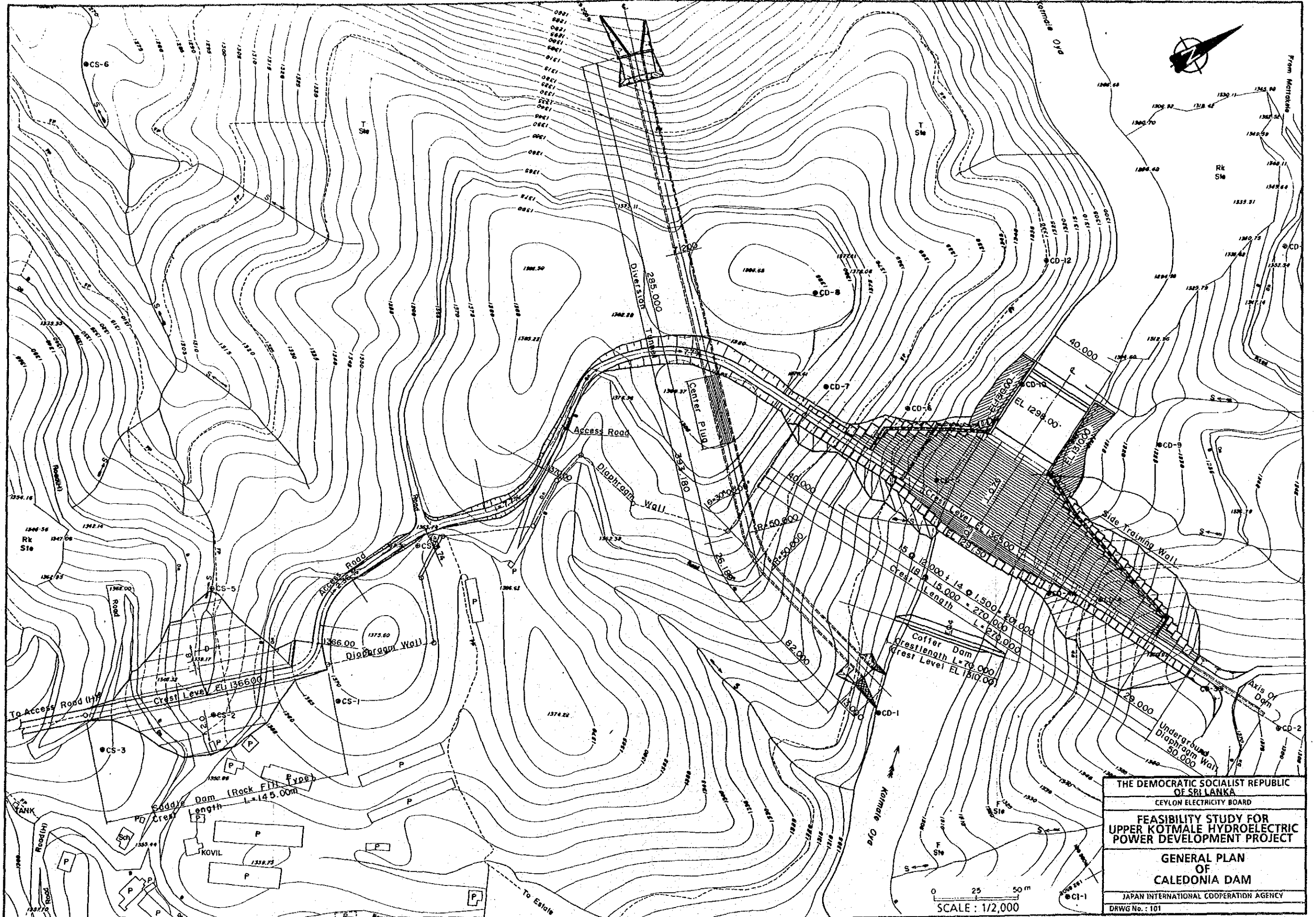


計 画 図 面 集

PLATE	DRWG	タ イ ト ル
No.	No.	
01	101	カレドニアダム一般平面図
02	102	カレドニアダム上・下流面図
03	103	カレドニアダム及びサドルダム詳細図
04	201	トラワケレ取水ダム一般平面図
05	202	トラワケレ取水ダム平面・正面・横断面図
06	301	カレドニア取水口平面・縦断面図
07	302	カレドニアペンストック・発電所平面・縦断面図
08	303	カレドニア発電所、放水路、放水口縦断面・横断面図
09	401	トラワケレ取水口平面・縦断面図
10	402	トラワケレペンストック・発電所平面・縦断面図
11	403	トラワケレ発電所平面・縦断面・横断面図
12	404	トラワケレ放水口平面・縦断面図
13	501	ナヌ川 No.1 取水堰構造図
14	502	ナヌ川 No.2 取水堰構造図
15	503	プナ川 No.2 取水堰構造図
16	504	プンダル川取水堰構造図
17	601	全体計画単線結線図
18	602	カレドニア発電所単線結線図
19	603	トラワケレ発電所単線結線図
20	604	カレドニア開閉所機器配置図
21	605	トラワケレ開閉所機器配置図
22	606	全体計画送配電系統図
23	607	220kV 及び 132kV 鉄塔標準図
24	608	既設コトマレ開閉所機器配置図



THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA
CEYLON ELECTRICITY BOARD

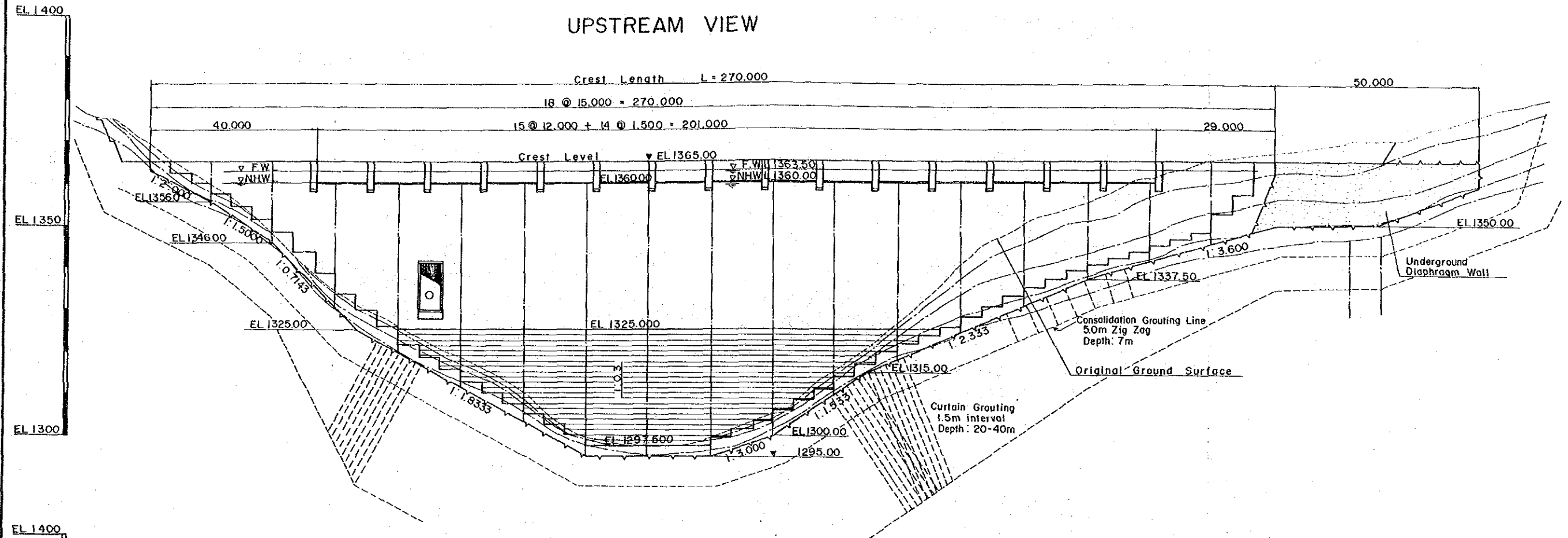
FEASIBILITY STUDY FOR
UPPER KOTMALE HYDROELECTRIC
POWER DEVELOPMENT PROJECT

GENERAL PLAN
OF
CALEDONIA DAM

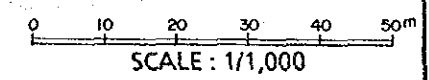
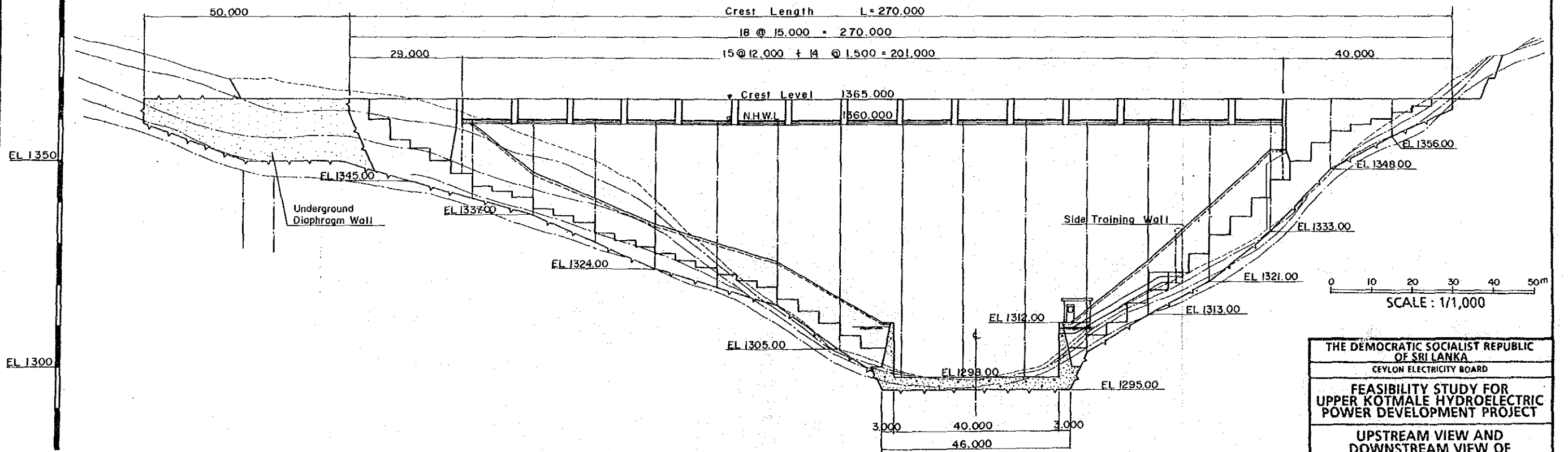
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 101

SCALE : 1/2,000

UPSTREAM VIEW

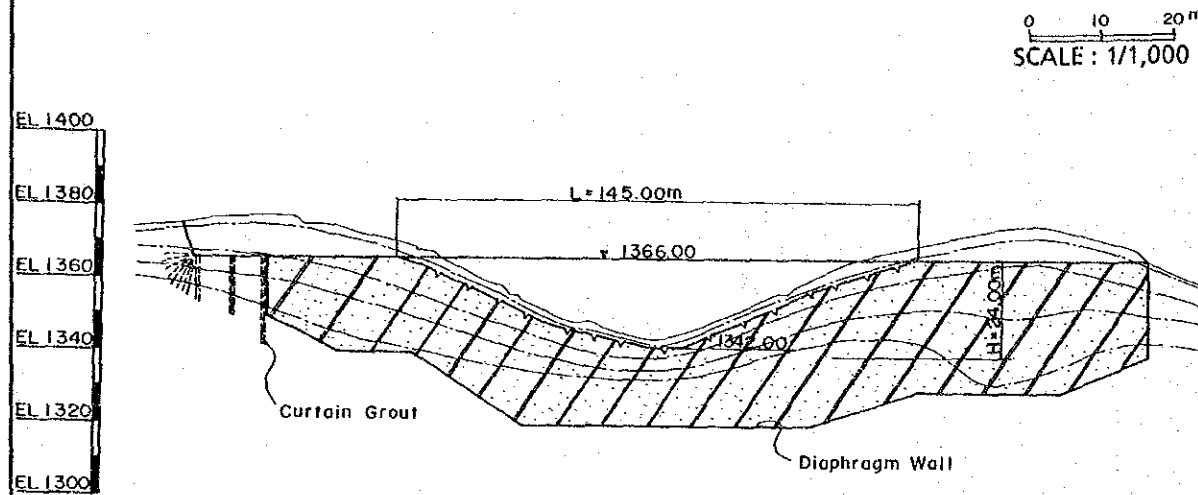


DOWNSTREAM VIEW

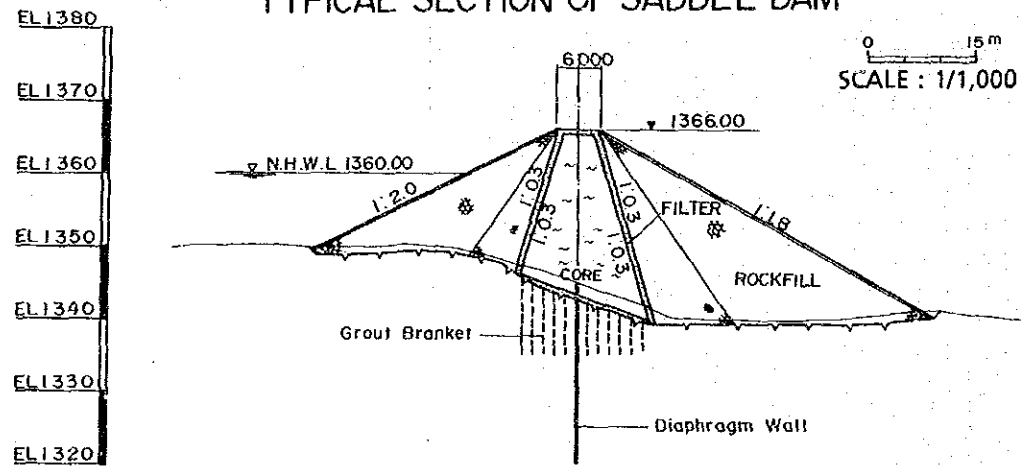


THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR
UPPER KOTMALE HYDROELECTRIC
POWER DEVELOPMENT PROJECT
UPSTREAM VIEW AND
DOWNSTREAM VIEW OF
CALEDONIA DAM
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 102

