	3
61	Double Socket 90 degree Bend	DI	200	L=220mm x 2	Type-T	1
62	Plain Ends Piece	DI	200	L=2,000mm	Type-T	1
63	Socket - Plain End Piece	DI	200	L=2,935mm	Type-T	1
64	Double Socket 45 degree Bend	DI	200	L=110mm x 2	Type-T	1
65	Flanged Bellmouth	DI	200	L=170mm	PN10	1
66	Double Flanged Piece with Puddle	DI	200	L=905mm	PN10	1
67	Sluice Valve	DI	200	L=290mm	PN10	1
68	All Flanged 200 x 200 Tee	DI	200x200	L=520x260mm	PN10	1
69	Flange Adapter (DF)	DI	200	L=500mm	PN10	1
70	Double Flanged Piece	DI	200	L=2,110mm	PN10	1
71	Double Flanged Piece	DI	200	L=700mm	PN10	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



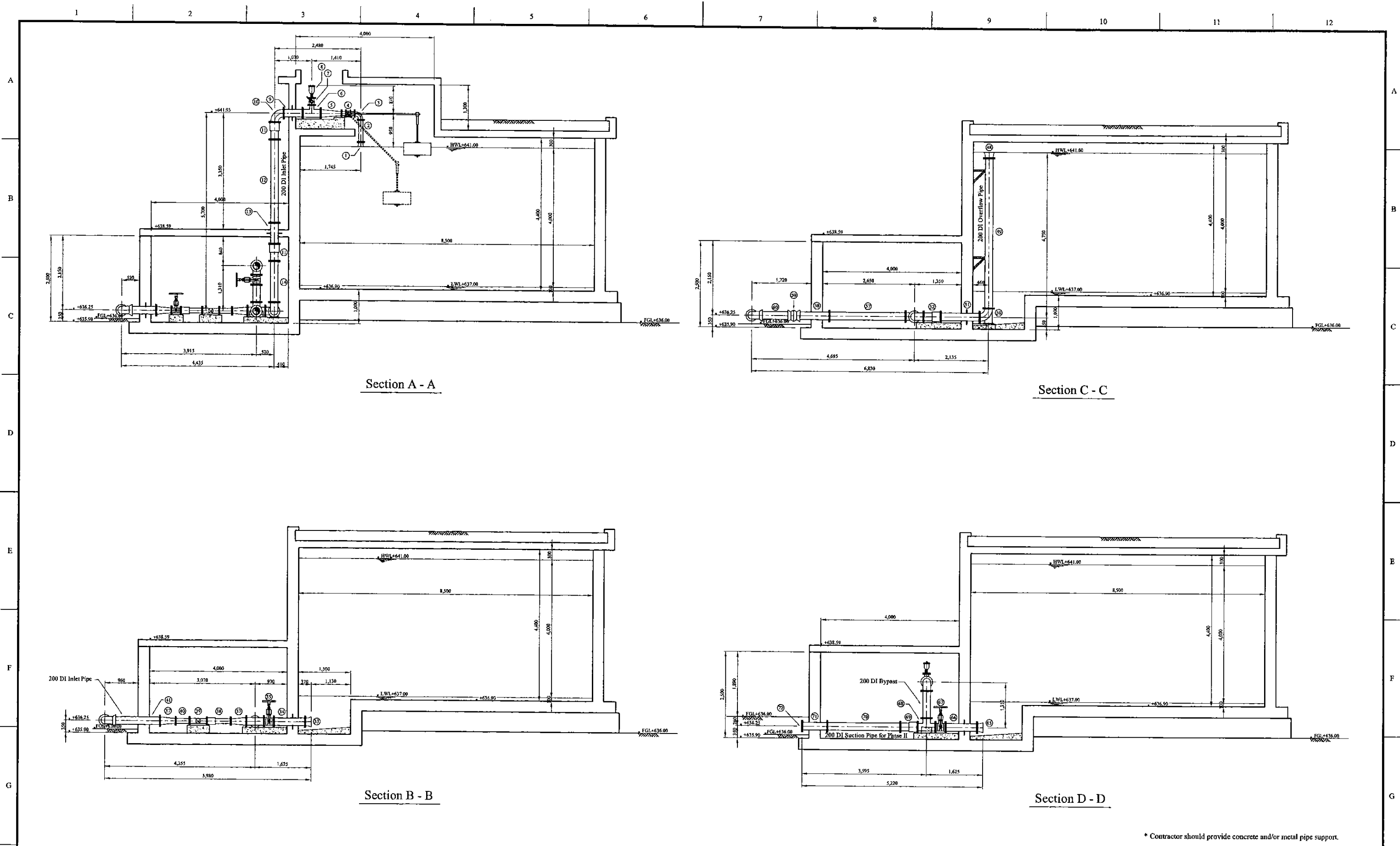
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF HANTANA PLACE S.R - 1

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

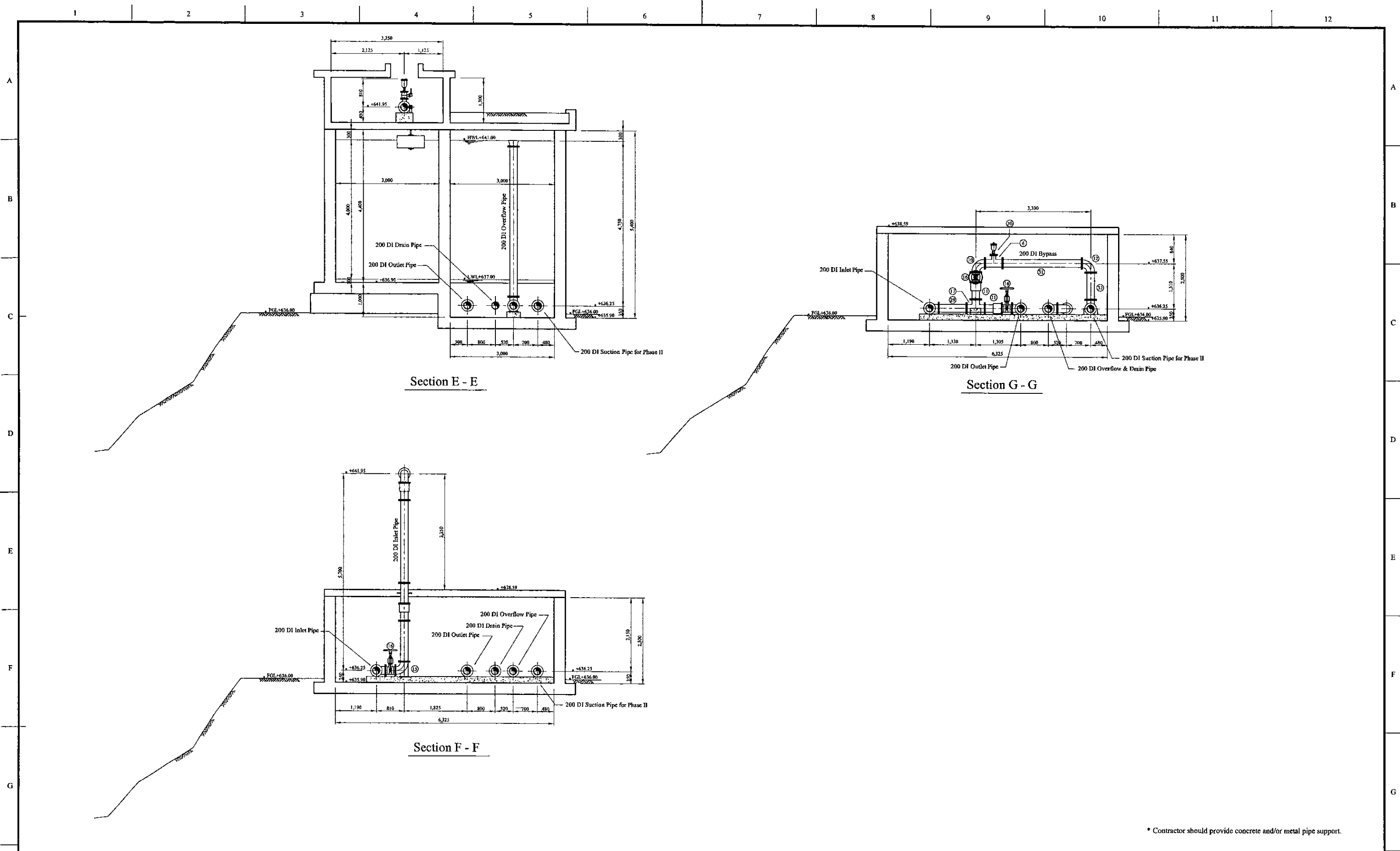
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-23-02







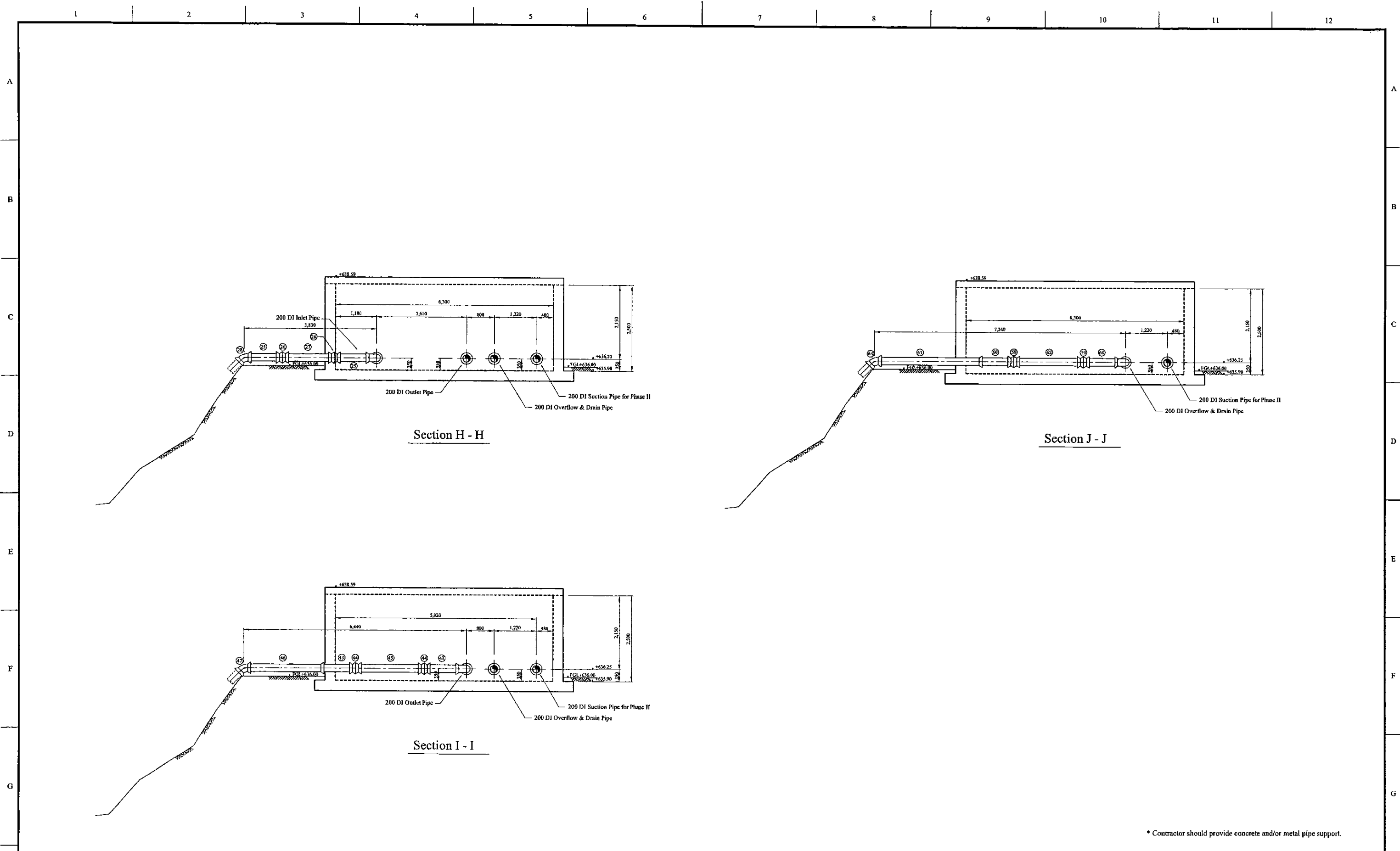
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF HANTANA PLACE S.R - 2								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-23-03







\* Contractor should provide concrete and/or metal pipe support.

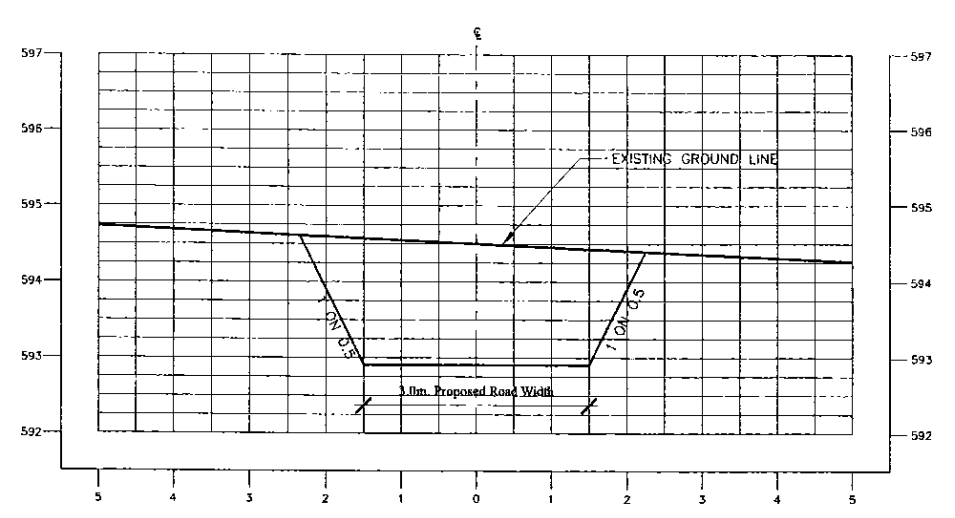
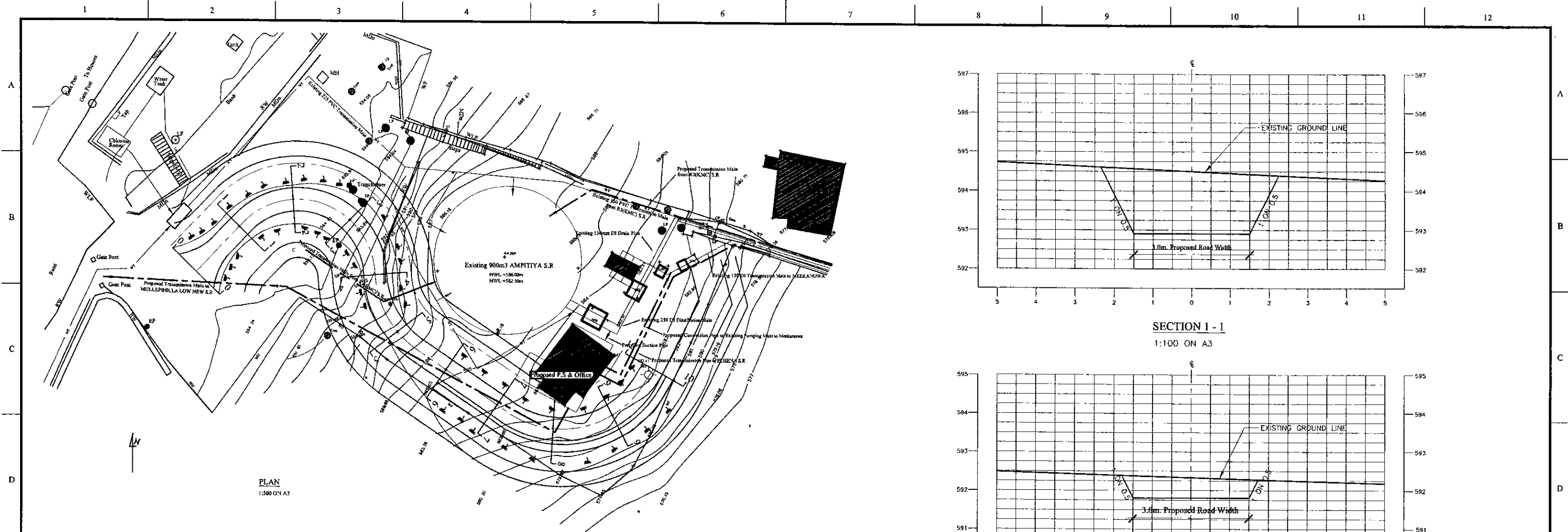
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: PIPE LAYOUT OF HANTANA PLACE S.R - 3								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-23-04



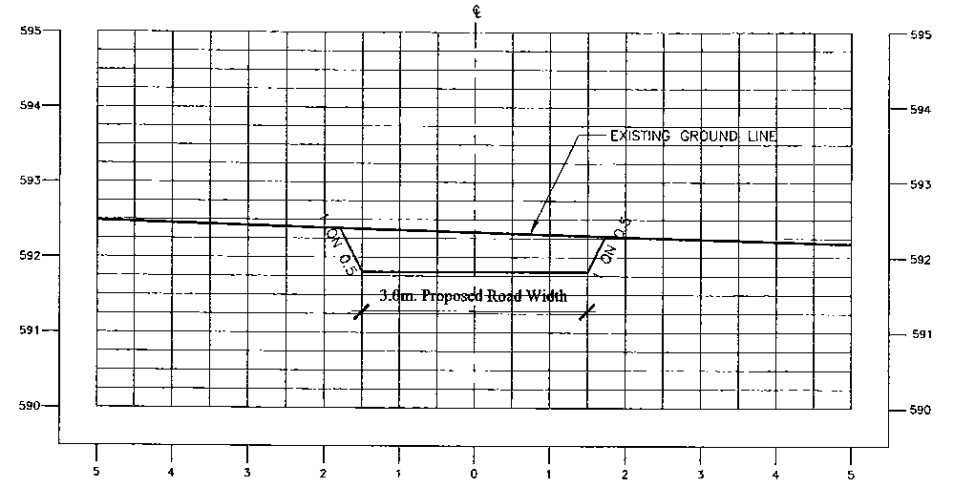
\* Contractor should provide concrete and/or metal pipe support.

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT OF HANTANA PLACE S.R - 4</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:50</b>
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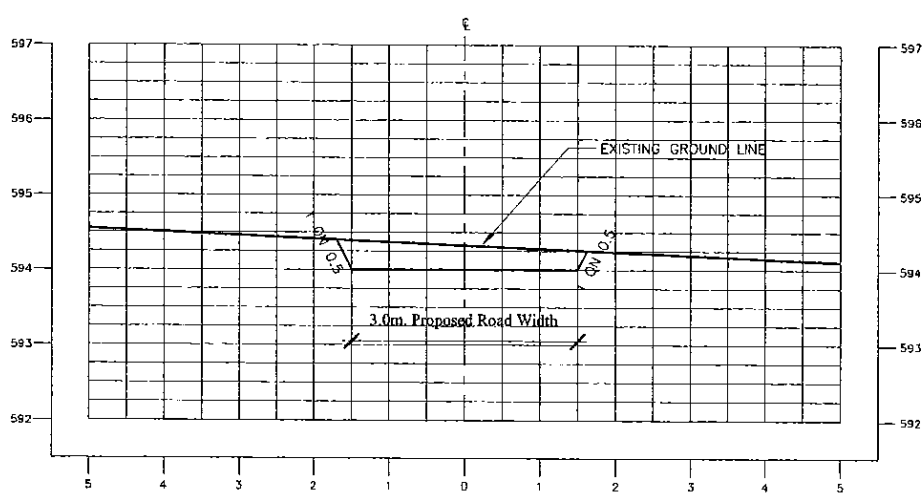




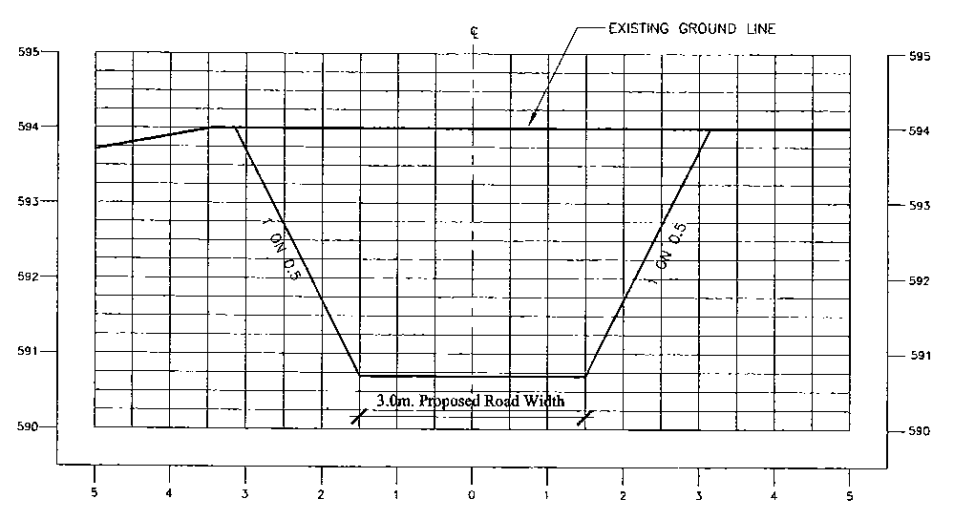
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SECTION 2 - 2  
1:100 ON A3

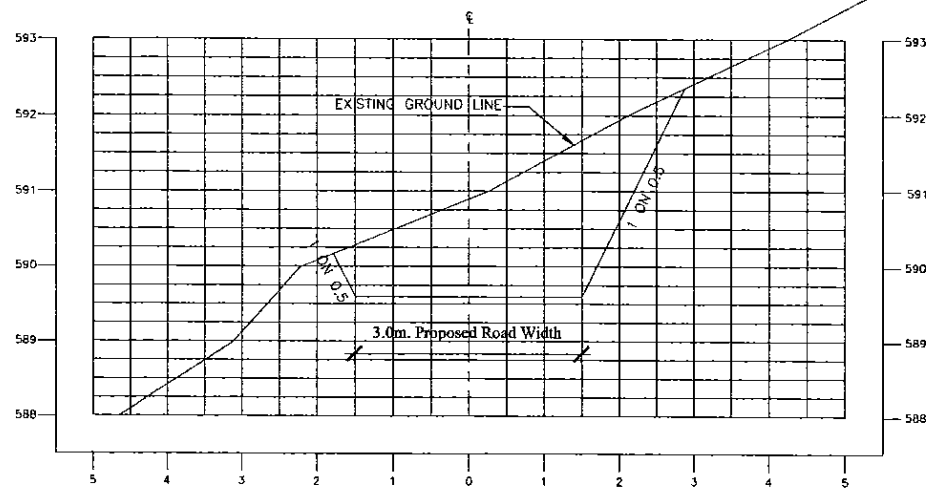


SECTION 0 - 0  
1:100 ON A3

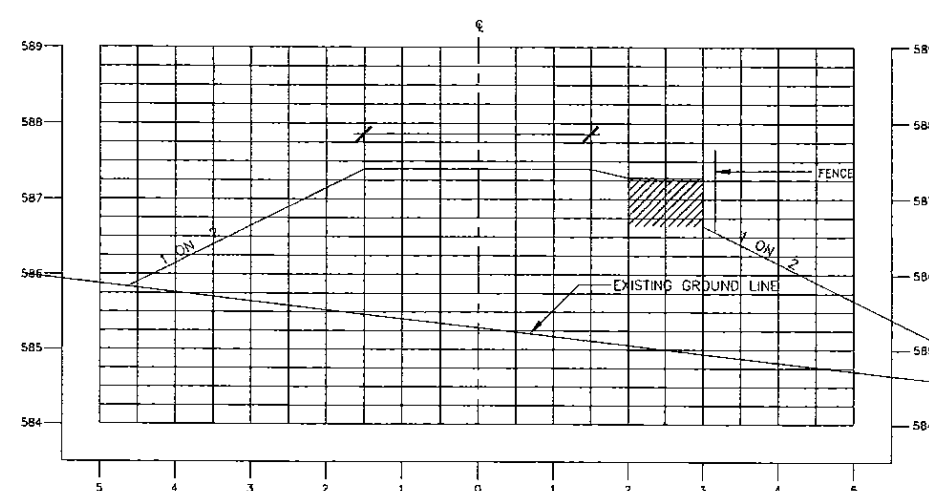


SECTION 3 - 3  
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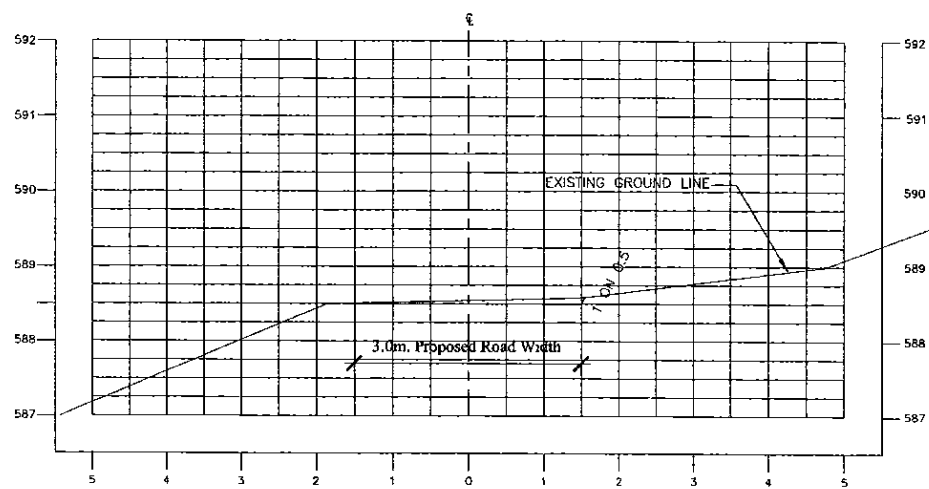
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: AMPIIYA PUMPING STATION - ACCESS ROAD ASD CSS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: AS SHOWN
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-24-02



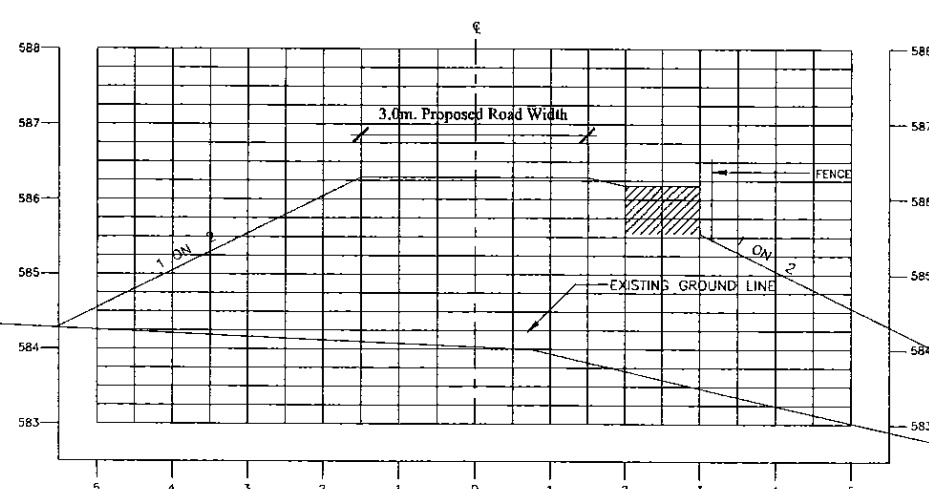
SECTION 4 - 4  
1:100 ON A3



SECTION 6 - 6  
1:100 ON A3



SECTION 5 - 5  
1:100 ON A3



SECTION 7 - 7  
1:100 ON A3

PROJECT: GREATER KANDY WATER SUPPLY  
AUGMENTATION PROJECT



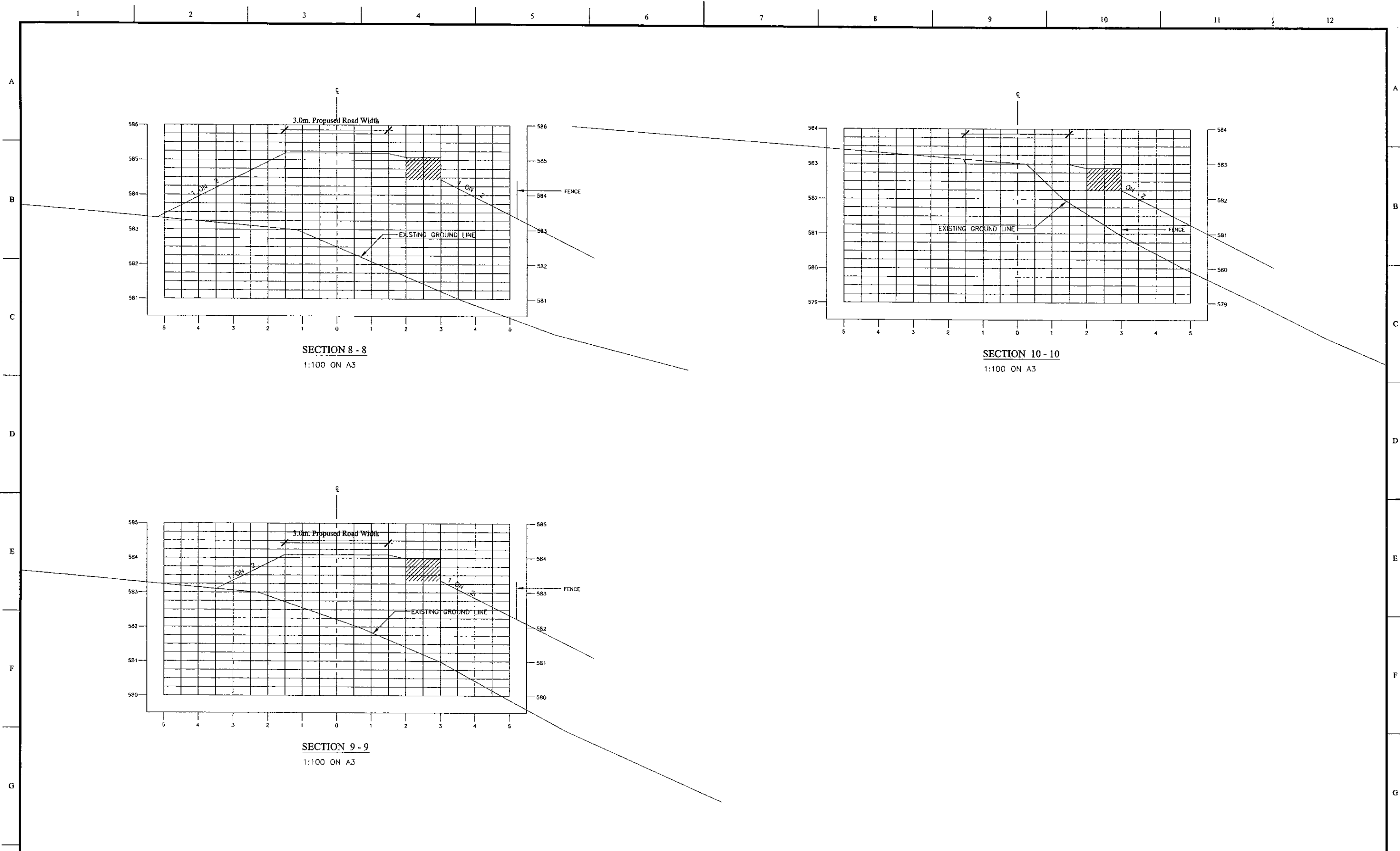
JAPAN INTERNATIONAL  
COOPERATION AGENCY

