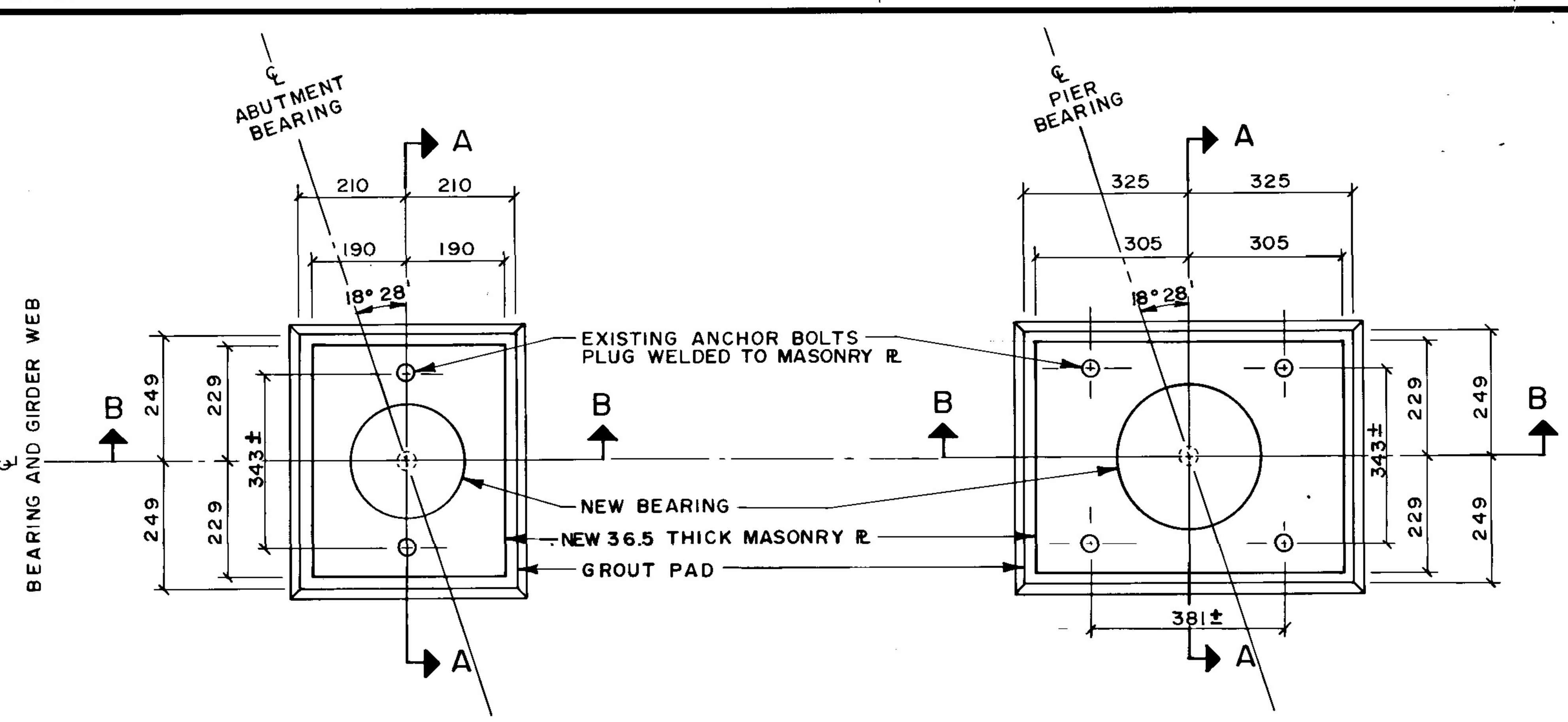
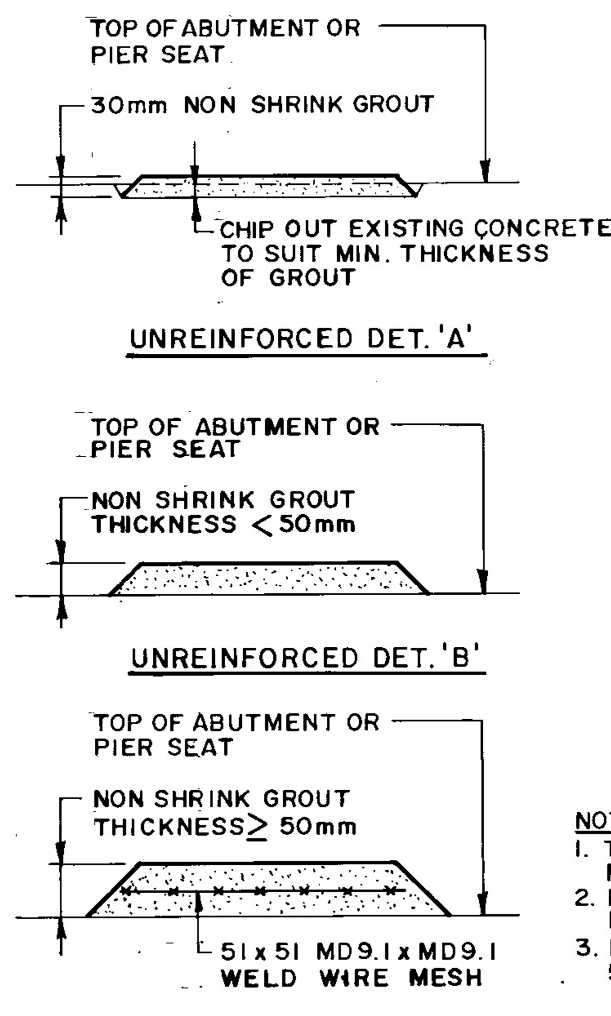
WO 101-84



