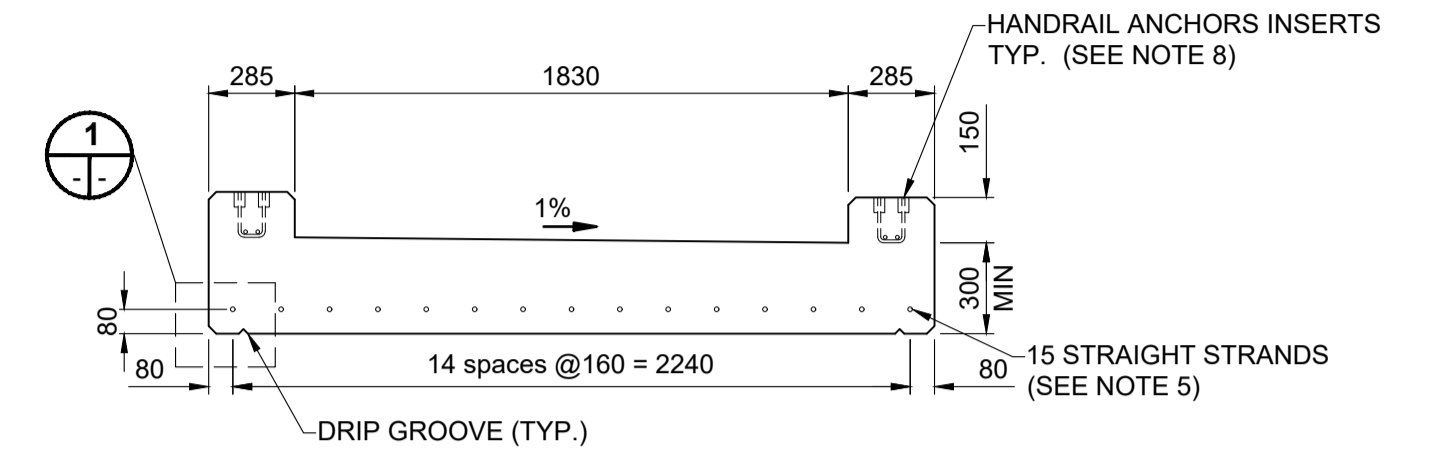
