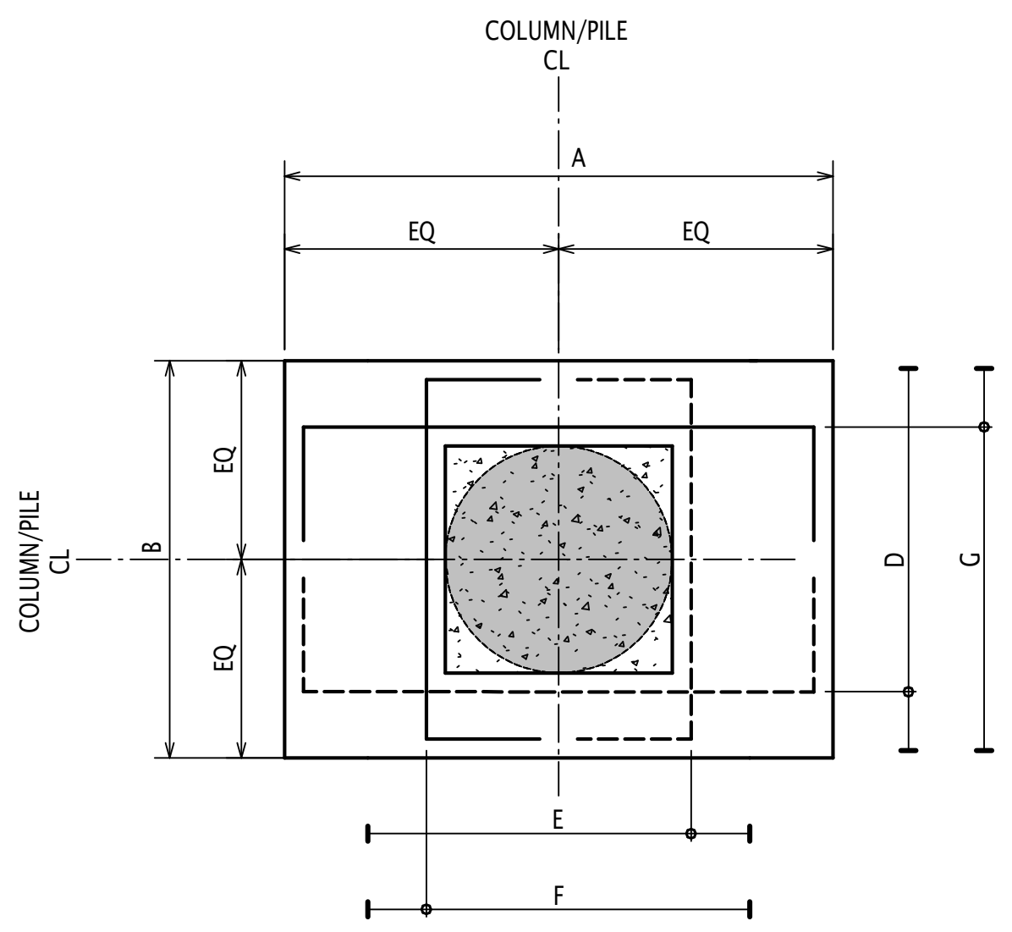
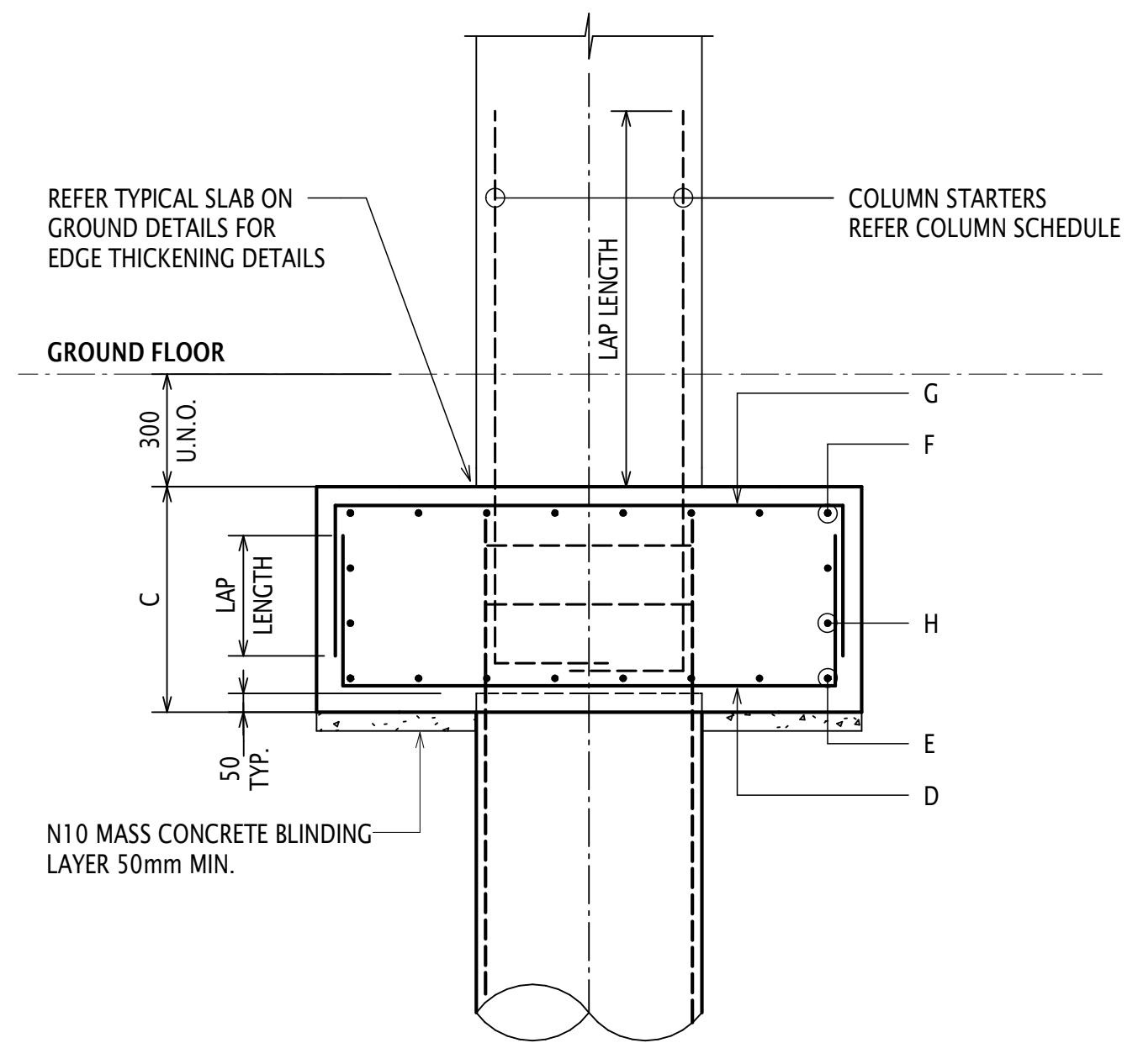
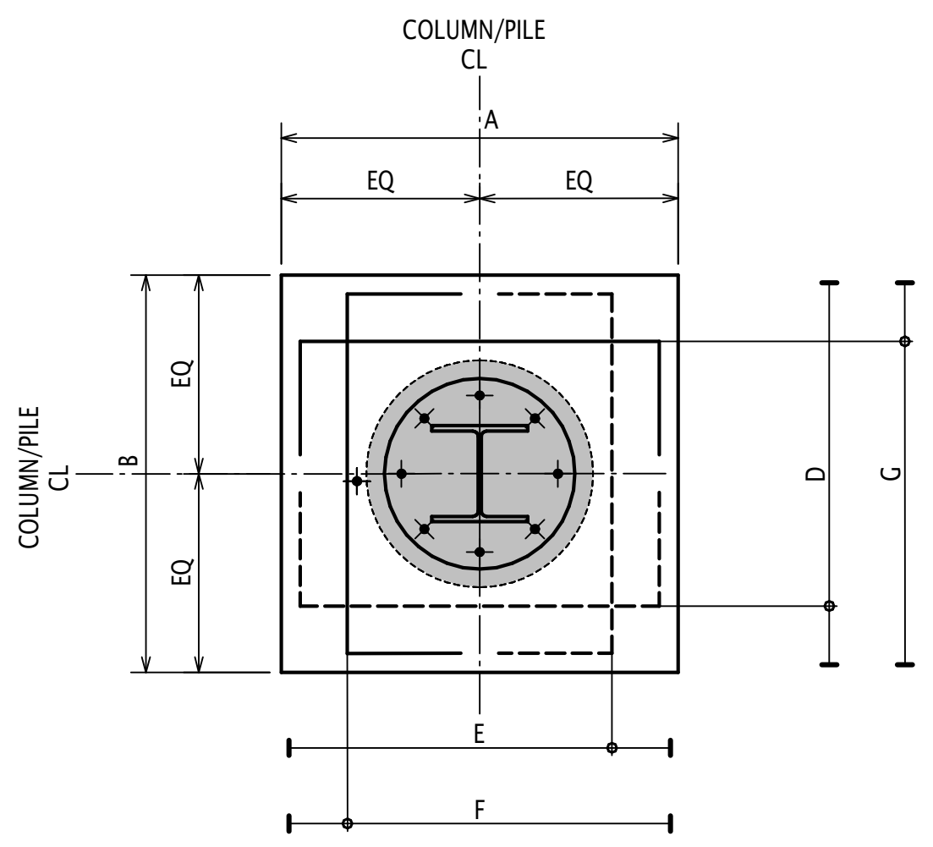

