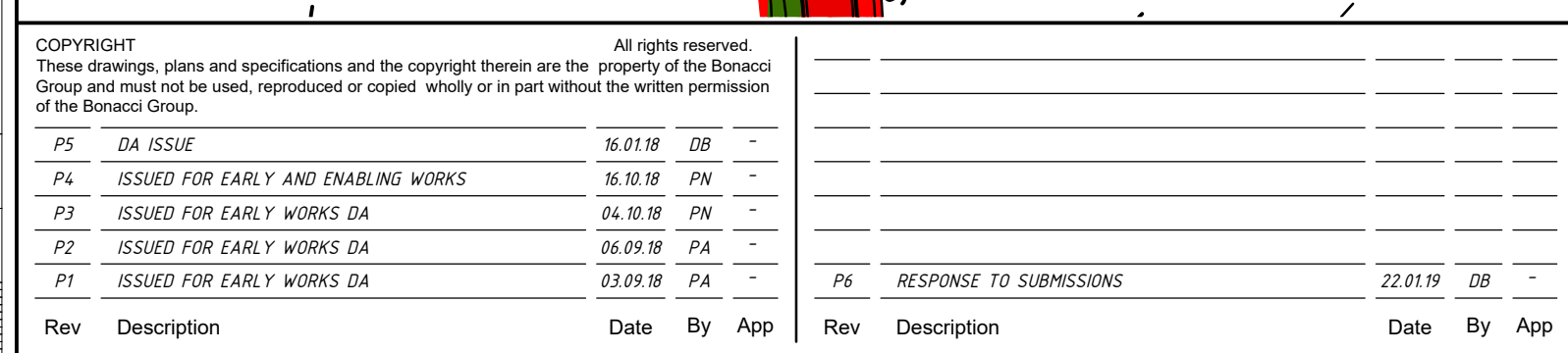




NOTE

FOR SECTIONS REFER TO DRAWINGS:
C020, C021, C022, C023

EARTHWORKS QUANTITIES	
BASINS	
CUT VOLUME	= 15,136m ³
FILL VOLUME	= 5054m ³
NET (CUT)	= -10,083m ³

EARTHWORKS QUANTITIES	
TOTAL	
CUT VOLUME	= 108,950m ³
FILL VOLUME	= 63,963m ³
NET (CUT) = 44,987m ³	

E1	VOLUMES ARE APPROXIMATE ONLY AND DO NOT INCORPORATE BULKING FACTORS AND OVER EXCAVATION. VOLUMES HAVE BEEN CALCULATED BETWEEN EXISTING SURFACE LEVELS AND BULK EARTHWORKS LEVELS.
E2	THIS DRAWING ONLY DETAILS EXCAVATION ASSOCIATED WITH THE BUILDING SLAB (IGNORING STRUCTURAL FOOTINGS, BEAMS AND COLUMNS).
E3	PROVIDE TEMPORARY MAXIMUM 1 IN 1 BATTERS TO BUILDING PLATFORM EARTHWORKS. MAXIMUM 1 IN 2 BATTERS FOR PERMANENT BATTERS. GEOTECH TO CONFIRM BATTER ACCEPTABILITY DURING CONSTRUCTION.
E4	THE EXCAVATED MATERIAL IS TO BE TEMPORARILY STOCKPILED WITHIN THE LANDSCAPED AREAS (TO BE CONFIRMED ON-SITE) AND RE-USED AS LANDSCAPING SOIL BUILD-UP IN ACCORDANCE WITH LANDSCAPE ARCHITECTS SPECIFICATIONS.
E5	REFER TO ARBORIST REPORT FOR TREE PROTECTION MEASURES IF REQUIRED.
E6	ALL EXCESS MATERIAL TO BE RETAINED ON-SITE AND LANDSCAPED AS REQUIRED. EXCESS MATERIAL CAN ALSO BE DISTRIBUTED IN THE FILL BATTERS OF THE SITE BATTERING TO THE EXISTING SURFACES. PROVIDE MAX SLOPES OF 1 IN 2 (WITH MIN 1% FALLS) AND TO BE RE-VEGETATED.

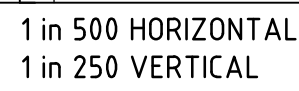
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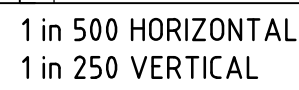
Project Name	TWEED VALLEY HOSPITAL PRELIMINARY CIVIL WORKS
Drawing Title	BULK EARTH WORKS PLAN

CONSTRUCTION			
Designed	C. G. S.	Project Director Approved	Date 
Drawn	C. G. S.		
Scale	1:1000		
Date	16.01.19	Project Ref	Drawing No Rev
Sheet	A1	20 10748 01	C011 P6

FOR PLAN SECTION LOCATION DRAWING REFER
TO DRAWING: C011



DESIGN GRADELINE
HORIZONTAL GEOMETRY
DATUM -3.0



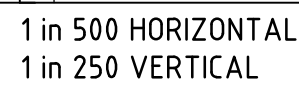
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Rev	Description		Date	By	App



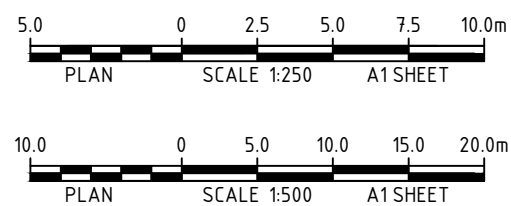
CONSTRUCTION			
Designed	C.G.S.	Project Director Approved	Date 
Drawn	C.G.S.		
Scale	1:1000		
Date	16.01.19	Project Ref	Drawing No
Sheet	A1	20 10748 01	C020 P1

