



Kingdom of Cambodia  
Nation Religion King

## Cambodia National Mekong Committee

#576, National Road No 2, Sangkat Chak Angre Krom, Khan Meanchey, Phnom Penh, Cambodia, P.O.Box 120801, Phnom Penh, Cambodia.  
Tel: (855-23) 216 514, E-mail: cnmcs@cnmc.gov.kh, Website: www.cnmc.gov.kh

Ref. No. CNMC: 731 /23

Phnom Penh, 8 August 2023

Dear Dr. Anoulak,

**Subject: The Inland Waterway Project “Funan-Techo Canal”**

The Royal Government of Cambodia through the Ministry of Public Works and Transport (MPWT), has the Inland Waterway Project “Funan-Techo Canal” and reference is made to the Letter No. 3614 សក.ជជទ dated 27 July 2023 of MPWT, I am writing to forward to you the said Project, notified and submitted by the Ministry with the attached Form and documents herewith for your information, consideration and further action.

Pursuant to the Clause 4.3.2 of the MRC PNPCA, the MRC Secretariat is requested to proceed, distributing it to the MRC Joint Committee Members with the supporting documents, accordingly.

Should you require further information, please contact Mr. Heng Suthy, Deputy Director General of MPWT at [hengsuthy@gmail.com](mailto:hengsuthy@gmail.com), as the contact person mentioned in the attached Form.

Thank you for your kind cooperation in this matter.

Yours sincerely, 

So Sophort  
Secretary General  
Cambodia National Mekong Committee  
Member of the MRC Joint Committee for Cambodia

Dr. Anoulak Kittikhoun  
Chief Executive Officer  
MRC Secretariat  
Vientiane, Lao PDR

Cc: Ministry of Public Works and Transport  
Phnom Penh, Cambodia

---

**NOTIFICATION OF THE INLAND WATERWAY PROJECT  
“FUNAN-TECHO CANAL”**

- 1. Notifying State:** KINGDOM OF CAMBODIA
- 2. Date of Submission:** 08 Aug 2023
- 3. Notifying Ministry:** Ministry of Public Works and Transport  
Street 598, Sangkat Chrang Chamres 2, Khan Russey Keo, Phnom Penh  
Cambodia.  
Mobile: 855-12 835867  
E-mail: info@mpwt.gov.kh
- 4. Contact Person / Address:**  
Mr. Heng Suthy, Deputy Director General  
Ministry of Public Works and Transport  
Address Street 598, Sangkat Chrang Chamres 2, Khan Russey Keo, Phnom  
Penh Cambodia.  
Mobile: 855-17494667  
E-mail: hengsuthy@gmail.com
- 5. Name of the Project:** The Inland Waterway Project “Funan -Techo Canal”.
- 6. Location of the Project:** Two sections for the project implementation. The first section has a starting point at natural stream of Preak Takeo located in Kien Svay District and connects to the natural stream of Preak Ta Ek located in the Saang District of Kandal Province. The second section starts at natural stream of Preak Ta Hing located in Koh Thom District, Kandal Province and connects with the existing natural stream of Takeo, Kampot and Kep Provinces.
- 7. Nature of the proposed use:** On the tributary of the Mekong River for the first section. On the tributary of the Bassac River (which is itself a tributary of the Mekong River) for the second section.
- 8. Purpose of the proposed project:** Inland waterborne transport and navigation connectivity.
- 9. Expected date of the implementation:**
  - a) Date for starting the construction      2024
  - b) Date for finishing the construction      2027
  - c) Date for the operation                      2028

**10. Description of the Project:**

**10.1 Introduction**

---

The proposed rehabilitation of the inland waterway project “Funan - Techo Canal” completely overlays an historical inland waterway route which was built and used since the Funan-Khmer Empire Era, from approximately year 500 BCE until now. Rehabilitation and improvement works are required in order to reinvigorate this inland waterway and enhance navigation connectivity. The waterway’s total length is approximately 180 kilometers, connecting Kandal, Takeo, Kampot and Kep Provinces. The main objective of this navigation rehabilitation project is to reconnect historical and natural inland waterway routes for local community navigation and transportation in Cambodia.

This development project is consistent with the Cambodia’s commitments as per articles 1 and 2 of the 1995 Mekong Agreement and in line with the principles of the sovereign equality and respect for rights and legitimate interests.

## **10.2 Technical Salient Features**

Major coverage of the Project’s rehabilitation works is:

### **(1) Construction Standards and Scale**

Waterway Level	: 1,000 DWT
Waterway Length	: 180 km
Waterway Dimensions	: 4.7m × 50.0m (Water Depth × Bottom Width)
Bridge Navigation Clearance	: 16m × 53m (Clearance Height × Clearance Width)
Design Representative Ship Type:	60m × 12m × 3.6m (Length × Width × Full Draft)

### **(2) Lock Works**

Effective Scale of the Lock	: 135m × 18m × 5.8m (Length × Width × Depth of the threshold)
Capacity	: 7.04 million tons / year (Single Line Lock)
Number of the Locks	: 3
Maximum Discharge for Lock	: 3.6 m <sup>3</sup> / s (daily average)

- Earth Excavation and Backfill
- Construction of the Ship Locks
- Construction of the Sluice Gate
- Construction of Production and Auxiliary Buildings
- Electrical Work for the Locks
- Communication Work for the Locks

- Automatic Control System and Industrial TV Works for the Locks
- Navigation Aids for the Locks
- Wet Utilities and Firefighting Work for the Locks

### **(3) Navigation Channel Works**

Two-Way Bottom Width : 50 m

Water Depth : 4.7m

Minimum Radius of the Canal : 300m

Bank Slope of the Canal : 1:3 ~ 1:5

- Excavation, Backfill and Dredging Works
- Construction of Revetment
- Informatization Works for the Channel
- Navigation Aids for the Channel

### **(4) Bridges**

Number of Bridges : 11

Main Bridge Type : Box Girder Structure

Approach Type : Hollow Slab

Length for Main Bridge : 161m

Span Length for Main Bridge :  $43\text{m} + 75\text{m} + 43\text{m} = 161\text{m}$

Length for Approach : 520m

Span Length for Approach : Left Side:  $6 \times 20\text{m} + 6 \times 20\text{m} = 240\text{m}$

Right Side:  $7 \times 20\text{m} + 7 \times 20\text{m} = 280\text{m}$

Deck Width : 12m

## **10.3 EIA (Environmental Impact Assessment)**

### **a) Impact on the Water Volume of the Existing River systems**

Due to the construction of three locks along the canal, the water discharge volume of the canal will be effectively controlled. The maximum water discharge for the lock is only  $3.6 \text{ m}^3 / \text{s}$  (daily average), which is negligible relative to the water flow of the Mekong River system. Accordingly, there will be no significant impact on the water flow volume of the Mekong River system.

### **b) Positive impact of the project**

- Improve local and regional inland waterway navigation and transportation connectivity for local communities in southern Cambodia.
- Reduce the risk of flooding for some flooded areas in Kandal and Takeo Provinces.

- 
- Create new natural habitats for fish, aquatic animals and vegetation, birds, mammals and amphibians for environmental sustainability.
  - Ensure food security for the benefit of local people and communities by developing fish and wild fishery along the way.
  - Enhance tourism and productive careers for local people by providing a better and more connected logistic system.

**c) Negative impact of the project**

- Dust in the air and noise impacts are mainly induced during the construction period.
- The issue of water and soil conservation mainly relates to construction areas, temporary road areas, temporary works facilities area, disposal areas, etc.

**d) Mitigation for negative impact of the project**

- Construction of three waterway locks aims to control water flow in the canal, to control the Bassac River water outflow through the canal to the sea, and to protect against salinity intrusion from the sea.
- Environmental protection and control measures will be taken into account according to international standards, to improve conservation capacity and vegetation coverage and to minimize soil erosion and to achieve effective pollution control during construction and operation.