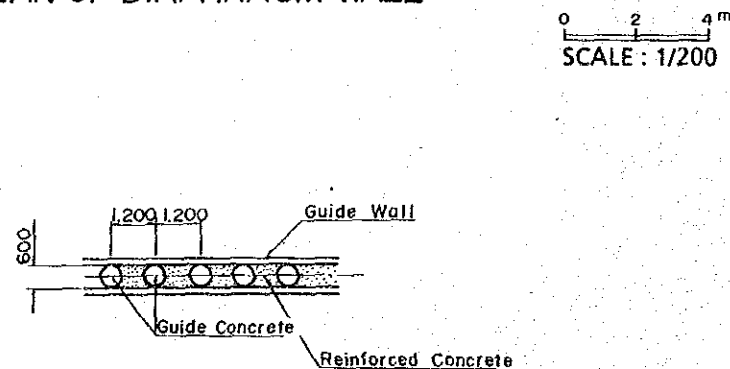
SADDLE DAM UPSTREAM VIEW



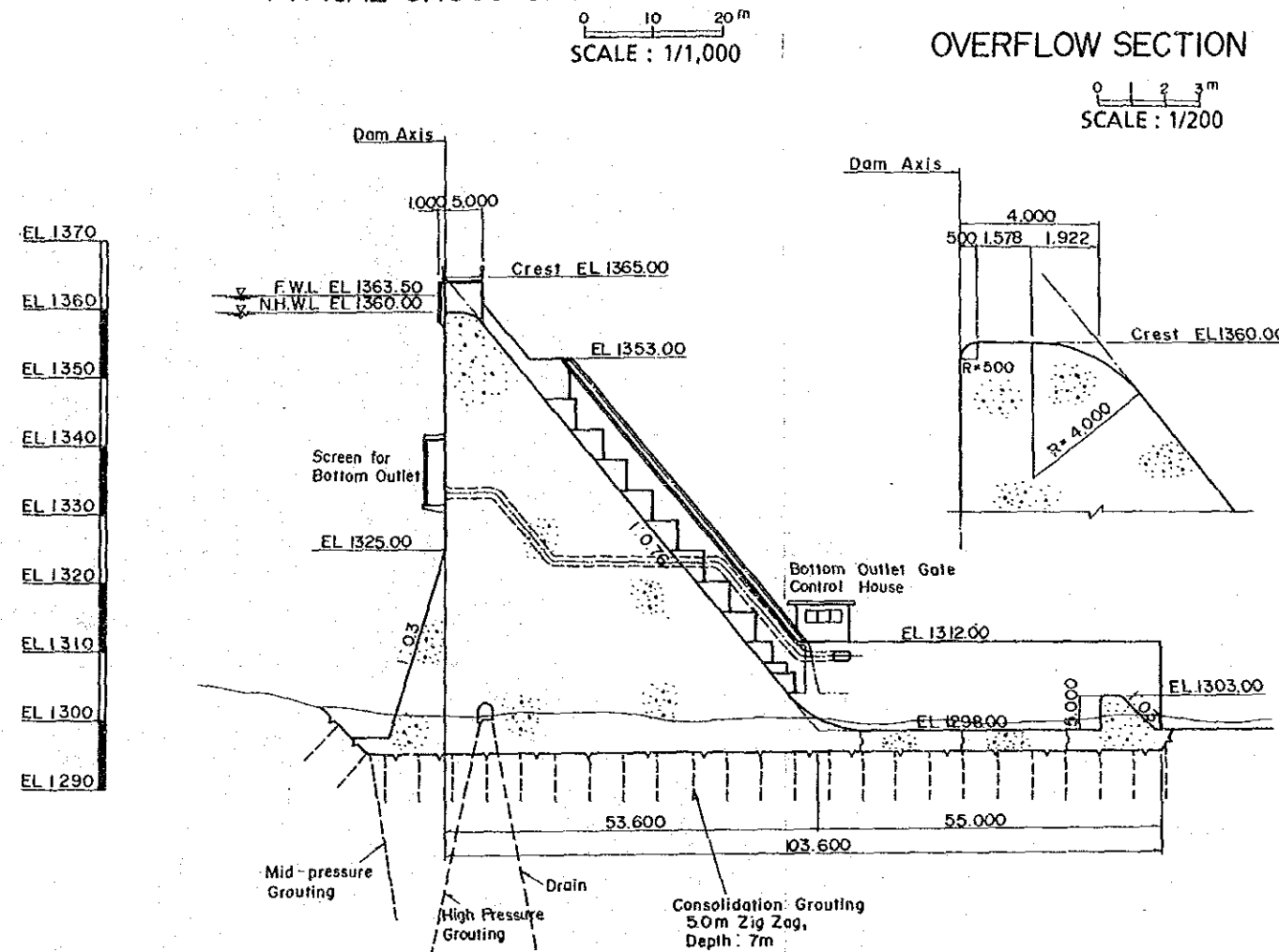
TYPICAL SECTION OF SADDLE DAM



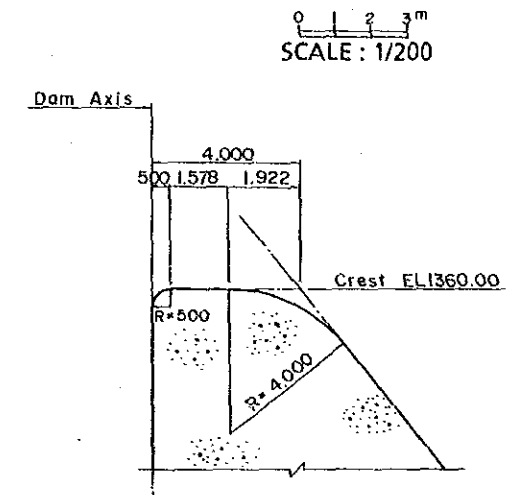
PLAN OF DIAPHRAGM WALL



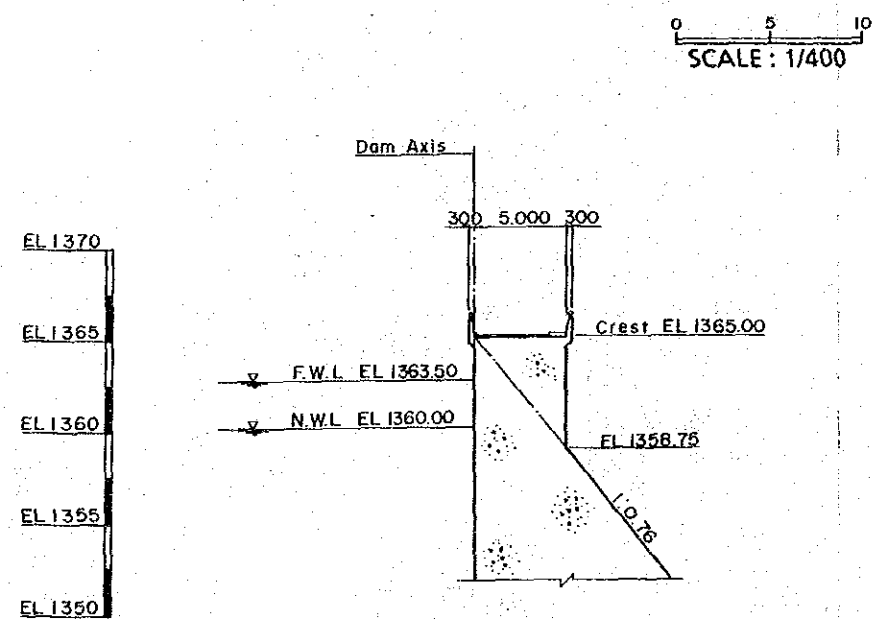
TYPICAL CROSS SECTION



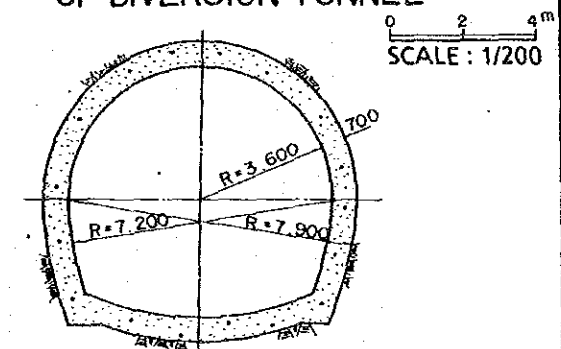
OVERFLOW SECTION



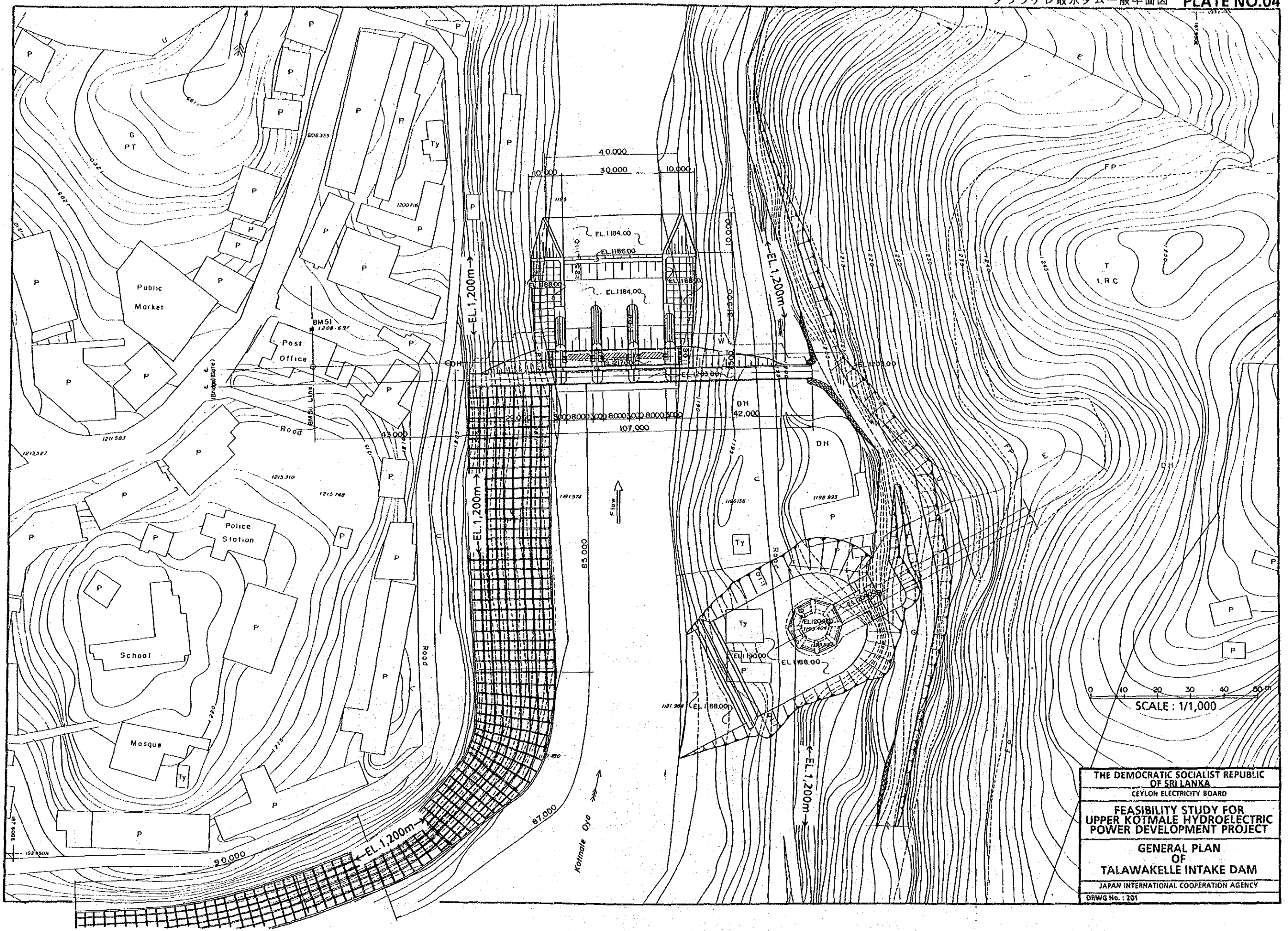
TYPICAL NON OVERFLOW SECTION



TYPICAL SECTION OF DIVERSION TUNNEL

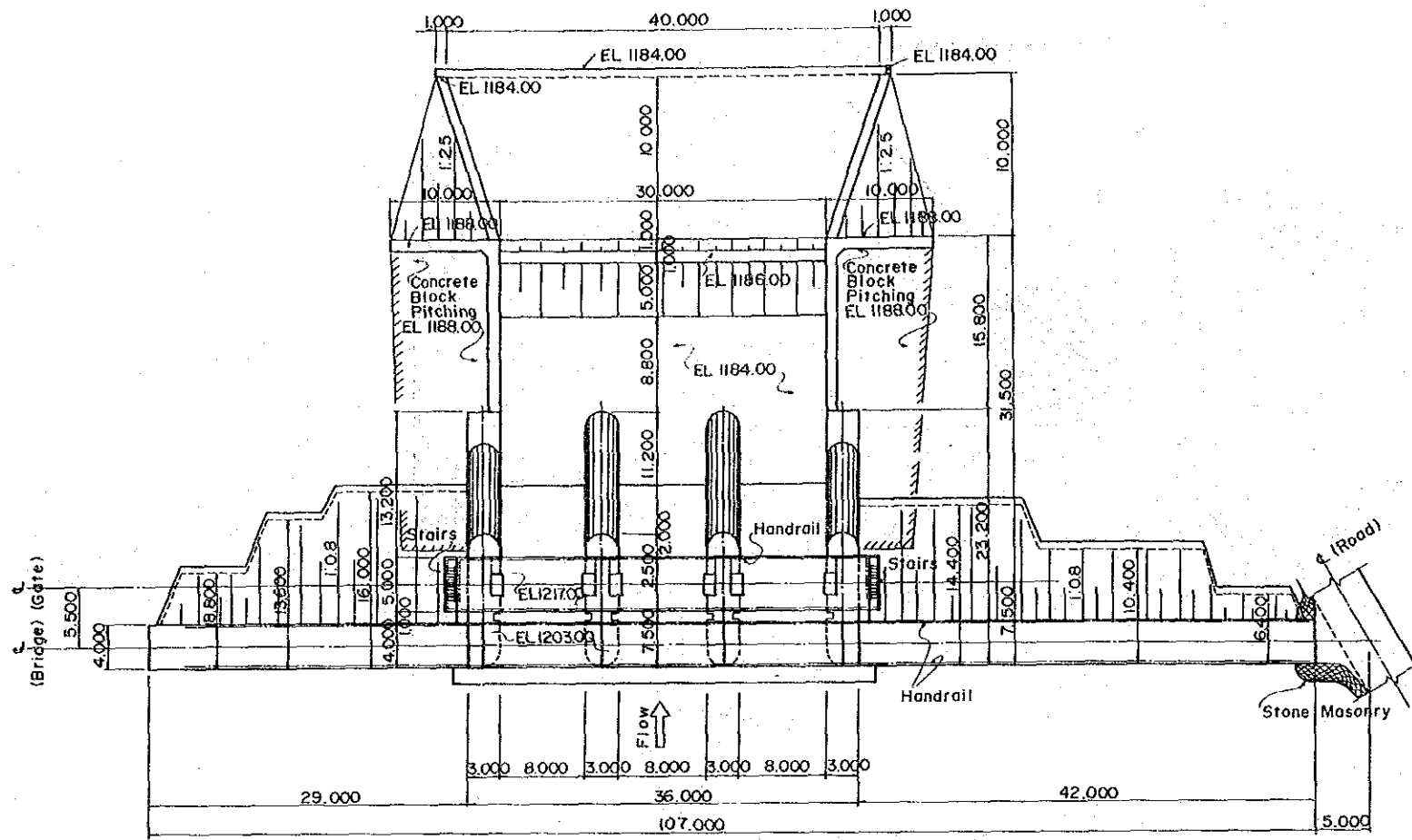


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 DETAILS OF CALEDONIA DAM AND SADDLE DAM
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 103

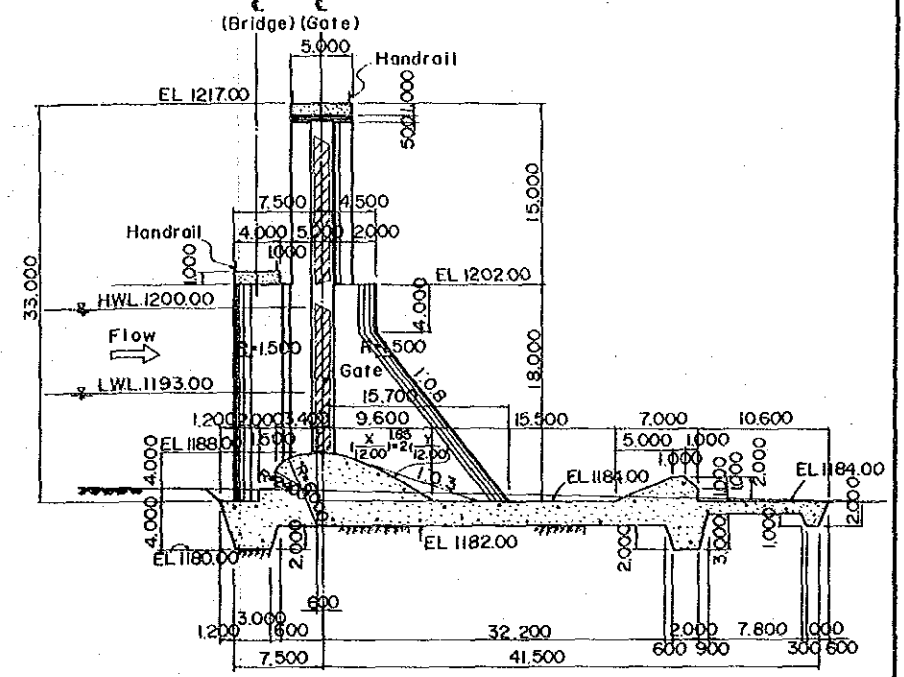


0 10 20 30 40 50 m
SCALE : 1/1,000

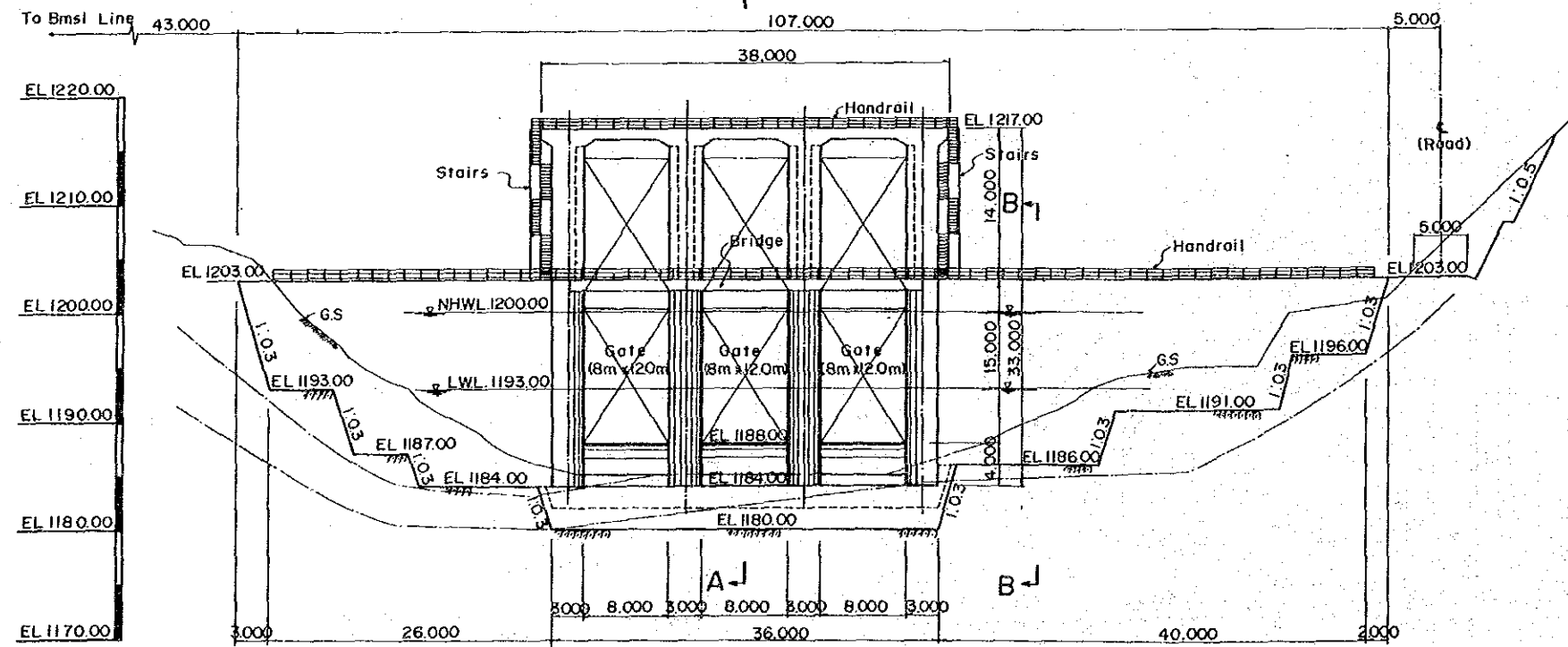
THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR
UPPER KOTMALE HYDROELECTRIC
POWER DEVELOPMENT PROJECT
GENERAL PLAN
OF
TALAWAKELLE INTAKE DAM
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 201



