

PROPOSED LOGISPACE, CHESTER HILL

191 MILLER RD, CHESTER HILL NSW 2162

CIVIL EARLY WORKS PACKAGE FOR DEVELOPMENT APPLICATION

DRAWING LIST

GENERAL

DRAWING NO.	DRAWING TITLE
C014242.05-EW100	DRAWING LIST AND LOCALITY PLAN
C014242.05-EW150	EXISTING SERVICES PLAN
C014242.05-EW200	EROSION AND SEDIMENT CONTROL PLAN
C014242.05-EW251	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 1
C014242.05-EW252	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 2
C014242.05-EW300	BULK EARTHWORKS PLAN
C014242.05-EW310	CUT/ FILL PLAN
C014242.05-EW351	BULK EARTHWORKS SECTIONS - SHEET 1
C014242.05-EW352	BULK EARTHWORKS SECTIONS - SHEET 2
C014242.05-EW353	BULK EARTHWORKS SECTIONS - SHEET 3
C014242.05-EW400	STORMWATER DRAINAGE PLAN
C014242.05-EW451	STORMWATER DRAINAGE DETAILS - SHEET 1
C014242.05-EW600	RETAINING WALL SETOUT PLAN
C014242.05-EW610	RETAINING WALL ELEVATIONS
C014242.05-EW640	TYPICAL DETAILS - SHEET 1
C014242.05-EW641	TYPICAL DETAILS - SHEET 2
C014242.05-EW642	TYPICAL DETAILS - SHEET 3
C014242.05-EW650	RETAINING WALL DETAILS

GENERAL NOTES:

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ENGINEER'S DRAWINGS ISSUED IN ANY ELECTRONIC FORMAT MUST NOT BE USED FOR DIMENSIONAL SETOUT. REFER TO THE ARCHITECT'S DRAWINGS FOR ALL DIMENSIONAL SETOUT INFORMATION.
- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.

ELECTRONIC INFORMATION NOTES:

- THE ISSUED DRAWINGS IN HARD COPY OR PDF FORMAT TAKE PRECEDENCE OVER ANY ELECTRONICALLY ISSUED INFORMATION, LAYOUTS OR DESIGN MODELS.
- THE CONTRACTOR'S DIRECT AMENDMENT OR MANIPULATION OF THE DATA OR INFORMATION THAT MIGHT BE CONTAINED WITHIN AN ENGINEER-SUPPLIED DIGITAL TERRAIN MODEL AND ITS SUBSEQUENT USE TO UNDERTAKE THE WORKS WILL BE SOLELY AT THE DISCRETION OF AND THE RISK OF THE CONTRACTOR.
- THE CONTRACTOR IS REQUIRED TO HIGHLIGHT ANY DISCREPANCIES BETWEEN THE DIGITAL TERRAIN MODEL AND INFORMATION PROVIDED IN THE CONTRACT AND/OR DRAWINGS AND IS REQUIRED TO SEEK CLARIFICATION FROM THE SUPERINTENDENT.
- THE ENGINEER WILL NOT BE LIABLE OR RESPONSIBLE FOR THE POSSIBLE ON-GOING NEED TO UPDATE THE DIGITAL TERRAIN MODEL, SHOULD THERE BE ANY AMENDMENTS OR CHANGES TO THE DRAWINGS OR CONTRACT INITIATED BY THE CONTRACTOR.

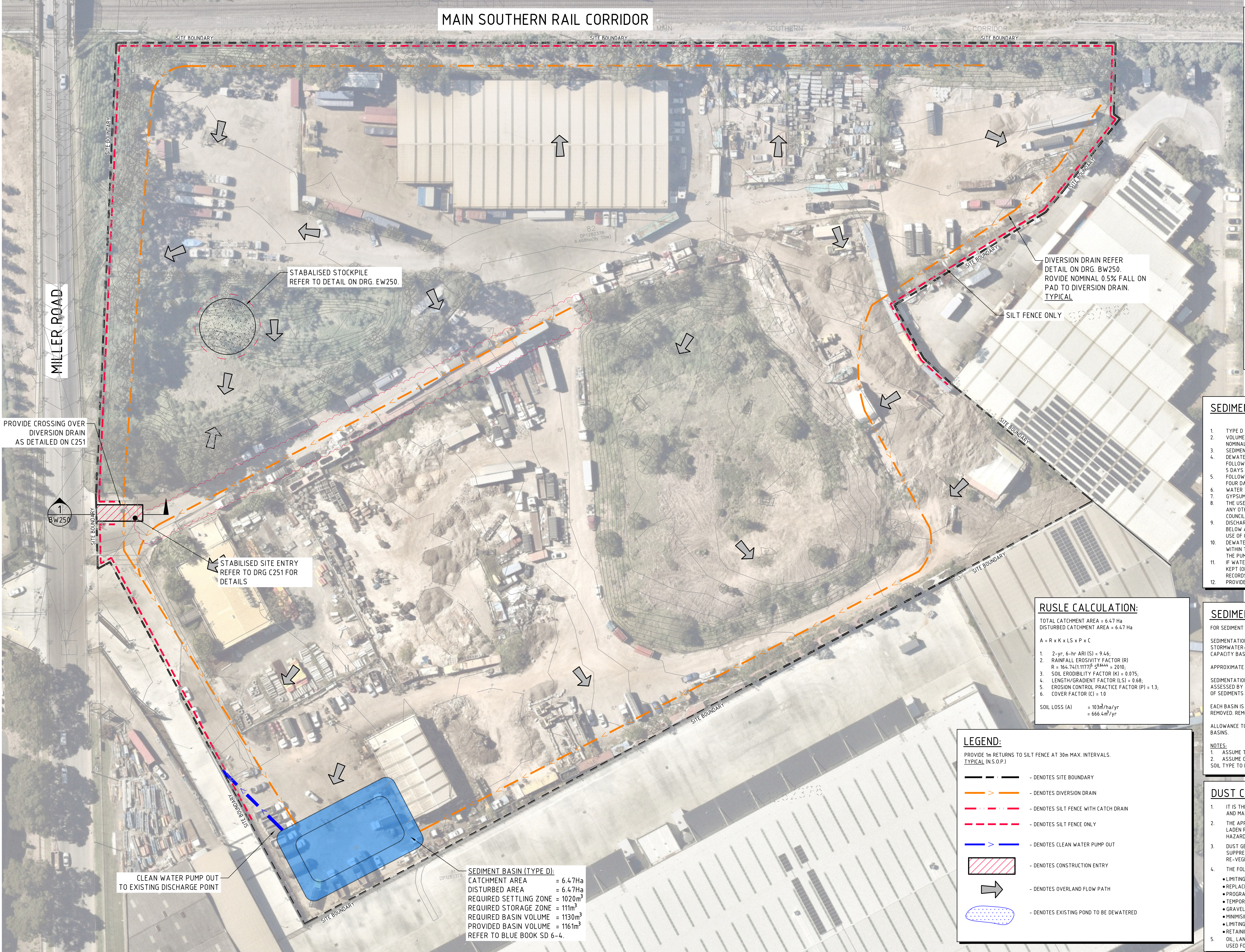
EXISTING SERVICES NOTES:

- DURING THE EXECUTION OF WORKS, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING SERVICES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO THE EXISTING SERVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT SERVICE AUTHORITY, AT NO COST TO THE PRINCIPAL.
- WHERE IT IS NECESSARY TO REMOVE, DIVERT OR CUT INTO ANY EXISTING SERVICE, THE CONTRACTOR SHALL GIVE AT LEAST THREE (3) DAYS NOTICE OF ITS REQUIREMENTS TO THE SUPERINTENDENT, WHO WILL ADVISE WHAT ARRANGEMENTS SHOULD BE MADE FOR THE ALTERATION OF SUCH EXISTING WORKS.
- EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE ACCURACY IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. ALL CLEARANCES AND APPROVALS SHALL ALSO BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF WORK.
- ALL NEW AND EXHUMED SERVICES THAT CROSS EXISTING AND FUTURE ROADS/PAVEMENTS WITHIN THE SITE SHALL BE BACKFILLED WITH DGB20 MATERIAL TO SUBGRADE LEVEL AND COMPACTED TO 98% STANDARD DENSITY RATIO. SUBJECT TO PRIOR APPROVAL FROM RELEVANT AUTHORITY.
- ON COMPLETION OF SERVICES INSTALLATION, ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS. CARE TO BE TAKEN WHEN EXCAVATING NEAR UTILITY SERVICES. NO MECHANICAL EXCAVATION TO BE UNDERTAKEN OVER SERVICES. LIAISE WITH RELEVANT AUTHORITY.
- THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS WITHIN THE CONTRACT AREA AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL.
- THE CONTRACTOR IS TO MAINTAIN EXISTING STORMWATER DRAINAGE FLOWS THROUGH THE ROADS AT ALL TIMES. MAKE DUE ALLOWANCE FOR ALL SUCH FLOWS AT ALL TIMES.
- PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN THE SUPERINTENDENT'S APPROVAL OF THE PROGRAM FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES AS REQUIRED TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
- INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE OR DAMAGE TO THE ADJACENT RESIDENCES. CONTRACTOR TO GAIN APPROVAL OF THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
- THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG (DBYD 1100) SERVICES SEARCH BEFORE THE COMMENCEMENT OF ANY WORKS.



FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION			12.12.25			B			ARCHITECT			CLIENT			PROJECT			Costin Roe Consulting Pty Ltd.			DRAWING TITLE		
ISSUED FOR INFORMATION			05.12.25			A			PACE			LogiSPACE			PROPOSED DEVELOPMENT			PO Box N419 Sydney NSW 1220			DRAWING LIST & LOCALITY PLAN		
AMENDMENTS			DATE			ISSUE			ARCHITECTS			LogiSPACE			191 MILLER ROAD, CHESTER HILL, NSW 2162			Level 4, 8 Windmill Street, Millers Point NSW 2000			C014242.05-EW100		
																		p: +61 2 9251 7699			C014242.05-EW100		
																		e: mail@costinroe.com.au			B		
																		f: +61 2 9241 3731					
																		w: costinroe.com.au					



- ### EROSION CONTROL NOTES:
- ALL CONTROL WORK INCLUDING DIVERSION BANKS AND CATCH DRAINS, V-DRAINS AND SILT FENCES SHALL BE COMPLETED DIRECTLY FOLLOWING THE COMPLETION OF THE EARTHWORKS.
- SILT FENCES AND SILT FENCE RETURNS SHALL BE ERECTED CONVEX TO THE CONTOUR OF POND WATER.
 - HAY BALE BARRIERS AND GEOFABRIC FENCES ARE TO BE CONSTRUCTED TO TOE OF BATTER, PRIOR TO COMMENCEMENT OF EARTHWORKS, IMMEDIATELY AFTER CLEARING OF VEGETATION AND BEFORE REMOVAL OF TOP SOIL.
 - ALL TEMPORARY EARTH BERMS, DIVERSION AND SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
 - CLEAR WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM.
 - THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROVIDING ON GOING ADJUSTMENT TO EROSION CONTROL MEASURES AS REQUIRED DURING CONSTRUCTION.
 - ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING, TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE, APPROVED LOCATION.
 - ALL FINAL EROSION PREVENTION MEASURES INCLUDING THE ESTABLISHMENT OF GRASSING ARE TO BE MAINTAINED UNTIL THE END OF THE DEFECTS LIABILITY PERIOD.
 - ALL EARTHWORKS AREAS SHALL BE ROLLED ON A REGULAR BASIS TO SEAL THE EARTHWORKS.
 - ALL FILL AREAS ARE TO BE LEFT WITH A BUND AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200mm.
 - ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF FORMATION.
 - AFTER REVEGETATION OF THE SITE IS COMPLETE AND THE SITE IS STABLE IN THE OPINION OF A SUITABLY QUALIFIED PERSON ALL TEMPORARY WORK SUCH AS SILT FENCE, DIVERSION DRAINS ETC SHALL BE REMOVED.
 - ALL TOPSOIL STOCKPILES ARE TO BE SUITABLY COVERED TO THE SATISFACTION OF THE SITE MANAGER TO PREVENT WIND AND WATER EROSION.
 - ANY AREA THAT IS NOT APPROVED BY THE CONTRACT ADMINISTRATOR FOR CLEARING OR DISTURBANCE BY THE CONTRACTOR'S ACTIVITIES SHALL BE CLEARLY MARKED AND SIGN POSTED, FENCED OFF OR OTHERWISE APPROPRIATELY PROTECTED AGAINST ANY SUCH DISTURBANCE.
 - ALL STOCKPILE SITES SHALL BE SITUATED IN AREAS APPROVED FOR SUCH USE BY THE SITE MANAGER. A 6m BUFFER ZONE SHALL EXIST BETWEEN STOCKPILE SITES AND ANY STREAM OR FLOW PATH. ALL STOCKPILES SHALL BE ADEQUATELY PROTECTED FROM EROSION AND CONTAMINATION OF THE SURROUNDING AREA BY USE OF THE MEASURES APPROVED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
 - ACCESS AND EXIT AREAS SHALL INCLUDE SHAKE-DOWN OR OTHER METHODS APPROVED BY THE SITE MANAGER FOR THE REMOVAL OF SOIL MATERIALS FROM MOTOR VEHICLES.
 - THE CONTRACTOR IS TO ENSURE RUNOFF FROM ALL AREAS WHERE THE NATURAL SURFACE IS DISTURBED BY CONSTRUCTION, INCLUDING ACCESS ROADS, DEPOT AND STOCKPILE SITES, SHALL BE FREE OF POLLUTANTS BEFORE IT IS EITHER DISPERSED TO STABLE AREAS OR DIRECTED TO NATURAL WATERCOURSES.
 - THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SLOPES, CROWNS AND DRAINS ON ALL EXCAVATIONS AND EMBANKMENTS TO ENSURE SATISFACTORY DRAINAGE AT ALL TIMES WATER SHALL NOT BE ALLOWED TO POND ON THE WORKS UNLESS SUCH PONDING IS PART OF AN APPROVED ESCP / SWMP.

- ### SEDIMENT CONTROL BASIN NOTES:
- TYPE D BASIN IS REQUIRED.
 - VOLUME OF THE BASINS SHALL BE AS NOMINATED ON DRAWING. NOMINAL POND LOCATIONS AND NOMINAL DIMENSIONS.
 - SEDIMENT BUILD UP TO NOT EXCEED 33% TOTAL CAPACITY OF BASIN.
 - DEWATERING OF BASIN TO BE PERFORMED TO THE BOTTOM OF THE SEDIMENT SETTLING ZONE FOLLOWING ACHIEVEMENT OF WQD'S. MANAGEMENT OF DOSAGE AND DISCHARGE TO BE ACHIEVED WITHIN 5 DAYS OF THE INITIAL RAINFALL EVENT.
 - FOLLOWING DEWATERING PER NOTE 4, WATER LEVEL TO BE MAINTAINED AT 20% CAPACITY AFTER A FOUR DAY SETTLING PERIOD FOLLOWING A STORM EVENT.
 - WATER TO BE DOSED WITH GYPSUM TO ACCELERATE SETTLEMENT OF SUSPENDED SOLIDS AS REQUIRED.
 - GYPSUM DOSAGE RATE TO BE APPLIED AT APPROX. 32kg PER 100 CUBIC METRE OF COLLECTED RUNOFF.
 - THE USE OF ALUM (OR ANY OTHER ALTERNATIVE) AS A FLOCCULANT IS NOT RECOMMENDED. ALUM OR ANY OTHER FLOCCULANT IS TO BE USED ONLY FOLLOWING CONSULTATION WITH AND ACCEPTANCE FROM COUNCIL ESC OFFICERS.
 - DISCHARGE FROM POND IS PERMISSIBLE WHEN THE WATER PH IS 6.5-8.5 AND IS CLARIFIED TO AT OR BELOW A TSS OF 50mg/L. CLARIFICATION WOULD GENERALLY BE ACHIEVED IN 36-72 HOURS WITH THE USE OF GYPSUM. CORRELATION TESTS MUST BE UNDERTAKEN ON SITE, TO ENSURE THIS IS ACHIEVED.
 - DEWATERING SHALL BE DONE IN SUCH A MANNER AS TO REMOVE THE CLEAN WATER BEING WATER WITHIN THE ADOPTED CRITERIA WITHOUT REMOVING OR DISTURBING THE SEDIMENT THAT HAS SETTLED. THE PUMP INTAKE PIPE IS NOT TO REST ON THE SETTLED SEDIMENT LAYER.
 - IF WATER EXCEEDS TSS OF 50mg/L DURING DEWATERING, PUMPING IS TO CEASE. RECORDS ARE TO BE KEPT (ON-SITE AT ALL TIMES) OF ALL MEASUREMENT PRIOR TO, DURING AND AFTER DISCHARGE. RECORDS TO BE MADE AVAILABLE TO COUNCIL OFFICERS UPON REQUEST.
 - PROVIDE SECURITY FENCE TO BASIN FOR SAFETY.

- ### SEDIMENTATION BASIN NOTE:
- FOR SEDIMENT & EROSION CONTROL DETAILS REFER TO DRAWING C014242.04-BW250 & BW251.
- SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'. CAPACITY BASED UPON 5 DAY RAINFALL DEPTH AT 85th PERCENTILE INTENSITY (315mm).
- APPROXIMATE AREA OF DISTURBED SITE = 6.47ha
- SEDIMENTATION BASINS TO COLLECT RUN-OFF IN EXTREME RAINFALL EVENTS. COLLECTED RUN-OFF TO BE ASSESSED BY A QUALIFIED LABORATORY FOR DOUSING RATES OF ALUM OR GYPSUM TO ENSURE COAGULATION OF SEDIMENTS PRIOR TO WATER BEING DISCHARGED TO COUNCIL STORMWATER SYSTEM.
- EACH BASIN IS TO HAVE A MARKER PLACED AS PER THE DETAIL TO INDICATE WHEN SEDIMENT IS TO BE REMOVED. REMOVED SEDIMENT IS TO BE CLASSED AND DEWATERED PRIOR TO REMOVAL FROM SITE.
- ALLOWANCE TO BE MADE DURING BENCHING OF SITE TO ENSURE RUN-OFF IS DIRECTED TO SEDIMENTATION BASINS.
- #### NOTES:
- ASSUME TYPE D SOIL (CLAY/SILT CLAY)
 - ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)
- SOIL TYPE TO BE ASSESSED BY A GEOTECHNICAL ENGINEER

- ### DUST CONTROL NOTES:
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE DUST CONTROL MEASURES ARE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.
 - THE APPLICATION OF LIQUID BASED DUST SUPPRESSION MEASURES MUST BE SUCH THAT SEDIMENT LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD. (EG USING HAY BALES)
 - DUST GENERATION ASSOCIATED WITH WIND EROSION TO BE CONTROLLED USING WATER TRUCKS, DUST SUPPRESSING FOG, MIST GENERATORS, SEALANT PLACED OVER THE SOIL, SURFACE ROUGHENING OR RE-VEGETATION.
 - THE FOLLOWING ACTIVITIES SHALL BE ADOPTED, IF NECESSARY, TO MANAGE DUST CONTROL ON SITE:
 - LIMITING THE AREA OF SOIL DISTURBANCE AT ANY GIVEN TIME
 - REPLACING TOPSOIL AFTER COMPLETION OF EARTHWORKS.
 - PROGRAMMING WORK TO MINIMISE THE LIFE OF STOCKPILES.
 - TEMPORARILY STABILISING LONG-TERM STOCKPILES.
 - GRAVELLING UNSEALED ACCESS AND HAUL ROADS.
 - MINIMISING TRAFFIC MOVEMENT ON EXPOSED SURFACES.
 - LIMITING VEHICULAR TRAFFIC TO 15km/h.
 - RETAINING EXISTING VEGETATION AS WIND BREAKS.
 - OIL, LANDFILL GAS CONDENSATE OR ANY CONTAMINATED LEACHATE OR STORMWATER IS NOT TO BE USED FOR DUST SUPPRESSION.

