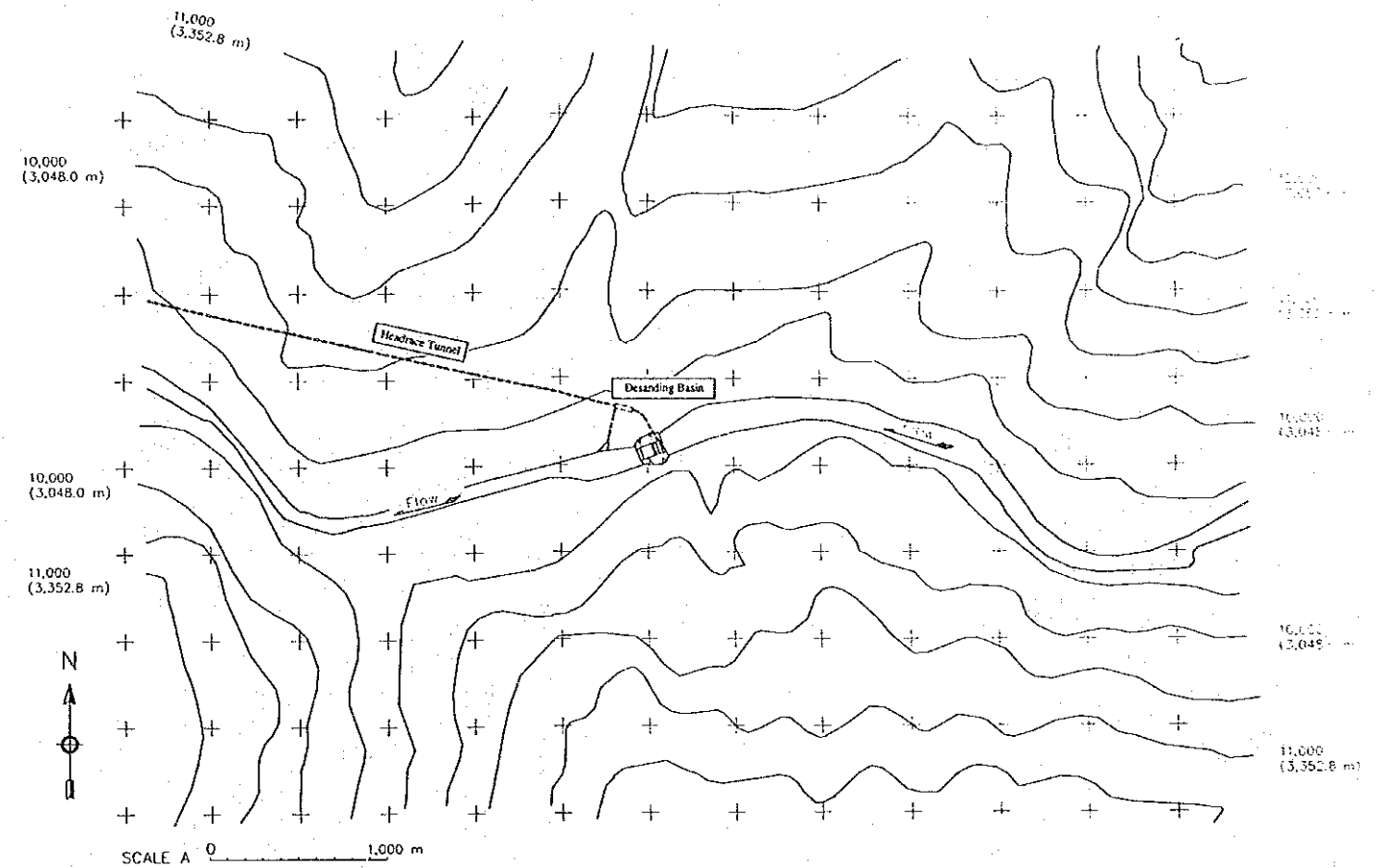
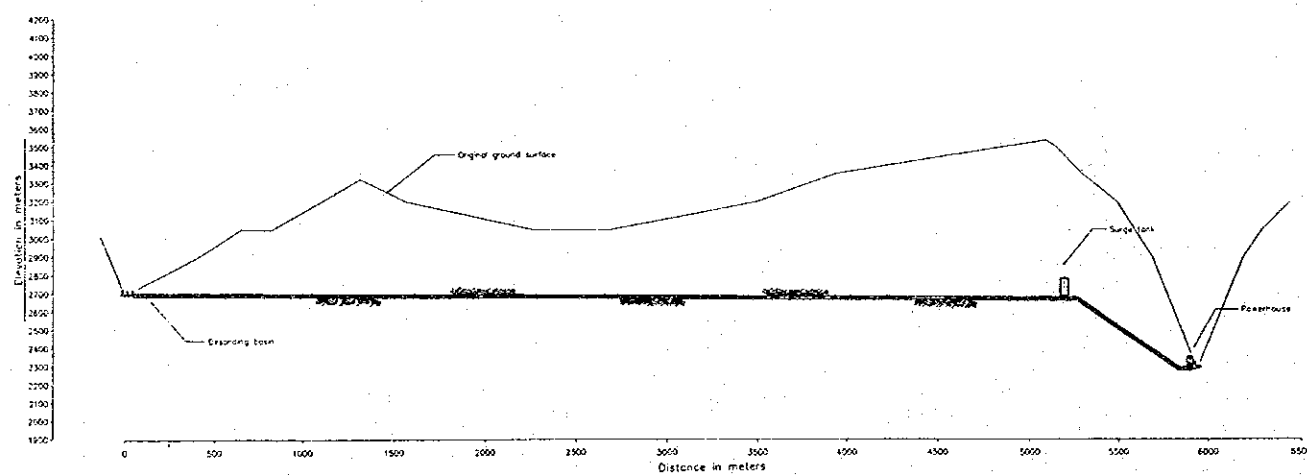


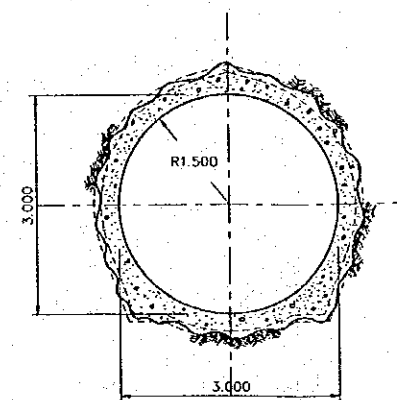
General Layout of MKR-3 Scheme



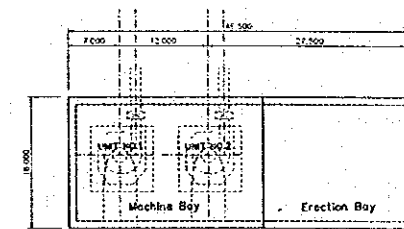
General Plan at Intake Damsite



Waterway Profile



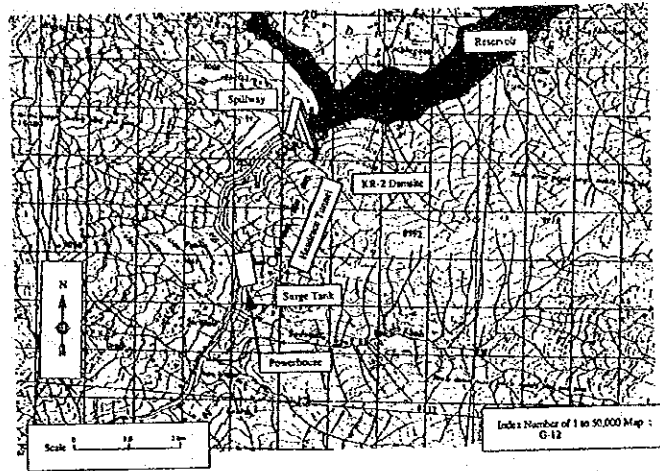
Typical Cross Section of Headrace Tunnel



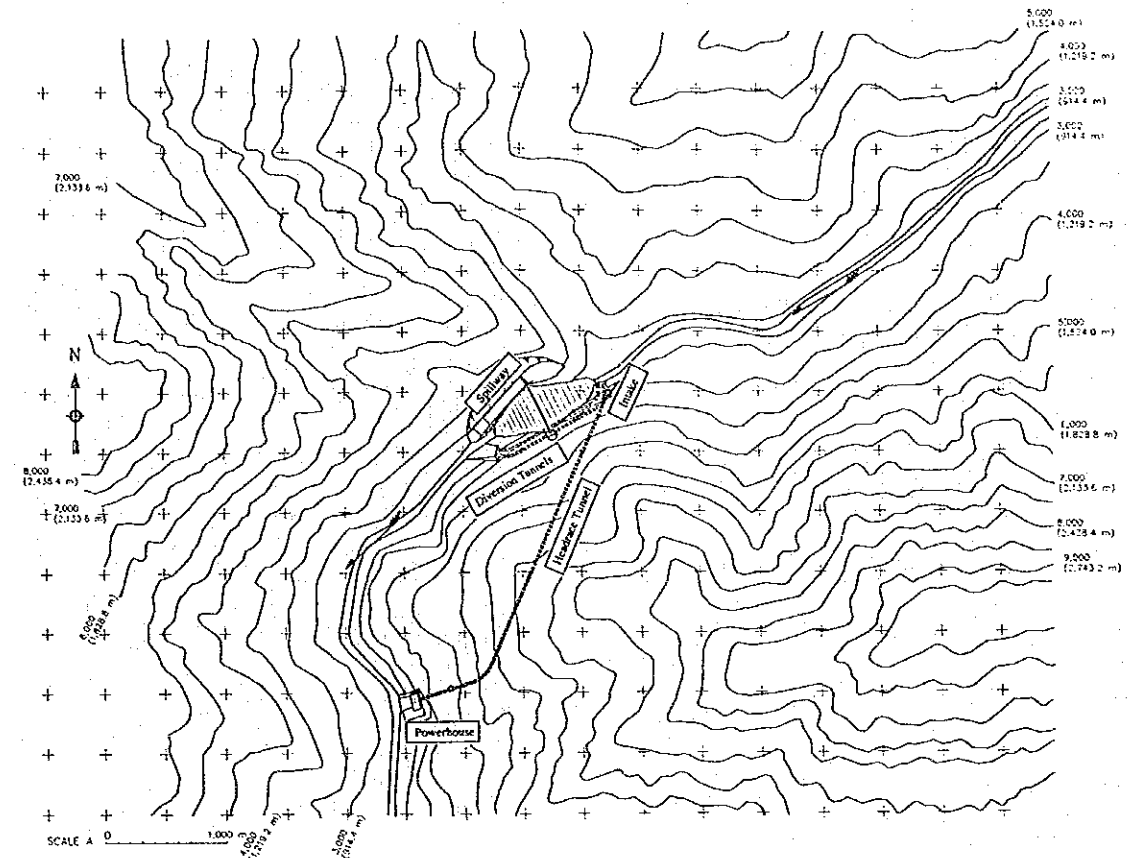
Plan of Powerhouse

Figure 5.1.8 Preliminary Plan of MKR-3 Scheme

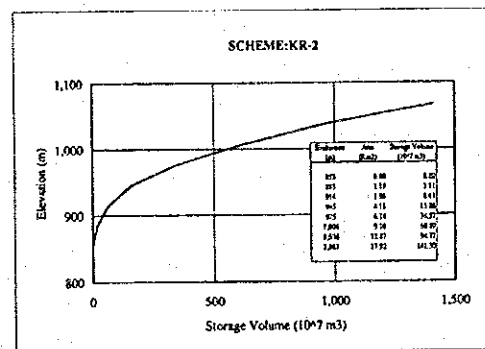
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



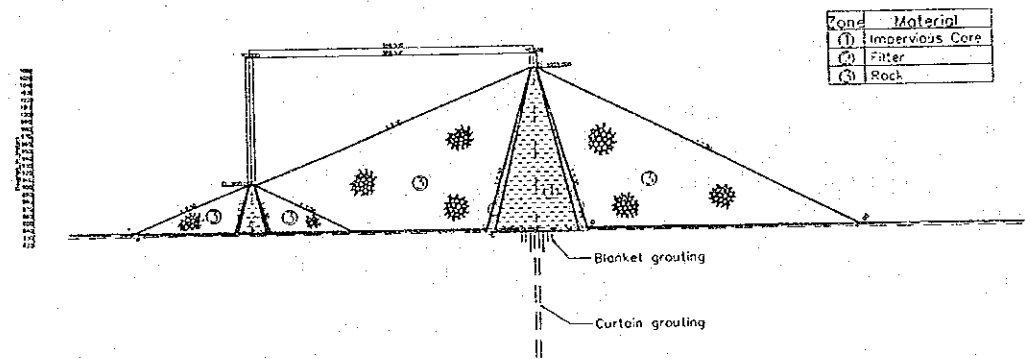
General Layout of KR-2 Scheme



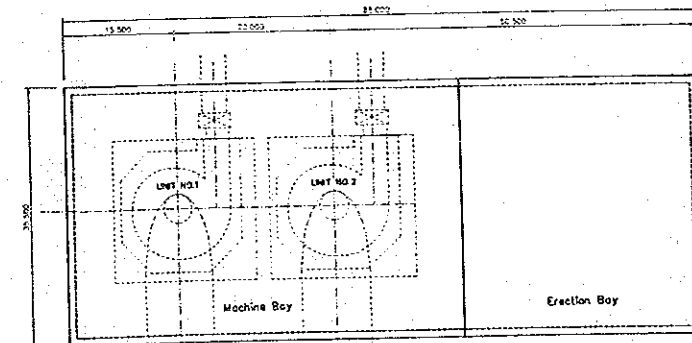
General Plan at Damsite



Reservoir - Storage Curve



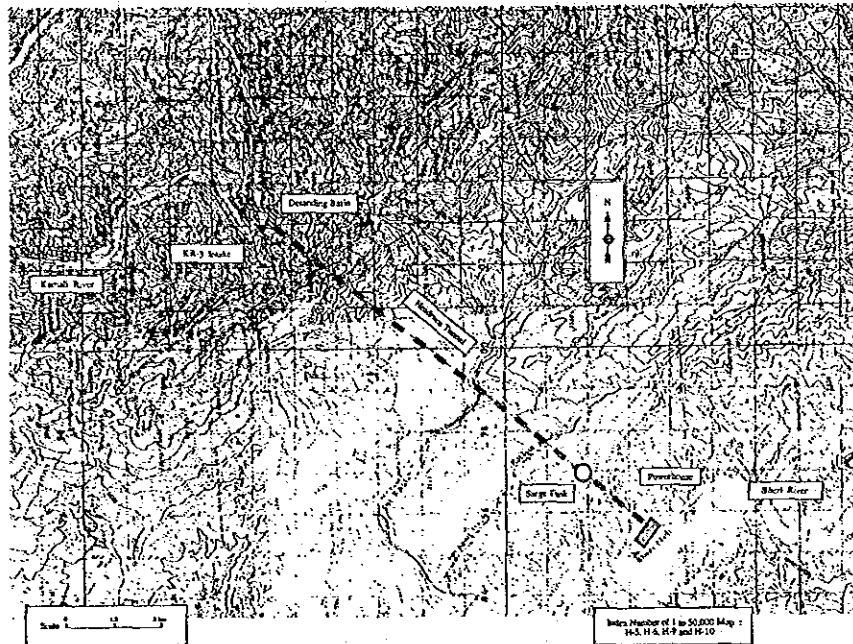
Typical Section of Rockfill Dam



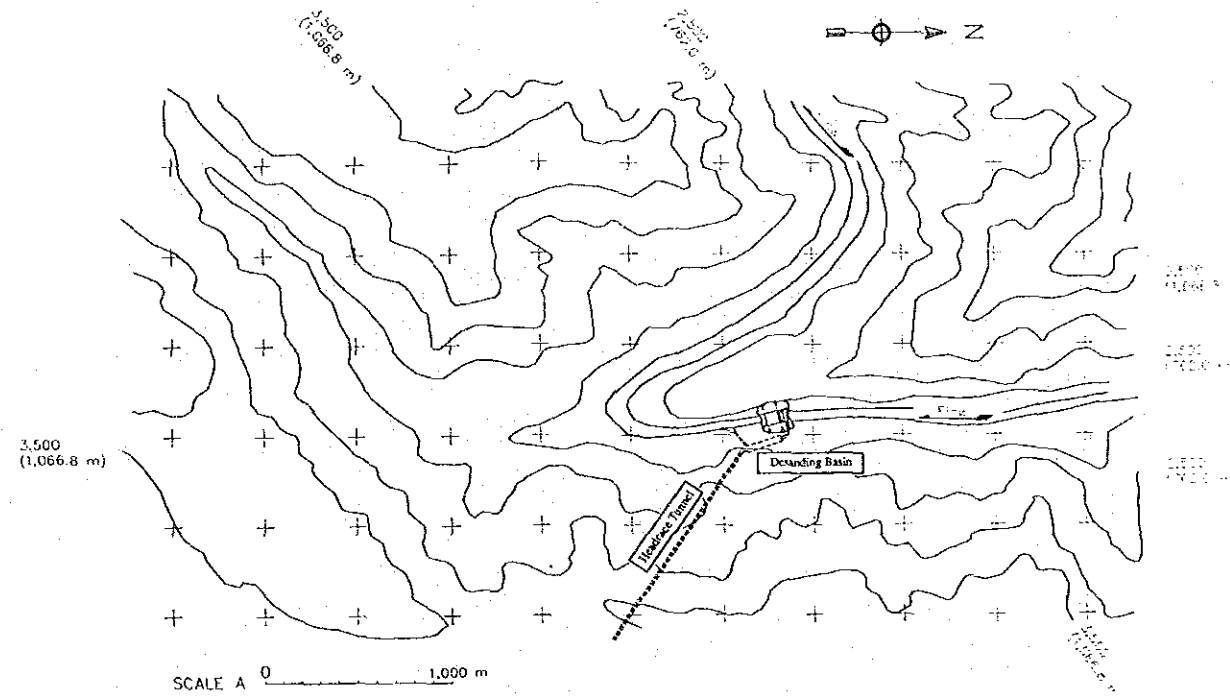
Plan of Powerhouse

Figure 5.1.9 Preliminary Plan of KR-2 Scheme

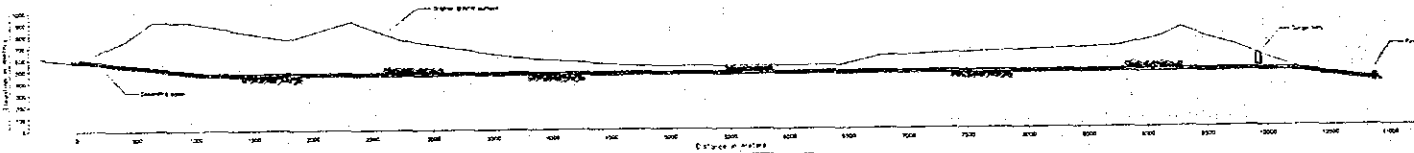
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



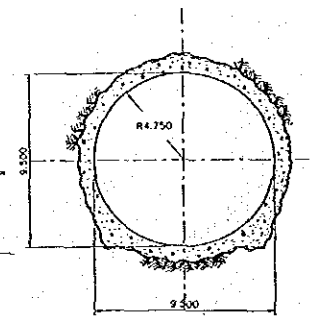
General Layout of KR-3 Scheme



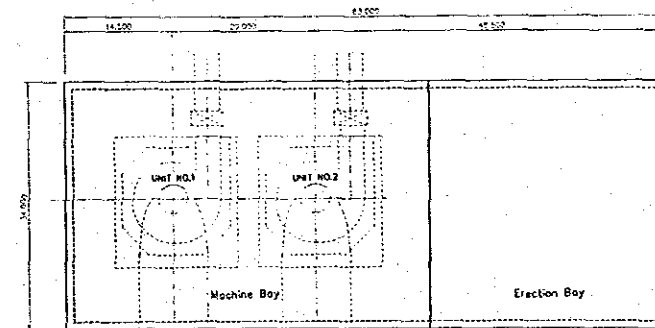
General Plan at Intake Damsite



Waterway Profile



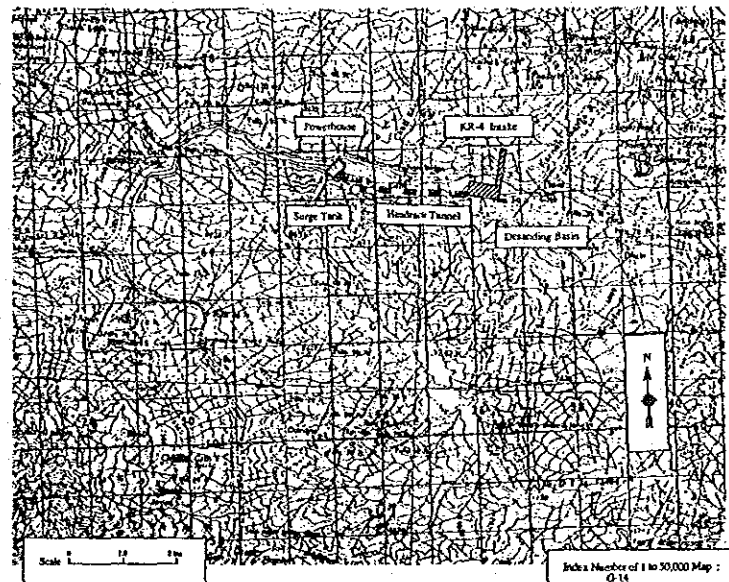
Typical Cross Section of Headrace Tunnel



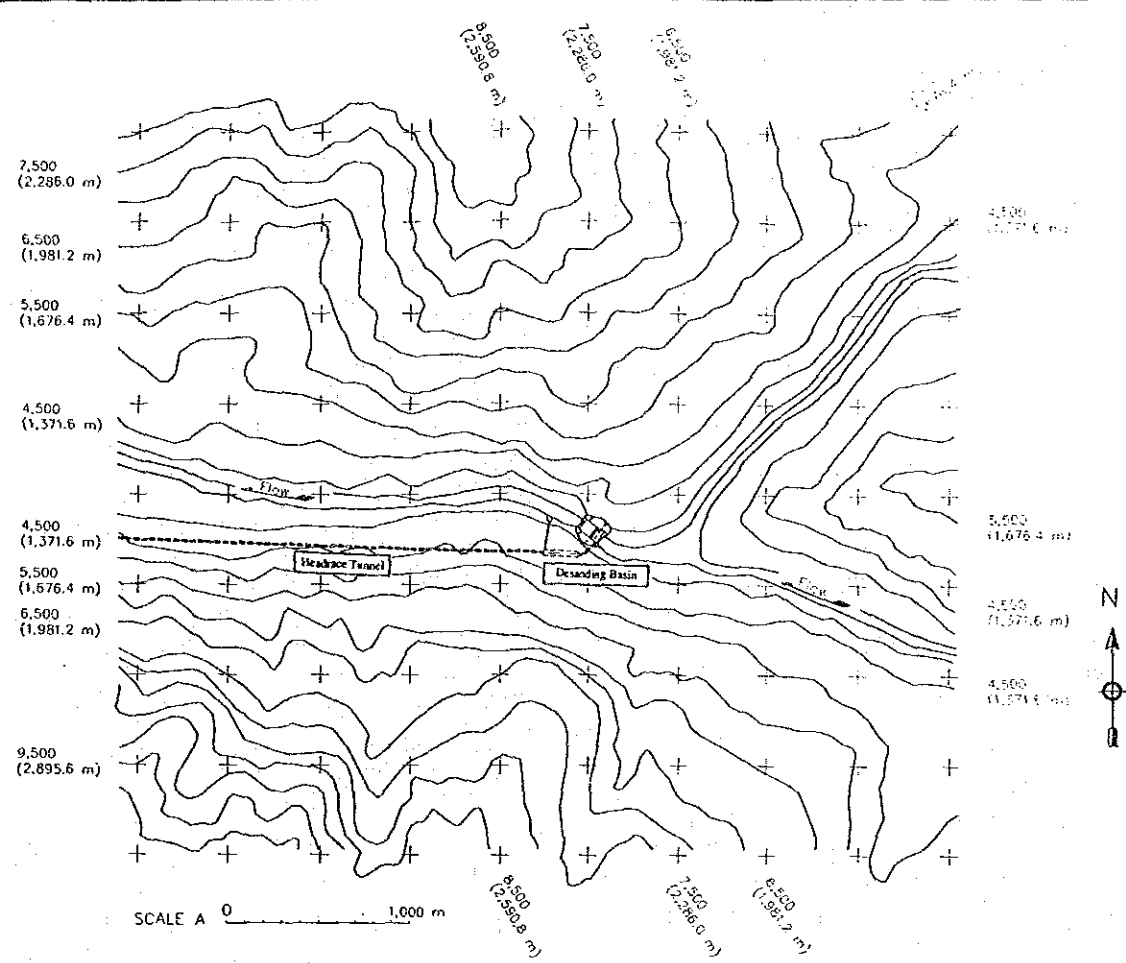
Plan of Powerhouse

Figure 5.1.10 Preliminary Plan of KR-3 Scheme

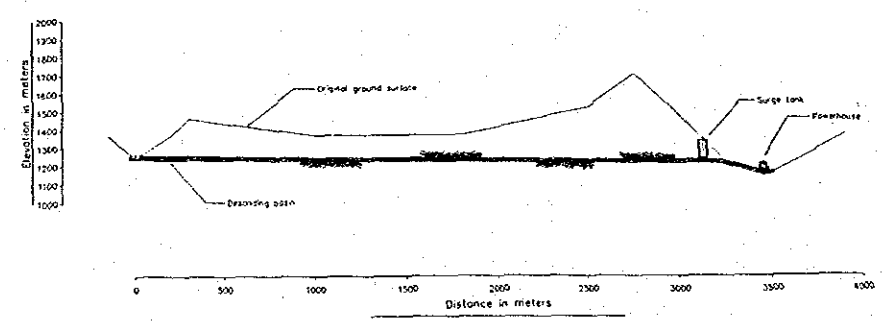
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHA KALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