FOR PLAN SECTION LOCATION DRAWING REFER
TO DRAWING: C011



DESIGN GRADELINE																													
HORIZONTAL GEOMETRY																													
DATUM -8.3																													
SC04																													
EARTHWORKS			24.632		24.942		25.510		22.950		22.950		18.450		22.950		22.950		17.952		9.429		7.000		9.391				
EXISTING SURFACE	25.352		25.851		26.405		26.890		26.479		25.815		24.047		22.930		21.715		16.842		13.082		10.228		7.967				
CHAINAGES	0.000		25.000		50.000		75.000		100.000		125.000		150.000		175.000		200.000		225.000		250.000		275.000		300.000		325.000		338.314

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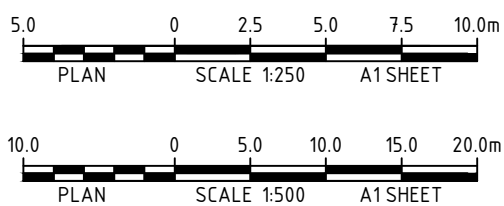
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Project Name	TWEED VALLEY HOSPITAL PRELIMINARY CIVIL WORKS	CONSTRUCTION					
Drawing Title	BULK EARTH WORKS SECTIONS SHEET 2	Designed	C. G. S.	Project Director Approved		Date	North 
		Drawn	C. G. S.				
		Scale	1:1000				
		Date	16.01.19				
		Sheet	A1	Project Ref		Drawing No	Rev
				20 10748 01		C021	P1

FOR PLAN SECTION LOCATION DRAWING REFER
TO DRAWING: C011



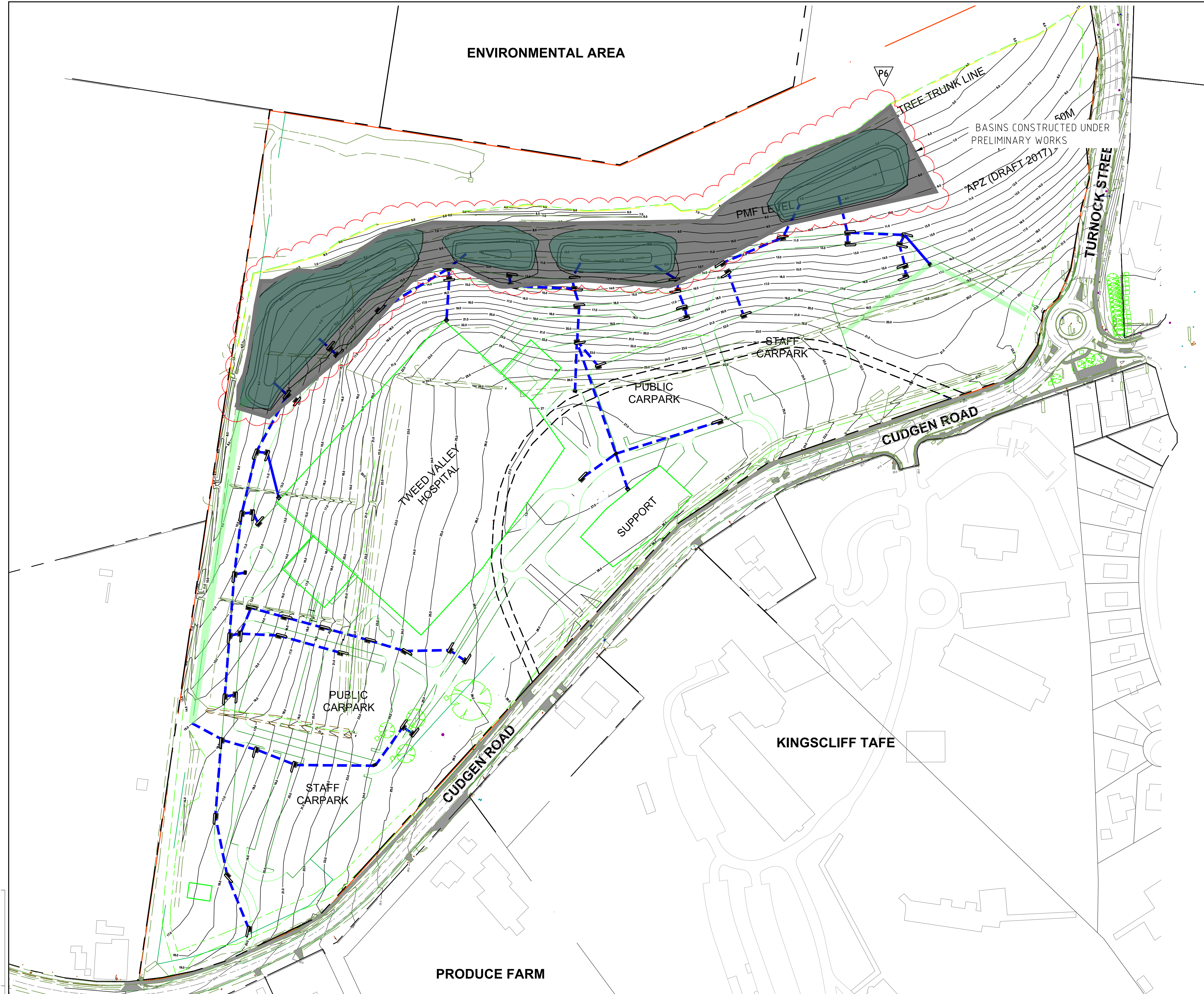
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Pt DA ISSUE	16.01.18 DB -		
Rev Description	Date By App	Rev Description	Date By App