ABUTMENT BEARING BASE PLATE

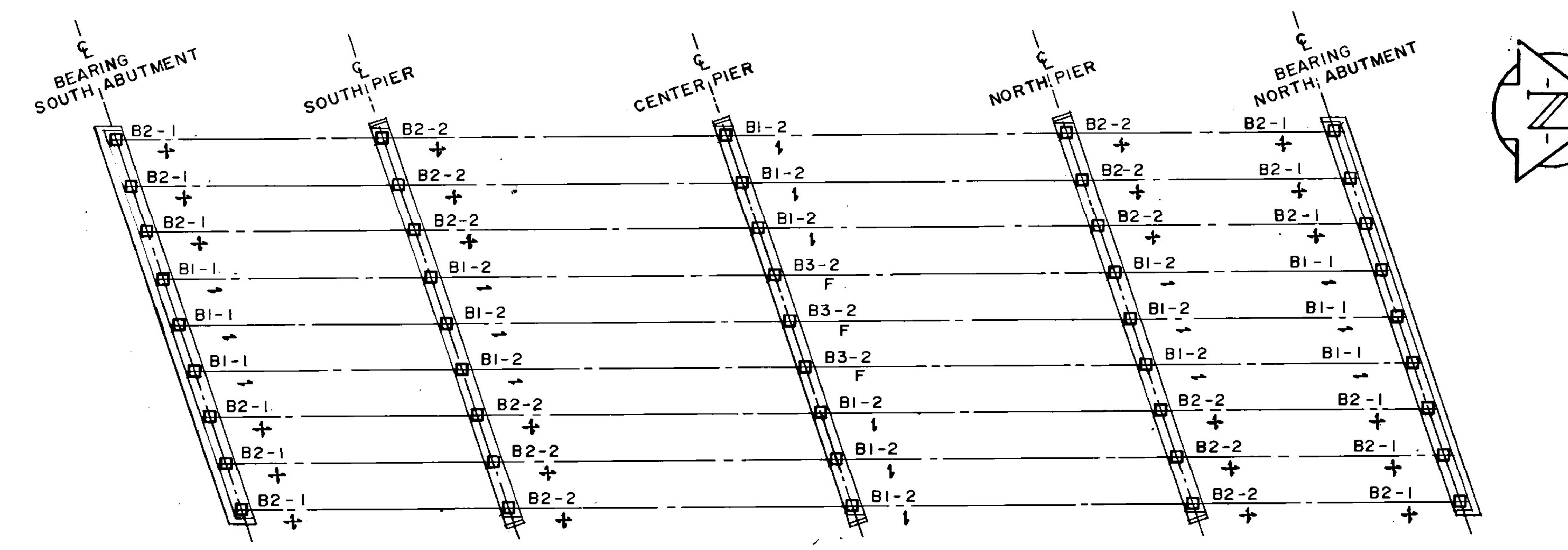
PIER BEARING BASE PLATE

2 TYPICAL BEARING PLANS
1:10



7 GROUT DETAILS
NTS NOTE: ANCHOR BOLTS NOT SHOWN SEE DETAIL 6 BELOW

NOTES:
1. THICKNESS OF GROUT SHOWN TO BE FIELD VERIFIED.
2. FOR GROUT LESS THAN 50mm PROVIDE NO REINFORCING.
3. FOR GROUT GREATER THAN OR EQUAL TO 50mm PROVIDE REINFORCING AS PER DET. 'C'.



