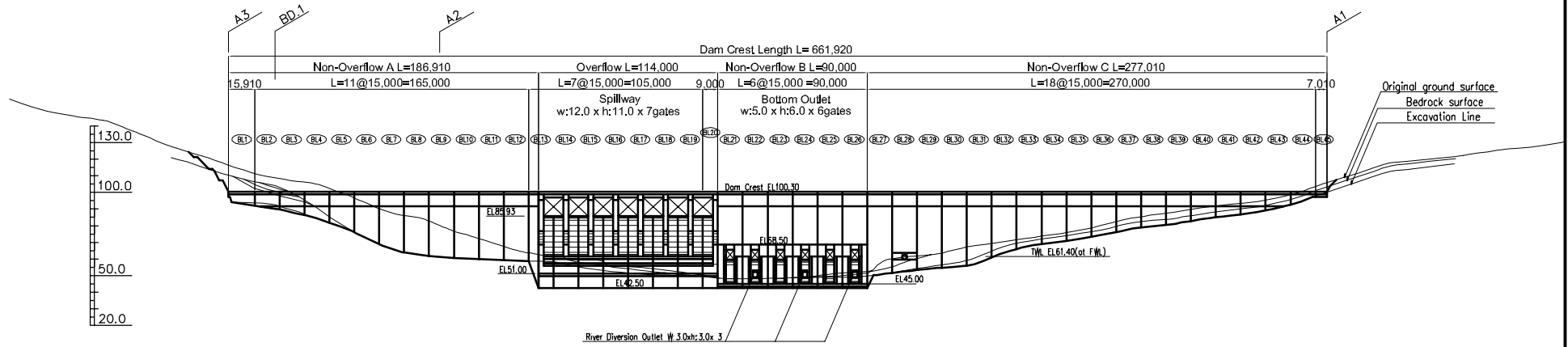
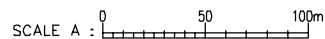
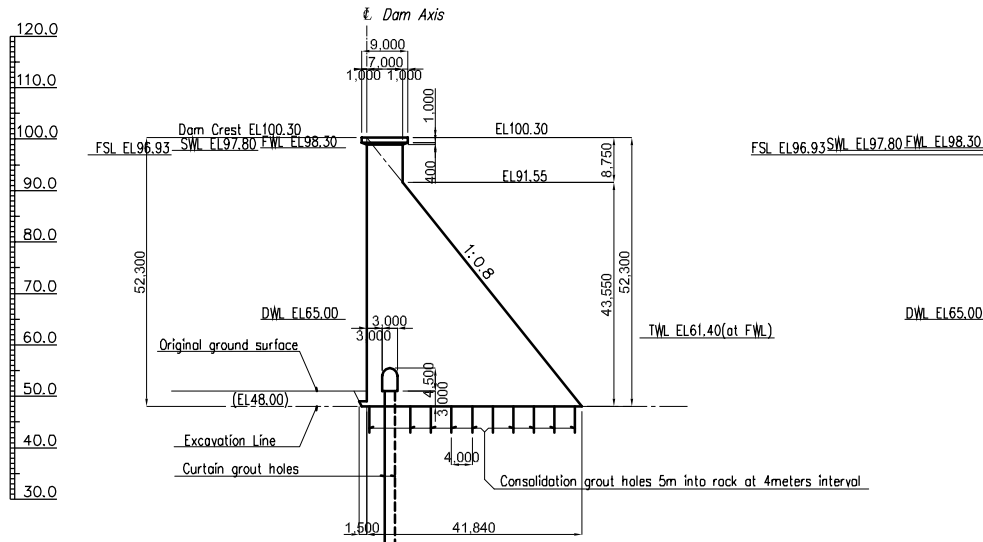


