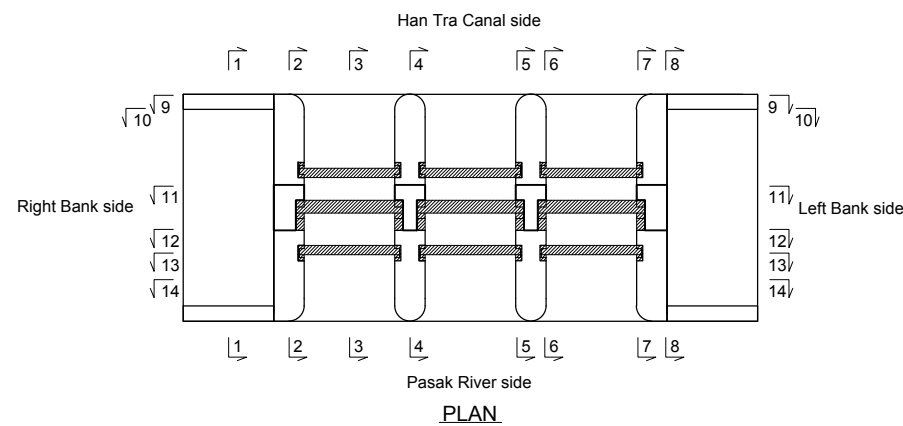
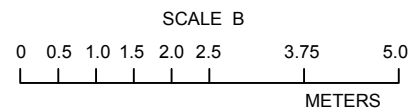


SECTION 1 - 1



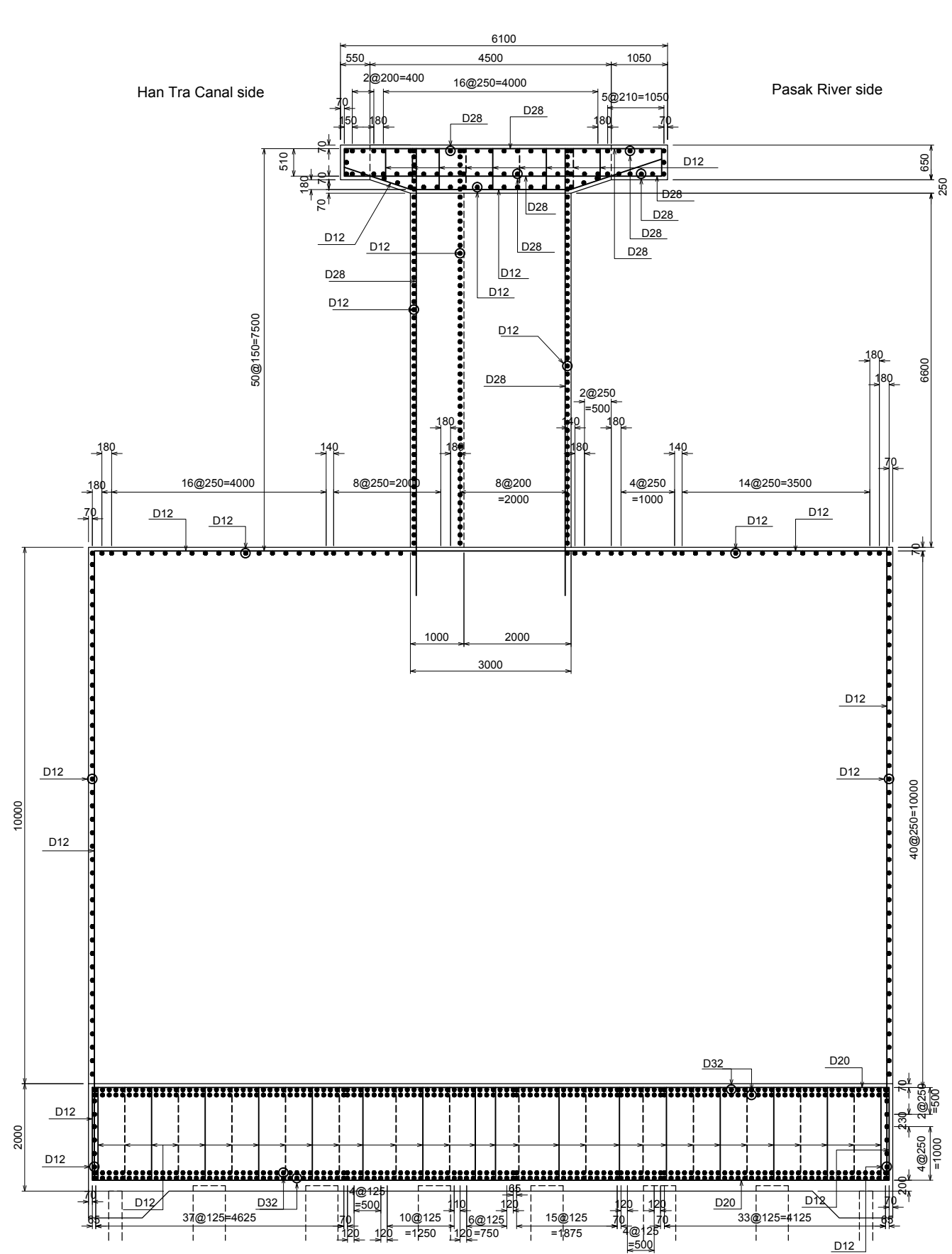
PLAN



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 1/24)

SCALE B

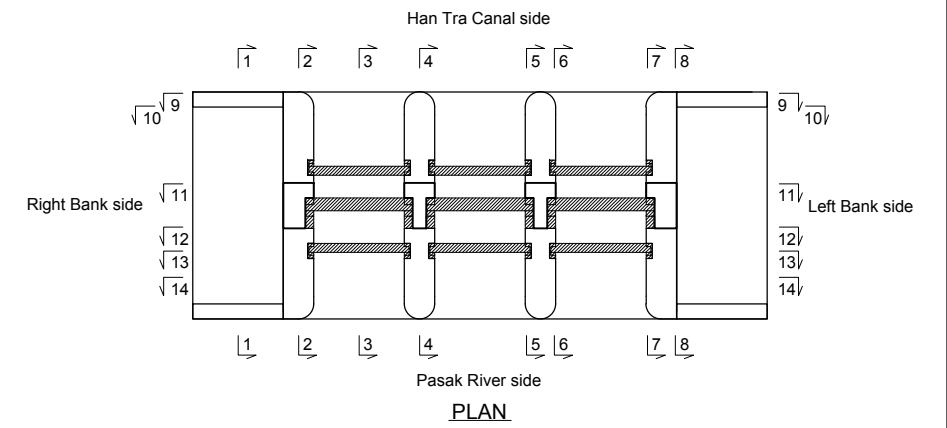
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| ROYAL IRRIGATION DEPARTMENT The Flood Prevention Project of East Side of the Pasak River in Ayutthaya in the Kingdom of Thailand (CIVIL WORKS) HAN TRA FLOODGATE BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 1/24) | | | | | | | | | | |
| CONSULTING FIRMS : | | | | | | | | | | |
| CTI ENGINEERING INTERNATIONAL CO., LTD. | | | | | | | | | | |
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | | | | | | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | | | | | | |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | | | | | | |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. | | | | | | |
| REV. NO. | LOCATION | DESCRIPTION | DATE | <table border="1"> <tr> <td>CHECKED</td> <td>APPROVED</td> <td rowspan="2">APPROVED</td> <td rowspan="2">OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP</td> </tr> <tr> <td>PRESENT</td> <td>APPROVED</td> </tr> </table> | CHECKED | APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | PRESENT | APPROVED |
| CHECKED | APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | | | | | |
| PRESENT | APPROVED | | | | | | | | | |
| | | | | HT-FG-022 | | | | | | |



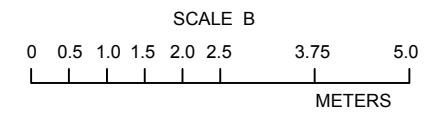
SECTION 2 - 2

BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 2/24)

SCALE B



PLAN

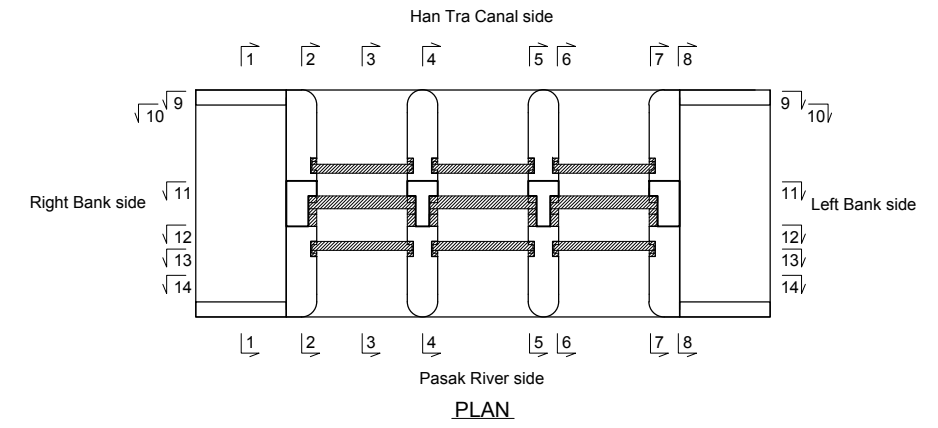
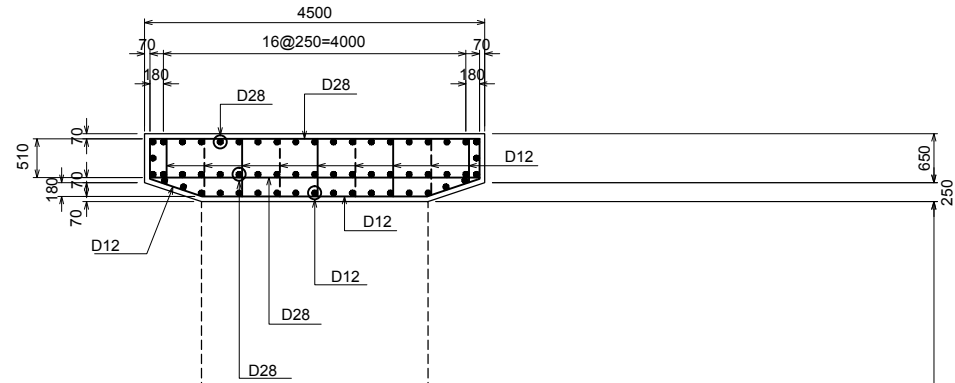


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 2/24)**

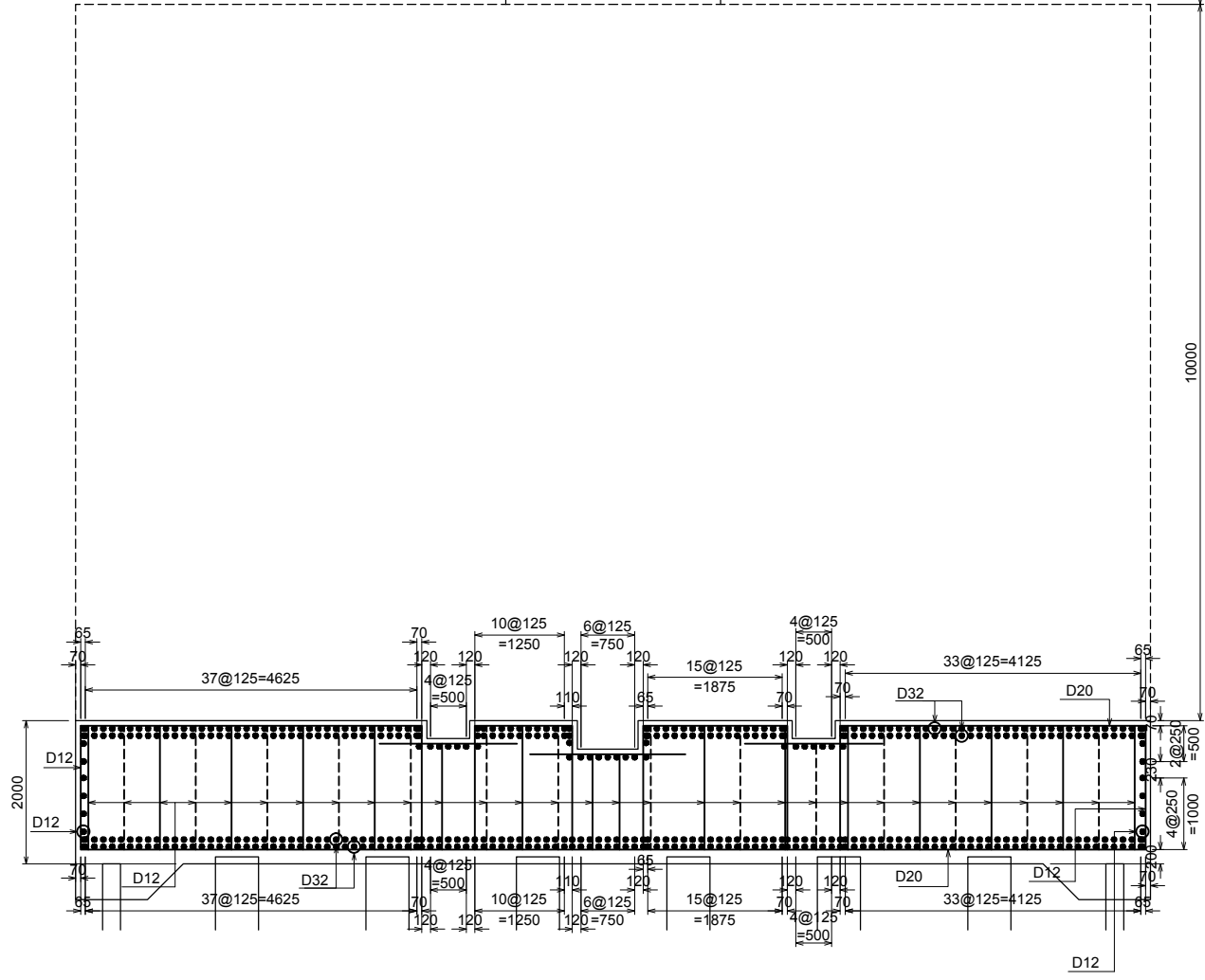
CONSULTING FIRMS :

CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

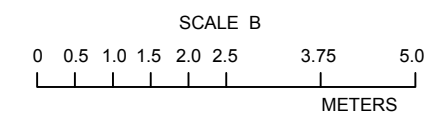
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|---|-----------------------|-----------------------------|-----------------|--|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT APPROVED APPROVED APPROVED |
| OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | | HT-FG-023 |



Han Tra Canal side Pasak River side



SECTION 3 - 3



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 3/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 3/24)**

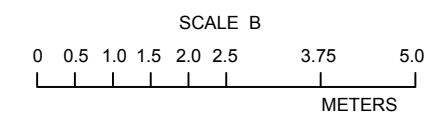
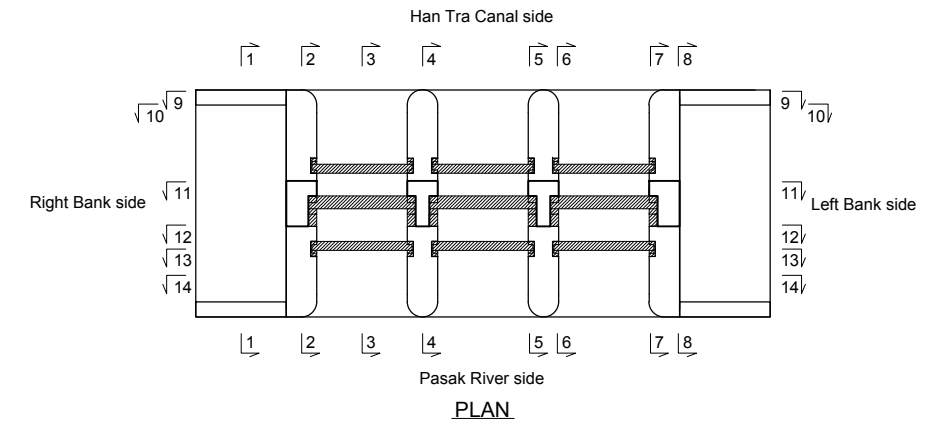
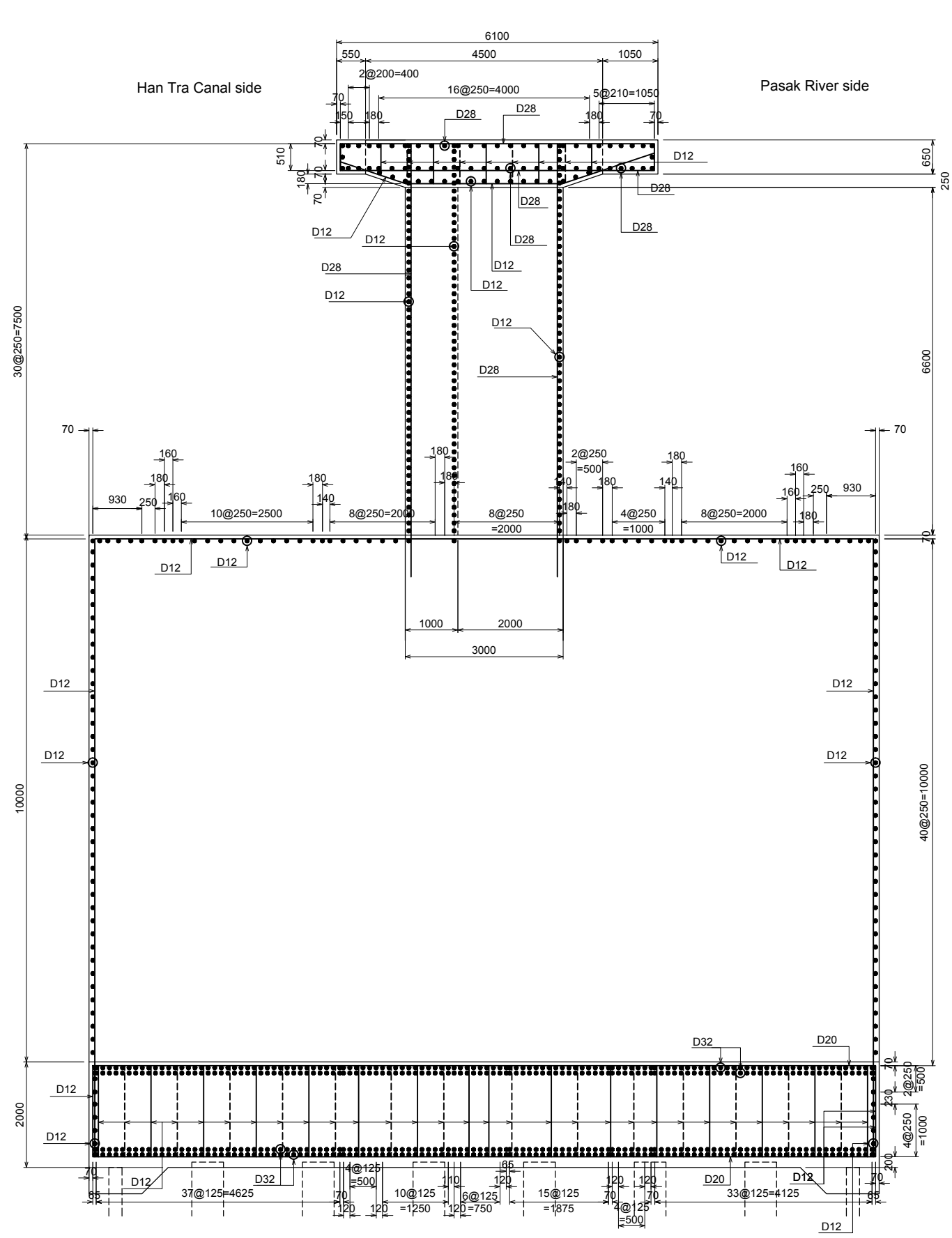
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
|----------|----------|-------------|------|-----------------|-------------------|----------|
| | | | | | | |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-024



SECTION 4 - 4

BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 4/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 4/24)**

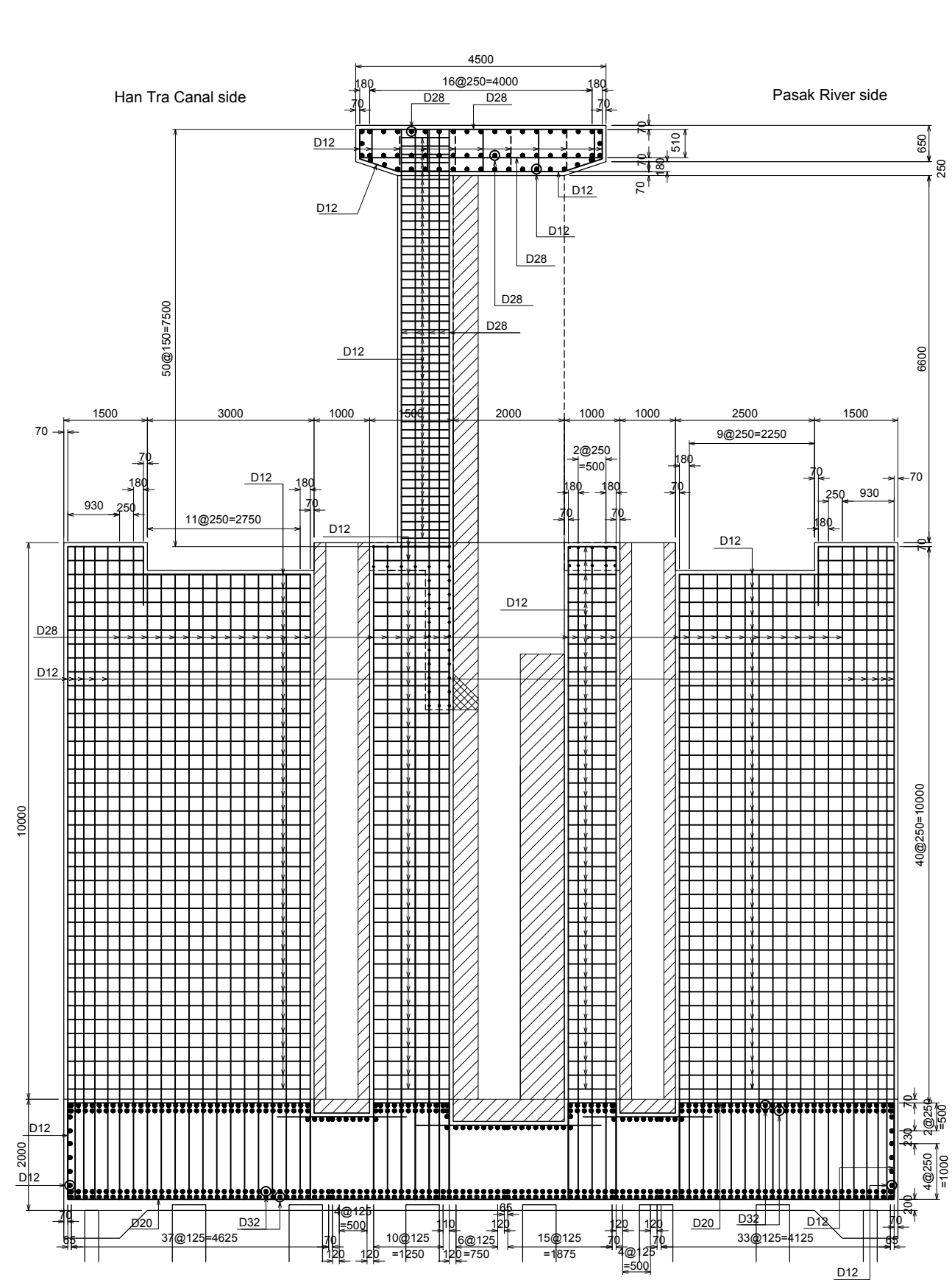
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

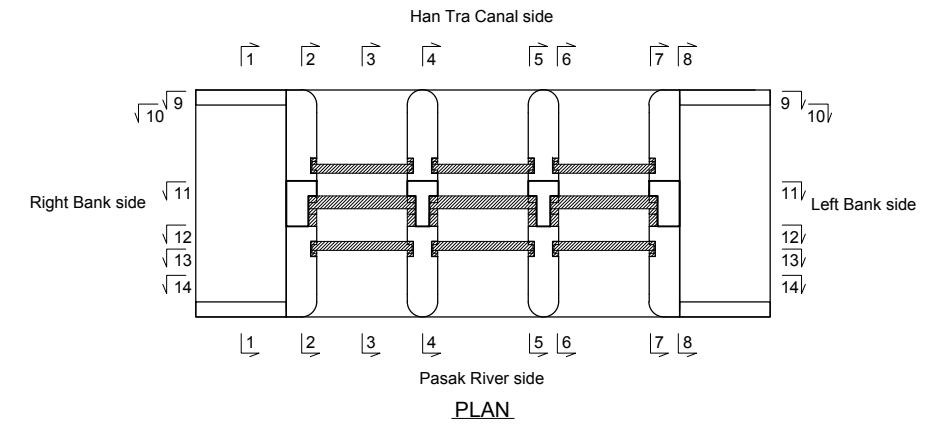
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

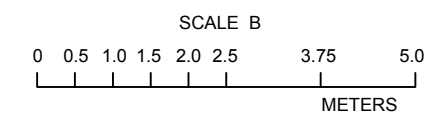
HT-FG-025



SECTION 5 - 5



PLAN



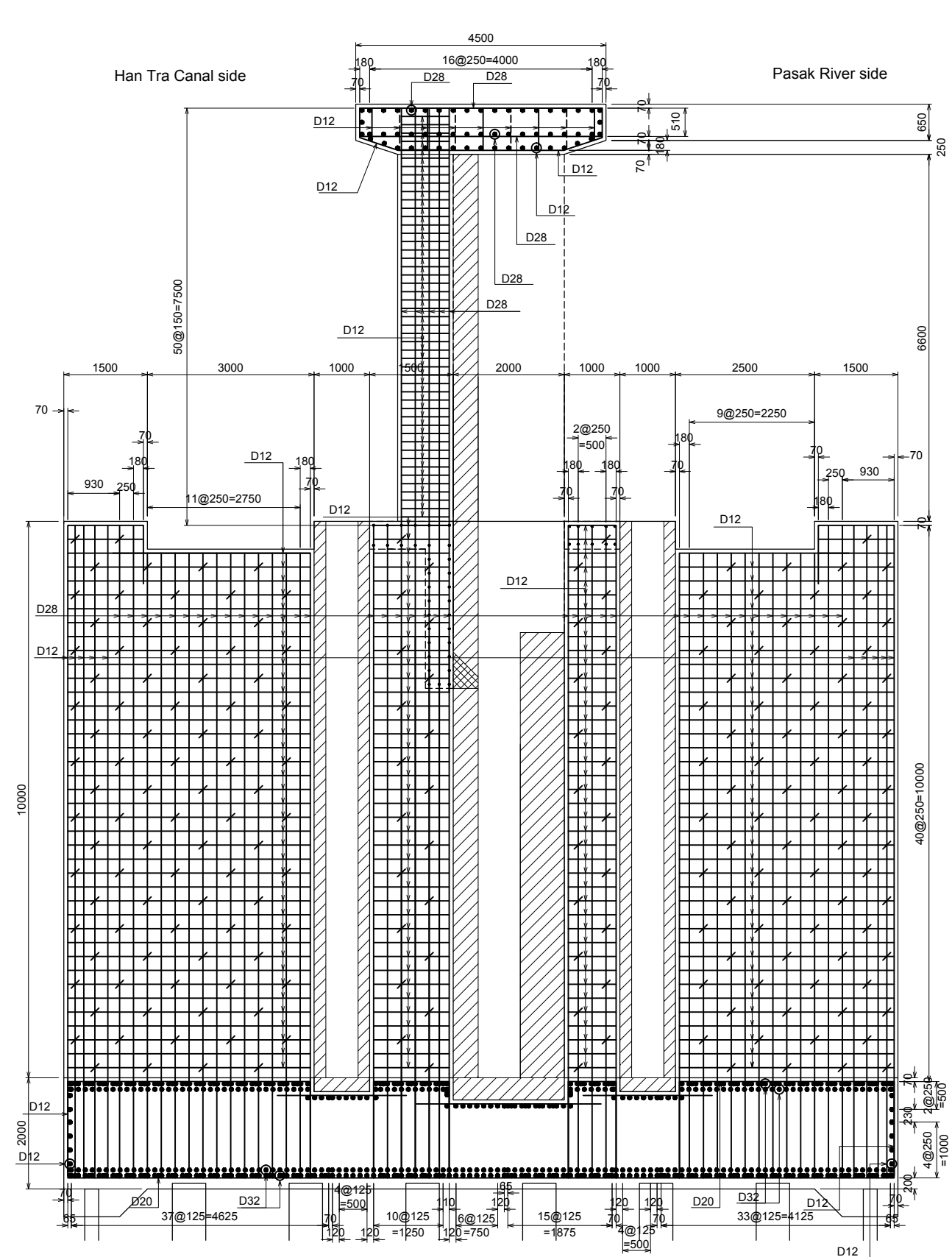
BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 5/24)

SCALE B

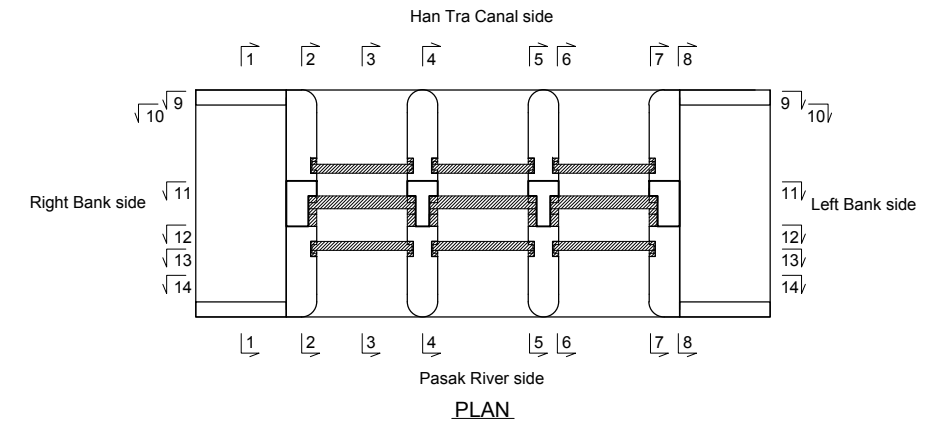
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 5/24)

CONSULTING FIRMS :
 CTI ENGINEERING INTERNATIONAL CO., LTD.

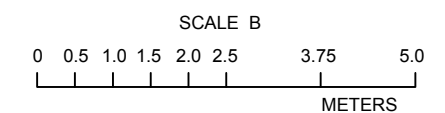
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|----------|-----------------------|-----------------------------|-----------------|--|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED APPROVED APPROVED APPROVED |
| | | | | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP DATE _____ |
| | | | | HT-FG-026 |



SECTION 6 - 6



PLAN



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 6/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 6/24)

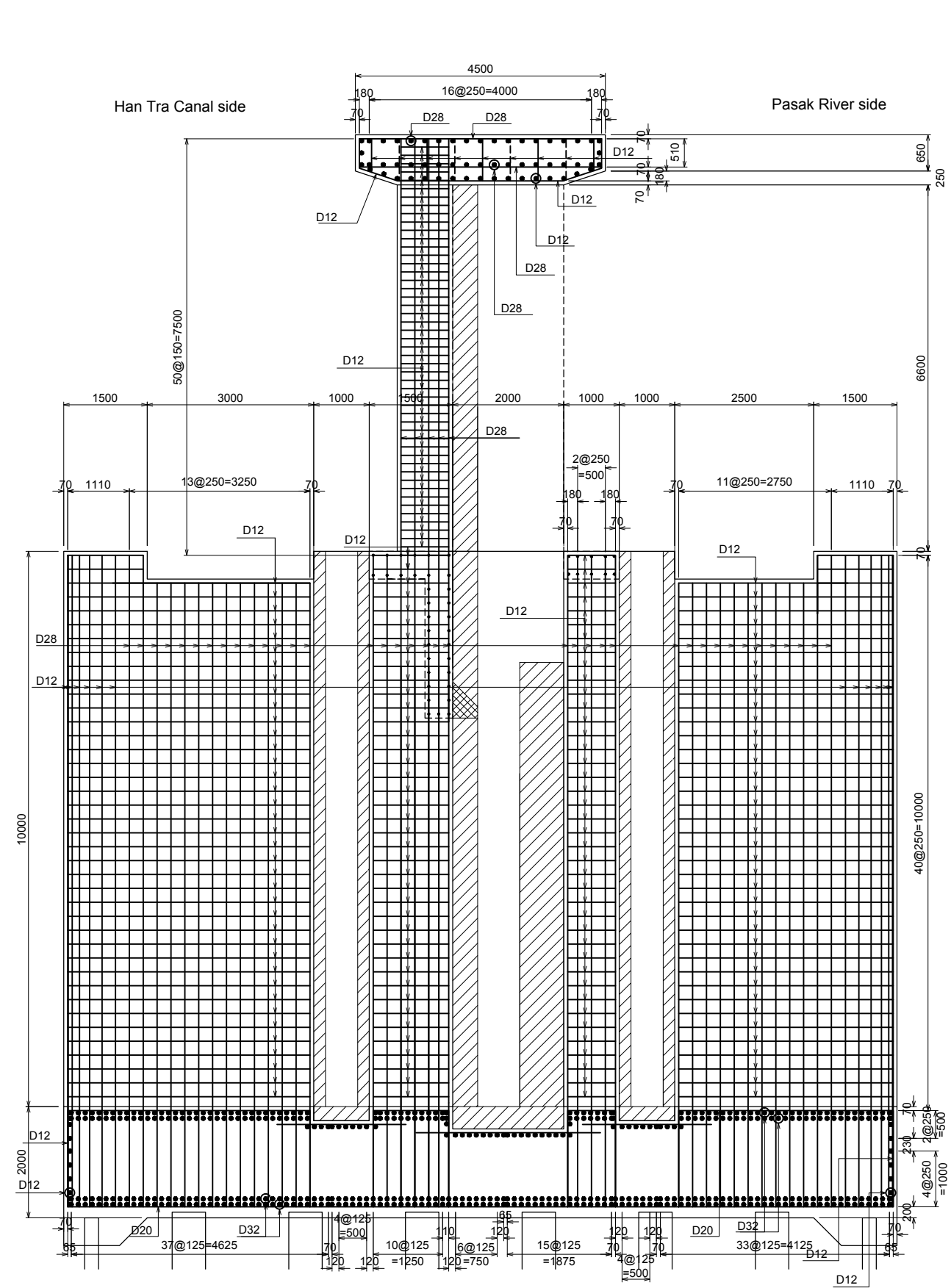
CONSULTING FIRMS :
 CTI ENGINEERING INTERNATIONAL CO., LTD.

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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

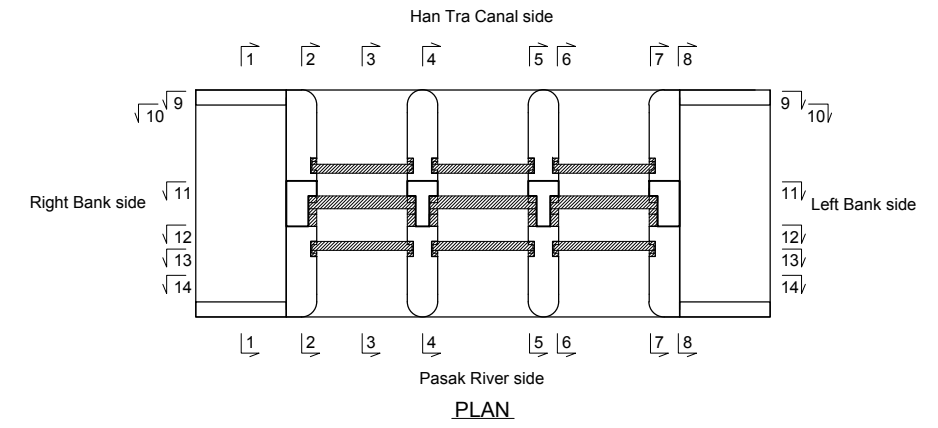
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

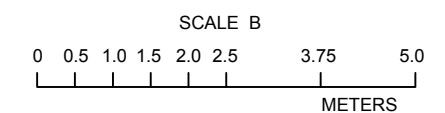
HT-FG-027



SECTION 7 - 7



PLAN



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 7/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 7/24)**

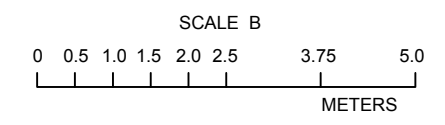
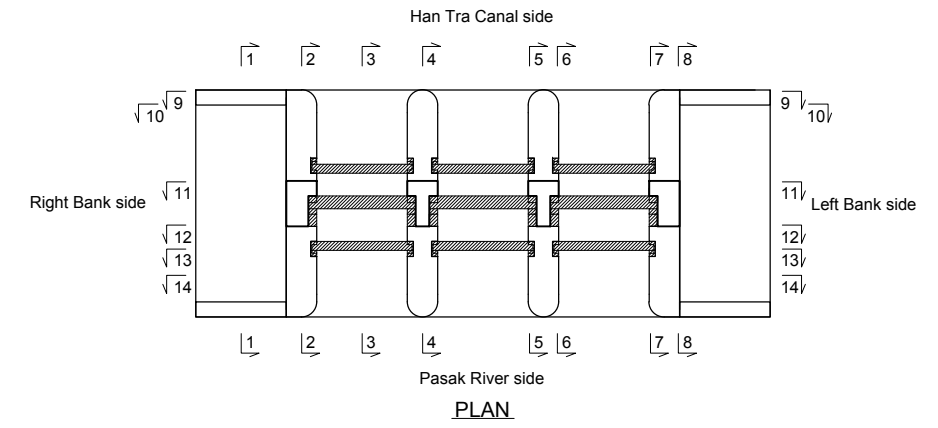
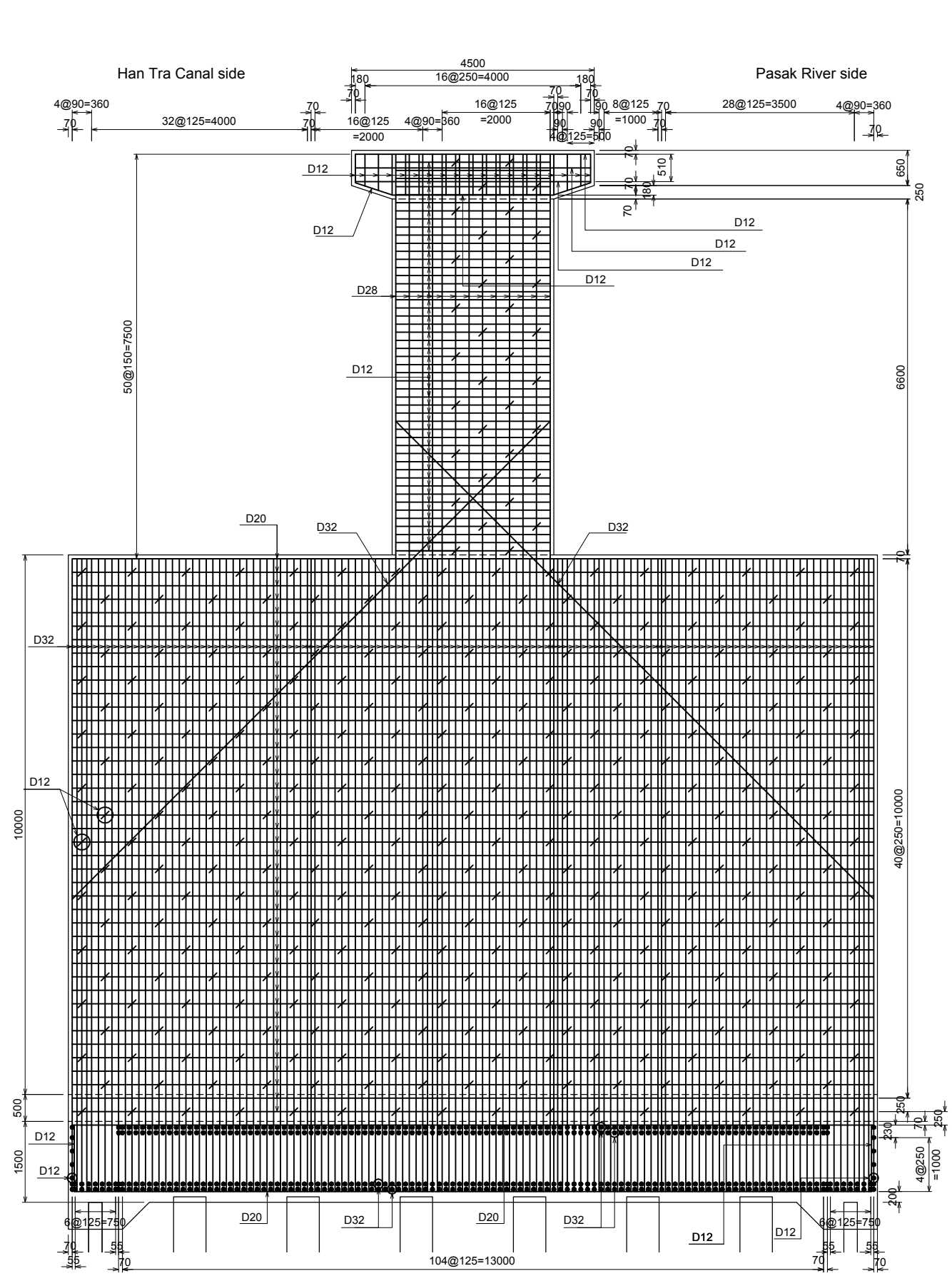
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-028



SECTION 8 - 8

BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 8/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 8/24)**

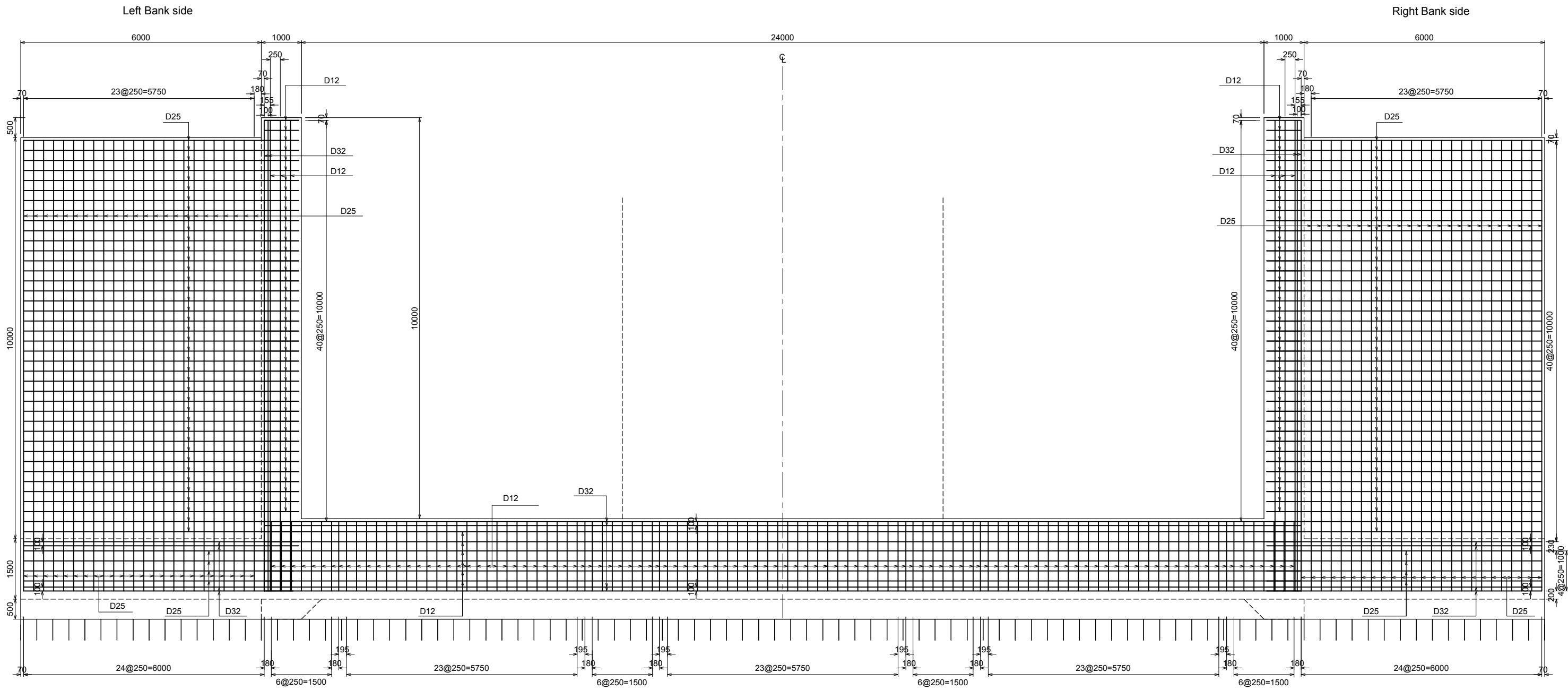
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