TITLE: AMPIIYA PUMPING STATION - ACCESS ROAD ASD CSS

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)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX	Koichi OKAZAKI	Ravi	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-24-03



SECTION 8 - 8  
1:100 ON A3

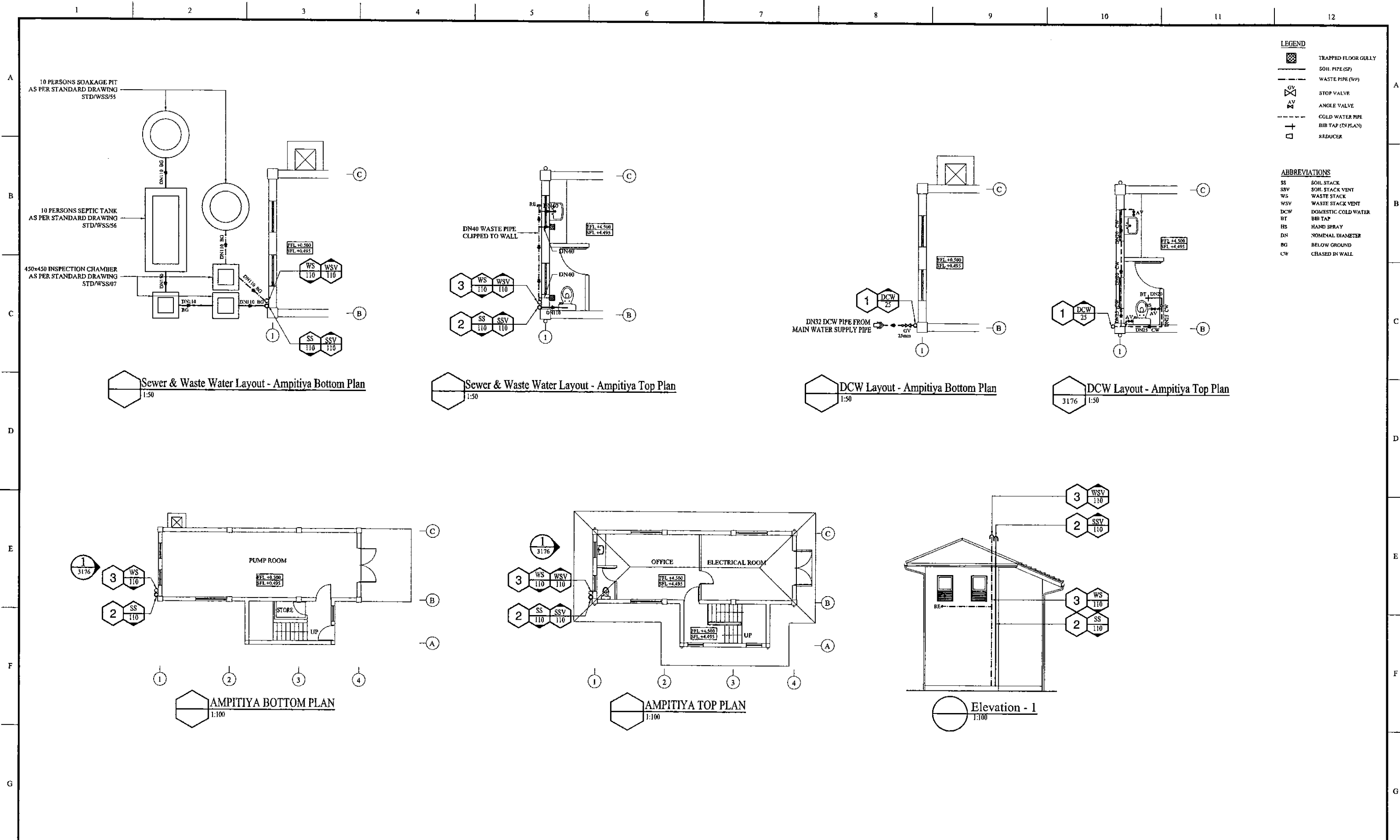
SECTION 10 - 10  
1:100 ON A3

SECTION 9 - 9  
1:100 ON A3

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: AMPIIYA PUMPING STATION - ACCESS ROAD ASD CSS								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN			REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED: Koichi OKAZAKI	DRAWN: Ravi	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
	 NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN							CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-24-04

DATE: 1/07/2001 W.s.m





PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

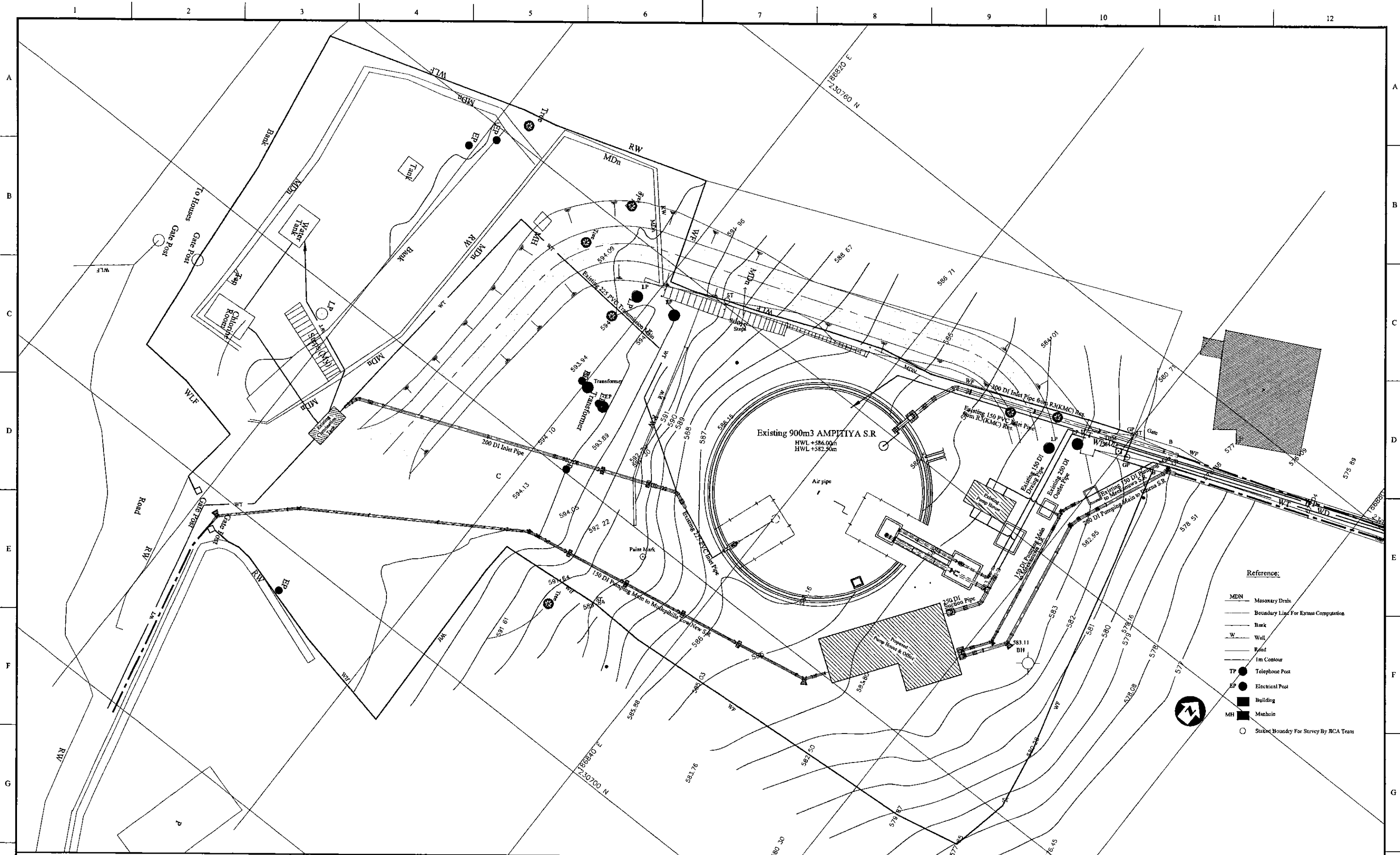
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **AMPITIYA PUMP STATION DCW, SEWER & WASTE WATER LAYOUT**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	D.H.V.	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-C-24-05




PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY


TITLE: AMIPIYA PUMPSTATION SITE PLAN

CLIENT:




NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:



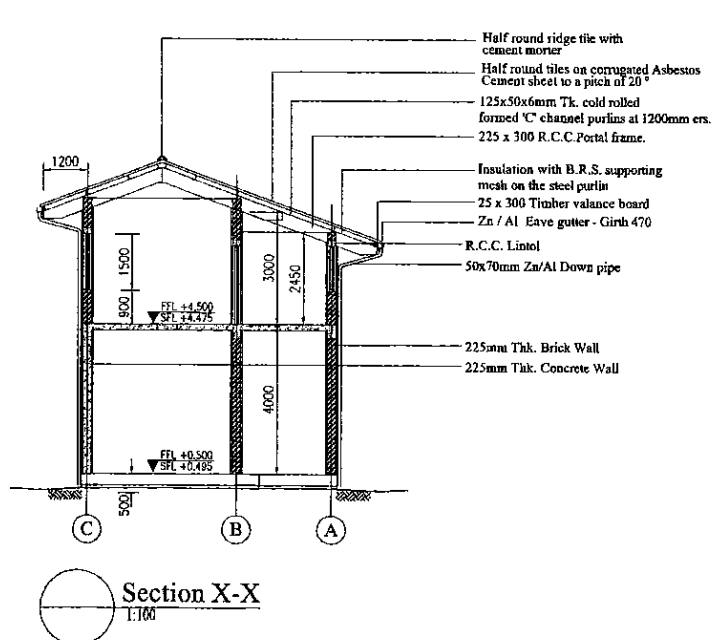
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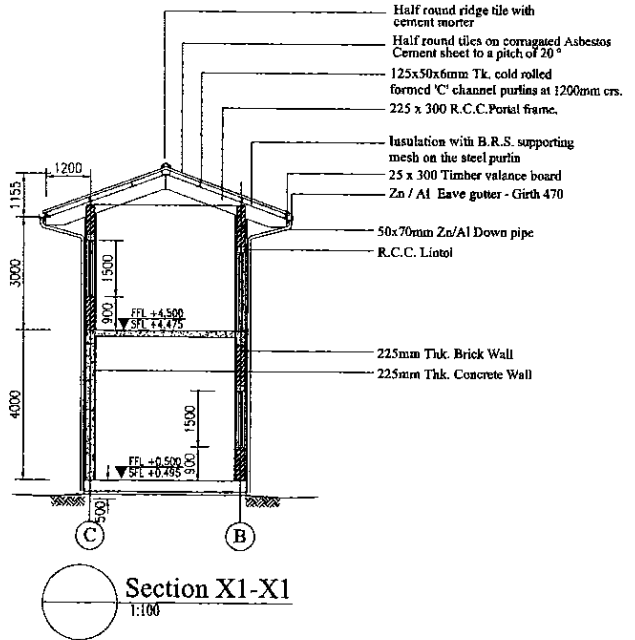
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Lakmal	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-24-01

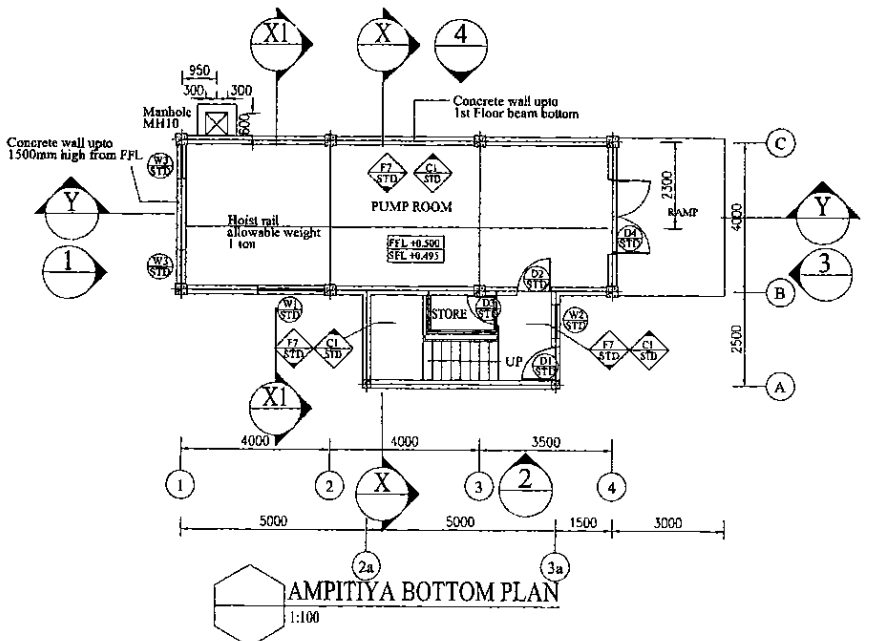
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	QOS
D1	900x2100		Aluminium framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick plywood backing single sash door	01
D2	900x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door	02
D3	800x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single sash door	02
D4	2000x1800		Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick Plywood backing louvers above	04
W1	2000x1500	900	Aluminium framed 5mm thick float glass 3 sashes window with fixed Aluminium Louver panels below	06
W2	900x1500	900	Aluminium framed 5mm thick float glass single sash top hung window with fixed Aluminium Louver panels below	05
W3	900x900	1800	Aluminium framed 5mm thick float glass single sash fixed window	02
P1	1775x1000		Aluminium framed 5mm PVC coated plywood sheet (both sides) and 5mm thick clear float glass Partition (900mm wide door)	01



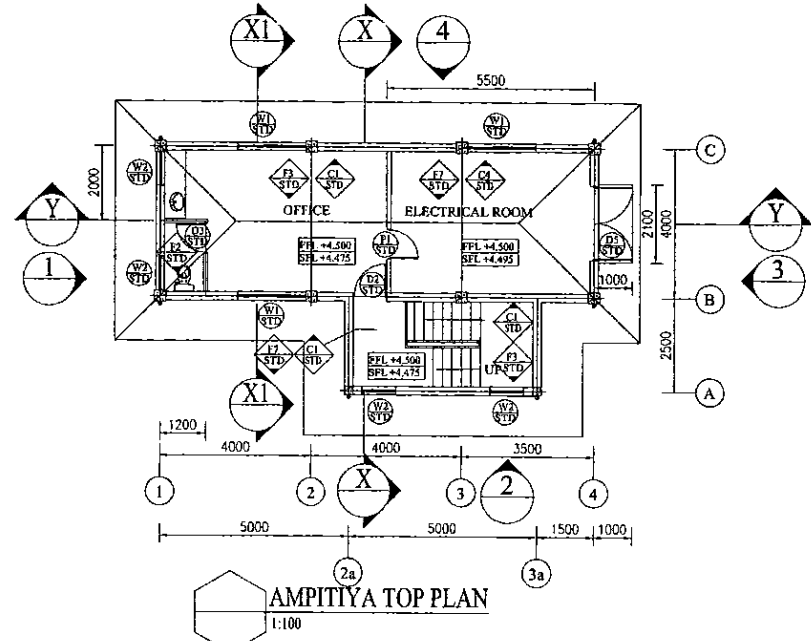
Section X-X  
1:100



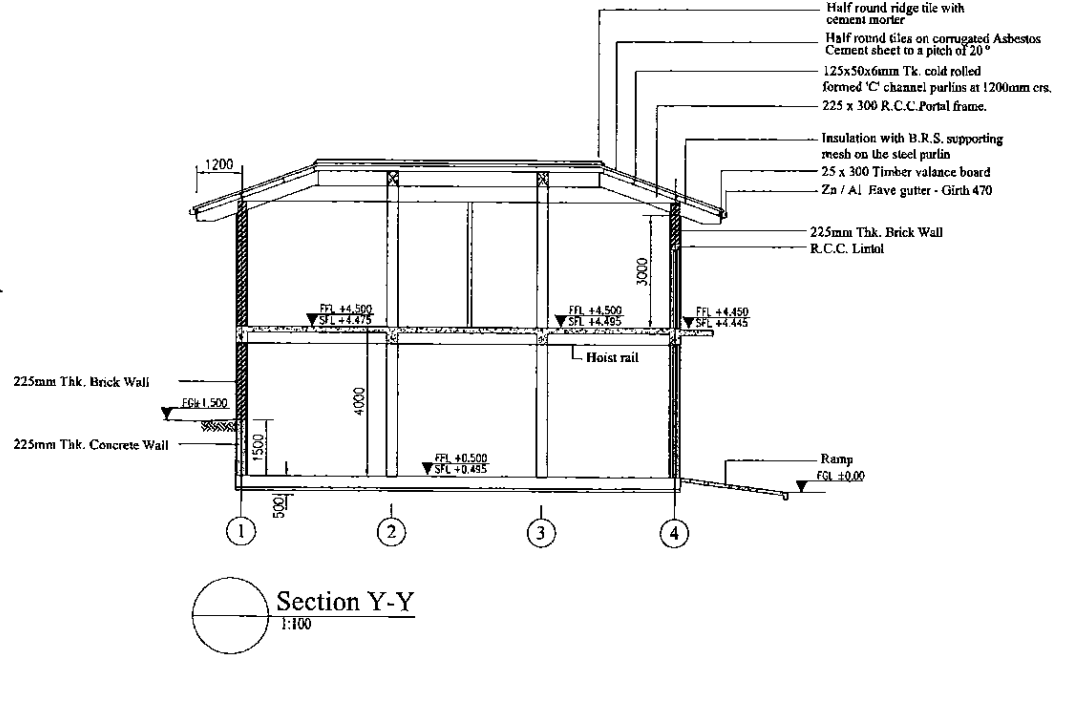
Section XI-XI  
1:100



AMPITIYA BOTTOM PLAN  
1:100



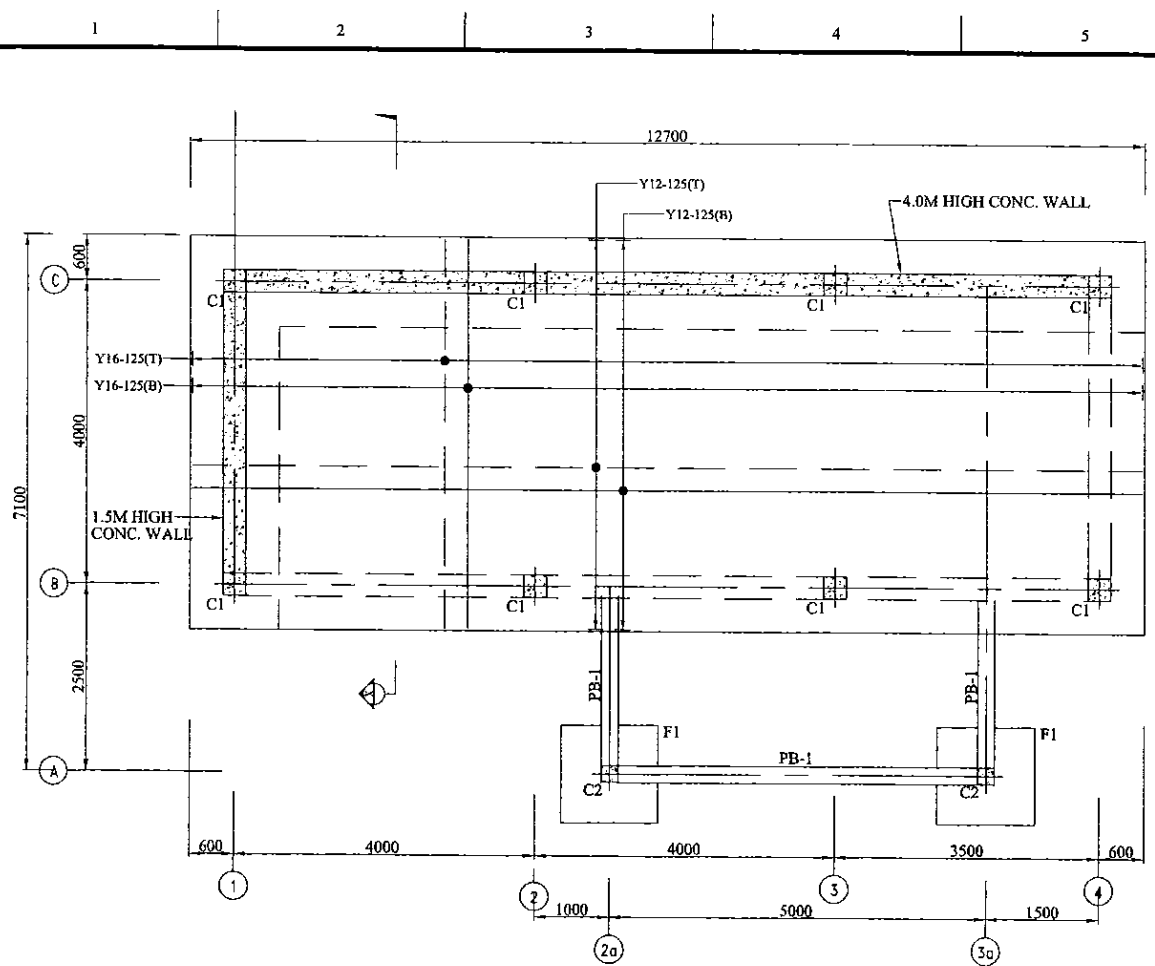
AMPITIYA TOP PLAN  
1:100



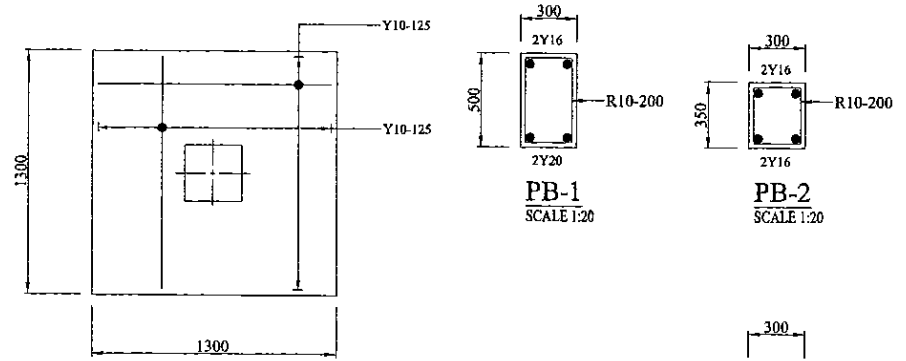
Section Y-Y  
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Note:  
Platform level of Building = +583.0  
Therefore F.G.L. = +6.00 = +583.09 (A.M.S.L.)

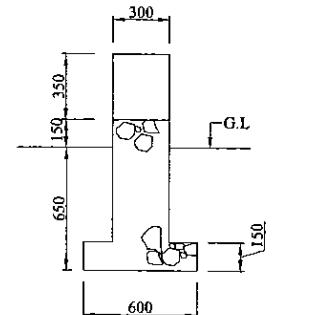
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		JICA <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>AMPITIYA PUMP STATION. GENERAL ARRANGEMENT</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>				REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>POORNA</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1 : 100</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-24-02</b>



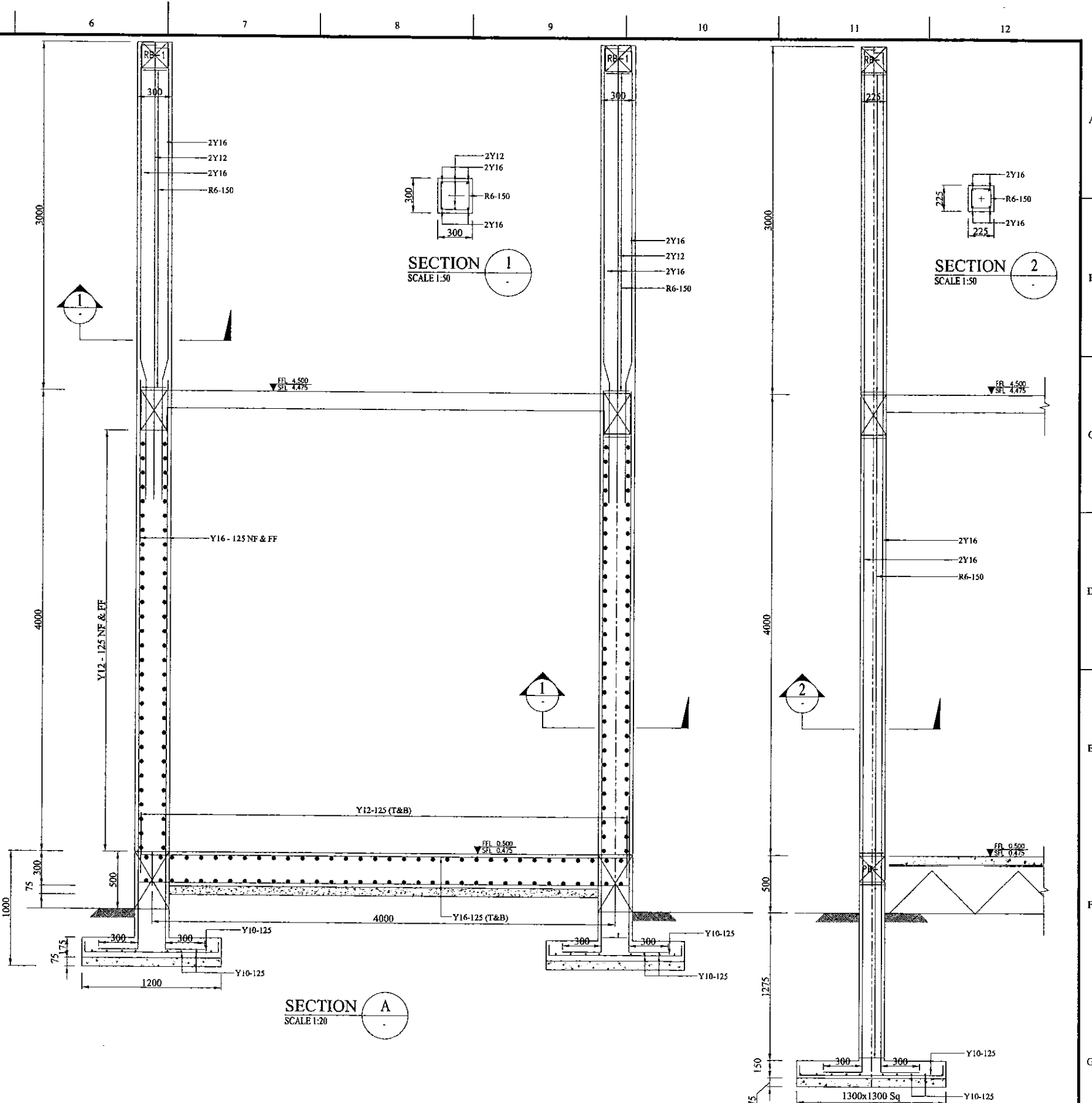
FOUNDATION LAYOUT  
SCALE 1:50



PLAN OF FOOTING - F1  
SCALE 1:20



RUBBLE FOUNDATION  
SCALE 1:20



SECTION A  
SCALE 1:20

SECTION THRO' COLUMN - C2  
SCALE 1:20

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: AMPITIYA PUMPING STATION FOUNDATION LAYOUT & DETAILS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

REV.	DESCRIPTION	DATE	SIGN.