UPSTREAM ELEVATION SCALE A

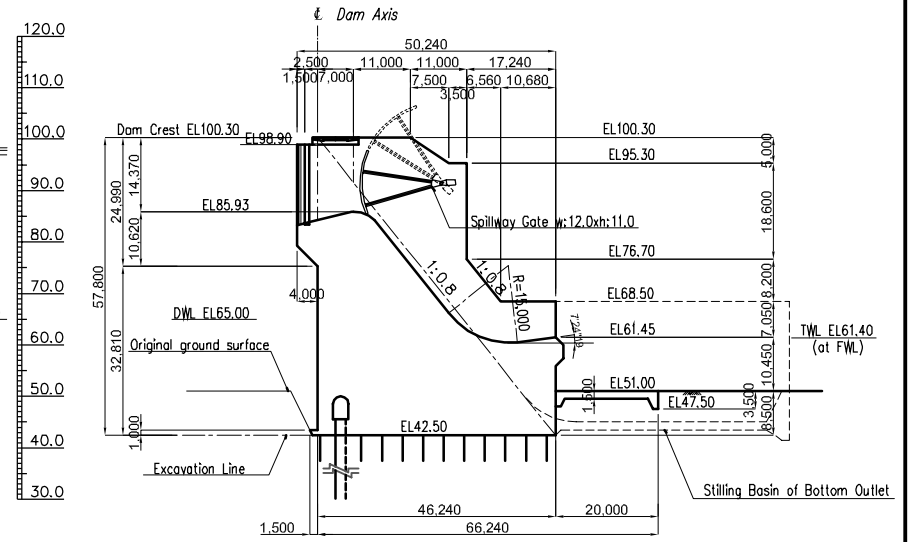


DOWNSTREAM ELEVATION SCALE A

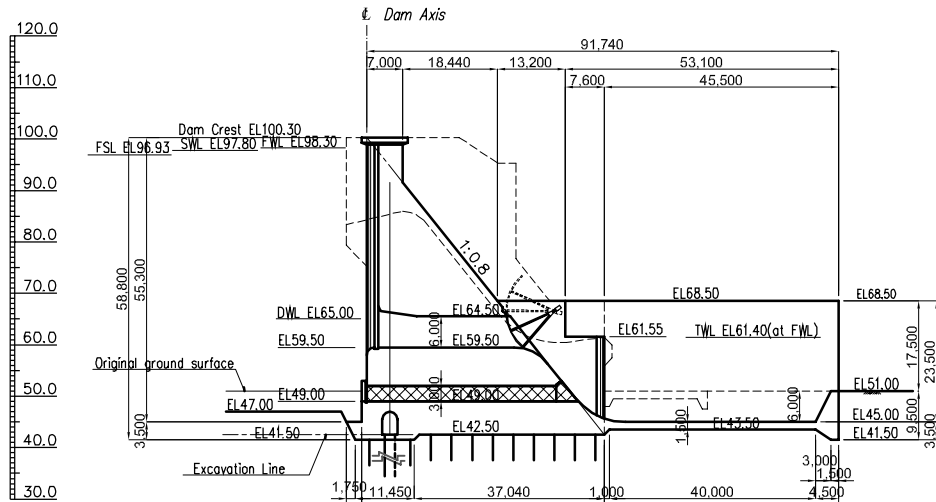




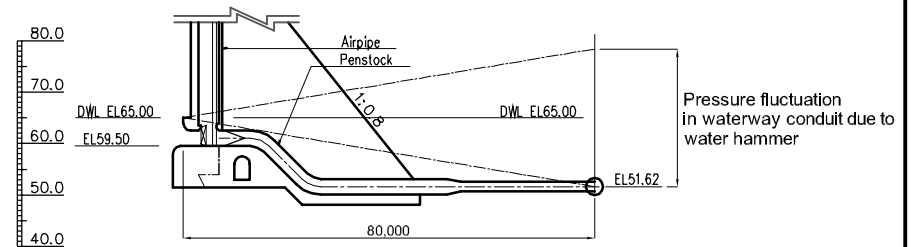
NON OVERFLOW SECTION A Scale A
BL 5,6,7,8, BL15,16,17,18,19,20,21,22