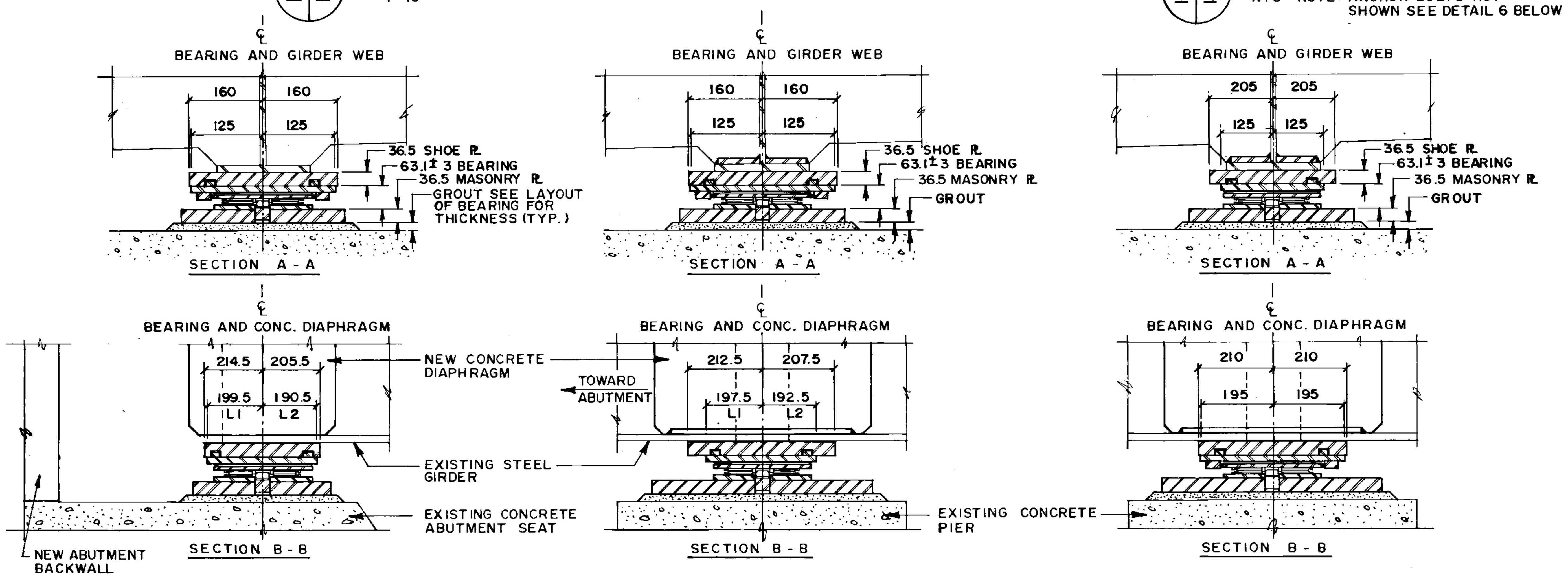
1 LAYOUT OF BEARINGS
1:200

LEGEND:
- B2-1 BEARING TYPE
- F FIXED BEARING
- UNIDIRECTIONAL BEARING
- MULTIDIRECTIONAL BEARING

BEARING DESIGN DATA

LOCATION	SOUTH ABUTMENT		SOUTH PIER		CENTER PIER		NORTH PIER		NORTH ABUTMENT	
BEARING TYPE	B1-1	B2-1	B1-2	B2-2	B1-2	B3-2	B1-2	B2-2	B1-1	B2-1
NUMBER REQUIRED	3	6	3	6	6	3	3	6	3	6
DEAD LOAD (KN)	135	135	420	420	430	430	420	420	135	135
DEAD LOAD + LIVE LOAD (KN)	370	370	455	455	460	460	455	455	370	370
LATERAL LOAD (KN)	10	—	20	—	—	25	20	—	10	—
LONGITUDINAL LOAD (KN)	—	—	—	—	95	95	—	—	—	—
LONGITUDINAL MOVEMENT ✱	+3 -16	+3 -16	+2 -9	+2 -9	—	—	+2 -9	+2 -9	+3 -16	+3 -16
LATERAL MOVEMENT ✱ (MAX. FOR EXTERIOR GIRDER BRGS.)	—	+1 -4	—	+1 -4	+1 -4	—	—	+1 -4	—	+1 -4
SHOE PLATE	420x320	410x350	420x320	410x350	420x410	410x350	420x320	410x350	420x320	410x350
BEARING TOP PLATE	390x250	310x230	390x250	310x230	390x250	210 ø	390x250	310x230	390x250	310x230
L1 ✱	157	157	151	151	—	—	151	151	157	157
L2 ✱	148	148	146	146	—	—	146	146	148	148

NOTES: ✱ AT TEMPERATURE OF +20°C.
DIFFERENCE IN TEMPERATURE MOVEMENT DUE TO DIFFERENT INSTALLATION TEMPERATURE:
1. IN LONGITUDINAL DIRECTION
   a) AT NORTH AND SOUTH ABUTMENTS = 1.5mm PER 5°C.
   b) AT NORTH AND SOUTH PIERS = 0.8mm PER 5°C
2. IN LATERAL DIRECTION FOR ALL EXTERIOR GIRDER BEARINGS AT ALL ABUTMENTS AND PIERS = 0.4mm PER 5°C