RUSLE CALCULATION:

TOTAL CATCHMENT AREA = 6.47 Ha
DISTURBED CATCHMENT AREA = 6.47 Ha

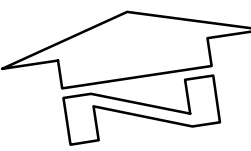
$$A = R \times K \times L \times S \times P \times C$$

- 2-yr. 6-hr ARI (S) = 9.46;
- RAINFALL EROSIONITY FACTOR (R)
 $R = 164.74(1.117)^P$ SD6444 = 2010;
- SOIL ERODIBILITY FACTOR (K) = 0.075;
- LENGTH/GRADE FACTOR (LS) = 0.68;
- EROSION CONTROL PRACTICE FACTOR (P) = 1.3;
- COVER FACTOR (C) = 1.0

SOIL LOSS (A) = 103t/ha/yr
= 666.4m³/yr

- ### LEGEND:
- PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS. TYPICAL (IN S.O.P.)
- DENOTES SITE BOUNDARY
 - DENOTES DIVERSION DRAIN
 - DENOTES SILT FENCE WITH CATCH DRAIN
 - DENOTES SILT FENCE ONLY
 - DENOTES CLEAN WATER PUMP OUT
 - DENOTES CONSTRUCTION ENTRY
 - DENOTES OVERLAND FLOW PATH
 - DENOTES EXISTING POND TO BE DEWATERED

SEDIMENT BASIN (TYPE D):
CATCHMENT AREA = 6.47Ha
DISTURBED AREA = 6.47Ha
REQUIRED SETTLING ZONE = 1020m³
REQUIRED STORAGE ZONE = 111m³
REQUIRED BASIN VOLUME = 1130m³
PROVIDED BASIN VOLUME = 1161m³
REFER TO BLUE BOOK SD 6-4.



EROSION & SEDIMENT CONTROL PLAN

SCALE 1:500

FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION	12.12.25	B
ISSUED FOR INFORMATION	05.12.25	A
AMENDMENTS	DATE	ISSUE

ARCHITECT

PACE
ARCHITECTS

CLIENT

LogiSPACE

PROJECT

PROPOSED DEVELOPMENT
191 MILLER ROAD, CHESTER HILL, NSW 2162

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
AH	QP	NOV '25	DS	B1	AS SHOWN	C014242.05-EW200

CONSULT AUSTRALIA

Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446

PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au

CRC
COSTIN ROE CONSULTING

CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE

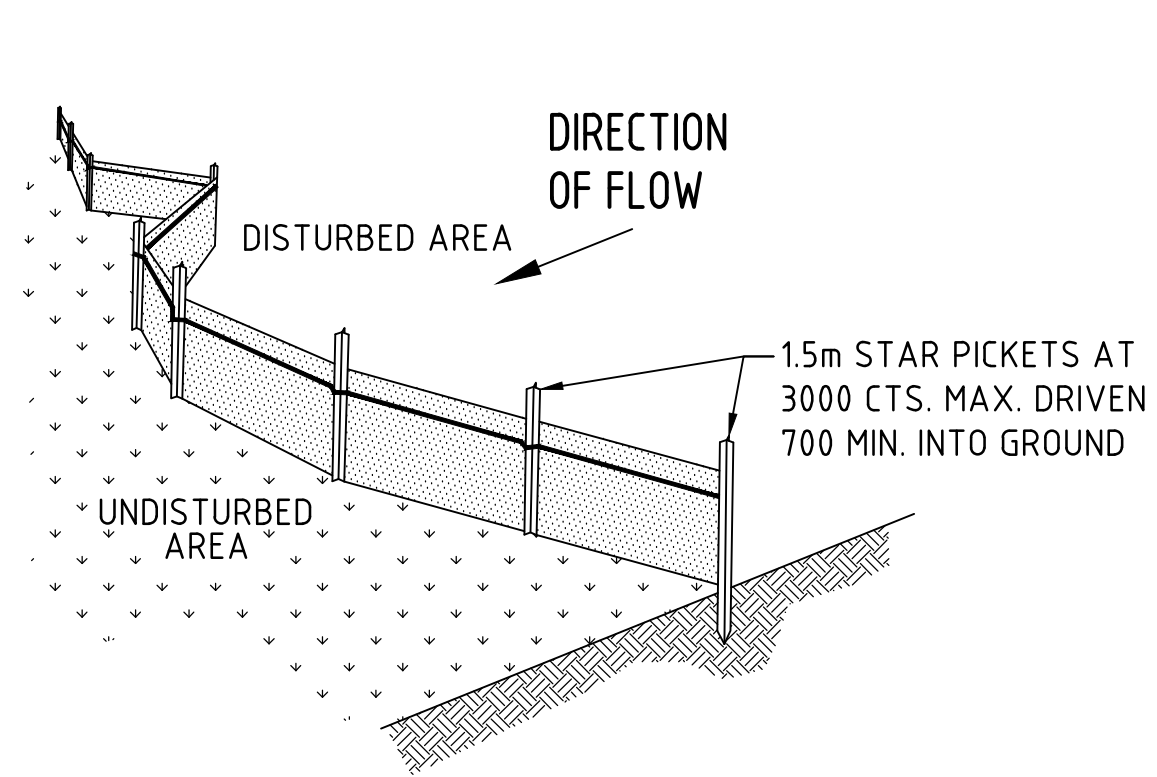
EROSION & SEDIMENT CONTROL PLAN

DRAWING NO

C014242.05-EW200

ISSUE

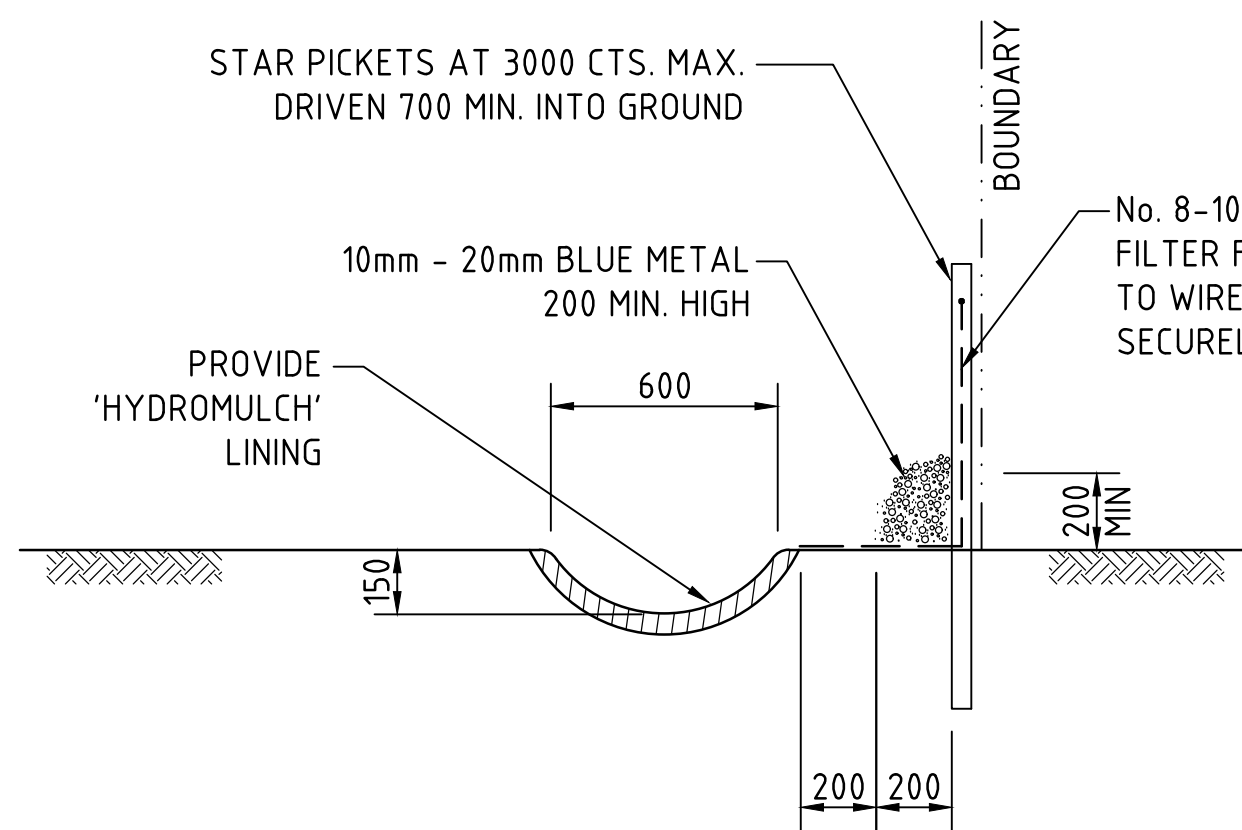
B



TYPICAL SILT FENCE DETAIL

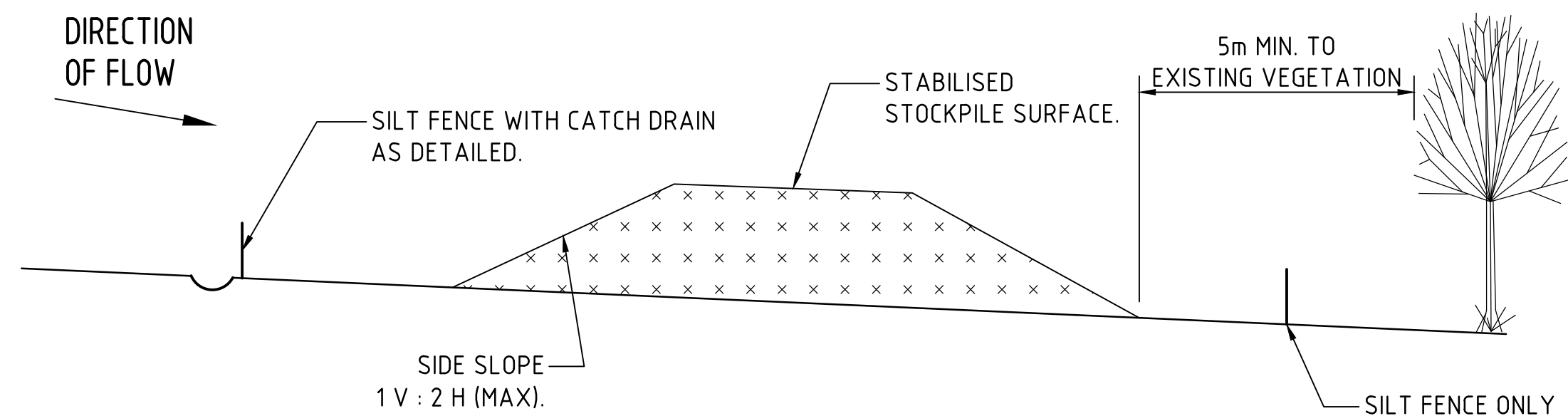
N.T.S

NOTE: PROVIDE 1m RETURNS AT 30m INTERVALS. TYPICAL



TYPICAL OPEN DRAIN & SILT FENCE

SCALE 1:20

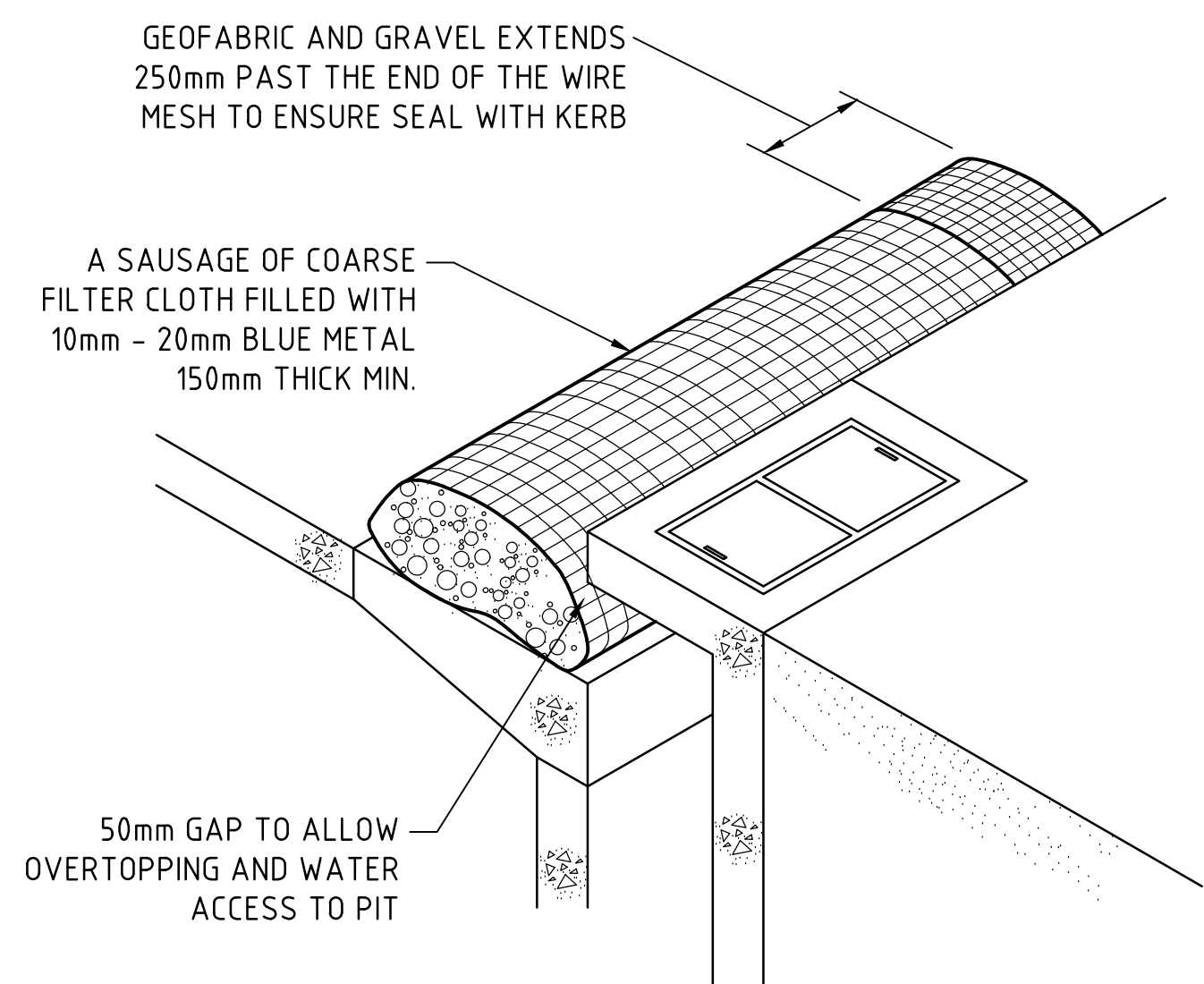


TYPICAL STOCKPILE DETAIL

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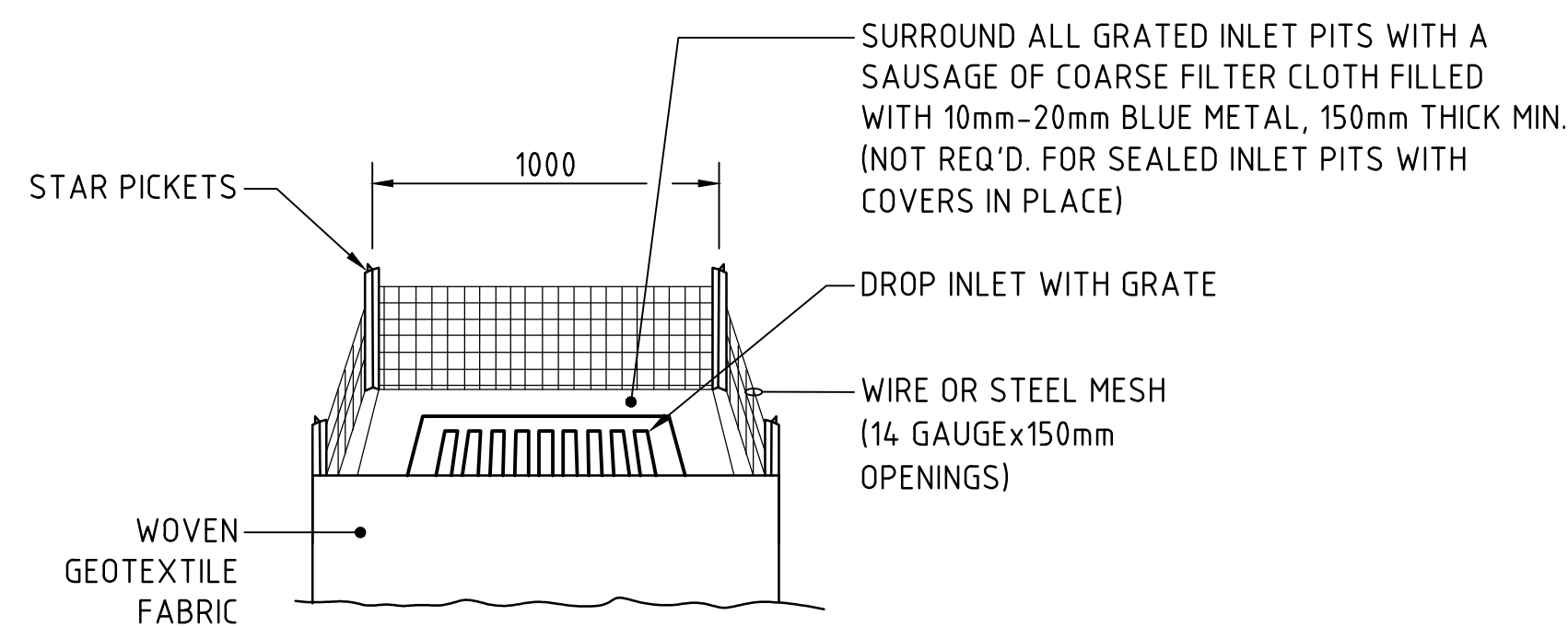
STOCKPILE NOTES

1. PLACE ALL STOCKPILES IN LOCATIONS MORE THAN 5m FROM EXISTING VEGETATION, ROADS & HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT ELONGATED MOUNDS. SIDE SLOPE TO BE 1 V: 2 H MAX.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE STOCKPILES ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE USING WOOD CHIP MULCH - 16 TONNE/Ha.
5. CONSTRUCT SILT FENCE WITH CATCH DRAIN ON UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES & SILT FENCE ONLY 1 TO 2m DOWNSLOPE AS SHOWN.



