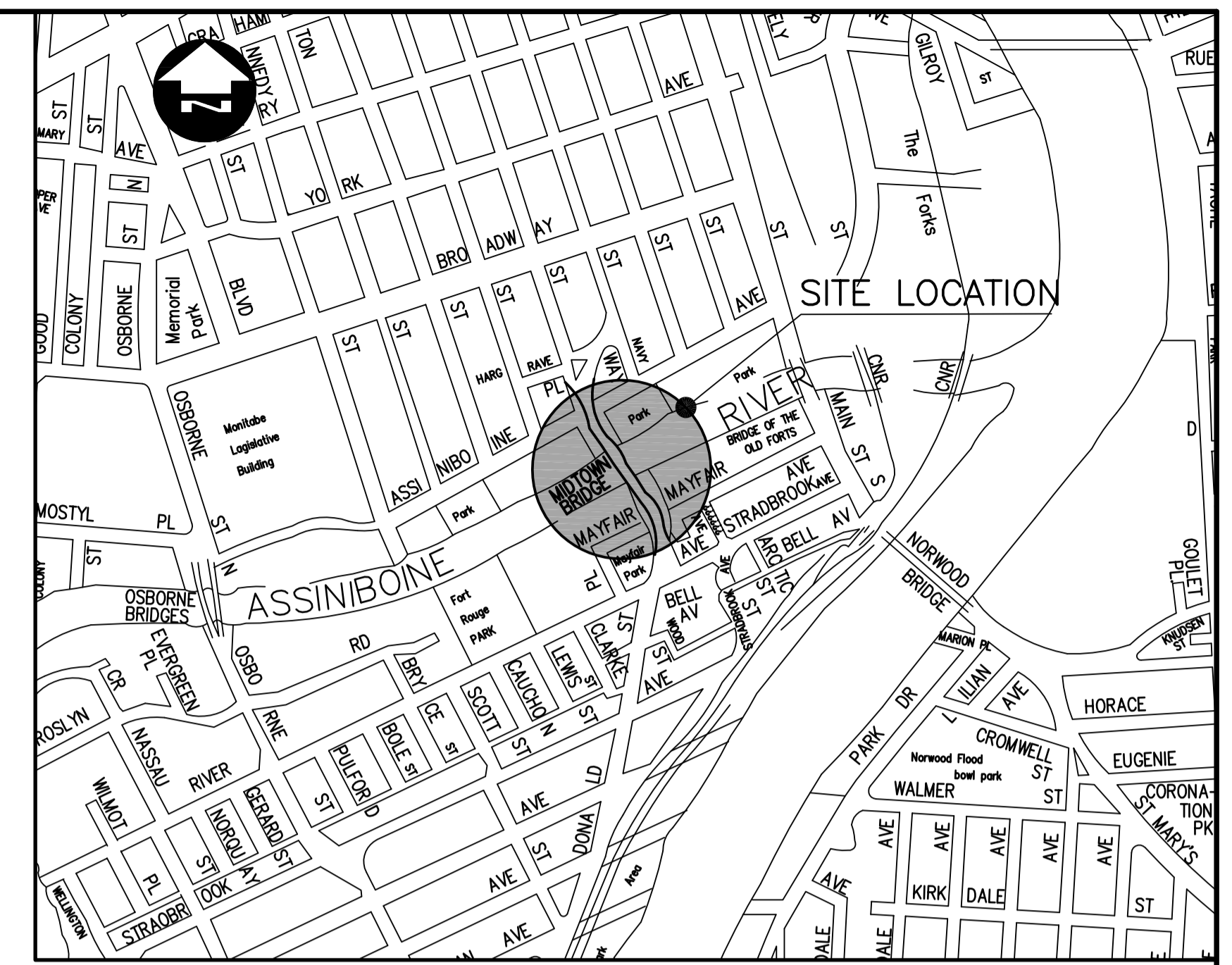
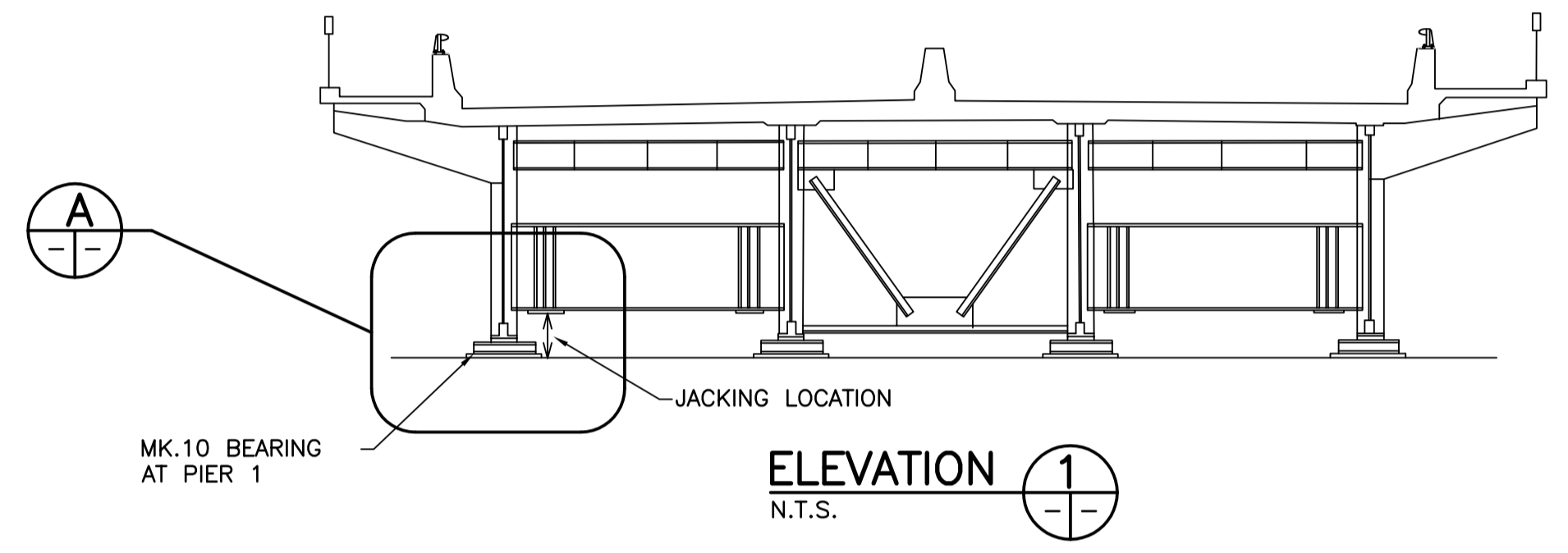