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Project Name	TWEED VALLEY HOSPITAL PRELIMINARY CIVIL WORKS
Drawing Title	BULK EARTH WORKS SECTIONS SHEET 4

CONSTRUCTION			
Designed	C.G.S.	Project Director Approved	Date
Drawn	C.G.S.		
Scale	1:1000	Project Ref	Drawing No
Date	16.01.19		Rev
Sheet	A1	20 10748 01	C023 P1



LEGEND

- SITE BOUNDARY
- SEDIMENT FENCE
- BIO RETENTION SWALE
- RETENTION BASINS
- JUNCTION PIT
- STORMWATER DRAINAGE LINE
- Ex S EXISTING SEWER
- Ex OH EXISTING OVERHEAD LINES
- Ex T EXISTING TELSTRA
- Ex SW EXISTING STORMWATER
- Ex W EXISTING WATER

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P5	DA ISSUE	16.01.18	DB	-
P4	ISSUED FOR EARLY AND ENABLING WORKS	16.10.18	PN	-
P3	ISSUED FOR EARLY WORKS DA	04.10.18	PN	-
P2	ISSUED FOR EARLY WORKS DA	06.09.18	PA	-
P1	ISSUED FOR EARLY WORKS DA	03.09.18	PA	-

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P6	RESPONSE TO SUBMISSIONS	22.01.19	DB	-
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Rev	Description	Date	By	App	Rev	Description	Date	By	App
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25 0 10 20 30 40 50m
PLAN SCALE 1:1250 A1 SHEET

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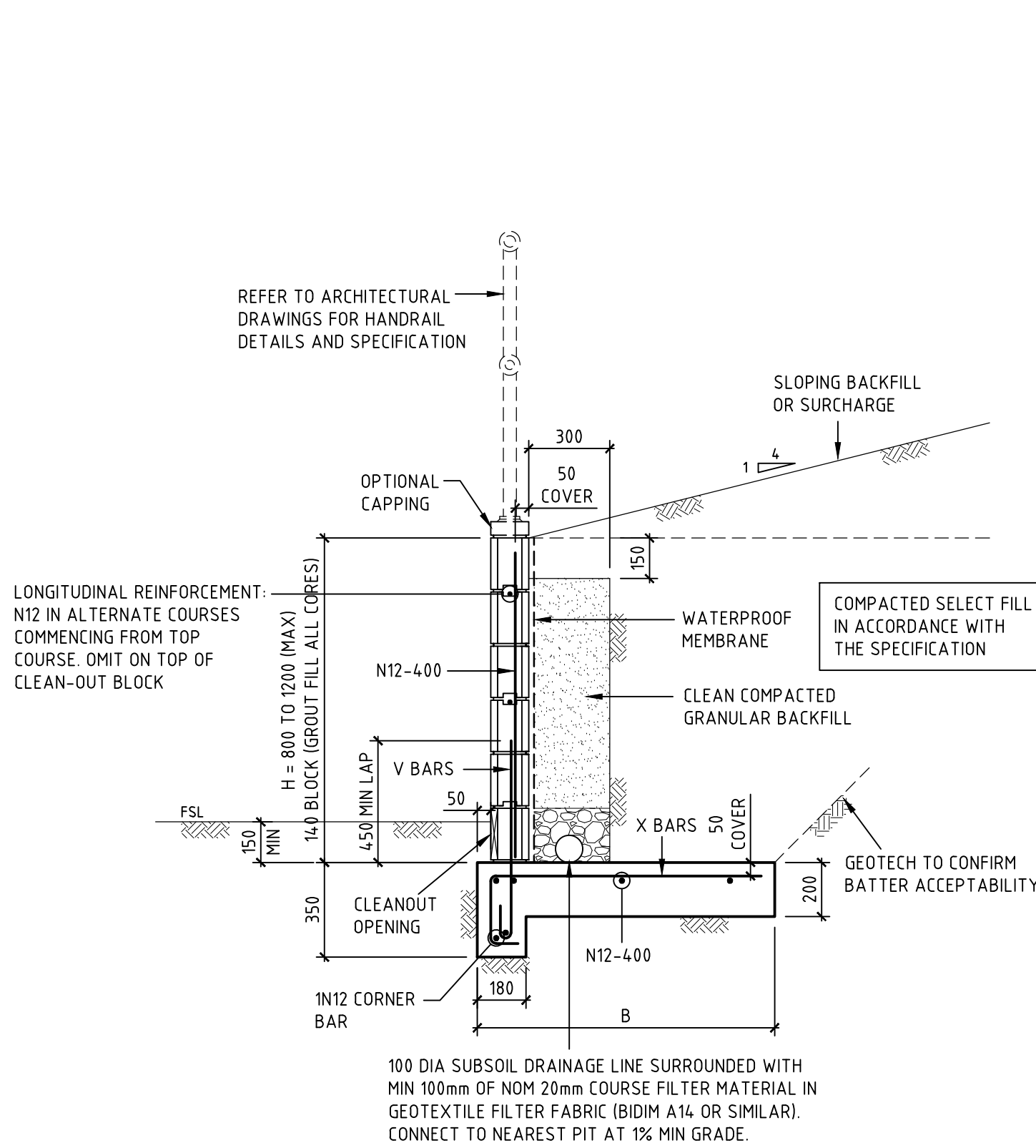
Project Name
**TWEED VALLEY HOSPITAL
DEVELOPMENT, CUDGEN
STAGE 1 EARLY WORKS**