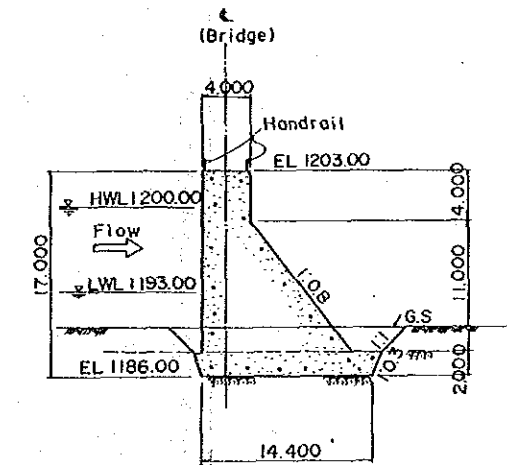
PLAN



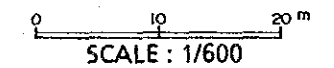
SECTION A-A



FRONT VIEW

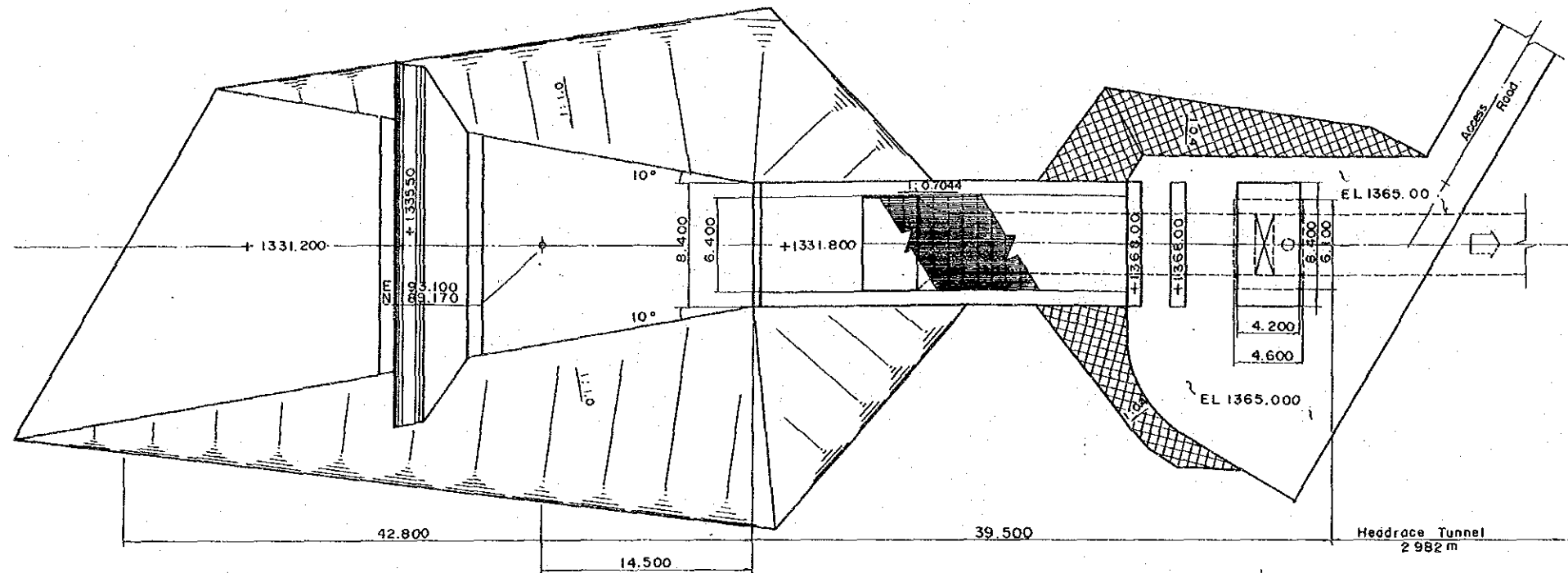


SECTION B-B

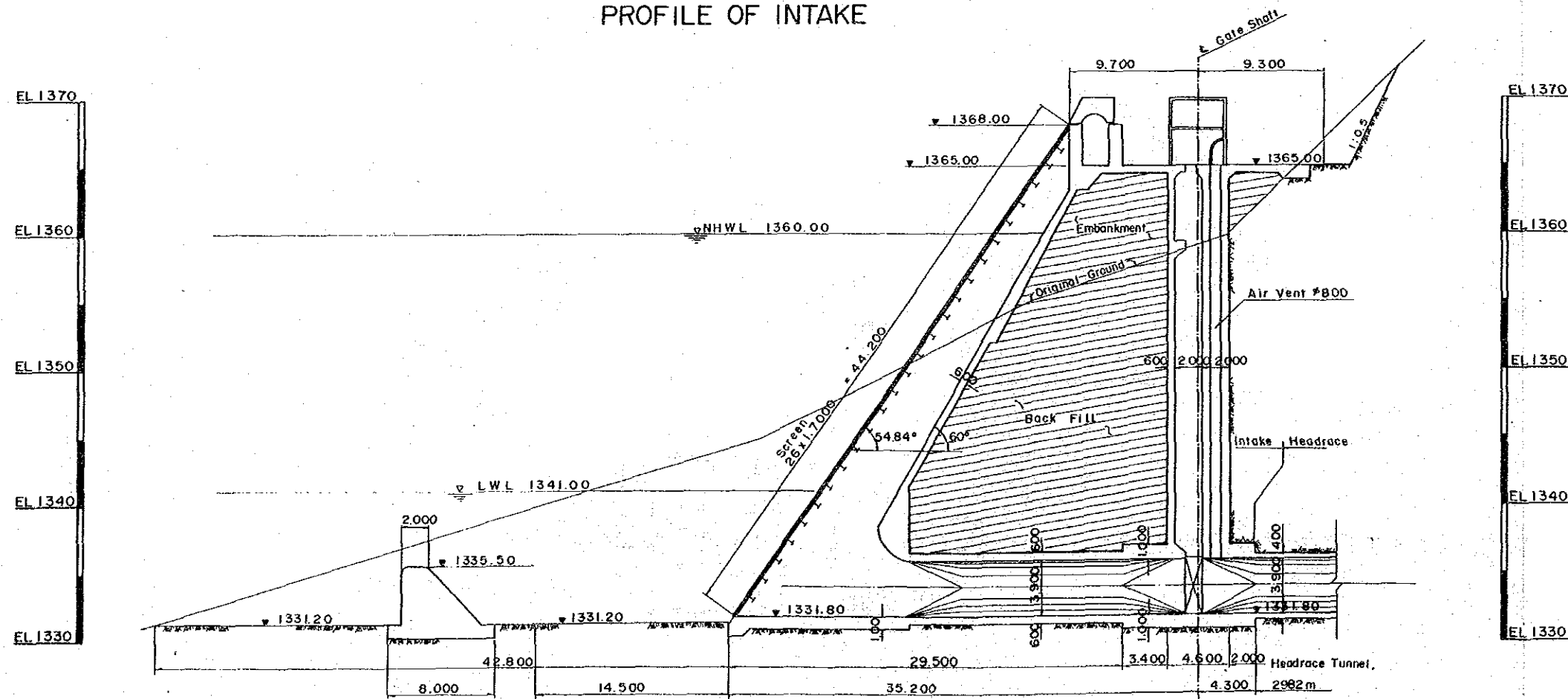


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
PLAN, FRONT VIEW AND SECTION OF TALAWAKELLE INTAKE DAM
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 202

PLAN OF CALEDONIA INTAKE

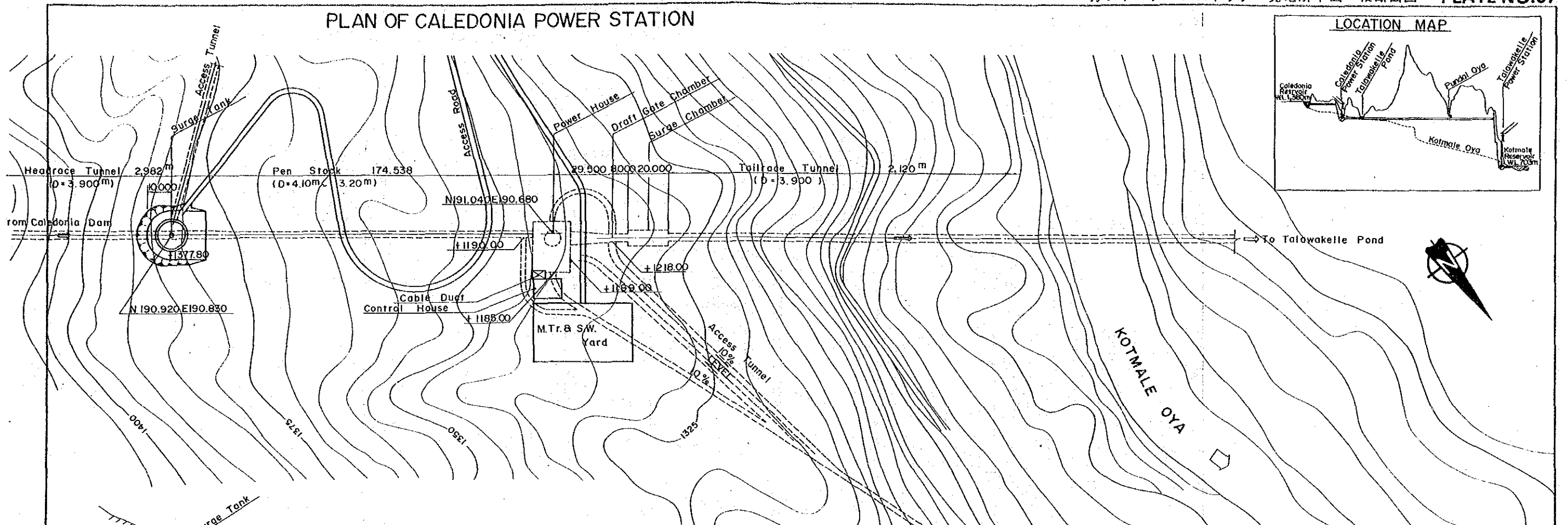


PROFILE OF INTAKE

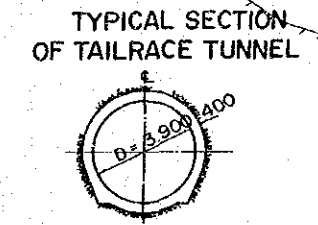
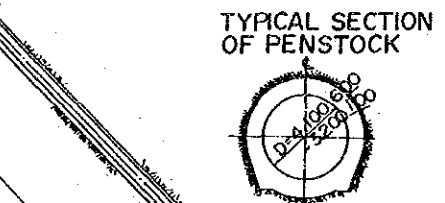
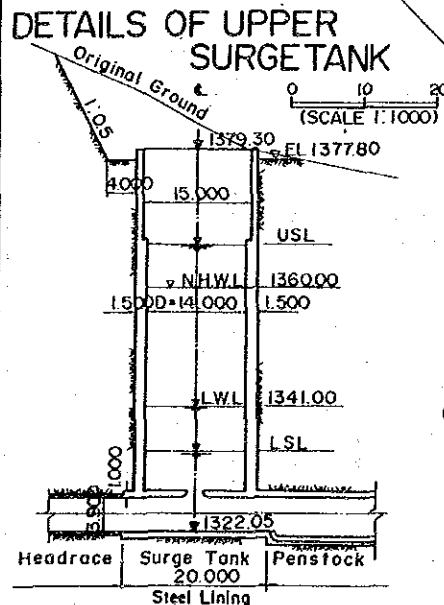
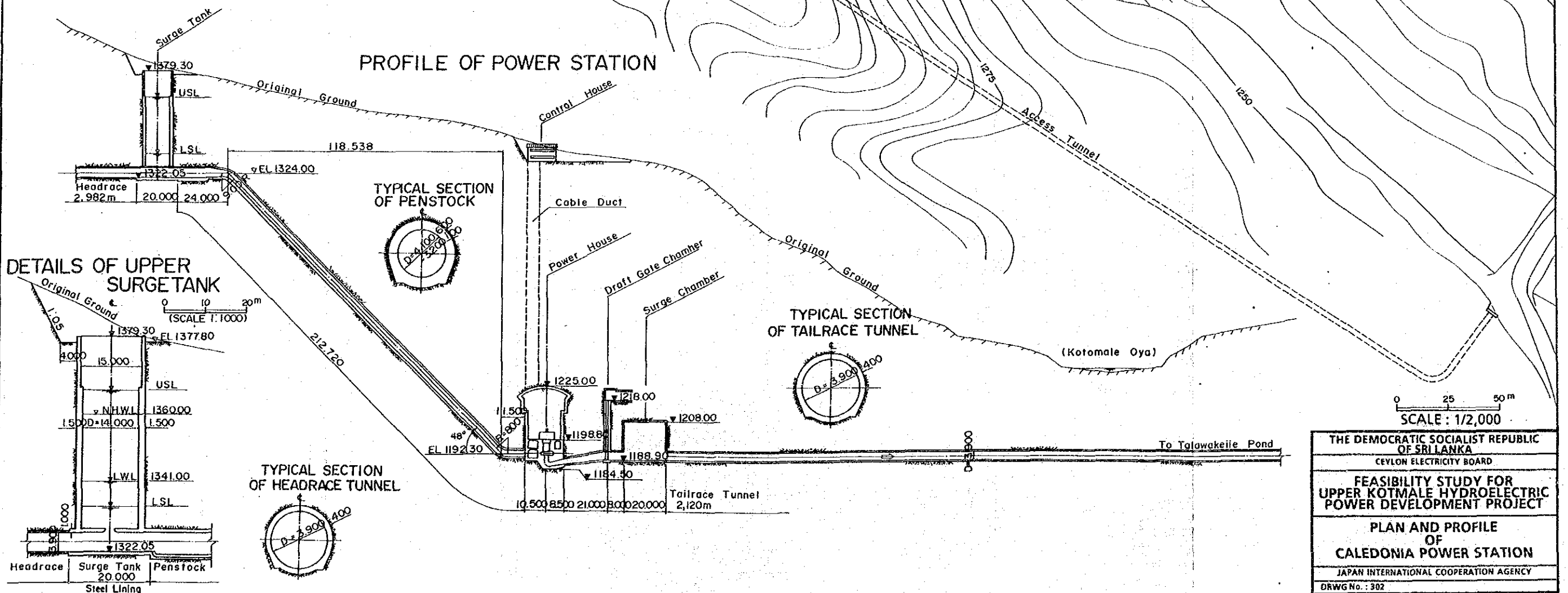


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 PLAN AND PROFILE OF CALEDONIA P/S INTAKE
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 301

PLAN OF CALEDONIA POWER STATION



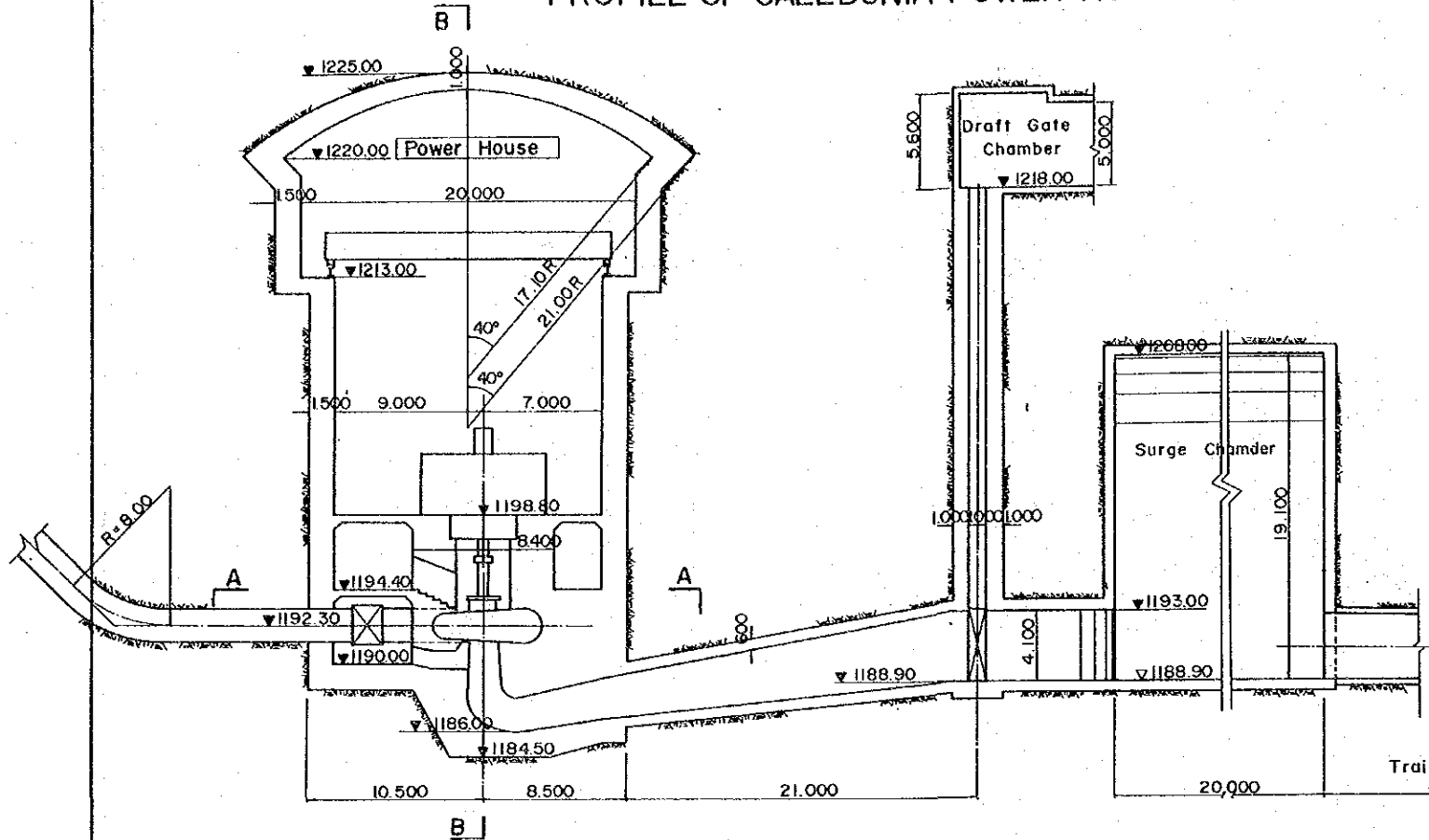
PROFILE OF POWER STATION



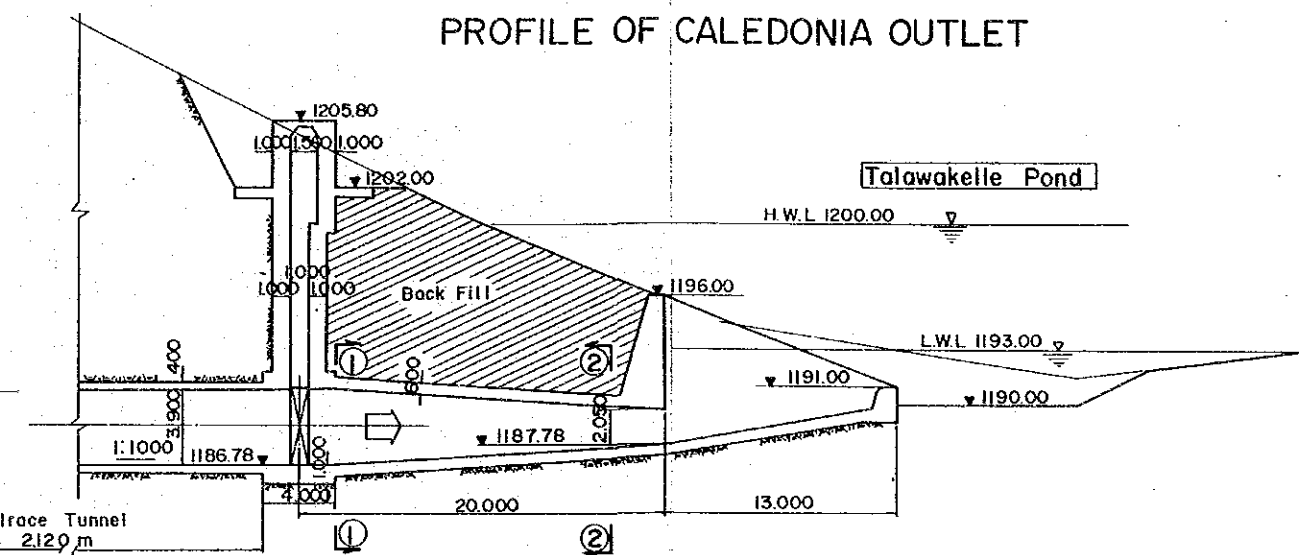
SCALE: 1/2,000

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 PLAN AND PROFILE OF CALEDONIA POWER STATION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 302