KERB INLET CONTROL

N.T.S

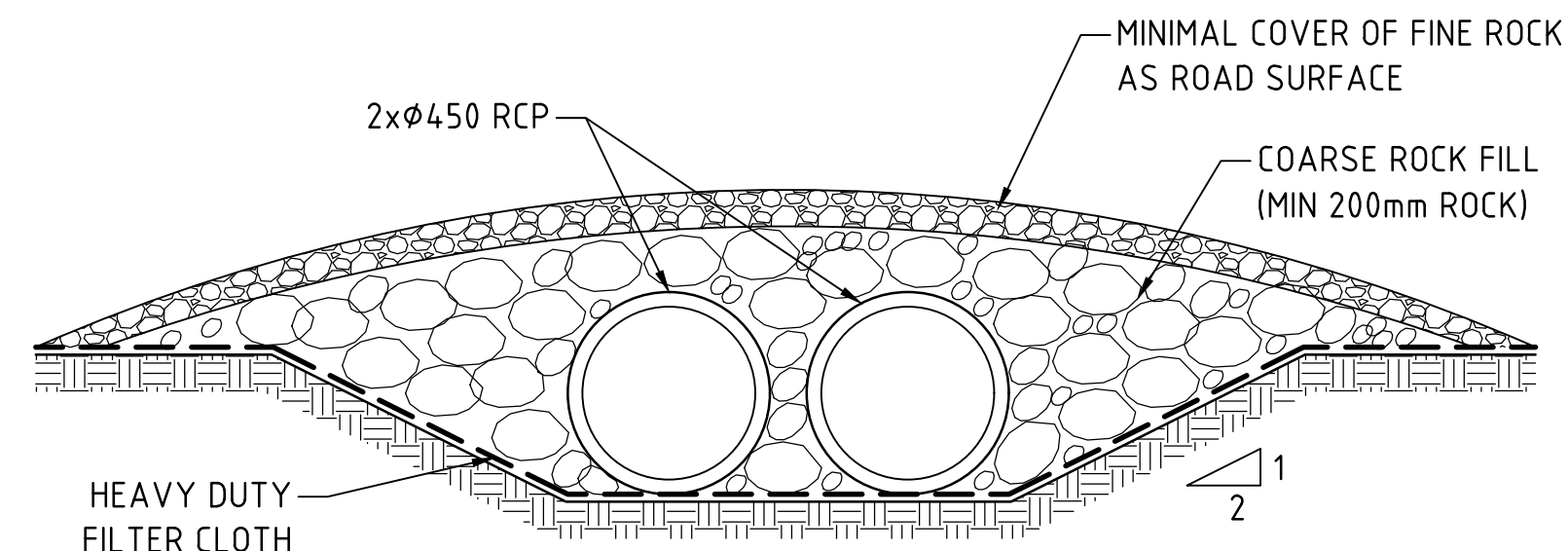


GRATED INLET PIT FILTER DETAIL

N.T.S

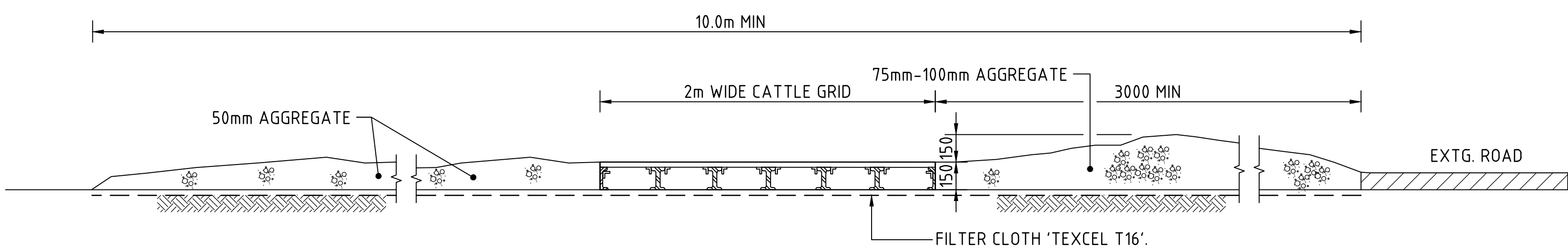
NOTE :

ADOPT ABOVE DETAILS AROUND ALL PITS WITHIN AREA ENCOMPASSED BY SILT FENCE & TO PITS ON THE ROAD ADJACENT TO SITE BOUNDARY.

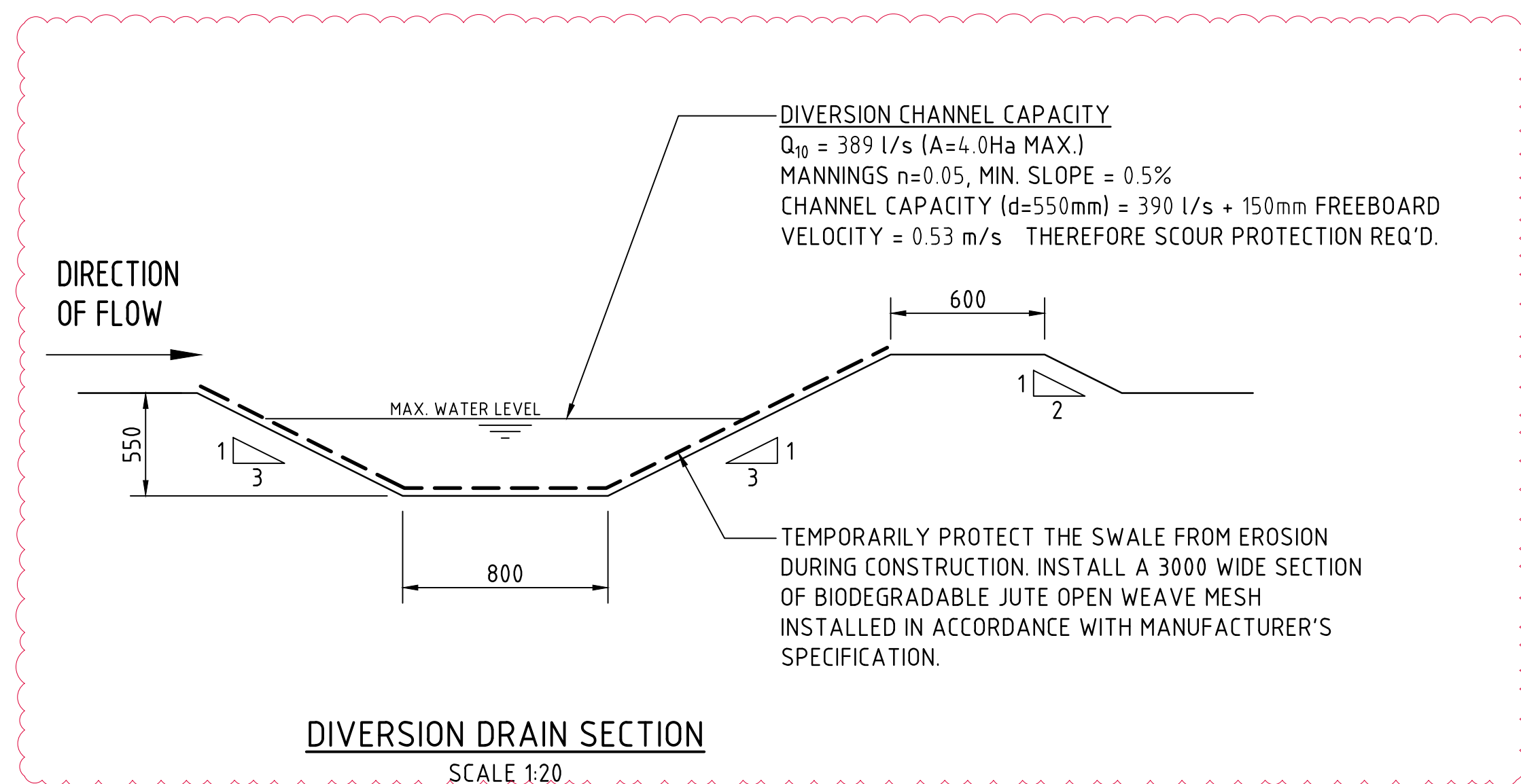


TYPICAL CROSSING OVER DIVERSION CHANNEL

SCALE 1:20



SECTION 1:20 1 : STABILISED CONSTRUCTION ENTRANCE 'TRUCK SHAKER'



DIVERSION DRAIN SECTION

SCALE 1:20

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT B1 SIZE SHEET

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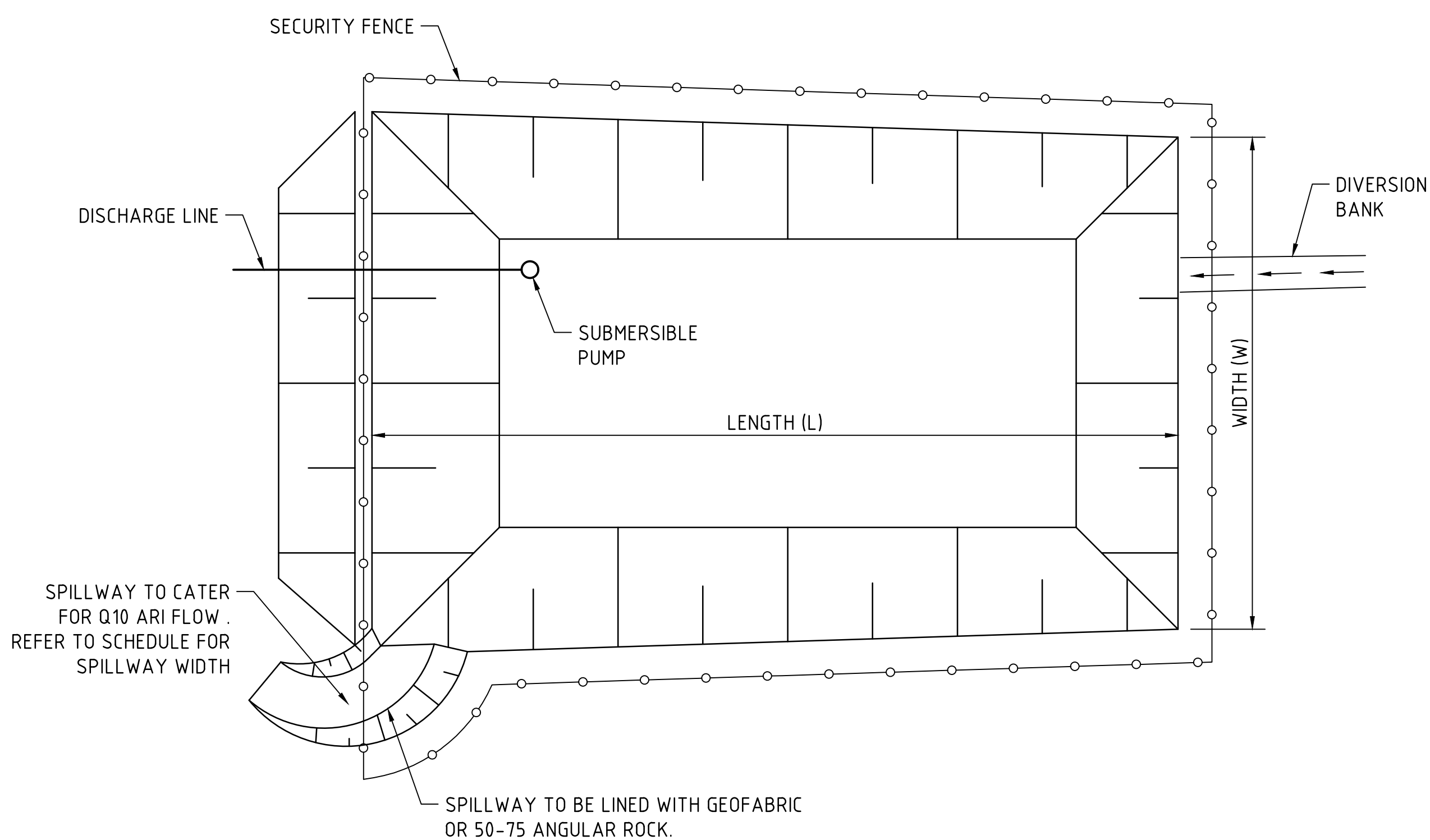
PROJECT	PROPOSED DEVELOPMENT
191 MILLER ROAD, CHESTER HILL, NSW 2162	
DESIGNED	AH
DRAWN	QP
DATE	NOV '25
CHECKED	DS
SIZE	B1
SCALE	AS SHOWN
CAD REF:	C014242.05-EW250



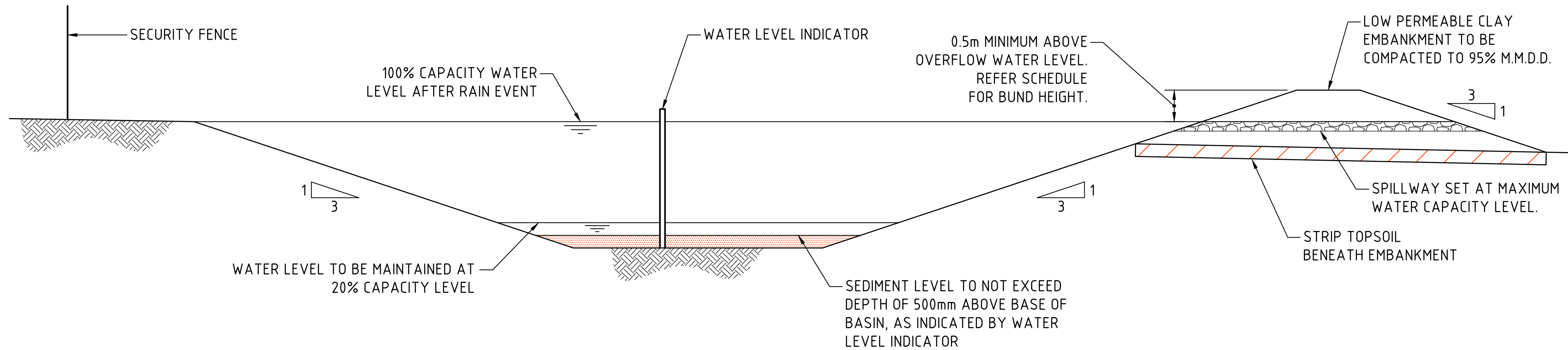
Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au



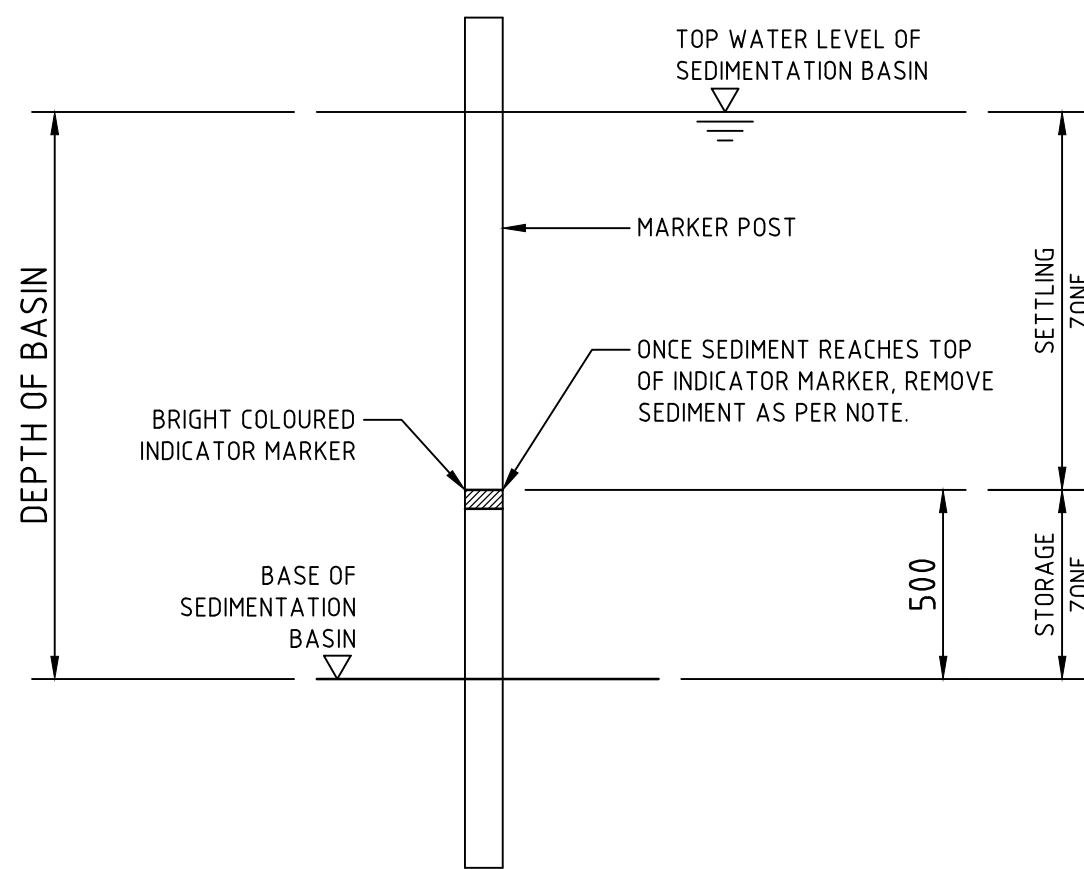
DRAWING TITLE	EROSION SEDIMENT CONTROL DETAILS
SHEET 1	
DRAWING No	C014242.05-EW250
ISSUE	B