Drawing Title
**CONCEPT STORMWATER
MANAGEMENT PLAN**

DEVELOPMENT APPLICATION

Designed	PA	Project Director Approved	Date	North
Drawn	PA			
Scale	1:1250	Project Ref	Drawing No	Rev
Date	03.09.18	20 10748 01	C030	P6
Sheet	A1			

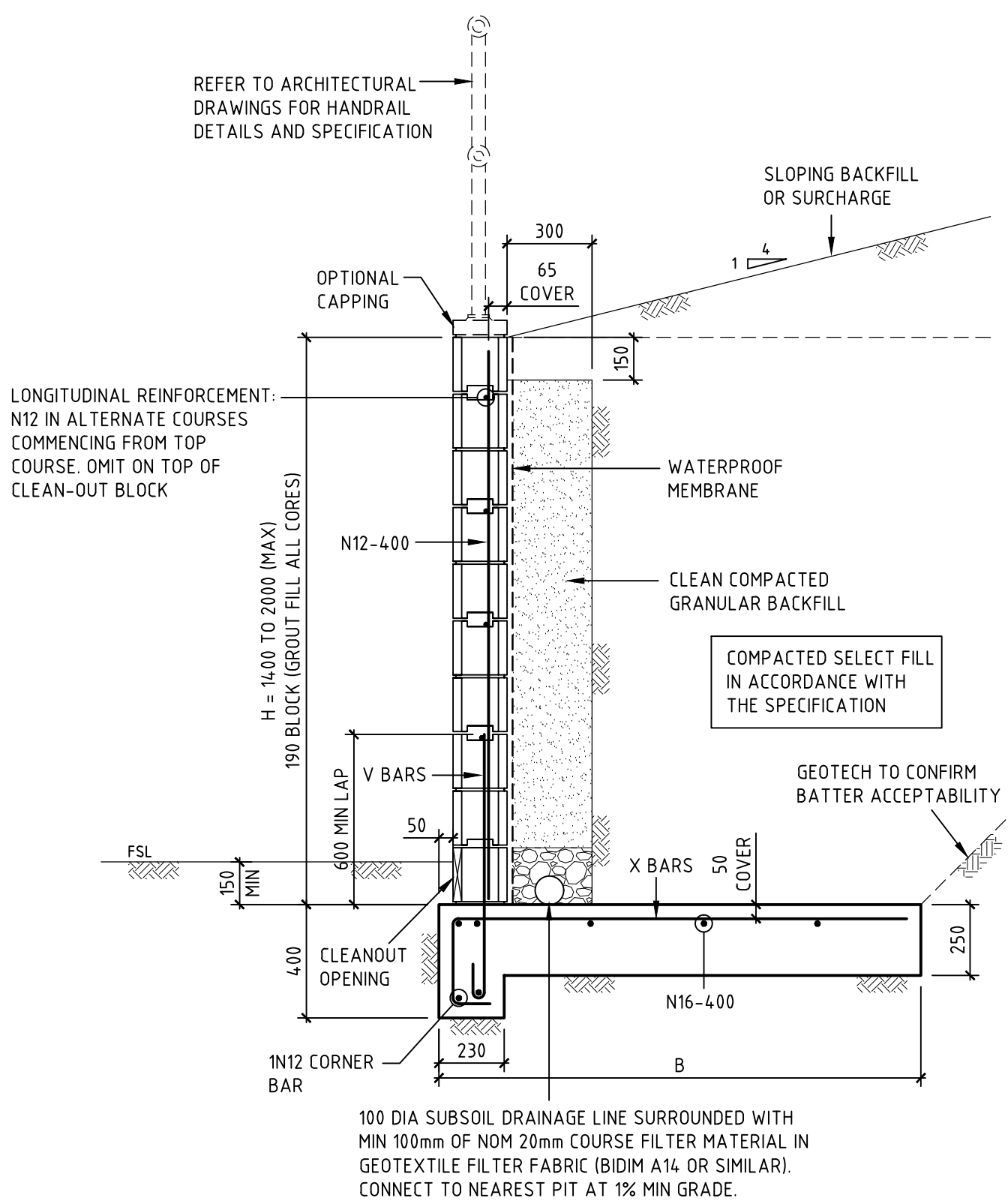
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BLOCK RETAINING WALL (MAX 1200 HIGH)

