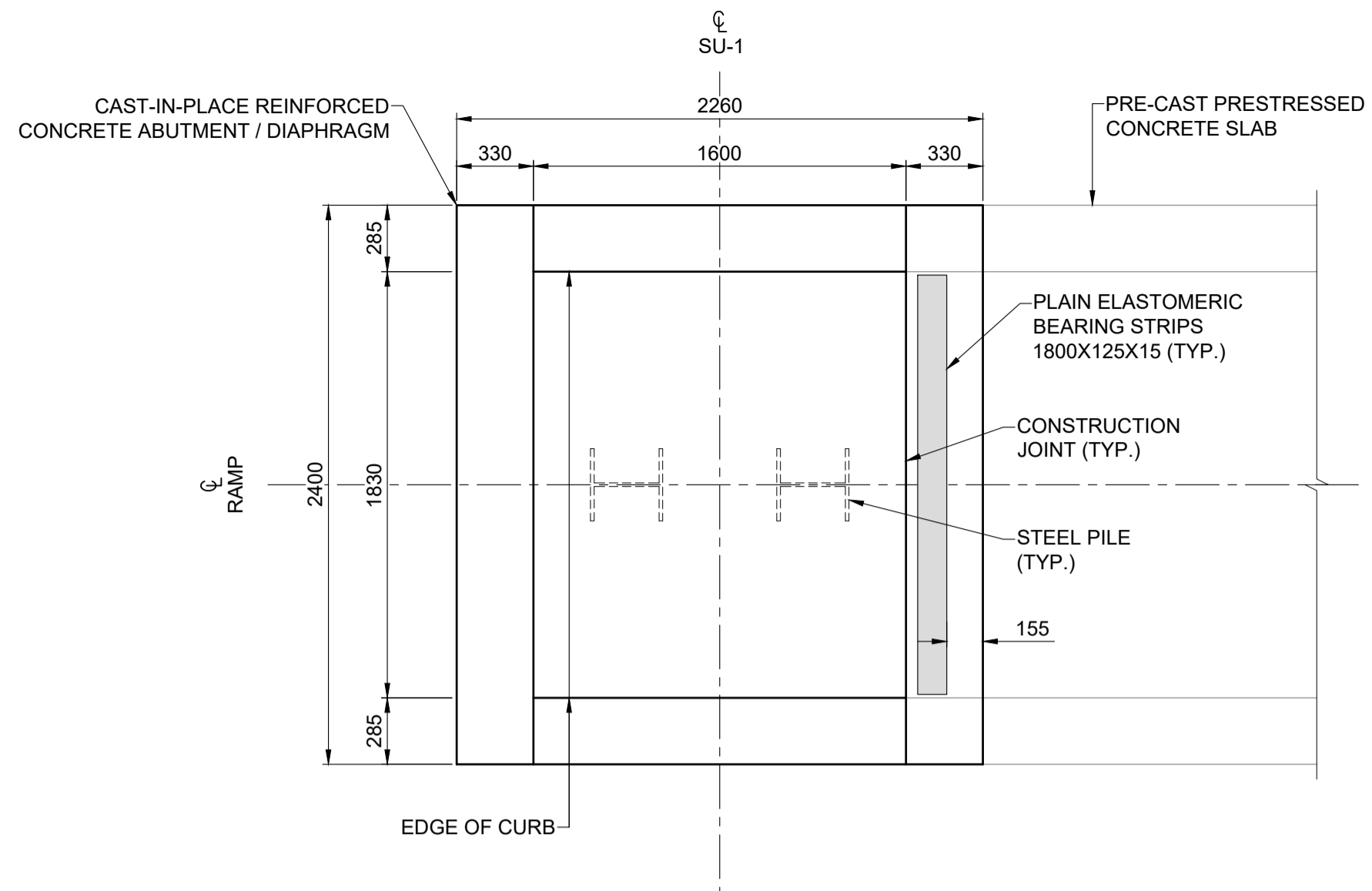
