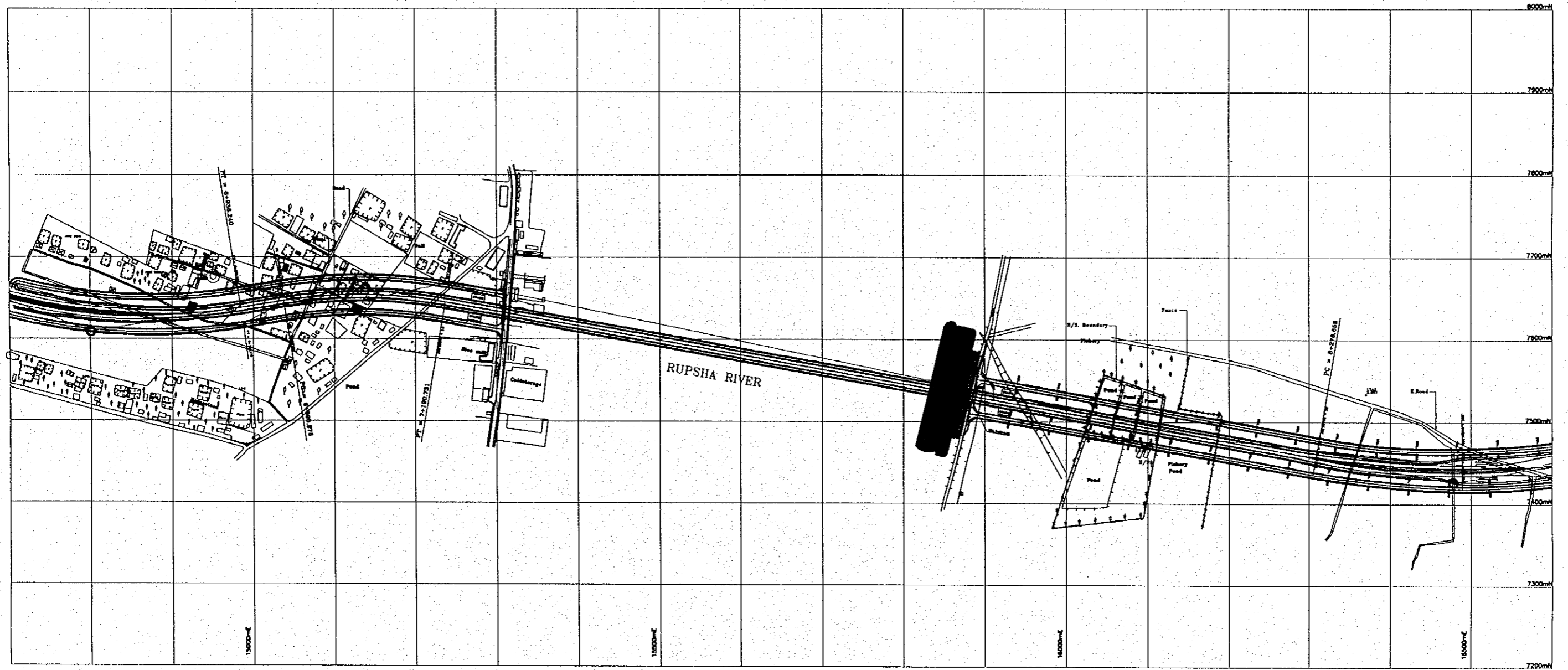


I. GENERAL

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSHA IN KHULNA (PHASE 2)

PROJECT LAYOUT

SCALE	SHEET NO.
1:5000	1-01



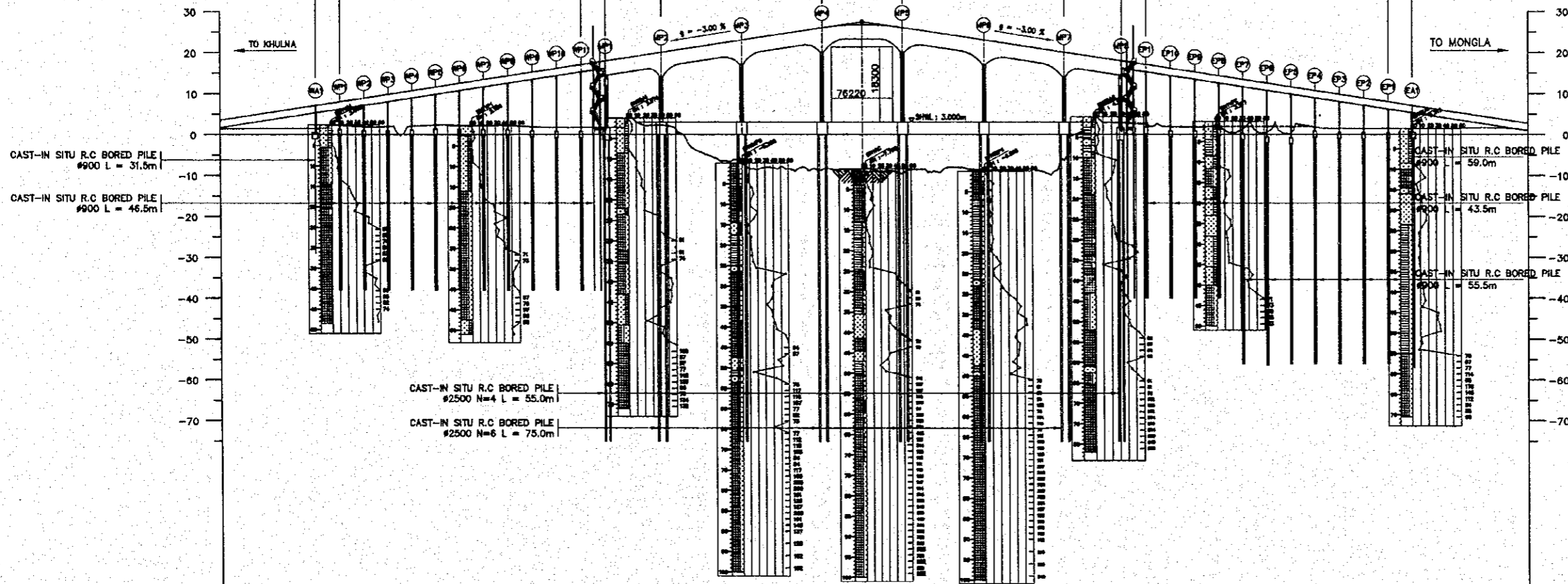
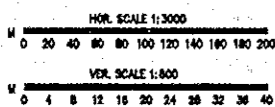
J. MAIN BRIDGE

BRIDGE LENGTH = 1360.290m

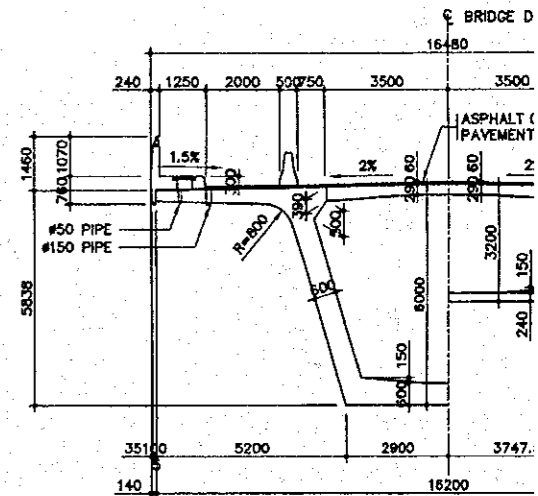
APPROACH BRIDGE LENGTH = 360.145m

MAIN BRIDGE LENGTH = 640m

APPROACH BRIDGE LENGTH = 360.145m

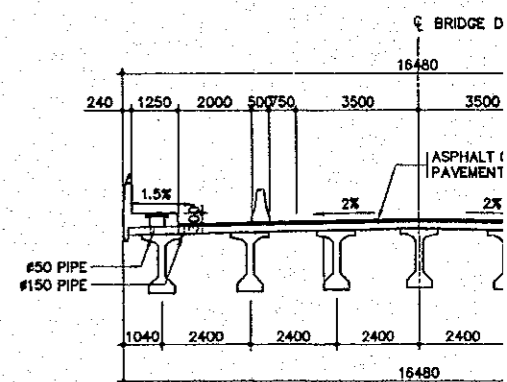


SUPERSTRUCTURE CROSS SECTION AT INTERMEDIATE SUPPORT



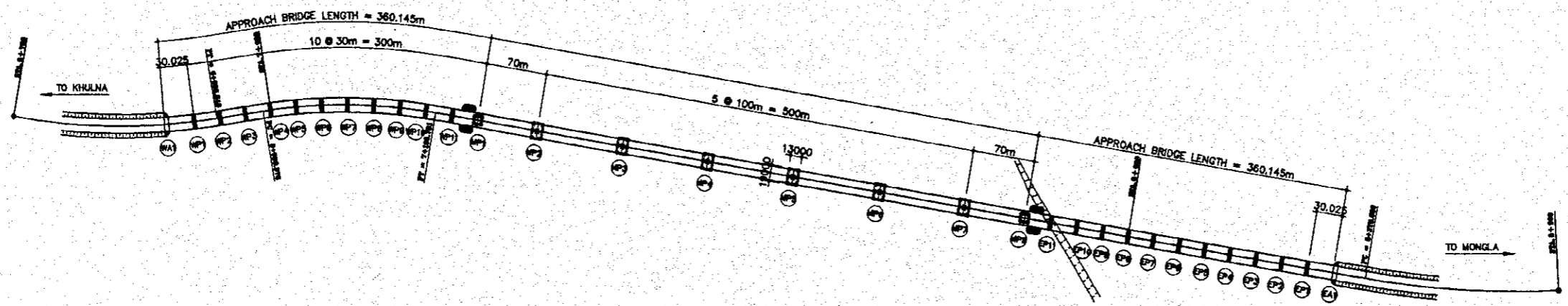
1 MAIN BRIDGE SCALE

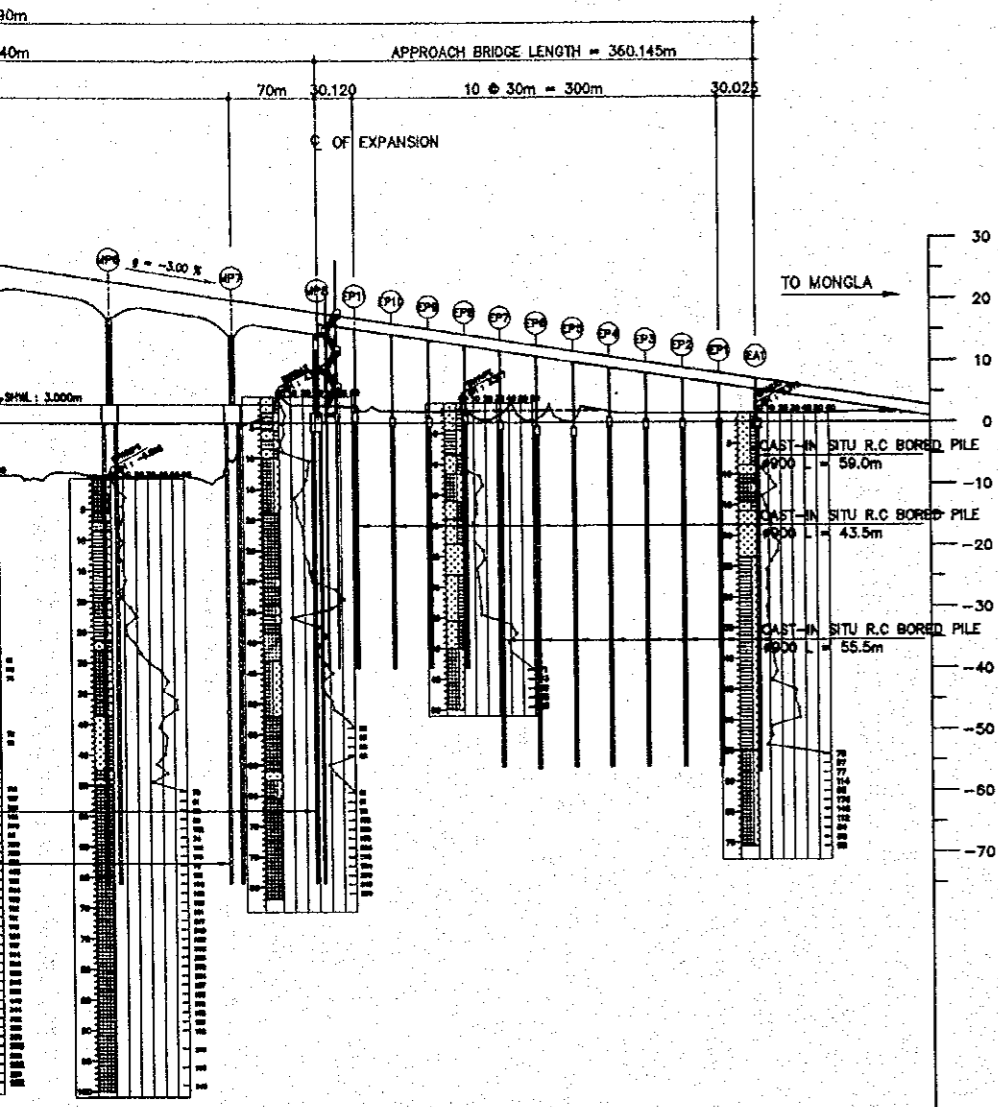
TYPICAL SECTION



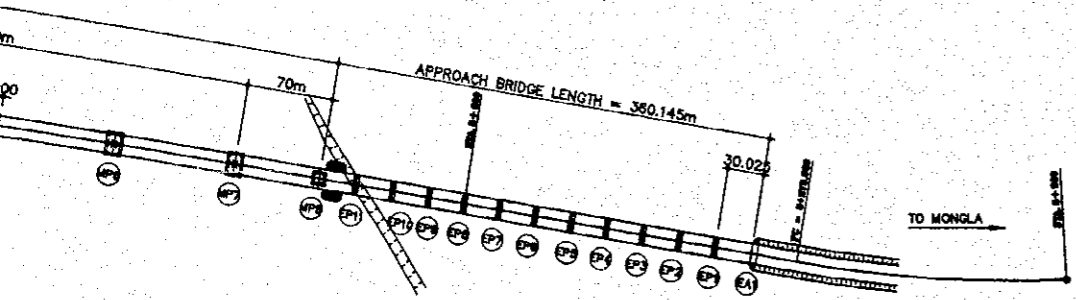
2 APPROACH BRIDGE SCALE

Datum Line -80.000 (M)																					
LONGITUDINAL GRADE																					
PROPOSED HT.																					
GROUND HT.																					
DISTANCE																					
STATION	STA. 6	MP1	MP2	MP3	MP4	MP5	MP6	MP7	MP8	MP9	MP10	MP11	MP12	MP13	MP14	MP15	MP16	MP17	MP18	MP19	MP20
	781.007	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000	781.000

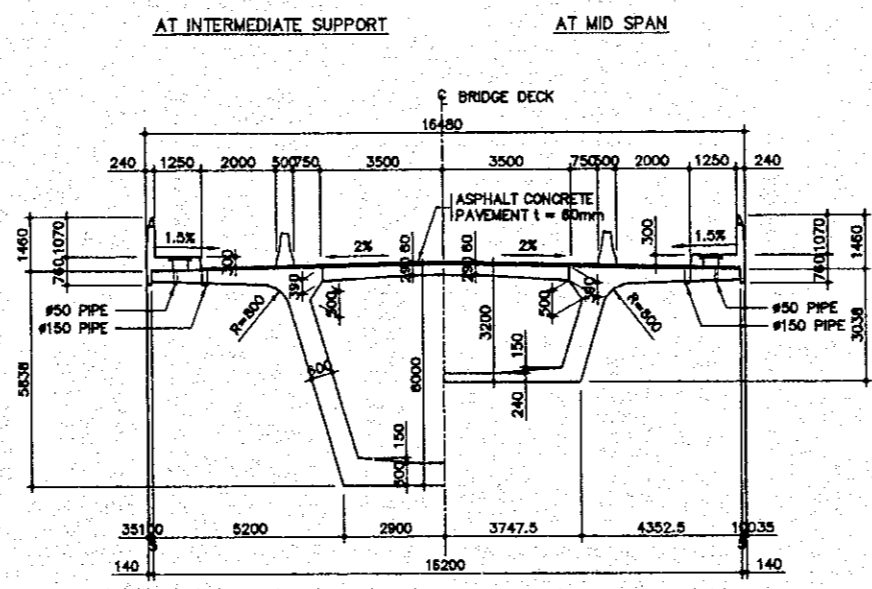




MP8	STA 7+710.000	-6.888	21.000
MP7	STA 7+810.000	-4.233	20.000
MP6	STA 7+860.000	2.977	17.800
EP1	STA 7+870.000	2.481	15.898
EP2	STA 7+880.000	1.886	14.095
EP3	STA 7+890.000	1.293	12.398
EP4	STA 7+900.000	0.700	10.700
EP5	STA 7+910.000	0.107	9.003
EP6	STA 7+920.000	-0.486	7.306
EP7	STA 7+930.000	-1.079	5.609
EP8	STA 7+940.000	-1.672	3.912
EP9	STA 7+950.000	-2.265	2.215
EP10	STA 7+960.000	-2.858	0.518
EP11	STA 7+970.000	-3.451	-1.179
EP12	STA 7+980.000	-4.044	-2.882
EP13	STA 7+990.000	-4.637	-4.585
EP14	STA 8+000.000	-5.230	-6.288

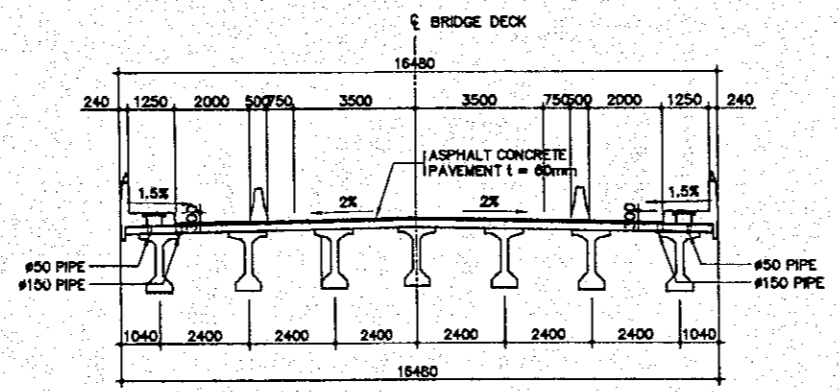


SUPERSTRUCTURE CROSS SECTION



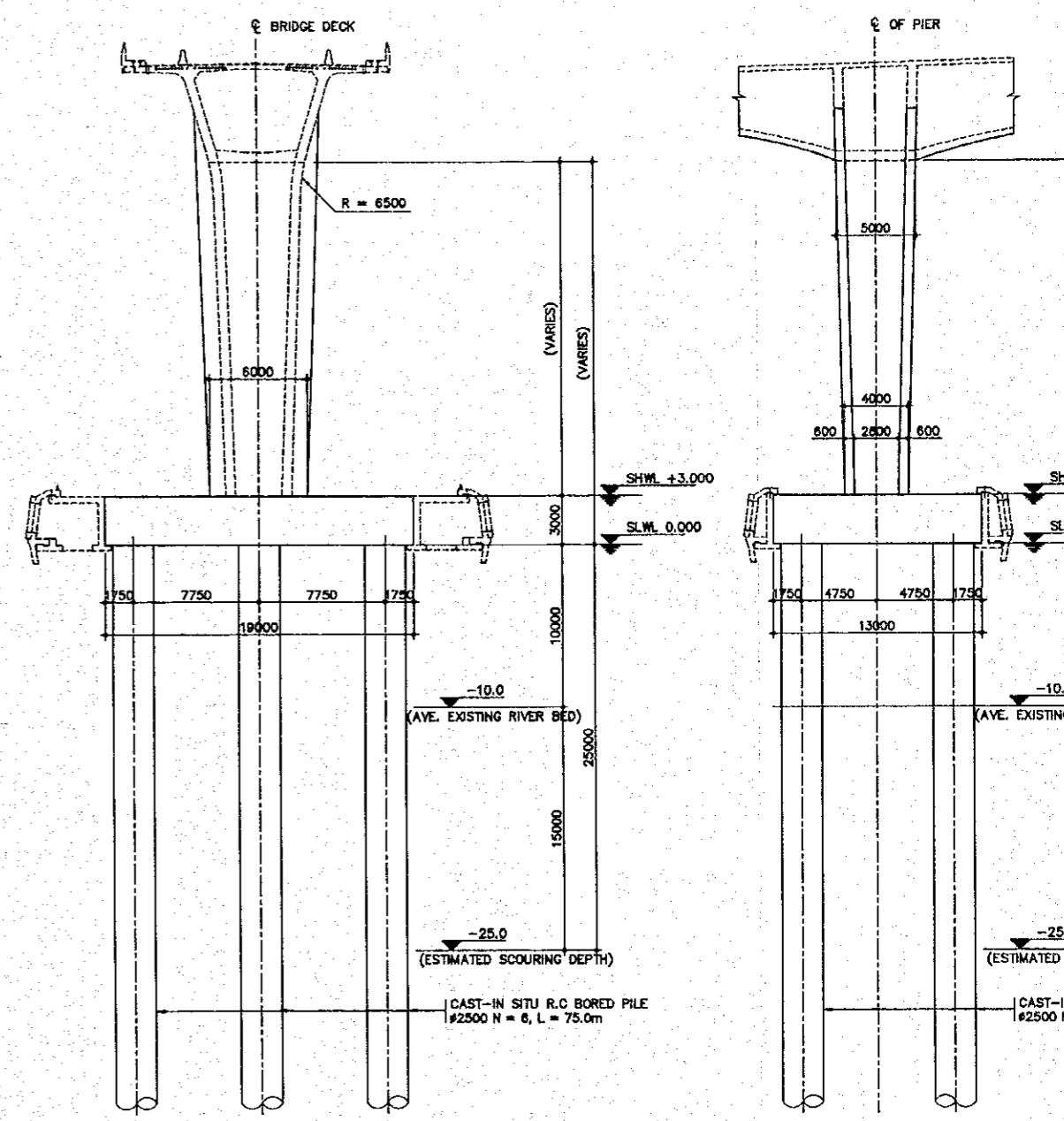
1 MAIN BRIDGE
SCALE 1:100

TYPICAL SECTION



2 APPROACH BRIDGE
SCALE 1:100

**MAIN BRIDGE SUBSTRUCTURE
(TYPICAL PIER MP2 ~ MP7)**



3 TRANSVERSE SECTION
SCALE 1:200

4 LONGITUDINAL SECTION
SCALE 1:200

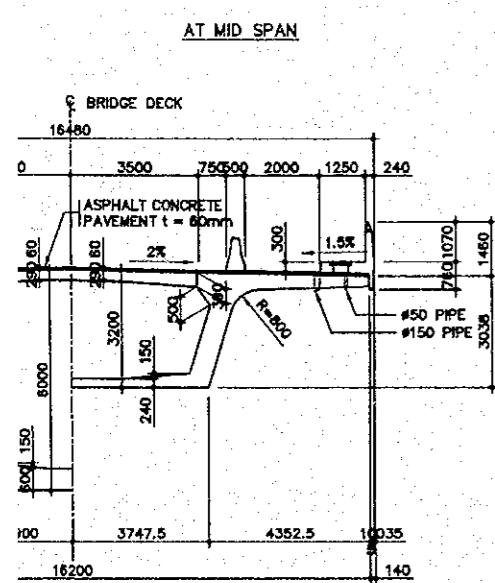
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