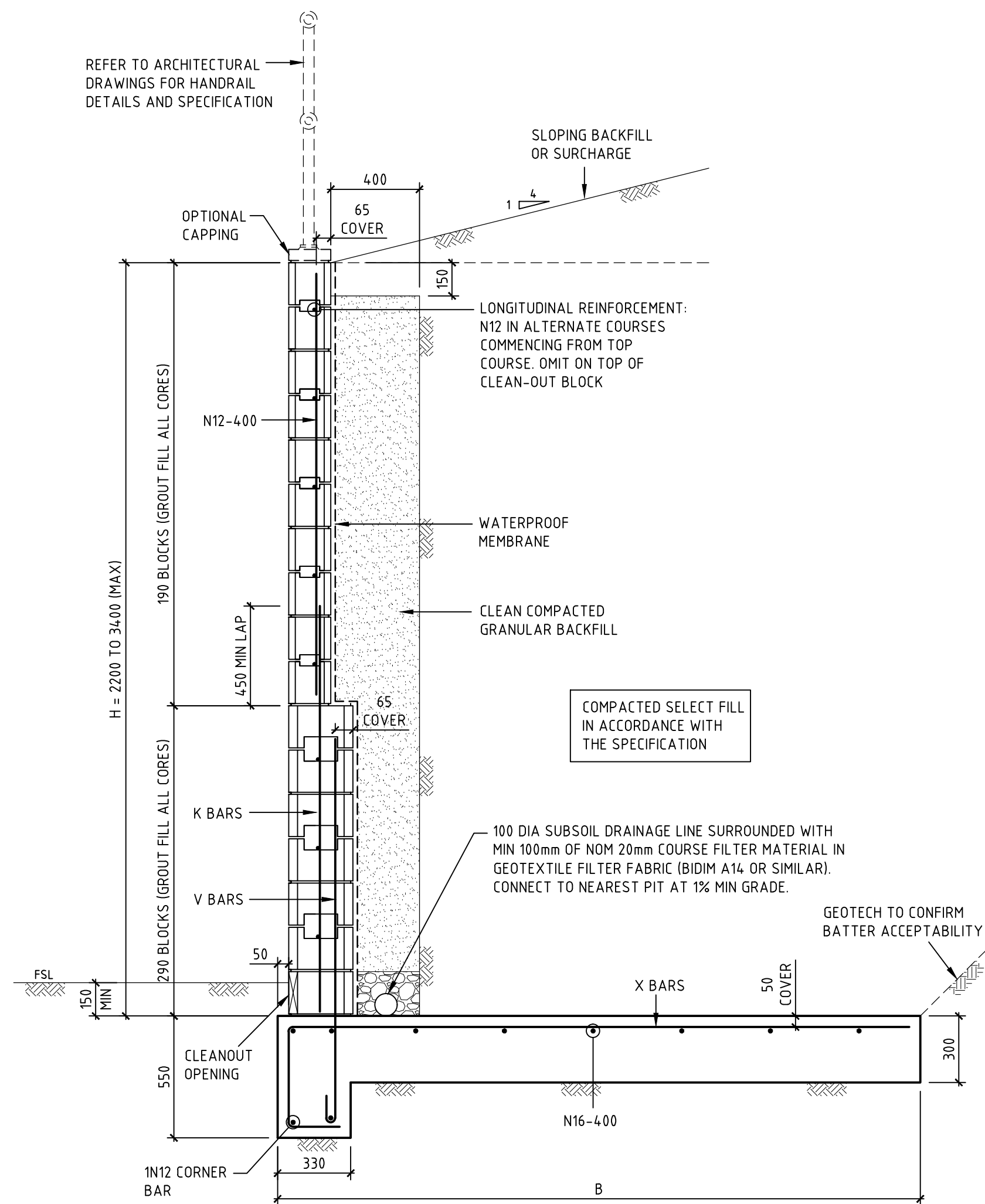
SCALE 1:20

NOTE: DESIGNER TO CHECK THE NEED FOR SHEAR KEY



BLOCK RETAINING WALL (MAX 2000 HIGH)

SCALE 1:20



BLOCK RETAINING WALL (MAX 3400 HIGH)

SCALE 1:20

BLOCK RETAINING WALL BASE TYPE 1

BLOCK RETAINING WALL BASE TYPE 1							
WALL HEIGHT				REINFORCEMENT		BASE DIMENSIONS	
TOTAL HEIGHT (mm) H	HEIGHT OF BLOCKWORK			X-BARS AND V-BARS	K-BARS	WIDTH, B (mm) WITH FOLLOWING BACKFILL CONDITIONS	
	150 SERIES	200 SERIES	300 SERIES			LEVEL	MAX 1:4 SLOPE
800	800	-	-	N12-400	-	800	1000
1000	1000	-	-	N12-400	-	1000	1200
1200	1200	-	-	N12-400	-	1100	1500
1400	-	1400	-	N12-400	-	1300	1700
1600	-	1600	-	N16-400	-	1400	2000
1800	-	1800	-	N16-400	-	1600	2200
2000	-	2000	-	N16-200	-	1700	2500
2200	-	1400	800	N16-400	N16-400	1900	2800
2400	-	1600	800	N16-400	N16-400	2000	3100
2600	-	1600	1000	N20-400	N20-400	2200	3300
2800	-	1800	1000	N20-400	N20-400	2400	3600
3000	-	2000	1000	N16-200	N16-200	2600	3900
3200	-	2000	1200	N20-200	N16-200	2800	4200
3400	-	2000	1400	N20-200	N16-200	2900	4500