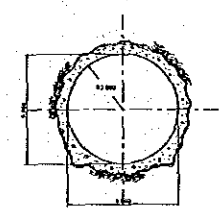
General Layout of KR-4 Scheme



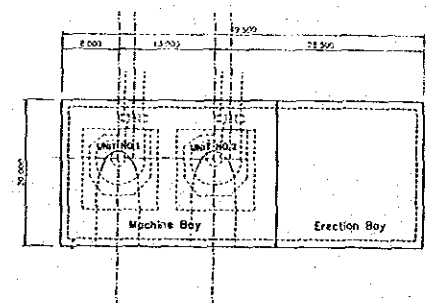
General Plan at Intake Damsite



Waterway Profile



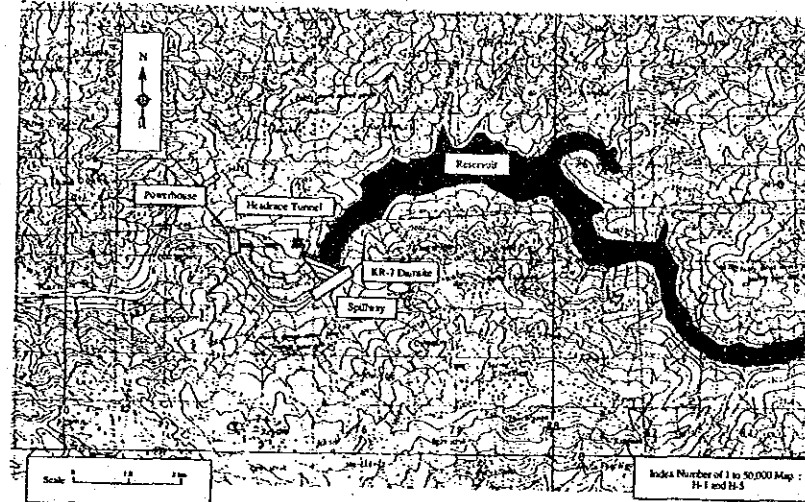
Typical Cross Section of Headrace Tunnel



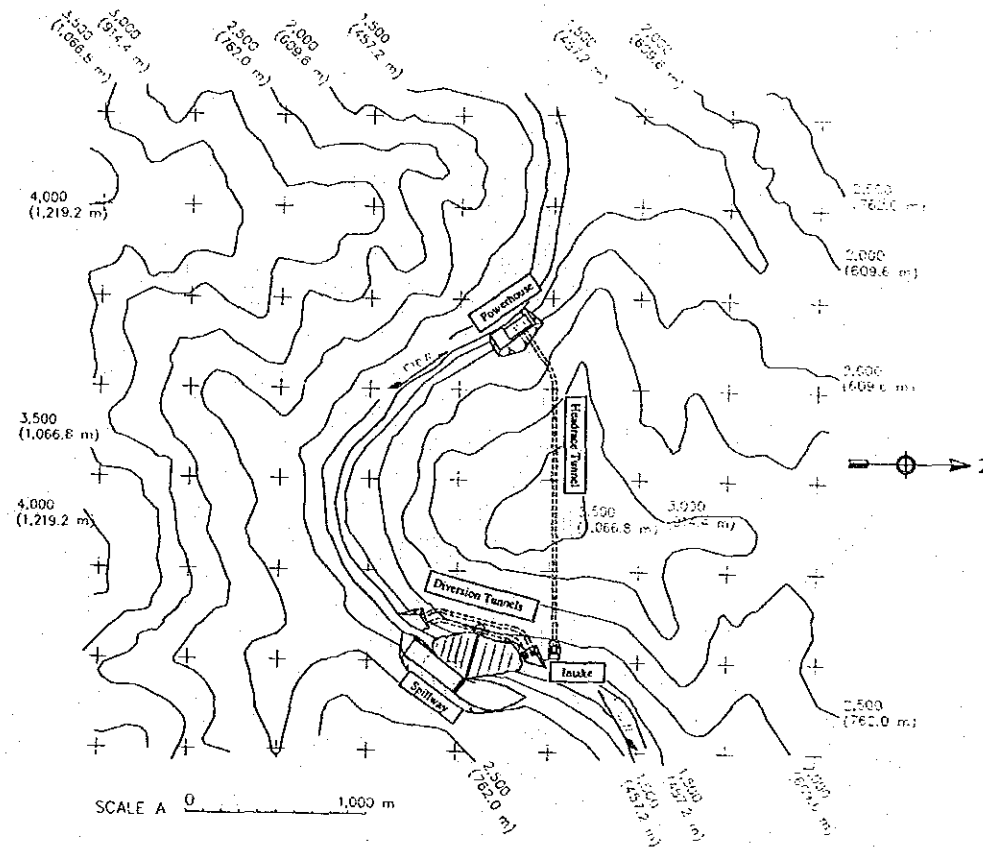
Plan of Powerhouse

Figure 5.1.11 Preliminary Plan of KR-4 Scheme

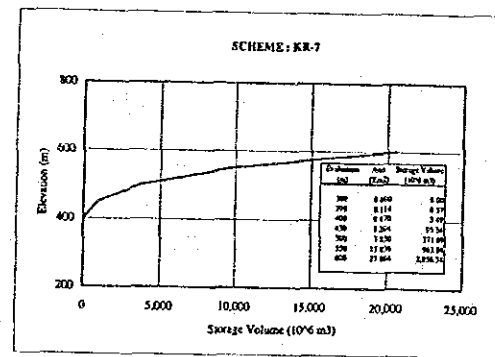
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



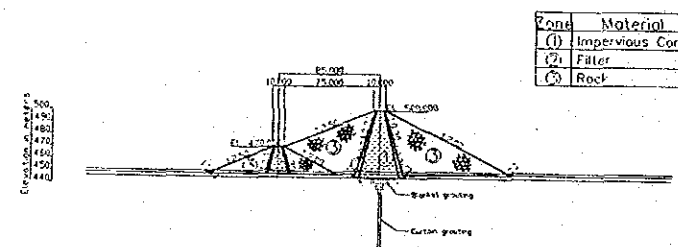
General Layout of KR-7 Scheme



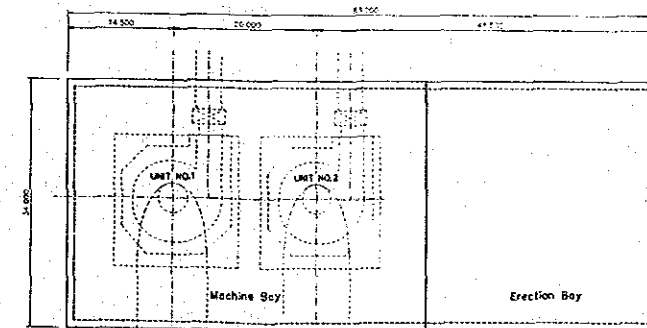
General Plan at Damsite



Reservoir - Storage Curve



Typical Section of Rockfill Dam



Plan of Powerhouse

Figure 5.1.12 Preliminary Plan of KR-7 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

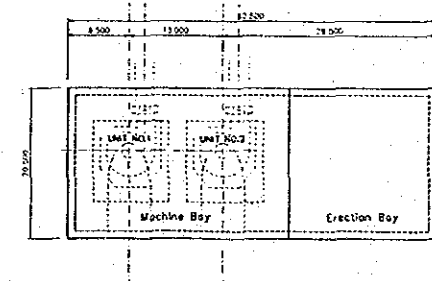
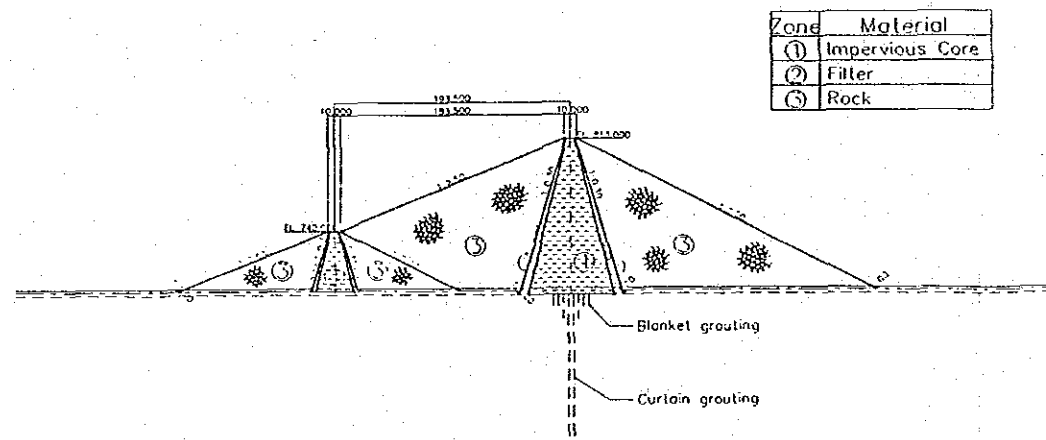
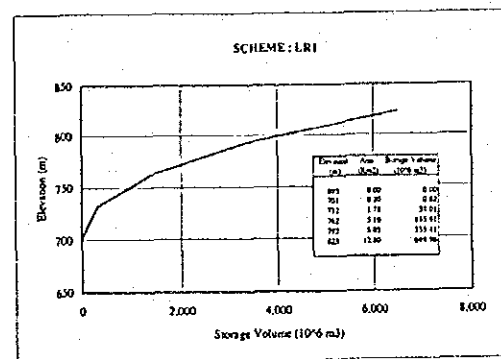
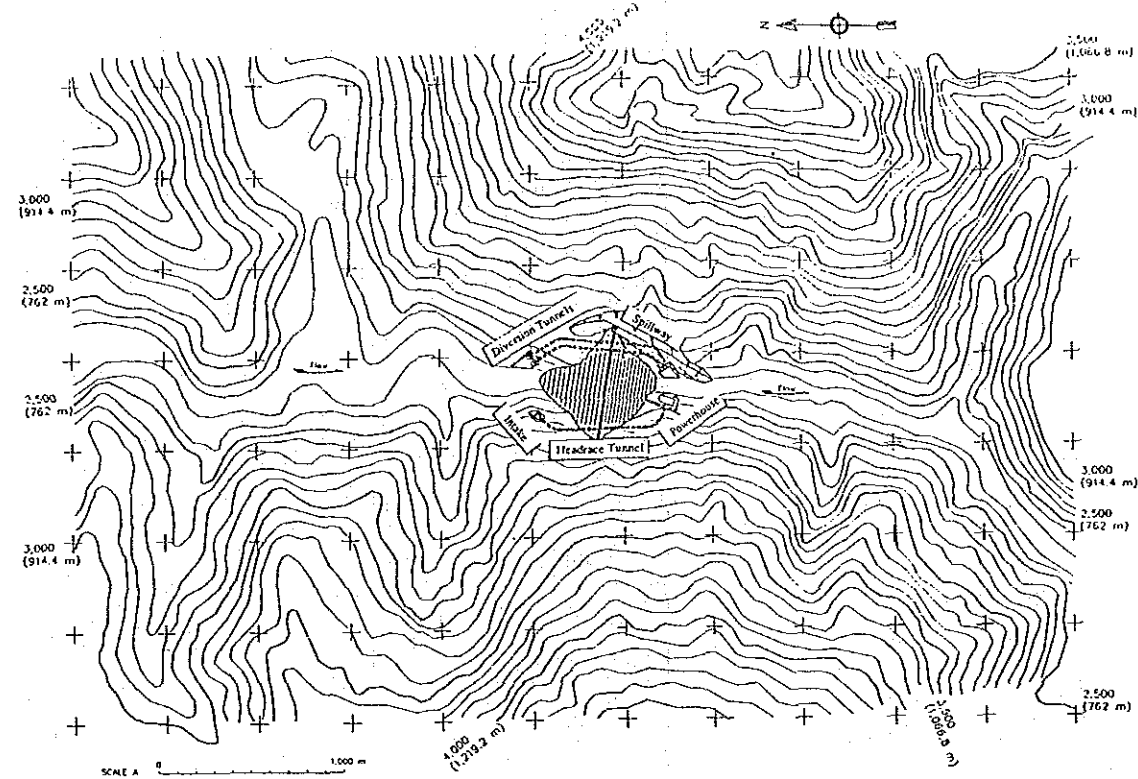
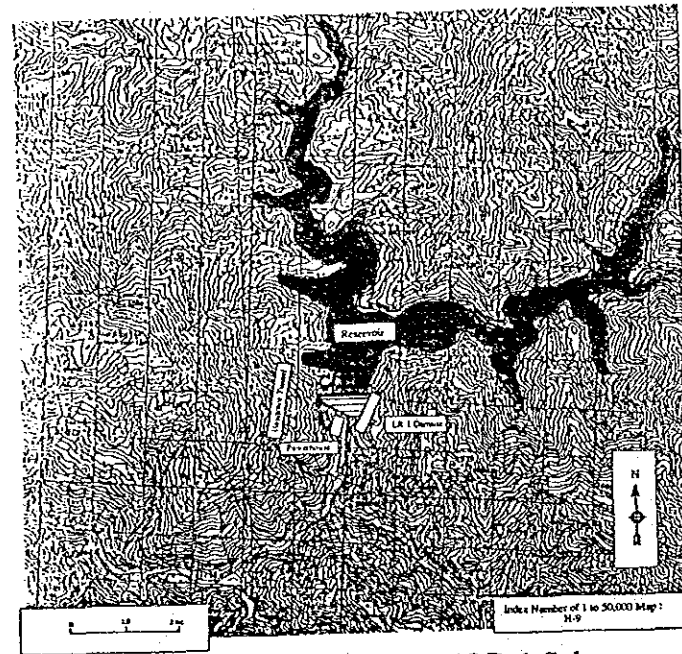
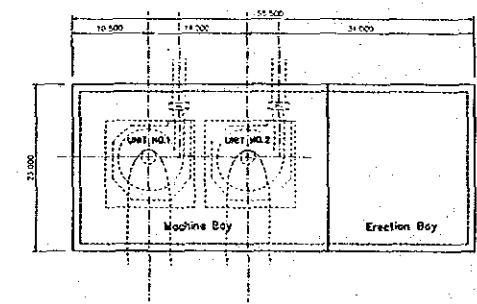
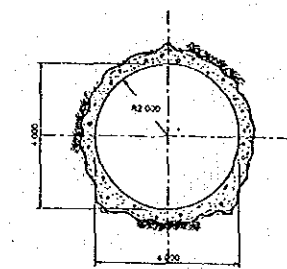
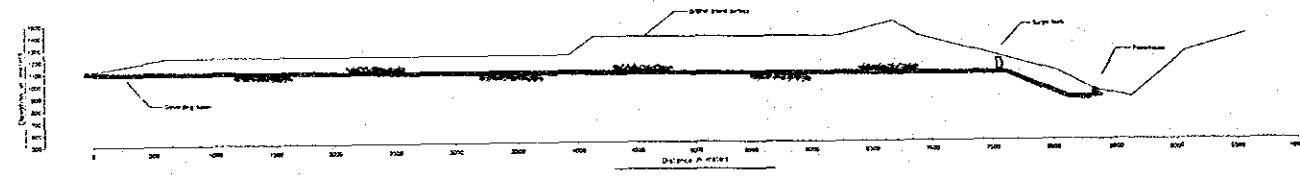
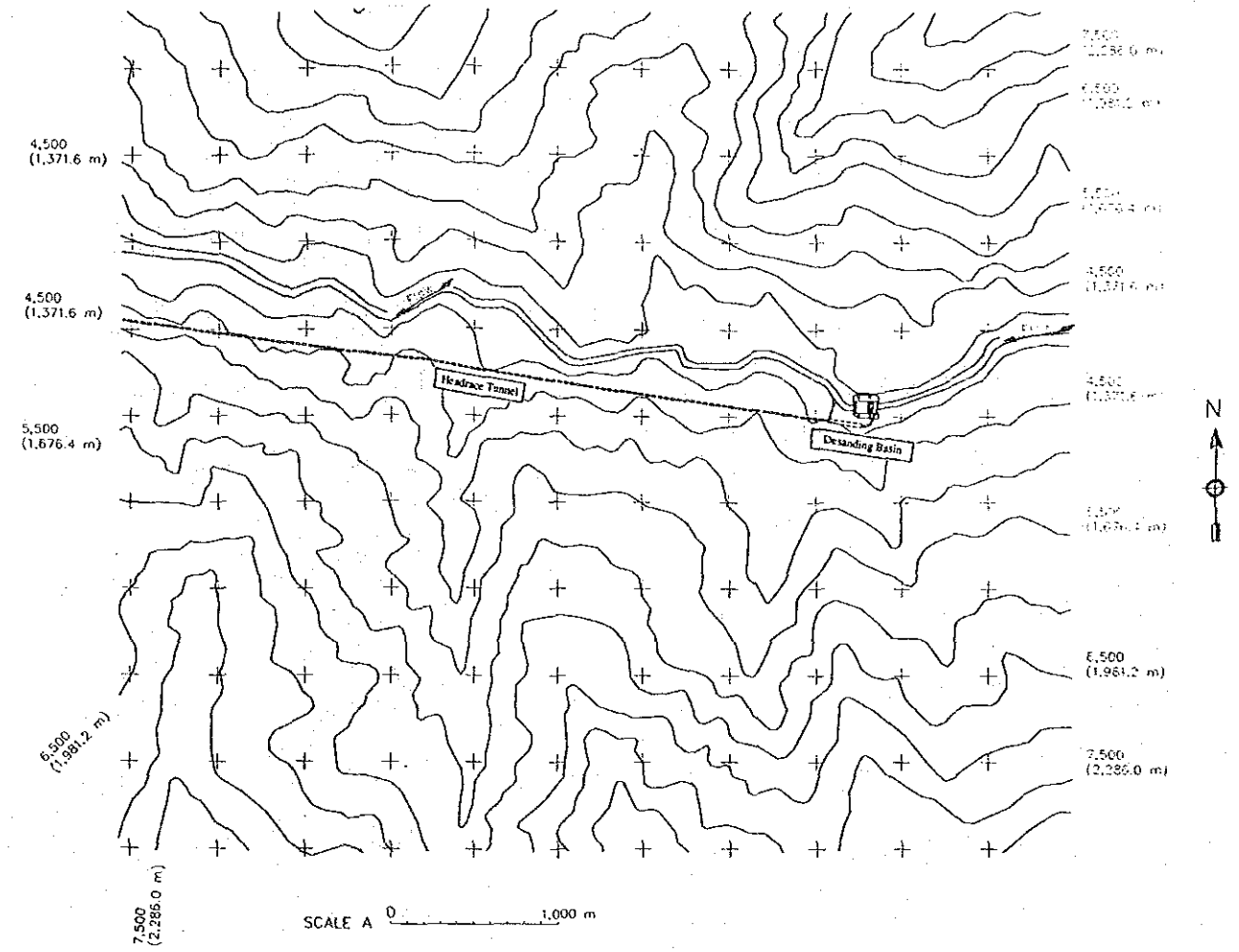
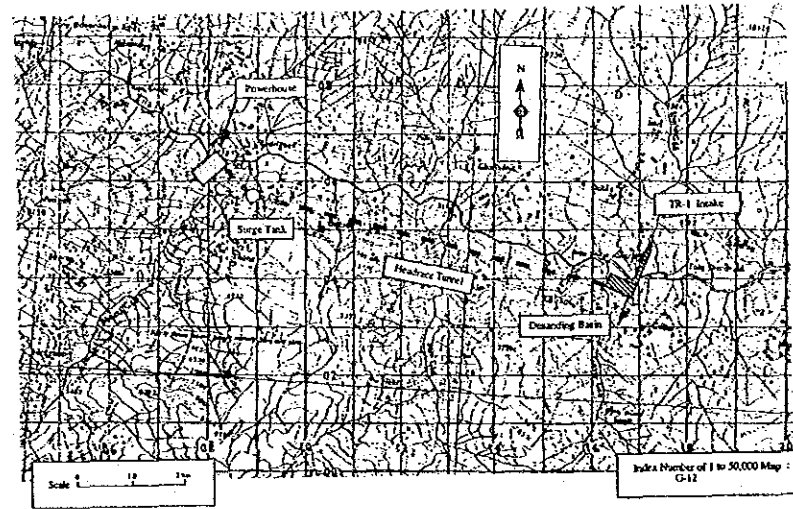


Figure 5.1.13 Preliminary Plan of LR-1 Scheme

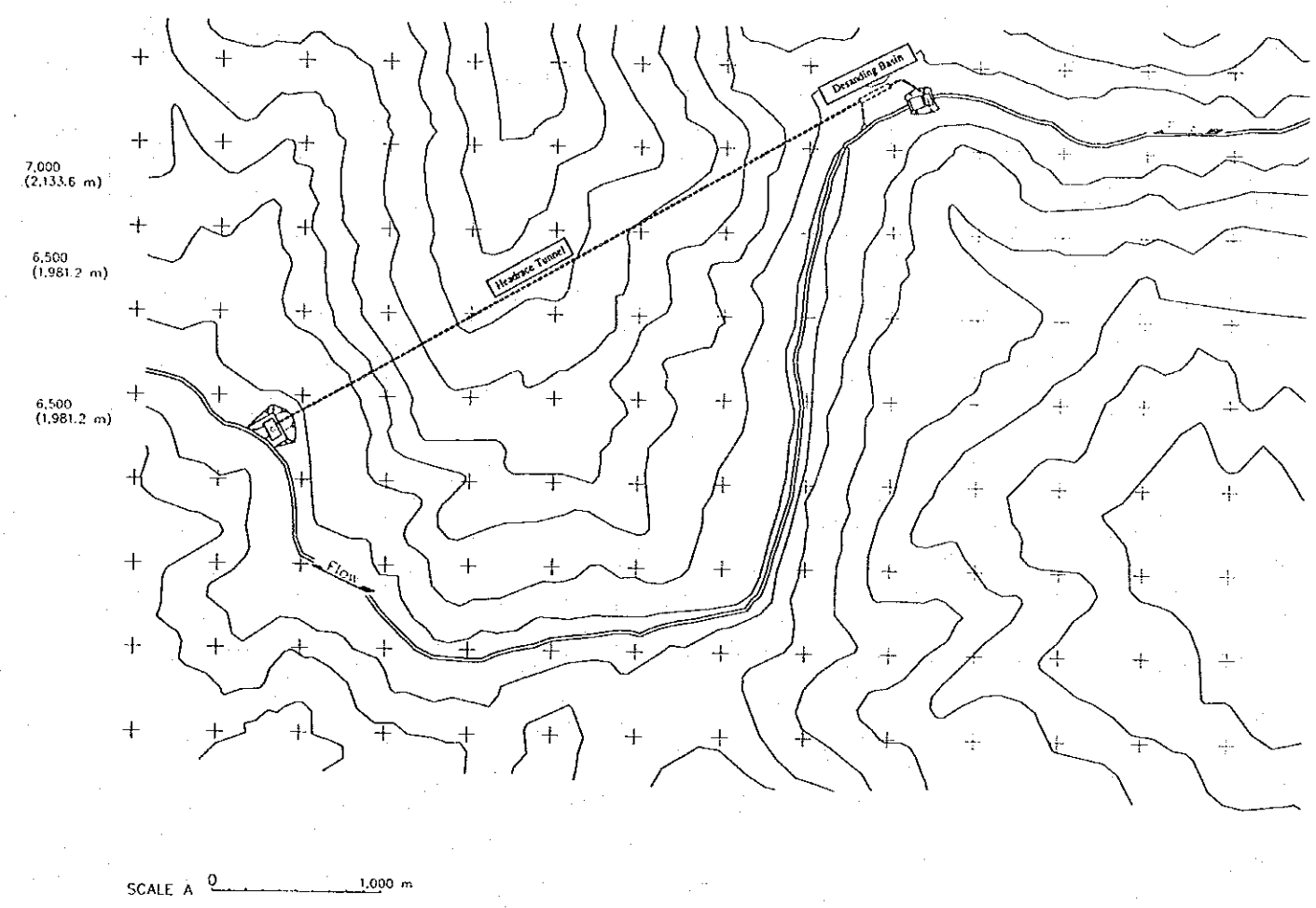
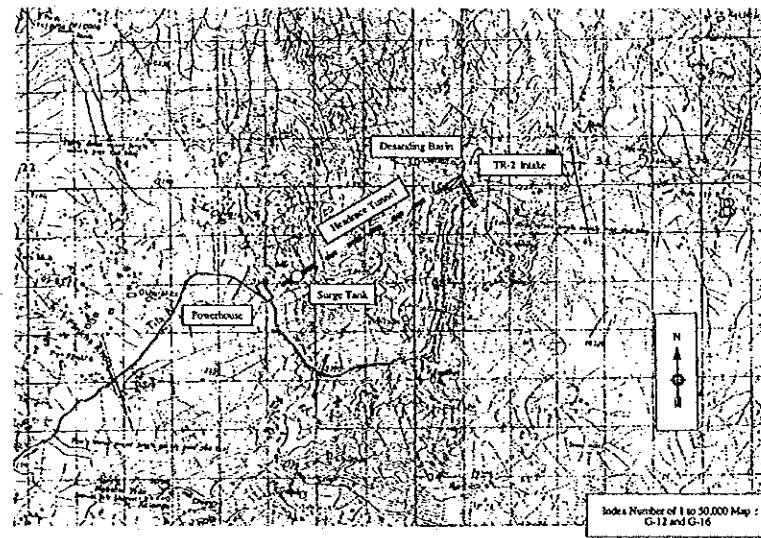
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