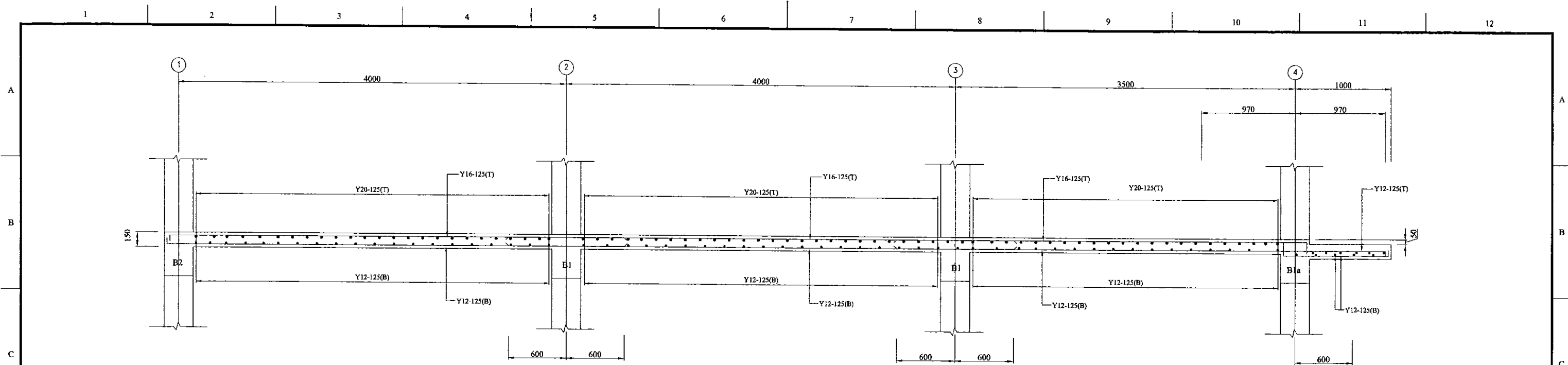
DESIGNED: L. JAYAWARDENA  
CHECKED:

DRAWN: IRESHA  
AGM: (P&D)

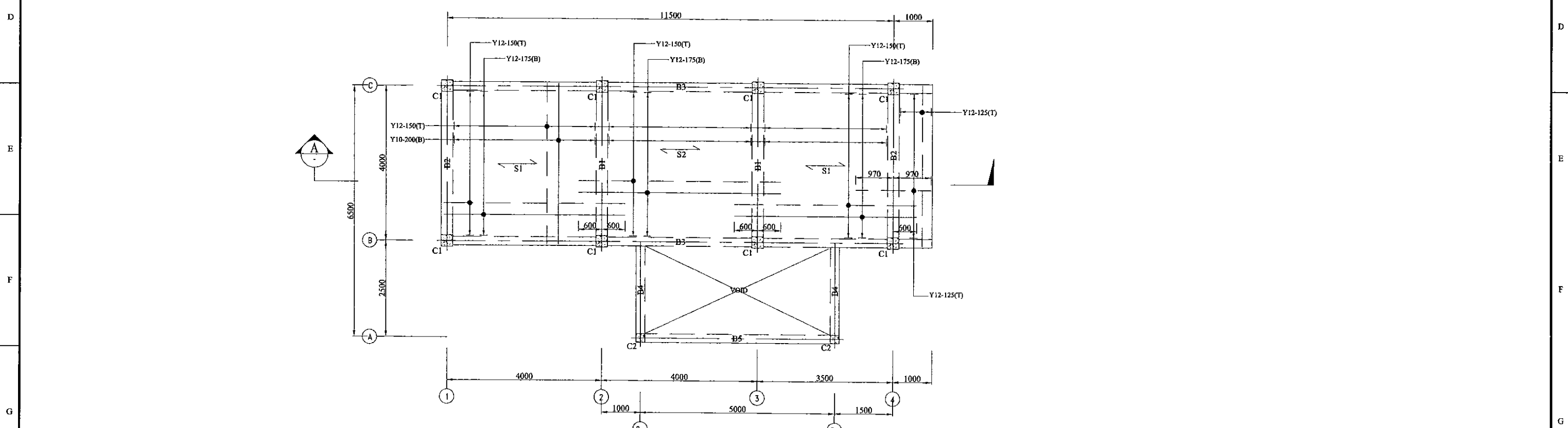
PM: (CONSULTANT) Ikuo MIWA  
DGM: (P&D)

CE: (P&D)  
DATE: 31/05/2002





SCALE: 1 : 50, 1:20  
DRAWING NO.: 30-S-24-03

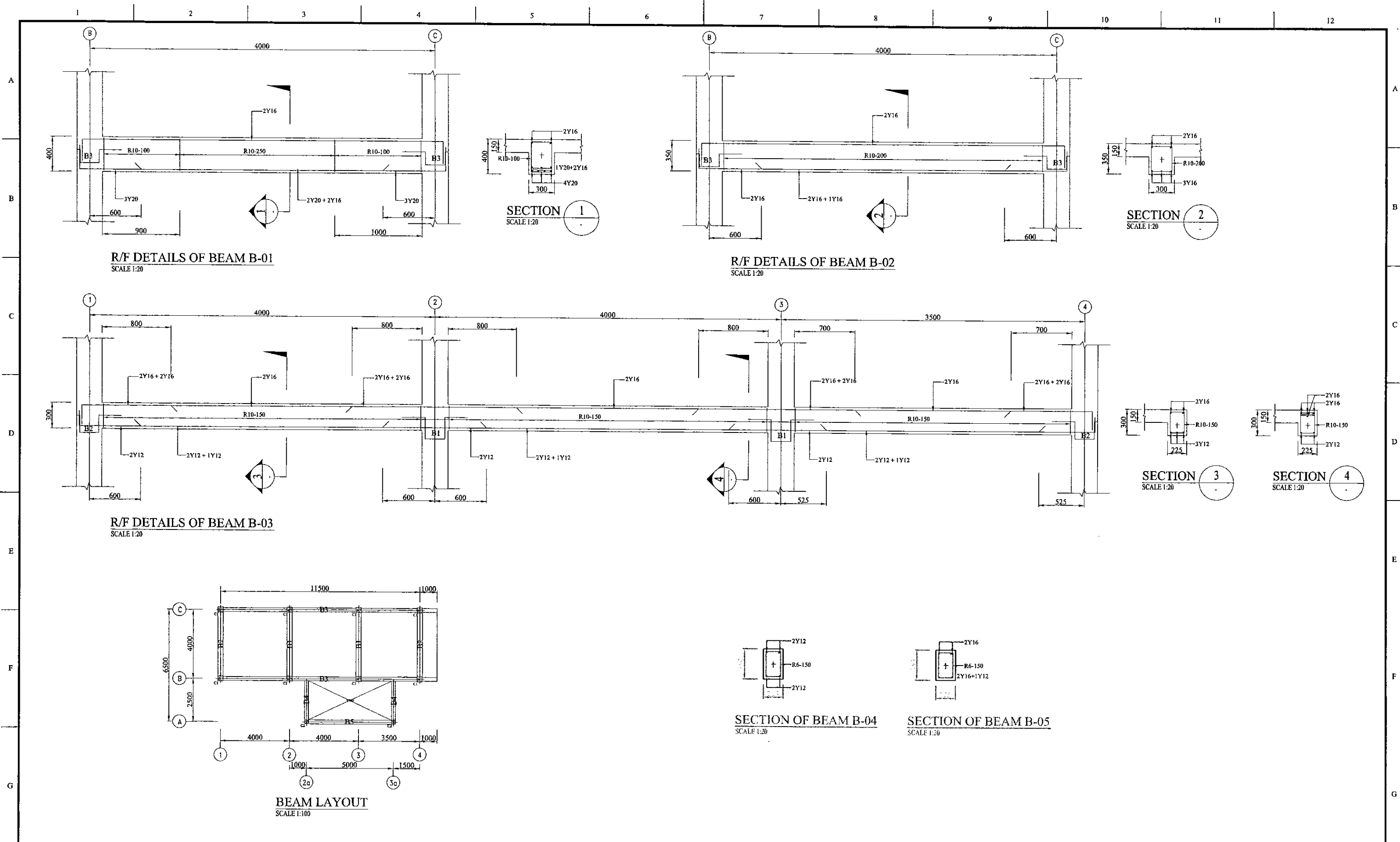


SECTION A  
SCALE 1:20



R/F DETAILS OF 1st FLOOR SLAB  
SCALE 1:50

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>AMPITIYA PUMPING STATION R/F DETAILS OF SLAB &amp; SECTION</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>IRESHA</b>	PM: (CONSULTANT) <b>IKUO MIWA</b>	CE: (P&D)	SCALE: <b>1 : 50, 1:20</b>
				CHECKED:				AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-24-04</b>	



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

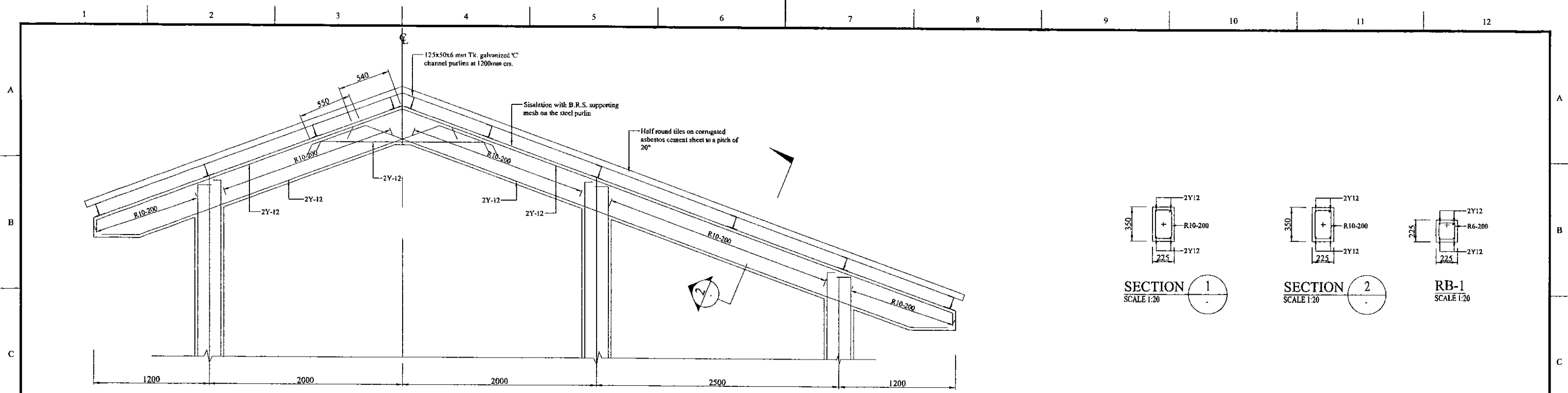
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **AMPITIYA PUMPING STATION BEAMS**

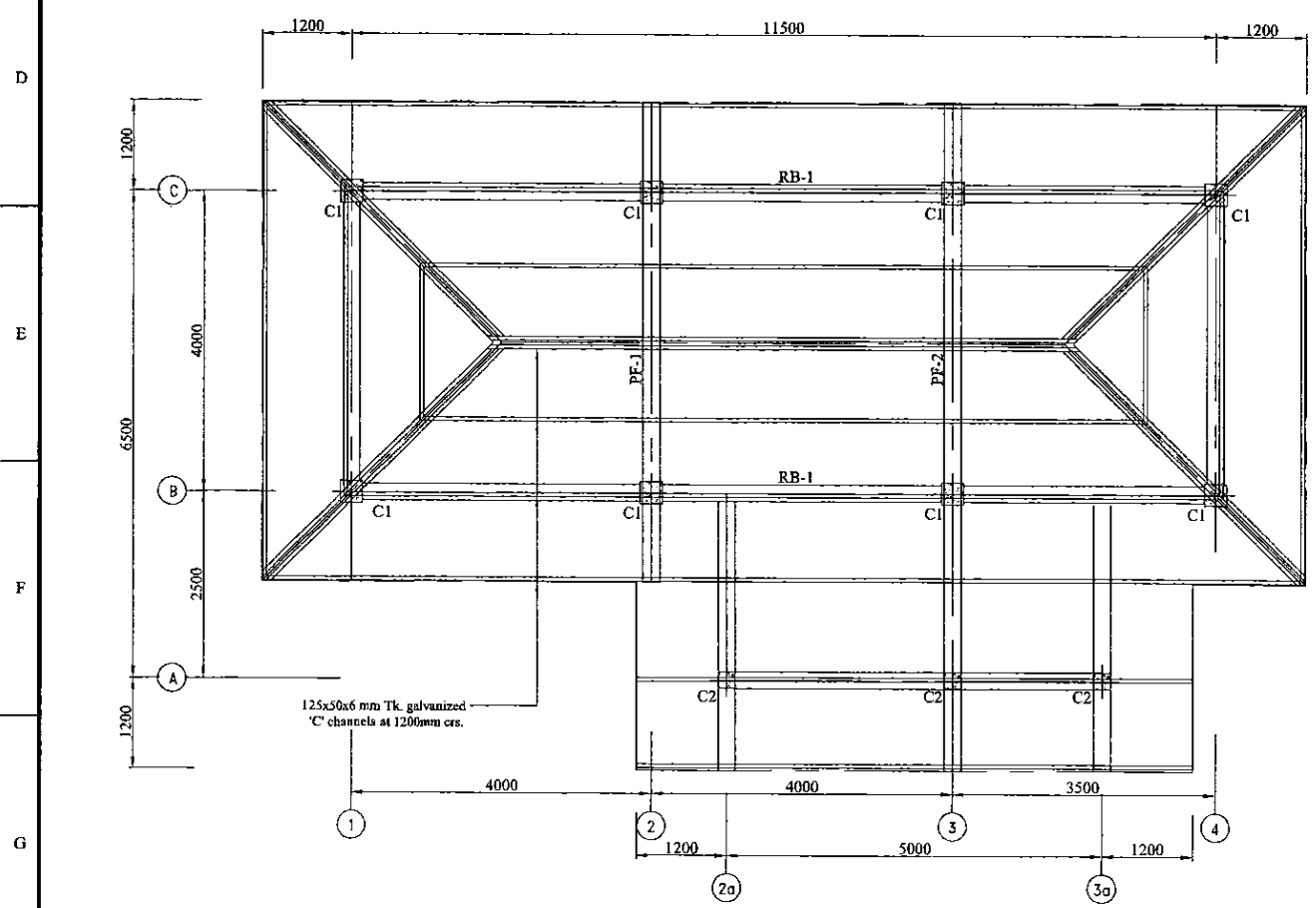
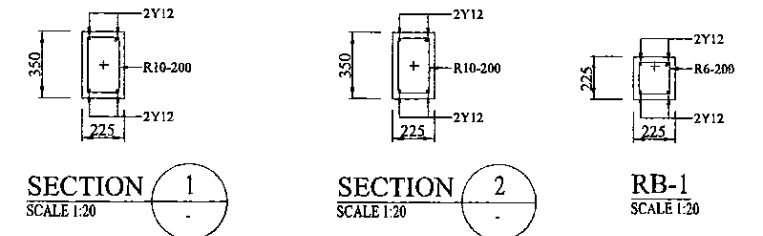
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

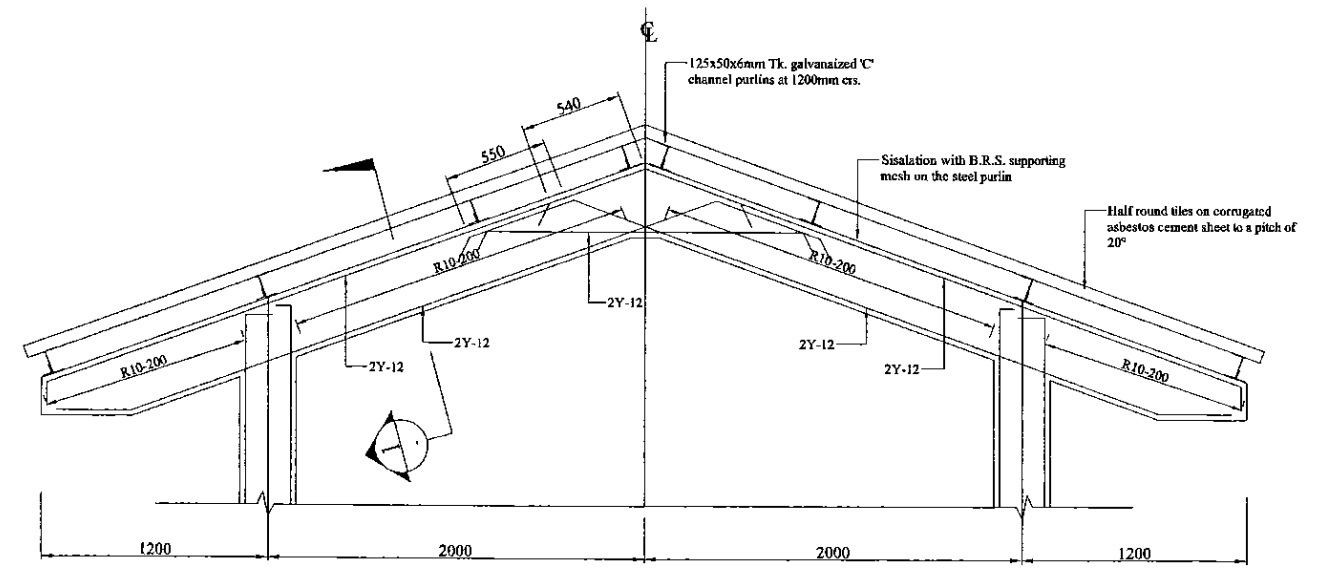
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 100, 1:20
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-S-24-05



TYPICAL SECTION OF PF-2  
SCALE 1:20



ROOF LAYOUT  
SCALE 1:50



TYPICAL SECTION OF PF-1  
SCALE 1:20

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **AMPITIYA PUMPING STATION ROOF DETAILS**

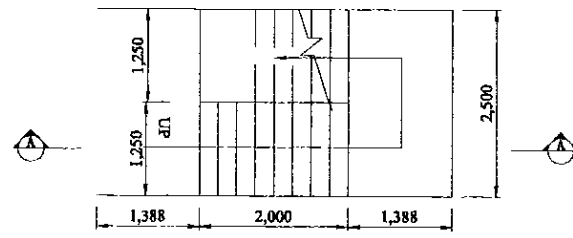
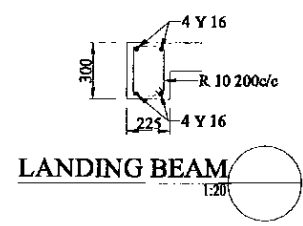
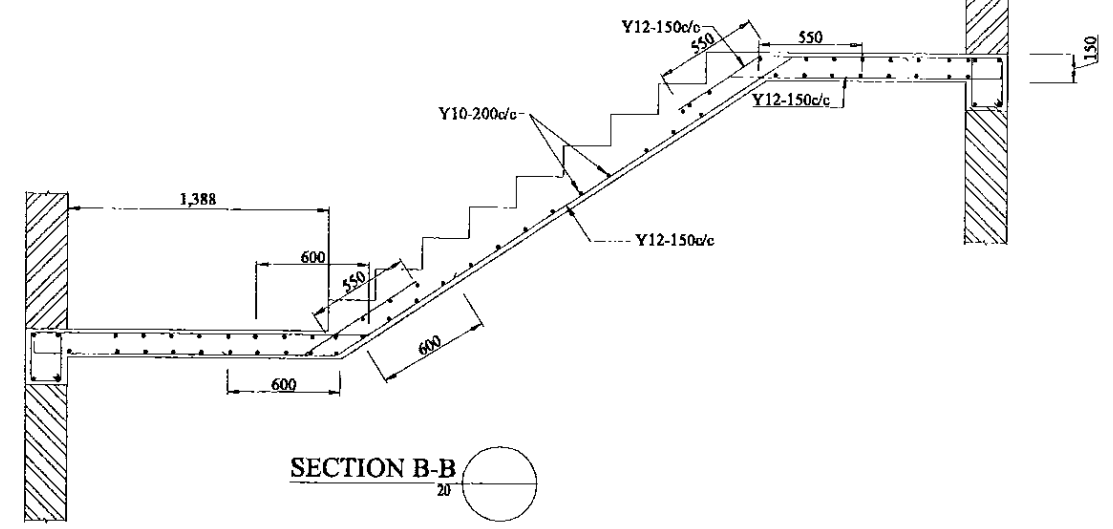
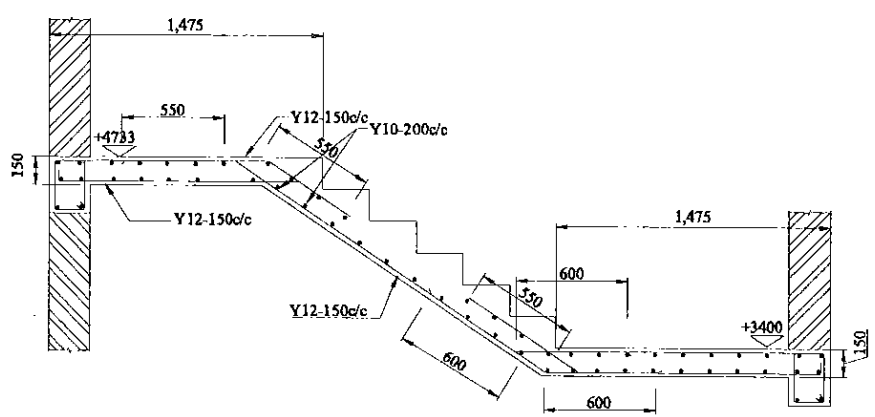
CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

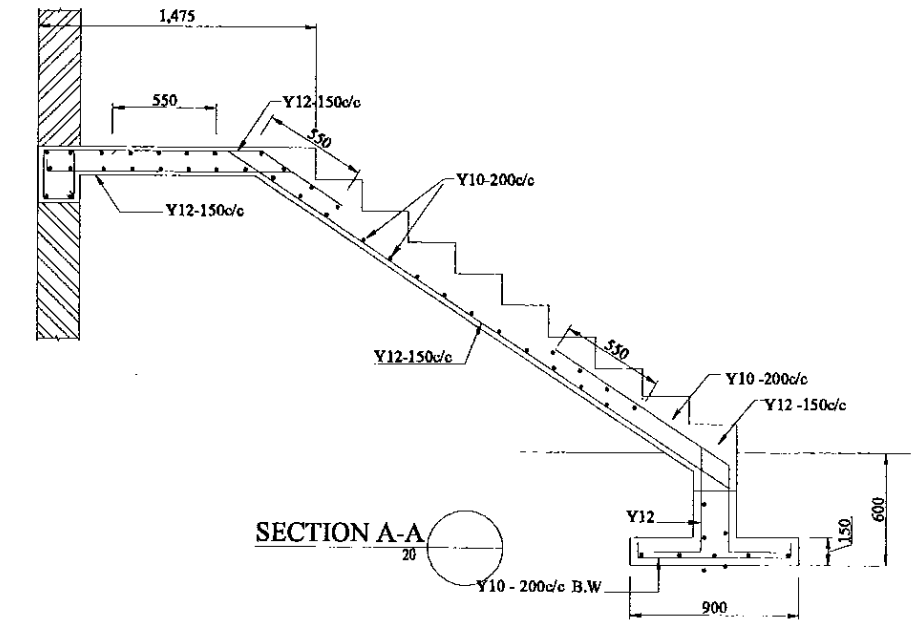
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	IRESHA	Ikuo MIWA		1 : 50, 1:20
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-24-06

**NOTES**

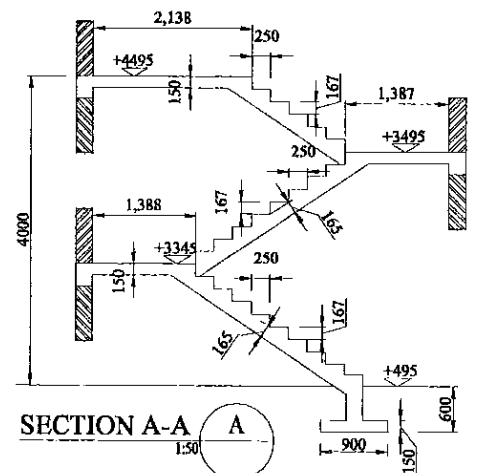
- 1.0 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS(mm).
- 2.0 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER STRUCTURAL, ARCHITECTURAL AND SERVICES DRAWINGS.
- 3.0 CHARACTERISTIC STRENGTH OF CONCRETE TO BE 25 N/mm<sup>2</sup>
- 4.0 CHARACTERISTIC STRENGTH OF HIGH YIELD STEEL TO BE 460 N/mm<sup>2</sup> MILD STEEL TO BE 250 N/mm<sup>2</sup>
- 5.0 ANCHORAGE AND LAP LENGTH TO BE 45 x BAR DIA.
- 6.0 REINFORCEMENT BAR NOTATION  
Y - HIGH YIELD STEEL  
R - MILD STEEL  
3Y10 - 225 - 01 INDICATES NUMBER OF BARS/ TYPE OF STEEL/BAR DIAMETER SPACING/BAR MARK.
- 7.0 CLEAR COVER FOR REINFORCEMENT  
FOUNDATION - 40  
COLUMNS - 40 (TO MAIN BARS)  
BEAM - 25 (TO STIRRUPS)  
SLAB - 25
- 8.0 NOMINAL MAXIMUM SIZE OF AGGREGATE FOR CONCRETE TO BE 20mm.



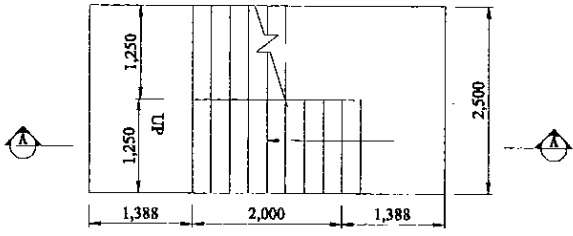
**ST STAIRCASE PLAN at +3345 LEVEL**  
1:50



**SECTION A-A**  
20



**SECTION A-A**  
1:50



**ST STAIRCASE PLAN at +495 LEVEL**  
1:50

PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

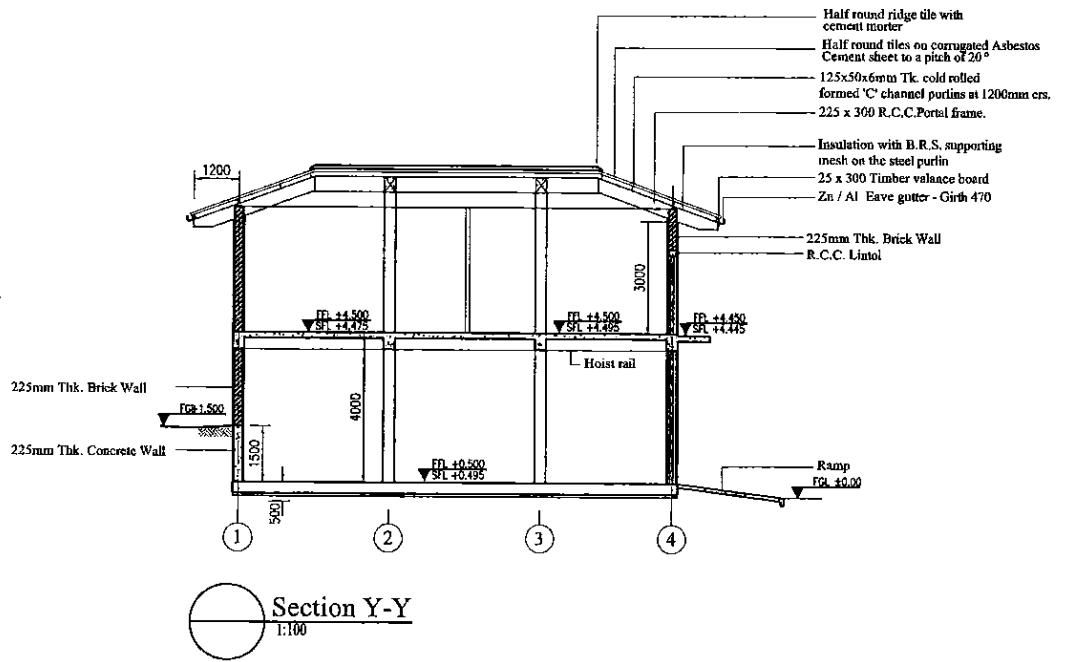
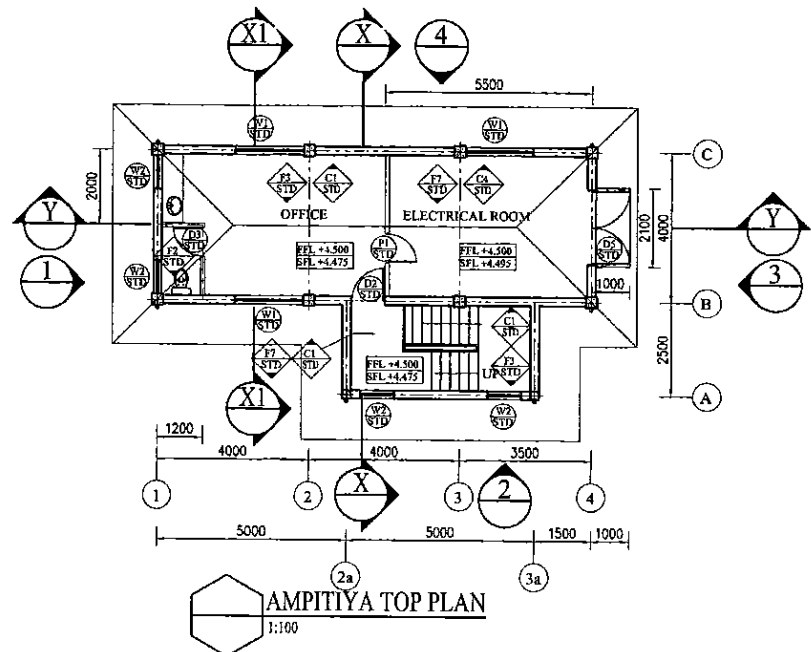
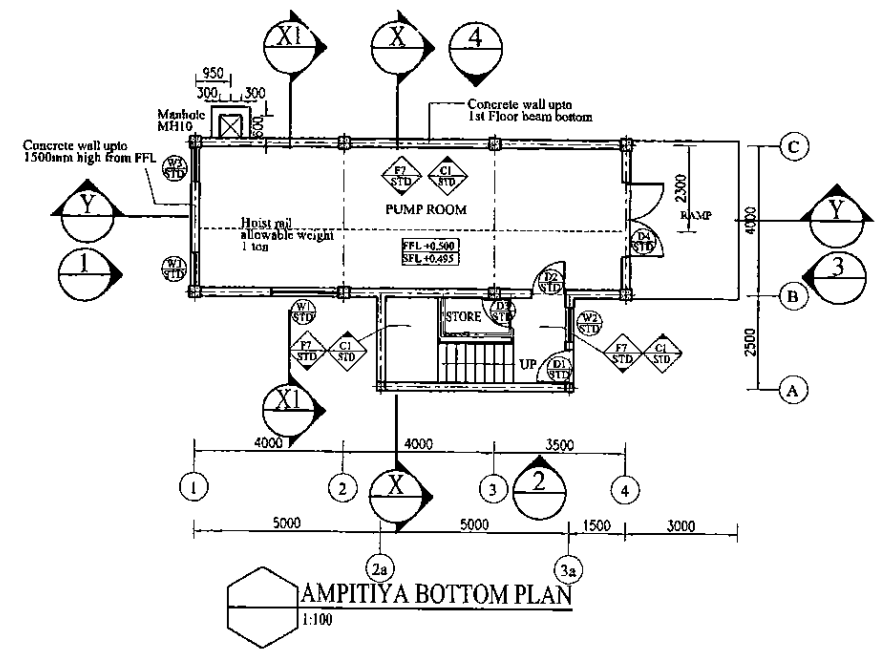
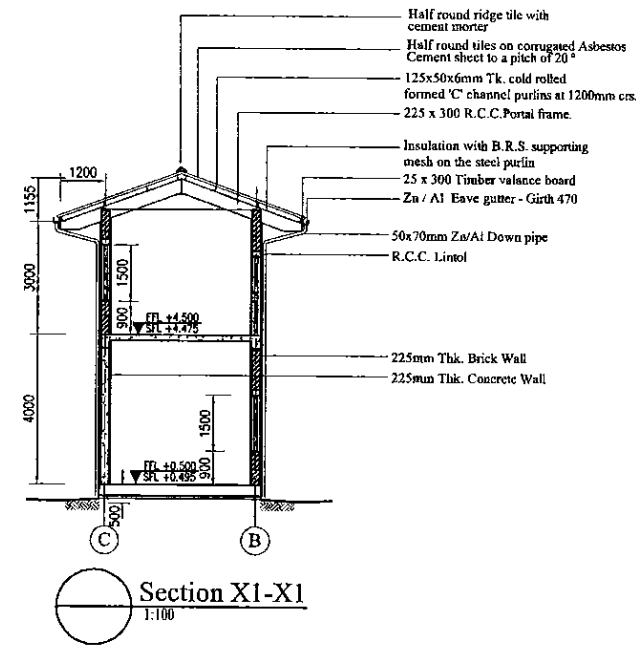
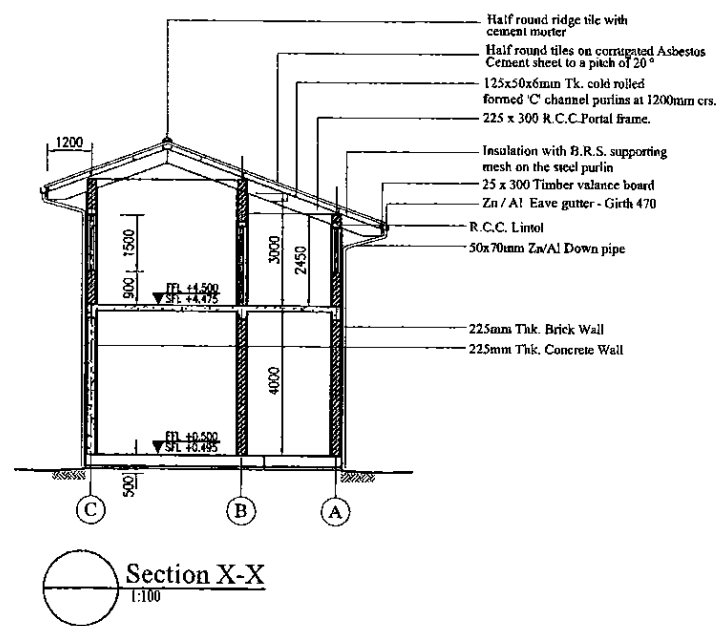
TITLE: **AMPITIYA PUMPING STATION R/F DETAILS OF STAIRCASE**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAMANPALI	Ikuro MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-24-07