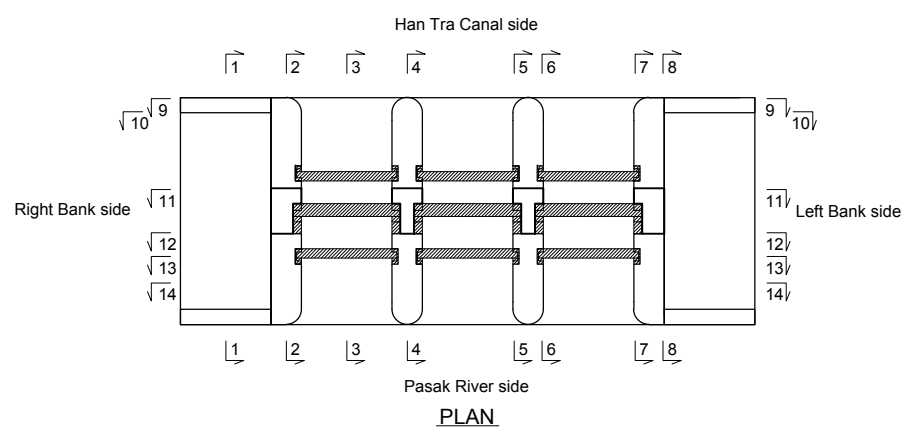
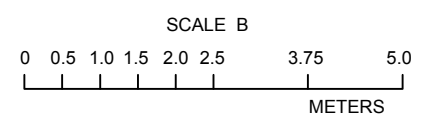
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-029



SECTION 9 - 9



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 9/24)
SCALE B

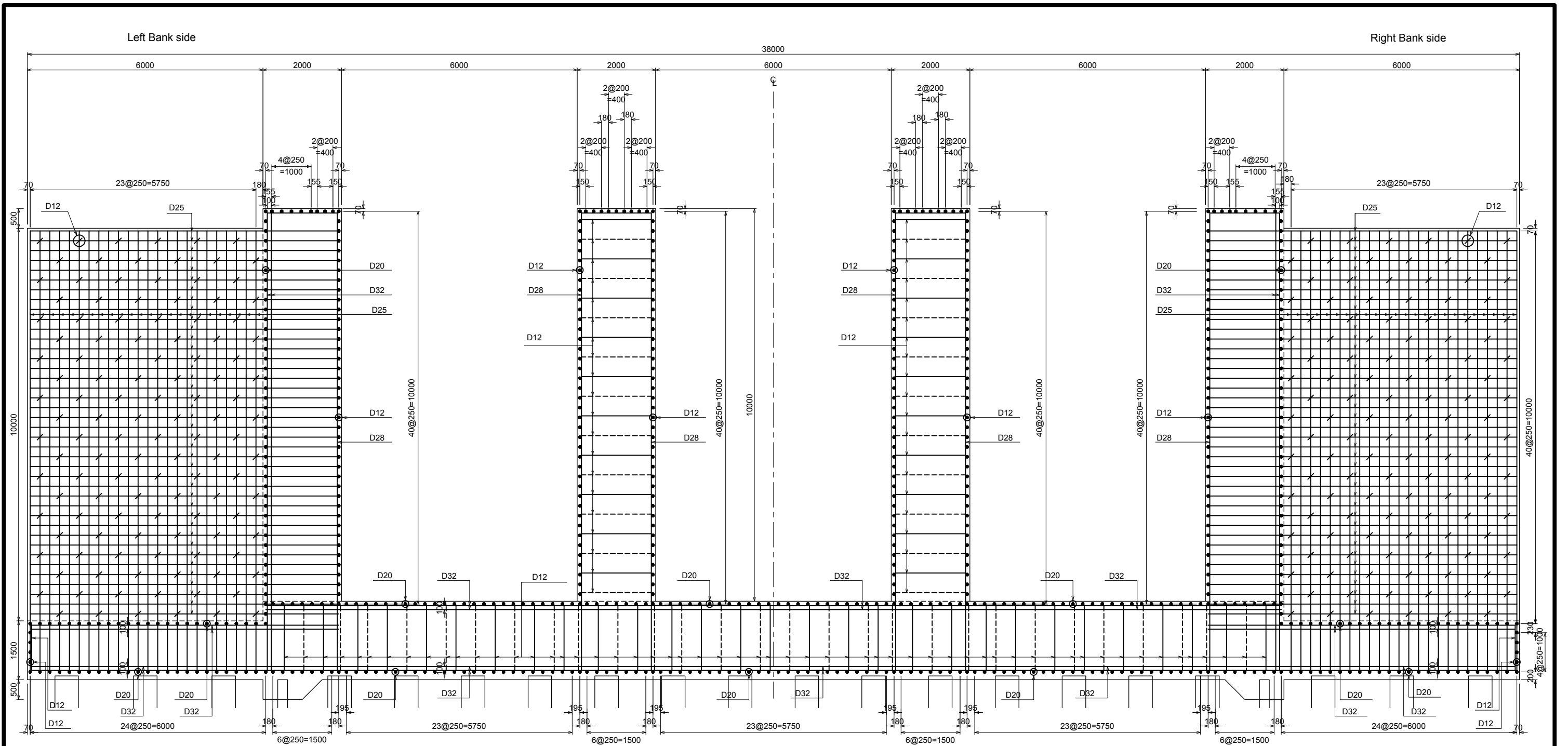
ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand

(CIVIL WORKS)
**HAN TRA FLOODGATE
BAR ARRANGEMENT
(MAIN BODY OF FLOODGATE 9/24)**

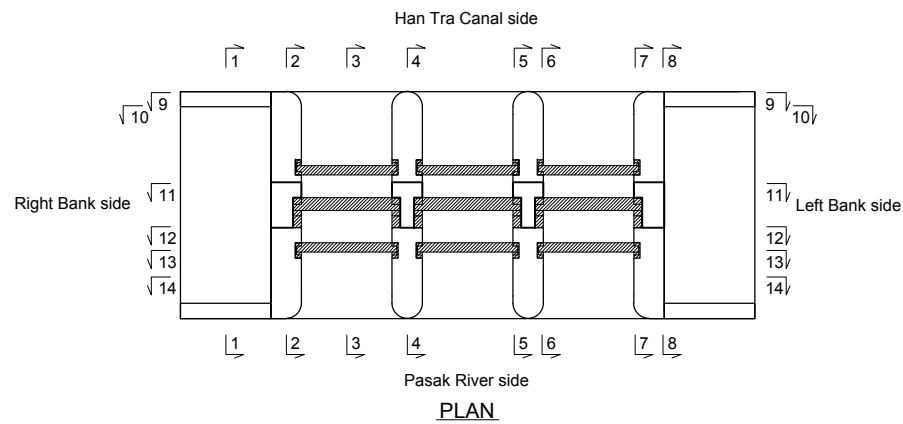
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP DATE _____ | HT-FG-030 |
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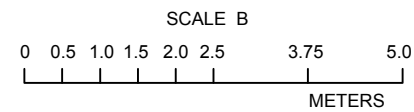


SECTION 10 - 10



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 10/24)

SCALE B

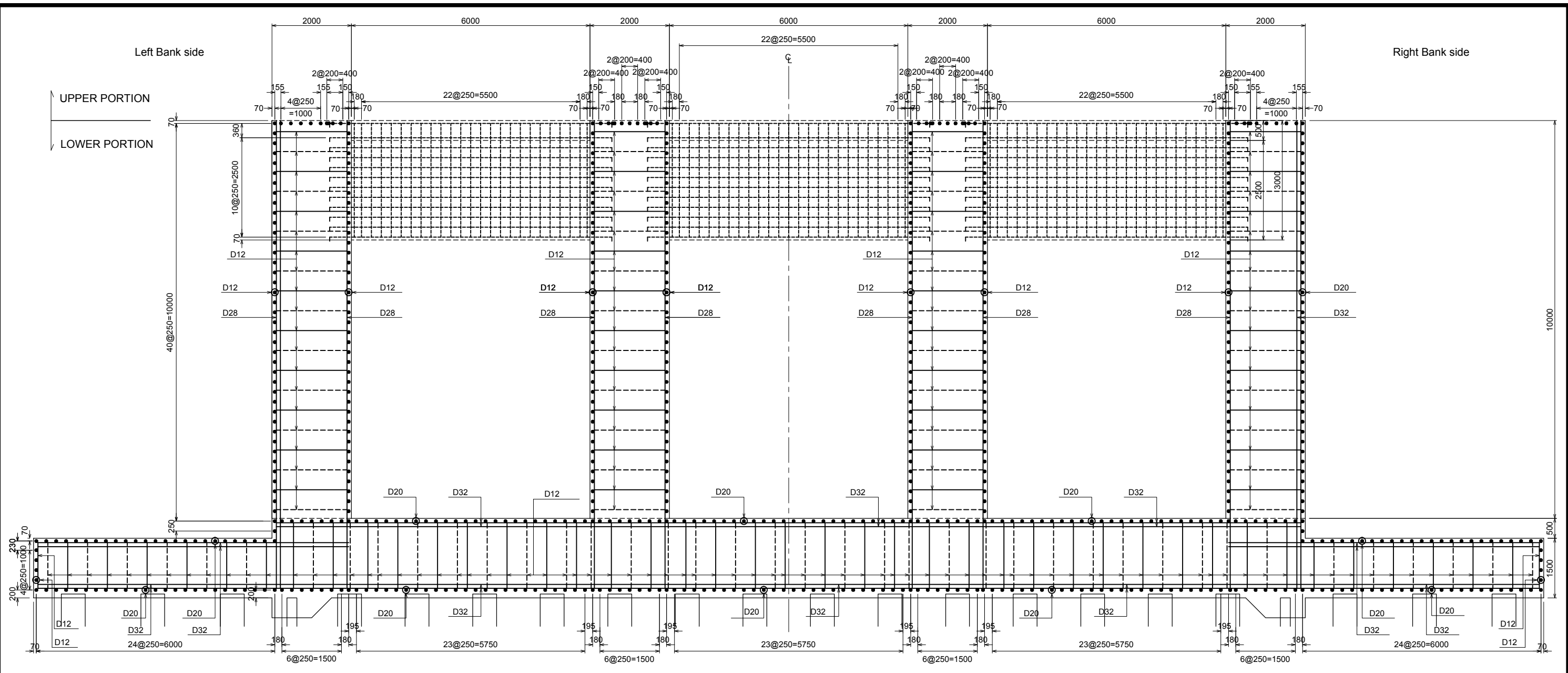


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 10/24)**

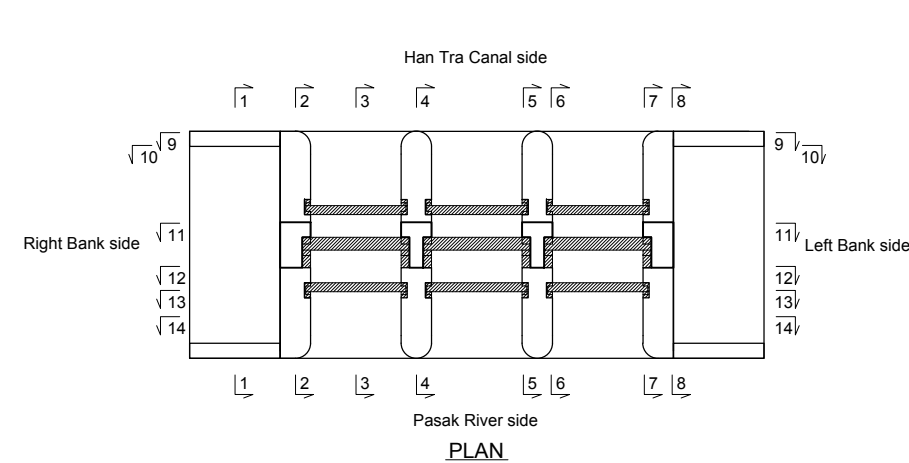
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|--|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT APPROVED APPROVED APPROVED |

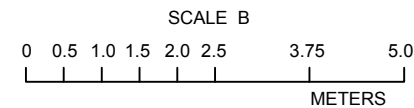
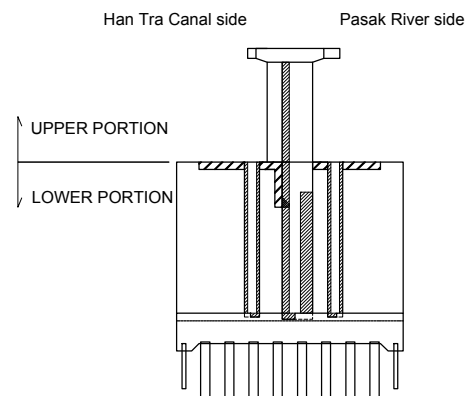
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____
HT-FG-031



SECTION 11 - 11 (LOWER PORTION)



PLAN



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 11/24)

CONSULTING FIRMS :
 CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 11/24)

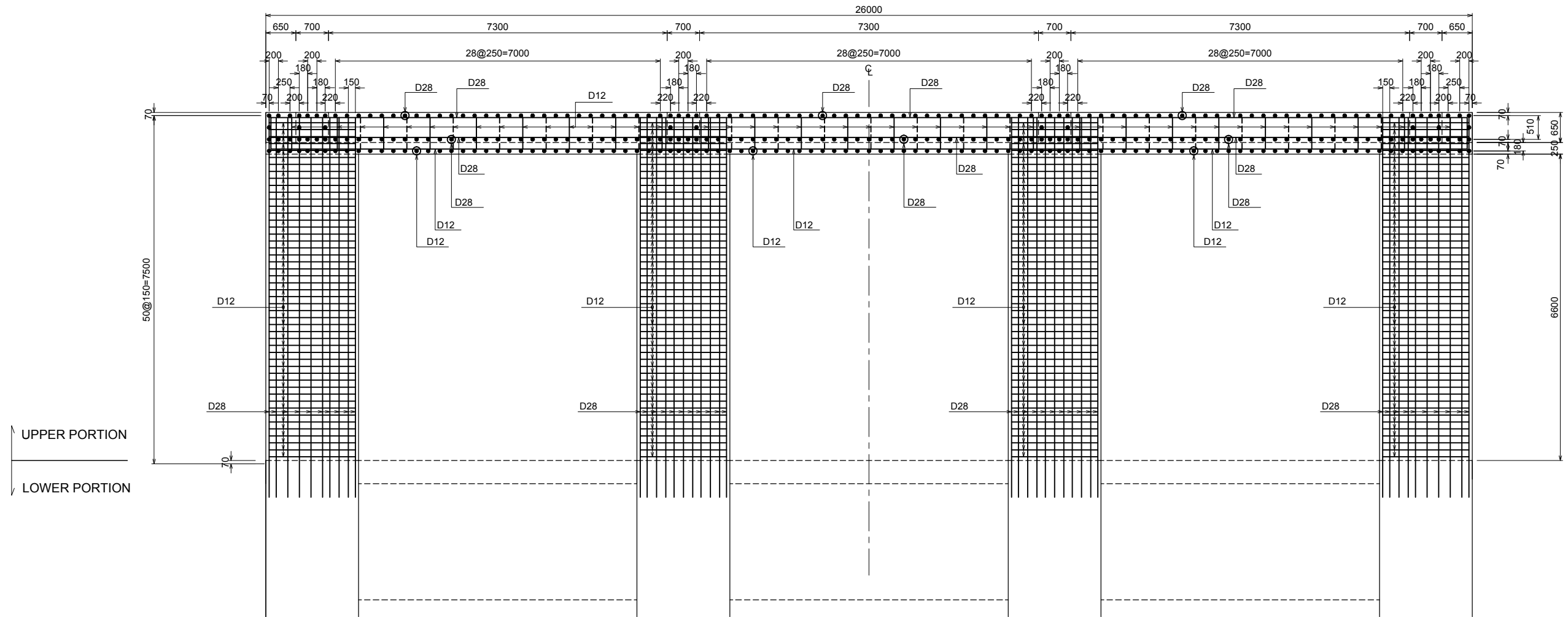
SCALE B

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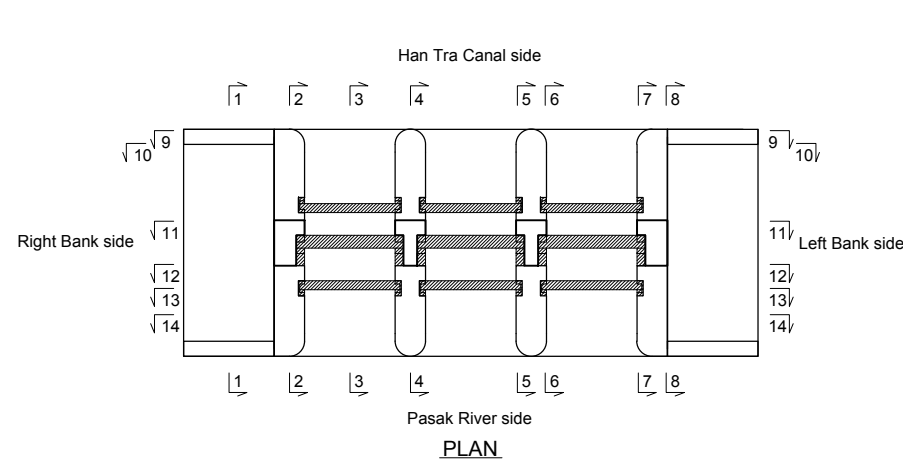
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____
 HT-FG-032

Left Bank side

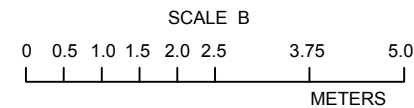
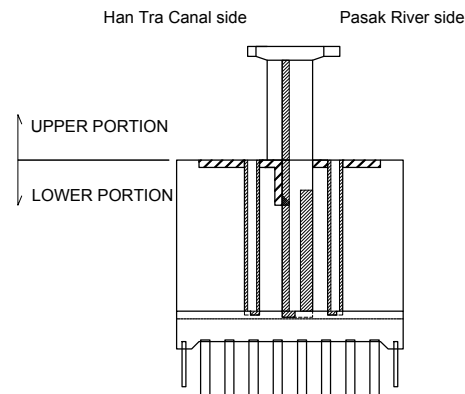
Right Bank side



SECTION 11 - 11 (UPPER PORTION)



PLAN



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 12/24)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

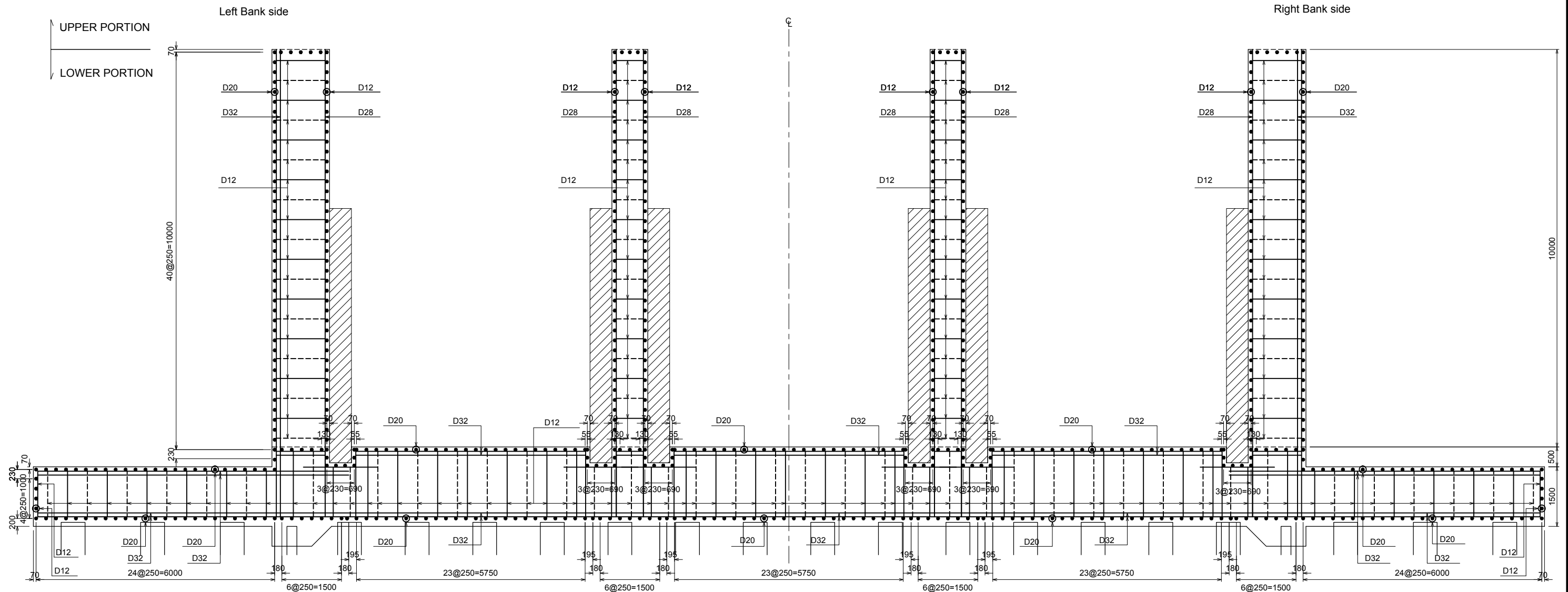
BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 12/24)

SCALE B

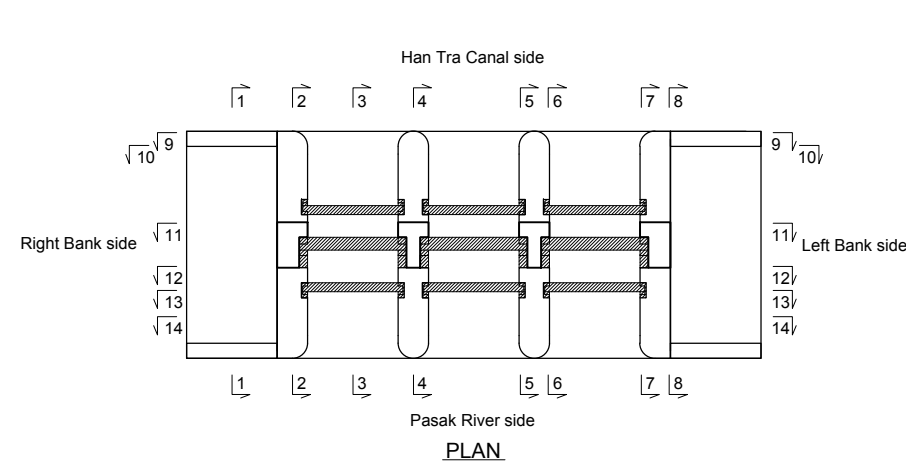
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

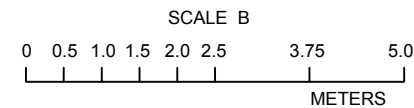
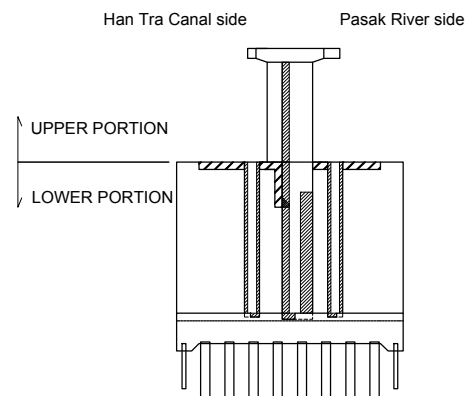
HT-FG-033



SECTION 12 - 12 (LOWER PORTION)



PLAN



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 13/24)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

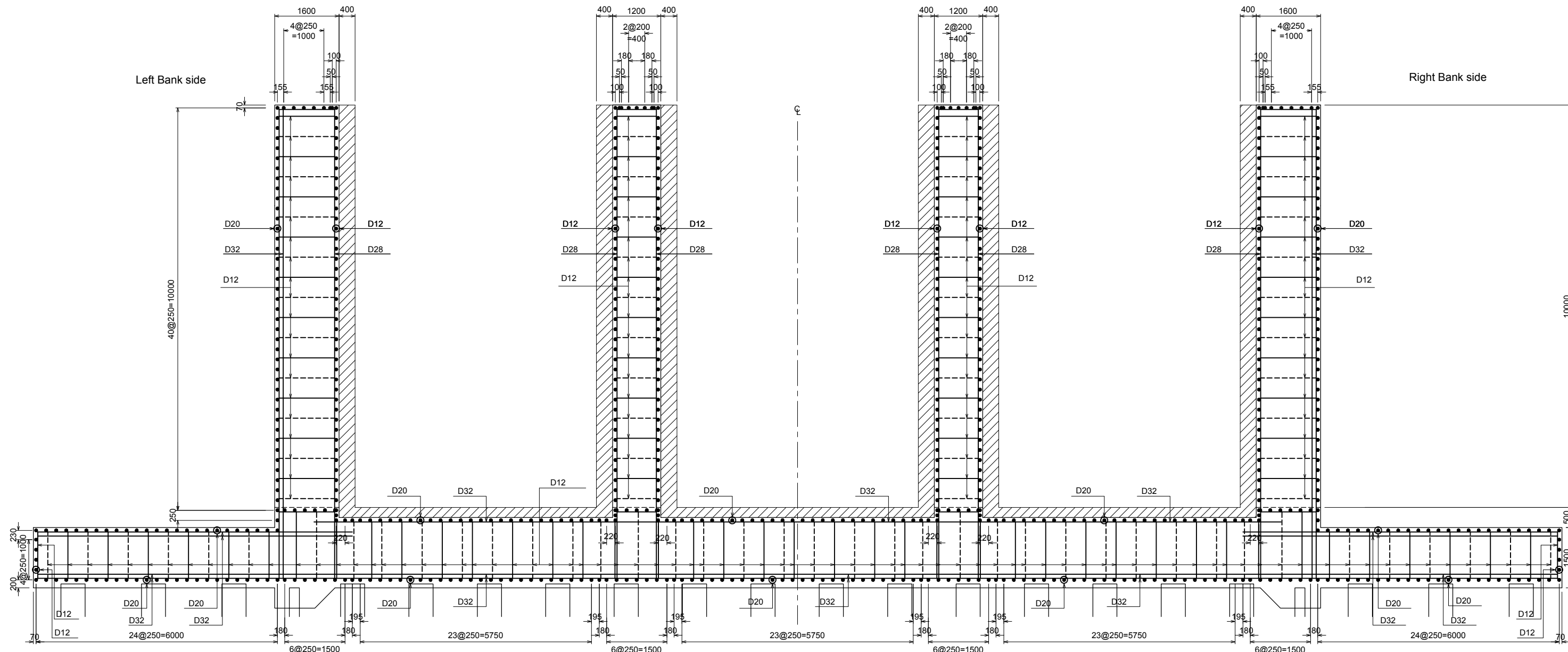
BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 13/24)

SCALE B

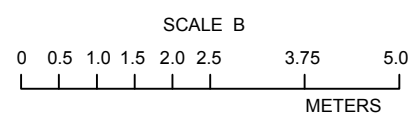
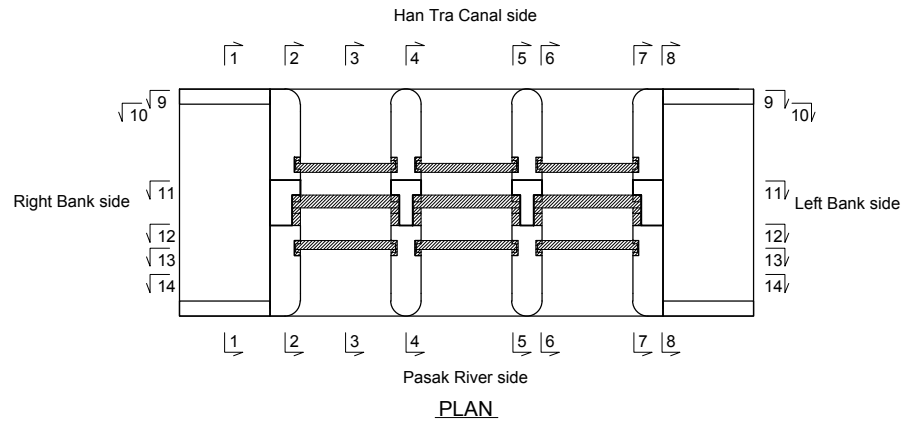
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|----------|----------|-------------|------|---------|----------|----------|
| | | | | PRESENT | APPROVED | |
| | | | | | | |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-034



SECTION 13 - 13



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 15/24)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 15/24)

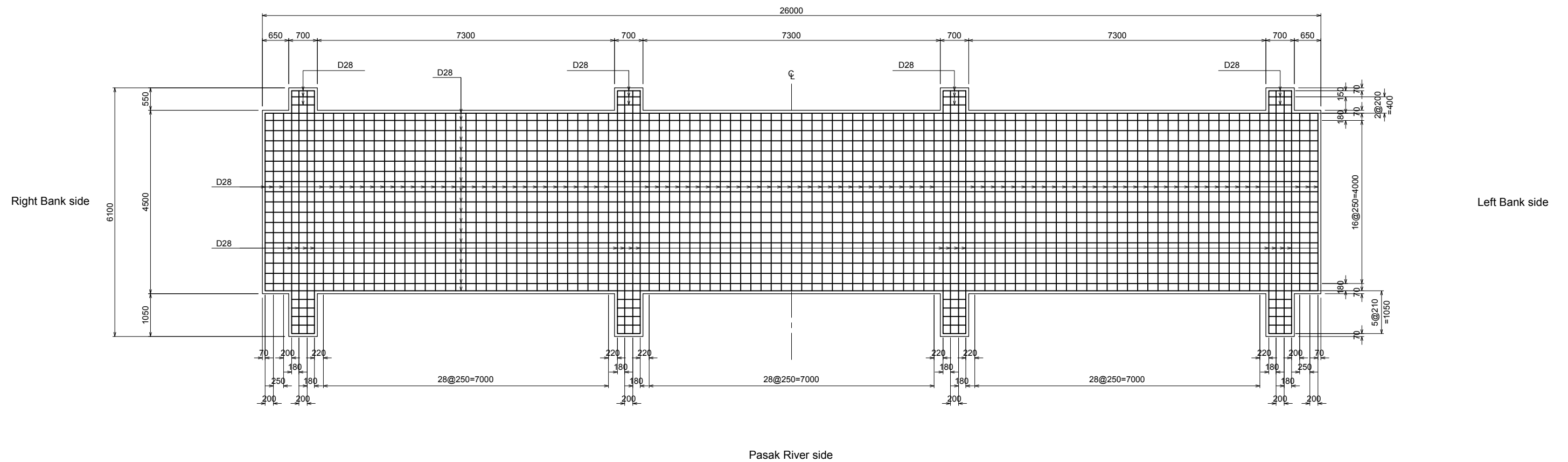
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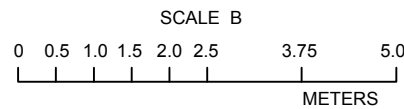
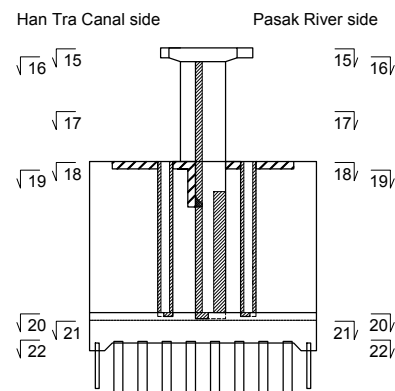
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-036

Han Tra Canal side



SECTION 15 - 15



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 17/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 17/24)

CONSULTING FIRMS :

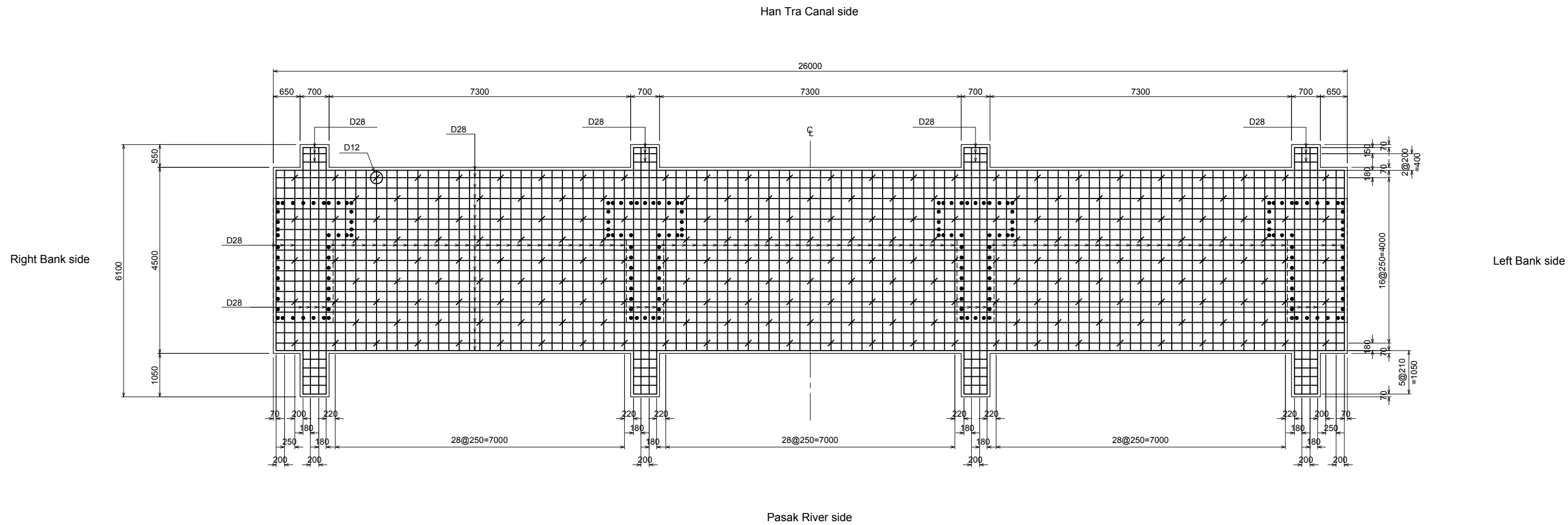
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

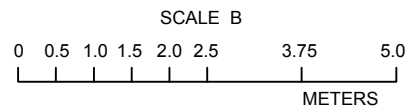
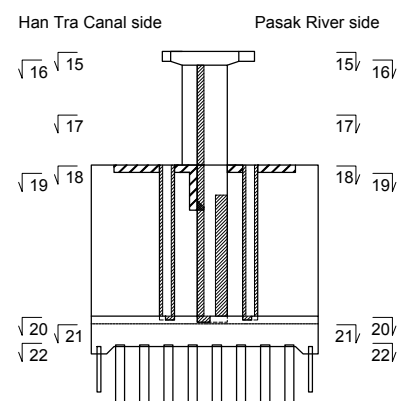
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|----------|----------|-------------|------|-----------------|-------------------|----------|
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-038



SECTION 16 - 16



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 18/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 18/24)**

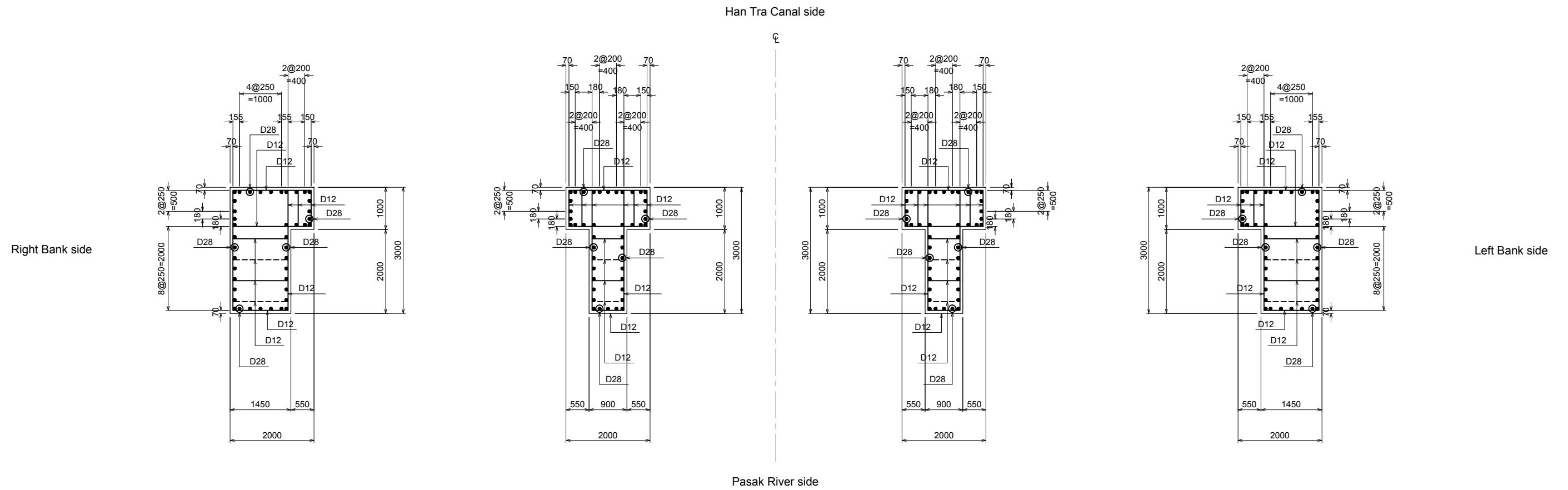
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

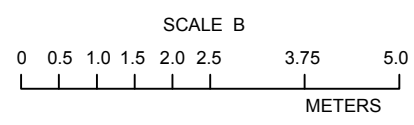
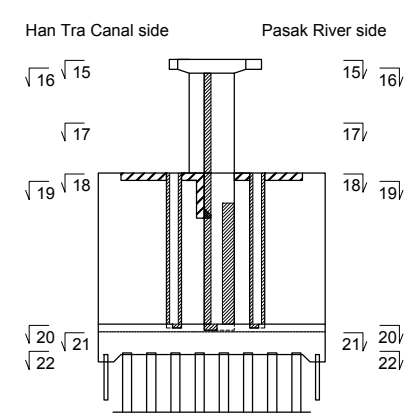
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP DATE _____

HT-FG-039

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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SECTION 17 - 17



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 19/24)

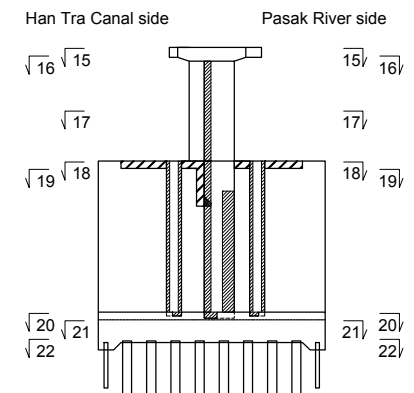
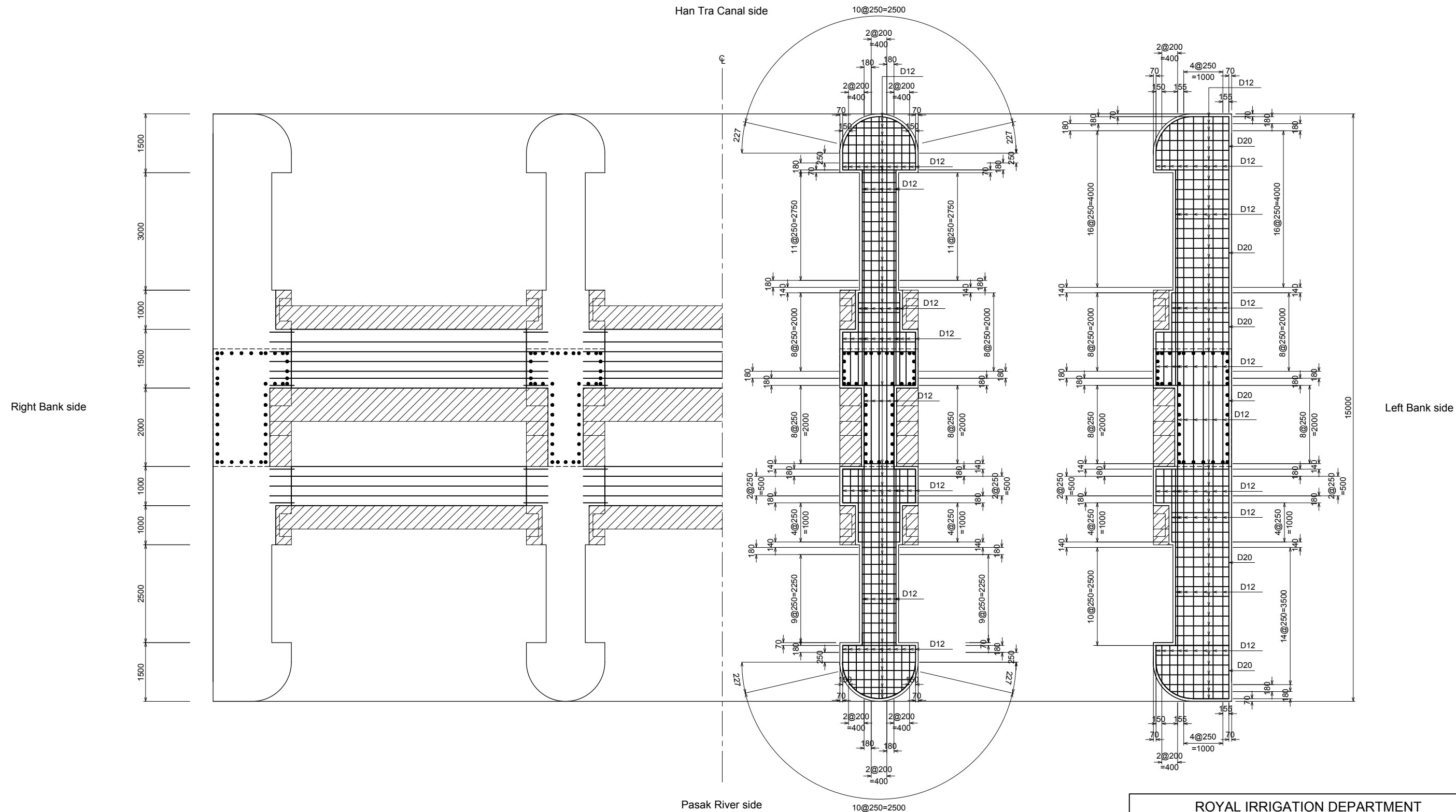
SCALE B