GENERAL ARRANGEMENT OF BRIDGE
(SHEET 1 OF 2)

SCALE	SHEET NO.
AS SHOWN	J-01

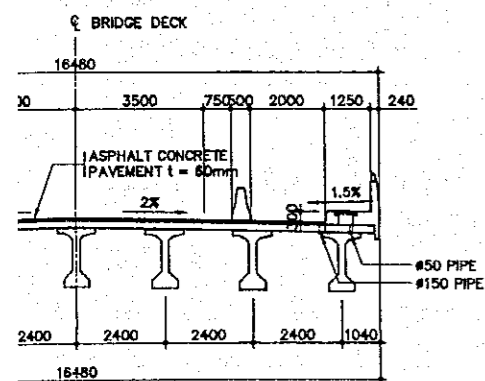
MAIN BRIDGE SUBSTRUCTURE
(TYPICAL PIER MP2 ~ MP7)

JRE CROSS SECTION
AT MID SPAN

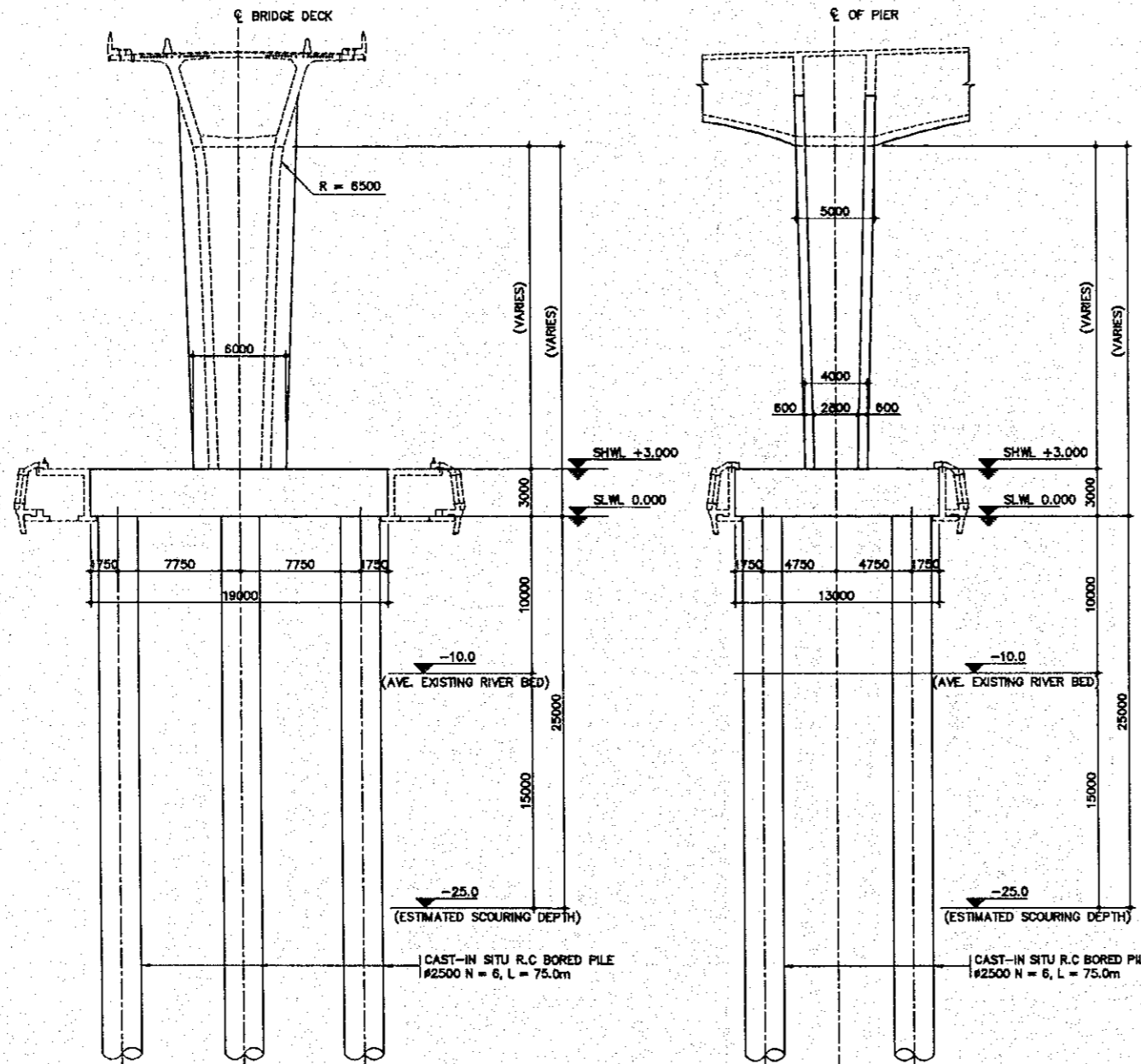


MAIN BRIDGE
SCALE 1:100

FINAL SECTION



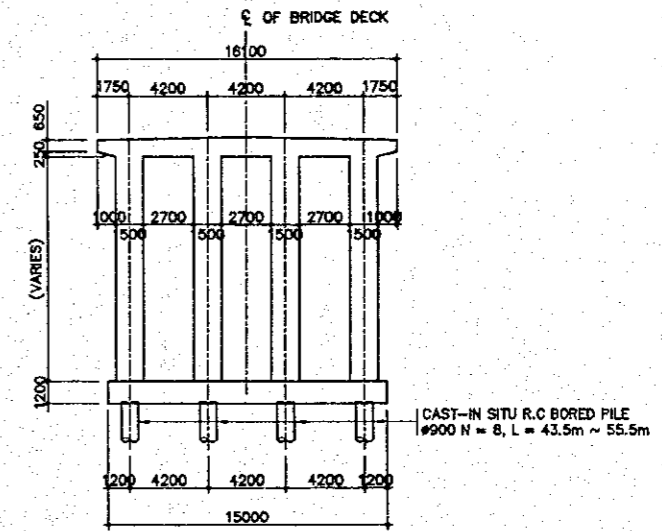
APPROACH BRIDGE
SCALE 1:100



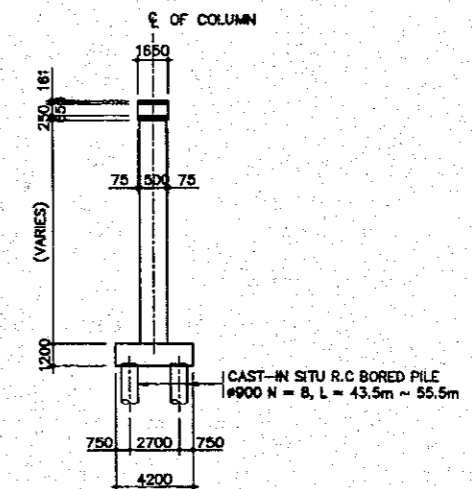
3 TRANSVERSE SECTION
SCALE 1:200

4 LONGITUDINAL SECTION
SCALE 1:200

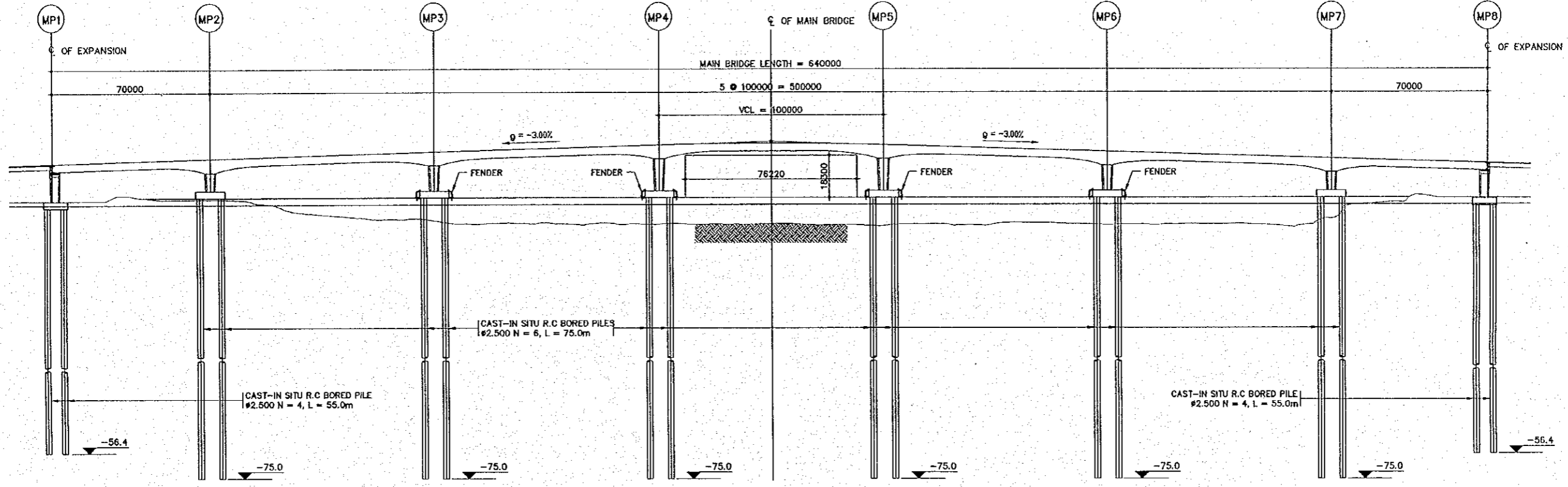
APPROACH BRIDGE SUBSTRUCTURE
(TYPICAL PIER EP1 ~ EP11, WP1 ~ WP11)



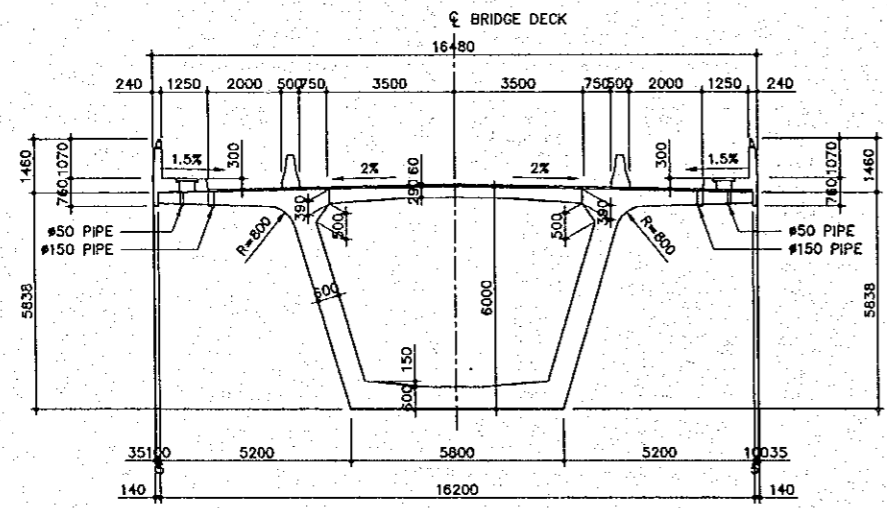
5 TRANSVERSE SECTION
SCALE 1:200



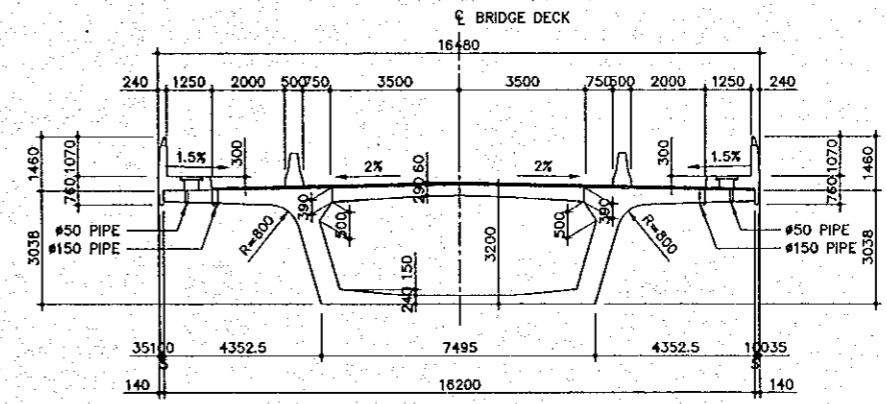
6 LONGITUDINAL SECTION
SCALE 1:200



A ELEVATION ON BRIDGE
J-02 SCALE 1:1000



1 DECK SECTION AT PIER
J-02 SCALE 1:100



2 DECK SECTION AT MIDSPAN
J-02 SCALE 1:100

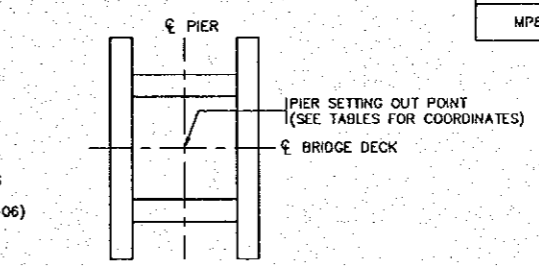
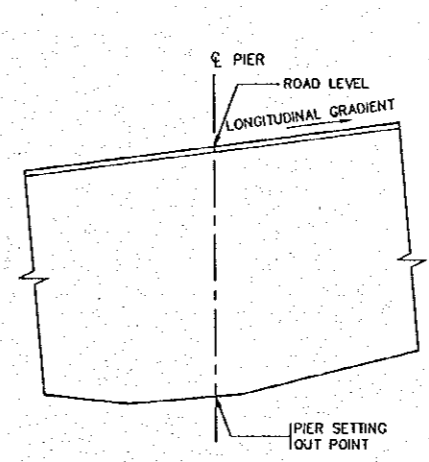
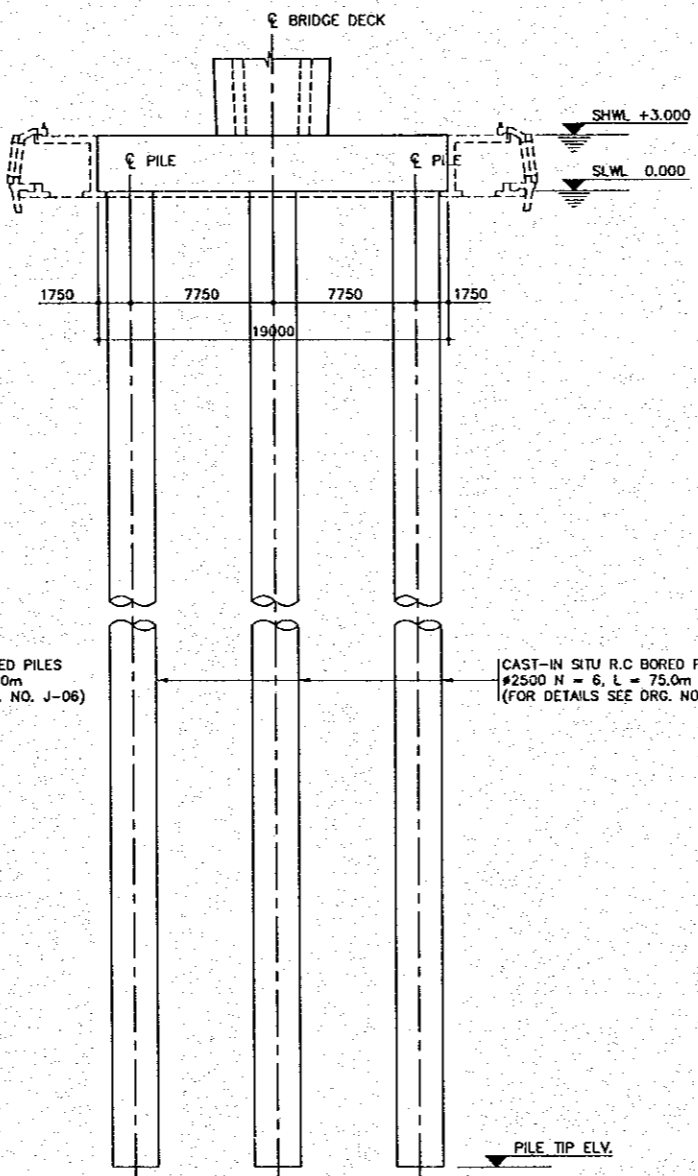
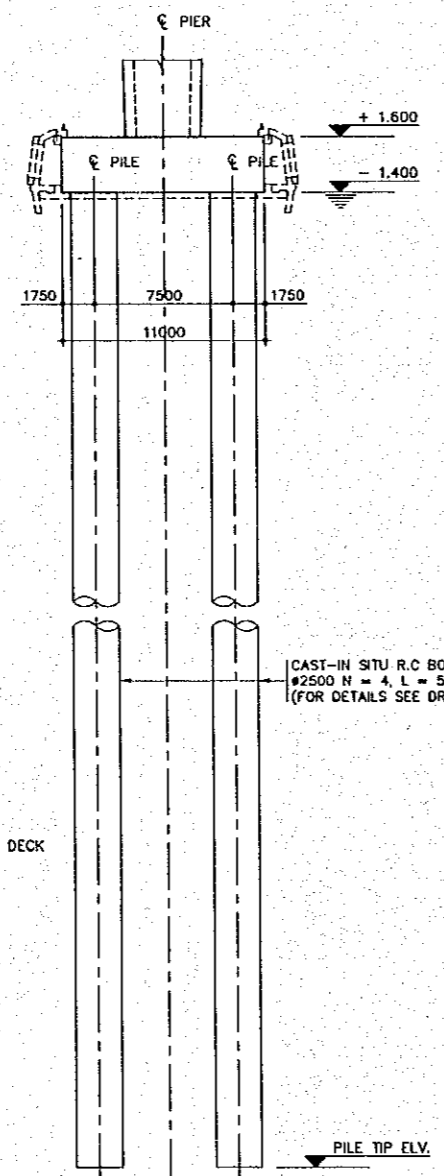
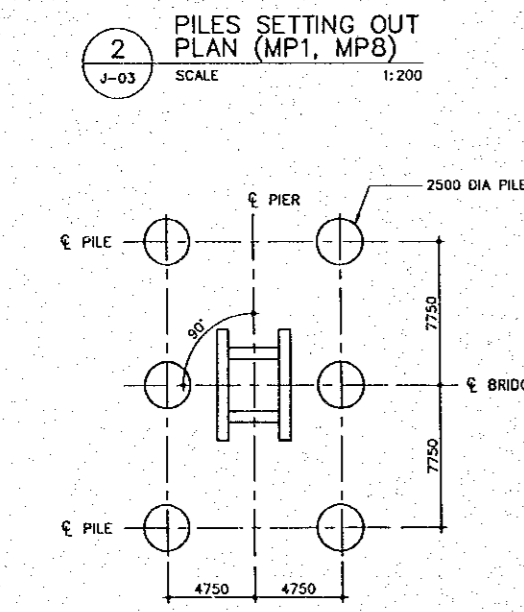
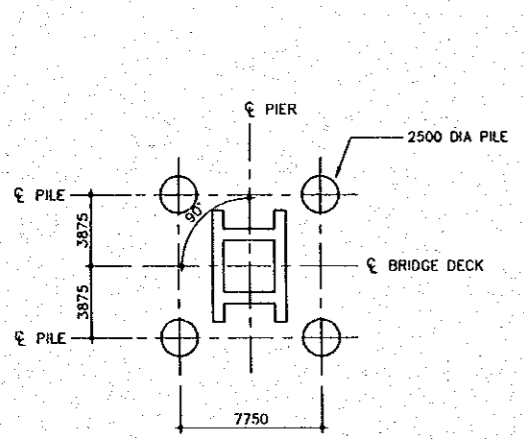
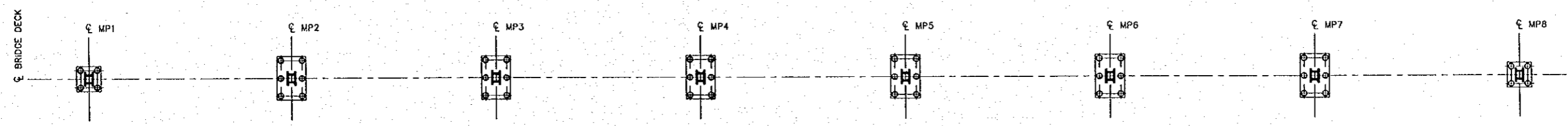


TABLE OF SETTING OUT DATA

PIER	PIER SOP		PILE TIP ELEVATION
	EASTING	NORTHING	
MP1	15285.6243	7636.5231	-56.400
MP2	15354.5642	7624.3864	-75.000
MP3	15453.0497	7607.0484	-75.000
MP4	15551.5351	7589.7103	-75.000
MP5	15650.0206	7572.3722	-75.000
MP6	15748.5061	7555.0341	-75.000
MP7	15846.9916	7537.6960	-75.000
MP8	15915.9314	7525.5593	-56.400

NOTE :
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG. NO. J-01.