Schedule of Doors and Windows				
TYPE	SIZE	SILL DESCRIPTION	DESCRIPTION	QTY
D1	900x2100	Aluminium framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick plywood backing single sash door		01
D2	900x2100	Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single sash door		02
D3	900x2100	Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single sash door		02
D4	2000x1800	Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick Plywood backing louvers above		04
W1	2000x1500	900	Aluminium framed 5mm thick float glass 3 seahes window with fixed Aluminium louver panels below	06
W2	900x1500	900	Aluminium framed 5mm thick float glass single sash top hung window with fixed Aluminium louver panels below	05
W3	900x900	1800	Aluminium framed 5mm thick float glass single sash fixed window	02
P1	3775x3000		Aluminium framed 5mm PVC coated plywood sheet (both sides) and 5mm thick clear float Glass Partition. (900mm wide door)	01







Note:  
Platform level of Building = +583.0  
Therefore FGL = +0.00 = +583.09 (A.M.S.L)

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: AMPITIYA PUMP STATION - PLANS AND SECTIONS								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV. XX	DESCRIPTION XXXX	DATE XX	SIGN. XX	DESIGNED:	DRAWN: Sudith	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
				CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)		DGM: (P&D)		DATE: 31/05/2002	DRAWING NO.: 30-A-24-01		

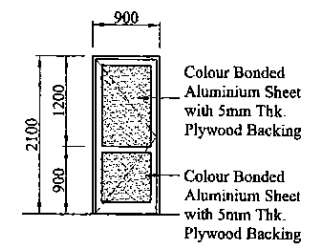


Note:  
Platform level of Building = +583.0  
Therefore FGL = 48.00 = +583.09 (AMSL)

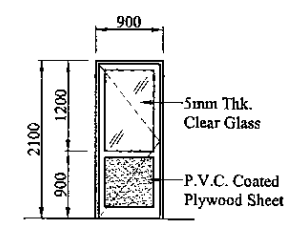
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: AMPITIYA PUMP STATION - PLANS AND SECTIONS								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>	CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>			REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				XX	XXXX	XX	XX		Sudith	Ikuo MIWA		1 : 100
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							Roshan DESIGN CHIEF			31/05/2002	30-A-24-02	

DATE: 17/07/2001

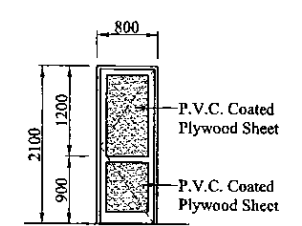
Schedule of Doors and Windows				
TYPE	SIZE	SILL	DESCRIPTION	NO. OF
D1	900x2100		Aluminium framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick plywood backing single ash door	01
D2	900x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) and 5mm thick clear float glass single ash door	02
D3	800x2100		Aluminium framed 5mm thick PVC coated plywood sheet (both sides) single ash door	02
D4	2000x3900		Steel framed 20 gauge colour bonded Zinc Aluminium sheet with 5mm thick Plywood backing louvers above	04
W1	2000x1500	900	Aluminium framed 5mm thick float glass 3 sash window with fixed Aluminium Louver panels below	06
W2	900x1500	900	Aluminium framed 5mm thick float glass single sash top hung window with fixed Aluminium Louver panels below	05
W3	900x900	1800	Aluminium framed 5mm thick float glass single sash fixed window	02
P1	3775x3000		Aluminium framed 5mm PVC coated plywood sheet (both sides) and 5mm thick clear float Glass Partition (900mm wide door)	01



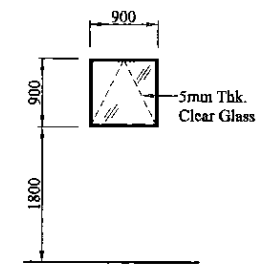
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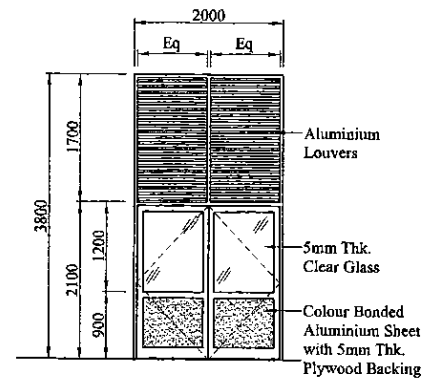
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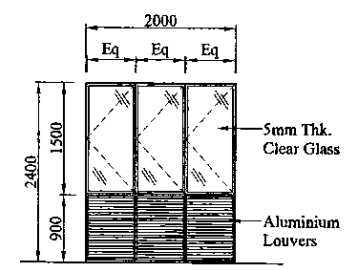
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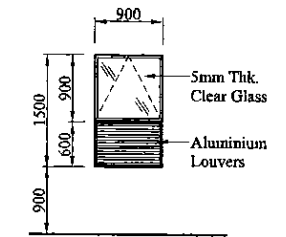
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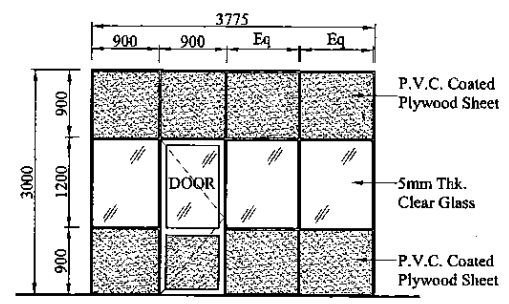
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STD ELEVATION W1  
1:50



STD ELEVATION W2  
1:50



STD ELEVATION P1  
1:50

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

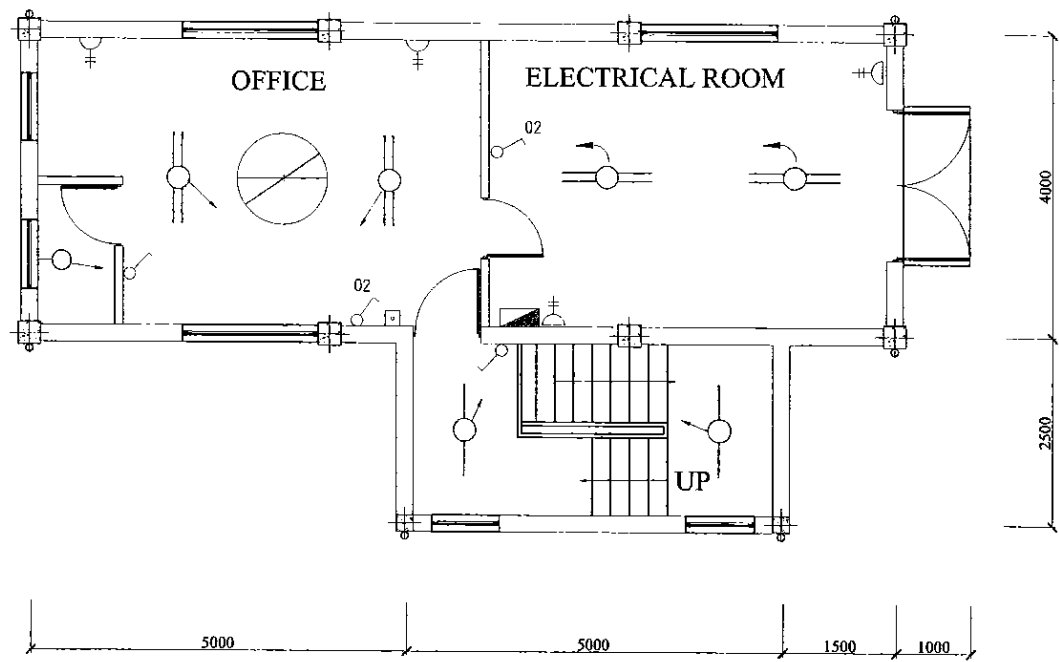
TITLE: AMPITIYA PUMP STATION - DETAILS OF DOORS AND WINDOWS

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

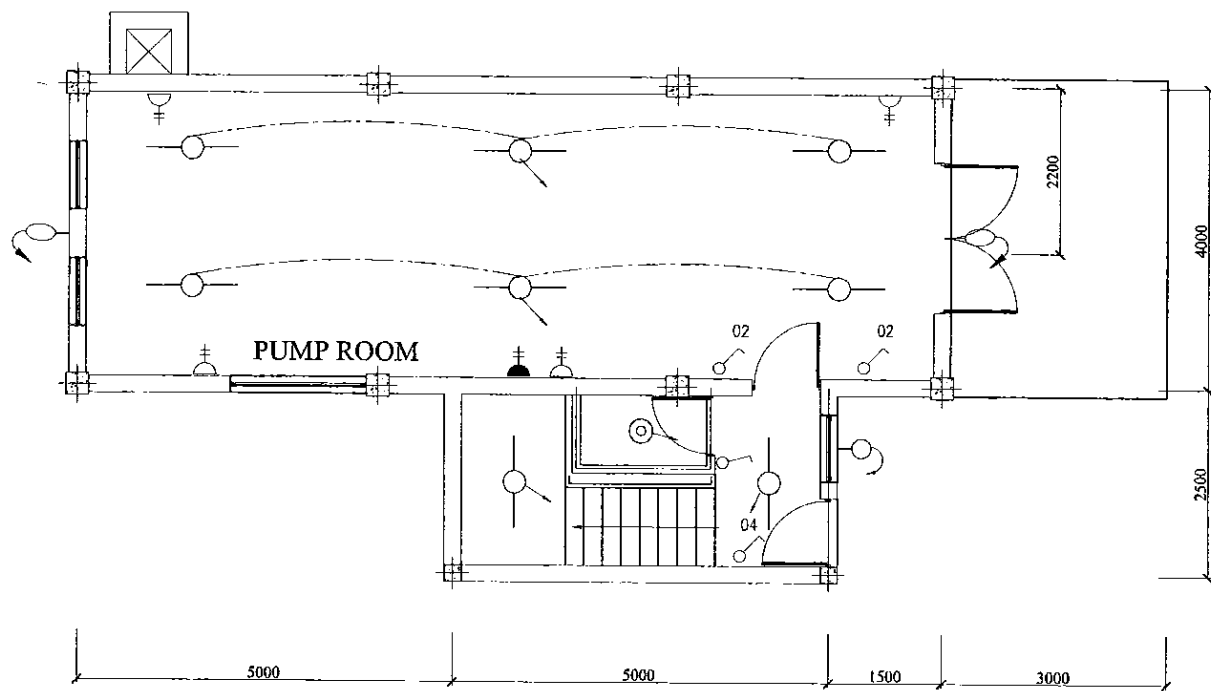
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
XX	XXXX	XX	XX		Poorna	Ikuo MIWA		1 : 50
				CHECKED: Roshan DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 30-A-24-03

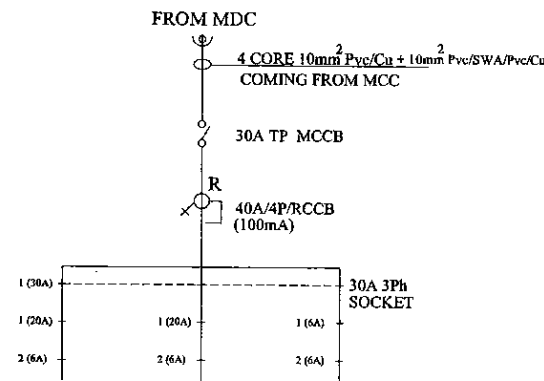
DATE: 17/07/2001



**TOP PLAN**  
SCALE: 1:50



**BOTTOM PLAN**  
SCALE: 1:50



**DISTRIBUTION DIAGRAM**

**LEGEND (Electrical)**

- 1x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- 2x36 Watt x 1200mm FLUORESCENT FITTING, HFF TYPE (IP Rating - IP 65) c/w CORROSION RESISTANT BODY, ACRYLIC OR HIGH IMPACT RESISTANT POLYCARBONATE DIFFUSER
- ⊗ 250 Watt METAL HALIDE HI-BAY COMPLETE WITH POLISHED & ANODISED ALUMINIUM REFLECTOR, TOUGHENED GLASS COVER. (IP Rating - IP 65)
- ⊗ 250 Watt METAL HALIDE WIDE ANGLE, WALL MOUNTED TYPE WITH TOUGHENED GLASS FRONT COVER, LOW GLARE VERSION. (IP Rating - IP 65)
- ⊗ 600 x 600mm FLUORESCENT FITTING 3x18 Watt, HFF TYPE WITH ACRYLIC DIFFUSER.
- [E.L.] 3 Watt EMERGENCY LAMP FITTING 3 Hour, NON-MAINTAINED TYPE (IP Rating - IP 65)
- WALL BRACKET LAMP FITTING c/w 18 Watt CFL, 840mm POLYCARBONATE GLOBE & ALUMINIUM BRACKET (IP Rating - IP 65)
- ⬇ DOWN LIGHT
- 1x36 Watt x 1200mm
- ⊙ PENDANT LAMP WITH 18 Watt CFL
- ⊕ 1/1A SPNE SWITCHED SOCKET OUTLET (EFL + AS SHOWN)
- ⊕ 3/2A TPNE SWITCHED SOCKET OUTLET (EFL + AS SHOWN)
- 125W MERCURY VAPOR COBRA HEAD TYPE OUT DOOR LAMP
- ONE WAY SWITCH (EFL + 1.5)
- TWO WAY SWITCH (EFL + 1.5)
- ⊠ METAL CLAD, SURFACE MOUNTED DISTRIBUTION BOARD
- ⊠ TELEPHONE SOCKET OUTLET
- ⊗ 1400mm CEILING FAN
- ⊠ FAN REGULATOR (EFL + 1.5)
- ⊗ EXHAUST FAN

**LEGEND (Fire)**

- ⊠ 6Kg DRY POWDER EXTINGUISHER
- ⊠ 2Kg CARBON DIOXIDE EXTINGUISHER

**NOTE :**

01) POWER REQUIREMENT FOR MECHANICAL DEVICES (Pumps, Motors, Exhaust fans etc.) EXCLUDED IN OUR LIGHTING & POWER DISTRIBUTION BOARD.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

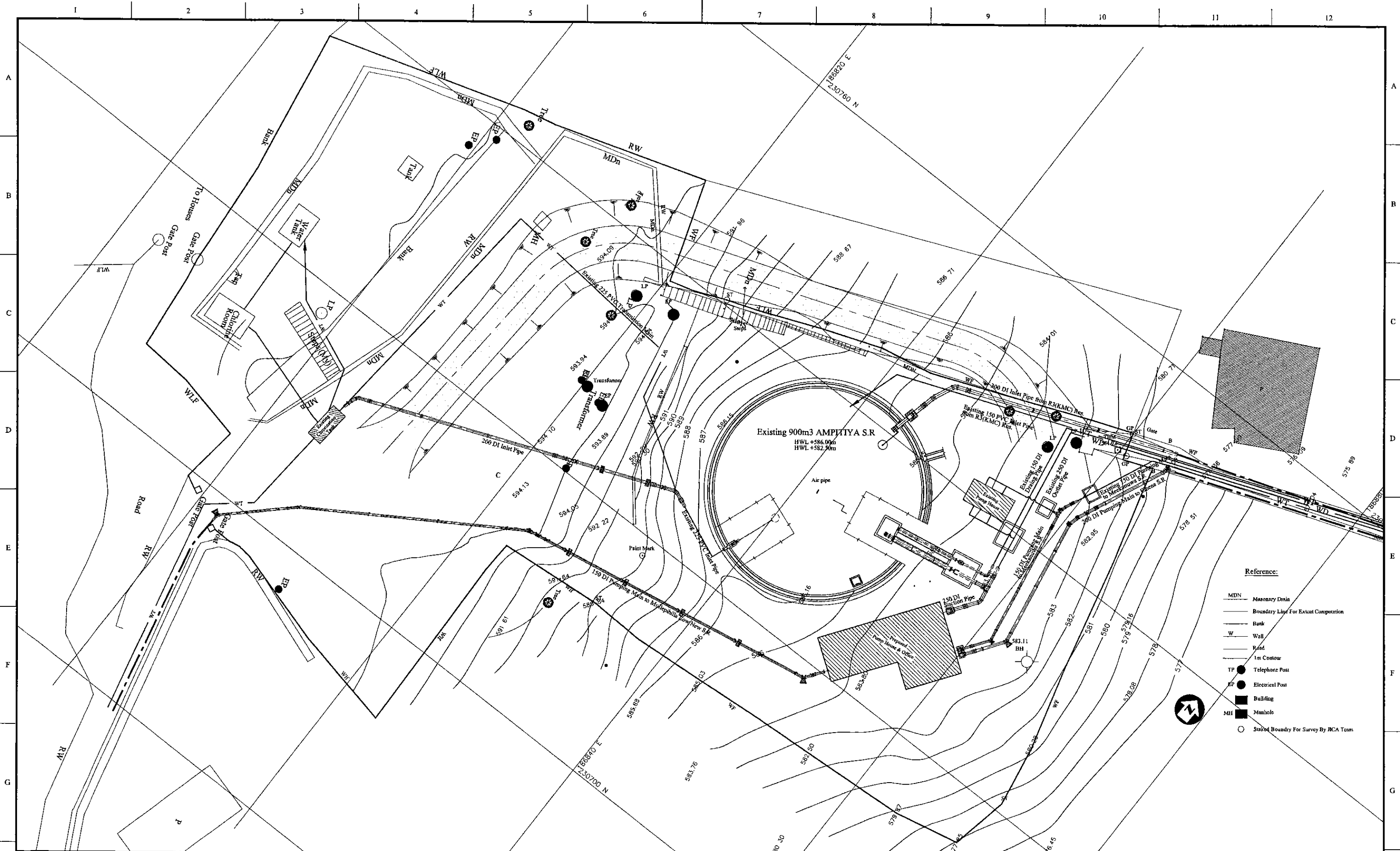
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: AMPITIYA PUMP STATION ELECTRICAL LAYOUT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

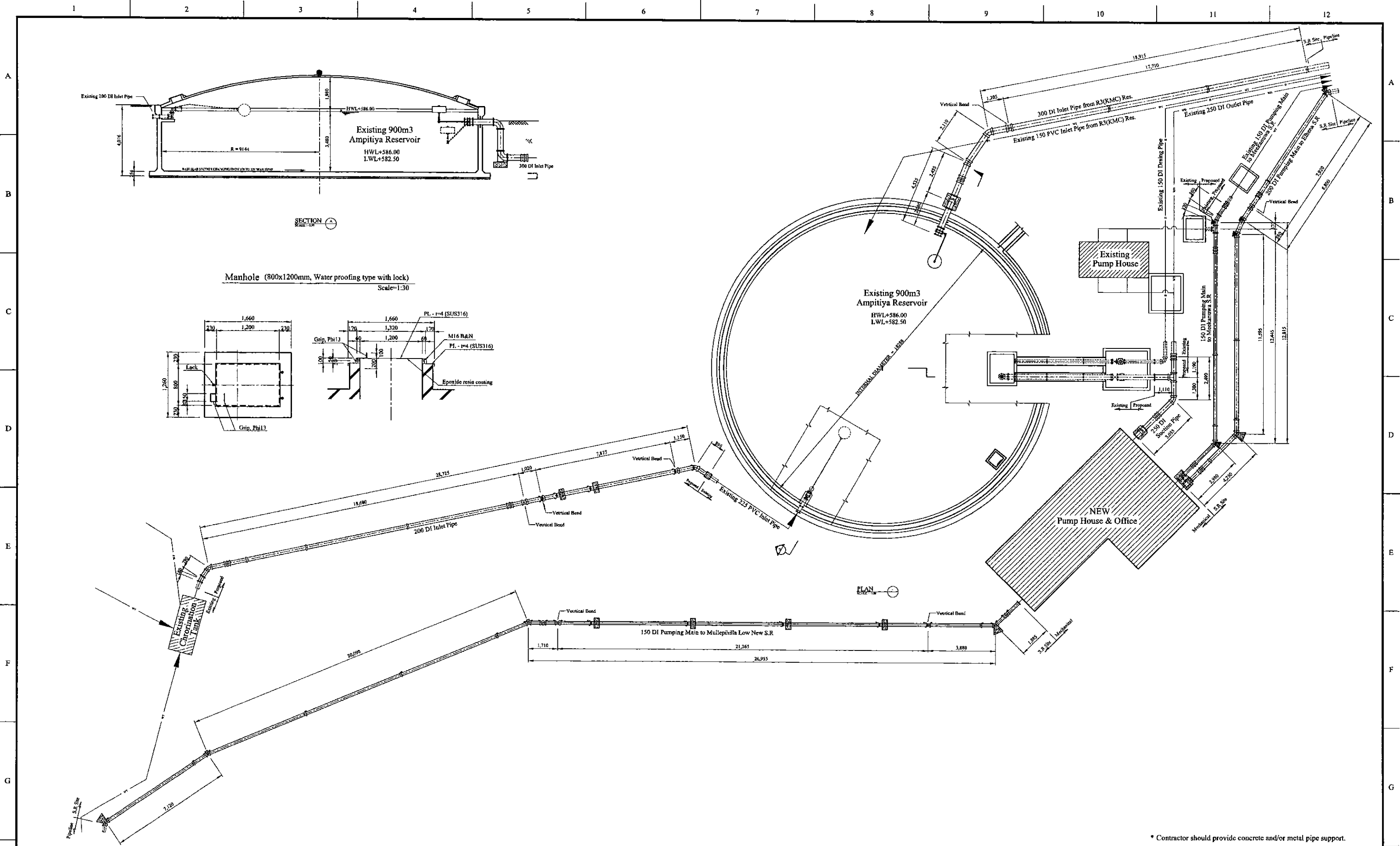
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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				DESIGN CHIEF			31/05/2002	30-E-24-21



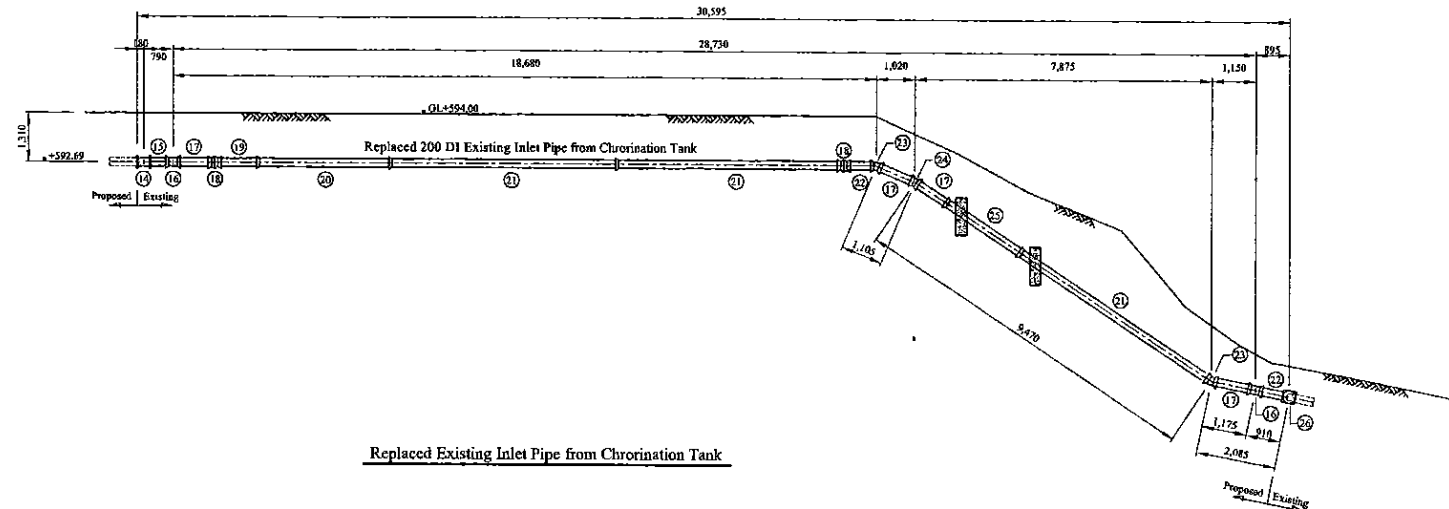
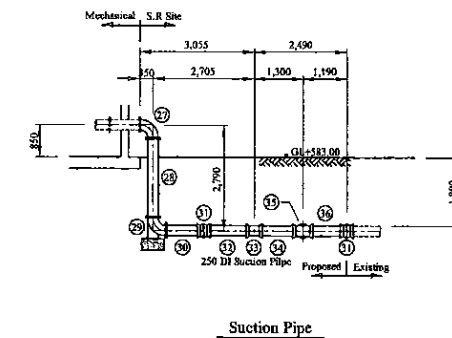
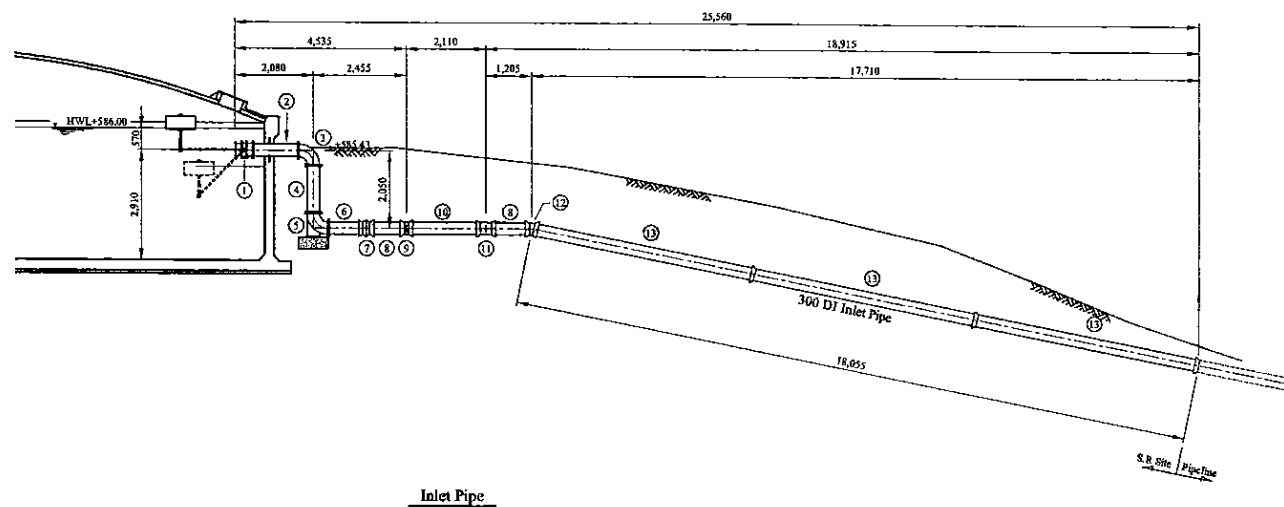
- Reference:**
- MDN Masonry Drain
  - Boundary Line For Excavation
  - W Wall
  - Road
  - 1m Contour
  - TP Telephone Post
  - EP Electrical Post
  - Building
  - MH Manhole
  - Stake Boundary For Survey By RCA Team

PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>PIPE LAYOUT PLAN OF EXISTING 900m<sup>3</sup> AMPTIYA S.R, PS and OFFICE</b>								
CLIENT: <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS: <b>NJS CONSULTANTS CO., LTD. - JAPAN</b> <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>Koichi OKAZAKI</b>	DRAWN: <b>Koichi OKAZAKI</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:150</b>
								CHECKED: <b>DESIGN CHIEF</b>	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>31-C-24-01</b>



\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF AMPITIYA S.R. & P.S. - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NSC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-24-02