## **11. Conclusions**

The inland waterway project “Funan - Techo Canal” will help Cambodia’s local communities by improving local and regional inland waterway networks, promoting the development of Cambodia's integrated transport system, ensuring the safety of the national water transport network, reducing social logistics costs, driving Cambodia's economic and social development to achieve new breakthroughs and promoting the coordinated development of regional economy. Furthermore, there will be no significant impact on (and thus no negative implication to) the Mekong River system’s daily flow and annual flow volumes. Construction and operation of the three waterway locks will enable the effective and efficient management and control of the flow in the canal. Also, the environmental and social impacts are at a very minimal level during both construction and operation and will be controllable.

## **12. Attached Documents**

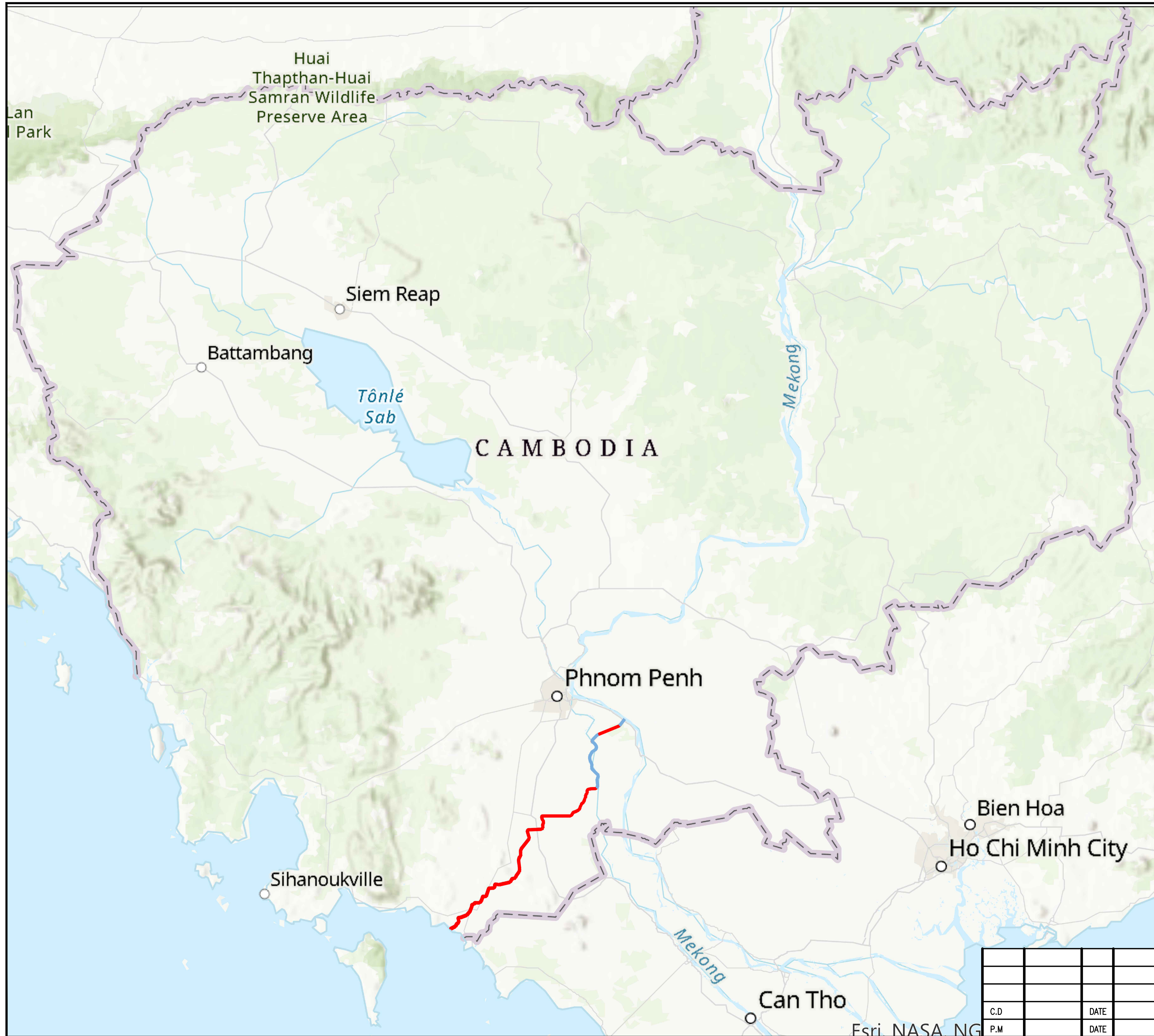
---

Annex 1. Overall location map of the project

Annex 2. Waterway Route and bridges' location map

Annex 3. Lock Design

Annex 4. General Arrangement of Bridge



NOTES:

LENGEND:

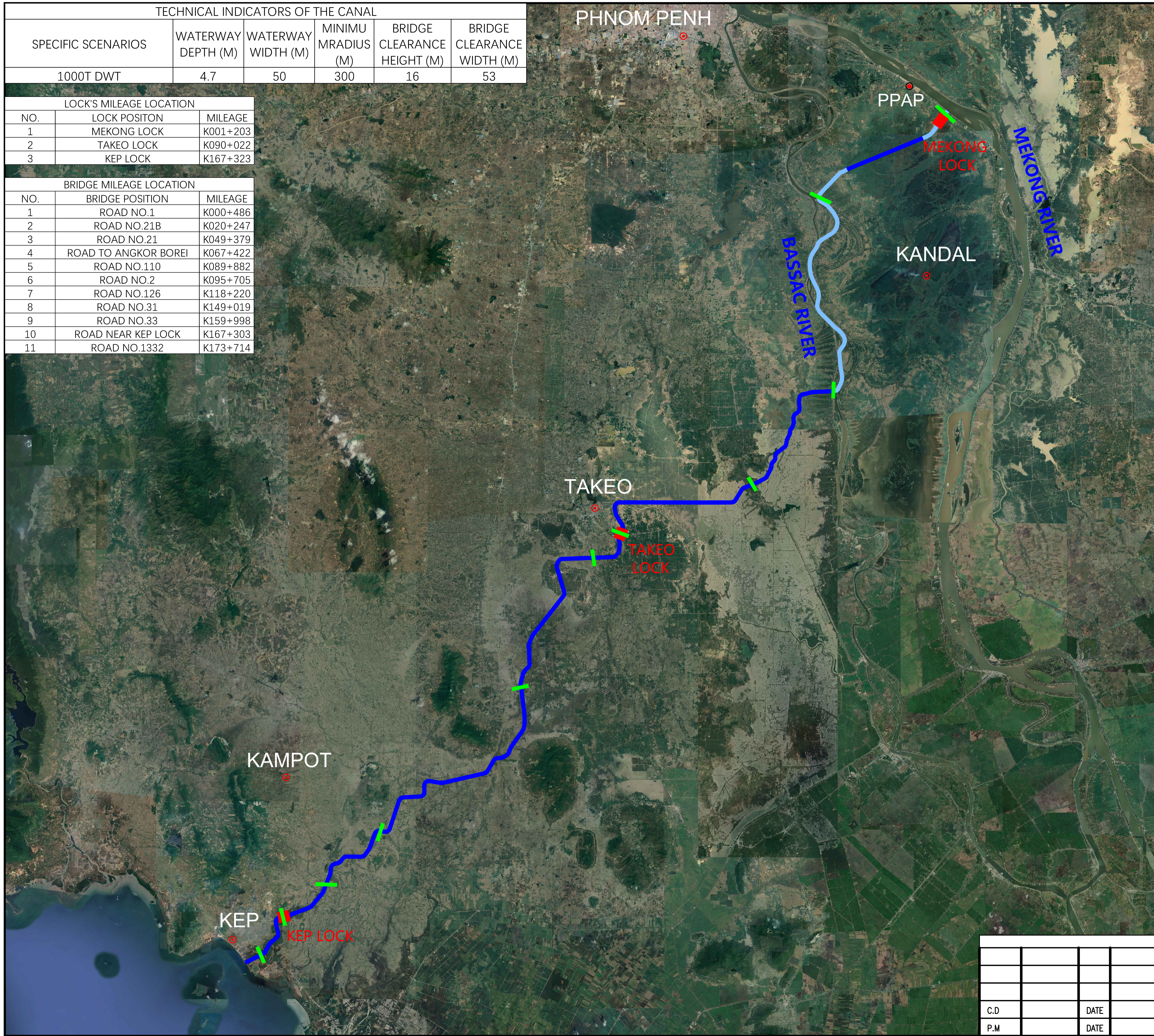
- PROJECT LOCATION
- EXISTING RIVER

DESC.	ANNEX 1 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	OVERALL LOCATION MAP OF THE PROJECT				
DRG. NO.	CABA-ZT-01-001	REV.	D.O		
C.D		DATE	DRG. SCALE	PHASE	
P.M		DATE	COPYRIGHT RESERVED		

