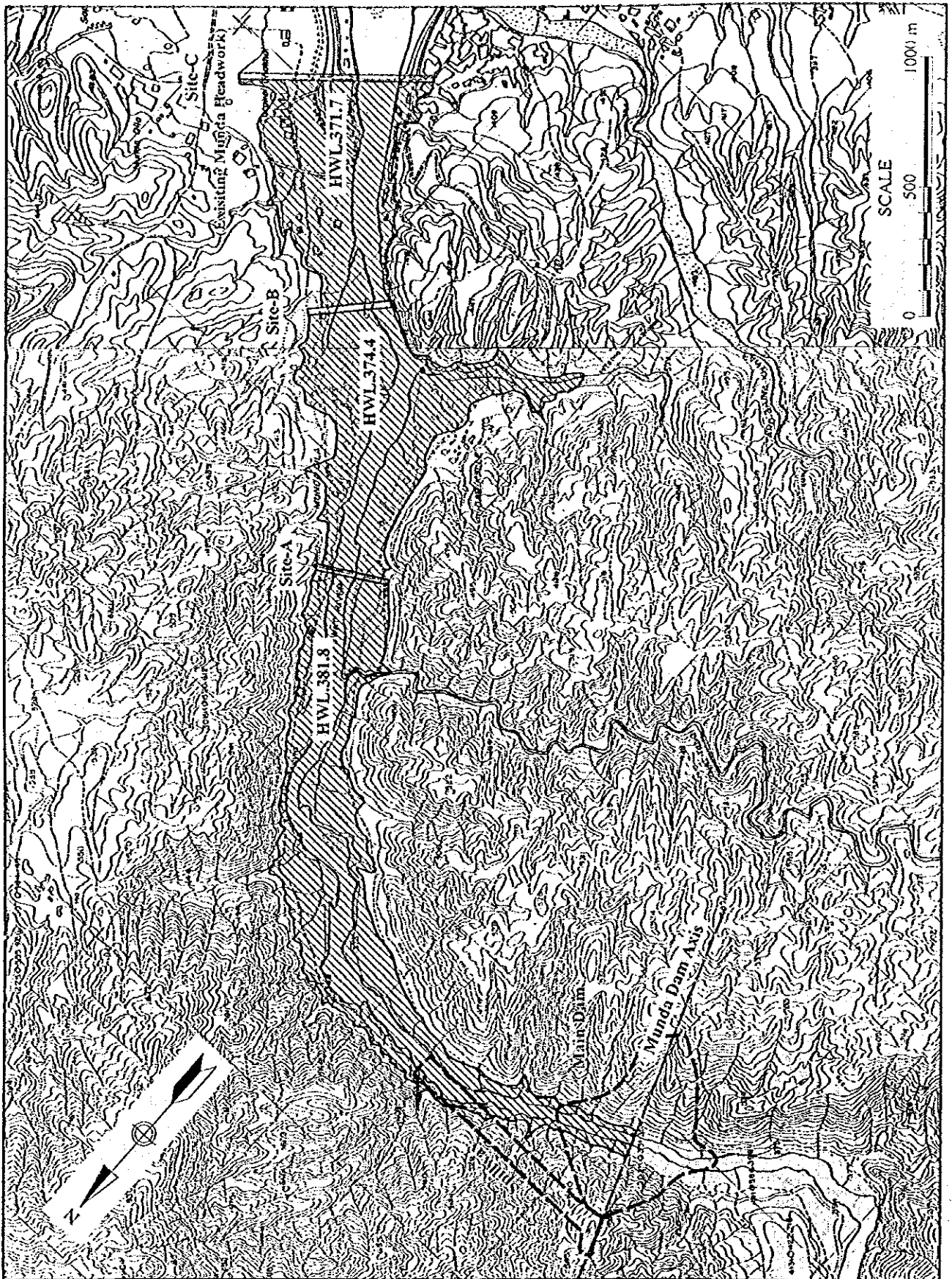


Figure 8.2.7

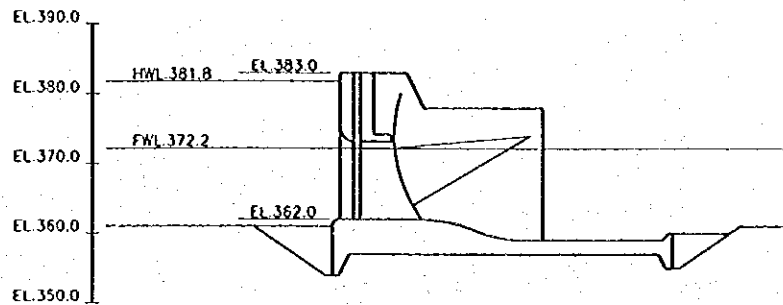
Optimization of Penstock Diameter



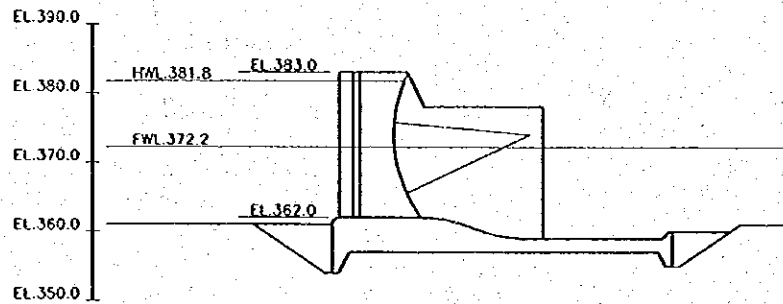
FEASIBILITY STUDY
 ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
 IN ISLAMIC REPUBLIC OF PAKISTAN
 JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 8.2.8
 Alternative Site of Re-regulation Weir