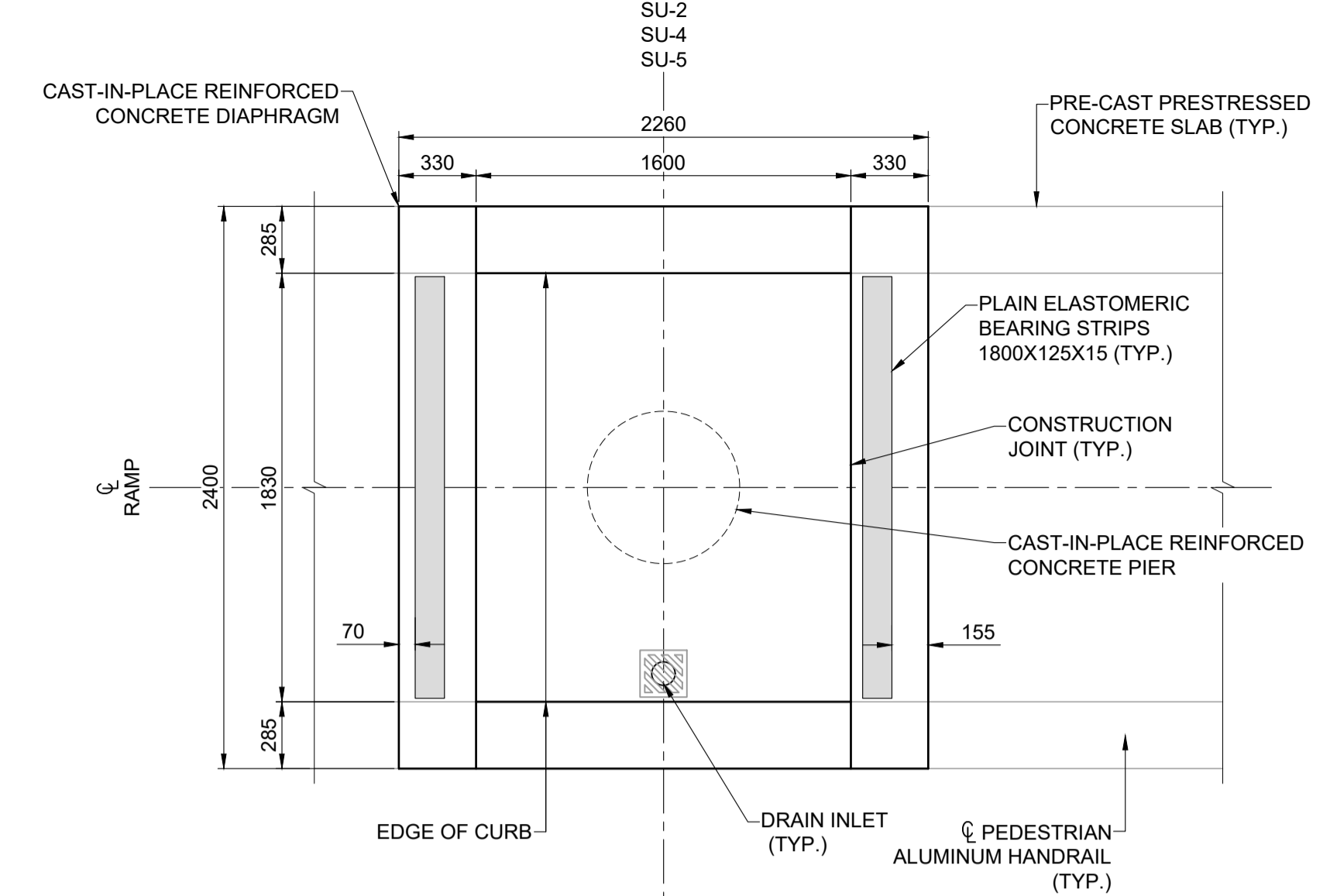