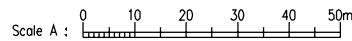
OVERFLOW SECTION Scale A
BL 9,10,11

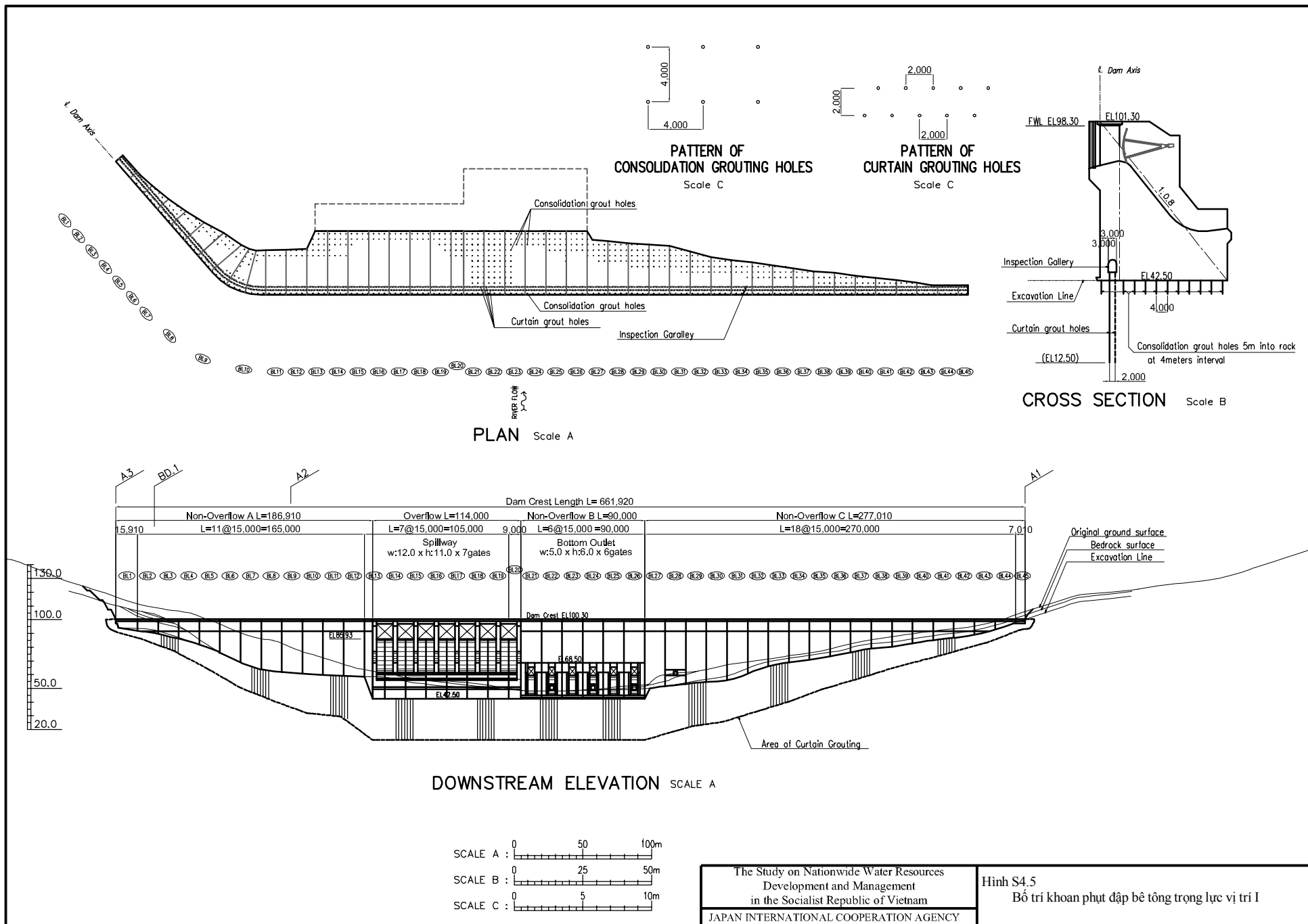


NON OVERFLOW SECTION B Scale A
BL 12,13,14



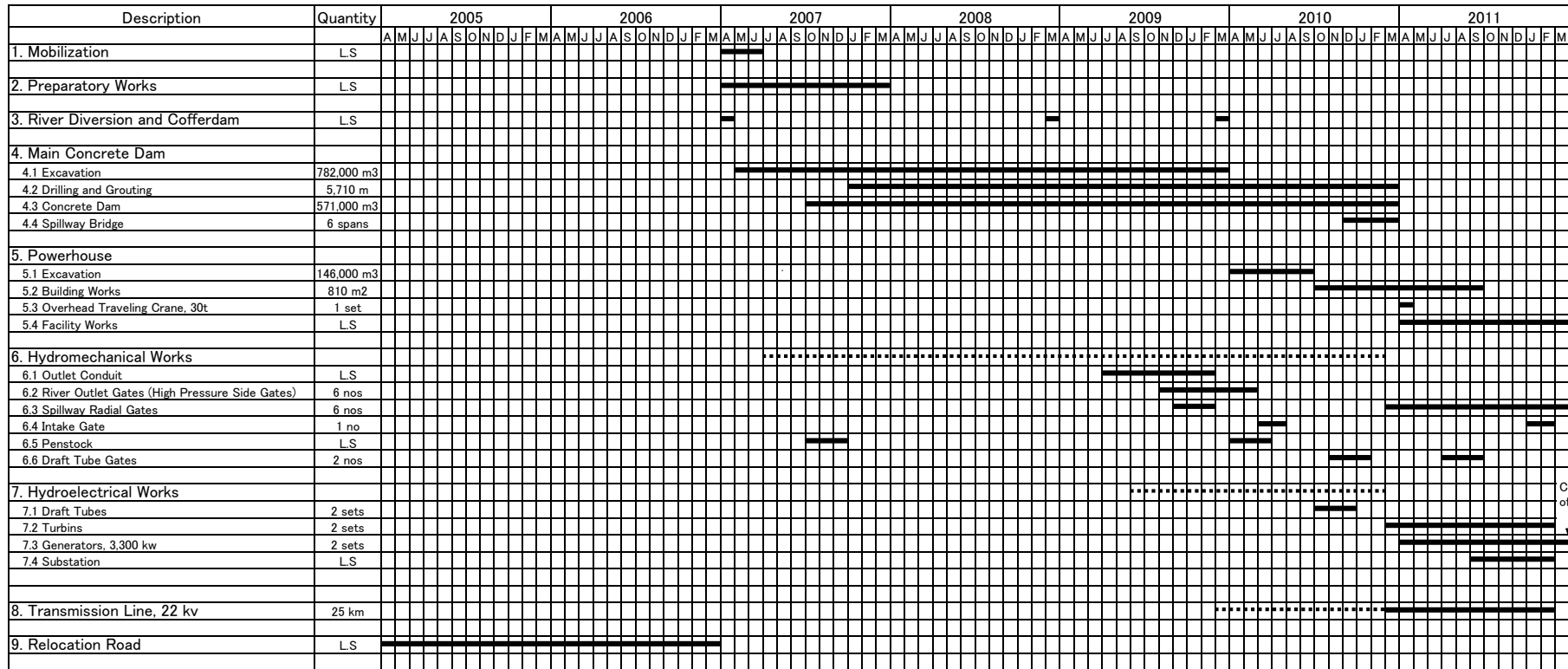
WATERWAY SECTION (BL16) Scale A





Hình S4.6 Tiến độ xây dựng hồ chứa đa mục đích Định Bình (tiến độ nguyên thủy)

