




Alterations and Additions 9 Careel Bay Crescent Avalon Beach Kevin & Alison Hayes

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Client KEVIN & ALISON HAYES				
Architect STUDIO P				
TEL				
Project ALTERATIONS AND ADDITIONS 9 CAREEL BAY CRESCENT AVALON BEACH				
Title COVER SHEET AND DRAWING LIST				
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		Job No. 2024H0040	Scale at A1 N/A	
Date APRIL 2024	Drawing No. SWDA 1.1	Revision P1		
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STORMWATER MANAGEMENT PLAN

PARTRIDGE HYDRAULIC SERVICES WERE ENGAGED TO CARRY OUT A STORMWATER MANAGEMENT PLAN FOR THE PROPOSED SITE 9 CAREEL BAY AVALON. THE BELOW ADDRESSES THE MANAGEMENT OF STORMWATER WITHIN THE PROPOSED SITE BOUNDARIES.

EXISTING SITE DETAILS

THE SUBJECT SITE IS AN EXISTING TWO STOREY DWELLING DEVELOPMENT, LOCATED AT 9 CAREEL BAY AVALON. THE OVERALL SITE HAS APPROXIMATELY AN AREA OF 696.80m². THE LOT IS CURRENTLY DEVELOPED AND COMPRISES: A TWO STOREY BUILDING, PAVED AND CONCRETE AREAS WITH ASSOCIATED LANDSCAPING AT FRONT AND END OF PROPERTY.

THE SITE GENERALLY FALLS TOWARDS CAREEL BAY CRESENT TO THE NORTH-EAST.

THE PROPOERTY IS BOUND BY ADJACENT HOUSE PROPERTIES TO THE SOUTH AND WEST. VEHICULAR ACCESS AND PEDESTRIAN ACCESS TO THE SITE IS CURRENTLY FROM CAREEL BAY CRESENT.

PRE-DEVELOPMENT SITE CATCHMENT AREAS:

- IMPERMEABLE AREA: 460.10m²
- PERMEABLE AREA: 234.70m²

PROPOSED NEW DEVELOPMENT

IT IS PROPOSED TO PROVIDE ALTERATIONS TO THE EXISTING DWELLING AND MODIFICATIONS TO THE VEHICULAR ACCESS RAMP.

POST-DEVELOPMENT SITE CATCHMENT AREAS:

- IMPERMEABLE AREA: 465.20m²
- PERMEABLE AREA: 228.80m²
- POOL AREA (TO SEWER): 3.60m²

VEHICULAR ACCESS AND PEDESTRIAN ACCESS TO THE SITE IS CURRENTLY FROM CAREEL BAY CRESCENT.

EXISTING STORMWATER NETWORK AND DISCHARGE

THE SUBJECT SITE IS CURRENTLY DEVELOPED WITH AN EXISTING ON-SITE DRAINAGE NETWORK. BOX GUTTERS COLLECT STORMWATER FROM THE ROOF AND DISCHARGE FROM THE SITE VIA TWO DISCHARGE POINTS TO THE KERB AND GUTTER ALONG CAREEL BAY CRESCENT (LOCATED ALONG THE EASTERN BOUNDARY OF THE SITE).

HARDSTAND AREA FOR THE FRONT HALF OF THE PROPERTY TO THE NORTH DRAINS VIA SURFACE OVERFLOW TO CAREEL BAY CRESENT.

THERE IS NO EVIDENCE OF OSD OR STORMWATER TREATMENT DEVICES AT PRESENT.

EXISTING DISCHARGE VOLUME (FOR 1% AEP, 5 MIN STORM DURATION MIN):

Q = 34.9 L/s

FLOODING

WITH REFERENCE TO THE NORTHERN BEACHES COUNCIL FLOOD HAZARD MAP, THE SITE IS NOT AFFECTED BY FLOODING.

PROPOSED STORMWATER NETWORK CONCEPT AND DISCHARGE VOLUMES

IT IS PROPOSED TO CONSTRUCT A NEW STORMWATER NETWORK ON THE FOLLOWING PRINCIPLES:

- A NEW NETWORK OF PIPES AND PITS IS PROPOSED TO CONVEY THE RUNOFF FROM THE SITE PRIOR TO DISCHARGING INTO THE EXISTING COUNCIL'S DRAINAGE SYSTEM.
- WITH REFERENCE TO SECTION 7.0 OF THE PRIVATE STORMWATER CODE AND BASIX CERTIFICATE, A RAINWATER TANK IS REQUIRED FOR THE SUBJECT SITE.
- NO ON-SITE DETENTION TANK (OSD) IS PROPOSED FOR THE SUBJECT SITE AS THE PROPOSED DEVELOPMENT IS AN ALTERATIONS AND ADDITIONS AND THE ADDITIONAL IMPERVIOUS AREA OF THE DEVELOPMENT IS NOT MORE THAN 50M².
- THE SUBJECT SITE HAS TWO PROPOSED POINTS OF DISCHARGE. THE EXISTING POINTS OF DISCHARGE TO THE EAST OF THE SITE IS TO BE RETAINED.

STORMWATER QUANTITY MANAGEMENT

NO ON-SITE DETENTION TANK (OSD) IS PROPOSED FOR THE SUBJECT SITE AS THE PROPOSED DEVELOPMENT IS AN ALTERATIONS AND ADDITIONS AND THE ADDITIONAL IMPERVIOUS AREA OF THE DEVELOPMENT IS NOT MORE THAN 50M².

TOTAL SITE AREA: 696.80m²

PRE-DEVELOPMENT DISCHARGE VOLUME:

Q = 34.9 L/S (FOR 20-YEAR, 5 MIN STORM DURATION MIN):

POST-DEVELOPMENT DISCHARGE VOLUME:

Q = 35.2 L/S (FOR 20-YEAR, 5 MIN STORM DURATION)

STORMWATER QUALITY MANAGEMENT

WITH REGARDS TO SECTION 2.1 FROM WSUD & MUSIC MODELLING GUIDELINES, WSUD IS NOT REQUIRED FOR THE PROPOSED SITE.

A SEDIMENT CONTROL PIT WITH A TRASH SCREEN HAS BEEN PROPOSED TO PROVIDE A LEVEL OF TREATMENT TO STORMWATER PRIOR TO DISCHARGE FROM THE SITE IN ACCORDANCE WITH SECTION 4.0 OF THE NORTHERN BEACHES COUNCIL WATER MANAGEMENT POLICY

OVERLAND FLOW PATHS

IF STORMS HIGHER THAN THE DESIGN STORM OCCUR, THE SITE IS GRADED TO ALLOW AN OVERLAND FLOW PATH TO FORM TO PROTECT THE BUILDINGS. OVERLAND FLOWS WILL EXIT THE SITE ALONG THE KERB LINE PARALLEL TO CAREEL BAY CRESENT. NO DAMAGE TO THE NEIGHBOURING PROPERTIES WILL OCCUR.