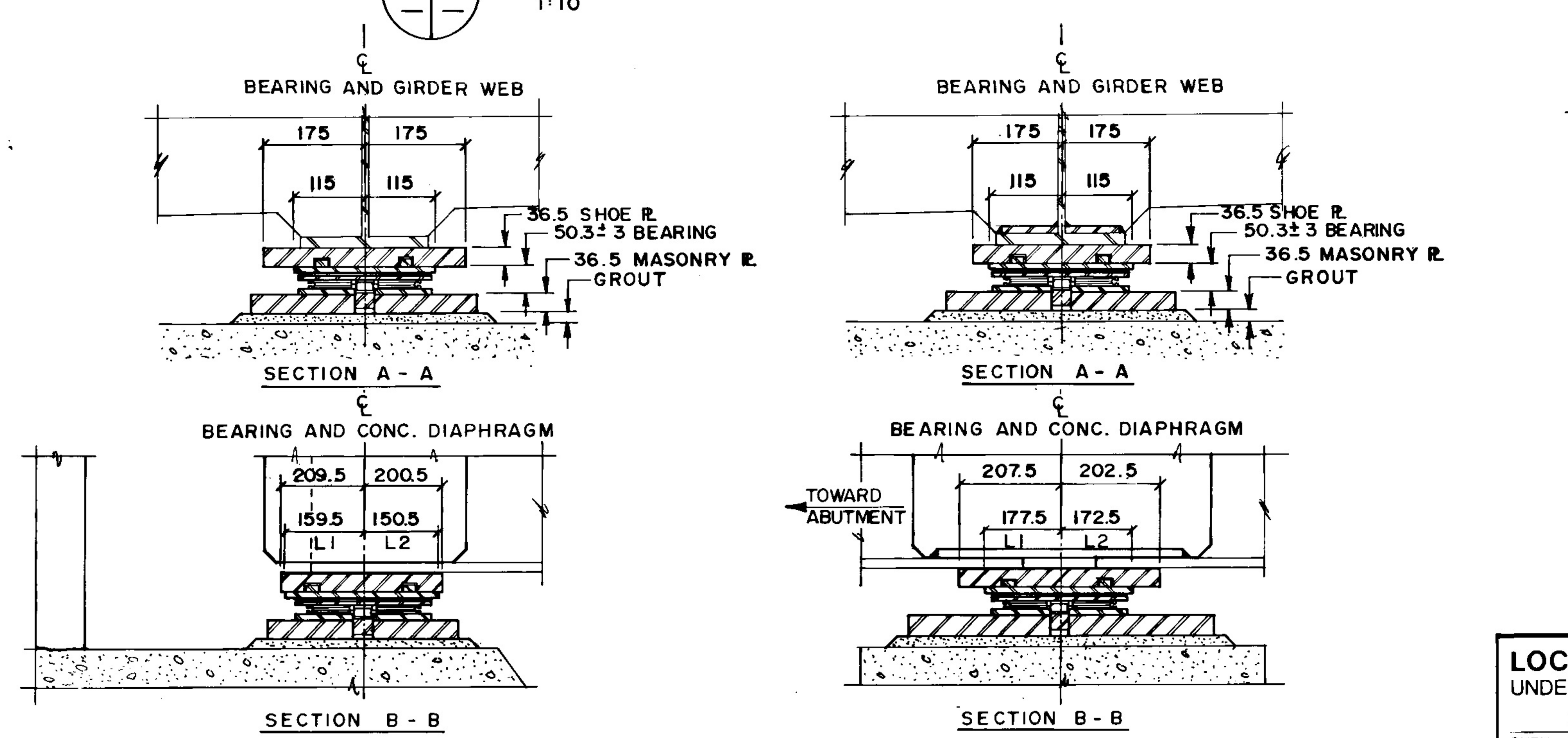
NORTH AND SOUTH ABUTMENTS
TYPE B1-1

NORTH AND SOUTH PIERS
TYPE B1-2

CENTER PIER
TYPE B1-2

NOTES:
1. BEARING SEAT ELEVATIONS SET TO SUIT ACTUAL HEIGHT OF BEARINGS.
2. BEARING DESIGN TO ALLOW FOR FUTURE JACKING OF BRIDGE TO A MAXIMUM OF 5mm FOR BEARING REPLACEMENT.
3. SHOE PLATE AND BEARING TOP PLATE TO BE INSTALLED IN ACCORDANCE WITH TABLE OF SETTING DIMENSIONS.
4. BEARING DESIGN SHALL ALLOW FOR AN EXTRA 50mm MOVEMENT BEYOND VALUES SPECIFIED IN DESIGN DATA TABLE.