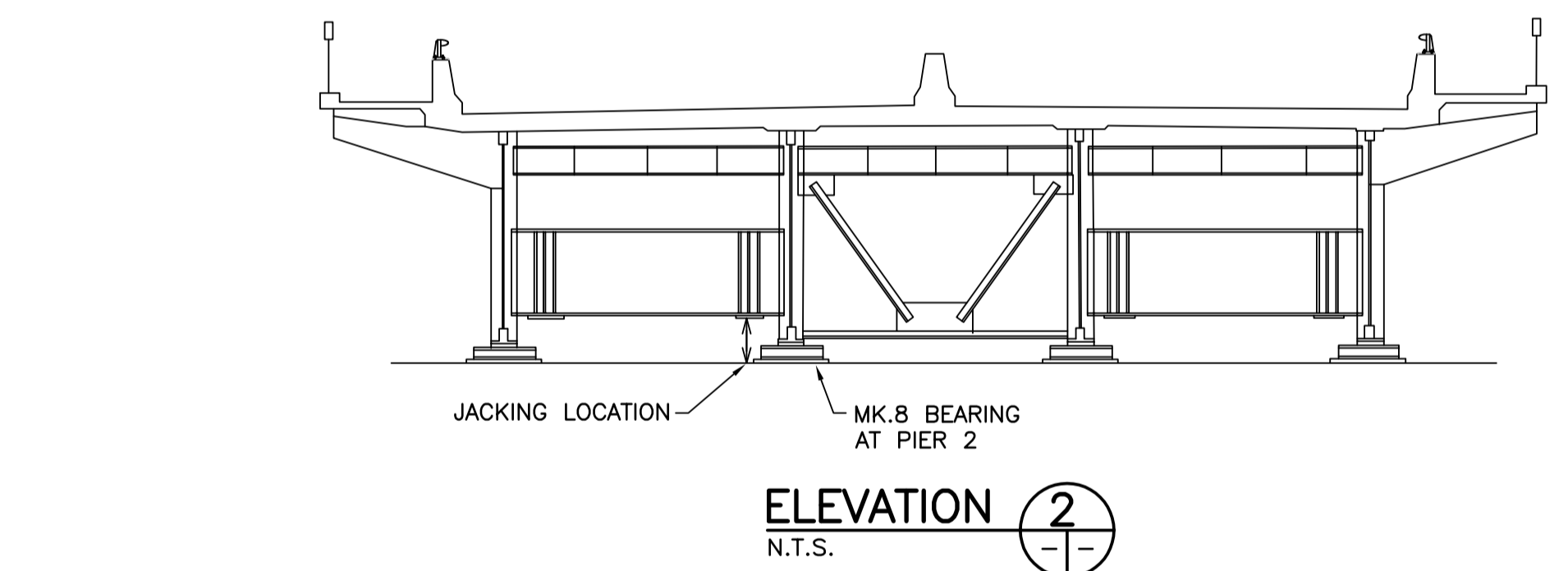
PLAN
N.T.S.