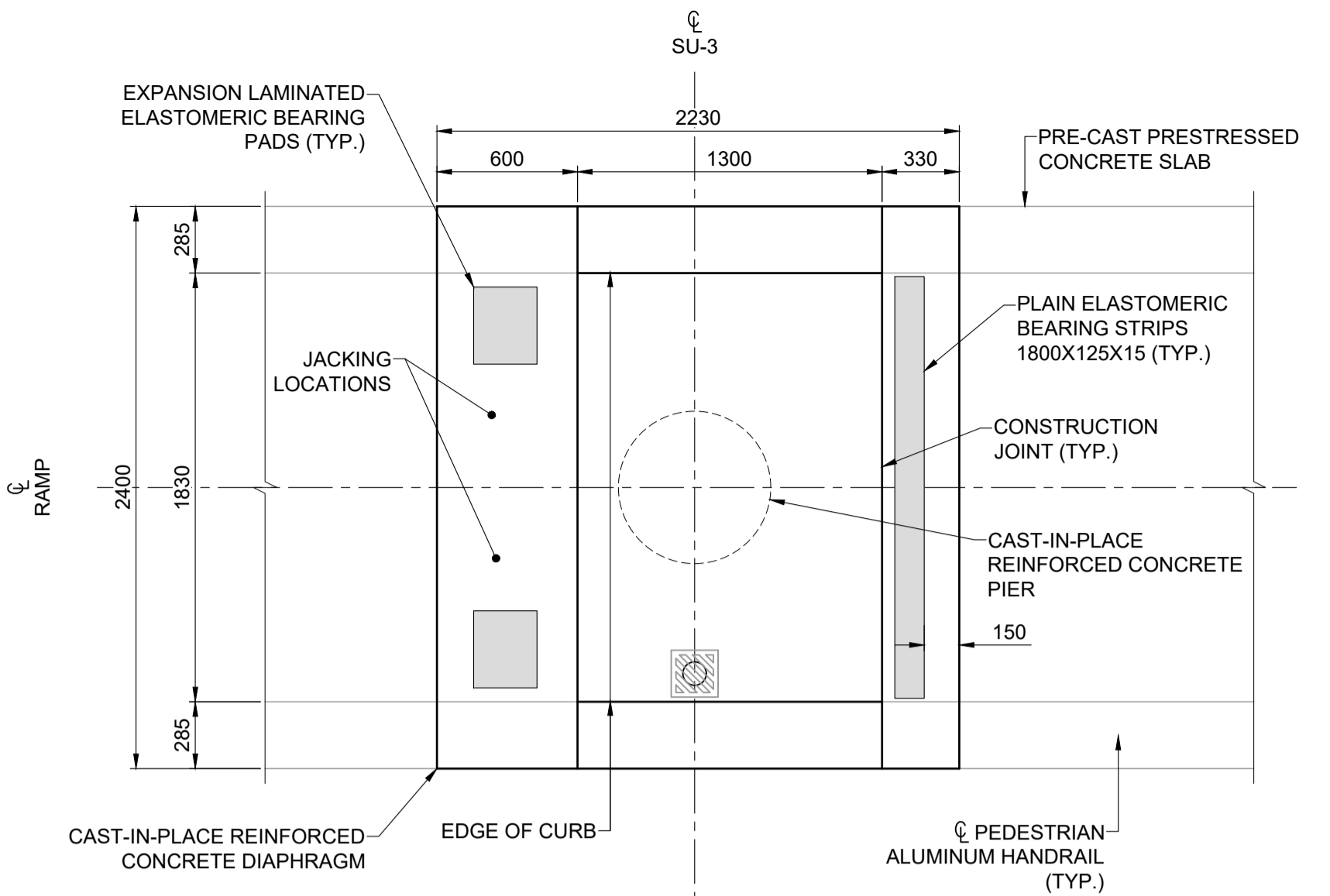
ISO A1 - 594mm x 841mm