Num	Item	Material	Di. (mm)	Description-1	Description-2	Quantity
1	Butterfly Float Valve	SUS	300	L=480mm	PN10	1
2	Double Flanged Piece with Puddle	DI	300	L=1,200mm	PN10	1
3	Double Flanged 90 degree Bend	DI	300	L=400mm x 2	PN10	1
4	Double Flanged Piece	DI	300	L=1,250mm	PN10	1
5	Double Flanged 90 degree Duckfoot Bend	DI	300	L=400mm x 2	PN10	1
6	Flanged Spigot Piece	DI	300	L=1,000mm	PN10, Type-T	1
7	Collar	DI	300		Type-K	1
8	Plain Ends Piece	DI	300	L=1,000mm	Type-T	2
9	Double Socket 11.25 degree Bend	DI	300	L=35mm x 2	Type-T	1
10	Plain Ends Piece	DI	300	L=1,905mm	Type-T	1
11	Double Socket 45 degree Bend	DI	300	L=150mm x 2	Type-T	1
12	Double Socket 22.5 degree Bend	DI	300	L=55mm x 2	Type-T	1
13	Straight Pipe	DI	300	L=6,000mm	Type-T	3
14	Double Flanged 11.25 degree	DI	200	L=180mm x 2	PN10	1
15	Flanged Spigot Piece	DI	200	L=500mm	PN10, Type-T	1
16	Double Socket 45 degree	DI	200	L=150mm x 2	Type-T	2
17	Plain Ends Piece	DI	200	L=1,000mm	Type-T	4
18	Collar	DI	200		Type-K	2
19	Plain Ends Piece	DI	200	L=1,200mm	Type-T	1
20	Socket - Plain End Piece	DI	200	L=3,500mm	Type-T	1
21	Straight Pipe	DI	200	L=6,000mm	Type-T	3
22	Plain Ends Piece	DI	200	L=800mm	Type-T	2
23	Double Socket 22.5 degree Bend	DI	200	L=65mm x 2	Type-T	2
24	Double Socket 11.25 degree Bend	DI	200	L=40mm x 2	Type-T	1
25	Plain Ends Piece	DI	200	L=2,370mm	Type-T	1
26	Connection Adaptor (PVC/DI)	DI	200		Type-T	1
27	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	1
28	Double Flanged Piece	DI	250	L=2,090mm	PN10	1
29	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	1
30	Flanged Spigot Piece	DI	250	L=1,000mm	PN10, Type-T	1
31	Collar	DI	250		Type-K	2
32	Plain Ends Piece	DI	250	L=1,225mm	Type-T	1
33	Double Socket 45 degree	DI	250	L=130mm x 2	Type-T	1
34	Plain Ends Piece	DI	250	L=980mm	Type-T	1
35	All Socket 250 x 250 Tee	DI	250x250	L=375x230mm	Type-T	1
36	Plain Ends Piece	DI	250	L=1,000mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



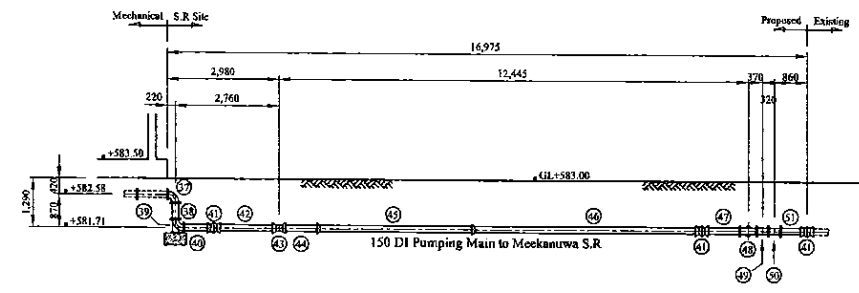
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF AMPITIYA S.R & P.S - 2

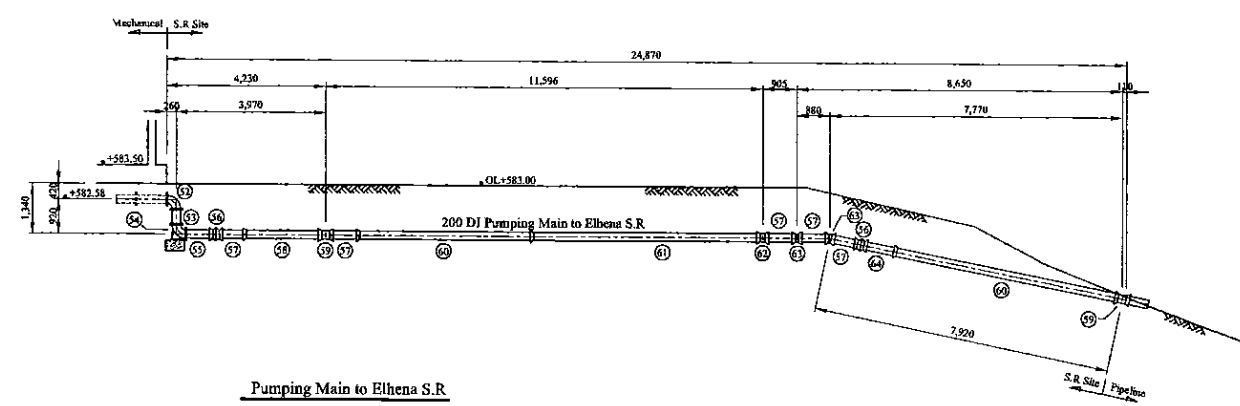
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

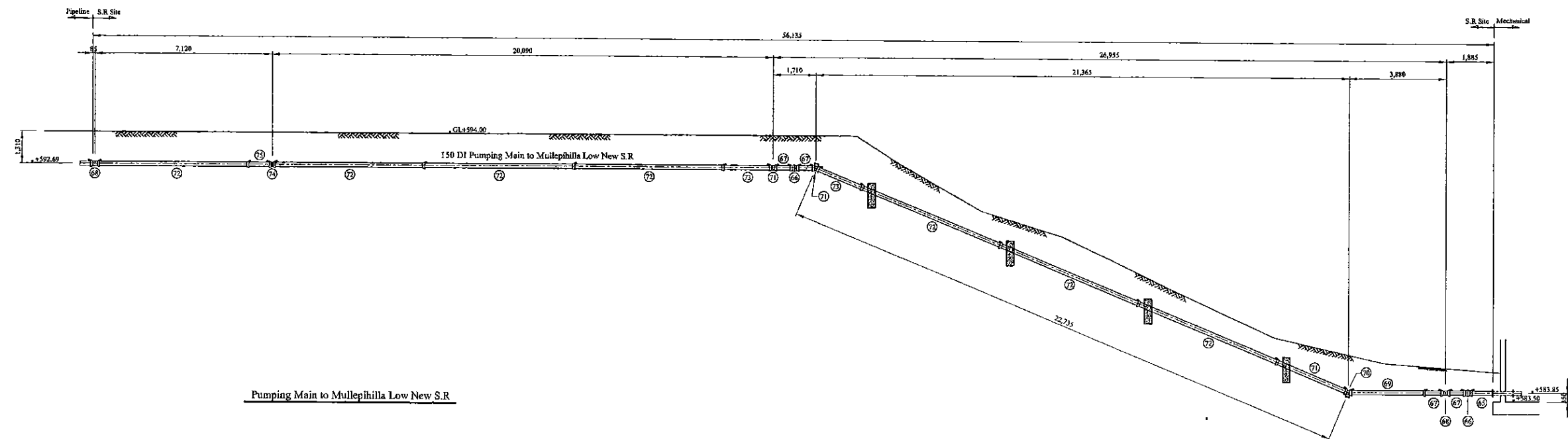
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
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				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-24-03



Pumping Main to Meekanuwa S.R.



Pumping Main to Elhena S.R.



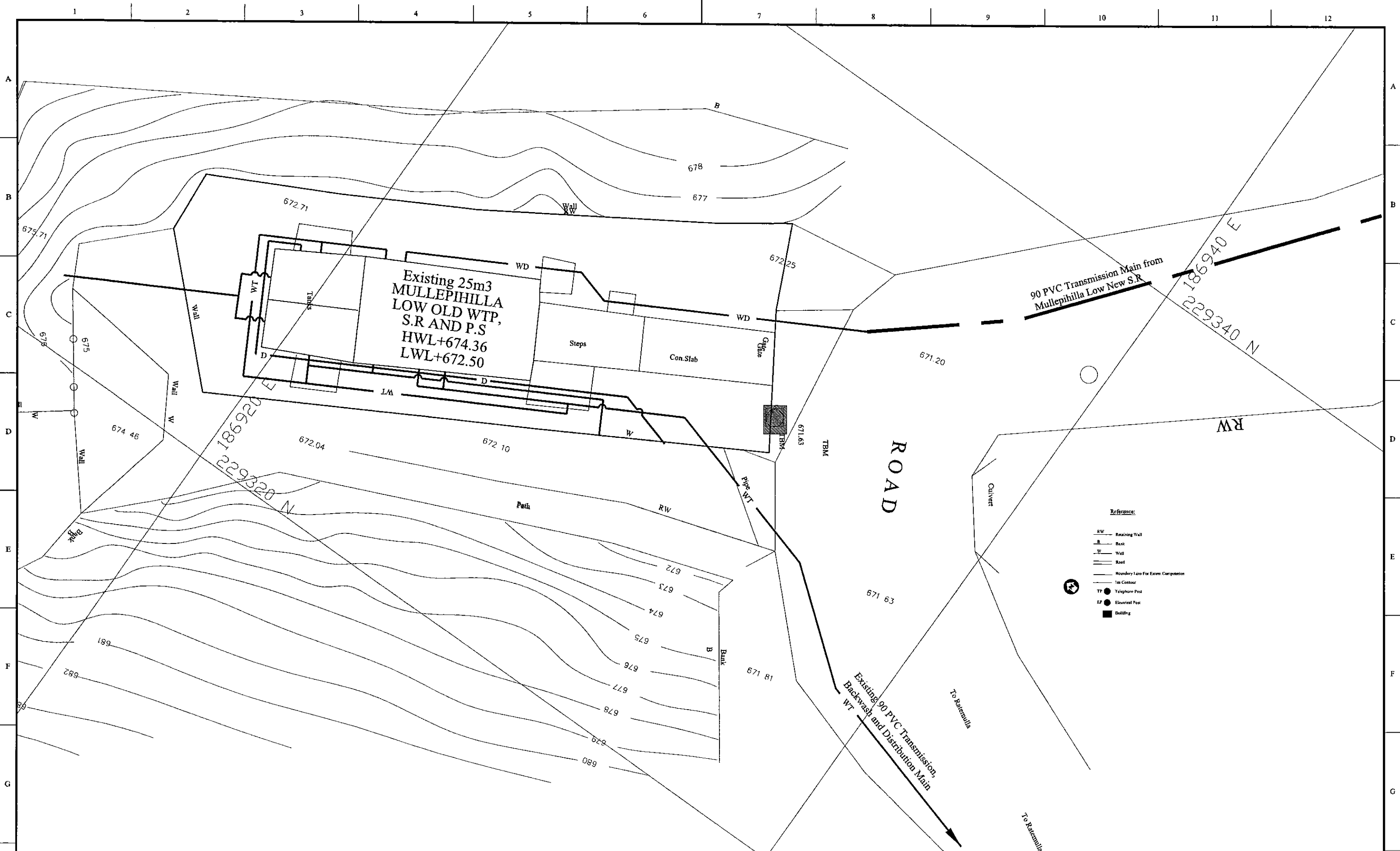
Pumping Main to Mullepihilla Low New S.R.

Num	Item	Material	Dia. (mm)	Description-1	Description-2	Quantity
37	Double Flanged 90 degree Bend	DI	150	L=220mm x 2	PN10	1
38	Double Flanged Piece	DI	150	L=1,850mm	PN10	1
39	Double Flanged 90 degree Duckfoot Bend	DI	150	L=220mm x 2	PN10	1
40	Socket - Plain End Piece	DI	150	L=800mm	PN10, Type-T	1
41	Collar	DI	150		Type-K	3
42	Plain Ends Piece	DI	150	L=1,655mm	Type-T	1
43	Double Socket 45 degree	DI	150	L=85mm x 2	Type-T	1
44	Plain Ends Piece	DI	150	L=1,000mm	Type-T	1
45	Plain Ends Piece	DI	150	L=4,130mm	Type-T	1
46	Straight Pipe	DI	150	L=6,000mm	Type-T	1
47	Flanged Spigot Piece	DI	150	L=1,000mm	PN10, Type-T	1
48	All Flanged 150 x 150 Tee	DI	150x150	L=440x220mm	PN10	1
49	Double Flanged 22.5 degree Bend	DI	150	L=55mm x 2	PN10	1
50	Double Flanged 11.25 degree Bend	DI	150	L=35mm x 2	PN10	1
51	Flanged Spigot Piece	DI	150	L=700mm	PN10, Type-T	1
52	Double Flanged 90 degree Bend	DI	250	L=350mm x 2	PN10	1
53	Double Flanged Piece	DI	250	L=400mm	PN10	1
54	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mm x 2	PN10	1
55	Flanged Spigot Piece	DI	250	L=800mm	PN10, Type-T	1
56	Collar	DI	250		Type-K	2
57	Plain Ends Piece	DI	250	L=1,000mm	Type-T	5
58	Socket - Plain End Piece	DI	250	L=2,000mm	Type-T	1
59	Double Socket 45 degree	DI	250	L=130mm x 2	Type-T	1
60	Socket - Plain End Piece	DI	250	L=4,600mm	Type-T	2
61	Straight Pipe	DI	250	L=6,000mm	Type-T	1
62	Double Socket 22.5 degree Bend	DI	250	L=65mm x 2	Type-T	1
63	Double Socket 11.25 degree Bend	DI	250	L=40mm x 2	Type-T	2
64	Plain Ends Piece	DI	250	L=970mm	Type-T	1
65	Flanged Spigot Piece	DI	150	L=1,000mm	PN15, Type-T	1
66	Collar with Retainer Gland	DI	150		Type-K	2
67	Plain Ends Piece	DI	150	L=800mm	Type-T	4
68	Double Socket 45 degree Bend with Restrained Couplings	DI	150	L=85mm x 2	Type-T	2
69	Socket - Plain End Piece with Restrained Couplings	DI	150	L=2,940mm	Type-T	1
70	Double Socket 22.5 degree Bend with Restrained Couplings	DI	150	L=55mm x 2	Type-T	3
71	Socket - Plain End Piece with Restrained Couplings	DI	150	L=3,005mm	Type-T	1
72	Straight Pipe with Restrained Couplings	DI	150	L=6,000mm	Type-T	7
73	Plain Ends Piece	DI	150	L=2,000mm	Type-T	2
74	Double Socket 11.25 degree Bend with Restrained Couplings	DI	150	L=35mm x 2	Type-T	1
75	Plain Ends Piece	DI	150	L=1,000mm	Type-T	1

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF AMPITIYA S.R & P.S - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:100
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-24-04





PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

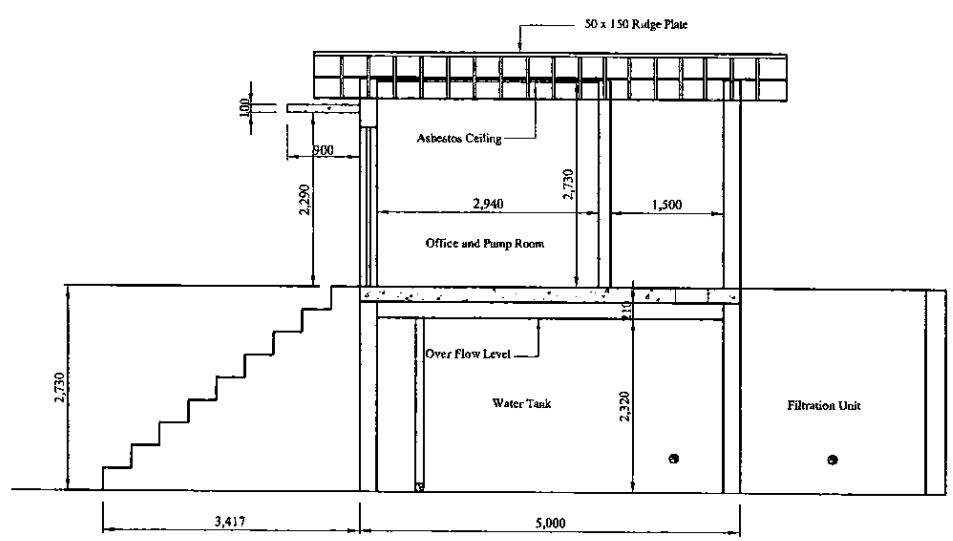
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT PLAN OF EXISTING (25m<sup>3</sup>) MULLEPHILLA LOW OLD WTP & P.S.

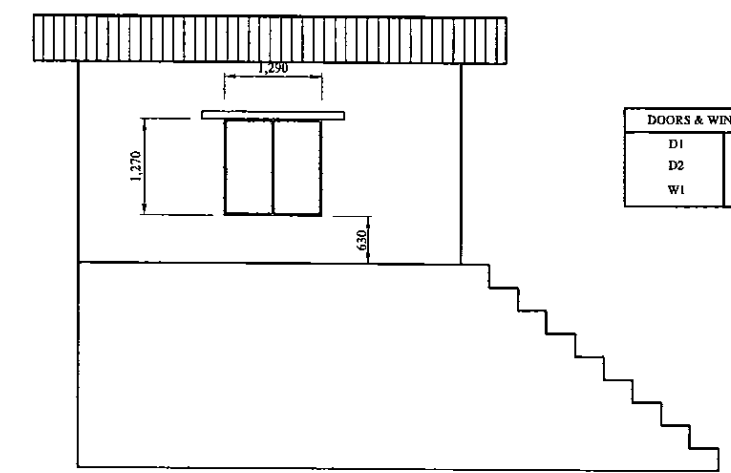
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

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

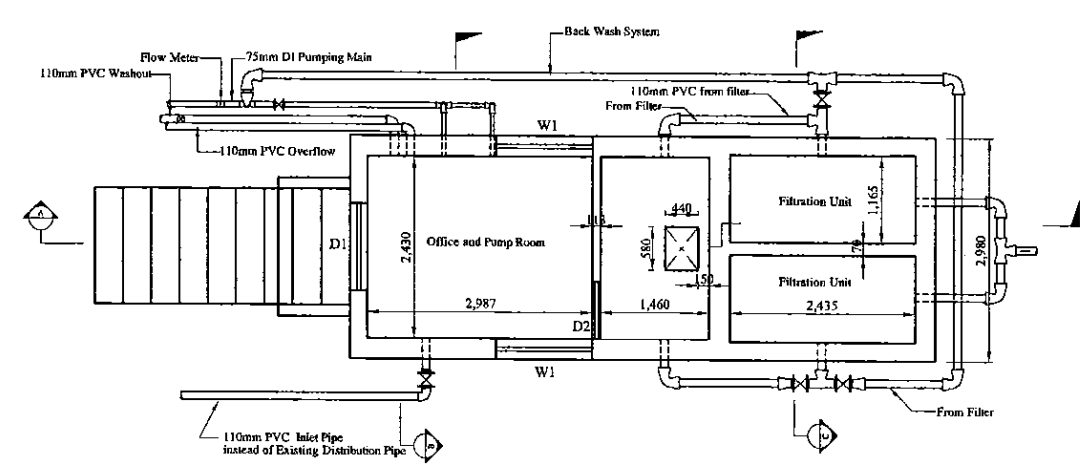
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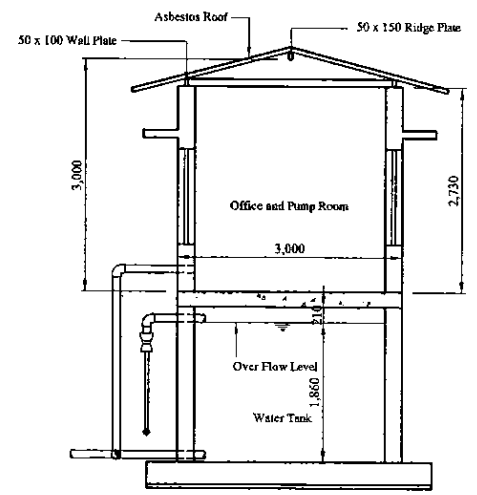
SECTIONAL ELEVATION AT A - A



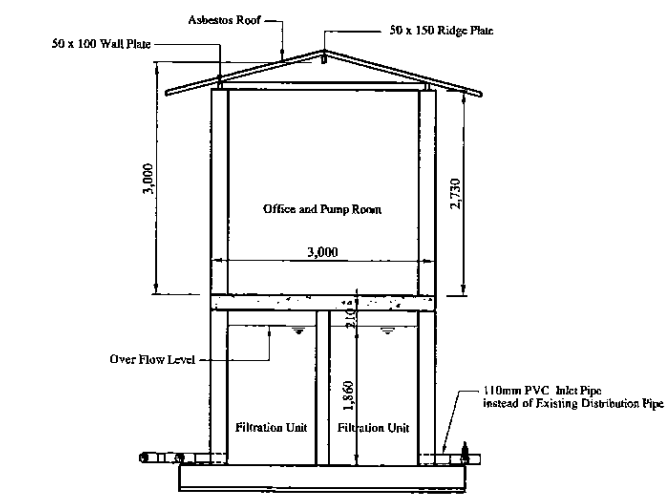
SIDE ELEVATION



PLAN



SECTION AT B - B



SECTION AT C - C

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

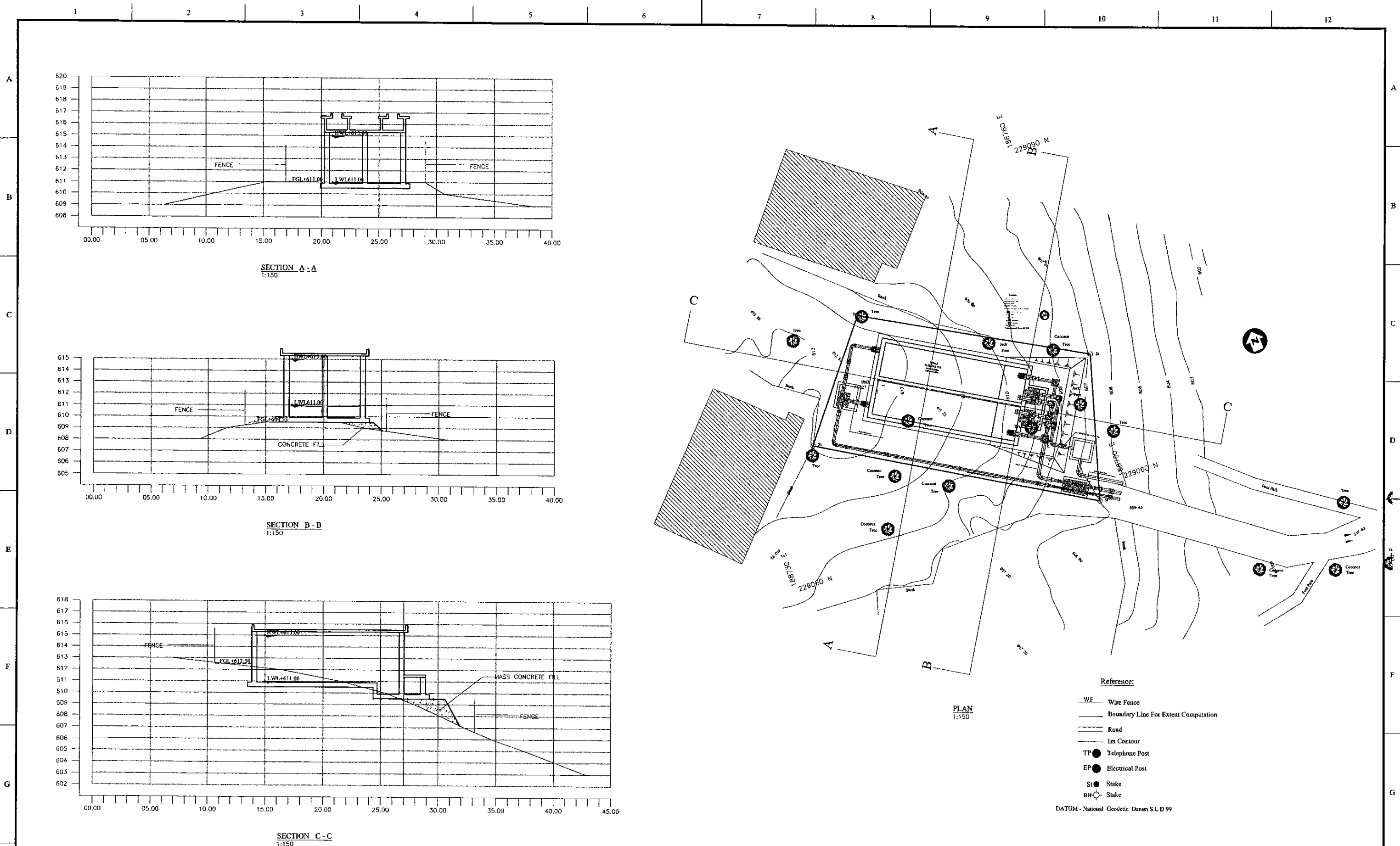
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT OF MULLEPIHILLA LOW OLD WTP AND P.S

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-25-02




PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

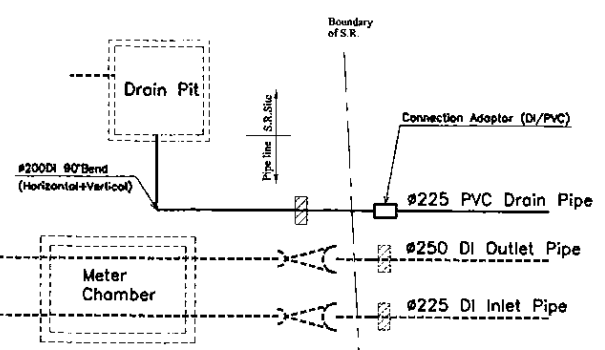
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **SITE PLAN AND LSS OF 300m<sup>3</sup> ELHENA S.R.**

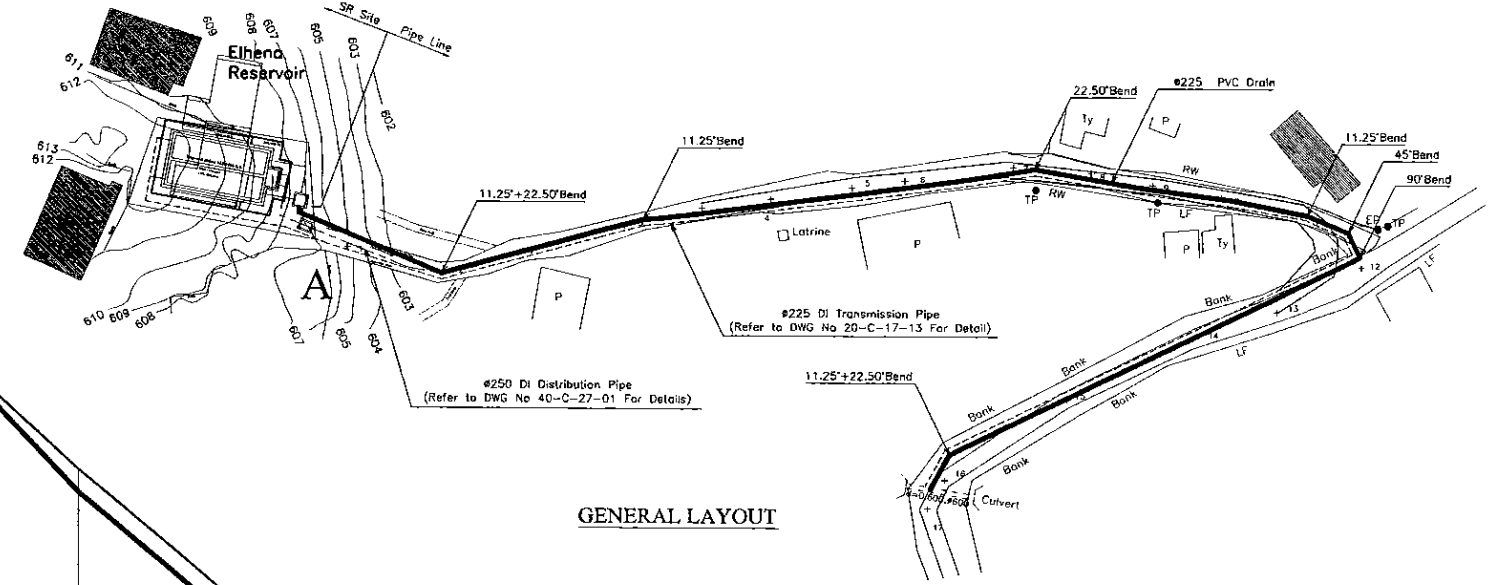
CLIENT:  **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

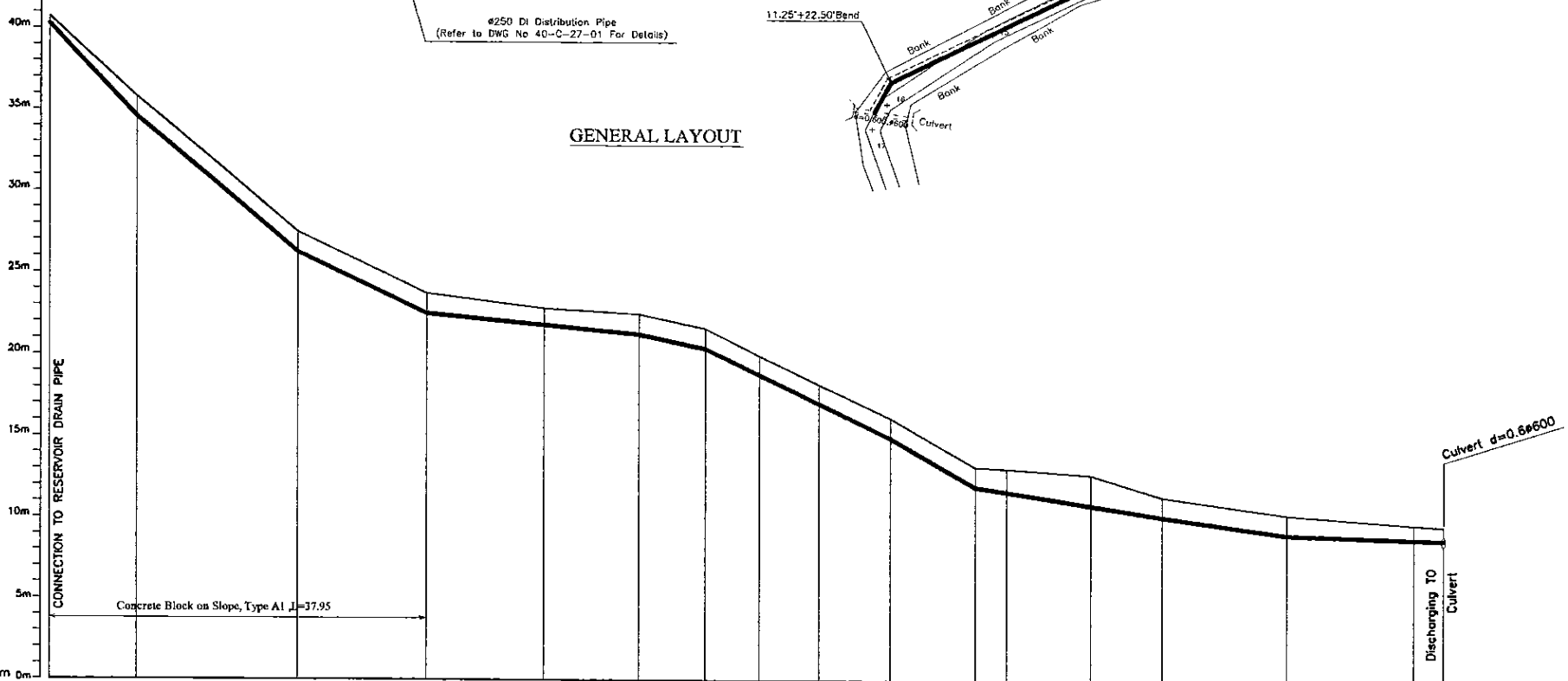
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				Koichi OKAZAKI	Ravi U.	Ikuo MIWA		1:150
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-27-01