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
**HAN TRA FLOODGATE
BAR ARRANGEMENT
(MAIN BODY OF FLOODGATE 19/24)**

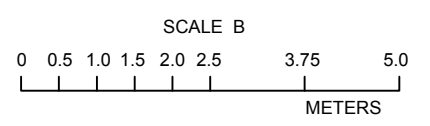
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| | | | | | | | | |
|----------|----------|-------------|------|--------------------|----------------------|----------|---|------------------|
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP DATE _____ | HT-FG-040 |
|----------|----------|-------------|------|--------------------|----------------------|----------|---|------------------|



SECTION 18 - 18



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 20/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 20/24)**

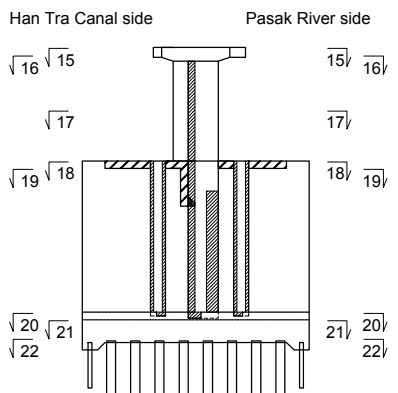
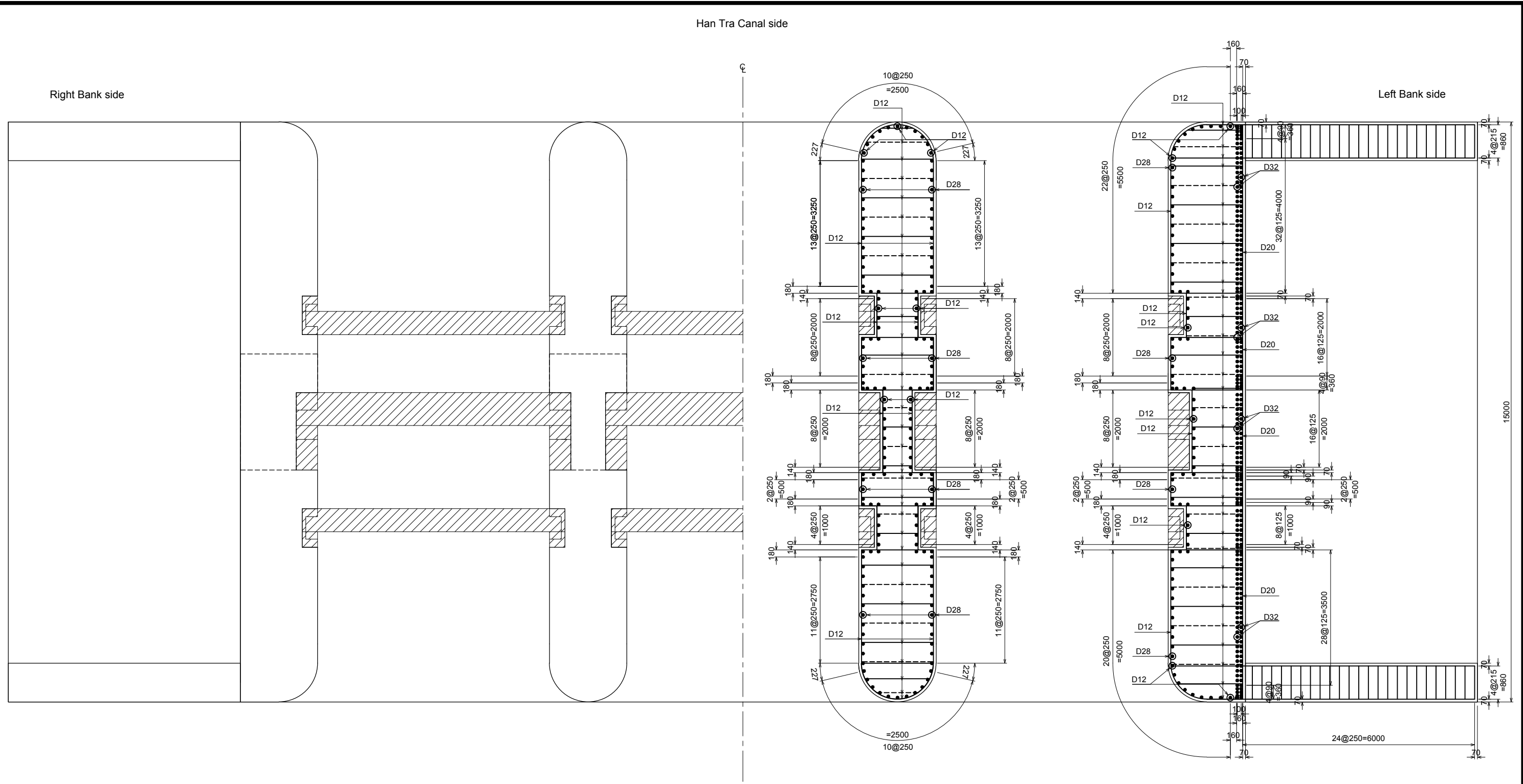
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

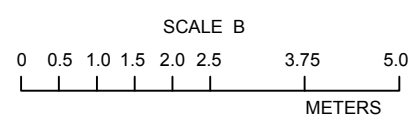
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-FG-041



Pasak River side
SECTION 19 - 19



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 21/24)
SCALE B

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
**HAN TRA FLOODGATE
BAR ARRANGEMENT
(MAIN BODY OF FLOODGATE 21/24)**

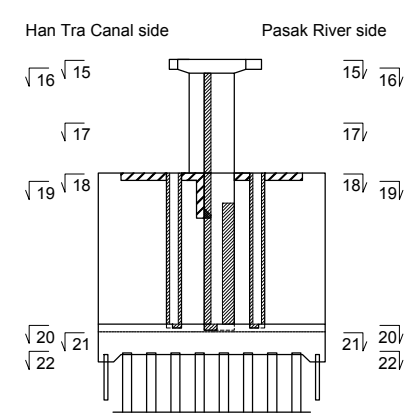
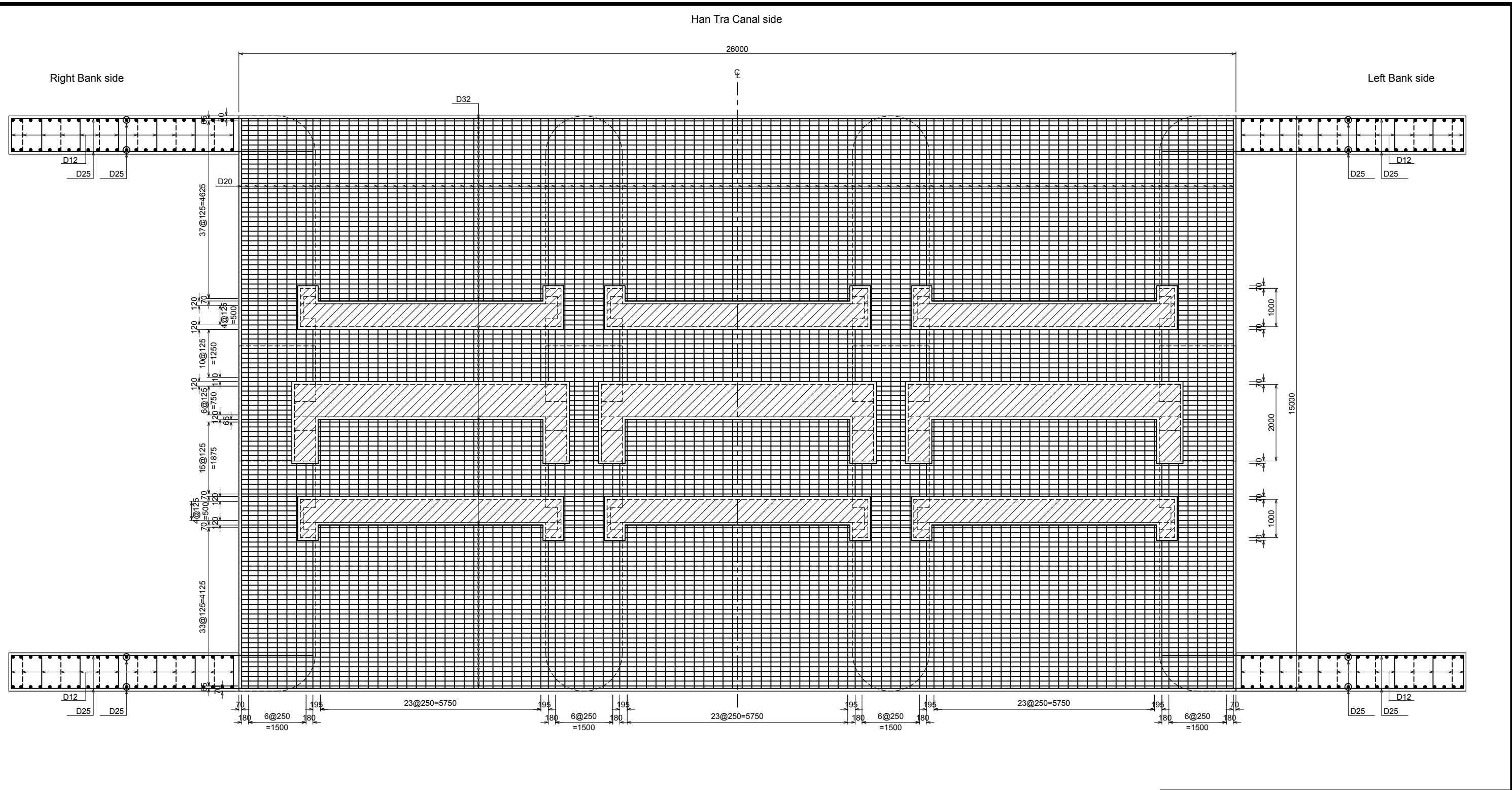
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

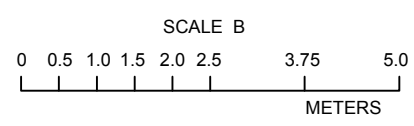
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

HT-FG-042

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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Pasak River side
SECTION 20 - 20



ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
**HAN TRA FLOODGATE
BAR ARRANGEMENT
(MAIN BODY OF FLOODGATE 22/24)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

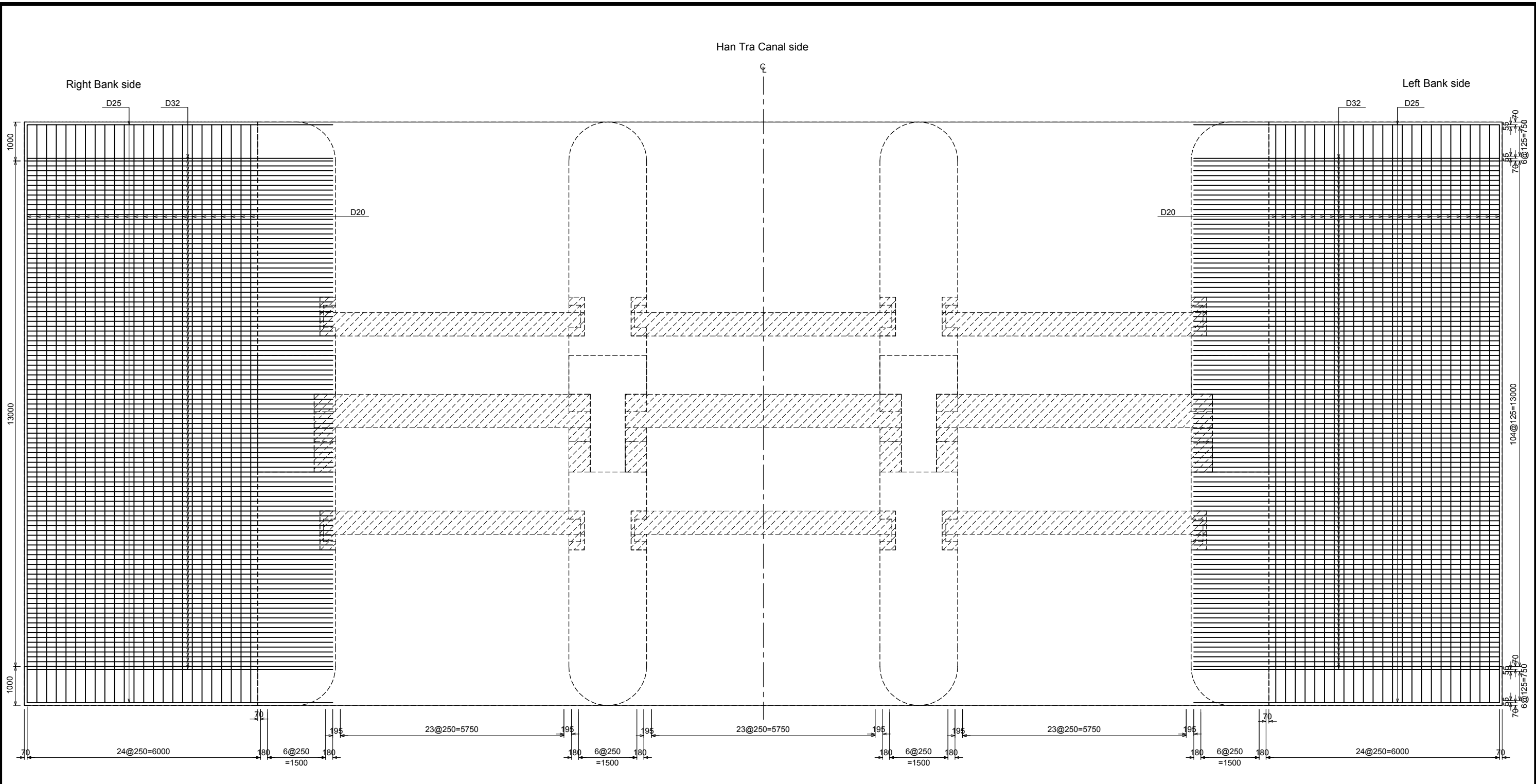
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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

HT-FG-043

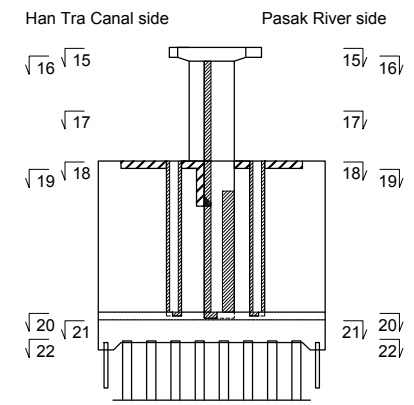
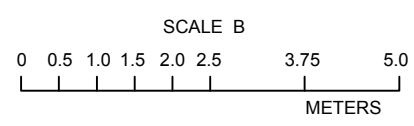
BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 22/24)
SCALE B

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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| | | | | | | |



Han Tra Canal side
 Right Bank side
 Left Bank side
 Pasak River side

SECTION 21 - 21



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 23/24)

SCALE B

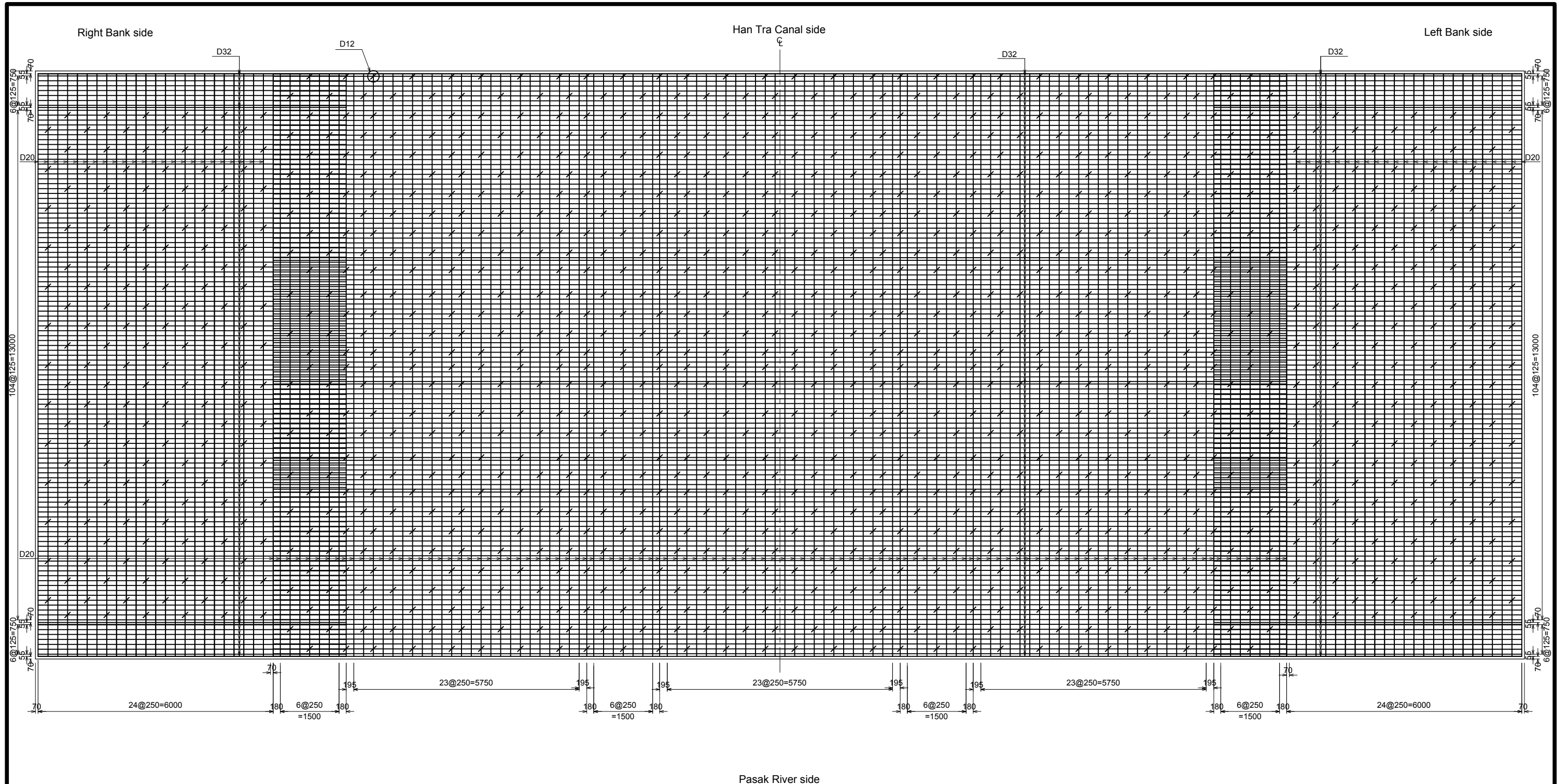
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 23/24)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

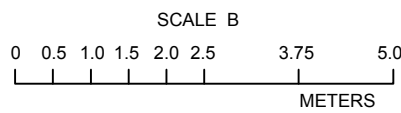
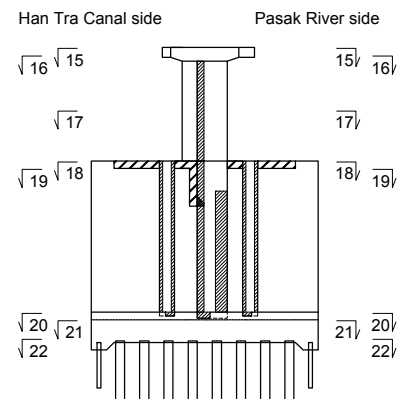
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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
|----------|----------|-------------|------|-----------------|-------------------|----------|
| | | | | | | |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____
HT-FG-044



SECTION 22 - 22



BAR ARRANGEMENT (MAIN BODY OF FLOODGATE 24/24)

SCALE B

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (MAIN BODY OF FLOODGATE 24/24)**

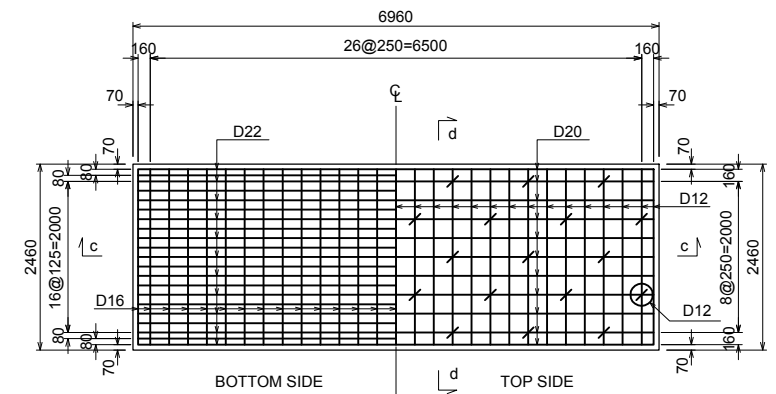
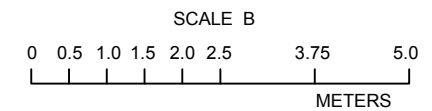
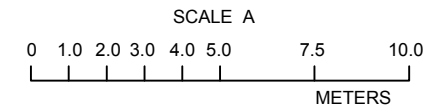
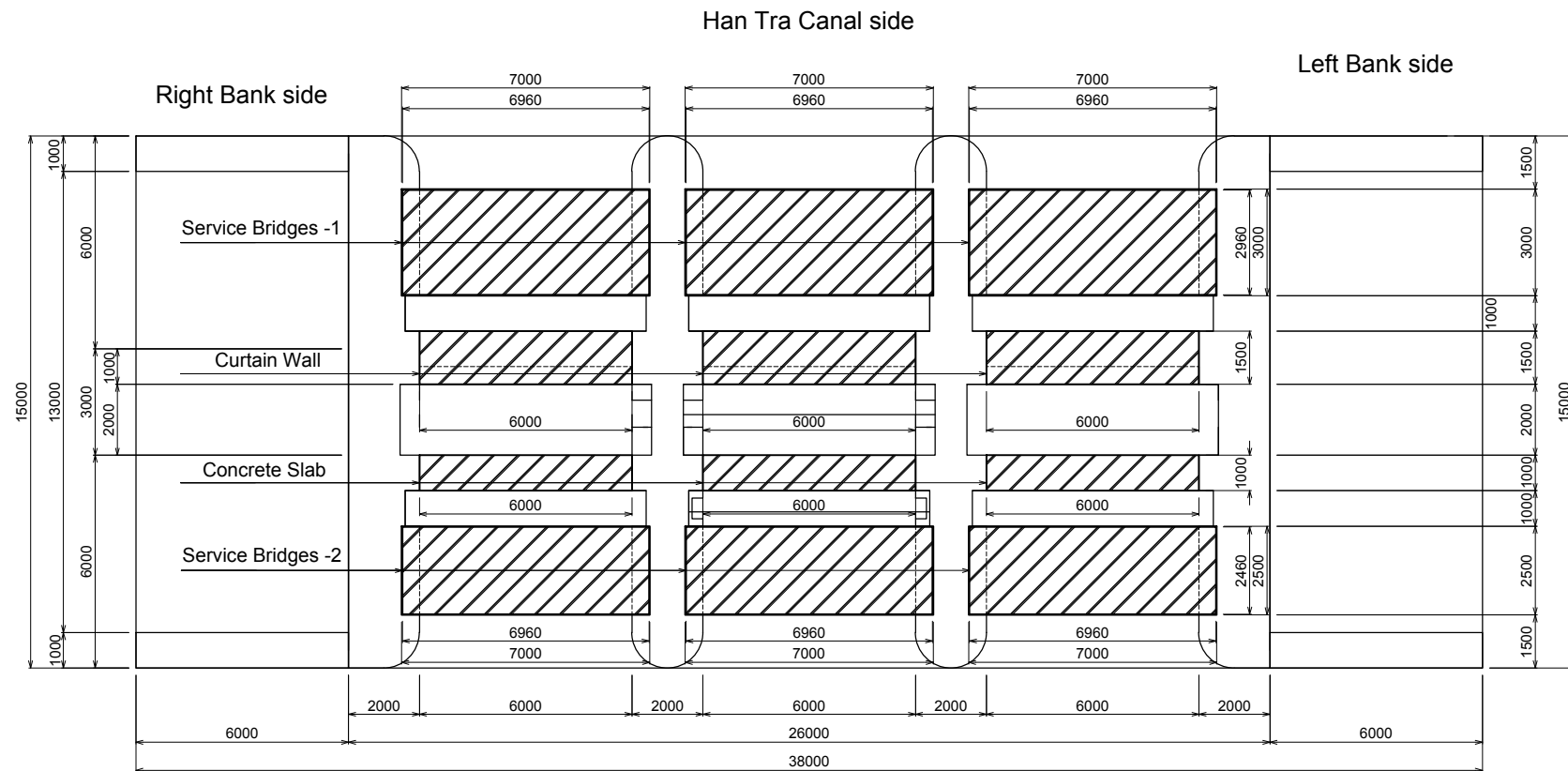
CONSULTING FIRMS :
 CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

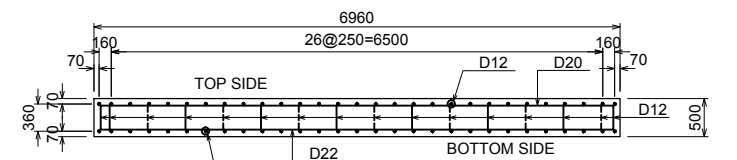
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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

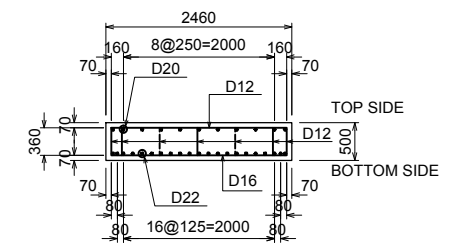
HT-FG-045



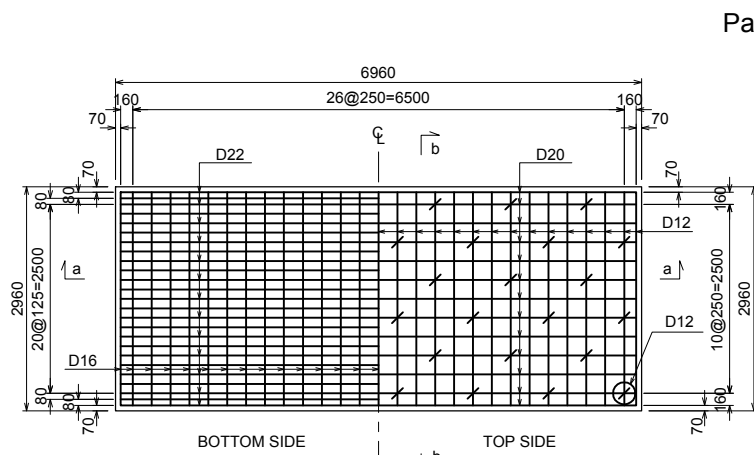
Detail for Service Bridges -2
SCALE B



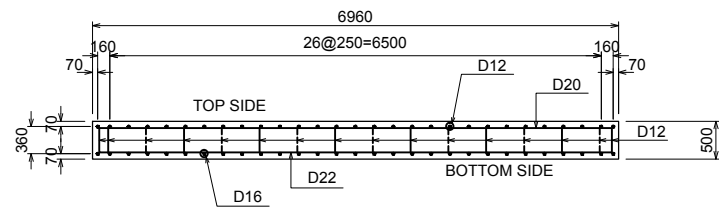
Section c-c
SCALE B



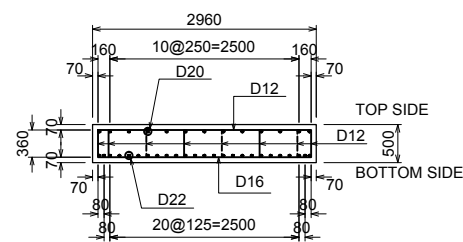
Section d-d
SCALE B



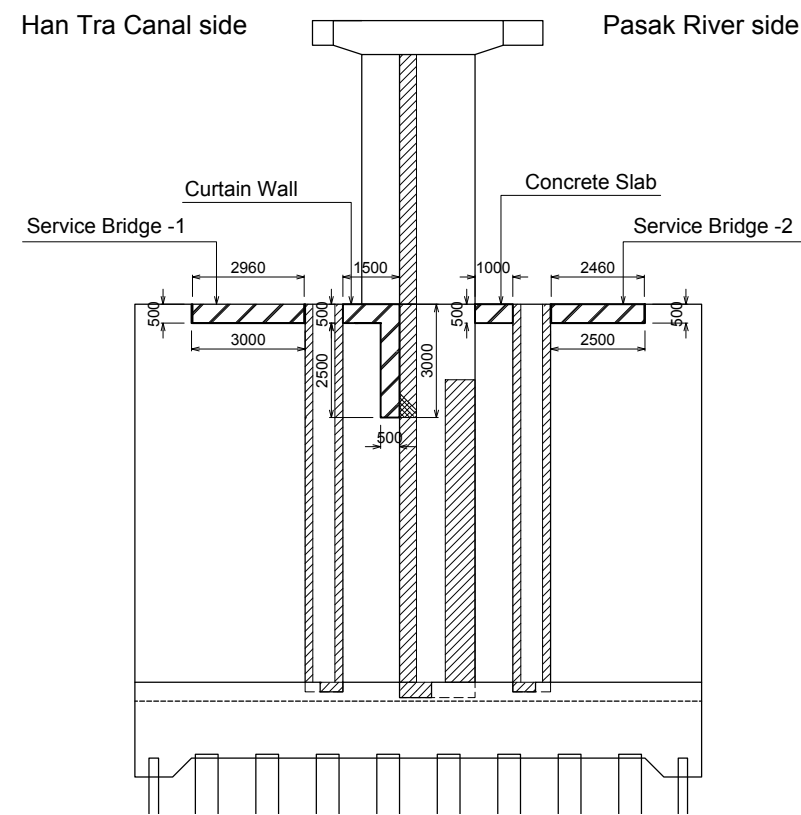
Detail for Service Bridges -1
SCALE B



Section a-a
SCALE B



Section b-b
SCALE B



SECTION
SCALE A

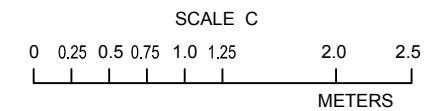
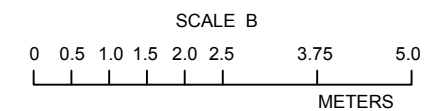
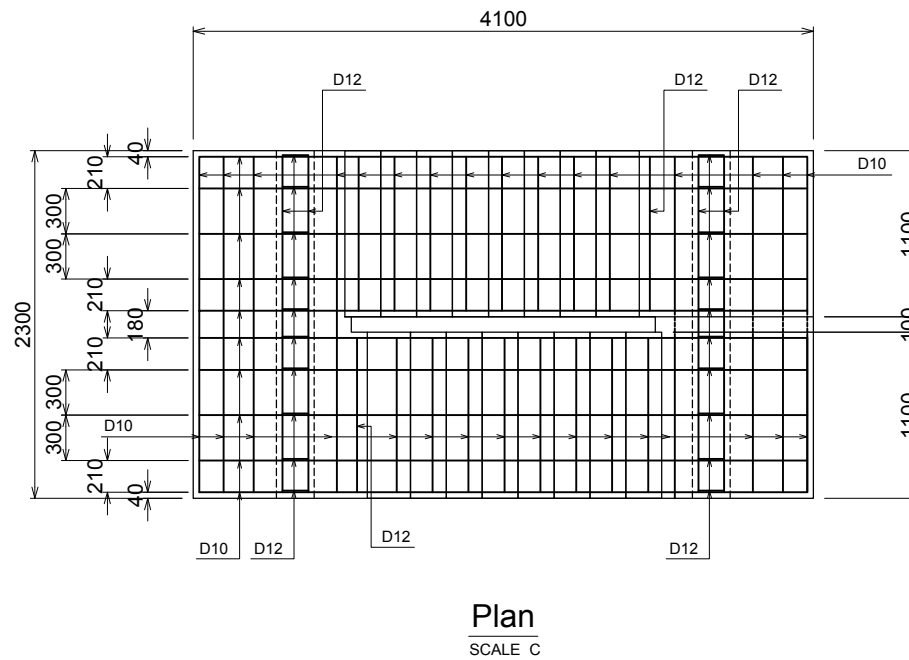
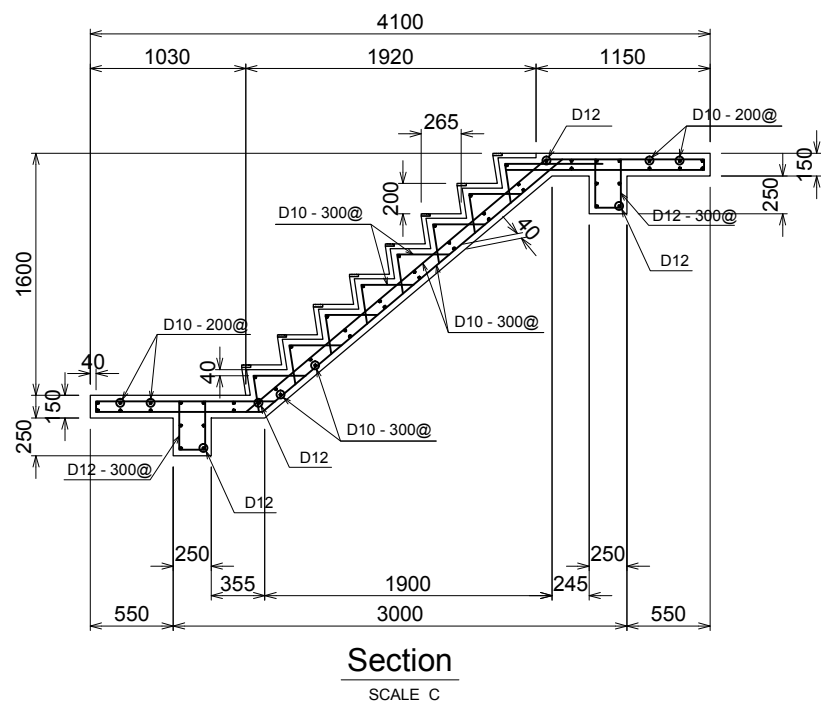
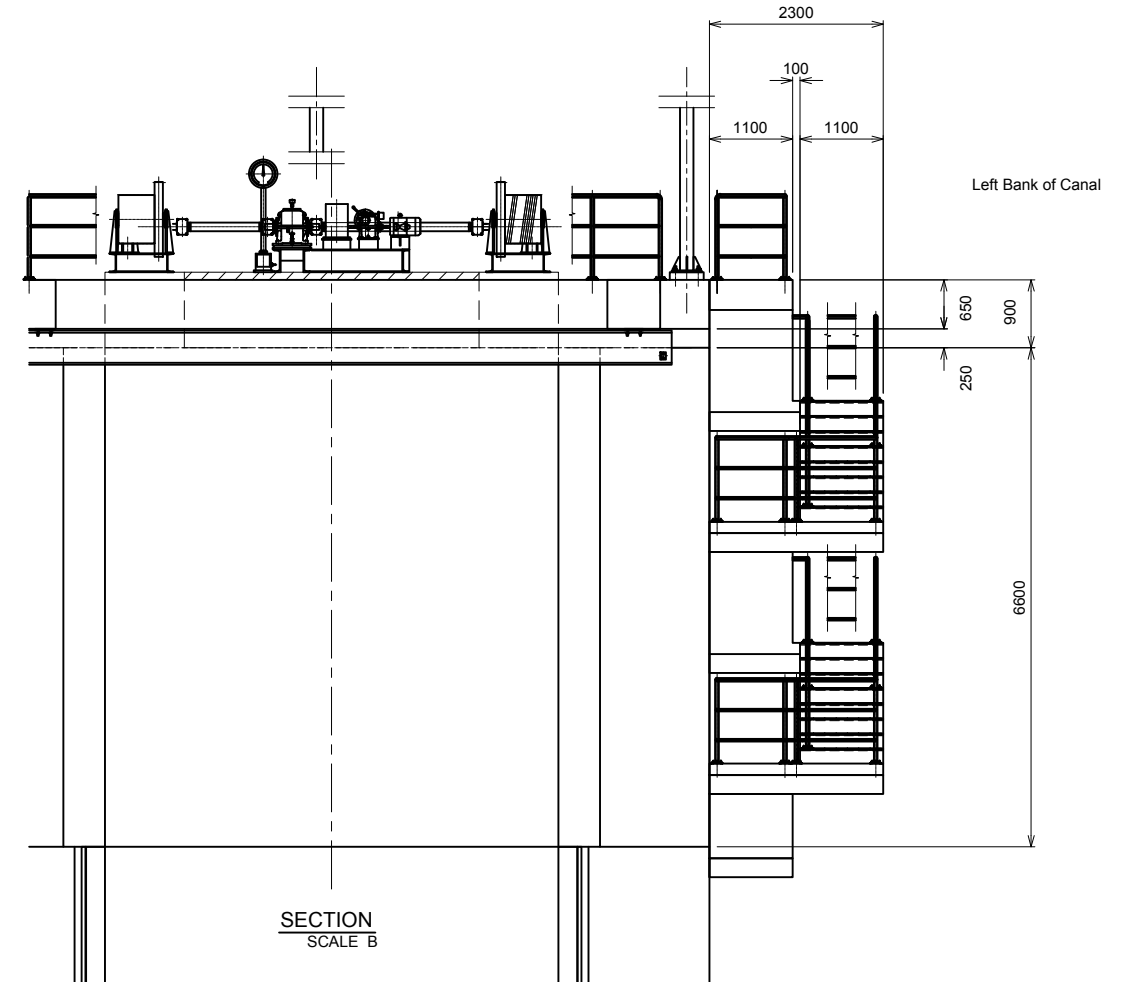
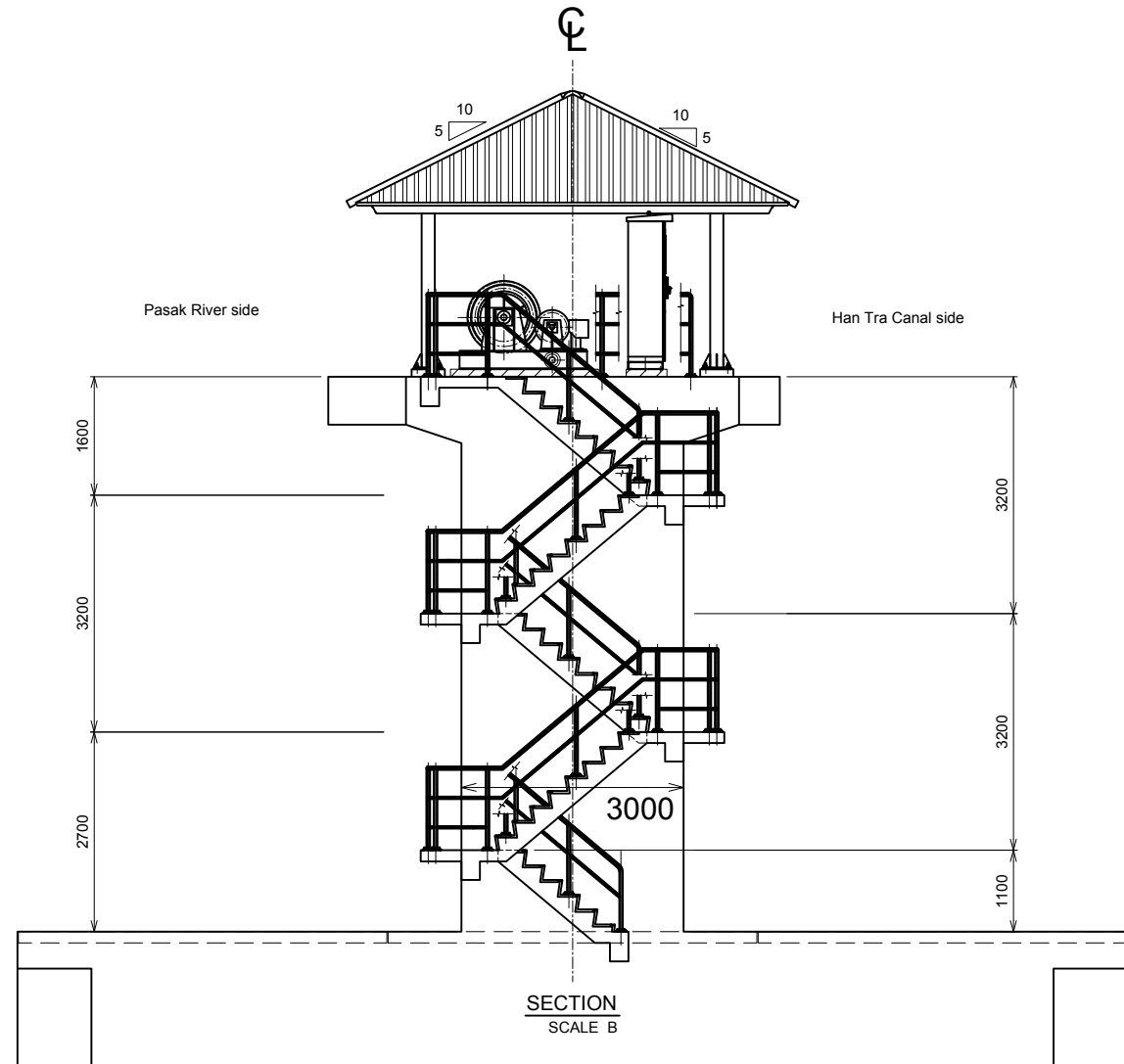
BAR ARRANGEMENT (SERVICE BRIDGES)

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
HAN TRA FLOODGATE
BAR ARRANGEMENT (SERVICE BRIDGES)

CONSULTING FIRMS :

CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|---|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT |
| | | | | APPROVED APPROVED |
| | | | | APPROVED |
| | | | | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP |
| | | | | DATE _____ |
| | | | | HT-FG-046 |



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT (STAIRCASE)**

CONSULTING FIRMS :

CTI ENGINEERING INTERNATIONAL CO., LTD.