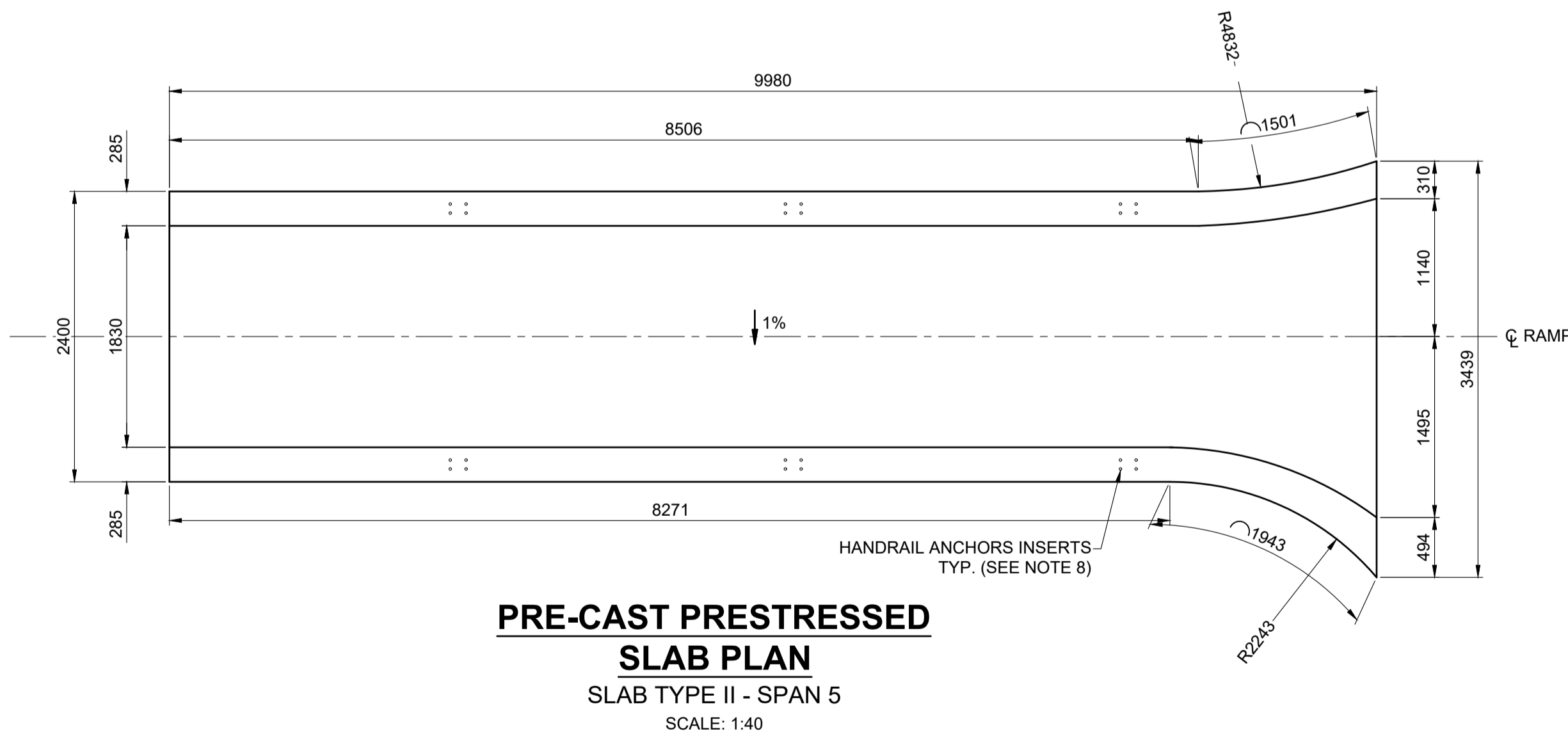
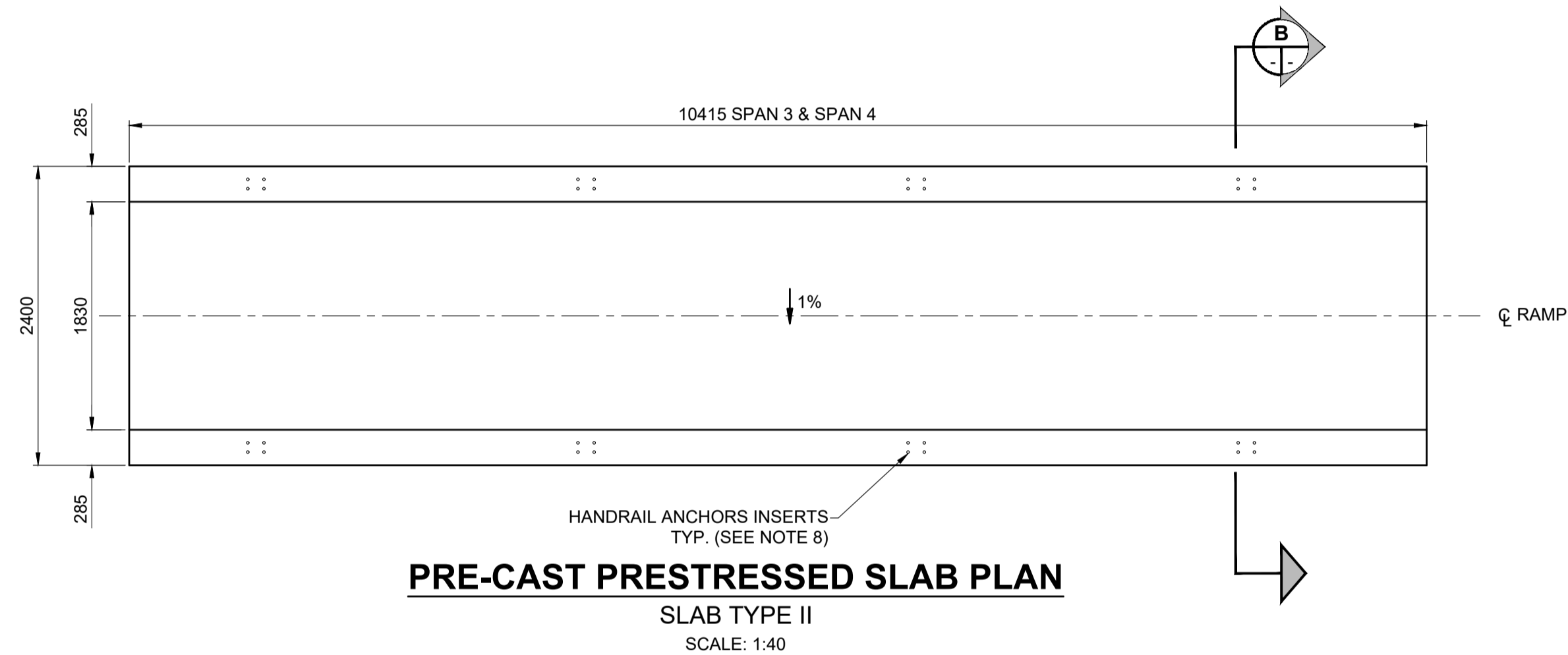