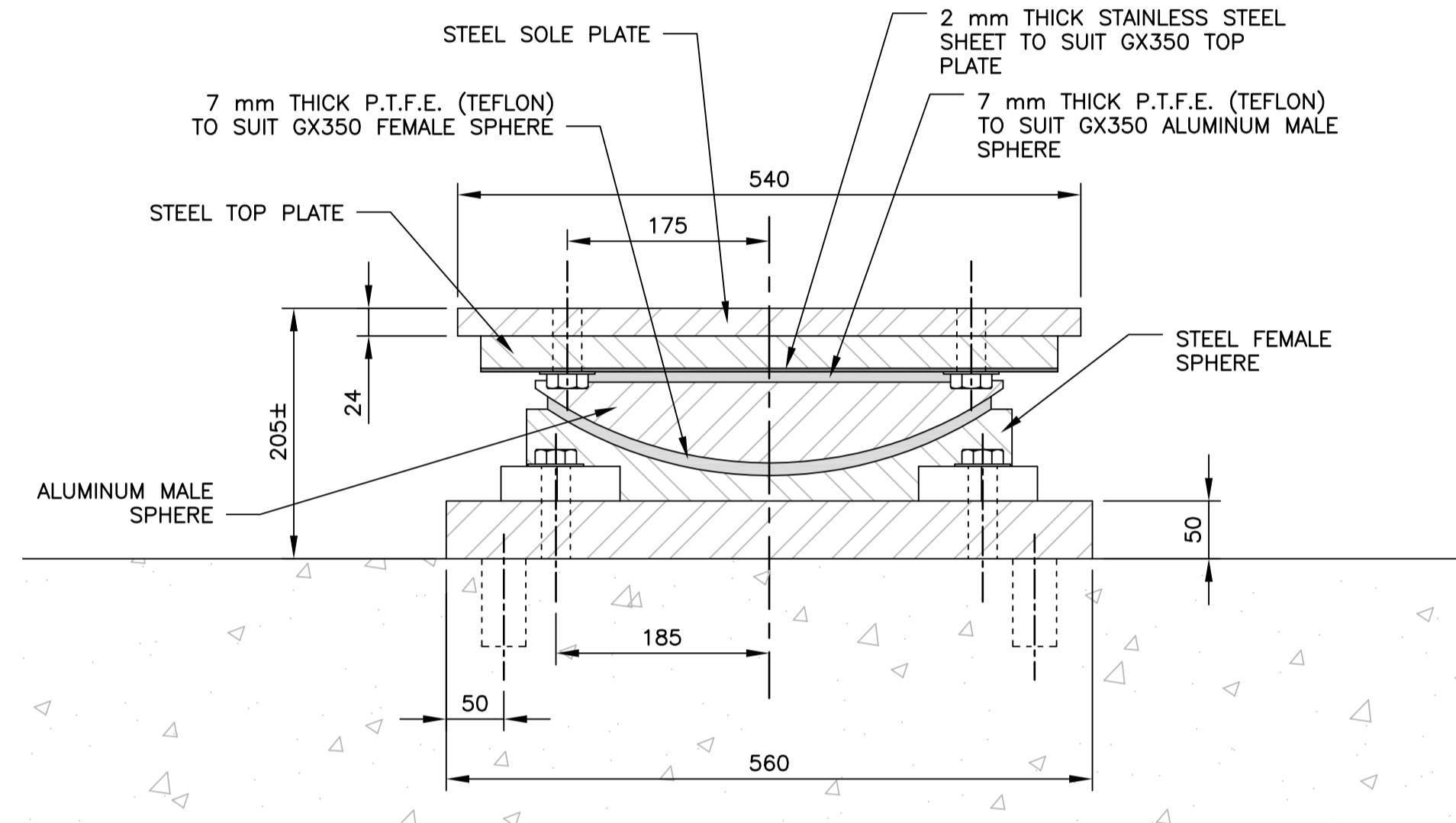
LOCATION PLAN