Alternative-1: Curtain Wall Type



Alternative-2: Full Gate Type



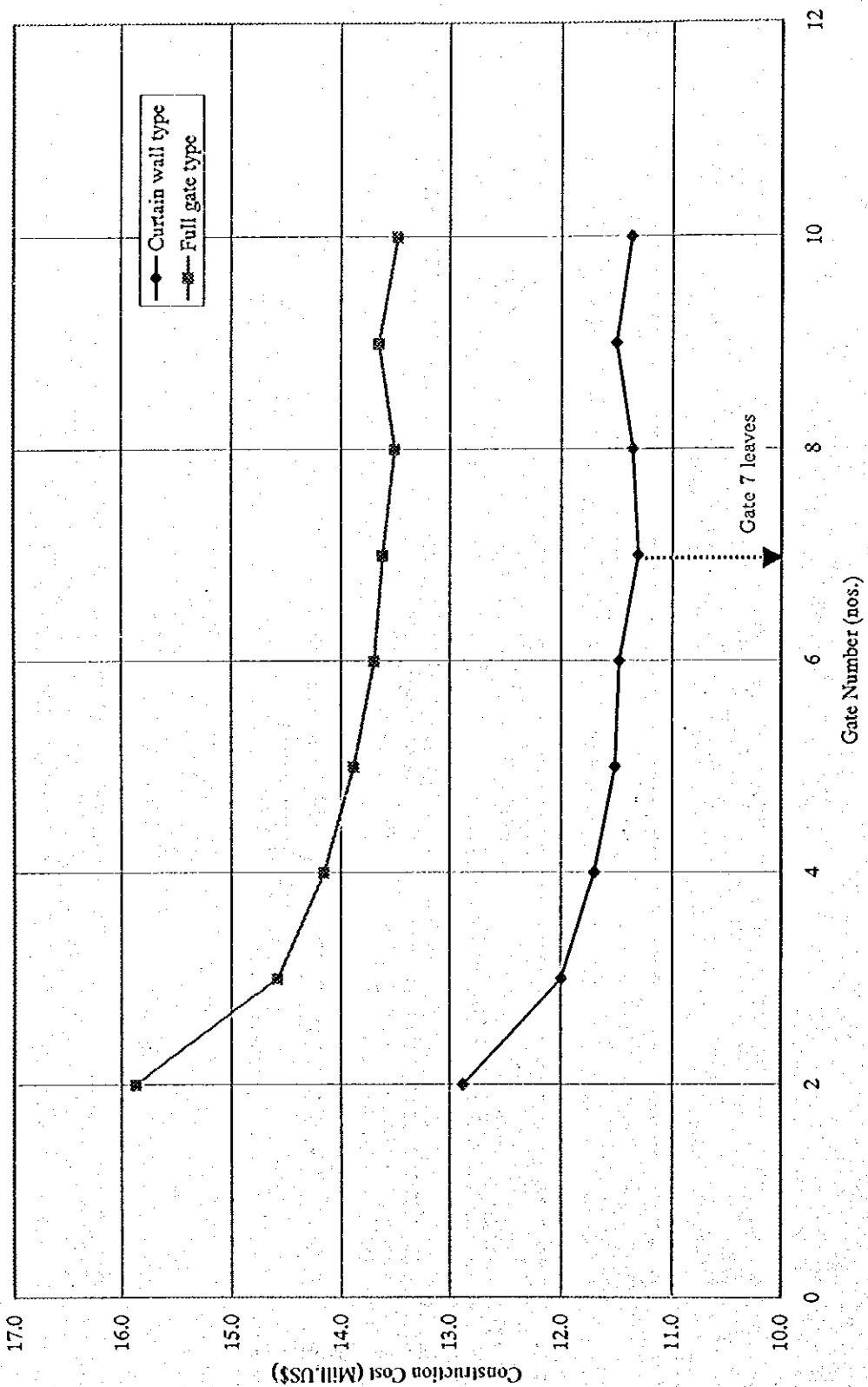
| N (nos.) | B (m) | H1 (m) | H2 (m) |
|-------------|----------|-----------|-----------|
| 2 | 19.4 | 11.7 | 20.8 |
| 3 | 14.4 | 11.7 | 20.8 |
| 4 | 11.8 | 11.7 | 20.8 |
| 5 | 10.1 | 11.7 | 20.8 |
| 6 | 8.9 | 11.7 | 20.8 |
| 7 | 8.0 | 11.7 | 20.8 |
| 8 | 7.3 | 11.7 | 20.8 |
| 9 | 6.8 | 11.7 | 20.8 |
| 10 | 6.3 | 11.7 | 20.8 |