TECHNICAL INDICATORS OF THE CANAL					
SPECIFIC SCENARIOS	WATERWAY DEPTH (M)	WATERWAY WIDTH (M)	MINIMUM RADIUS (M)	BRIDGE CLEARANCE HEIGHT (M)	BRIDGE CLEARANCE WIDTH (M)
1000T DWT	4.7	50	300	16	53

LOCK'S MILEAGE LOCATION		
NO.	LOCK POSITION	MILEAGE
1	MEKONG LOCK	K001+203
2	TAKEO LOCK	K090+022
3	KEP LOCK	K167+323

BRIDGE MILEAGE LOCATION		
NO.	BRIDGE POSITION	MILEAGE
1	ROAD NO.1	K000+486
2	ROAD NO.21B	K020+247
3	ROAD NO.21	K049+379
4	ROAD TO ANGKOR BOREI	K067+422
5	ROAD NO.110	K089+882
6	ROAD NO.2	K095+705
7	ROAD NO.126	K118+220
8	ROAD NO.31	K149+019
9	ROAD NO.33	K159+998
10	ROAD NEAR KEP LOCK	K167+303
11	ROAD NO.1332	K173+714

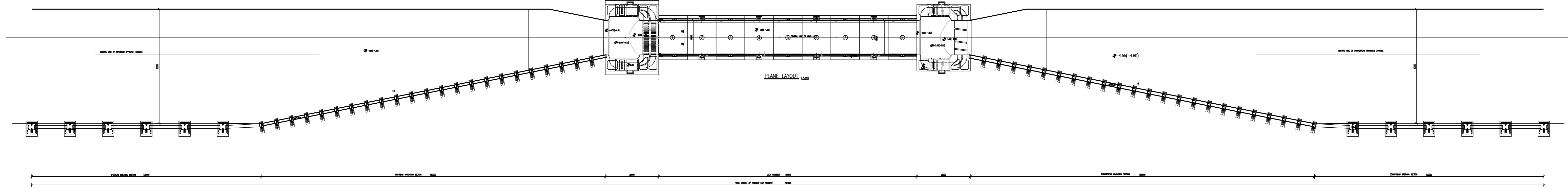
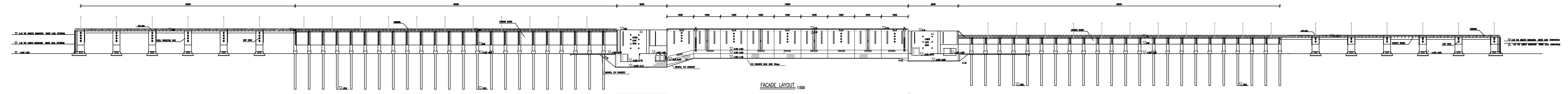
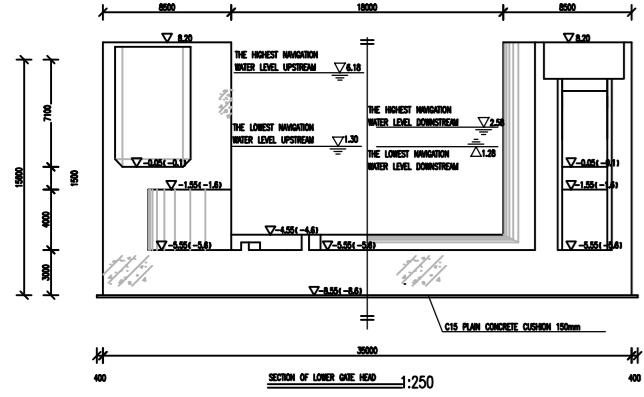
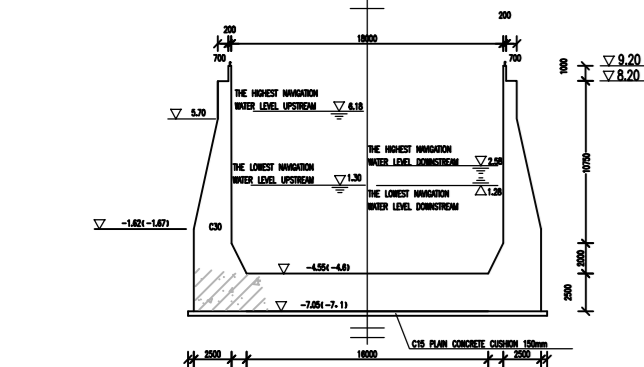
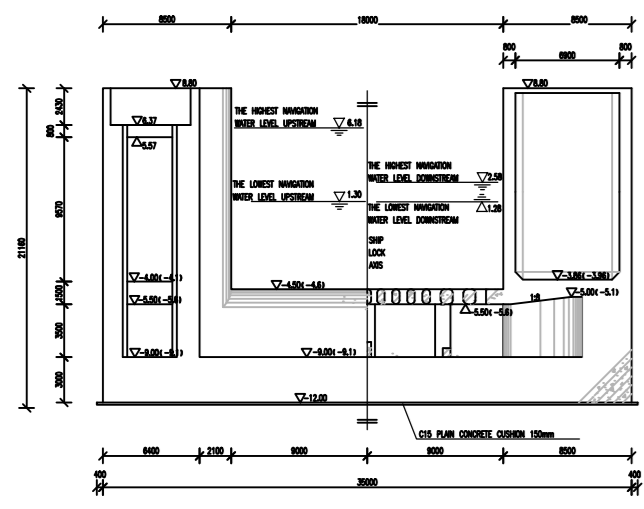


NOTE:  
1. THE TOTAL LENGTH OF THE WATERWAY IS 180KM

- LEGEND:
- █ WATERWAY ROUTE
  - █ EXSITING RIVER
  - █ LOCK POSITION
  - █ BRIDGE POSITION
  - ⊙ PROVINCE
  - PPAP

DESC.	ANNEX 2 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	WATERWAY ROUTE AND BRIDGES LOCATION MAP				
DRG. NO.	CABA-ZT-02	REV.	D.O		
C.D	DATE	DRG. SCALE	PHASE		
P.M	DATE	COPYRIGHT RESERVED			





NOTE:  
 1. IN THE FIGURE, THE SIZE IS MEASURED BY mm,  
 AND THE ELEVATION IS MEASURED BY m;  
 2. THE ELEVATION DATUM IS THE NATIONAL ELEVATION  
 DATUM ( MSL ) OF THE KINGDOM OF CAMBODIA.  
 C30 CONCRETE IS USED IN THE SECOND STAGE  
 CONCRETE OF THE UPPER AND LOWER GATE  
 HEADS AND LOCK CHAMBERS, AND C25 CONCRETE  
 IS USED IN THE REST. THE CUSHION IS C15  
 CONCRETE, 150mm THICK.  
 3. THE ELEVATION IN THE BRACKETS IN THE FIGURE  
 IS THE FOURTH ELEVATION OF THE SCHEME.