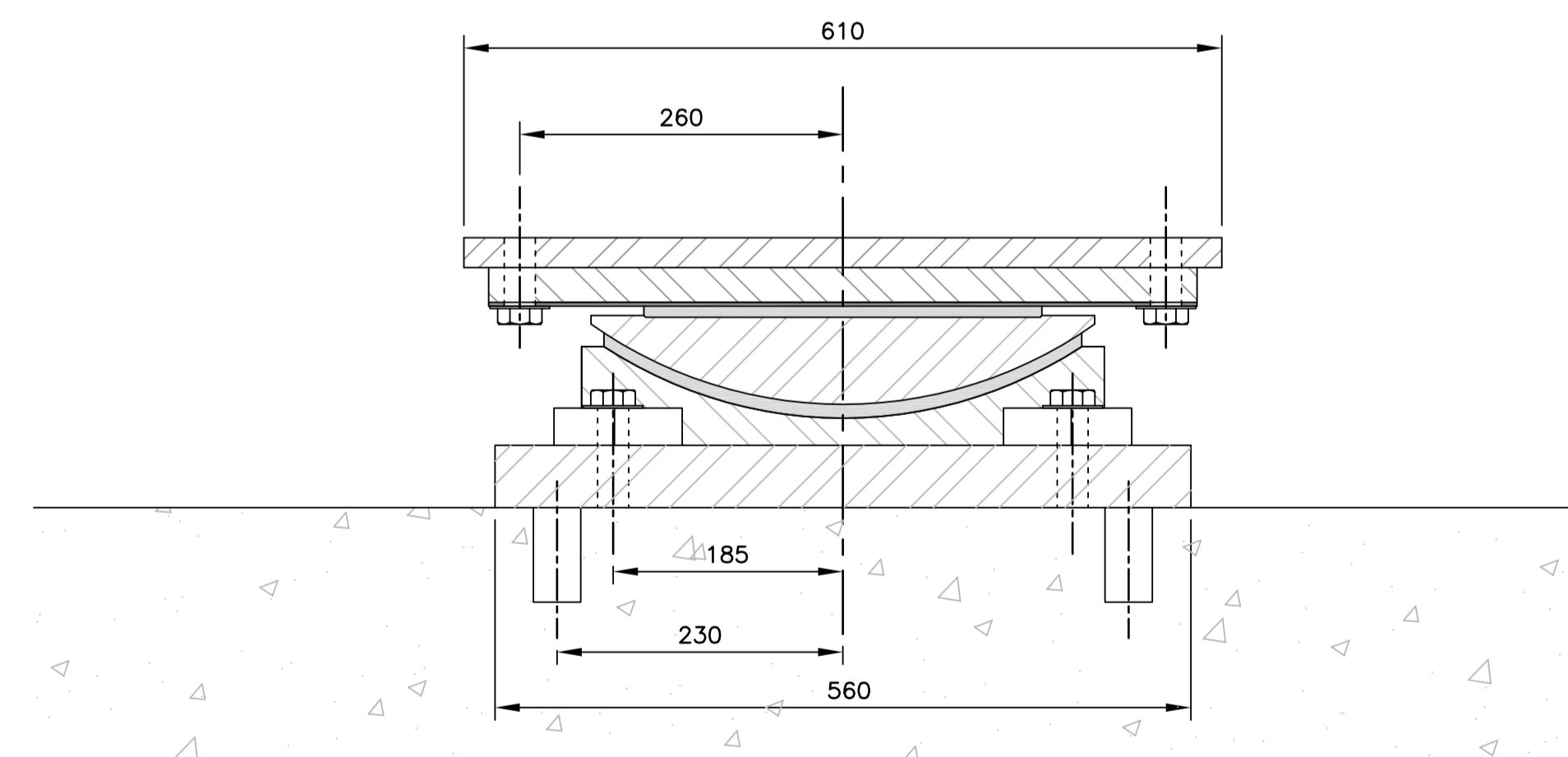
ELEVATION 1
N.T.S.