N: Gate numbers

B: Gate span

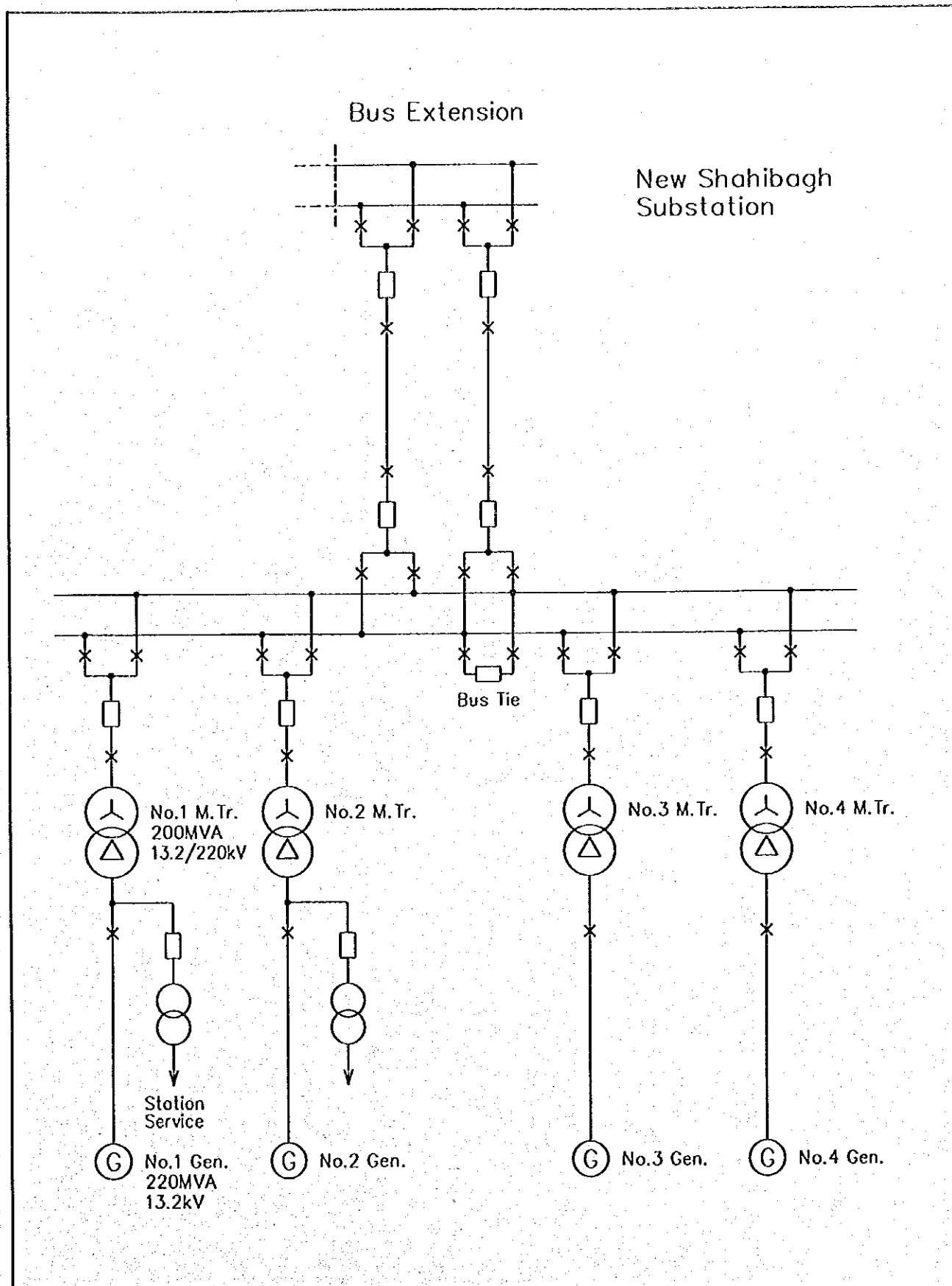
H1: Gate height for Alternative-1

H2: Gate height for Alternative-2



FEASIBILITY STUDY
 ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
 IN ISLAMIC REPUBLIC OF PAKISTAN
 JAPAN INTERNATIONAL COOPERATION AGENCY

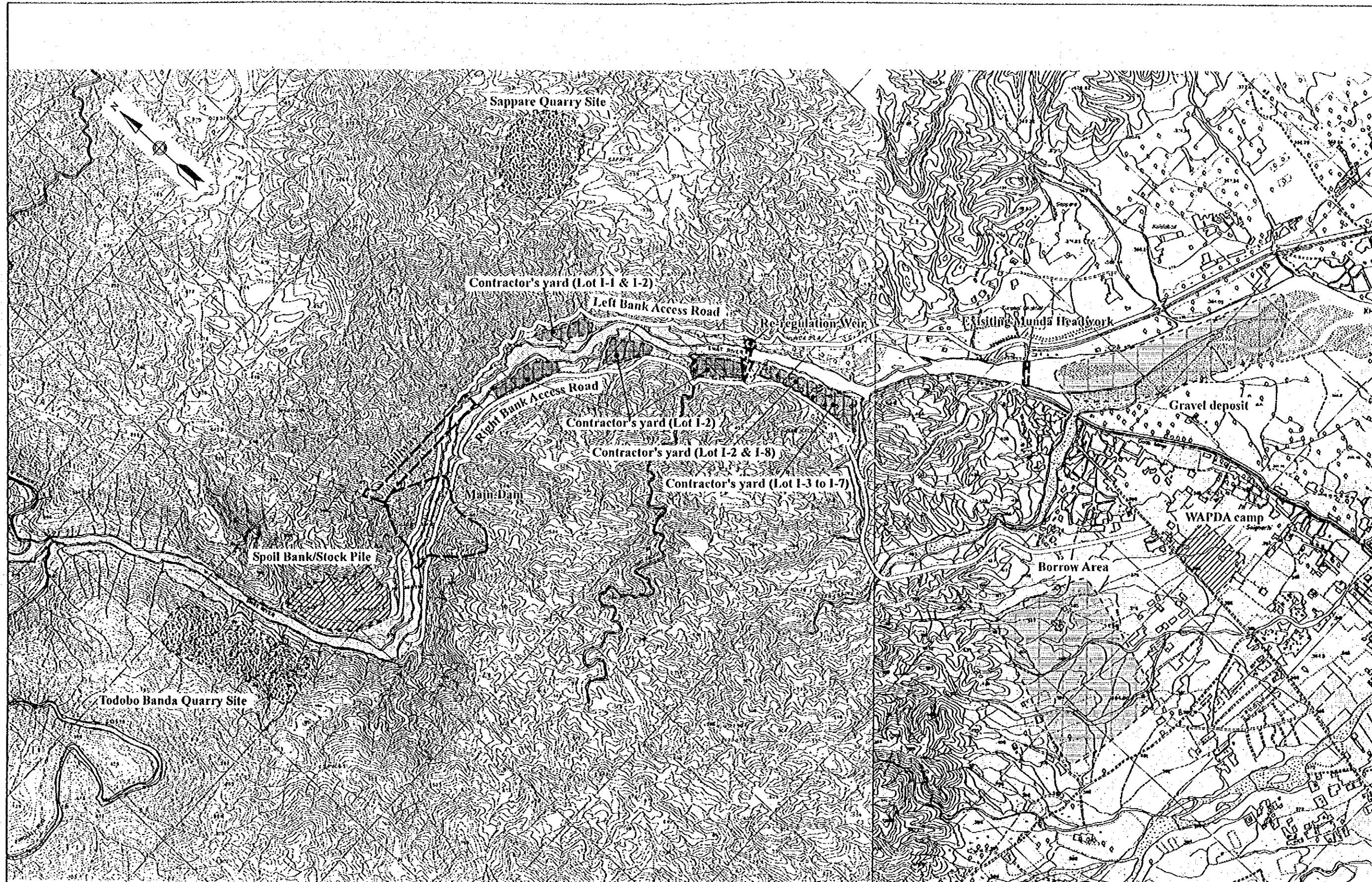
Figure 8.2.10
 Optimization of Number of Re-regulation
 Weir Gates