DESC. ANNEX 3 TO MRC NOTIFICATION

REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED

CONTRACTOR

PROJECT TITLE

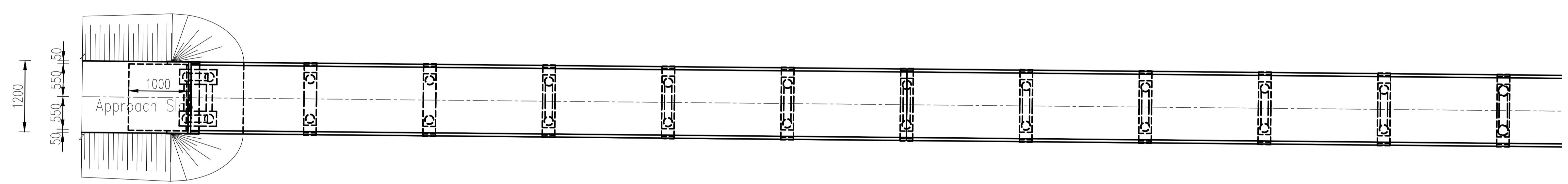
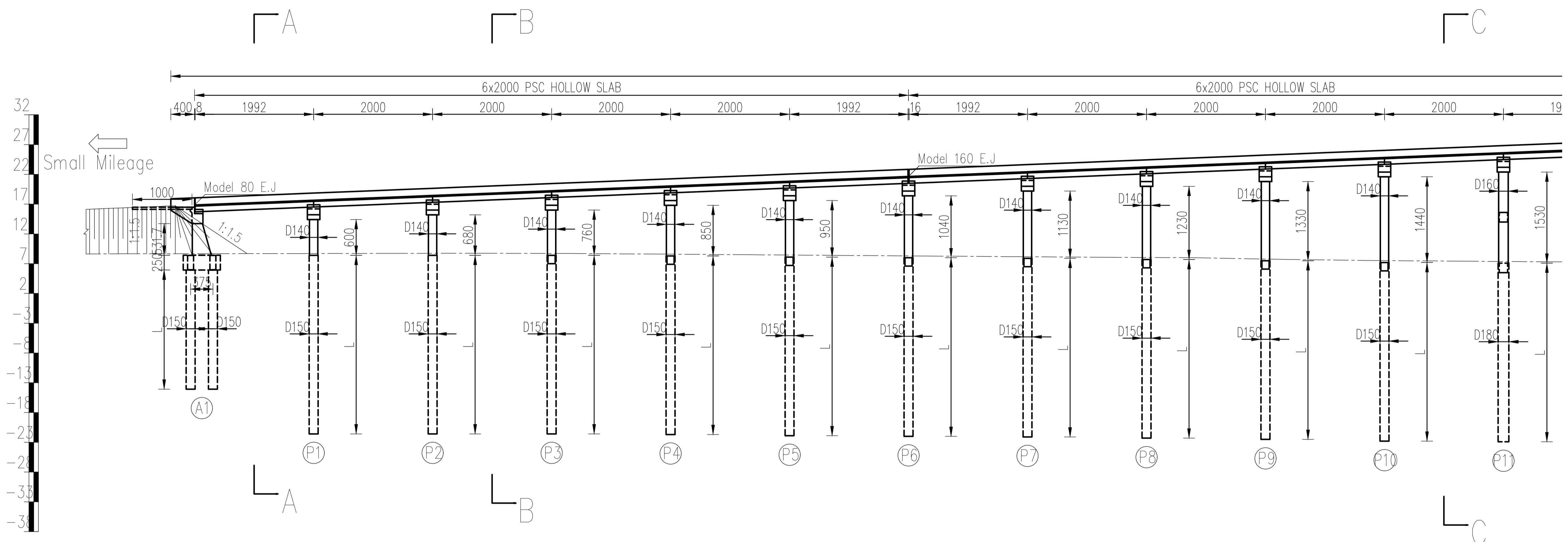
FUNAN-TECHO CANAL PROJECT

DRG TITLE

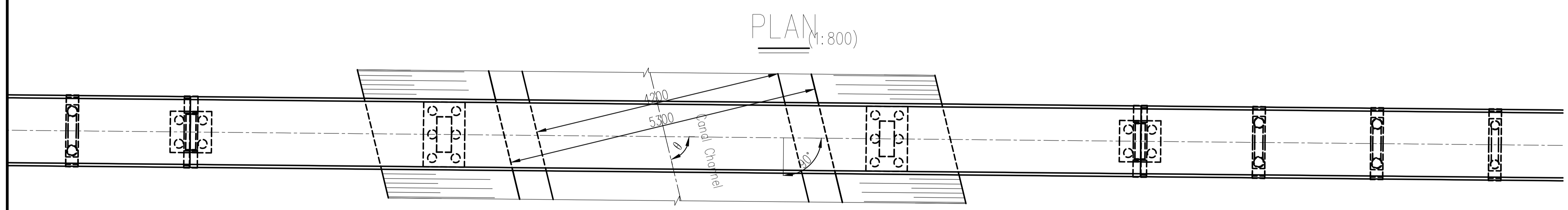
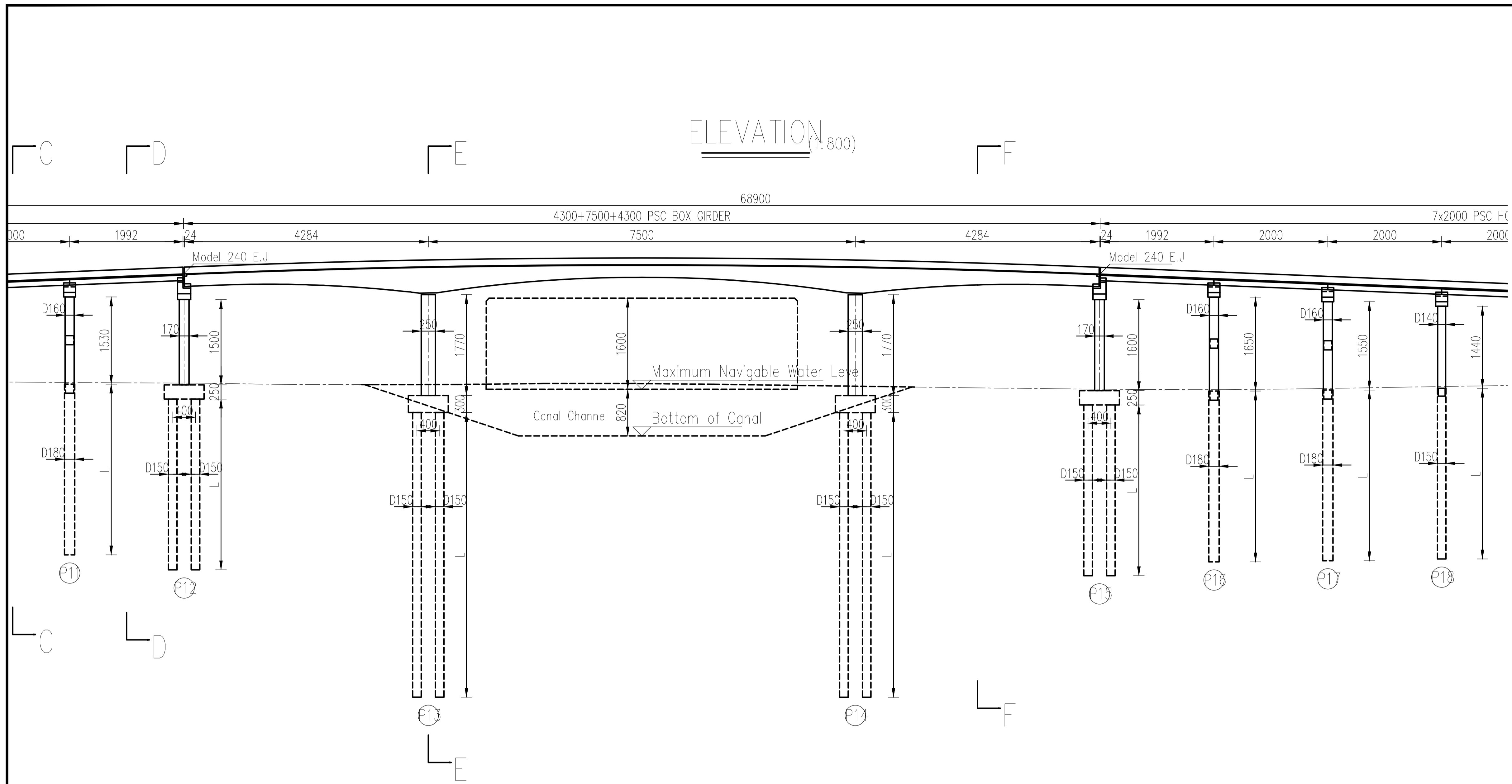
LOCK DESIGN