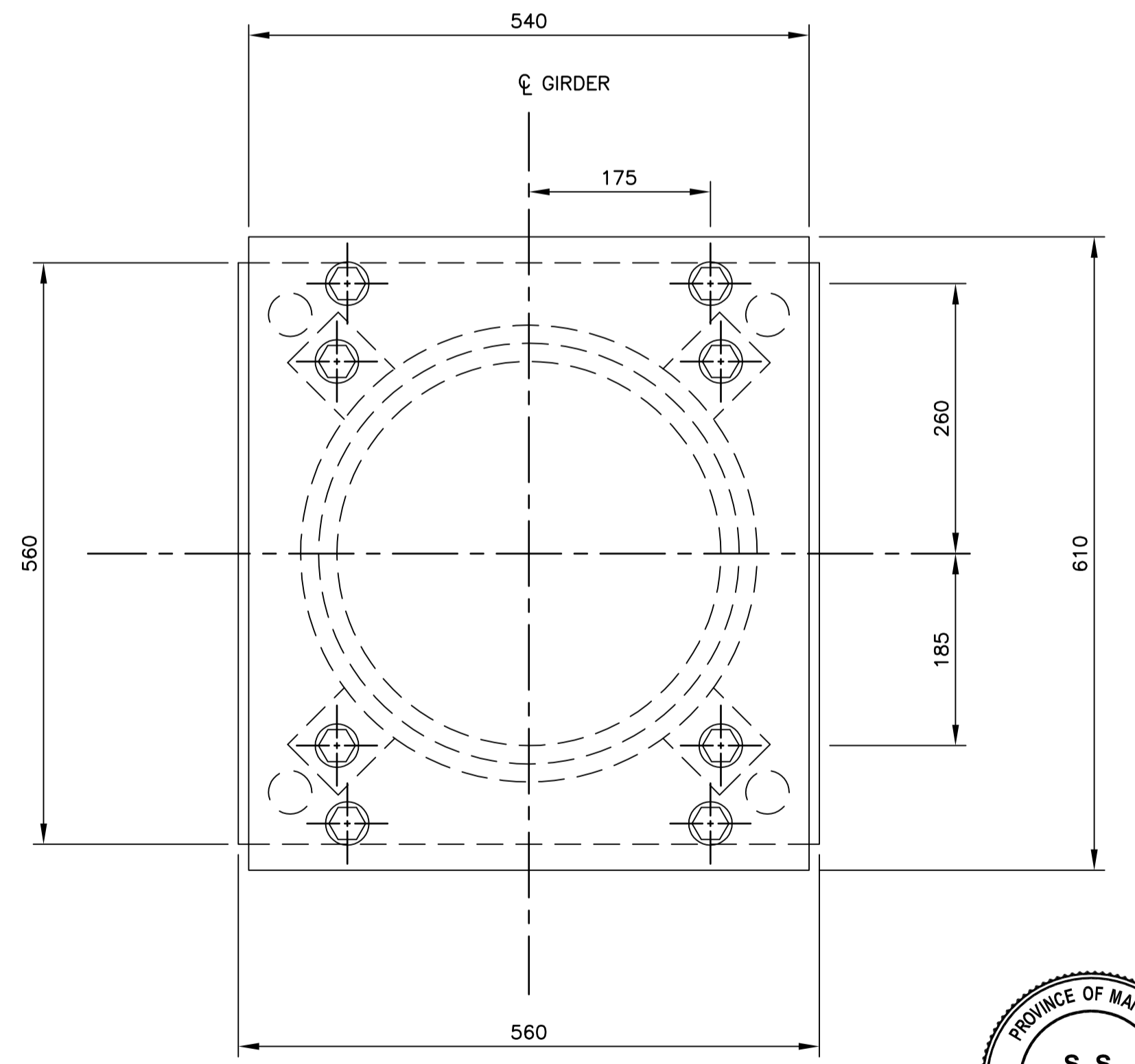
ELEVATION 2
N.T.S.