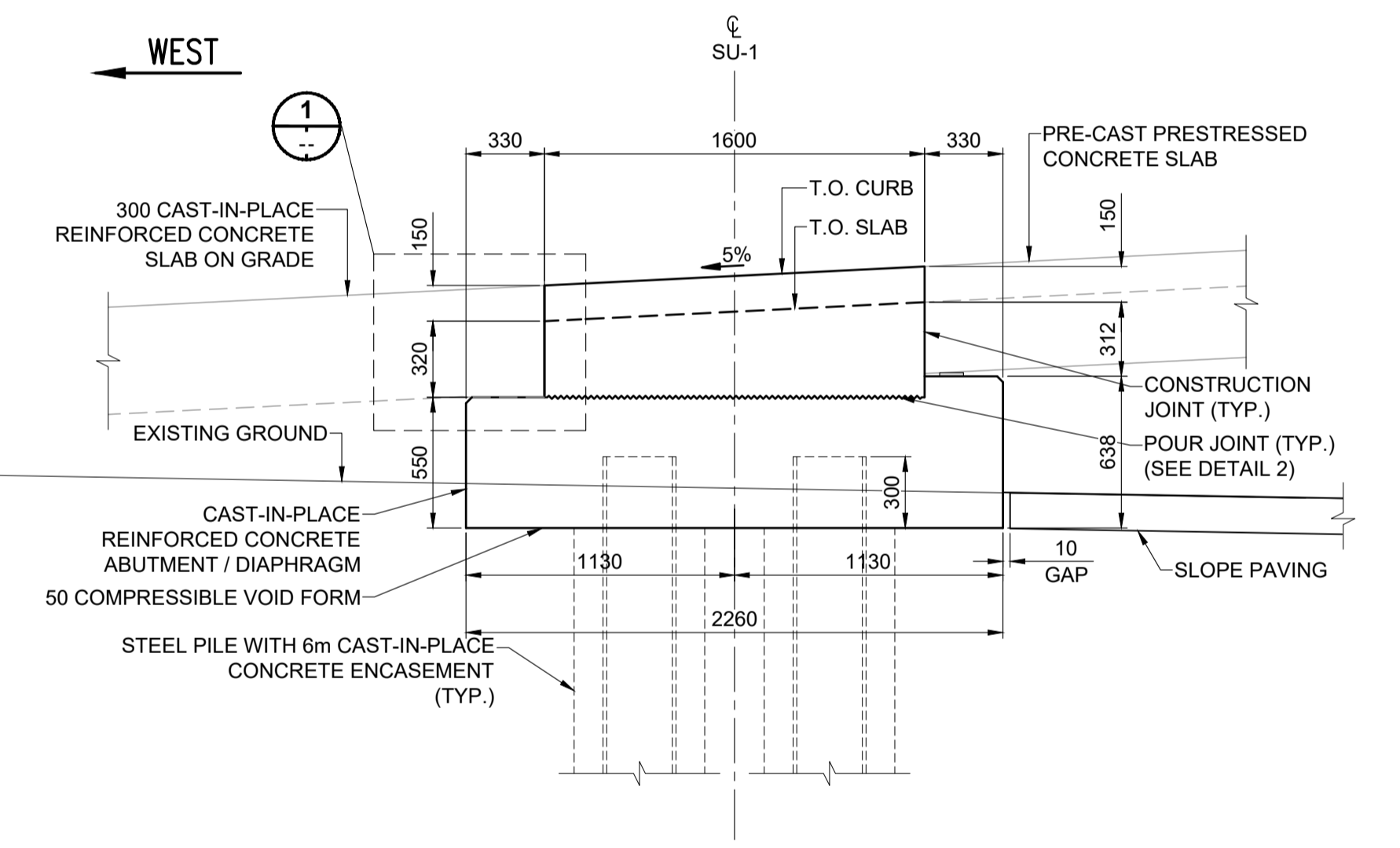
**ABUTMENT / DIAPHRAGM PLAN**  
SU-1 DETAILS  
SCALE: 1:25