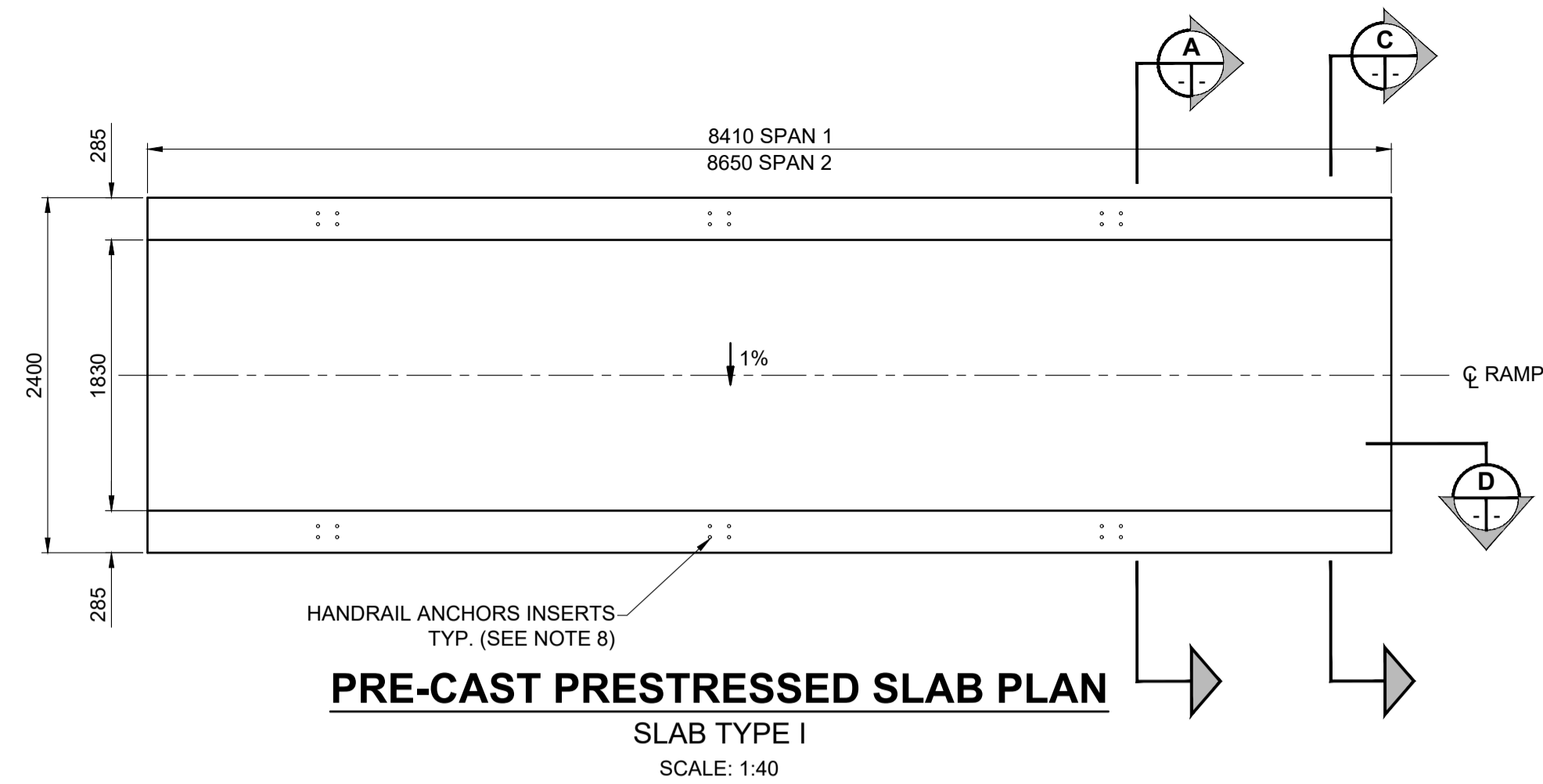