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

GENERAL ARRANGEMENT OF TYPICAL
PIER & FOUNDATION

SCALE
AS SHOWN

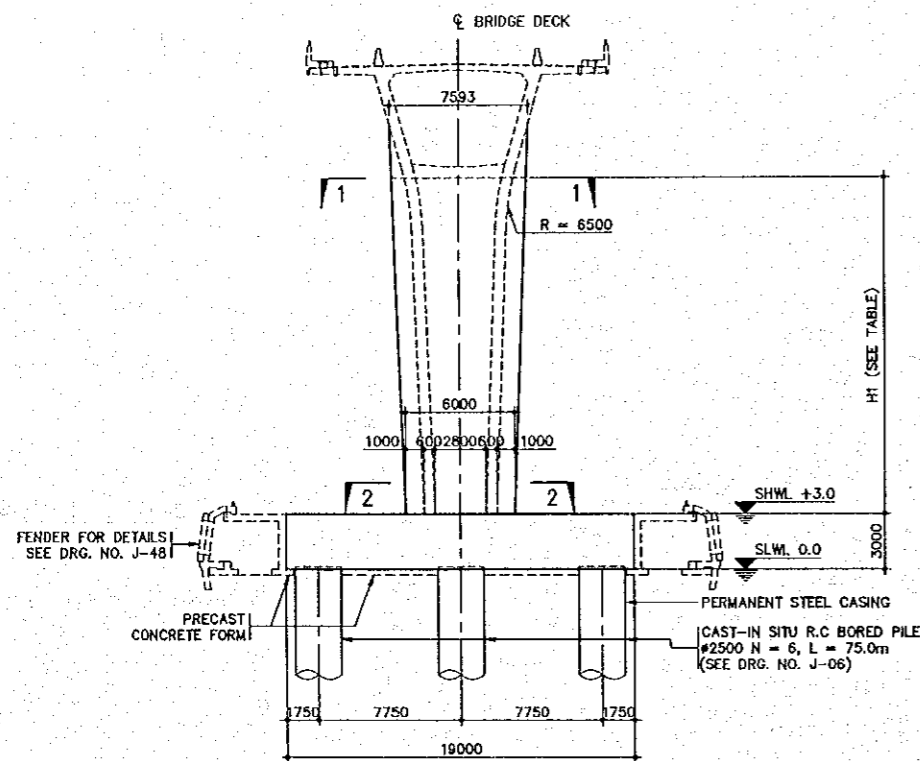
SHEET NO.
J-04

TABLE OF PIER LEVELS AND HEIGHTS

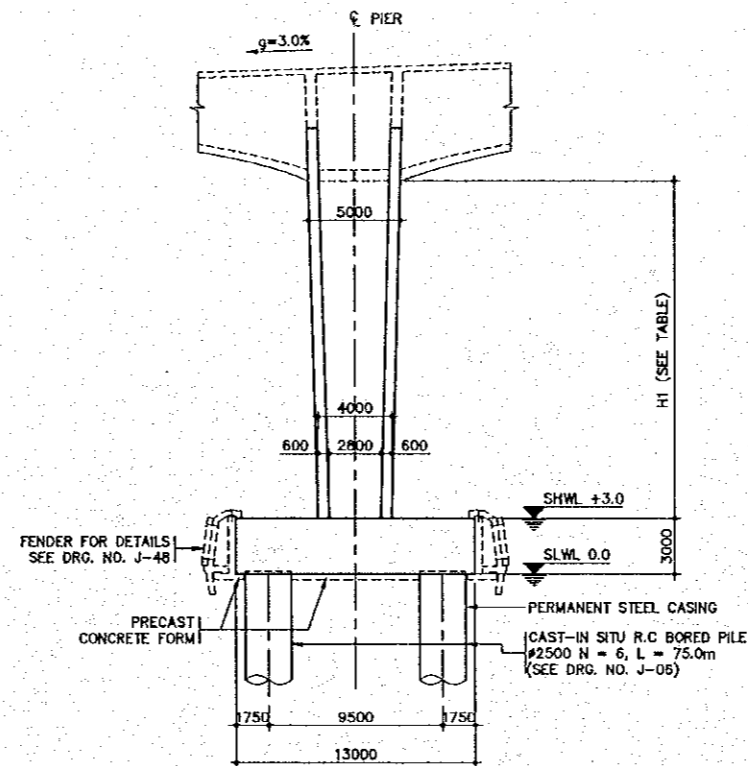
PIER	MP2	MP3	MP4	MP5	MP6	MP7
H 1 (m)	10.940	13.940	16.940	16.940	13.940	10.940
B1 (m)	0.646	0.671	0.689	0.689	0.671	0.646
B (m)	7291.6	7342.4	7378.6	7378.6	7342.4	7291.6

NOTES :

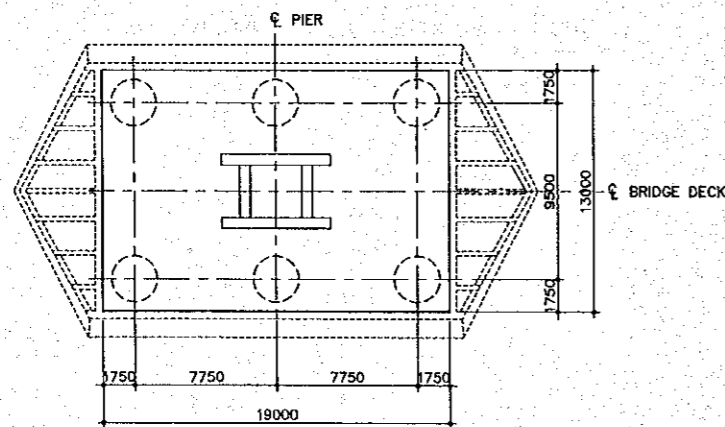
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. J-03.
2. CONCRETE GRADES TO BE AS FOLLOW
PILE CAP CLASS 40/25
PIER CLASS 40/25
3. FOR RC DETAILS REFER TO DRAWING NO. J-09.



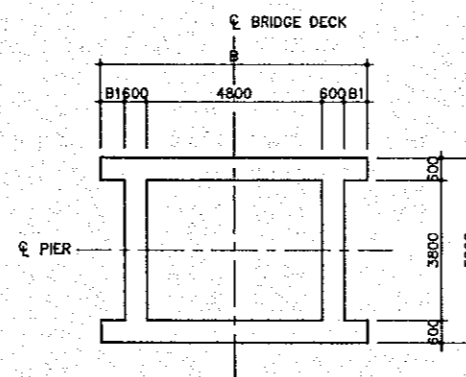
1
ELEVATION ON TYPICAL PIER
(PIERS MP2 THROUGH MP7)
SCALE 1:200



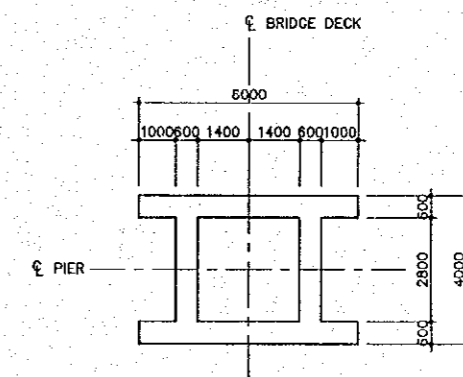
2
SIDE ELEVATION ON TYPICAL PIER
(PIERS MP2 THROUGH MP7)
SCALE 1:200



3
PLAN ON PIER CAP
(PIERS MP2 THROUGH MP7)
SCALE 1:200



4
SECTION 1-1
SCALE 1:100

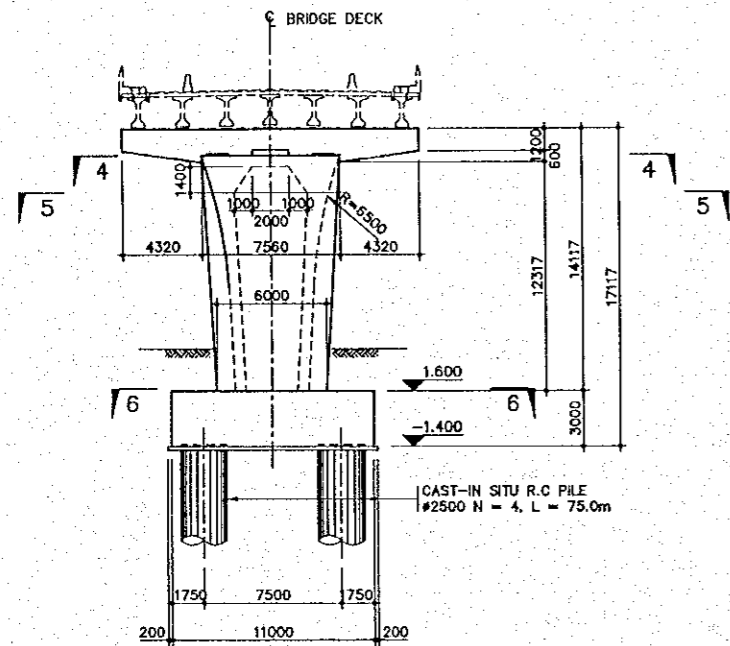


5
SECTION 2-2
SCALE 1:100

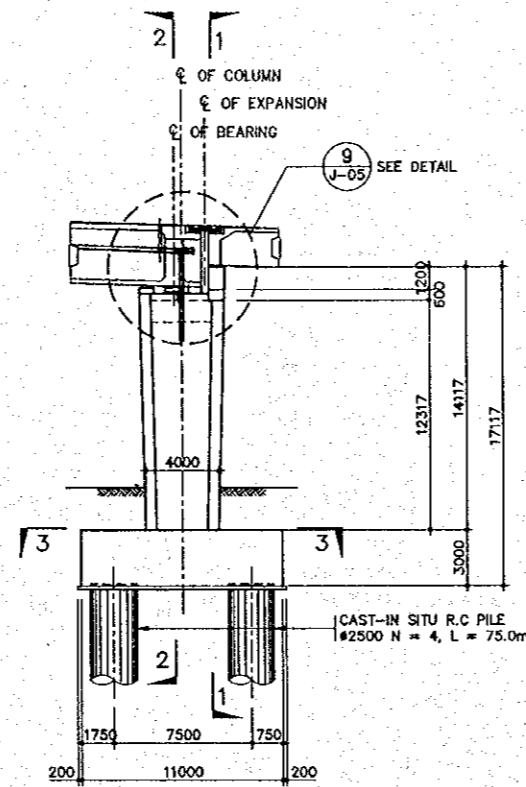
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

GENERAL ARRANGEMENT OF MP1 & MP8
PIER & FOUNDATIONS

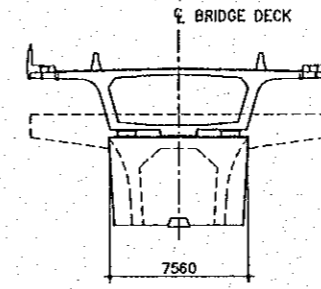
SCALE	SHEET NO.
AS SHOWN	J-05



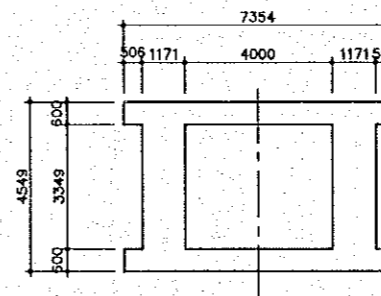
1 SECTION 1-1
SCALE 1:200



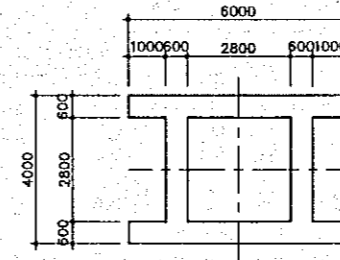
2 LONGITUDINAL
SCALE 1:200



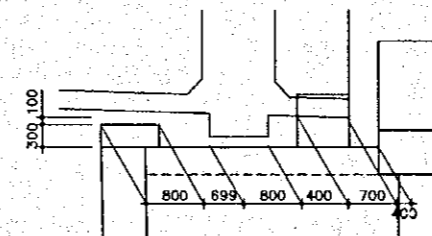
3 SECTION 2-2
SCALE 1:200



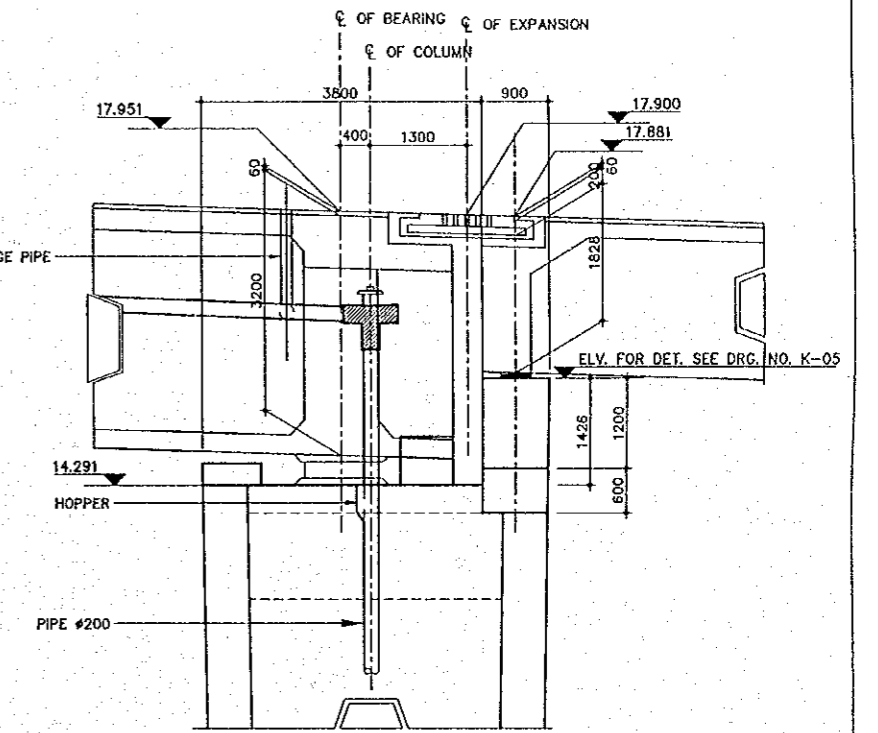
6 SECTION 5-5
SCALE 1:100



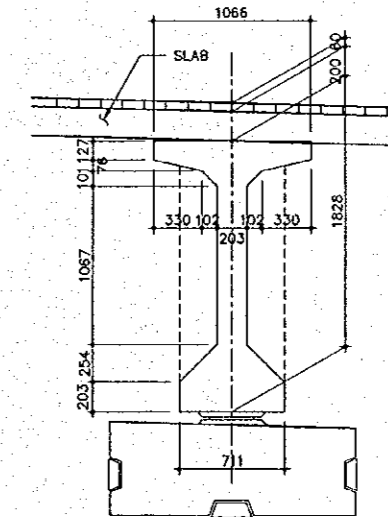
7 SECTION 6-6
SCALE 1:100



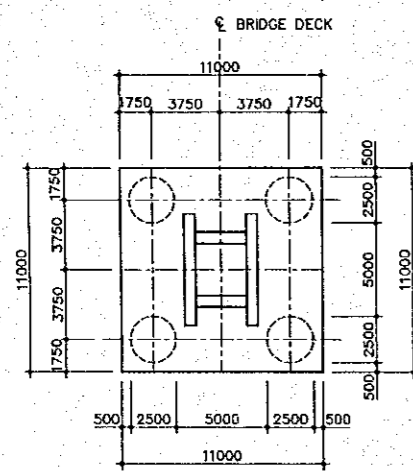
8 SECTION A-A
SCALE 1:50



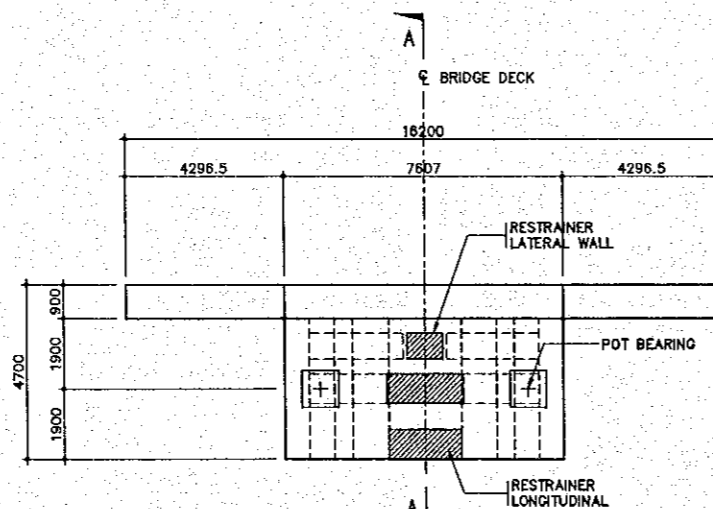
9 DETAIL
SCALE 1:50



10 DETAIL 8-8
SCALE 1:25



4 SECTION 3-3
SCALE 1:200



5 SECTION 4-4
SCALE 1:100

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

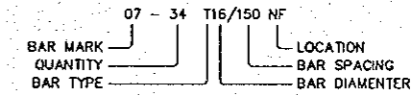
PILE DETAILS & ARRANGEMENT OF
REINFORCEMENT BARS (SHEET 1 OF 2)

SCALE	SHEET NO.
AS SHOWN	J-06

NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. J-03
- PILES TO 2500 DIAMETER BORED CAST IN SITU BASE GROUTED IN ACCORDANCE WITH THE SPECIFICATION.
- CONCRETE GRADE TO BE CLASS 30/20.
- MINIMUM COVER TO REINFORCEMENT TO BE 100mm.
- DESIGN PILE TOE LEVELS ARE TO BE REVIEWED BY THE ENGINEER FOLLOWING COMPLETION OF THE PILE LOAD TESTS AND MAY SUBSEQUENTLY BE ADJUSTED.
- PERMANENT STEEL CASING TO BE USED FROM TOP OF PILE DOWN TO LEVEL - 35.0m MINIMUM WALL THICKNESS TO BE 10mm. ACTUAL WALL THICKNESS TO BE DETERMINED BY CONTRACTOR BASED ON PROPOSED METHOD OF INSTALLATION AND TO BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- REINFORCEMENT TO BE DEFORMED BAR TO AASH TO M31 (ASTM A615) GRADE 60 AS NOTED.
- MINIMUM LAP LENGTH TO BE AS FOLLOWS UNLESS SHOWN OTHERWISE:

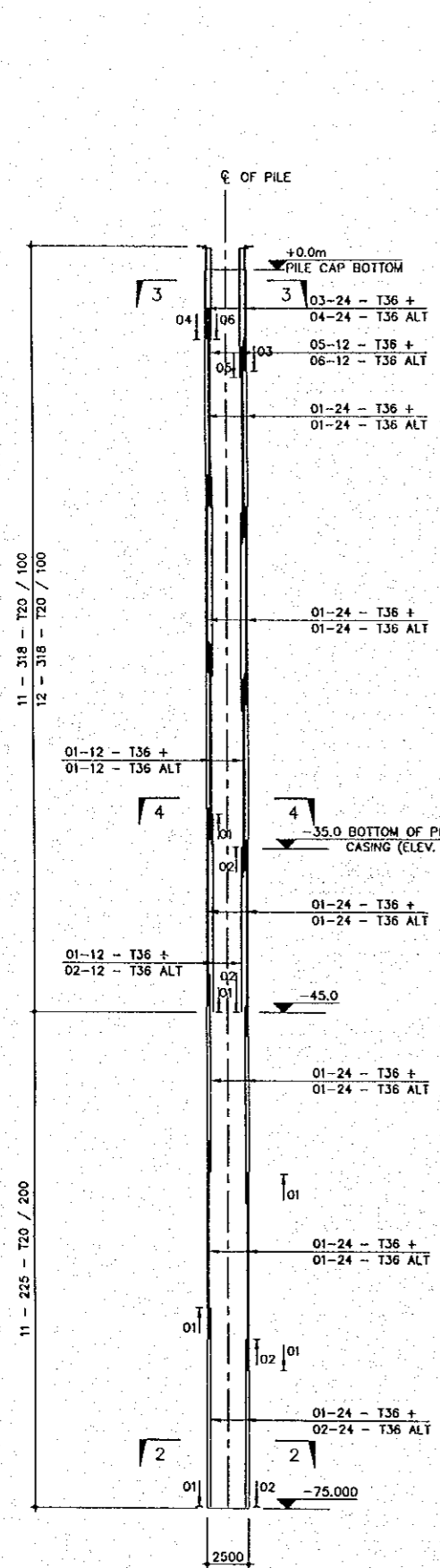
36# = 1900mm	16# = 550mm
32# = 1500mm	12# = 400mm
25# = 950mm	10# = 350mm
20# = 650mm	
- LAP LENGTHS BASED ON SMALLEST DIAMETER BAR AND CALCULATED IN ACCORDANCE WITH AASHTO ARTICLE 8.32, ASSUMING BAR TO BE FULLY STRESSED.
- REINFORCEMENT TO BE ANCHORED USING DEVELOPMENT LENGTHS CALCULATED IN ACCORDANCE WITH AASH TO ARTICLE 8.25, ASSUMING BAR TO BE FULLY STRESSED.
- KEY TO REINFORCEMENT NOMENCLATURE:



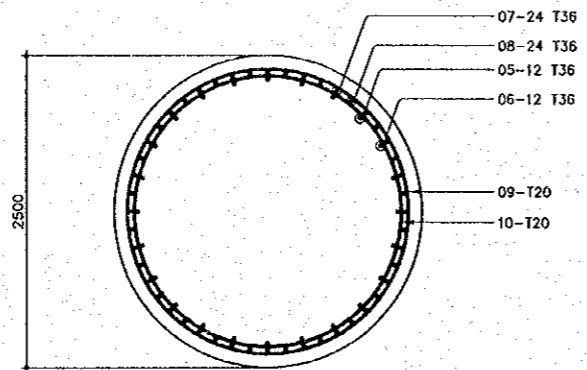
T = GRADE 60 BARS
 R = GRADE 40 BARS

ABBREVIATIONS: - NF = NEAR FACE; FF = FAR FACE;
 EE = EACH FACE; T = TOP; B = BOTTOM;
 STAGG = STAGGERED; ALT = ALTERNATE SPACING;
 ABR = ALTERNATE BARS REVERSED.

