

PROPOSED SUBDIVISION OF LOT 3, D.P.1115877 AND PART LOT 3 D.P.942319 53 & 53B WARRIEWOOD ROAD, WARRIEWOOD

NARRABEEN CREEK REHABILITATION WORKS DEVELOPMENT APPLICATION



LOCALITY PLAN (SOURCE: NEARMAP 2019)
NOT TO SCALE

DRAWING No.	DRAWING TITLE	REV.
076-18C-DA-1001	COVER SHEET, LOCALITY PLAN AND GENERAL NOTES	B
076-18C-DA-1003	KEY PLAN, TYPICAL CROSS SECTION AND LONGITUDINAL SECTION	B
076-18C-DA-1101	GENERAL ARRANGEMENT PLAN	B
076-18C-DA-1201	TYPICAL DETAILS	B
076-18C-DA-1301	NARRABEEN CREEK CROSS SECTIONS SHEET 1 OF 2	B
076-18C-DA-1302	NARRABEEN CREEK CROSS SECTIONS SHEET 2 OF 2	B
076-18C-DA-1901	SEDIMENT AND EROSION CONTROL PLAN AND DETAILS	B

CREEK WORK NOTES:

ROCK SCOUR PROTECTION

- ROCK USED IN THE SCOUR PROTECTION SHALL CONSIST OF MATERIAL WHICH COMPLIES WITH THESE NOTES AND THE DRAWINGS. THESE REQUIREMENTS APPLY TO BOTH IMPORTED ROCK AND IN-SITU ROCK WHICH IS REUSED.
- INDIVIDUAL ROCKS SHALL BE FREE FROM CRACKS, CLEAVAGE PLANES, SEAMS AND DEFECTS WHICH WOULD RESULT IN THE BREAKDOWN OF ROCK IN SERVICE
- ROCK UNITS SHALL BE EITHER SEDIMENTARY ROCK ONLY OR IGNEOUS ROCK ONLY AND, AS A MINIMUM, SHALL SATISFY THE FOLLOWING CRITERIA:
 - ROCK SHALL BE BOTH ROUGH AND ANGULAR
 - ROCK SHALL HAVE A MINIMUM DRY DENSITY OF 2200 kg/m³
 - IGNEOUS ROCK SHALL NOT HAVE MORE THAN 10% (BY VOLUME) OLIVINE MATERIAL AND SHALL EXHIBIT NO ZONES OF SECONDARY ALTERATION SUCH AS CHLORITIZATION.
 - SEDIMENTARY ROCK SHALL HAVE A SODIUM SULPHATE SOUNDNESS WEIGHT LOSS NOT EXCEEDING 25%
- ROCK SHALL HAVE A SATURATED POINT LOAD STRENGTH INDEX (15SO) NO LESS THAN 5.0MPa FOR IGNEOUS ROCK AND 1.5MPa FOR SEDIMENTARY ROCK
- THE RATIO OF THE MAXIMUM DIMENSION TO THE MINIMUM DIMENSION, MEASURED AT RIGHT ANGLES TO THE MAXIMUM DIMENSION, SHALL NOT EXCEED 2.5x
- THE ROCK UNITS SHALL BE PLACED SUCH THAT THE SPECIFIED REQUIREMENTS FOR SIZE, FINISHED SURFACE SIDE SLOPES, TOP AND TOE LEVELS AND DENSITY REQUIREMENTS ARE SATISFIED. IN ADDITION, ROCKS SHALL BE WEDGED AND LOCKED TOGETHER SUCH THAT THEY ARE NOT FREE TO MOVE. ROCK UNITS SHALL NOT BE ROLLED OR DROPPED IN TO POSITION, THEY SHALL BE PLACED.
- THE METHOD OF ROCK PLACEMENT SHALL BE SUCH AS TO MINIMISE ITS BREAKDOWN ON HANDLING AND THE PRODUCTION OF FINES.
- A NON-WOVEN SHALL BE PLACED UNDERNEATH AND BEHIND ALL ROCK ARMOUR AND EXTEND 0.5m ABOVE THE EXTENT OF THE WORKS, OR AS OTHERWISE SHOWN ON THE DRAWINGS. THE GEOTEXTILE IS TO BE LAID ON A HEAVILY TRIMMED BATTER THAT IS FREE OF HOLLOWES OR SHARP OBJECTS
- GEOTEXTILE LAYERS SHALL EITHER OVERLAP ONE ANOTHER BY 1000mm OR BE SEWN TOGETHER (WITH A NON-BIODEGRADABLE THREAD) WITH AN OVERLAP OF 100mm
- ROCK AND SUB-ARMOUR SHALL BE PLACED UPON THE GEOTEXTILE IN A LAYER NO LESS THAN 150mm THICK U.N.O. ON DRAWINGS
- ROCK ARMOUR SHALL BE SELECTIVELY HAND PLACED UPON THE SUB-ARMOUR TO ENSURE A SNUG FIT SUCH THAT INDIVIDUAL ROCKS ARE NOT FREE TO MOVE. THE PLACING OF ANY ARMOUR ROCK SHALL BE COMPLETED IN SUCH A MANNER AS TO MINIMISE THE DISTURBANCE OR DISLODGEEMENT OF THE SUB-ARMOUR.
- THE ARMOUR ROCK AND SUB-ARMOUR ROCK SHALL BE PLACED TO THE CONSTRUCTION TOLERANCES SHOWN ON THE DRAWINGS
- AT LEAST FOURTEEN (14) DAYS PRIOR TO THE SUPPLY OF ANY ROCK, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO DEMONSTRATE THAT THE ROCK TO BE SUPPLIED COMPLIES WITH THE REQUIREMENTS OF THIS SPECIFICATION

EARTH WORKS

- THE CONTRACTOR SHALL PROVIDE PROPER FENCING, GUARDING & LIGHTING AND OBSERVATION OF ALL EARTHWORKS, TEMPORARY ROADWAYS, FOOTWAYS, GUARDS & FENCES AS MAY BE RENDERED NECESSARY FOR THE ACCOMMODATION AND PROTECTION OF PEDESTRIANS, VEHICLES, ANIMALS & THE PUBLIC
- ALL EARTHWORKS SHALL BE CARRIED OUT IN THE LOCATIONS SHOWN AND TO THE LEVELS, WIDTHS AND BATTER SLOPES INDICATED ON THE DRAWINGS