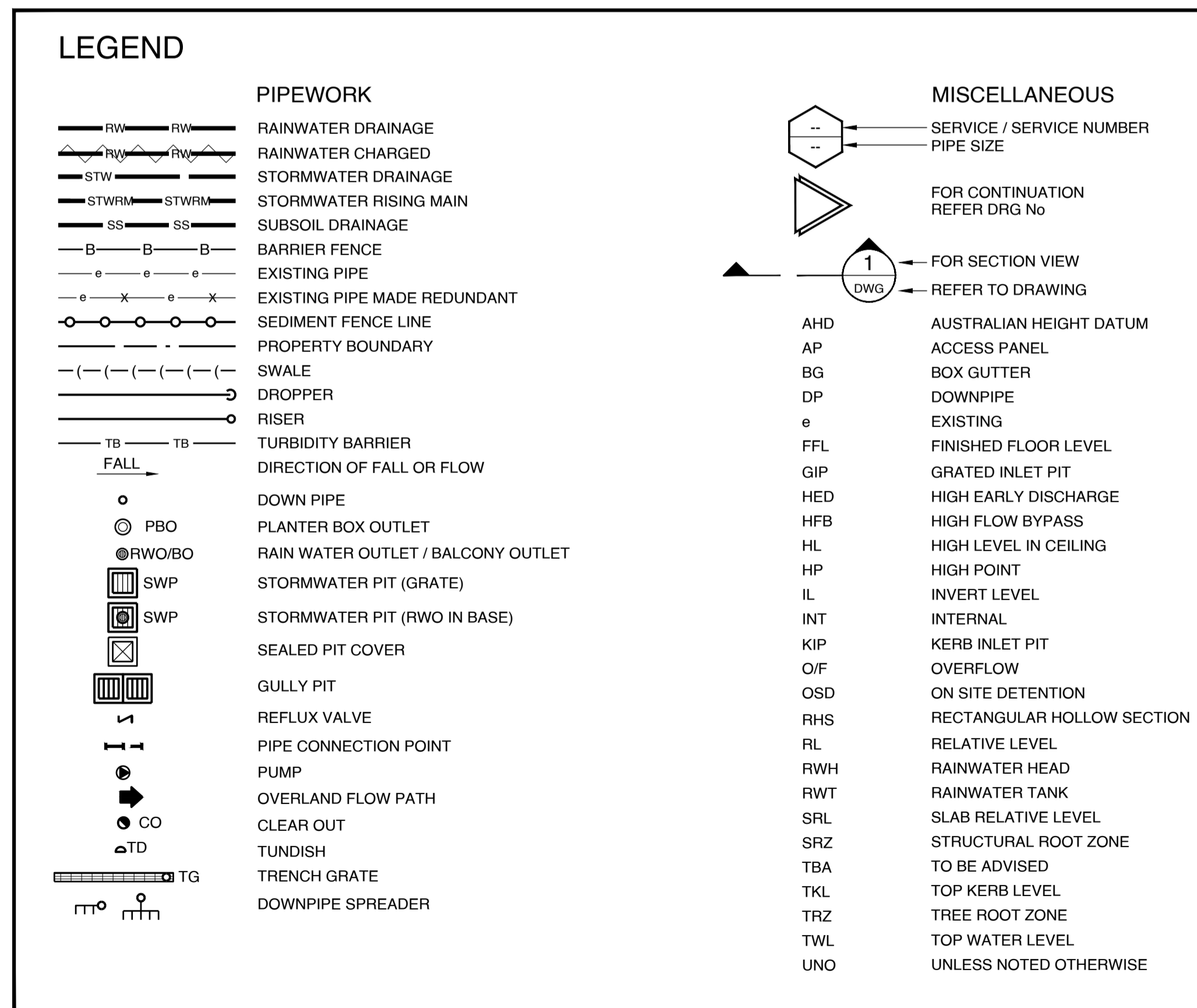
COUNCIL DOCUMENTS REFERENCE

THE ABOVE ASSESSMENT HAS BEEN PREPARED AND BASED ON PUBLISHED TOPOGRAPHIC MAPS, PHYSICAL LAND SURVEY, HYDRAULIC AND HYDROLOGICAL CALCULATIONS, AVAILABLE AERIAL PHOTOGRAPHY OF THE SITE AND IN ACCORDANCE WITH RELEVANT AUSTRALIA STANDARDS AND COUNCIL DEVELOPMENT CONTROL PLANS BELOW:

- AS 3500 PLUMBING AND DRAINAGE
- NORTHERN BEACHES WATER MANAGEMENT FOR DEVELOPMENT POLICY 2021
- NORTHERN BEACHES COUNCIL FLOOD HAZARD MAP

GENERAL NOTES

1. THIS IS A STORMWATER DRAINAGE PLAN ONLY, REFER TO ARCHITECTURAL DRAWINGS FOR ALL SETOUT INFORMATION.
2. ALL STORMWATER RUNOFF FROM SURFACE, PITS, SUMPS AND UNDERGROUND PIPE NETWORK TO BE COLLECTED VIA ON-SITE DRAINAGE SYSTEM PRIOR TO DISCHARGE FROM THE SITE.
3. ALL PIPES ARE TO BE 100DIA UPVC LAID AT 1.0% MIN GRADE. UPVC PIPES TO BE SOLVENT WELDED JOINTS U.N.O
4. ALL PIPES ARE TO BE PROPRIETARY PRE-CAST ITEMS, COVER LEVELS TO MATCH U.N.O
5. ALL GRATED DRAINS TO HAVE BASE GRADED 1.0% MIN WITH HEAVY DUTY GRATES.
6. IT IS THE BUILDER'S RESPONSIBILITY TO LAY ALL PIPES IN ACCORDANCE WITH ALL RELEVANT AUTHORITY REQUIREMENTS (EG. COUNCIL, EPA, SYDNEY WATER).
7. THE CONTRACTOR SHALL LOCATE EXISTING SERVICES ON SITE PRIOR TO CONSTRUCTION AND SHALL TAKE EXTREME CAUTION DURING CONSTRUCTION.
8. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE LOCAL AUTHORITY'S CIVIL SPECIFICATION AND STANDARDS TO THE SATISFACTION OF THE LOCAL AUTHORITY OR PRIVATE CERTIFYING AUTHORITY'S REPRESENTATIVE. ANY DISCREPANCY, VARIATION OR ADDITIONAL WORKS SHALL BE APPROVED BY THE BUILDER'S REPRESENTATIVE BEFORE COMMENCEMENT OF WORKS.
9. THE LOCAL AUTHORITY OR PRIVATE CERTIFYING AUTHORITY'S INSPECTION OF WORKS SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE INSPECTOR'S INSPECTION SCHEDULE REQUIREMENTS AND ENSURE THAT EACH IDENTIFIED STAGE OF WORKS IN ACCORDINGLY INSPECTED.
10. THESE DRAWINGS ARE DIAGRAMMATIC REPRESENTATION OF WORKS TO BE CARRIED OUT ONLY AND ARE NOT TO BE SCALED OFF.
11. ALL LEVELS SHALL BE OBTAINED FROM ESTABLISHED BENCH MARKS ONLY. DATUM USED ON THESE DRAWINGS IN AUSTRALIA HEIGHT DATUM (AHD) UNLESS NOTED OTHERWISE.
12. UTILITY INFORMATION SHOWN ON THE PLANS IS NOT INTENDED TO DEPICT MORE THAN THE PRESENCE OF ANY SERVICES. ACTUAL LOCATIONS SHOULD BE VERIFIED BY HAND EXCAVATION PRIOR TO CONSTRUCTION.
13. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PROVIDED WHERE SHOWN ON THE DRAWINGS, IN ACCORDANCE WITH THE SPECIFICATION AND THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (IF APPLICABLE).