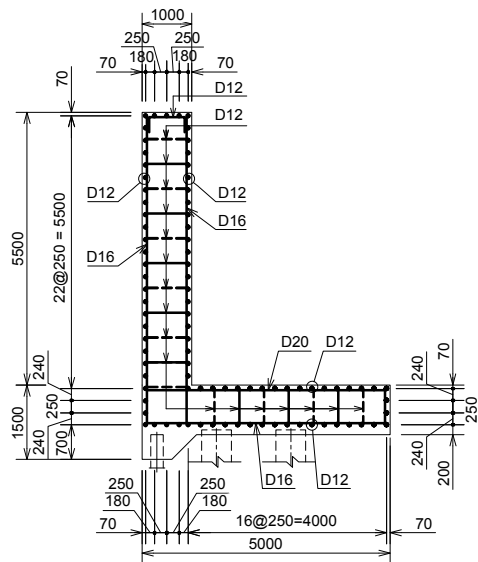
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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

BAR ARRANGEMENT (STAIRCASE)

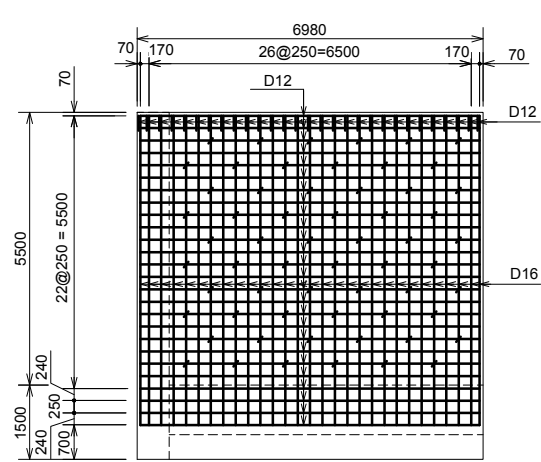
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

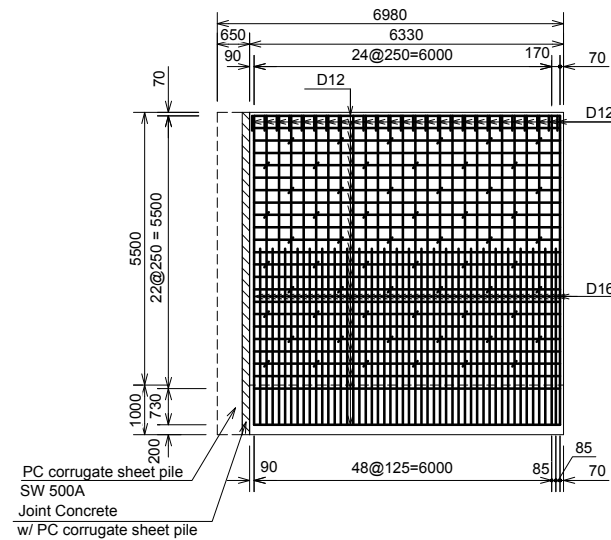
HT-FG-048



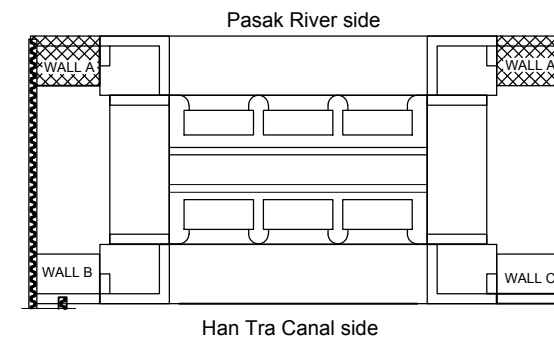
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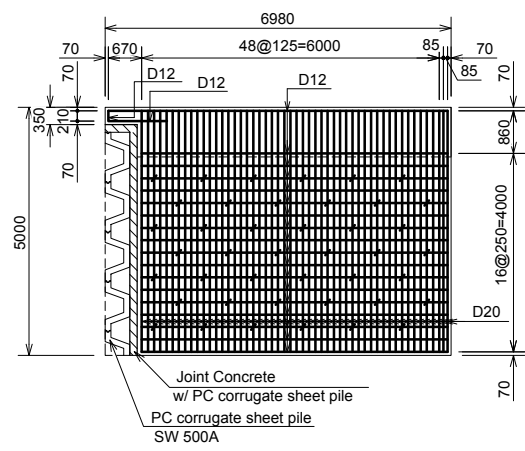
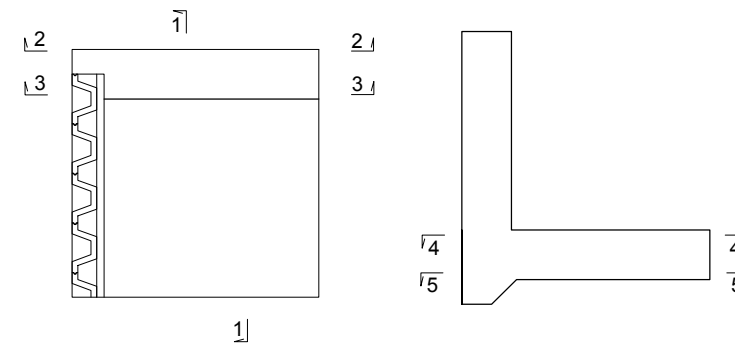
SECTION 2 - 2
(FRONT SIDE)



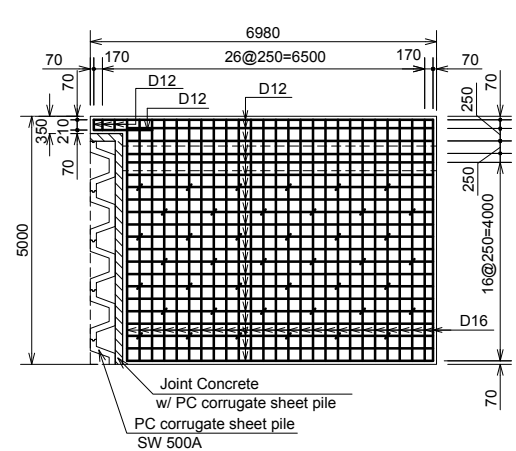
SECTION 3 - 3
(BACK SIDE)



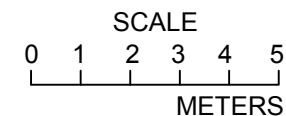
KEY PLAN



SECTION 4 - 4
(TOP SIDE)



SECTION 5 - 5
(BOTTOM SIDE)



ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
HAN TRA FLOODGATE
BAR ARRANGEMENT
(PART - WING WALL 1/3)

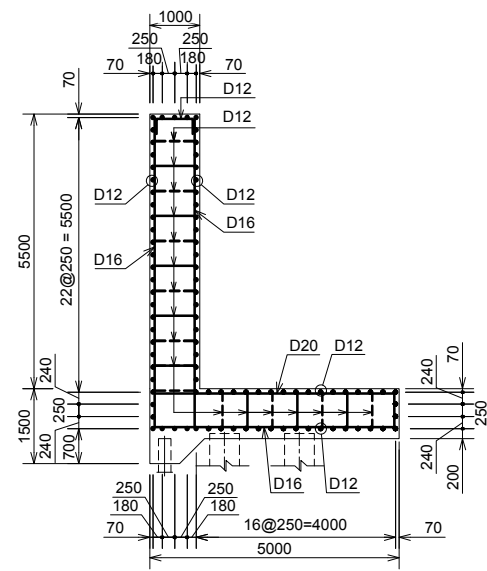
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

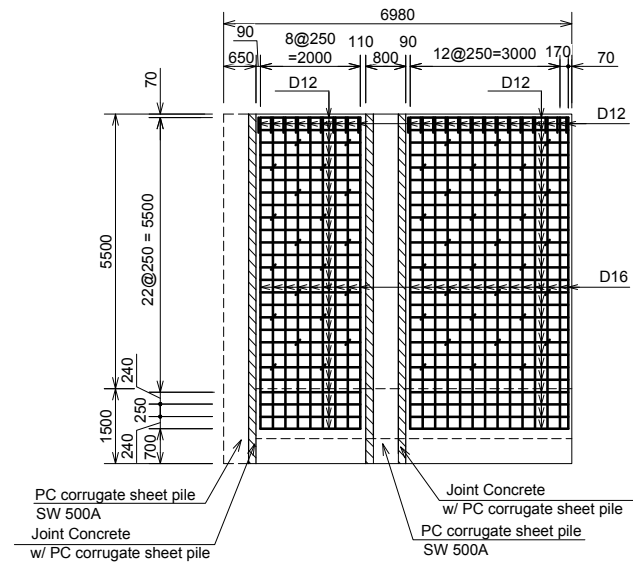
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

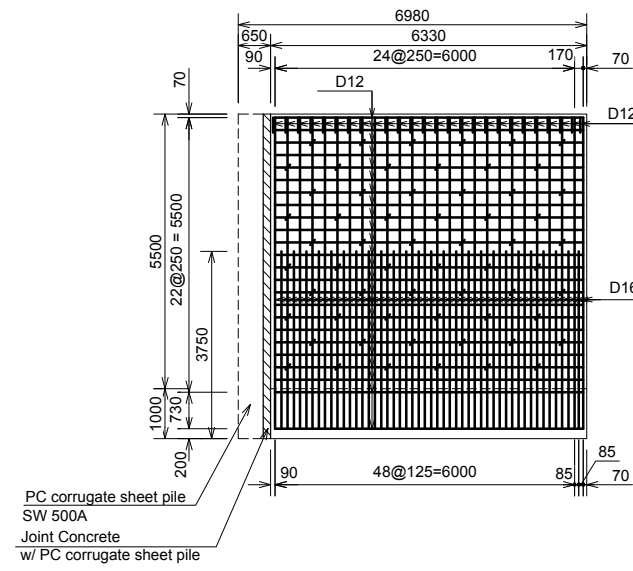
HT-FG-049



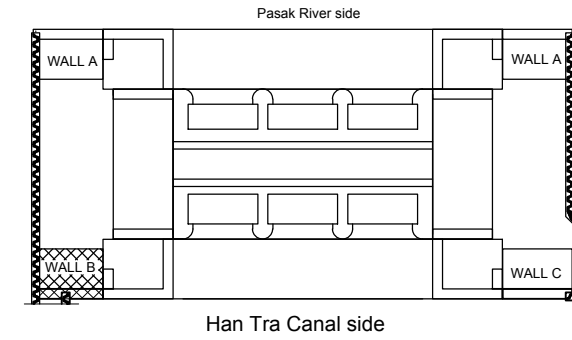
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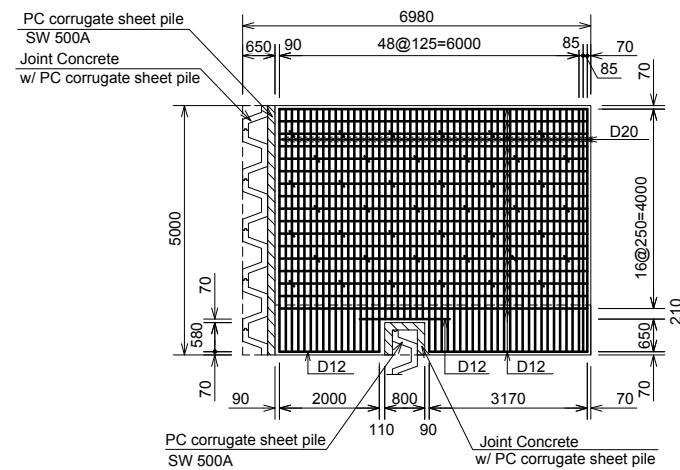
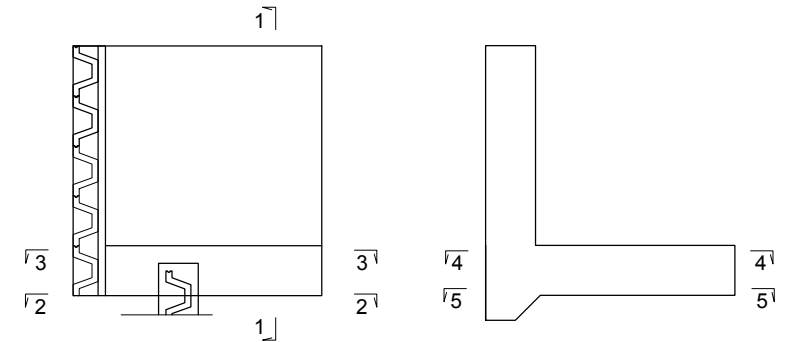
SECTION 2 - 2
(FRONT SIDE)



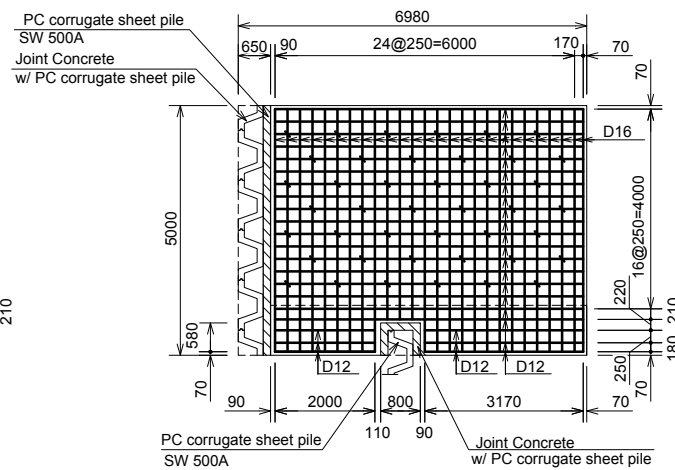
SECTION 3 - 3
(BACK SIDE)



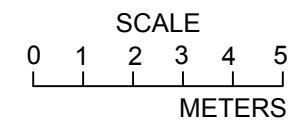
KEY PLAN



SECTION 4 - 4
(TOP SIDE)



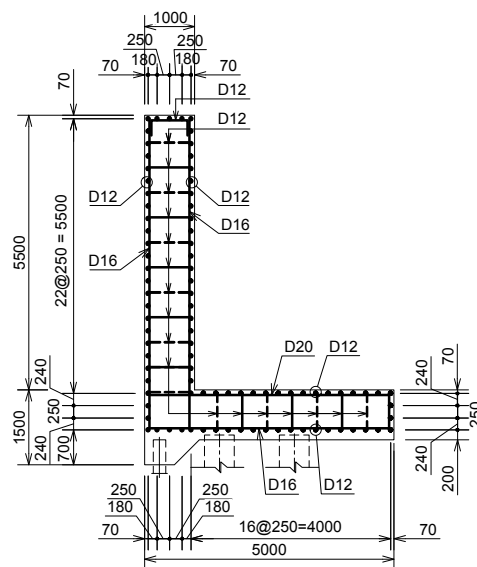
SECTION 5 - 5
(BOTTOM SIDE)



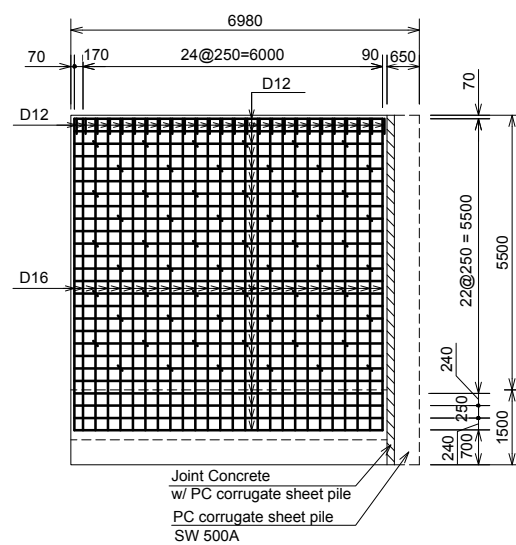
ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
HAN TRA FLOODGATE
BAR ARRANGEMENT
(PART - WING WALL 2/3)

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

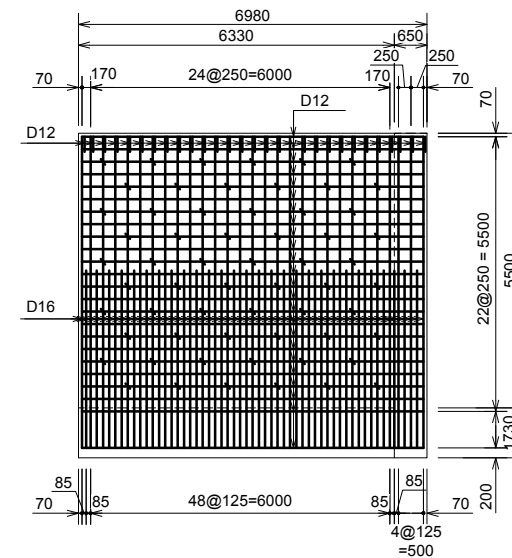
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| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | | | | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | | | | |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | | | | |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. | | | | |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | HT-FG-050 |



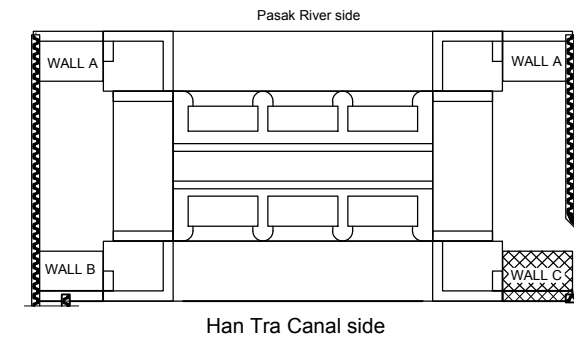
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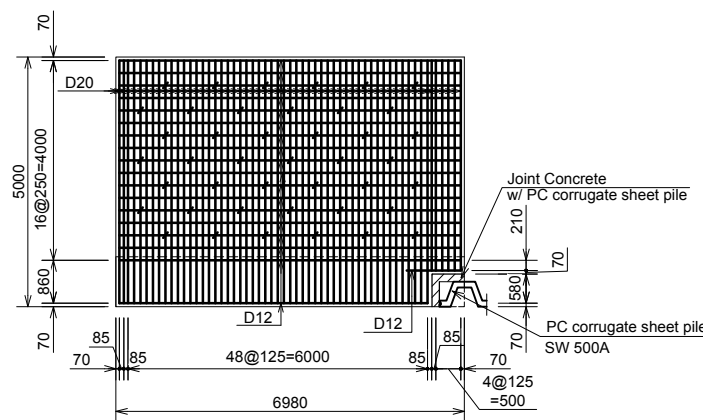
SECTION 2 - 2
(FRONT SIDE)



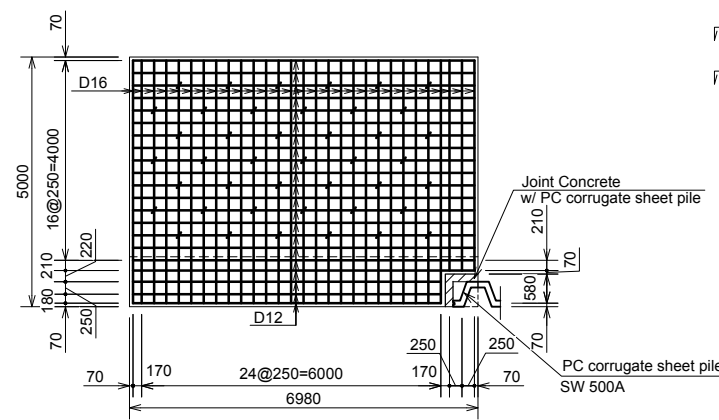
SECTION 3 - 3
(BACK SIDE)



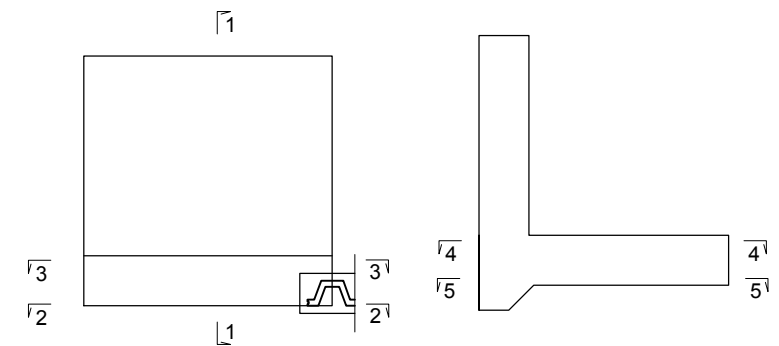
KEY PLAN



SECTION 4 - 4
(TOP SIDE)



SECTION 5 - 5
(BOTTOM SIDE)



SCALE
0 1 2 3 4 5
METERS

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand

(CIVIL WORKS)
HAN TRA FLOODGATE
BAR ARRANGEMENT
(PART - WING WALL 3/3)

CONSULTING FIRMS :

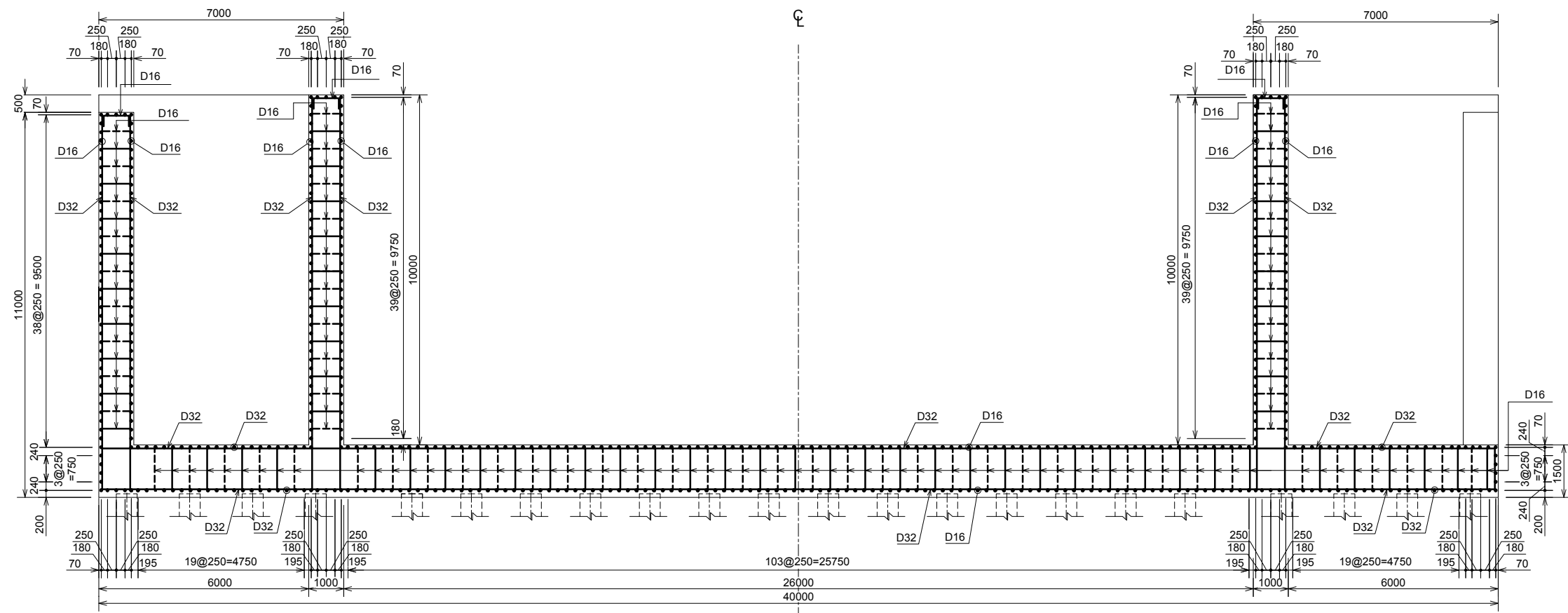
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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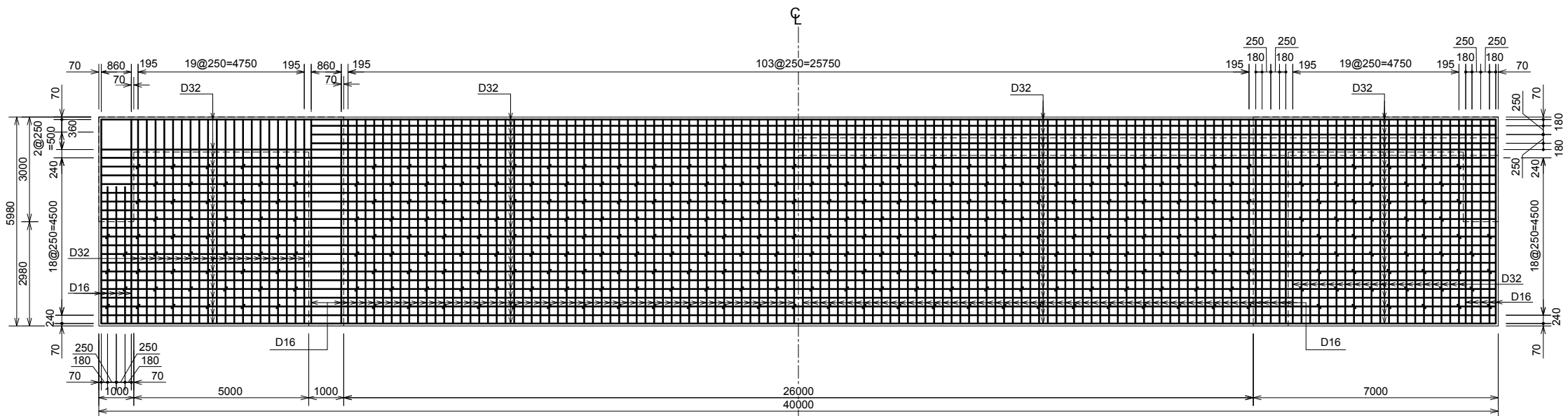
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

HT-FG-051



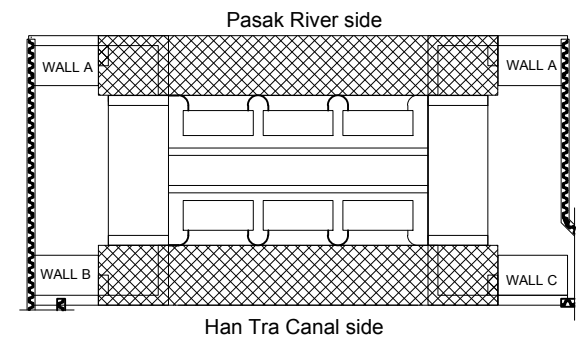
SECTION 1 - 1

SECTION 2 - 2

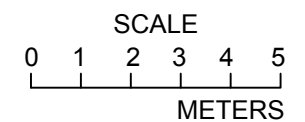
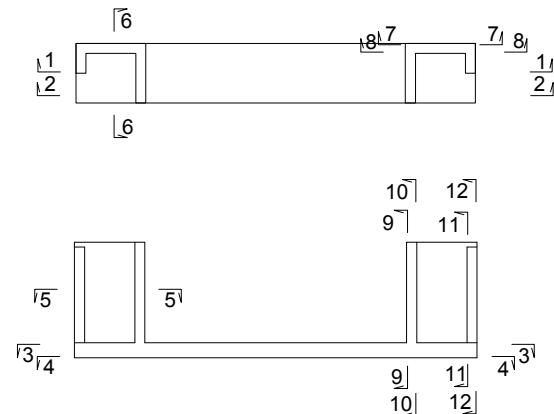


SECTION 3 - 3
(TOP SIDE)

SECTION 4 - 4
(BOTTOM SIDE)



KEY PLAN



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**HAN TRA FLOODGATE
 BAR ARRANGEMENT
 (PART - APRON 1/3)**

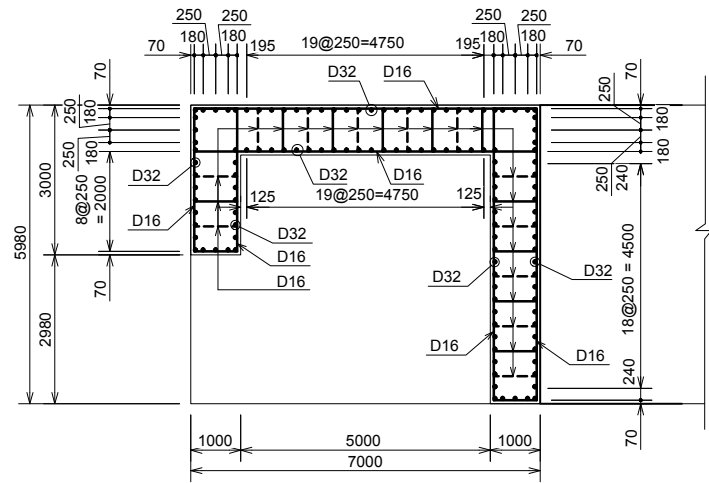
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

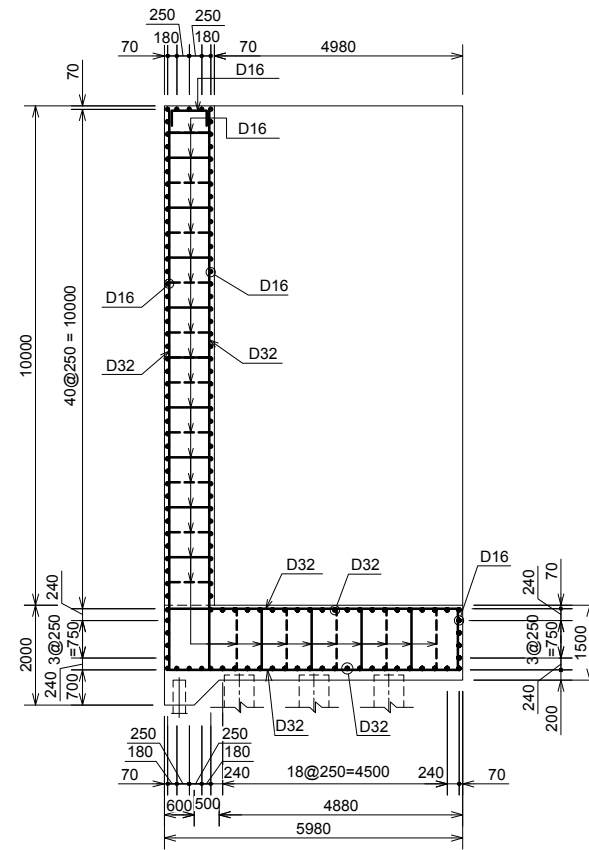
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

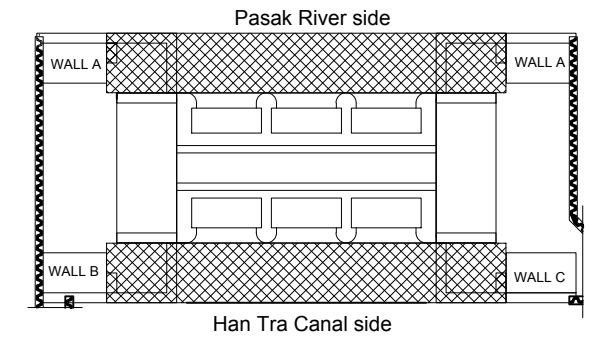
HT-FG-052



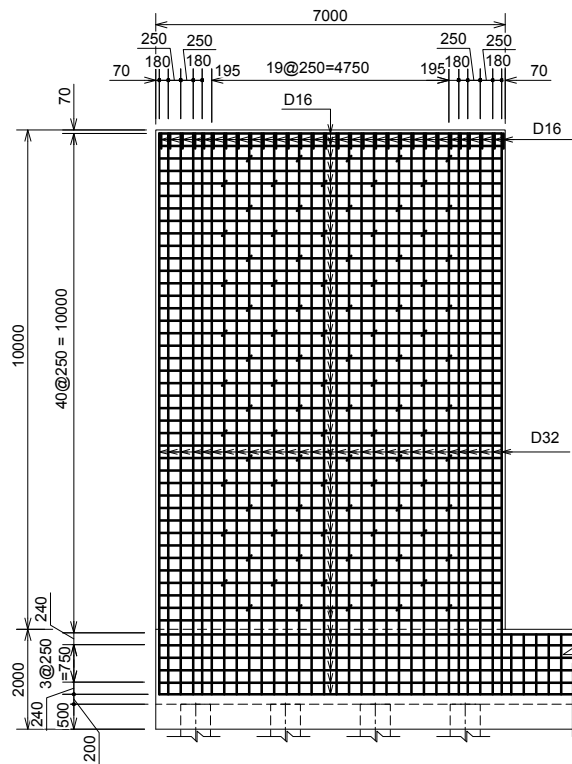
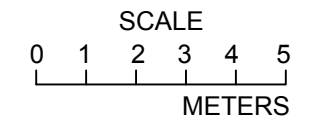
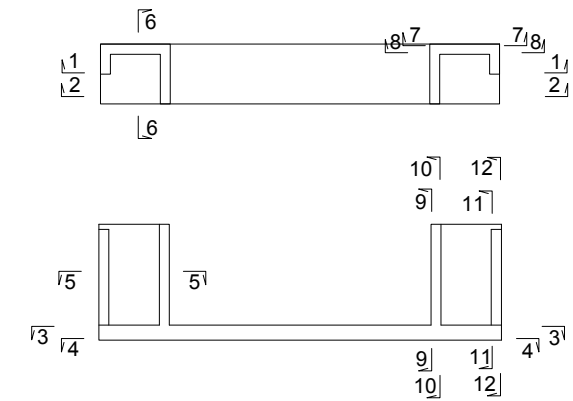
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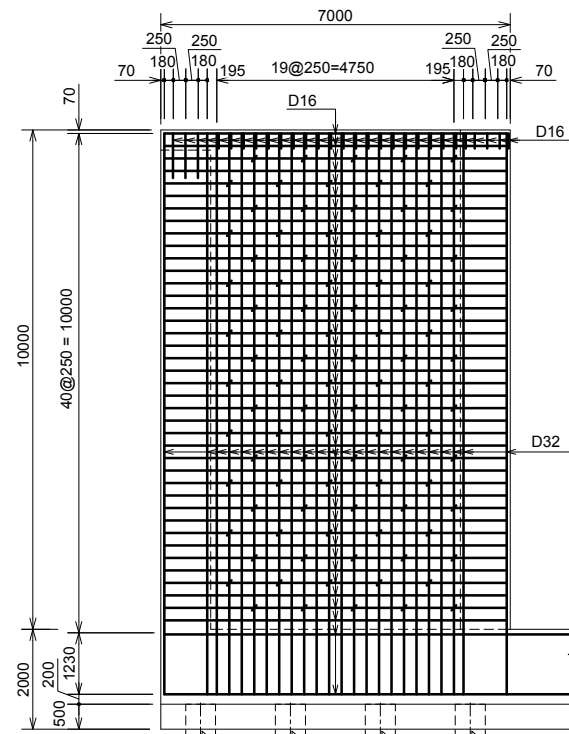
SECTION 6 - 6



KEY PLAN



SECTION 7 - 7
(EXTERIOR SIDE)



SECTION 8 - 8
(INTERIOR SIDE)

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
HAN TRA FLOODGATE
BAR ARRANGEMENT
(PART - APRON 2/3)

CONSULTING FIRMS :

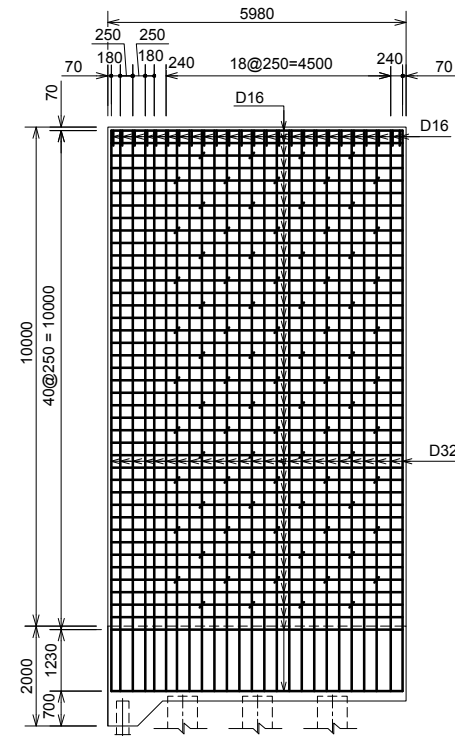
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

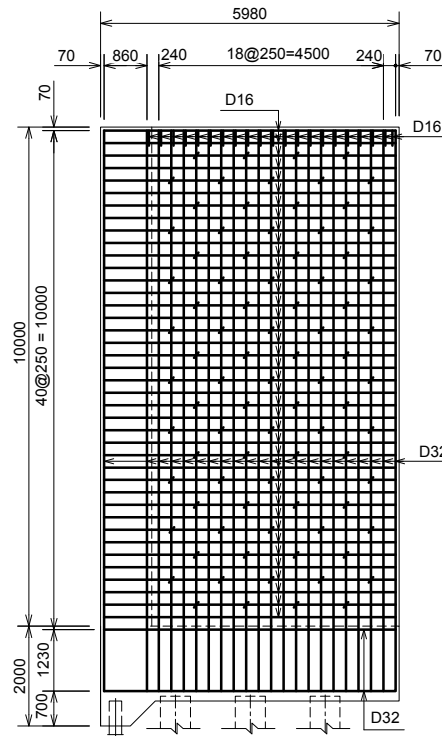
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

HT-FG-053

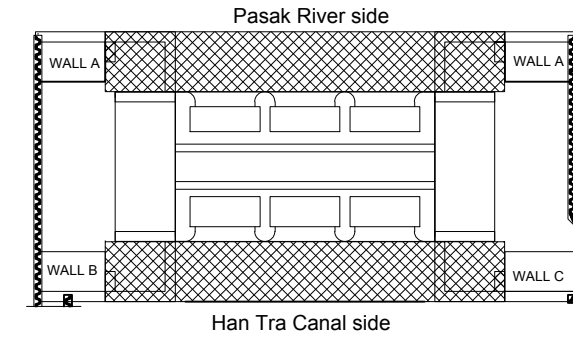
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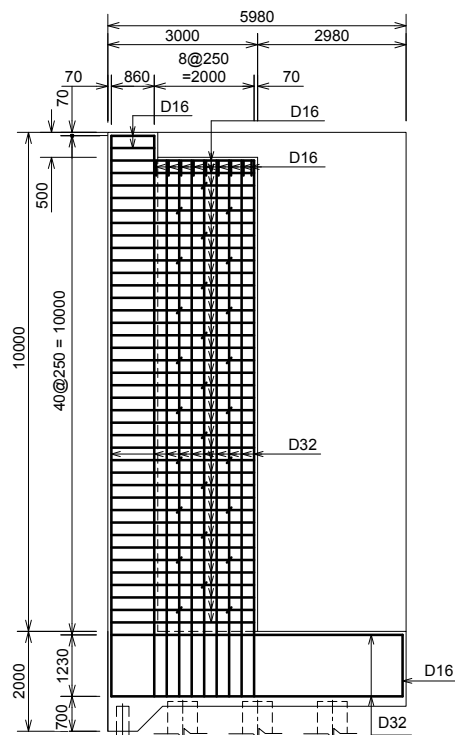
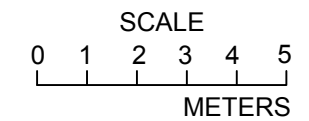
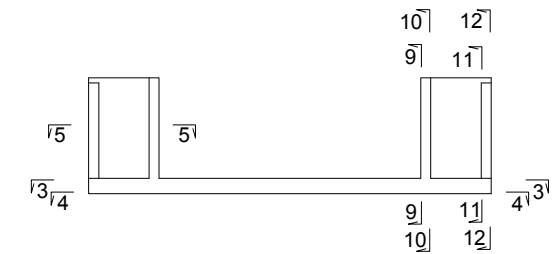
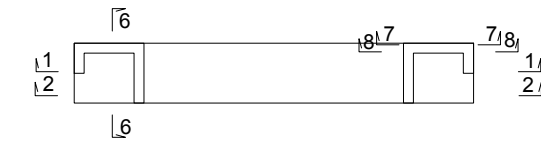
SECTION 9 - 9
(EXTERIOR SIDE)



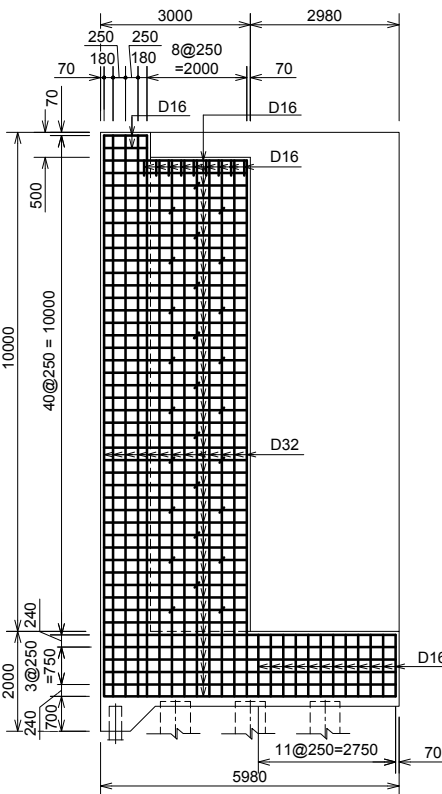
SECTION 10 - 10
(INTERIOR SIDE)



KEY PLAN



SECTION 11 - 11
(INTERIOR SIDE)



SECTION 12 - 12
(EXTERIOR SIDE)

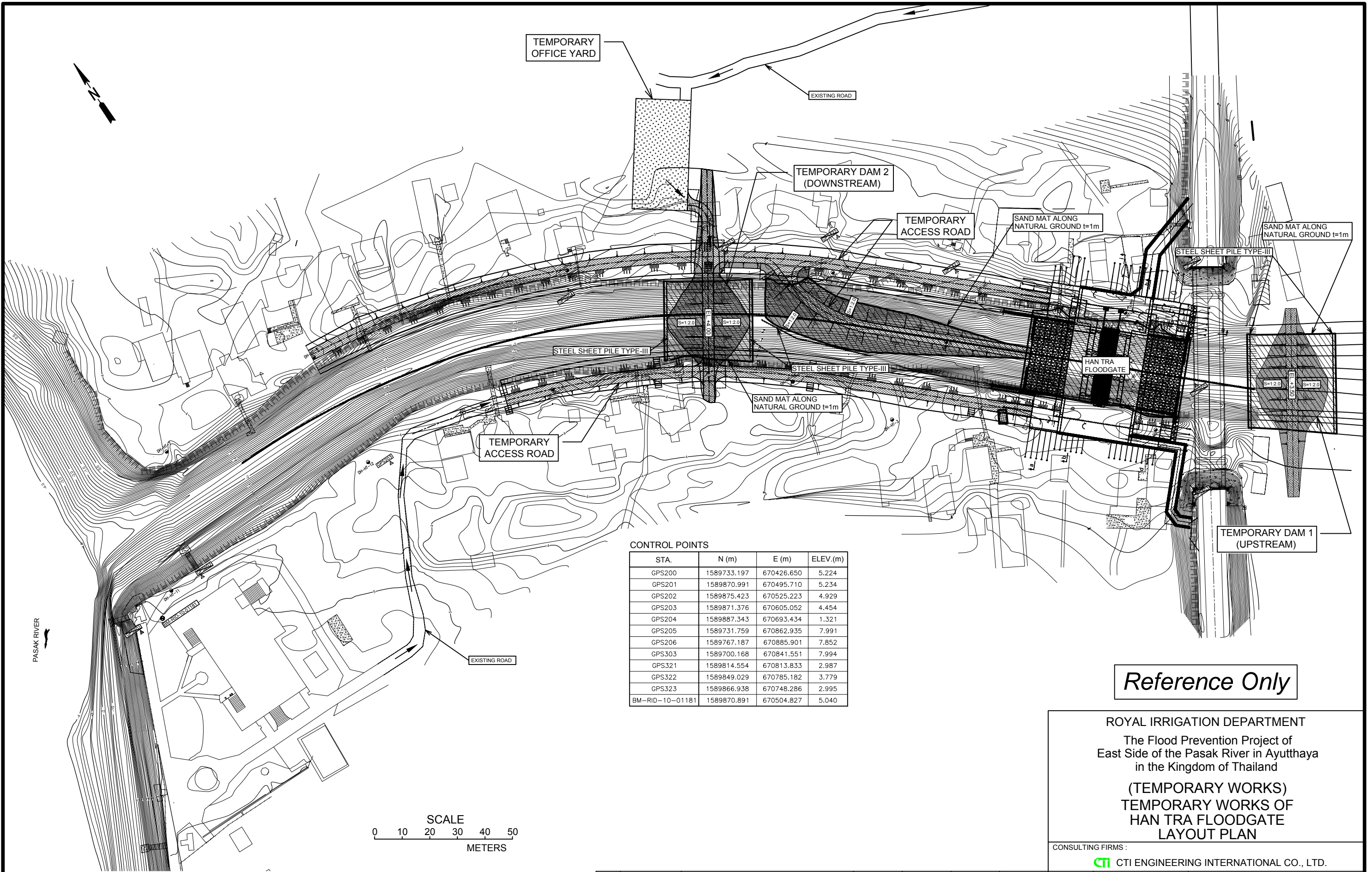
ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
**HAN TRA FLOODGATE
BAR ARRANGEMENT
(PART - APRON 3/3)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

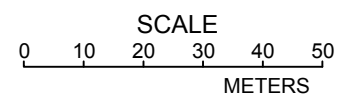
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|----------|----------|-------------|-----------|------------|------------------|--------------------|----------------------|----------|

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____
HT-FG-054



CONTROL POINTS

| STA. | N (m) | E (m) | ELEV.(m) |
|-----------------|-------------|------------|----------|
| GPS200 | 1589733.197 | 670426.650 | 5.224 |
| GPS201 | 1589870.991 | 670495.710 | 5.234 |
| GPS202 | 1589875.423 | 670525.223 | 4.929 |
| GPS203 | 1589871.376 | 670605.052 | 4.454 |
| GPS204 | 1589887.343 | 670693.434 | 1.321 |
| GPS205 | 1589731.759 | 670862.935 | 7.991 |
| GPS206 | 1589767.187 | 670885.901 | 7.852 |
| GPS303 | 1589700.168 | 670841.551 | 7.994 |
| GPS321 | 1589814.554 | 670813.833 | 2.987 |
| GPS322 | 1589849.029 | 670785.182 | 3.779 |
| GPS323 | 1589866.938 | 670748.286 | 2.995 |
| BM-RID-10-01181 | 1589870.891 | 670504.827 | 5.040 |



Reference Only

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (TEMPORARY WORKS)
 TEMPORARY WORKS OF
 HAN TRA FLOODGATE
 LAYOUT PLAN

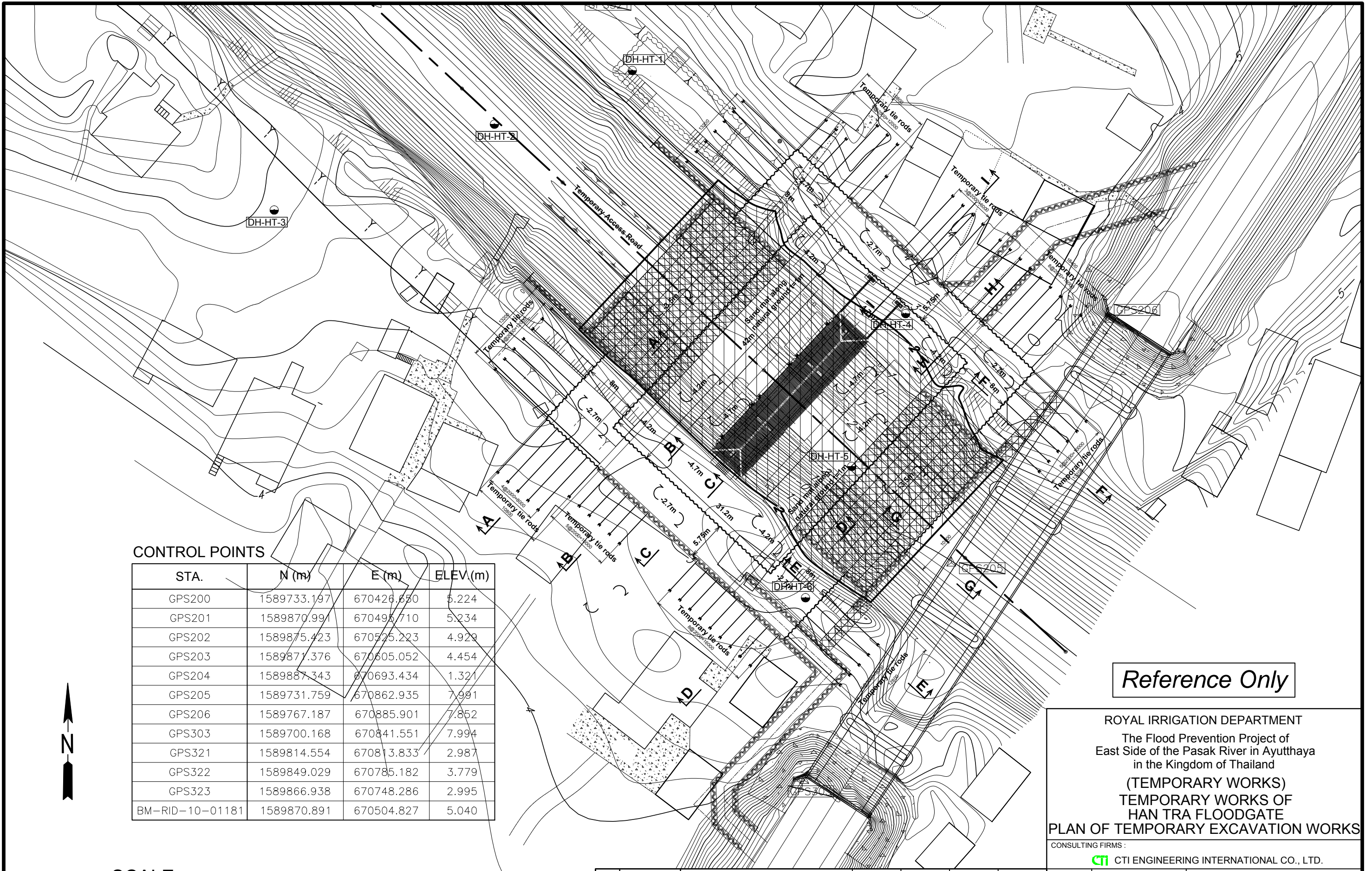
CONSULTING FIRMS :

CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Tatsuji ITO | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Tatsuji ITO | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

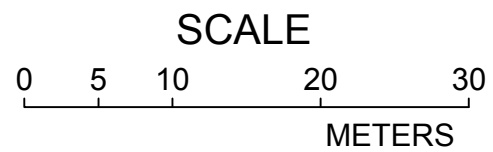
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
|----------|----------|-------------|------|-----------------|-------------------|----------|
| | | | | | | |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 HT-TW-001



CONTROL POINTS

| STA. | N (m) | E (m) | ELEV.(m) |
|-----------------|-------------|------------|----------|
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| GPS201 | 1589870.991 | 670495.710 | 5.234 |
| GPS202 | 1589875.423 | 670525.223 | 4.929 |
| GPS203 | 1589871.376 | 670605.052 | 4.454 |
| GPS204 | 1589887.343 | 670693.434 | 1.321 |
| GPS205 | 1589731.759 | 670862.935 | 7.991 |
| GPS206 | 1589767.187 | 670885.901 | 7.852 |
| GPS303 | 1589700.168 | 670841.551 | 7.994 |
| GPS321 | 1589814.554 | 670813.833 | 2.987 |
| GPS322 | 1589849.029 | 670785.182 | 3.779 |
| GPS323 | 1589866.938 | 670748.286 | 2.995 |
| BM-RID-10-01181 | 1589870.891 | 670504.827 | 5.040 |



Reference Only

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
(TEMPORARY WORKS)
TEMPORARY WORKS OF
HAN TRA FLOODGATE
PLAN OF TEMPORARY EXCAVATION WORKS

CONSULTING FIRMS :

CTI ENGINEERING INTERNATIONAL CO., LTD.