- EXCAVATED MATERIAL NOT MEETING THE SPECIFICATIONS FOR FILL MATERIAL SHALL BE DISPOSED OFF SITE IN AN APPROPRIATE MANNER
- WHERE EARTHWORKS ARE REQUIRED IN THE VICINITY OF EXISTING SERVICES, THE CONTRACTOR SHALL SUPPORT ALL SERVICES DURING THE WORKS
- THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, DO ALL THINGS NECESSARY TO DIVERT ANY WATER INTERFERING WITH THE PROCESS OF WORKS, KEEP THE EXCAVATIONS AND TRENCHES FREE FROM WATER WHILE THE WORKS ARE IN PROGRESS AND PREVENT ANY DAMAGE TO THE WORKS BY WATER DUE TO FLOODS OR OTHER CAUSES. THE CONTRACTOR SHALL HAVE PUMPING EQUIPMENT FOR KEEPING THE EXCAVATION OR TRENCHES CONSTANTLY DEWATERED DURING THE TIMES THE WORKS ARE IN PROGRESS. ANY WORK OR MATERIAL DAMAGED BY WATER SHALL BE MADE GOOD BY THE CONTRACTOR.
- WHERE DIRECTED BY THE SUPERINTENDENT THE BOTTOM OF TRENCHES OR EXCAVATIONS SHALL BE COMPACTED PRIOR TO THE PLACING OF ANY BEDDING OR CONCRETE MATERIALS. SHOULD, IN THE OPINION OF THE SUPERINTENDENT, THE FOUNDATION MATERIAL BE INCAPABLE OF EFFECTIVE COMPACTION, THE MATERIAL SHALL BE REMOVED AND REPLACED WITH APPROPRIATE MATERIAL

EXCAVATIONS

- ALL TOPSOIL TO BE STRIPPED AND STOCKPILED FOR FUTURE USE. STRIPPED SURFACES ARE TO BE ROLLED AND INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO CONTINUING WORKS. DEPTH OF TOPSOIL STRIPPING TO BE BETWEEN 125mm AND 200mm (TO BE CONFIRMED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION)
- WHERE ROCK IS EXPOSED DURING EXCAVATION, THE CONTRACTOR SHALL CEASE EXCAVATION AT THIS LOCATION AND CONTACT THE SUPERINTENDENT WHO WILL THEN ADVISE ON THE LEVEL TO WHICH THE EXCAVATION IS TAKEN

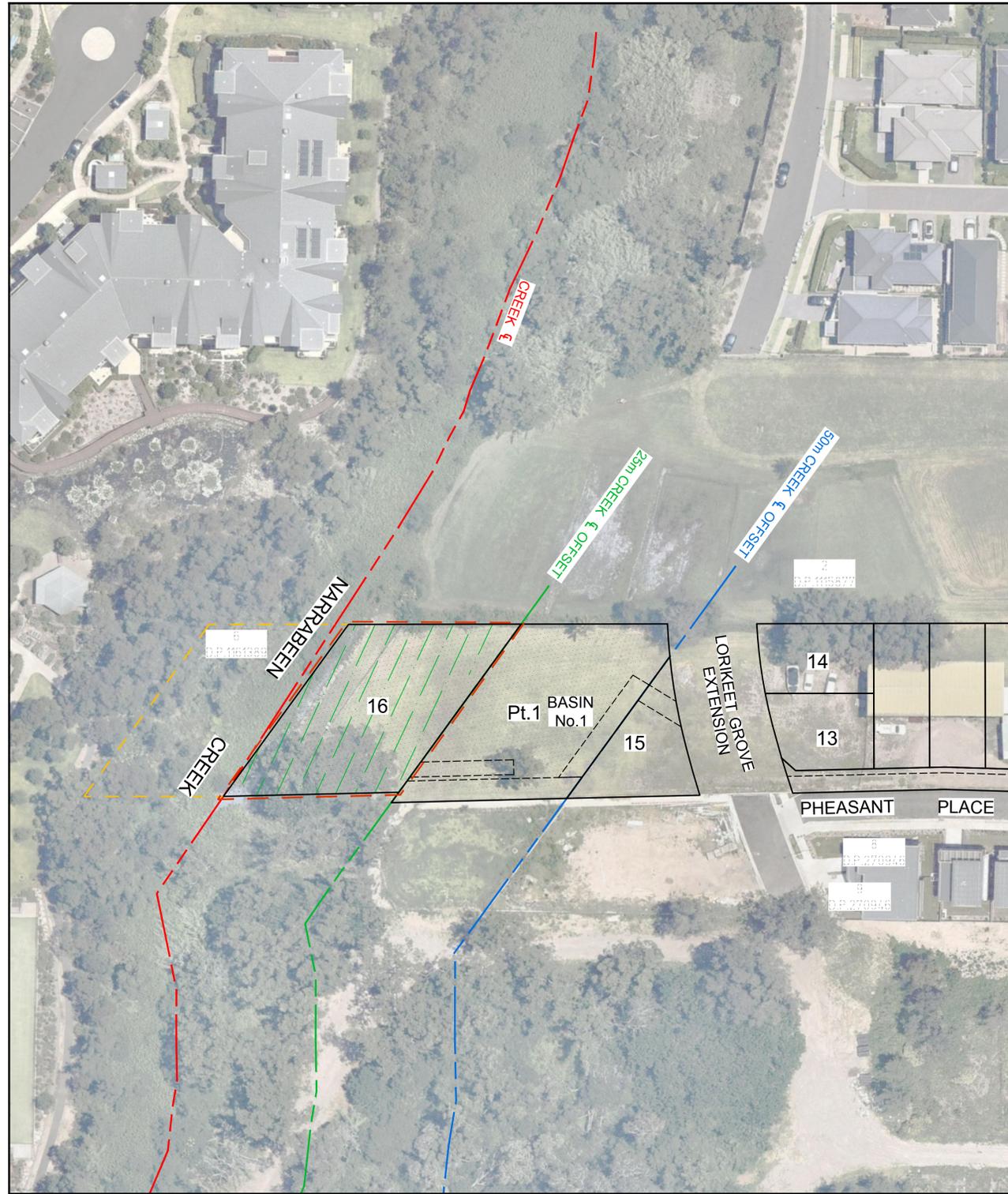
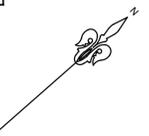
FILL

