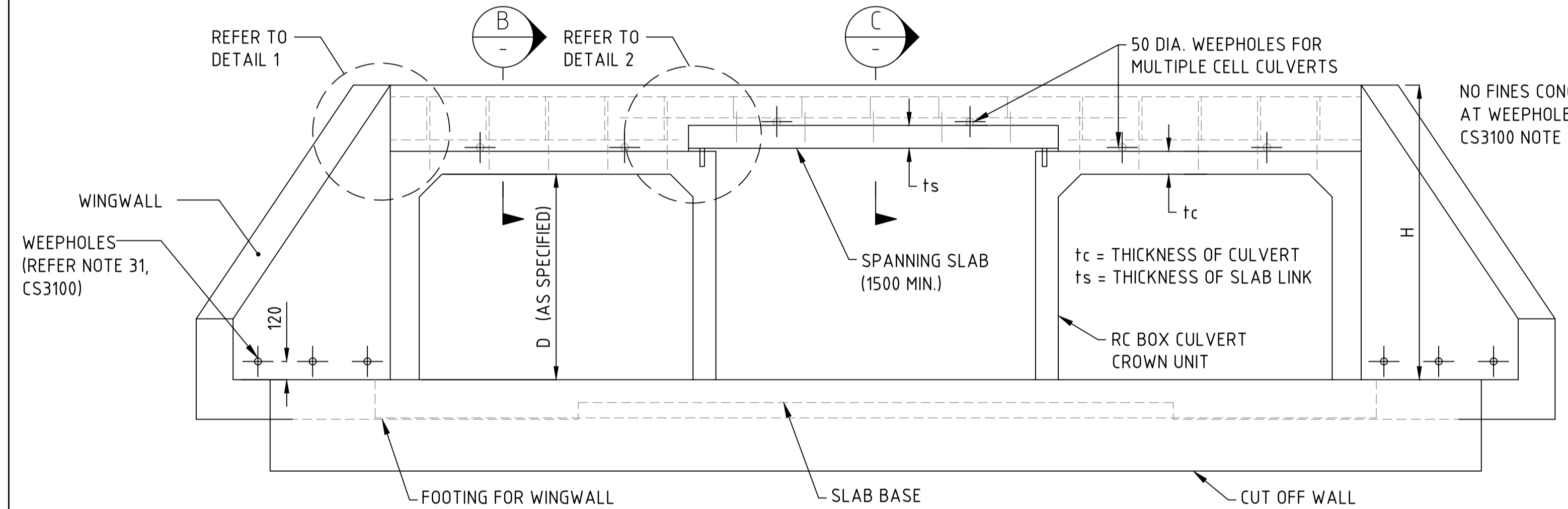
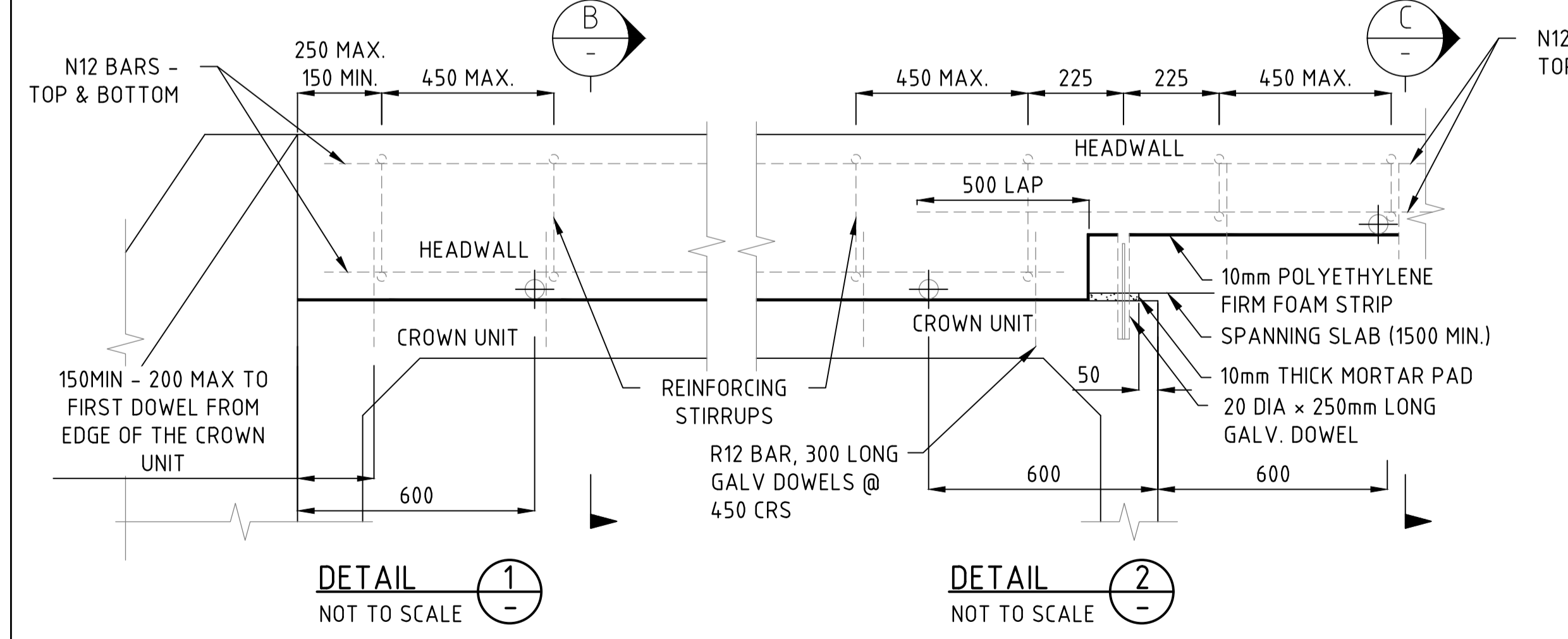