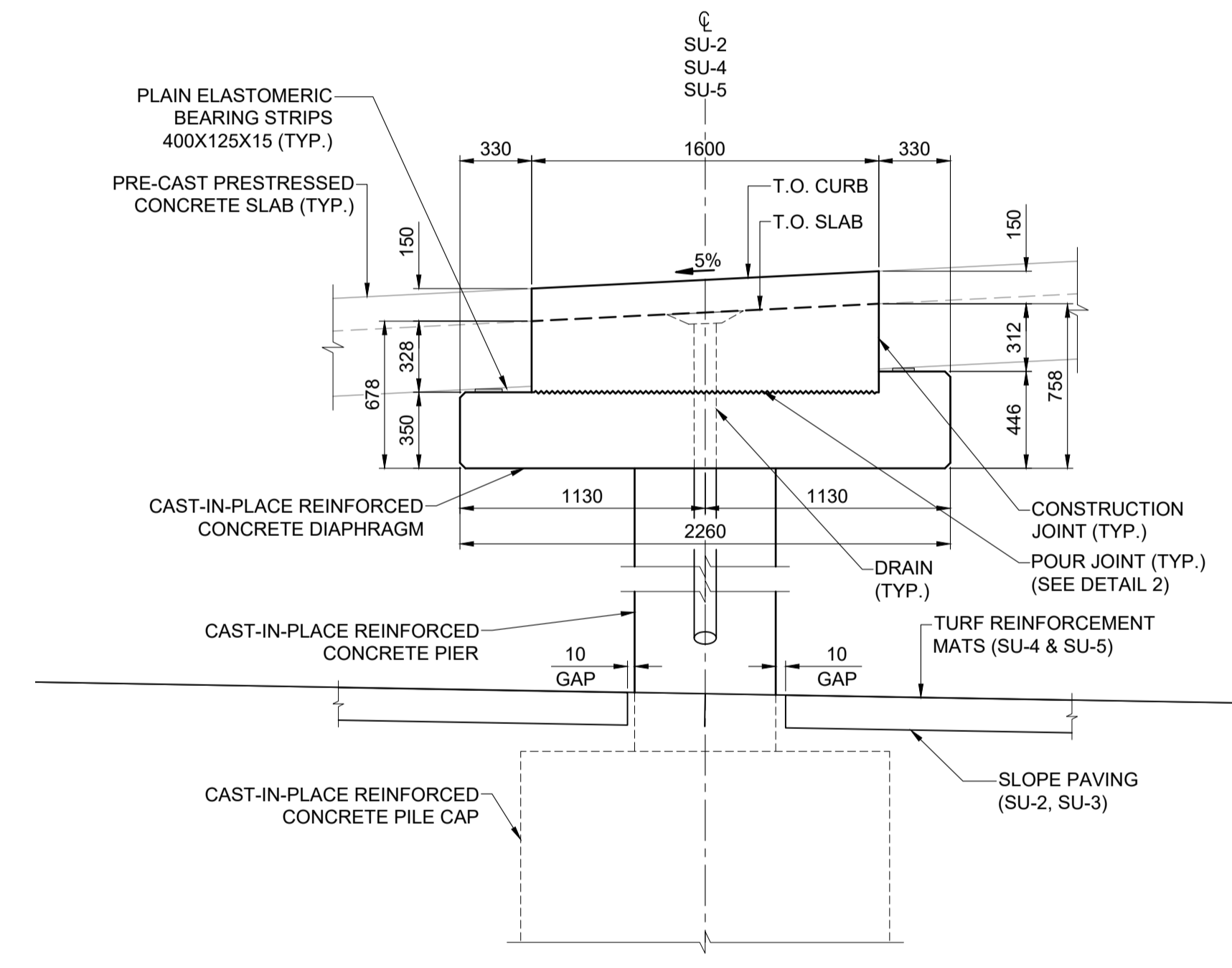
**DIAPHRAGM PLAN**  
TYPICAL INTERMEDIATE DIAPHRAGM DETAILS  
SCALE: 1:25