- FOUNDATION MATERIAL DEEMED BY THE SUPERINTENDENT AS UNSUITABLE TO BE REMOVED AS DIRECTED BY THE SUPERINTENDENT AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LIST BELOW
- UNLESS OTHERWISE APPROVED OR SPECIFIED, ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING:
 - FREE FROM ORGANIC & PERISHABLE MATTER
 - MAXIMUM PARTICLE SIZE 75mm
 - PLASTICITY INDEX BETWEEN 2% AND 20%
 - CBR > 10
- SELECT FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200MM LOOSE THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (±2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS12893.1 (LATEST EDITION) OF NOT LESS THAN THE STANDARD DRY DENSITY ON ACCORDANCE WITH AS12893.1 (LATEST EDITION) SHOWN ON THE DRAWING
- COMPACTION CONTROL TESTING SHALL BE CARRIED OUT BY & AT THE COST OF THE CONTRACTOR TO CONFORM WITH LEVEL 1 AS DEFINED IN AS3798 (LATEST EDITION)
- REPLACEMENT SUBGRADE MATERIAL MAY COMPRISE GRANULAR FILL MATERIAL & SHOULD HAVE A CBR OF AT LEAST 10% REPLACEMENT. SUBGRADE SHALL BE PLACED ON PROOF ROLLED SUBGRADE IN HORIZONTAL LAYERS OF 200mm TO 250mm MAXIMUM LOOSE THICKNESS DEPENDING ON THE SIZE OF EQUIPMENT) AND COMPACTED TO A MINIMUM DRY DENSITY OF (MDDR) OF 98% STANDARD, AT MOISTURE CONTENT WITHIN 2% OF OPTIMUM MOISTURE CONTENT
- WHERE EXCAVATED MATERIAL IS TO BE USED FOR FILLING, THE MATERIAL SHALL BE INSPECTED & APPROVED BY THE SUPERINTENDENT PRIOR TO USE.

TIE IN WORKS

- ALL CREEK WORKS TO TIE INTO EXISTING LOW FLOW CHANNEL AT BOTH UPSTREAM AND DOWNSTREAM LIMIT OF WORKS. TRANSITION TIE IN OVER 5m.

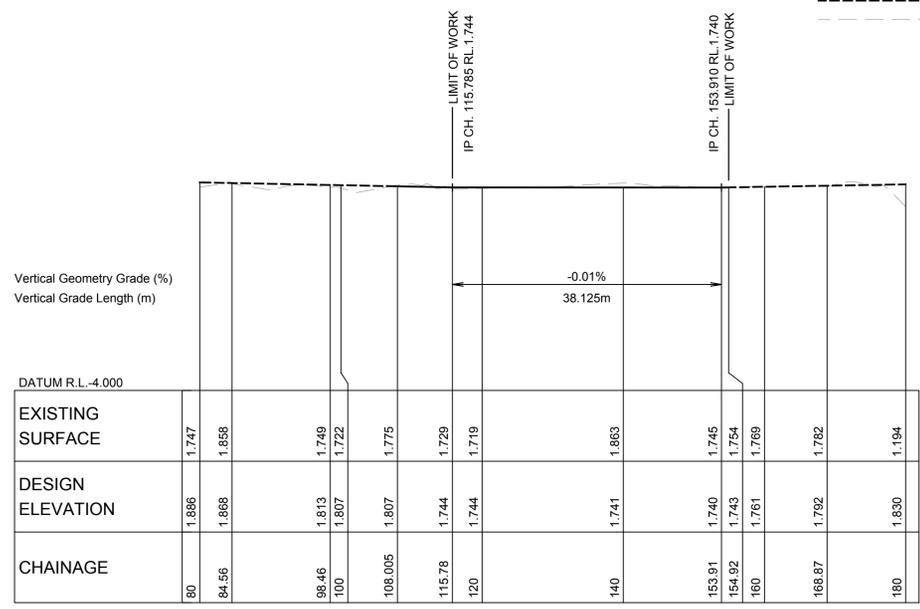
DEVELOPMENT APPLICATION



PLAN
SCALE 1:500

LEGEND

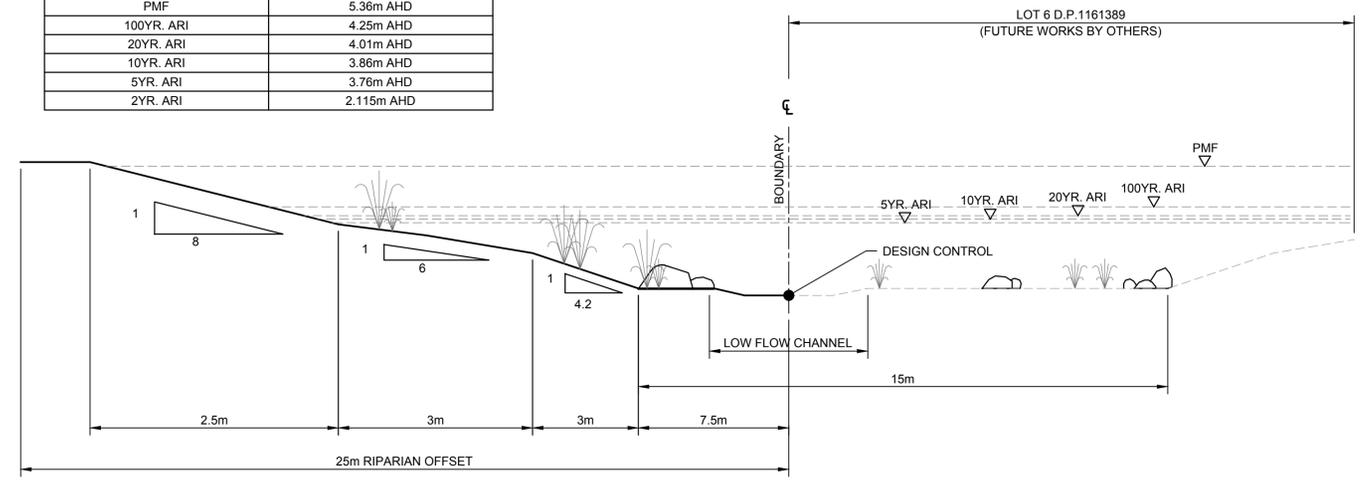
- PROPOSED 50m RIPARIAN CORRIDOR
- PROPOSED 25m RIPARIAN CORRIDOR
- LIMIT OF WORKS
- FUTURE WORKS BY OTHERS
- 25m CREEK OFFSET
- 50m CREEK OFFSET
- DESIGN SURFACE
- FUTURE SURFACE
- EXISTING SURFACE