PLAN - HEADWALL AND WINGWALL DETAILS FOR SLBC & RCBC

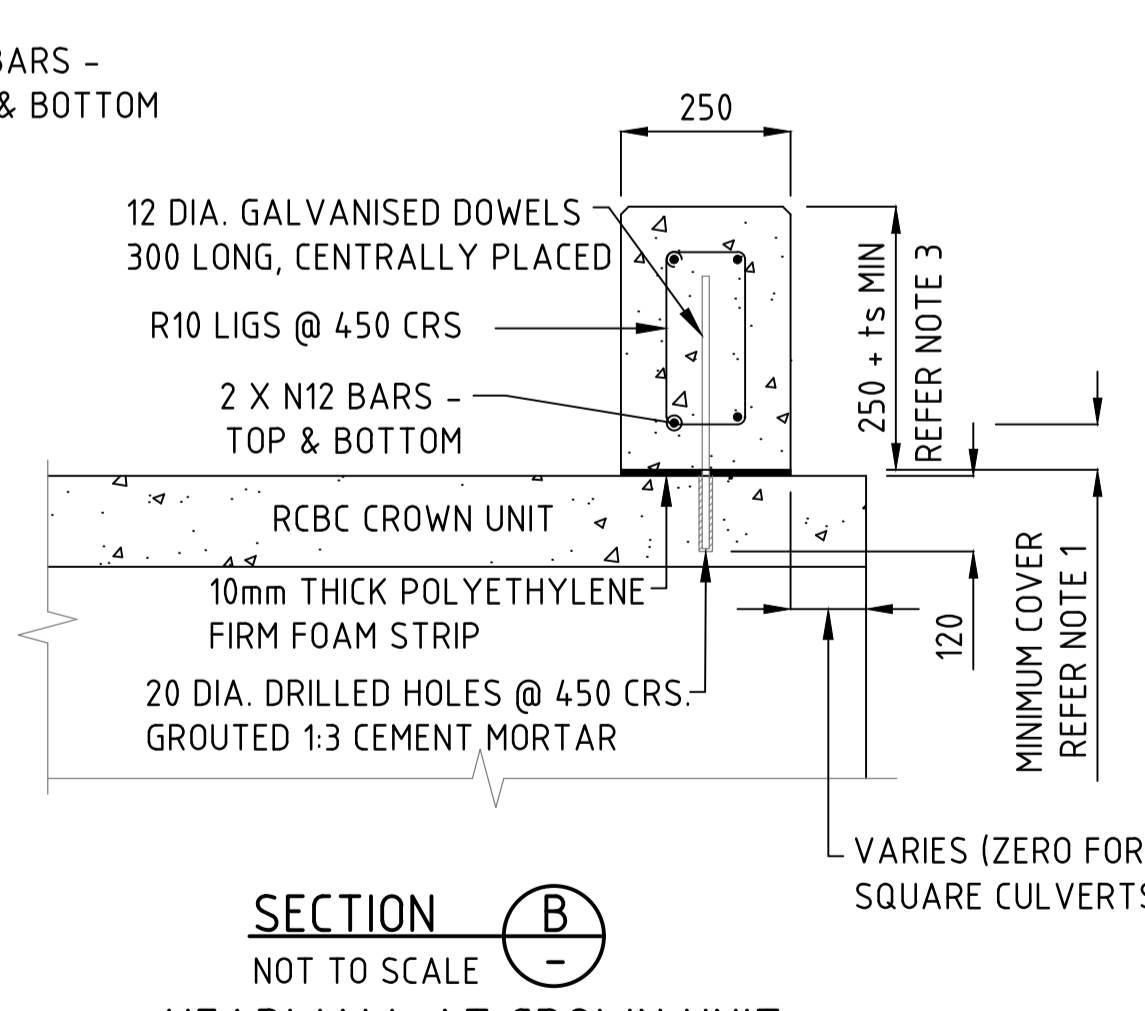


ELEVATION - HEADWALL & WINGWALL DETAILS FOR SLBC & RCBC (BASE WITH NIBS)