**NOTES:**

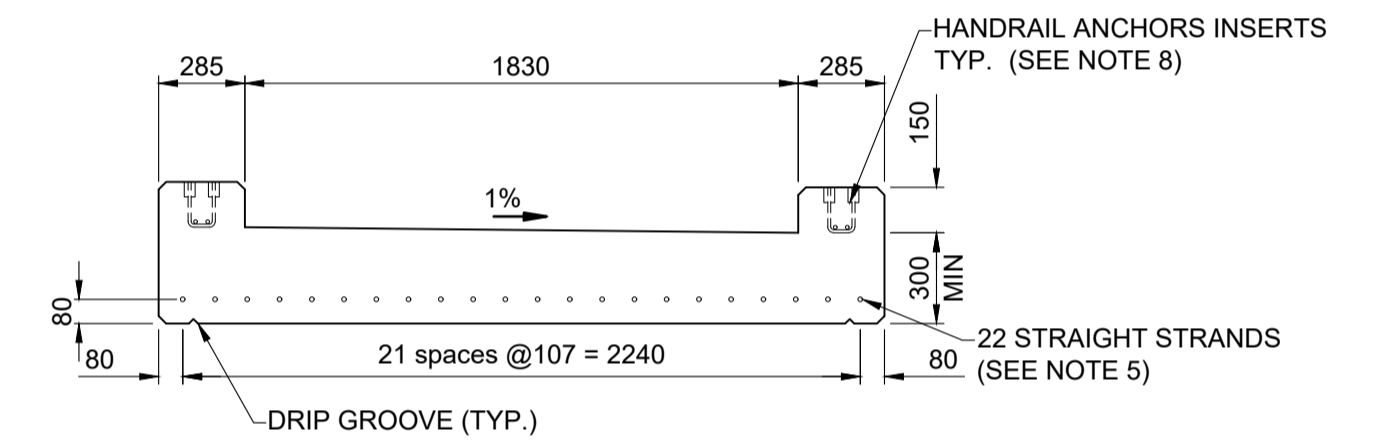
1. ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 20 mm CHAMFER UNLESS NOTED OTHERWISE.
2. SLAB CONCRETE TOLERANCES: ±5 mm, CROSS SECTION ±2 mm.
3. SLAB DIMENSIONS ARE BASED ON A 20° C TEMPERATURE AT RELEASE.
4. MINIMUM 90 DAYS MUST HAVE ELAPSED SINCE TIME OF TRANSFER OF PRESTRESSING FORCES INTO SLABS AND SLABS ERECTION.
5. THE PRESTRESSING STRANDS SHALL CONFORM TO CSA G279-M1982. PRESTRESSING STRAND SHALL BE 15.2 mm DIAMETER, 7 WIRE LOW RELAXATION UNCOATED STRANDS. MINIMUM TENSILE STRENGTH  $F_{pu} = 1860\text{MPa}$