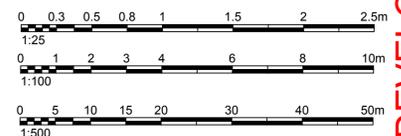
NARRABEEN CREEK - LONGITUDINAL SECTION

HORIZONTAL SCALE - 1:500
VERTICAL SCALE - 1:100

FLOOD LEVELS CENTRE OF SITE	
PMF	5.36m AHD
100YR. ARI	4.25m AHD
20YR. ARI	4.01m AHD
10YR. ARI	3.86m AHD
5YR. ARI	3.76m AHD
2YR. ARI	2.115m AHD



TYPICAL CREEK REHABILITATION SECTION
NOT TO SCALE



DEVELOPMENT APPLICATION

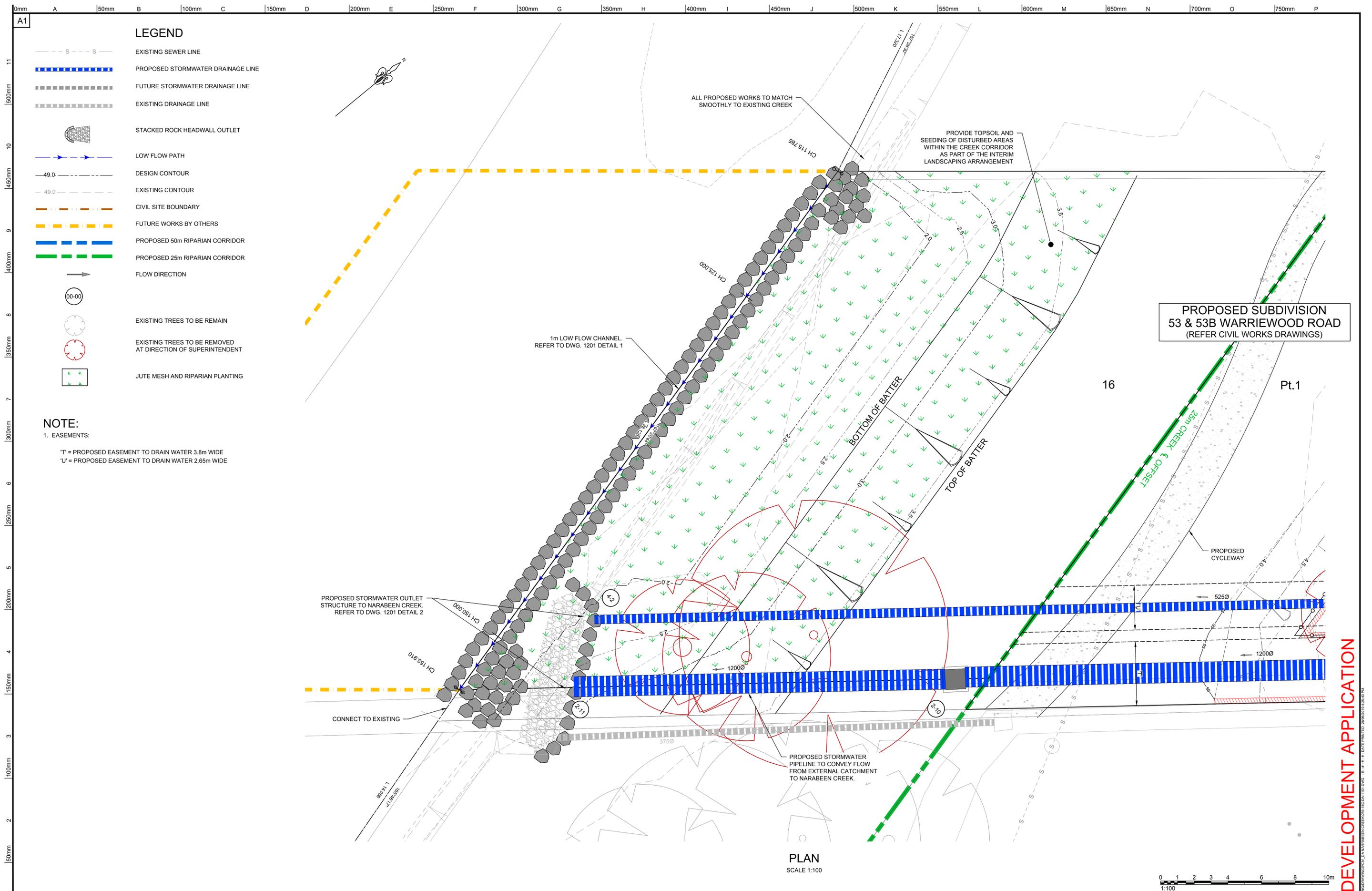
Authorised for issue by:	Principal:	Project:
	LEGENDWAY PTY. LTD.	PROPOSED SUBDIVISION OF LOT 3, D.P.1115877 AND PART LOT 3 D.P.942319 NARRABEEN CREEK REHABILITATION WORKS
LGA:	Scale:	Datum:
NORTHERN BEACHES COUNCIL	AS SHOWN	AHD

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 TAKE THE LEAD

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Drawing Title: **KEY PLAN, TYPICAL CROSS SECTION AND LONGITUDINAL SECTION**
 Drawing Ref: **076-18 076-18C-DA-1003**
 Revision: **B**



LEGEND

- S --- S --- EXISTING SEWER LINE
- ===== PROPOSED STORMWATER DRAINAGE LINE
- FUTURE STORMWATER DRAINAGE LINE
- EXISTING DRAINAGE LINE
- STACKED ROCK HEADWALL OUTLET
- >--- LOW FLOW PATH
- 49.0- - - - - DESIGN CONTOUR
- 49.0- - - - - EXISTING CONTOUR
- - - - - CIVIL SITE BOUNDARY
- - - - - FUTURE WORKS BY OTHERS
- ===== PROPOSED 50m RIPARIAN CORRIDOR
- ===== PROPOSED 25m RIPARIAN CORRIDOR
- FLOW DIRECTION
- ○ ○ ○ ○ EXISTING TREES TO BE REMAIN
- ○ ○ ○ ○ EXISTING TREES TO BE REMOVED AT DIRECTION OF SUPERINTENDENT
- □ □ □ □ JUTE MESH AND RIPARIAN PLANTING

NOTE:
 1. EASEMENTS:
 'T' = PROPOSED EASEMENT TO DRAIN WATER 3.8m WIDE
 'U' = PROPOSED EASEMENT TO DRAIN WATER 2.65m WIDE

PROPOSED SUBDIVISION
53 & 53B WARRIEWOOD ROAD
 (REFER CIVIL WORKS DRAWINGS)

PLAN
 SCALE 1:100



REV.	DATE	AMENDMENT DESCRIPTION	DES.	DRN.
B	26.06.19	ISSUED FOR DEVELOPMENT APPLICATION	A.H.	K.S.
A	14.03.19	ISSUED FOR DEVELOPMENT APPLICATION	D.Y.	D.Yoo.