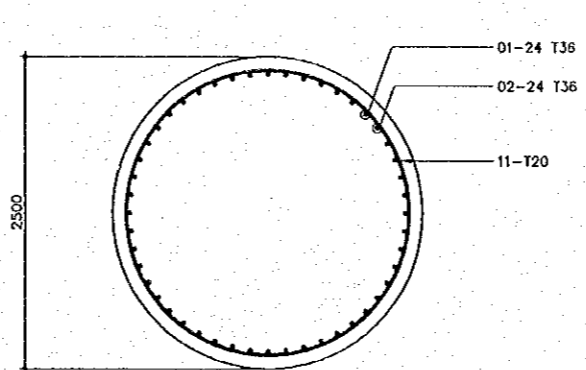
- FOR PILE SETTING OUT INFORMATION REFER TO DRG. NO. J-03
- FOR GENERAL ARRANGEMENT OF TYPICAL PIERS REFER TO DRG. NO. J-04
- FOR GENERAL ARRANGEMENT OF MP1 & MP8 TO REFER TO DRG. NO. J-05



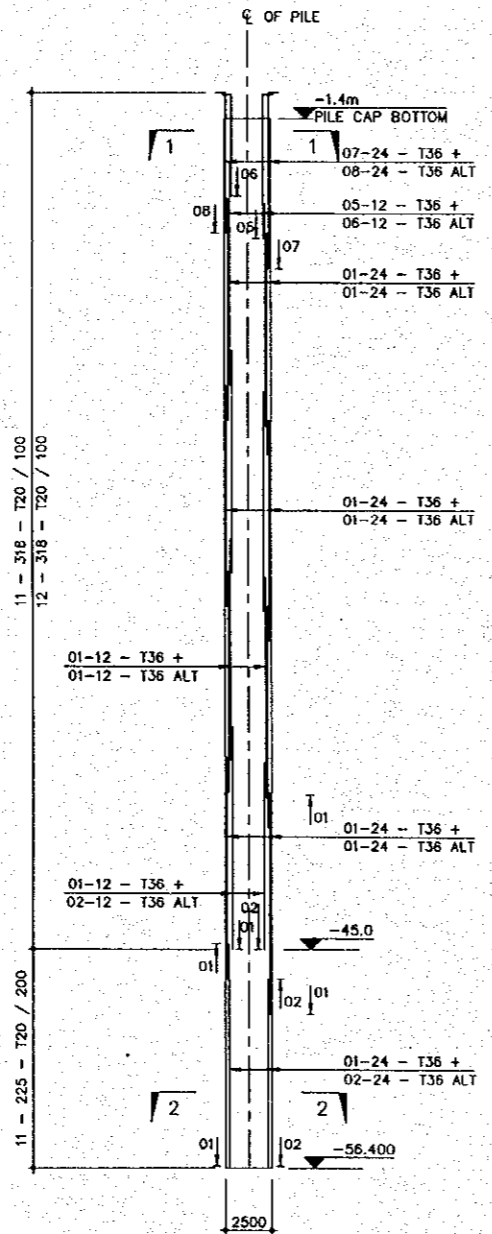
1 PILE DETAIL FOR TYPICAL PIERS
J-06 SCALE 1:200



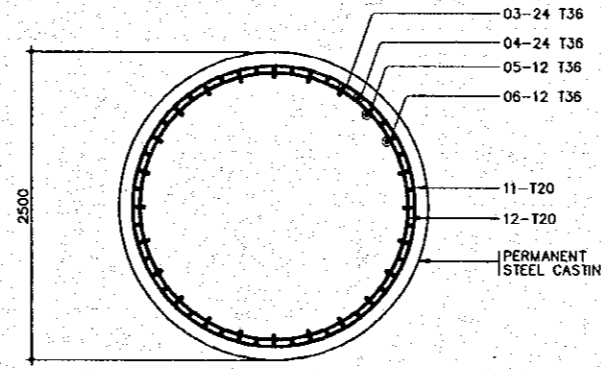
3 SECTION 1-1
J-06 SCALE 1:30



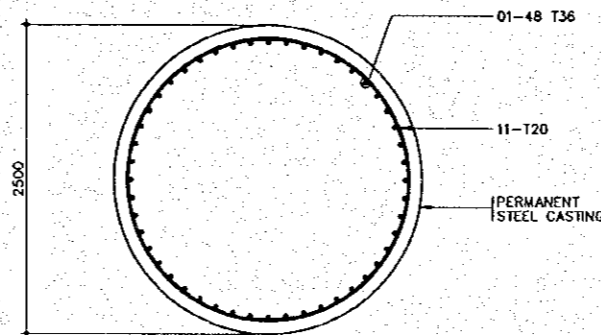
4 SECTION 2-2
J-06 SCALE 1:30



2 PILE DETAIL FOR MP1 & MP8
J-06 SCALE 1:200



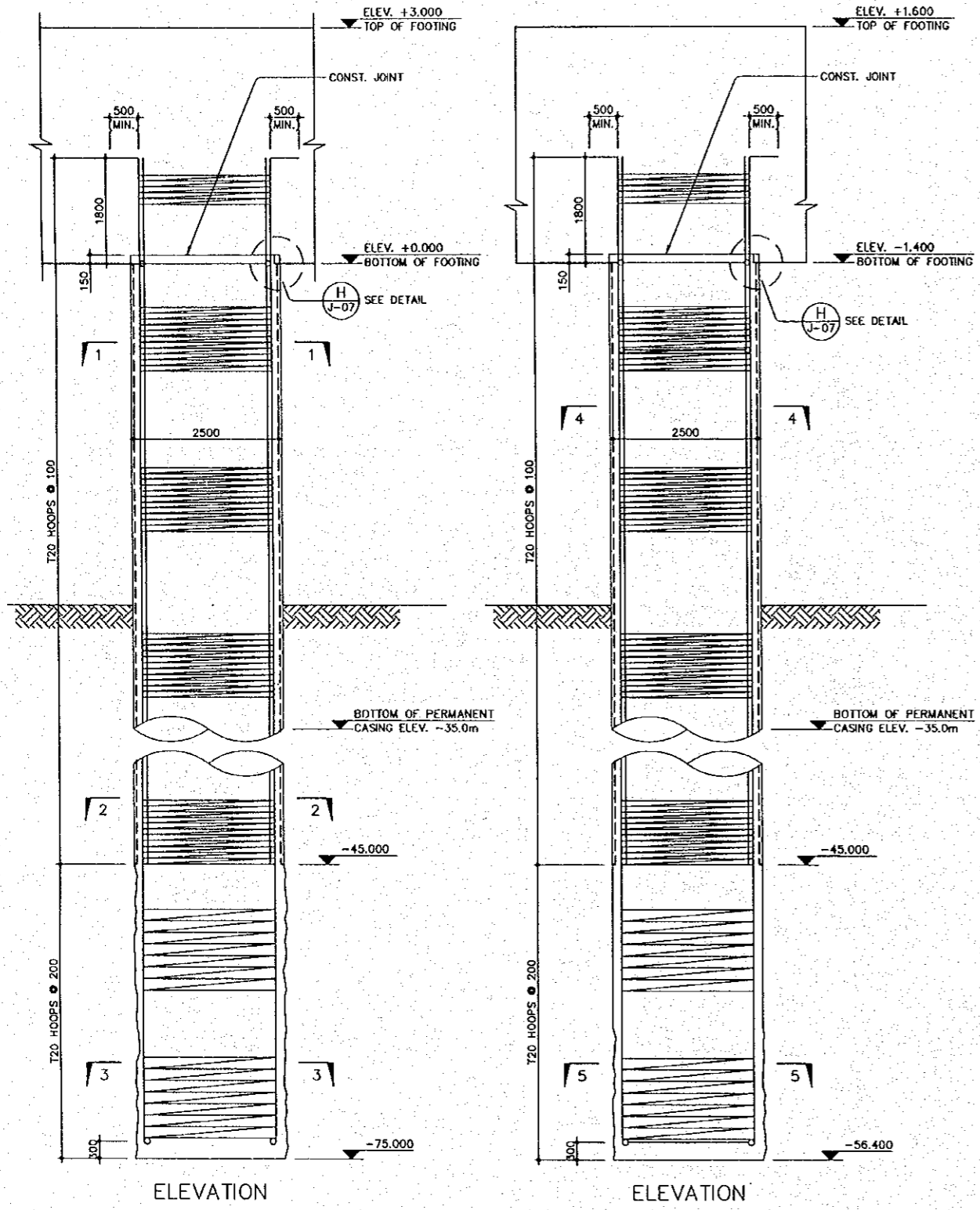
5 SECTION 3-3
J-06 SCALE 1:30



6 SECTION 4-4
J-06 SCALE 1:30

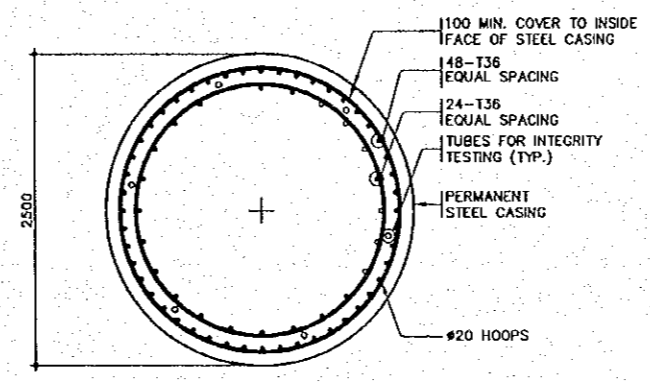
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

PILE DETAILS & ARRANGEMENT OF REINFORCEMENT BARS (SHEET 2 OF 2)	SCALE	SHEET NO.
	AS SHOWN	J-07

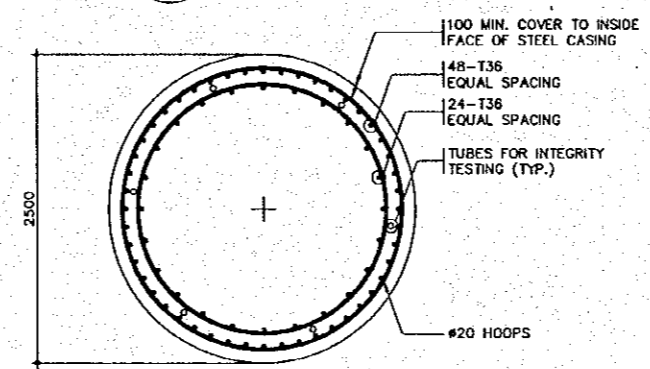


A TYPICAL BORED PILE FOR PIER (PIERS MP2 THROUGH MP7)
SCALE 1:50

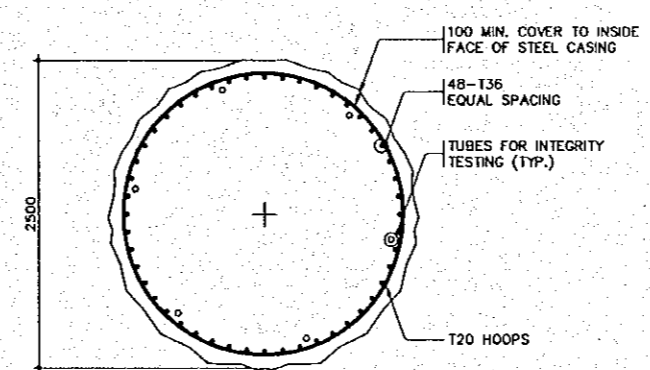
B TYPICAL BORED PILE FOR MP1 & MP8
SCALE 1:50



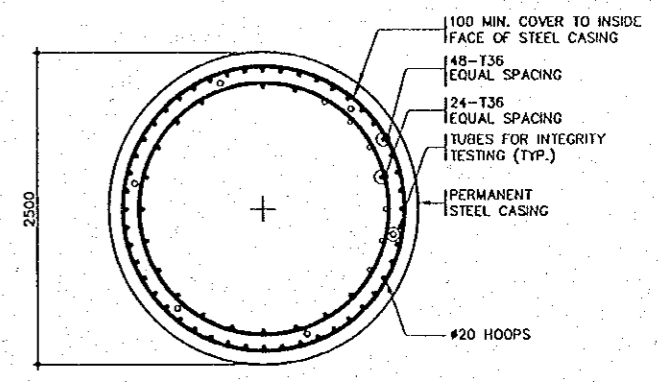
C SECTION 1-1
SCALE 1:30



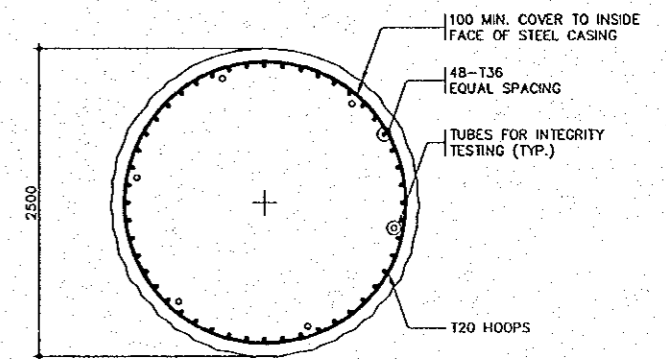
D SECTION 2-2
SCALE 1:30



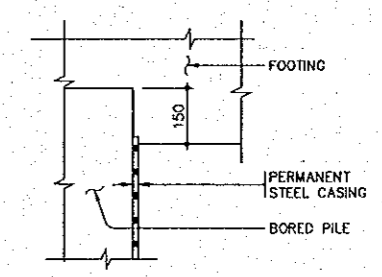
E SECTION 3-3
SCALE 1:30



F SECTION 4-4
SCALE 1:30



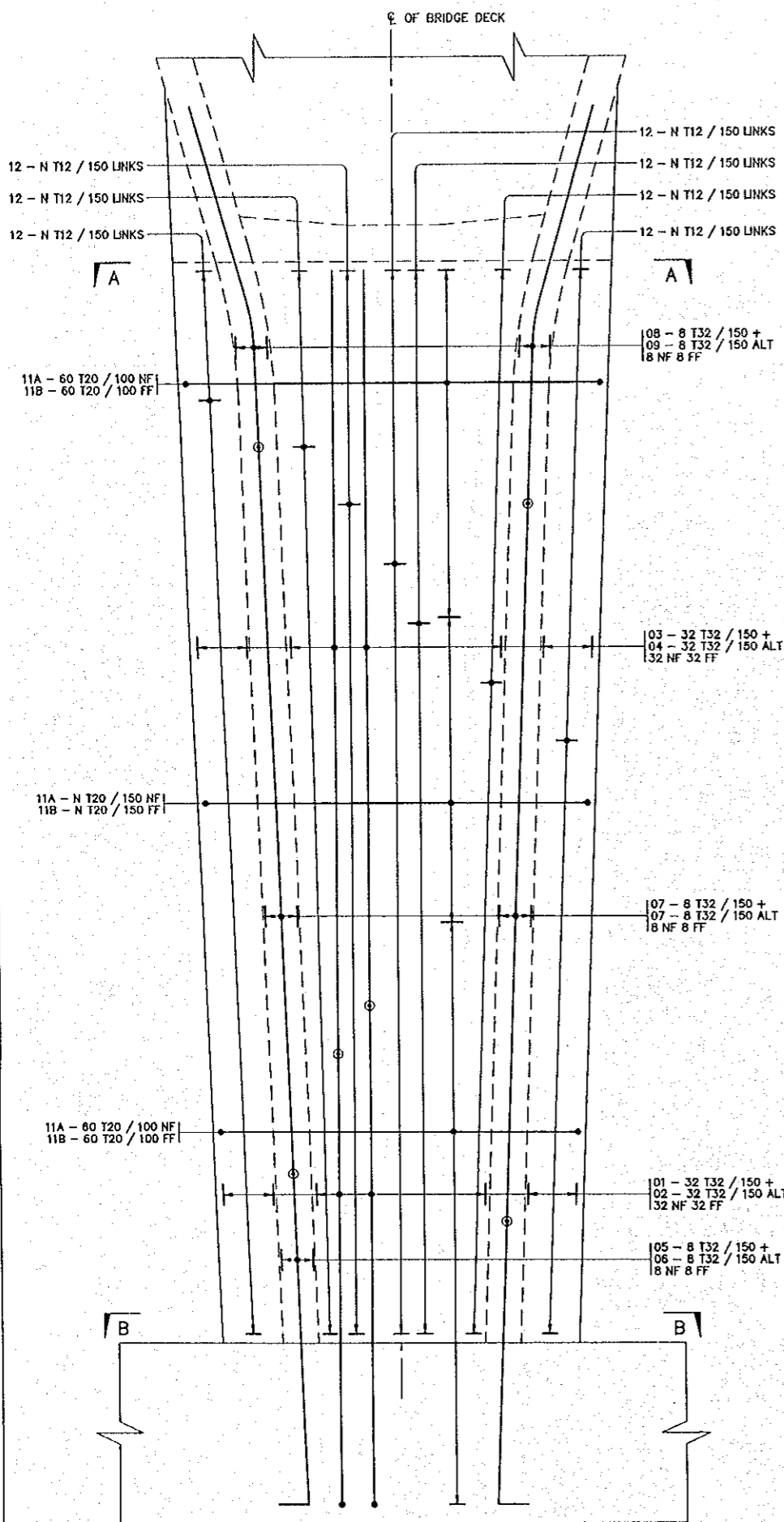
G SECTION 5-5
SCALE 1:30



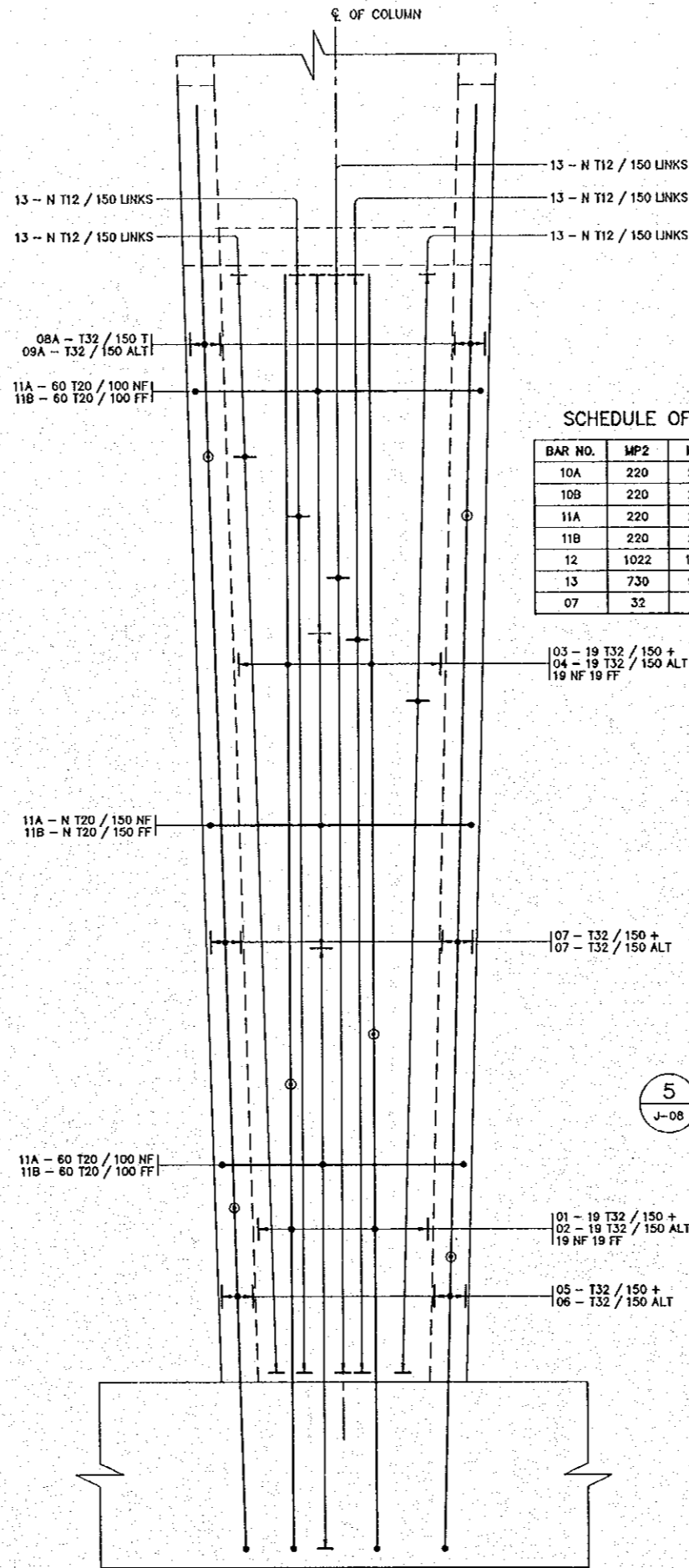
H DETAIL
SCALE 1:20

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)
RC DETAILS OF TYPICAL PILE CAP
(SHEET 1 OF 2)