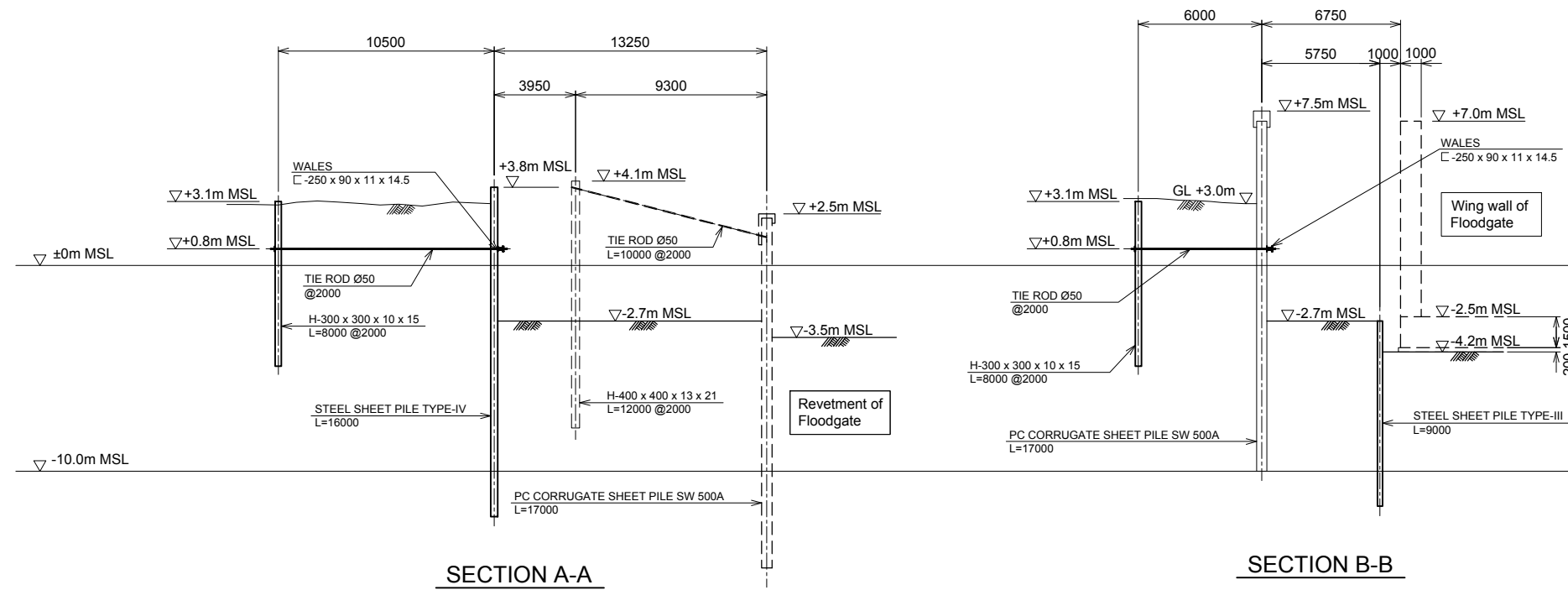
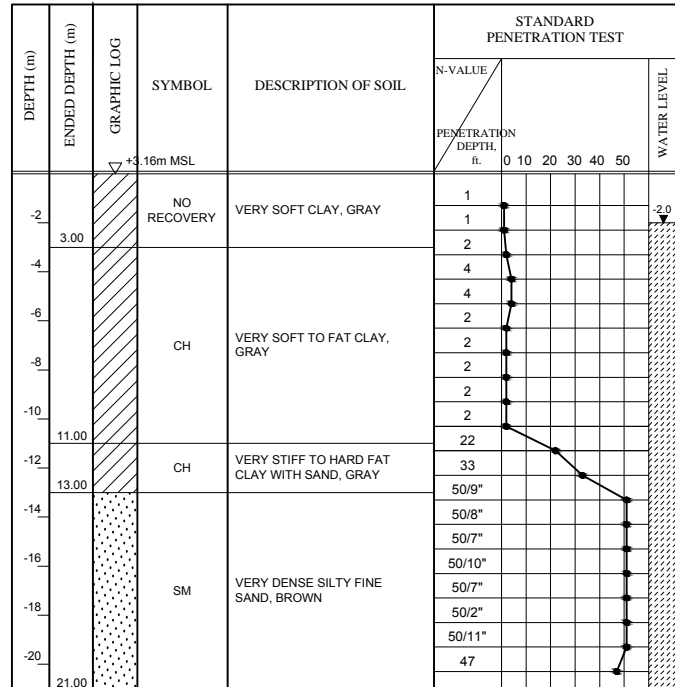
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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Tatsuji ITO | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Tatsuji ITO | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP DATE _____

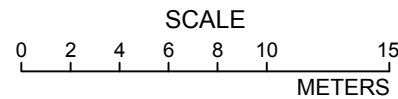
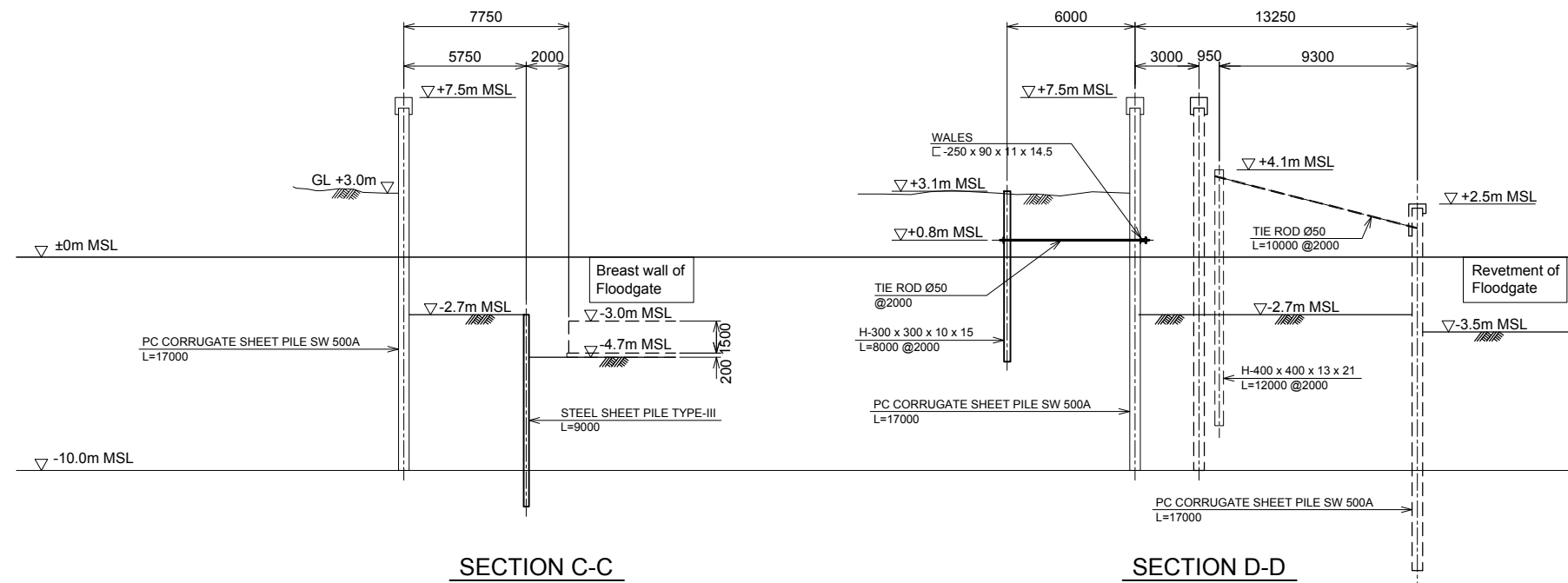
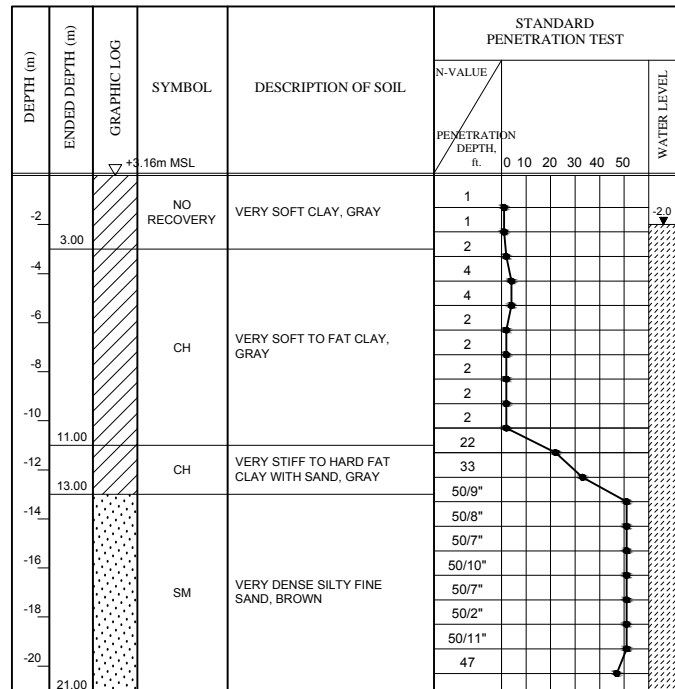
HT-TW-002

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED APPROVED |
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| | | | | | | |

BORING LOG [DH-KM-6]



BORING LOG [DH-KM-6]



Reference Only

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(TEMPORARY WORKS)
TEMPORARY WORKS OF
HAN TRA FLOODGATE
DETAIL OF TEMPORARY WORKS (1/2)

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

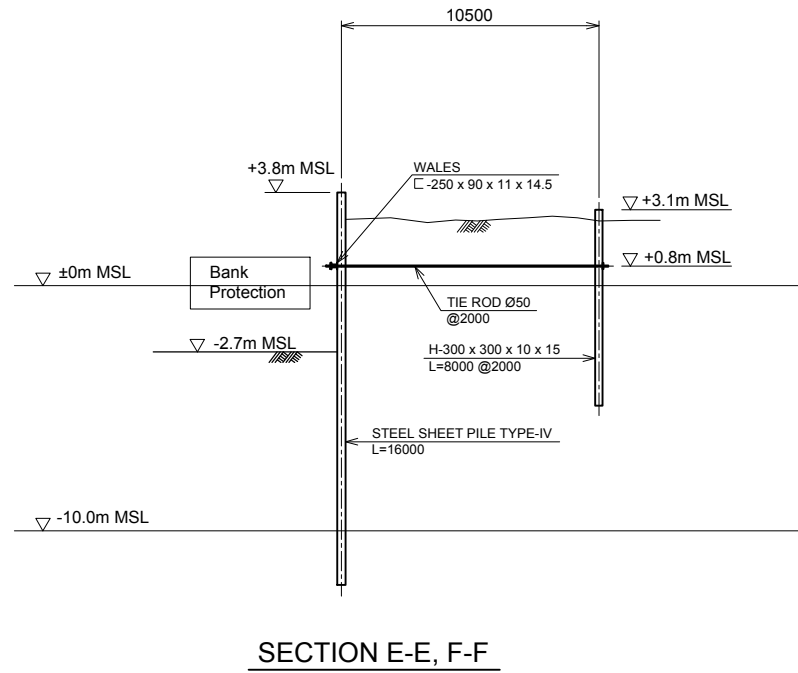
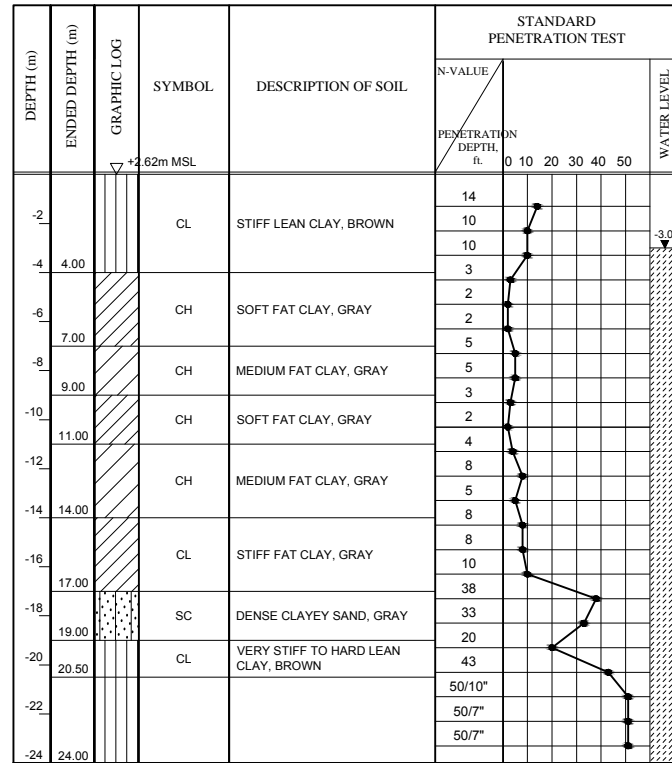
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|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Tatsuji ITO | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Tatsuji ITO | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

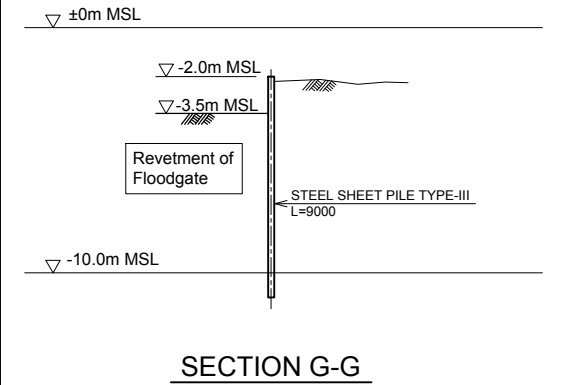
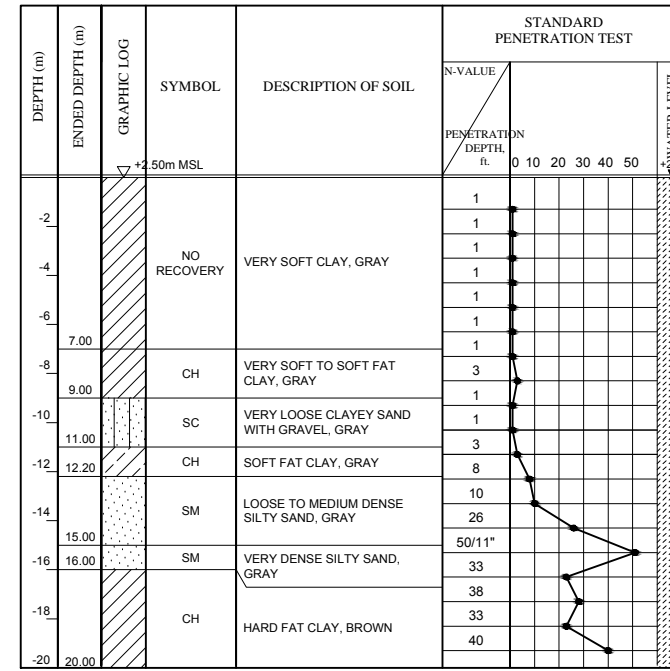
HT-TW-003

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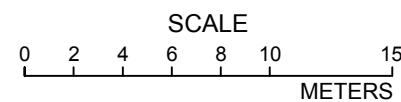
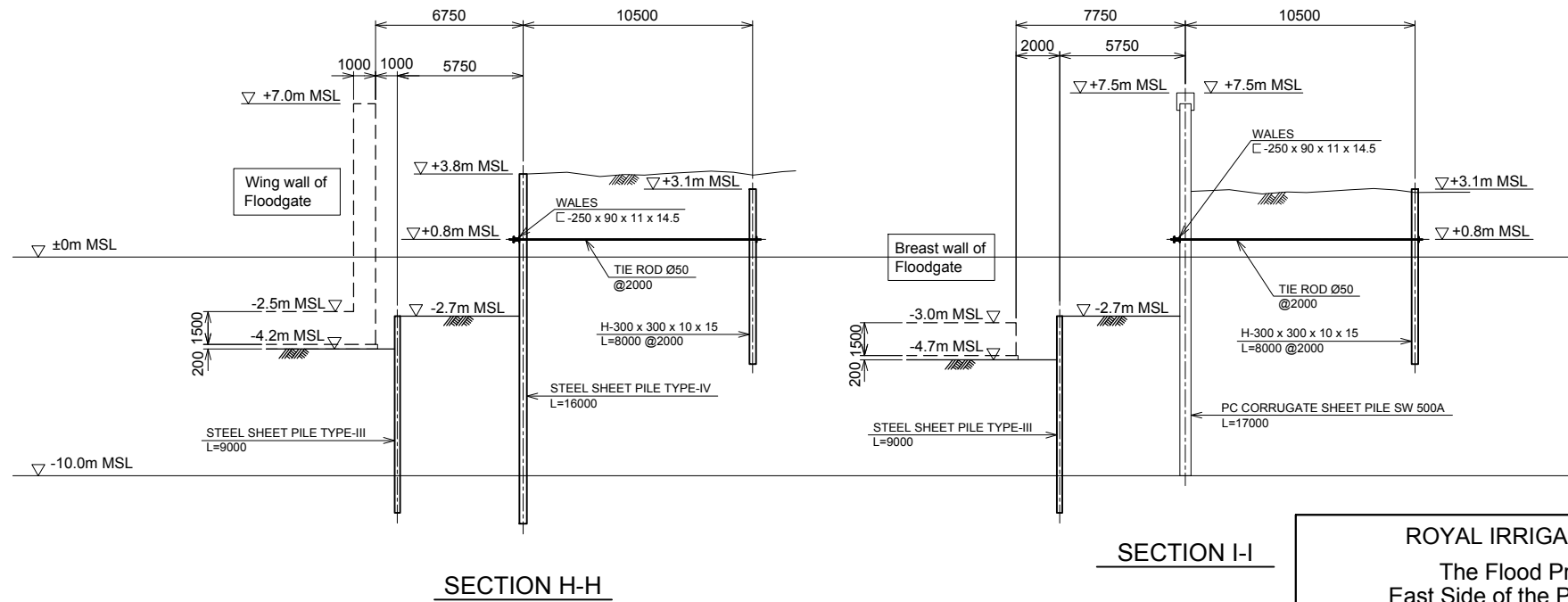
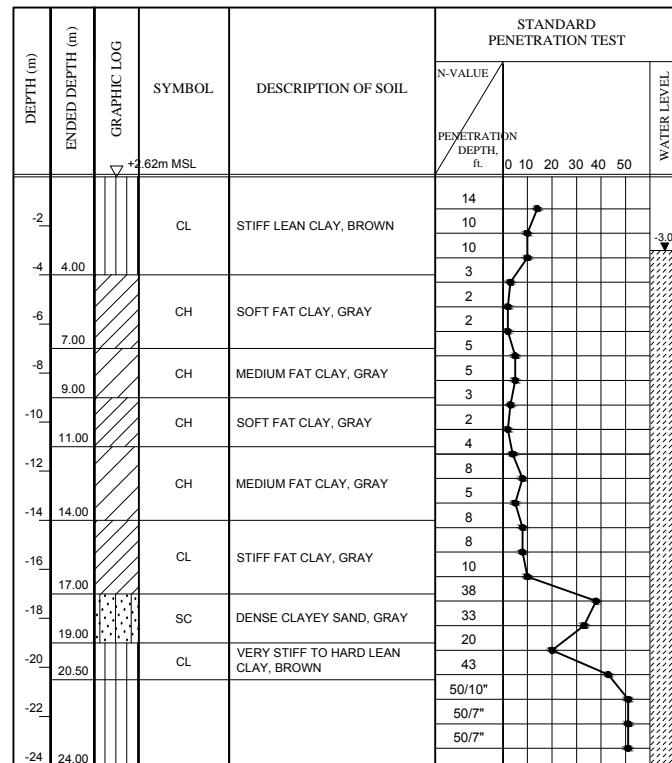
BORING LOG [DH-KM-4]



BORING LOG [DH-KM-5]



BORING LOG [DH-KM-4]



Reference Only

ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of East Side of the Pasak River in Ayutthaya in the Kingdom of Thailand
(TEMPORARY WORKS)
TEMPORARY WORKS OF HAN TRA FLOODGATE
DETAIL OF TEMPORARY WORKS (2/2)

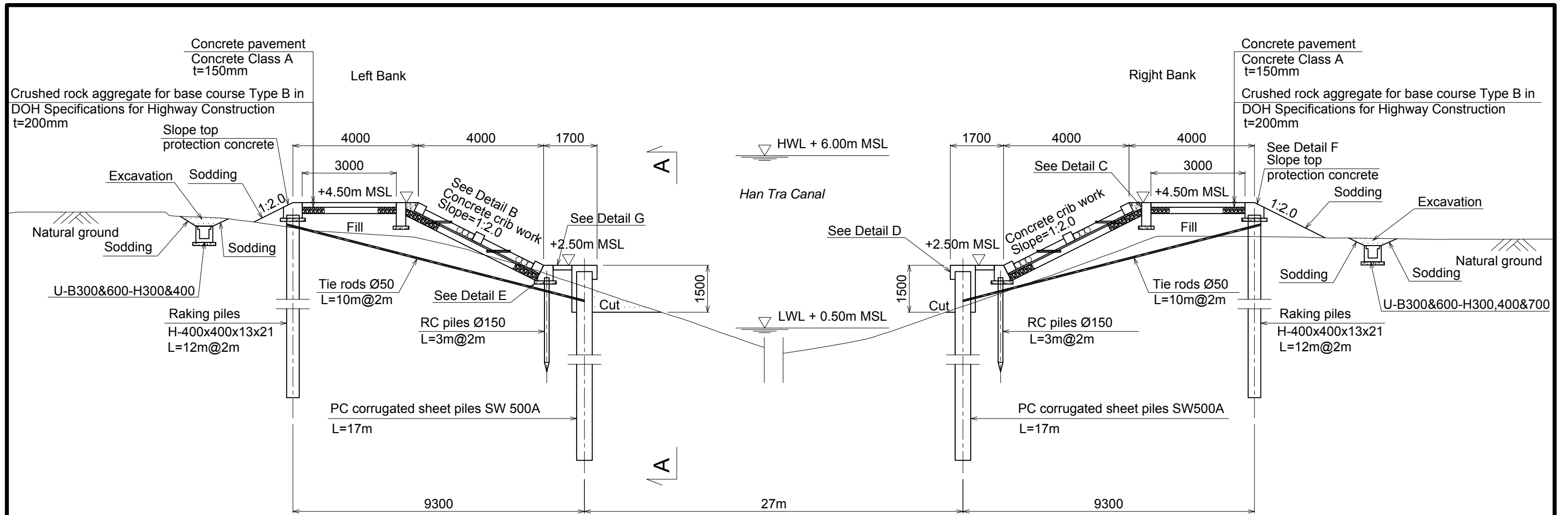
CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | |
|----------|-----------------------|-----------------------------------|
| DESIGNED | Tatsuji ITO | ROYAL IRRIGATION DEPARTMENT |
| DRAWN | Tatsuji ITO | PROPOSED P. SIRION CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED S. INTARAPRACHA DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED L. KOWATTANA D.G. |

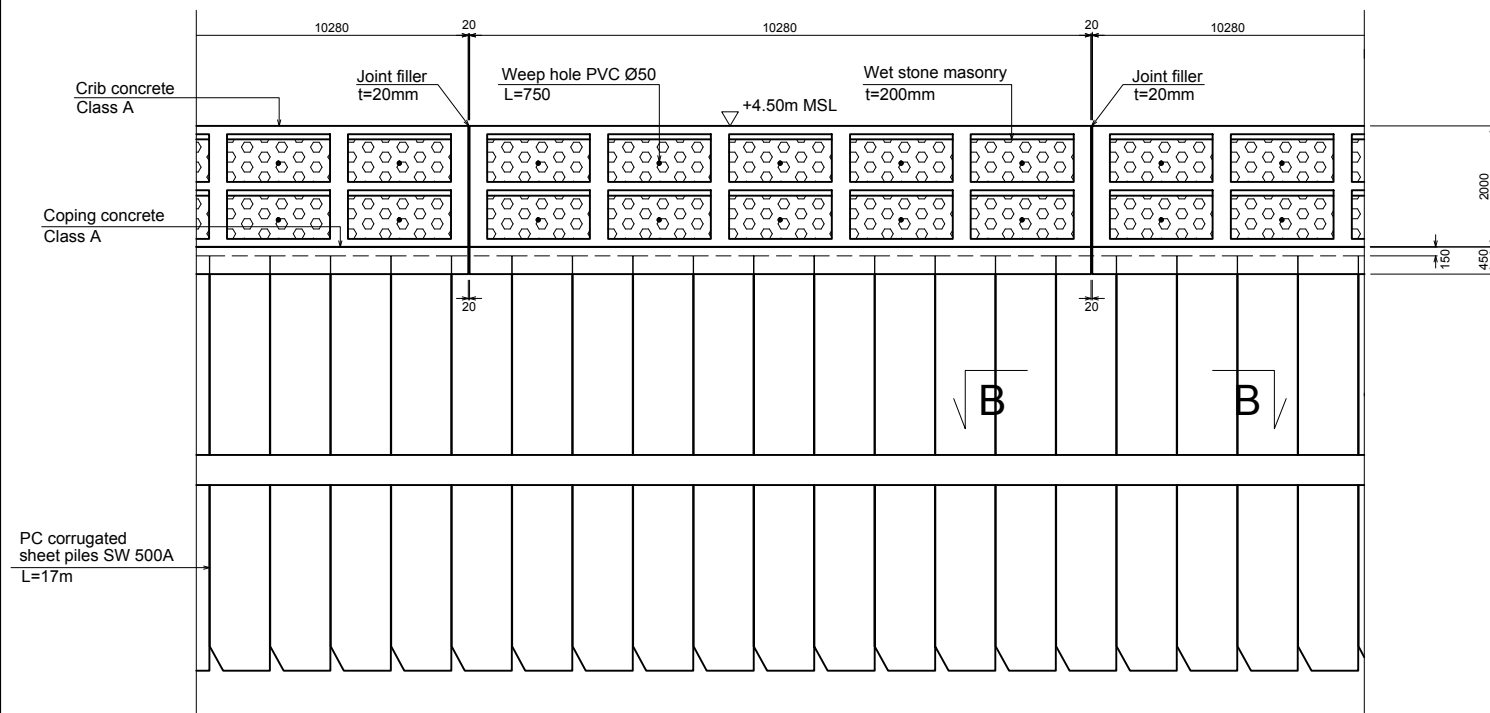
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

HT-TW-004

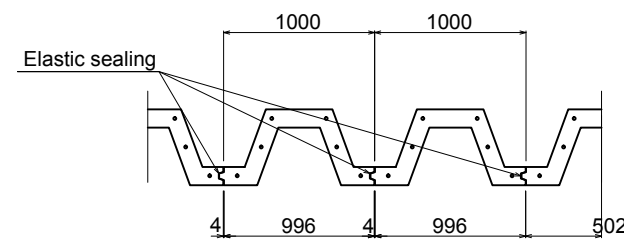
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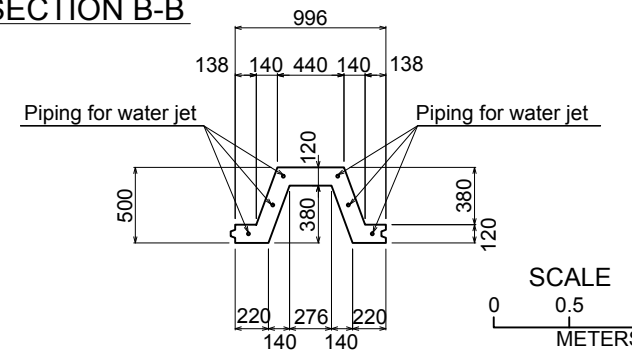
TYPICAL CROSS SECTION OF BANK PROTECTION FOR HAN TRA CANAL



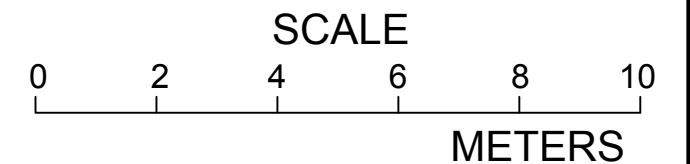
LONGITUDINAL SECTION A-A



SECTION B-B



TRANSVERSE SECTION OF JIS A5354 PRESTRESSED CONCRETE CORRUGATED SHEET PILE SW500A



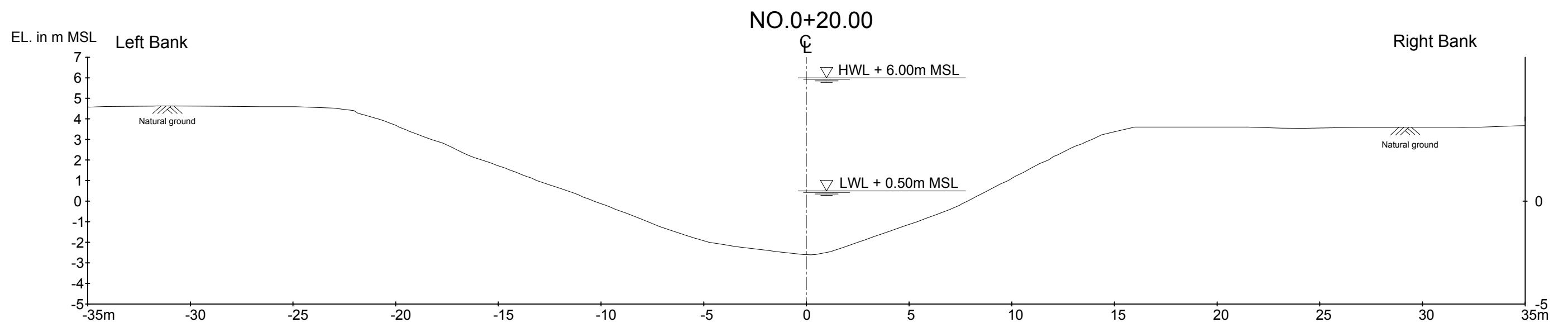
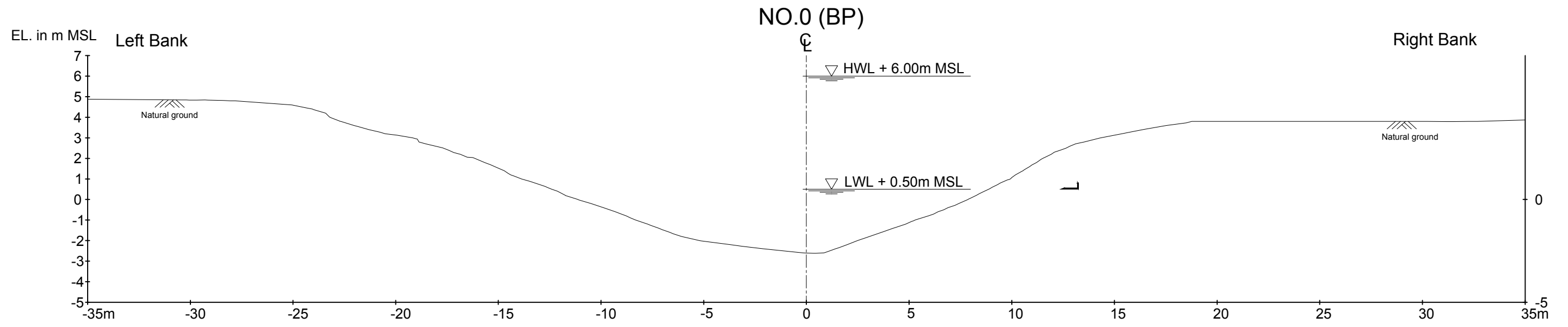
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TYPICAL CROSS SECTION**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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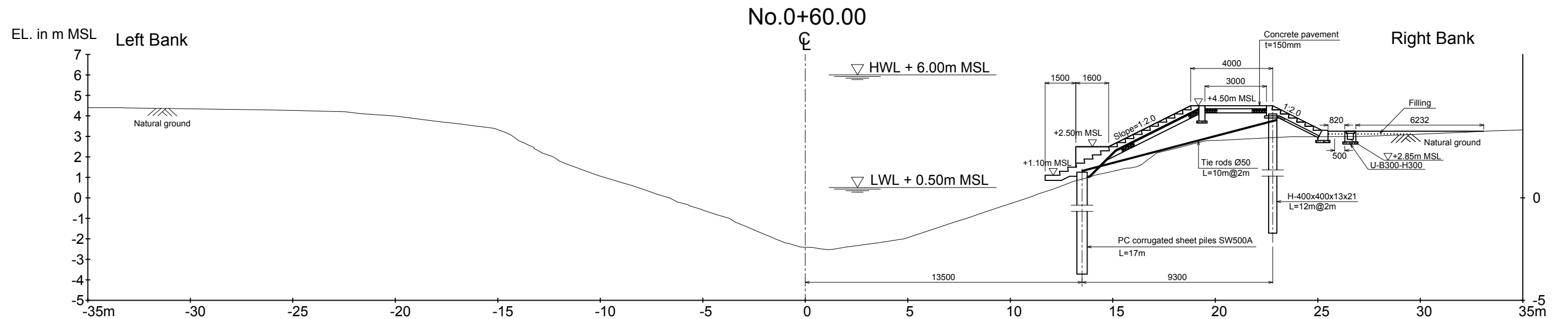
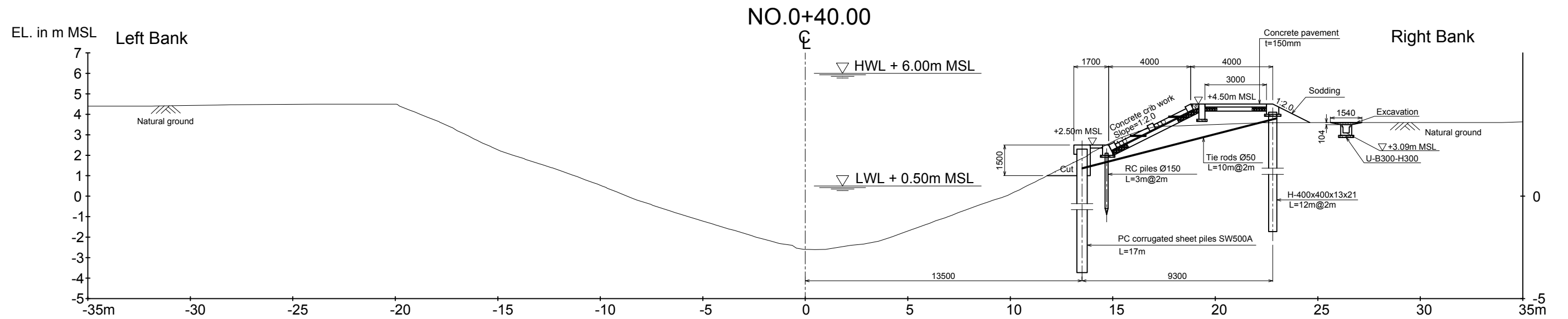
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____
HT-BP-001



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (1/8)
 NO.0(BP) TO NO.0+20.00**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | | | | | | | | |
|----------|----------|-------------|------|-----------------|-------------------|----------|---|-----------------------|-----------------------------|-----------------|-----------|
| | | | | | | | DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| | | | | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| | | | | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| | | | | | | | APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | | HT-BP-002 |

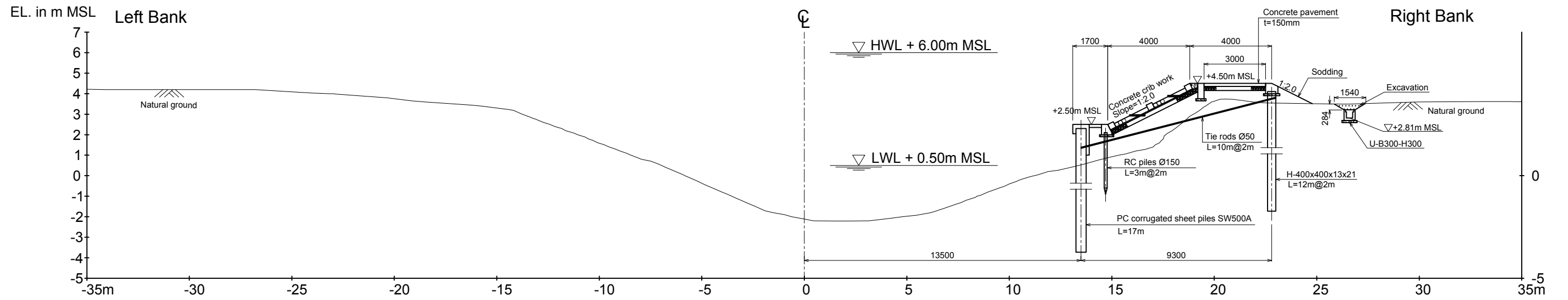


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (2/8)
 NO.0+40.00 TO NO.0+60.00**