DRG. NO. CAB-SG-05 REV. D.0

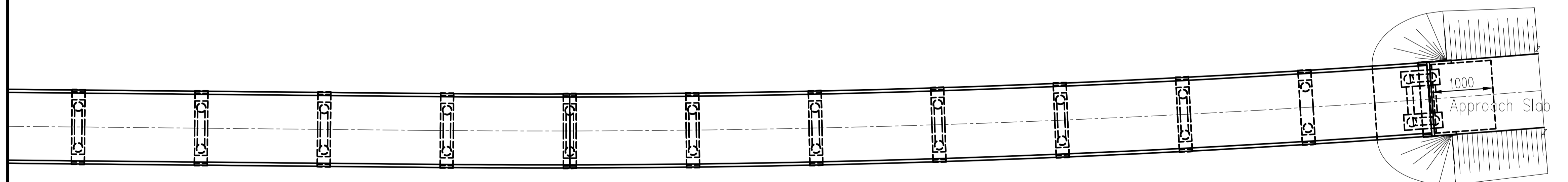
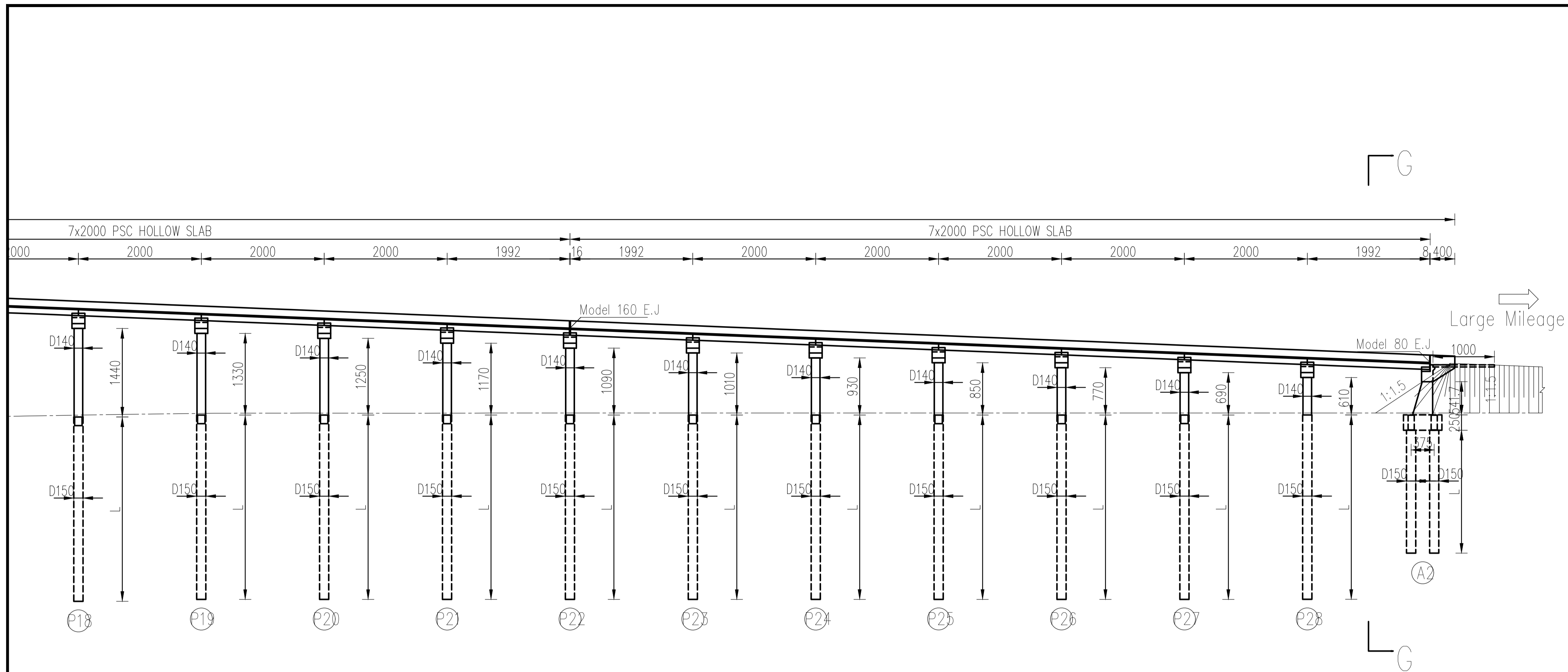
DATE DRG. SCALE PHASE DATE COPYRIGHT RESERVED