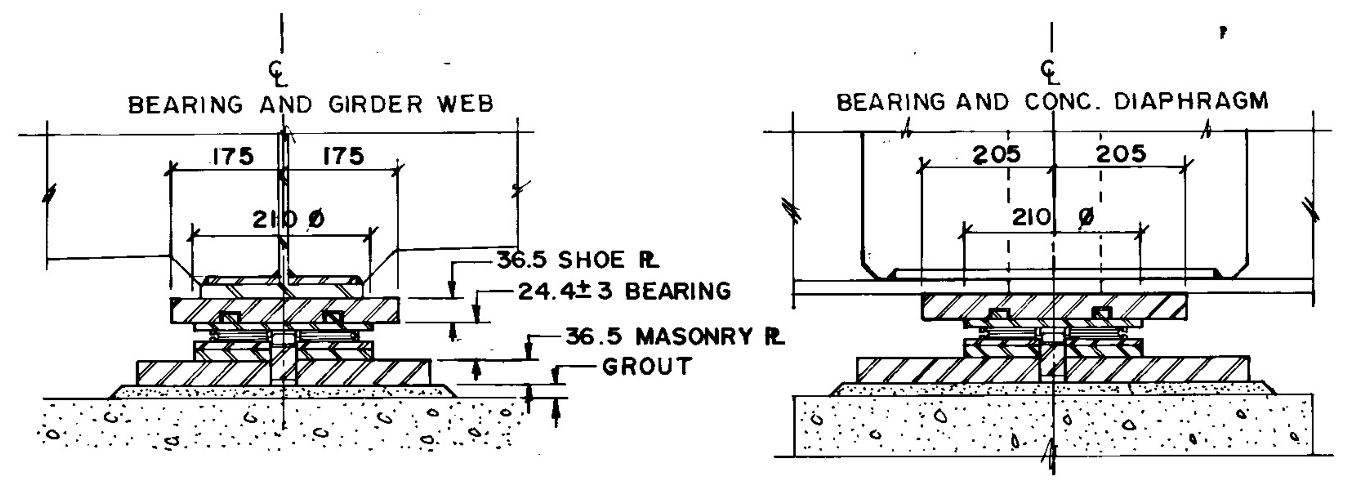
3 UNIDIRECTIONAL BEARINGS
1:10



NORTH AND SOUTH ABUTMENTS
TYPE B2-1

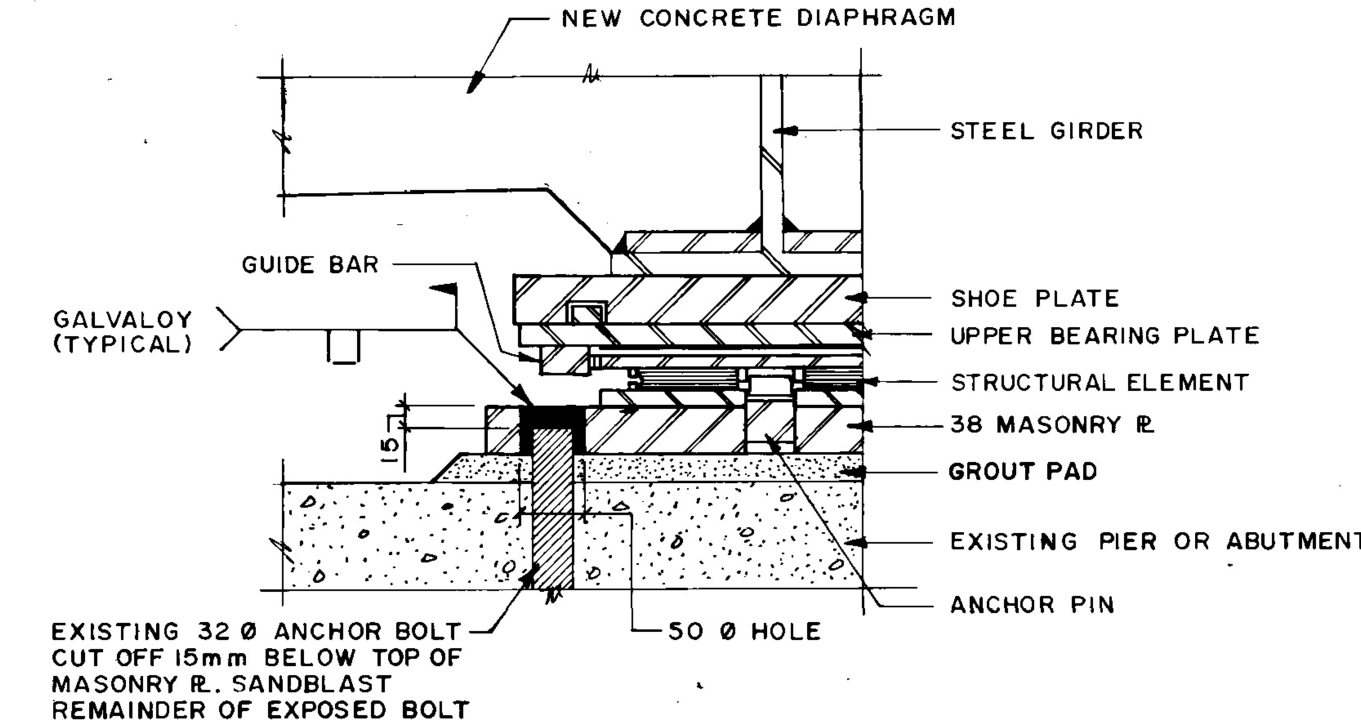
NORTH AND SOUTH PIERS
TYPE B2-2

4 MULTIDIRECTIONAL BEARINGS
1:10



CENTER PIER
TYPE B3-2

5 FIXED BEARINGS
1:10



6 TYPICAL ANCHOR BOLT DETAIL
1:5

AS-BUILT
DATE 91-02-26 BY
CHECKED BY

B-5903-9

LOCATION APPROVED UNDERGROUND STRUCTURES
N/A
SUPV U/G STRUCTURES COMMITTEE — DATE

B.M. ELEV

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
1	REVISED AS CONSTRUCTED	90-12-14	FPC

WARDROP ENGINEERING INC.

DESIGNED BY: JC & FPC
DRAWN BY: LG
HOR SCALE / VERTICAL: AS NOTED
DATE: JAN. 15, 1990
CHECKED BY
APPROVED BY
AUTHORIZED BY — DATE 91 02 23
ACCEPTED BY — DATE 91 02 23
BRIDGE ENGINEER

ENGINEER'S SEAL: PROVINCE OF MANITOBA, C. D. STEWART, REGISTERED ENGINEER, 90/02/20

CONSULTANT DRAWING NO. 890007-02-00

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
STREETS AND TRANSPORTATION DEPARTMENT

EMPRESS STREET OVERPASS
STRUCTURE REHABILITATION, STRENGTHENING AND RELATED WORKS
BEARING DETAILS

CITY DRAWING NUMBER
B100-90-09