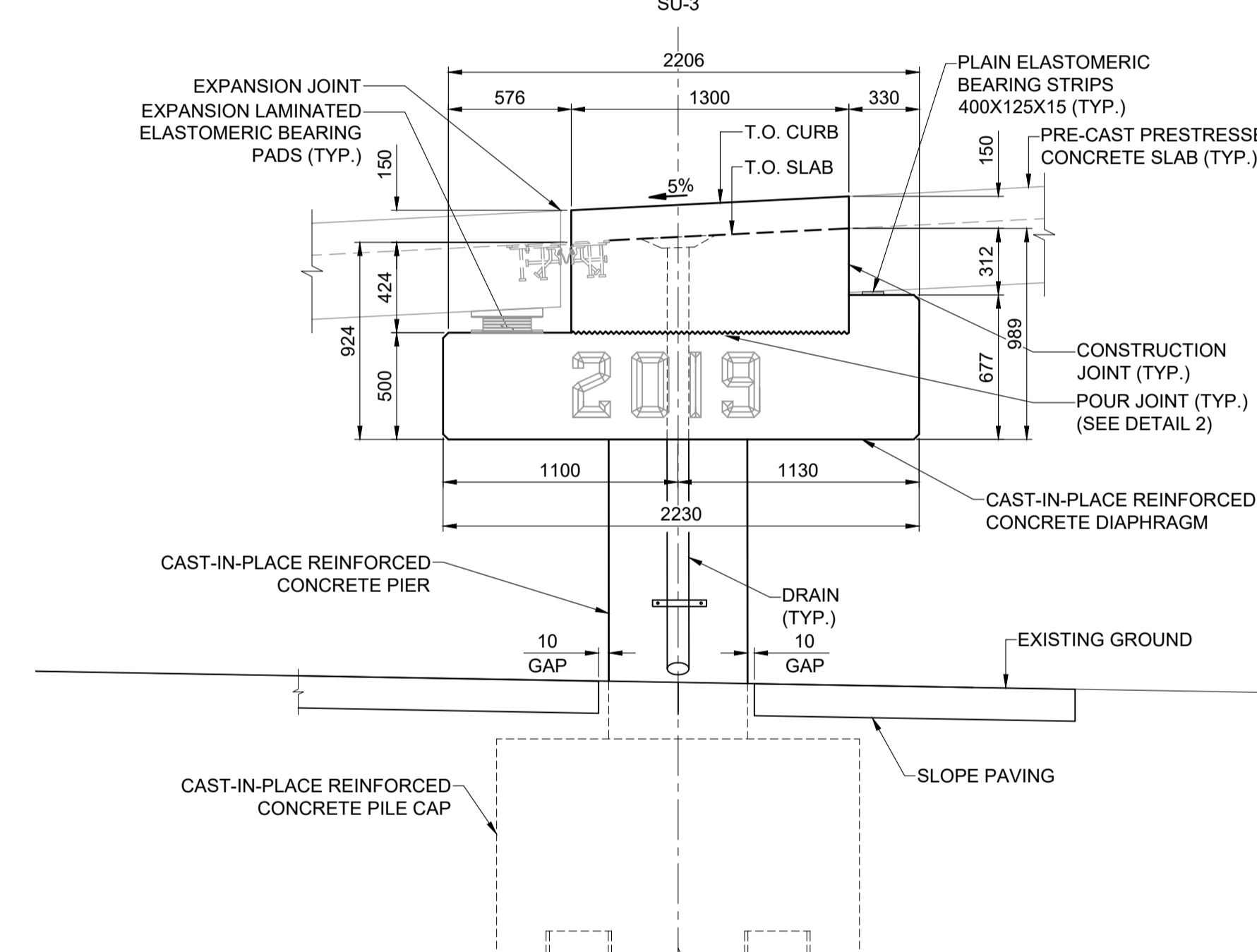
**DIAPHRAGM PLAN**  
SU-3 DETAILS  
SCALE: 1:25