PRESTRESSING FORCE TABLE		
	SLAB TYPE I	SLAB TYPE II
JACKING FORCE PER STRAND	195.5 kN	195.5 kN
PRESTRESSING FORCE AFTER ALL LOSSES	181.5 kN	176.3 kN

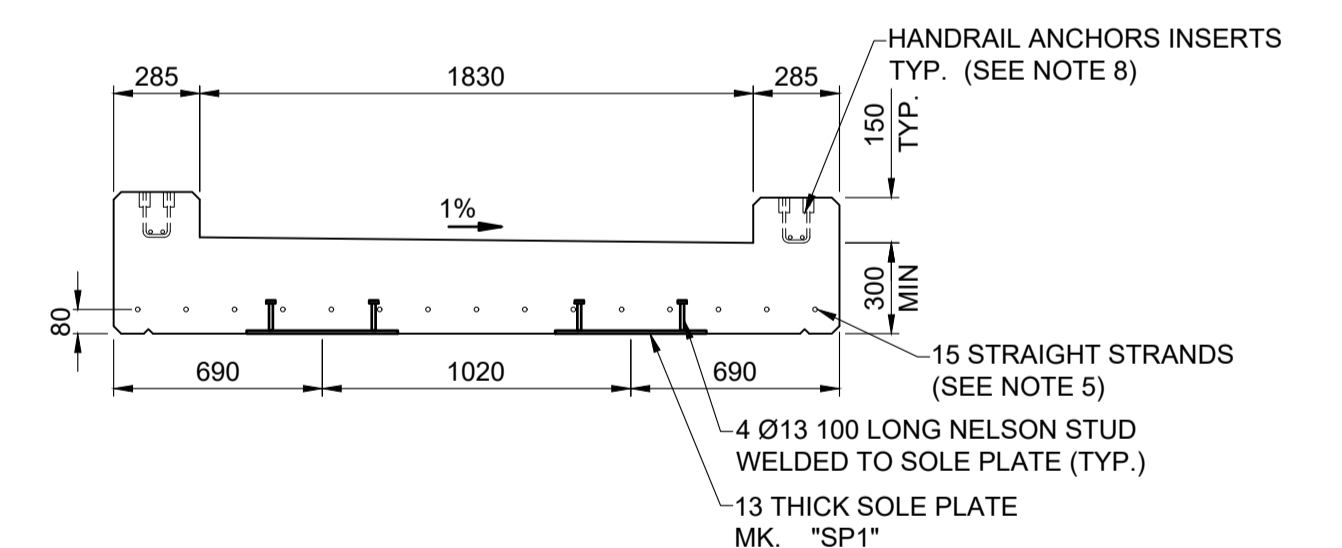
6. HALF OF STRANDS ARE EXTENDED 1000 BEYOND THE FACE OF GIRDER.
7. SLAB 2 AT THE EXPANSION JOINT SIDE RECESS CUT-OFF PRESTRESSING STRANDS 19mm SHY OF GIRDER END 50mm WIDE EXPANDED FOAM DOUGHNUT OR OTHER ACCEPTED MEANS. AFTER TRANSFER, CUT OFF STRAND AT FACE OF RECESS, CLEAN AND APPLY APPROVED EPOXY BONDING AGENT TO RECESS SURFACE, AND GROUT RECESS FLUSH WITH FINISHED END FACE OF GIRDER.
8. HANDRAIL ANCHOR INSERTS TO BE CAST INTO CURB AT THE REQUIRED LOCATIONS.
9. THE SLAB CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AS FOLLOW:  
AT TIME OF TRANSFER OF PRE-TENSIONING FORCES  $f_{ci} = 32\text{ MPa}$ .  
AT 28 DAYS  $f_c = 40\text{ MPa}$ .