COLUMN/PILE
CL
A
EQ
EQ
COLUMN/PILE
CL
B
EQ
EQ
D
G
E
F

PLAN

**TYPICAL PILE CAP DETAILS - CONCRETE COLUMN OVER
(PC1,PC2,PC4,PC7,PC11,PC14,PC18,PC19)**

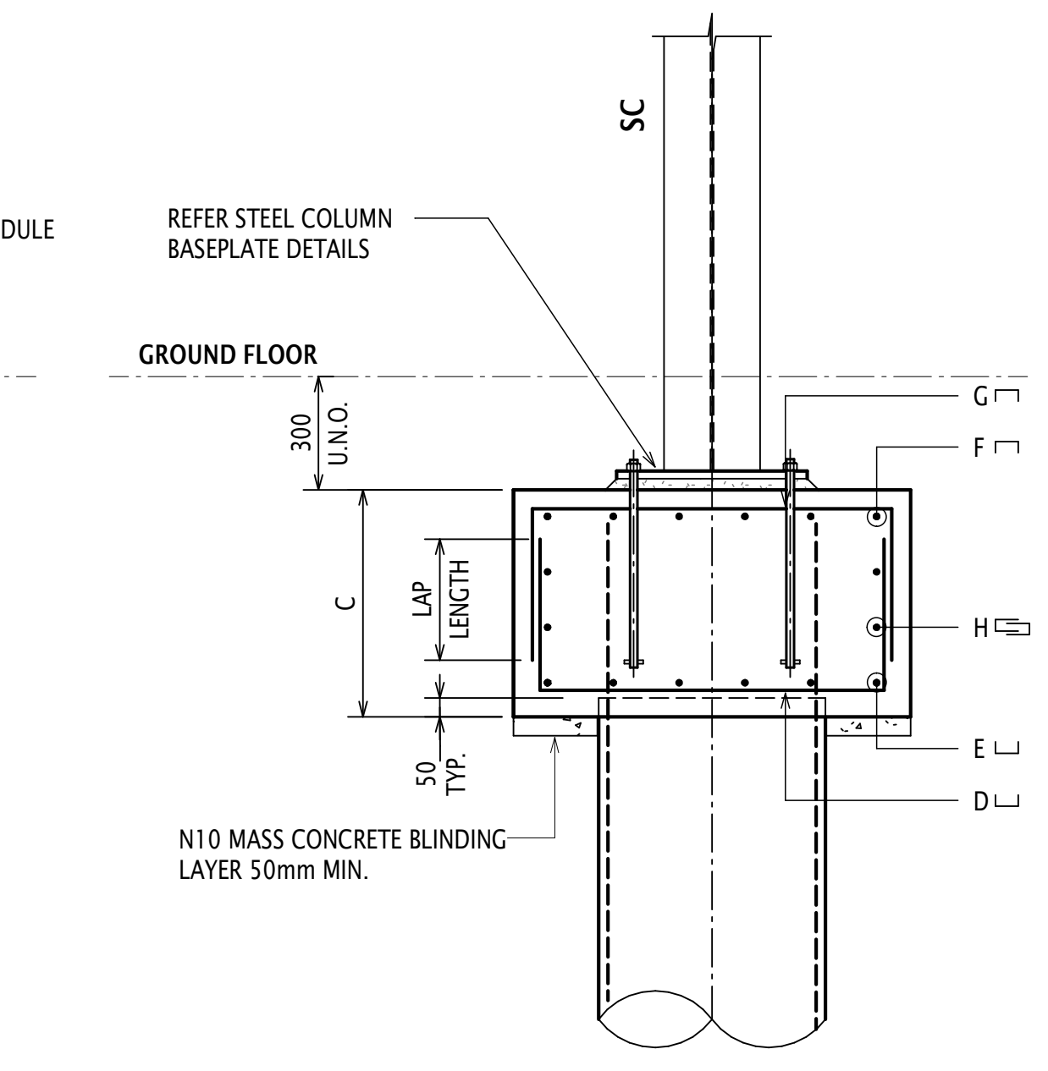

REFER TYPICAL SLAB ON GROUND DETAILS FOR EDGE THICKENING DETAILS
COLUMN STARTERS REFER COLUMN SCHEDULE
LAP LENGTH
GROUND FLOOR
300 U.N.O.
C
LAP LENGTH
50 TYP.
G
F
H
E
D
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.