Authorised for issue by:
 Signature: _____

Principal:
LEGENDWAY PTY. LTD.
 L.G.A.
NORTHERN BEACHES COUNCIL
 Scale: AS SHOWN Datum: AHD

Project:
PROPOSED SUBDIVISION OF
LOT 3, D.P.1115877 AND PART LOT 3 D.P.942319
NARRABEEN CREEK REHABILITATION WORKS

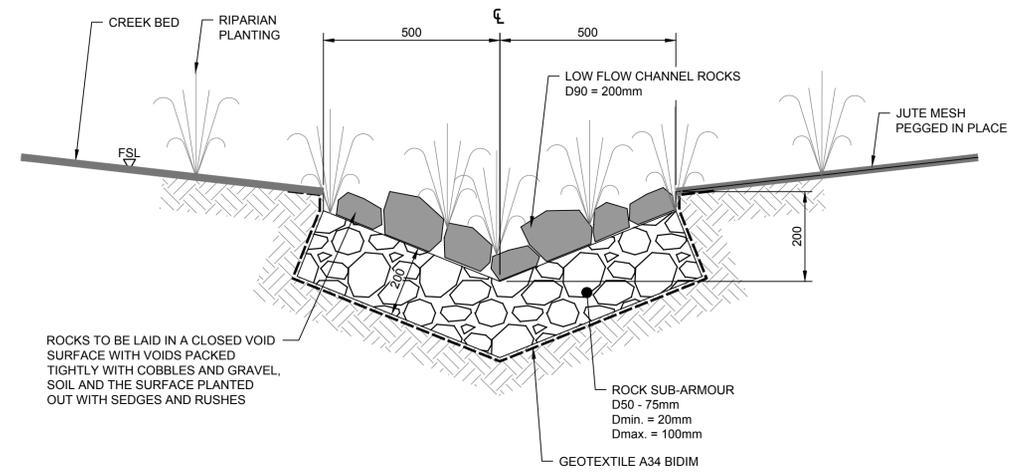


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Drawing Title
GENERAL ARRANGEMENT PLAN
 C&R Ref. 076-18 Drawing Ref. 076-18C-DA-1101 Revision B

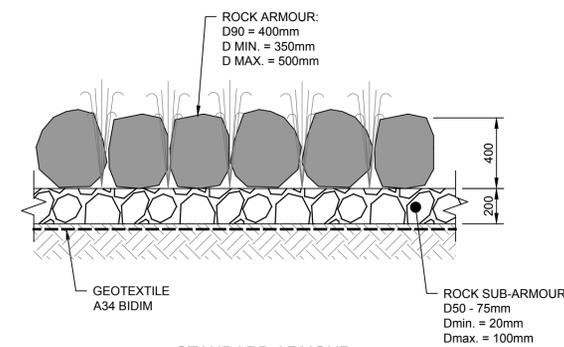
DEVELOPMENT APPLICATION

NOTE
 STORMWATER OUTLETS TO BE ORIENTATED IN THE DIRECTION OF NATURAL FLOW OF THE RECEIVING WATER COURSE AND NOT OBSTRUCTING FLOW FROM UPSTREAM.
 OUTLETS TO BE INSTALLED IN ACCORDANCE WITH NSW OFFICE OF WATER REQUIREMENTS

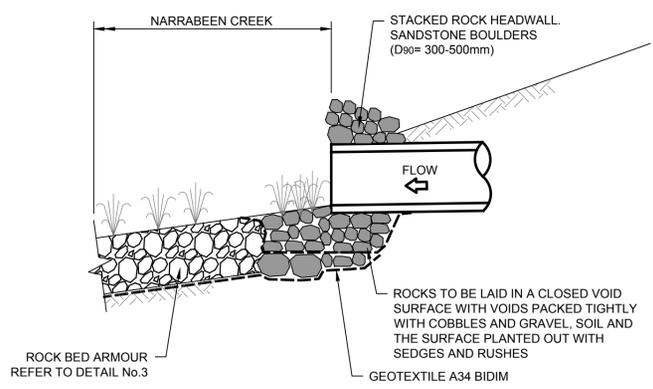


ROCKS TO BE LAID IN A CLOSED VOID SURFACE WITH VOIDS PACKED TIGHTLY WITH COBBLES AND GRAVEL, SOIL AND THE SURFACE PLANTED OUT WITH SEDGES AND RUSHES