SCALE AS SHOWN SHEET NO. J-08



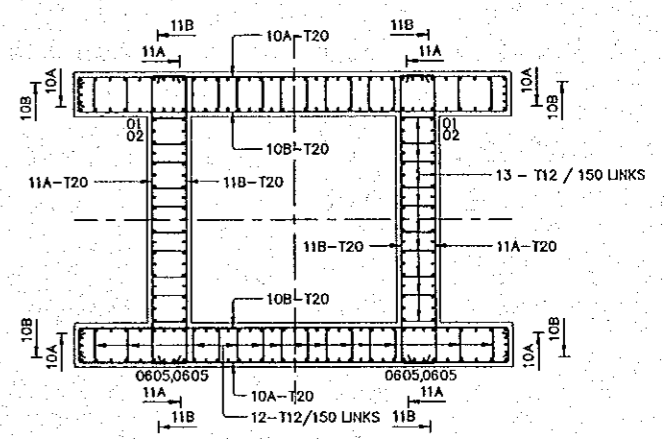
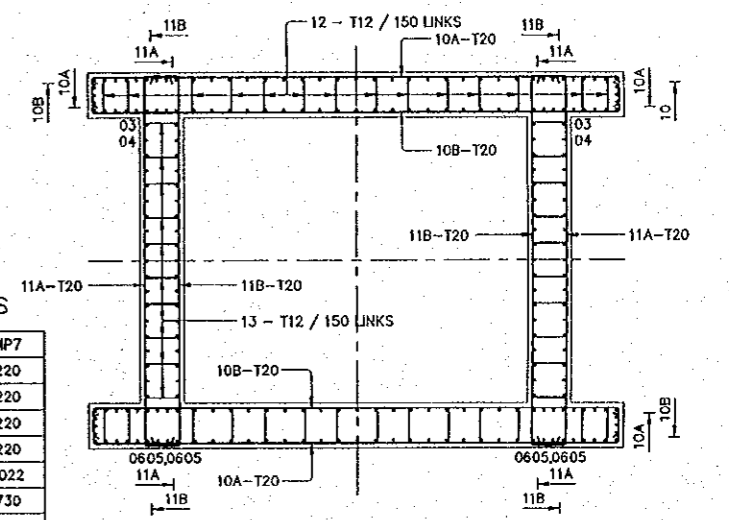
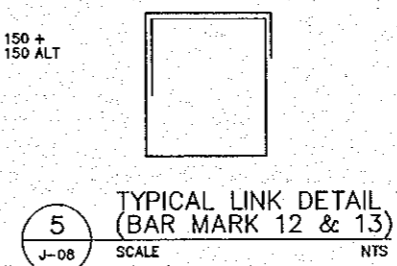
1 ELEVATION
SCALE 1:50



2 SIDE ELEVATION
SCALE 1:50

SCHEDULE OF VARYING BAR QUANTITIES

BAR NO.	MP2	MP3	MP4	MP5	MP6	MP7
10A	220	266	306	306	266	220
10B	220	266	306	306	266	220
11A	220	266	306	306	266	220
11B	220	266	306	306	266	220
12	1022	1302	1582	1582	1302	1022
13	730	930	1130	1130	930	730
07	32	32	32	32	32	32

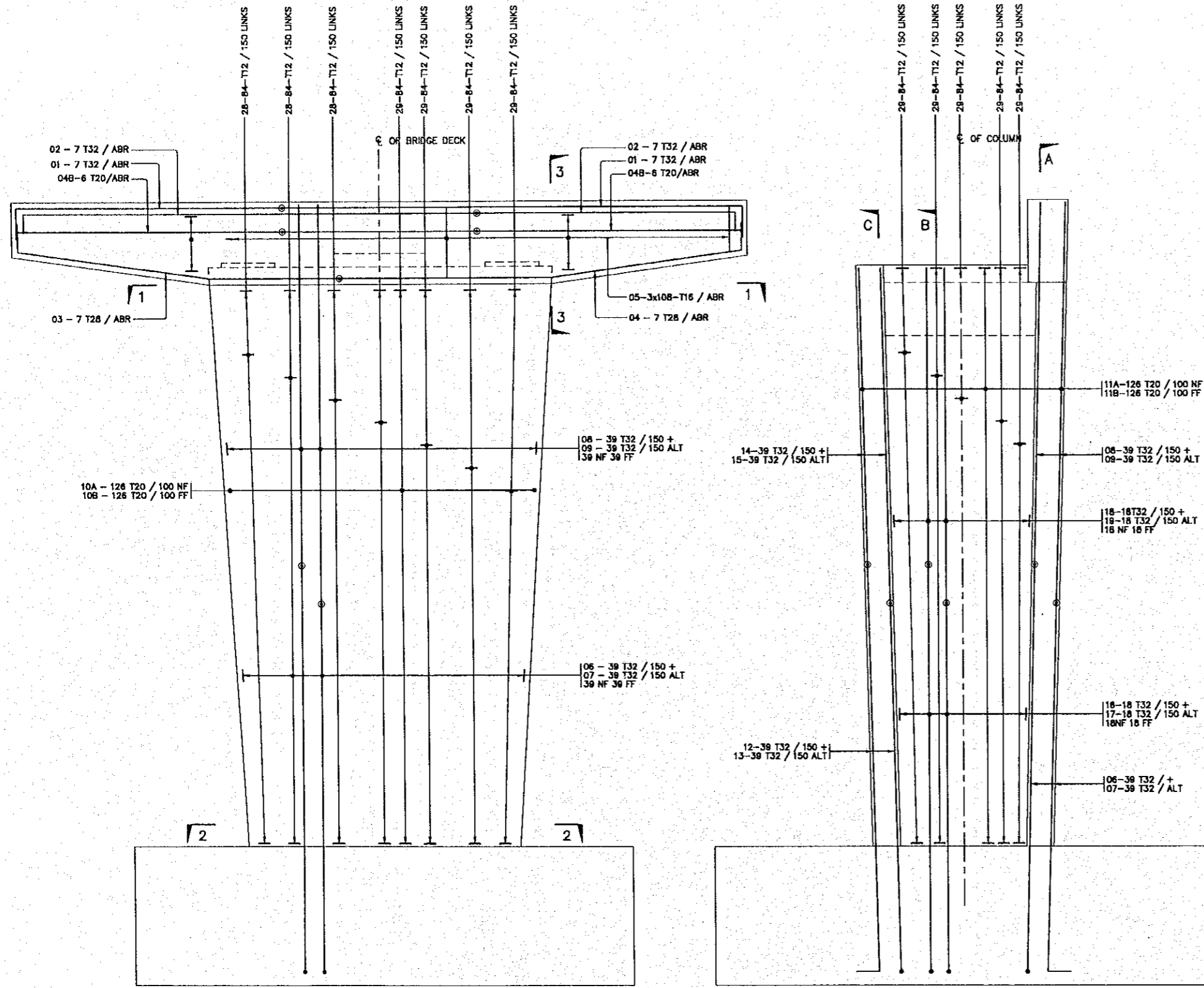


- NOTES :
- ALL DIMENSIONS ARE IN MILLIMETER UNLESS MENTIONED OTHERWISE.
 - 28 DAYS CYLINDER STRENGTH OF CONCRETE SHALL BE 40 MPa.
 - REINFORCEMENT TO BE DEFORMED BARS TO AASHTO M31 (ASTM A615) GRADE 60.
 - NOT ALL REINFORCEMENT ARE NECESSARILY SHOWN IN ANY VIEW.
 - MINIMUM CLEAR COVER TO REINFORCEMENT :
 - (a) PILE CAP, BOTTOM = 150mm, TOP AND SIDE = 65mm,
 - (b) VERTICAL MEMBER = 65mm.
 - (c) PILE : STIRRUP = 90, PRIMARY BAR = 100.
 - MINIMUM LAP LENGTHS TO BE AS FOLLOW :
 - FOR 50% SPLICE
22# = 710mm, 20# = 630mm, 16# = 500mm, 12# = 380mm.
 - FOR 75 TO 100% SPLICE
22# = 930mm, 20# = 820mm, 16# = 660mm, 12# = 490mm.
 LAP LENGTH BASED ON SMALLEST DIAMETER BAR AND CALCULATED IN ACCORDANCE WITH AASHTO ARTICLE 8.32, ASSUMING BAR TO BE FULLY STRESSED.
 - KEY TO REINFORCEMENT NOMENCLATURE:
 - A=ABUTMENT, S=APPROACH SLAB
 - P = PILE.
 - BAR MARK
 - QUANTITY
 - A5 - 5 - T16/150 EF
 - LOCATION/COMMENT
 - SPACING
 - BAR DIAMETER
 - QUANTITY
 - T=GRADE 60 BAR
 - R=GRADE 40 BAR
- ABBREVIATION:-
 NF = NEAR FACE; FF = FAR FACE; BF = BOTH FACE; EF = EARTH FACE;
 T = TOP; B = BOTTOM; STAGG = STAGGERED LAP; ALT = ALTERNATE SPACING.

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

RC DETAILS OF MP1, (MP8) AND
PILE CAP (SHEET 1 OF 3)

SCALE	SHEET NO.
AS SHOWN	J-10



1 SECTION A-A
SCALE 1:50

2 SIDE ELEVATION
SCALE 1:50

3 SECTION 1-1
SCALE 1:50

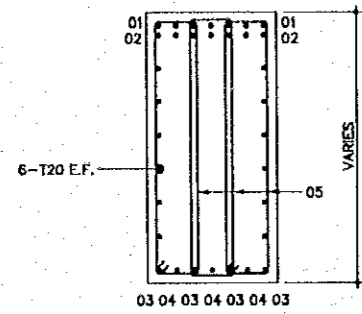
4 SECTION 2-2
SCALE 1:50

- NOTES :
- ALL DIMENSIONS ARE IN MILLIMETER UNLESS MENTIONED OTHERWISE.
 - 28 DAYS CYLINDER STRENGTH OF CONCRETE SHALL BE 30 MPa.
 - REINFORCEMENT TO BE DEFORMED BARS TO AASHTO M31 (ASTM A615) GRADE 60.
 - NOT ALL REINFORCEMENT ARE NECESSARILY SHOWN IN ANY VIEW.
 - MINIMUM CLEAR COVER TO REINFORCEMENT :
(a) PILE CAP, BOTTOM = 150mm, TOP AND SIDE = 65mm,
(b) VERTICAL MEMBER = 65mm.
(c) PILE : STIRRUP = 80, PRIMARY BAR = 100.
 - MINIMUM LAP LENGTHS TO BE AS FOLLOW :
FOR 50% SPLICE
22# = 710mm, 20# = 630mm, 18# = 500mm, 12# = 380mm.
FOR 75 TO 100% SPLICE
22# = 930mm, 20# = 820mm, 18# = 660mm, 12# = 490mm.
LAP LENGTH BASED ON SMALLEST DIAMETER BAR AND CALCULATED IN ACCORDANCE WITH AASHTO ARTICLE B.32, ASSUMING BAR TO BE FULLY STRESSED.
 - KEY TO REINFORCEMENT NOMENCLATURE:
A=ABUTMENT, S=APPROACH SLAB
P = PILE.
BAR MARK QUANTITY
AS - 5 - T16/150 EF
LOCATION/COMMENT
SPACING
BAR DIAMETER
T=GRADE 60 BAR
R=GRADE 40 BAR
ABBREVIATION:-
NF = NEAR FACE; FF = FAR FACE; BF = BOTH FACE; EF = EARTH FACE;
T = TOP; B = BOTTOM; STAGG = STAGGERED LAP, ALT = ALTERNATE SPACING.
ABR = ALTERNATE BAR REVERSED.

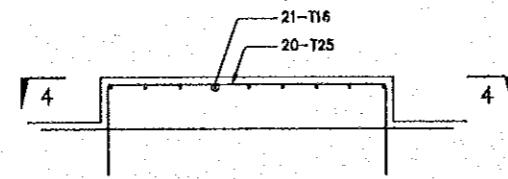
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

RC DETAILS OF MP1, (MP8) AND
PILE CAP (SHEET 2 OF 3)

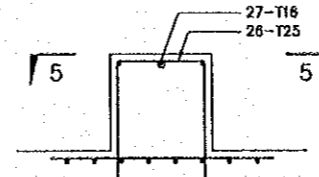
SCALE	SHEET NO.
AS SHOWN	J-10a



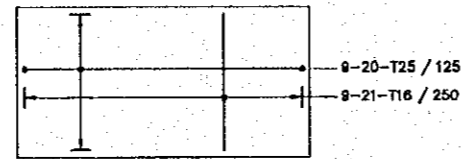
7 SECTION 3-3
SCALE 1:25



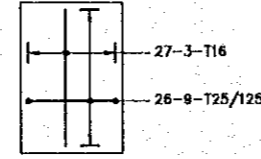
8 RC DETAILS FOR
TRANSVERSE RESTRAINER WALL
SCALE 1:25



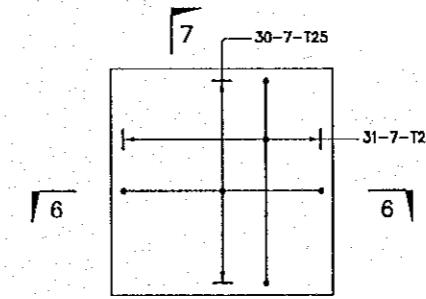
10 RC DETAILS FOR
TRANSVERSE RESTRAINER WALL
SCALE 1:25



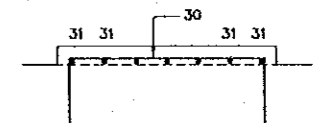
9 SECTION 4-4
SCALE 1:25



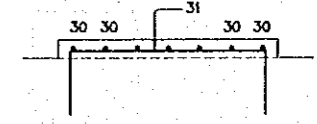
11 SECTION 5-5
SCALE 1:25



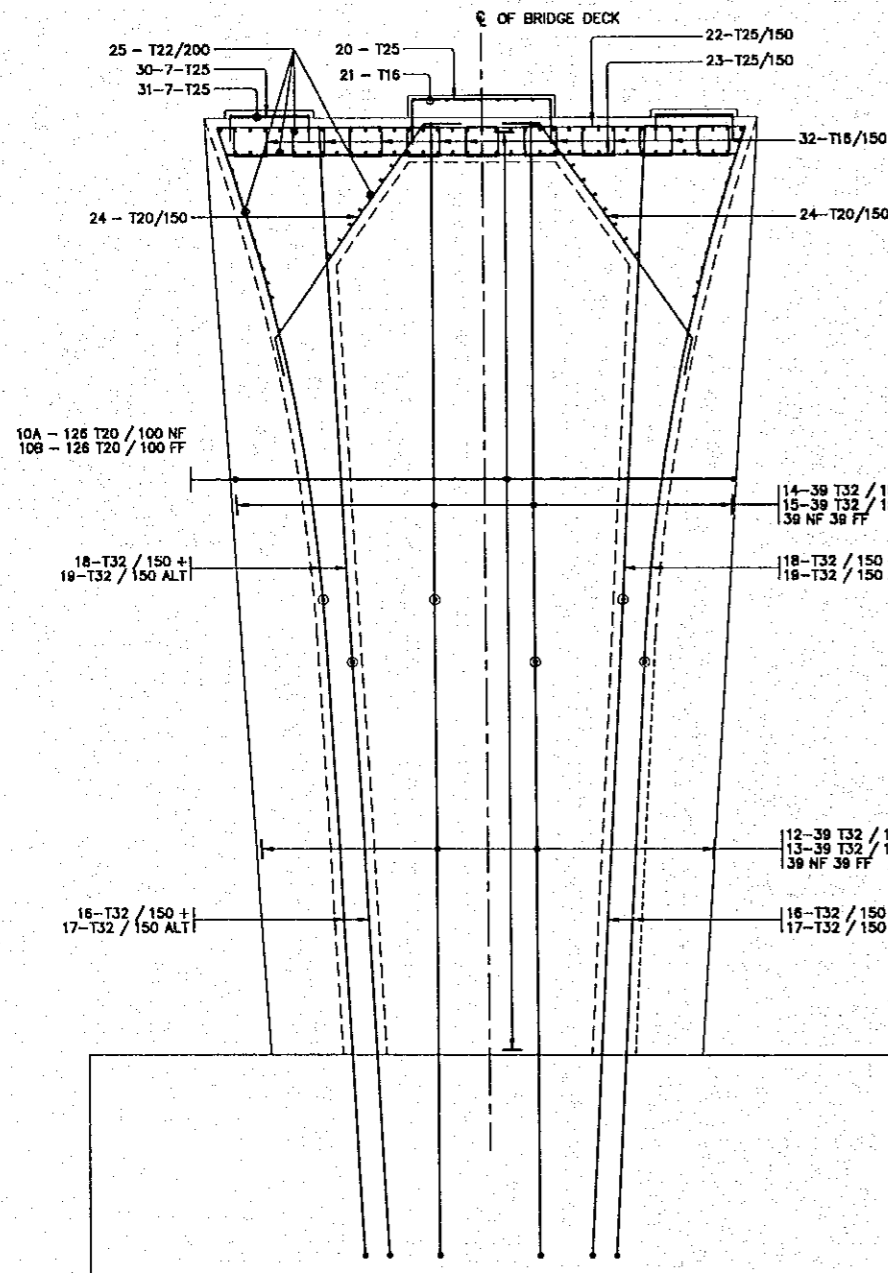
12 PLAN ON BEARING
PLINTH
SCALE 1:20



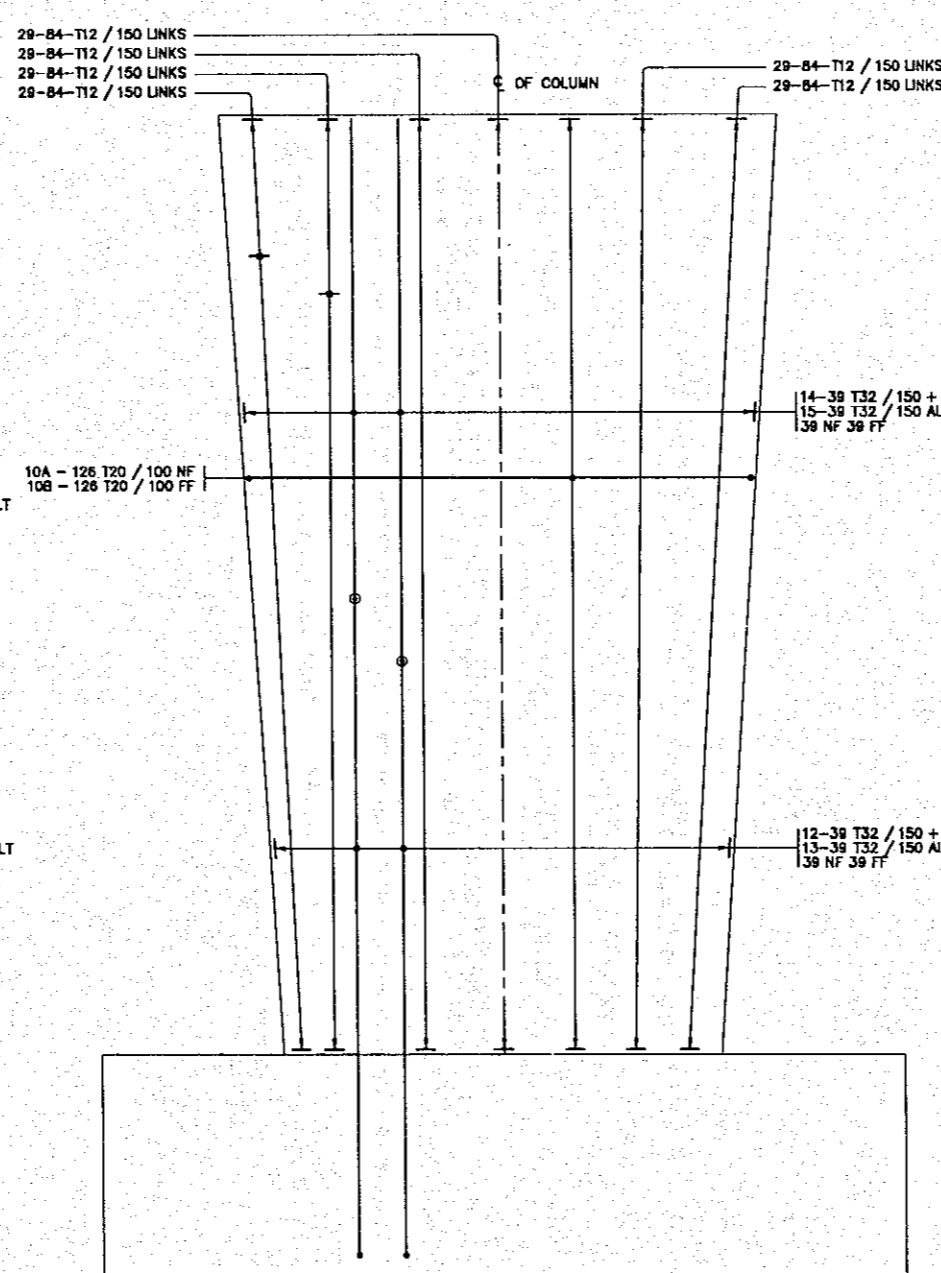
13 SECTION 6-6
SCALE 1:20



13 SECTION 7-7
SCALE 1:20



5 SECTION B-B
SCALE 1:50



6 SECTION C-C
SCALE 1:50

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

RC DETAILS OF MP1, (MP8) AND
PILE CAP (SHEET 2 OF 3)