FEASIBILITY STUDY
 ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
 IN ISLAMIC REPUBLIC OF PAKISTAN
 JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 8.4.1

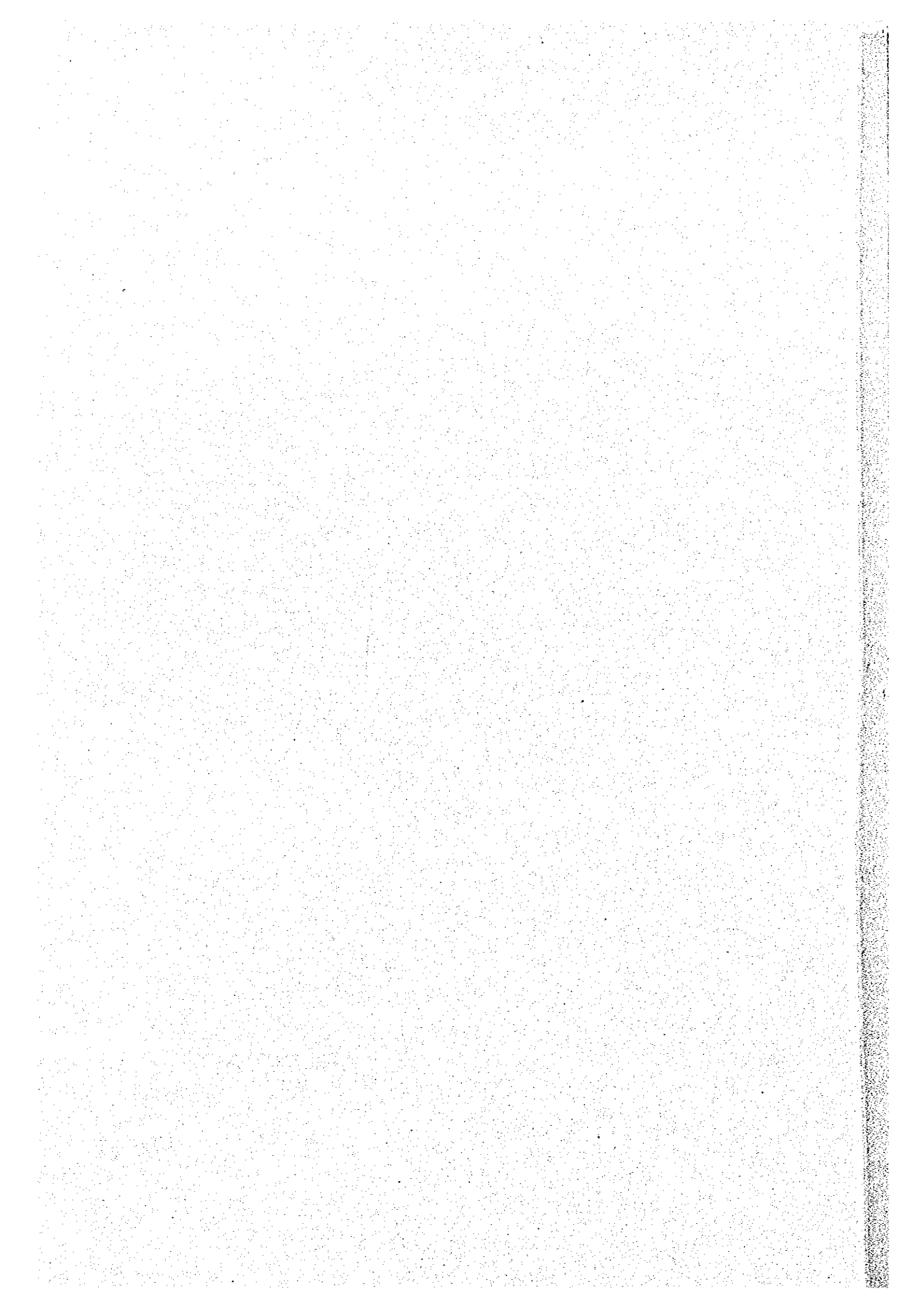
Power Station Connection



SCALE
 0 500 1000 m

FEASIBILITY STUDY
 ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
 IN ISLAMIC REPUBLIC OF PAKISTAN
 JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 9.1.1
 General Layout of Construction Facilities