SECTION

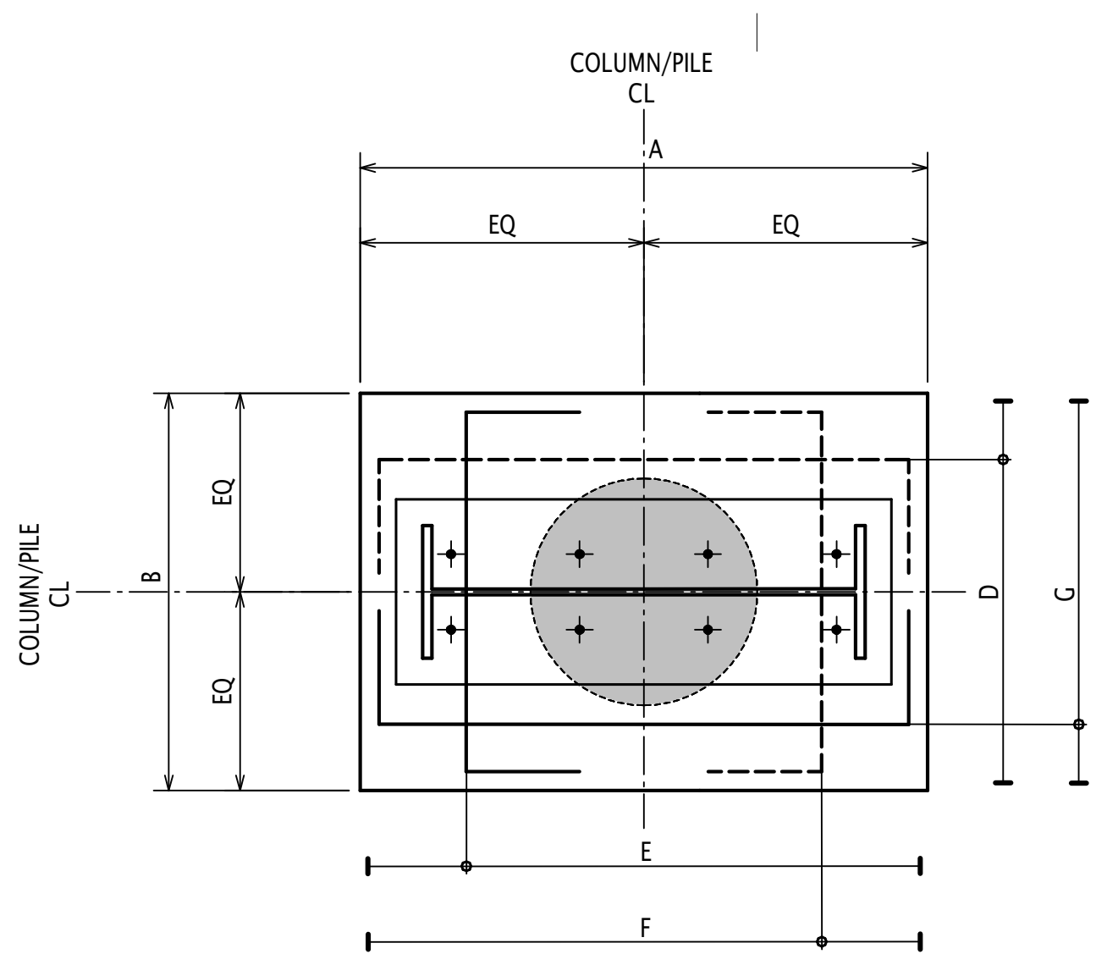

COLUMN/PILE
CL
A
EQ
EQ
COLUMN/PILE
CL
B
EQ
EQ
D
G
E
F

PLAN

**TYPICAL PILE CAP DETAILS - STEEL SC OVER
(PC1)**

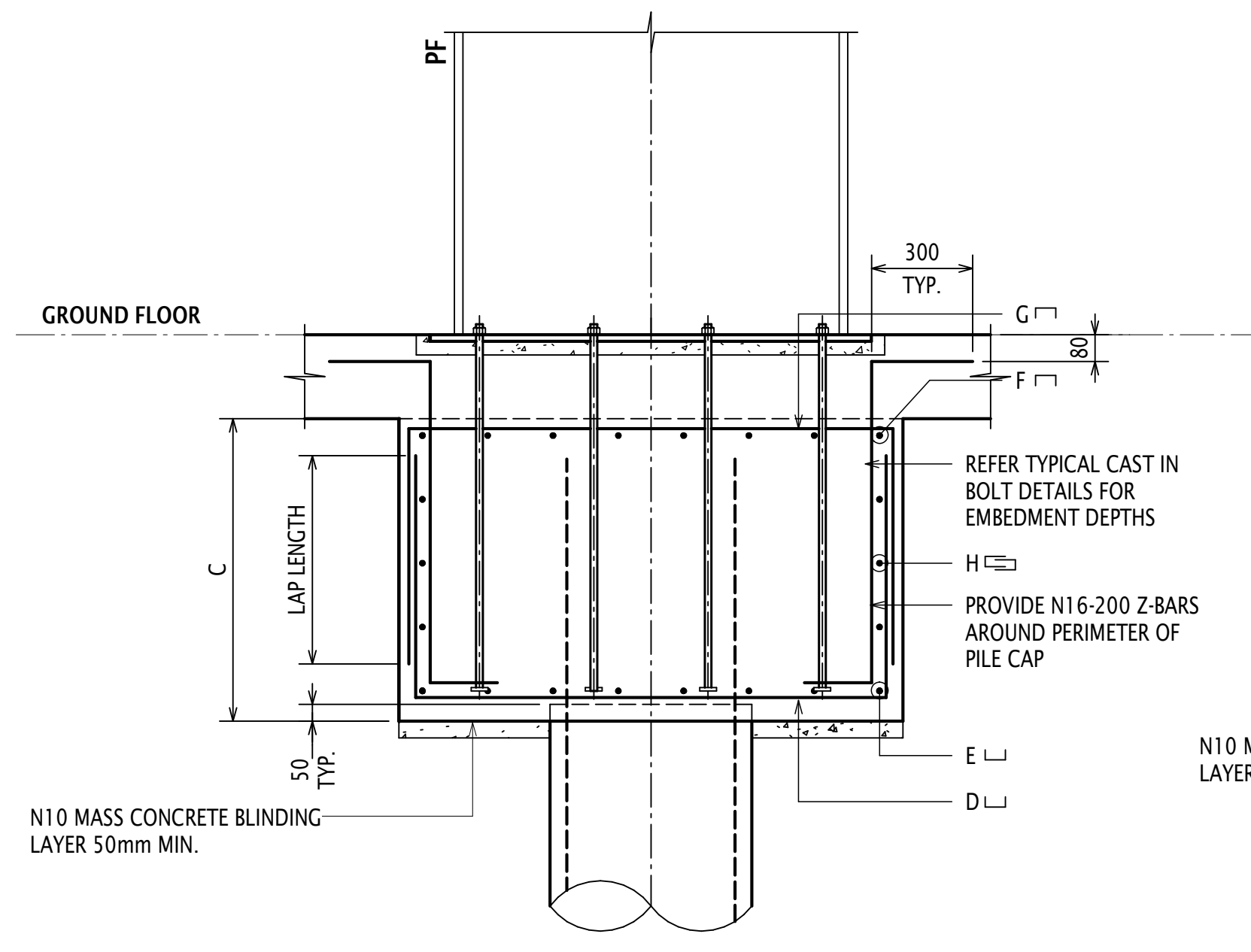

SC
REFER STEEL COLUMN BASEPLATE DETAILS
GROUND FLOOR
300 U.N.O.
C
LAP LENGTH
50 TYP.
G
F
H
E
D
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.

SECTION

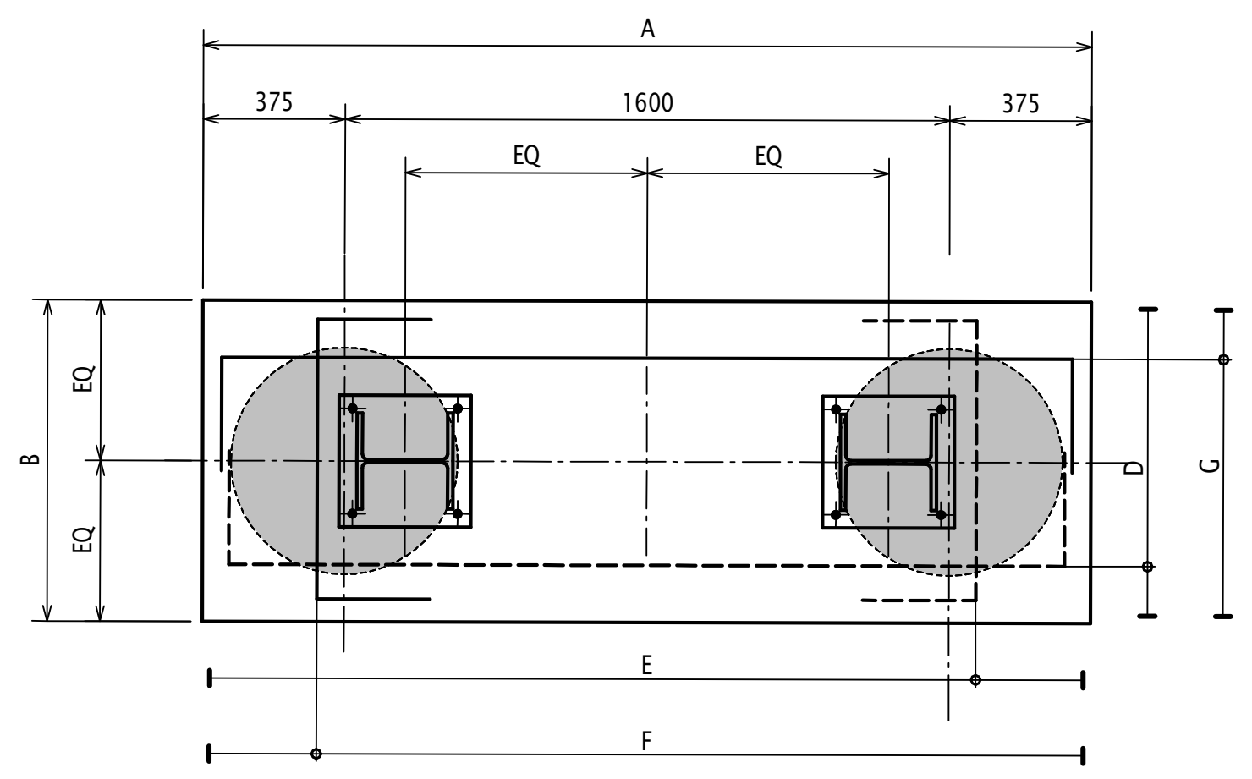

COLUMN/PILE
CL
A
EQ
EQ
COLUMN/PILE
CL
B
EQ
EQ
D
G
E
F

PLAN

**TYPICAL PILE CAP DETAILS - STEEL PF OVER
(PC10)**

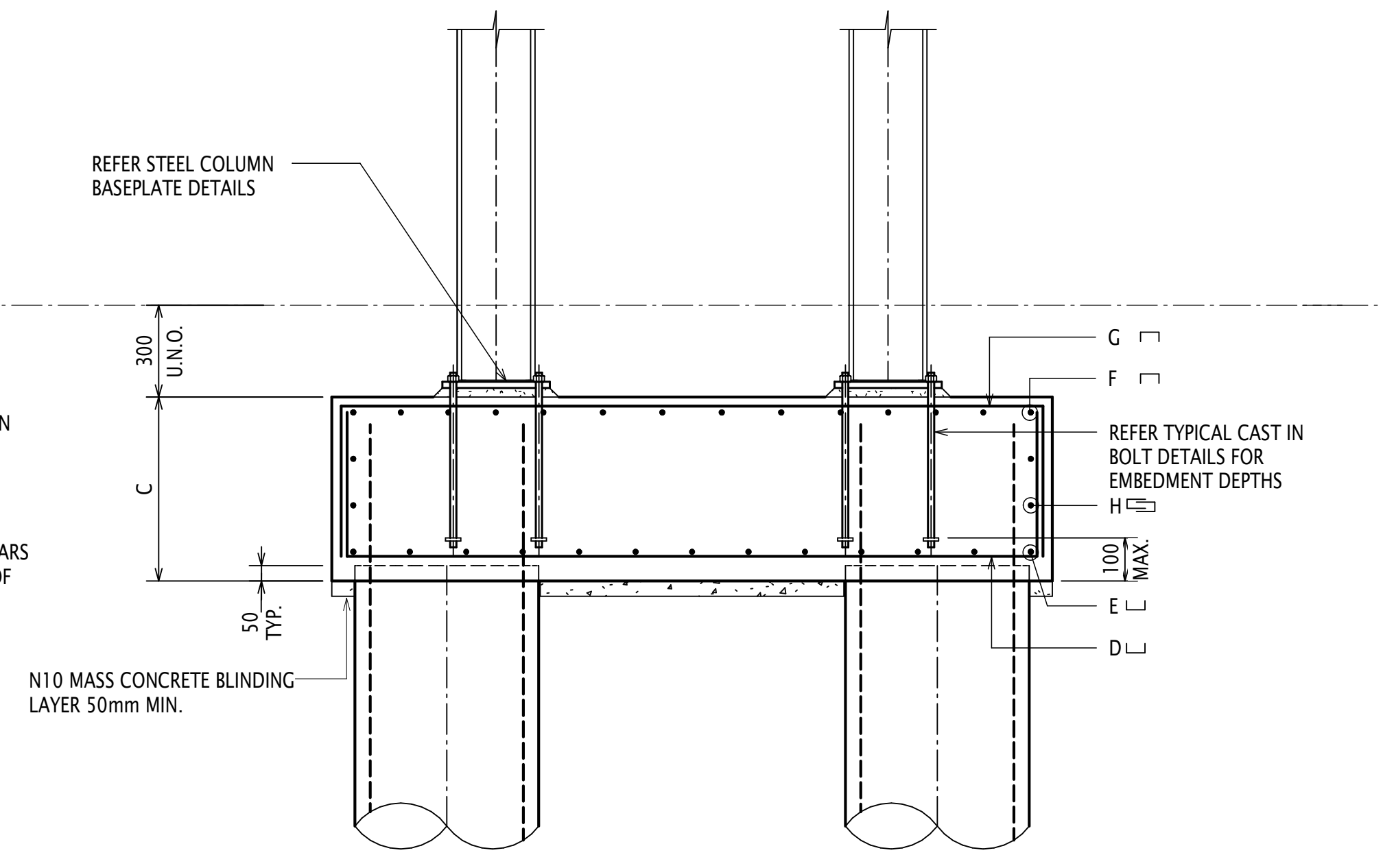

PF
GROUND FLOOR
300 TYP.
80
G
F
REFER TYPICAL CAST IN BOLT DETAILS FOR EMBEDMENT DEPTHS
H
PROVIDE N16-200 Z-BARS AROUND PERIMETER OF PILE CAP
C
LAP LENGTH
50 TYP.
E
D
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.