F-34



Commissioning of Project

Note : Marked with means design and manufacturing period

Hình S4.7 (1) Tiến độ thực hiện chung dự án hồ chứa đa mục đích Định Bình (tiến độ tăng tốc)

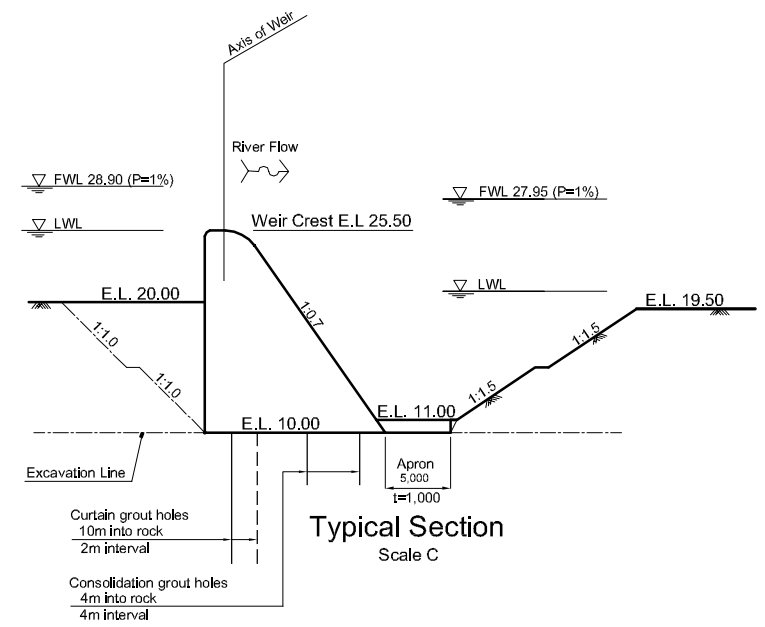
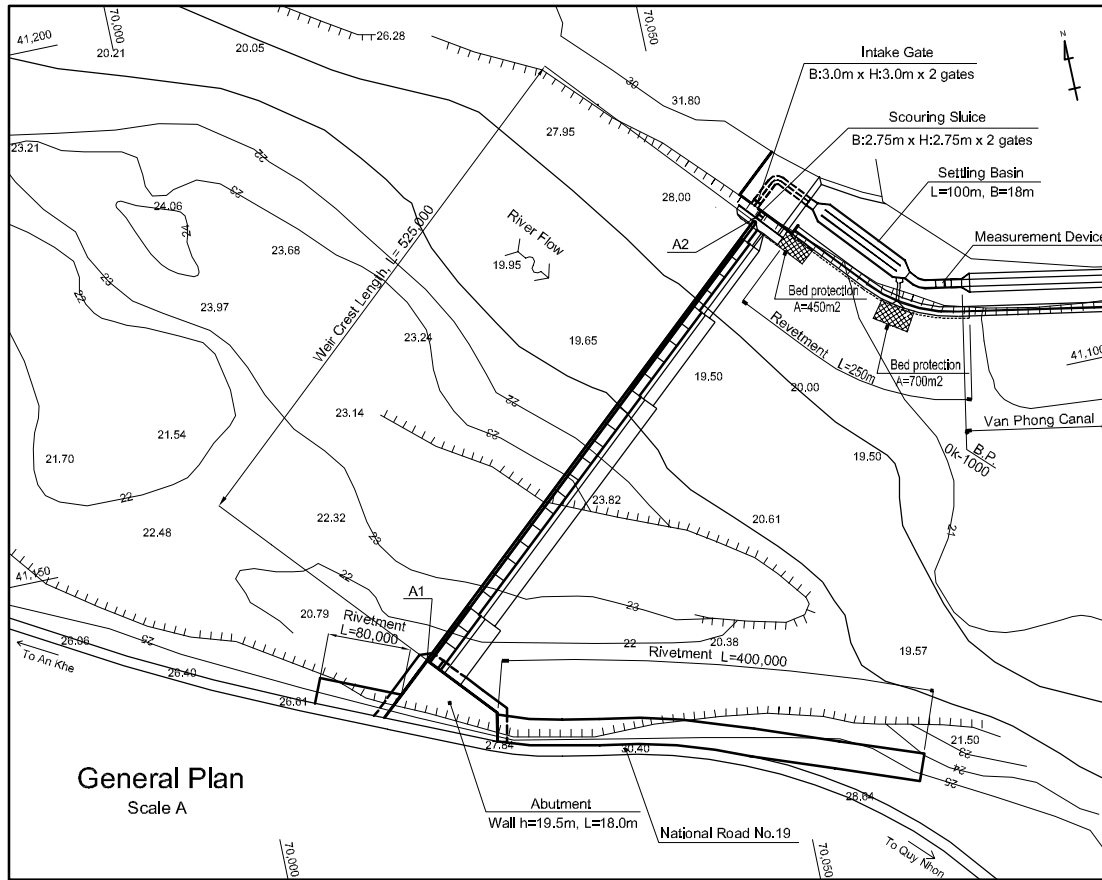
Description	Year											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Study on Nationwide Water Resources Development and Management by JICA	■											
1.1 Kone River Basin Master Plan	■	■										
1.2 Kone River Basin Feasibility Study		■	■									
2. Financial Arrangement			■									
3. Approval of Project and Arrangement by GOV		■										
4. Procurement of Consultant			■									
5. Engineering Services (Basic Design, Detailed Design and Supervision)				■	■							
5.1 Basic Design (60 days)				■								
5.2 Detailed Design (240 days)				■	■							
5.3 Supervision						■						
6. Pre-qualification Tendering												
6.1 Pre-qualification Tendering (45 days)												
6.2 Evaluation of Application (30 days)					■							
6.3 Approval of Evaluation of Application by Government (15 days)					■							
6.4 Approval of Evaluation Report by Government (15 days)						■						
6.5 Concurrence of Evaluation Report by JBIC (15 days)						■						
7. International Competitive Bidding												
7.1 Bidding (90 days)						■						
7.2 Evaluation of Bids (30 days)						■						
7.3 Approval of Bid Evaluation Report by Government (15 days)						■						
7.4 Concurrence of Bid Evaluation Report by JBIC (15 days)						■						
7.5 Contract Negotiation with Successful Bidders (15 days)						■						
7.6 Contract Approval by Government (15 days)						■						
7.7 Concurrence of Contract by JBIC (15 days)						■						
8. Land Acquisition and Resettlement		■										
9. Dinh Binh Reservoir Project (Concrete Dam)						■						
10. Relocation Road				■								