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Client
KEVIN & ALISON HAYES

Architect
STUDIO P

TEL

Project
ALTERATIONS AND ADDITIONS
9 CAREEL BAY CRESCENT
AVALON BEACH

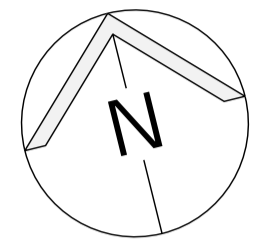
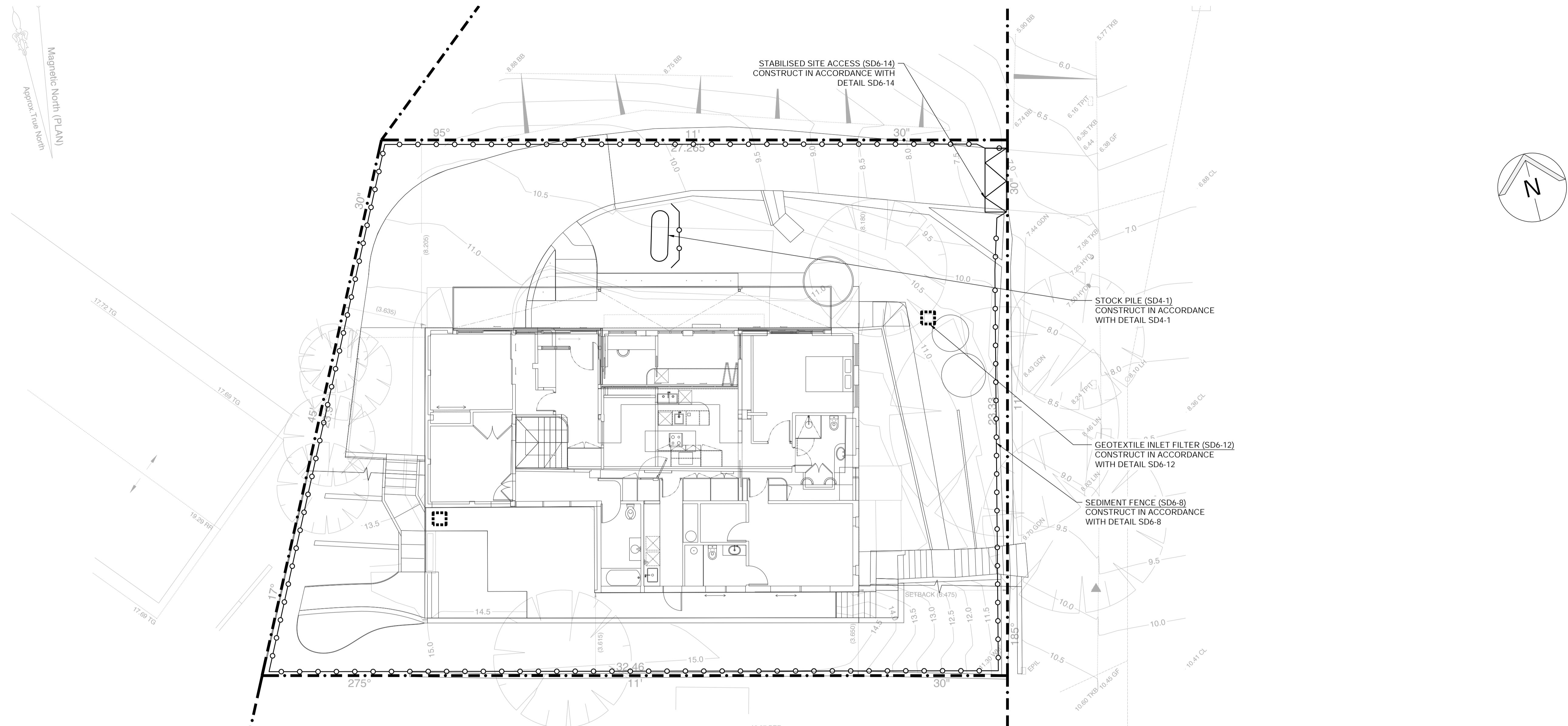
Title
STORMWATER MANAGEMENT PLAN &
GENERAL NOTES