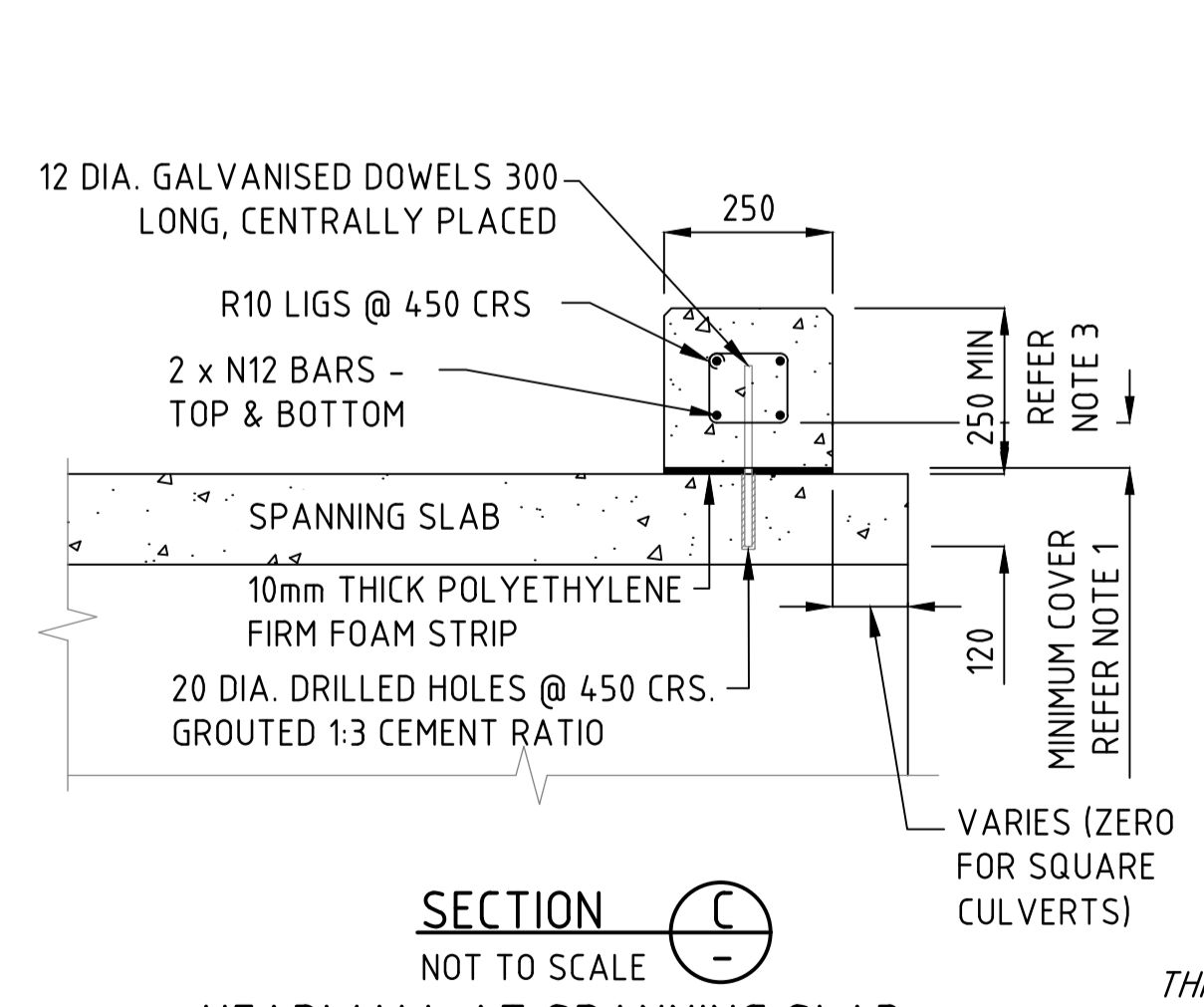


DETAIL 1 NOT TO SCALE