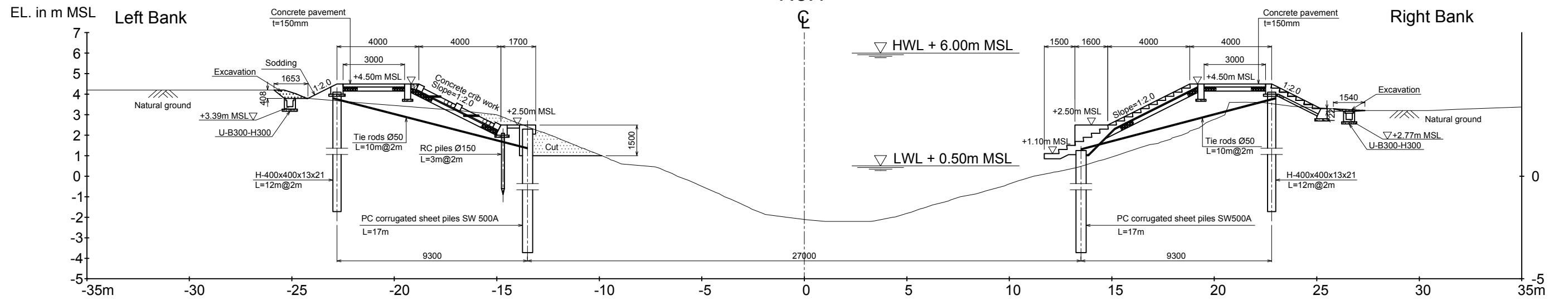
CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | | | | | | | |
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| | | | | | | DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| | | | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| | | | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| | | | | | | APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | HT-BP-003 |

No.0+80.00



No.1



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (3/8)
 NO.0+80.00 TO NO.1**

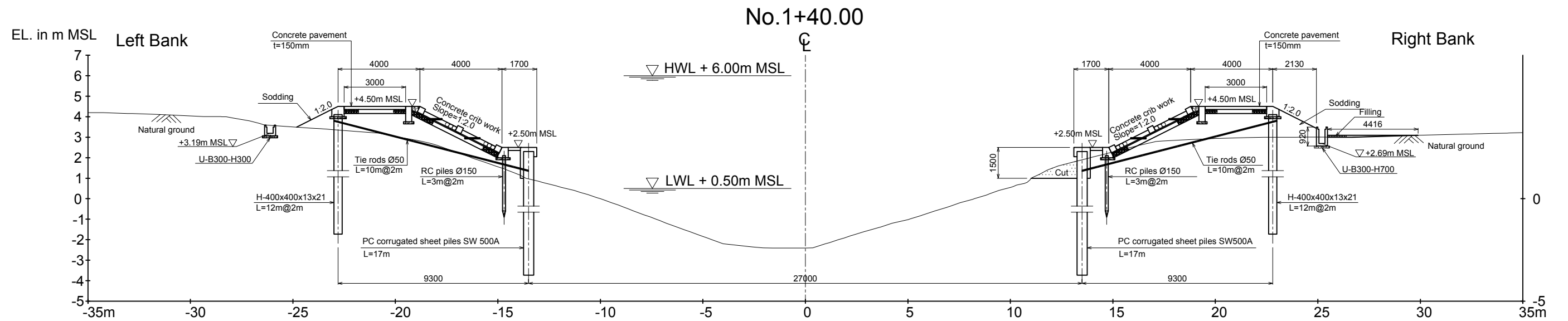
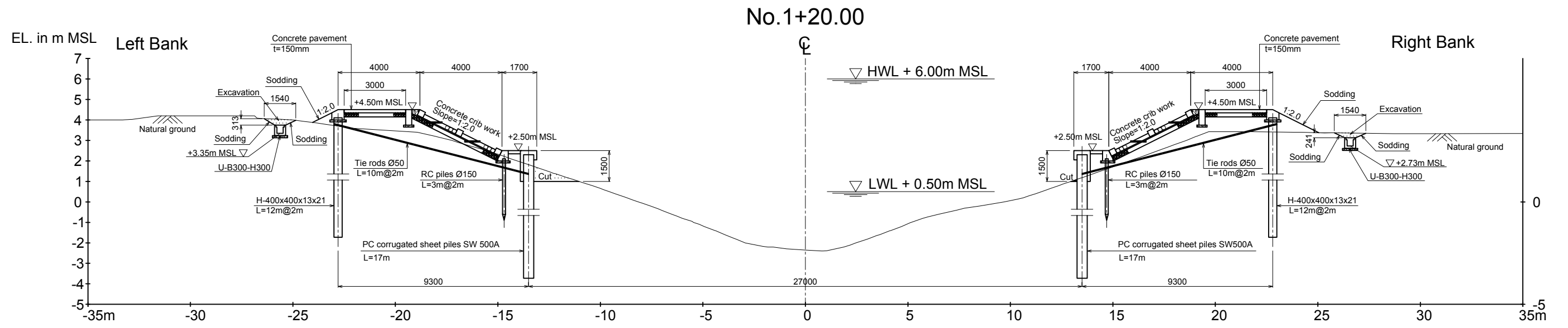
CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED |
|----------|----------|-------------|------|---------|----------|----------|
| | | | | PRESENT | APPROVED | |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

HT-BP-004

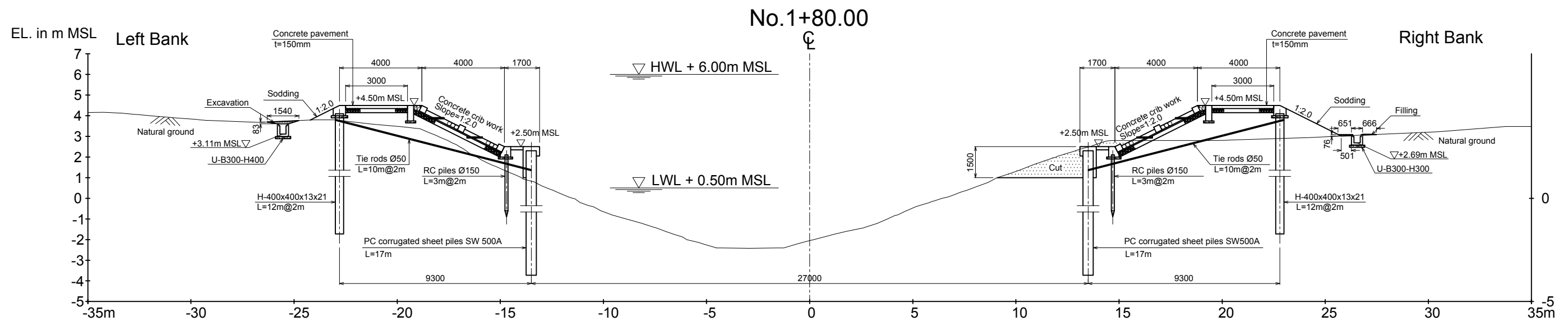
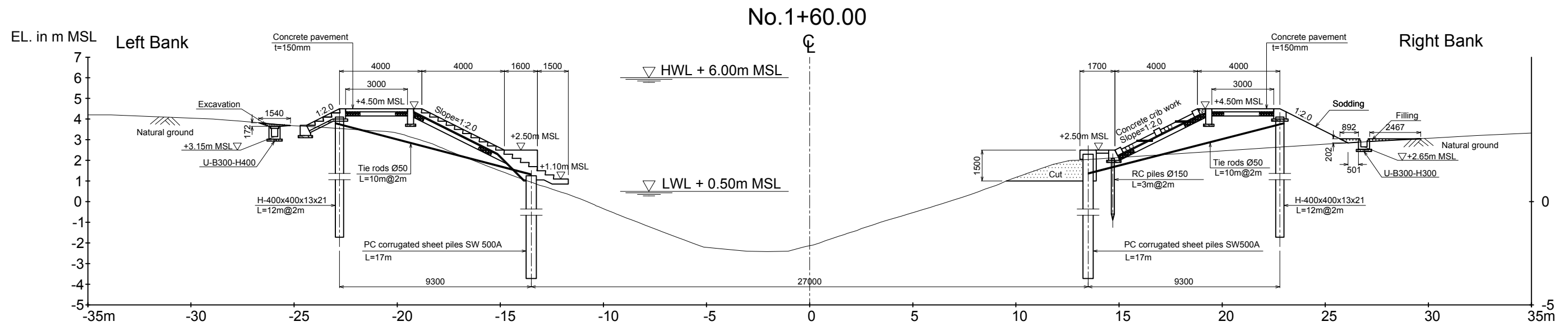


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
(CIVIL WORKS)
BANK PROTECTION OF HAN TRA CANAL
TRANSVERSE SECTIONS (4/8)
NO.1+20.00 TO NO.1+40.00

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|---|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| OFFICE OF ENGINEERING DESIGN & ARCHITECTURE | | HT-BP-005 | | |
| IRRIGATION SYSTEM DESIGN GROUP | | DATE _____ | | |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED |
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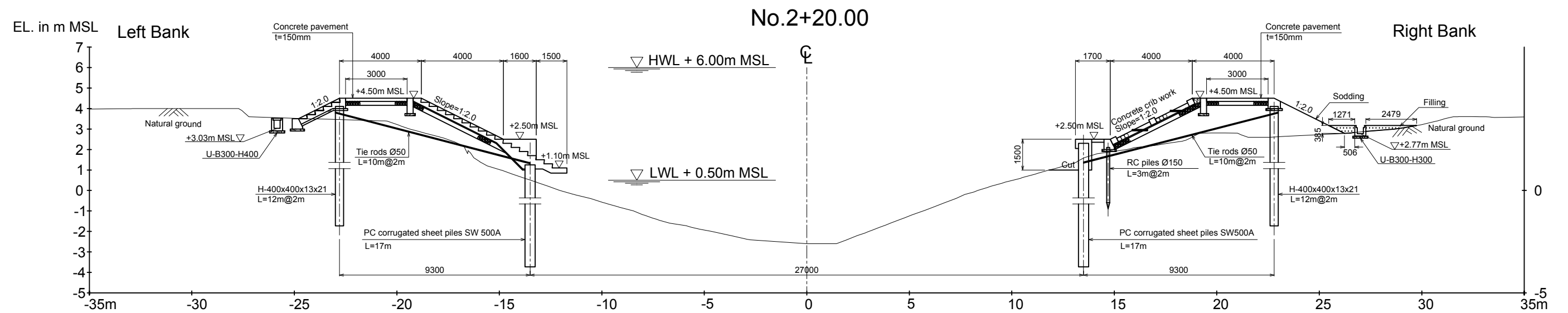
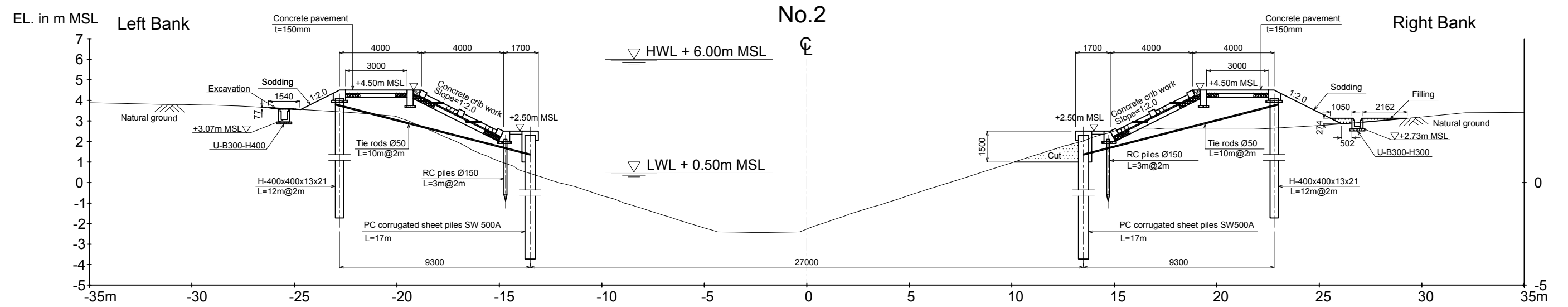


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (5/8)
 NO.1+60.00 TO NO.1+80.00**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| | | | | | | | | |
|----------|----------|-------------|------|-----------------|-------------------|----------|---|-----------|
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | HT-BP-006 |
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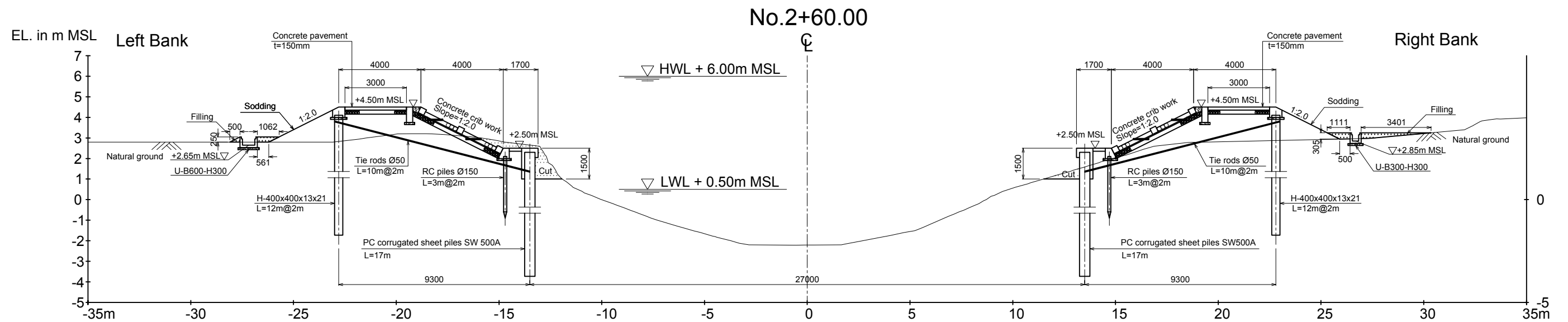
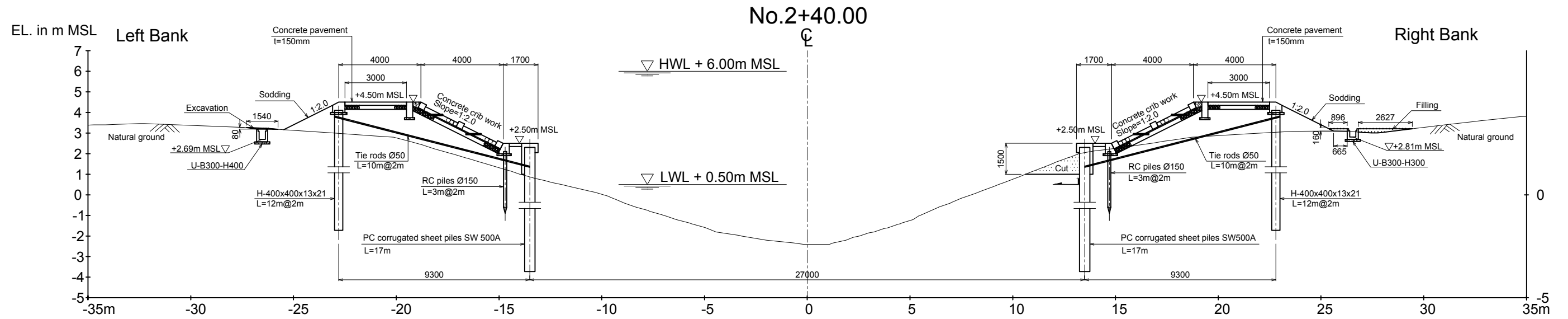


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (6/8)
 NO.2 TO NO.2+20.00**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| | | | | | | | | |
|----------|----------|-------------|------|-----------------|-------------------|----------|---|-----------|
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | HT-BP-007 |
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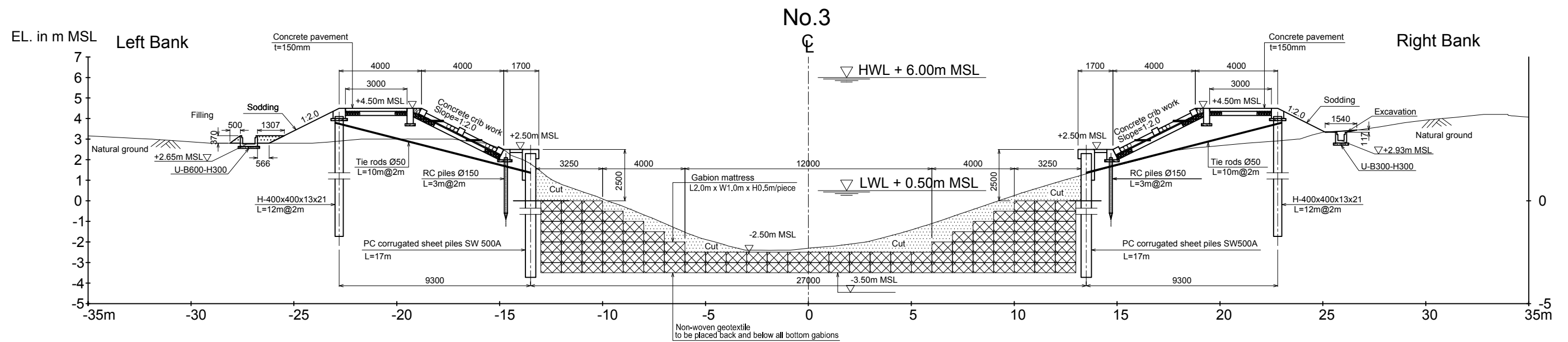
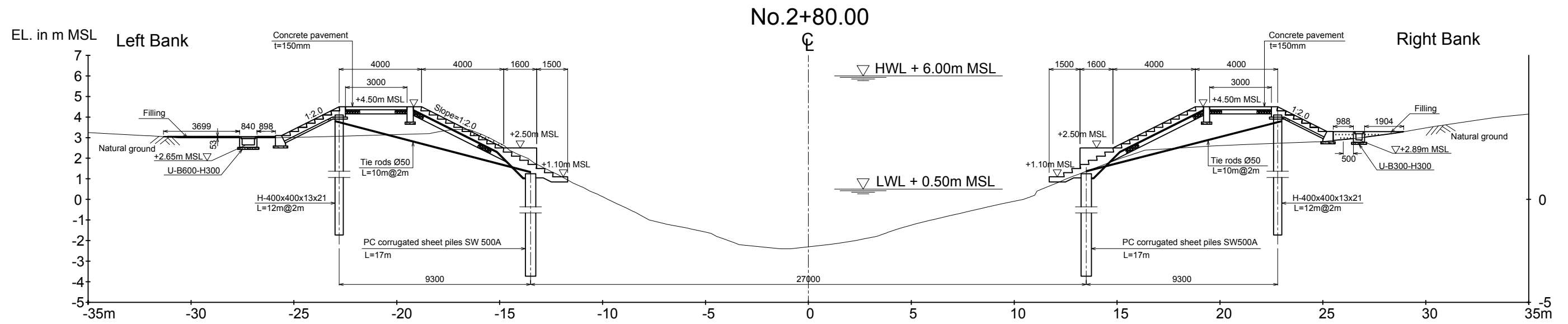
No.2+80.00

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 TRANSVERSE SECTIONS (7/8)
 NO.2+40.00 TO NO.2+60.00**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|---|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | HT-BP-008 | | |

| | | | | | | |
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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
TRANSVERSE SECTIONS (8/8)
NO.2+80.00 TO NO.3**

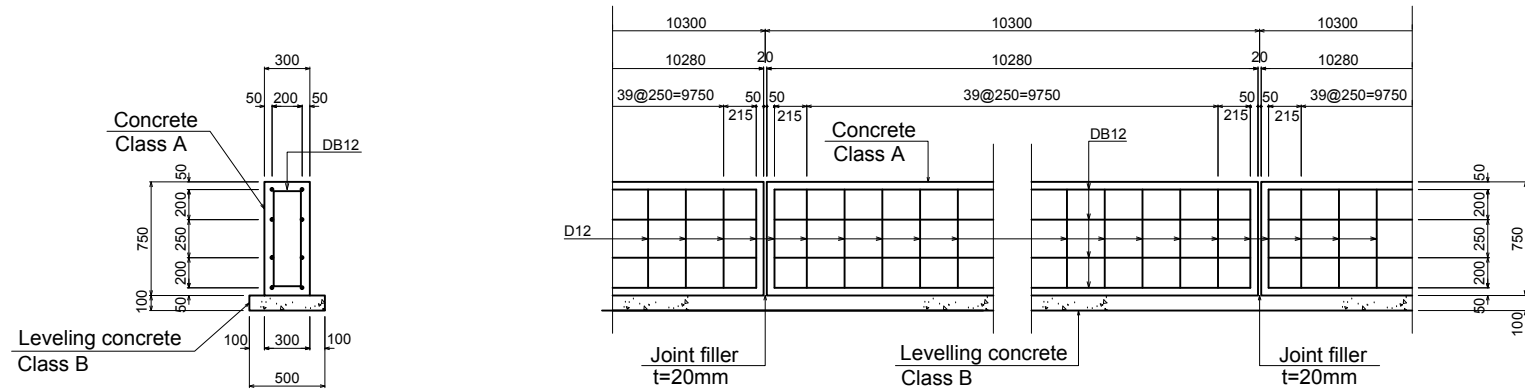
CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

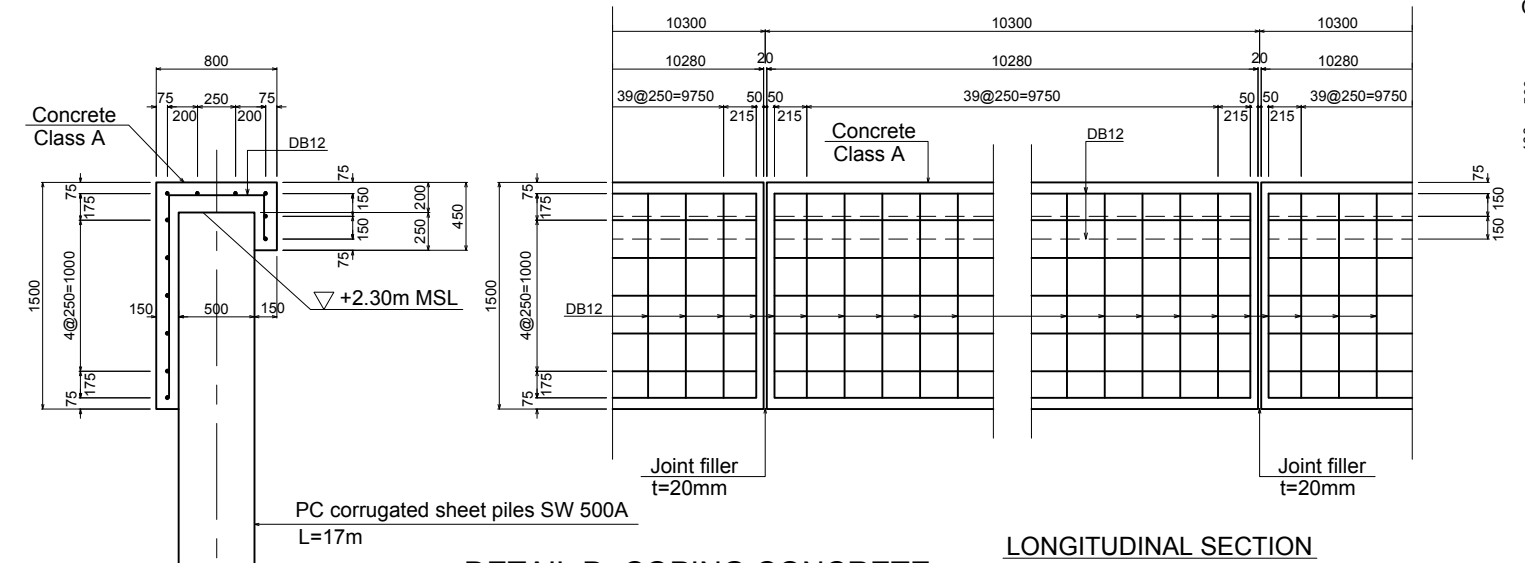
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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

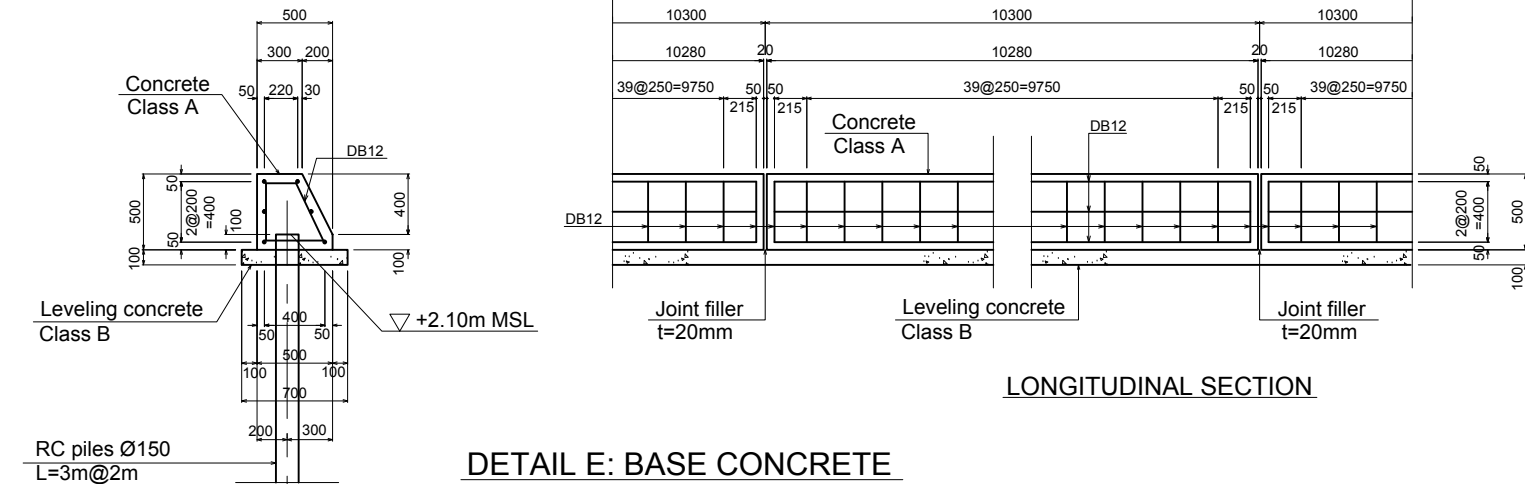
HT-BP-009



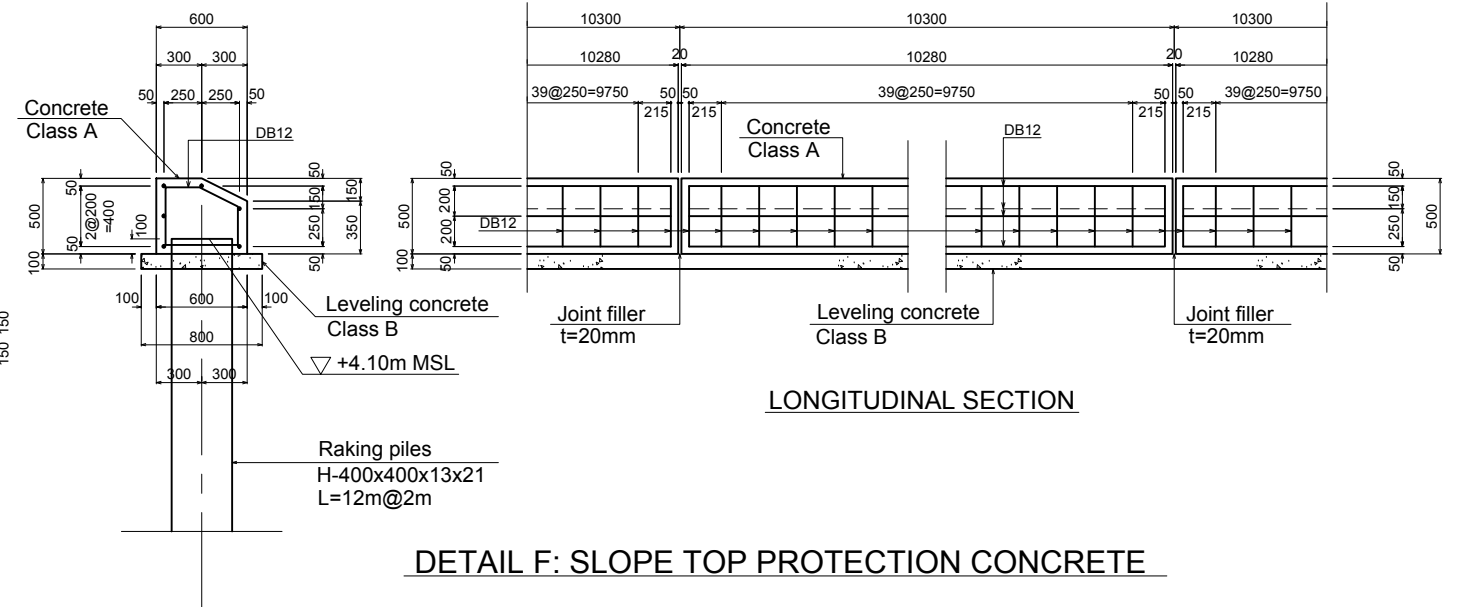
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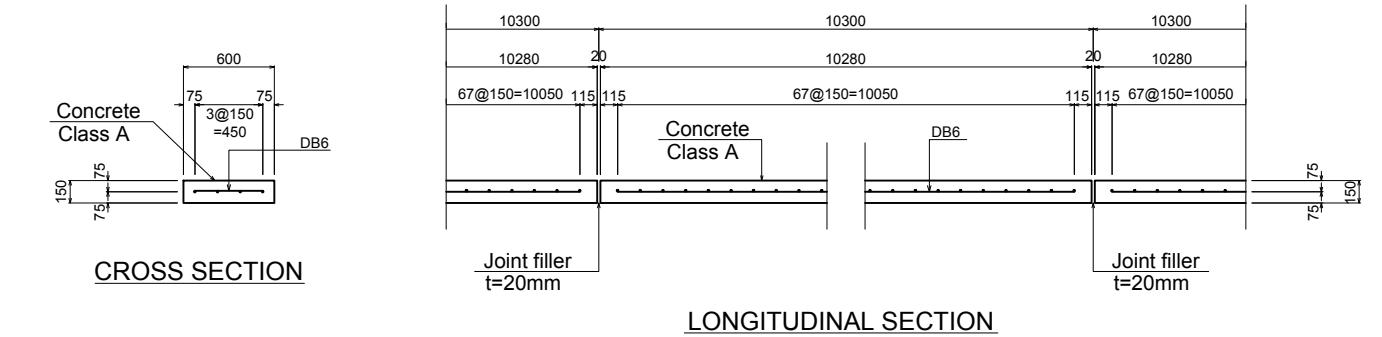
DETAIL D: COPING CONCRETE



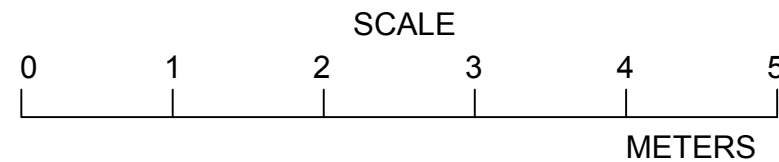
DETAIL E: BASE CONCRETE



DETAIL F: SLOPE TOP PROTECTION CONCRETE



DETAIL G: PLATFORM CONCRETE



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 DETAILS (1/2)**

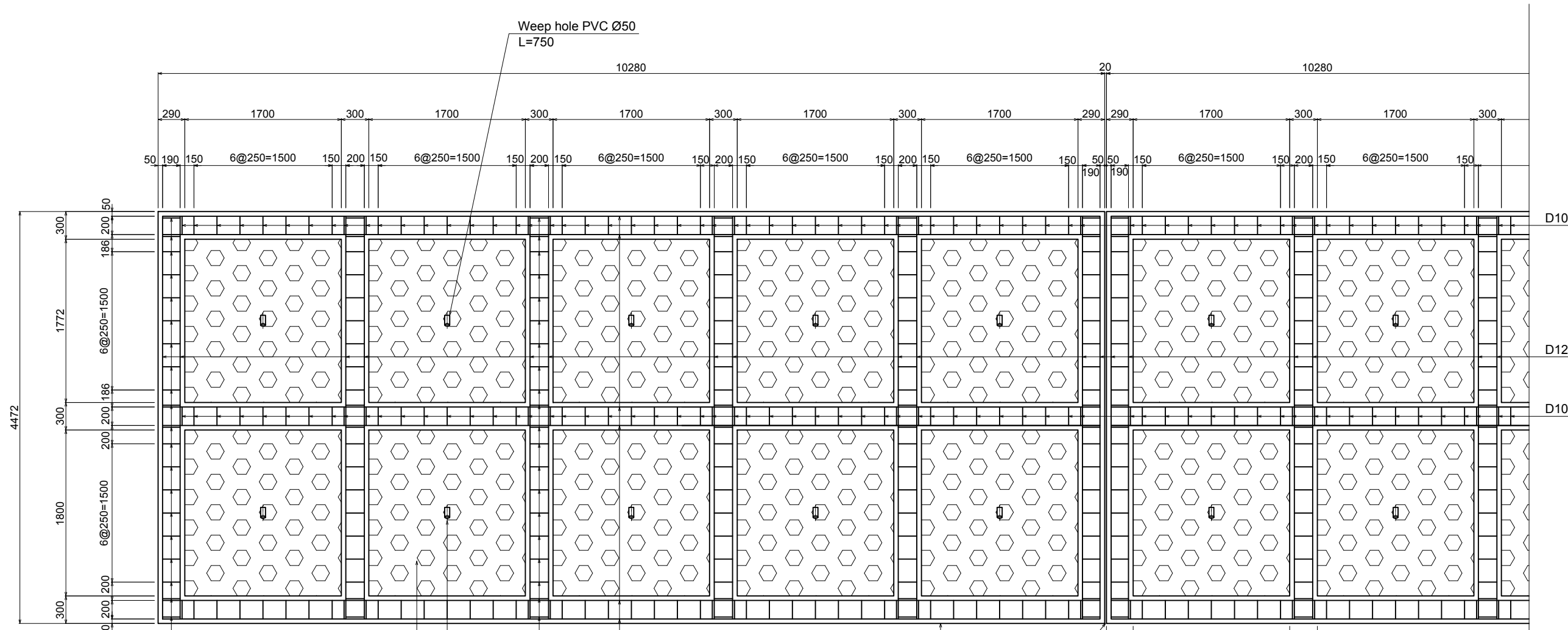
CONSULTING FIRMS :
 CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

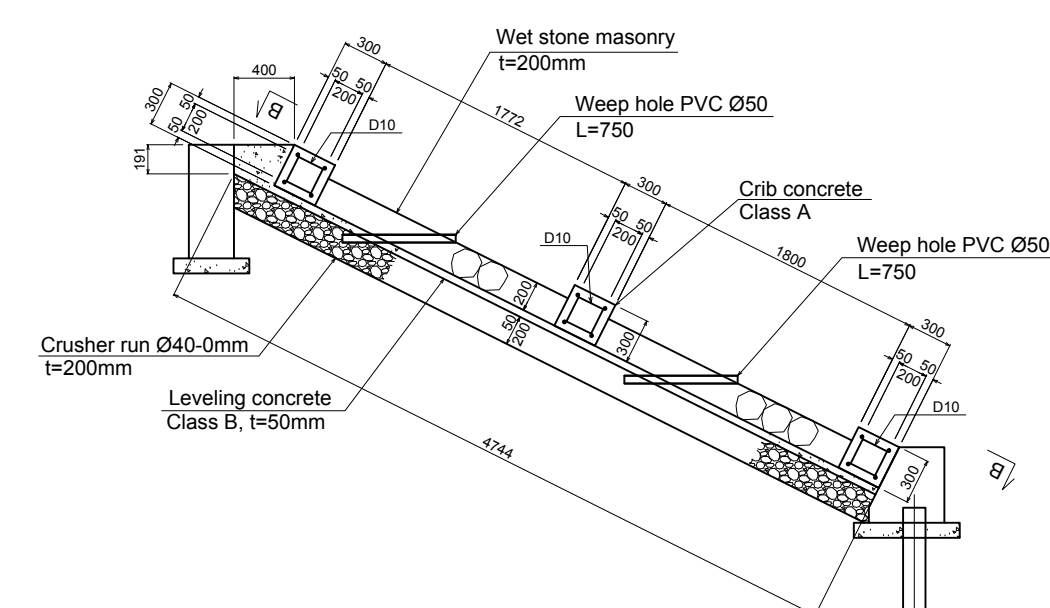
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED |
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| | | | | | | |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

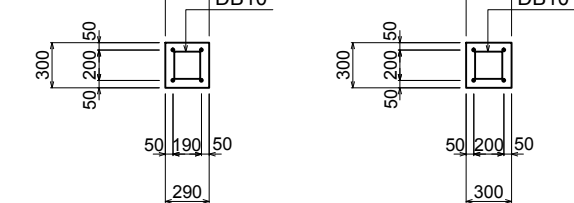
HT-BP-010



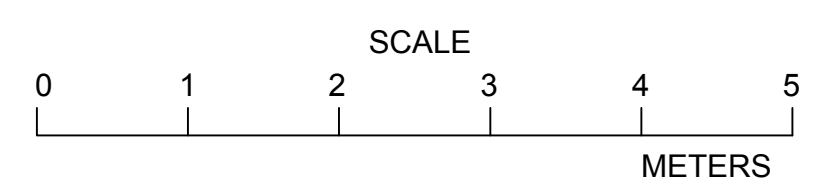
D10 Wet stone masonry t=200mm Weep hole PVC Ø50 L=750 DB10 DB12 Crib concrete Class A Joint filler t=20mm DB10 DB10



CROSS SECTION



SECTION B-B



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 DETAILS (2/2)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

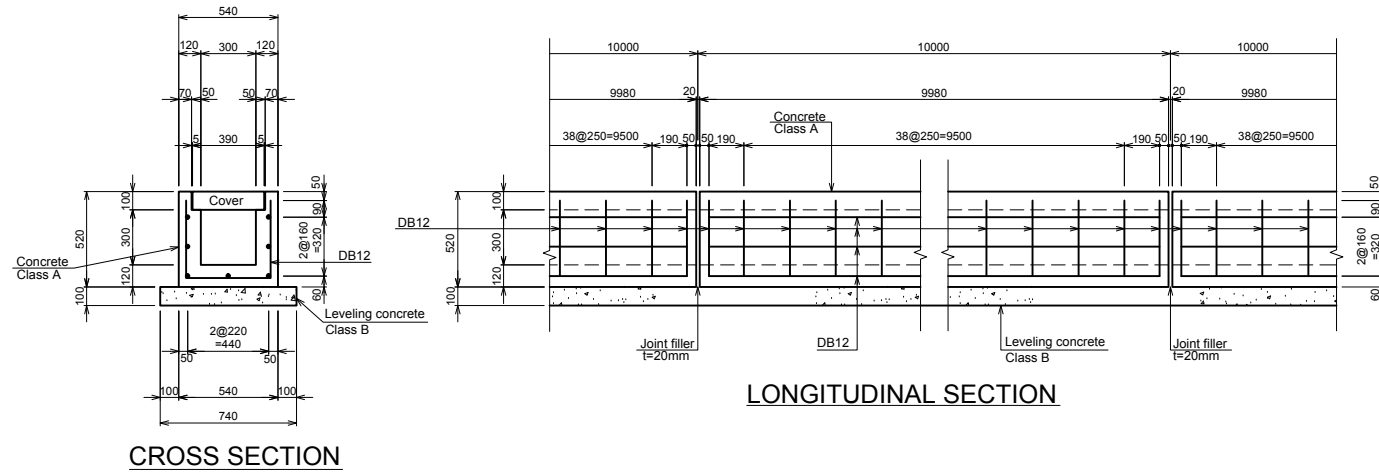
| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP DATE _____

HT-BP-011

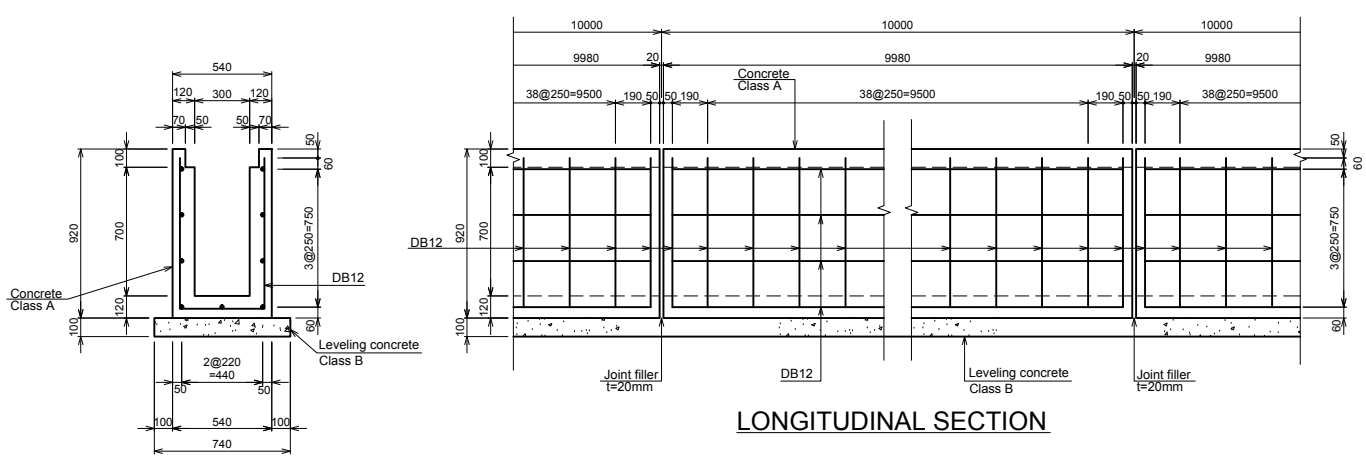
DETAIL B: CONCRETE CRIB WORK

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
|----------|----------|-------------|------|-----------------|-------------------|----------|
| | | | | | | |