Hình S4.7 (2) Tiến độ xây dựng hồ chứa đa mục đích Định Bình (tiến độ tăng tốc)

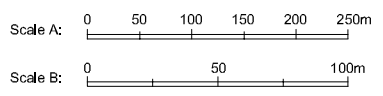
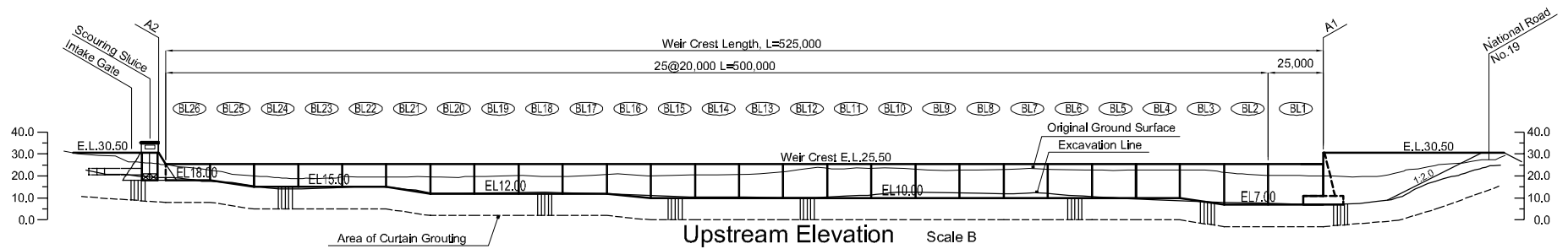
Description	Quantity	2005				2006				2007				2008				2009				2010				2011																											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A												
1. Mobilization	LS																																																				
2. Preparatory Works	LS																																																				
3. River Diversion and Cofferdam	LS																																																				
4. Main Concrete Dam																																																					
4.1 Excavation	782.000 m ³																																																				
4.2 Drilling and Grouting	5.710 m																																																				
4.3 Concrete Dam	571.000 m ³																																																				
4.4 Spillway Bridge	6 spans																																																				
5. Powerhouse																																																					
5.1 Excavation	146.000 m ³																																																				
5.2 Building Works	810 m ²																																																				
5.3 Overhead Traveling Crane, 30t	1 set																																																				
5.4 Facility Works	LS																																																				
6. Hydromechanical Works																																																					
6.1 Outlet Conduit	LS																																																				
6.2 River Outlet Gates (High Pressure Side Gates)	6 nos																																																				
6.3 Spillway Radial Gates	6 nos																																																				
6.4 Intake Gate	1 no																																																				
6.5 Penstock	LS																																																				
6.6 Draft Tube Gates	2 nos																																																				
7. Hydroelectrical Works																																																					
7.1 Draft Tubes	2 sets																																																				
7.2 Turbins	2 sets																																																				
7.3 Generators, 3.300 kw	2 sets																																																				
7.4 Substation	LS																																																				
8. Transmission Line, 22 kv	25 km																																																				
9. Relocation Road	LS																																																				