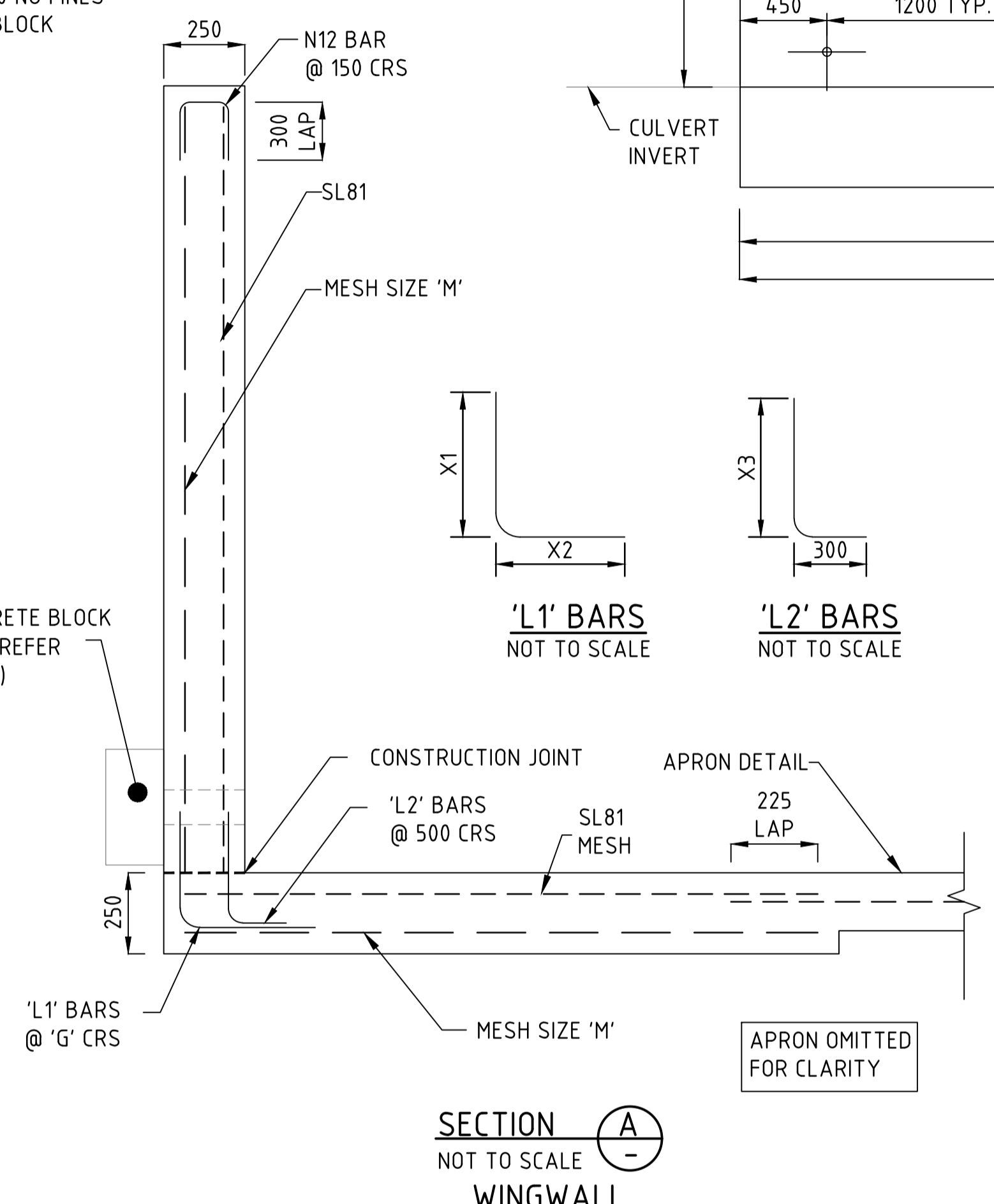
DETAIL 2 NOT TO SCALE