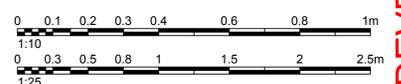
LOW FLOW CHANNEL
 DETAIL 1
 SCALE 1:10



STANDARD ARMOUR
 DETAIL 3
 NTS



STORMWATER OUTLET
 DETAIL 2
 SCALE 1:25



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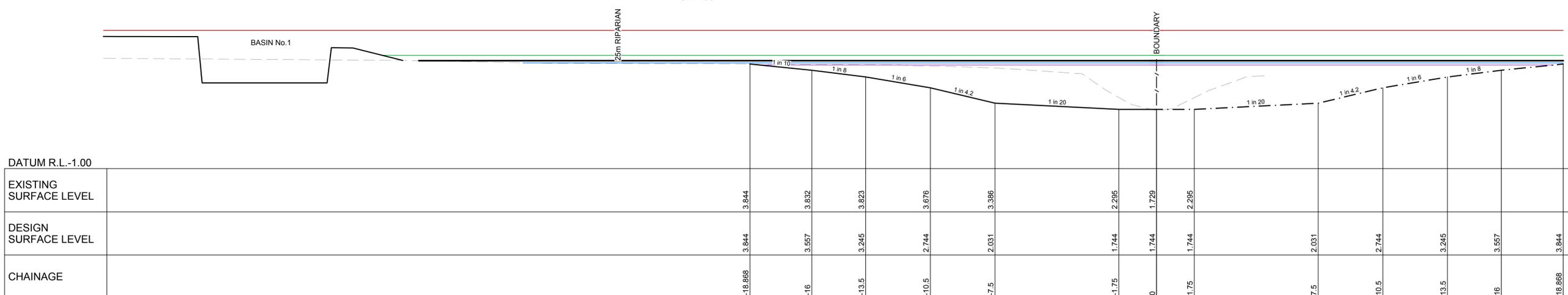
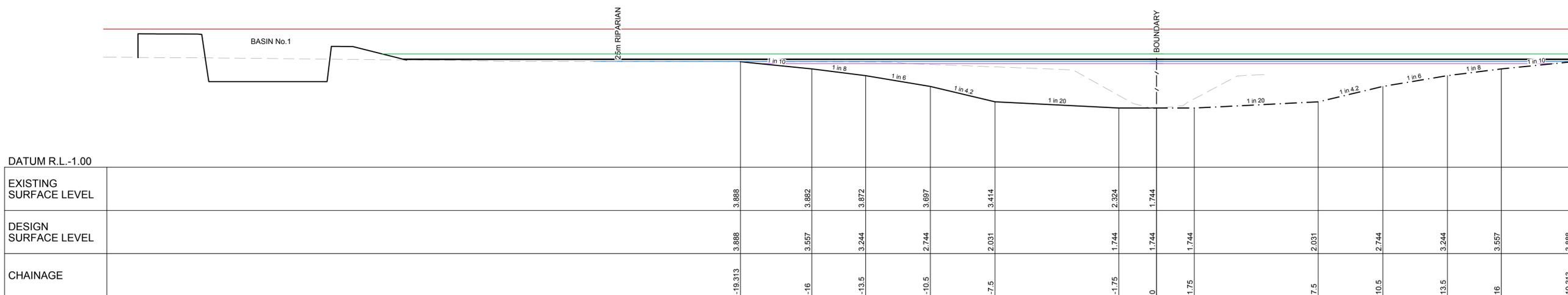
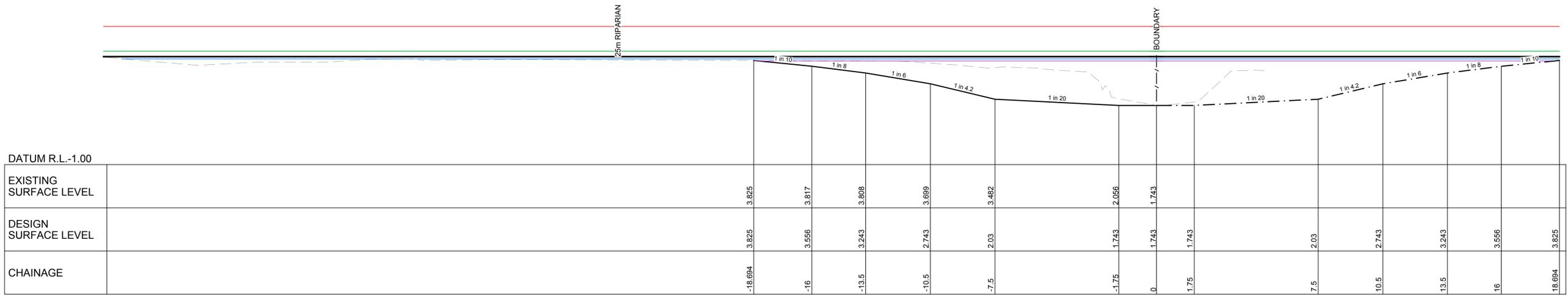
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Drawing Title	Revision
TYPICAL DETAILS	B
C&R Ref. 076-18	Drawing Ref. 076-18C-DA-1201

DEVELOPMENT APPLICATION

LEGEND

- TWL 5Yr A.R.I.
- TWL 10Yr A.R.I.
- TWL 20Yr A.R.I.
- TWL 100Yr A.R.I.
- TWL PMF
- INTERIM DESIGN SURFACE
- FUTURE DESIGN SURFACE
- EXISTING SURFACE



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Drawing Title
**NARRABEEN CREEK
CROSS SECTIONS
SHEET 1 OF 2**

Revision
B

DEVELOPMENT APPLICATION

SEDIMENT AND EROSION CONTROL

- THIS PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS AND ANY WRITTEN INSTRUCTIONS THAT MAY BE ISSUED.
- THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DISTURBANCE OF THE RELATED CATCHMENT AREA AND TO THE STANDARDS OF 'MANAGING URBAN STORMWATER, SOILS & CONSTRUCTION' & PITTWATER COUNCIL SPECIFICATIONS.
- ALL SUBCONTRACTORS SHALL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWN SLOPE AREAS.
- LAND DISTURBANCE SHALL BE LIMITED TO THAT NECESSARY FOR IMPLEMENTATION OF THE PLANS OF WORKS. BUFFER ZONES AND LANDS NOT TO BE DISTURBED SHALL BE CLEARLY MARKED WITH BARRIER FENCES. "SILT" FENCES OR STRAW BALE SEDIMENT TRAPS SHALL BE PLACED AT REGULAR INTERVALS IMMEDIATELY DOWNSLOPE OF ALL UNPROTECTED DISTURBED LANDS.
- THE LOCATION OF "SILT" FENCES, BARRIER FENCES, SEDIMENT TRAPS AND OTHER DEVICES ARE INDICATIVE ONLY AND FINAL LOCATIONS ARE TO BE DECIDED ON SITE. VARIATIONS WILL BE PERMITTED TO BEST SUIT THE CIRCUMSTANCES. CONTRACTOR TO PREPARE DETAILED CONSTRUCTION SEDIMENT AND EROSION CONTROL PLAN FOR APPROVAL BY THE SUPERINTENDENT.
- ALL SOIL EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED BY THE CONTRACTOR FOLLOWING EACH STORM EVENT AND ANY NECESSARY MAINTENANCE WORK SHALL BE UNDERTAKEN TO ENSURE THEIR CONTINUED PROPER OPERATION. SEDIMENT SHALL BE REMOVED FROM THE THE SOIL EROSION & SEDIMENT CONTROL STRUCTURES WHEN NO MORE THAN 40% CAPACITY HAS BEEN REACHED. THESE STRUCTURES SHALL CONTINUE IN PROPER OPERATION UNTIL ALL DEVELOPMENT ACTIVITIES HAVE BEEN COMPLETED AND THE SITE FULLY STABILISED.
- TEMPORARY REHABILITATION SHALL BE UNDERTAKEN WITHIN 14 WORKING DAYS ON DISTURBED AREAS WHERE WORKS HAVE STOPPED AND SOILS ARE EXPECTED TO REMAIN EXPOSED FOR MORE THAN 14 DAYS BEFORE EITHER WORKS CONTINUE OR PERMANENT REHABILITATION IS UNDERTAKEN.
- AT LEAST WEEKLY, THE CONTRACTOR WILL INSPECT THE SITE, PROVIDING PARTICULAR ATTENTION TO THE FOLLOWING MATTERS :
 - ENSURE DRAINS OPERATE EFFECTIVELY AND INITIATE REPAIR AS REQUIRED.
 - REMOVE SPILLED SAND (OR OTHER MATERIALS) FROM HAZARD AREAS, INCLUDING LANDS.
 - REMOVE TRAPPED SEDIMENT WHENEVER LESS THAN DESIGN CAPACITY REMAINS
 - ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND INITIATE UPGRADING OR REPAIR AS APPROPRIATE
 - CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS, i.e. MAKE ONGOING CHANGES TO THE PLAN.
 - MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN A FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.
 - REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS A LAST ACTIVITY IN THE REHABILITATION PROGRAM
- THE CONTRACTOR WILL KEEP A LOG BOOK, MAKING ENTRIES AT LEAST WEEKLY AND IMMEDIATELY PRIOR TO FORECAST RAINFALL AND/OR SITE CLOSURE. RECORD:
 - THE VOLUME OF ANY RAINFALL EVENTS;
 - THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS;
 - APPLICATIONS OF FLOCCULATING AGENTS TO SEDIMENT RETENTION SYSTEMS;
 - VOLUMES OF WATER DISCHARGED FROM SEDIMENT RETENTION SYSTEMS; AND
 - REMEDIAL WORKS.