Note : Marked with means design and manufacturing period

F-36

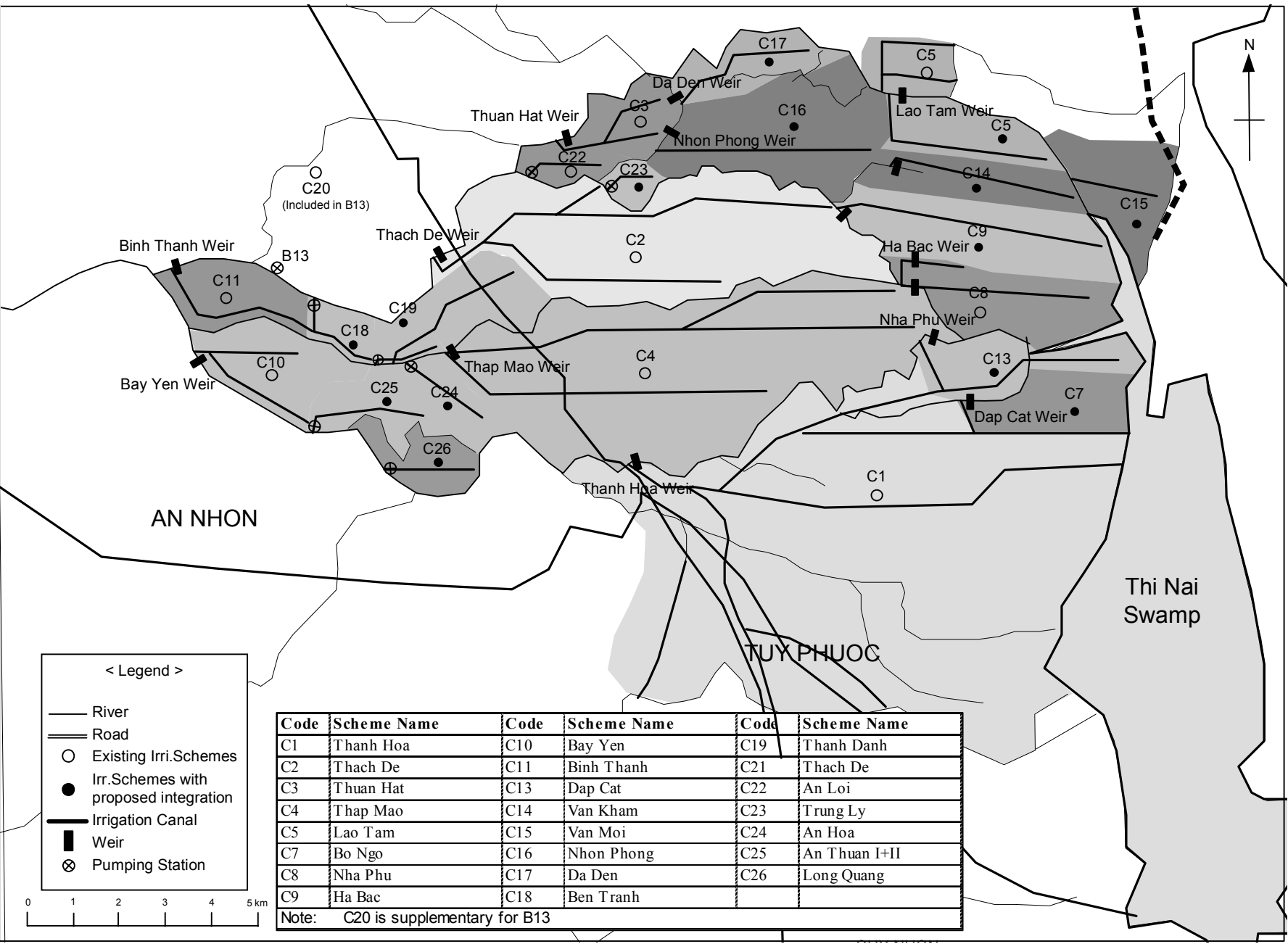


No.	X	Y
A1	41,134.93	70,017.38
A2	41,169.96	70,056.96