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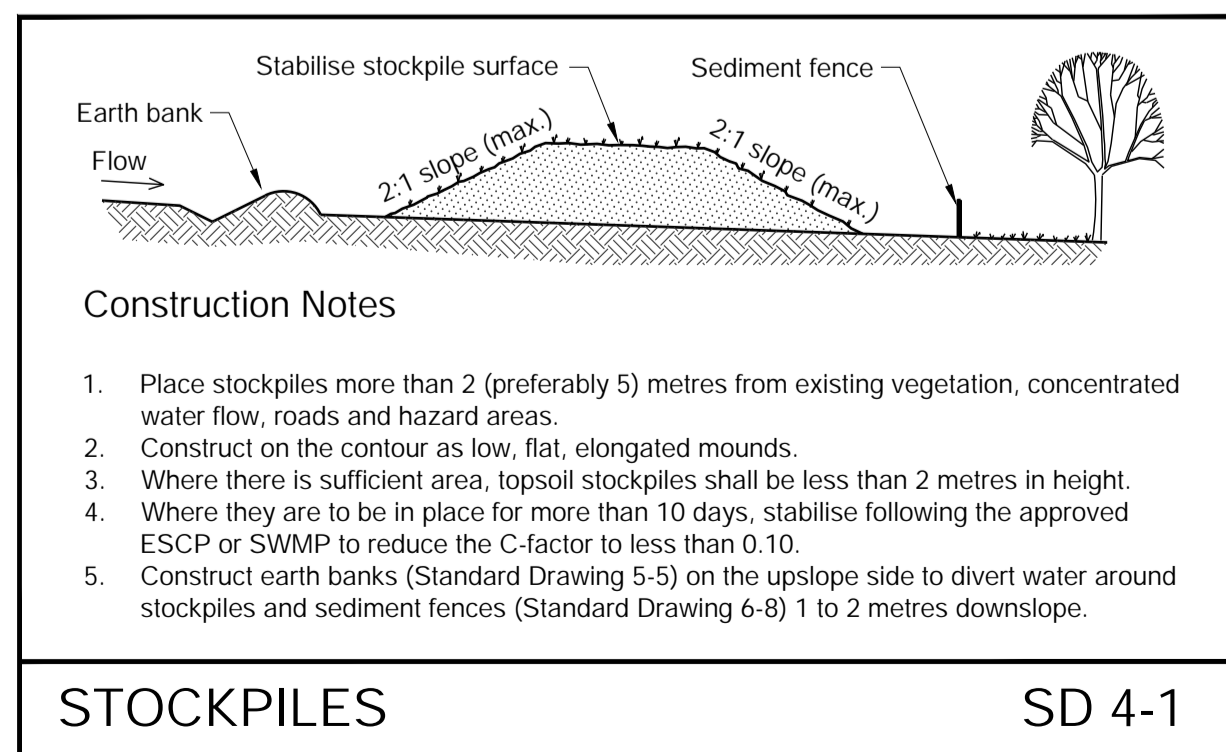
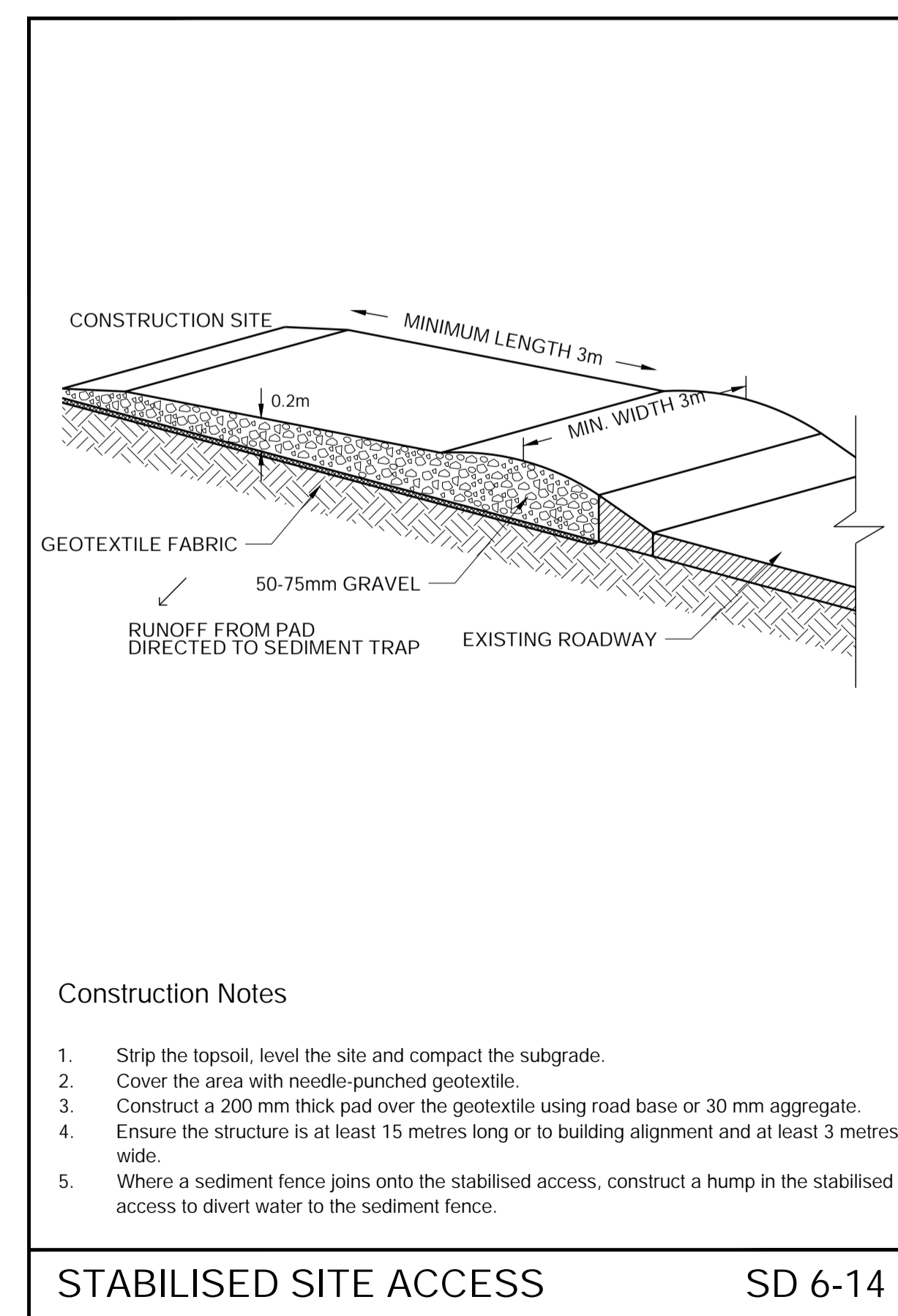
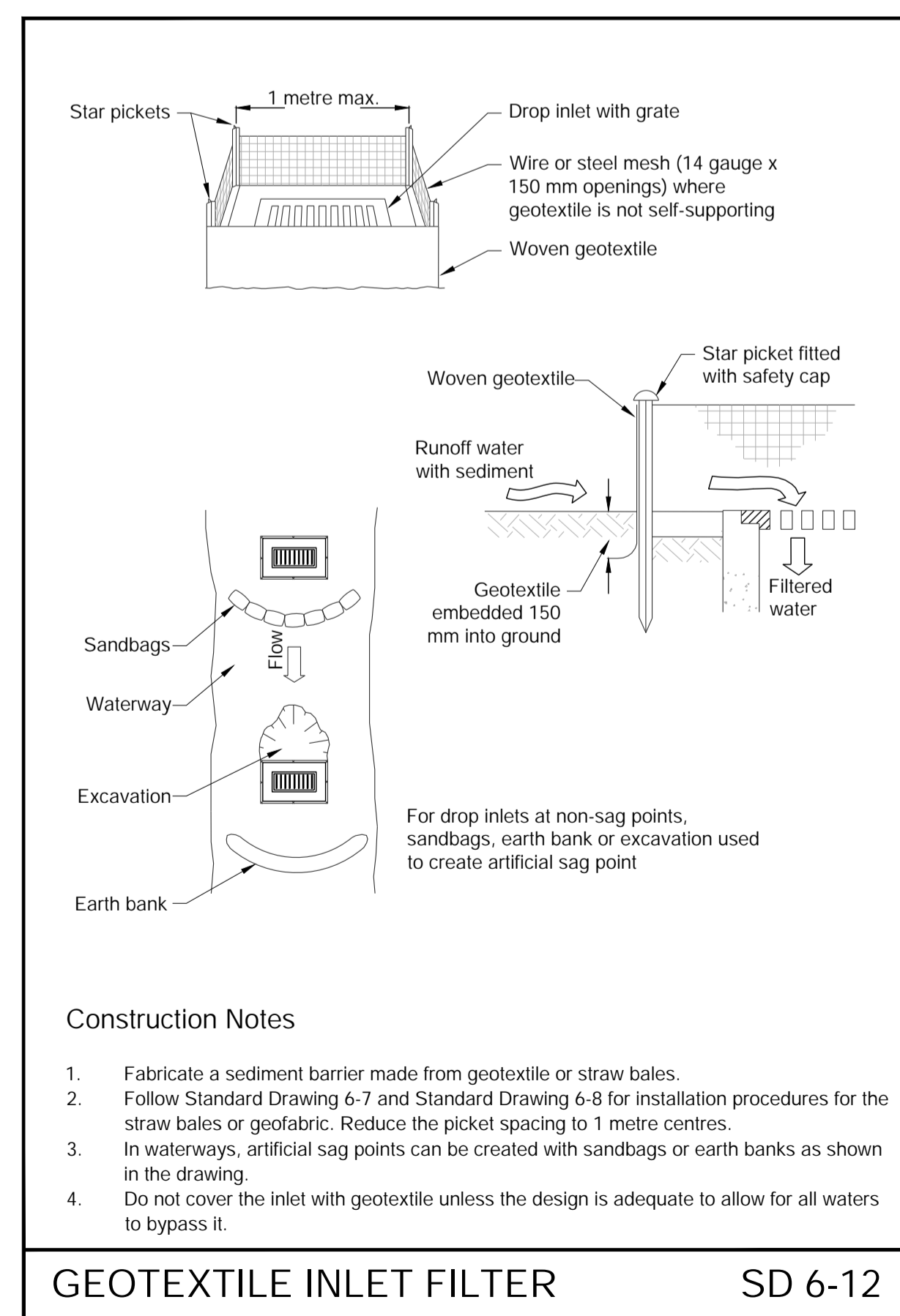
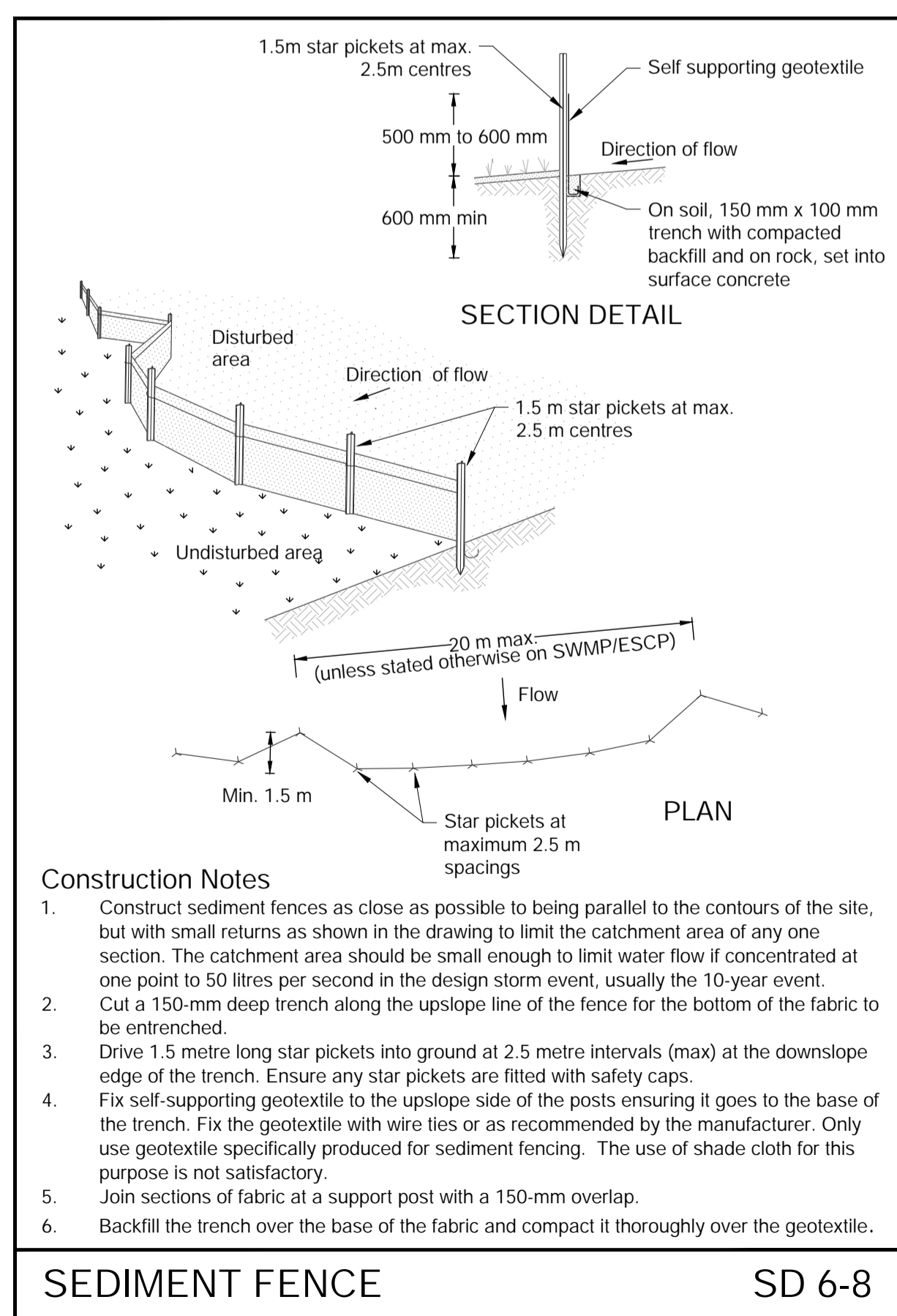
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EROSION AND SEDIMENT CONTROL PLAN