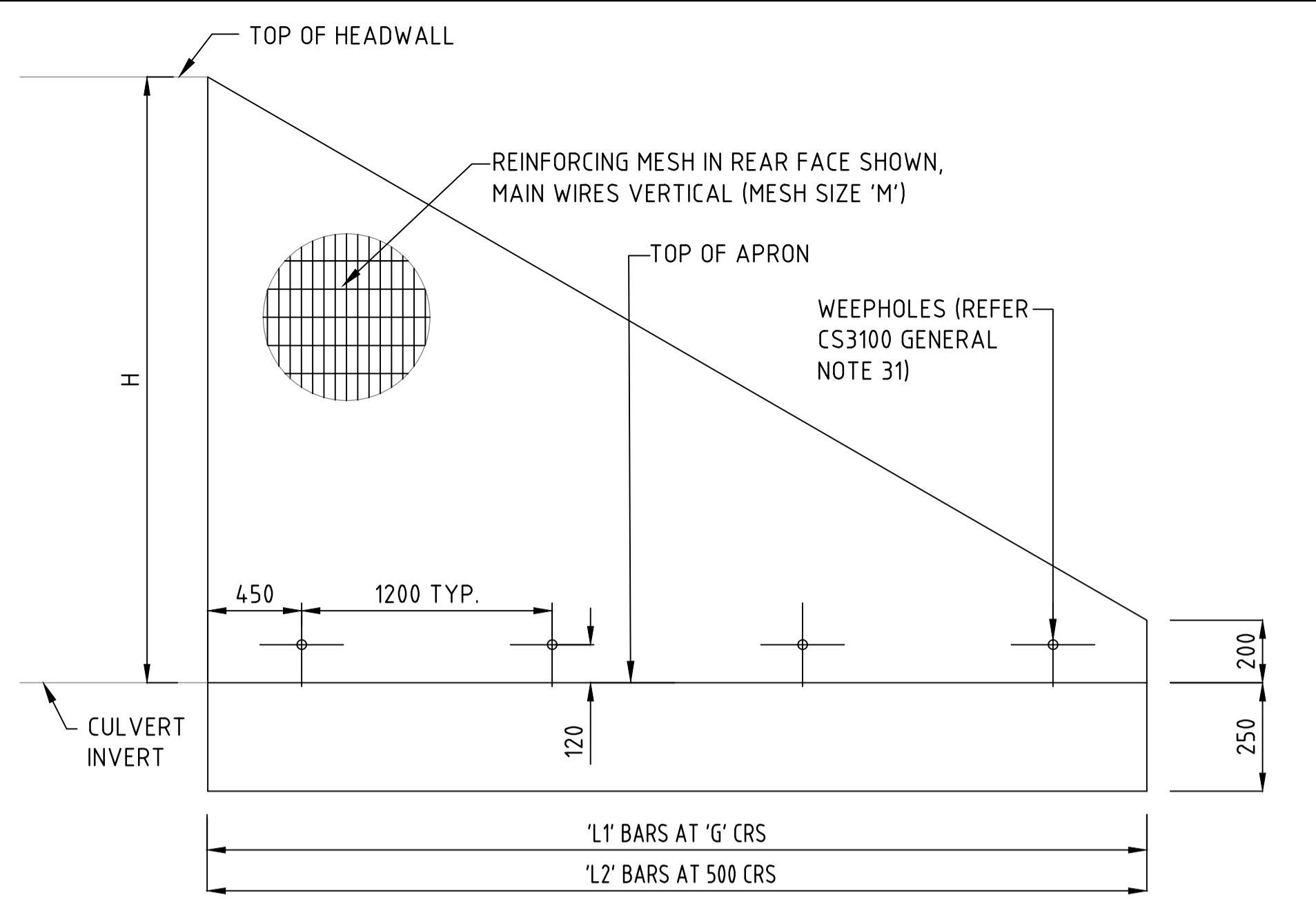
SECTION B NOT TO SCALE HEADWALL AT CROWN UNIT