SECTION

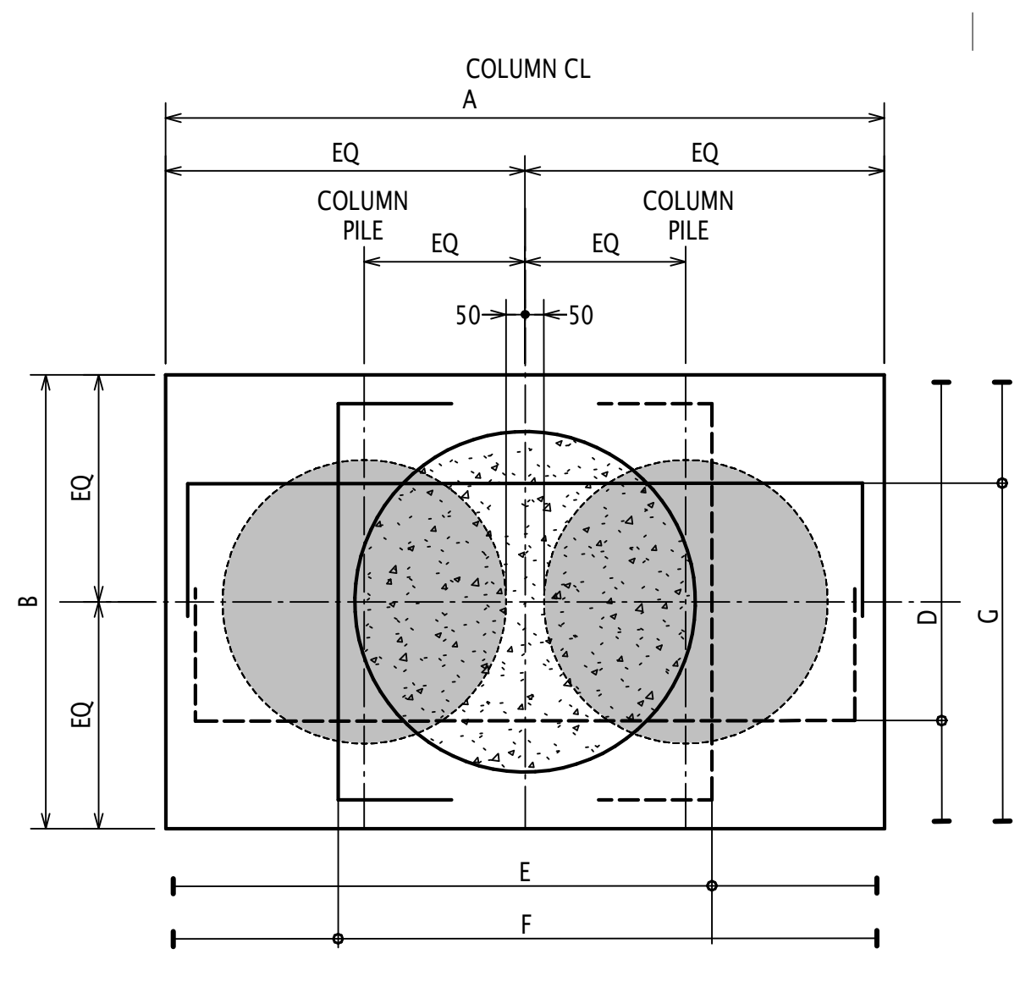

A
375
1600
375
EQ
EQ
B
EQ
EQ
D
G
E
F

PLAN

**TYPICAL PILE CAP DETAILS - DOUBLE PILE WITH DOUBLE SC OVER
(PC3)**

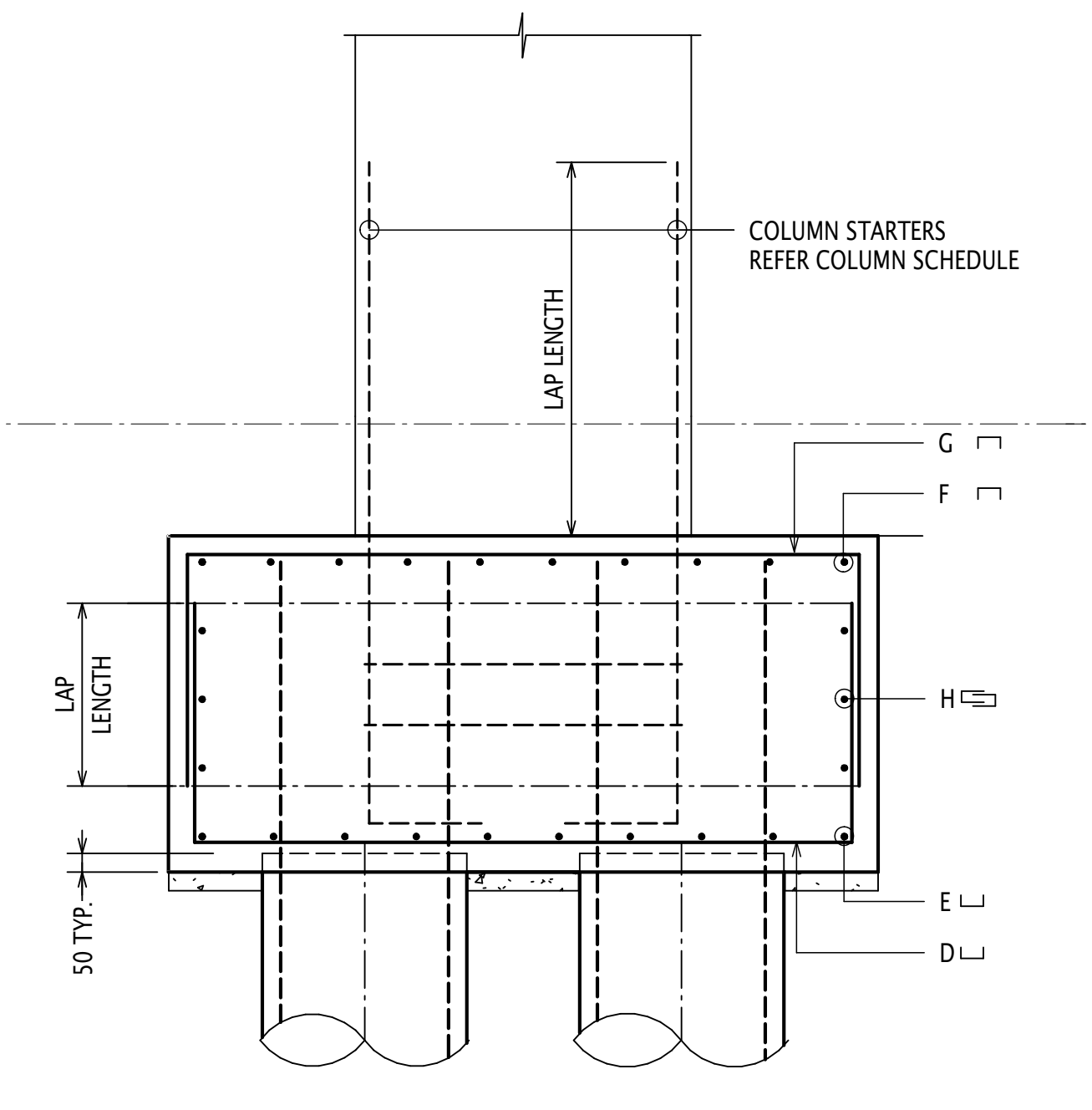

REFER STEEL COLUMN BASEPLATE DETAILS
300 U.N.O.
C
50 TYP.
G
F
REFER TYPICAL CAST IN BOLT DETAILS FOR EMBEDMENT DEPTHS
H
100 MAX.
E
D
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.