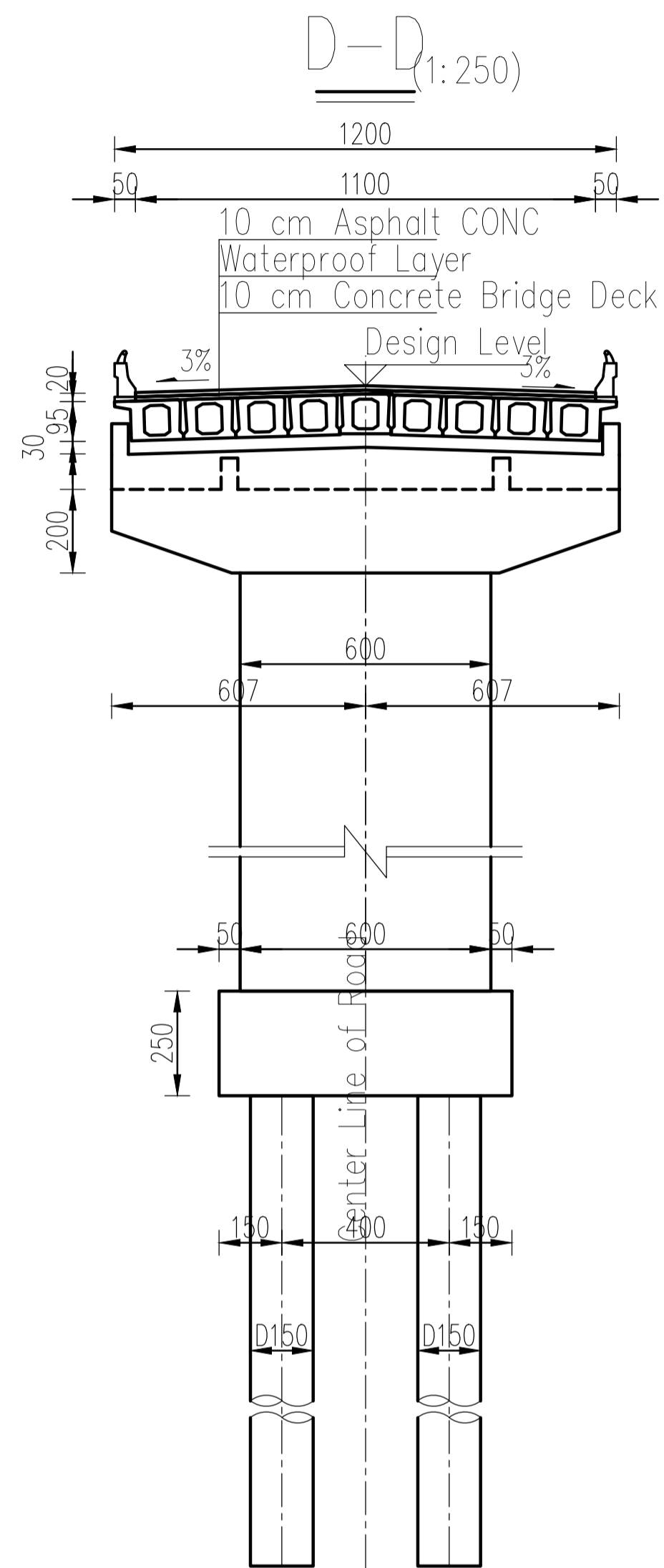
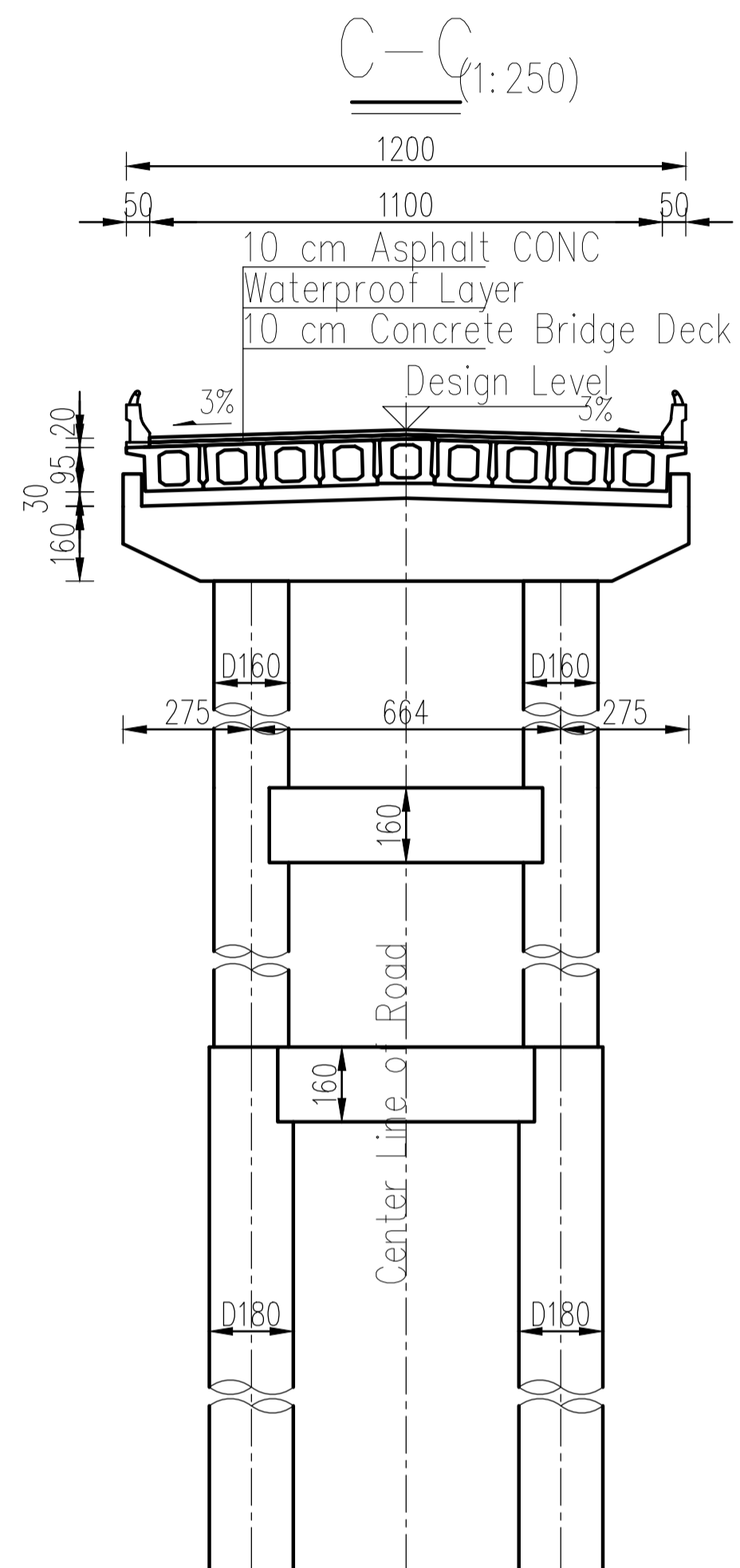
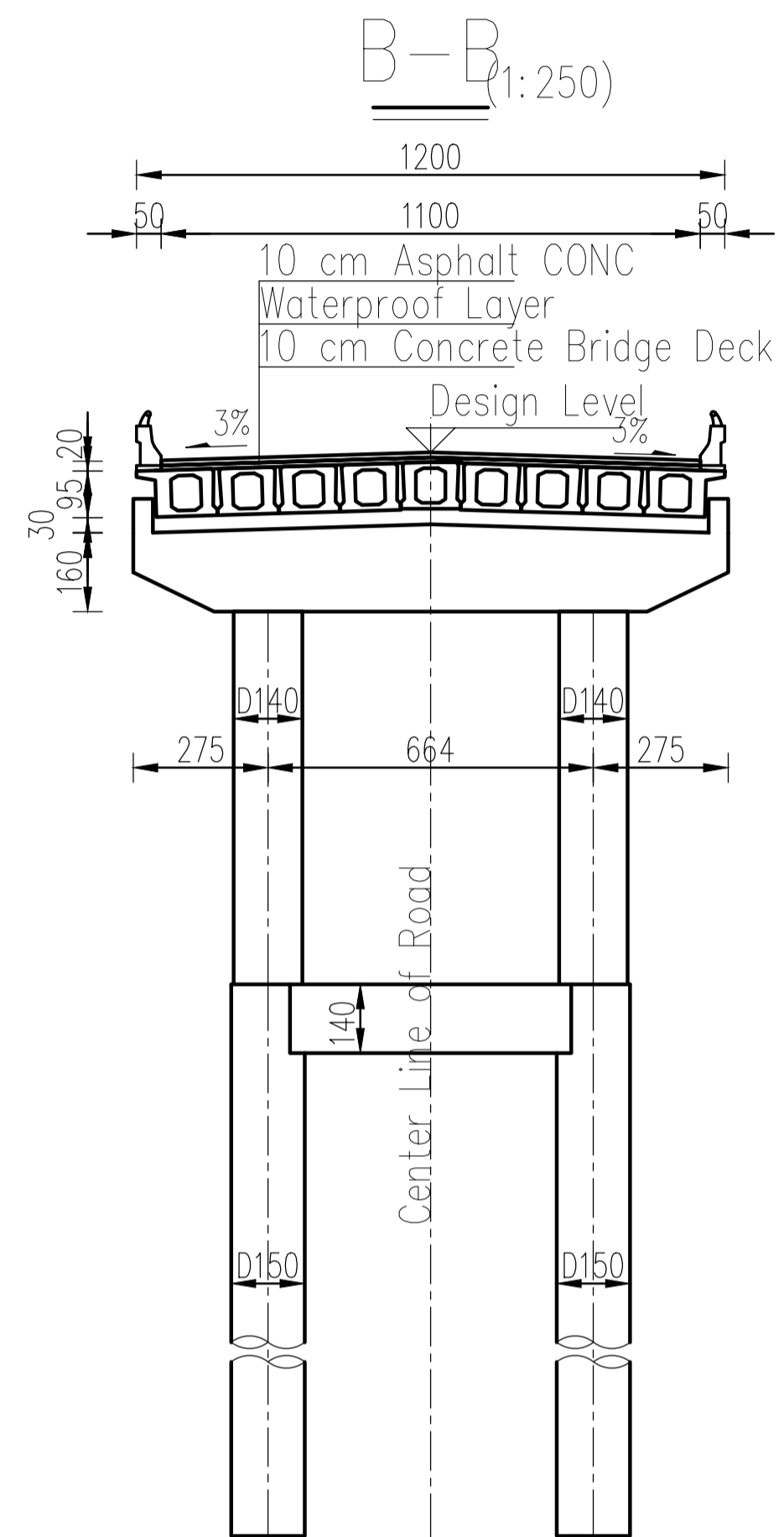
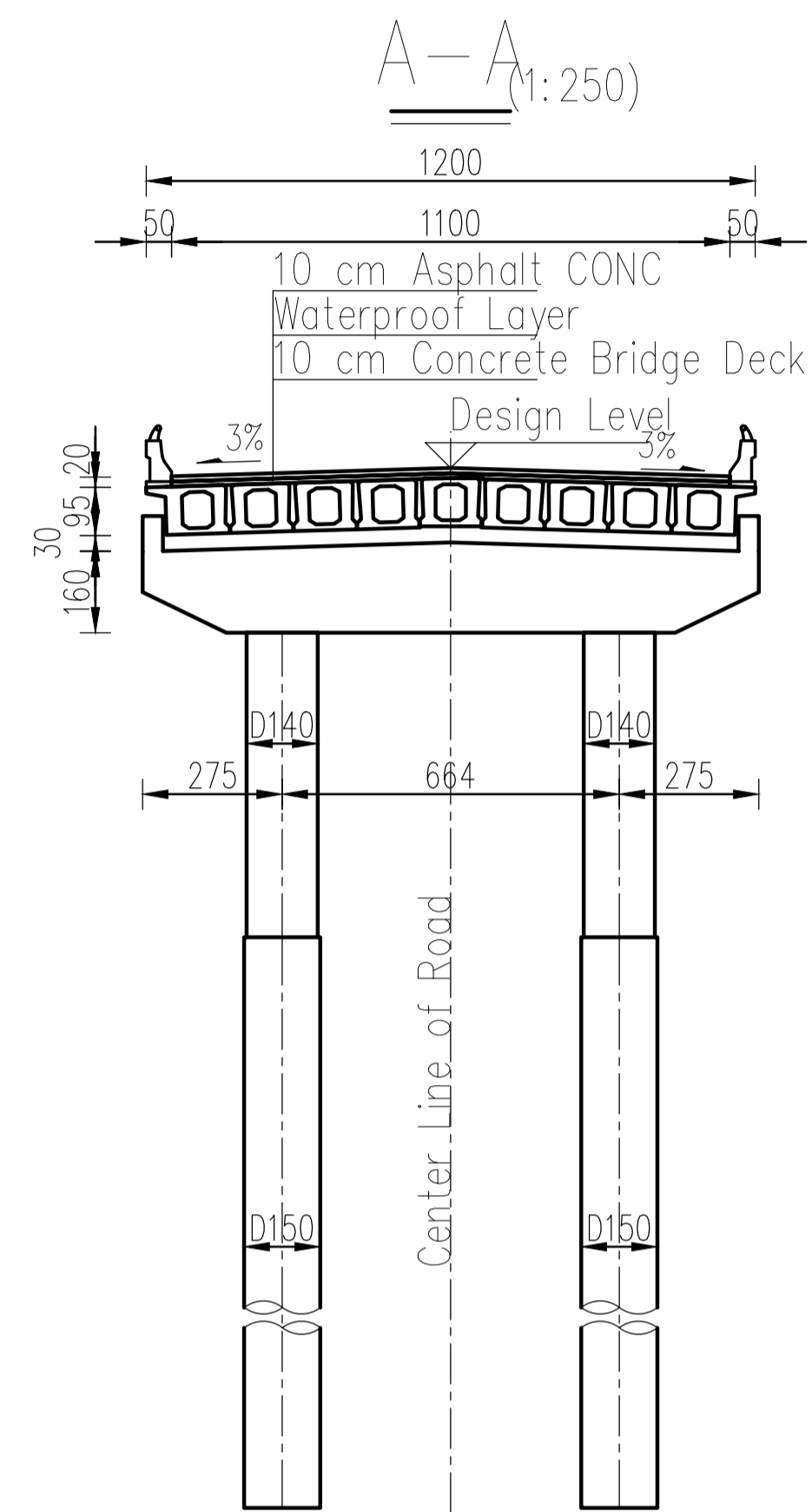
DESC.	ANNEX 4 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	GENERAL ARRANGEMENT OF BRIDGE				
DRG. NO.	CABA-QL-03-001	REV.	D.O		
C.D	DATE	DRG. SCALE	PHASE		
P.M	DATE	COPYRIGHT RESERVED			