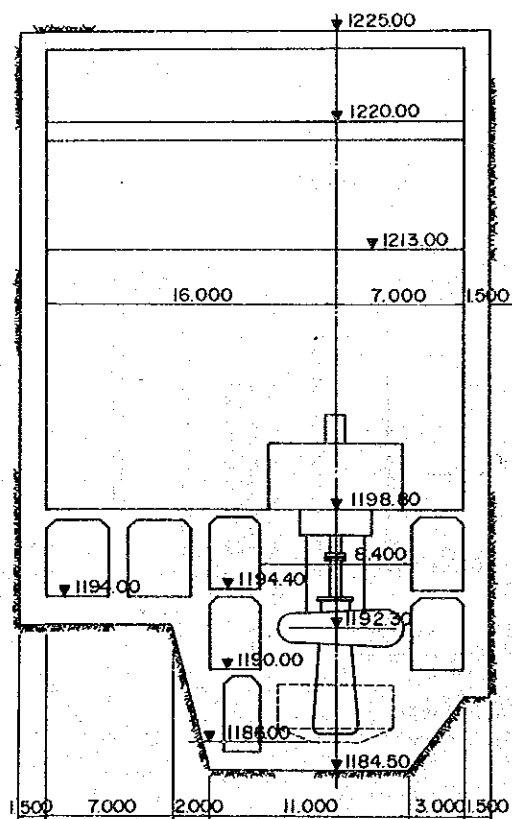
PROFILE OF CALEDONIA POWER HOUSE



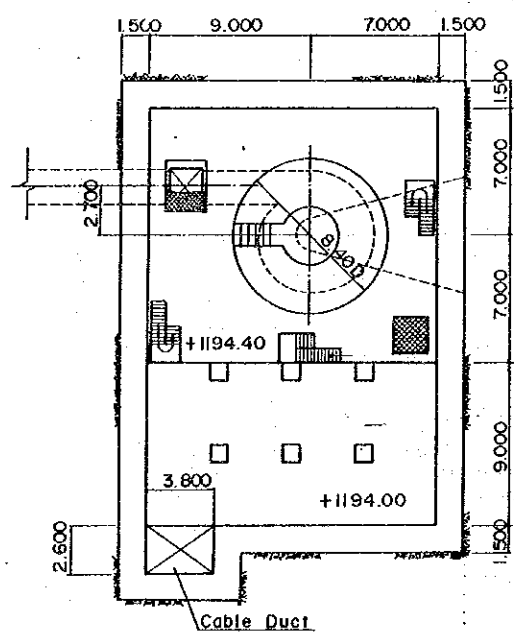
PROFILE OF CALEDONIA OUTLET



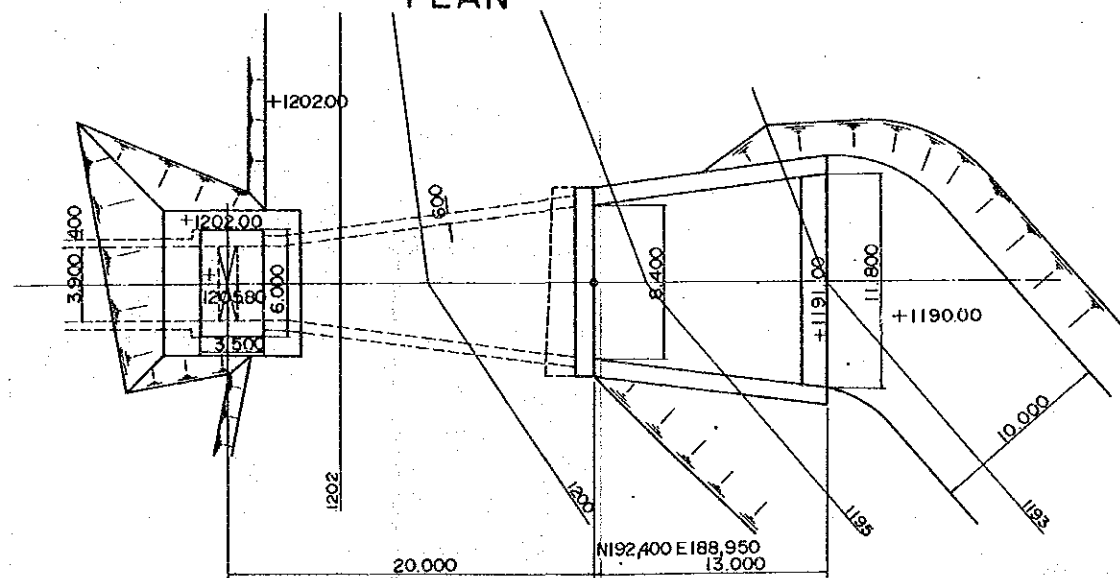
B-B SECTION



PLAN OF A-A FLOOR

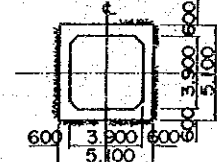


PLAN

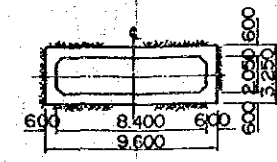


SCALE : 1/400

①-① SEC

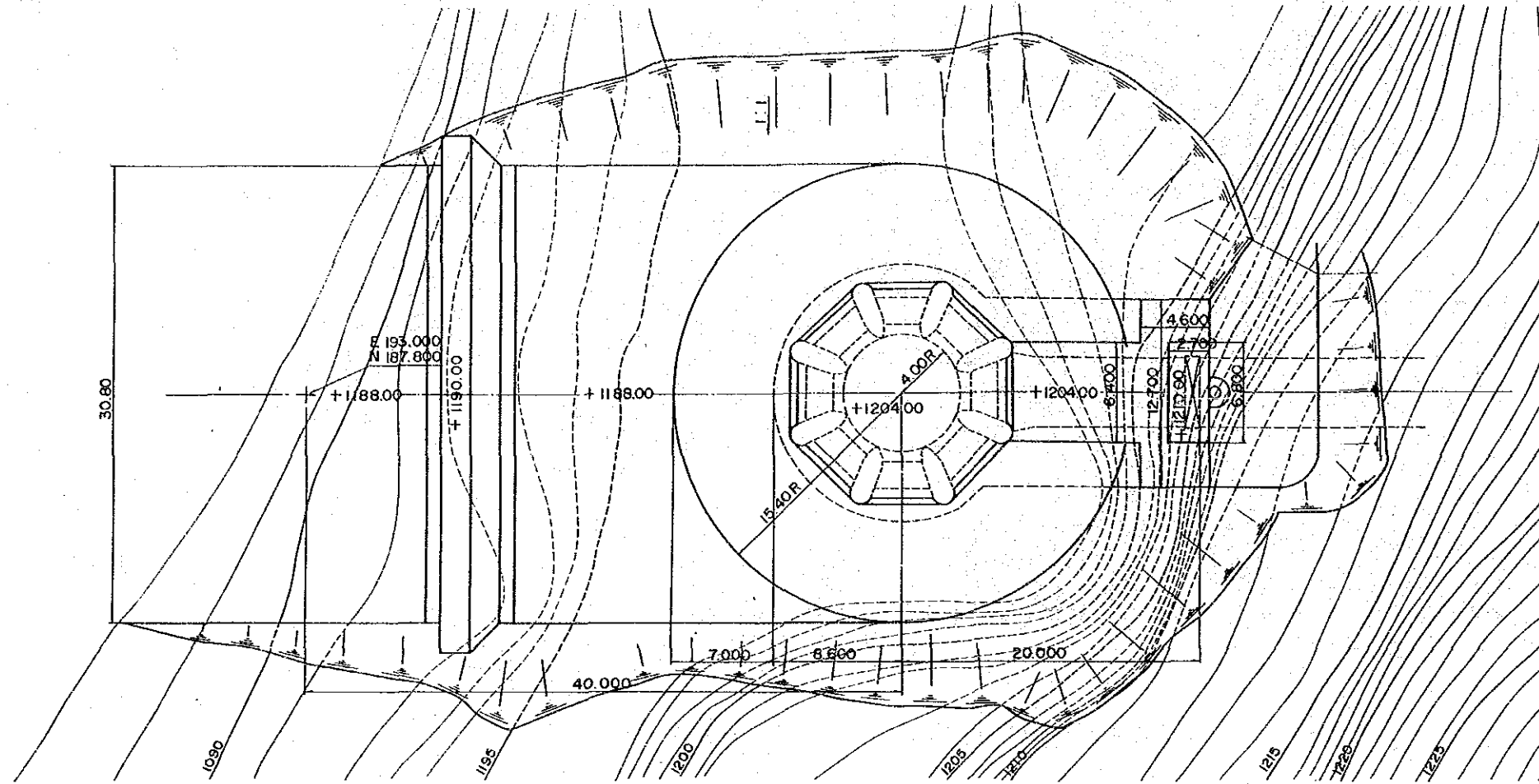


②-② SEC

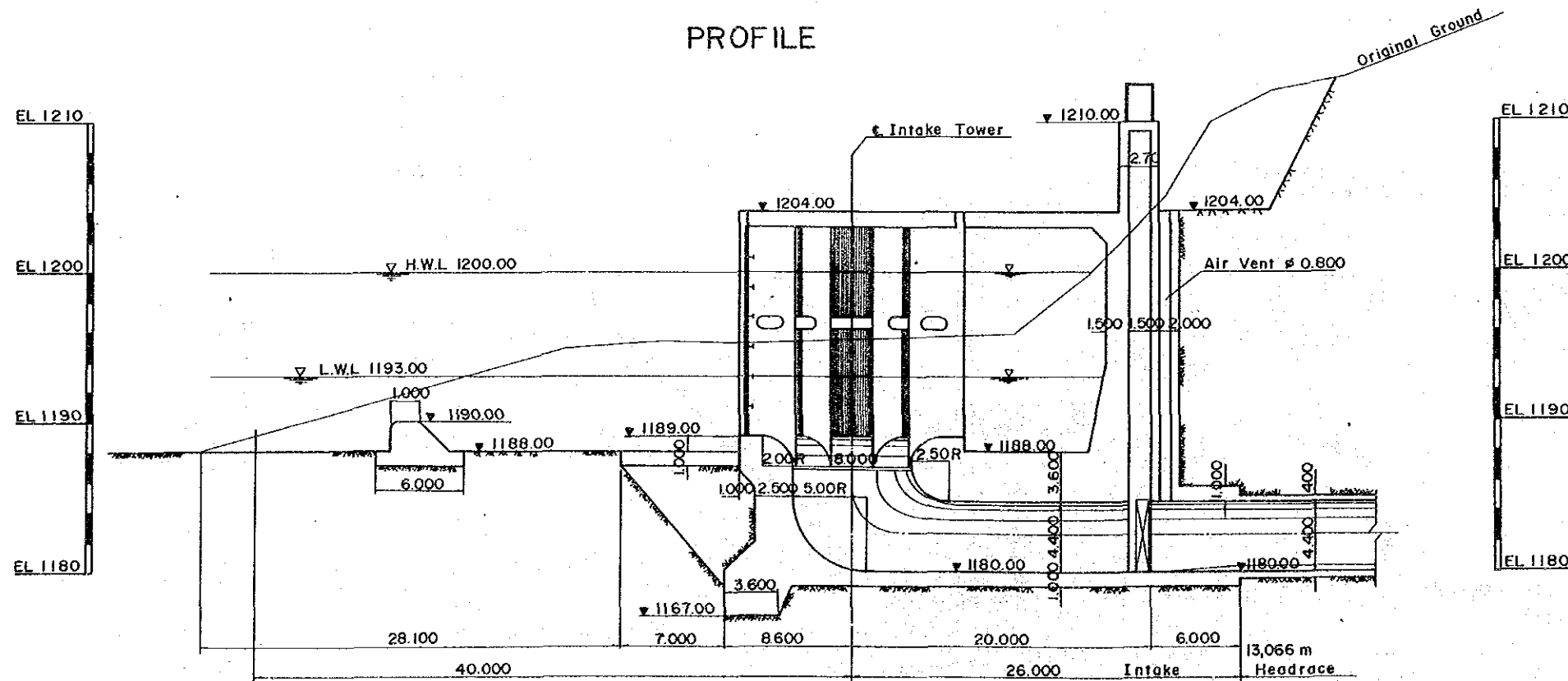


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 PROFILE AND SECTION OF CALEDONIA POWERHOUSE, TAILRACE AND OUTLET
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 303

PLAN OF TALAWAKELLE INTAKE



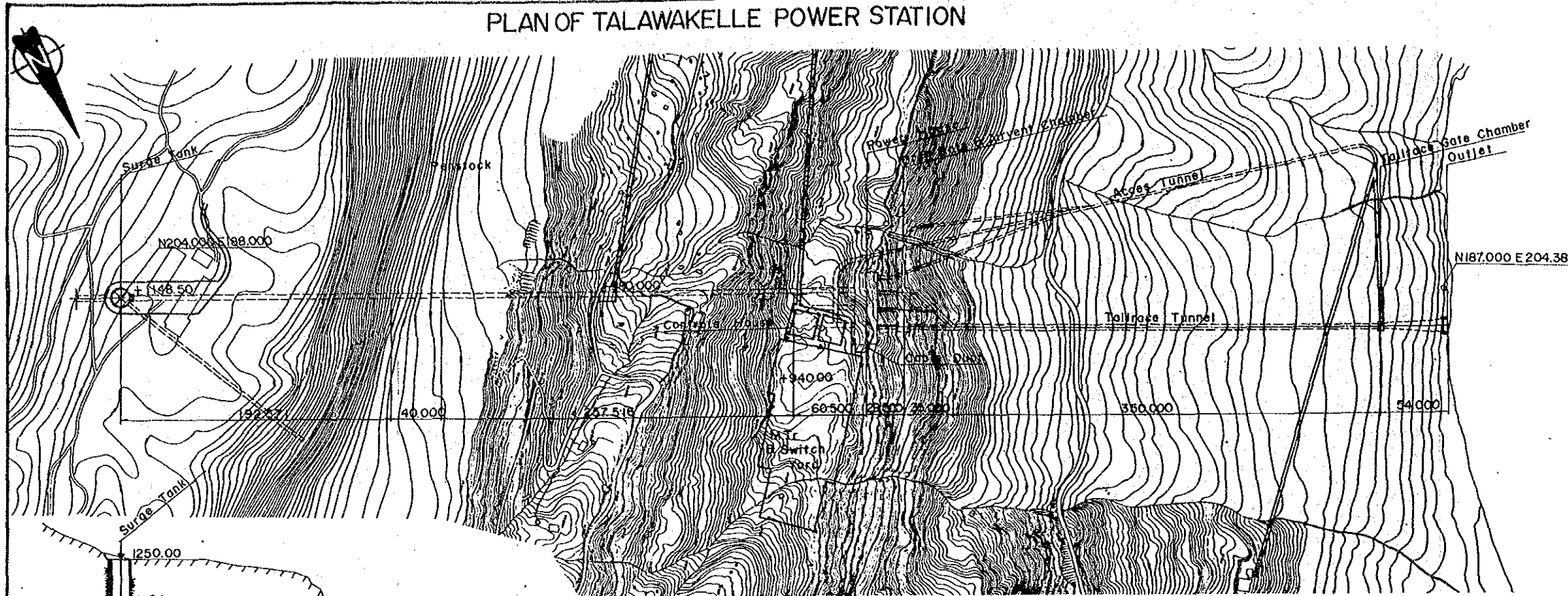
PROFILE



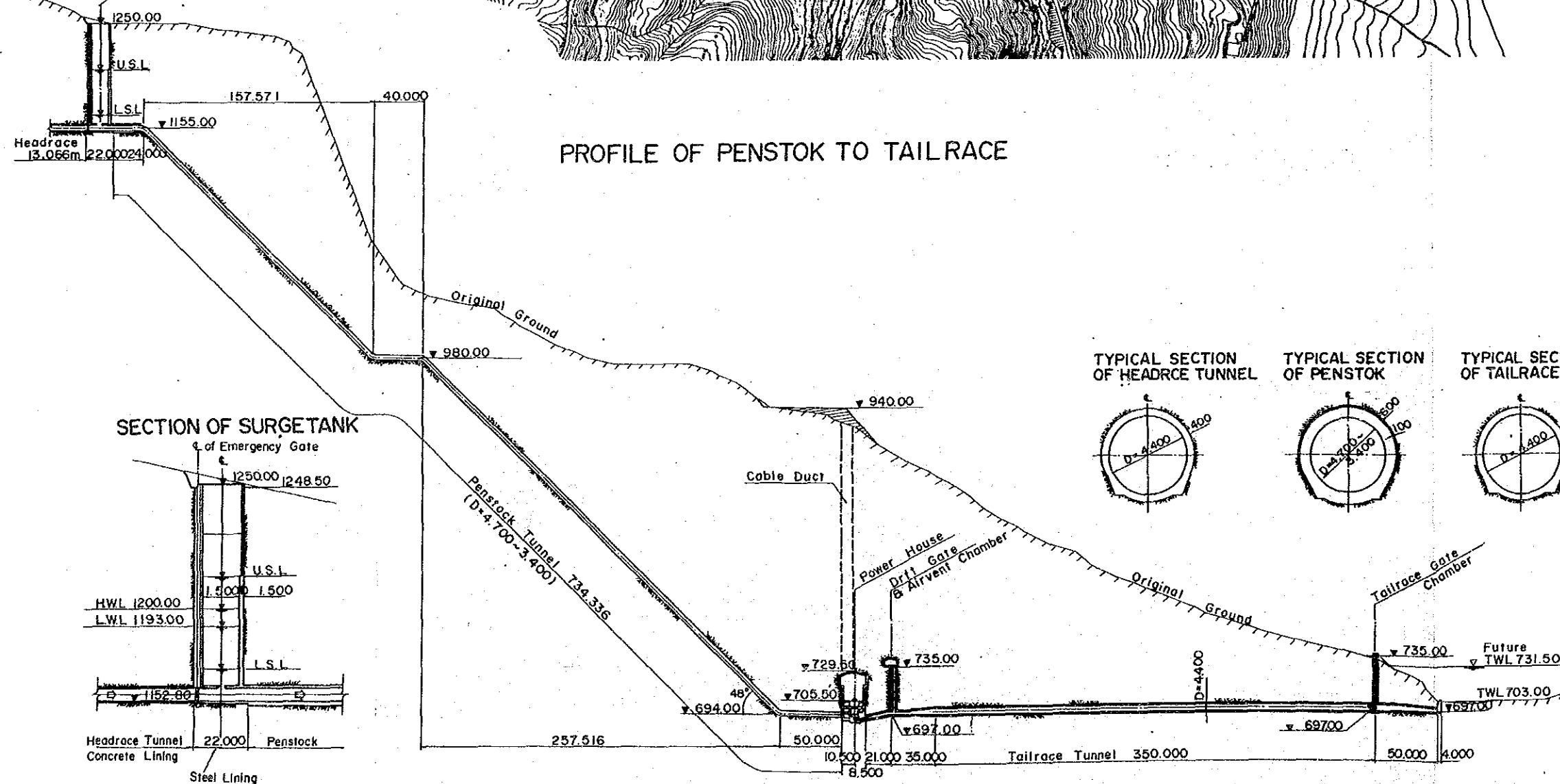
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SCALE : 1/400

THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR
UPPER KOTMALE HYDROELECTRIC
POWER DEVELOPMENT PROJECT
PLAN AND PROFILE
OF
TALAWAKELLE P/S INTAKE
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 401

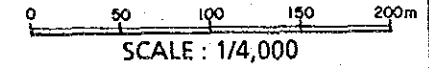
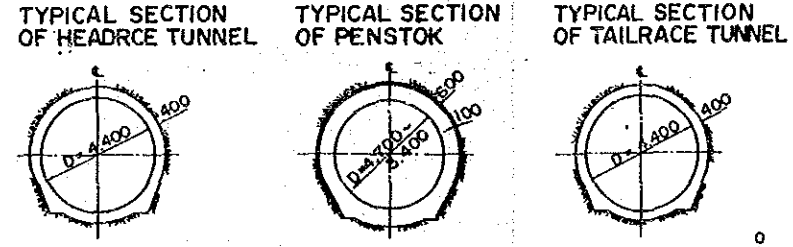
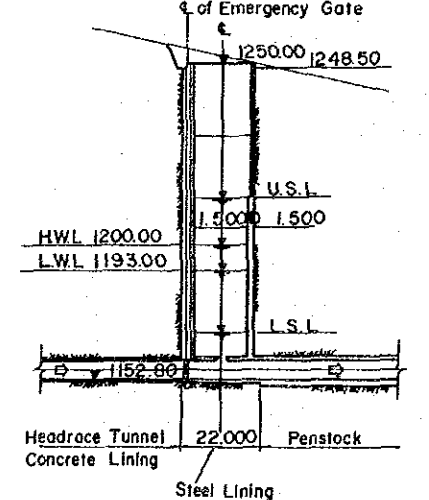
PLAN OF TALAWAKELLE POWER STATION