- MEASURES PROVIDED WILL BE TO THE SATISFACTION OF THE PRINCIPAL'S REPRESENTATIVE IN ACCORDANCE WITH THE LOCAL AND STATUTORY REQUIREMENTS UNLESS NOTED OTHERWISE. ALL WORKS SHALL BE ERECTED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE 'BLUE BOOK'- MANAGING URBAN STORMWATER (MUS); SOILS AND CONSTRUCTION, LANDCOM (VOL 1) AND DECCW (VOL 2) AND COUNCIL'S DEVELOPMENT CONTROL PLAN (DCP).
- ALL EXCAVATION WORKS ARE TO BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, IF AVAILABLE, AND THE STRUCTURAL ENGINEER'S DRAWINGS.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS.
- MESH AND GRAVEL INLET FILTERS (SD 6-12) TO BE INSTALLED UPSTREAM OF PROPOSED STORMWATER PITS AS WELL AS EXISTING STORMWATER PITS DOWNSTREAM OF DISTURBED AREAS.
- TOP SOIL WILL BE STRIPPED AND STOCKPILED (SD 4-1) FOR LATER USE IN LANDSCAPING.
- ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
- TOP SOIL WILL BE RE SPREAD AND ALL DISTURBED AREAS WILL BE REHABILITATED WITHIN 20 WORKING DAYS OF THE COMPLETION OF WORKS.
- ALL SEDIMENT TO BE STORED AND COLLECTED BY A LIQUID WASTE COMPANY FOR DISPOSAL AT A LICENSED TREATMENT FACILITY.
- ROADS AND FOOTWAYS TO BE SWEEPED AT THE END OF THE DAY.
- ALL EROSION AND SEDIMENT CONTROLS WILL BE CHECKED AT LEAST WEEKLY AND AFTER RAINFALL EVENTS TO MAKE SURE THEY ARE MAINTAINED TO A FULLY FUNCTIONAL CONDITION.