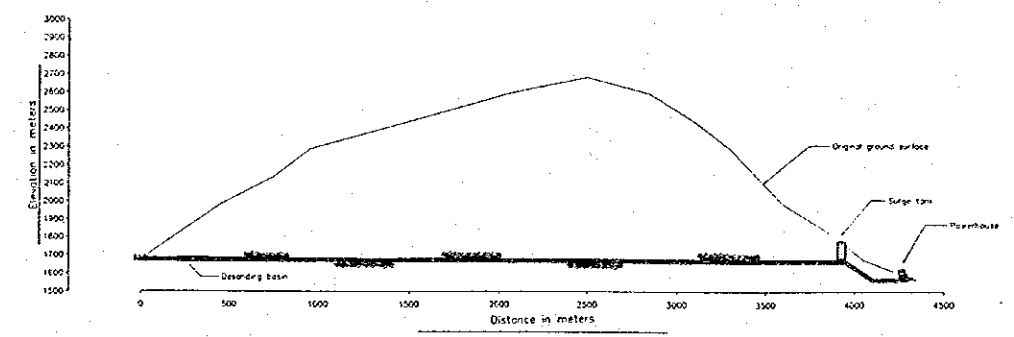
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 5.1.14 Preliminary Plan of TR-1 Scheme

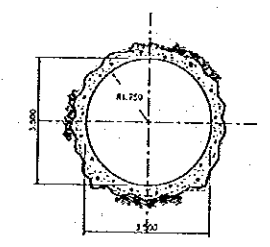




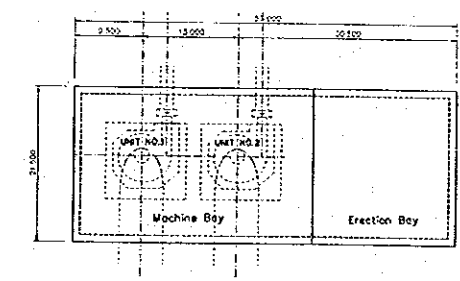
General Plan at Intake Damsite



Waterway Profile



Typical Cross Section of Headrace Tunnel

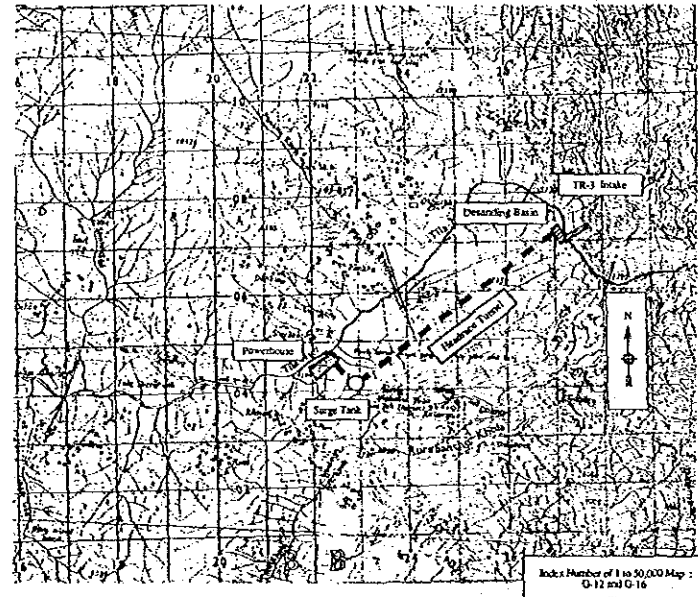


Plan of Powerhouse

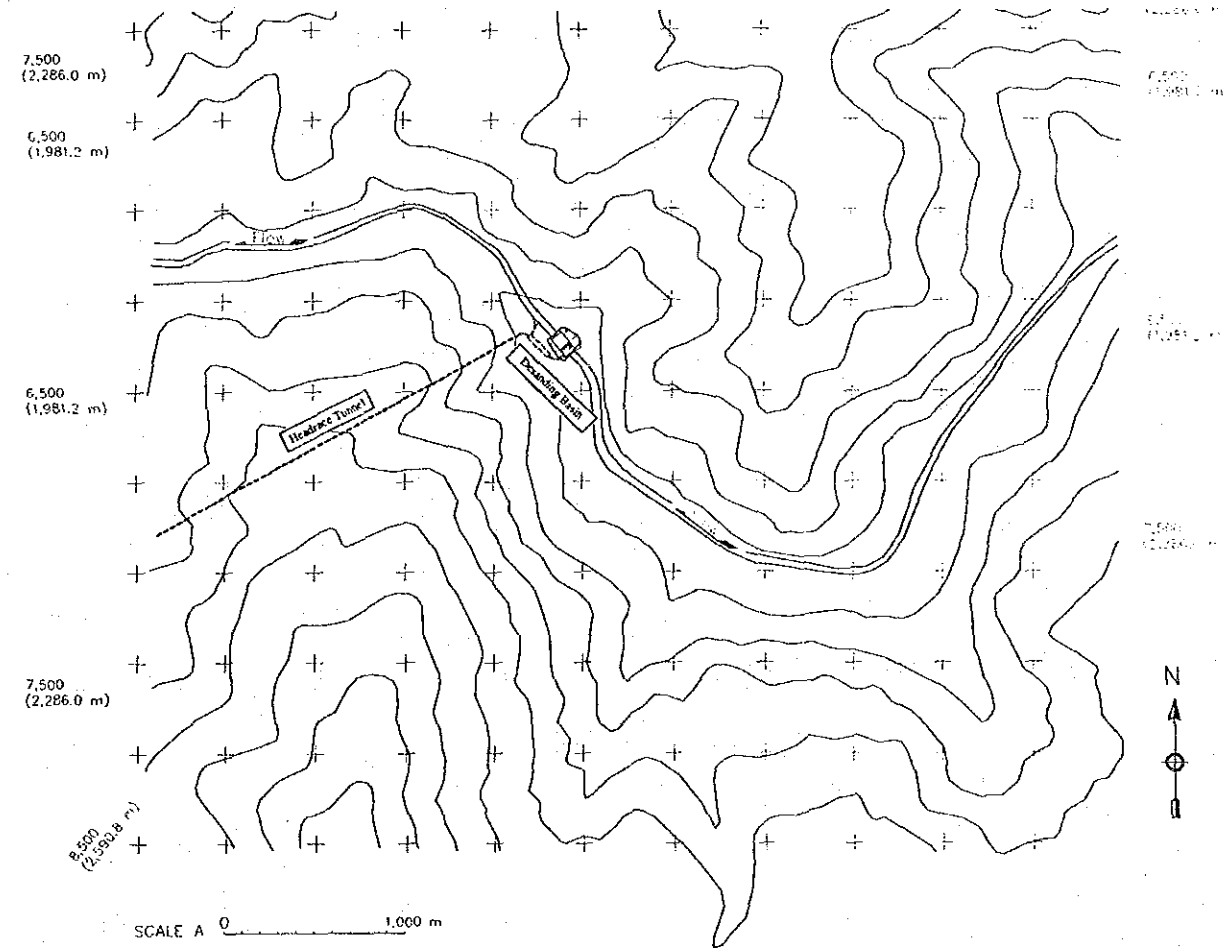
Figure 5.1.15 Preliminary Plan of TR-2 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
WATER RESOURCES DEVELOPMENT OF  
THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
JAPAN INTERNATIONAL COOPERATION AGENCY

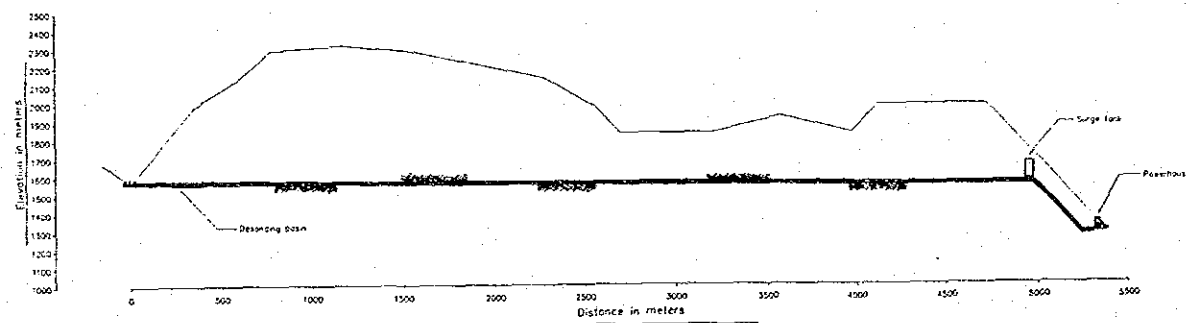




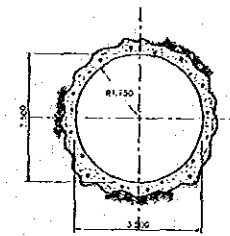
General Layout of TR-3 Scheme



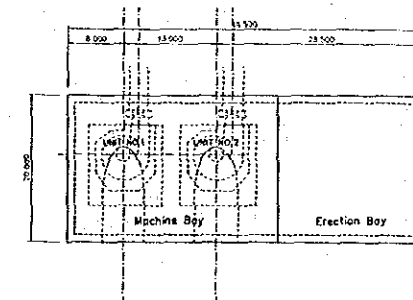
General Plan at Intake Damsite



Waterway Profile



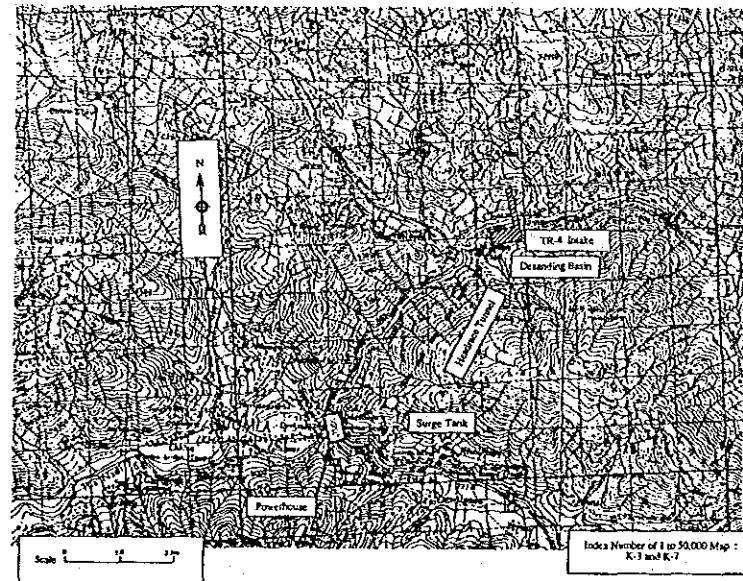
Typical Cross Section of Headrace Tunnel



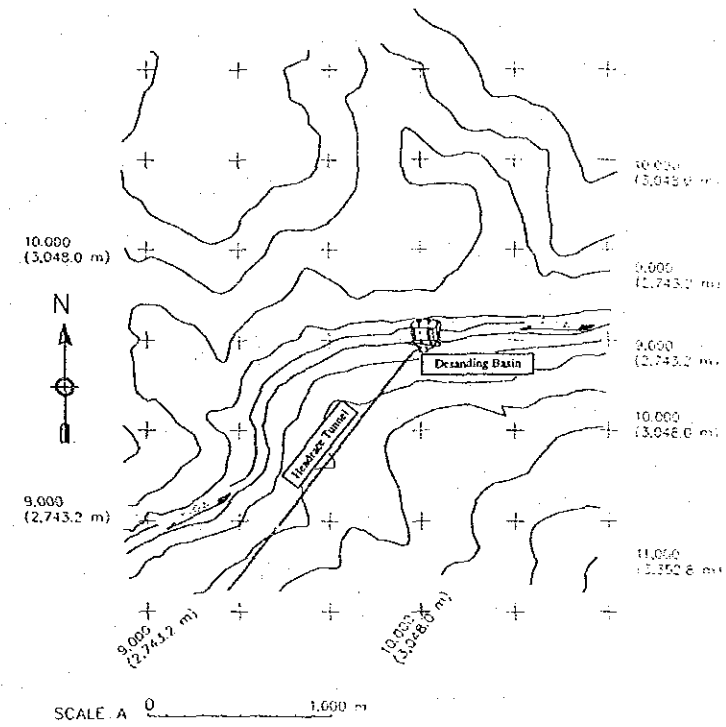
Plan of Powerhouse

Figure 5.1.16 Preliminary Plan of TR-3 Scheme

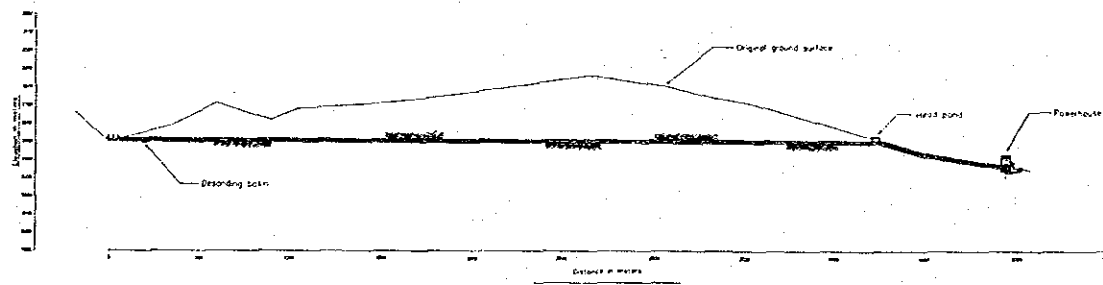
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHA KALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



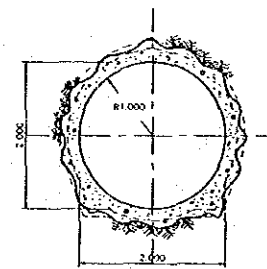
General Layout of TR-4 Scheme



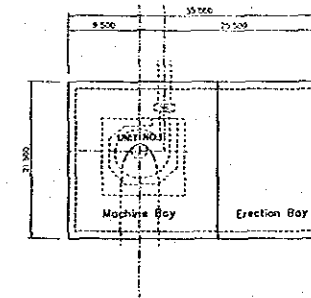
General Plan at Intake Dam Site



Waterway Profile



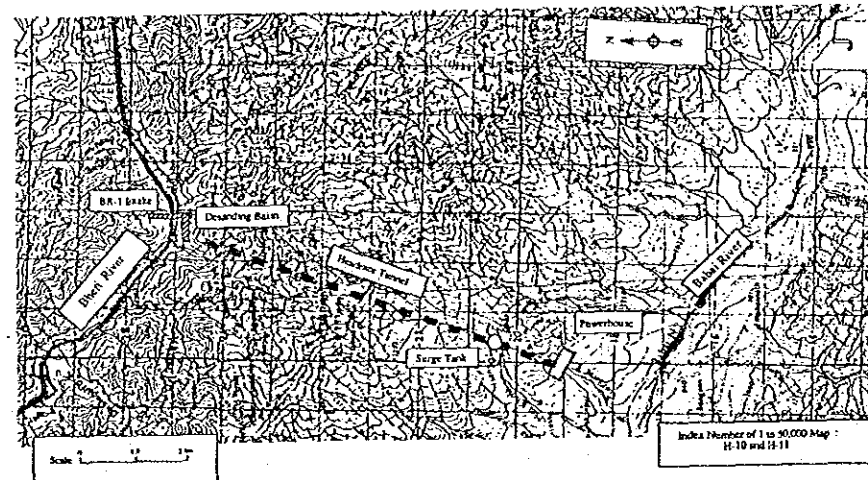
Typical Cross Section of Headrace Tunnel



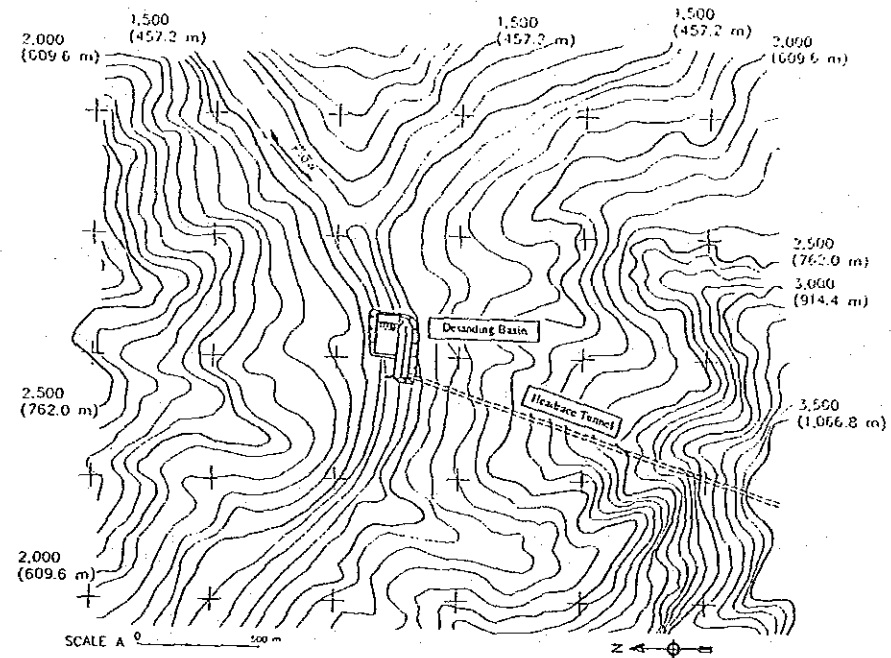
Plan of Powerhouse

Figure 5.1.17 Preliminary Plan of TR-4 Scheme

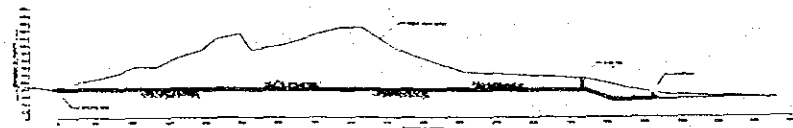
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



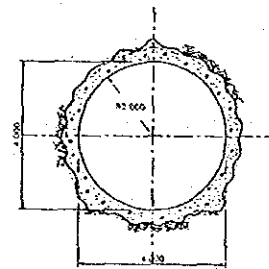
General Layout of BR-1 Scheme



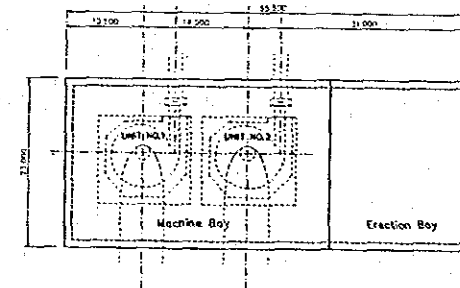
General Plan at Intake Damsite



Waterway Profile



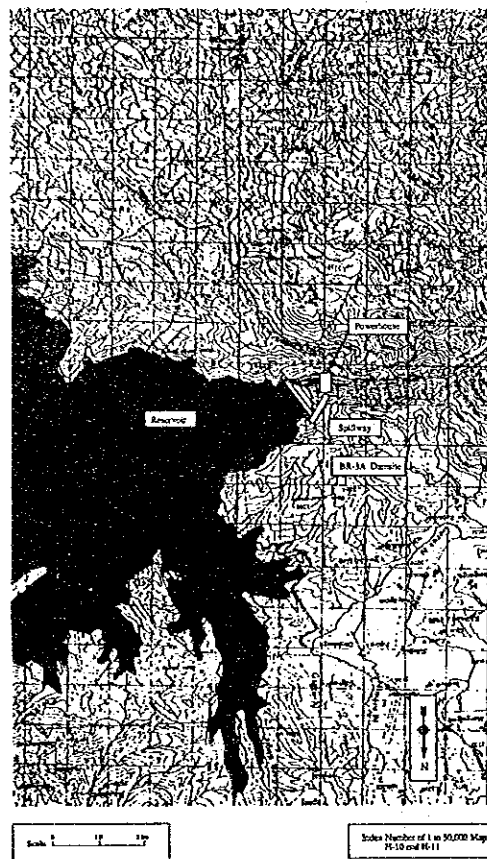
Typical Cross Section of Headrace Tunnel



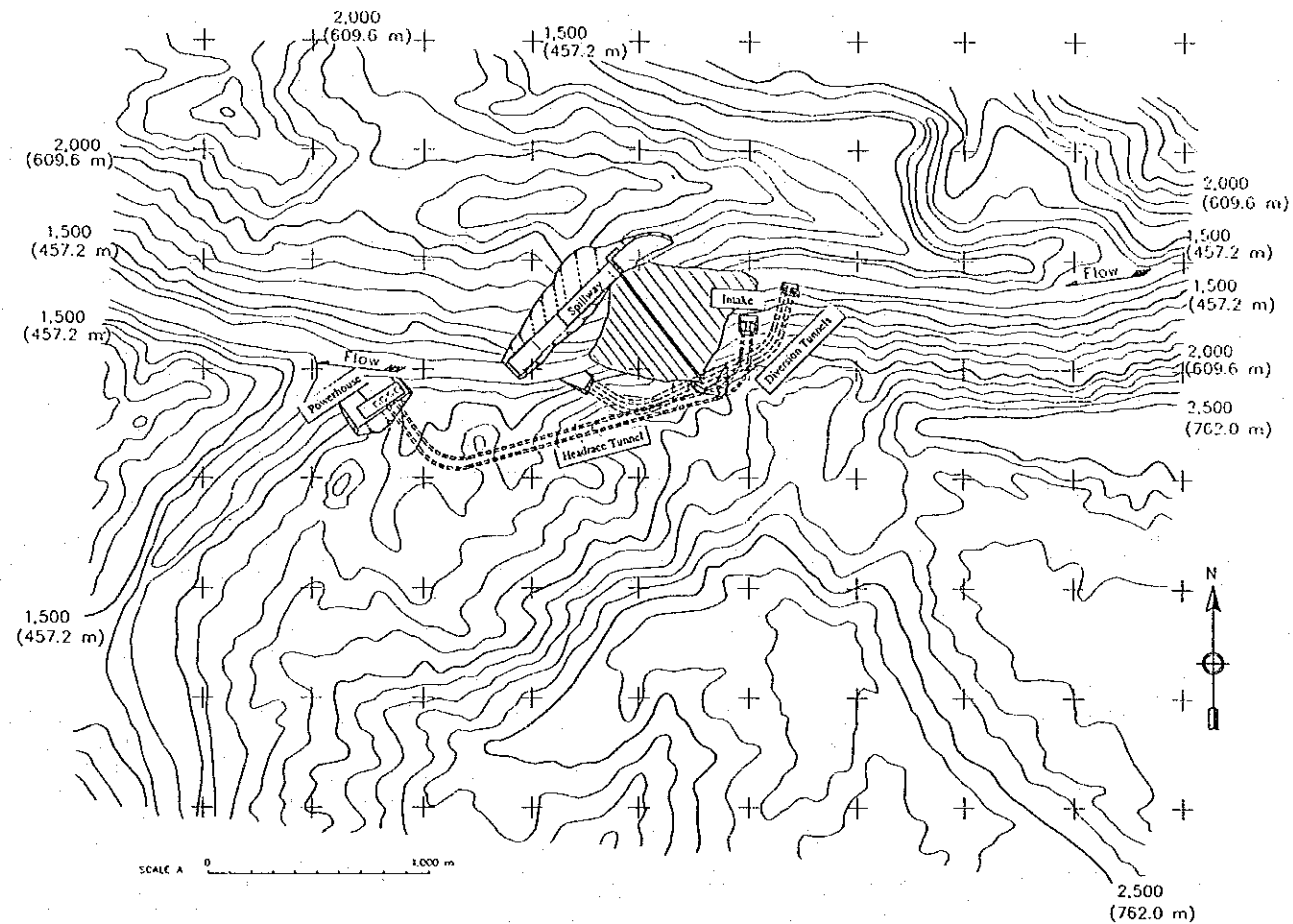
Plan of Powerhouse

Figure 5.1.18 Preliminary Plan of BR-1 Scheme

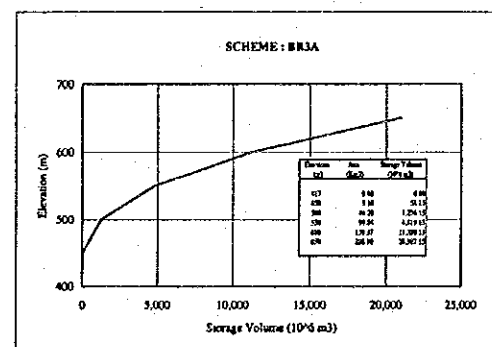
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