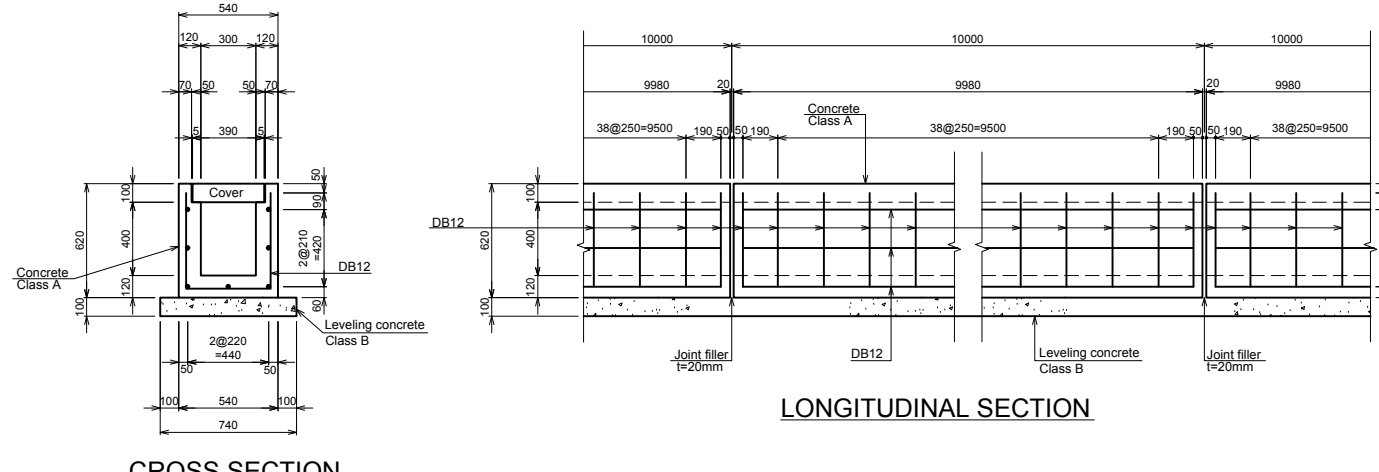
CROSS SECTION

U-B300xH300



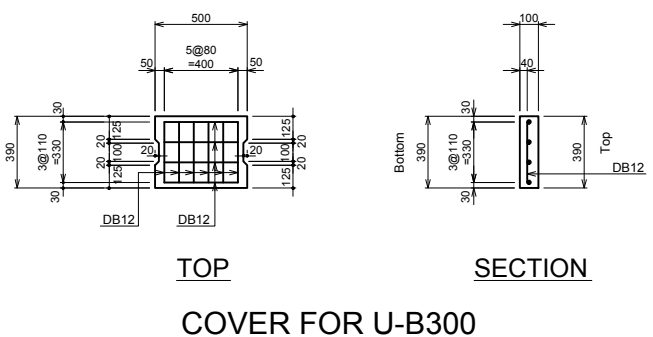
CROSS SECTION

U-B300xH700

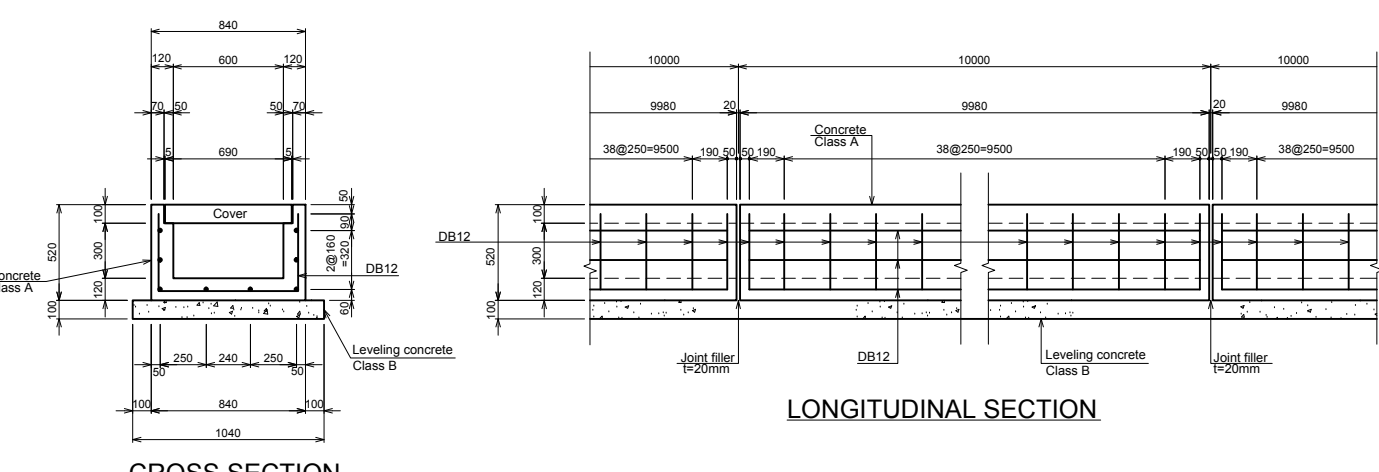


CROSS SECTION

U-B300xH400

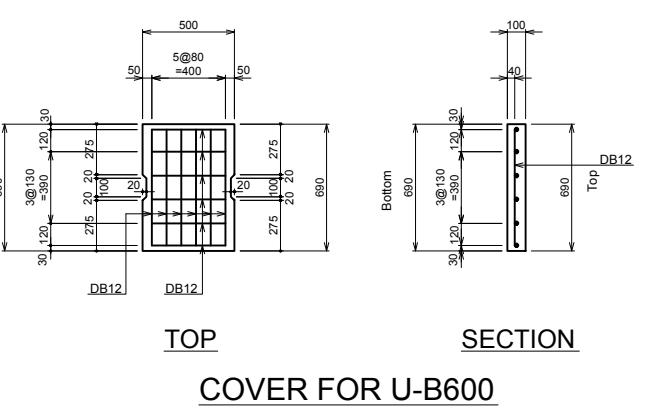


TOP SECTION
COVER FOR U-B300

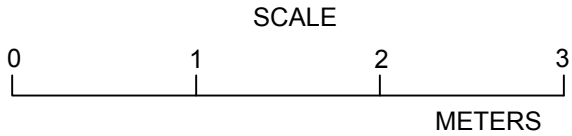


CROSS SECTION

U-B600xH300



TOP SECTION
COVER FOR U-B600



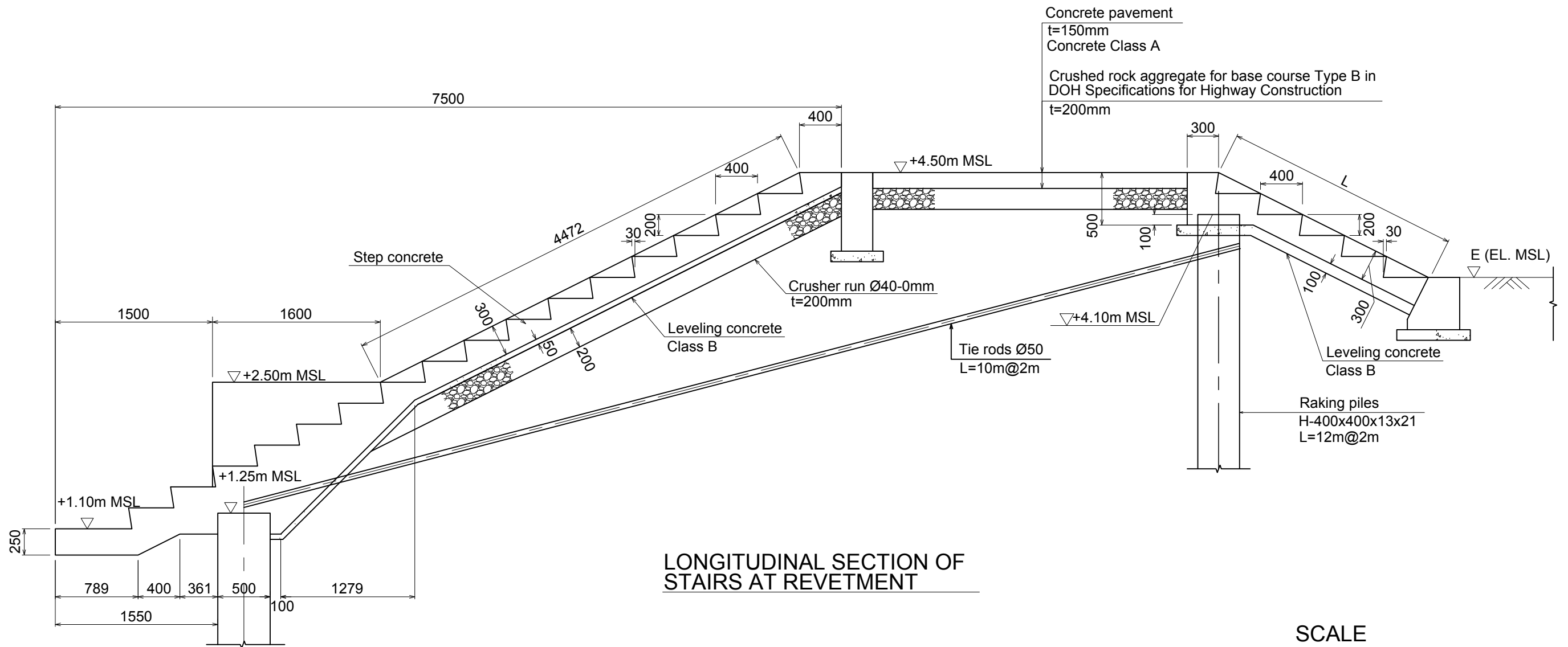
ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand

(CIVIL WORKS)
BANK PROTECTION OF HAN TRA CANAL
U-SHAPED DITCH

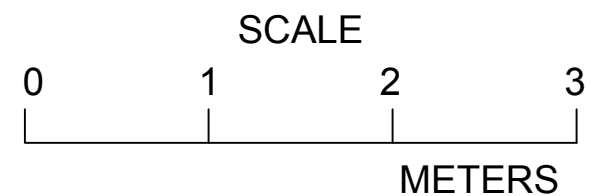
CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|---|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | HT-BP-012 | | |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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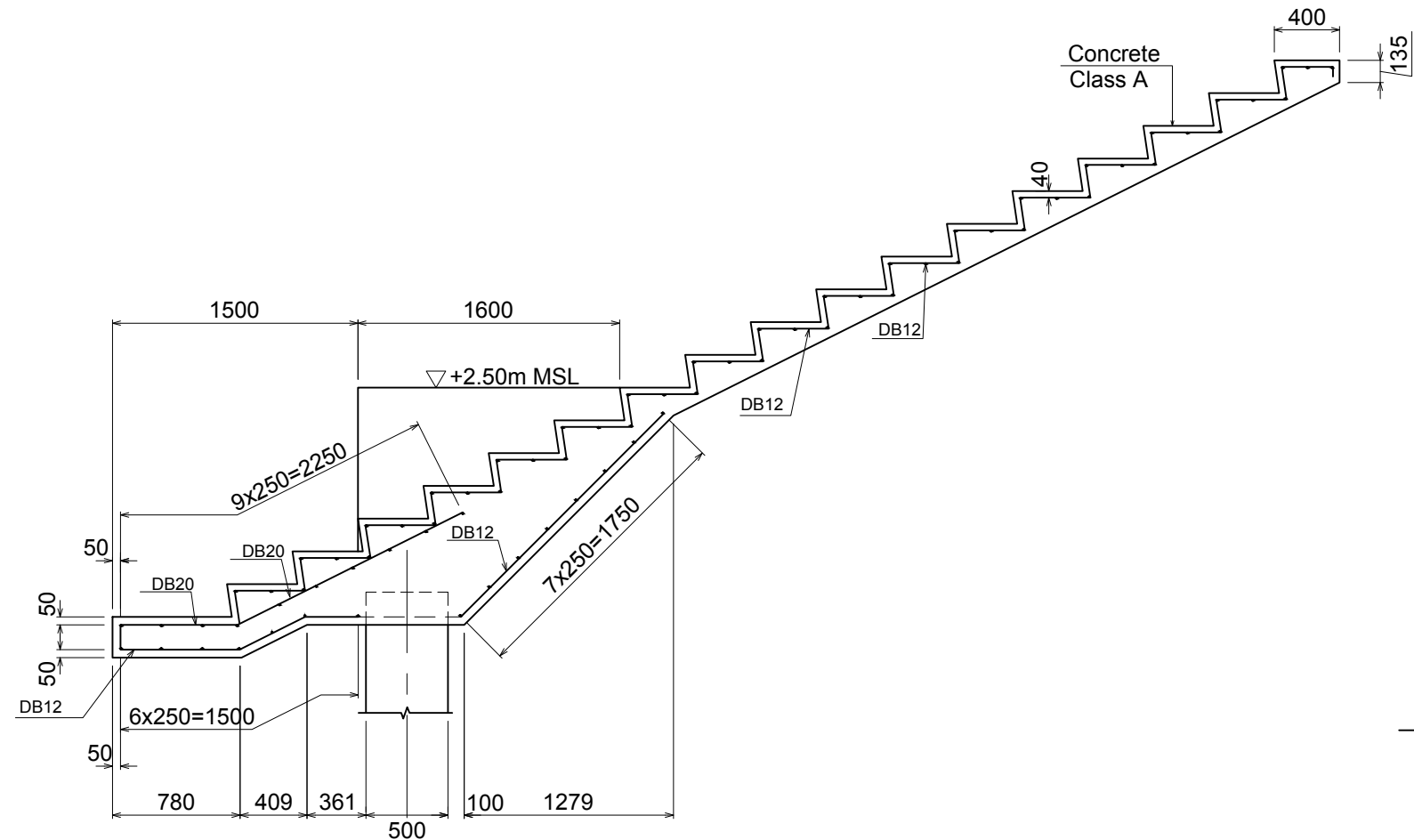
LONGITUDINAL SECTION OF STAIRS AT REVETMENT



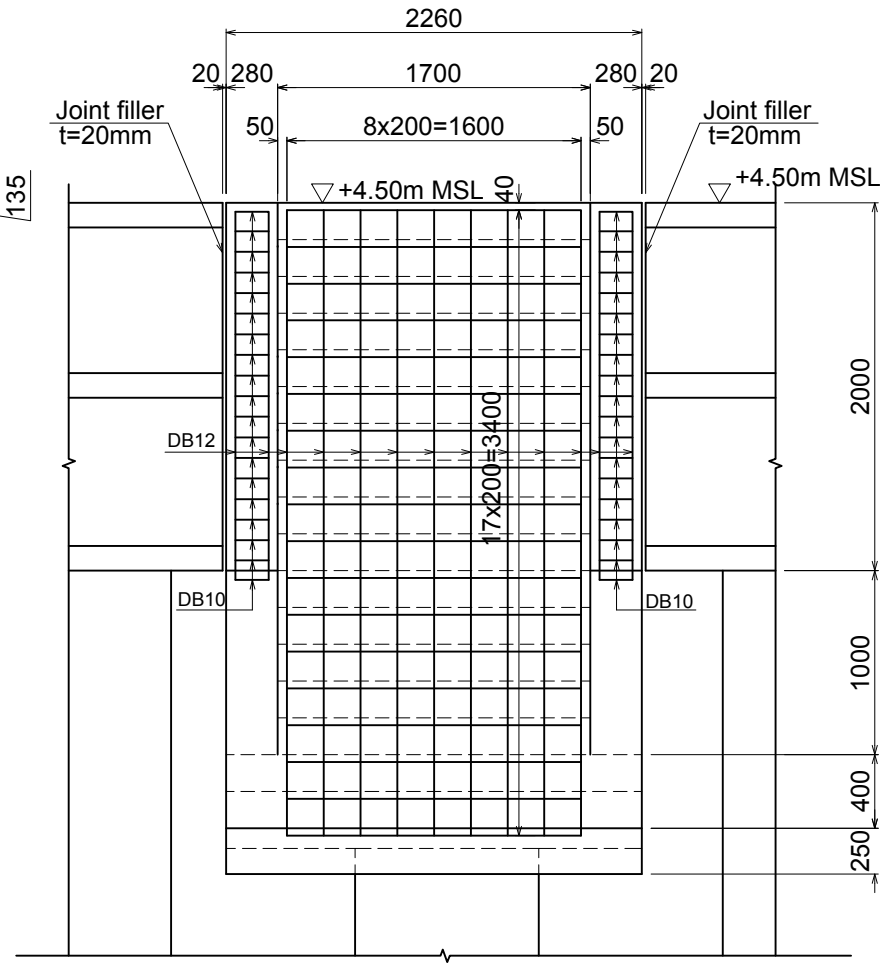
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 STAIRS AT REVETMENT (1/4)**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

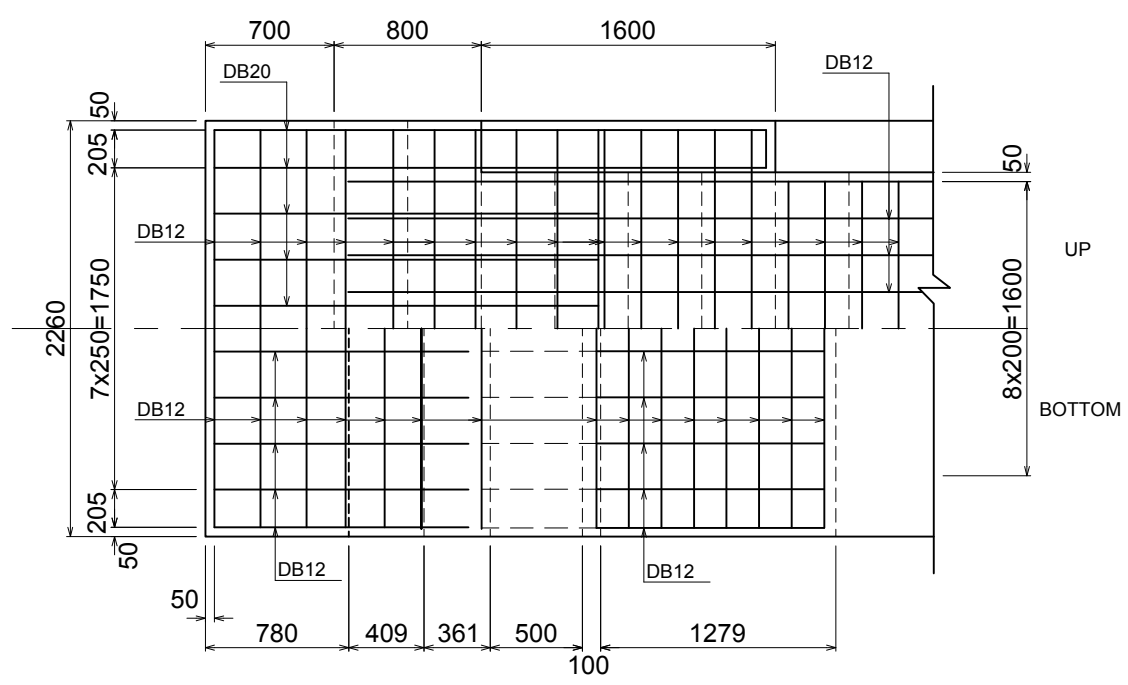
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|----------|----------|-------------|------|-----------------|-------------------|----------|---|-----------------------------|-----------------|-----------|
| | | | | | | DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| | | | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| | | | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| | | | | | | APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | HT-BP-013 |



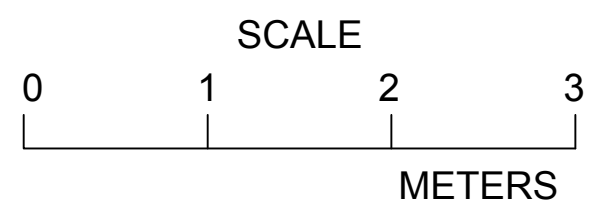
REINFORCEMENT ARRANGEMENT



ELEVATION VIEW OF CANAL SIDE STAIRS



PLAN VIEW



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 STAIRS AT REVETMENT (2/4)**

CONSULTING FIRMS :

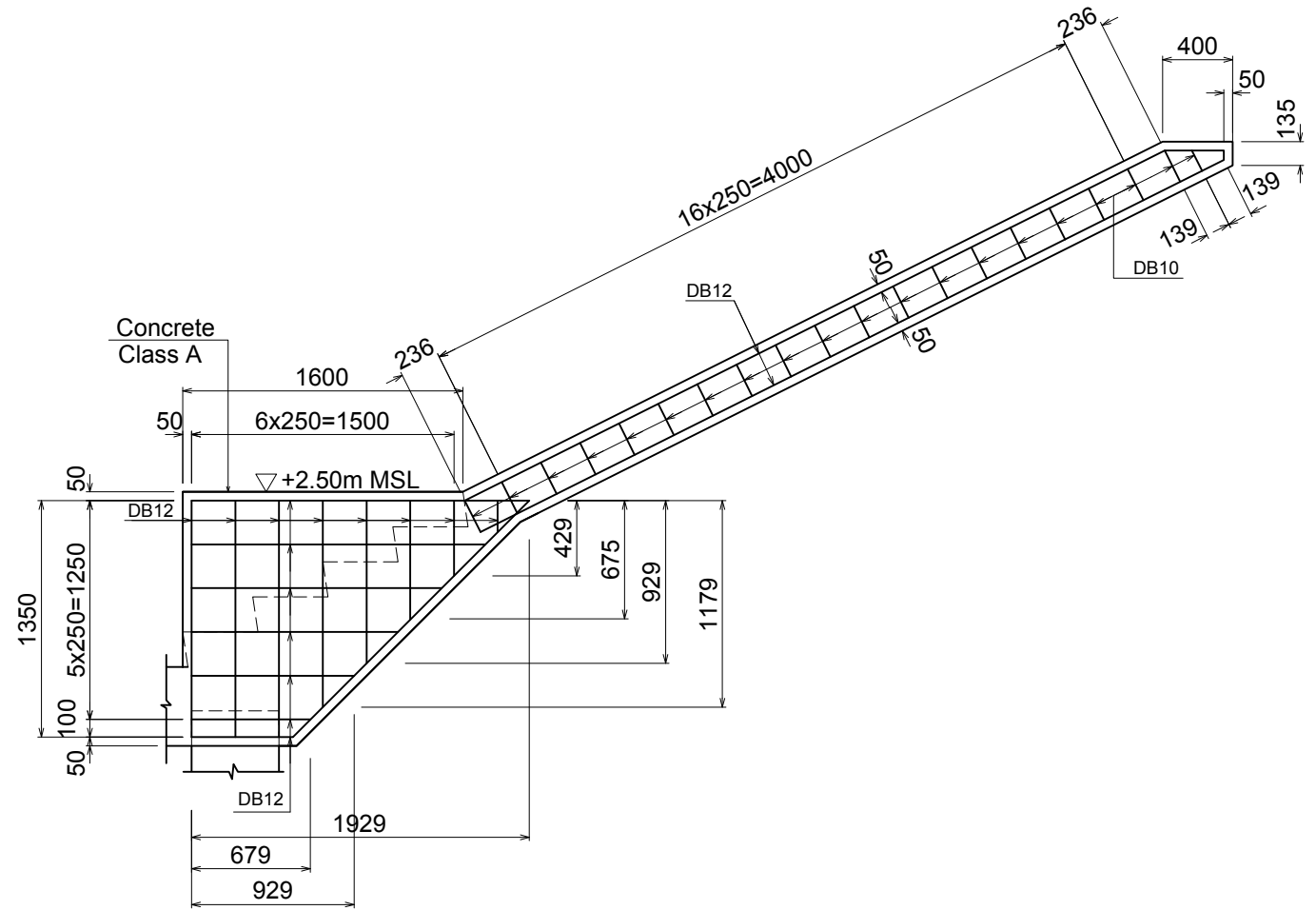
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

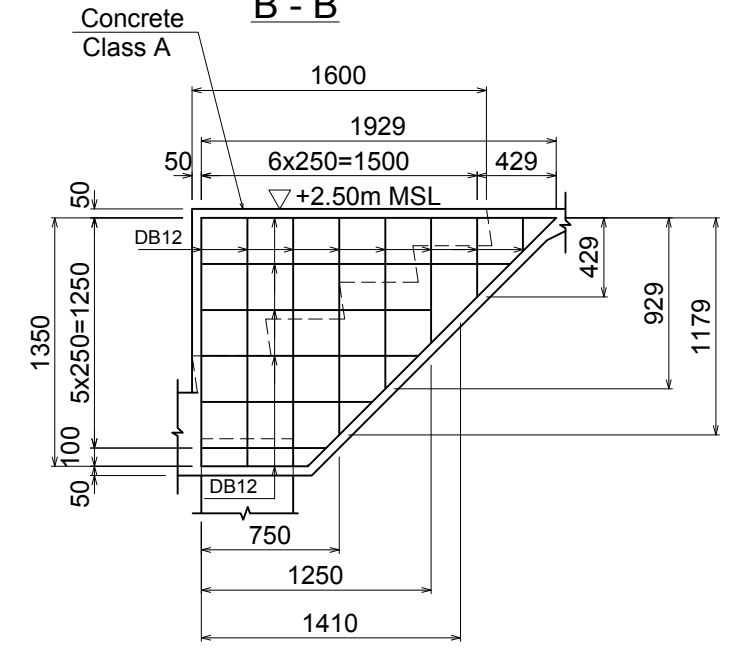
OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP

HT-BP-014

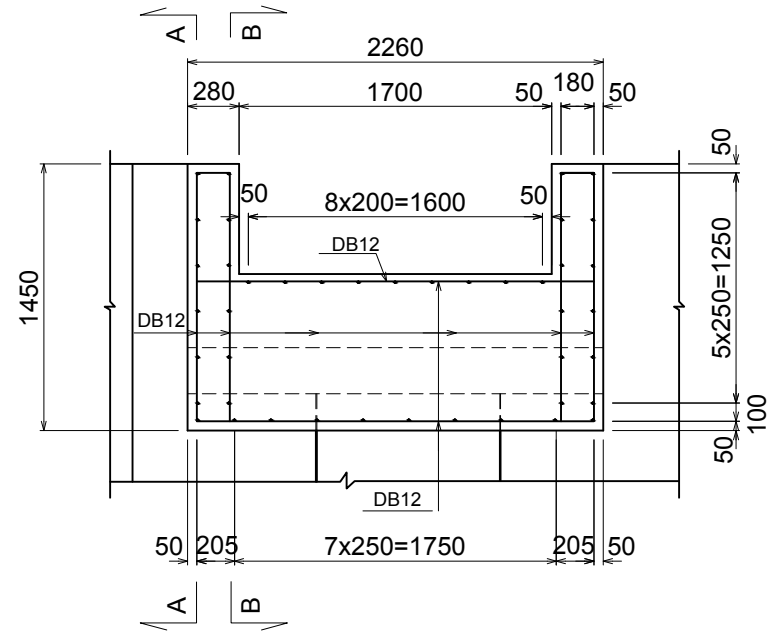
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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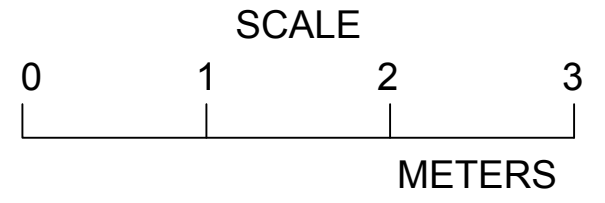
B - B



A - A



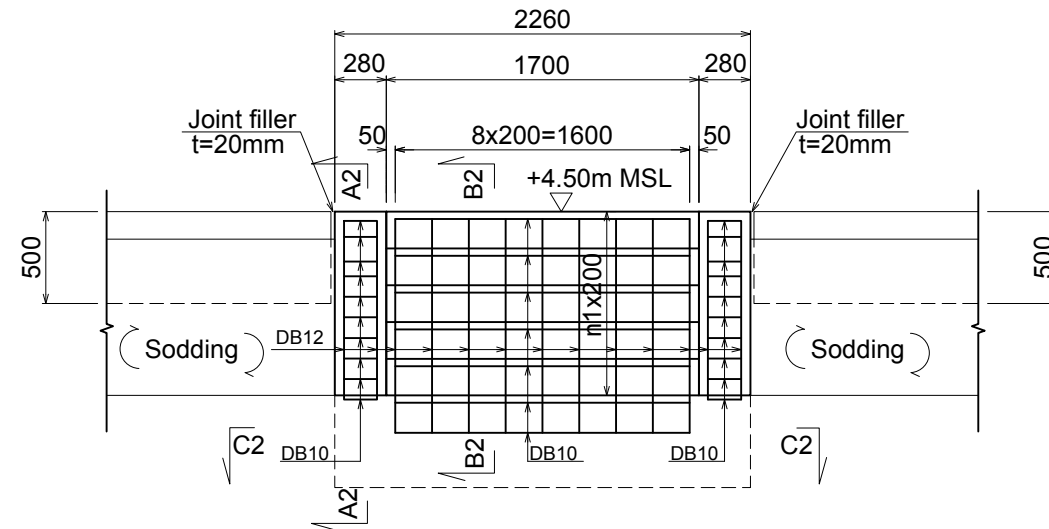
CROSS SECTION



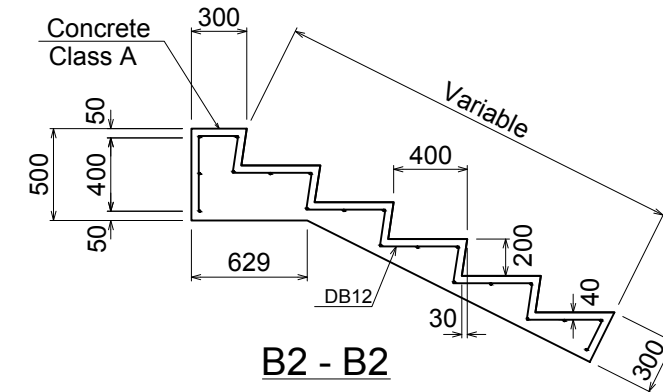
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 STAIRS AT REVETMENT (3/4)**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

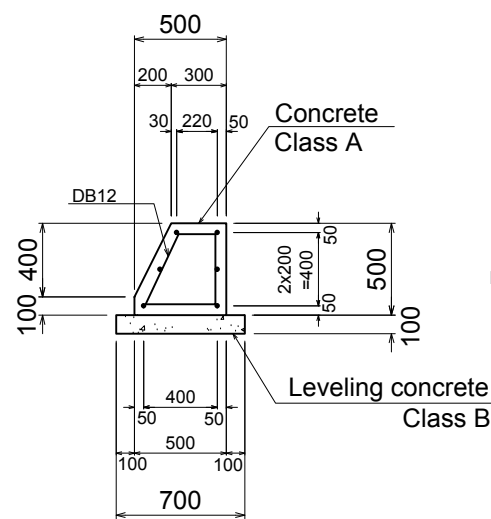
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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | DATE | HT-BP-015 |
| | | | | PRESENT | APPROVED | | | | |
| | | | | | | | DESIGNED Masaki ISHII | | ROYAL IRRIGATION DEPARTMENT |
| | | | | | | | DRAWN Masaki ISHII | PROPOSED | P. SIRION CHIEF |
| | | | | | | | CHECKED Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA DIRECTOR |
| | | | | | | | APPROVED T. MISHINA DATE | APPROVED | L. KOWATTANA D.G. |



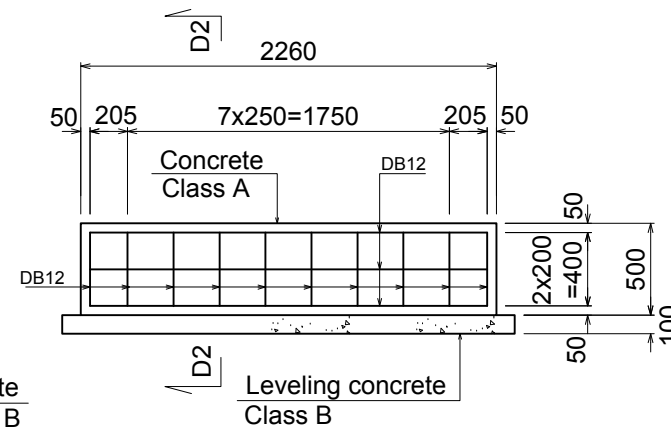
ELEVATION VIEW OF LAND SIDE STAIRS



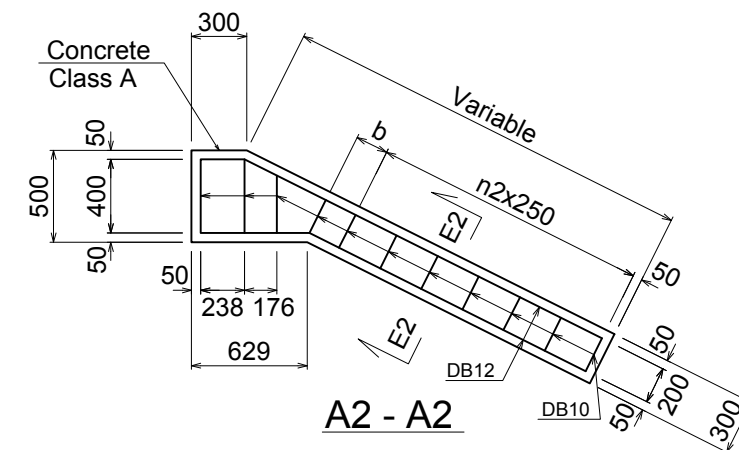
B2 - B2



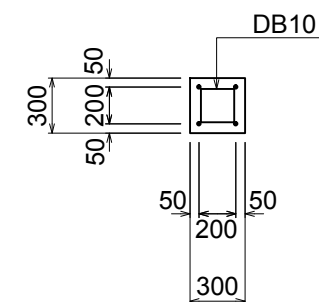
D2 - D2



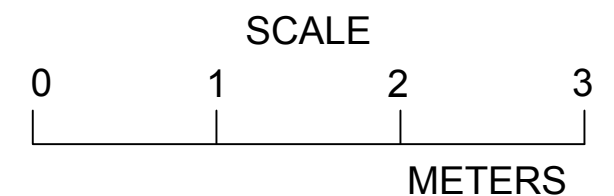
LONGITUDINAL SECTION OF BASE CONCRETE



A2 - A2



E2 - E2

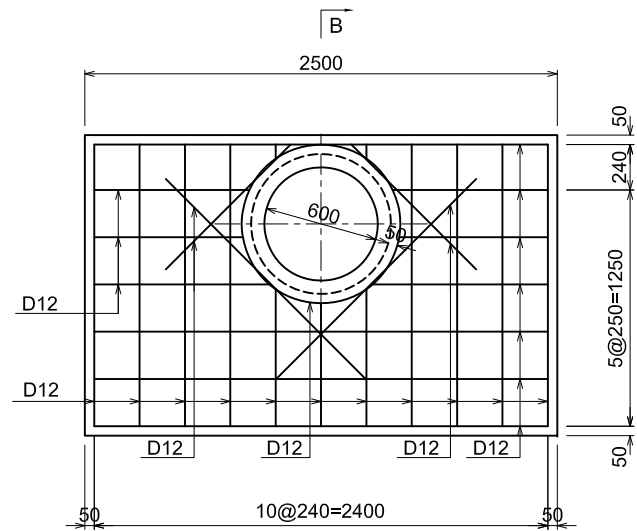


| Stairs No. | n (-) | b (mm) |
|------------|-------|--------|
| R1 | 6 | 202 |
| R2 | 6 | 47 |
| R3 | 8 | 35 |
| R4 | 8 | 256 |
| R5 | 9 | 165 |
| R6 | 6 | 248 |
| L1 | 3 | 263 |
| L2 | 4 | 87 |
| L3 | 5 | 131 |
| L4 | 7 | 280 |

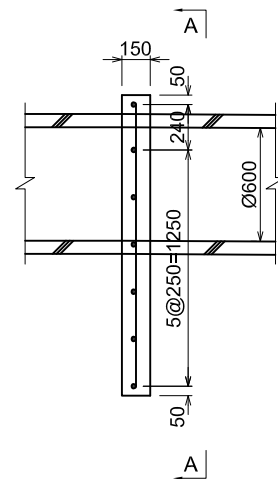
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 STAIRS AT REVETEMENT (4/4)**

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | | |
|----------|----------|-------------|------|-----------------|-------------------|----------|---|-------------------|-----------------------------|-----------------|--------------|------|
| | | | | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | |
| | | | | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | |
| | | | | | | | APPROVED | T. MISHINA | DATE | APPROVED | L. KOWATTANA | D.G. |
| | | | | | | | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | | HT-BP-016 | |

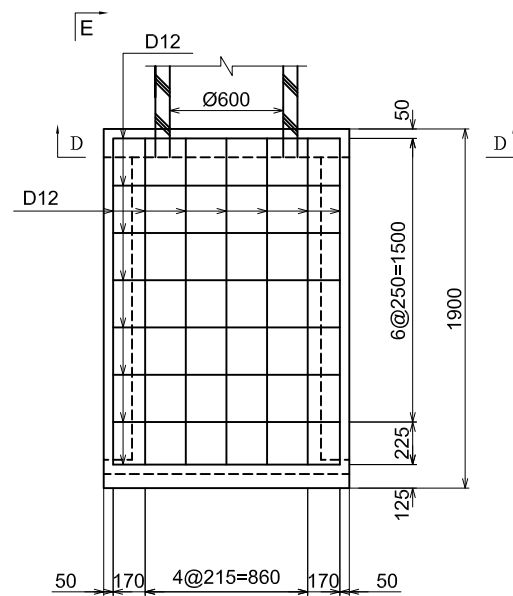


SECTION A-A

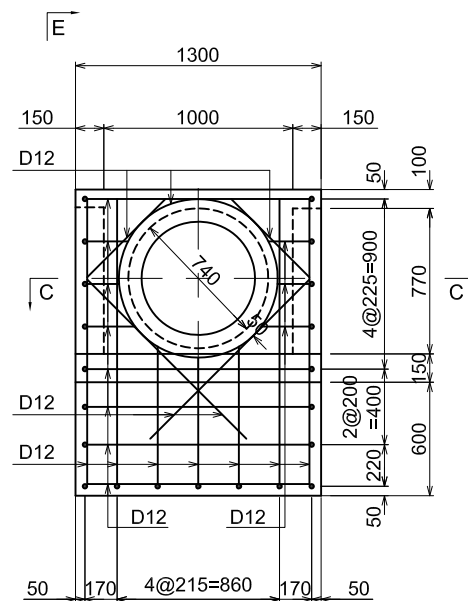


SECTION B-B

DETAIL OF INLET

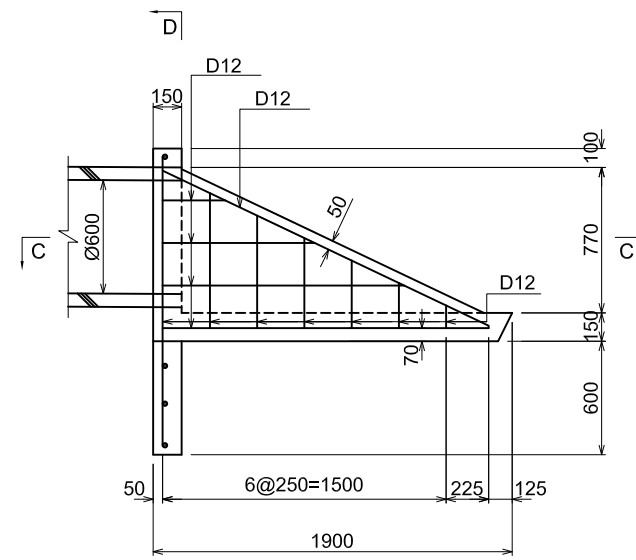


SECTION C-C



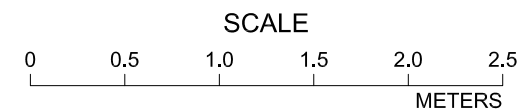
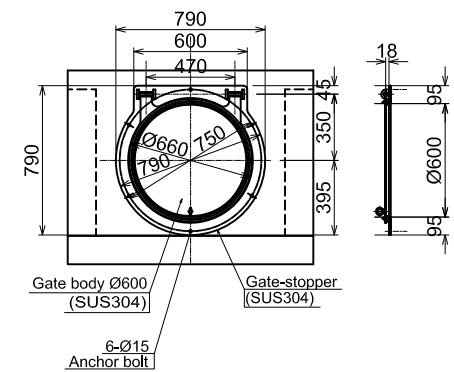
SECTION D-D

DETAIL OF OUTLET



SECTION E-E

Stainless steel Ø600 Flap gate

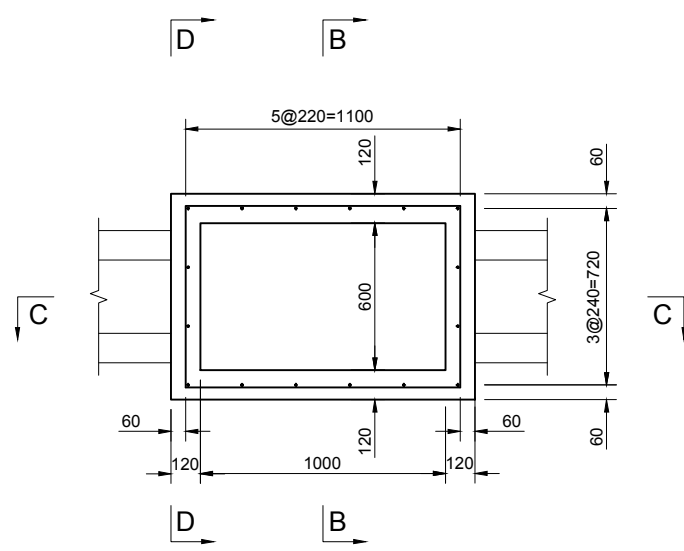


ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 BANK PROTECTION OF HAN TRA CANAL
 SLUICE PIPE (2/3)

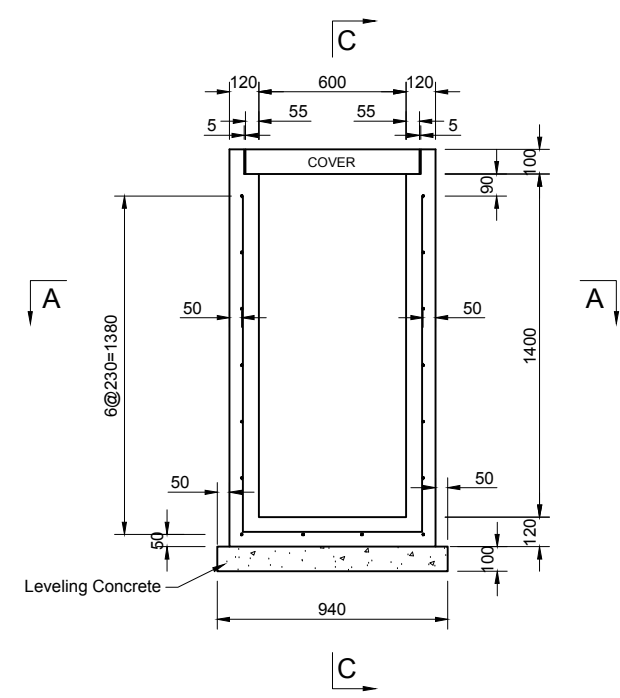
CONSULTING FIRMS :

CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

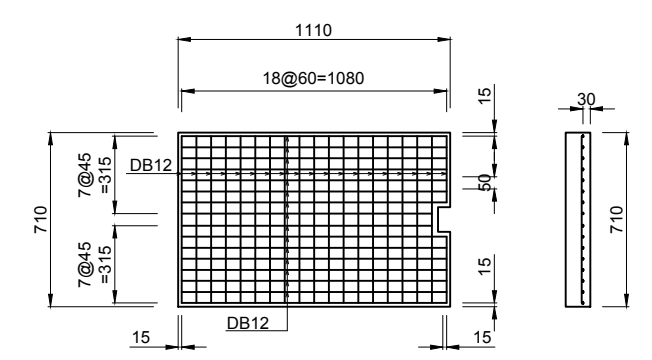
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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED | APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | DATE | HT-BP-018 |
| | | | | PRESENT | APPROVED | | | | |
| | | | | DESIGNED | Masaki ISHII | | ROYAL IRRIGATION DEPARTMENT | | |
| | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | |
| | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | |
| | | | | APPROVED | T. MISHINA | APPROVED | L. KOWATTANA | D.G. | |