TYPICAL SEDIMENT CONTROL POND PLAN
SCALE 1:250



TYPICAL SEDIMENT CONTROL BASIN SECTION
SCALE 1:50



SEDIMENT STORAGE MARKER
SCALE 1:20

SPILLWAY DETAIL & SCHEDULE					
CATCHMENT (Ha)	FLOW (m³/s)	WIDTH (mm)	FLOW DEPTH (mm)	ROCK SIZE (mm)	BUND HEIGHT ABOVE SPILLWAY (mm)
0.20	0.14	1000	200	-	600
0.5	0.2	2000	200	-	600
1	0.3	2000	200	-	700
2	0.6	4000	200	-	700
5	1.4	5000	300	200	800
10	2.8	8000	350	200	850

FOR DEVELOPMENT APPLICATION

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT B1 SIZE SHEET

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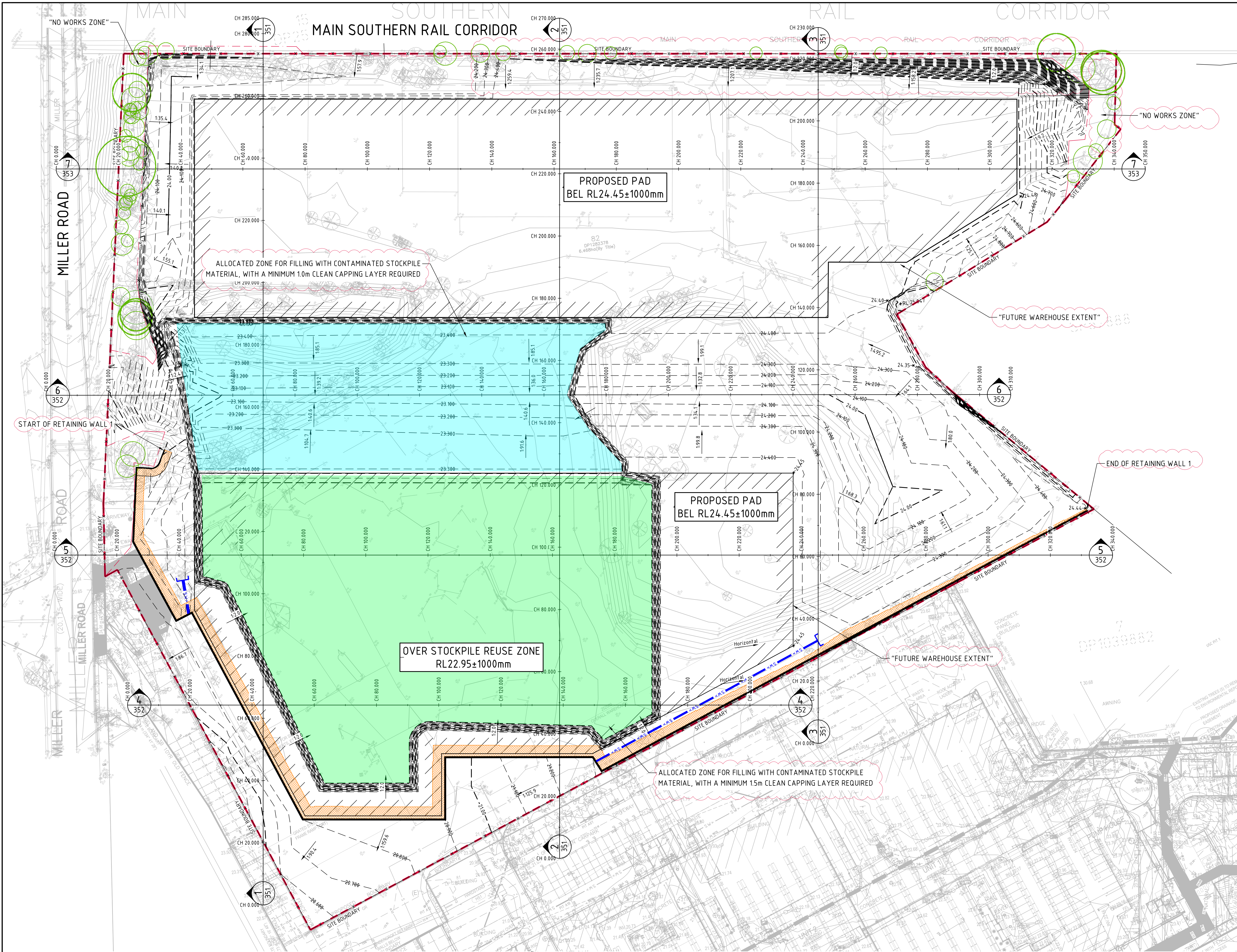
PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162					
DESIGNED AH	DRAWN QP	DATE NOV '25	CHECKED DS	SIZE B1	SCALE AS SHOWN
CAD REF: C014242.05-EW250					



Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au



DRAWING TITLE EROSION SEDIMENT CONTROL DETAILS SHEET 2	DRAWING No C014242.05-EW250	ISSUE B
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- ### SITE PREPARATION NOTES:
- ALL EARTHWORKS SHALL BE COMPLETED GENERALLY IN ACCORDANCE WITH THE GUIDELINES SPECIFIED BY THE GEOTECHNICAL REPORT 'PSM182.01-002L PROVIDED BY PSM DATED 25/07/2025.
 - EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY MNG LANDPARTNER TITLED 'DETAILED SURVEY OF LOT 82 ON DP1282378' DATED 07/11/2025.
 - STRIP ANY TOP SOIL OR DELETERIOUS MATERIAL AND DISPOSE OF FROM SITE OR STORE AS DIRECTED TOPSOIL BLENDING IS NOT ACCEPTABLE. ANY BLENDING PROPOSAL IS TO BE REFERRED TO THE ENGINEER.
 - COMPLETE CUT TO FILL EARTHWORKS TO ACHIEVE THE REQUIRED LEVELS AS INDICATED ON THE DRAWINGS WITHIN A TOLERANCE OF +0mm/-10mm THROUGH BUILDING PADS/PAVEMENTS AND -0mm/-20mm ELSEWHERE.
 - PREPARE STEEP BATTERS TO RECEIVE FILL BY CONSTRUCTING BENCHING TO FACILITATE FILL PLACEMENT AND COMPACTION. WHERE EXPOSED ROCK (WEATHERED SHALE OR SANDSTONE) IS ENCOUNTERED AT CUT SUBGRADE LEVEL, THE EARTHWORKS CONTRACTOR IS TO ALLOW TO RIP THE SURFACE TO A NOMINAL 0.3-0.4m DEPTH AND RECOMPACT PER THE ENGINEERING SPEC AS REQUIRED.
 - AREAS TO RECEIVE FILL THAT ARE NOT ON BENCHED BATTERS) AND AREAS IN CUT SHALL BE PROOF ROLLED TO IDENTIFY ANY SOFT HEAVING MATERIAL. SOFT MATERIAL SHALL BE BOXED OUT AND REMOVED PRIOR TO FILL PLACEMENT. PROOF ROLLING TO BE INSPECTED BY A GEOTECHNICAL ENGINEER OR THE EARTHWORKS DESIGNER.
 - SITE WON FILL SHALL BE COMPACTIONED IN MAXIMUM 300mm LAYERS AND TO DRY OR HALF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HALF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
 - IMPORTED FILL SHALL BE COMPACTIONED IN MAXIMUM 300mm LAYERS AND TO DRY OR HALF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HALF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
 - ALL ENGINEERED FILL PARTICLES SHALL BE ABLE TO BE INCORPORATED WITHIN A SINGLE LAYER. FURTHER, LESS THAN 30% OF PARTICLES SHALL BE RETAINED ON THE 37.5 mm SIEVE ENGINEERED FILL SHALL BE ABLE TO BE TESTED IN ACCORDANCE WITH THE STANDARD COMPACTION METHOD (AS1289.5.4.1) OR HALF TEST METHOD (AS1289.5.7.1). THESE METHODS REQUIRE LESS THAN 20% RETAINED ON THE 37.5 mm SIEVE. WHERE BETWEEN 20% AND 30% OF PARTICLES ARE RETAINED ON THE 37.5 mm SIEVE, THE ABOVE TEST METHODS SHALL STILL BE ADOPTED AND TEST REPORTS ANNOTATED APPROPRIATELY. THESE REQUIREMENTS SHOULD BE MET BY THE MATERIAL AFTER PLACEMENT AND COMPACTION.
 - ALL EARTHWORKS SHALL BE COMPLETED UNDER LEVEL 1 CONTROL IN ACCORDANCE WITH AS 3799-2007.
 - PRIOR TO ANY EARTHWORKS, EROSION CONTROL AS OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE COMPLETED.
 - EXISTING ROCK, IF ANY, SHALL BE REMOVED BY HEAVY ROCK BREAKING OR RIPPING.
 - MATCH EXISTING LEVELS AT BATTER INTERFACE.
 - CONTRACTOR TO MATCH EXISTING LEVELS AT THE INTERFACE OF EARTHWORKS AND EXISTING SURFACE AT BATTER LOCATIONS OR WHERE NO RETAINING WALLS ARE PRESENT. ANY DISCREPANCY BETWEEN DESIGN AND EXISTING LEVELS TO BE REFERRED TO THE ENGINEER FOR DIRECTION OR ADJUSTMENTS TO DESIGN LEVELS.
 - DURING EARTHWORKS THE CONTRACTOR IS TO ENSURE ALL AREAS ARE FREE DRAINING & WILL NOT RETAIN RAIN WATER DURING RAINFALL. PROVIDE TEMPORARY MEASURES AS REQUIRED TO ENSURE FREE FLOWING RUNOFF THROUGH MANAGED DRAINAGE PATHS, DIVERSION DRAINS OR OTHER SUITABLE DISPOSAL METHOD AS AGREED DURING THE WORKS. REFER ANY CONCERNS TO THE ENGINEER. REFER TO EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES.

EARTHWORK ESTIMATES

SITE AREA	= 6.36 Ha
SITE STRIP (200mm OVER 6.36 Ha)	= (-12,730m³) (TO BE EXPORTED)
CUT	= -11,480m³
FILL	= +51,655m³
ALLOWANCES	
DETAILED EXCAVATION (1:500m²/Ha)	= -9,540m³
ESTIMATED STOCKPILE VOLUME (85% REUSABLE, 15% TO BE DISPOSED)	= -38,900m³
STOCKPILE TO BE REMOVED FROM SITE	= -5,835m³
STOCKPILE TO BE USED AS FILL UNDER CLEAN CAPPING MATERIAL BEFORE COMPACTION	= -33,065m³, POST-COMPACTION = -28,105m³
RETAINING WALL 1 = -4510m³ (RW1 - TBC BY D&C CONTRACTOR)	
DIFFERENCE	= -1980m³ (i.e. CUT OVER FILL)

NOTE:
VOLUMES BASED ON 200mm SITE STRIP OVER THE NOMINATED AREA. EARTHWORKS VOLUMES ARE APPROXIMATE ONLY.
NO ALLOWANCE HAS BEEN MADE FOR DELETERIOUS MATERIAL, EROSION AND SEDIMENT CONTROL, BULKING OR COMPACTION OF FILLED SOILS, THE REMOVAL OF UNCONTROLLED OR CONTAMINATED MATERIAL OR ANY OTHER UNSPECIFIED EXCAVATION RELATED TO CONSTRUCTION ACTIVITIES. DETAILED EXCAVATION ALLOWANCE IS APPROXIMATE ONLY AND ACCEPTED FOR INFORMATION PURPOSES ONLY. CONTRACTOR TO CONFIRM VOLUMES.

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY MNG LANDPARTNERS DATED 07/11/2025.

- 50.00 — - EXISTING CONTOUR (10.5m INTERVAL)
- - 50.00 - - B.E.L. CONTOUR (MAJOR 0.5m)
- - 50.00 - - B.E.L. CONTOUR (MINOR 0.1m)
- - 50.00 - - B.E.L. SPOT LEVEL
- 10m EXTRA CUT FOR CLEAN CAPPING MATERIAL
- 15m EXTRA CUT FOR CLEAN CAPPING MATERIAL

PAVEMENT FFL 300mm THROUGH BUILDING PAD & EXTERNAL PAVEMENTS

PAVEMENT
BASE/ SUBBASE
CAPPING COURSES

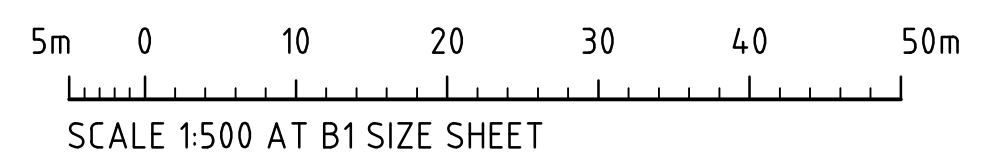
NOMINATED B.E.L. LEVEL

NOMINATED B.E.L. DETAIL

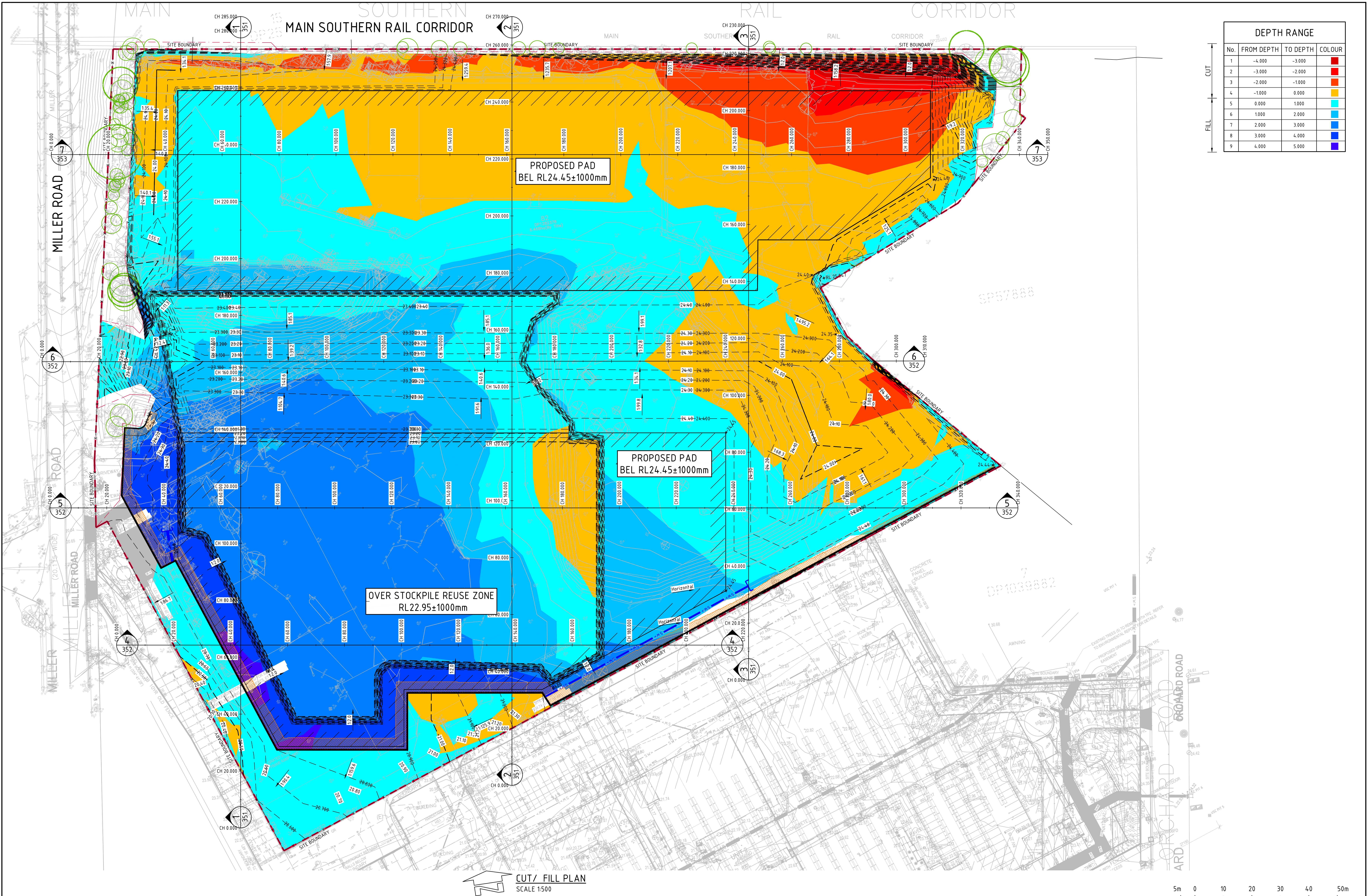
NTS

BULK EARTHWORKS PLAN
SCALE 1:500

FOR DEVELOPMENT APPLICATION

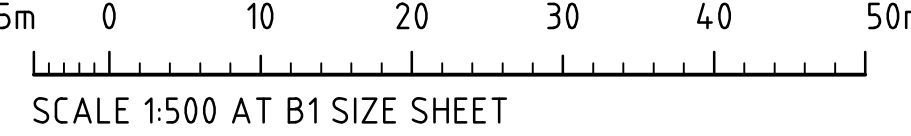


BULK EARTHWORK SURFACE UPDATED 12.12.25 D			ARCHITECT		CLIENT		PROJECT		COSTIN ROE CONSULTING PTY LTD.		DRAWING TITLE	
BULK EARTHWORK SURFACE UPDATED 05.12.25 C			ARCHITECT		CLIENT		PROPOSED DEVELOPMENT		ABN 50 003 696 446		BULK EARTHWORKS PLAN	
REVISED AS CLOUDED 24.11.25 B			ARCHITECT		CLIENT		191 MILLER ROAD, CHESTER HILL, NSW 2162		PO Box N419 Sydney NSW 1220		C014242.05-EW300	
ISSUED FOR INFORMATION 21.11.25 A			ARCHITECT		CLIENT		DESIGNED AH		Level 4, 8 Windmill Street, Millers Point NSW 2000		ISSUE	
AMENDMENTS			ARCHITECT		CLIENT		DRAWN DP		p: +61 2 9251 7699 f: +61 2 9241 3731		D	
			ARCHITECT		CLIENT		CHECKED DS		e: mail@costinroe.com.au w: costinroe.com.au			
			ARCHITECT		CLIENT		SIZE B1					
			ARCHITECT		CLIENT		AS SHOWN					
			ARCHITECT		CLIENT		CAD REF:					
			ARCHITECT		CLIENT		C014242.05-EW300					