SECTION

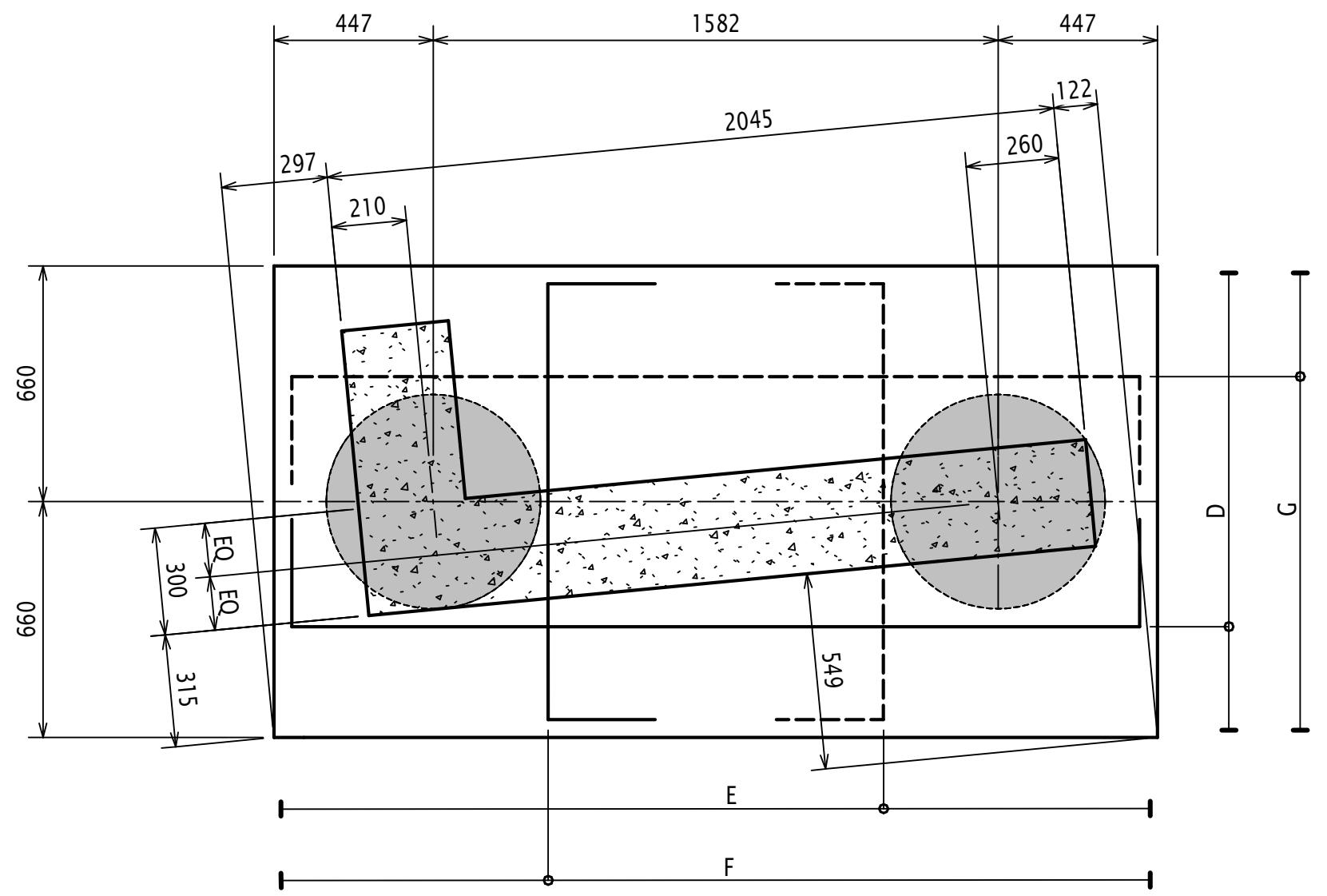

COLUMN CL
A
EQ
EQ
COLUMN PILE
EQ
EQ
COLUMN PILE
50
50
B
EQ
EQ
D
G
E
F

PLAN

**TYPICAL PILE CAP DETAILS - DOUBLE PILE WITH CONCRETE COLUMN OVER
(PC13,PC17)**

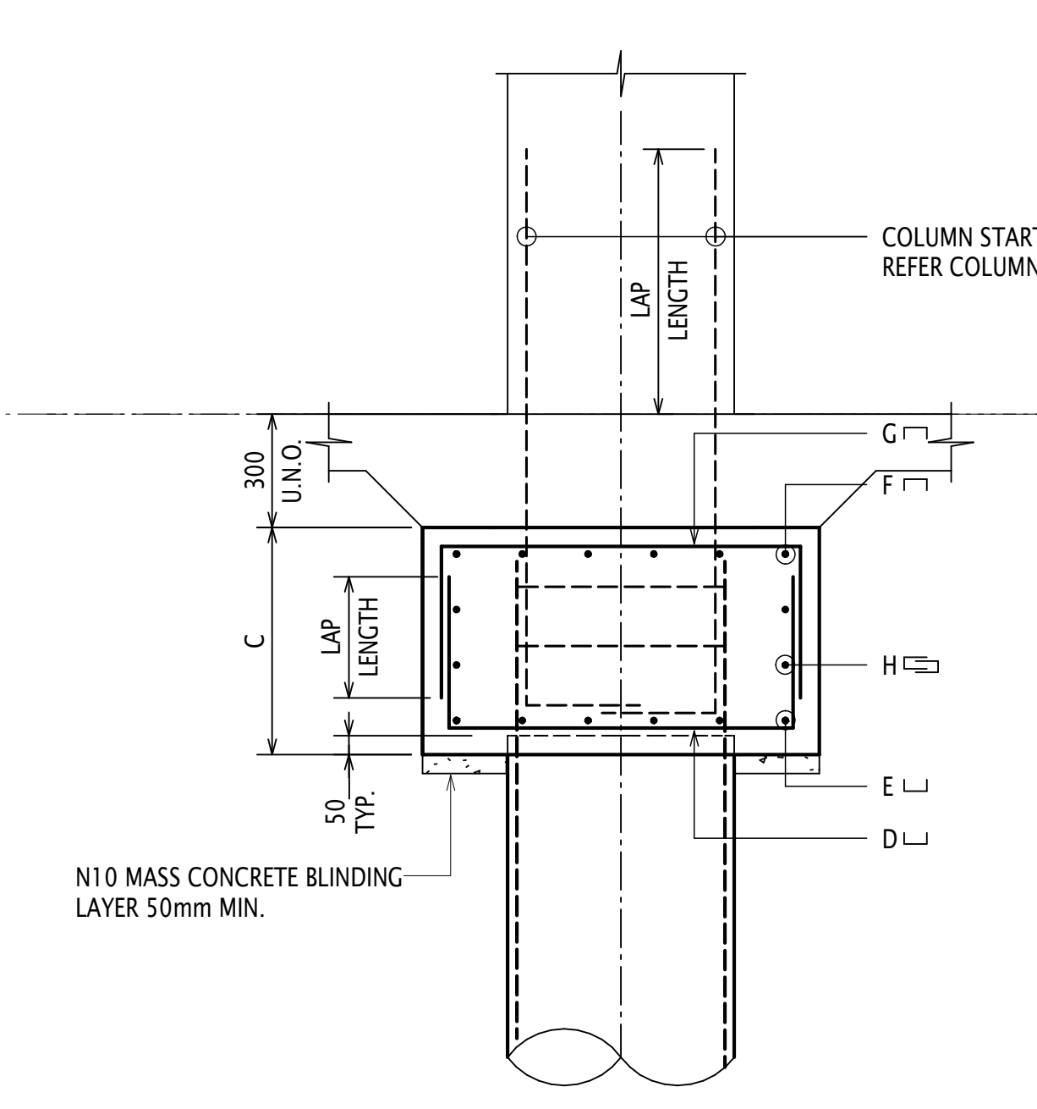

LAP LENGTH
COLUMN STARTERS REFER COLUMN SCHEDULE
G
F
LAP LENGTH
H
50 TYP.
E
D

SECTION


447
1582
447
122
2045
297
260
210
660
660
EQ
EQ
300
315
549
D
G
E
F

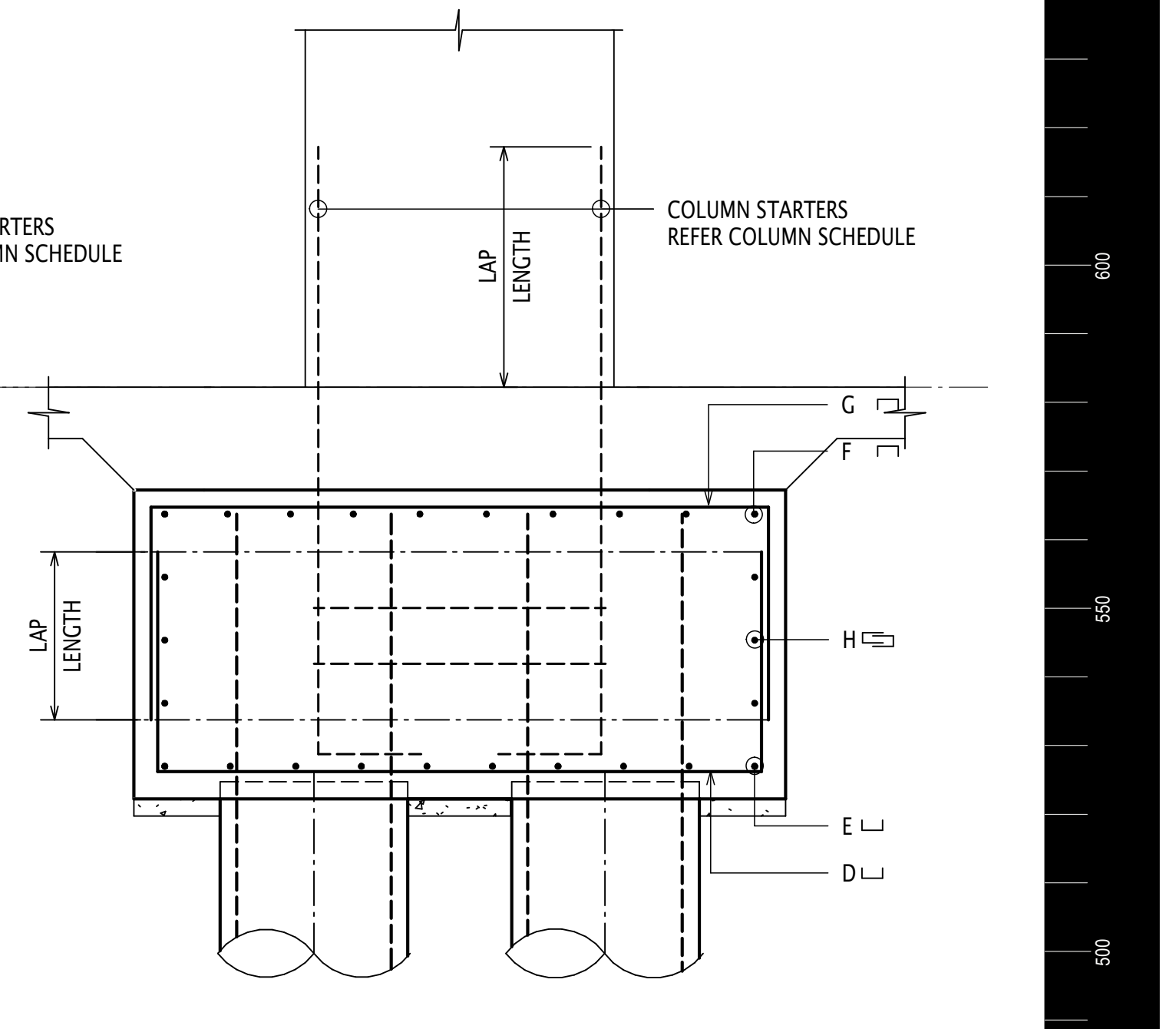
PLAN

**TYPICAL PILE CAP DETAILS - CONCRETE COLUMN OVER
(PC12)**


LAP LENGTH
COLUMN STARTERS REFER COLUMN SCHEDULE
300 U.N.O.
C
LAP LENGTH
50 TYP.
G
F
H
E
D
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.