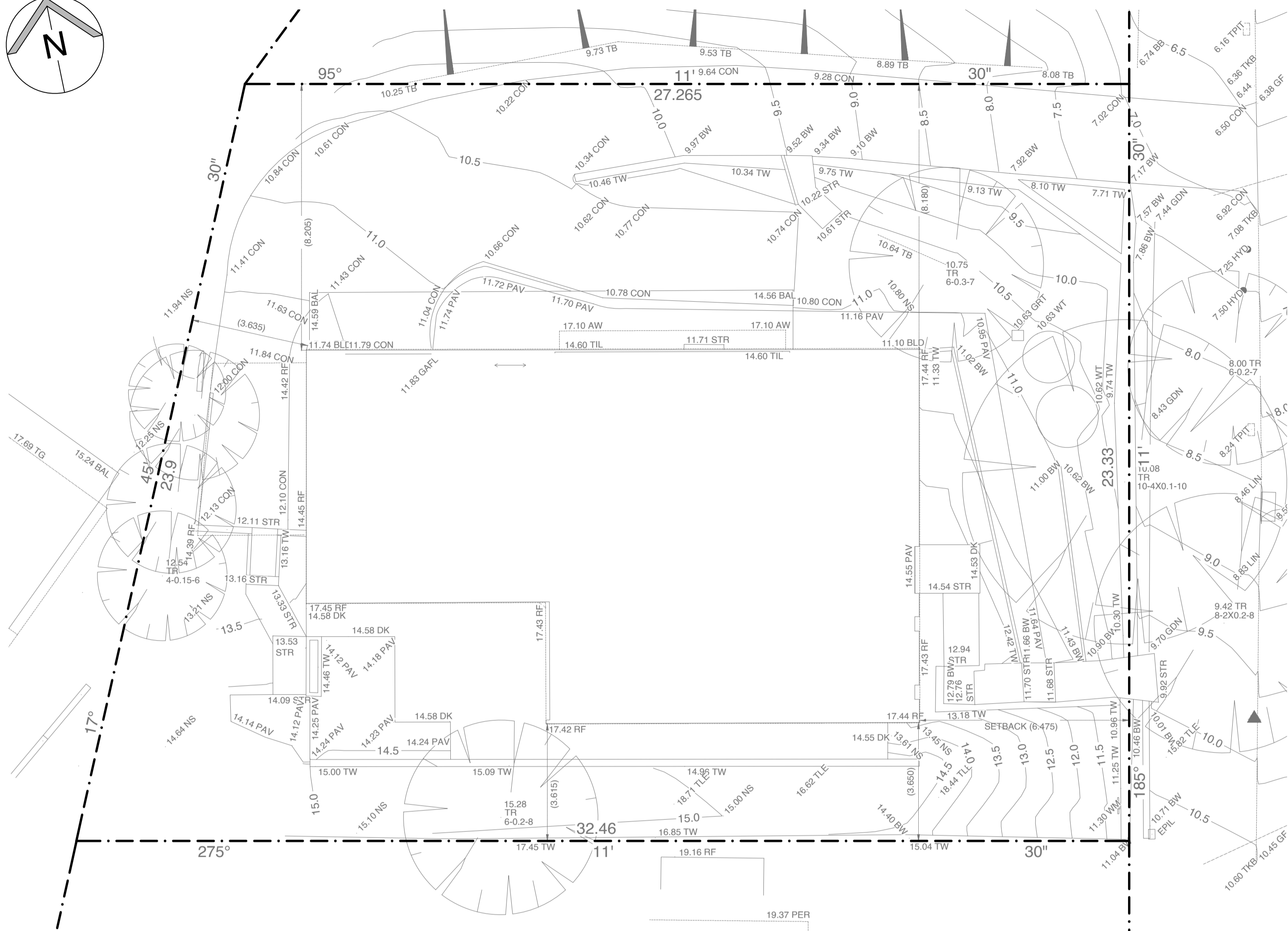
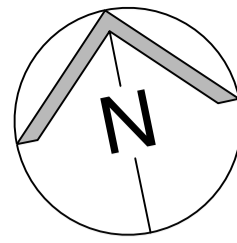
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Architect STUDIO P				
TEL				
Project ALTERATIONS AND ADDITIONS 9 CAREEL BAY CRESCENT AVALON BEACH				
Title SEDIMENT AND EROSION CONTROL PLAN				
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STOCKPILES SD 4-1