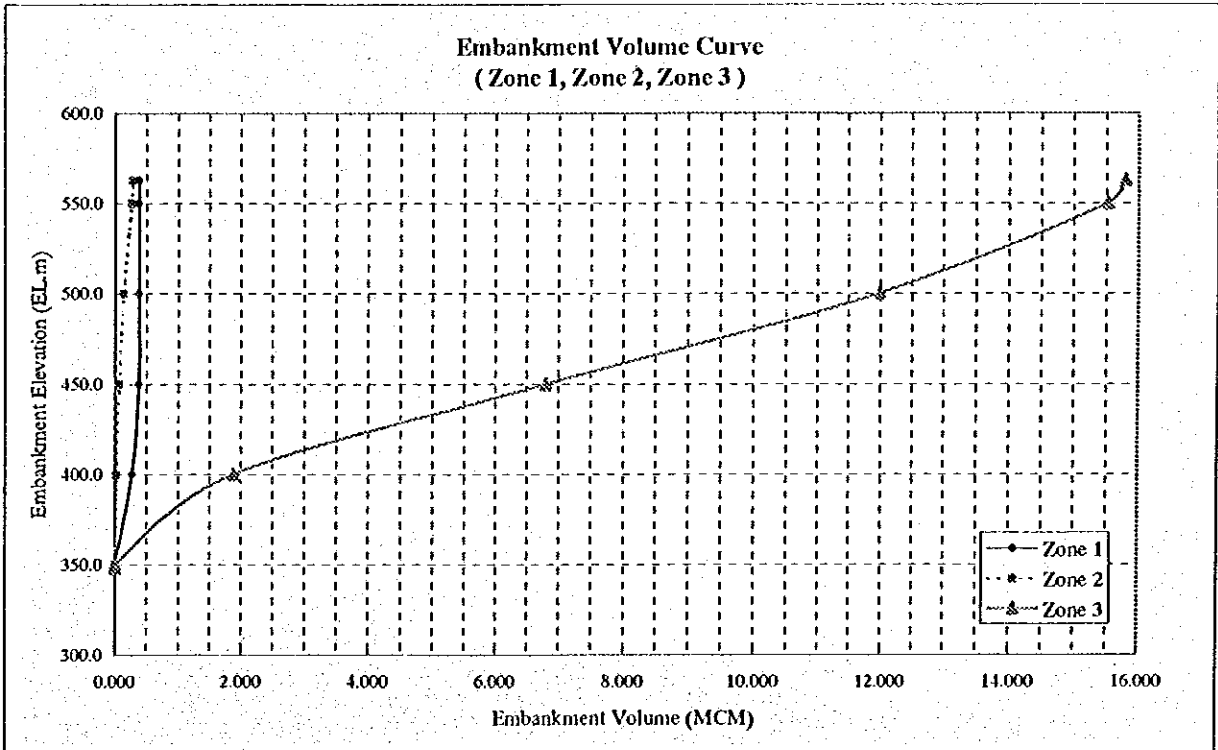
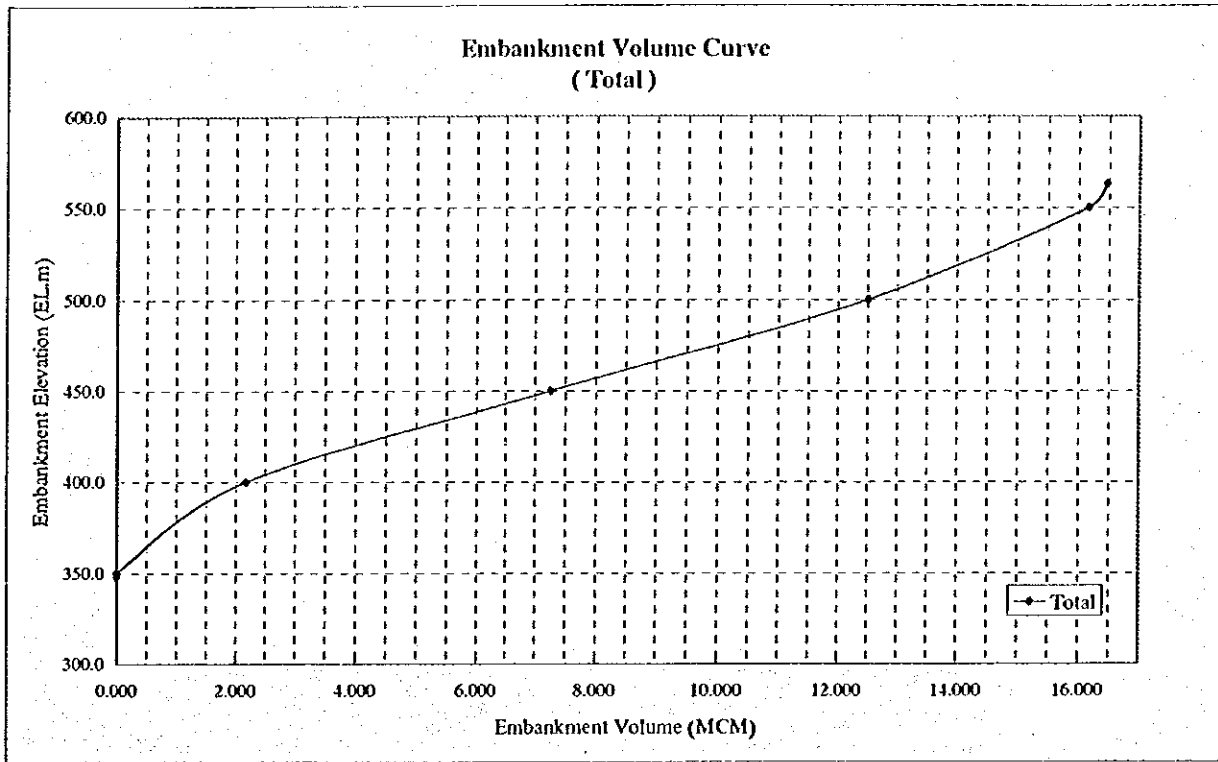
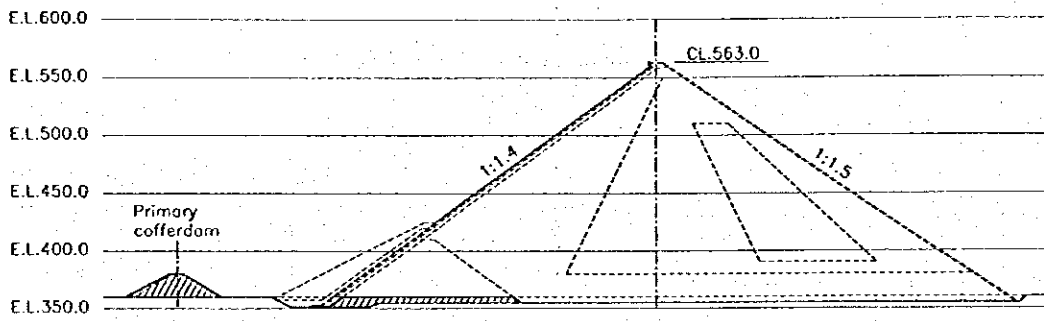
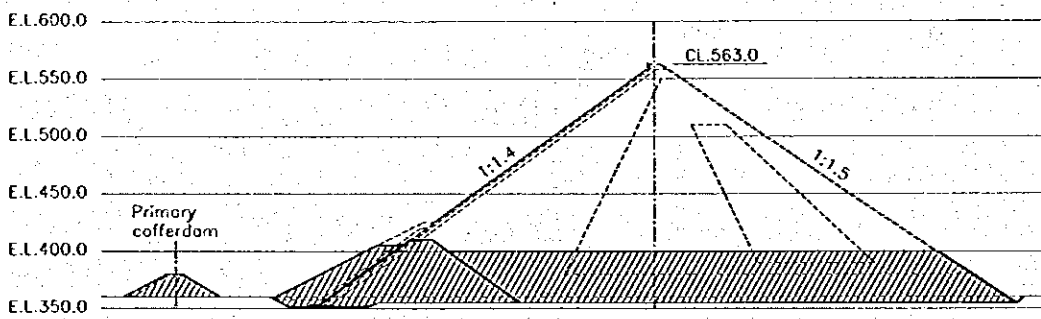