SECTION

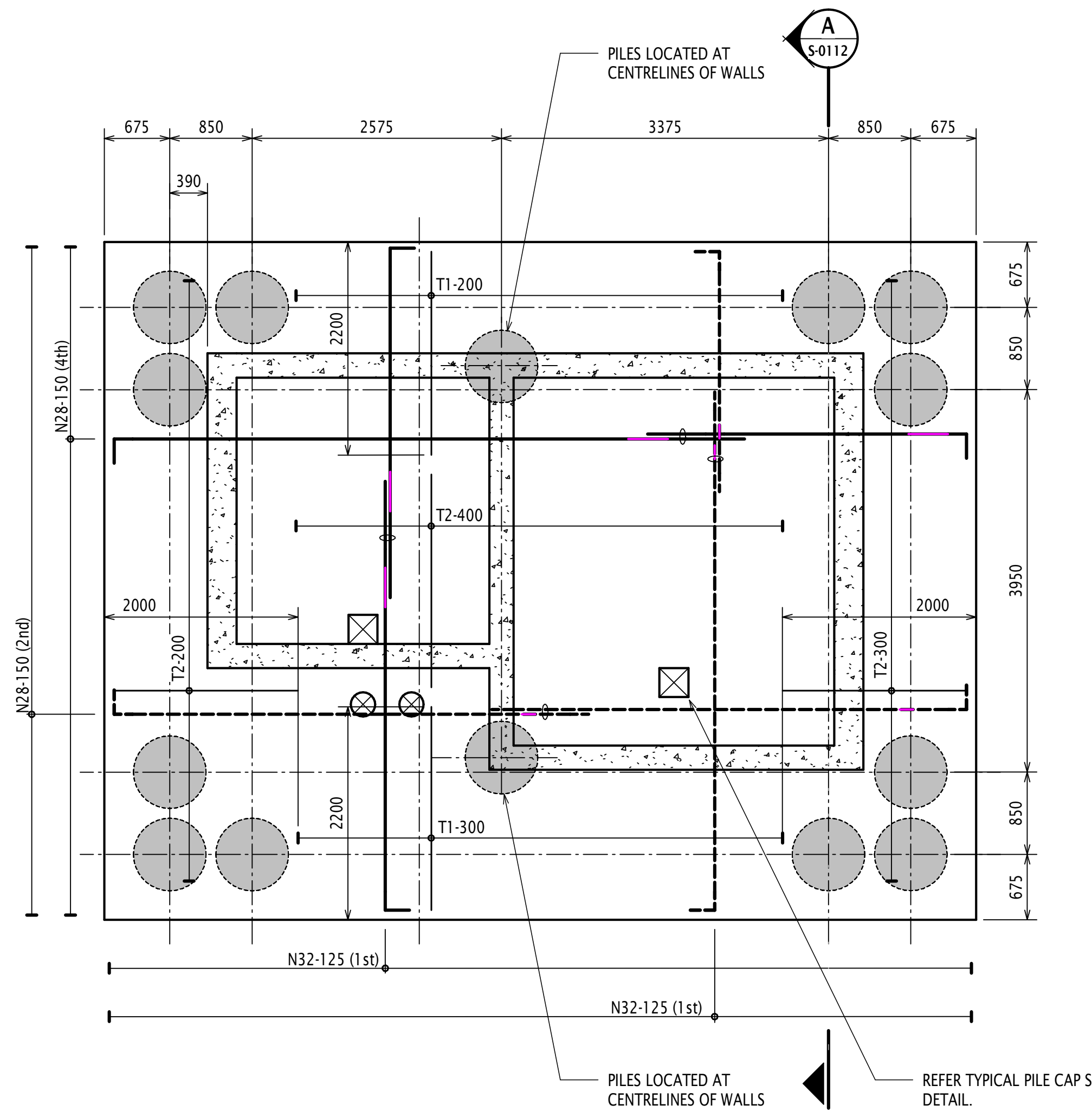
STARTER BAR TYPE FOR PC20


LAP LENGTH
COLUMN STARTERS REFER COLUMN SCHEDULE
LAP LENGTH
G
F
H
E
D

SECTION

STARTER BAR TYPE FOR PC21

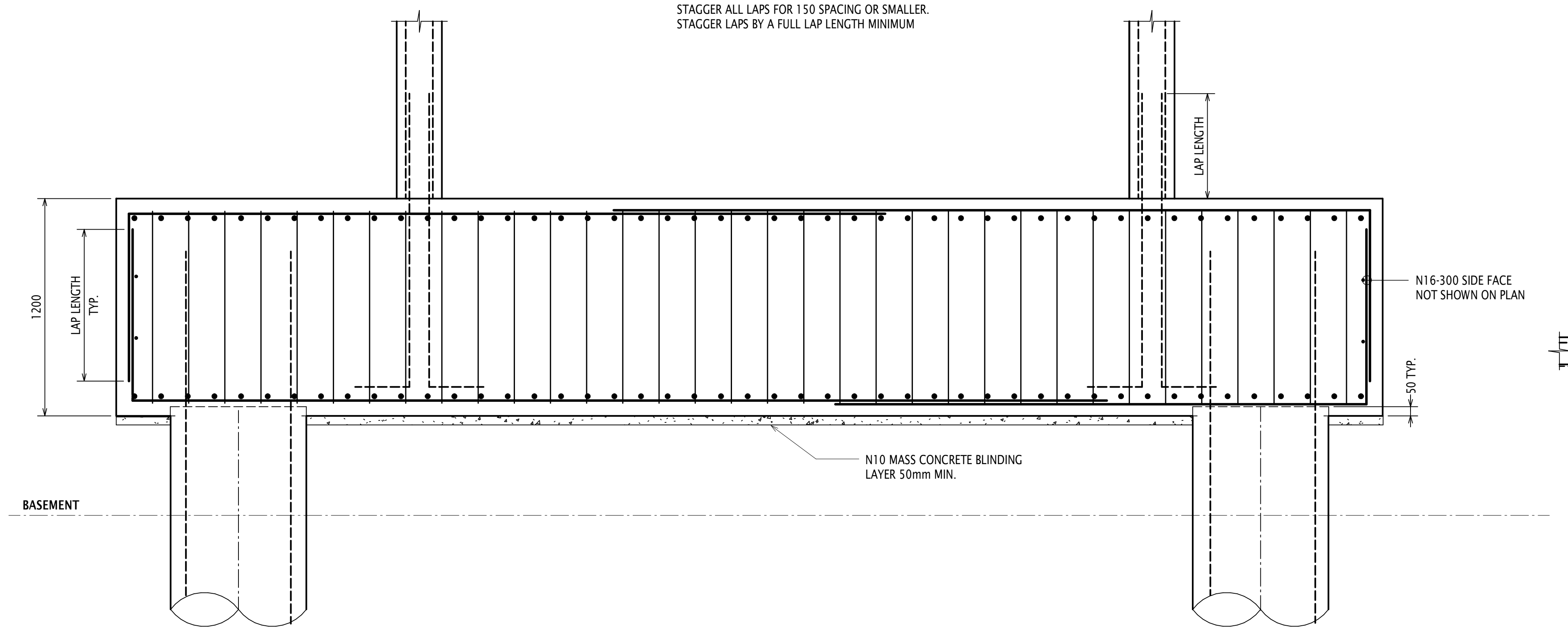
NOTE: STAGGER ALL LAPS FOR N32 OR LARGER.
STAGGER ALL LAPS FOR 150 SPACING OR SMALLER.
STAGGER LAPS BY A FULL LAP LENGTH MINIMUM


A
S-0112
PILES LOCATED AT CENTRELINES OF WALLS
675
850
2575
3375
850
675
390
T1-200
2200
T2-400
2000
T2-200
2000
T2-300
2200
T1-300
N28-150 (4th)
N28-150 (2nd)
675
850
3950
850
675
N32-125 (1st)
N32-125 (1st)
PILES LOCATED AT CENTRELINES OF WALLS
REFER TYPICAL PILE CAP SUMP DETAIL.