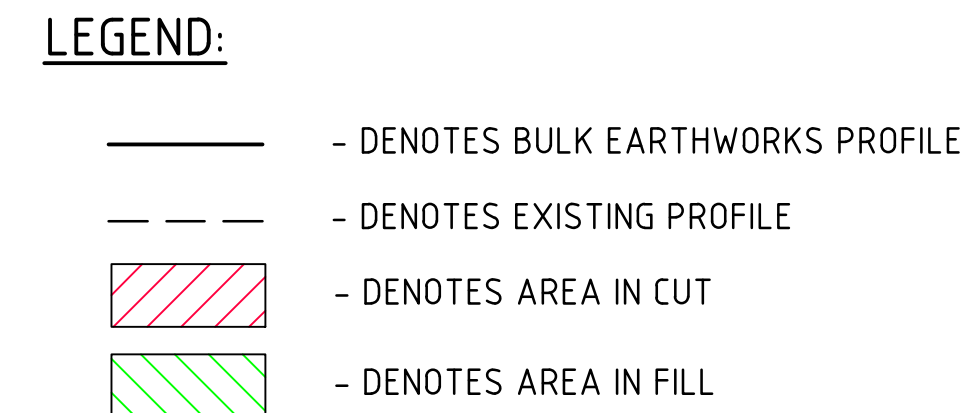
DEPTH RANGE			
No.	FROM DEPTH	TO DEPTH	COLOUR
1	-4.000	-3.000	Red
2	-3.000	-2.000	Orange
3	-2.000	-1.000	Yellow
4	-1.000	0.000	Light Blue
5	0.000	1.000	Blue
6	1.000	2.000	Dark Blue
7	2.000	3.000	Very Dark Blue
8	3.000	4.000	Black
9	4.000	5.000	Dark Purple

CUT/ FILL PLAN
SCALE 1:500



FOR DEVELOPMENT APPLICATION

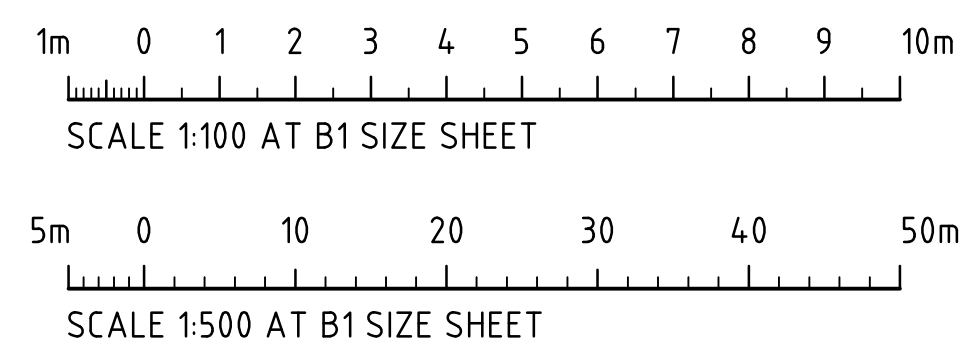
BULK EARTHWORK SURFACE UPDATED12.12.25D BULK EARTHWORK SURFACE UPDATED05.12.25C REVISED AS CLOUDED24.11.25B ISSUED FOR INFORMATION21.11.25A AMENDMENTS DATE ISSUE AMENDMENTS DATE ISSUE	ARCHITECT PACE ARCHITECTS	CLIENT LogiSPACE	PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162	CONSULT AUSTRALIA	Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au	CRC COSTIN ROE CONSULTING CIVIL & STRUCTURAL ENGINEERS	DRAWING TITLE CUT/ FILL PLAN
DRAWING No C014242.05-EW310						ISSUE D	

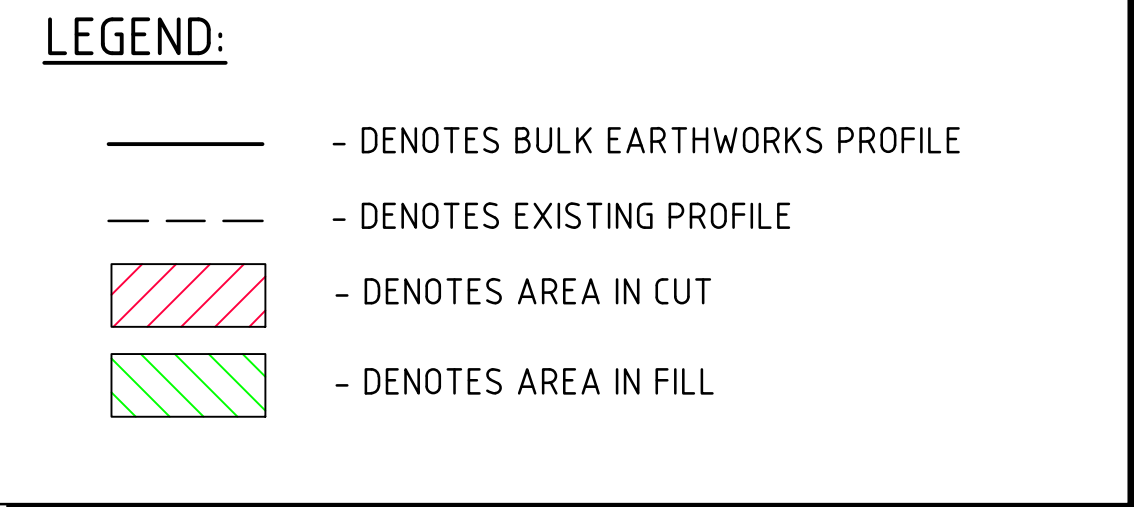


SECTION 3
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

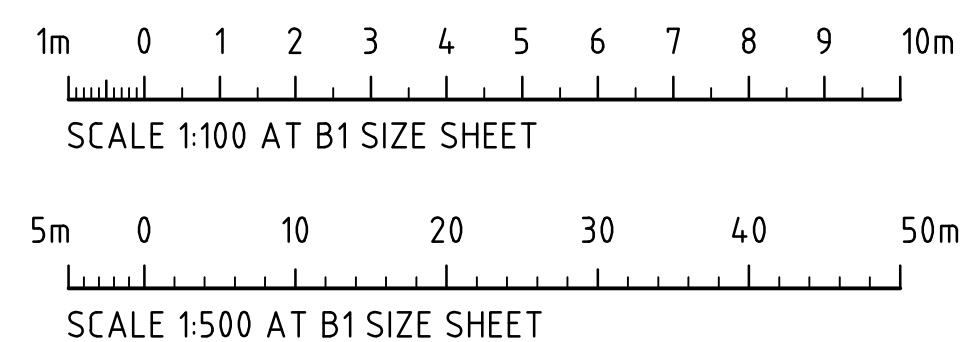


FOR DEVELOPMENT APPLICATION

[illegible]



SECTION 6
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



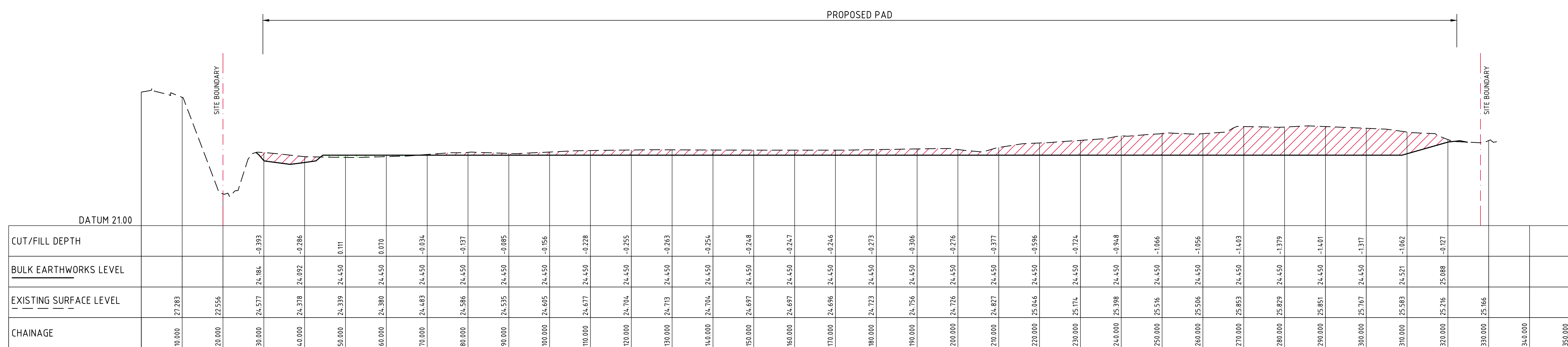
SECTION 5
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



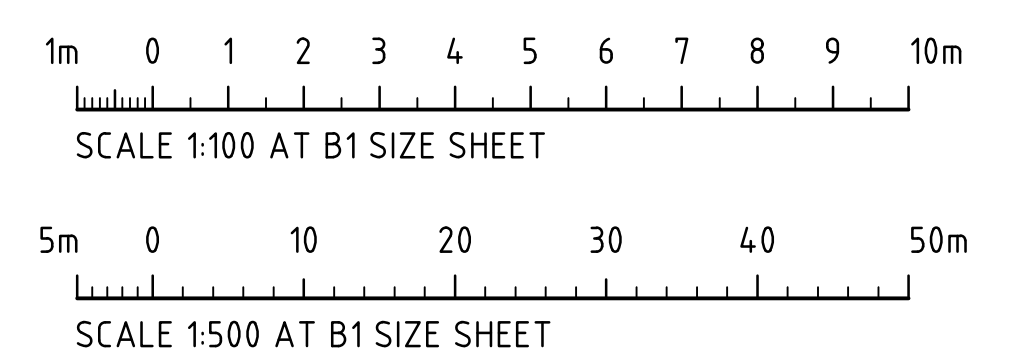
SECTION 4
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

LEGEND:

-  - DENOTES BULK EARTHWORKS PROFILE
 - DENOTES EXISTING PROFILE
 - DENOTES AREA IN CUT
 - DENOTES AREA IN FILL

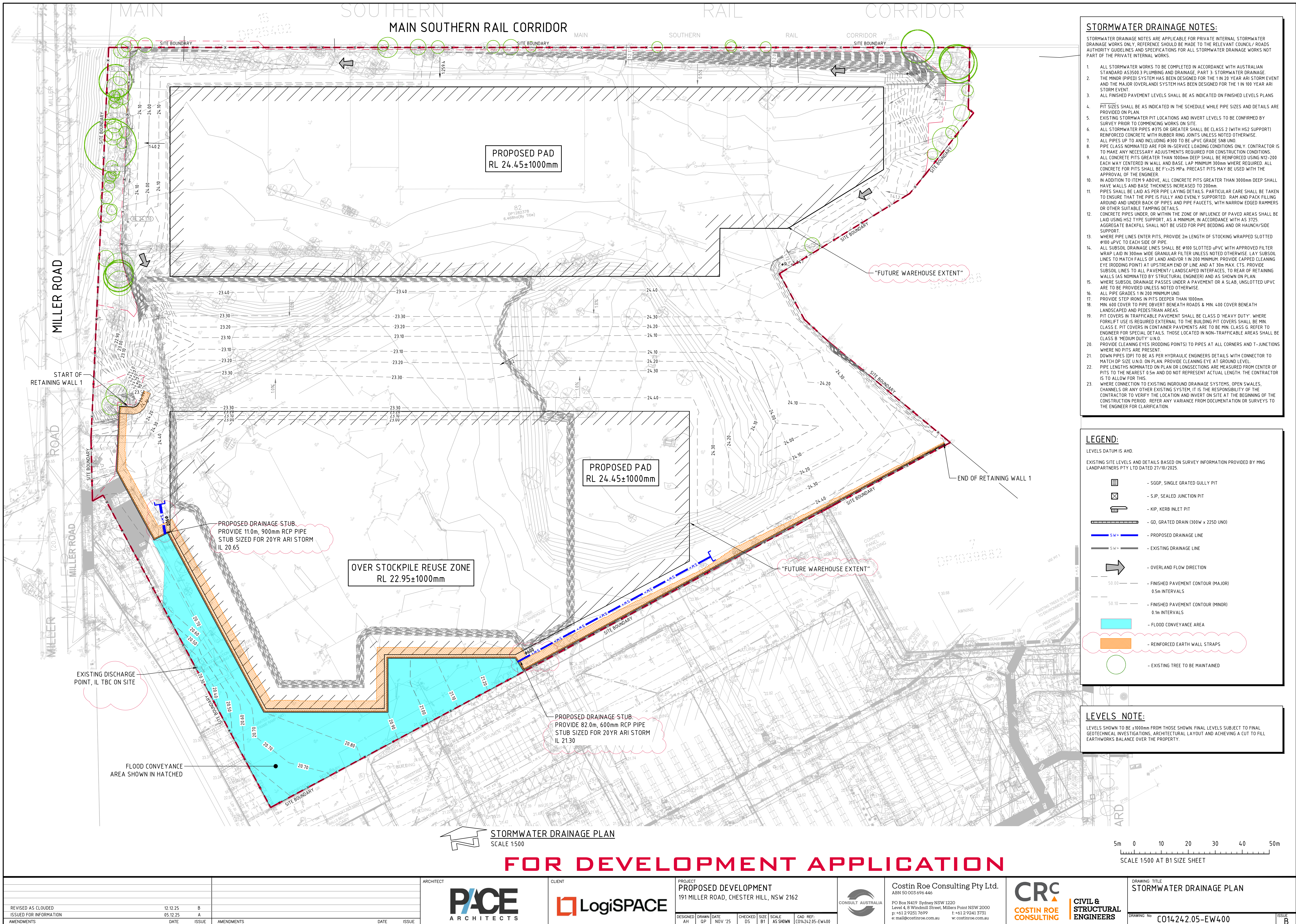


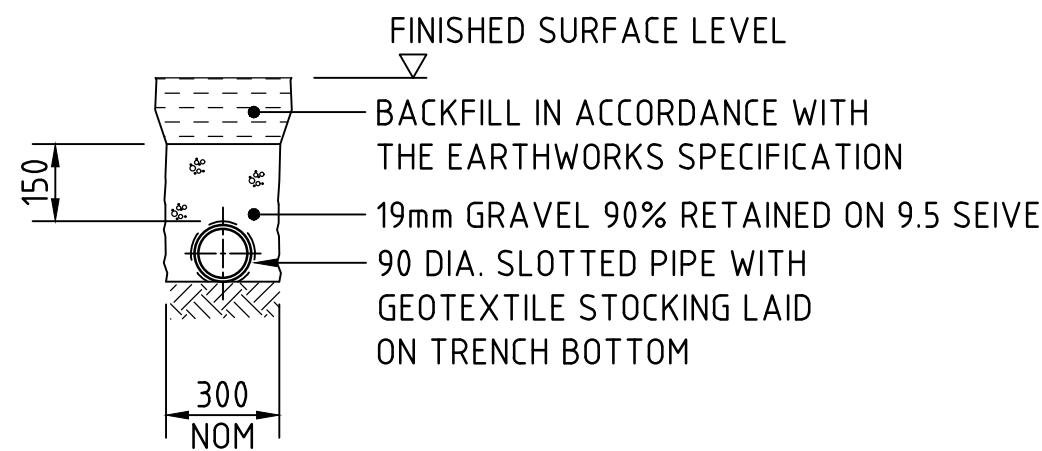
SECTION 7
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOR DEVELOPMENT APPLICATION

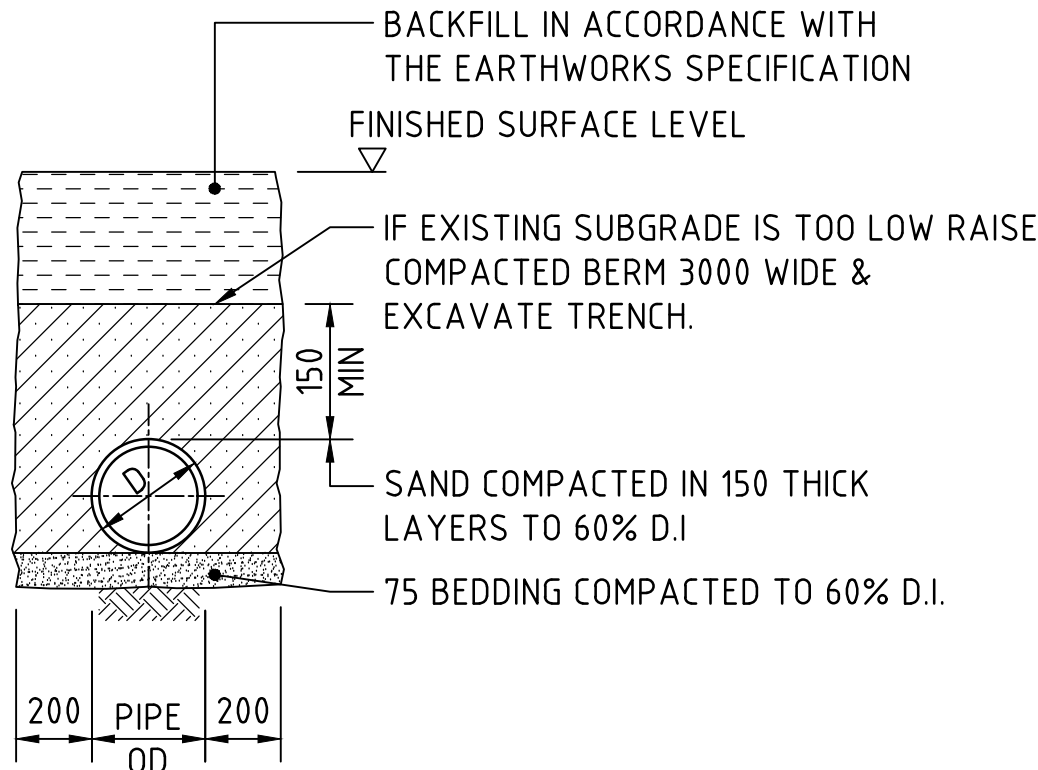
						ARCHITECT  PACE ARCHITECTS			CLIENT  LogiSPACE			PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162			 CONSULT AUSTRALIA			Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 e: mail@costinroe.com.au w: costinroe.com.au			 CRC COSTIN ROE CONSULTING  CIVIL & STRUCTURAL ENGINEERS			DRAWING TITLE BULK EARTHWORKS SECTIONS - SHEET 3								
ISSUED FOR DEVELOPMENT APPLICATION			12.12.25			B						DESIGNED			DRAWN			DATE			CHECKED			SIZE			SCALE			CAD REF:		
ISSUED FOR INFORMATION			05.12.25			A						AH			QP			NOV '25			DS			B1			AS SHOWN			C014242.05-EW353		
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE																	
																														</		