PROFILE OF PENSTOK TO TAILRACE



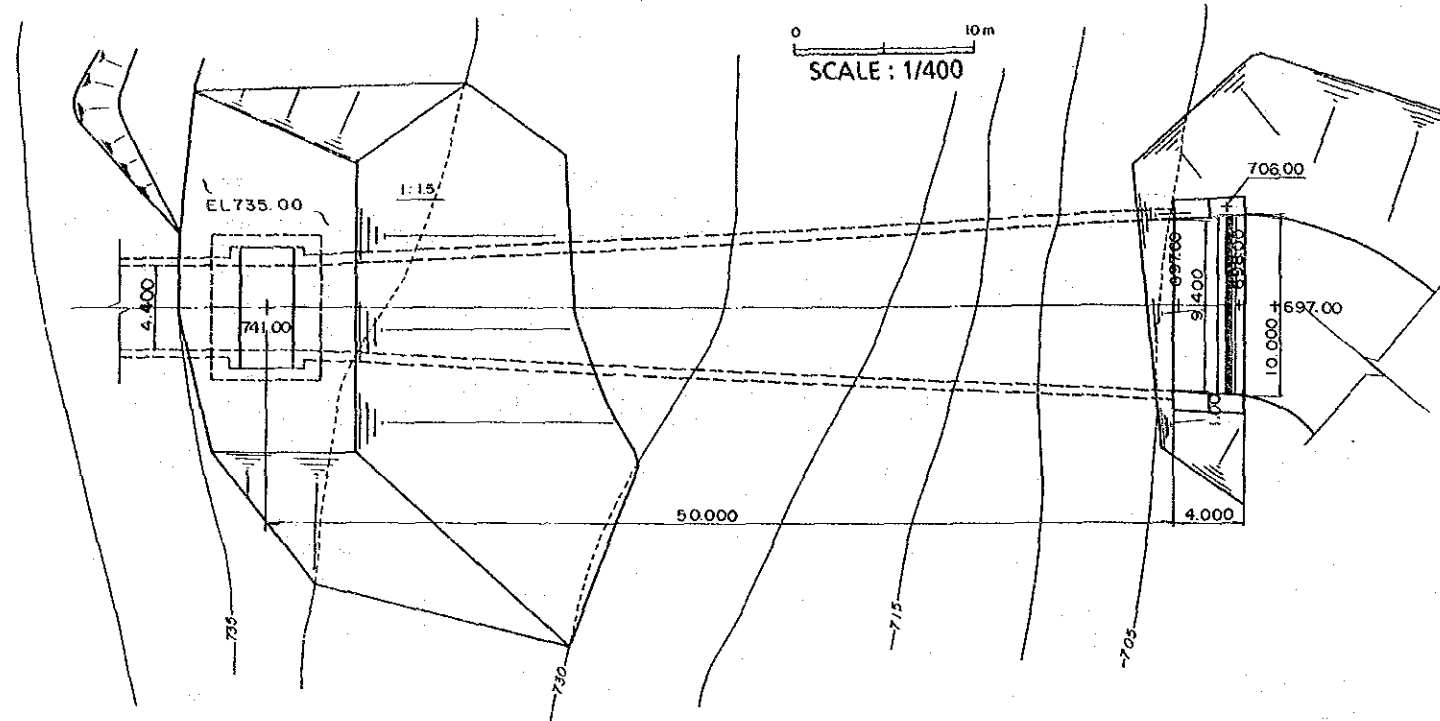
SECTION OF SURGE TANK



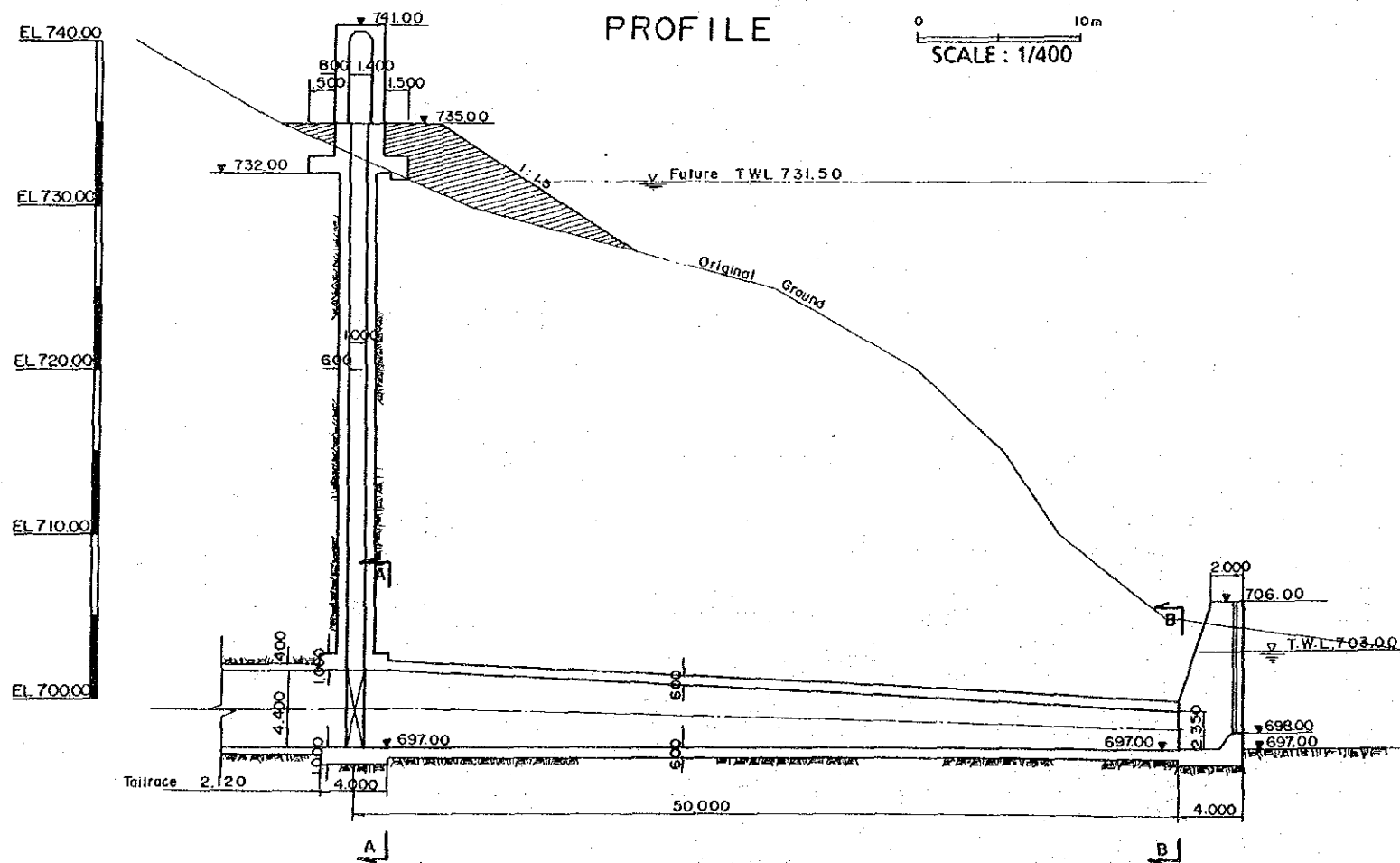
SCALE : 1/4,000

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 PLAN AND PROFILE OF TALAWAKELLE POWER STATION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 402

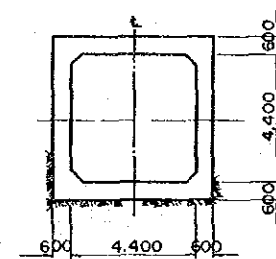
PLAN OF TALAWAKELLE OUTLET



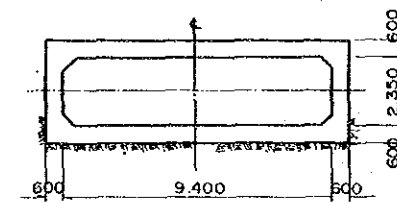
PROFILE



A-A SECTION

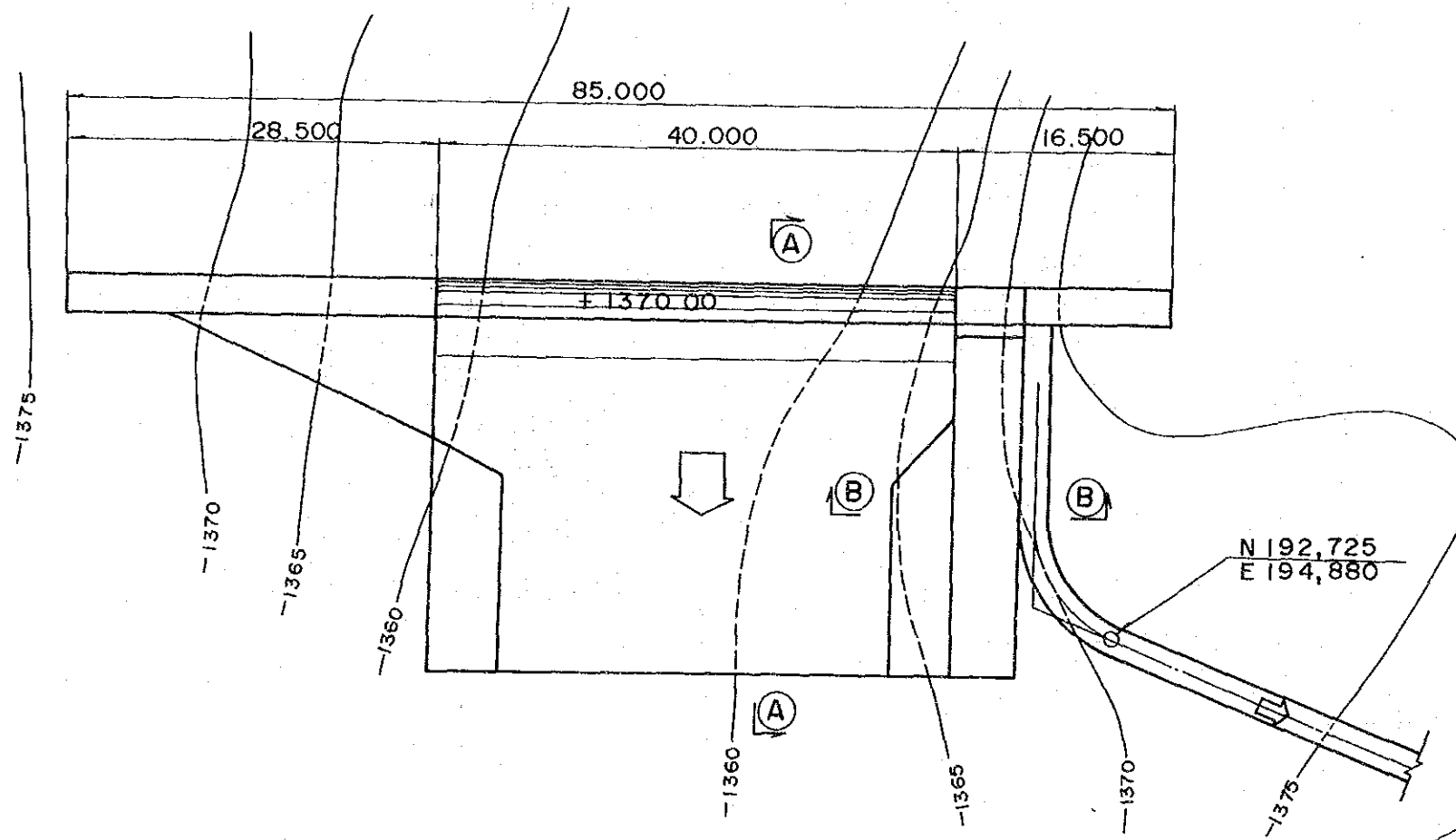


B-B SECTION

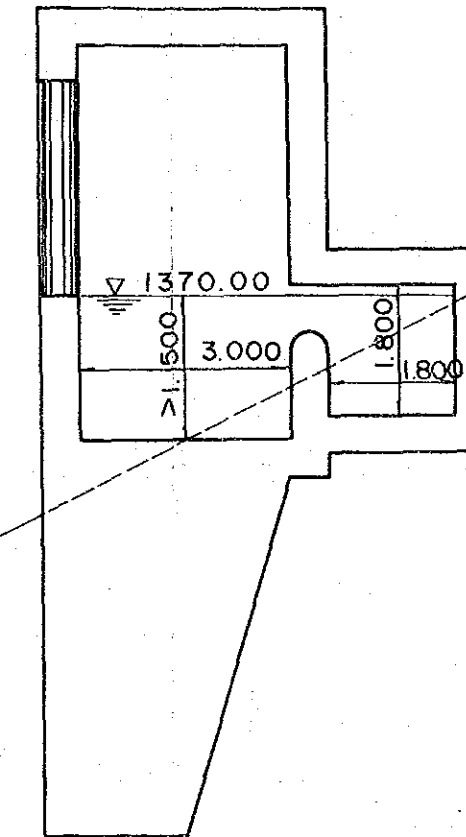


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
PLAN AND PROFILE OF TALAWAKELLE P/S OUTLET
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 404

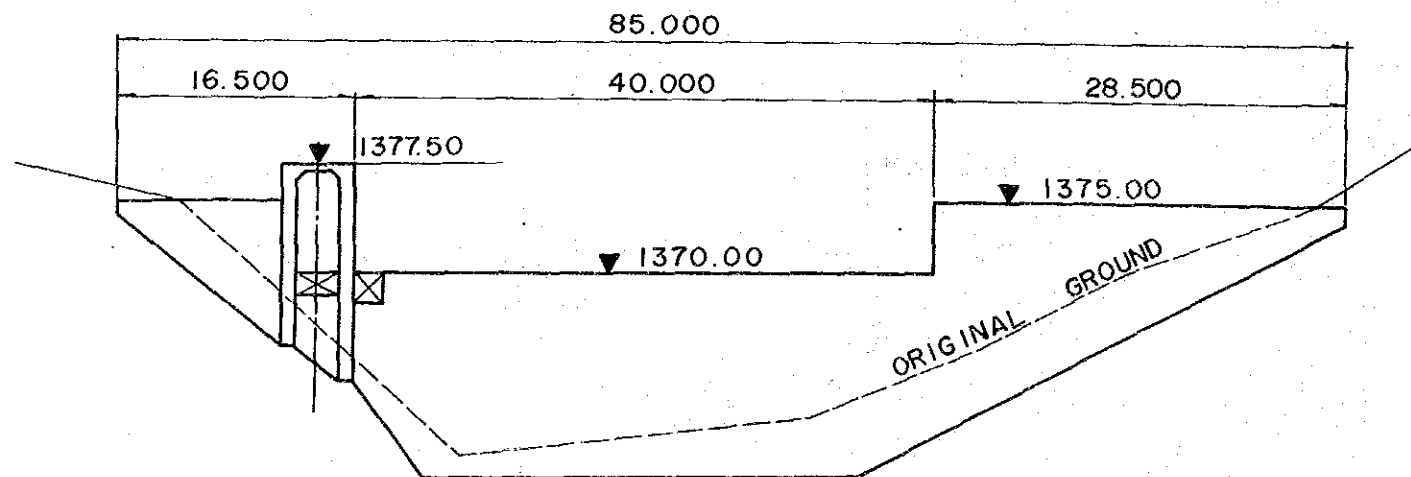
PLAN



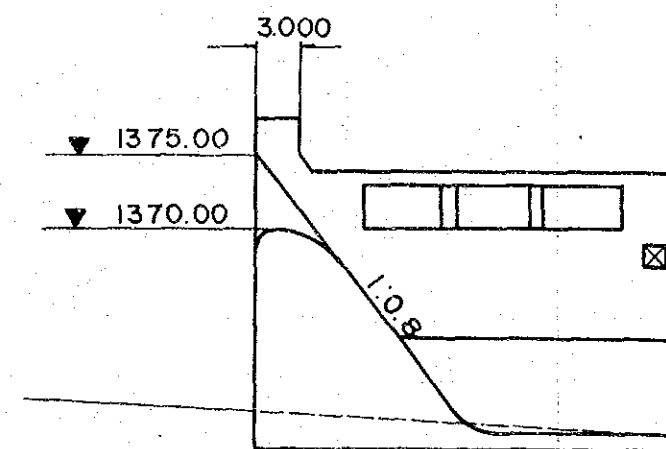
B-B SEC SCALE: 1/100



UPSTREAM VIEW

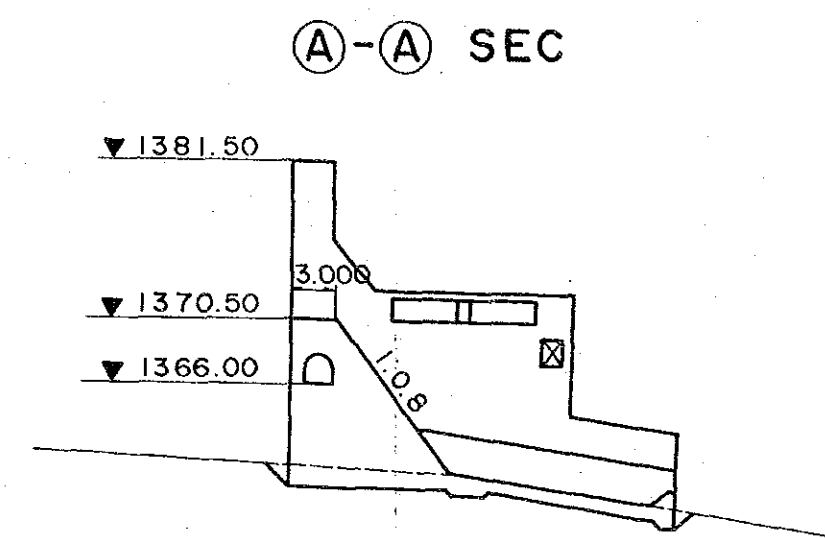
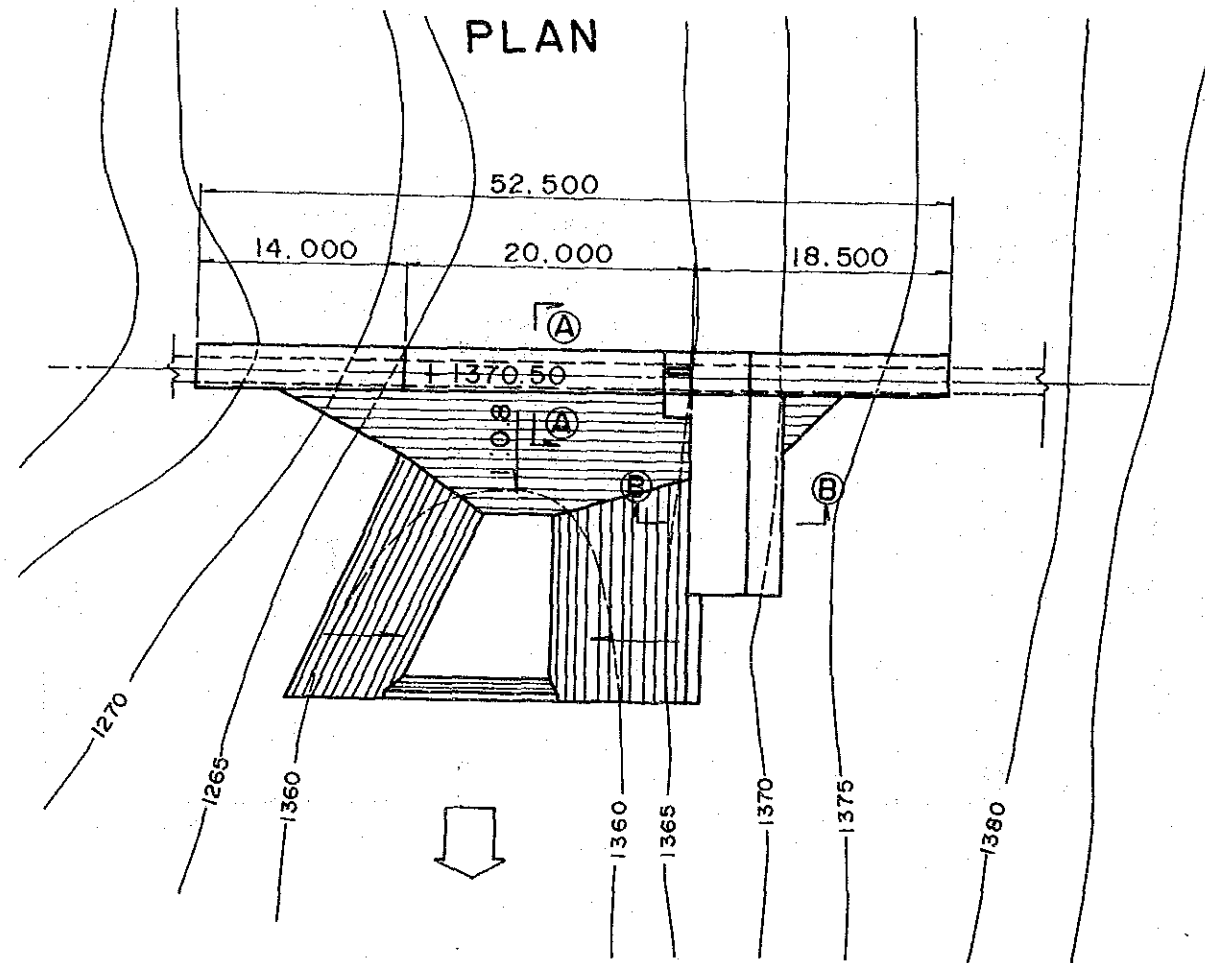