SCALE	SHEET NO.
AS SHOWN	J-11

NOTES :

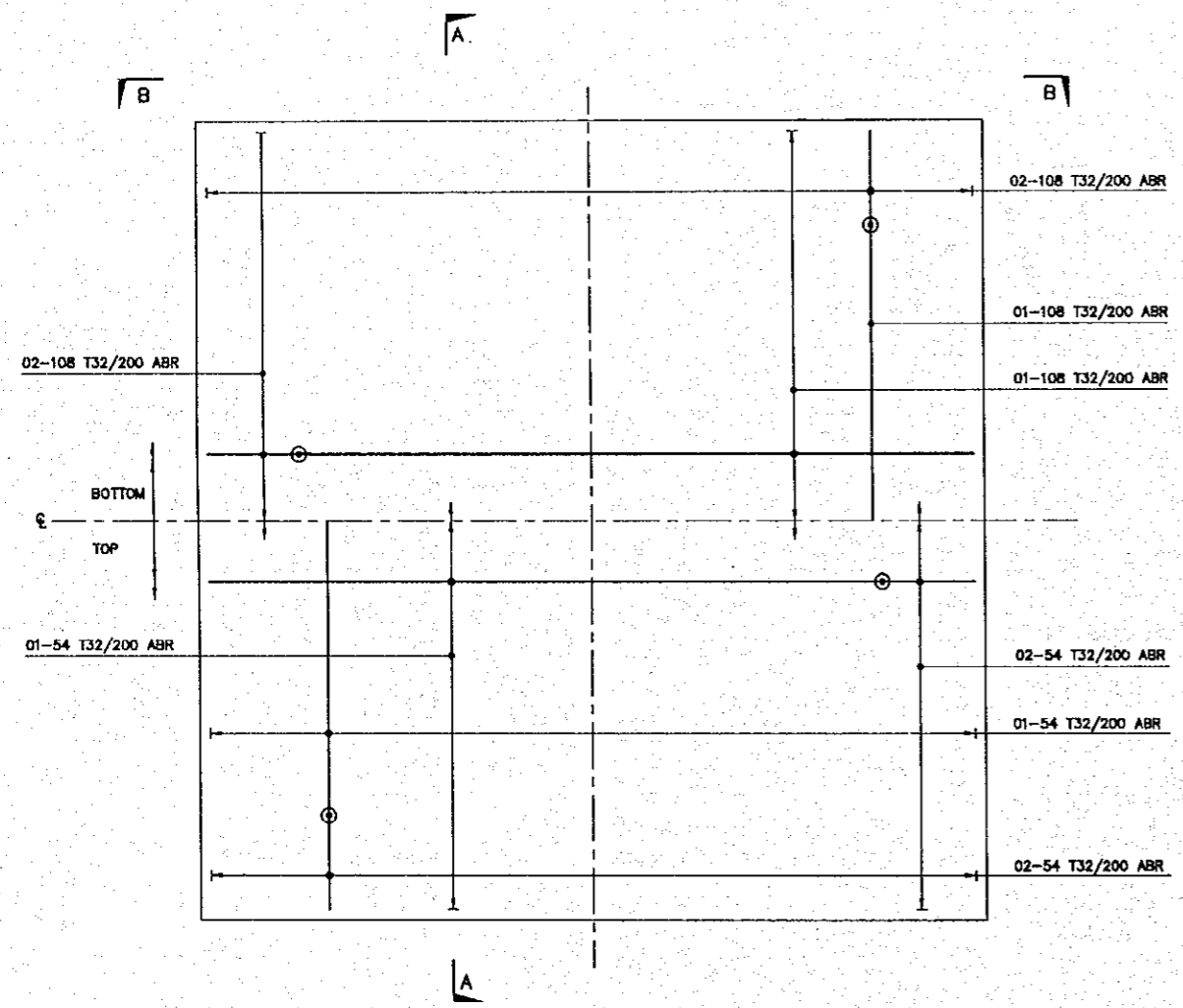
- ALL DIMENSIONS ARE IN MILLIMETER UNLESS MENTIONED OTHERWISE.
- 28 DAYS CYLINDER STRENGTH OF CONCRETE SHALL BE 30 MPa.
- REINFORCEMENT TO BE DEFORMED BARS TO AASHTO M31 (ASTM A615) GRADE 60.
- NOT ALL REINFORCEMENT ARE NECESSARILY SHOWN IN ANY VIEW.
- MINIMUM CLEAR COVER TO REINFORCEMENT :
(a) PILE CAP, BOTTOM = 150mm, TOP AND SIDE = 65mm,
(b) VERTICAL MEMBER = 65mm.
(c) PILE : STIRRUP = 90, PRIMARY BAR = 100.
- MINIMUM LAP LENGTHS TO BE AS FOLLOW :
FOR 50% SPLICE
22# = 710mm, 20# = 630mm, 16# = 500mm, 12# = 380mm.
FOR 75 TO 100% SPLICE
22# = 930mm, 20# = 820mm, 16# = 660mm, 12# = 490mm.
LAP LENGTH BASED ON SMALLEST DIAMETER BAR AND CALCULATED IN ACCORDANCE WITH AASHTO ARTICLE 8.32, ASSUMING BAR TO BE FULLY STRESSED.
- KEY TO REINFORCEMENT NOMENCLATURE:

A=ABUTMENT, S=APPROACH SLAB
P = PILE.

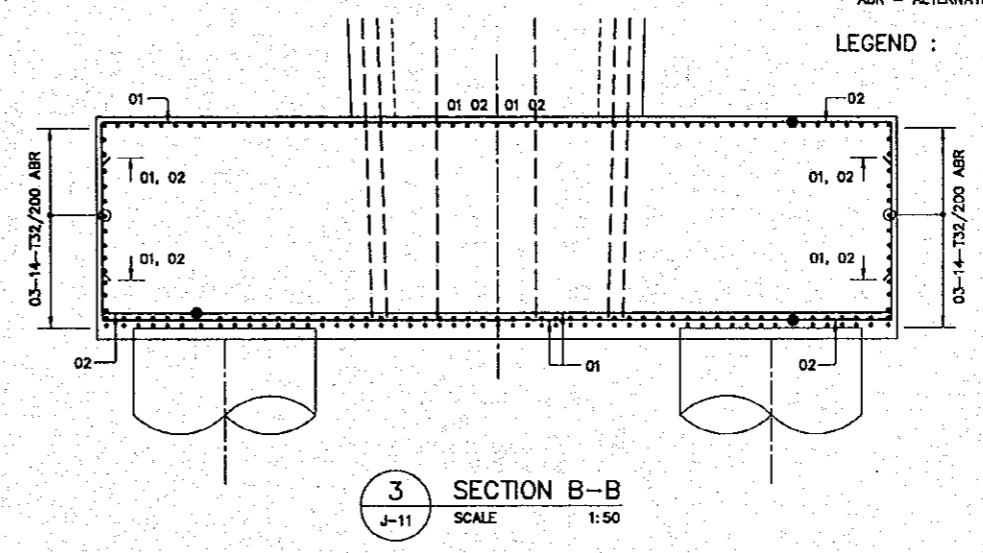
BAR MARK: A5 - 5 -- T16/150 EF
LOCATION/COMMENT: SPACING, BAR DIAMETER
T=GRADE 60 BAR, R=GRADE 40 BAR

ABBREVIATION: -
NF = NEAR FACE; FF = FAR FACE; BF = BOTH FACE; EF = EARTH FACE;
T = TOP; B = BOTTOM; STAGG = STAGGERED LAP, ALT = ALTERNATE SPACING.
ABR = ALTERNATE BAR REVERSED.

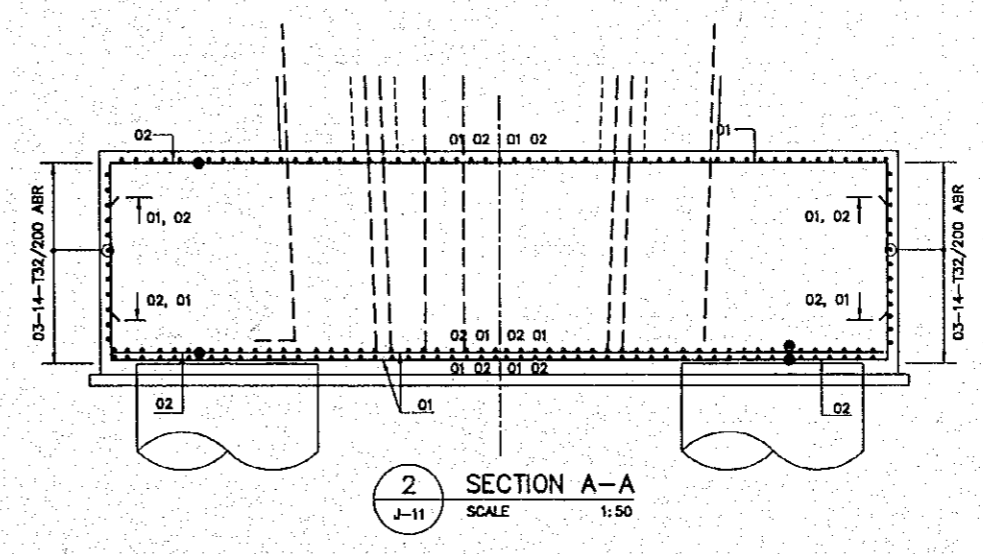
LEGEND : WELDED MARK



1 PLAN OF PILE CAP PIER
SCALE 1:50



3 SECTION B-B
SCALE 1:50

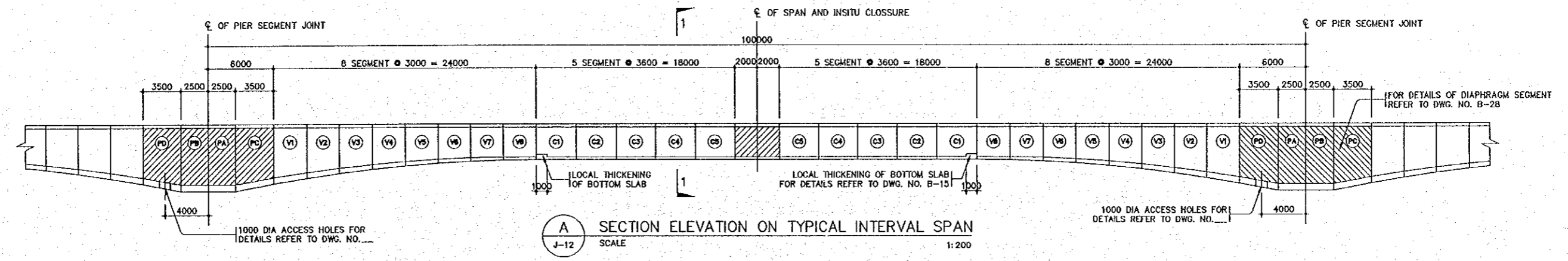


2 SECTION A-A
SCALE 1:50

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

GENERAL ARRANGEMENT OF
DECK SEGMENT (SHEET 1 OF 3)

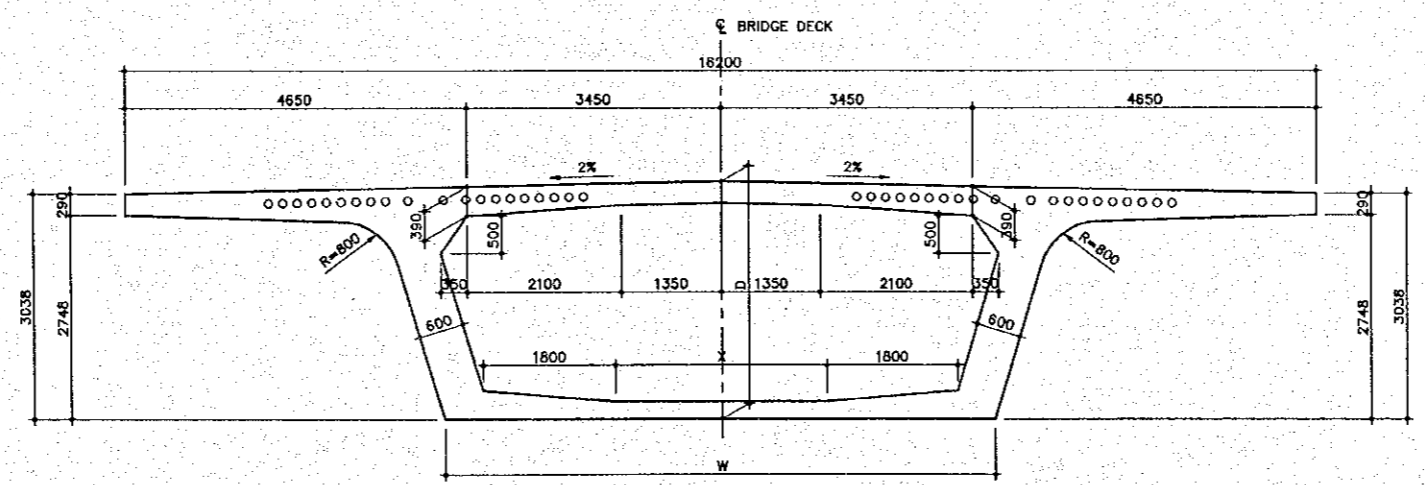
SCALE	SHEET NO.
AS SHOWN	J-12



A SECTION ELEVATION ON TYPICAL INTERVAL SPAN
SCALE 1:200

SCHEDULE OF VARYING SEGMENT DIMENSIONS

SEGMENT TYPE	DISTANCE FROM ϕ SPAN	OVERALL BOX DEPTH 'D'	BOTTOM SLAB WIDE 'W'	DIMENSION 'X'	BOTTOM SLAB THICKNESS 'T'	LONGITUDINAL PRESTRESSING BUSTER TYPES
PA	50000	6000	5800	1400	600	
PC	48000	6000	6204	1400	600	
V1	44000	5333	6507	1776	554	
	41000	4833	6769	2055	515	
V2	38000	4400	6991	2294	476	
V3	35000	4033	7173	2492	436	
V4	32000	3733	7314	2650	397	
V5	29000	3500	7415	2867	358	
V6	26000	3333	7475	2945	319	
V7	23000	3233	7495	2881	279	
V8	19500	3200	7495	2878	240	
C1	16000	3200	7495	2878	240	
C2	12500	3200	7495	2878	240	
C3	9000	3200	7495	2878	240	
C4	5500	3200	7495	2878	240	
C5	2000	3200	7495	2878	240	
C5	2000	3200	7495	2878	240	
C4	5500	3200	7495	2878	240	
C3	9000	3200	7495	2878	240	
C2	12500	3200	7495	2878	240	
C1	16000	3200	7495	2878	240	
V8	19500	3200	7495	2878	240	
V7	23000	3233	7475	2881	279	
V6	26000	3333	7415	2845	319	
V5	29000	3500	7314	2867	358	
V4	32000	3733	7173	2850	387	
V3	35000	4033	6991	2492	436	
V2	38000	4400	6769	2294	476	
V1	41000	4833	6507	2055	515	
	44000	5333	6204	1776	554	
PD	48000	6000	5800	1400	600	
PA	50000	6000	5800	1400	600	

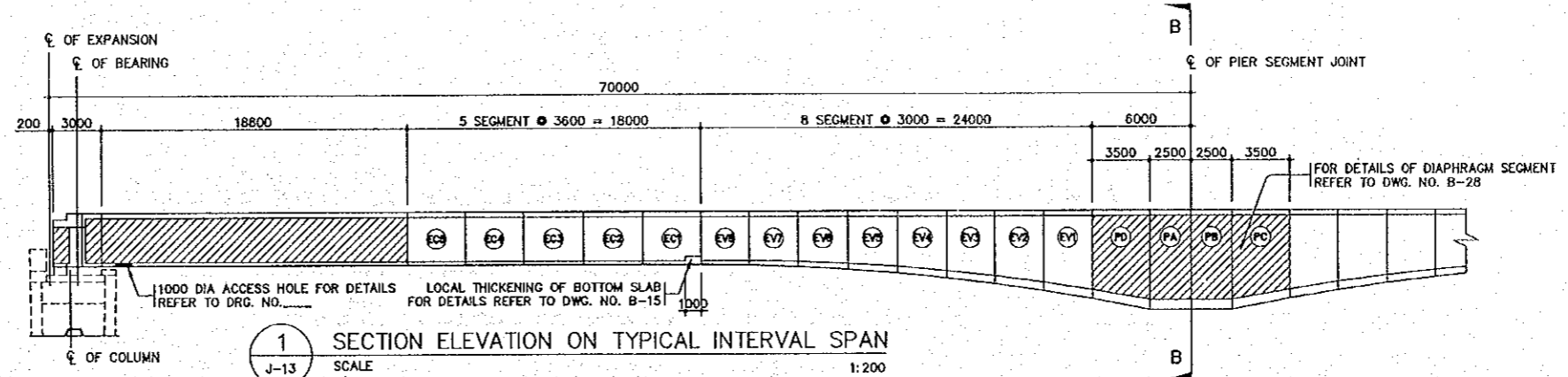


B TYPICAL SECTION 1 - 1
FOR DIMENSION OF 'D', 'W', 'X' & 'T' REFER TO TABLE
SCALE 1:50

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

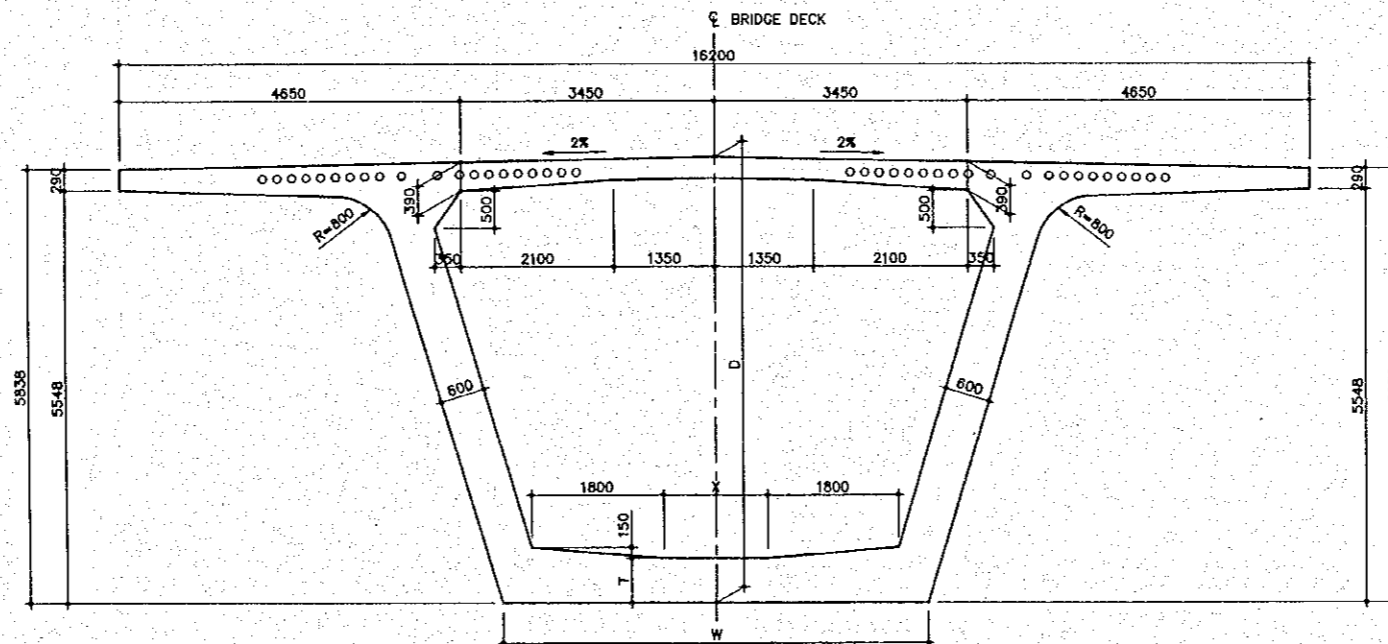
GENERAL ARRANGEMENT OF
DECK SEGMENT (SHEET 2 OF 3)