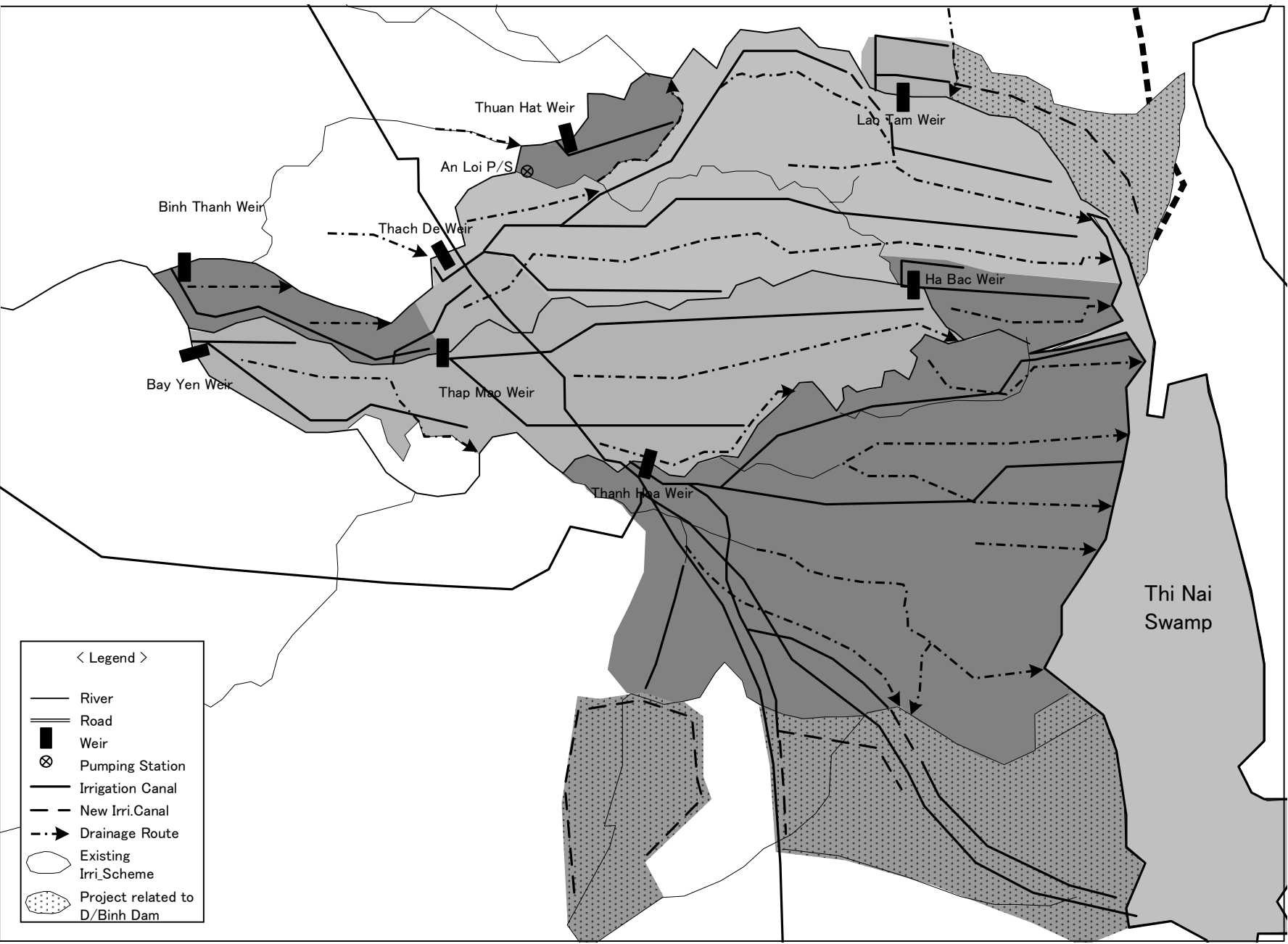


The Study on Nationwide Water Resources
Development and Management
in the Socialist Republic of Vietnam
JAPAN INTERNATIONAL COOPERATION AGENCY