A-A SEC

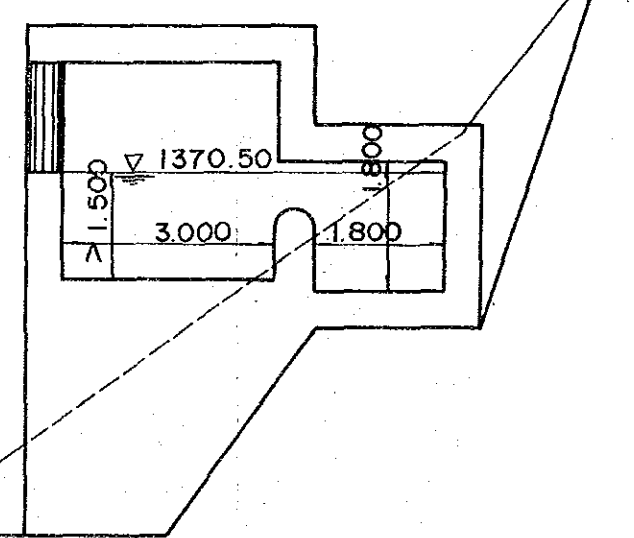


SCALE: 1/500

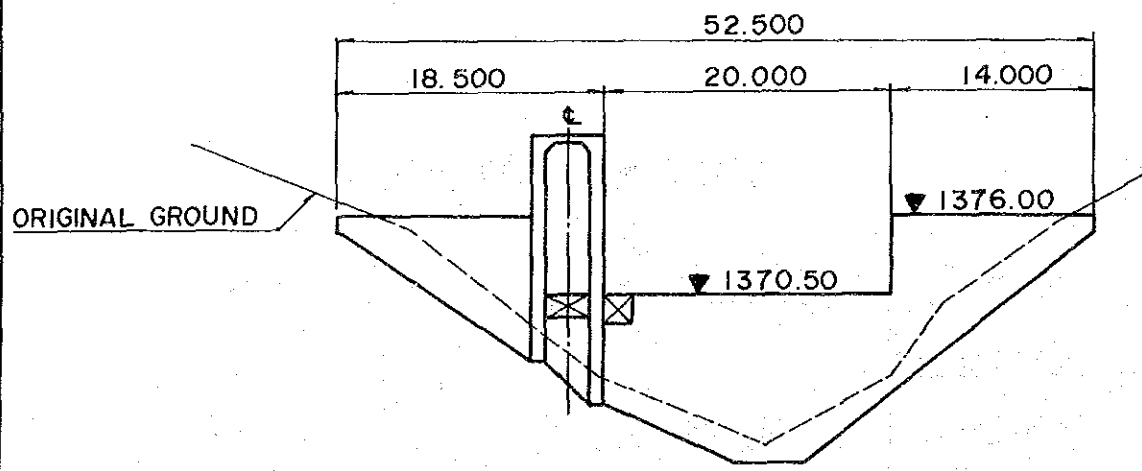
THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR
UPPER KOTMALE HYDROELECTRIC
POWER DEVELOPMENT PROJECT
STRUCTURES
FOR
NANU OYA NO.1 INTAKE
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No.: 5B1



B-B SEC SCALE: 1/100



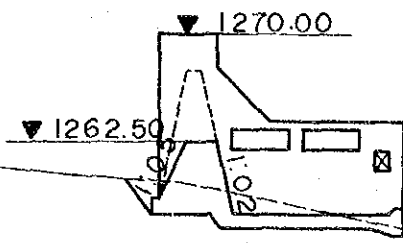
UPSTREAM VIEW



SCALE: 1/500

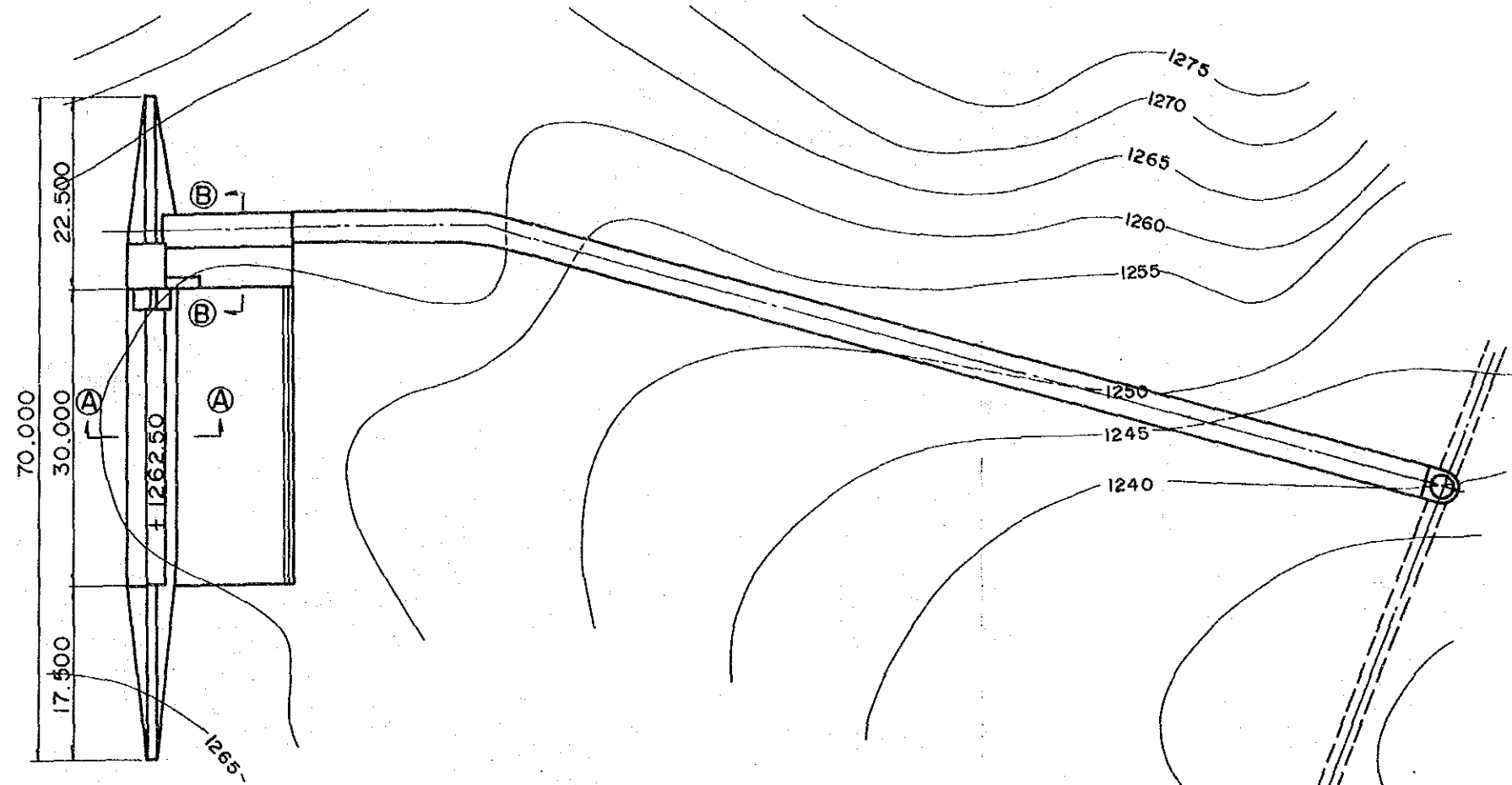
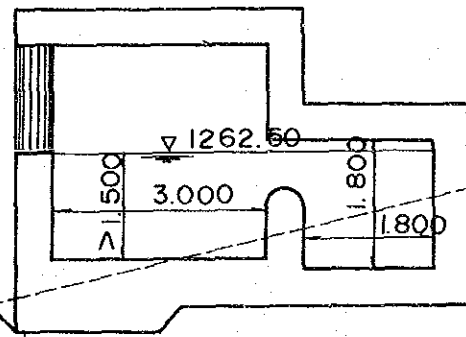
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
STRUCTURES FOR NANU OYA NO.2 INTAKE
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 502

① - ① SEC

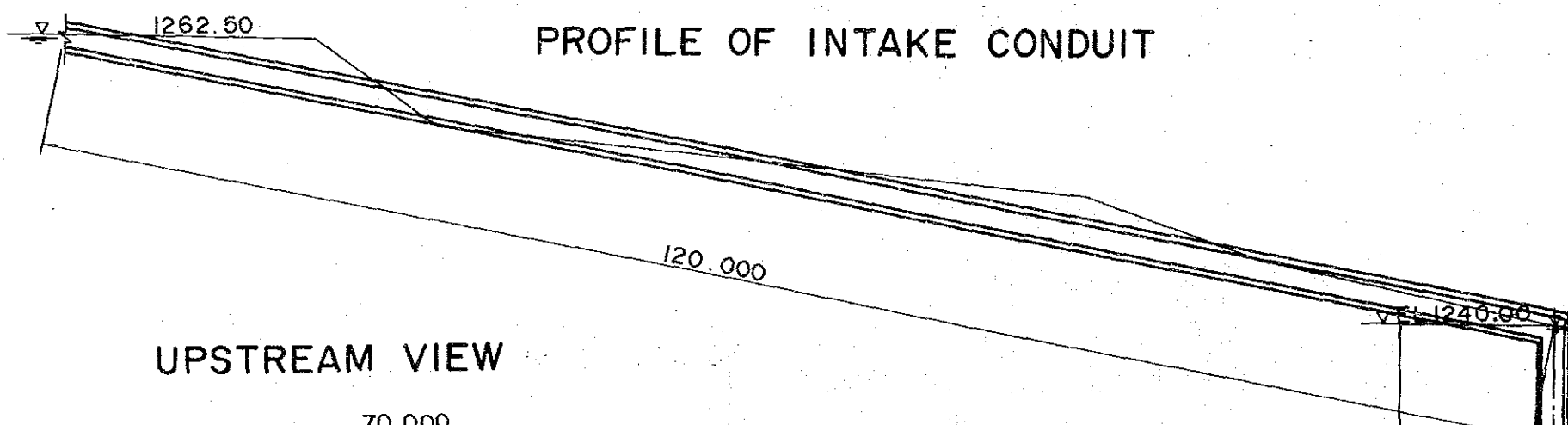


② - ② SEC

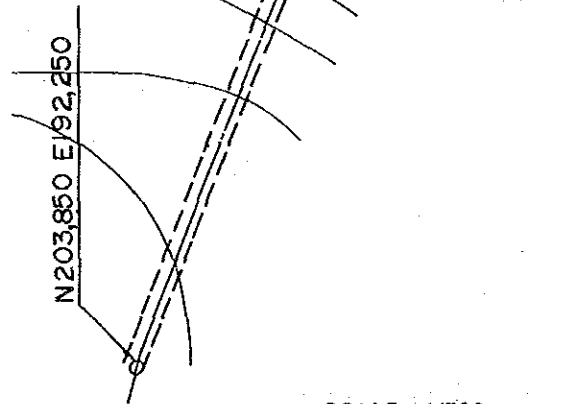
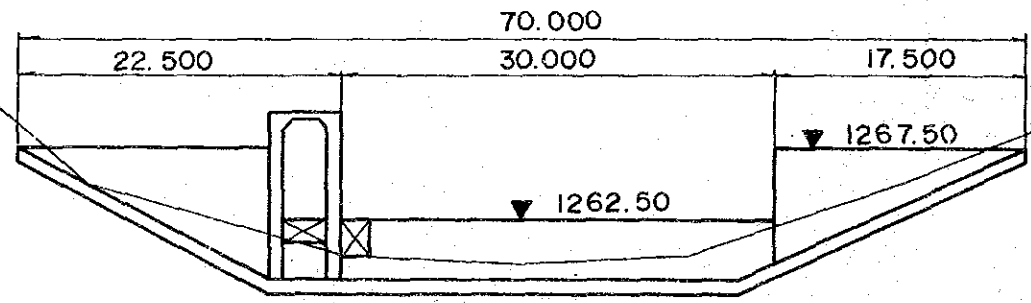
SCALE : 1/100



PROFILE OF INTAKE CONDUIT

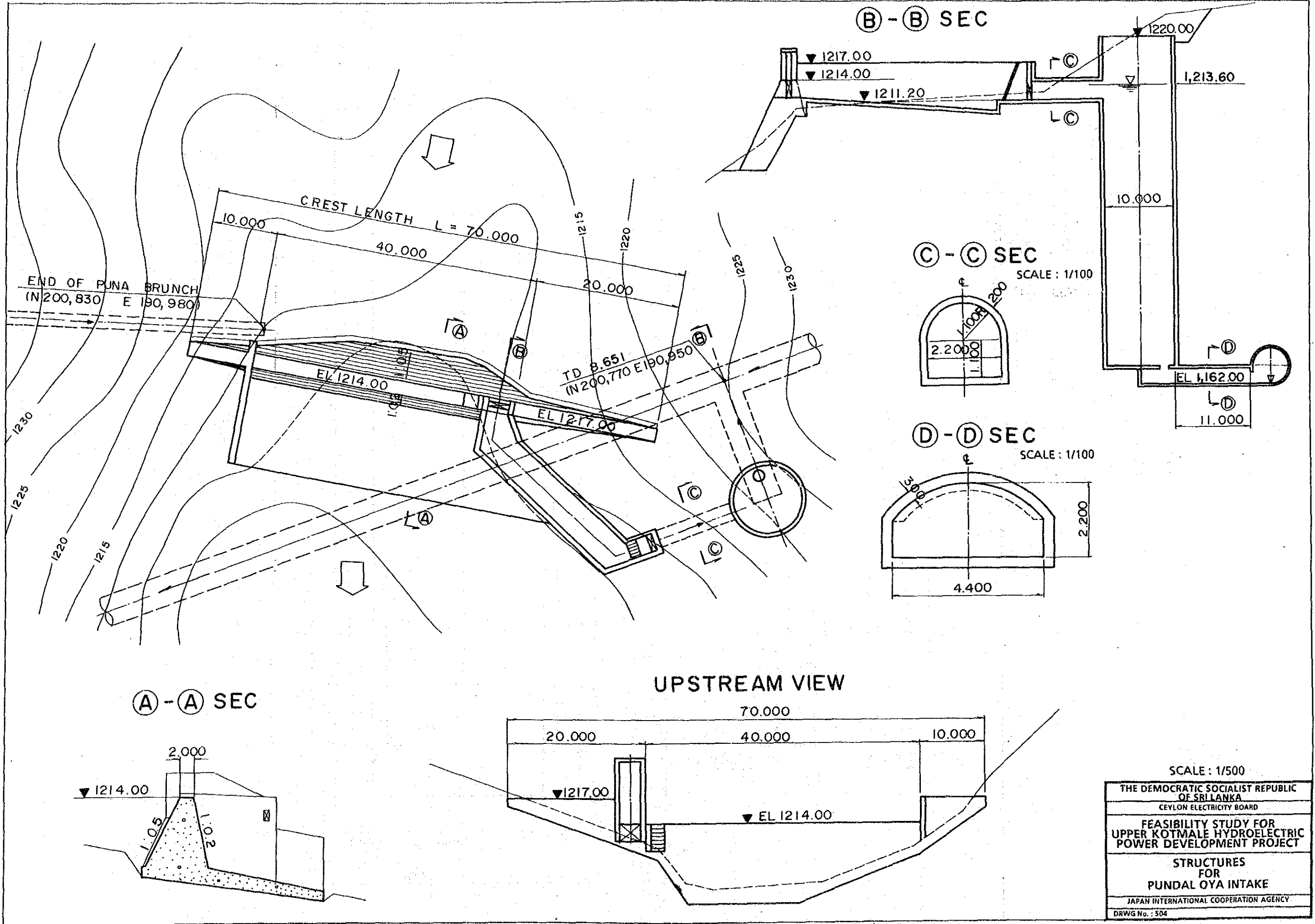


UPSTREAM VIEW



SCALE : 1/500

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
STRUCTURES FOR PUNA OYA NO.2 INTAKE
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 503