SCALE	SHEET NO.
AS SHOWN	J-13



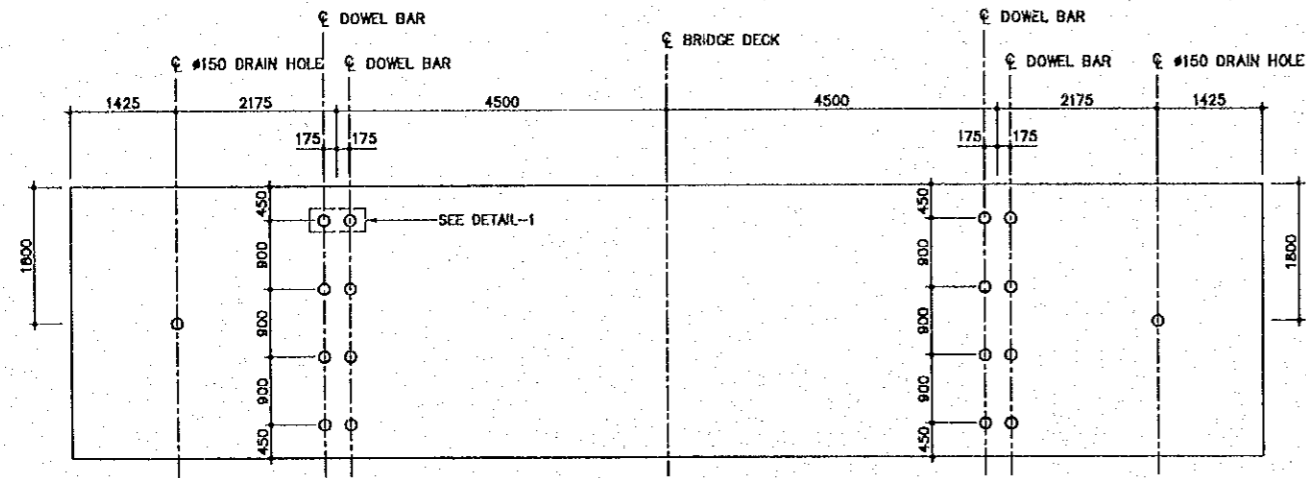
SCHEDULE OF VARYING SEGMENT DIMENSIONS

SEGMENT TYPE	DISTANCE FROM ϕ SPAN	OVERALL BOX DEPTH 'D'	BOTTOM SLAB WIDE 'W'	BOTTOM DIMENSION 'X'	BOTTOM SLAB THICKNESS 'T'	LONGITUDINAL PRESTRESSING ANCHORAGE BULSTER TYPES
AD	19855	3200	7485	2878	240	
EC5	2000	3200	7485	2878	240	
EC4	5500	3200	7485	2878	240	
EC3	9000	3200	7485	2878	240	
EC2	12500	3200	7485	2878	240	
EC1	16000	3200	7485	2878	240	
E8	19500	3200	7485	2878	240	
E7	23000	3233	7475	2861	279	
E6	26000	3333	7415	2845	319	
E5	29000	3500	7314	2867	358	
E4	32000	3733	7173	2650	397	
E3	35000	4033	6991	2482	436	
E2	38000	4400	6769	2294	476	
E1	41000	4833	6507	2055	515	
	44000	5333	6204	1776	554	
PD	48000	6000	5800	1400	600	
PA	50000	6000	5800	1400	600	

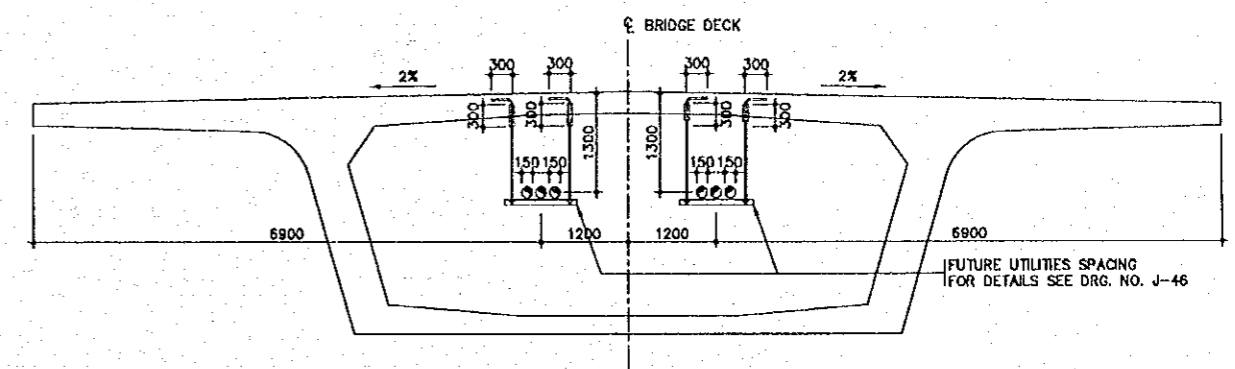


THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)
GENERAL ARRANGEMENT OF
DECK SEGMENT (SHEET 3 OF 3)

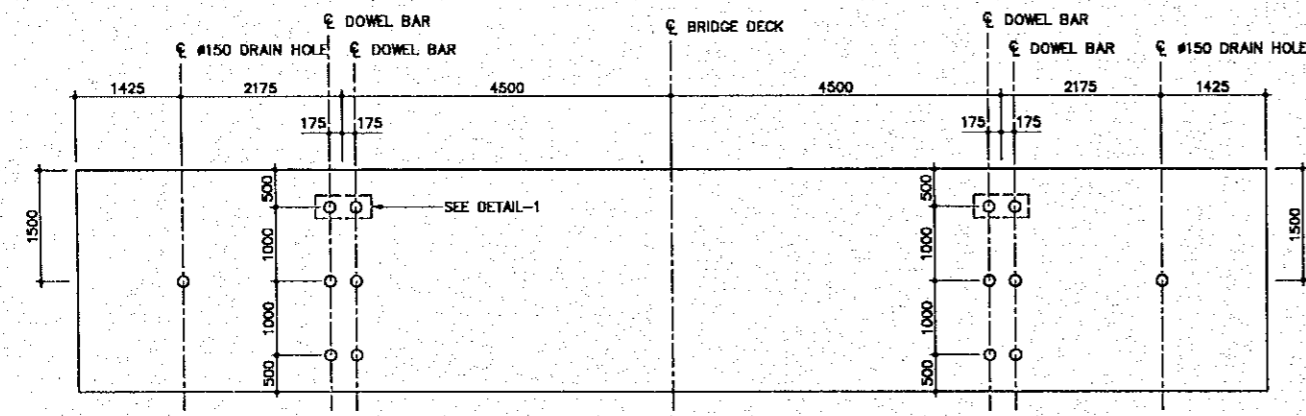
SCALE	SHEET NO.
AS SHOWN	J-14



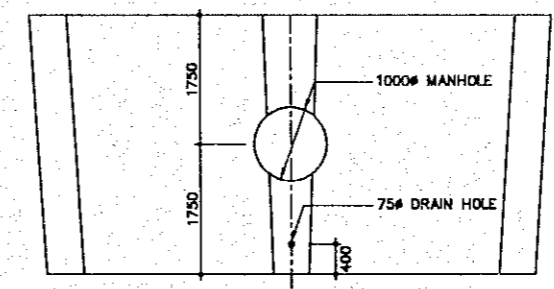
1 PLAN OF TO SLAB OF 3600 LONG CONSTANT DEPTH SEGMENT
(SHOWING LAYOUT OF INSERTS)
SCALE 1:50



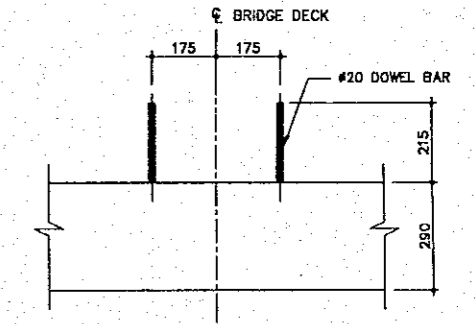
4 TYPICAL SECTION SHOWING FIXING
LOCATIONS FOR FIXING UTILITIES DUCTS
SCALE 1:50



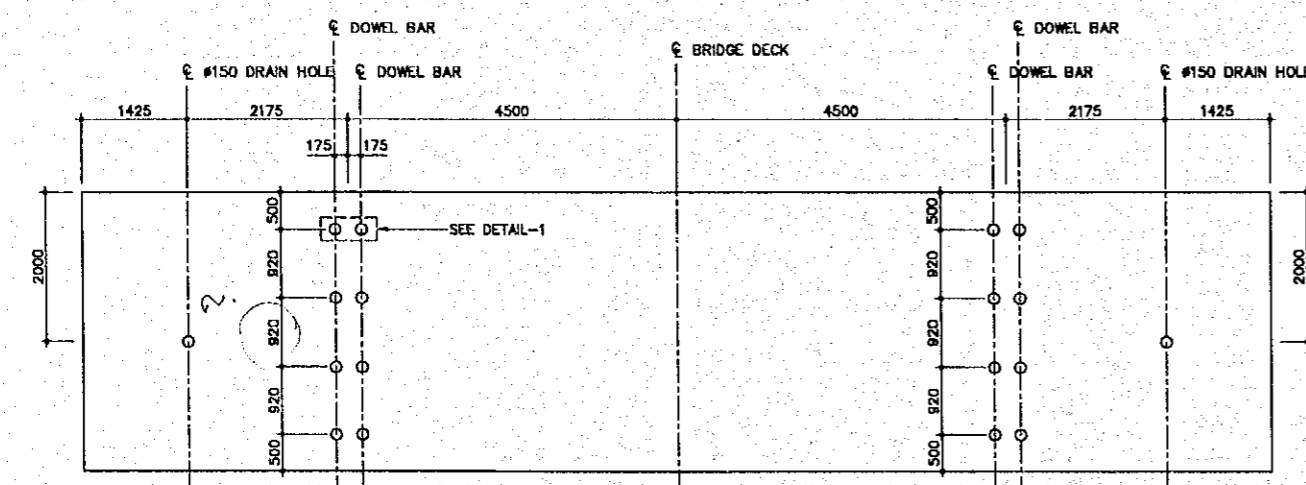
2 PLAN OF TO SLAB OF 3000 LONG VARIABLE DEPTH SEGMENT
(SHOWING LAYOUT OF INSERTS)
SCALE 1:50



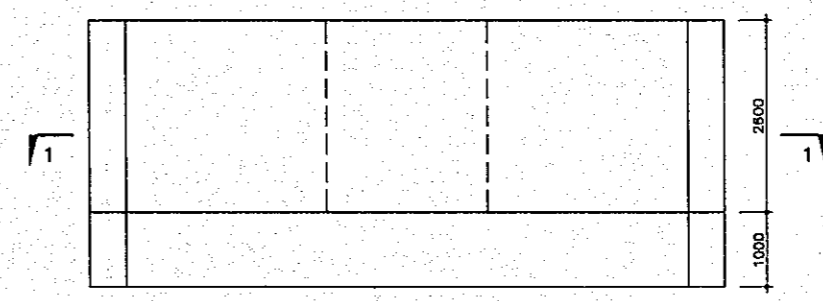
5 PLAN OF BOTTOM SLAB OF SEGMENT TYPE PD & E1
SCALE 1:50



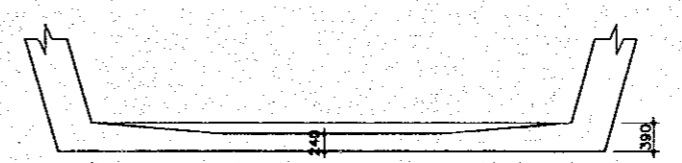
6 ELEVATION ON DETAIL-1
(SHOWING DOWEL BAR)
SCALE 1:10



3 PLAN OF TO SLAB OF 3760 LONG END SPAN DEPTH SEGMENT
(SHOWING LAYOUT OF INSERTS)
SCALE 1:50

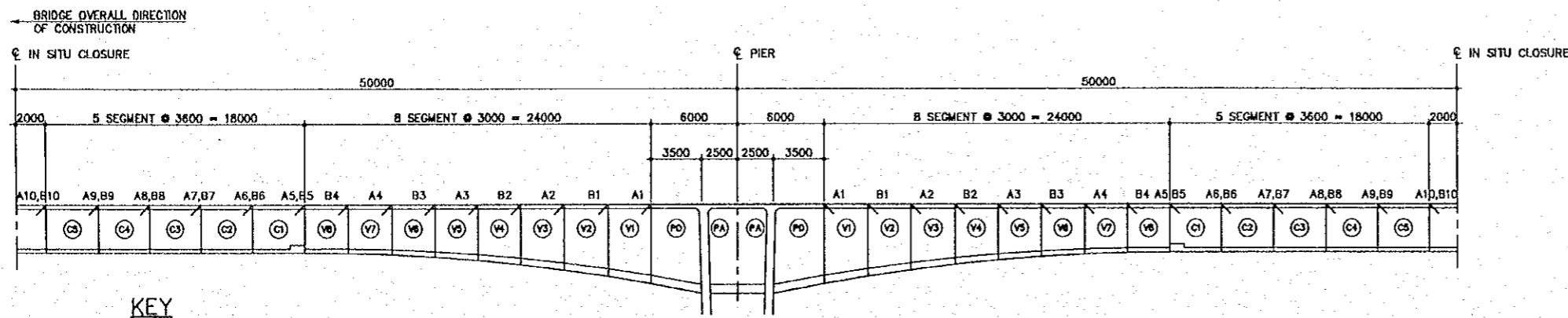


7 PLAN OF BOTTOM SLAB OF SEGMENT TYPE C1
(SEGMENT TYPE EC1 SIMILAR)
SCALE 1:50



8 SECTION 1-1
SCALE 1:50

- NOTES :
1. THIS DRAWING IS TO BE READ ON CONJUNCTION WITH DRAWING NO. J-12 & J-13.
 2. FOR DETAILS OF 100 # DRAIN HOLE AND PIPE REFER TO DRAWING NO. J-36.



KEY

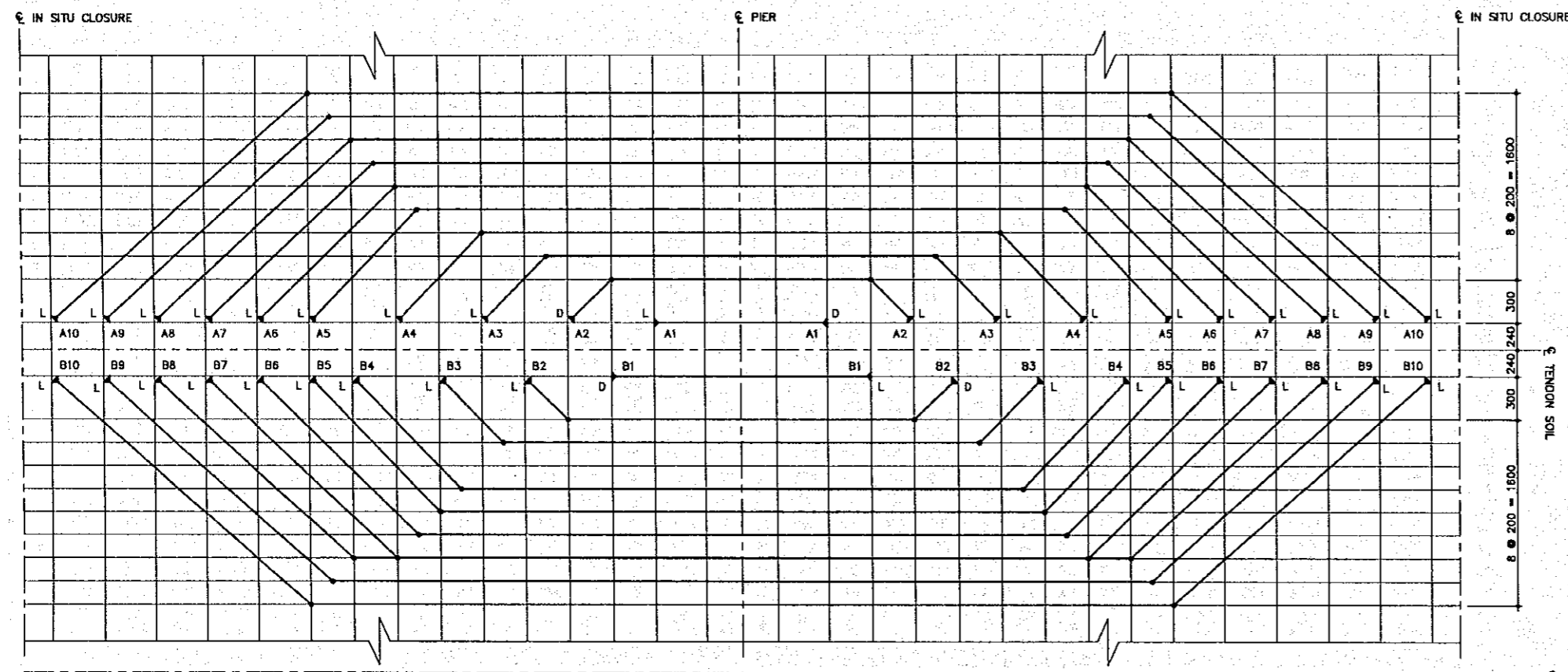
(V1) (C1) SEGMENT TYPE

A1 B1 TENDON DESIGNATION

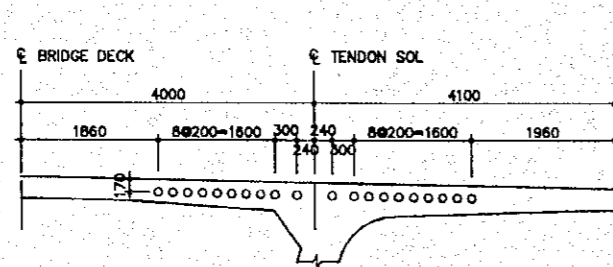
L USE STRESSING END

D DEAD END

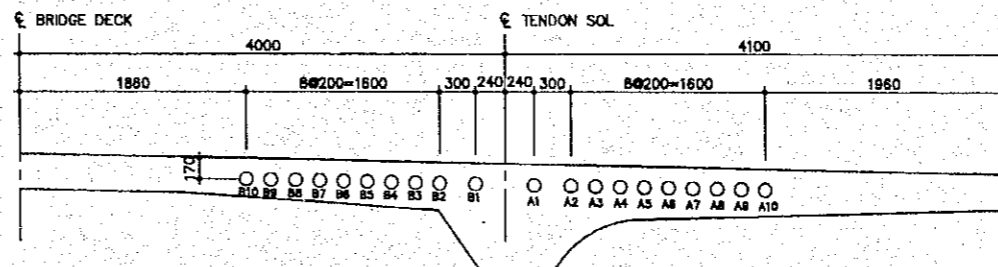
A
ELEVATION ON TYPICAL BALANCED CANTILEVER
SHOWING CANTILEVER PRESTRESSING ARRANGEMENT
SEGMENT TYPE DESIGNATIONS IN SPANS PREFIXED WITH LETTER 'E'
SCALE 1:200



B
ELEVATION ON TYPICAL BALANCED CANTILEVER
SHOWING CANTILEVER PRESTRESSING LAYOUT
SCALE NTS



C
PART SECTION AT PIER
SCALE 1:50



D
PART SECTION AT PIER
SHOWING TENDON DUCT DESIGNATIONS
(ARRANGEMENT AT OTHER WEB SIMILAR BUT HANDED) SCALE 1:30

NOTES :

- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. _____
- TENDONS ARE SYMMETRICAL ABOUT E BRIDGE DECK UNLESS NOTED OTHERWISE.
- EACH LONGITUDINAL PRESTRESSING TENDON TO CONSIST OF 19 NO. 15.2mm NOMINAL DIAMETER UNCOATED SEVEN-WIRE STANDARD CONFORMING TO THE REQUIREMENTS OF AASHTO M203 (ASTM A416) GRADE 270 (LOW-RELAXATION).
- TENDON JACKING FORCES AND ELONGATIONS TO BE AS SHOWN IN RESPECTIVE SCHEDULES. SPECIFIED JACKING FORCES ARE BEFORE FRICTION LOSSES OF JACK AND ANCHORAGE. PARAMETER ALLOWED FOR IN THE DESIGN ARE :

WOBBLE COEFFICIENT	$K = 0.00066m^{-1}$
FRICTION COEFFICIENT	$\mu = 0.25$
ANCHORAGE PULL-IN	$d = 8.4mm$
- LONGITUDINAL PRESTRESSING TENDON DUCTS TO CONSIST OF SPIRALLY WOUND GALVANISED STEEL TUBE IN ACCORDANCE WITH THE SPECIFICATION. INTERNAL DIAMETER TO BE 95mm. PREBENT DUCTS TO BE USED FOR TENDON WITH RADIUS LESS THAN 10m.
- MINIMUM CONCRETE STRENGTHS AT TIME OF LONGITUDINAL PRESTRESSING TO BE :

AT STRESSING	30MPa.
DESIGN STRENGTH	40MPa.
- GROUT VENTS TO BE PROVIDED AT ALL HIGH AND LOW SPOTS IN DUCKS AND AT OTHER LOCATIONS IN ACCORDANCE WITH THE SPECIFICATION.
- TEMPORARY WORKS NECESSARY TO SECURE SEGMENT UNTIL INSTALLATION OF PERMANENT PRESTRESSING TO BE DETAILED BY THE CONTRACTOR.
- THE CONTRACTOR TO PROVIDE 10% PROVISIONAL CONTINGENCY TENDONS FOR ALL SPAN.