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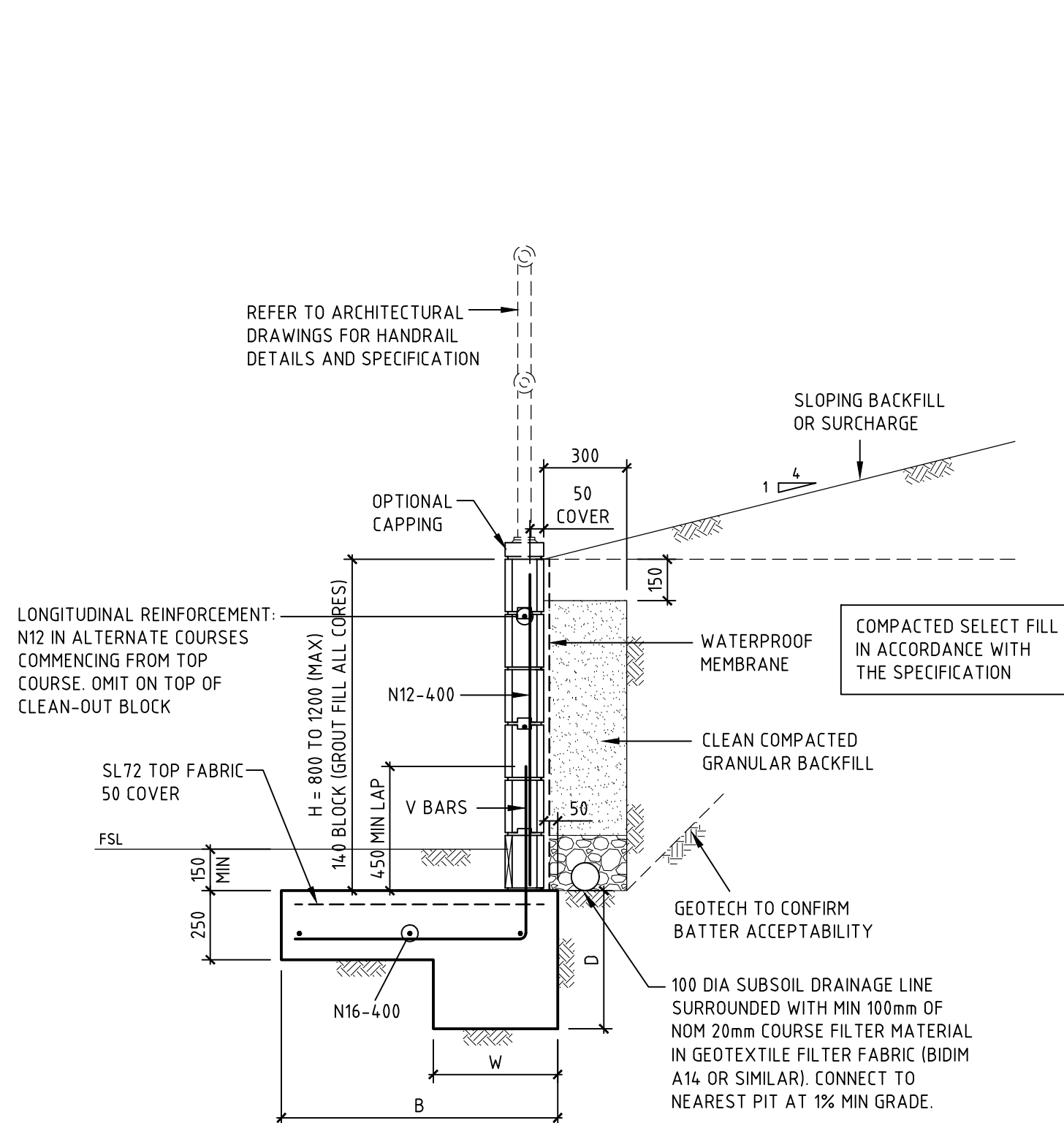
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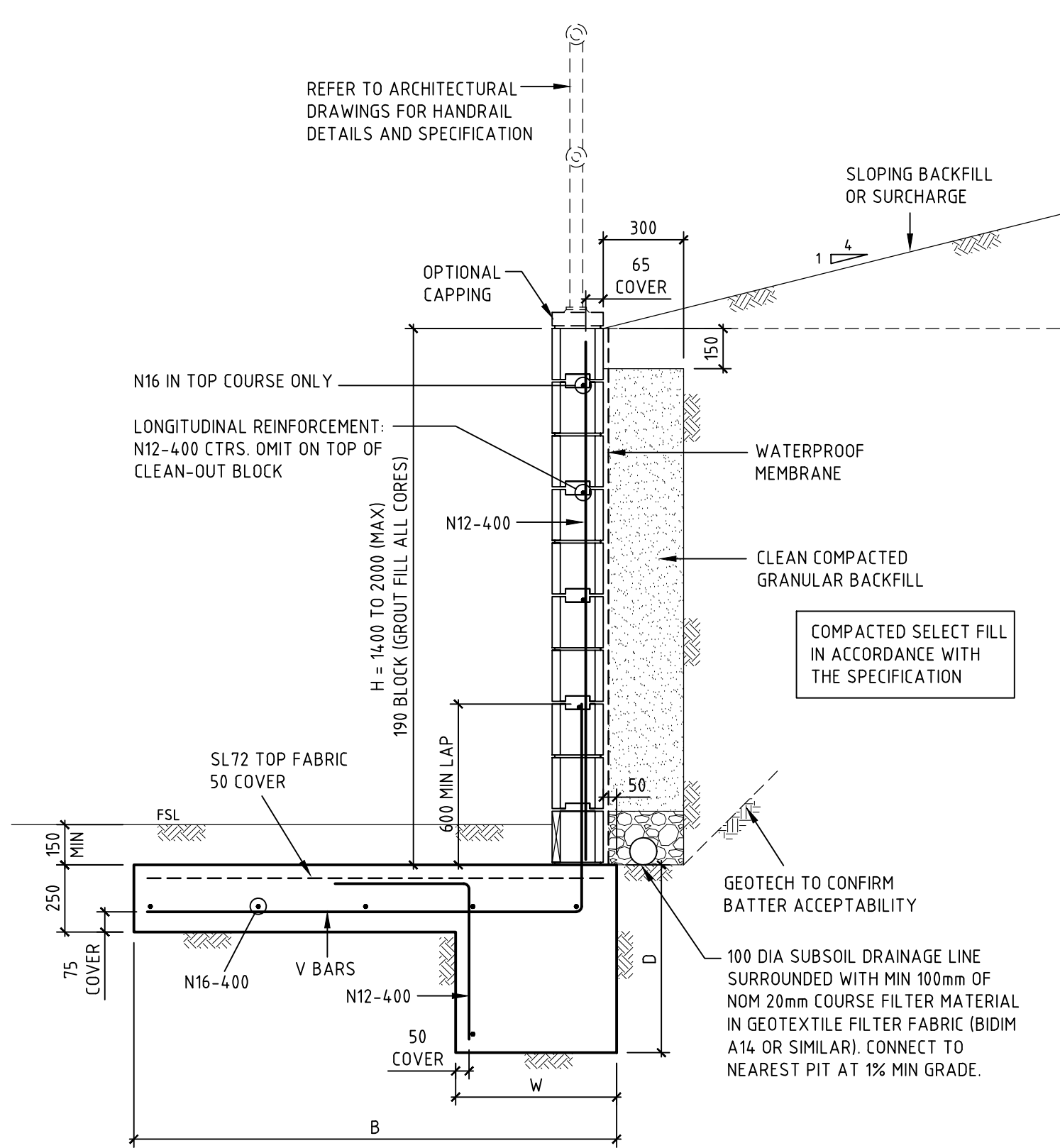
Project Name
TWEED VALLEY HOSPITAL
DEVELOPMENT, CUDGEN
STAGE 1 EARLY WORKS
Drawing Title
RETAINING WALL
DETAILS SHEET 1