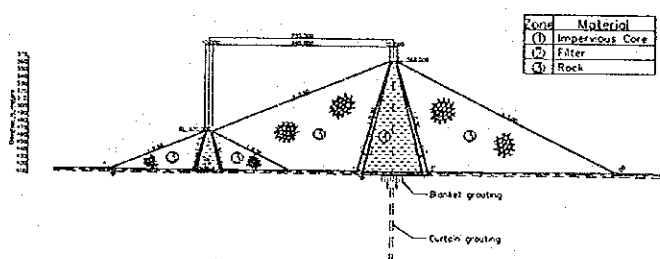
General Layout of BR-3A Scheme



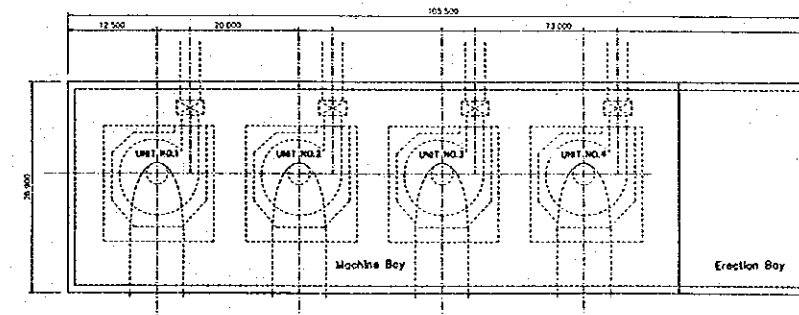
General Plan at Damsite



Reservoir - Storage Curve



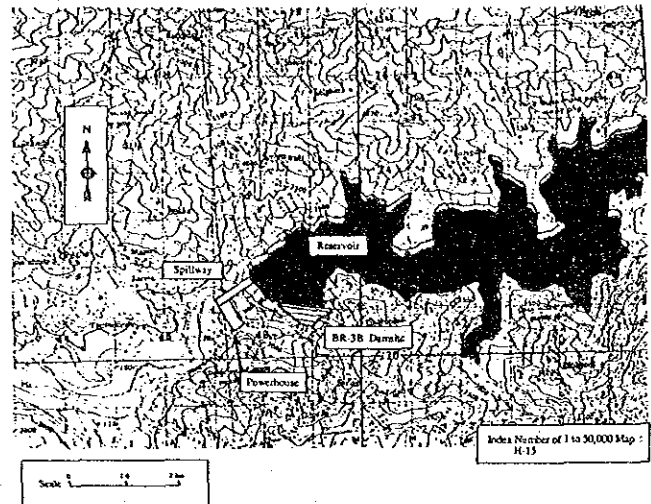
Typical Section of Rockfill Dam



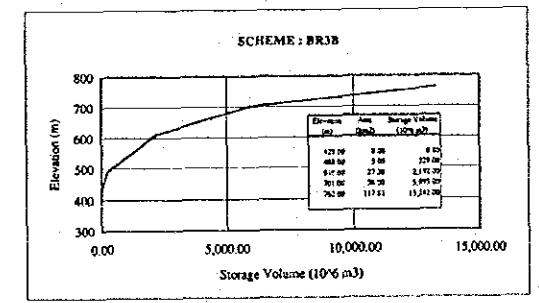
Plan of Powerhouse

Figure 5.1.19 Preliminary Plan of BR-3A Scheme

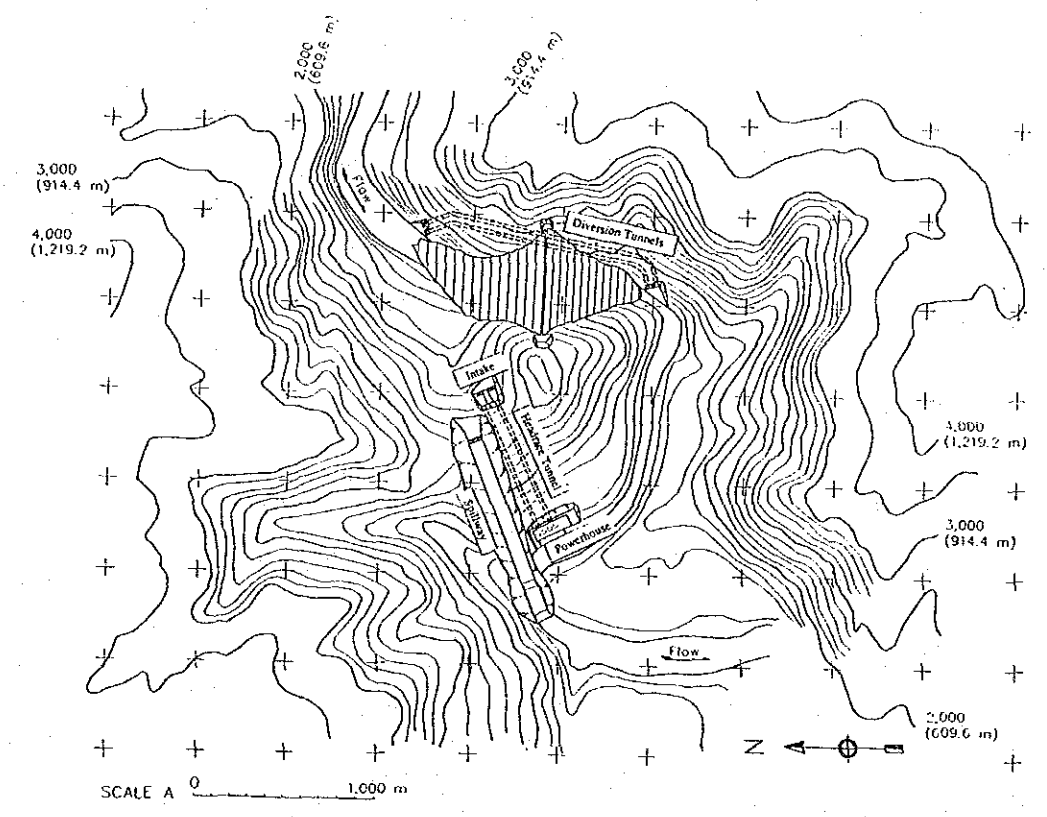
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



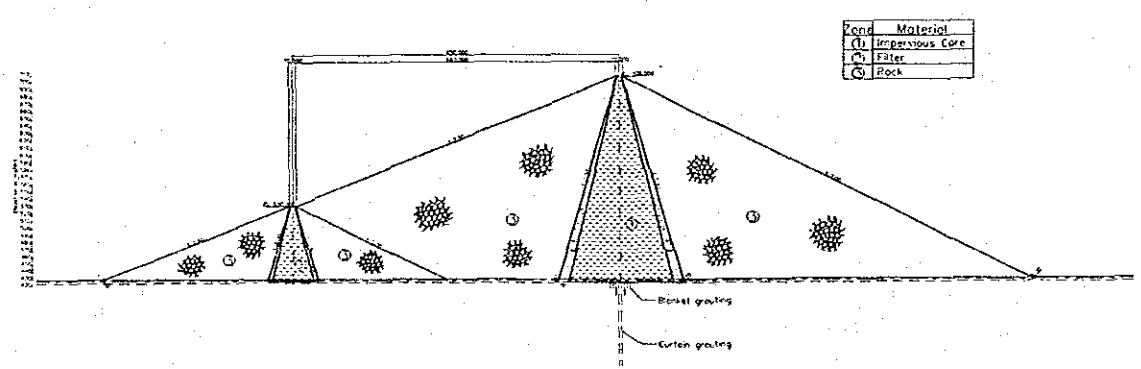
General Layout of BR-3B Scheme



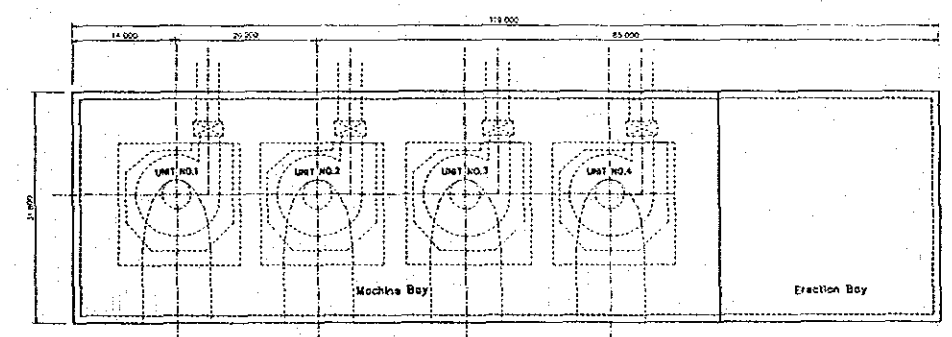
Reservoir - Storage Curve



General Plan at Damsite



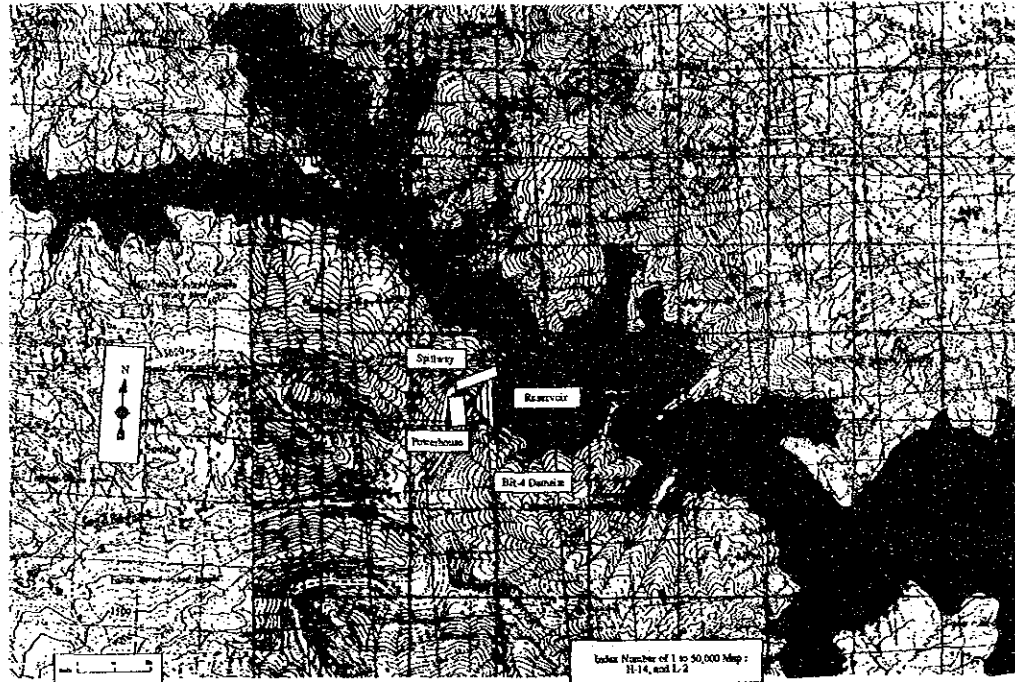
Typical Section of Rockfill Dam



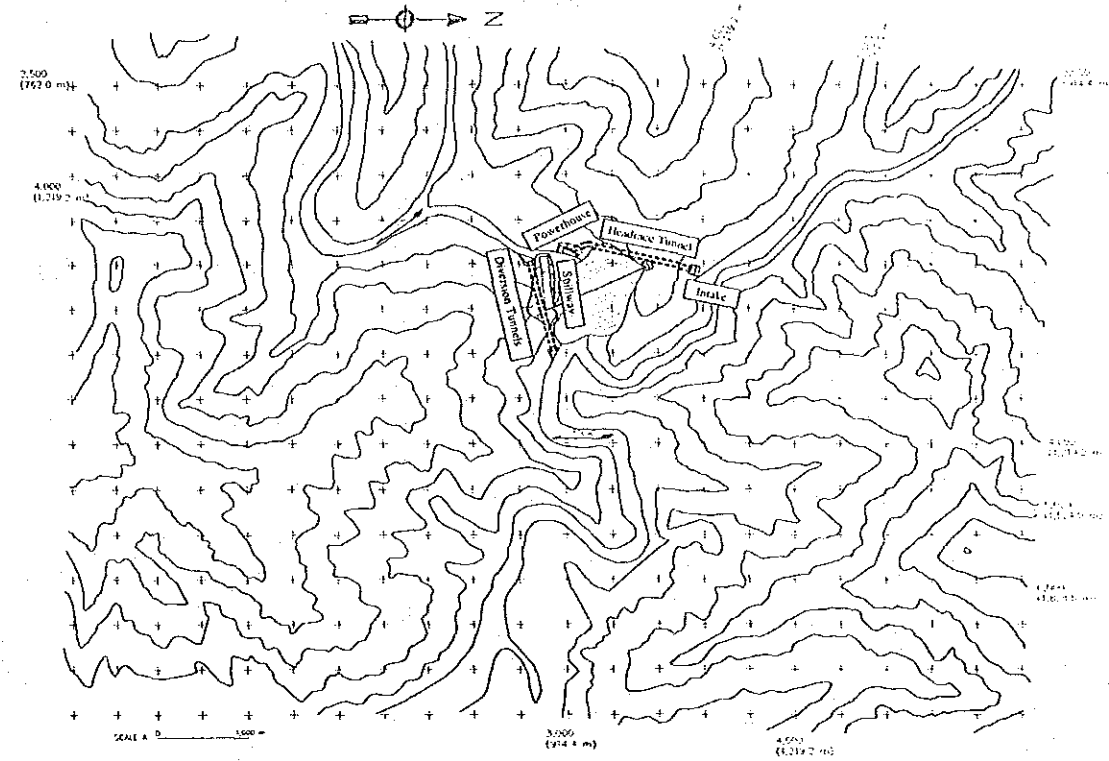
Plan of Powerhouse

Figure 5.1.20 Preliminary Plan of BR-3B Scheme

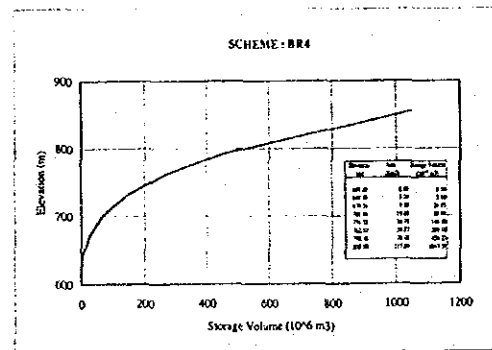
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



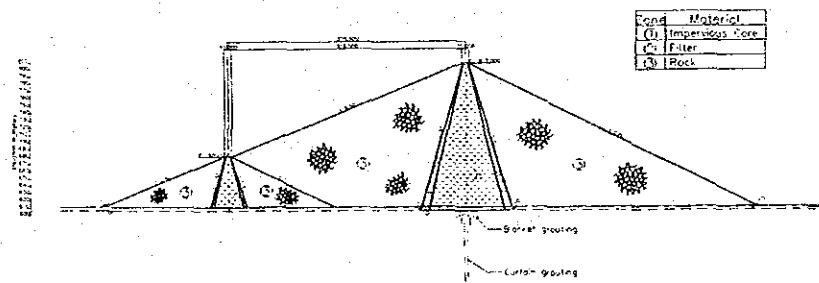
General Layout of BR-4 Scheme



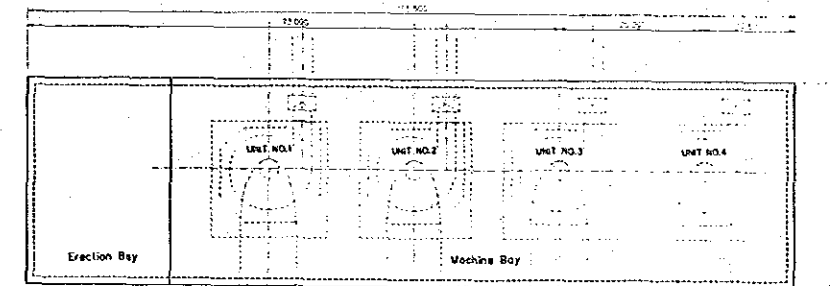
General Plan at Damsite



Reservoir - Storage Curve



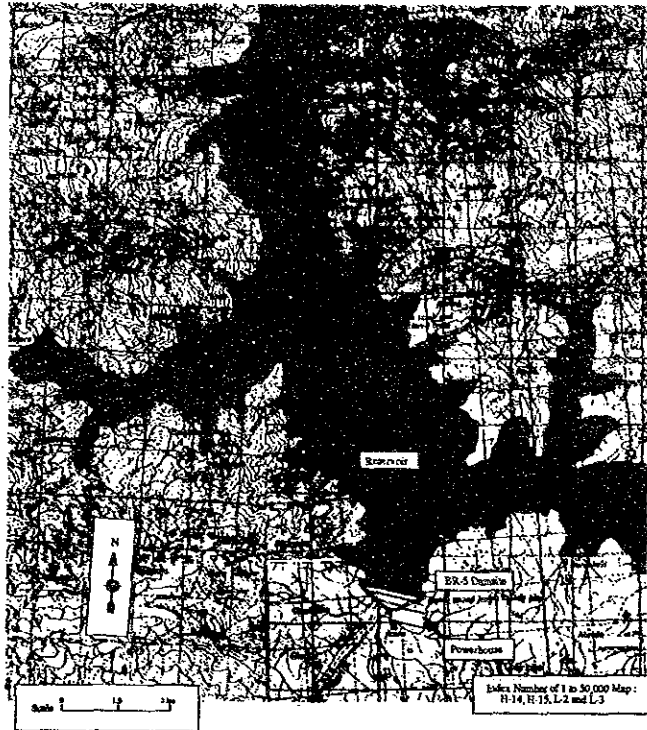
Typical Section of Rockfill Dam



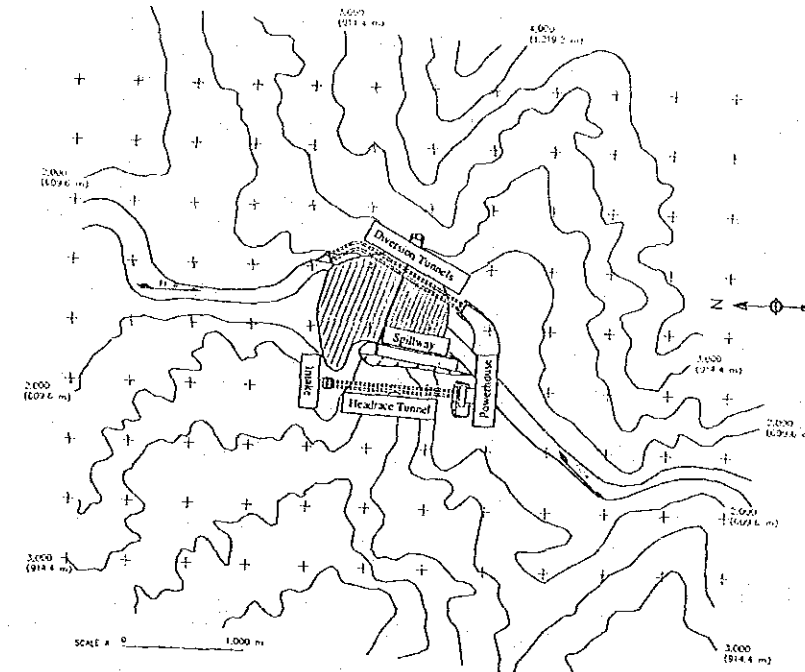
Plan of Powerhouse

Figure 5.1.21 Preliminary Plan of BR-4 Scheme

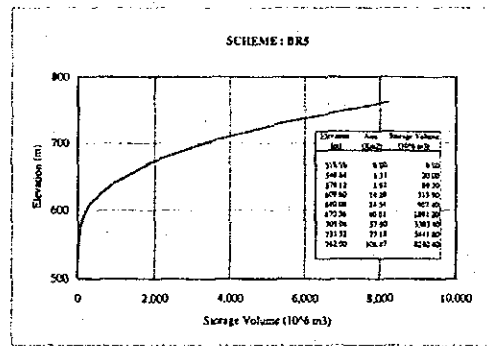
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHA KALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