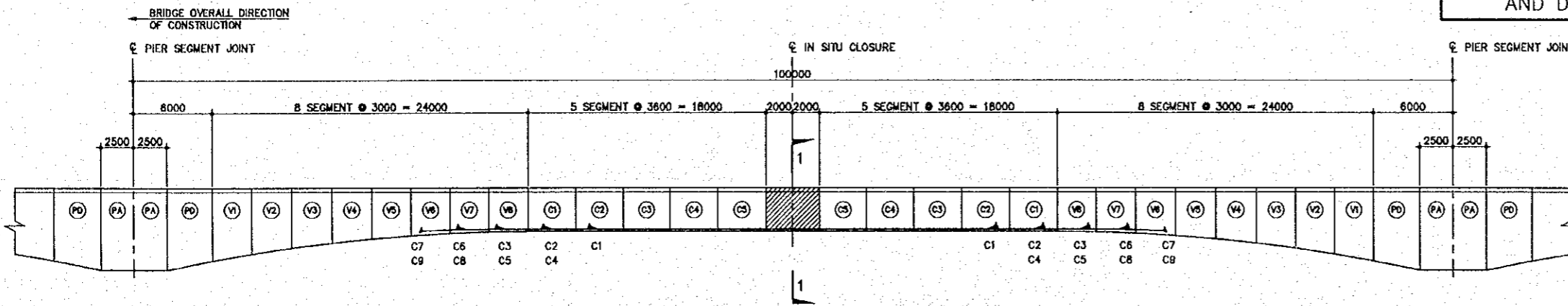
SCHEDULE OF TENDON JACKING FORCES (BEFORE SEATING)

TENDON DESIGNATION	JACKING FORCE (kn)
A1	370
A2	370
A3	370
A4	370
A5	370
A6	370
A7	370
A8	370
A9	370
A10	370
B1	370
B2	370
B3	370
B4	370
B5	370
B6	370
B7	370
B8	370
B9	370
B10	370

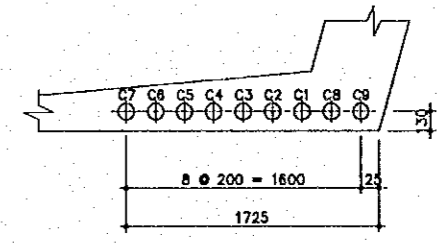
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LONGITUDINAL PRESTRESSING LAYOUT
AND DETAILS (SHEET 2 OF 4)

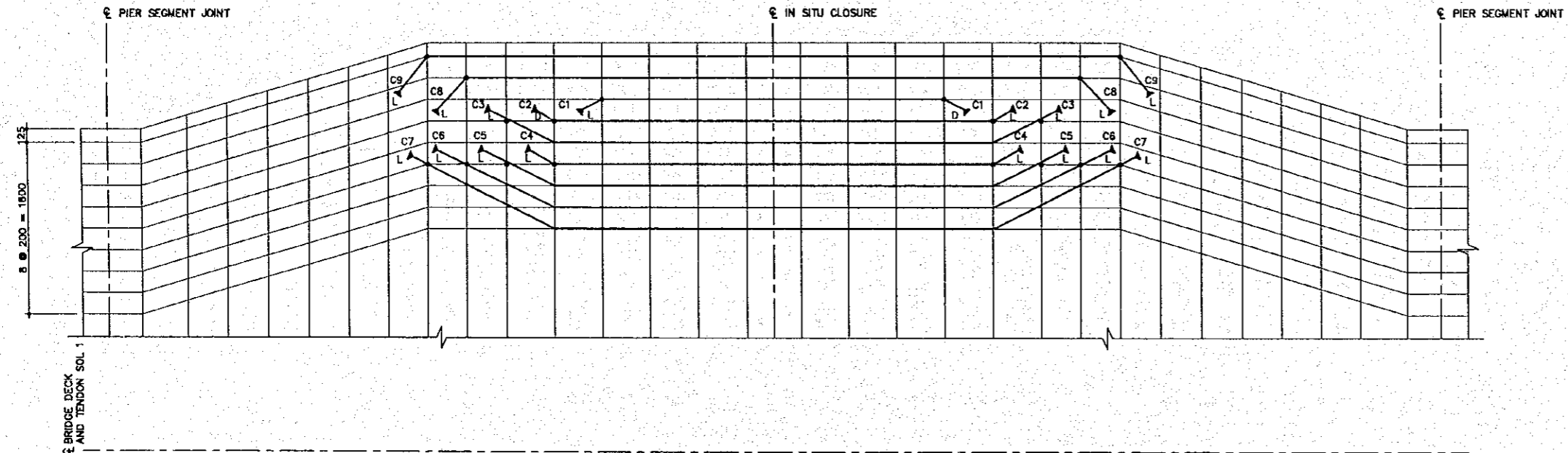
SCALE AS SHOWN SHEET NO. J-16



A ELEVATION ON TYPICAL INTERNAL SPAN
SHOWING SPAN PRESTRESSING LAYOUT
SCALE 1:200



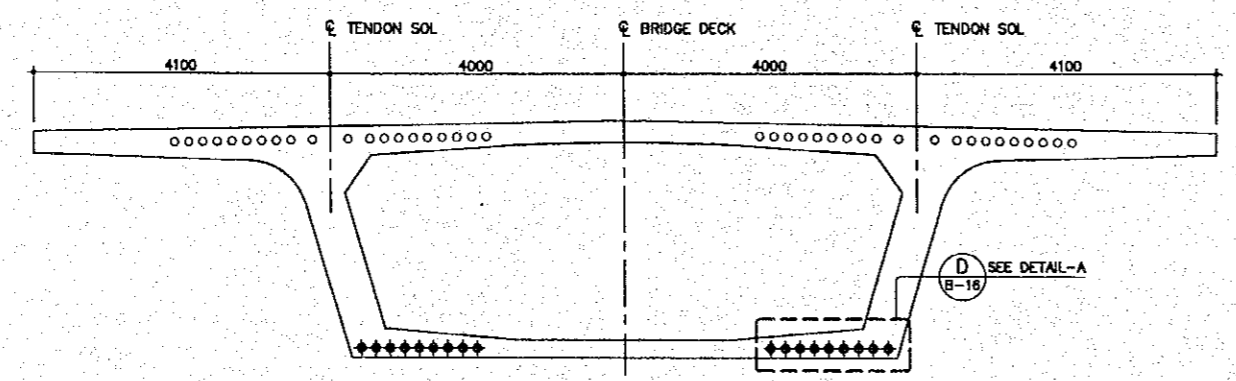
D DETAIL-A
SCALE 1:25



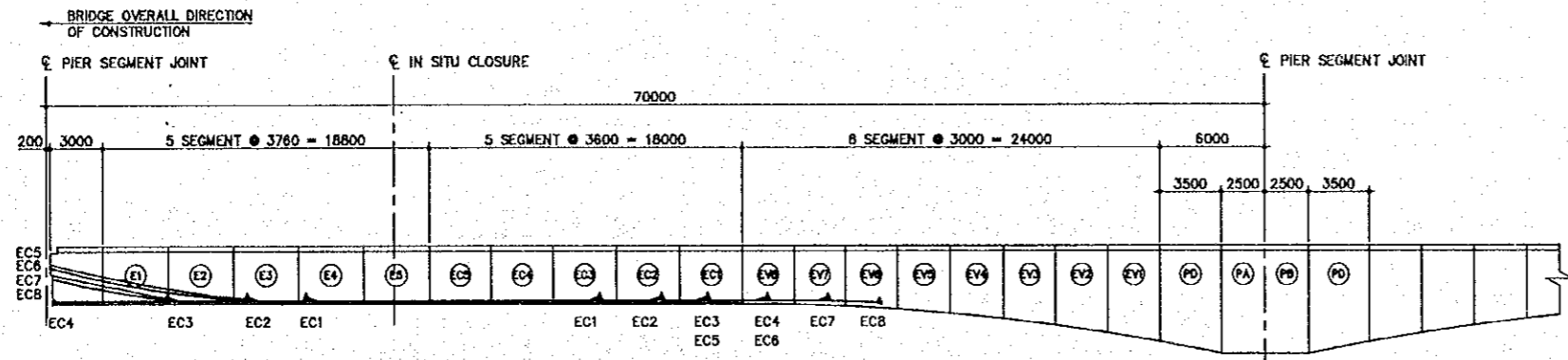
B HALF PLAN ON BOTTOM SLAB TYPICAL INTERNAL SPAN
SHOWING SPAN PRESTRESSING LAYOUT
SCALE NTS

SCHEDULE OF TENDON JACKING FORCES (BEFORE SEATING)

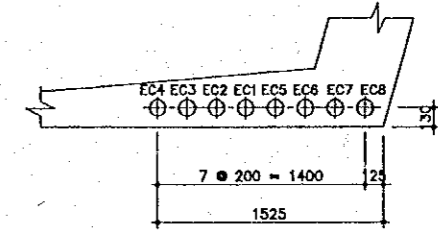
TENDON DESIGNATION	JACKING FORCE (kn)
C1	370
C2	370
C3	370
C4	370
C5	370
C6	370
C7	370
C8	370
C9	370



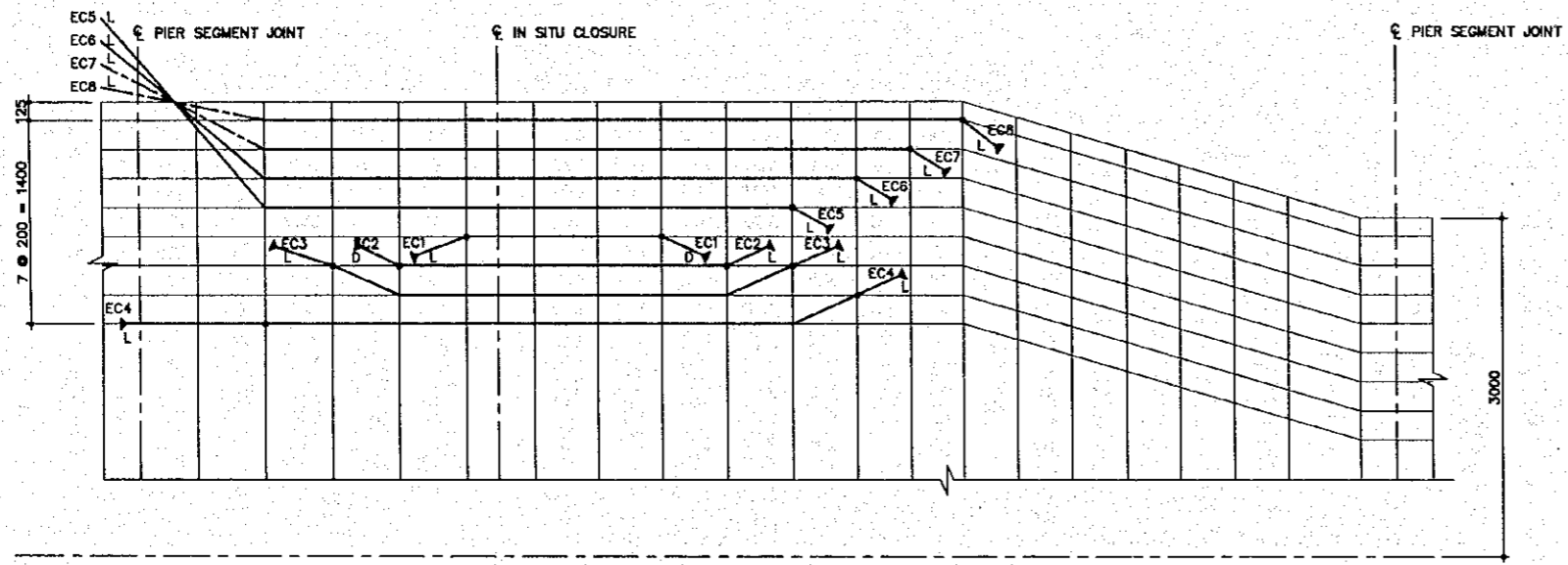
C TYPICAL SECTION 1-1
SCALE 1:50



A ELEVATION ON TYPICAL INTERNAL SPAN
SHOWING SPAN PRESTRESSING LAYOUT
SCALE 1:200



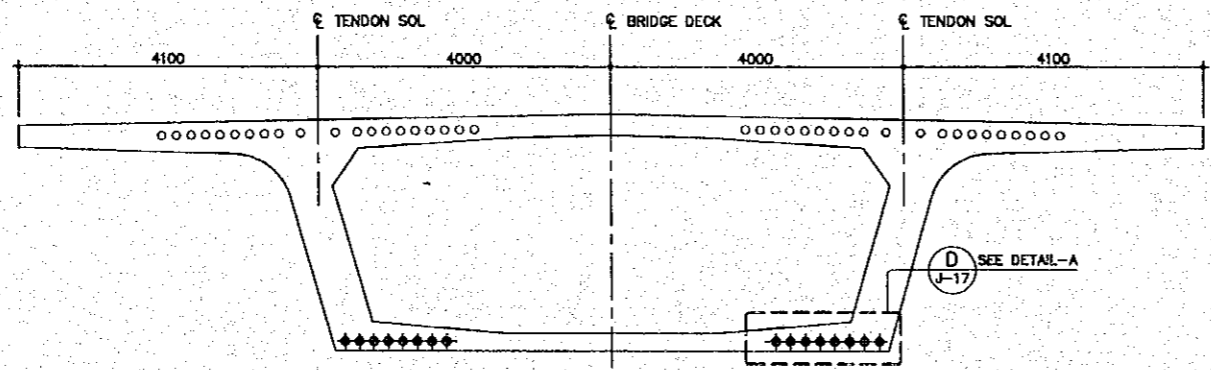
D DETAIL-A
SCALE 1:25



B HALF PLAN ON BOTTOM SLAB TYPICAL INTERNAL SPAN
SHOWING SPAN PRESTRESSING LAYOUT
SCALE NTS

SCHEDULE OF TENDON JACKING FORCES (BEFORE SEATING)

TENDON DESIGNATION	JACKING FORCE (kn)
EC1	370
EC2	370
EC3	370
EC4	370
EC5	370
EC6	370
EC7	370
EC8	370

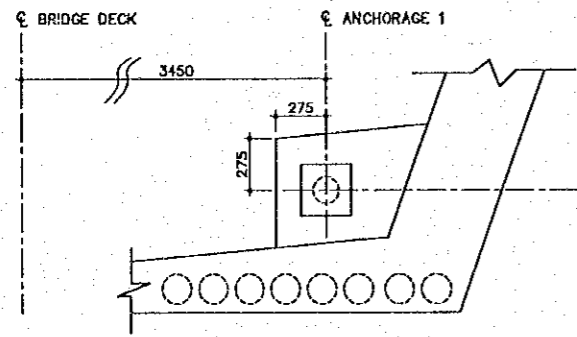


C TYPICAL SECTION 1-1
SCALE 1:50

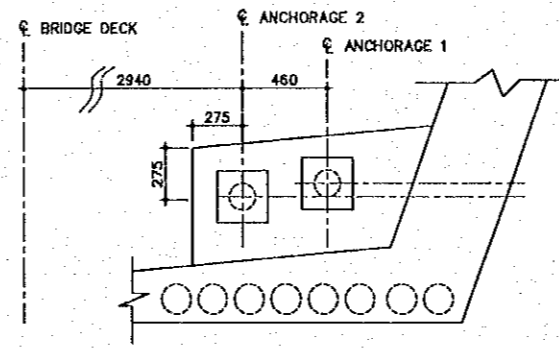
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LONGITUDINAL PRESTRESSING LAYOUT
AND DETAILS (SHEET 4 OF 4)

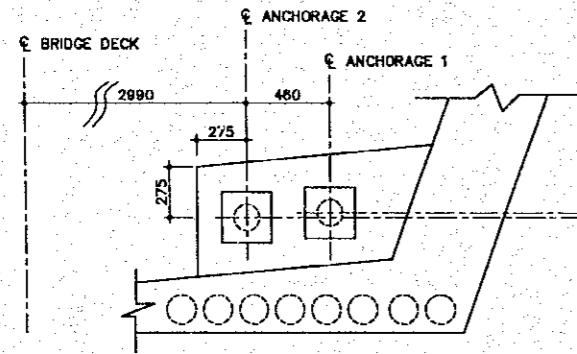
SCALE	SHEET NO.
AS SHOWN	J-18



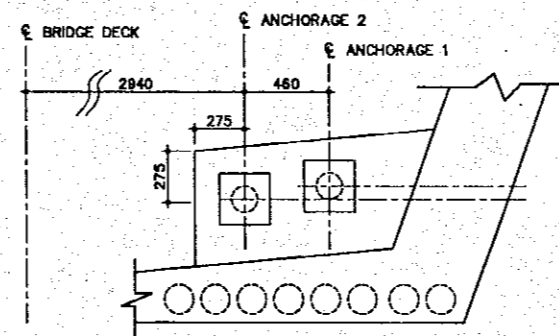
1 END ELEVATION ON BLISTER TYPES SBS1 & SBS2
SEGMENT TYPES C4, EC2, EC3
SCALE 1:100



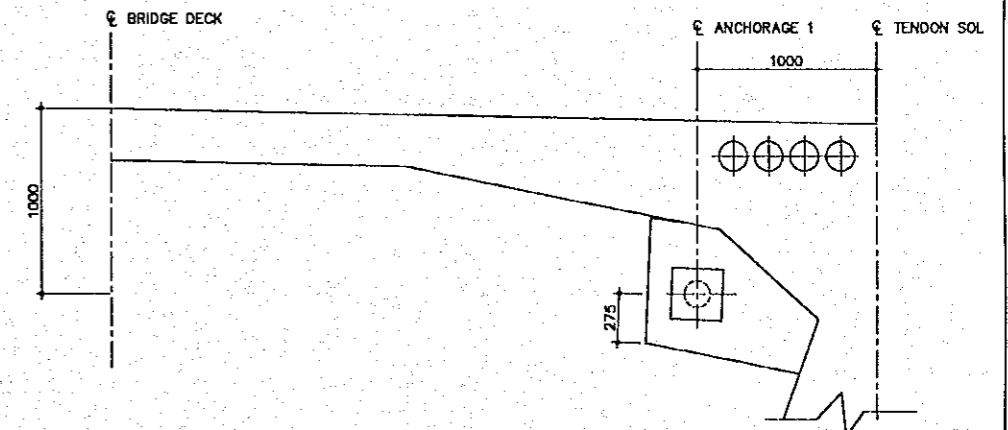
4 END ELEVATION ON BLISTER TYPES SBD3
SEGMENT TYPES VB & EVB
SCALE 1:100



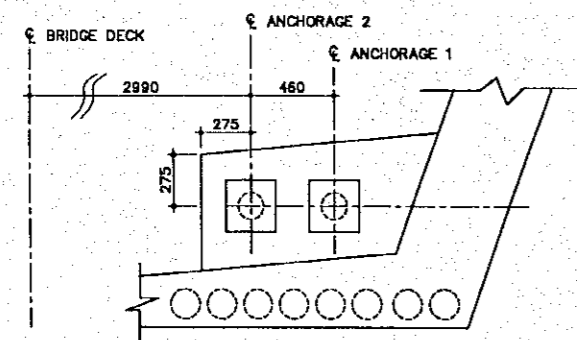
2 END ELEVATION ON BLISTER TYPES SBD1 & SBD4
SEGMENT TYPES C2, C3 & E1
SCALE 1:100



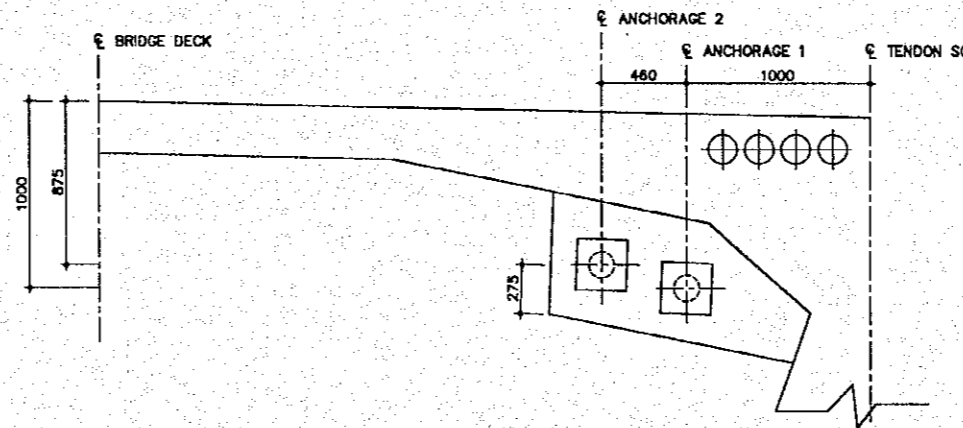
5 END ELEVATION ON BLISTER TYPES SBD5
SEGMENT TYPES V7 & EV7
SCALE 1:100



7 END ELEVATION ON BLISTER TYPES CTS1, STS1 & STS3
SEGMENT TYPES C6, C8, EC2, EC3, & EC4
SCALE 1:100



3 END ELEVATION ON BLISTER TYPES SBD2
SEGMENT TYPES C1 & EC1
SCALE 1:100



6 END ELEVATION ON BLISTER TYPES STD1 & STD2
SEGMENT TYPES C3 & C4
SCALE 1:100