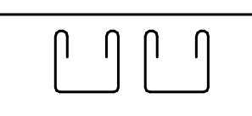
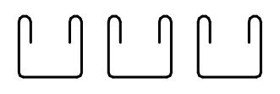
PILE CAP PC5

SCALE 1 : 50

NOTE: STAGGER ALL LAPS FOR N32 OR LARGER.
STAGGER ALL LAPS FOR 150 SPACING OR SMALLER.
STAGGER LAPS BY A FULL LAP LENGTH MINIMUM

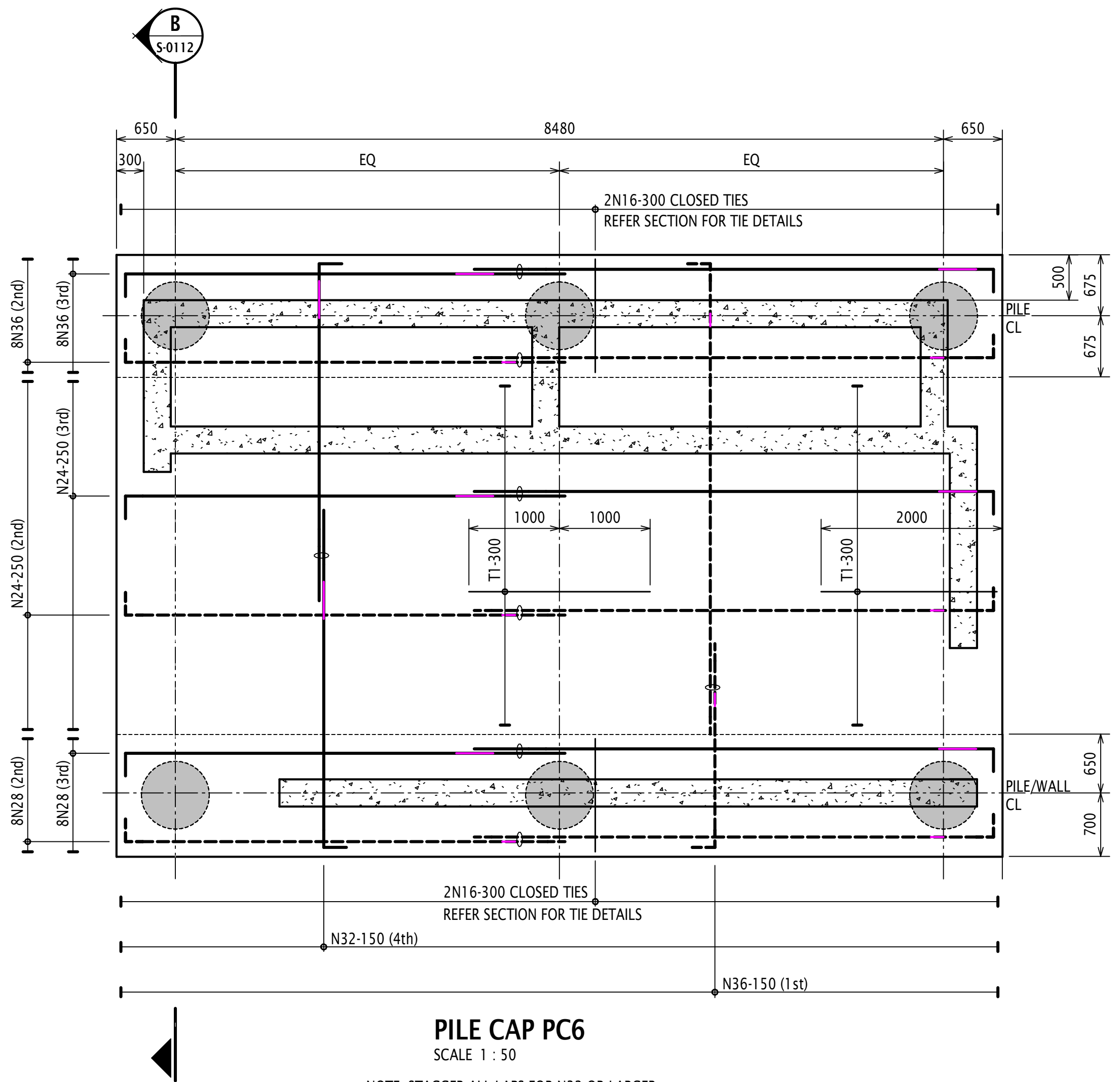

LAP LENGTH
1200
LAP LENGTH TYP.
N16-300 SIDE FACE NOT SHOWN ON PLAN
50 TYP.
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.
BASEMENT

SECTION (A S-0112)
SCALE 1 : 20

FOOTING TIE SCHEDULE			
TIE TYPE	REINFORCEMENT IN SETS	TIE SHAPE	COMMENTS
T1	2N16		VERTICAL LEGS TO BE SPACED NOMINALLY EQUALLY
T2	3N16		VERTICAL LEGS TO BE SPACED NOMINALLY EQUALLY

LIFT OVER-RUN PIT WALL & BASE NOTES

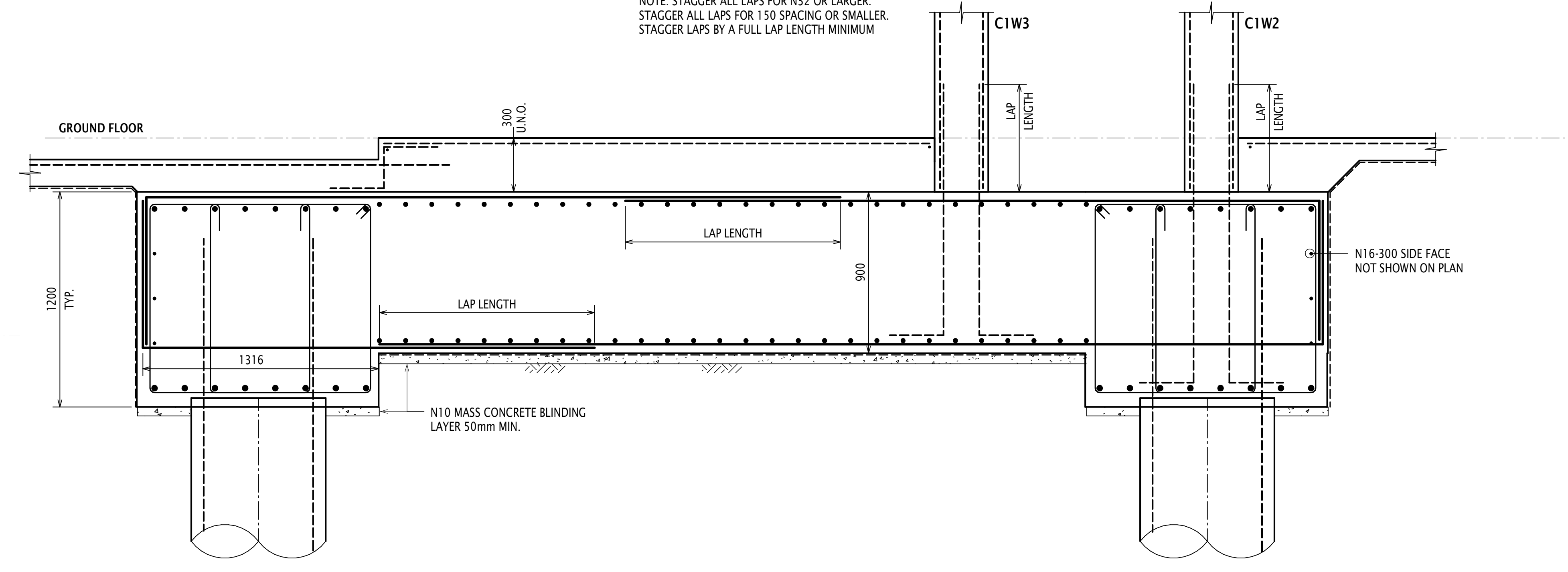
1. BASE TO BE PROVIDED WITH APPROVED WATERPROOF CONCRETE ADDITIVE.
2. THE SUPPLIER AND INSTALLER OF THE WATERPROOF CONCRETE ADDITIVE SHALL SUBMIT FULL DETAILS OF GUARANTEES TO THE BUILDER.
3. THE SUPPLIER AND INSTALLER OF THE WATERPROOF CONCRETE ADDITIVE SHALL BE REQUIRED TO CHECK THESE STRUCTURAL DRAWINGS TO ENSURE THAT THEY CONFORM WITH MINIMUM REINFORCEMENT, COVER AND ANY OTHER DETAILS OR REQUIREMENTS THAT MAY BE DEEMED NECESSARY FOR THE ADDITIVE TO FULFILL ITS WATERPROOFING FUNCTION IN COMPLETE ACCORDANCE WITH ITS STATED WARRANTY. THE BUILDER SHALL BE INFORMED OF ANY ADDITIONAL REQUIREMENTS.
4. WALLS TO BE TANKED AND WATERPROOFED TO ARCHITECTS DETAILS.