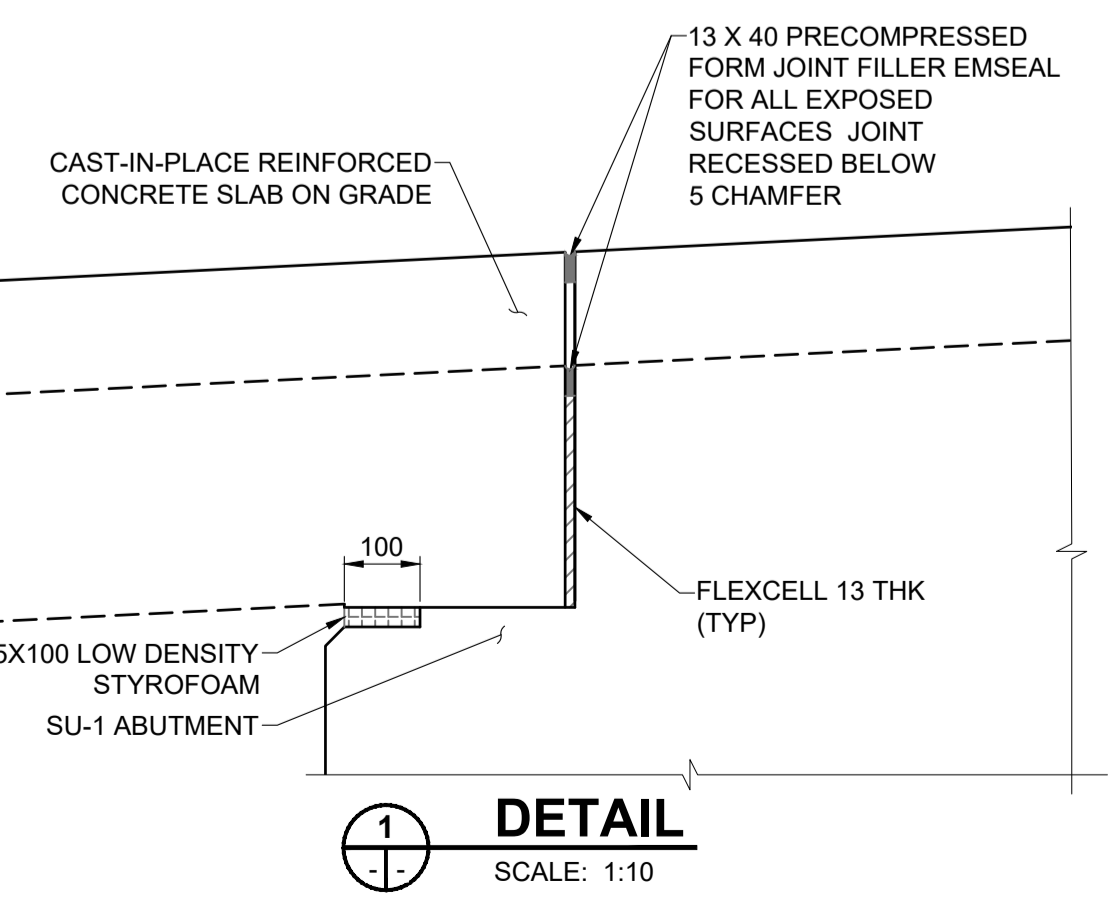
**ABUTMENT / DIAPHRAGM ELEVATION**  
SU-1 DETAILS  
SCALE: 1:25