SCALE: 1/500

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD

FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT

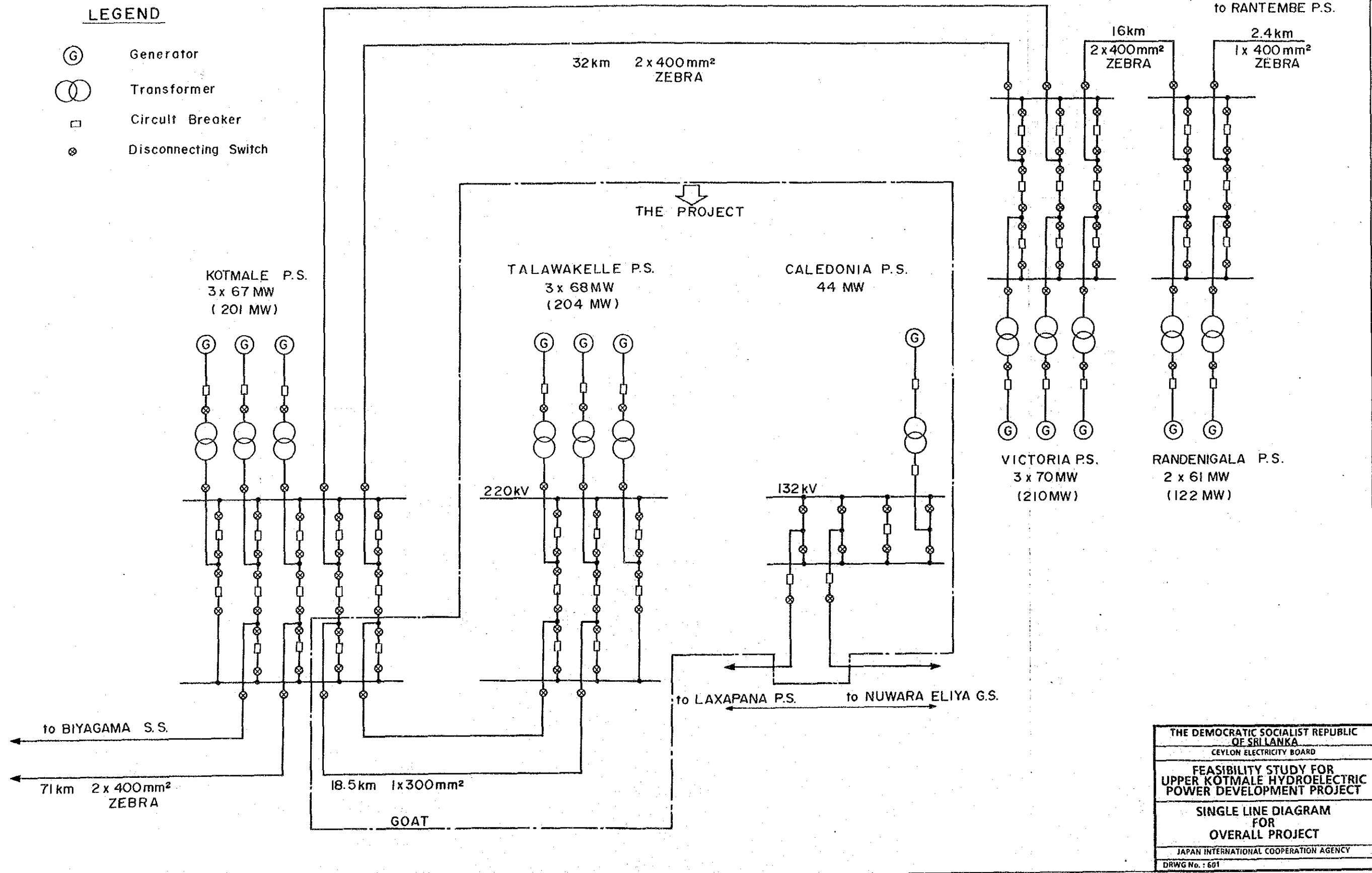
STRUCTURES FOR PUNDAL OYA INTAKE

JAPAN INTERNATIONAL COOPERATION AGENCY

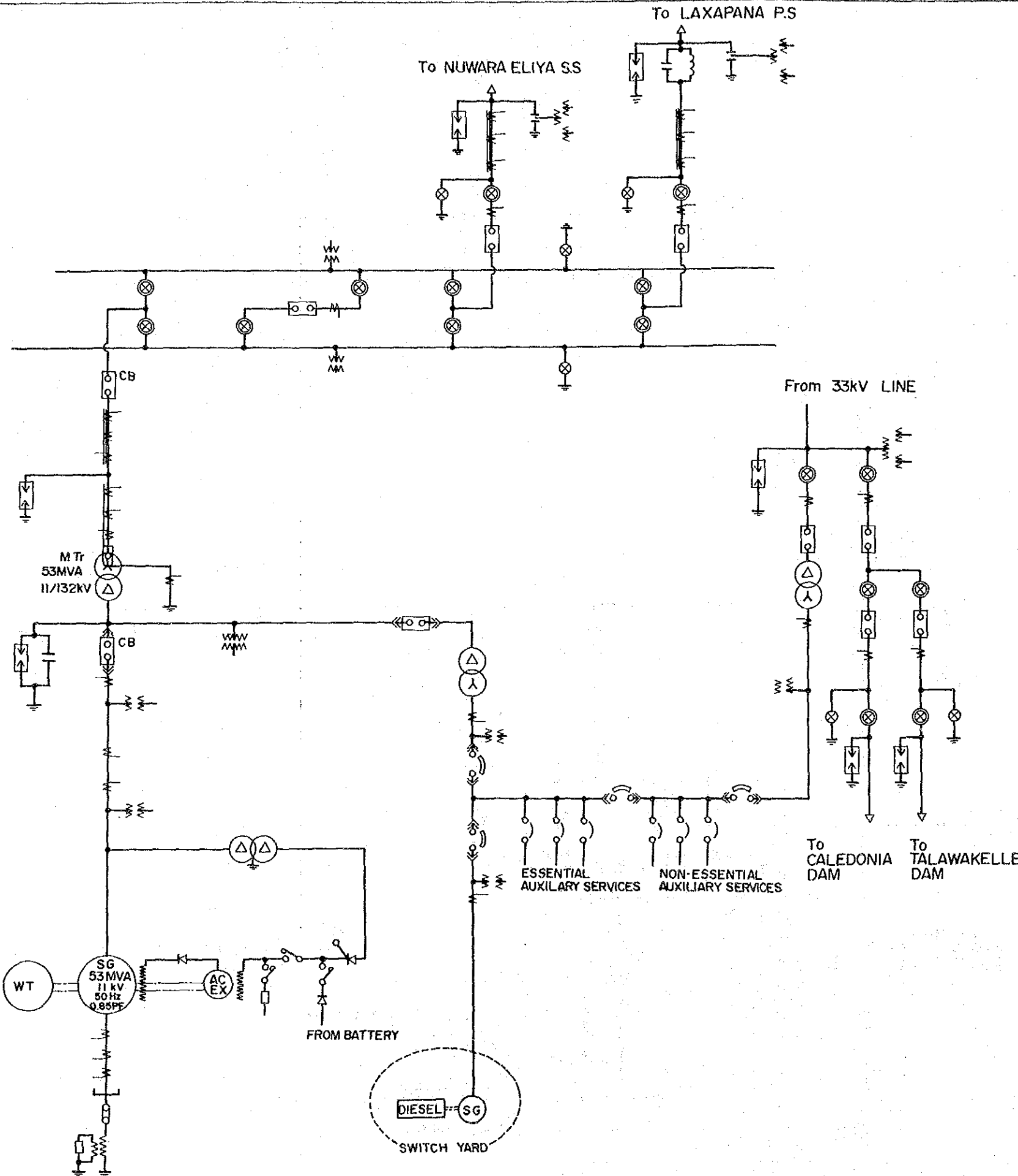
DRWG No. : 504

LEGEND

- ⊙ Generator
- ⊕ Transformer
- Circuit Breaker
- ⊗ Disconnecting Switch



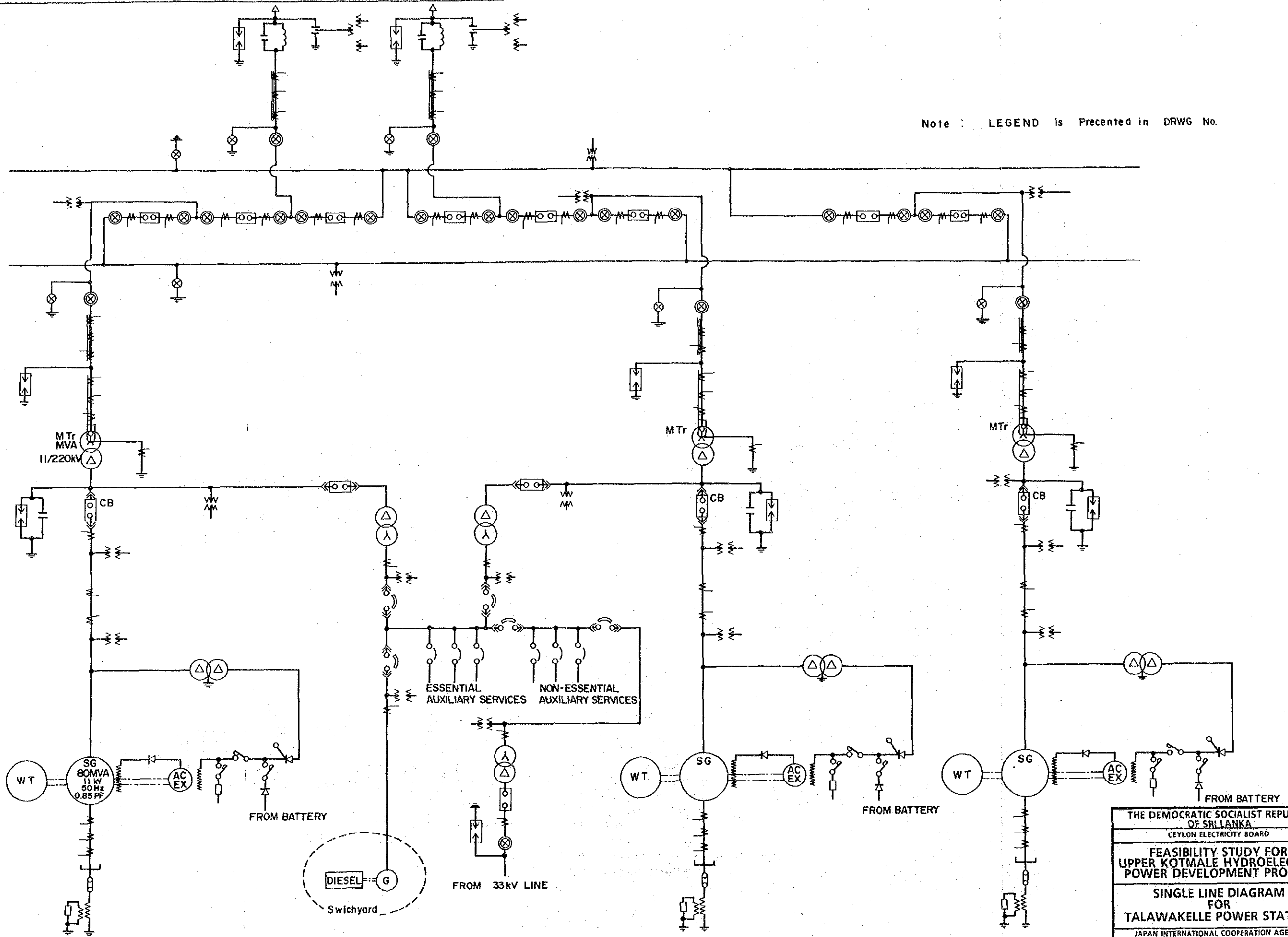
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
SINGLE LINE DIAGRAM FOR OVERALL PROJECT
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 601



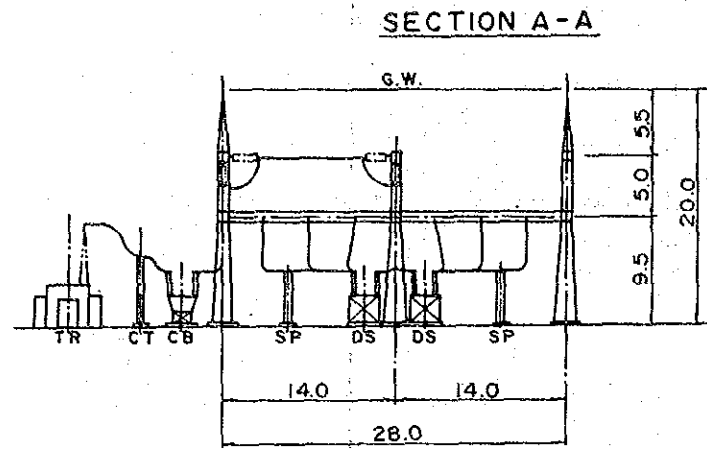
LEGEND	
	Synchronous Generator
	Water Turbine
	Transformer
	Circuit Breaker (C.B)
	Drawout Type C.B
	Drawout Type Air Circuit Breaker
	Mold Case Circuit Breaker
	Switch
	Disconnecting Switch (Remote operated)
	Disconnecting Switch (Manual operated)
	Resistor
	Link
	Arrester
	Grounding
	Surge Absorber
	Potential Transformer (P.T)
	Grounded P.T.
	Current Transformer (C.T)
	Bushing Type C.T
	Coupling Capacitor Potential Device

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 CEYLON ELECTRICITY BOARD
 FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
 SINGLE LINE DIAGRAM FOR CALEDONIA POWER STATION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DRWG No. : 602

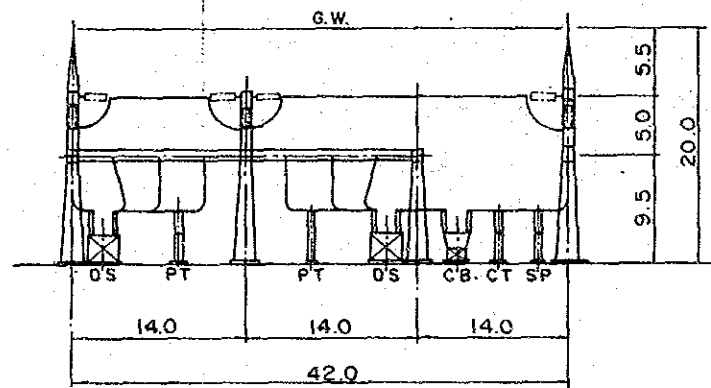
Note : LEGEND is Presented in DRWG No.



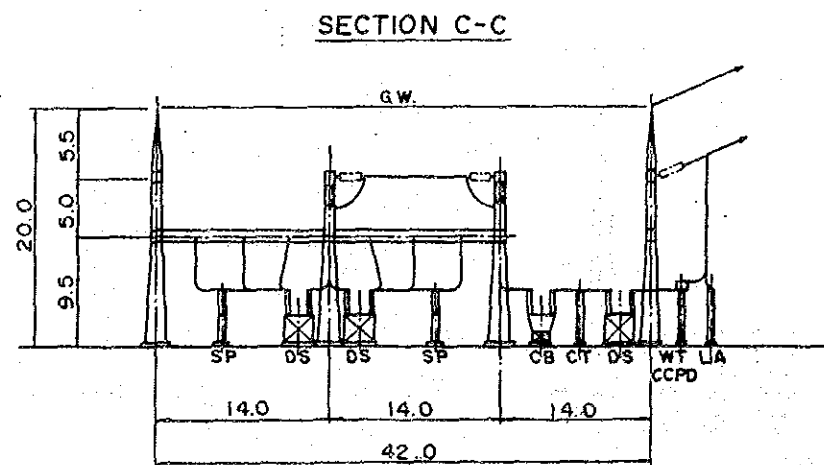
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
SINGLE LINE DIAGRAM FOR TALAWAKELLE POWER STATION
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 603



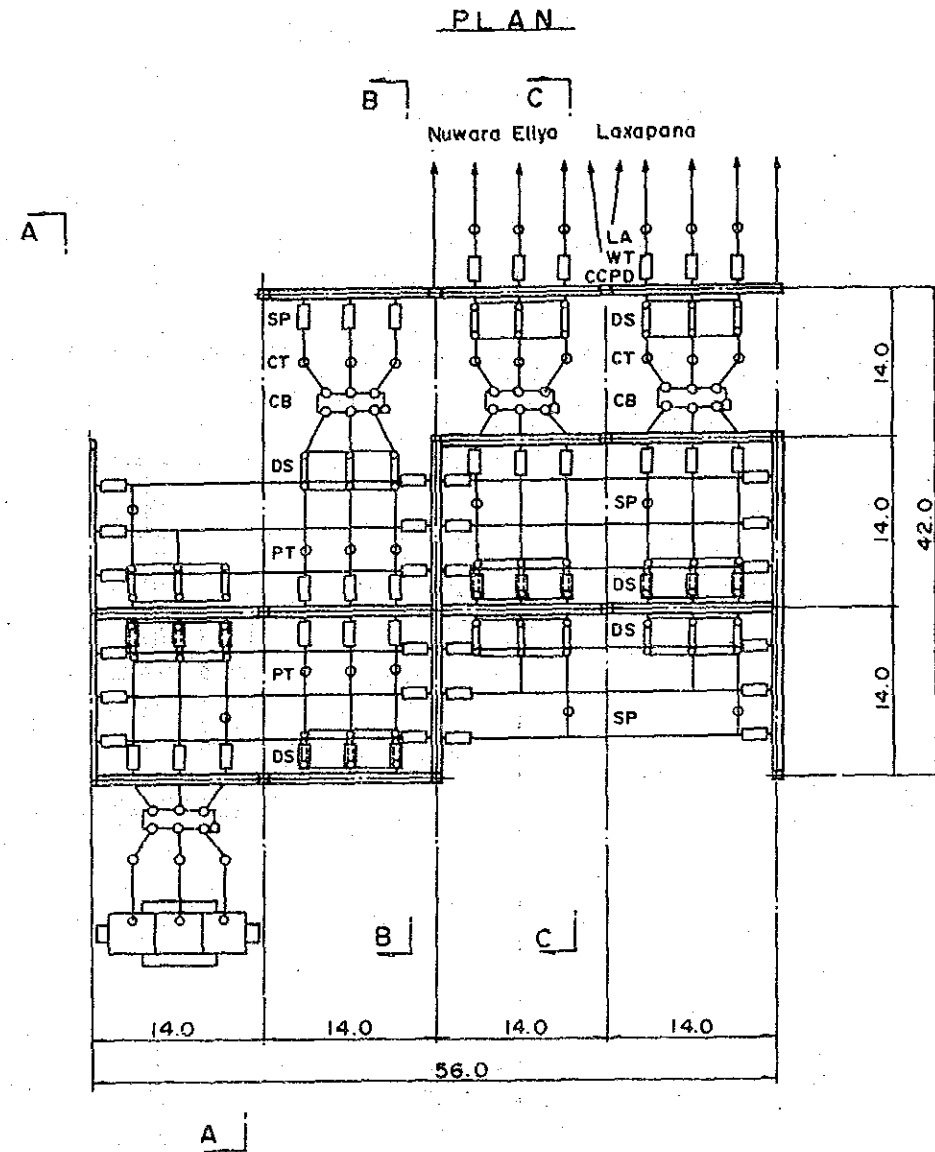
SECTION A-A



SECTION B-B



SECTION C-C

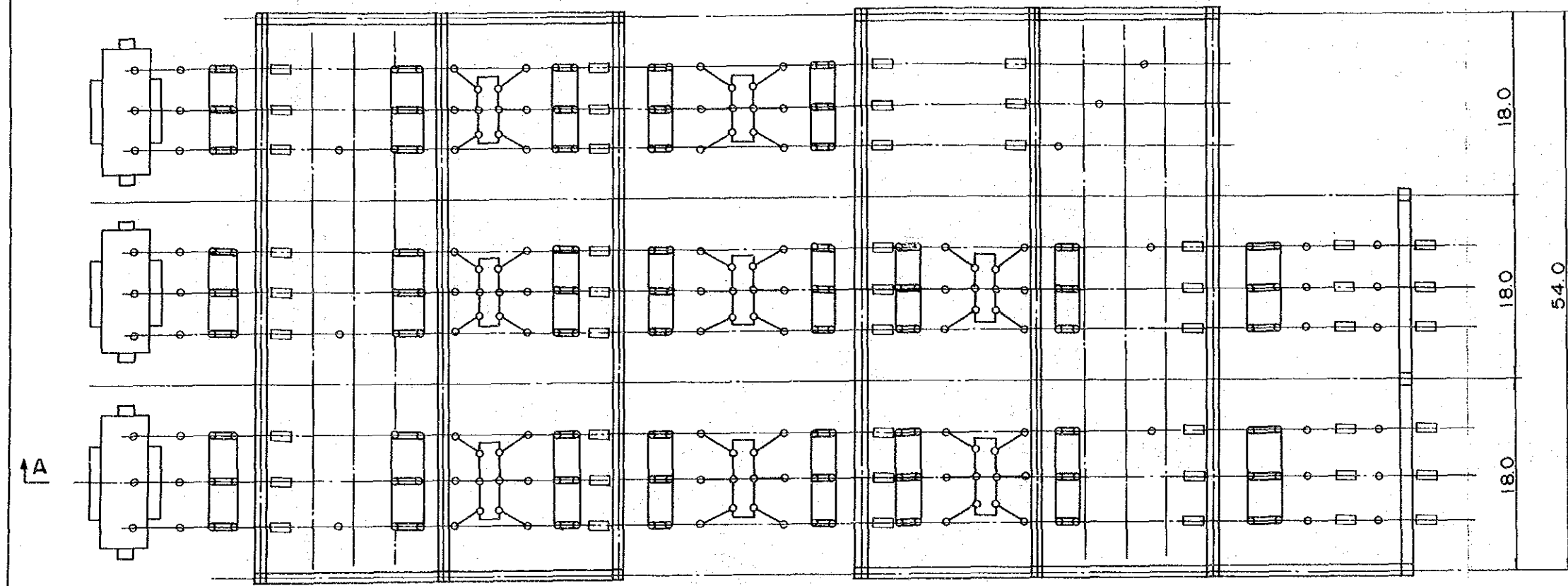


PLAN

- LEGEND**
- TR : Transformer
 - CT : Current Transformer
 - CB : Circuit Breaker
 - SP : Station Post Insulator
 - DS : Disconnecting Switch
 - PT : Potential Transformer
 - WT : Wave Trap
 - LA : Lightning Arrester
 - CCPD : Coupling Capacitor Potential Device
 - GW : Grounding Wire