PIPE CONNECTION DETAIL - A



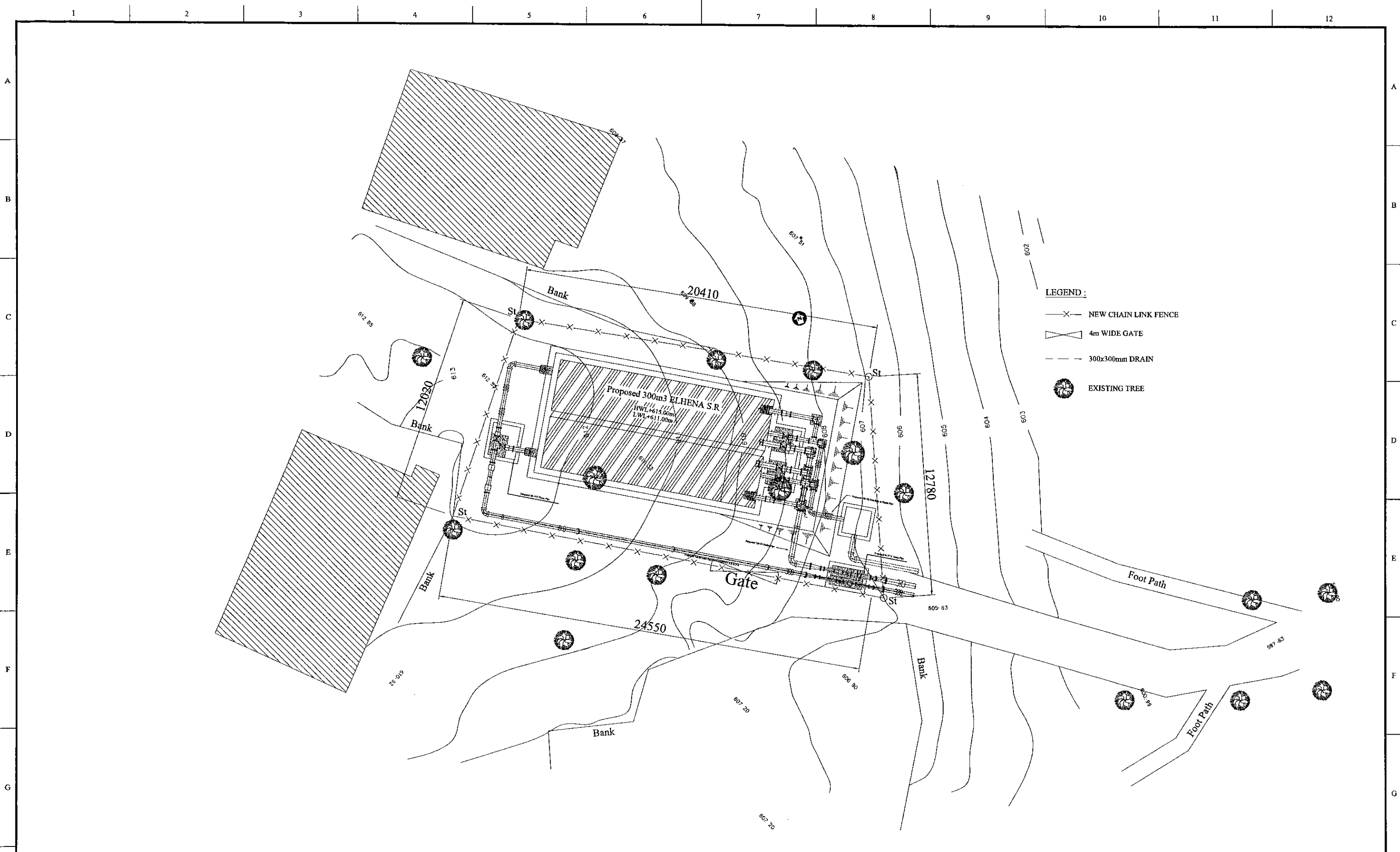
GENERAL LAYOUT



Ground Level (m)	603.75	600.30	592.50	588.75	587.85	587.51	586.65	585.00	583.25	581.20	578.20	576.10	577.75	576.41	575.35	574.78	574.83
Pipe Invert Level <small>(Pipe thickness to be assumed negligible)</small>	603.30	599.55	591.25	587.53	585.29	585.43	585.43	579.98	578.98	578.20	576.10	577.75	575.19	574.13	575.35	574.78	574.83
Pipe Data	← 225 PVC RUBBER RING JOINT →																
Single Distance (m)	0.00	13.36	24.59	18.76	17.28	14.80	10.20	8.29	9.10	10.94	13.02	4.78	12.83	10.85	19.25	19.37	2.26
Cumulative Distance (m)	0.00	13.36	37.95	57.71	75.00	90.20	100.40	108.69	117.79	128.73	141.75	146.53	159.36	170.21	189.46	208.83	211.09
Station No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

LONGITUDINAL SECTION

<b>PROJECT:</b> GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		<b>TITLE:</b> WASH OUT FROM ELHENA S.R.				SHEET 1 OF 1													
<b>CLIENT:</b> NATIONAL WATER SUPPLY & DRAINAGE BOARD		<b>CONSULTANTS:</b> NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REV.	DESCRIPTION	DATE	SIGN.					<b>DESIGNED:</b> Koichi OKAZAKI		<b>DRAWN:</b> Charuni		<b>PM: (CONSULTANT)</b> Ikuro MIWA		<b>CE: (P&amp;D)</b>	
REV.	DESCRIPTION	DATE	SIGN.																		
				DESIGN CHIEF		<b>AGM: (P&amp;D)</b>		<b>DGM: (P&amp;D)</b>		<b>DATE:</b> 31/05/2002											
SCALE: HORIZONTAL - 1:500 VERTICAL - 1:200		DRAWING NO.: 30-C-27-02		DATE: 31/05/2002		DATE: 31/05/2002		DATE: 31/05/2002		DATE: 31/05/2002											



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: SITE PLAN OF 300m3 ELHENA S.R

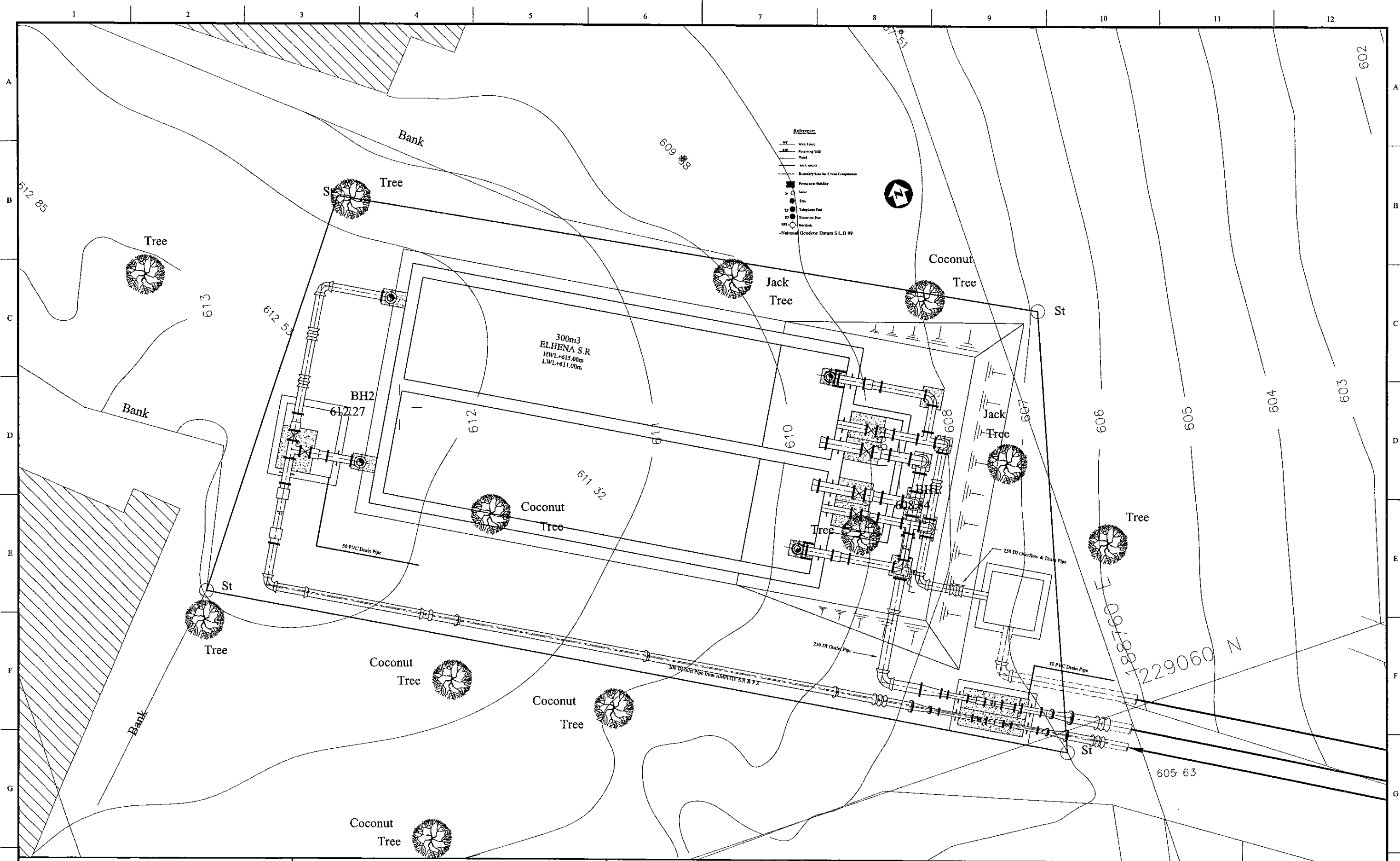
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:100
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-C-27-03



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ELHENA SERVICE RESERVOIR SITE PLAN

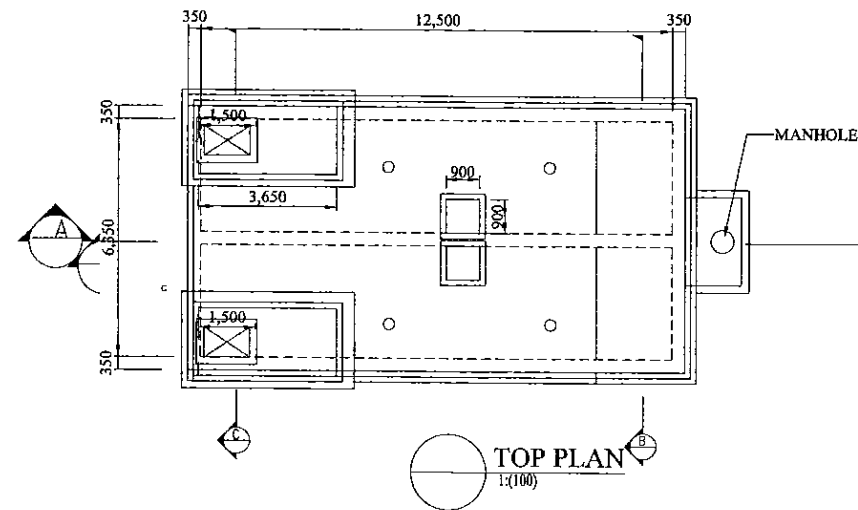
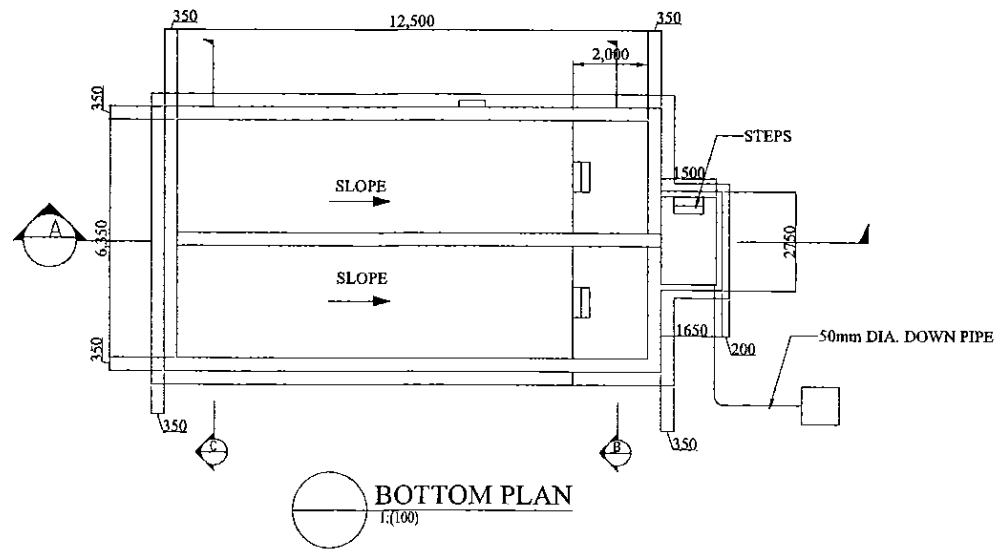
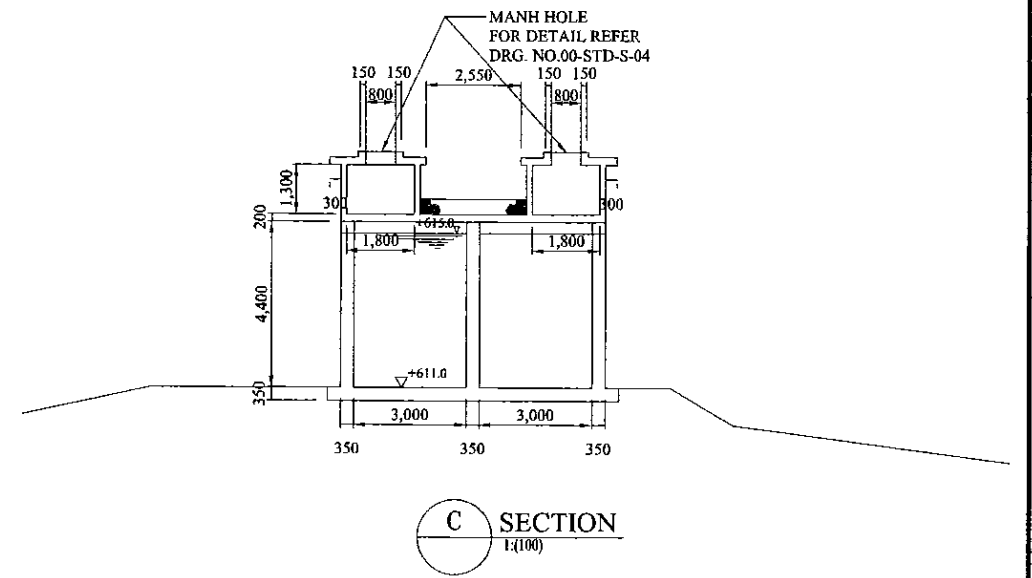
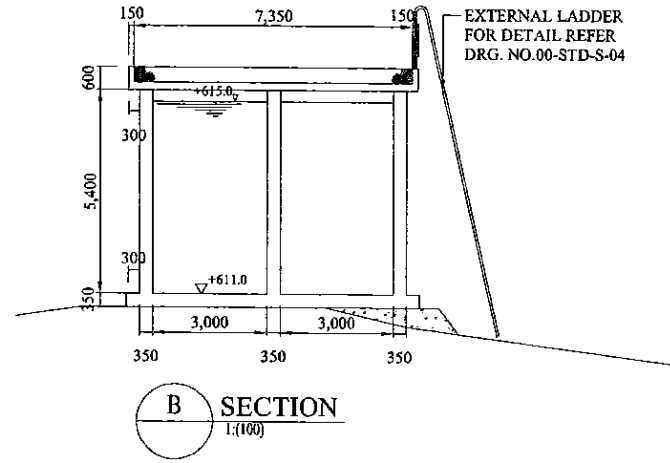
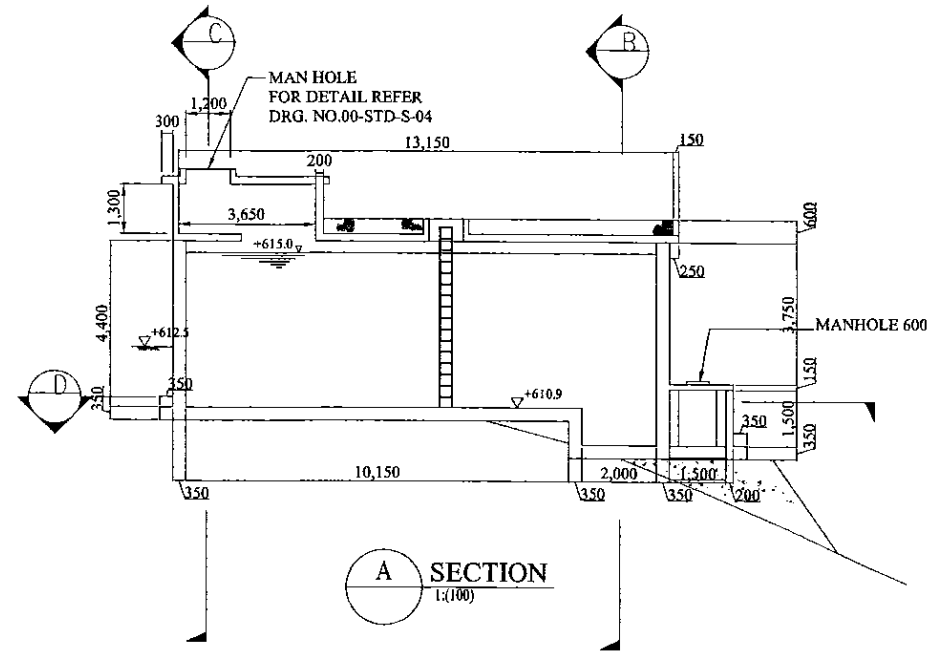
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



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



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Lakmal	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-27-01



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

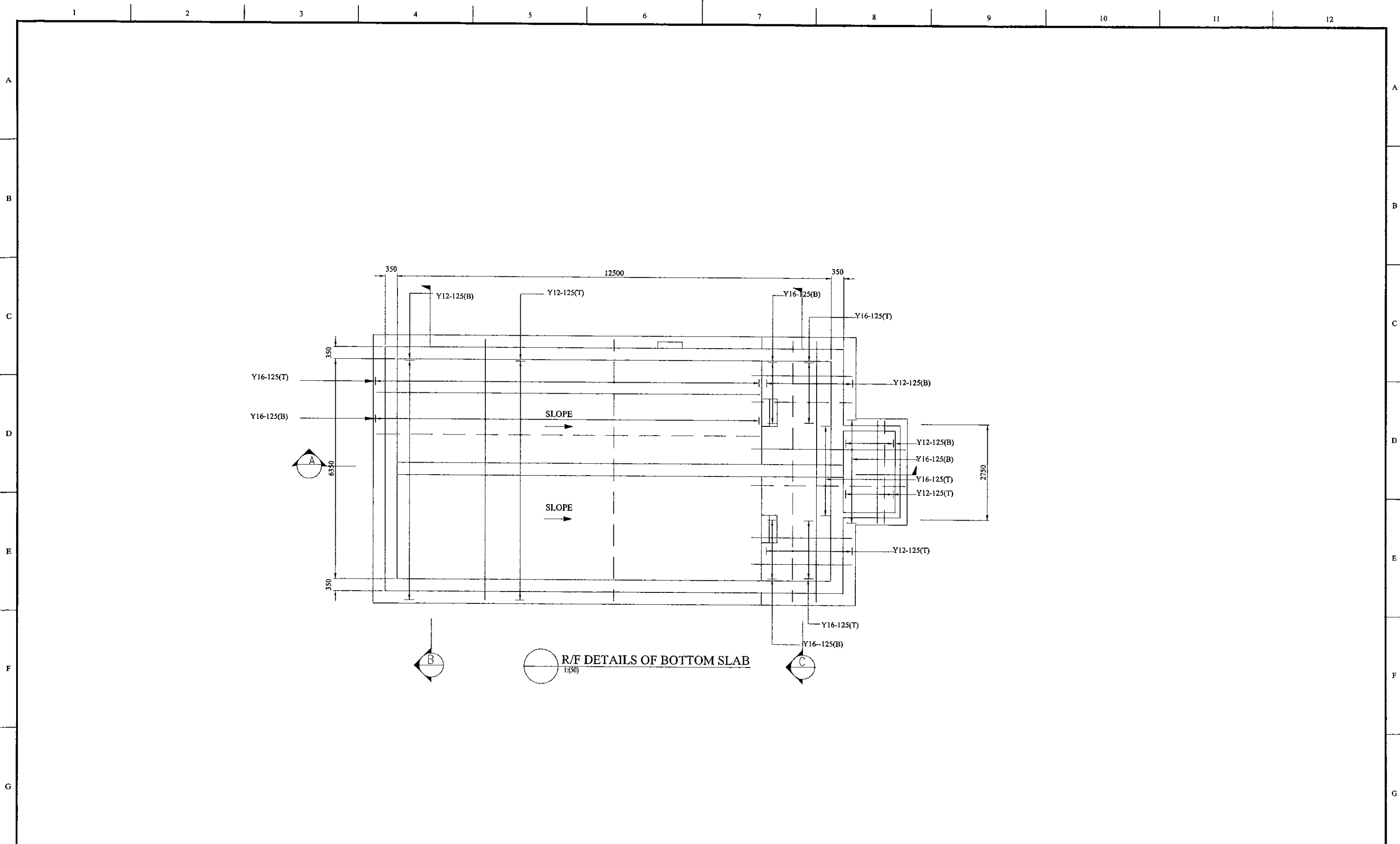
JICA JAPAN INTERNATIONAL COOPERATION AGENCY





TITLE: ELHENA SERVICES RESERVOIR - GENERAL ARRANGEMENT

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

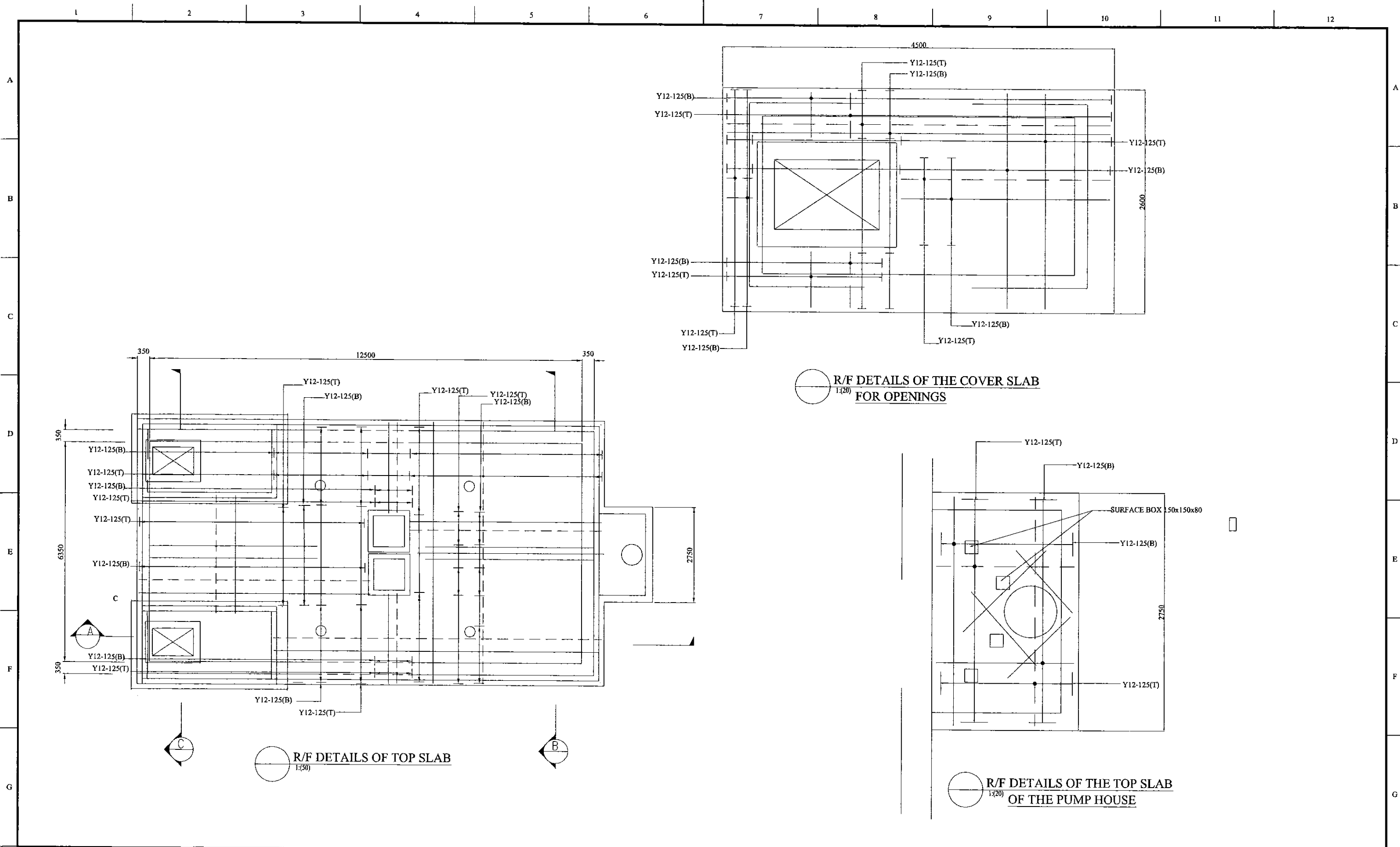
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-27-02



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: ELHENA SERVICES RESERVOIR - REINFORCEMENT DETAILS - BOTTOM SLAB								
CLIENT:  NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS:  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: L. JAYAWARDENA	DRAWN: SAM	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: AS SHOWN
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PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**



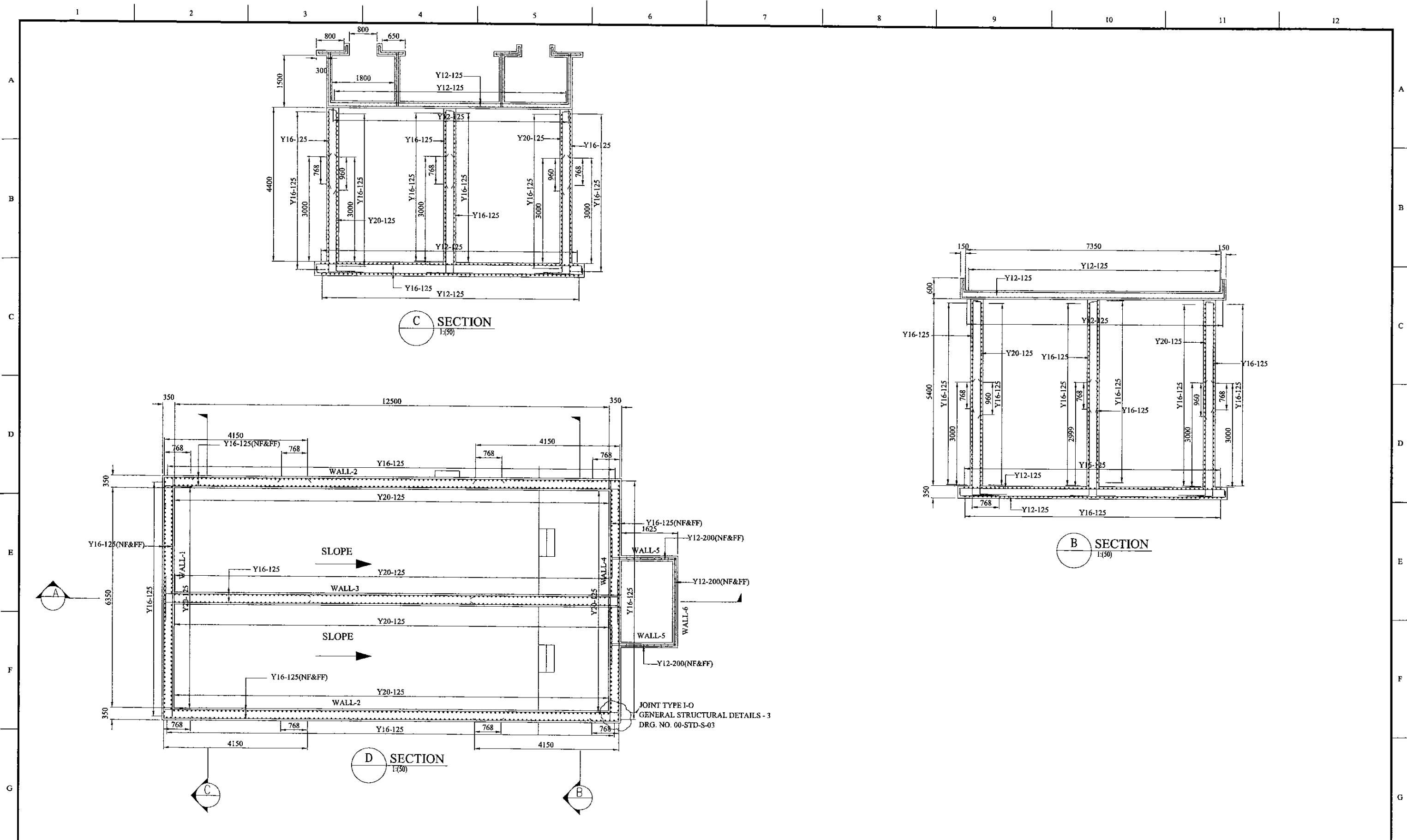
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **ELHENA SERVICES RESERVOIR - REINFORCEMENT DETAILS - TOP SLAB**

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuro MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-27-04





PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

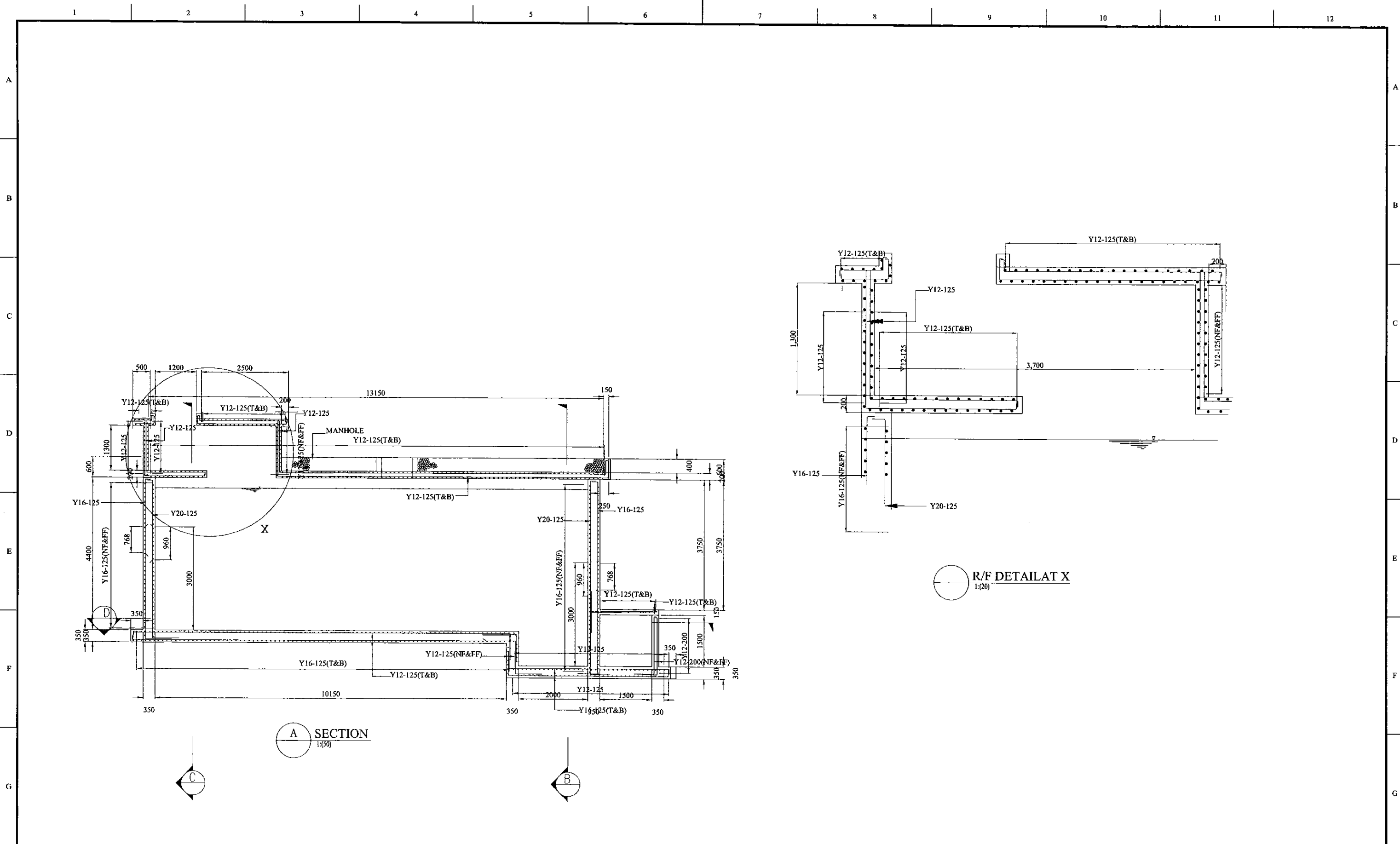
 **JAPAN INTERNATIONAL COOPERATION AGENCY**

TITLE: **ELHENA SERVICES RESERVOIR - REINFORCEMENT DETAILS OF - SECTION - 01**

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-27-05



A SECTION  
1:50

R/F DETAIL AT X  
1:20

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



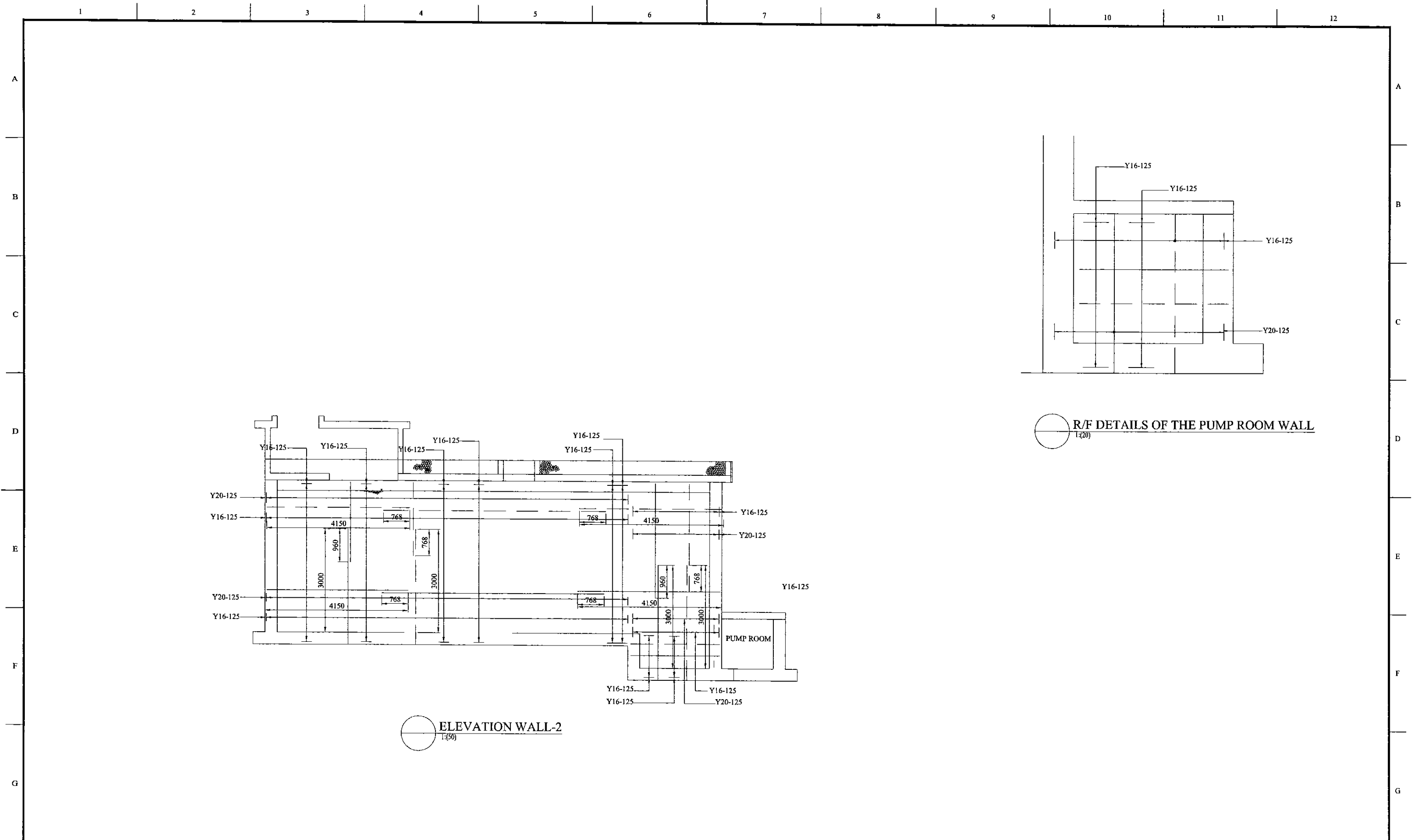
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ELHENA SERVICES RESERVOIR - REINFORCEMENT DETAILS - SECTION - 02

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikio MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-27-06



PROJECT: **GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT**

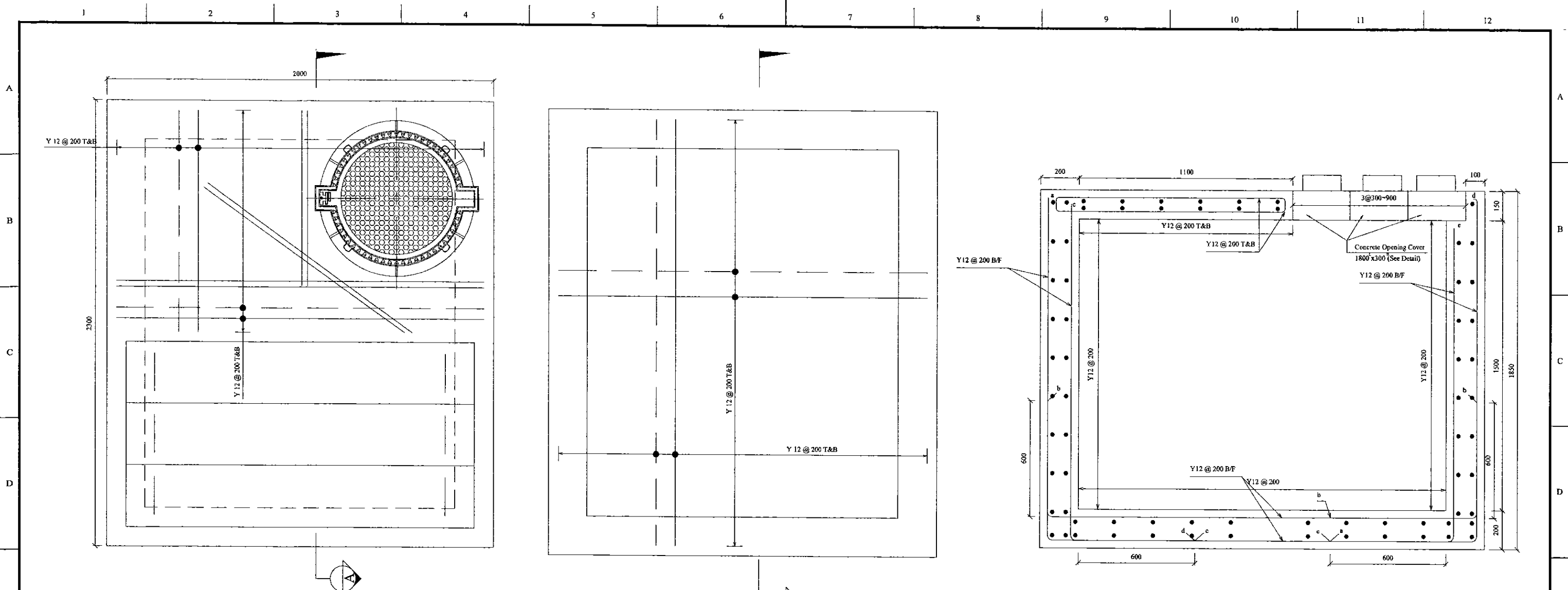
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: **ELHENA SERVICES RESERVOIR - R/F DETAILS OF WALL**

CLIENT: **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

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

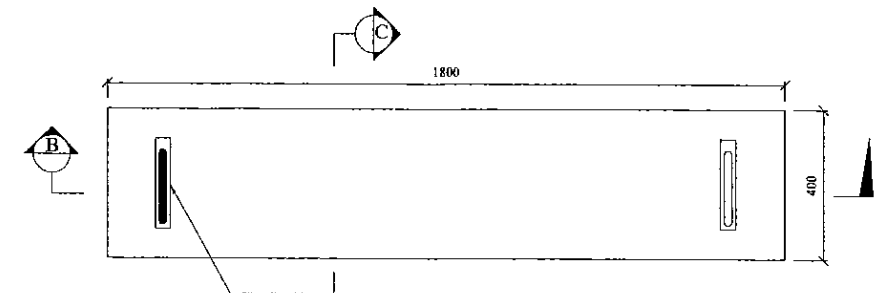
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	SAM	Ikuo MIWA		AS SHOWN
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
							31/05/2002	30-S-27-07



TOP SLAB PLAN

BOTTOM SLAB PLAN

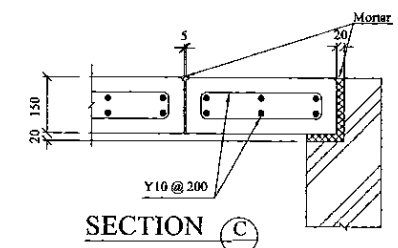
SECTION A







CONCRETE OPENIG COVER PLAN

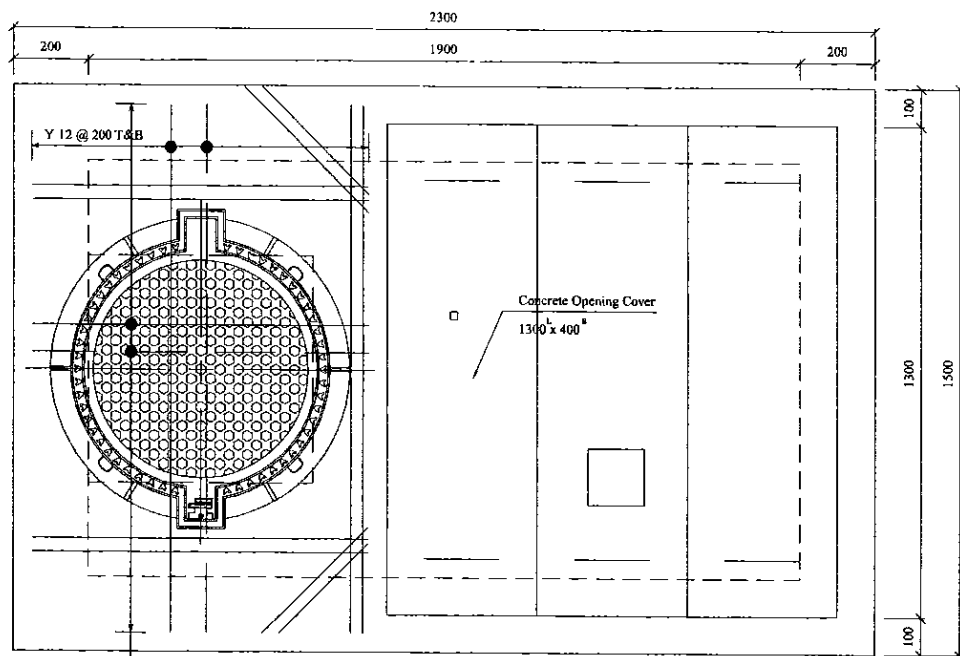


SECTION B

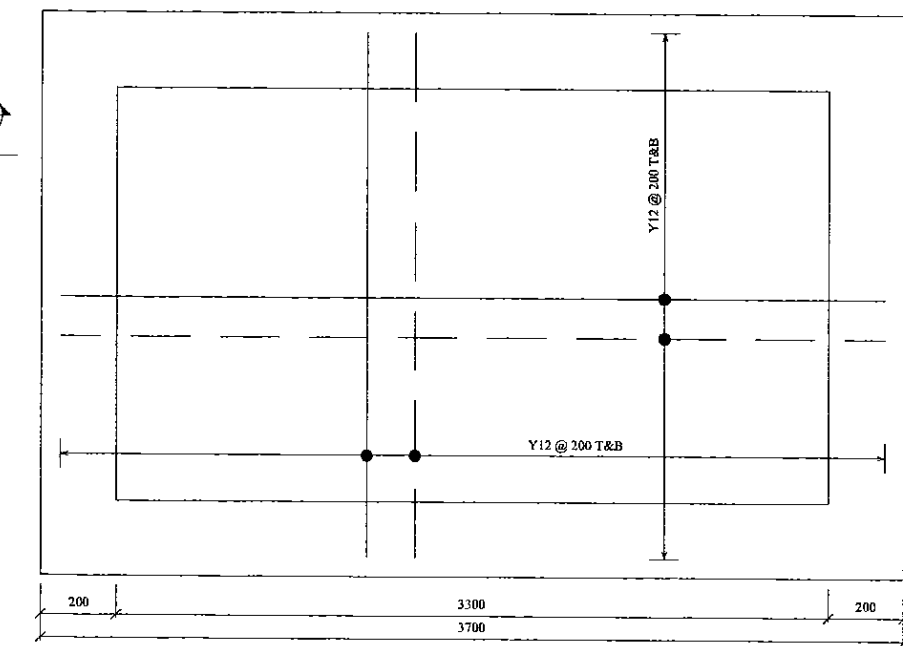


SECTION C

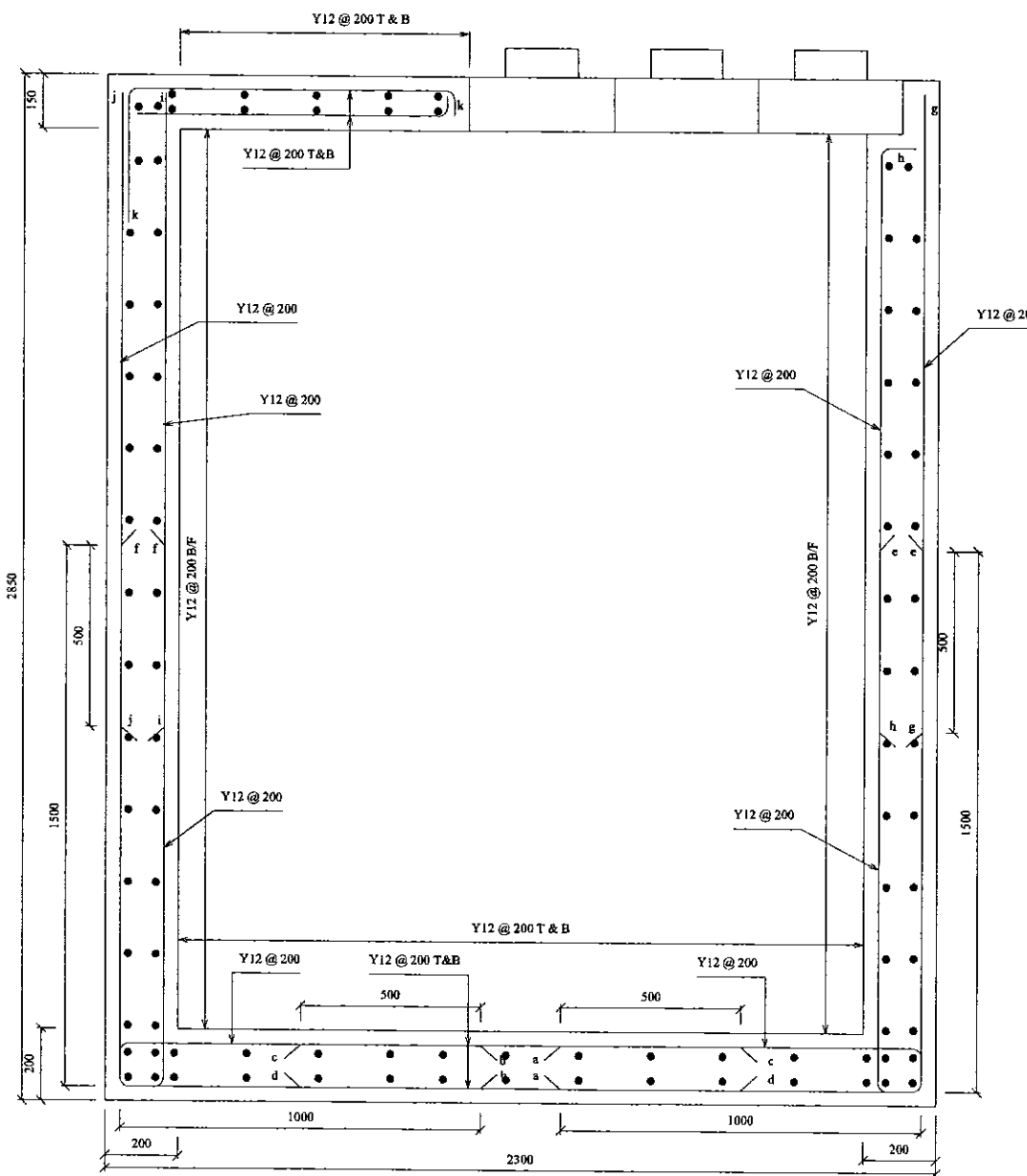
PROJECT: <b>GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT</b>		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		TITLE: <b>ELHENA S.R. LAYOUT-4, R/F DETAIL OF INLET VALVE CHAMBER</b>								
CLIENT:  <b>NATIONAL WATER SUPPLY &amp; DRAINAGE BOARD</b>		CONSULTANTS:  <b>NJS CONSULTANTS CO., LTD. - JAPAN</b>  <b>NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN</b>		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: <b>L. JAYAWARDENA</b>	DRAWN: <b>SAM</b>	PM: (CONSULTANT) <b>Ikuo MIWA</b>	CE: (P&D)	SCALE: <b>1:10</b>
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: <b>31/05/2002</b>	DRAWING NO.: <b>30-S-27-08</b>
								DESIGN CHIEF				



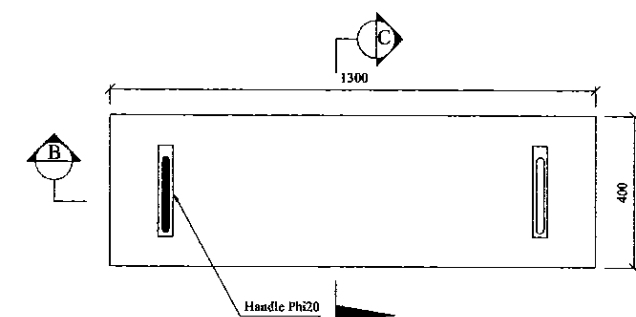
TOP SLAB PLAN



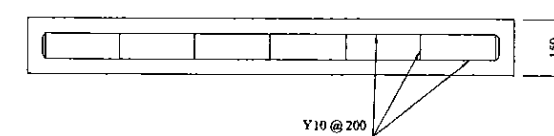
BASE SLAB PLAN



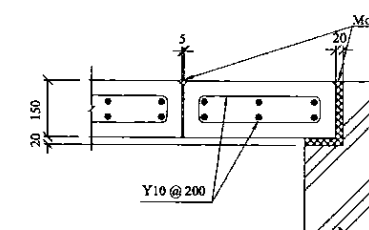
SECTION A



CONCRETE OPENING COVER PLAN



SECTION B



SECTION C

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

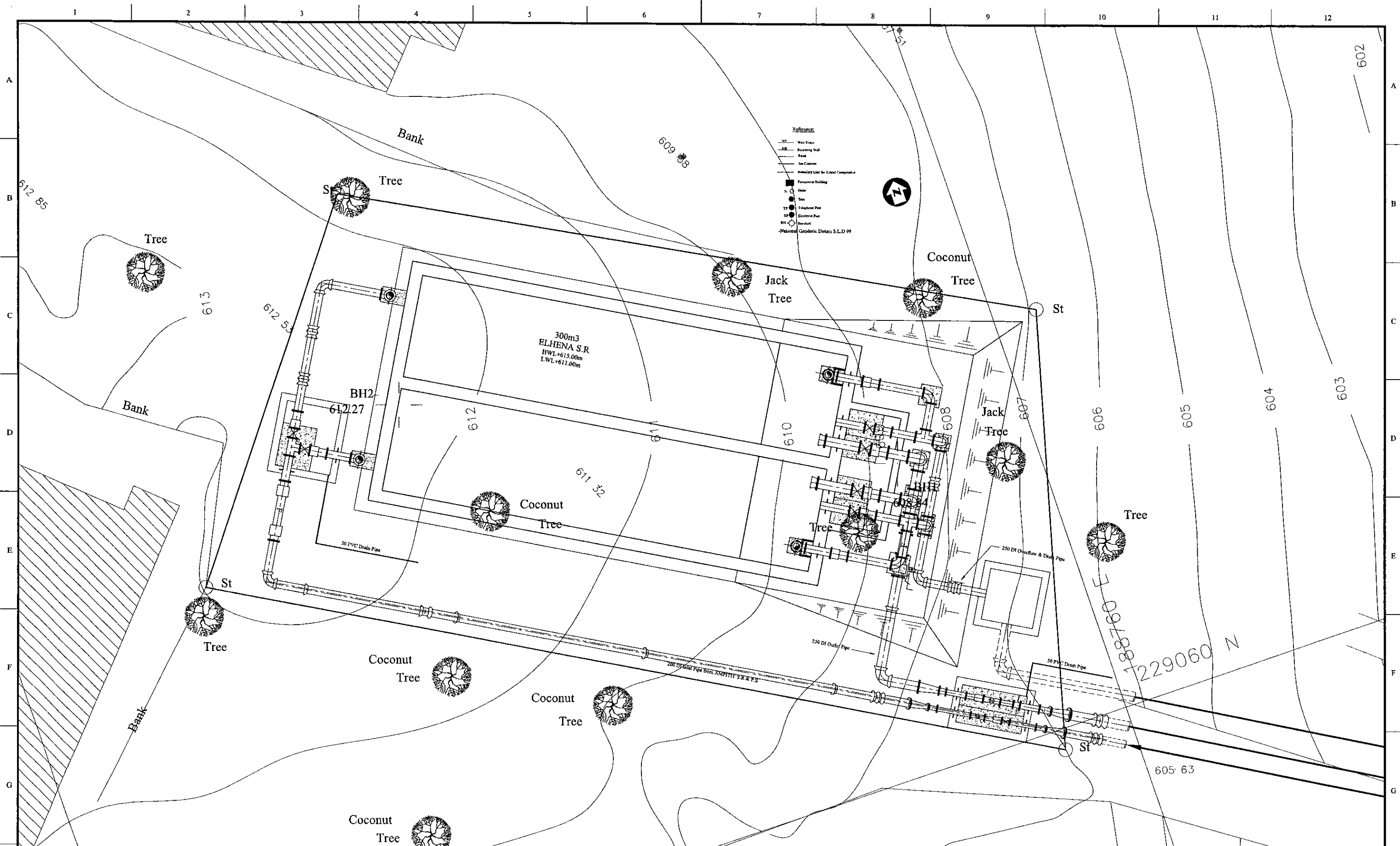
TITLE: ELHENA S.R. LAYOUT-5, R/F DETAILS OF FLOW METER CHAMBER

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)	CE: (P&D)	SCALE:
				L. JAYAWARDENA	Udita	Ikuo MIWA		1:10
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	30-S-27-09



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT

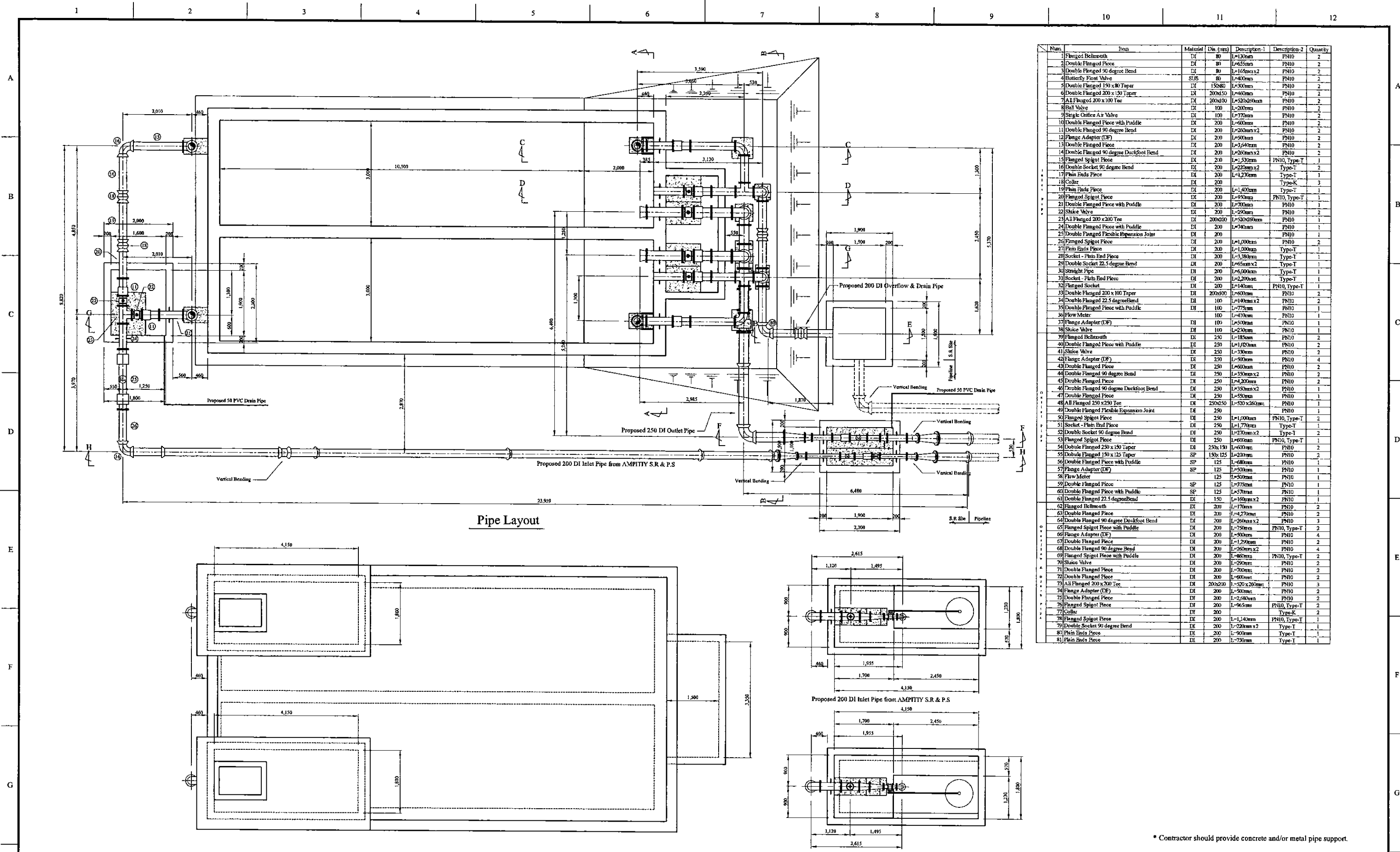
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: PIPE LAYOUT PLAN OF 300m<sup>3</sup> ELHENA S.R.