DEVELOPMENT APPLICATION

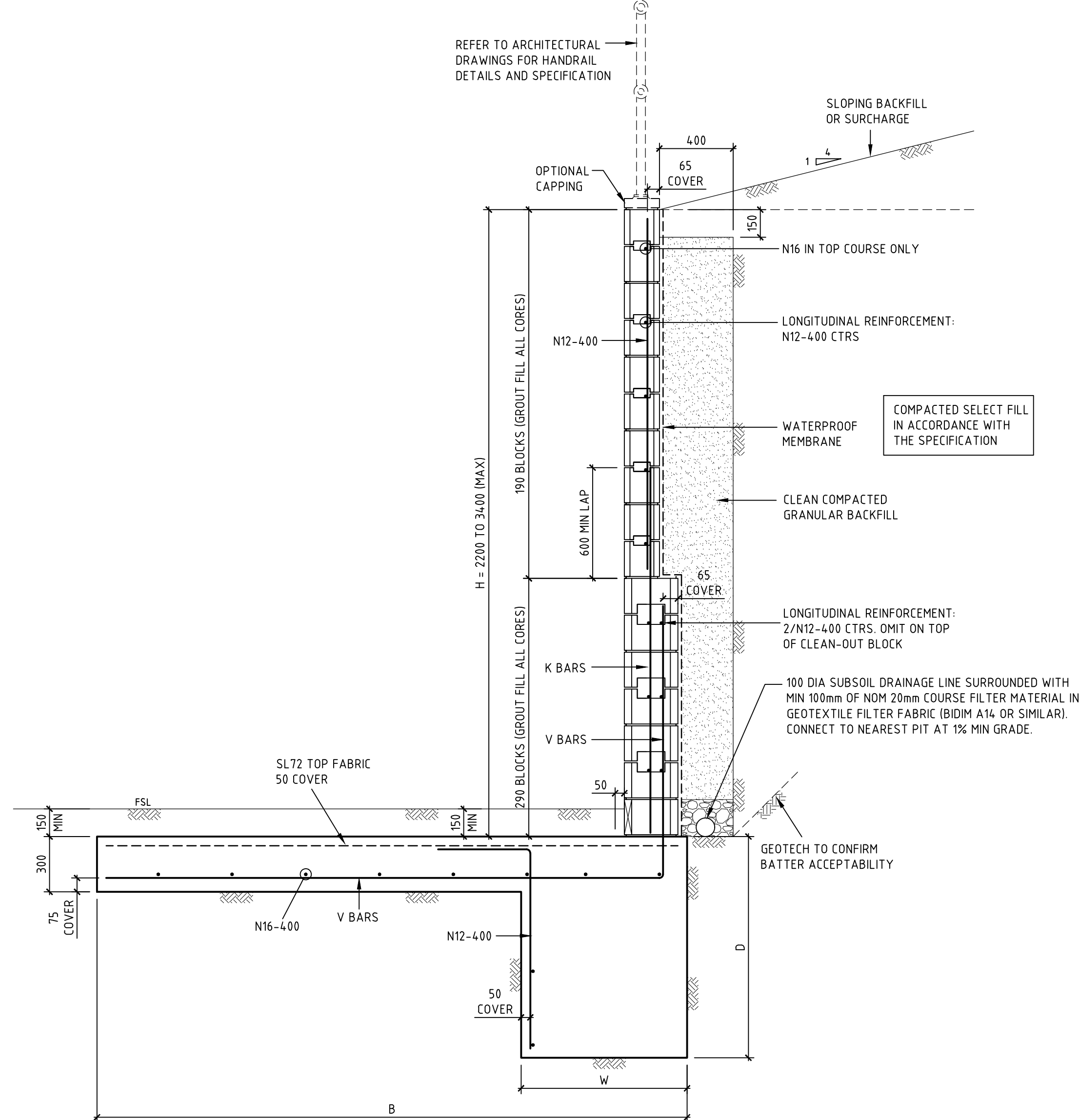
Designed	PA	Project Director Approved	Date	North
Drawn	PA			
Scale	-	Project Ref	Drawing No	Rev
Date	03.09.18	20 10748 01	C055	P2
Sheet	A1			