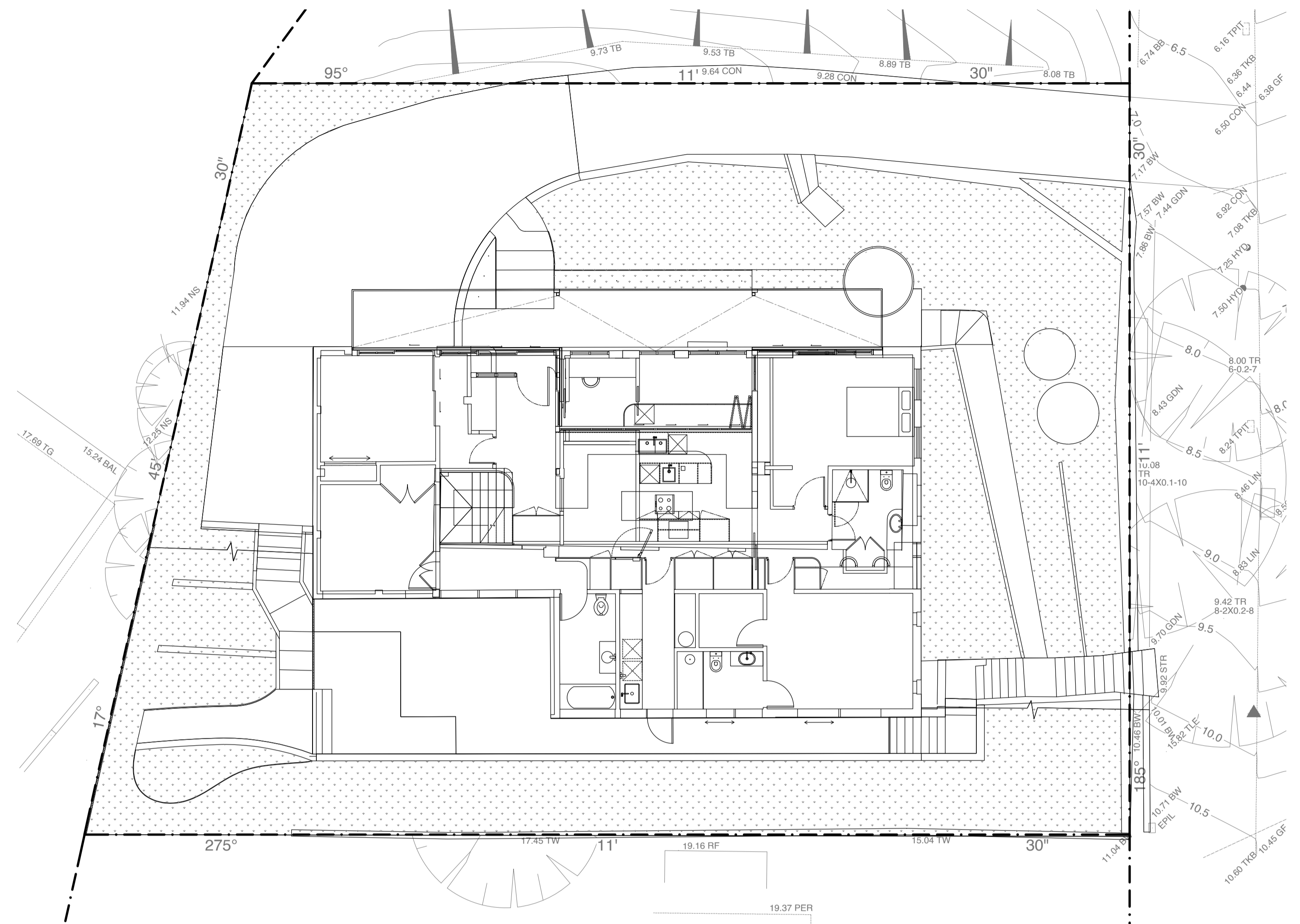
SEDIMENT FENCE SD 6-8

GEOTEXTILE INLET FILTER SD 6-12

STABILISED SITE ACCESS SD 6-14



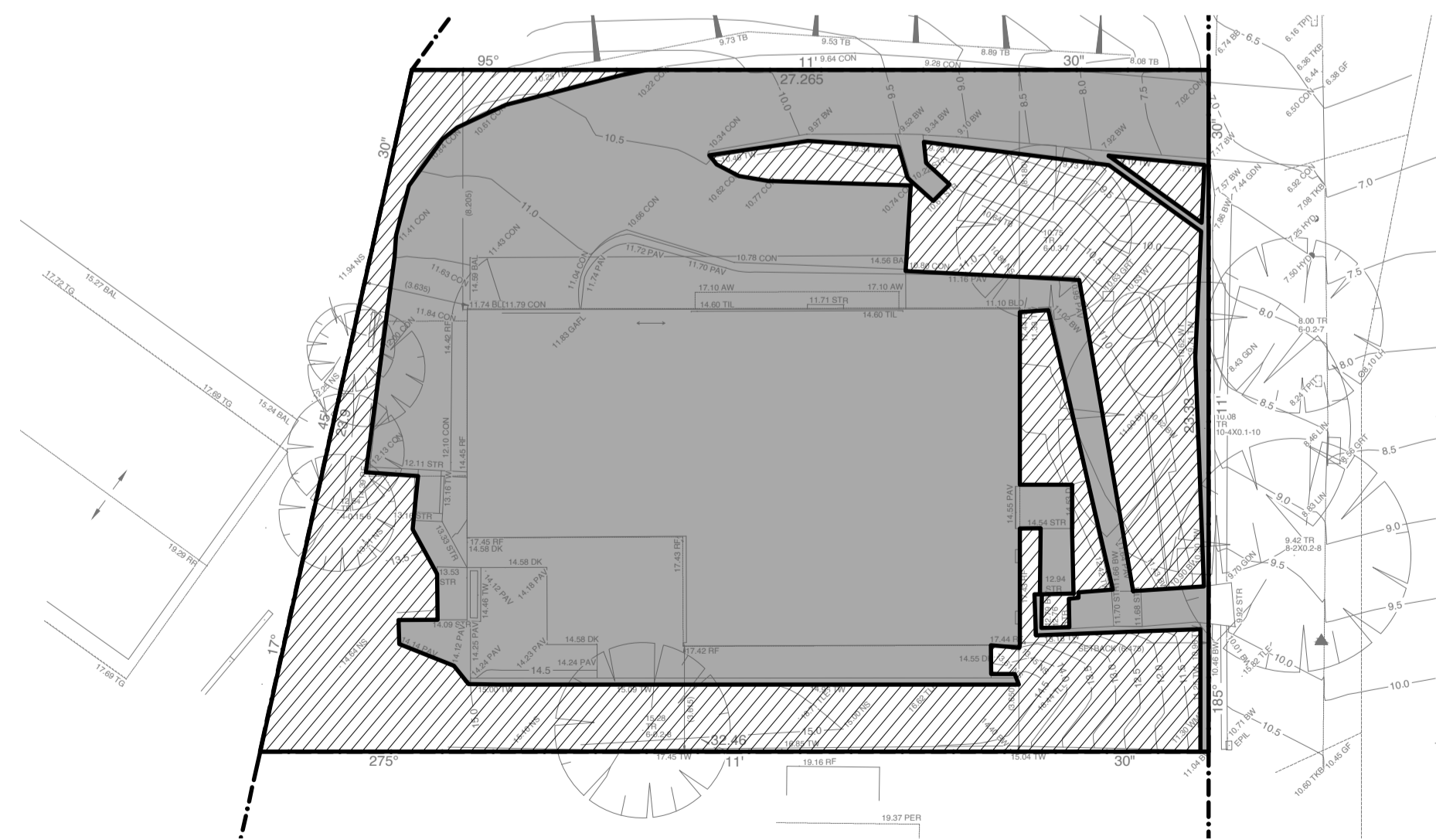
EXISTING SITE PLAN
SCALE 1:100



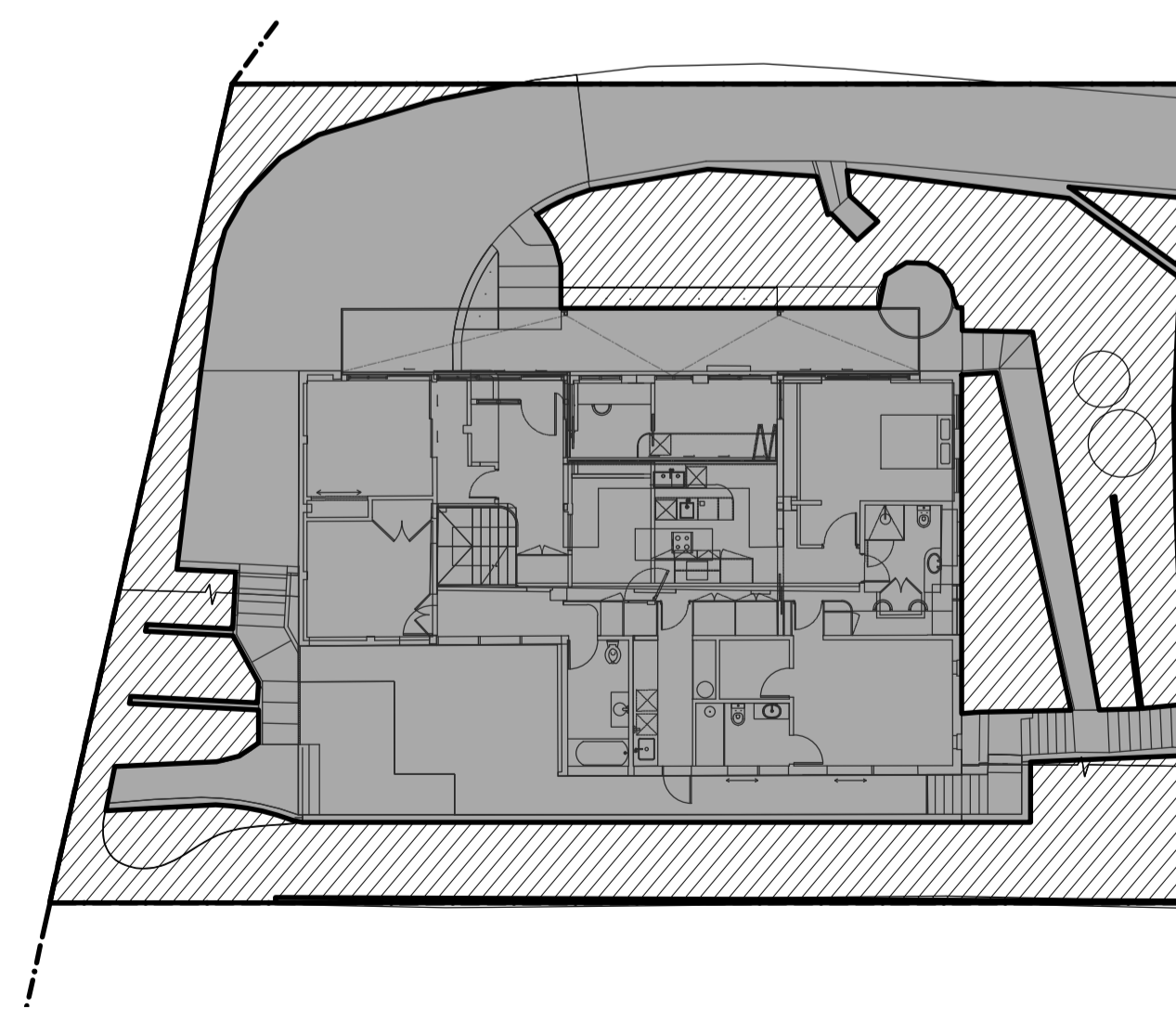
PROPOSED SITE PLAN
SCALE 1:100

LEGEND

	EXISTING	PROPOSED
	IMPERVIOUS AREA	460.2 m ²
	PERVIOUS AREA	234.7 m ²
	POOL AREA (TO SEWER)	N/A



EXISTING SITE PERMEABILITY PLAN
SCALE 1:200



PROPOSED SITE PERMEABILITY PLAN
SCALE 1:200

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1	ISSUED FOR DA	KC	ES	09.05.24

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Project
ALTERATIONS AND ADDITIONS
9 CAREEL BAY CRESCENT
AVALON BEACH

Title
PERMIABILITY PLAN

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Designed