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
FACILITIES LAYOUT FOR CALEDONIA SWITCHYARD
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 604

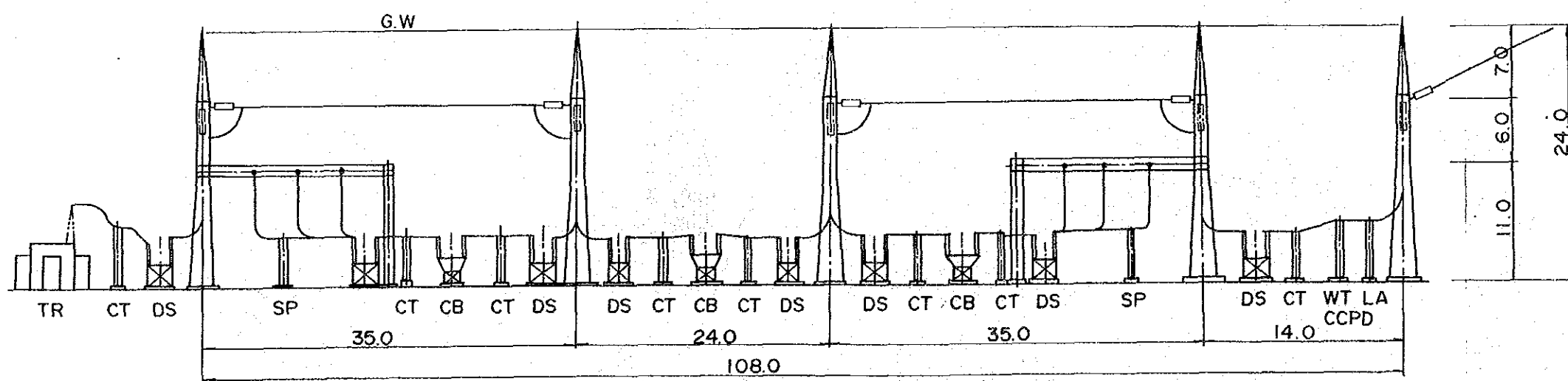
PLAN



LEGEND

- TR : Transformer
- CT : Current Transformer
- CB : Circuit Breaker
- SP : Station Post Insulator
- DS : Disconnecting Switch
- PT : Potential Transformer
- WT : Wave Trap
- LA : Lightning Arrester
- CCPD : Coupling Capacitor Potential Device
- GW : Grounding Wire

SECTION A - A

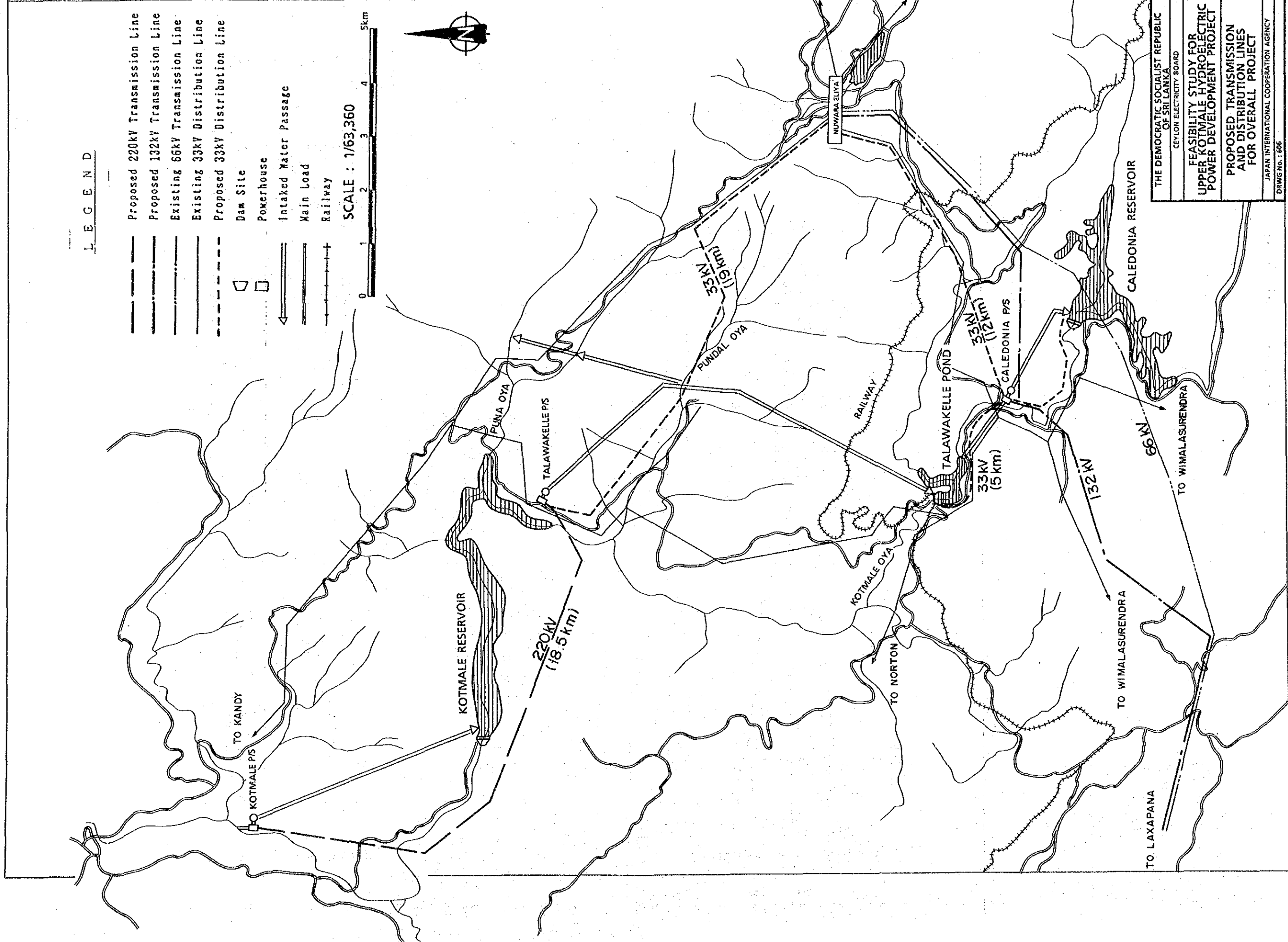
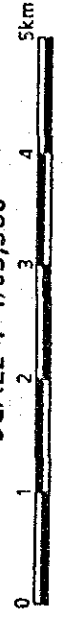


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
FACILITIES LAYOUT FOR TALAWAKELLE SWITCHYARD
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 605

LEGEND

- Proposed 220kV Transmission Line
- Proposed 132kV Transmission Line
- Existing 66kV Transmission Line
- Existing 33kV Distribution Line
- Proposed 33kV Distribution Line
- Dam Site
- Powerhouse
- Intaked Water Passage
- Main Load
- Railway

SCALE : 1/63,360



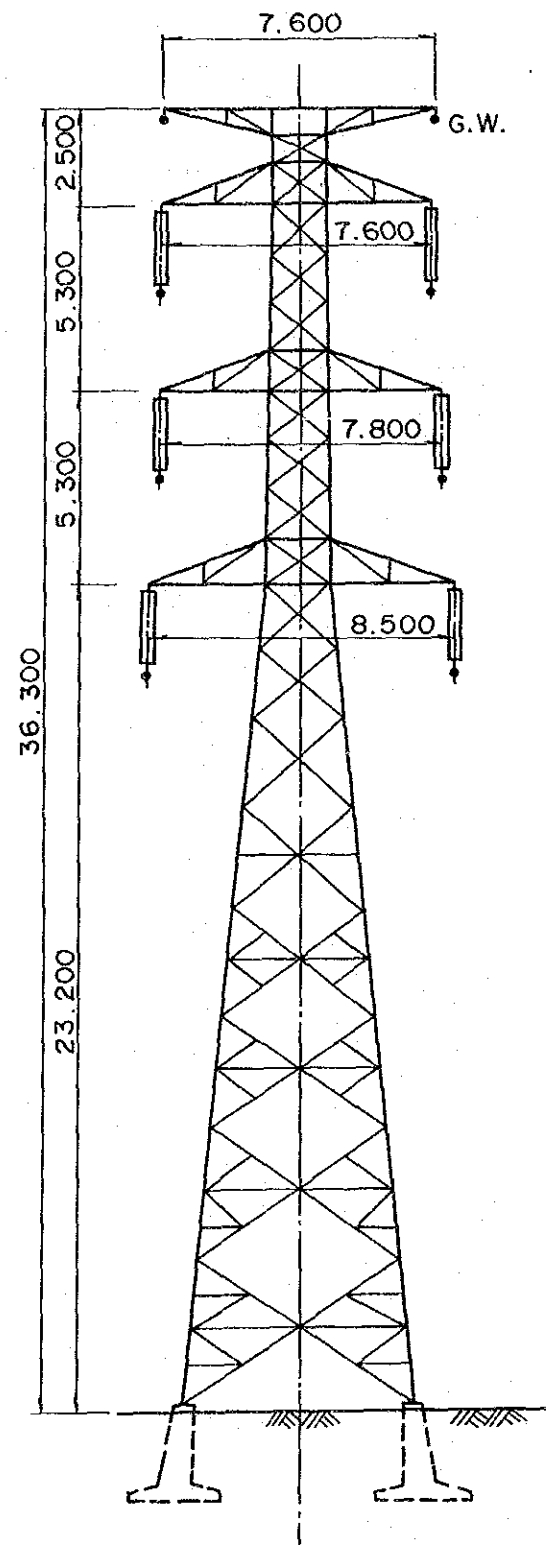
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD

FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT

PROPOSED TRANSMISSION AND DISTRIBUTION LINES FOR OVERALL PROJECT

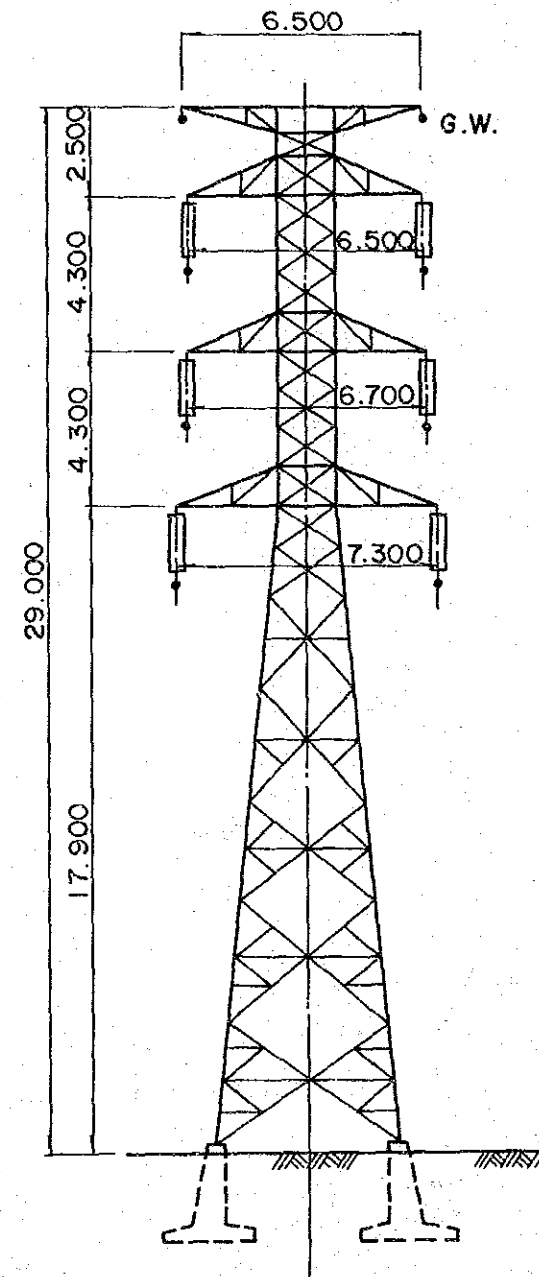
JAPAN INTERNATIONAL COOPERATION AGENCY
DRAWG No. 1-605

220KV 2cct



Normal Span 400 (m)

132 KV 2cct



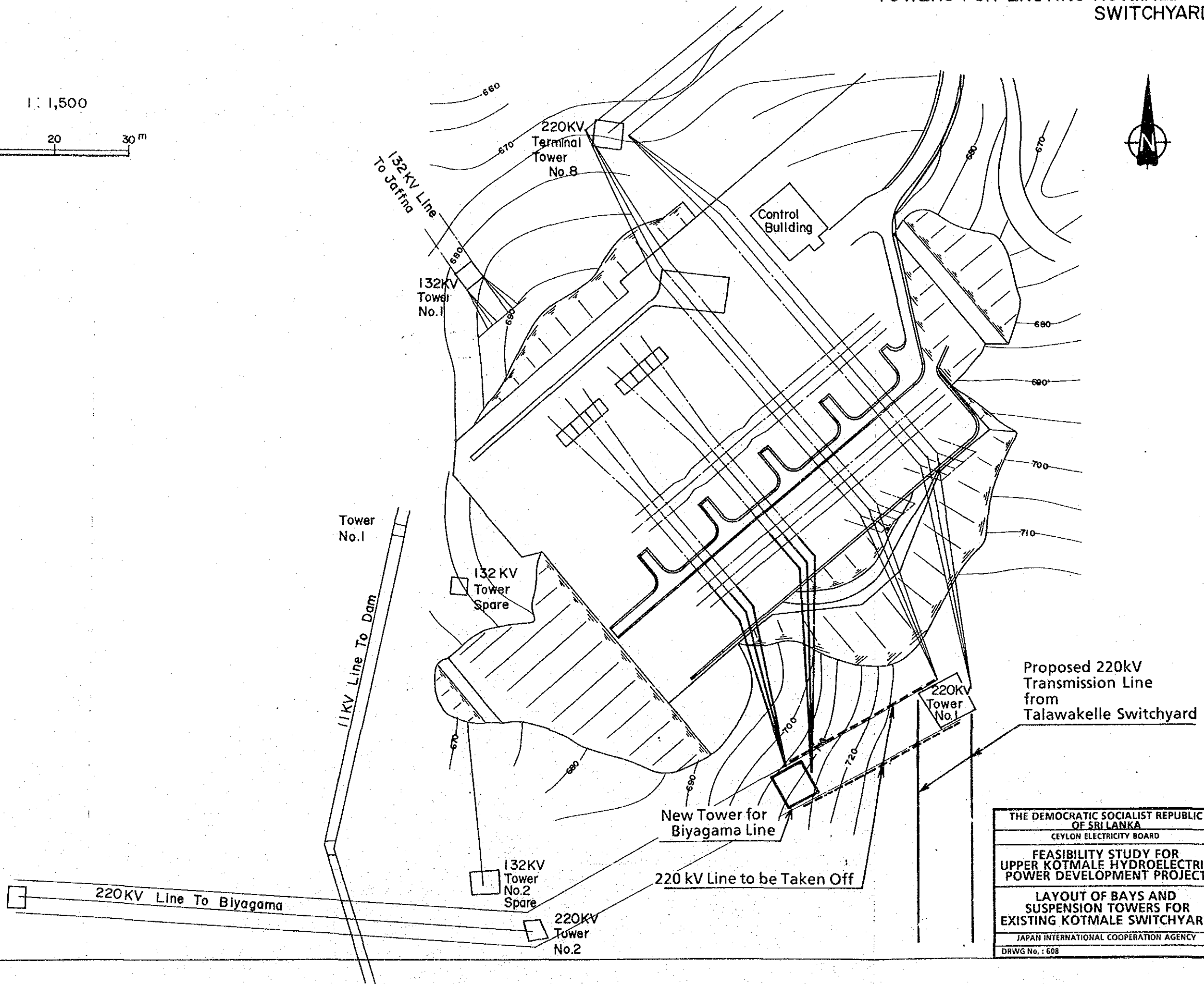
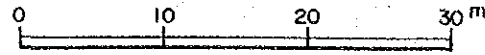
Normal Span 400 (m)

SCALE : 1/200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
CEYLON ELECTRICITY BOARD
FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
TYPICAL STRUCTURES FOR 220kV AND 132kV SUSPENSION TOWERS
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 607

LAYOUT OF BAYS AND SUSPENSION TOWERS FOR EXISTING KOTMALE SWITCHYARD

SCALE 1 : 1,500



THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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FEASIBILITY STUDY FOR UPPER KOTMALE HYDROELECTRIC POWER DEVELOPMENT PROJECT
LAYOUT OF BAYS AND SUSPENSION TOWERS FOR EXISTING KOTMALE SWITCHYARD
JAPAN INTERNATIONAL COOPERATION AGENCY
DRWG No. : 608

添 付 資 料

添付資料 - 1 Personnel Contacted during the Study

添付資料 - 2 Classification of Rock Quality in Dam Foundation

Personnel Contacted during the Study

Ceylon Electricity Board

Prof. K K Y W Perera, Chairman
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L W de Silva, General Manager
P B N Fernando, Additional General Manager
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G O S Gunasekera, Deputy General Manager
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G Wijepura, Deputy Surveyor General

W R J Perera, Chief Photogrametrist

A M Gunaratna, Assistant Superintendent Surveys

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H D N C Pathirana, Deputy Director

Meteorological Department

D P W Karunatileke, Deputy Director

M B D de Silva, Deputy Director

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K H S Gunatilaka, Director General

L Godamune, Secretary General

L U Weerakoon, Director of Water Management Secretariat

Ministry of Mahaweli Development

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R K Somasundaram, Senior Assistant Secretary
D J Bandaragoda, Additional Secretary
J K Weerawardena, Addl. Secretary
R S Cooke, Advisor

Central Bank of Ceylon

N Sanderatne, Director of Economic Research

Ceylon Petroleum Corporation

Edwin Ranasinghe, Manager of Economic & Planning

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T Urabe, Counsellor
M Kojima, the then Counsellor
K Maruyama, First Secretary
M Itami, the then First Secretary
M Sakuramata, Second Secretary
M Kobayashi, the then Second Secretary

Japan International Corporation Agency

J Hashiguchi, Director/Resident Representative
T Amagai, Assistant Resident Representative
M Kimura, Representative, JOCV

JETRO

K Tsuchiya, Resident Representative

CLASSIFICATION OF ROCK QUALITY IN DAM FOUNDATIONS

Classification	Characteristics
A	Rock-forming minerals ^{2/} are fresh and not weathered or altered. Joints and cracks are very closely adhered with no weathering along their planes. A clear sound is emitted when hammered.
B	Rock-forming minerals are weathered slightly or partially altered, the rock being hard. Joints and cracks are closely adhered. A clear sound is emitted when hammered.
C _H	Rock-forming minerals are weathered but the rock is fairly hard. The bond between rock blocks is slightly reduced and each block is apt to be exfoliated along joints and cracks by strong hammering. Joints and cracks sometimes contain clay and other material which may be colored by limonite. A slightly dull sound is emitted when hammered.
C _M	Rock-forming minerals are weathered and the rock is slightly soft. Exfoliation of the rock occurs along joints and cracks by normal hammering. Joints and cracks sometimes contain clay and other material. A somewhat dull sound is emitted when hammered.
C _L	Rock-forming minerals are weathered and the rock is soft. Exfoliation of the rock occurs along joints and cracks by light hammering. Joints and cracks contain clay. A dull sound is emitted when hammered.
D	Rock-forming minerals are weathered, and rock is very soft. There is virtually no bond between rock blocks, and collapse occurs at the slightest hammering. Joints and cracks contain clay. A very dull sound is emitted when hammered.

JICA