BLOCK RETAINING WALL (MAX 1200 HIGH)
SCALE 1:20



BLOCK RETAINING WALL (MAX 2000 HIGH)
SCALE 1:20



BLOCK RETAINING WALL (MAX 3400 HIGH)
SCALE 1:20

BLOCK RETAINING WALL BASE TYPE 2

WALL HEIGHT				REINFORCEMENT		BASE DIMENSIONS				
TOTAL HEIGHT (mm) H	HEIGHT OF BLOCKWORK			X-BARS AND V-BARS	K-BARS	HEEL WIDTH (mm) W	LEVEL BACKFILL		MAX 1:4 SLOPING BACKFILL	
	150 SERIES	200 SERIES	300 SERIES				BASE WIDTH (mm) B	HEEL DEPTH (mm) D	BASE WIDTH (mm) B	HEEL DEPTH (mm) D
800	800	-	-	N12-400	-	450	600	500	800	500
1000	1000	-	-	N12-400	-	450	800	500	1000	500
1200	1200	-	-	N12-400	-	450	1000	500	1200	600
1400	-	1400	-	N16-400	-	450	1200	500	1400	600
1600	-	1600	-	N16-400	-	450	1400	600	1600	700
1800	-	1800	-	N16-400	-	450	1600	700	1800	800
2000	-	2000	-	N16-200	-	600	1800	700	2000	800
2200	-	1400	800	N16-400	N16-400	600	2000	800	2200	900
2400	-	1600	800	N16-400	N16-400	600	2200	900	2400	1000
2600	-	1600	1000	N20-400	N20-400	900	2400	900	2600	1000
2800	-	1800	1000	N20-400	N20-400	900	2600	900	2800	1100
3000	-	2000	1000	N16-200	N16-200	900	2800	1000	3000	1200
3200	-	2000	1200	N20-200	N16-200	900	3000	1100	3200	1300
3400	-	2000	1400	N20-200	N16-200	900	3200	1200	3400	1500

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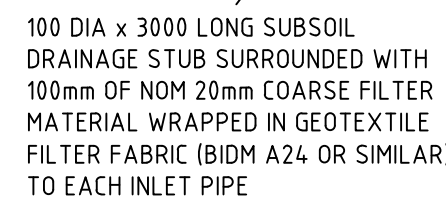
Rev Description Date By App

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Project Name
TWEED VALLEY HOSPITAL
DEVELOPMENT, CUDGEN
STAGE 1 EARLY WORKS
Drawing Title
RETAINING WALL
DETAILS SHEET 2

DEVELOPMENT APPLICATION

Designed PA
Drawn PN
Scale -
Date 03.09.18
Sheet A1
Project Director Approved Date North
Project Ref 20 10748 01
Drawing No C056
Rev P2



SCALE 1:20

1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (F'C) OF 25 MPa AT 28 DAYS.
2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. PIT'S GREATER THAN 3000mm DEEP TO HAVE WALL AND BASE 200mm THICK REINFORCED WITH N12-250 EACH WAY EACH FACE WITH CONCRETE STRENGTH F'C = 40 MPa.
3. PROVIDE STEP IRONS AT MAX 350mm CTRS IF DEPTH OF PIT EXCEEDS 1200mm.
4. IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS.
5. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.
6. PRECAST PIT MAY BE USED SUBJECT TO ENGINEERS APPROVAL.
7. ALL PIT'S TO BE LOCKABLE.
8. FINAL INTERNAL PIT DIMENSIONS ARE TO COMPLY WITH AS 3500.



REINFORCEMENT

SCALE 1:20

NOTE: DESIGNER TO VERIFY EXTENT OF DETAILING



SCALE 1:20



mm DIA HOLE x 120mm DIA

DRILL 30mm DIA HOLE x 120mm DEEP
AND EPOXY INTO WALL WITH EPOXY
MORTAR EQUAL TO EPIREZ 633 (NON
SAGE) - IN PRECAST PITS, DEPTH OF
EMBEDMENT IS TO BE IN ACCORDANCE
WITH PIT MANUFACTURER'S DETAILS



FRONT ELEVATION



SCALE 1:10



SCALE 1:10



SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE
AND FITTINGS WITHIN
DRAINAGE LAYER ONLY



SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE
AND FITTINGS MAY BE USED



SCALE 1:10



SCALE 1:10

NOTE: AVOID RUNNING CONSTRUCTION EQUIPMENT OVER THE PIPES
UNTIL BACKFILL MATERIAL IS 300mm MIN. ABOVE CROWN OF PIPE



SCALE 1:10



SCALE 1:10