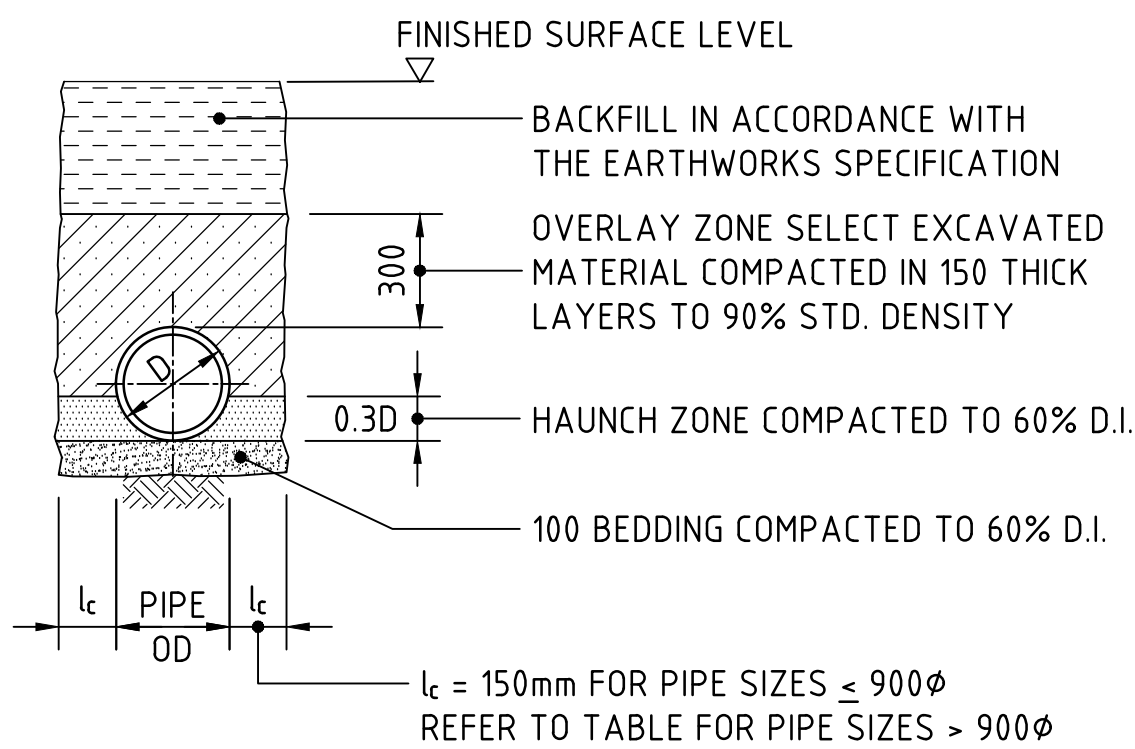


SUPPORT TO AGRICULTURAL DRAIN
SCALE 1:20

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0
SELECT FILL MATERIAL IN ACCORDANCE WITH TABLE 1 AS 3725	



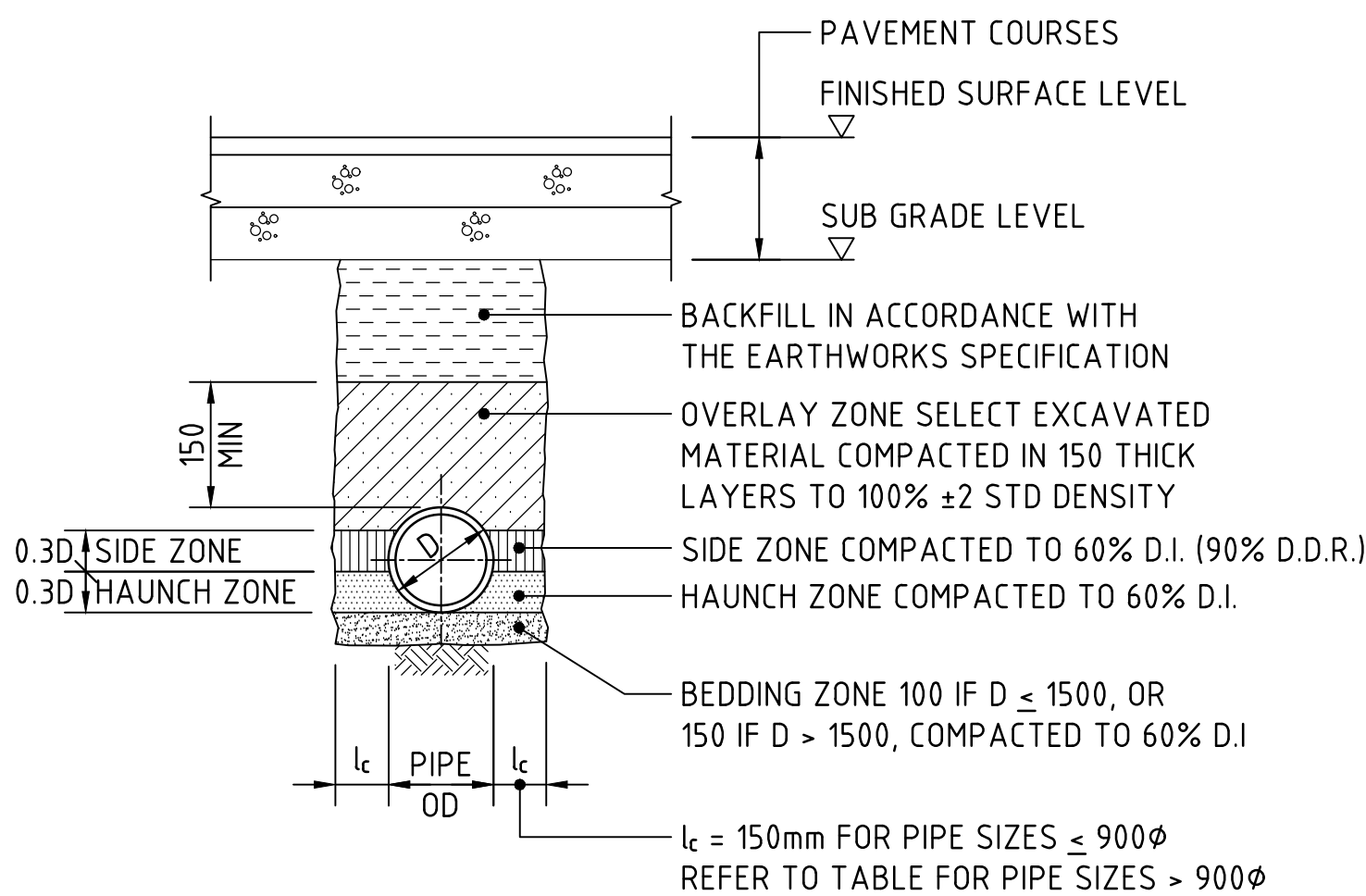
SUPPORT TO uPVC PIPES
SCALE 1:20



TYPE H1 SUPPORT TO CONCRETE PIPES AT LANDSCAPED AREAS
SCALE 1:20

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SIDE ZONE WIDTH	
PIPE SIZE (mm)	l _c (mm)
≤ 900φ	150
1050φ	175
1200φ	200
1350φ	225
1500φ	250
1650φ	275
1800φ	300
ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800φ	

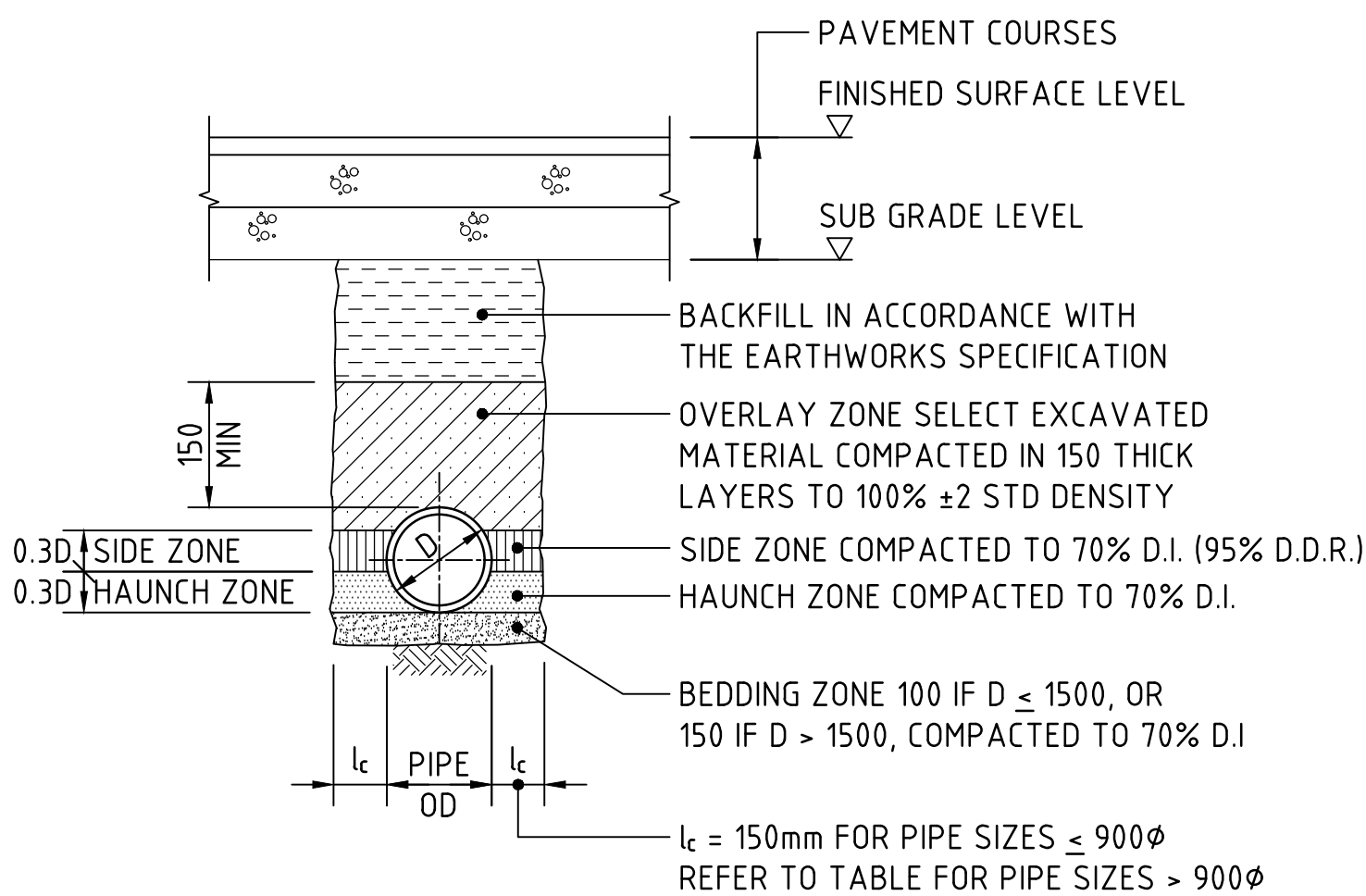


TYPE HS2 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT

SCALE 1:20
D ≤ 1350, MAX FILL = 4.0m
D > 1350, MAX FILL = 3.0m

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

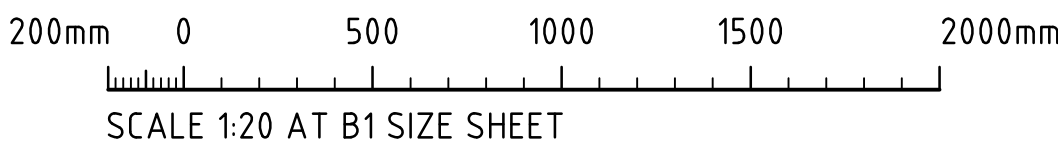
SIDE ZONE WIDTH	
PIPE SIZE (mm)	l _c (mm)
≤ 900φ	150
1050φ	175
1200φ	200
1350φ	225
1500φ	250
1650φ	275
1800φ	300
ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800φ	



TYPE HS3 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT

SCALE 1:20
D ≤ 1050, MAX FILL = 6.0m
D > 1050, MAX FILL = 4.8m

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0
SELECT FILL MATERIAL IN ACCORDANCE WITH TABLE 1 AS 3725	



FOR DEVELOPMENT APPLICATION

FOR DEVELOPMENT APPLICATION	12.12.25	B			
ISSUED FOR INFORMATION	05.12.25	A			
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE



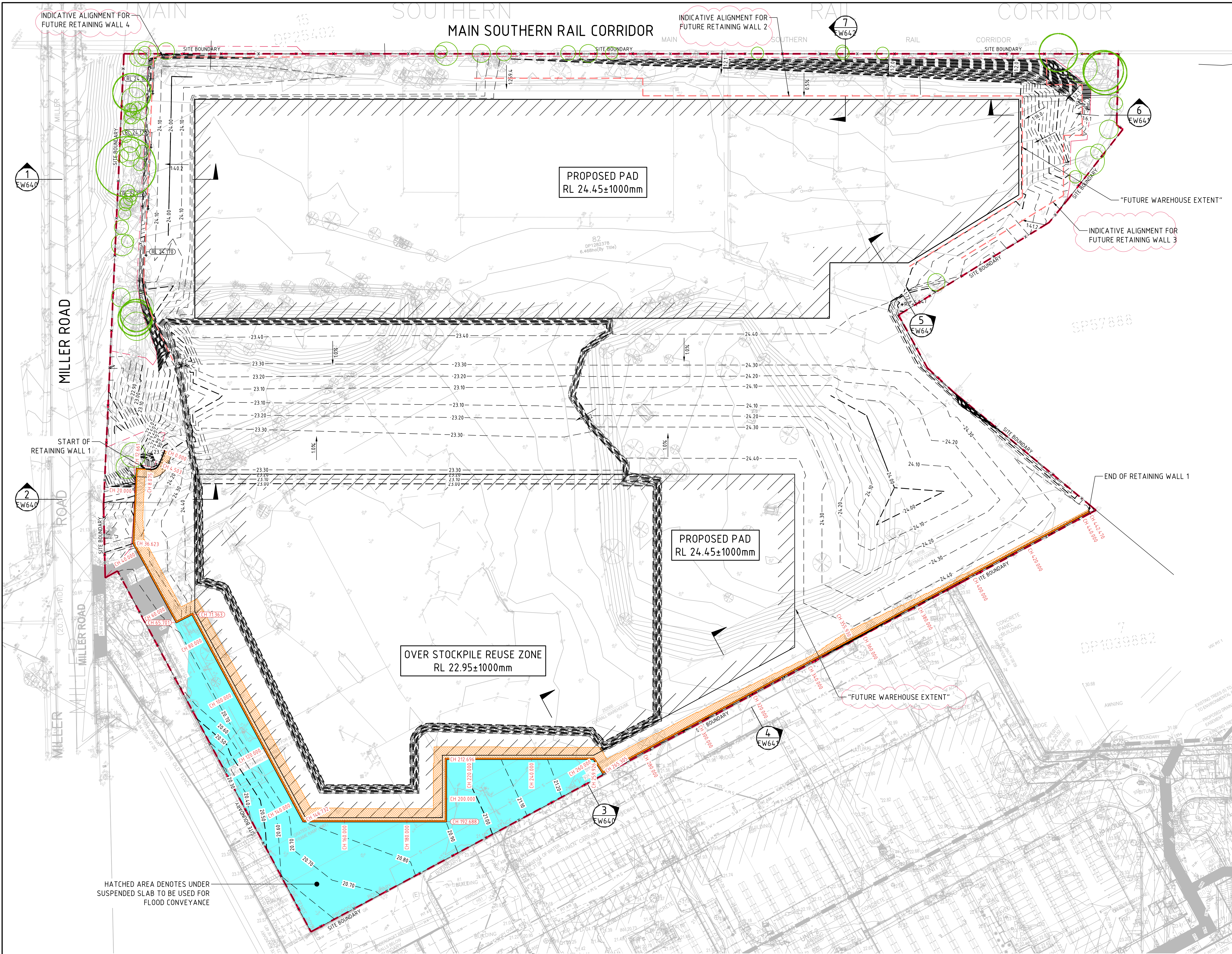
PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162					
DESIGNED AH	DRAWN QP	DATE NOV '25	CHECKED DS	SIZE B1	SCALE AS SHOWN
CAD REF: C014242.05-EW451					



Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au



DRAWING TITLE STORMWATER DRAINAGE DETAILS SHEET 1		ISSUE B
DRAWING No C014242.05-EW451		



- REINFORCED EARTH RETAINING WALL NOTES:**
- GLOBAL STABILITY ANALYSIS IS TO BE CONDUCTED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.
 - ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
 - MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS UNO ON DRAWINGS:
 - H MAX. 2.0m = 100 kPa
 - H MAX. 3.5m = 150 kPa
 - H MAX. 5.0m = 200 kPa
 - BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER. DESIGN LOADS AS FOLLOWS UNO ON DRAWINGS:
 - LIVE LOAD = 20 kPa
 - DEAD LOAD = 5 kPa
 - CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa
 - THE GEORGRIDS SHALL BE OF THE TYPE AND INDEX STRENGTH NOMINATED ON THE DRAWINGS. THE MINIMUM GEORGRIDS SHALL BE A SINGLE LENGTH IN THE DIRECTION OF DESIGN TENSION, NOT LAPPED, MAKING PROVISION FOR CONNECTION TO THE FACING ACROSS THE WHOLE WIDTH OF THE FACING AND PROVIDING FOR THE SPECIFIED ANCHORAGE WITHIN THE DESIGNATED ANCHORAGE ZONE. GEORGRIDS SHALL COVER THE WHOLE OF THE PLAN AREA BEHIND THE WALL FOR THE SPECIFIED ANCHORAGE LENGTH AND SHALL BE LAPPED WITH ADJACENT SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
 - MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm.
 - SELECT BACKFILL MATERIAL WITHIN THE REINFORCED SOIL BLOCK SHALL BE SOUND GRANULAR MATERIAL OF NATURAL OR INDUSTRIAL ORIGIN, NON-EXPANSIVE, FREE FROM ORGANIC OR OTHER DELETERIOUS MATERIAL CONFORMING TO THE PHYSICAL, CHEMICAL AND ELECTROCHEMICAL LIMITS AS SPECIFIED AND SHALL NOT BE SUBJECT TO BREAKDOWN UNDER COMPACTION. THE SELECT BACKFILL MATERIAL IS TO HAVE THE FOLLOWING PARAMETERS:
 - MINIMUM INTERNAL FRICTION, $\phi = 34^\circ$
 - EFFECTIVE COHESION, $c = 0$ kPa
 - UNIT WEIGHT = 21 kN/m³
 - PH BETWEEN 4 AND 9
 - SELECT BACKFILL IS TO BE PLACED AND COMPACTED IN LAYERS NOT MORE THAN 300mm (LOOSE) COMPACTION TO NOT LESS THAN 100% SMDU WILL BE ACHIEVED AND MATERIAL PLACED WITHIN 2% OF OMC. DENSITY TESTING SHALL BE PERFORMED IN EACH COMPACTED LIFT IN ACCORDANCE WITH AS3798.
 - PROVIDE A DRAINAGE LAYER DIRECTLY BEHIND THE FACING UNITS IN A MINIMUM 300mm WIDE 12-20mm AGGREGATE LAYER. FACING UNIT JOINTS TO BE FILLED WITH AGGREGATE. PROVIDE 100mm MINIMUM AG. DRAIN IN GEOTEXTILE SOCK AT TOE OF WALL FACING AND CONNECT TO DRAINAGE SYSTEM AT 30m MAX. SPACING.
 - THE NEED FOR A CHIMNEY DRAIN OR DRAINAGE AT THE REAR OF THE MASS SOIL BLOCK IS TO BE CONFIRMED ON SITE BY THE GEOTECHNICAL ENGINEER FOLLOWING PREPARATION OF THE FOUNDATION AND PRIOR TO CONSTRUCTION OF THE MASS SOIL BLOCK.
 - CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500kg STATIC WEIGHT IS TO BE KEPT BACK 15m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 15m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.
 - TOP OF WALL HEIGHTS ARE NOTED TO ALIGN WITH FINISHED PAVEMENT HEIGHTS. THE CONTRACTOR IS TO ENSURE THAT ALL WALL STRAPS ARE INSTALLED BELOW THE DESIGN EARTHWORKS SUBGRADE. CONTRACTOR TO ALLOW FOR WALL STRAPS TO BE GRADED AWAY FROM THE FACE OF THE WALL OR OTHERWISE INSTALLED TO SUIT EARTHWORKS DESIGN LEVELS AND GRADES.
 - WALL ELEVATIONS AND AREAS ARE BASED ON THE VERTICAL PLAN AREA. CONTRACTOR TO ALLOW ADDITIONAL SURFACE AREA WHERE WALLS ARE NOT VERTICAL OR HAVE BACKSLOPES.