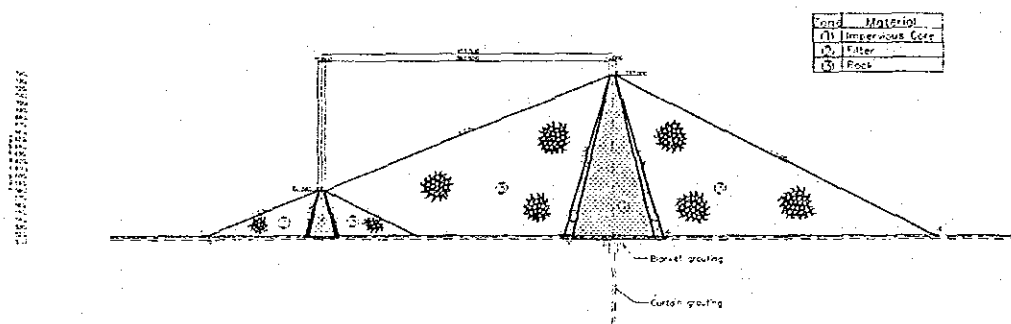
General Layout of BR-5 Scheme



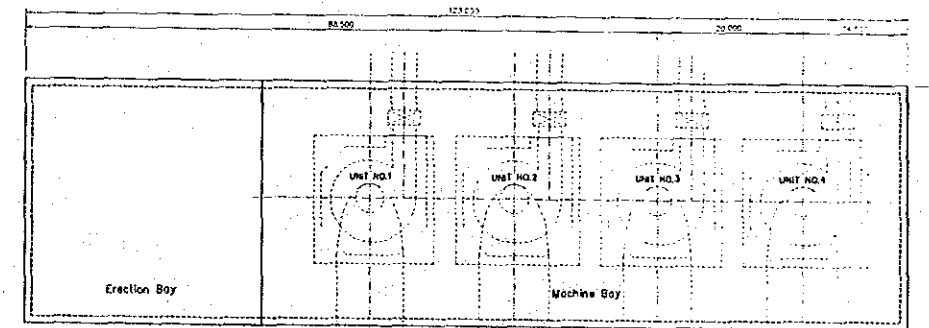
General Plan at Damsite



Reservoir - Storage Curve



Typical Section of Rockfill Dam

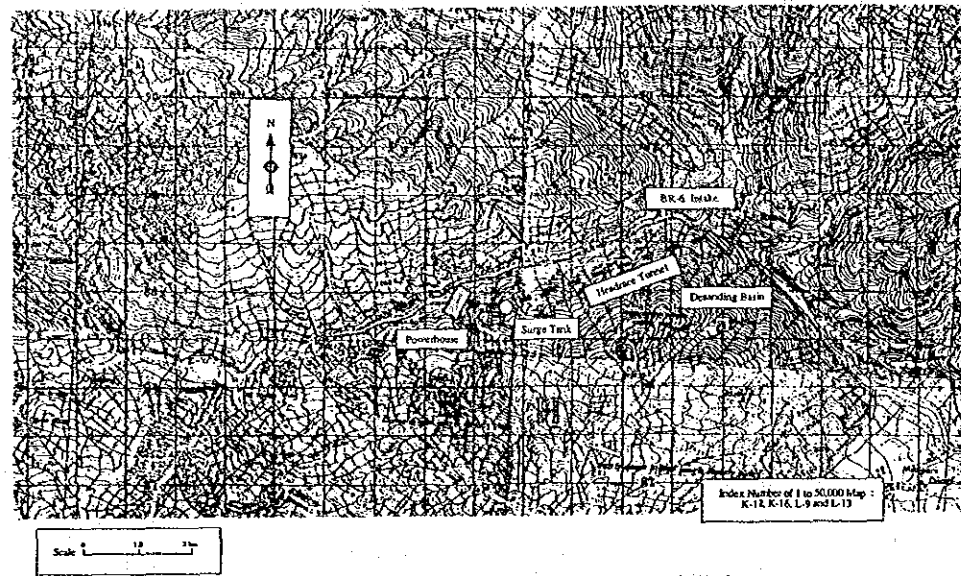


Plan of Powerhouse

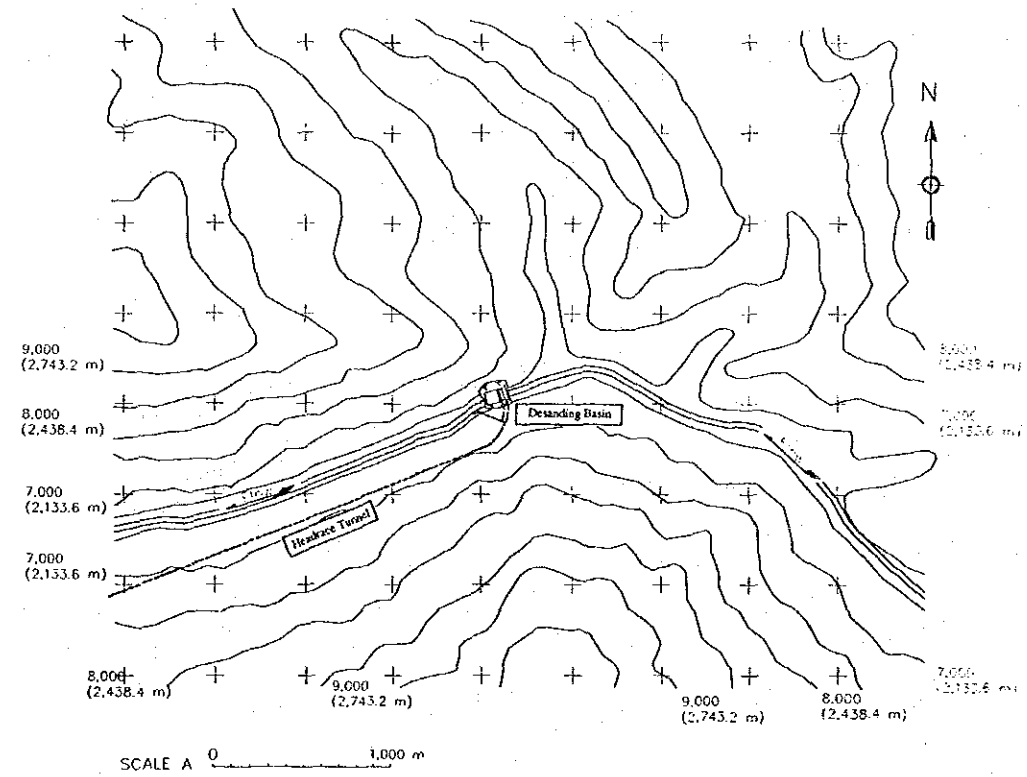
Figure 5.1.22 Preliminary Plan of BR-5 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

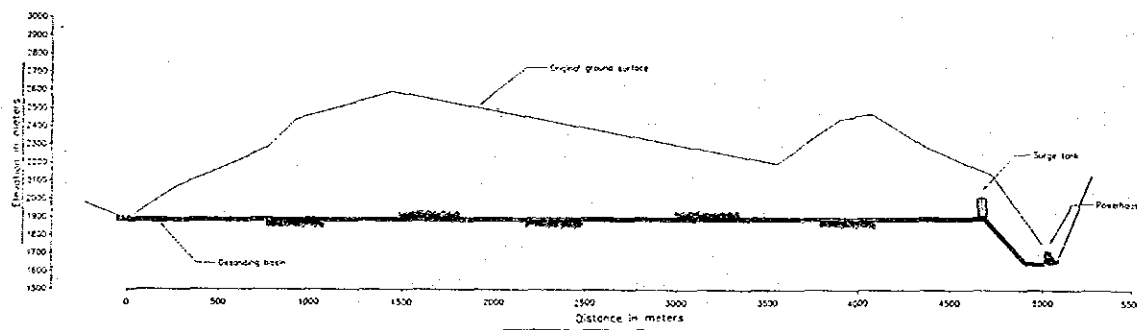




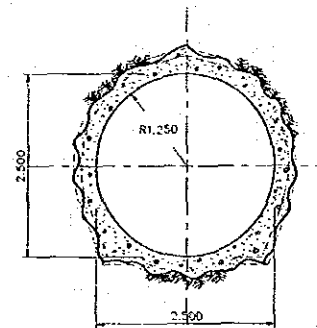
General Layout of BR-6 Scheme



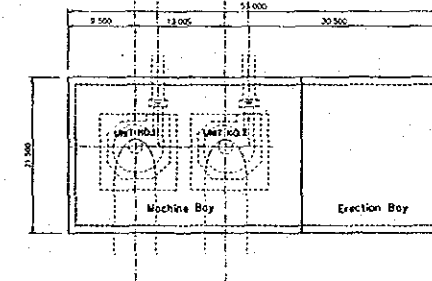
General Plan at Intake Damsite



Waterway Profile



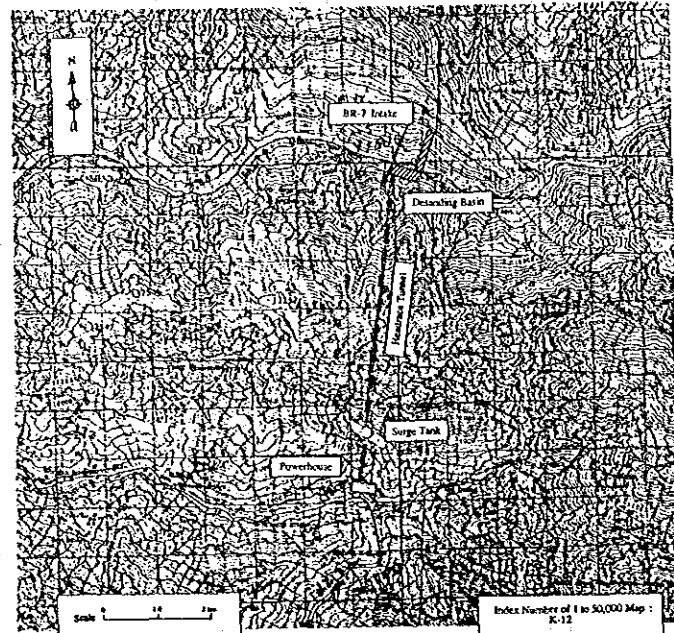
Typical Cross Section of Headrace Tunnel



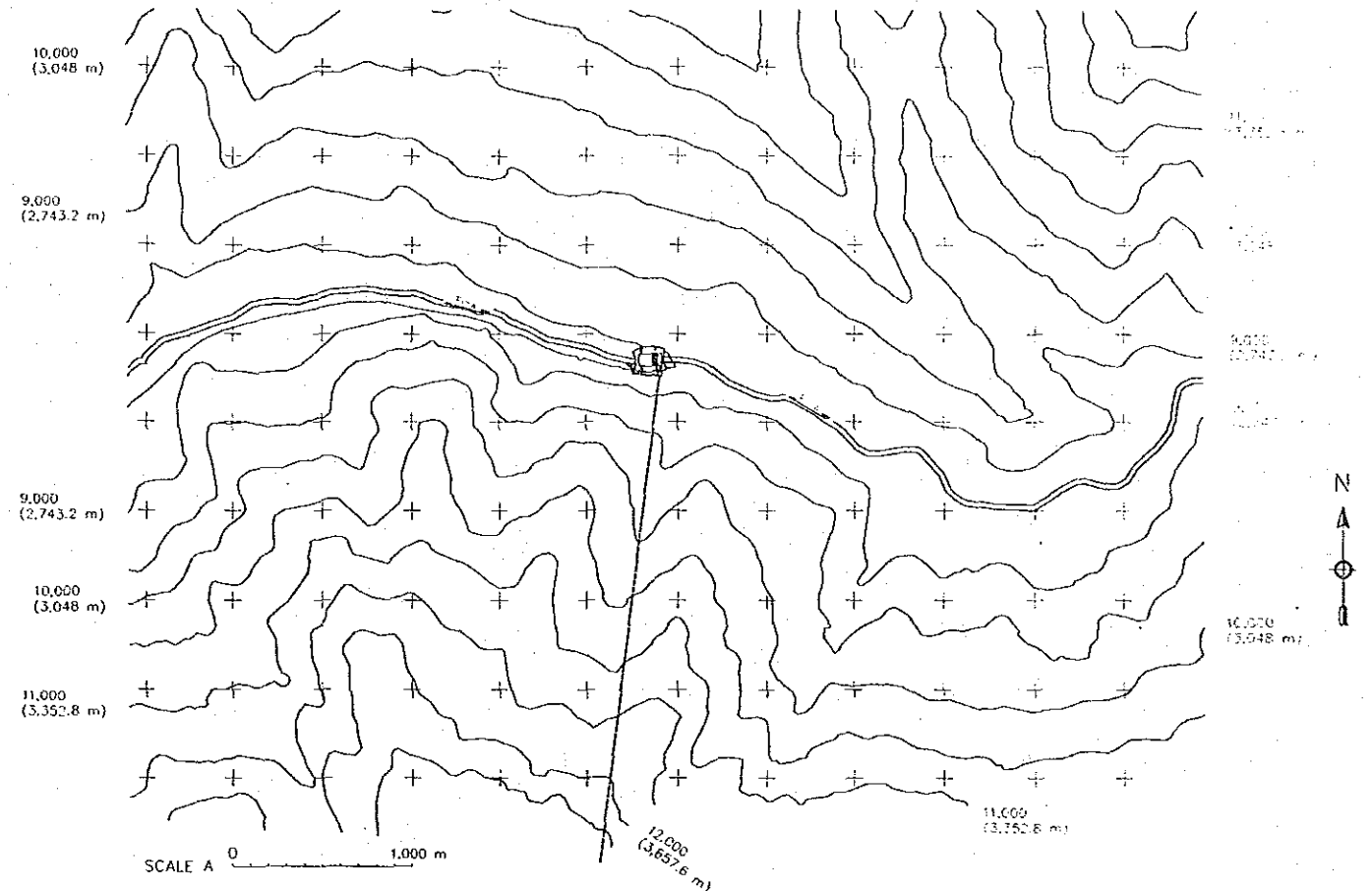
Plan of Powerhouse

Figure 5.1.23 Preliminary Plan of BR-6 Scheme

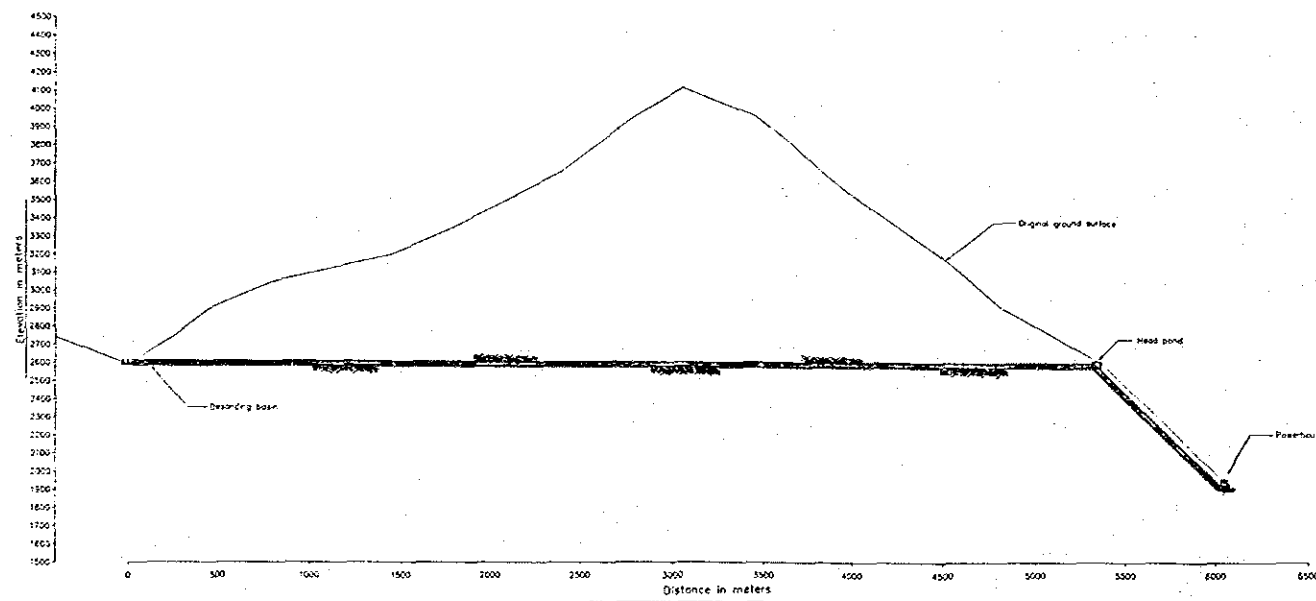
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



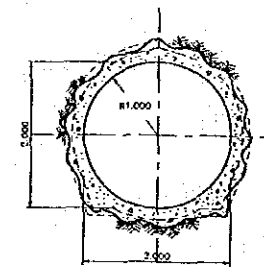
General Layout of BR-7 Scheme



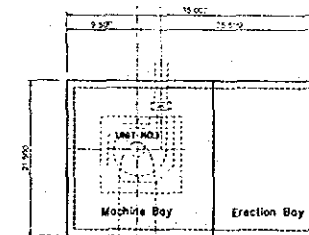
General Plan at Intake Damsite



Waterway Profile



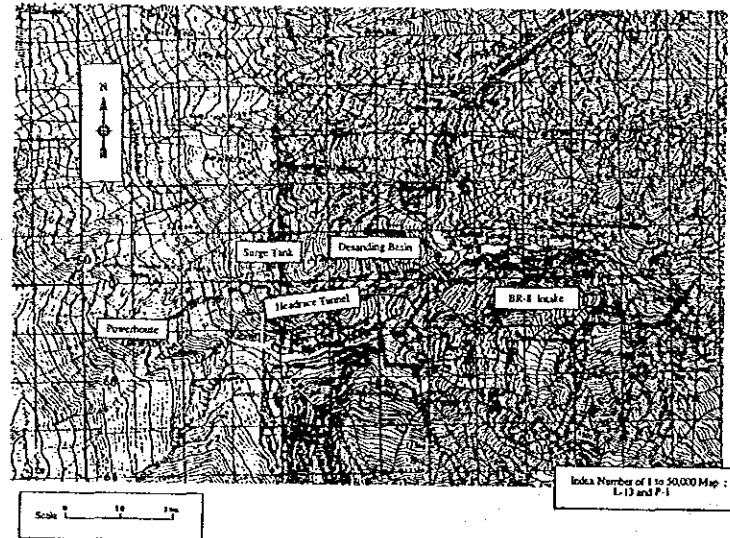
Typical Cross Section of Headrace Tunnel



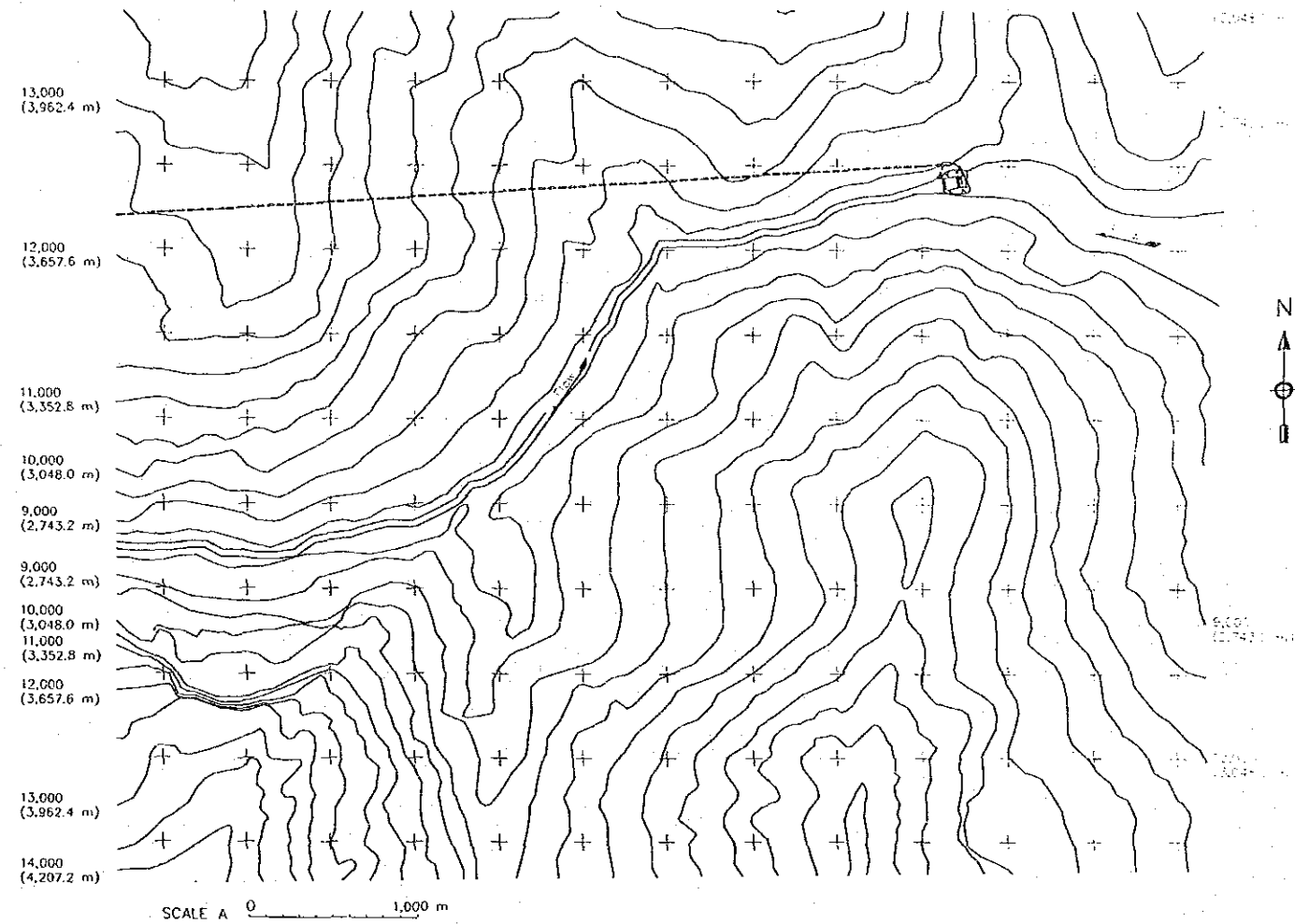
Plan of Powerhouse

Figure 5.1.24 Preliminary Plan of BR-7 Scheme

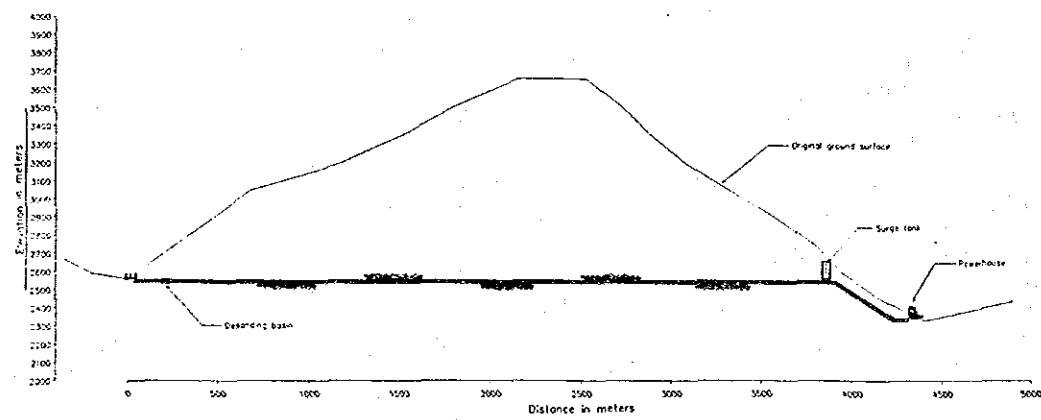
HIS MAJESTY'S GOVERNMENT OF NEPAL  
WATER RESOURCES DEVELOPMENT OF  
THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
JAPAN INTERNATIONAL COOPERATION AGENCY



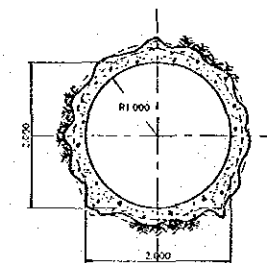
General Layout of BR-8 Scheme



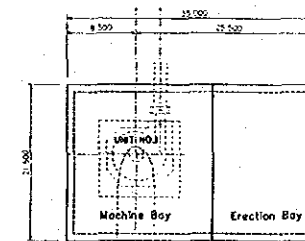
General Plan at Intake Damsite



Waterway Profile



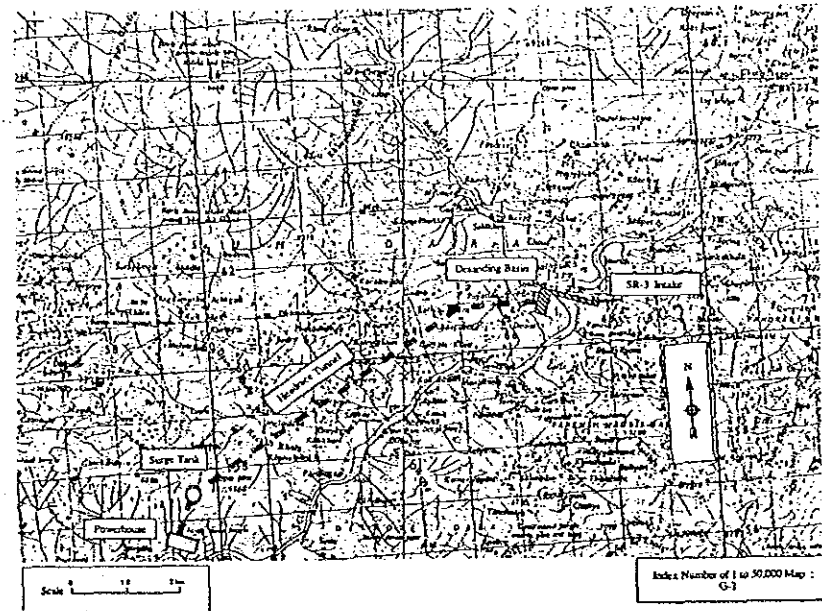
Typical Cross Section of Headrace Tunnel