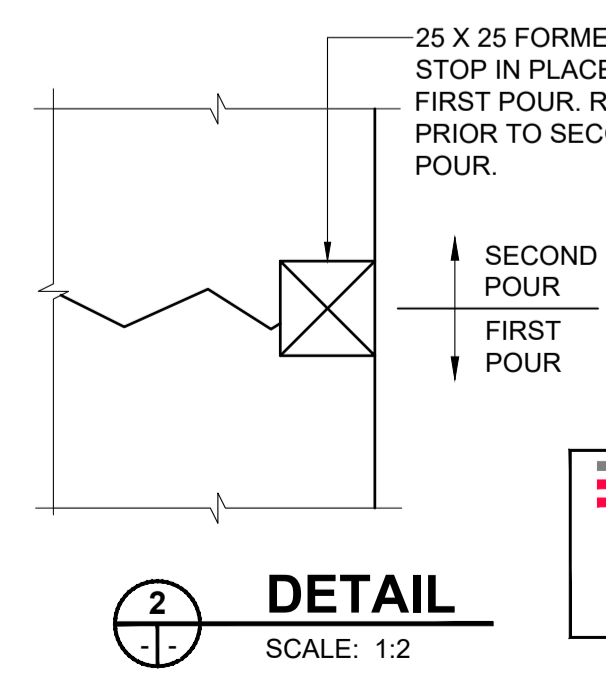
**DIAPHRAGM ELEVATION**  
TYPICAL INTERMEDIATE DIAPHRAGM DETAILS  
SCALE: 1:25



**DIAPHRAGM ELEVATION**  
SU-3 DETAILS  
SCALE: 1:25



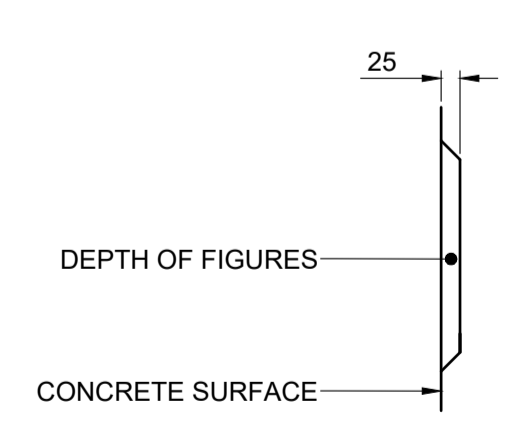
**DETAIL**  
SCALE: 1:10



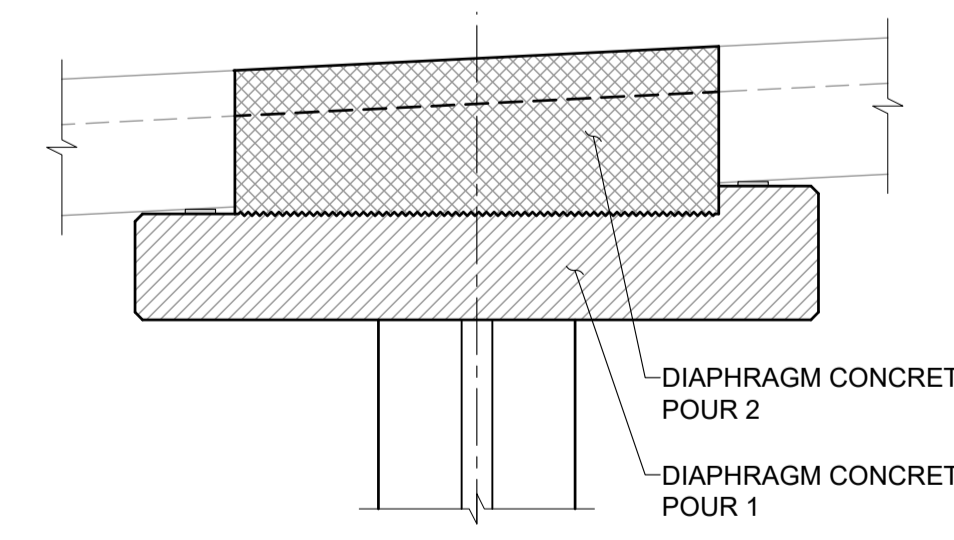
**DETAIL**  
SCALE: 1:2

**ENGINEERS  
GEOSCIENTISTS**  
Certificate of Authorization  
MORRISON HERSHFIELD  
No. 1736

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



**DETAIL - DATE FIGURES**  
SCALE: 1:10



**POUR DIAGRAM**  
SCALE: 1:25

- NOTES:**
- ELEVATIONS ARE BASED ON PLAIN ELASTOMERIC STRIP BEARINGS THICKNESS OF 15mm
  - BEARING SEAT TO BE CAST FLAT AND LEVEL AT BEARING LOCATIONS.
  - ALL EXPOSED EDGES TO BE CHAMFERED 20mm UNLESS NOTED OTHERWISE.
  - JACKING NOTES FOR EXPANSION BEARING AT SU-3:
    - MAXIMUM JACKING HEIGHT TO BE 5mm.
    - JACKING OF GIRDERS SHALL BE DONE WITH NO LIVE LOAD ON THE RAMP.
  - ERECT PRECAST SLABS ON PLAIN ELASTOMERIC STRIP BEARINGS AT PIER CAPS AND EXPANSION LAMINATED BEARINGS AT SU-3.
  - PRECAST SLAB STABILITY DURING CONSTRUCTION IS THE CONTRACTOR'S RESPONSIBILITY.
  - MINIMUM 90 DAYS MUST HAVE ELAPSED SINCE TIME OF TRANSFER OF PRESTRESSING FORCES INTO GIRDERS AND SLAB ERECTION.

BID OPPORTUNITY No. 602-2018

**LOCATION APPROVED**  
UNDERGROUND STRUCTURES

SUPR. U/G STRUCTURES COMMITTEE DATE

**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
D	ISSUED FOR ADDENDUM 1	18/10/05	BAP
C	ISSUED FOR TENDER	18/09/04	BAP
B	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP
A	ISSUED FOR 50% DESIGN REVIEW	18/06/28	BAP

<b>MORRISON HERSHFIELD</b>	
DESIGNED BY: YM	CHECKED BY: GQW
DRAWN BY: ALP	APPROVED BY: BAP
HOR SCALE: AS SHOWN	RELEASED FOR CONSTRUCTION: N/A
VERT SCALE: AS SHOWN	DATE: _____

PROFESSIONAL'S SEAL  
PROVINCE OF MANITOBA  
**G.Q. WEI**  
Member  
38723  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME  
W160034 - DD NR.DWG

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

**EMPRESS STREET PROJECT**  
PEDESTRIAN ACCESSIBILITY RAMPS  
NORTH RAMP  
ABUTMENT AND DIAPHRAGM DETAILS 1

CITY DRAWING NUMBER  
P-3494-143

SHEET 143 OF 169

DRAWING No. 143 REV D