B
S-0112
650
8480
650
300
EQ
EQ
2N16-300 CLOSED TIES
REFER SECTION FOR TIE DETAILS
8N36 (2nd)
8N36 (3rd)
N24-250 (3rd)
N24-250 (2nd)
8N28 (2nd)
8N28 (3rd)
500
675
PILE CL
675
1000
1000
2000
T1-300
T1-300
650
PILE/WALL CL
700
2N16-300 CLOSED TIES
REFER SECTION FOR TIE DETAILS
N32-150 (4th)
N36-150 (1st)

PILE CAP PC6

SCALE 1 : 50

NOTE: STAGGER ALL LAPS FOR N32 OR LARGER.
STAGGER ALL LAPS FOR 150 SPACING OR SMALLER.
STAGGER LAPS BY A FULL LAP LENGTH MINIMUM

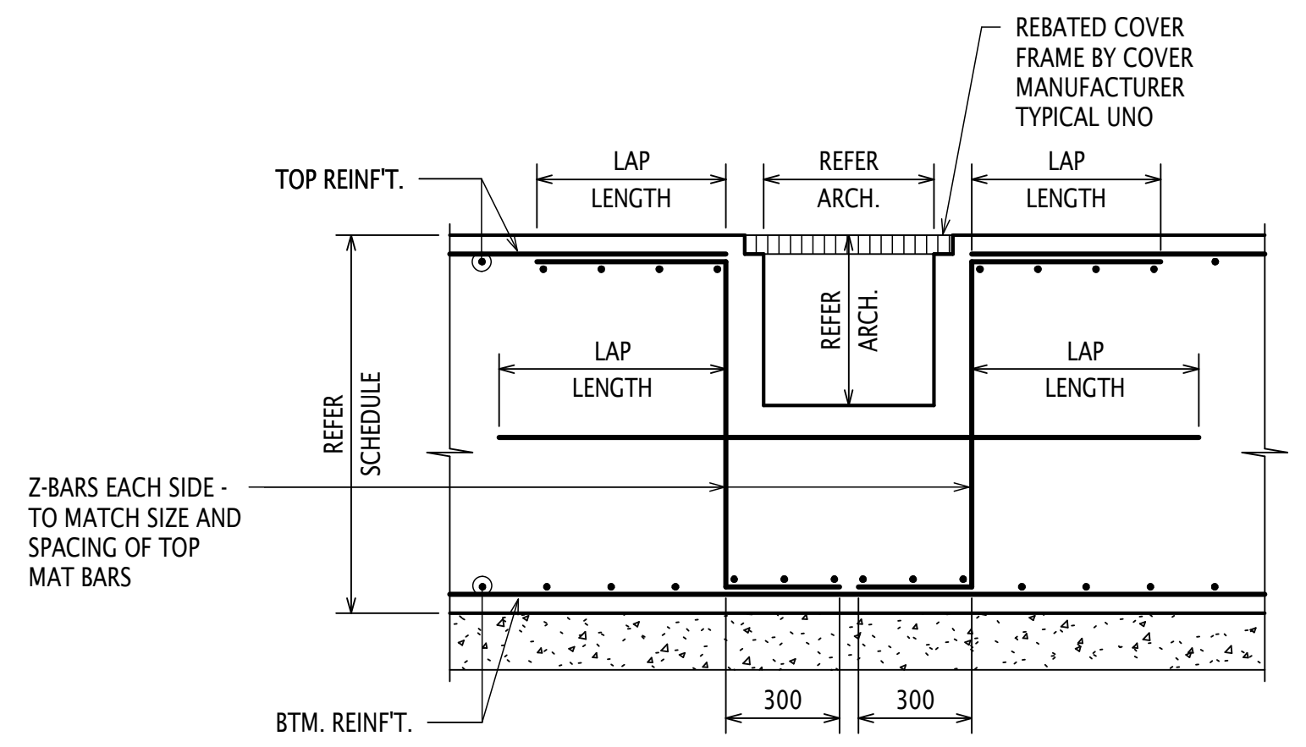

C1W3
C1W2
GROUND FLOOR
300 U.N.O.
LAP LENGTH
LAP LENGTH
LAP LENGTH
1200 TYP.
900
LAP LENGTH
1316
N10 MASS CONCRETE BLINDING LAYER 50mm MIN.
N16-300 SIDE FACE NOT SHOWN ON PLAN

SECTION (B S-0112)
SCALE 1 : 20

COLUMN PILE CAP SCHEDULE

MARK	DIMENSIONS			REINFORCEMENT					PILE DIA.	NO.PILES
	A	B	C	D	E	F	G	H		
PC1	1050	1050	600	5N20	5N20	5N20	5N20	1N16	600	1
PC2	1200	1200	900	7N20	7N20	7N20	7N20	2N16	750	1
PC3	2350	850	600	5N24	10N20	10N20	5N20	1N16	600	2
PC4	1050	1050	750	5N20	5N20	5N20	5N20	2N16	750	1
PC7	1200	1200	750	7N20	7N20	7N20	7N20	2N16	600	1
PC10	1500	1050	900	6N20	8N20	8N20	6N20	2N16	600	1
PC11	2600	1700	900	9N20	14N20	14N20	9N20	2N16	750	1
PC12	2475	1320	600	5N24	10N20	10N20	7N20	1N16	600	2
PC13	1900	1200	900	9N24	10N20	10N20	7N20	2N16	750	2
PC14	1200	1200	900	7N20	7N20	7N20	7N20	2N16	600	1
PC15	750	750	800						600	1
PC16	6200	900	450						450	2
PC17	1600	1200	900	9N24	9N20	9N20	7N20	2N16	600	2
PC18	1050	1050	750	5N20	5N20	5N20	5N20	2N16	600	1
PC19	1800	900	600	5N20	9N20	9N20	5N20	1N16	600	1
PC20	1050	1050	750	5N20	5N20	5N20	5N20	2N16	600	1
PC21	1900	1200	900	9N24	10N20	10N20	7N20	2N16	750	2
PC22	1050	1050	600	5N20	5N20	5N20	5N20	1N16	600	1

C2


REBATED COVER FRAME BY COVER MANUFACTURER TYPICAL UNO
TOP REINF'T.
LAP LENGTH
REFER ARCH.
LAP LENGTH
REFER ARCH.
LAP LENGTH
LAP LENGTH
REFER SCHEDULE
Z-BARS EACH SIDE - TO MATCH SIZE AND SPACING OF TOP MAT BARS
BTM. REINF'T.
300
300

PILE CAP SUMP DETAIL

PILE CAP SCHEDULE (PC5,PC6,PC8 & PC9)

MARK	WIDTH	LENGTH	DEPTH	PILE DIA.	NO.PILES
PC5	7000	9000	1200	750	14
PC6	6645	9780	REFER SECTION	750	8
PC8	6350	14600	1000	750	13
PC9	6000	9150	1100	750	10

C2
C2

FOOTING LAP CHART - FOR D500N REINF BARS

BAR SIZE	MIN CONCRETE STRENGTH (MPa)					
	32		40		50	
	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP
N12	500	600	500	600	500	600
N16	650	800	650	800	650	800
N20	800	1000	800	950	800	1000
N24	1050	1350	950	1200	950	1150
N28	1350	1750	1200	1550	1100	1400
N32	1650	2150	1500	1950	1300	1700
N36	2000	2600	1800	2300	1600	2050
N40	2350	3050	2100	2700	1900	2450

- MINIMUM COVER TO LAPPED BAR = 50mm
- MINIMUM CLEAR DISTANCE BETWEEN BARS BEING LAPPED = 100mm
- LAP LENGTHS ARE IN ACCORDANCE WITH AS3600-2009 (A1+A2), AS3600-2018, AS5100-5:2017 (+A1)
- FOR STRAIGHT DEVELOPMENT LENGTH, DIVIDE ABOVE LAP LENGTHS BY 1.25
- MULTIPLY TABULATED VALUES BY:
  - 1.3 LIGHT WEIGHT CONCRETE
  - 1.5 FOR EPOXY COATED BARS

ABBREVIATIONS

CLIMATE DATA

GENERAL NOTES

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**DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE**

Rev	Revision Description	By	App	Date
C2	PC8,PC9 & PC11 SCHEDULE DIMENSIONS UPDATED	SV	JP	11/06/21
C1	ISSUED FOR CONSTRUCTION	SV	JP	07/05/21
T3	ISSUED FOR INFORMATION	SV	JP	30/04/21
T2	TENDER ADDENDUM – TN02	SV	JP	30/10/20
T1	TENDER ISSUE – TN01	SV	JP	12/10/20
P3	BOQ CONCRETE PACKAGE ISSUE	GS	JP	21/08/20
P2	60% CD ISSUE	GS	JP	10/07/20
P1	50% CD ISSUE	GS	JP	15/06/20

Structural, Civil & Construction
Engineering Consultant

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TOWNSVILL CAMPUS

CLIENT
JAMES COOK UNIVERSITY

DRAWING
**FOUNDATION SECTIONS & DETAILS
SHEET 2**

PHASE
STRUCTURAL DRAWINGS

DATE	Jun 2020	PROJ No	19544
SCALE @ A0	1:20, 1:50	DRAWN	G.SELLARS
DESIGN	T.COOKE	DWG No	
CHECK	A.KENT		S-0112
APPROVED	J.PARISI	AMEND	C2

FOR CONSTRUCTION

800mm A0 SHEET
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0

11/06/2021 4:53:59 PM