LF

Drawn
NVH

Job No.
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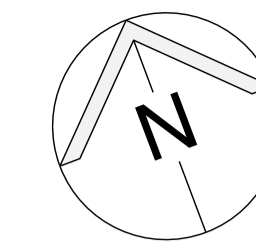
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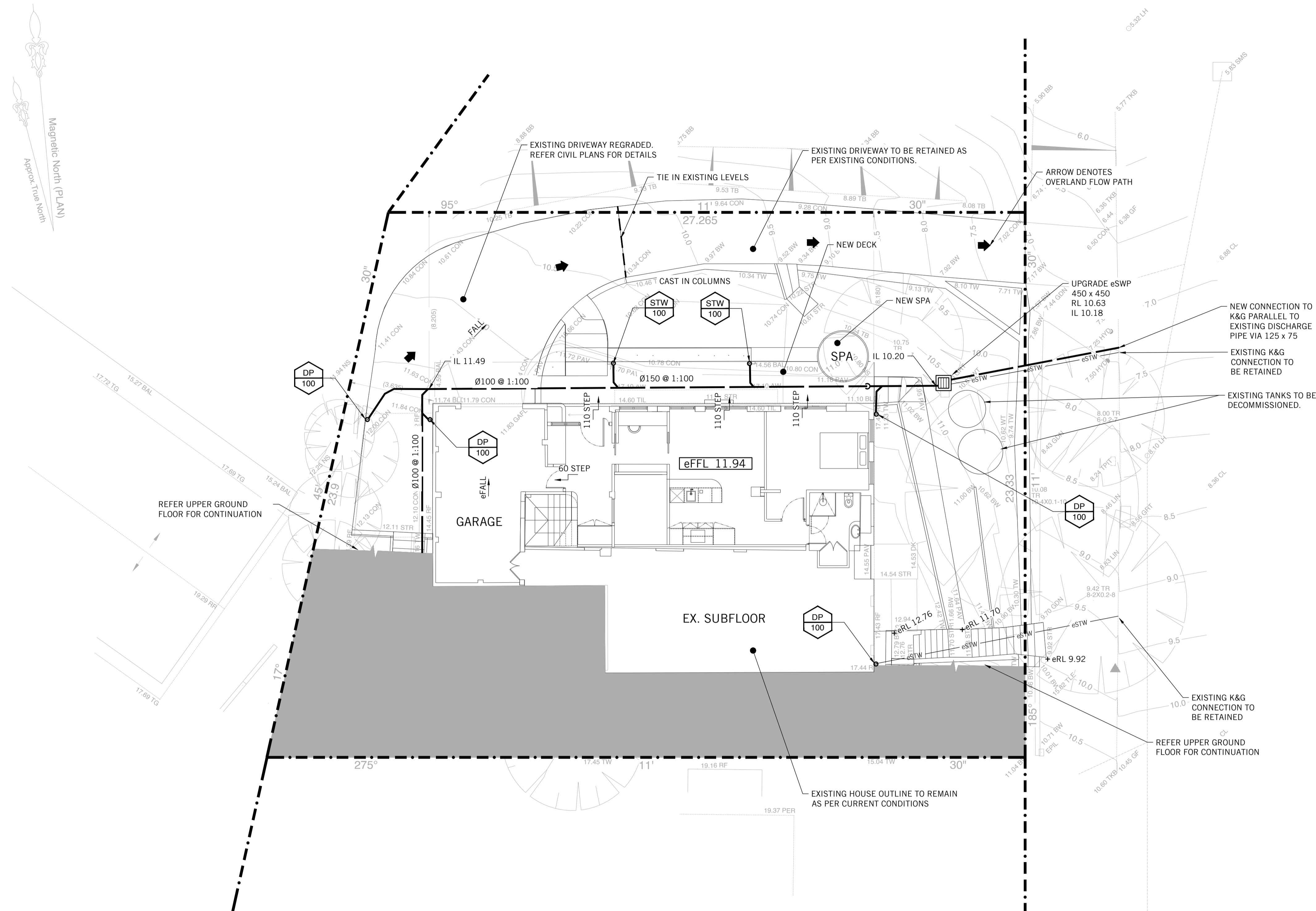
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SWDA 1.4

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2

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Magnetic North (PLAN)
Approx. True North



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Project
 ALTERATIONS AND ADDITIONS
 9 CAREEL BAY CRESCENT
 AVALON BEACH

Title
 PROPOSED STORMWATER DRAINAGE
 LOWER GROUND FLOOR

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	SWDA 1.5	1

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