THE BOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON ON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF WORKS. COPIES OF MONTHLY ENTRIES ARE TO BE PROVIDED WITH PROGRESS CLAIMS.
- DO NOT TAINT CLEAN CATCHMENT WATER WITH SILT FROM THE WORKS.
- FACILITIES AND/OR EQUIPMENT MUST BE PROVIDED FOR THE APPLICATION OF WATER TO DISTURBED AREAS TO MINIMISE THE GENERATION OF AIRBORNE DUST FROM ANY AREA DISTURBED BY CONSTRUCTION ACTIVITIES. DUST CONTROL MEASURES SHALL BE IMPLEMENTED CONTINUOUSLY DURING CONSTRUCTION WORKS TO THE SATISFACTION OF THE SUPERINTENDENT AND COUNCIL.
- MATERIAL REMOVED FROM SEDIMENT CONTROL STRUCTURES MUST BE DISPOSED OF IN A WAY THAT DOES NOT POLLUTE WATERS OR BUSHLAND AND DISPOSED OF TO AN APPROVED DUMP SITE.
- RUNOFF FROM VEHICLE OR CONSTRUCTION PLANT MAINTENANCE AND CLEANING AREAS SHALL BE COLLECTED AND DISPOSED OF IN A MANNER THAT DOES NOT POLLUTE.
- CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT.