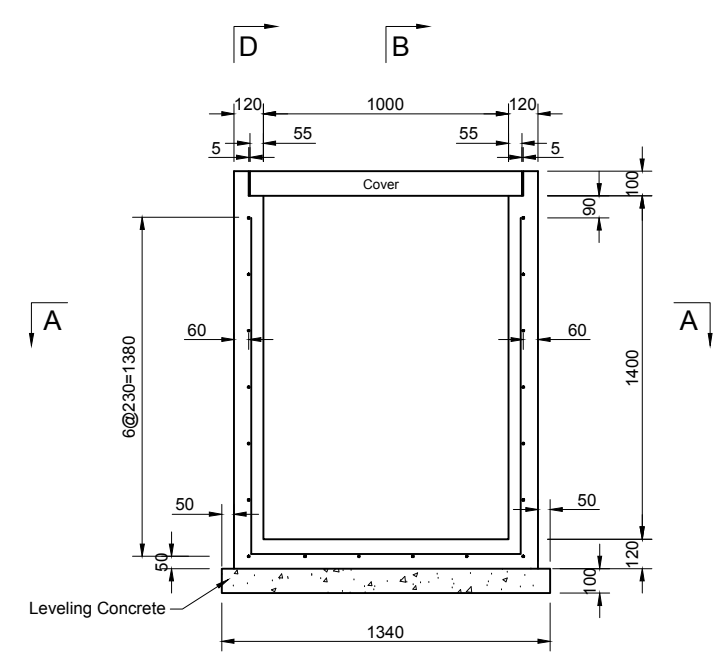
SECTION A-A



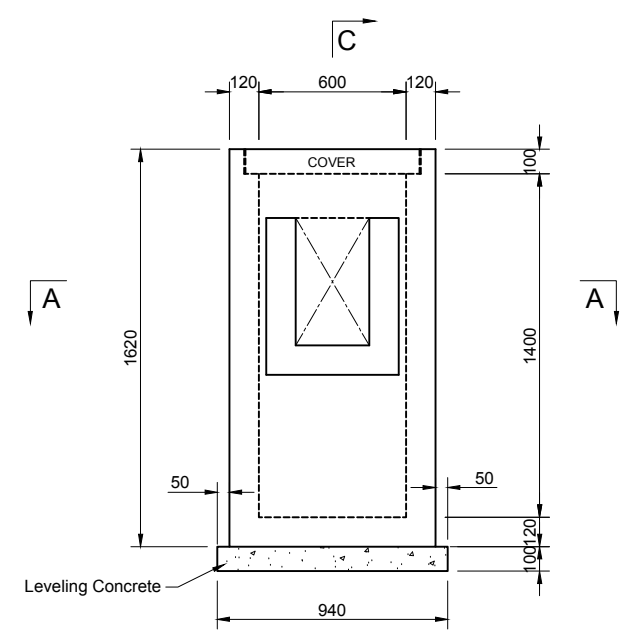
SECTION B-B



COVER

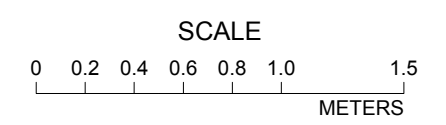


SECTION C-C



SECTION D-D

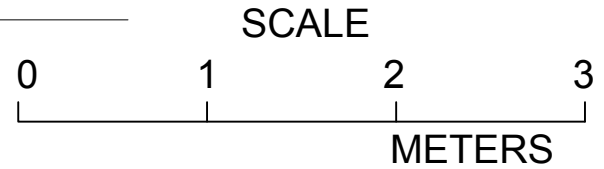
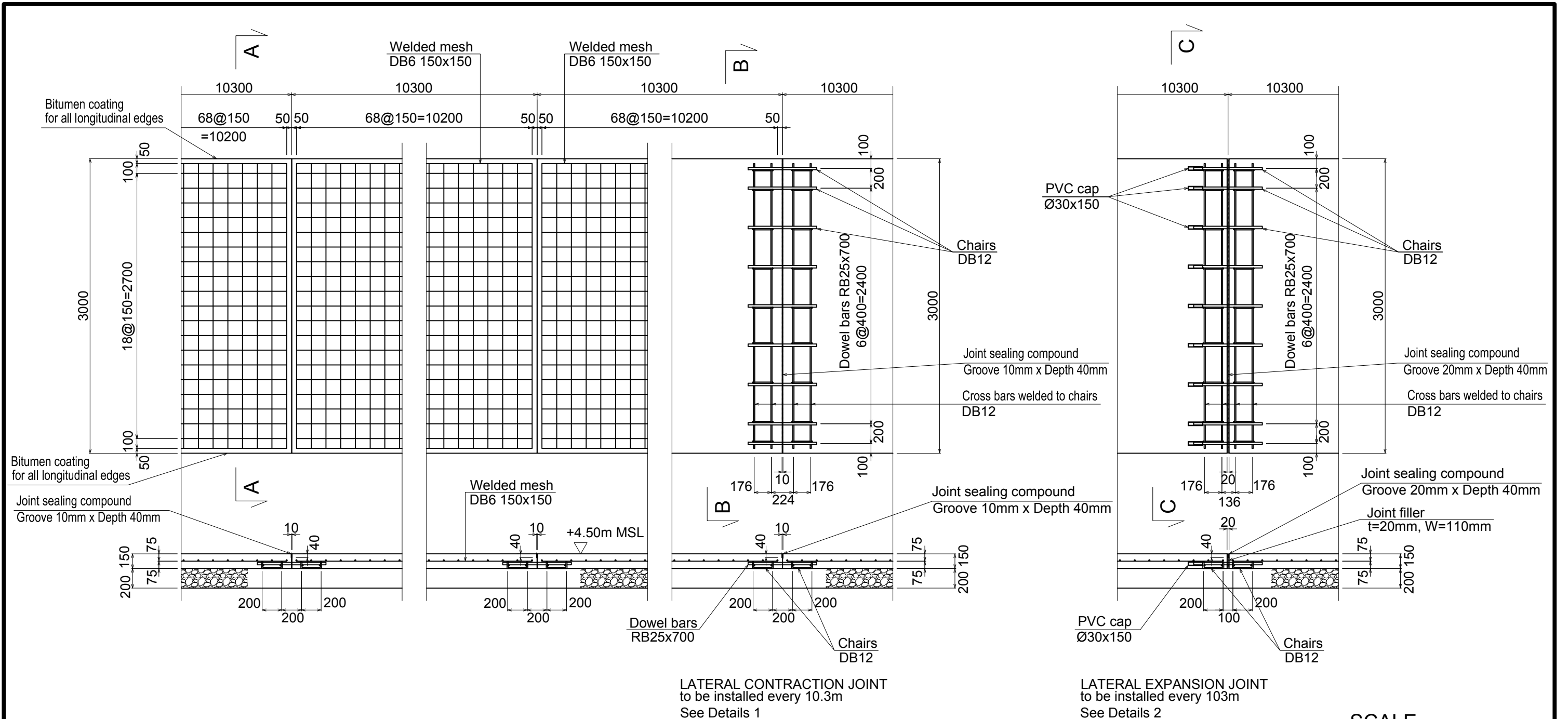
DETAIL OF CATCH BASIN



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
 BANK PROTECTION OF HAN TRA CANAL
 SLUICE PIPE (3/3)

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | | | | | | | |
|----------|----------|-------------|------|-----------------|-------------------|----------|---|-----------------------------|-----------------|-----------|
| | | | | | | DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| | | | | | | DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| | | | | | | CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| | | | | | | APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | | | HT-BP-019 |

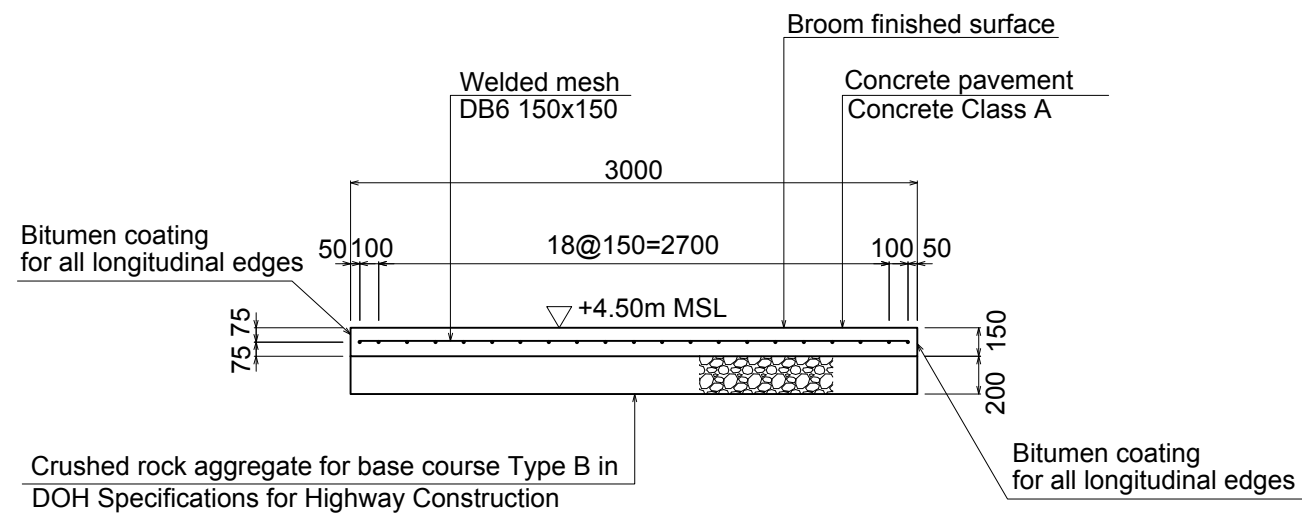


PLAN AND LONGITUDINAL SECTIONS OF CONCRETE PAVEMENT

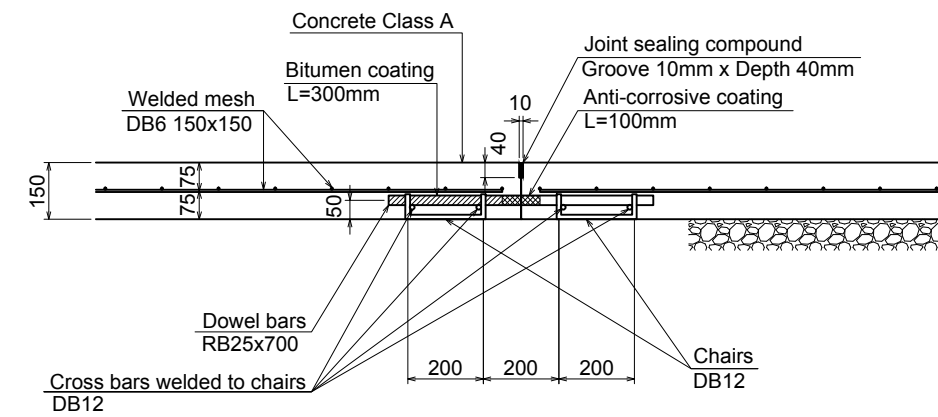
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 CONCRETE PAVEMENT (1/2)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

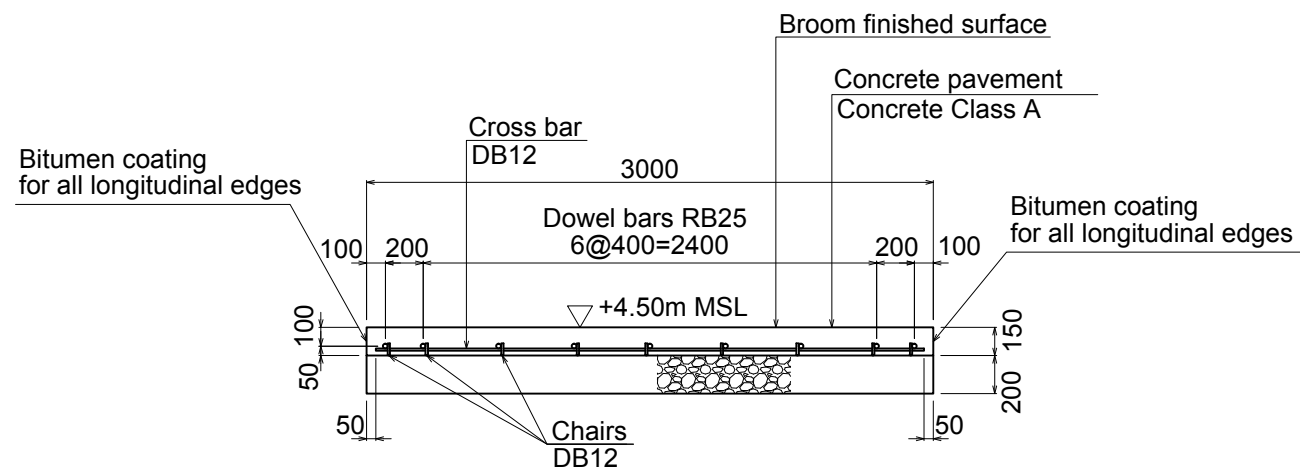
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|----------|-----------------------|-----------------------------|-----------------|-----------------|-------------------|----------|---|-----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | | | | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | | | | |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | | | | |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. | | | | |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | HT-BP-020 |



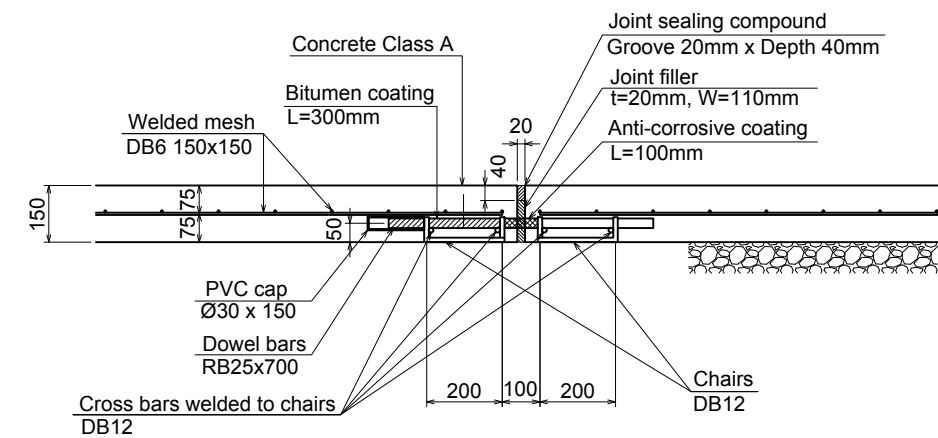
SECTION A-A



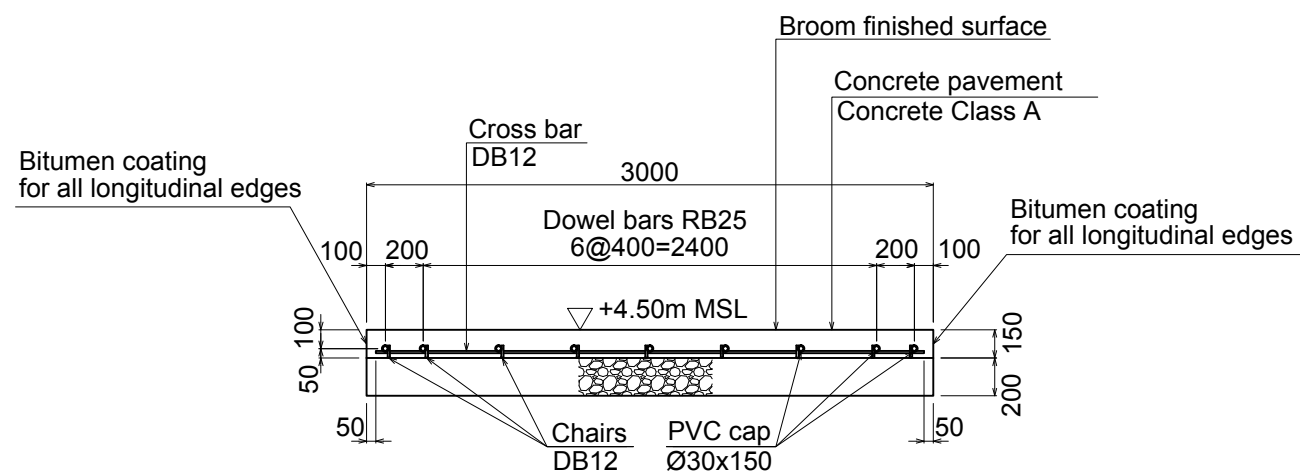
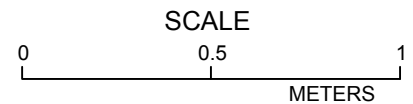
DETAILS 1 OF LATERAL CONTRACTION JOINT



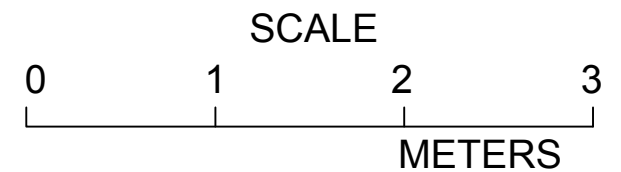
LATERAL CONTRACTION JOINT SECTION B-B



DETAILS 2 OF LATERAL EXPANSION JOINT



LATERAL EXPANSION JOINT SECTION C-C

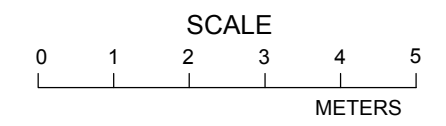
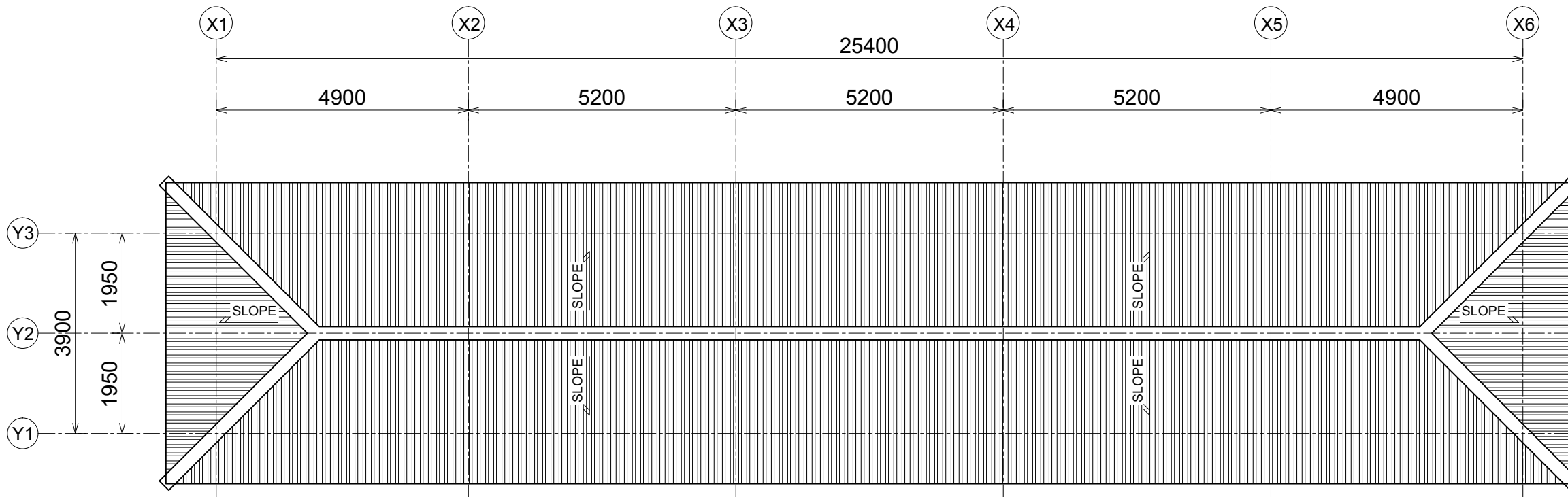
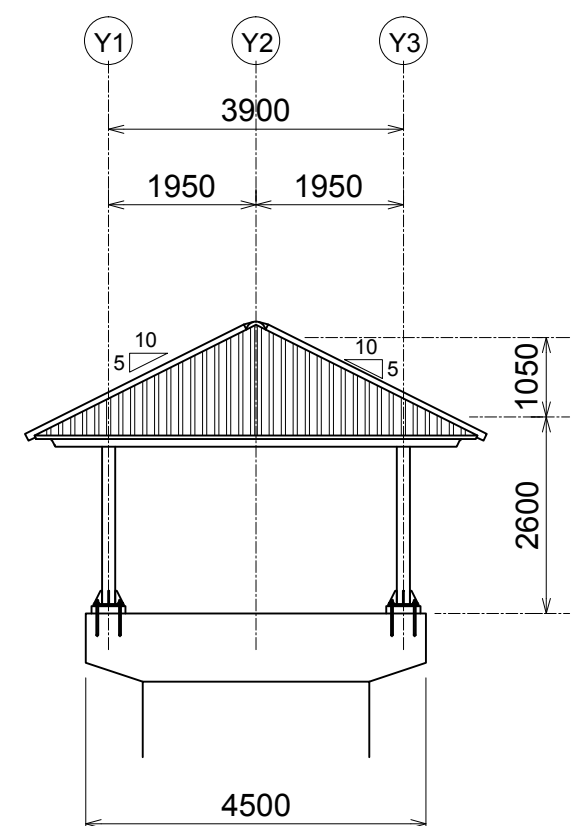
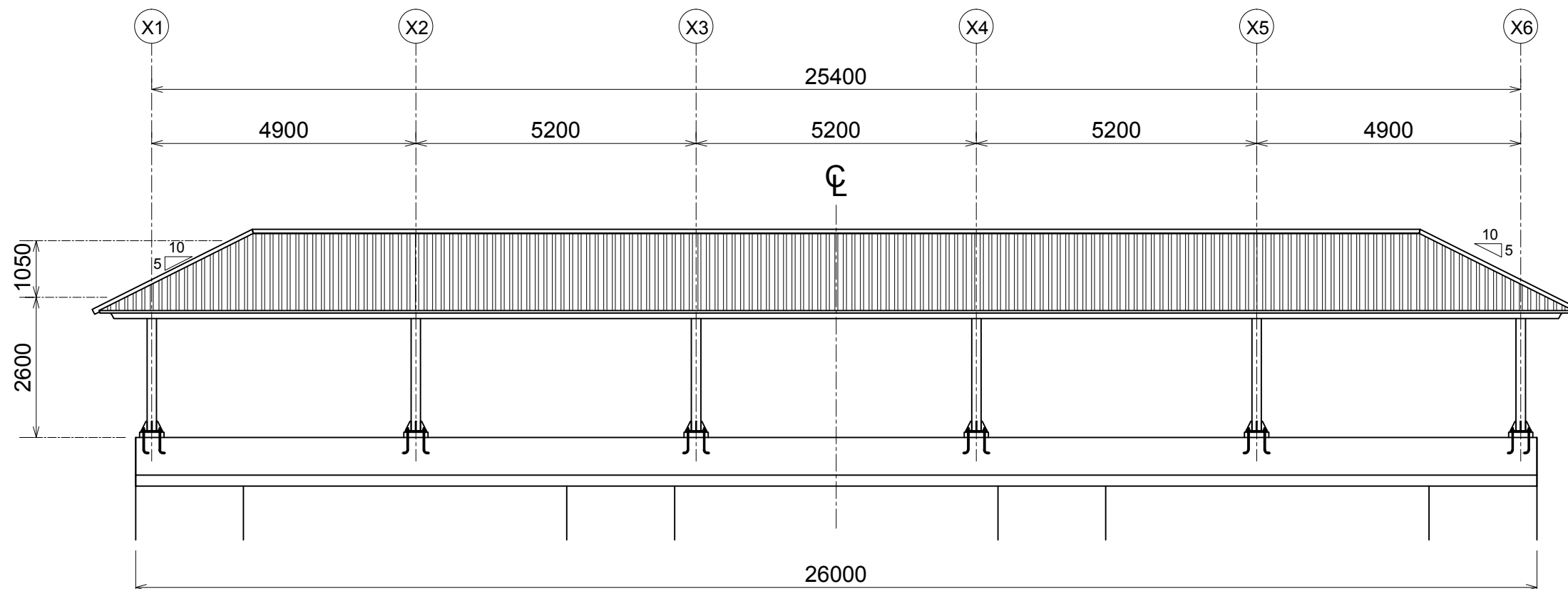


TRANSVERSE SECTIONS OF CONCRETE PAVEMENT

ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (CIVIL WORKS)
**BANK PROTECTION OF HAN TRA CANAL
 CONCRETE PAVEMENT (2/2)**

CONSULTING FIRMS :
CTI ENGINEERING INTERNATIONAL CO., LTD.

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|----------|-----------------------|-----------------------------|-----------------|---|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT |
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| | | | | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP |
| | | | | HT-BP-021 |



ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (ARCHITECTURAL WORKS)
 COMMON WORK FOR FLOODGATES
 SHED (1/4)

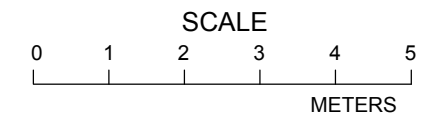
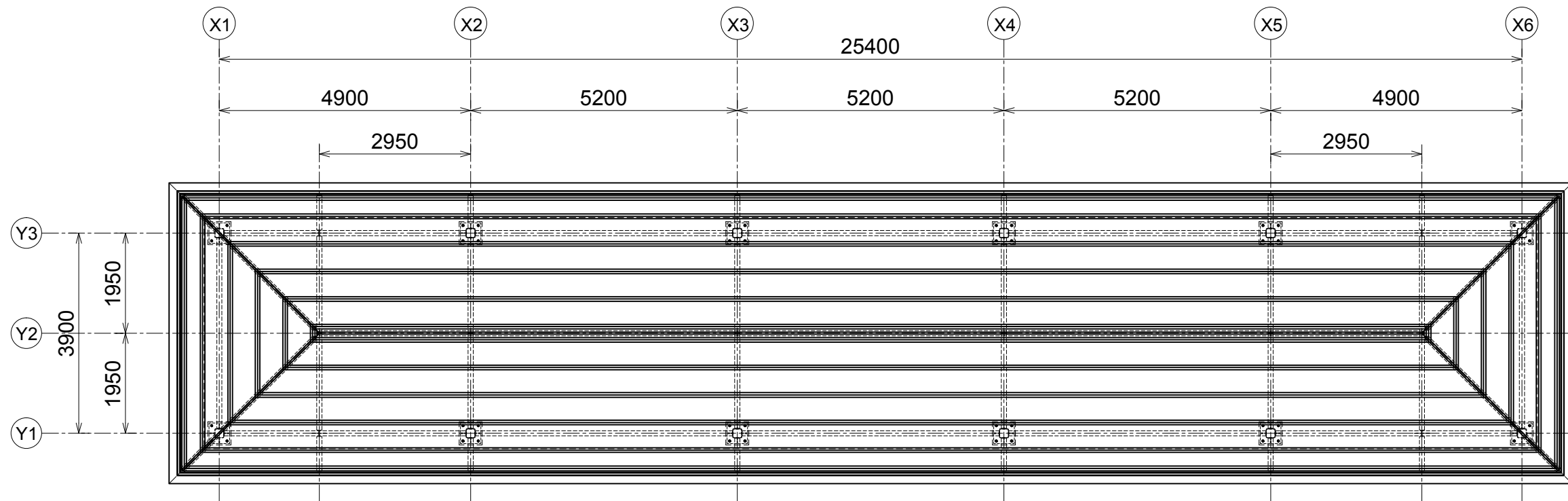
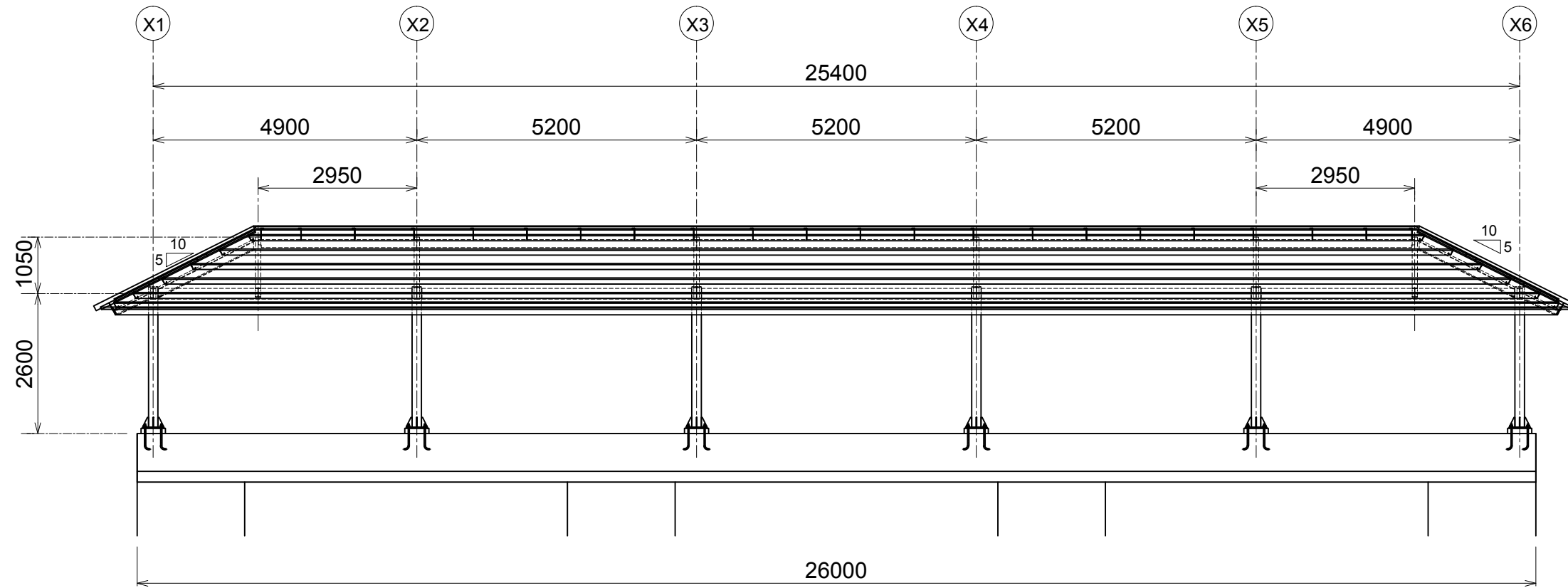
CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

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| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
 IRRIGATION SYSTEM DESIGN GROUP
 DATE _____

FG-A-001



ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(ARCHITECTURAL WORKS)
COMMON WORK FOR FLOODGATES
SHED (2/4)

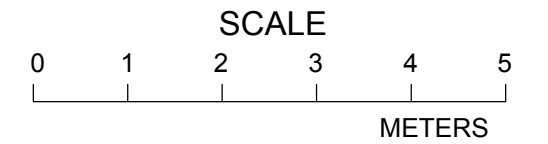
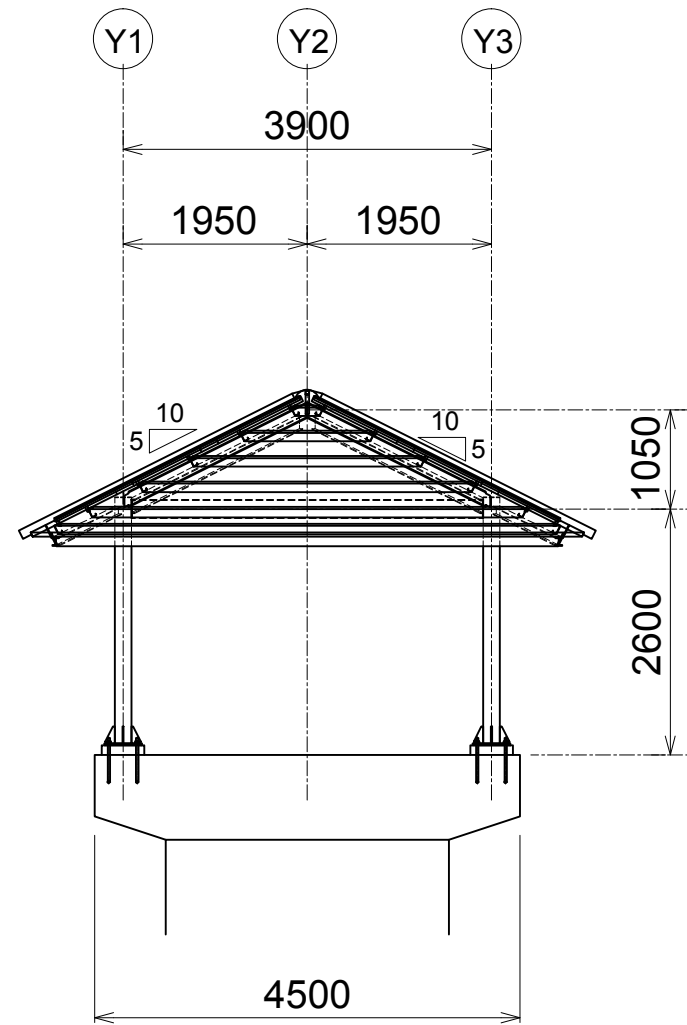
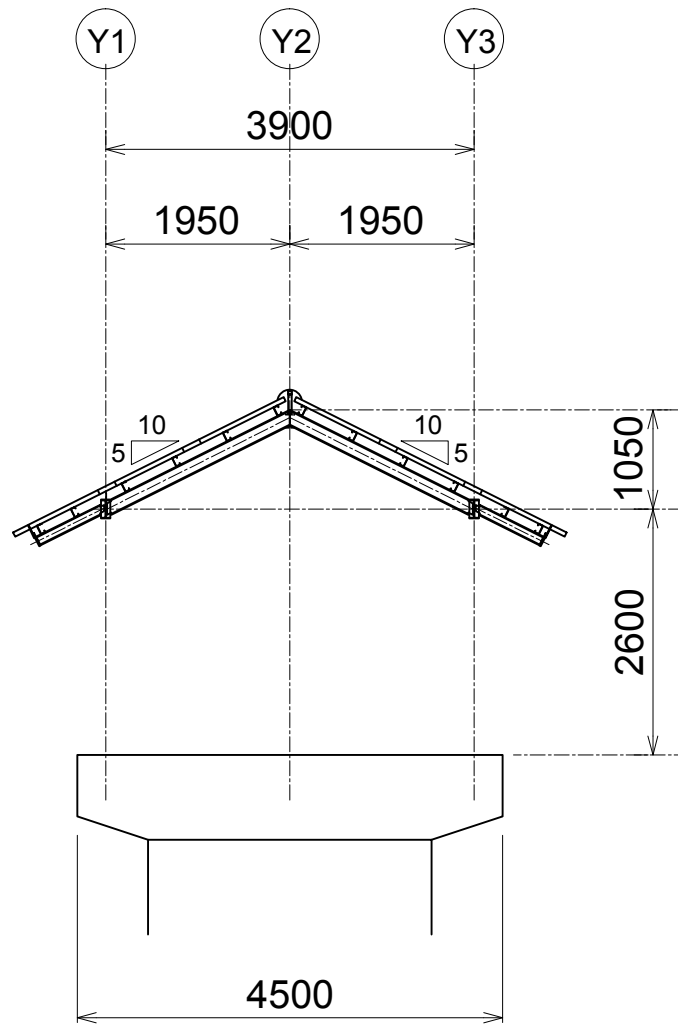
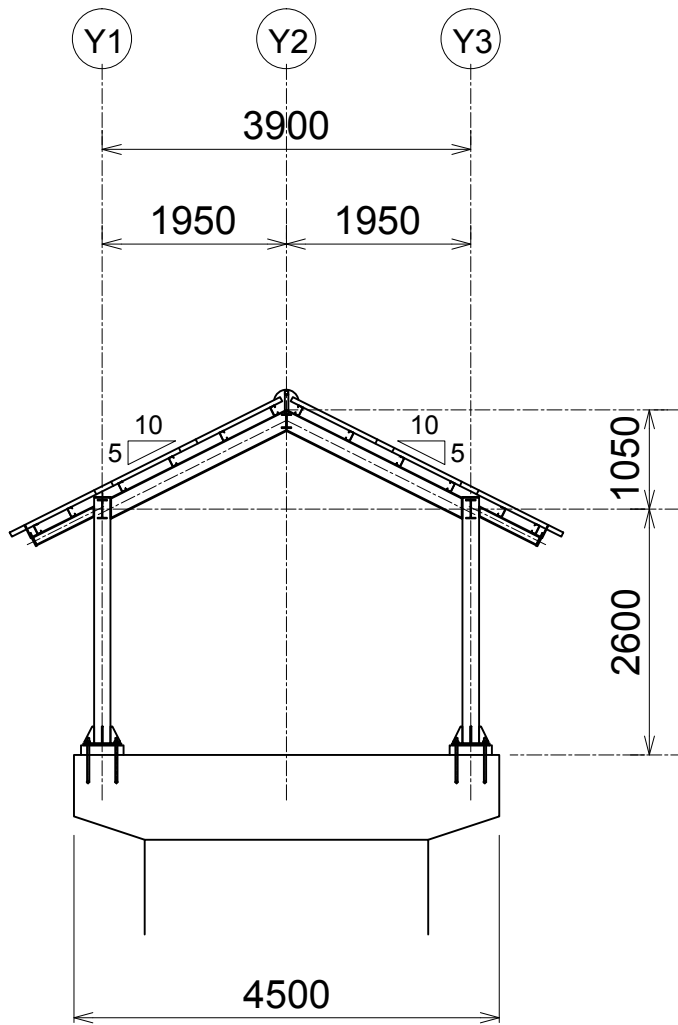
CONSULTING FIRMS :
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| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. |

| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED APPROVED |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

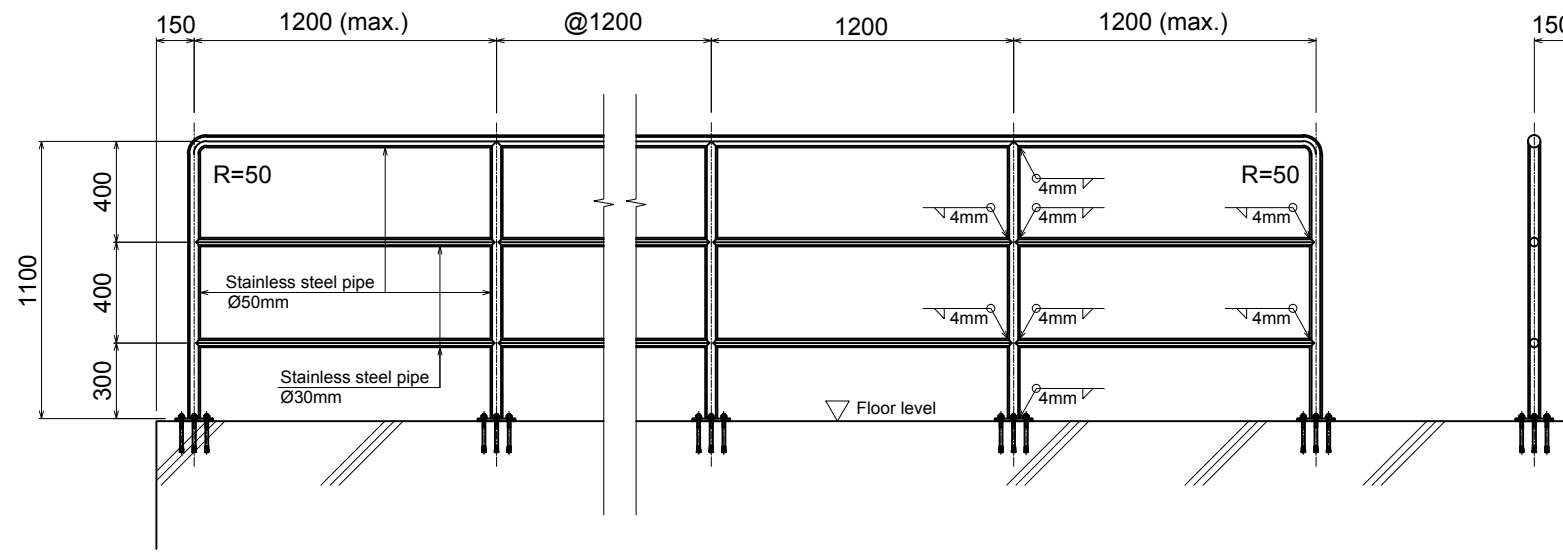
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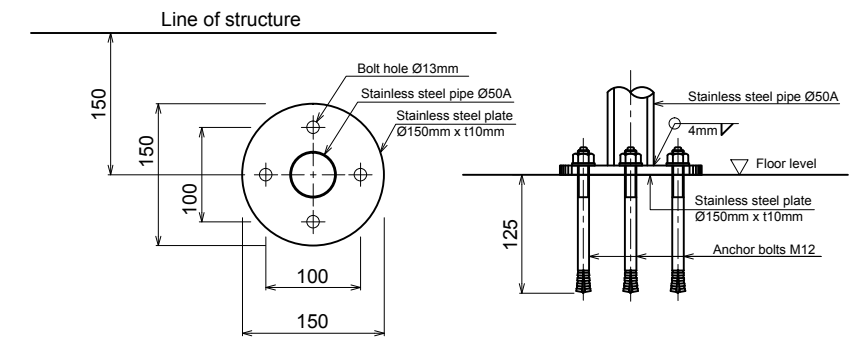
ROYAL IRRIGATION DEPARTMENT
 The Flood Prevention Project of
 East Side of the Pasak River in Ayutthaya
 in the Kingdom of Thailand
 (ARCHITECTURAL WORKS)
 COMMON WORK FOR FLOODGATES
 SHED (3/4)

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

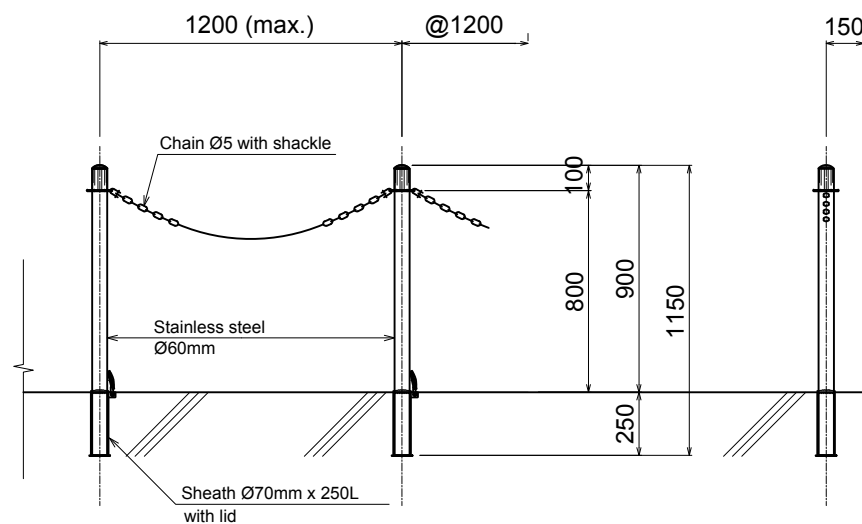
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| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | | | | | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF | | | | | |
| CHECKED | Akio SHICHIJUGARI | VERIFIED | S. INTARAPRACHA | DIRECTOR | | | | | |
| APPROVED | T. MISHINA DATE _____ | APPROVED | L. KOWATTANA | D.G. | | | | | |
| REV. NO. | LOCATION | DESCRIPTION | DATE | CHECKED PRESENT | APPROVED APPROVED | APPROVED | OFFICE OF ENGINEERING DESIGN & ARCHITECTURE IRRIGATION SYSTEM DESIGN GROUP | DATE _____ | FG-A-003 |



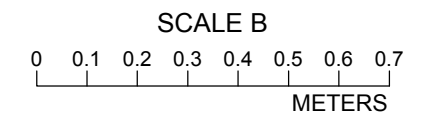
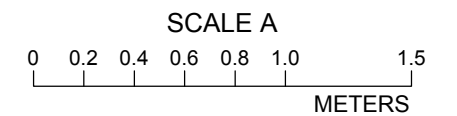
DETAIL OF HANDRAIL
SCALE A



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SCALE B



DETAIL OF DETACHABLE FENCE
SCALE A



ROYAL IRRIGATION DEPARTMENT
The Flood Prevention Project of
East Side of the Pasak River in Ayutthaya
in the Kingdom of Thailand
(ARCHITECTURAL WORKS)
COMMON WORK FOR FLOODGATES
HANDRAIL

CONSULTING FIRMS :
CTI CTI ENGINEERING INTERNATIONAL CO., LTD.

| | | | | |
|----------|-----------------------|-----------------------------|-----------------|----------|
| DESIGNED | Masaki ISHII | ROYAL IRRIGATION DEPARTMENT | | |
| DRAWN | Masaki ISHII | PROPOSED | P. SIRION | CHIEF |
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OFFICE OF ENGINEERING DESIGN & ARCHITECTURE
IRRIGATION SYSTEM DESIGN GROUP
DATE _____

FG-A-005

**ROYAL IRRIGATION DEPARTMENT, MINISTRY OF AGRICULTURE AND COOPERATIVES
TENDER AND CONTRACTING DOCUMENTS FOR THE FLOOD PREVENTION PROJECT OF EAST SIDE OF THE PASAK RIVER IN AYUTTHAYA
VOLUME II TENDER DRAWINGS OCTOBER 2012 CTI ENGINEERING INTERNATIONAL CO., LTD. TOKYO, JAPAN**