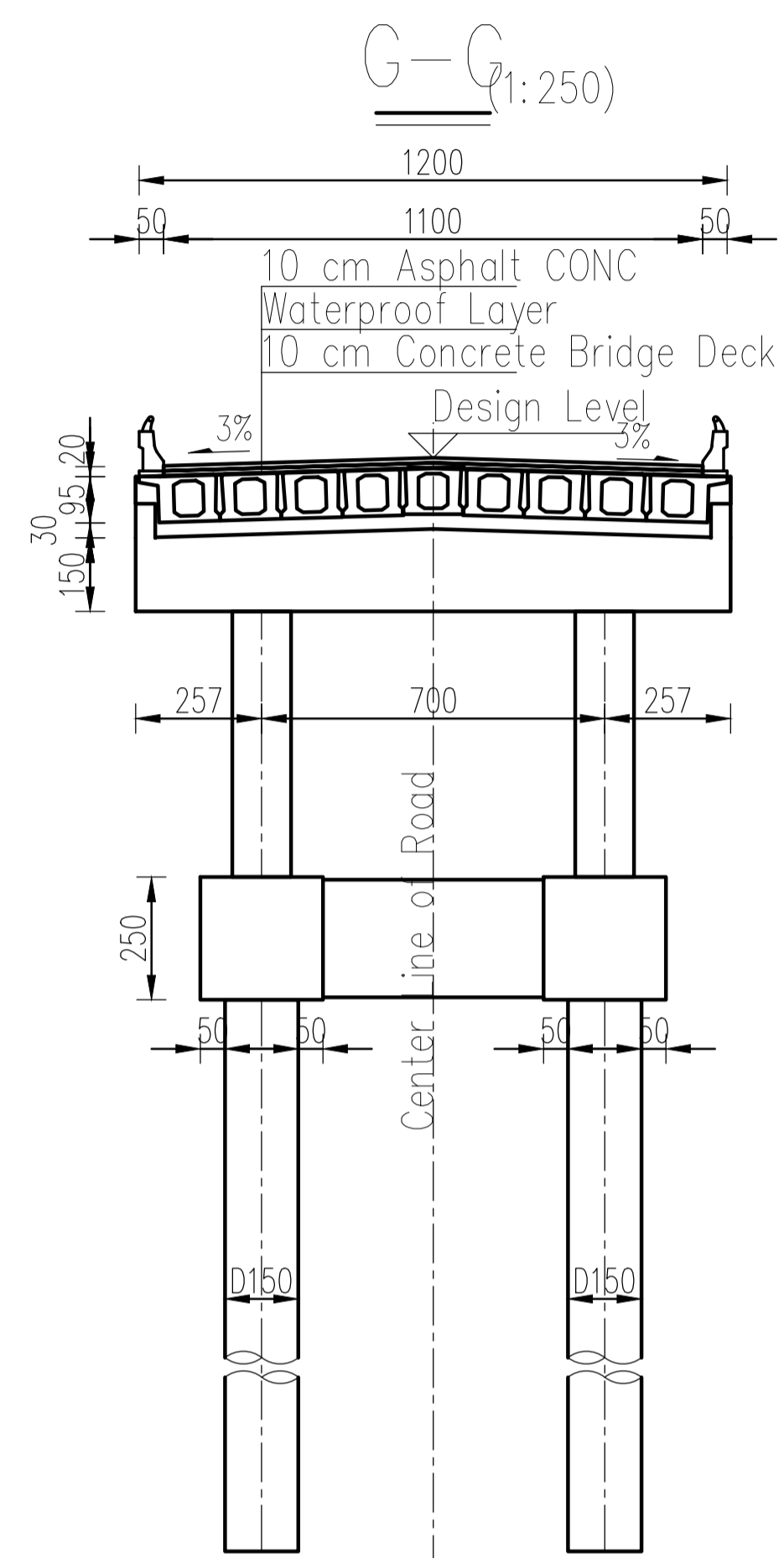
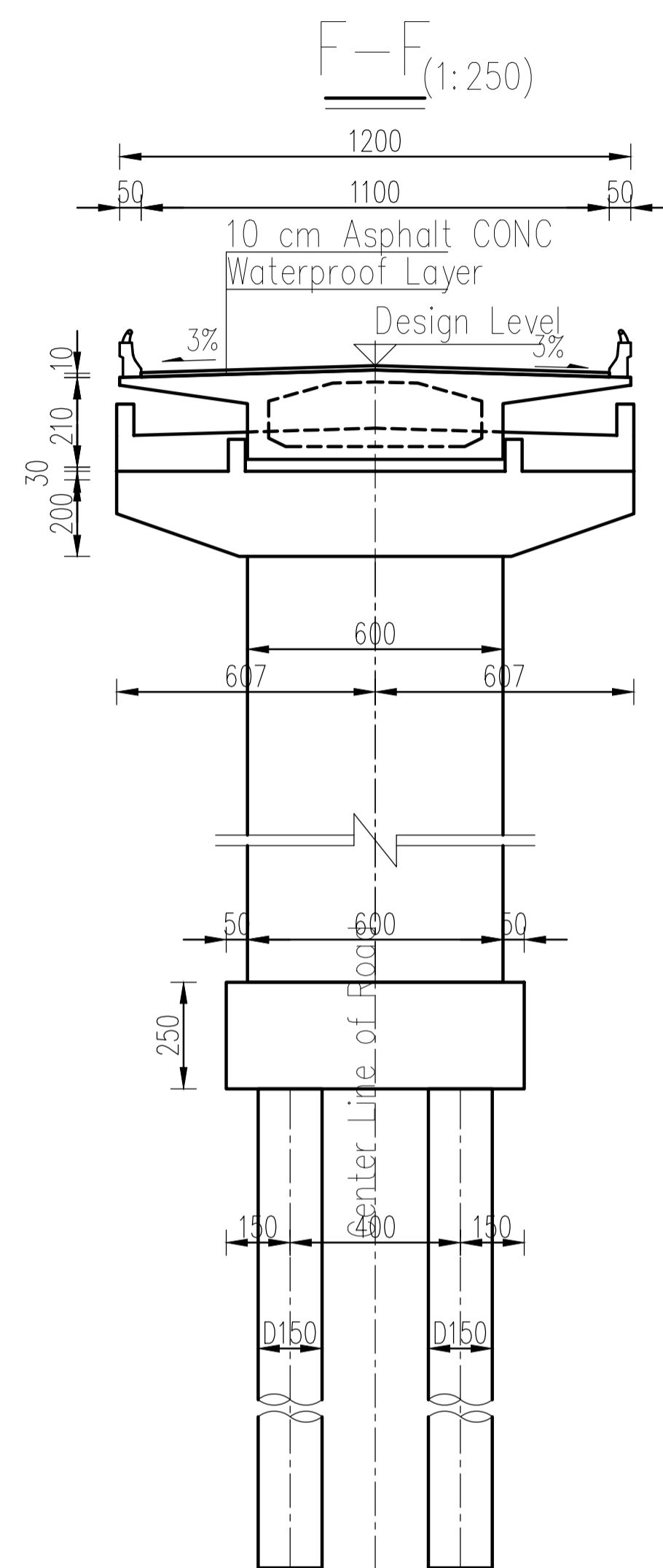
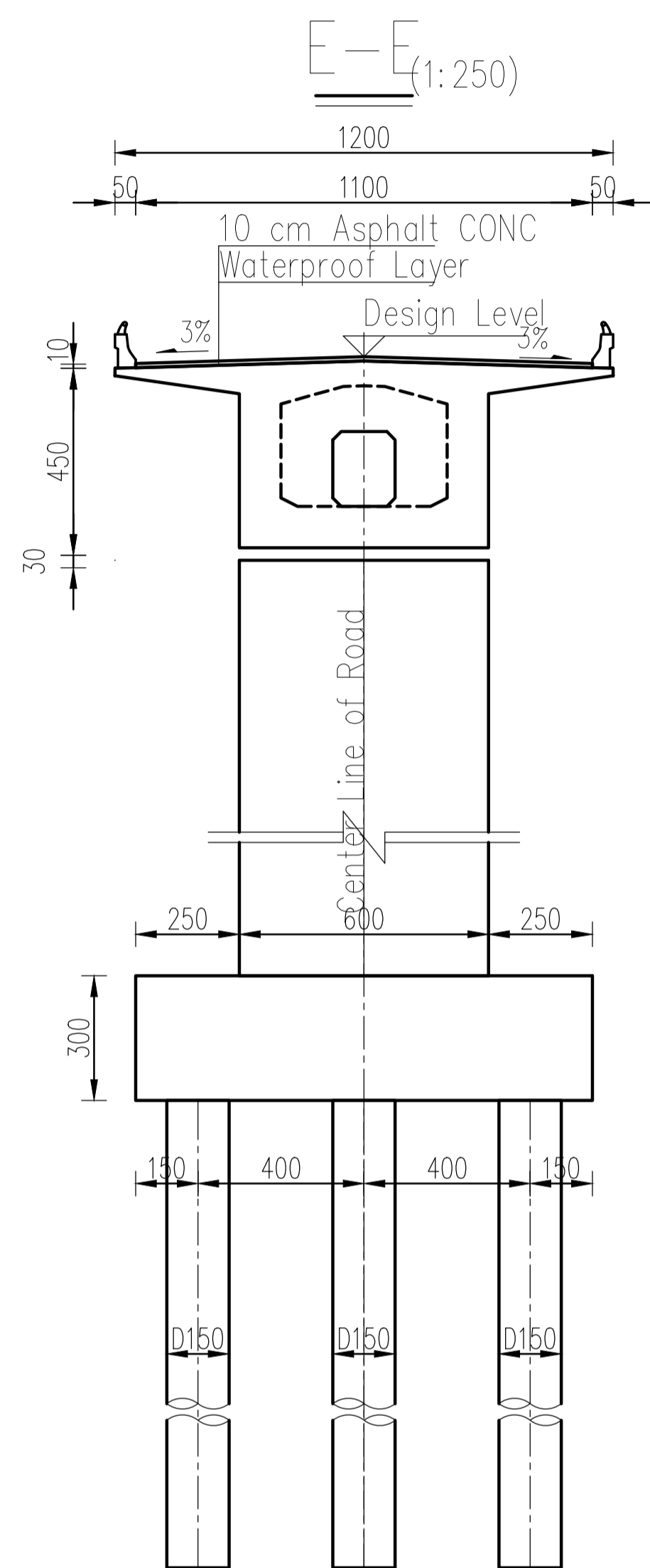
DESC.	ANNEX 4 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	GENERAL ARRANGEMENT OF BRIDGE				
DRG. NO.	CABA-QL-03-002	REV.	D.O		
C.D	DATE	DRG. SCALE	PHASE		
P.M	DATE	COPYRIGHT RESERVED			