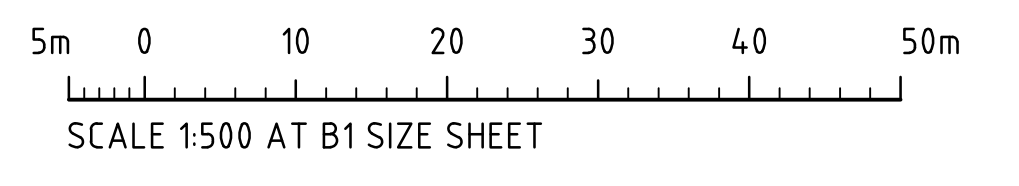
- LEGEND:**
- 50.00 — FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
 - 50.10 — FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
 - SUSPENDED ZONE
 - REINFORCED EARTH WALL STRAPS
 - EXISTING TREE TO BE MAINTAINED
 - REINFORCED EARTH WALL
 - INDICATIVE ALIGNMENT OF FUTURE RETAINING WALLS

LEVELS NOTE:

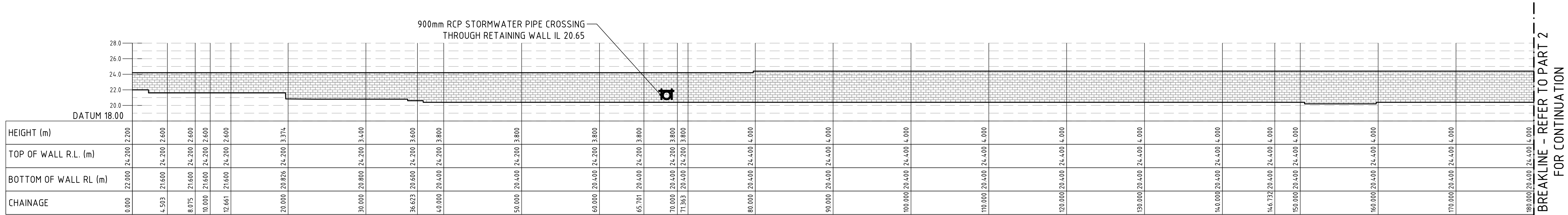
LEVELS SHOWN TO BE +100mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

RETAINING WALL SETOUT PLAN
SCALE 1:500

FOR DEVELOPMENT APPLICATION



ISSUED FOR DEVELOPMENT APPLICATION			12.12.25			B			ARCHITECT			CLIENT			PROJECT			Costin Roe Consulting Pty Ltd.			DRAWING TITLE		
ISSUED FOR INFORMATION			05.12.25			A			PACE ARCHITECTS			LogiSPACE			PROPOSED DEVELOPMENT			ABN 50 003 696 446			RETAINING WALL SETOUT PLAN		
AMENDMENTS			DATE	ISSUE	AMENDMENTS	DATE	ISSUE		191 MILLER ROAD, CHESTER HILL, NSW 2162			PO Box N419 Sydney NSW 1220			DESIGNED			Level 4, 8 Windmill Street, Millers Point NSW 2000			DRAWING No		
															AH			p: +61 2 9251 7699			C014242.05-EW600		
															DP			f: +61 2 9241 3731			ISSUE		
															NOV '25			e: mail@costinroe.com.au			B		
															CHECKED			w: costinroe.com.au					
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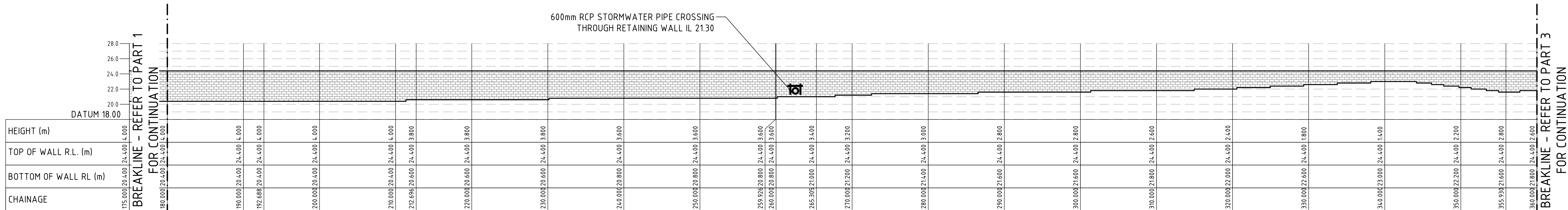
RETAINING WALL 1 ELEVATION - PART 1

SCALE 1:250

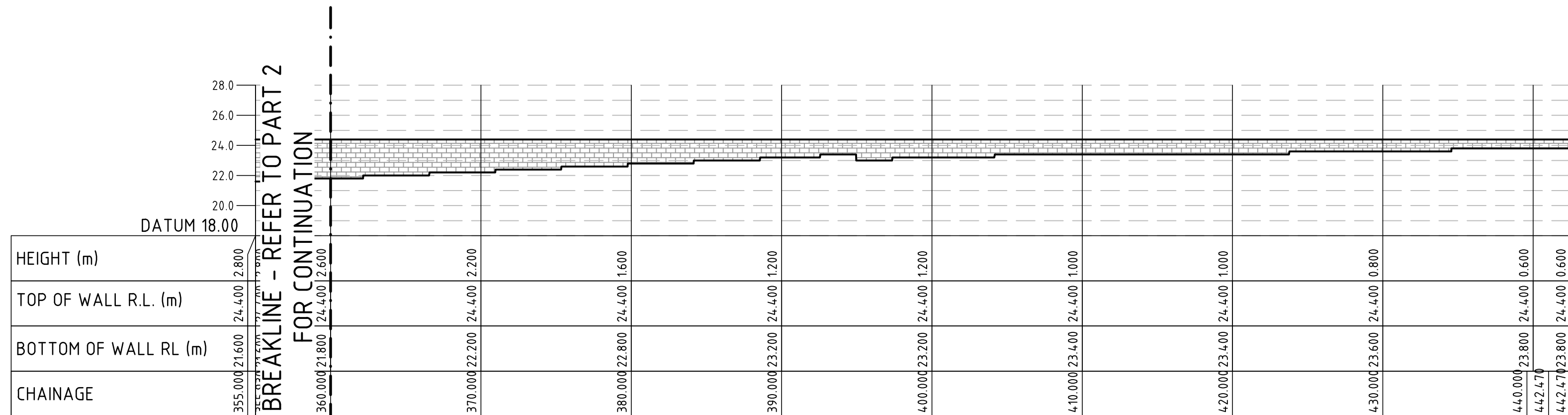
WALL SURFACE AREA = 1352m²

WALL TYPE: REINFORCED EARTH WALL

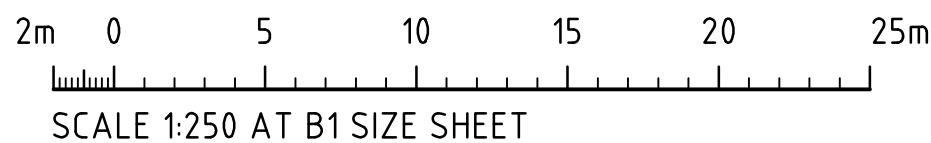
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RETAINING WALL 1 ELEVATION - PART 2

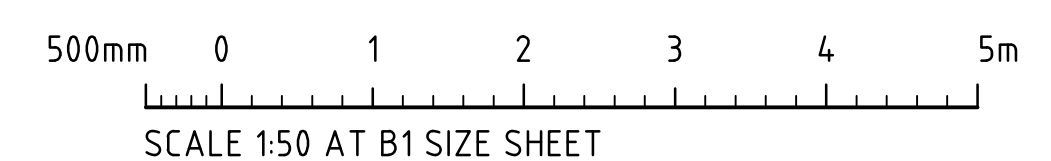
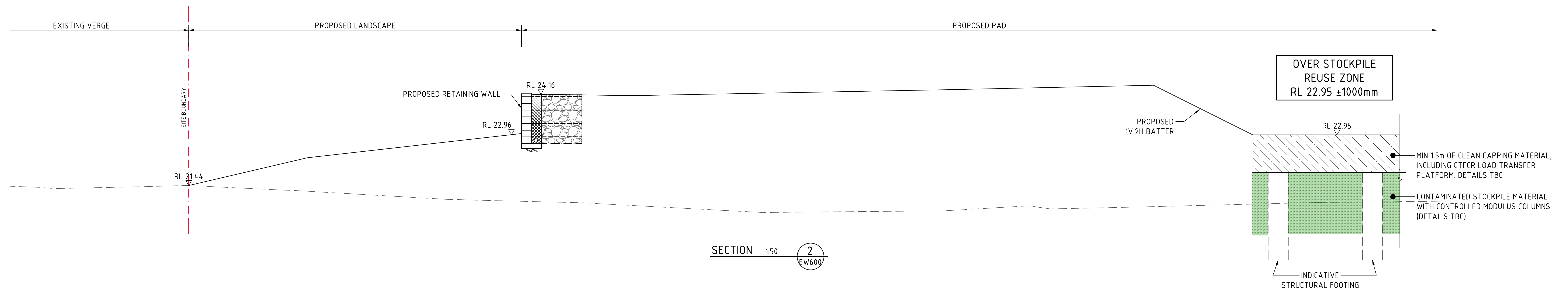


RETAINING WALL 1 ELEVATION - PART 3



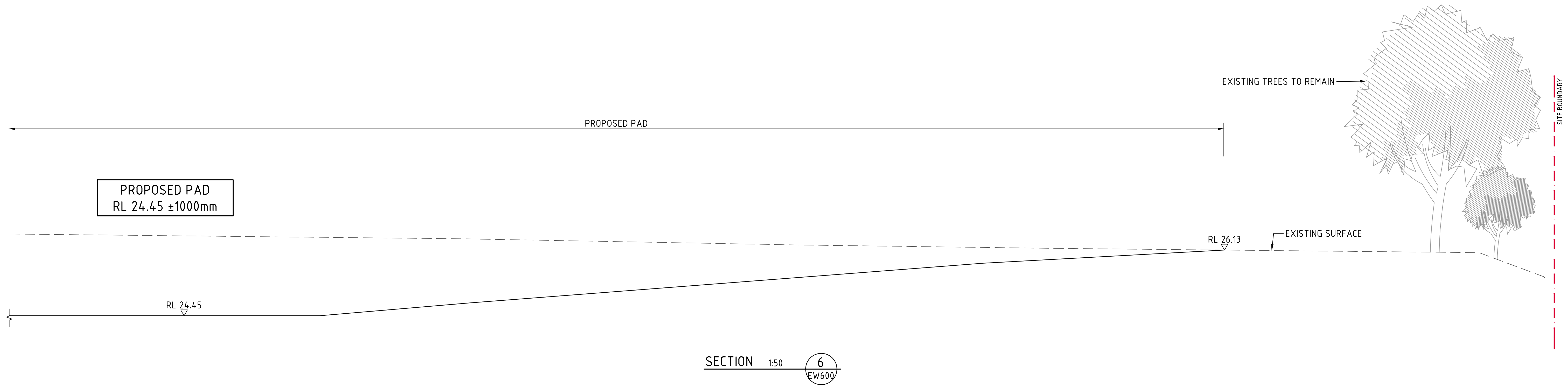
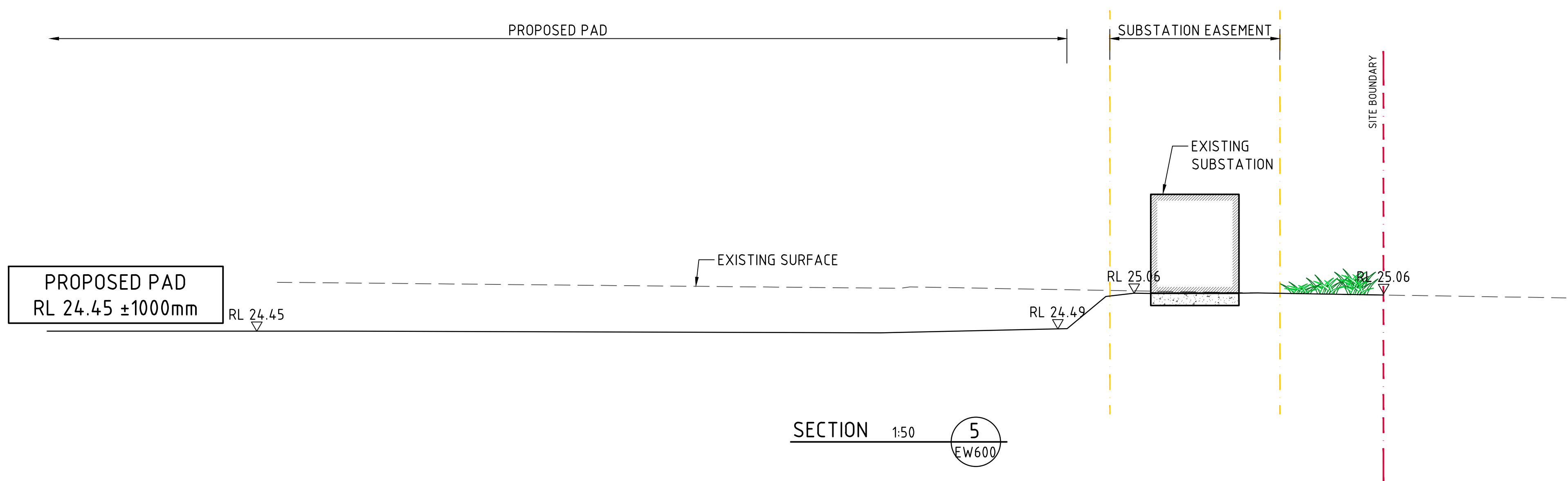
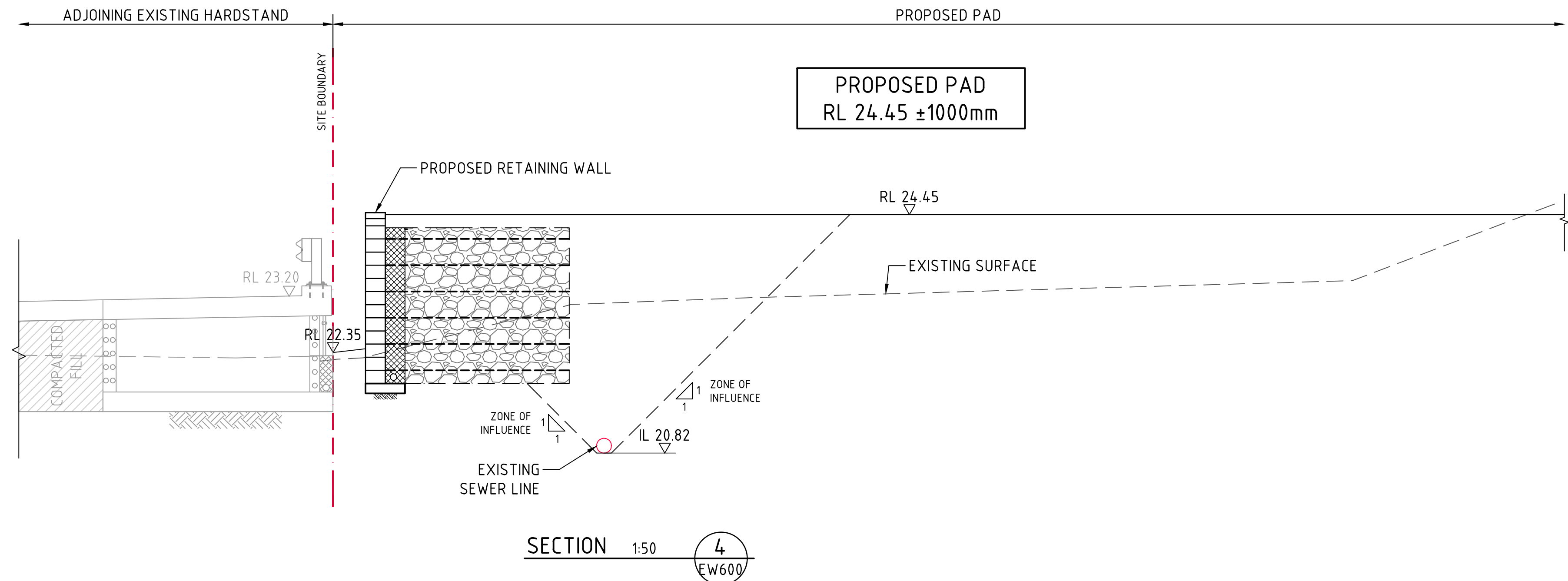
FOR DEVELOPMENT APPLICATION

												PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162 DESIGNED AH DRAWN DP DATE NOV '25 CHECKED DS SIZE B1 SCALE AS SHOWN CAD REF: C014242.05-EW610						Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au			 CIVIL & STRUCTURAL ENGINEERS			DRAWING TITLE RETAINING WALL ELEVATIONS DRAWING NO C014242.05-EW610 ISSUE A		
ISSUED FOR INFORMATION			12.12.25			A																				
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE											