DETAIL A
N.T.S.



LONGITUDINAL ELEVATION
N.T.S.



PLAN
N.T.S.

- NOTES:**
- TWO (2) BEARINGS TO BE REFURBISHED OR REPLACED. EXISTING BEARINGS CAPACITY IS 3720 kN (836 KIPS). SEE TABLE BELOW FOR BEARING DATA OBTAINED FROM CITY OF WINNIPEG SUPPLIED SHOP DRAWINGS. ONLY MK10 BEARING DETAILS ARE SHOWN.
 - BEARING REPLACEMENT PROCEDURE:
 - RAISE STRUCTURE WITH JACKS AT TEMPORARY JACK LOCATIONS JUST ENOUGH TO REMOVE EXISTING BEARINGS. DO NOT OVERLOAD ADJACENT BEARINGS.
 - INSTALL TEMPORARY BEARINGS (MAY BE STEEL SHIMS C/W NEOPRENE PAD AGAINST CONCRETE).
 - REMOVE JACKS.
 - REFURBISH BEARINGS
 - INSTALL REFURBISHED BEARINGS OR NEW BEARINGS REVERSING ABOVE REMOVAL SEQUENCE C/W NEW HOT DIP GALVANIZED A325 BOLTS.
 - THE ABOVE REPLACEMENT PROCEDURE IS FOR THE MK10 BEARING ONLY. SEE THE SPECIFICATION FOR THE SUGGESTED DETAILS FOR REPLACEMENT PROCEDURE FOR THE MK8 BEARING.
 - TYPICAL BEARING REFURBISHMENT PROCEDURE - 2 REQUIRED:
 - REPLACE P.T.F.E SHEETS ON MALE AND FEMALE SPHERES OF MK10 BEARINGS (FEMALE SPHERE ONLY ON MK8 BEARING).
 - POLISH ALUMINUM MALE SPHERE.
 - REPLACE STAINLESS STEEL PLATE C/W TIG WELD ALL AROUND (MK10 BEARING ONLY).
 - AS AN ALTERNATIVE TO REFURBISHMENT, THE CONTRACTOR MAY SUPPLY AND INSTALL A NEW BEARING. ADDITIONAL BEARING DESIGN INFORMATION WILL BE SUPPLIED TO THE CONTRACTOR IF A NEW BEARING SUPPLY OPTION IS CHOSEN.

BEARING DATA

BEARING MANUFACTURER	MK.10 ON PIER 1	MK.8 ON PIER 2
BEARING TYPE	GLACIER GX'C'350 - FREE (MULTIDIRECTIONAL)	GLACIER GZ'C'350 - FIXED
DEAD LOAD	2640 kN	2640 kN
MAX. VERTICAL LOAD	3720 kN	3720 kN
MAX. ROTATION	0.085 RADIAN	UNKNOWN
LONGITUDINAL MOVEMENT	±50 MM	N/A
TRANSVERSE MOVEMENT	±10 MM	N/A
LATERAL LOAD	N/A	240 kN
LONGITUDINAL LOAD	N/A	235 kN

NO.	REVISIONS	DATE	BY	CITY BRIDGE ENGINEER
3	REFURBISHMENT PROCEDURE	11/04/05	M.R.D.	
2	ISSUED FOR BIDDING	10/31/05	M.R.D.	
1	ISSUED FOR CITY REVIEW	10/27/05	M.R.D.	

DESIGNED BY: R.A.W.
 DRAWN BY: M.R.D.
 CHECKED BY: R.A.W.
 REVIEWED BY: S.S.R.
 SCALE: HORZ. AS SHOWN
 VERT.
 DATE: OCT 2005

ENGINEER'S SEAL
 PROVINCE OF MANITOBA
R. A. WIEBE
 REGISTERED PROFESSIONAL ENGINEER

BID OPPORTUNITY NO. 663-2005

THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT

2005 BRIDGE MAINTENANCE
 MIDTOWN BRIDGE

BEARING REFURBISHMENT

CITY DRAWING NUMBER
B114-05-01-R1
 SHEET 1 OF 1

CONSULTANT PROJECT NO.
 05-4421-1000

PLAN, ELEVATION, AND DETAILS