DESC.	ANNEX 4 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	GENERAL ARRANGEMENT OF BRIDGE				
DRG. NO.	CABA-QL-03-003	REV.	D.O		
C.D	DATE	PHASE			
P.M	DATE	COPYRIGHT RESERVED			



DESC.	ANNEX 4 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	GENERAL ARRANGEMENT OF BRIDGE				
DRG. NO.	CABA-QL-03-004	REV.	D.O		
C.D	DATE	DRG. SCALE	PHASE		
P.M	DATE	COPYRIGHT RESERVED			



### Note

1. The dimensions of this drawing are measured in centimeters except elevation and mileage pile number in meters.
2. Load class: highway - I class; Bridge deck width :11m.
3. The whole bridge has 5 links: 6x20+6x20+(43+75+43)+7x20+7x20; The third links of the superstructure adopts PSC box girder, and the other links adopt PSC hollow slab; A1 and A2 adopts ribbed abutment, P12, P13, P14, P15 adopts solid pier, the rest of the pier adopts column pier; All abutments and piers adopts pile foundation.
4. This drawing is applicable to option 3: Typical bridge drawing of Mekong River Standard 1000t class scheme.

DESC.	ANNEX 4 TO MRC NOTIFICATION				
REV.	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
APPROVED				DATE	
REVIEWED				DATE	
CHECKED				DATE	
DESIGNED				DATE	
CLIENT					
CONTRACTOR					
PROJECT TITLE	FUNAN-TECHO CANAL PROJECT				
DRG TITLE	GENERAL ARRANGEMENT OF BRIDGE				
DRG. NO.	CABA-QL-03-005	REV.	D.O		
C.D	DATE	DRG. SCALE	PHASE		
P.M	DATE	COPYRIGHT RESERVED			