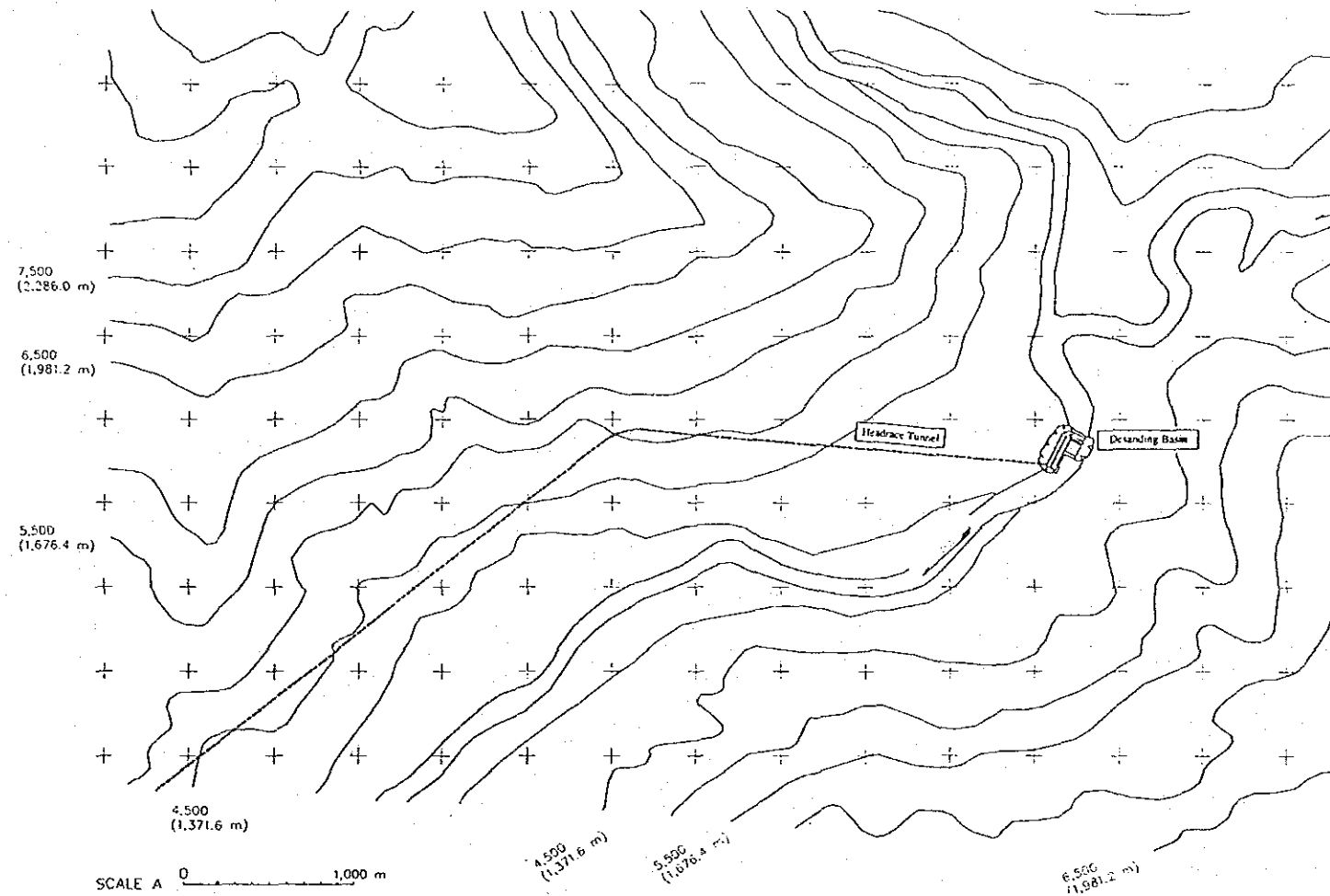
Plan of Powerhouse

Figure 5.1.25 Preliminary Plan of BR-8 Scheme

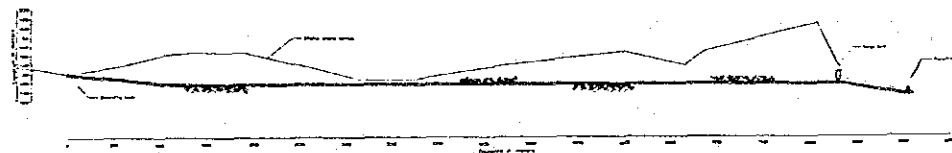
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



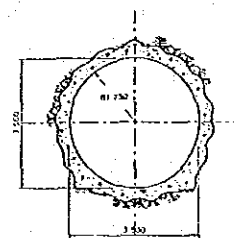
General Layout of SR-3 Scheme



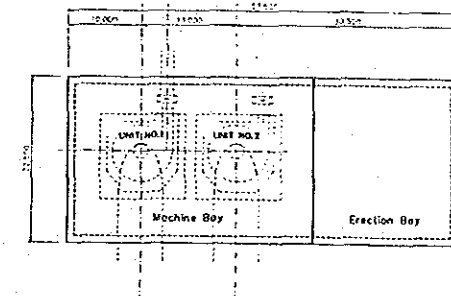
General Plan at Intake Damsite



Waterway Profile



Typical Cross Section of Headrace Tunnel



Plan of Powerhouse

Figure 5.1.26 Preliminary Plan of SR-3 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

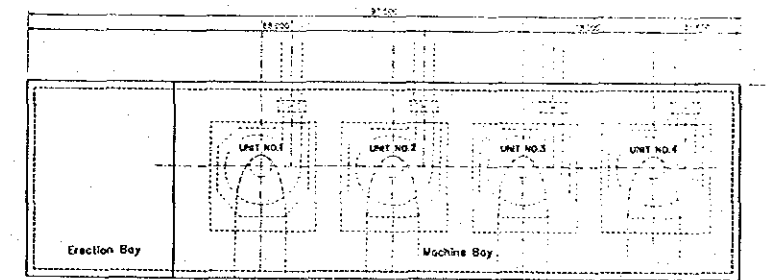
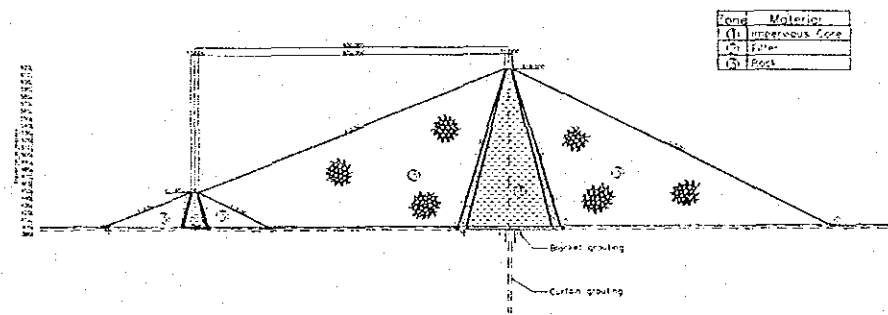
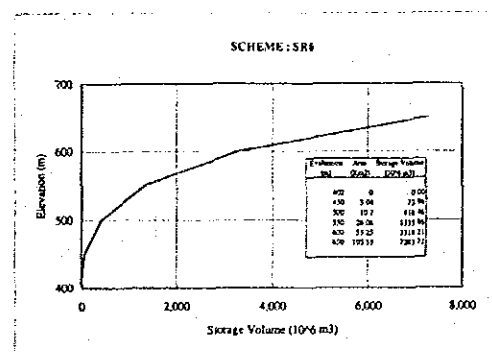
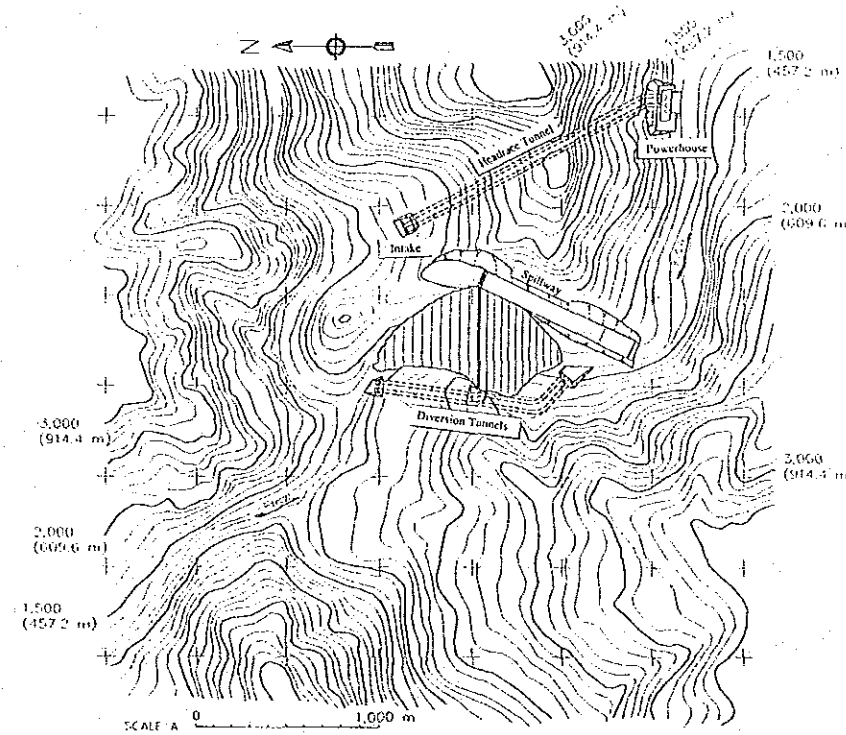
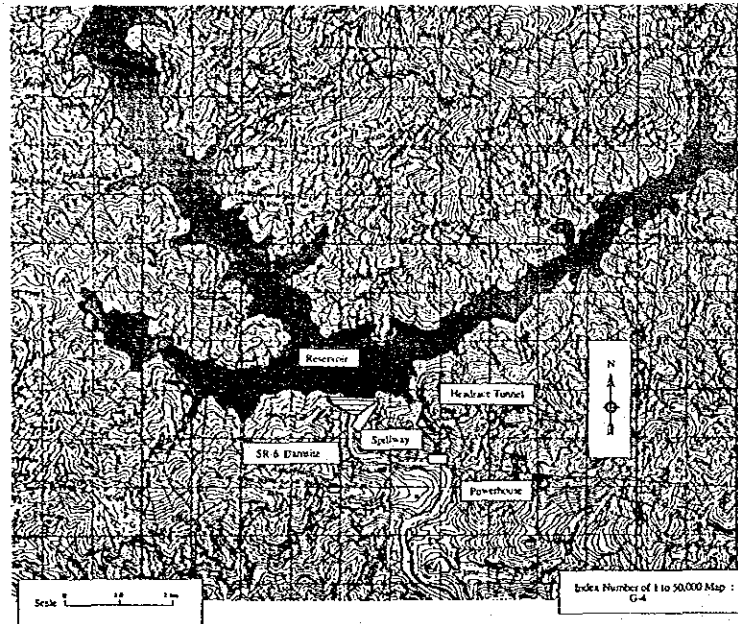
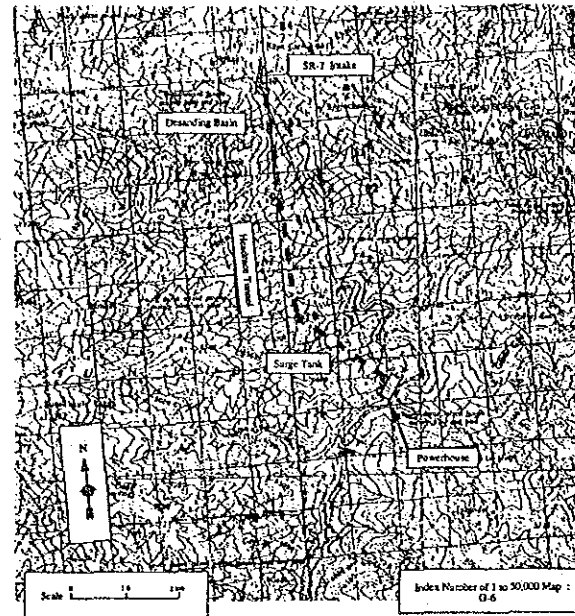
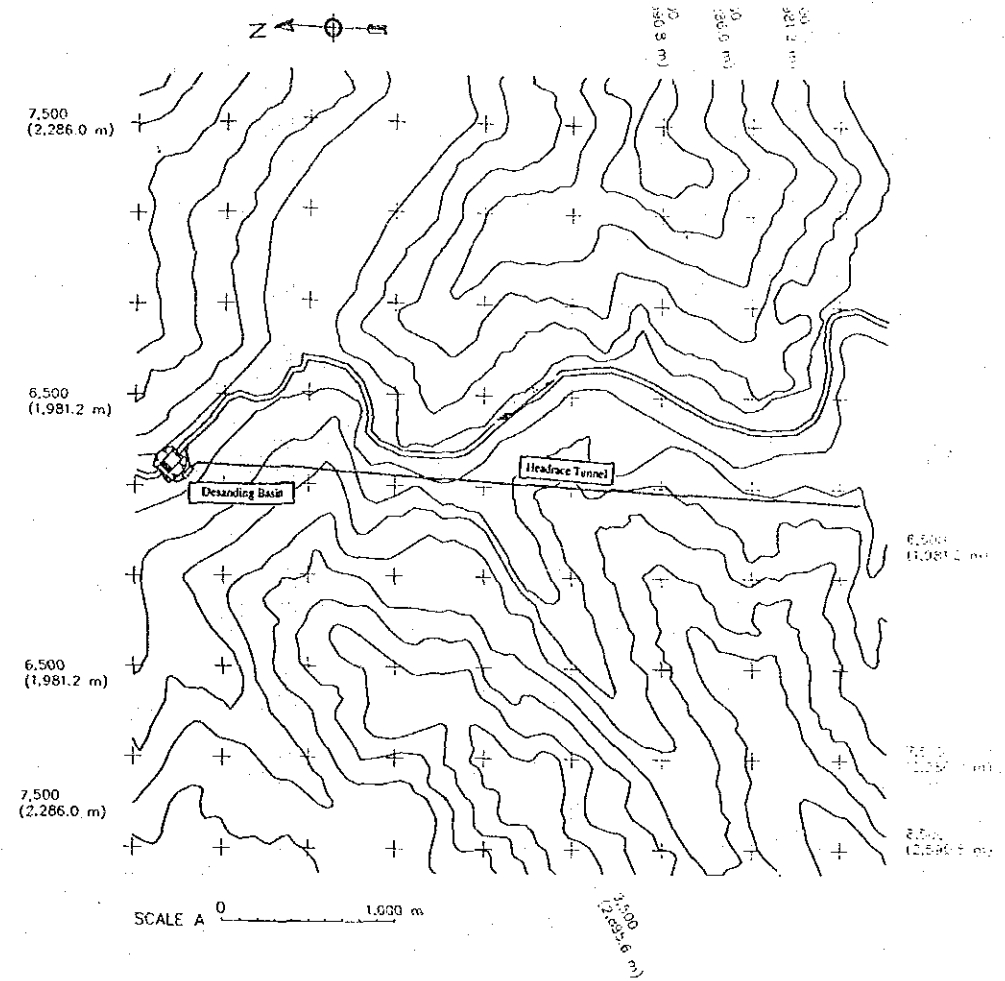


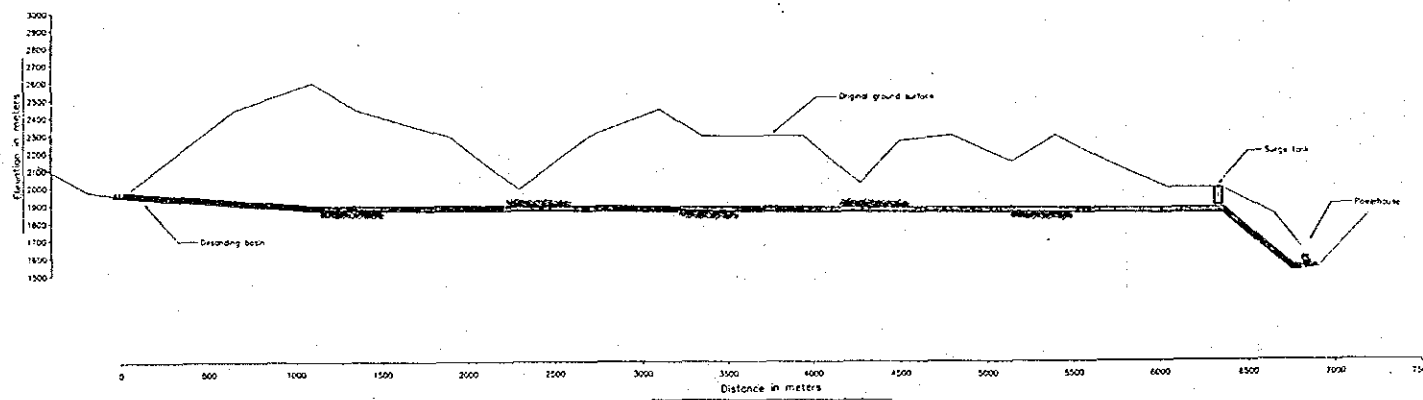
Figure 5.1.27 Preliminary Plan of SR-6 Scheme



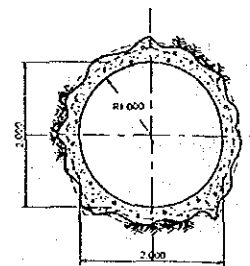
General Layout of SR-7 Scheme



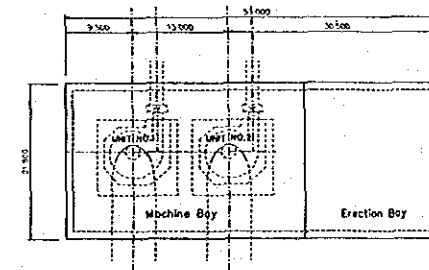
General Plan at Intake Damsite



Waterway Profile



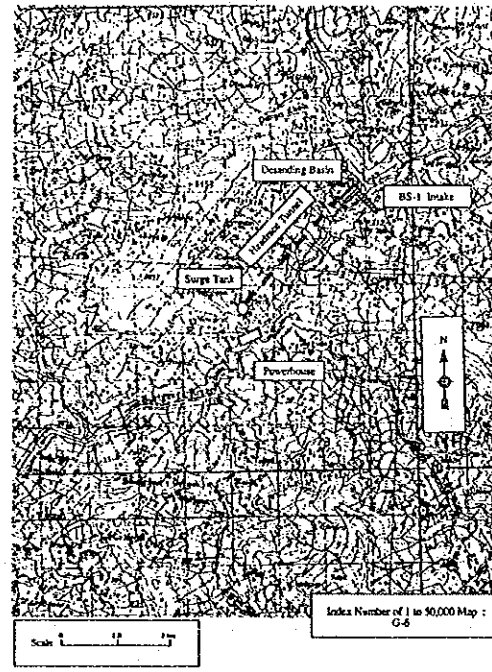
Typical Cross Section of Headrace Tunnel



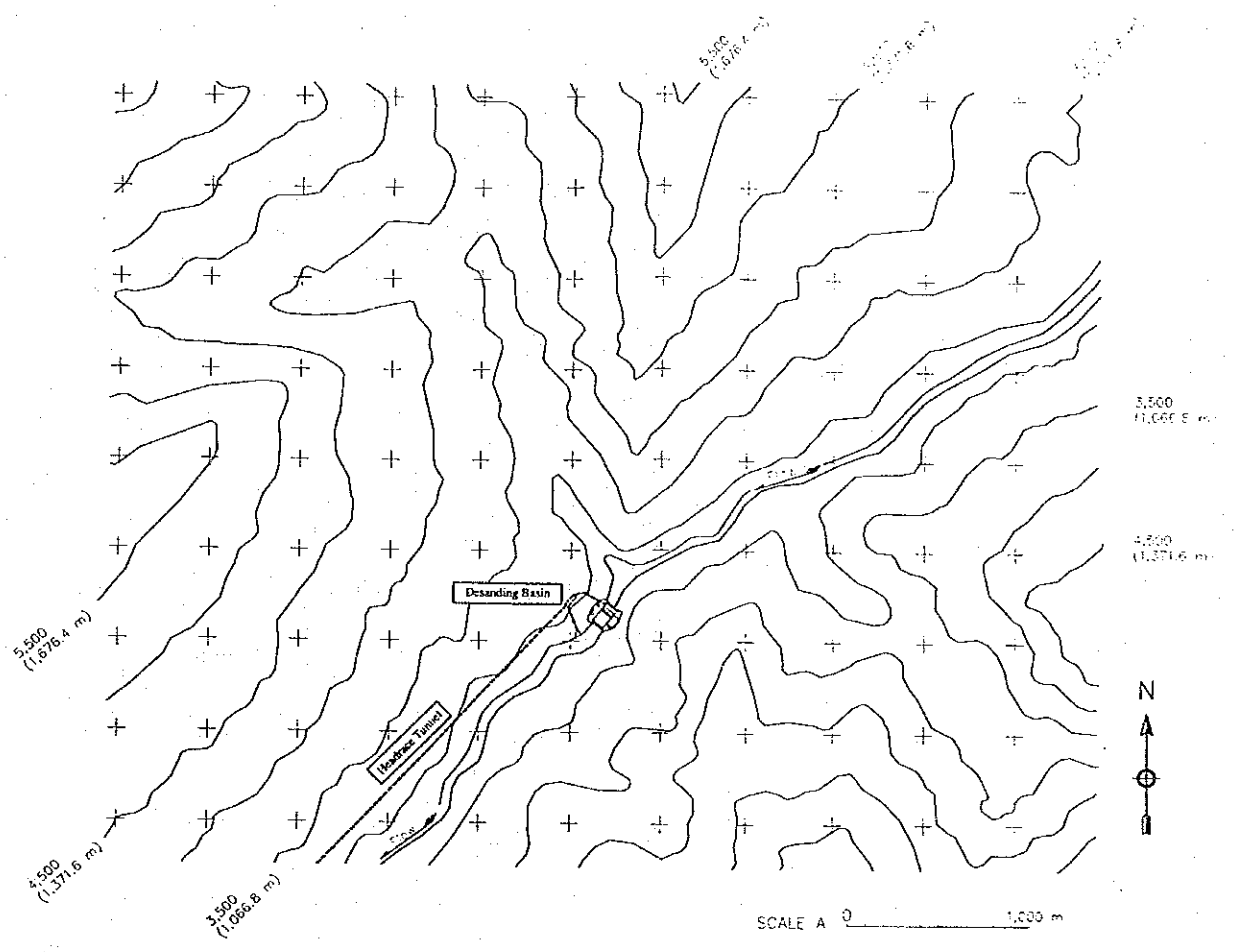
Plan of Powerhouse

Figure 5.1.28 Preliminary Plan of SR-7 Scheme

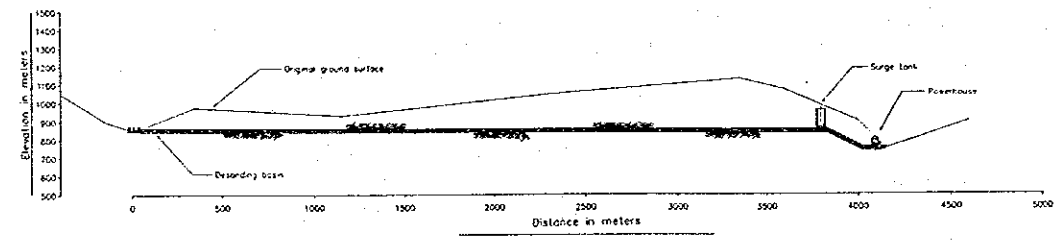
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHALALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