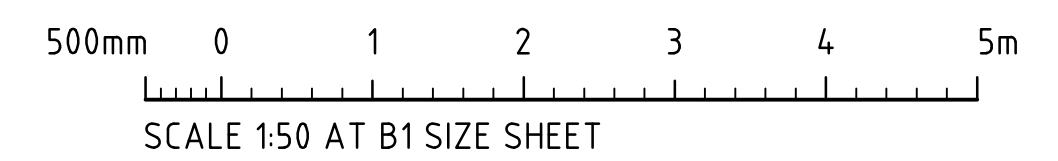


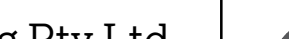
FOR DEVELOPMENT APPLICATION

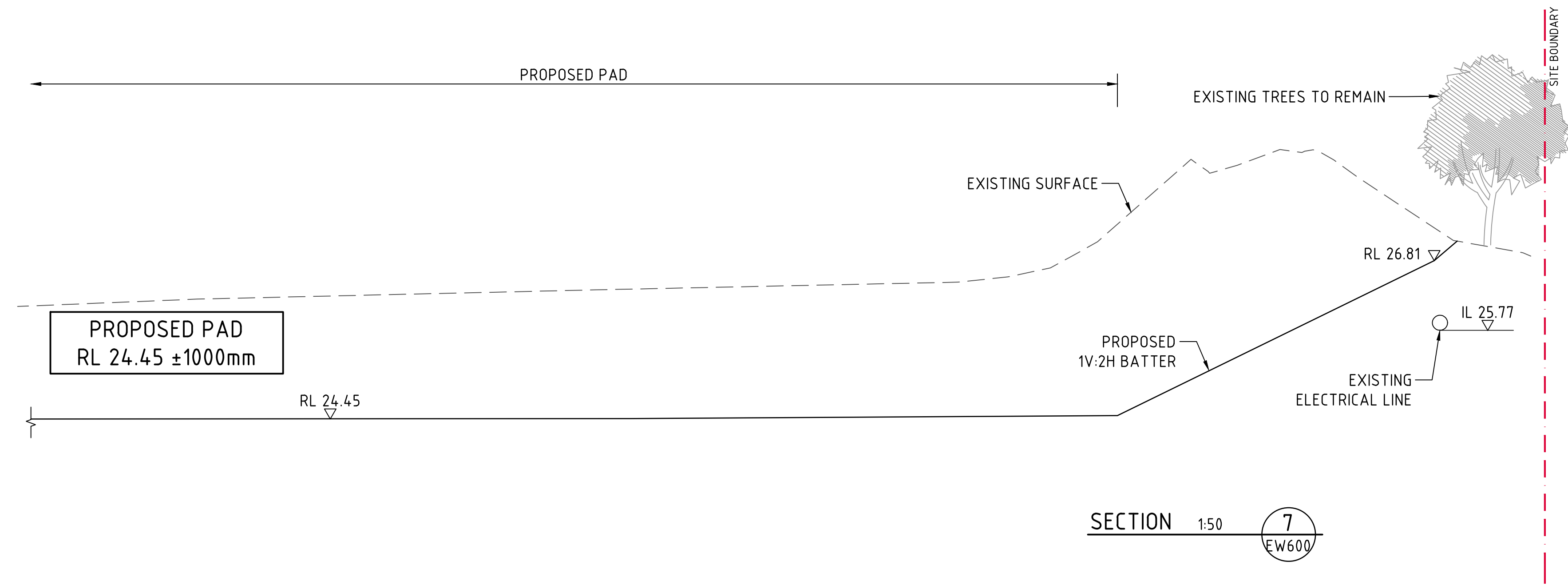
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												PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162												TYPICAL SECTION - SHEET 1					
ISSUED FOR INFORMATION			12.12.25			A																							
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE														



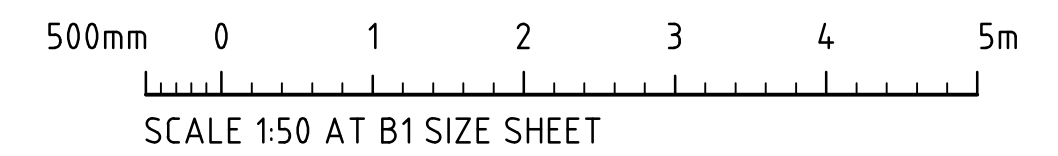
FOR DEVELOPMENT APPLICATION



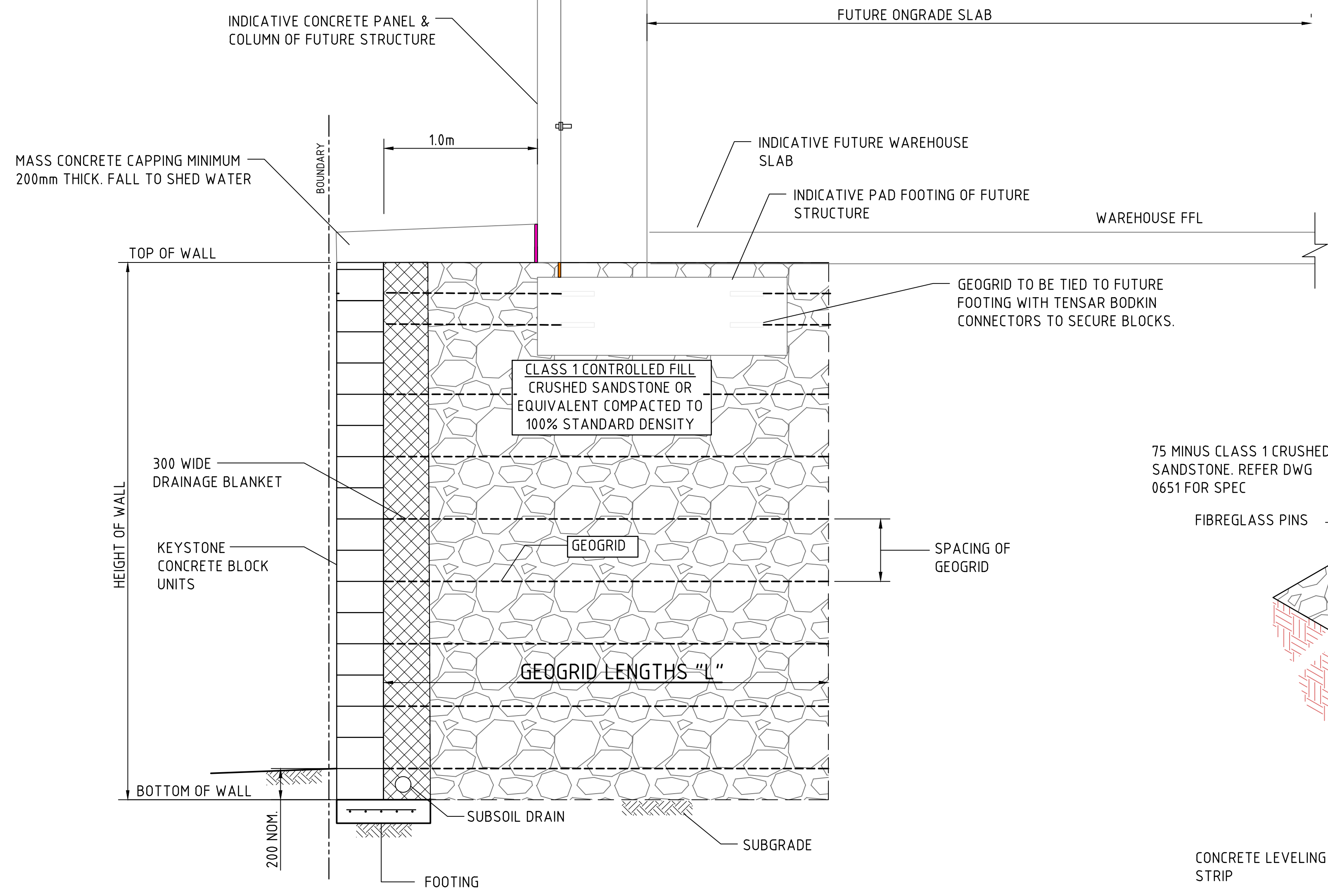
																PROJECT PROPOSED DEVELOPMENT 191 MILLER ROAD, CHESTER HILL, NSW 2162								Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au								DRAWING TITLE TYPICAL SECTION - SHEET 2																															
ISSUED FOR INFORMATION				12.12.25				A																																																							
AMENDMENTS				DATE				ISSUE				AMENDMENTS				DATE				ISSUE				DESIGNED AH				DRAWN QP				DATE NOV '25				CHECKED DS				SIZE B1				SCALE AS SHOWN				CAD REF: C014242.05-EW641				DRAWING No				C014242.05-EW641				ISSUE A			



FOR DEVELOPMENT APPLICATION

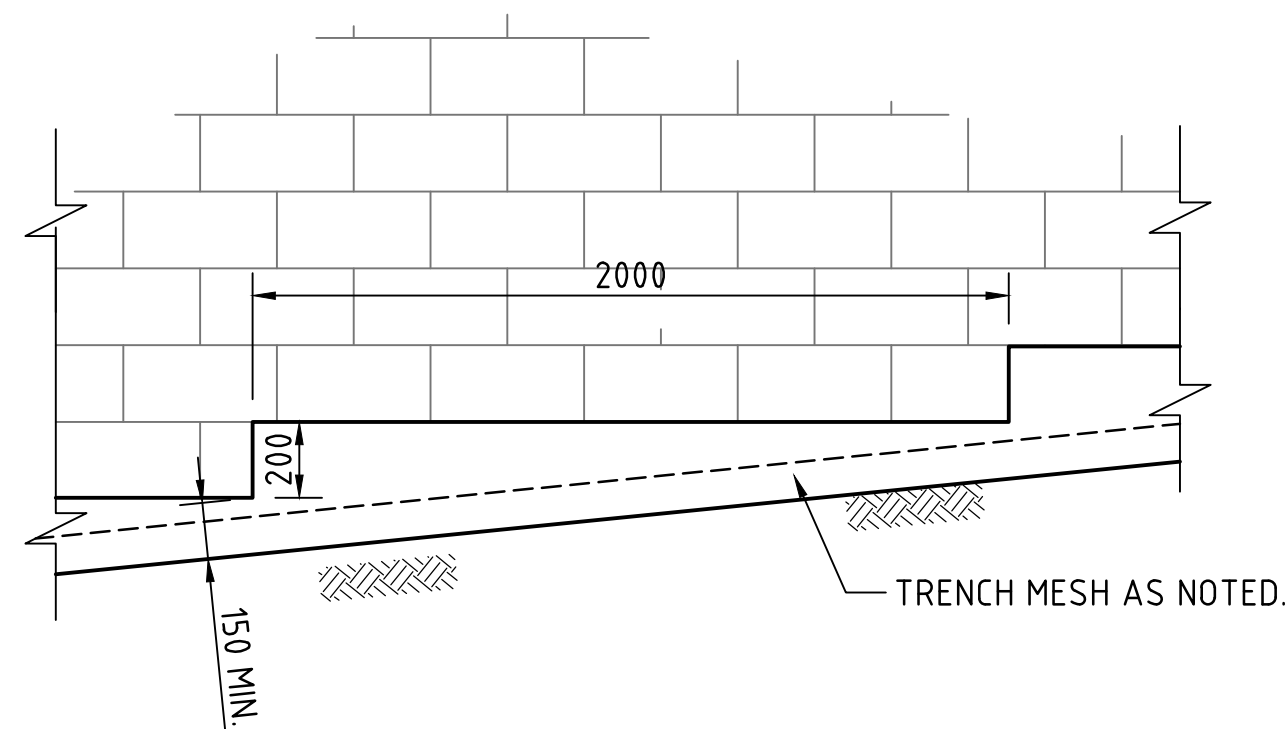


						ARCHITECT			CLIENT			PROJECT						Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au						DRAWING TITLE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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RETAINING WALL TYPE 1
(REINFORCED EARTH WALL)
SCALE 1:20

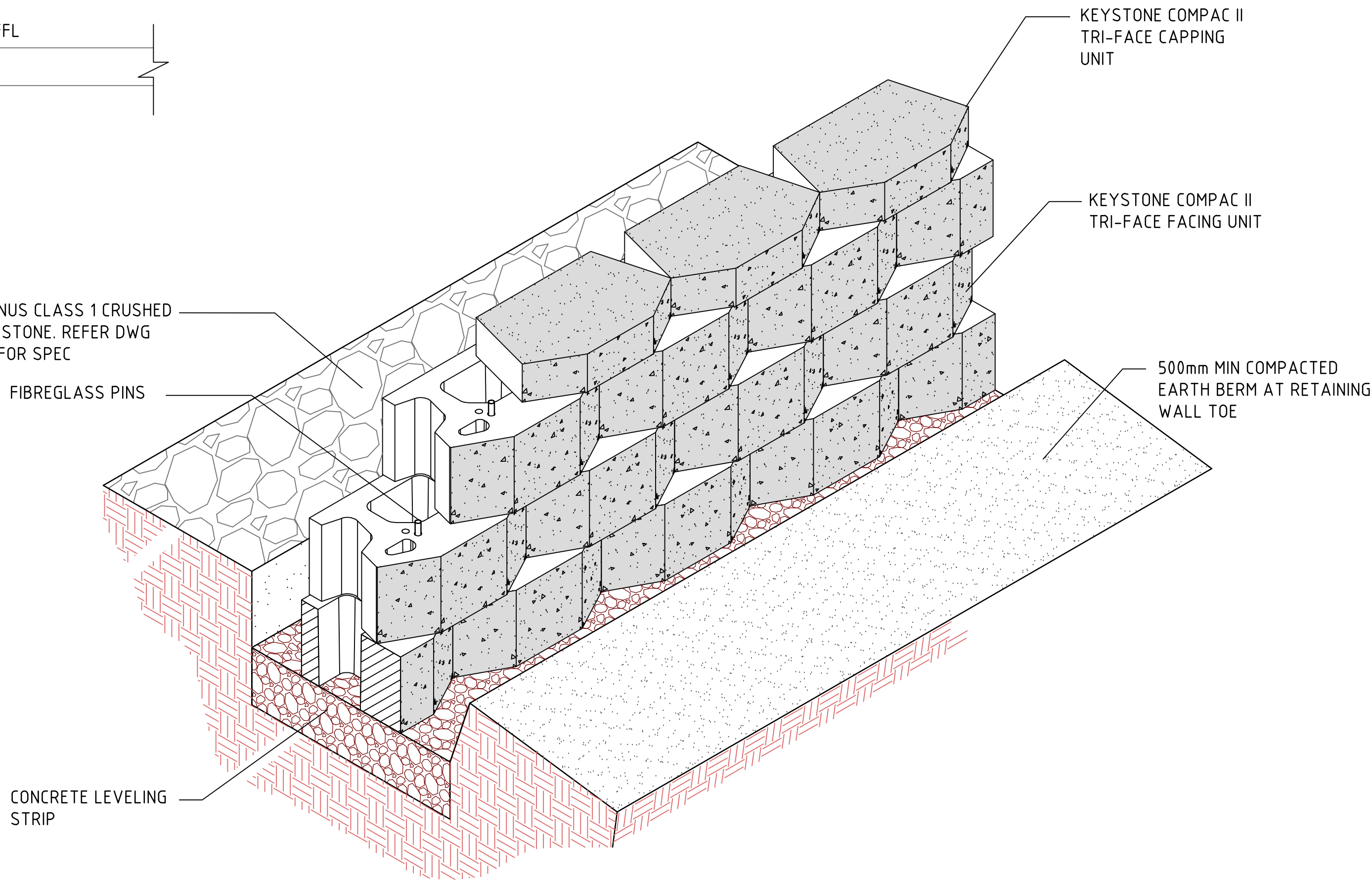
RETAINING WALL DETAILS
AND REINFORCEMENT LENGTHS
ARE INDICATIVE ONLY AND SUBJECT
TO DETAILED DESIGN BY D+C
CONTRACTOR



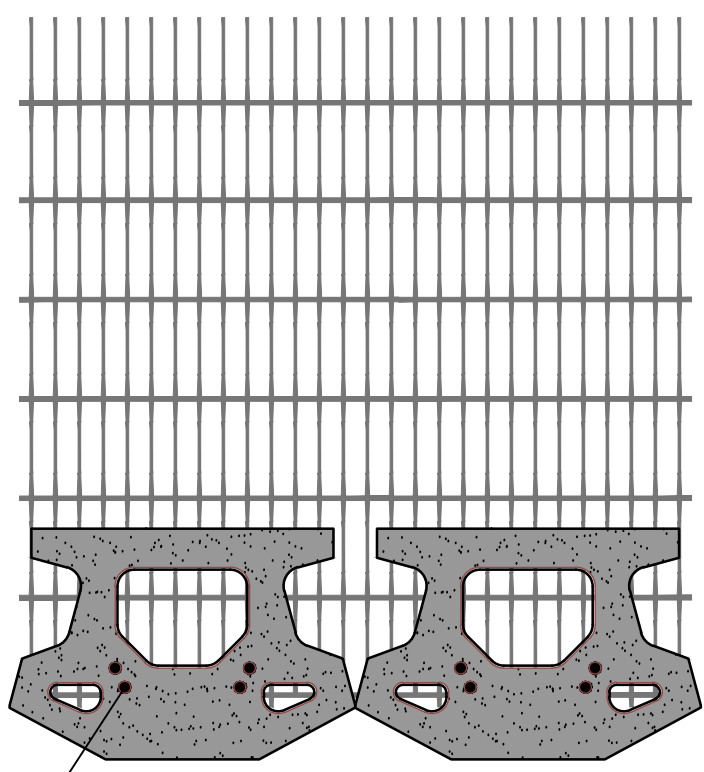
REINFORCED EARTH WALL TYPICAL LEVELLING STRIP STEP DETAIL
SCALE 1:20

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'C (MPa)
CORE FILL	230	10	GP	NIL	15
FOOTING	80	20	GP	NIL	25

NOTE:
COVER TO ALL BASE REINFORCEMENT
TO BE MINIMUM 50mm



REINFORCED EARTH WALL ISOMETRIC VIEW
NOT TO SCALE
STRAPS NOT SHOWN FOR CLARITY



GRID & PIN CONNECTION
SCALE 1:10

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR DEVELOPMENT APPLICATION

ISSUED FOR INFORMATION	12.12.25	A			
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE

ARCHITECT

PACE
ARCHITECTS

CLIENT

LogiSPACE

PROJECT

PROPOSED DEVELOPMENT
191 MILLER ROAD, CHESTER HILL, NSW 2162

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
AH	GP	NOV '25	DS	B1	AS SHOWN	C014242.05-EW650

CONSULT AUSTRALIA

Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446

PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
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CRC
COSTIN ROE CONSULTING

CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE

RETAINING WALL DETAILS

DRAWING No C014242.05-EW650