Figure 9.1.2
Dam Embankment Volume Curve

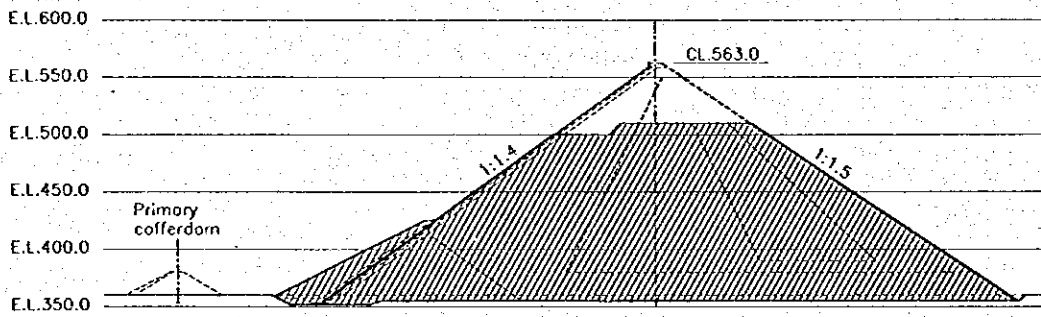
End of May 2005



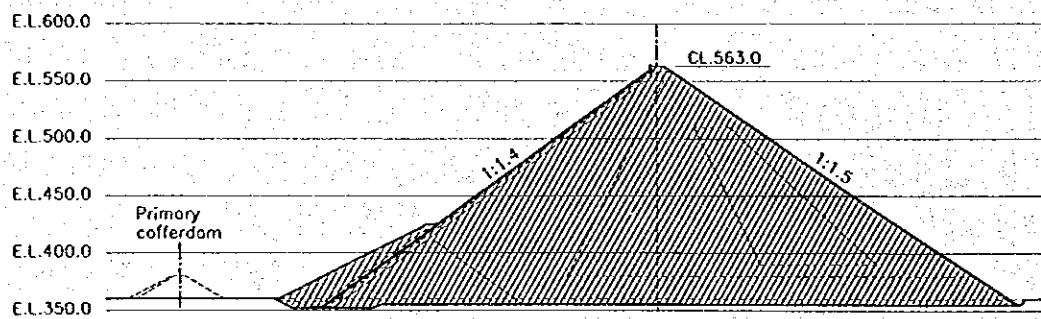
End of April 2006

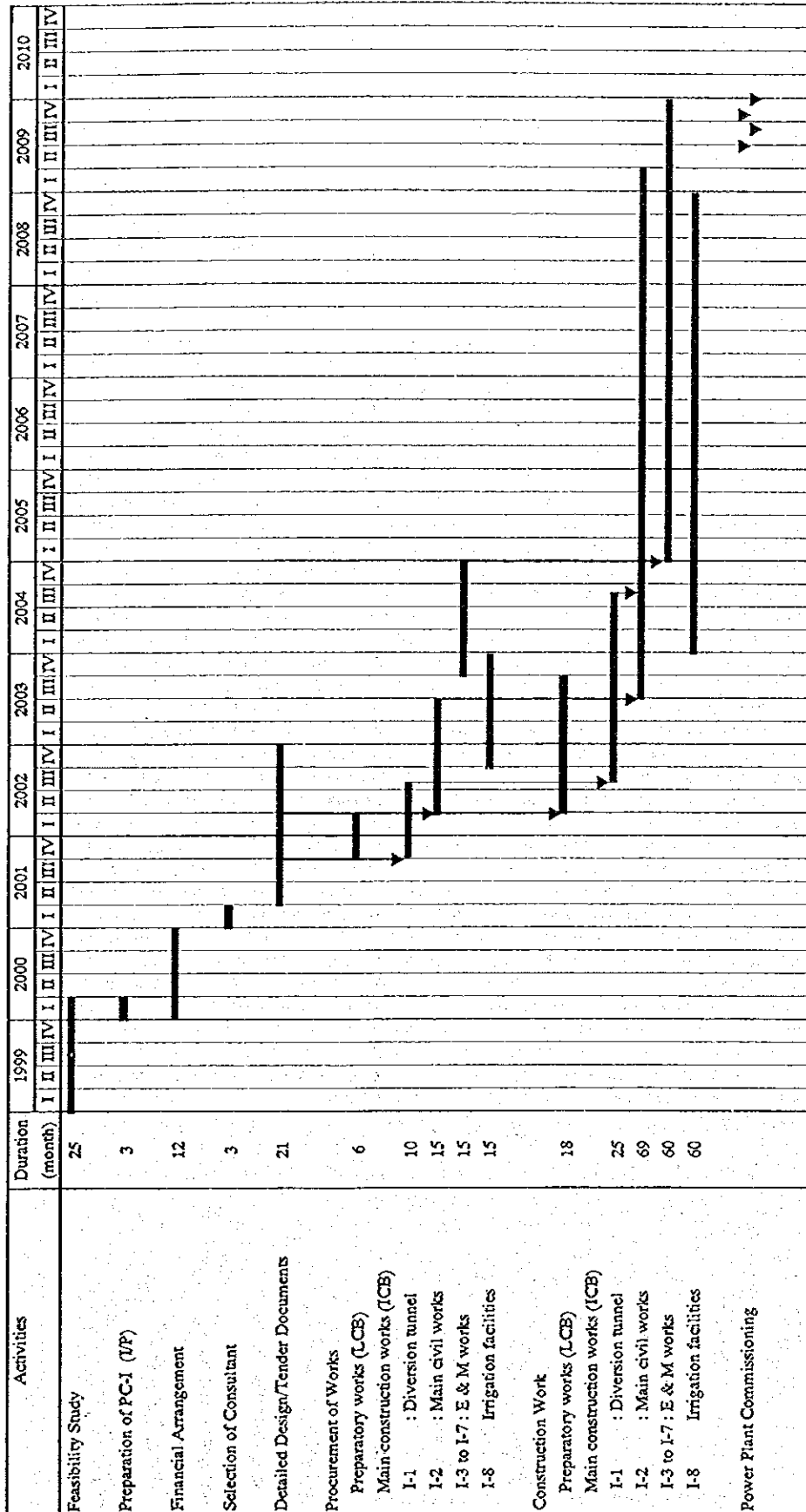


End of December 2007



End of March 2009

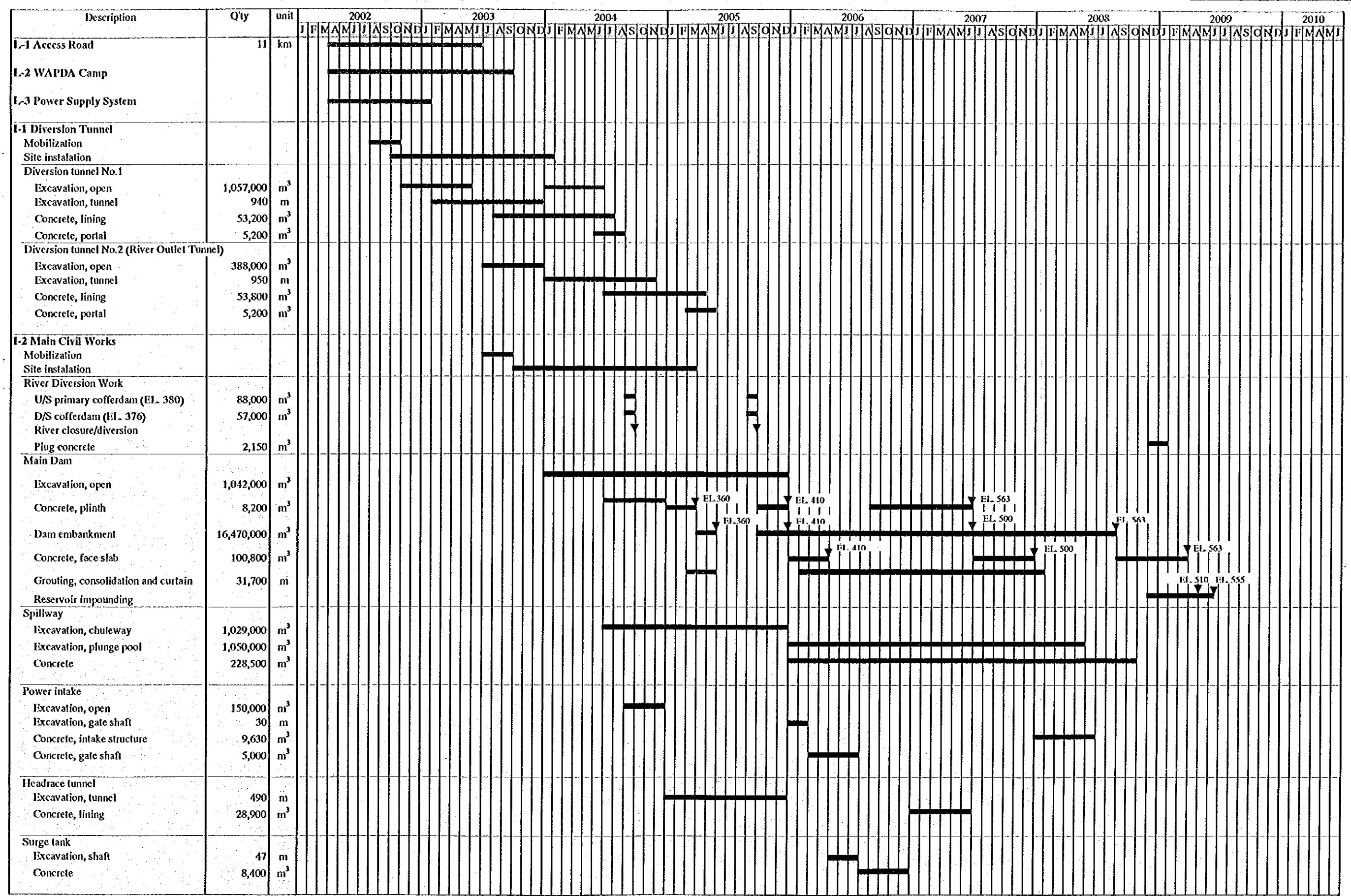


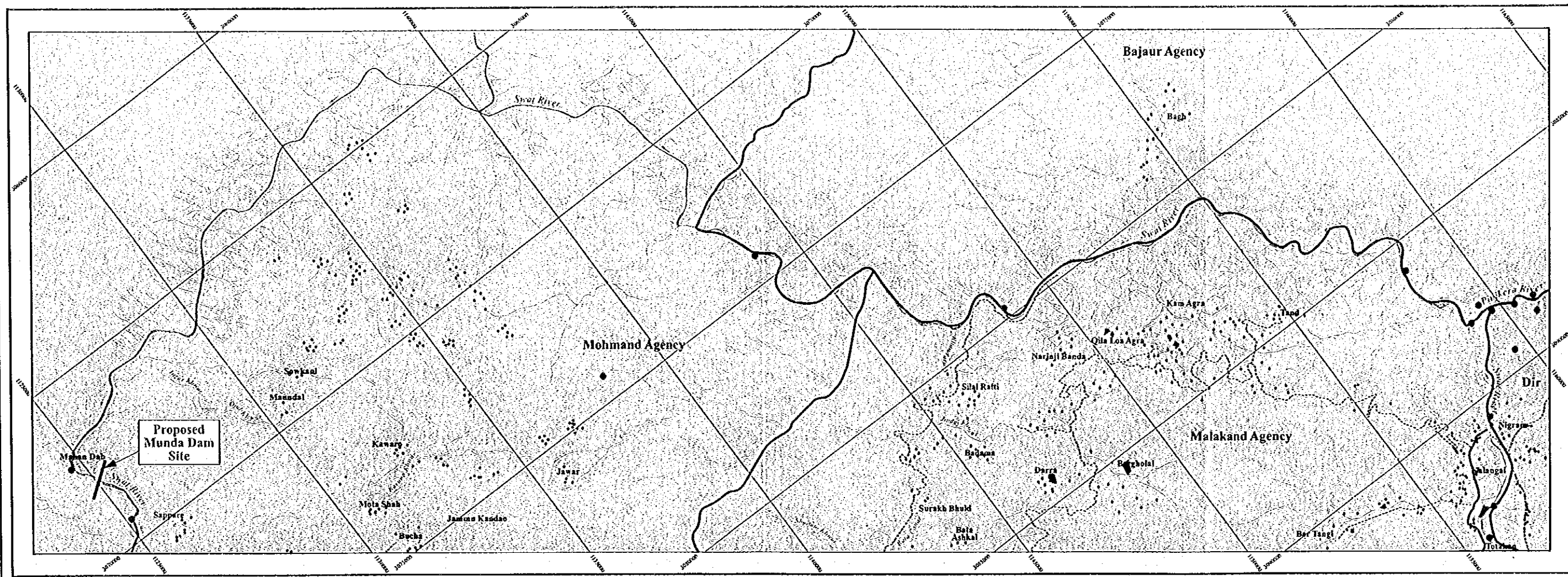
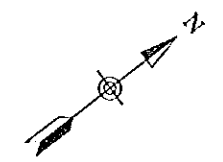


Note: ICB : International Competitive Bid
LCB : Local Competitive Bid

FEASIBILITY STUDY
ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
IN ISLAMIC REPUBLIC OF PAKISTAN
JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 9.1.4
Implementation Schedule for
Munda Dam Multipurpose Project





Legend

- | | |
|-----------------------|--------------------------------|
| — Division Boundary | • Settlements |
| — Metalled Road | ▨ Cultivated Area |
| Unmetalled Road | • Fish and Water Sampling Site |
| — River | • Fish Sampling Site |
| — Nala/Khwar/Stream | • Water Sampling Site |
| | • Vegetation Sampling Site |

FEASIBILITY STUDY
 ON THE DEVELOPMENT OF MUNDA DAM MULTIPURPOSE PROJECT
 IN ISLAMIC REPUBLIC OF PAKISTAN
 JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 11.2.1
 Dam and Reservoir Area