15. ALL POSITIONS SHOWN ARE APPROXIMATE AND ARE BEST DETERMINED ON SITE IN CONJUNCTION WITH THE SUPERINTENDENT.

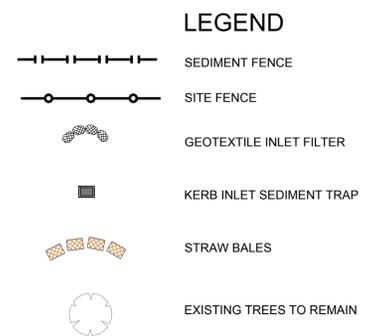
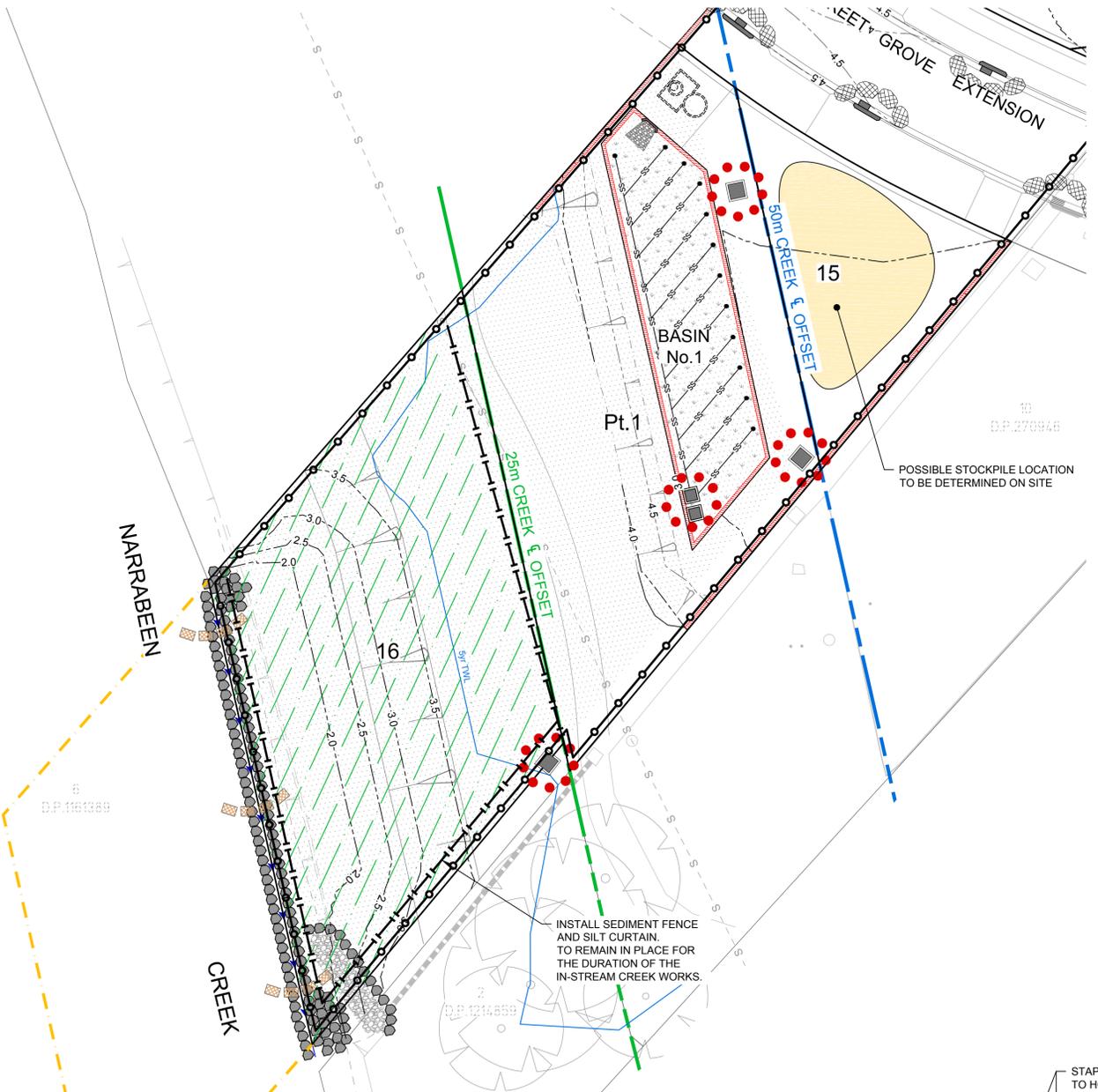
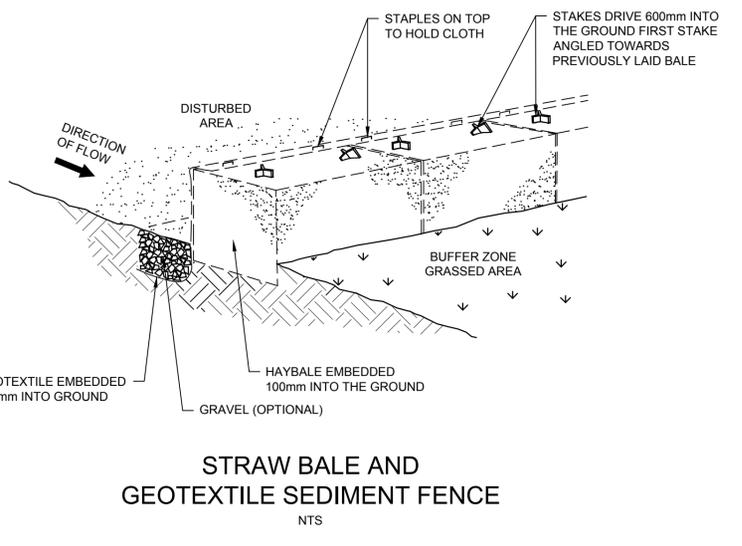
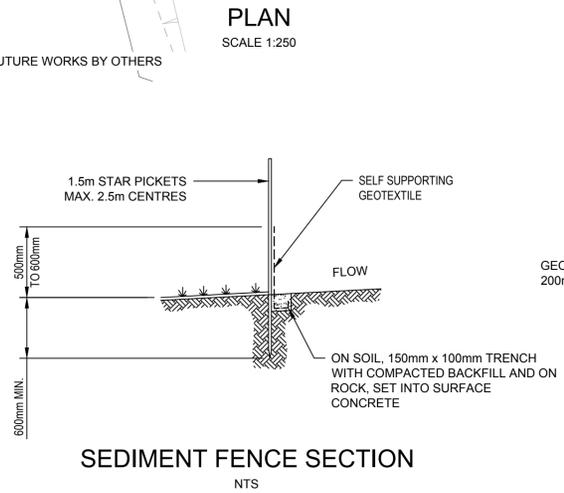
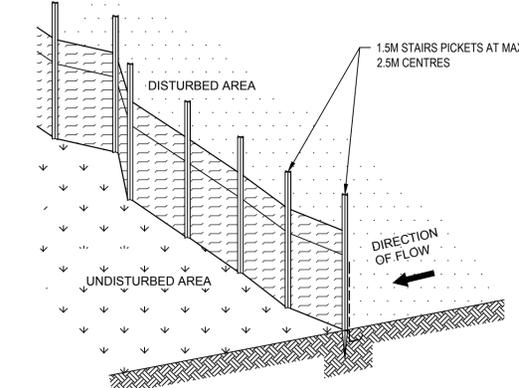
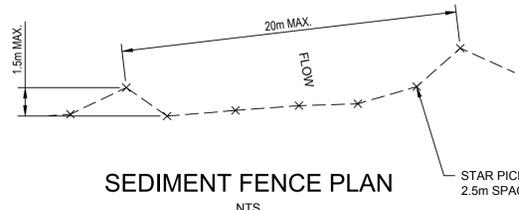
16. DUST SCREENS ARE TO BE ERECTED AROUND THE PERIMETER OF THE WORK SITE DURING LAND CLEARING, EXCAVATIONS & CONSTRUCTIONS AS DIRECTED BY THE SITE SUPERVISOR.

SEDIMENT FENCE

- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BE PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING, TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 litres/sec IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.
- CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- DRIVE 1.5 METER LONG STAR PICKETS INTO GROUND AT 2.5 METER INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS, ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES, OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

STRAW BALE FILTERS

- CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DIAGRAM TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION.
- PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN THE BALES. THE STRAWS IN EACH BALE ARE TO BE ALIGNED PARALLEL TO THE GROUND.
- ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
- EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH 1.2m STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
- WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE BALES ARE PLACED 1m TO 2m DOWNSLOPE FROM THE TOE.
- ESTABLISH A MAINTENANCE PROGRAM THE ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.



REV.	DATE	AMENDMENT DESCRIPTION	DES.	DRN.
B	26.06.19	ISSUED FOR DEVELOPMENT APPLICATION	A.H.	K.S.
A	14.03.19	ISSUED FOR DEVELOPMENT APPLICATION	D.Y.	D.Yoo.



Authorised for issue by: _____
Signature: _____

Principal: LEGENDWAY PTY. LTD.
L.G.A. NORTHERN BEACHES COUNCIL

Scale: AS SHOWN Datum: AHD

Project: PROPOSED SUBDIVISION OF LOT 3, D.P.1115877 AND PART LOT 3 D.P.942319 NARRABEEN CREEK REHABILITATION WORKS



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Drawing Title: SEDIMENT AND EROSION CONTROL PLAN AND DETAILS

C&R Ref: 076-18 Drawing Ref: 076-18C-DA-1901

Revision B

DEVELOPMENT APPLICATION