SECTION C NOT TO SCALE HEADWALL AT SPANNING SLAB



SECTION A NOT TO SCALE WINGWALL



ELEVATION D NOT TO SCALE

TABLE 1: MINIMUM REINFORCEMENT REQUIREMENTS

H	MESH SIZE [M]	L1 BARS			L2 BARS [N12]	
		φ	X1	X2	G	X3
0 - 1500	SL81	12	550	400	200	550
1501 - 2000	RL1018	12	550	400	200	600
2001 - 2500	RL1018	12	600	400	100	650
2501 - 3000	RL1218	20	750	400	100	650
>3000	PROJECT SPECIFIC DESIGN REQUIRED					

H = MAXIMUM HEIGHT OF WINGWALL, MEASURED FROM APRON TO TOP OF WINGWALL WHERE IT MEETS THE HEADWALL

NOTES:

- STANDARD DRAWING REFERENCES
 - CS3100 - THE REQUIRED CONCRETE COVER THICKNESS AND MINIMUM CONCRETE STRENGTH FOR DIFFERENT EXPOSURE CLASS AND OTHER NOTES.
 - CS3107 AND CS3109 - SET OUT PLAN & HEADWALL AND WINGWALL REINFORCING DETAILS FOR RCBC WITH $D \leq 900$ mm.
 - CS3111 AND CS3112 - CULVERT BASES AND APRONS CONNECTION DETAILS
 - CS3107 - CS3113 - SHEET 1 TO 7 OF THIS SET
 - CS3127 - CS3132 - CULVERT SETOUT DIMENSIONS & QUANTITIES FOR RCBC & SLBC
- DESIRED THICKNESS FOR HEADWALL & WINGWALL [T] FOR BOX CULVERT WITH $D > 900$ mm IS 250mm. ANY OTHER PROJECT SPECIFIC THICKNESS SHALL BE DESIGNED TO OBTAIN AN ADEQUATE COVER AS PER STANDARD DRAWING CS3100 NOTE 1.
- DEPTH OF HEADWALL MAY VARY, BASED ON THE BATTER SLOPE. LOCALLY INCREASE HEADWALL HEIGHT TO ENSURE TOP OF HEADWALL MEETS BATTER HINGE FLUSH
- ALL EXPOSED EDGES TO BE PROVIDED WITH 20mm CHAMFERS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

THIS DRAWING IS DERIVED FROM QUEENSLAND MAIN ROADS STANDARD DRAWING SET 1250 AND ADOPTED FOR NT CONDITIONS.

No.	DESCRIPTION	DATE	NAME	DEPT./COMPANY
2	DESIGN DETAILS AMENDED	APR 2023	J. COOK	TCS / DIPL
1	MINOR AMENDMENT	OCT 2022	N.V	TCS/DIPL
0	ISSUED AS A STANDARD DRAWING	SEPT 2017	J. LEESON	EES/DIPL

WARNING
BEWARE OF UNDERGROUND SERVICES. THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DRAWN	A.R.	CHECKED	L.Mc
DATE	DEC 2012	DATE	DEC 2012
DESIGNED	QLD	CHECKED	QLD
DATE		DATE	
DESIGN LEADER	S.HATZI	DESIGN DIRECTOR	S.JACKSON
DATE	1/09/2017	DATE	1/09/2017



STANDARD DRAWINGS DRAINAGE				
REINFORCED CONCRETE BOX CULVERT (RCBC) WINGWALL AND HEADWALL DETAILS FOR D > 900mm				
FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.
-	-	4 OF 7	CS3110	2
				SHEET SIZE A1