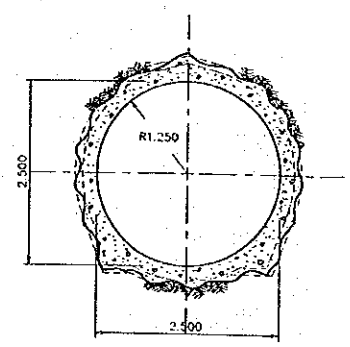
General Layout of BS-1 Scheme



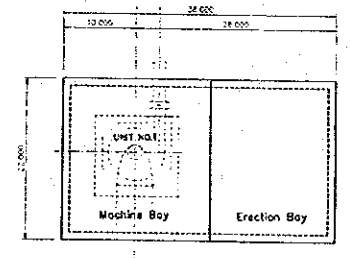
General Plan at Intake Damsite



Waterway Profile



Typical Cross Section of Headrace Tunnel

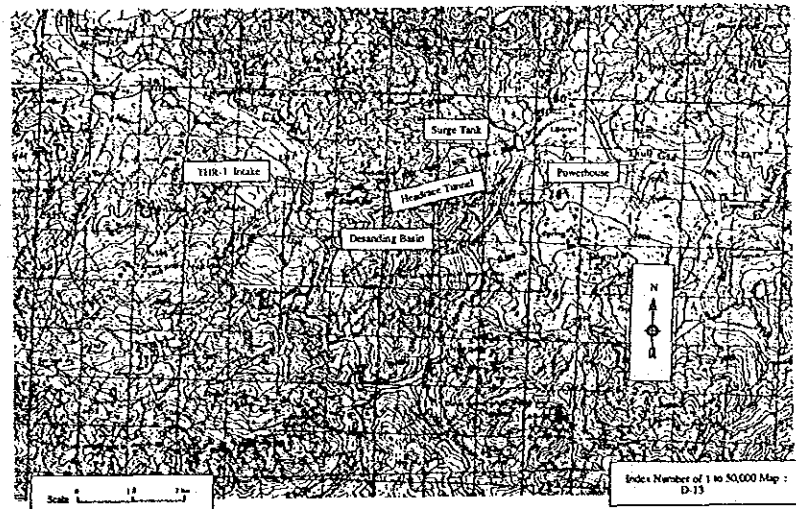


Plan of Powerhouse

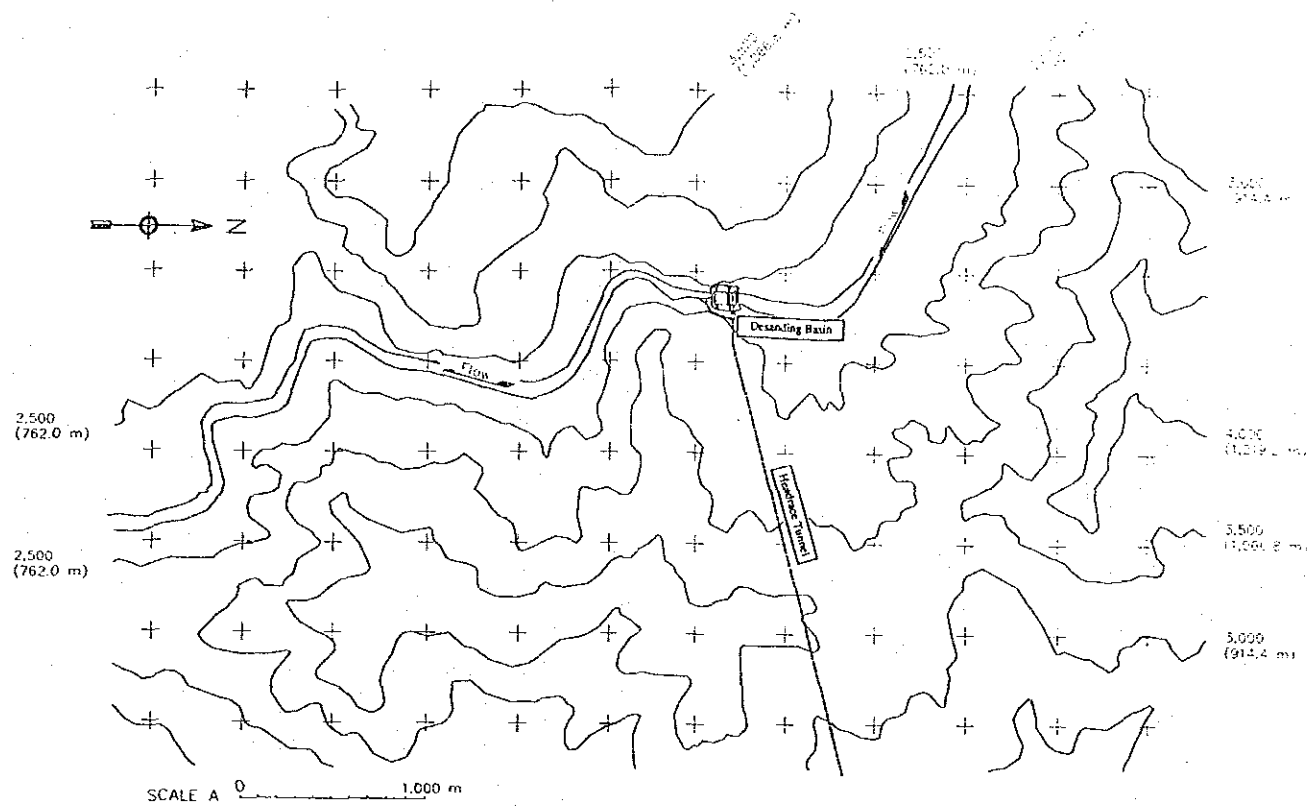
Figure 5.1.29 Preliminary Plan of BS-1 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

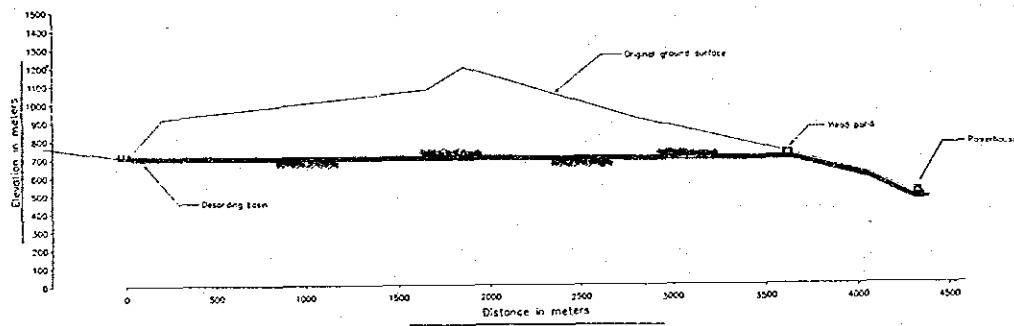




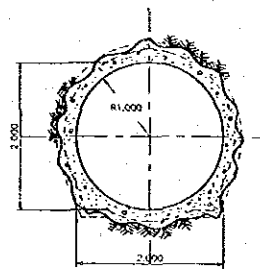
General Layout of THR-1 Scheme



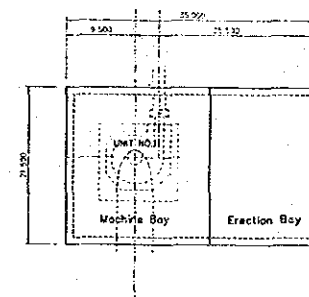
General Plan at Intake Damsite



Waterway Profile



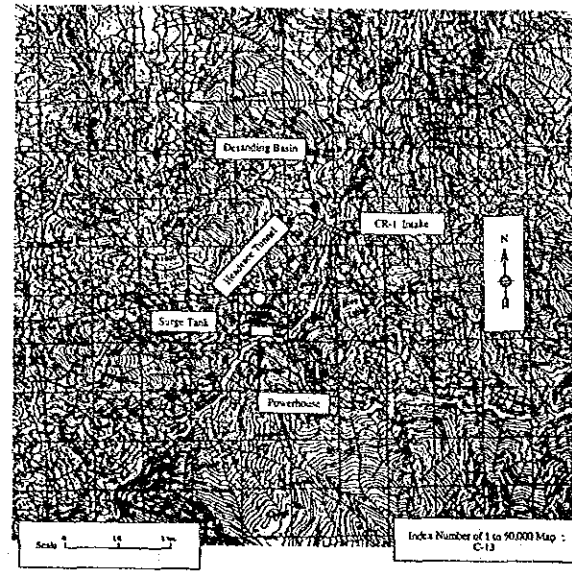
Typical Cross Section of Headrace Tunnel



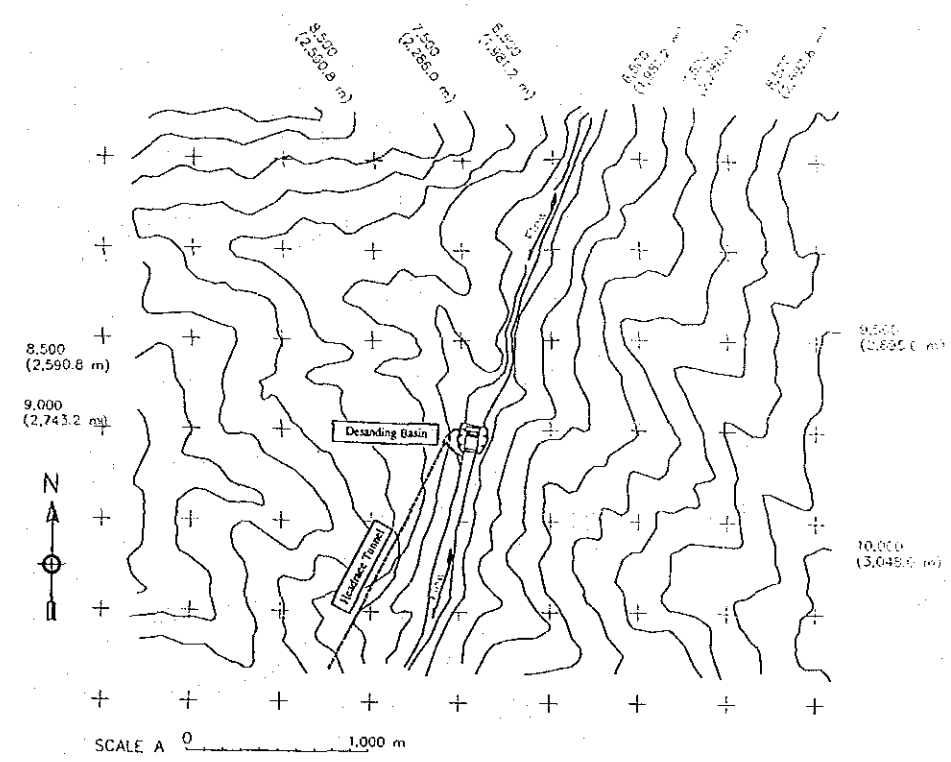
Plan of Powerhouse

Figure 5.1.30 Preliminary Plan of THR-1 Scheme

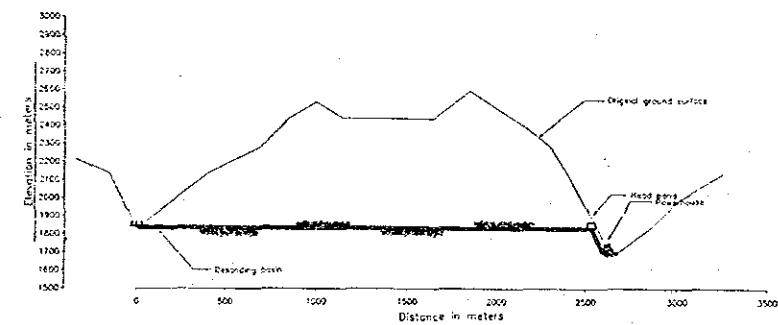
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



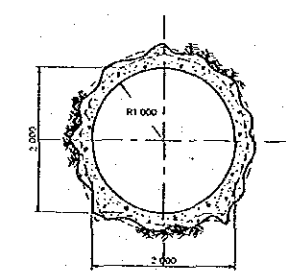
General Layout of CR-1 Scheme



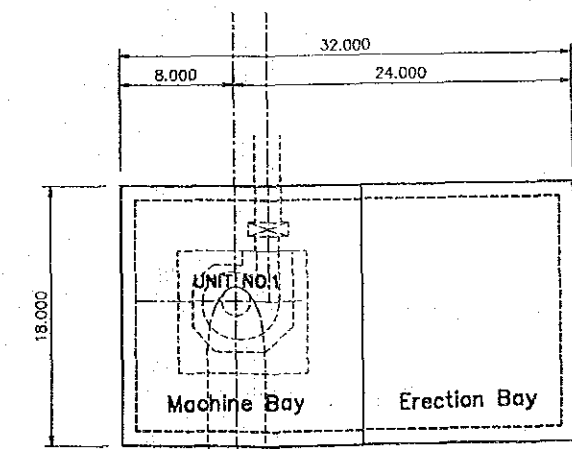
General Plan at Intake Damsite



Waterway Profile



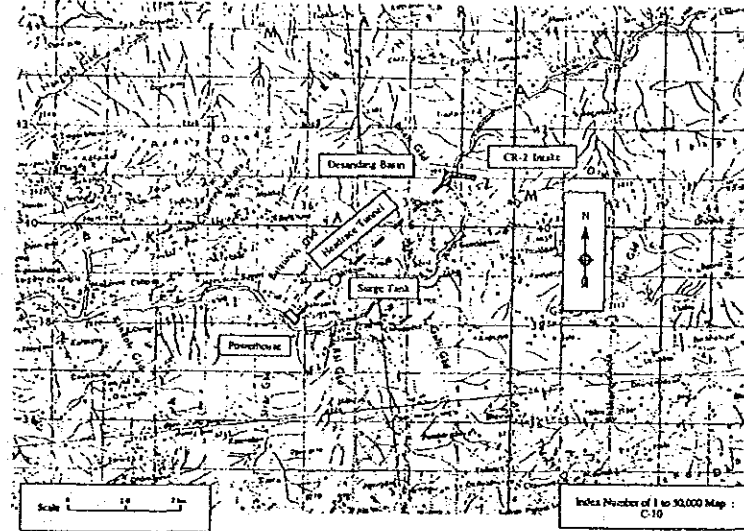
Typical Cross Section of Headrace Tunnel



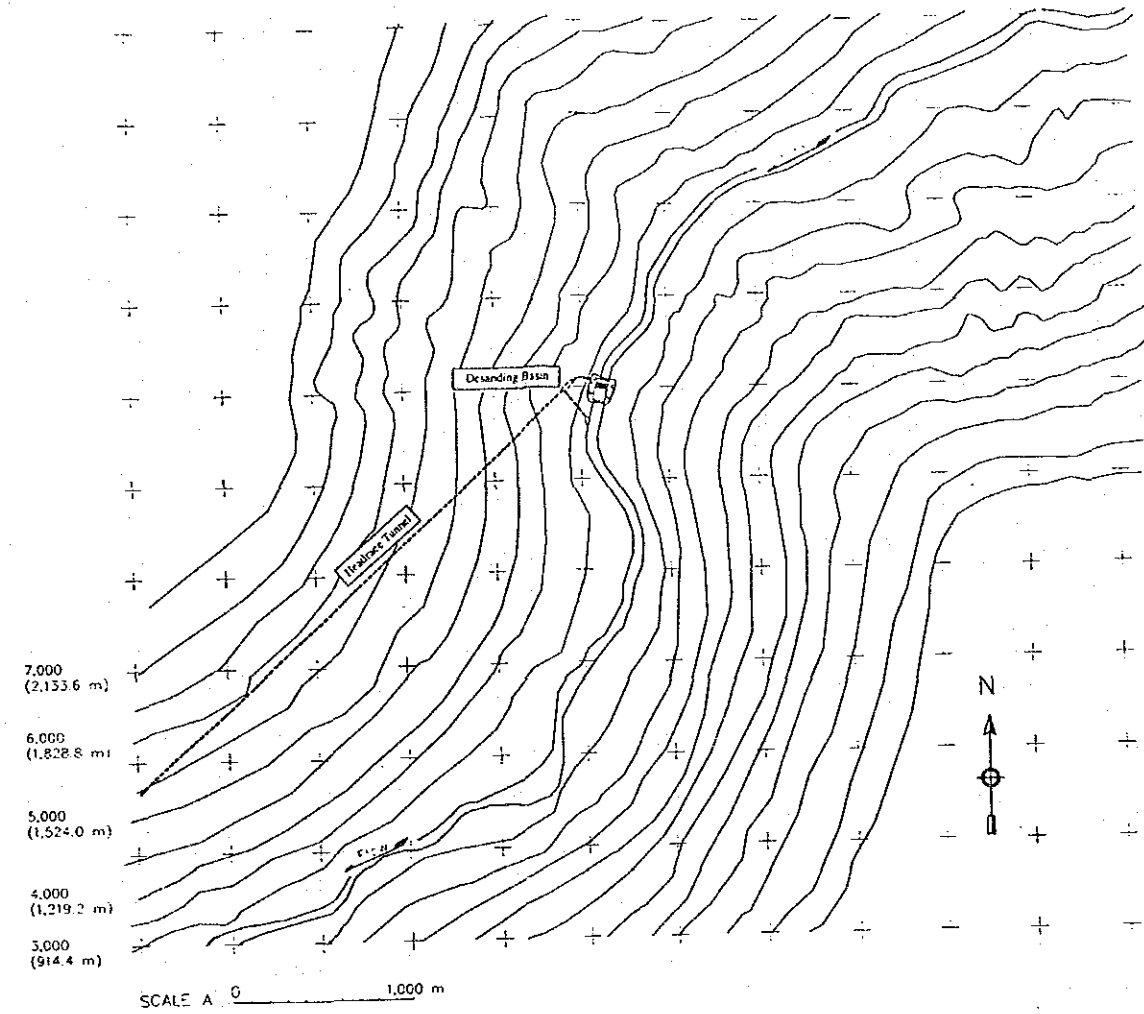
Plan of Powerhouse

Figure 5.1.31 Preliminary Plan of CR-1 Scheme

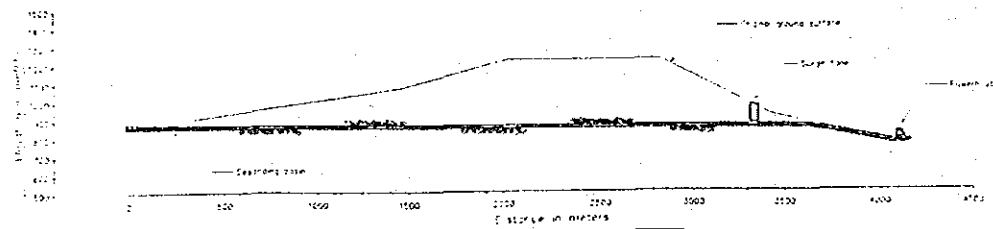
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



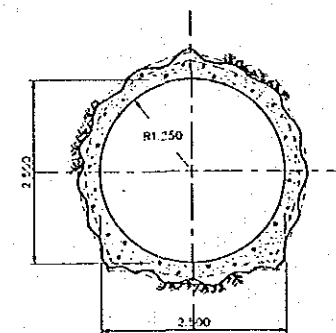
General Layout of CR-2 Scheme



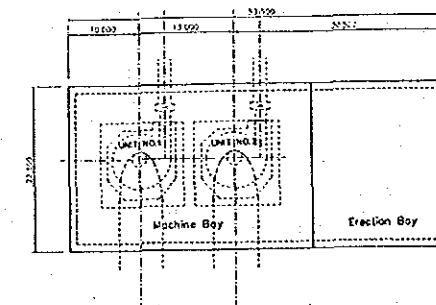
General Plan at Intake Damsite



Waterway Profile



Typical Cross Section of Headrace Tunnel



Plan of Powerhouse

Figure 5.1.32 Preliminary Plan of CR-2 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

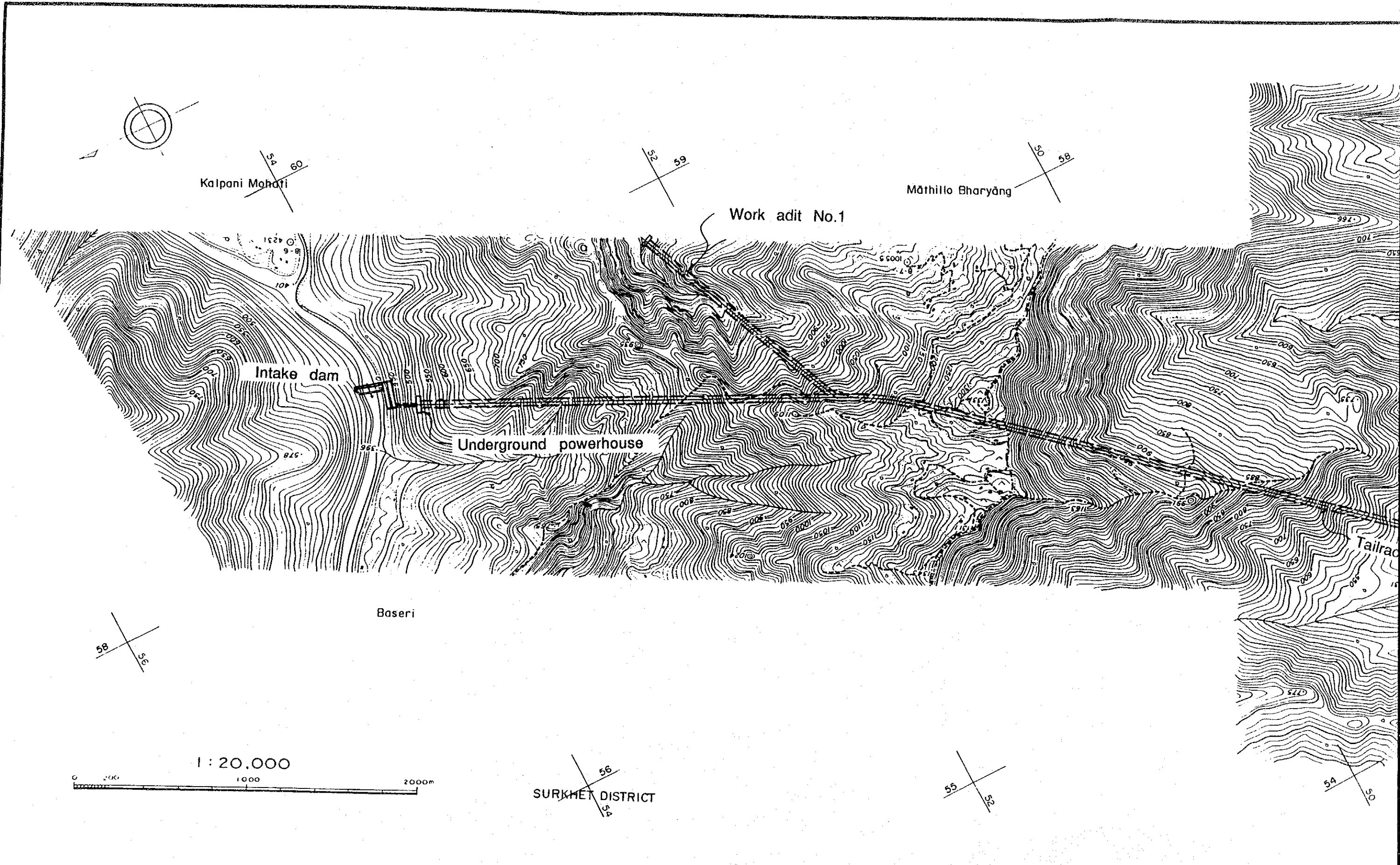
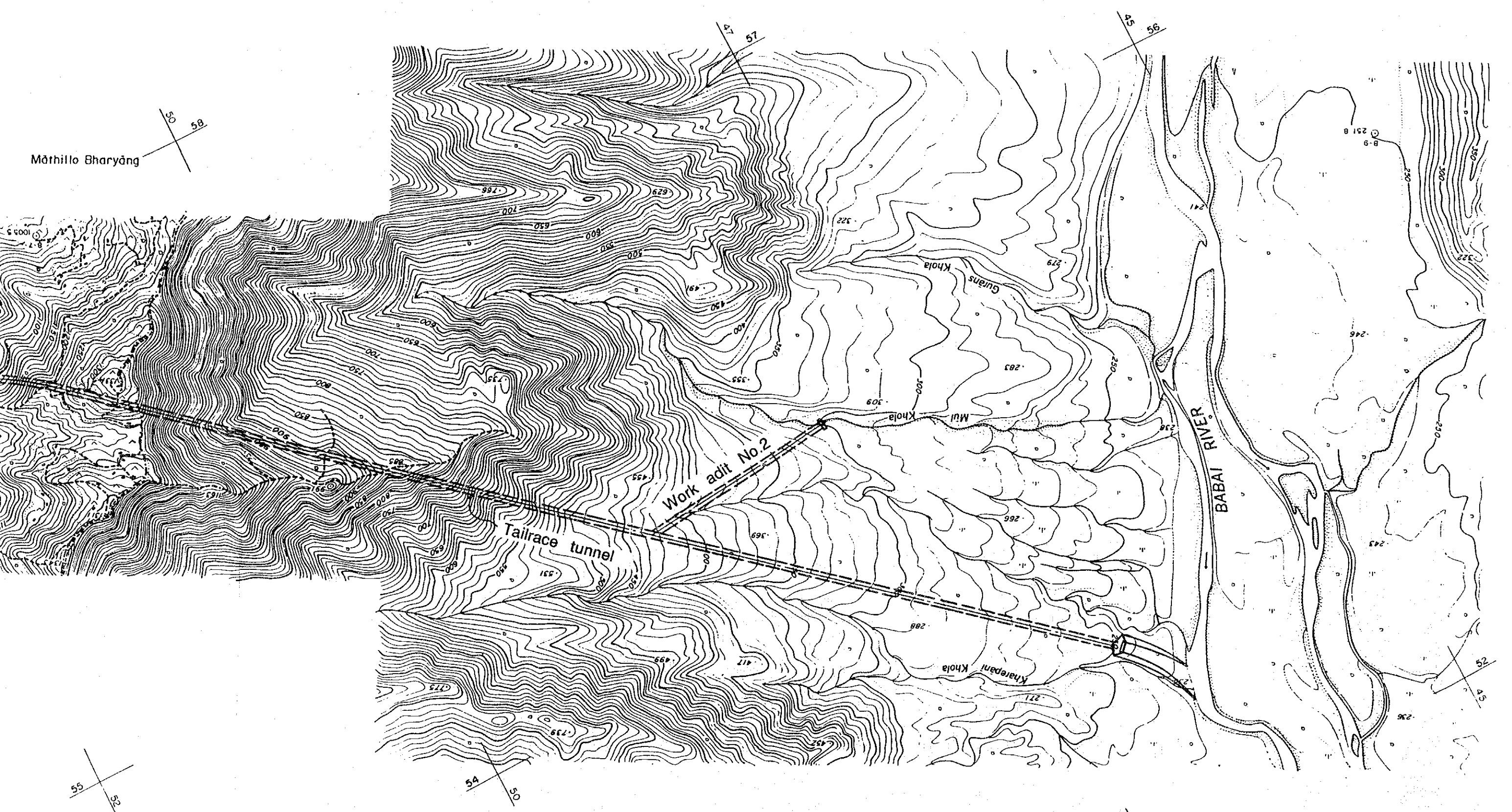