Hình S4.8 Giản đồ bình đồ đập dâng Văn Phong

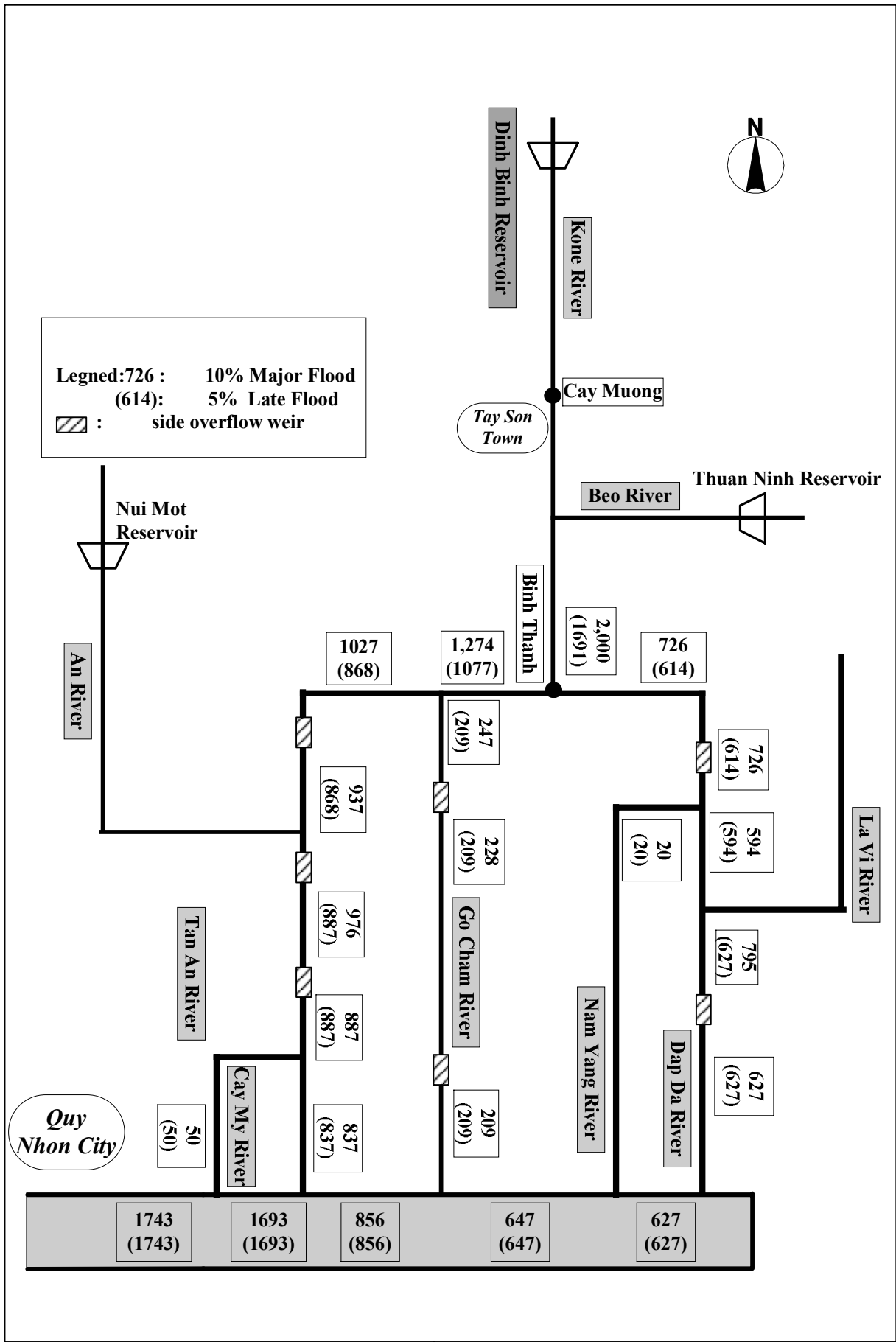


- < Legend >
- River
 - Road
 - Weir
 - ⊗ Pumping Station
 - Irrigation Canal
 - - - New Irri.Canal
 - . - . Drainage Route
 - Existing Irri.Scheme
 - ◐ Project related to D/Binh Dam



Hình S4.11 Tiến độ xây dựng cho đập Văn Phong và hệ thống tưới

Description	Quantity	2006				2007				2008				2009				2010				2011				2012											
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
1. Mobilization	L.S																																				
2. Preparatory Works	L.S																																				
3. Van Phong Weir																																					
3.1 River Diversion and Cofferdam	L.S																																				
3.2 Weir																																					
(1) Excavation	712,000 m3																																				
(2) Concrete	96,000 m3																																				
3.3 Scouring Sluice	L.S																																				
3.4 Intake Facilities	L.S																																				
3.5 Flood Dike	L.S																																				
4. Rehabilitation Works of Existing Weirs	7 weirs																																				
5. New Pumping Station																																					
5.1 Building	6 places																																				
5.2 Pumping Facilities	6 places																																				
6. Main Irrigation System																																					
6.1 Canal																																					
(1) Excavation	1,327,000 m3																																				
(2) Lining concrete	128,000 m3																																				
6.2 Related Structures																																					
(1) Excavation	659,000 m3																																				
(2) Concrete	32,100 m3																																				
7. Primary and Secondary Irrigation System																																					
7.1 Canal																																					
(1) Excavation	853,000 m3																																				
(2) Lining concrete	109,000 m3																																				
7.2 Related Structures																																					
(1) Excavation	65,700 m3																																				
(2) Concrete	5,950 m3																																				
8. Drainage System																																					
8.1 Drain																																					
(1) Excavation	2,963,000 m3																																				
8.2 Related Structures																																					
(1) Excavation	157,000 m3																																				
(2) Concrete	5,840 m3																																				
9. Farm Road Network																																					
(1) Road	L.S																																				
(2) Related Structures	L.S																																				
10. On-farm System																																					
10.1 Improvement of Existing Facilities	16,200 ha																																				
10.2 Rehabilitation and Improvement of Facilities	3,400 ha																																				
10.3 New Construction of Facilities	17,800 ha																																				



The Study on Nationwide Water Resources Development and Management in the Socialist Republic of Vietnam
 JAPAN INTERNATIONAL COOPERATION AGENCY

Hình S4.12
Phân bố lưu lượng thiết kế trên lưu vực sông Kone