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)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:50
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-27-01



No.	Item	Material	Di. (mm)	Description-1	Description-2	Quantity
1	Flanged Bellmouth	DI	80	L=130mm	PN10	2
2	Double Flanged Piece	DI	80	L=655mm	PN10	2
3	Double Flanged 90 degree Bend	DI	80	L=165mmx2	PN10	2
4	Butterfly Float Valve	SIUS	80	L=400mm	PN10	2
5	Double Flanged 150 x 80 Taper	DI	150x80	L=300mm	PN10	2
6	Double Flanged 200 x 150 Taper	DI	200x150	L=400mm	PN10	2
7	All Flanged 200 x 100 Tee	DI	200x100	L=520x200mm	PN10	2
8	Ball Valve	DI	100	L=200mm	PN10	2
9	Single Orifice Air Valve	DI	100	L=370mm	PN10	2
10	Double Flanged Piece with Puddle	DI	200	L=600mm	PN10	2
11	Double Flanged 90 degree Bend	DI	200	L=200mmx2	PN10	2
12	Flange Adapter (DF)	DI	200	L=900mm	PN10	2
13	Double Flanged Piece	DI	200	L=3540mm	PN10	2
14	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mmx2	PN10	2
15	Flanged Spigot Piece	DI	200	L=1,330mm	PN10, Type-T	1
16	Double Flanged 90 degree Bend	DI	200	L=220mmx2	Type-T	2
17	Plain Ends Piece	DI	200	L=1,230mm	Type-T	1
18	Collar	DI	200		Type-K	3
19	Plain Ends Piece	DI	200	L=1,400mm	Type-T	1
20	Flanged Spigot Piece	DI	200	L=950mm	PN10, Type-T	1
21	Double Flanged Piece with Puddle	DI	200	L=700mm	PN10	1
22	Sluice Valve	DI	200	L=290mm	PN10	2
23	All Flanged 200 x 200 Tee	DI	200x200	L=520x200mm	PN10	1
24	Double Flanged Piece with Puddle	DI	200	L=740mm	PN10	1
25	Double Flanged Flexible Expansion Joint	DI	200		PN10	1
26	Flanged Spigot Piece	DI	200	L=1,000mm	PN10	2
27	Plain Ends Piece	DI	200	L=1,000mm	Type-T	1
28	Socket - Plain End Piece	DI	200	L=3,380mm	Type-T	1
29	Double Socket 22.5 degree Bend	DI	200	L=65mmx2	Type-T	1
30	Straight Pipe	DI	200	L=6,000mm	Type-T	1
31	Socket - Plain End Piece	DI	200	L=2,200mm	Type-T	1
32	Flanged Socket	DI	200	L=140mm	PN10, Type-T	1
33	Double Flanged 200 x 100 Taper	DI	200x100	L=600mm	PN10	2
34	Double Flanged 22.5 degree Bend	DI	100	L=140mmx2	PN10	2
35	Double Flanged Piece with Puddle	DI	100	L=770mm	PN10	1
36	Flow Meter	DI	100	L=410mm	PN10	1
37	Flange Adapter (DF)	DI	100	L=500mm	PN10	1
38	Sluice Valve	DI	100	L=230mm	PN10	1
39	Flanged Bellmouth	DI	250	L=185mm	PN10	2
40	Double Flanged Piece with Puddle	DI	250	L=1,020mm	PN10	2
41	Sluice Valve	DI	250	L=330mm	PN10	2
42	Flange Adapter (DF)	DI	250	L=900mm	PN10	4
43	Double Flanged Piece	DI	250	L=600mm	PN10	2
44	Double Flanged 90 degree Bend	DI	250	L=350mmx2	PN10	2
45	Double Flanged Piece	DI	250	L=4,200mm	PN10	2
46	Double Flanged 90 degree Duckfoot Bend	DI	250	L=350mmx2	PN10	1
47	Double Flanged Piece	DI	250	L=550mm	PN10	1
48	All Flanged 250 x 250 Tee	DI	250x250	L=520 x 260mm	PN10	1
49	Double Flanged Flexible Expansion Joint	DI	250		PN10	1
50	Flanged Spigot Piece	DI	250	L=1,900mm	PN10, Type-T	2
51	Socket - Plain End Piece	DI	250	L=1,700mm	Type-T	1
52	Double Socket 90 degree Bend	DI	250	L=270mmx2	Type-T	2
53	Flanged Spigot Piece	DI	250	L=600mm	PN10, Type-T	1
54	Double Flanged 250 x 150 Taper	DI	250x150	L=600mm	PN10	2
55	Double Flanged 150 x 125 Taper	SP	150x125	L=200mm	PN10	2
56	Double Flanged Piece with Puddle	SP	125	L=680mm	PN10	1
57	Flange Adapter (DF)	SP	125	L=500mm	PN10	1
58	Flow Meter	DI	125	L=500mm	PN10	1
59	Double Flanged Piece	SP	125	L=375mm	PN10	1
60	Double Flanged Piece with Puddle	SP	125	L=570mm	PN10	1
61	Double Flanged 22.5 degree Bend	DI	150	L=160mmx2	PN10	1
62	Flanged Bellmouth	DI	200	L=170mm	PN10	2
63	Double Flanged Piece	DI	200	L=4,270mm	PN10	2
64	Double Flanged 90 degree Duckfoot Bend	DI	200	L=260mmx2	PN10	3
65	Flanged Spigot Piece with Puddle	DI	200	L=750mm	PN10, Type-T	2
66	Flange Adapter (DF)	DI	200	L=900mm	PN10	4
67	Double Flanged Piece	DI	200	L=1,250mm	PN10	2
68	Double Flanged 90 degree Bend	DI	200	L=260mmx2	PN10	4
69	Flanged Spigot Piece with Puddle	DI	200	L=860mm	PN10, Type-T	2
70	Sluice Valve	DI	200	L=290mm	PN10	2
71	Double Flanged Piece	DI	200	L=700mm	PN10	2
72	Double Flanged Piece	DI	200	L=600mm	PN10	2
73	All Flanged 200 x 200 Tee	DI	200x200	L=520 x 260mm	PN10	3
74	Flange Adapter (DF)	DI	200	L=500mm	PN10	2
75	Double Flanged Piece	DI	200	L=2,580mm	PN10	2
76	Flanged Spigot Piece	DI	200	L=965mm	PN10, Type-T	2
77	Collar	DI	200		Type-K	2
78	Flanged Spigot Piece	DI	200	L=1,140mm	PN10, Type-T	1
79	Double Socket 90 degree Bend	DI	200	L=220mmx2	Type-T	1
80	Plain Ends Piece	DI	200	L=900mm	Type-T	1
81	Plain Ends Piece	DI	200	L=750mm	Type-T	1

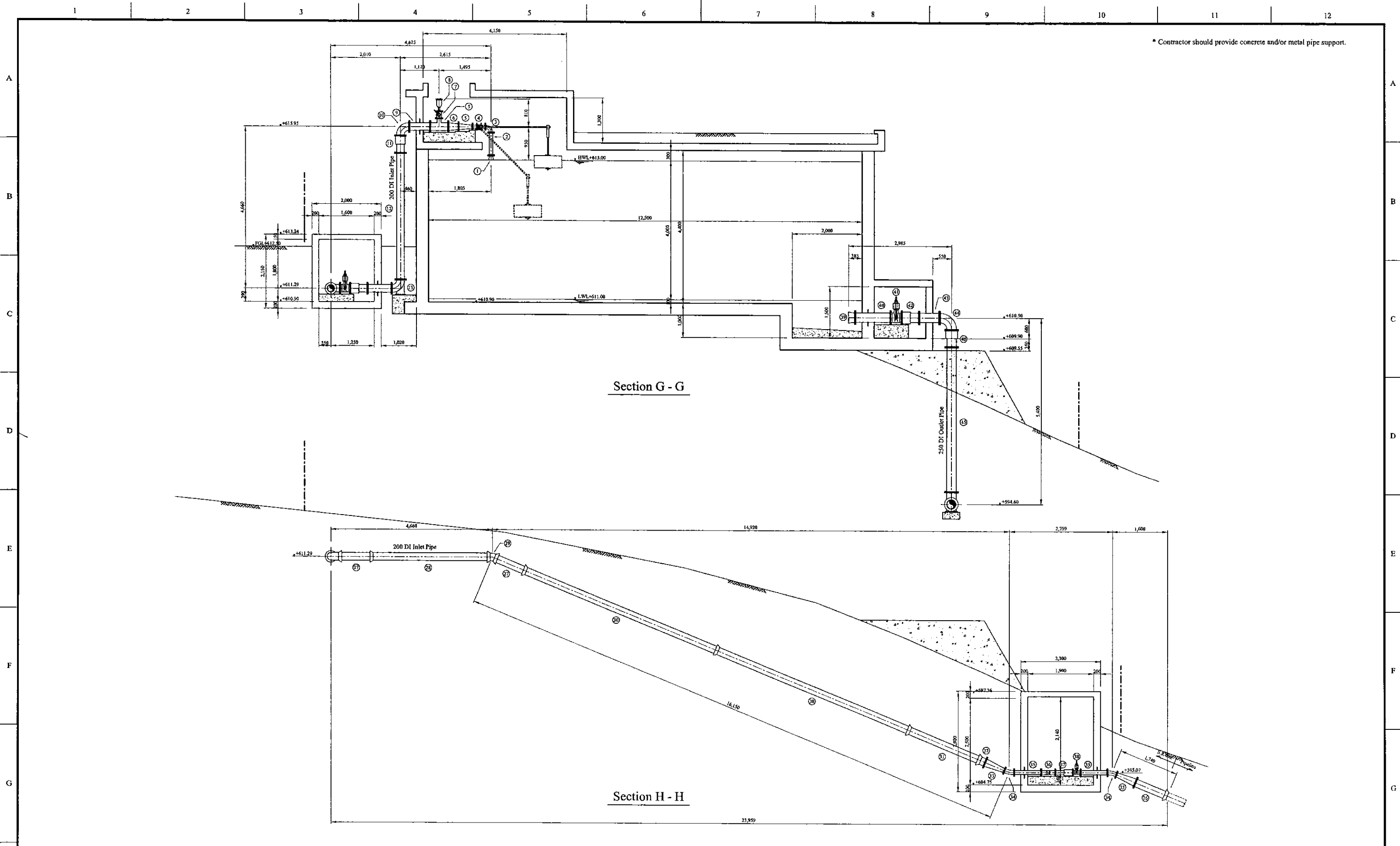
Pipe Layout

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF ELHENA S.R - 1								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-27-02





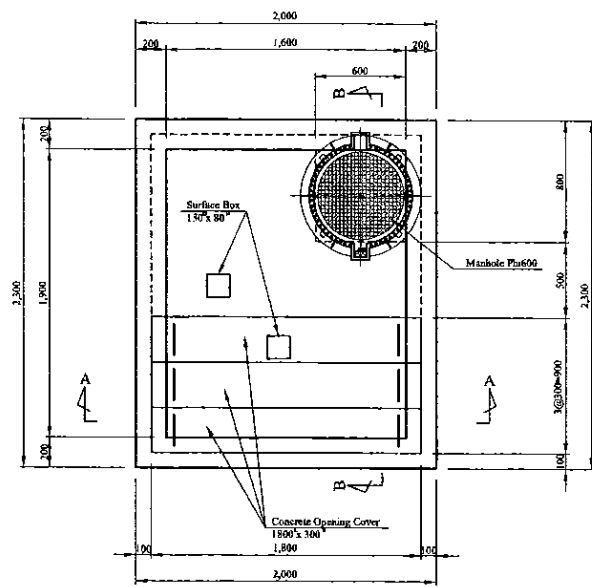


\* Contractor should provide concrete and/or metal pipe support.

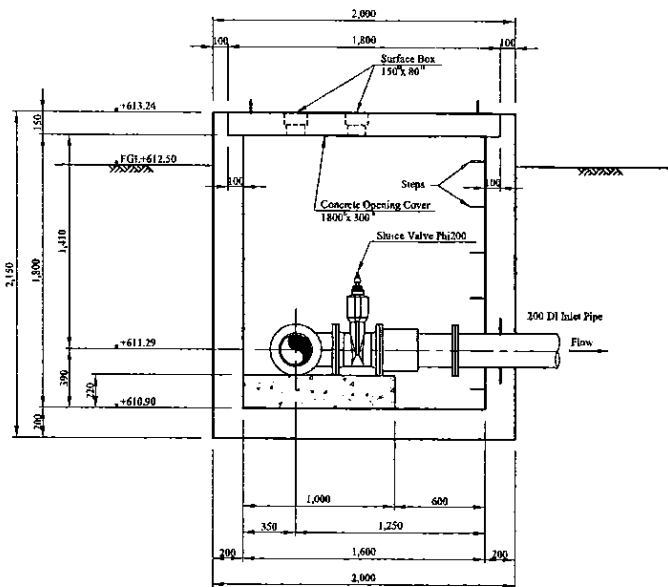
Section G - G

Section H - H

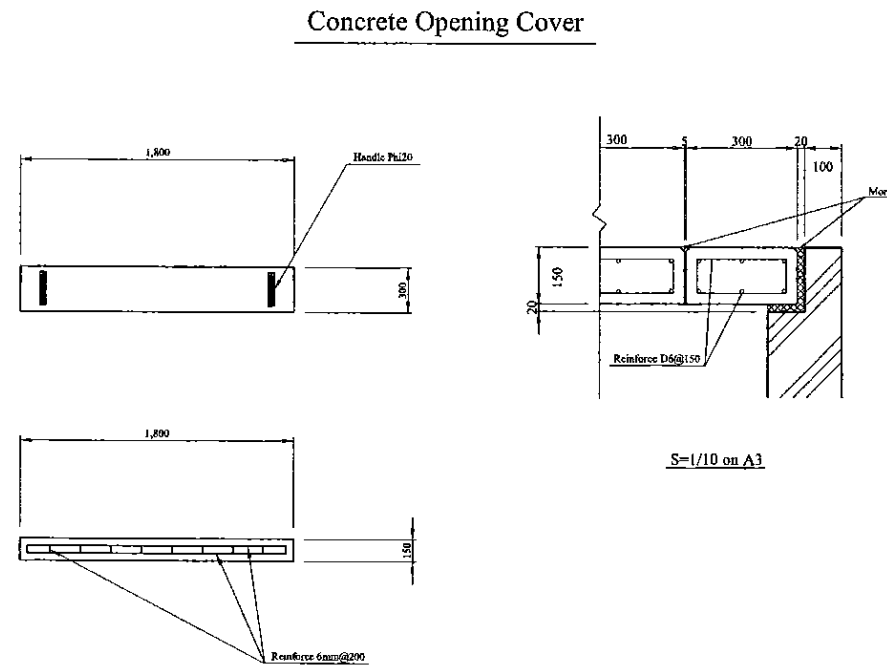
PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: PIPE LAYOUT OF ELHENA S.R - 3								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuo MIWA	CE: (P&D)	SCALE: 1:50
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-27-04



Top Plan

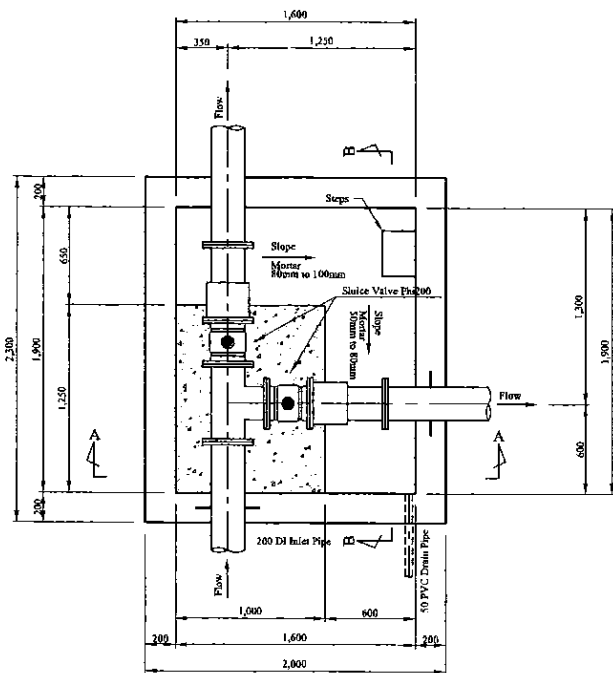


Section A-A

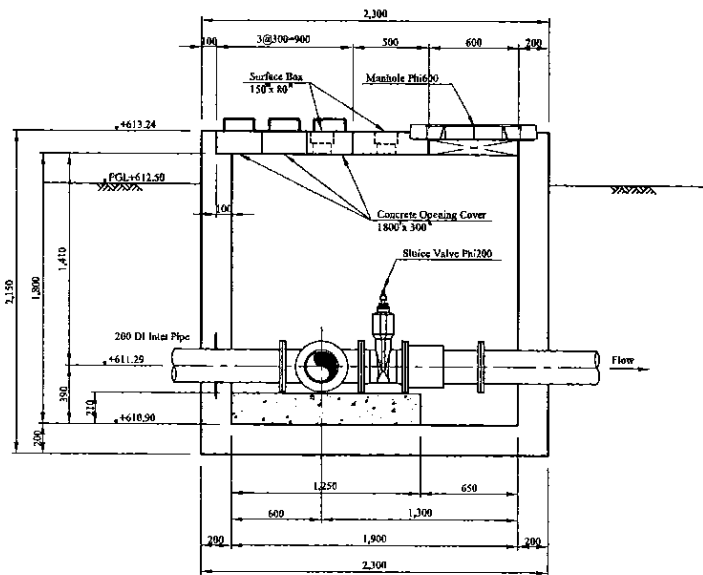


Concrete Opening Cover

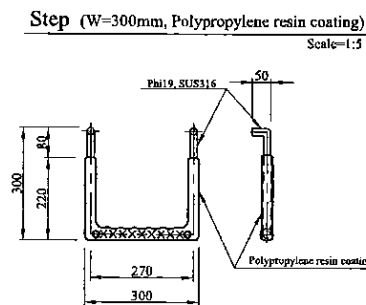
S-1/10 on A3



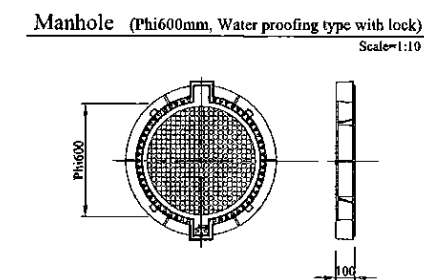
Plan



Section B-B



Step (W=300mm, Polypropylene resin coating)  
Scale=1:3



Manhole (Phi600mm, Water proofing type with lock)  
Scale=1:10

Inlet Valve Chamber

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY

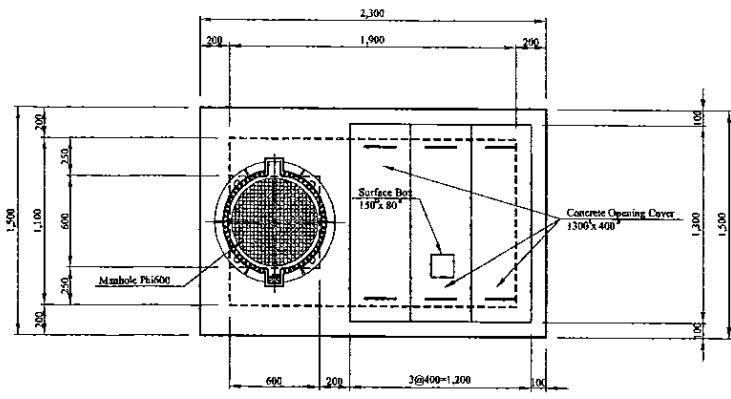
TITLE: INLET VALVE CHAMBER OF ELHENA S.R

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

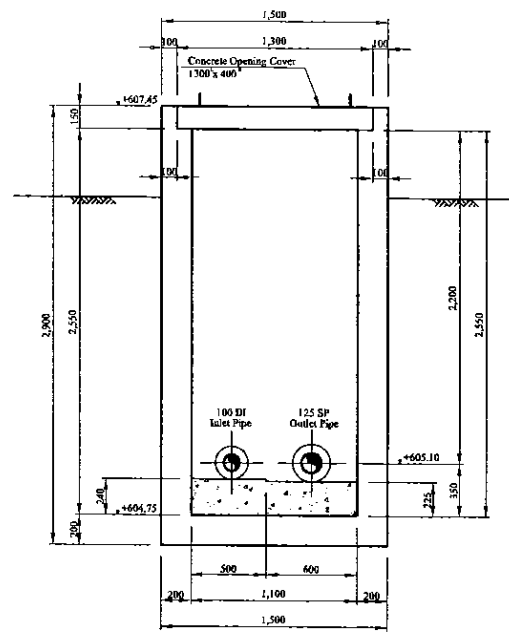


CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN  
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

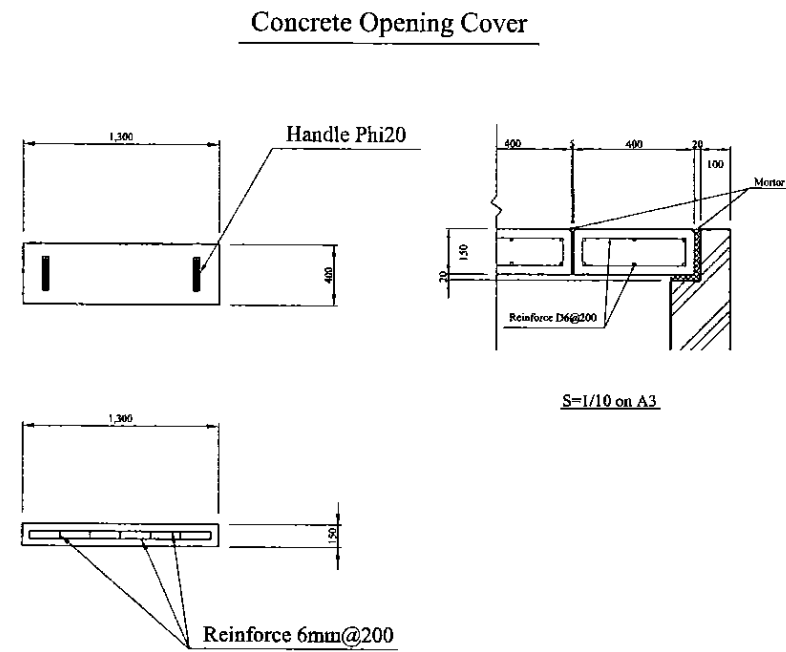
REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	FM: (CONSULTANT)	CE: (P&D)	SCALE:
				Koichi OKAZAKI	Koichi OKAZAKI	Ikuo MIWA		1:25
				CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:	DRAWING NO.:
				DESIGN CHIEF			31/05/2002	31-C-27-05



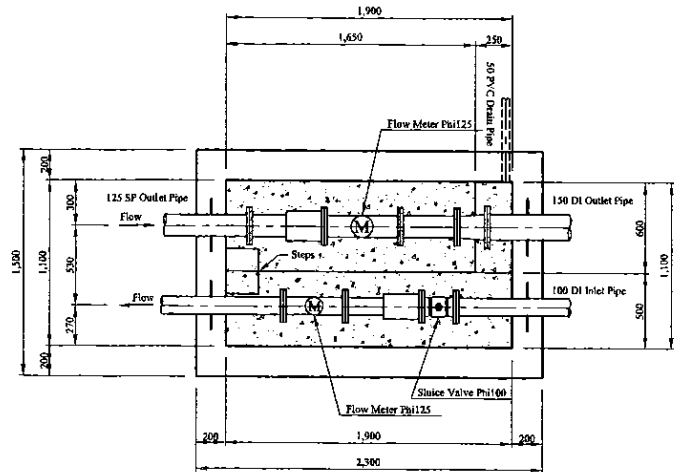
Top Plan



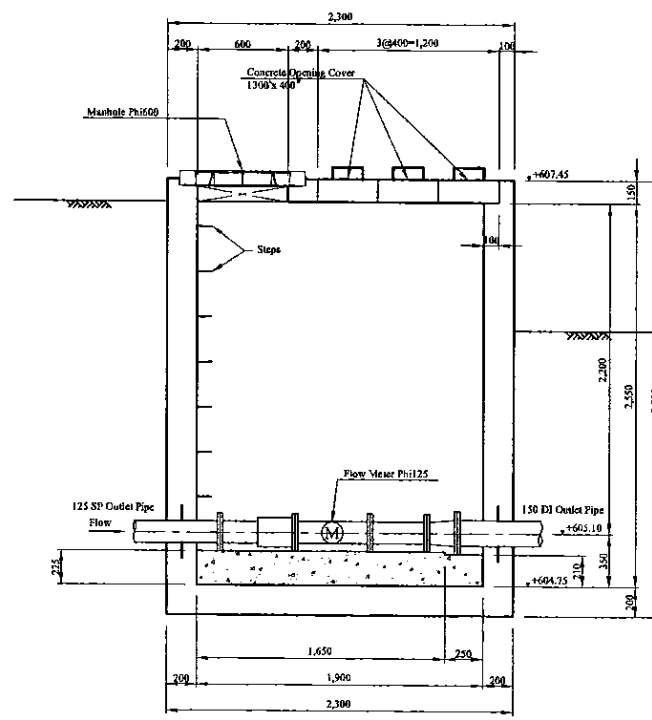
Section A-A



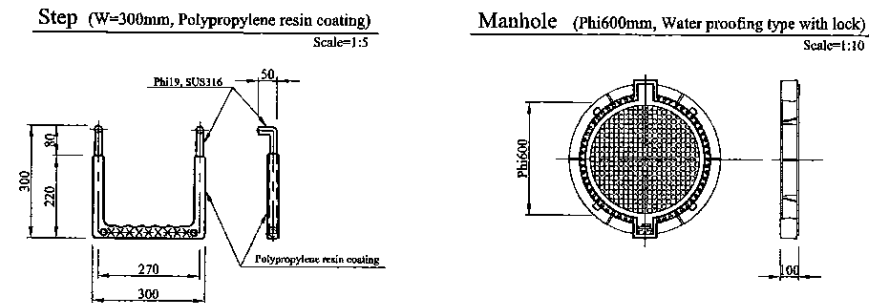
Concrete Opening Cover



Plan



Section B-B



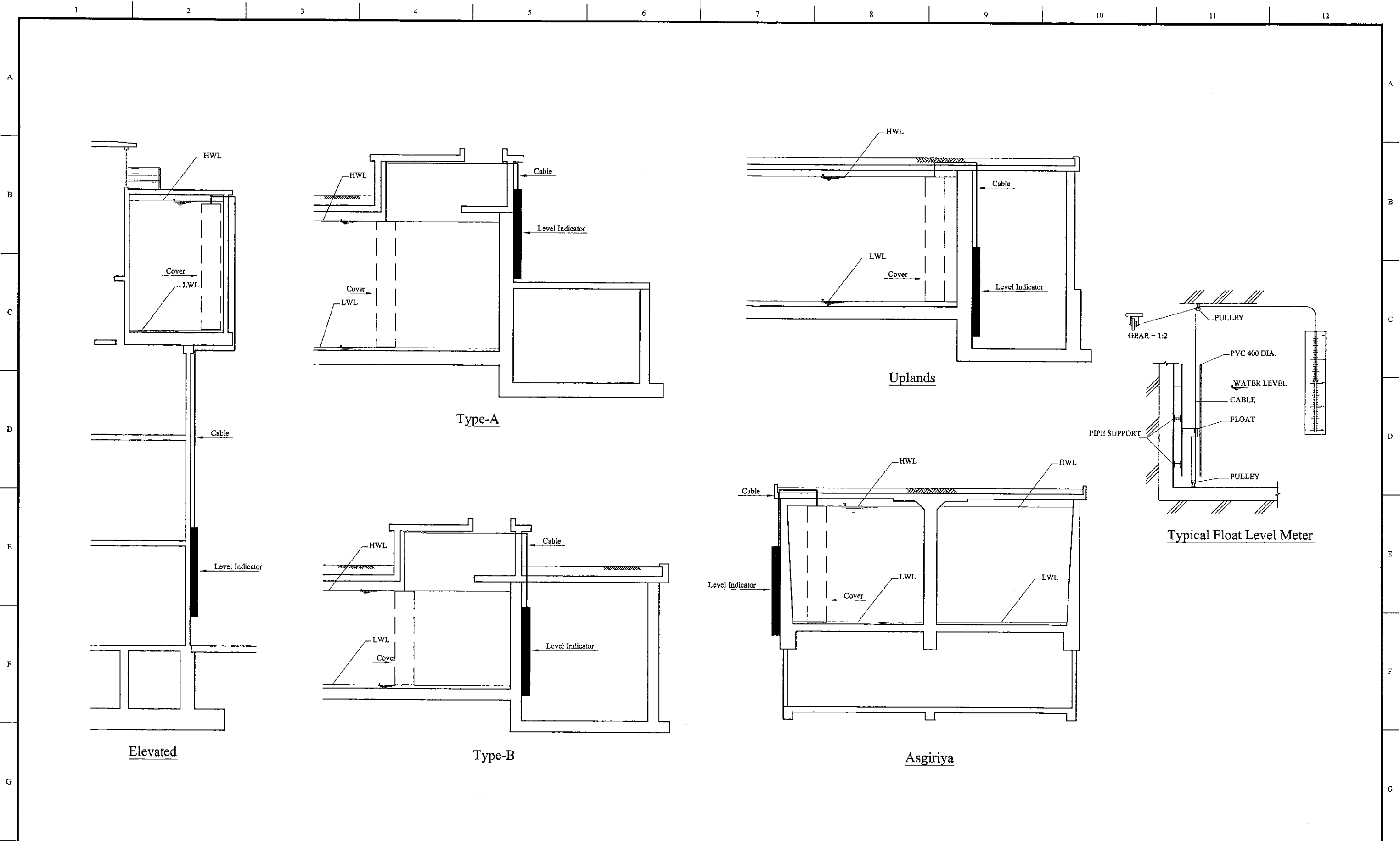
Step (W=300mm, Polypropylene resin coating) Scale=1:5





Manhole (Phi600mm, Water proofing type with lock) Scale=1:10

Flow Meter Chamber

\* Contractor should provide concrete and/or metal pipe support.

PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: INLET & OUTLET FLOW METER & VALVE CHAMBER OF ELHENA S.R								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NISC NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: Koichi OKAZAKI	DRAWN: Koichi OKAZAKI	PM: (CONSULTANT) Ikuro MIWA	CE: (P&D)	SCALE: 1:25
								CHECKED: DESIGN CHIEF	AGM: (P&D)	DGM: (P&D)	DATE: 31/05/2002	DRAWING NO.: 31-C-27-06



PROJECT: GREATER KANDY WATER SUPPLY AUGMENTATION PROJECT		 JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: GENERAL DRAWING OF FLOAT LEVEL METER & INDICATOR									
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)	CE: (P&D)	SCALE:	
					XXXX			Koichi OKAZAKI	Ravi U.	Ikuo MIWA		NONE	
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								DESIGN CHIEF			31/05/2002	31-C-STD-01	