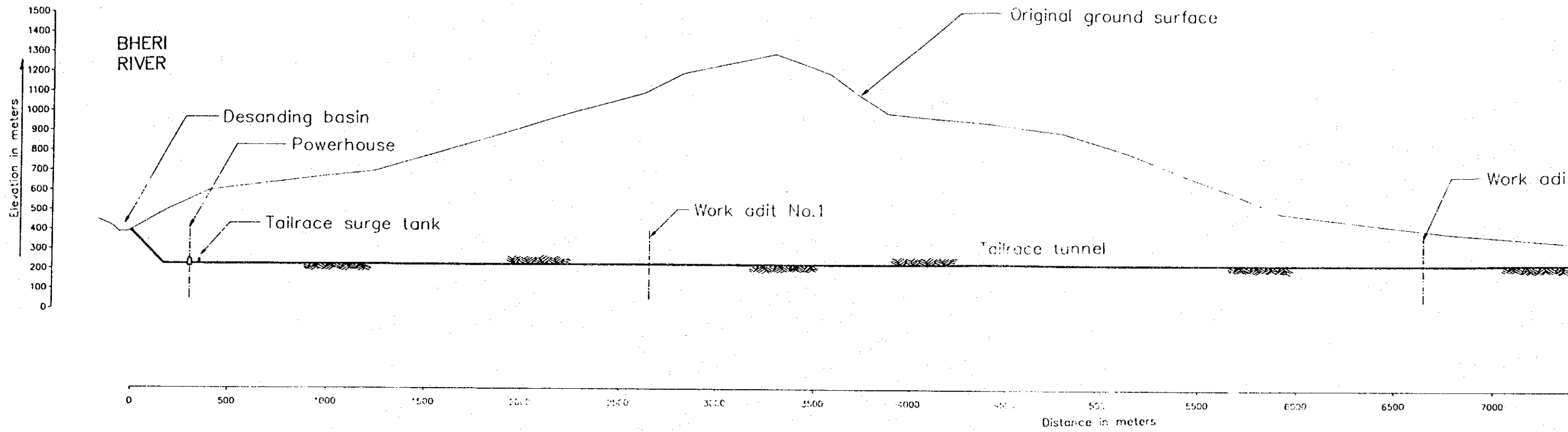
Figure 6.1.1 General Layout of BR-1 Scheme

Māthillo Bharyāng

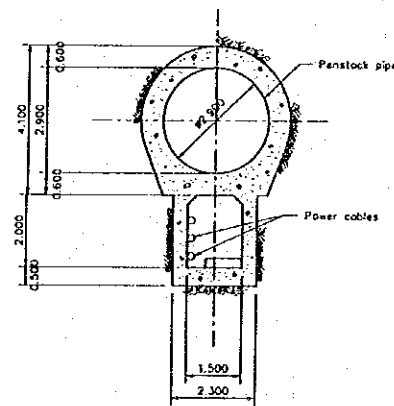


BARDIYA DISTRICT

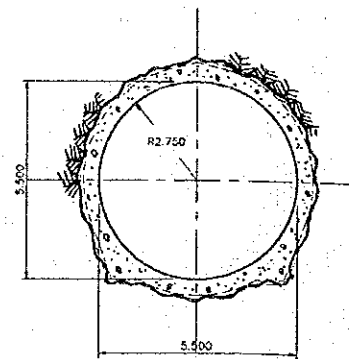
HIS MAJESTY'S GOVERNMENT OF NEPAL  
WATER RESOURCES DEVELOPMENT OF  
THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
JAPAN INTERNATIONAL COOPERATION AGENCY



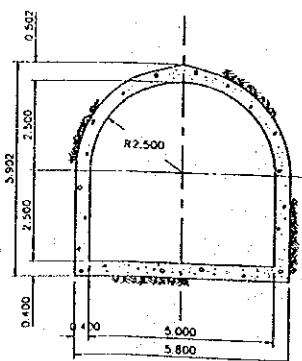
Profile of Waterway



Typical Cross Section of Penstock Line



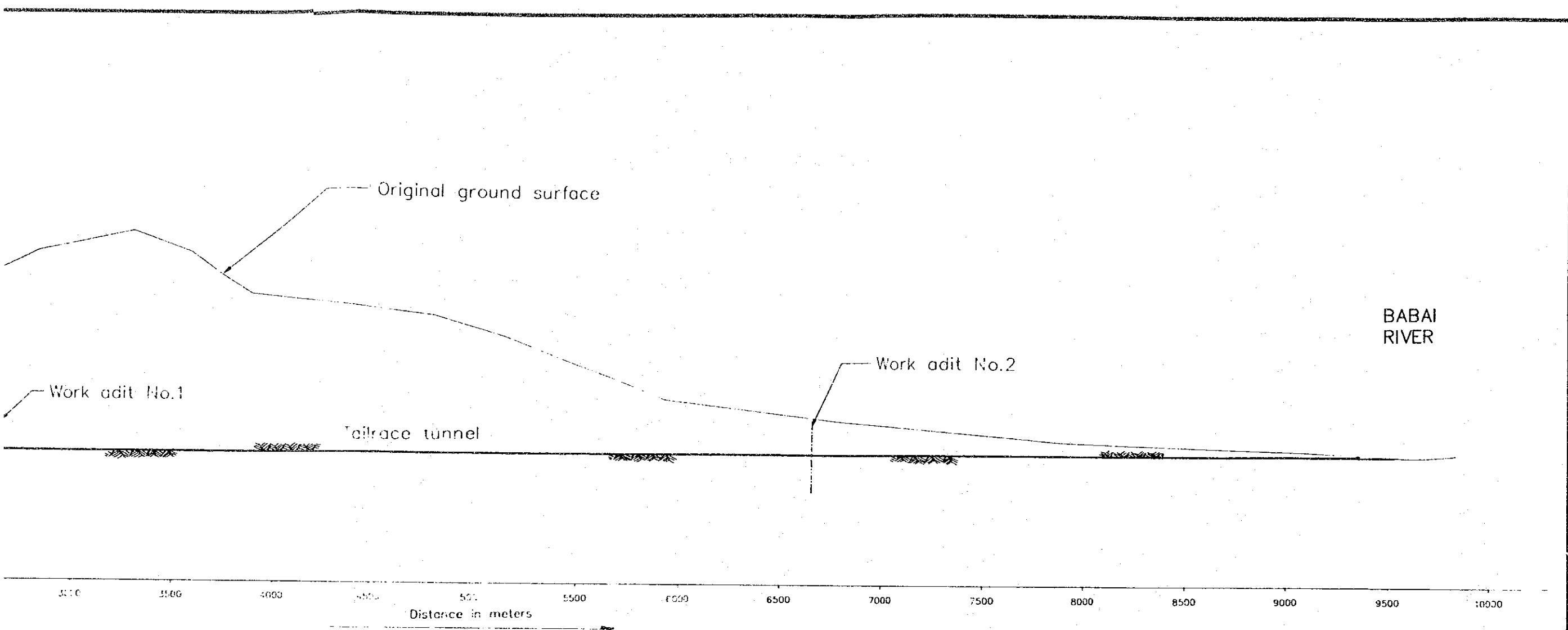
Typical Cross Section of Tailrace Tunnel



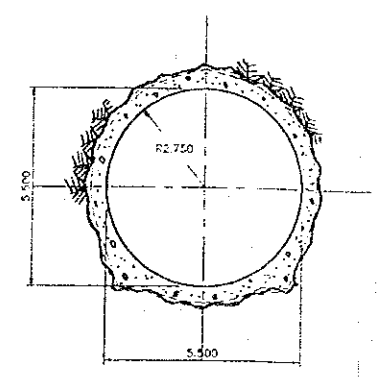
Typical Cross Section of Work Adit

Figure 6.1.2 Profile and Typical Cross Section of BR-1 Waterway

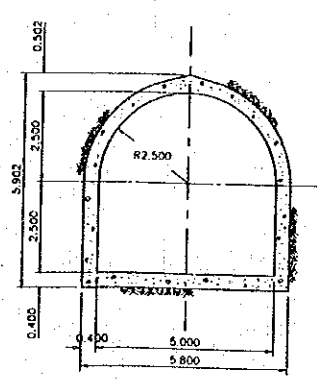




Profile of Waterway



Typical Cross Section of Tailrace Tunnel



Typical Cross Section of Work Adit

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHA KALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



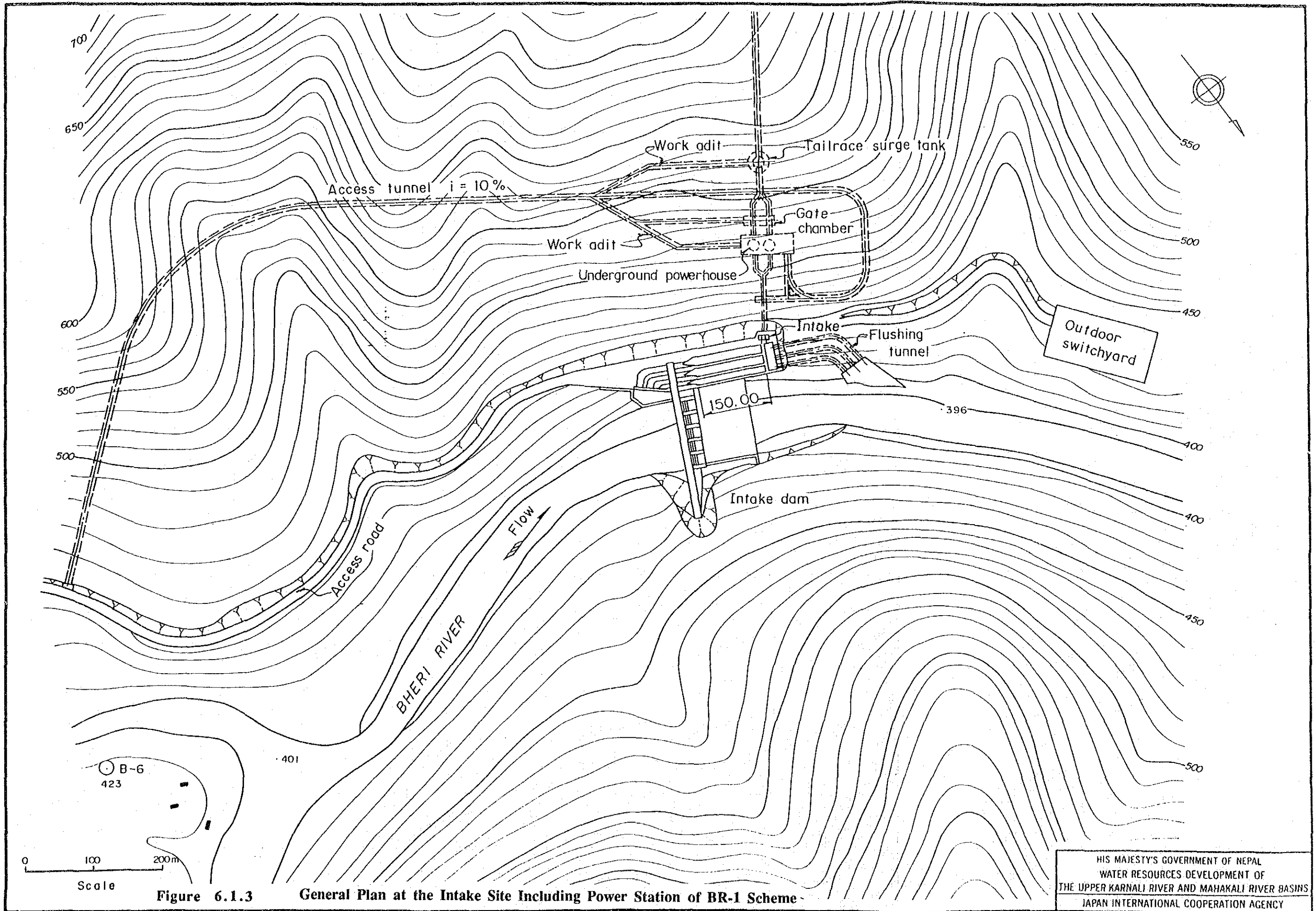


Figure 6.1.3 General Plan at the Intake Site Including Power Station of BR-1 Scheme

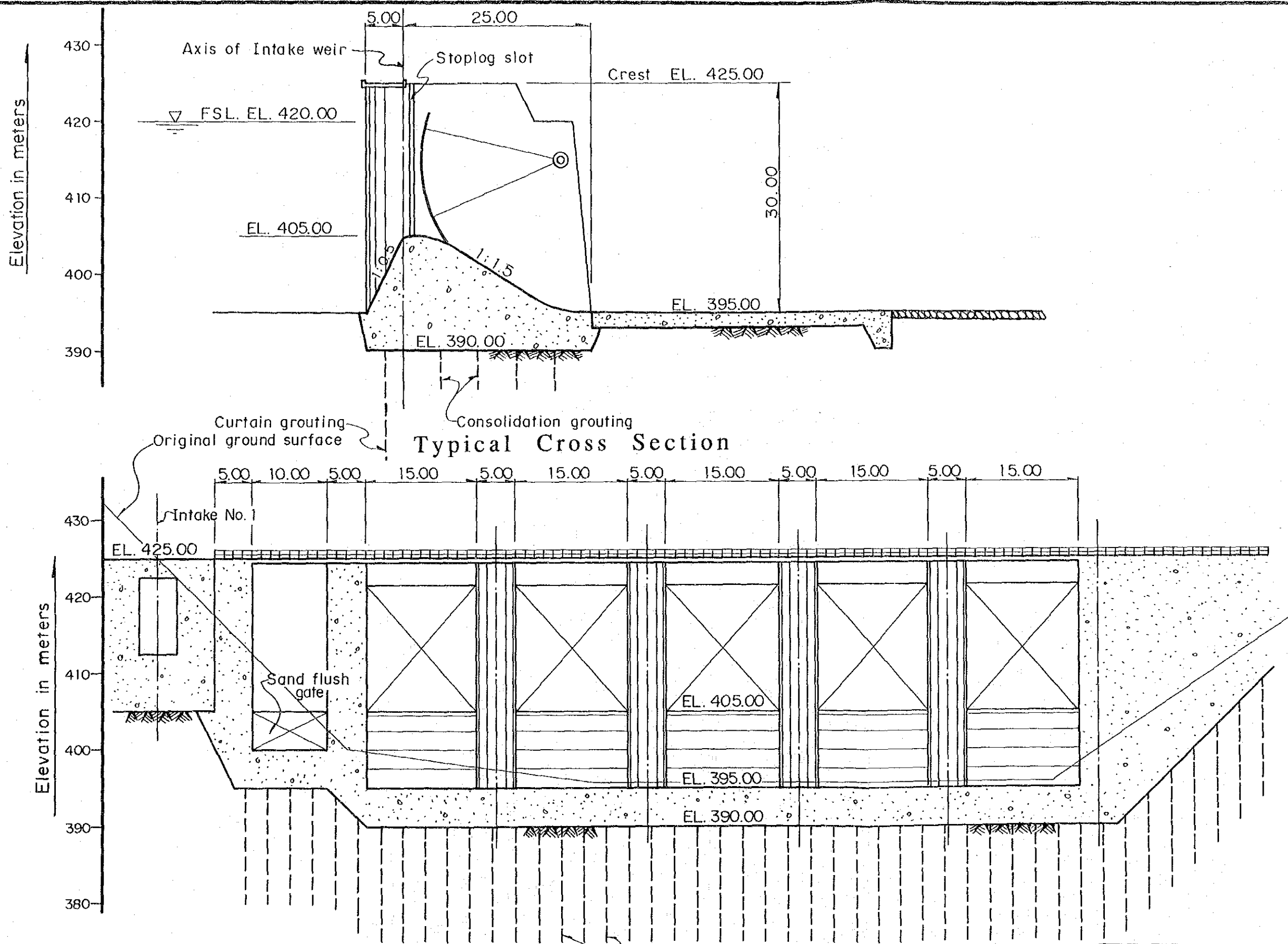
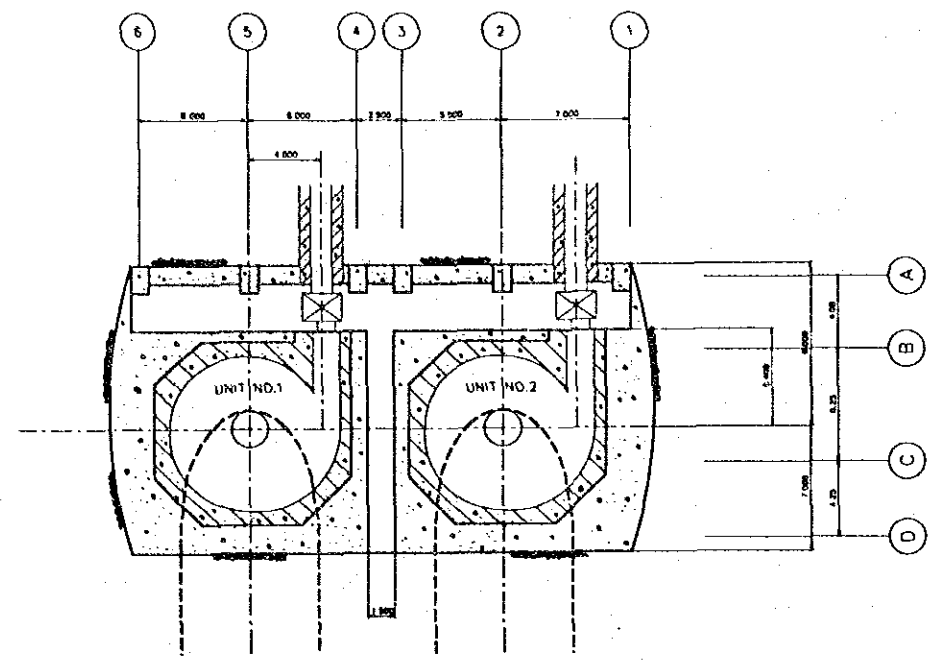


Figure 6.14 Profile and Typical Cross Section of BR-1 Intake Dam

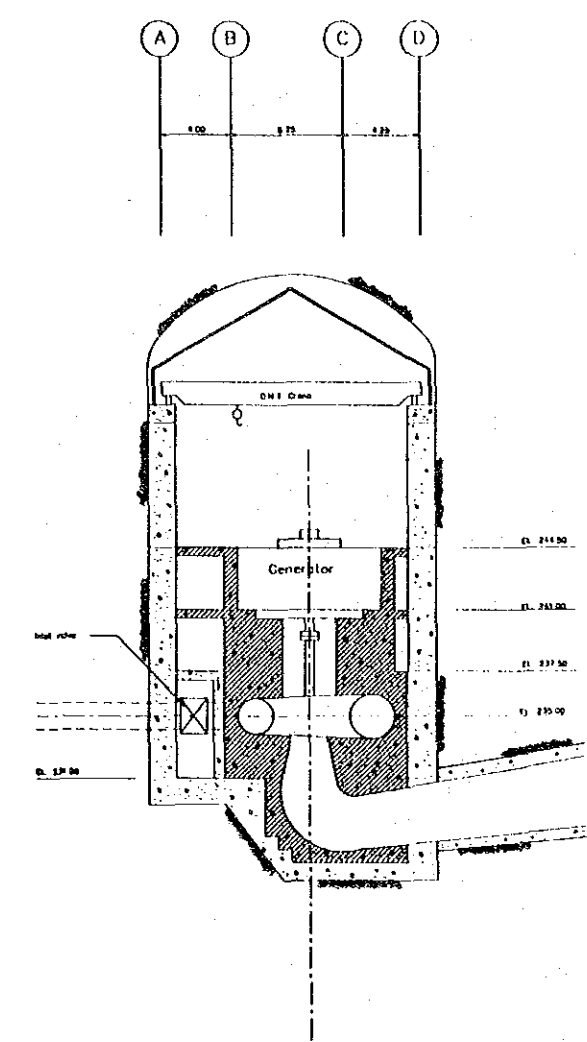
Profile

Curtain grouting L = 15m

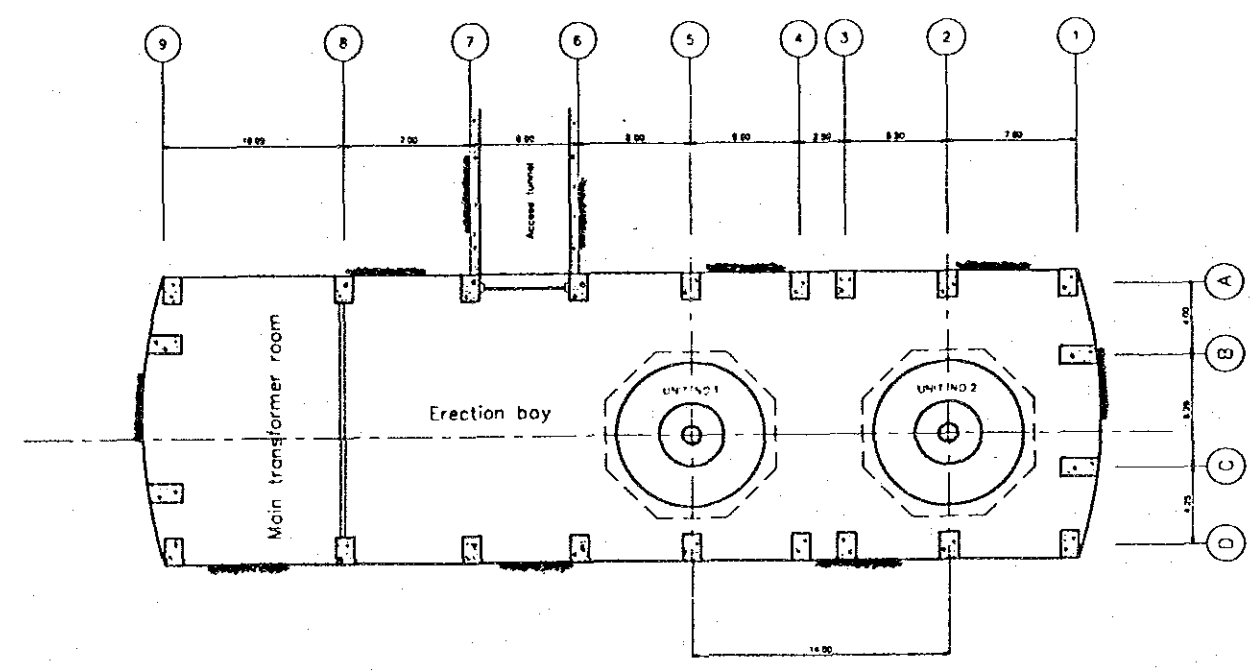
HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



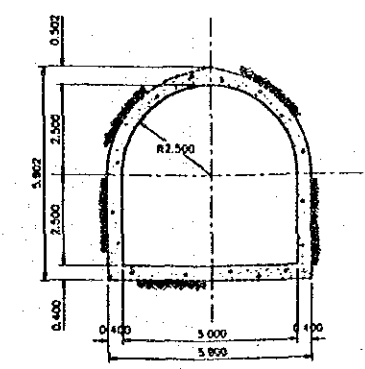
PLAN AT TURBINE CENTER



TRANSVERSE SECTION



PLAN AT GENERATOR ROOM



TYPICAL CROSS SECTION OF ACCESS TUNNEL

Figure 6.1.5 Structural Details of Powerhouse of BR-1 Scheme

HIS MAJESTY'S GOVERNMENT OF NEPAL  
 WATER RESOURCES DEVELOPMENT OF  
 THE UPPER KARNALI RIVER AND MAHAKALI RIVER BASINS  
 JAPAN INTERNATIONAL COOPERATION AGENCY