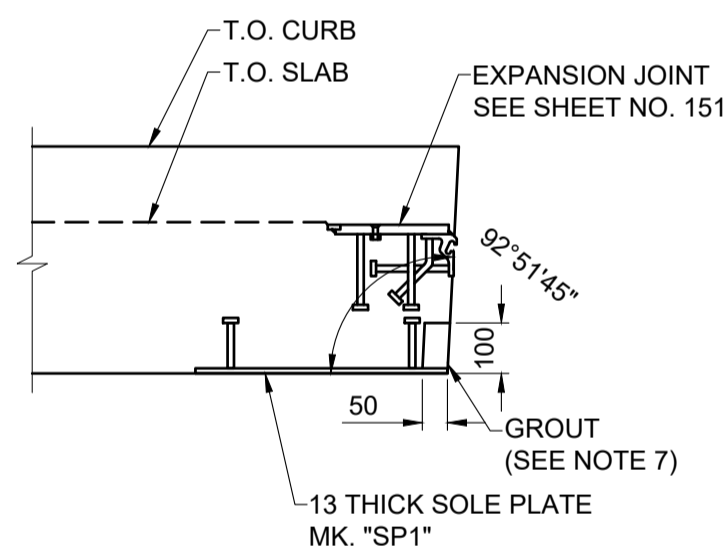
**SECTION A**  
SLAB TYPE I  
SCALE: 1:25



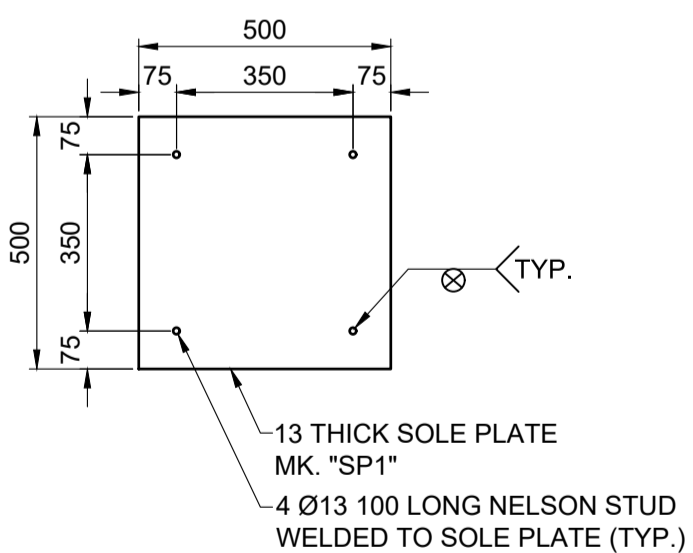
**SECTION B**  
SLAB TYPE II  
SCALE: 1:25



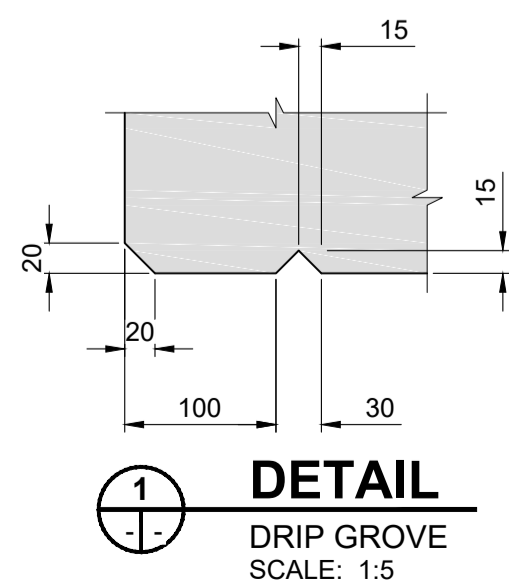
**SECTION C**  
SLAB 2 TYPE II  
SCALE: 1:25



**SECTION D**  
SLAB 2 AT EXPANSION JOINT  
SCALE: 1:15



**DETAIL - SOLE PLATE MK. 'SP1'**  
SCALE 1:25



**DETAIL**  
DRIP GROOVE  
SCALE: 1:5



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

**LOCATION APPROVED**  
UNDERGROUND STRUCTURES

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
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

DESIGNED BY	Y.M.	CHECKED BY	G.Q.W.
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  
PRESTRESSED SLAB DETAILS 1

CITY DRAWING NUMBER  
P-3494-147  
SHEET 147 OF 168  
DRAWING No. REV  
147 C