# PROPOSED NEW DWELLING
# LOT 16 DP 200638
# 60 CASTLE CIRCUIT, SEAFORTH NSW
# CIVIL ENGINEERING DRAWINGS

## DRAWINGS LIST




LOCATION PLAN

| | | | |
|---|---|---|---|
| ISSUED FOR DA | 02.05.2023 | B | JO.R |
| ISSUED FOR INFORMATION | 20.04.2023 | A | JO.R |
| AMENDMENTS | DATE | ISSUE | BY |

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7/287 MONA VALE ROAD
TERREY HILLS NSW 2084

PROJECT
PROPOSED NEW DWELLING
60 CASTLE CIRCUIT,
SEAFORTH NSW 2092

| DESIGNED | DRAWN | DATE | SIZE | CAD REF |
|---|---|---|---|---|
| JO.R. | JO.R. | MAR 23 | A1 | TX17260.00 - C01 |


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DRAWING TITLE
COVER SHEET

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C1.00 | B |

## GENERAL

CG1 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.

CG2 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.

CG3 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER/CONTRACTOR 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.

CG4 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.

CG5 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.

## SURVEY

SU1 THE EXISTING SITE CONDITIONS SHOWN ON THE DRAWINGS HAVE BEEN INVESTIGATED BY OTHERS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN.

SU2 THE FOLLOWING ENGINEERING SURVEY SHALL NOT BE TAKEN AS A CADASTRAL OR BOUNDARY IDENTIFICATION SURVEY. BOUNDARY DATA SHALL BE TAKEN AS A GUIDE ONLY UNLESS NOTED OTHERWISE.

SU3 SHOULD DISCREPANCIES BE FOUND BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA THE CONTRACTOR SHALL NOTIFY TRIAXIAL CONSULTING PRIOR TO COMMENCEMENT OF THE WORKS. THE CONTRACTOR SHALL ACCEPT ALL RESPONSIBILITY FOR ERRORS MADE DURING CONSTRUCTION WHERE SURVEY DISCREPANCIES WERE NOT RELAYED AND RESOLVED BY TRIAXIAL CONSULTING PRIOR TO COMMENCEMENT OF THE WORKS.

## EXCAVATION

EX1 REFER TO REPORT ON GEOTECHNICAL STABILITY ASSESSMENT FOR INFORMATION PERTAINING TO EXISTING SITE STABILITY, EXCAVATION AND GEOTECHNICAL ISSUES.

EX2 ALL SITE EXCAVATION TO BE PERFORMED IN ACCORDANCE WITH ITEMS NOTED IN THE ABOVE LISTED REPORT.

EX3 THE EARTHWORKS CONTRACTOR IS TO CONTACT OR MEET WITH THE GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF ANY EXCAVATION TO DETERMINE APPROPRIATE TECHNIQUES AND HOLD POINTS.

EX4 TEMPORARY BATTER CUT TO ROCK TO BE FORMED AT NO STEEPER THAN 1 V : 1 H. PERMANENT BATTER TO BE CONFIRMED ON SITE IN CONSULTATION WITH THE GEOTECHNICAL ENGINEER.

## EXISTING UNDERGROUND SERVICES

EU1 THE EXISTING UNDERGROUND SERVICES INDICATED ON THESE DRAWINGS HAVE BEEN OBTAINED FROM SURVEY AND SERVICE AUTHORITY INFORMATION. THE SERVICES INFORMATION SHOWN ARE THOSE OF KNOWN SERVICES ONLY. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND MAY NOT BE 'AS CONSTRUCTED' OR ACCURATE. THE PRESENCE OR ABSENCE OF SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EU2 THE CONTRACTOR SHALL TAKE ALL DUE CARE WHEN EXCAVATING ON SITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

EU3 THE CONTRACTOR SHALL CONTACT ALL RELEVANT SERVICE AUTHORITIES PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS.

EU4 THE CONTRACTOR SHALL UNDERTAKE A THOROUGH SERVICES SEARCH PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS. THE RESULTS OF SERVICES SEARCHES SHALL BE RECORDED AND KEPT ON SITE AT ALL TIMES.

EU5 THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING POTHOLING TO ESTABLISH AND CONFIRM LOCATIONS AND DEPTHS OF EXISTING UNDERGROUIND SERVICES/UTILITIES PRIOR TO COMMENCEMENT OF WORK ON SITE.

## SITE PREPARATION

GENERAL

SP1 ALL EARTHWORKS, SITE PREPARATION AND MATERIALS TO BE IN ACCORDANCE WITH AS3798 AND THE GEOTECHNICAL ENGINEERS REPORT U.N.O.

SP2 SEDIMENT AND EROSION CONTROL MEASURES AS DOCUMENTED MUST BE IN PLACE PRIOR TO THE COMMENCEMENT OF WORK.

SUBGRADE

SP3 STRIP EXISTING AREA AS REQUIRED TO CONSTRUCT NEW WORKS, REMOVE ANY TOP SOIL, ALL ORGANIC & DELETERIOUS MATERIAL FROM SITE WORKS AREA.

SP4 THE CUT AND FILL SURFACE SHALL BE PROOF ROLLED TO ENSURE THAT THE FILL AND NATURAL GROUND FORMING THE SUBGRADE TO SUB-BASE IS AT A SUITABLE DENSITY AND MOISTURE CONTENT.

SP5 PRIOR TO THE COMMENCEMENT OF ANY CIVIL OR STRUCTURAL CONSTRUCTION THE RELEVANT SITE AREA IS TO BE COMPACTED AND TESTED IN ACCORDANCE WITH AS1289.5.1.1 OR .5.1.2 - 1993 TO PRODUCE THE FOLLOWING: -98.0% STANDARD COMPACTION AT THE SURFACE AND AT 200MM BELOW SURFACE LEVEL. FREQUENCY OF FIELD DENSITY TESTS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798 - 2007 TABLE 8.1 TESTING SHALL BE EVENLY SPACED OVER THE ENTIRE SITE, AND AT RANDOM LOCATIONS. TEST RESULTS SHALL BE FORWARDED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORKS.

SP6 PROOF ROLLING SHALL BE CARRIED OUT UNDER THE DIRECTION OF THE CONTRACTOR. A MINIMUM 10 TONNE STATIC MASS SMOOTH DRUMMED ROLLER SHALL BE USED. WHERE THERE IS MOVEMENT UNDER THE ROLLER INDICATING SOFT, WET OR DISTURBED SUBGRADE, THE AREA OF MOVEMENT SHALL BE IDENTIFIED AND THE POOR SUBGRADE MATERIAL REMOVED. ANY REPLACEMENT MATERIAL SHALL BE BACKFILLED WITH APPROVED FILL PLACED IN LAYERS NOT EXCEEDING 200mm LOOSE MEASUREMENT AND IN ACCORDANCE WITH FILLING NOTE SP9 TO 98% OF SDD AND WITHIN ±2% OF STANDARD OPTIMUM MOISTURE CONTENT.

SP7 WHERE THERE HAS BEEN AN EXTENDED DRY PERIOD THE SUBGRADE SURFACE MAY EXHIBIT DESICCATION CRACKS CONSISTENT WITH NEAR SURFACE DRYING OUT. IF SIGNIFICANT DRYING OUT HAS OCCURRED, MOISTURE CONDITION THE UPPER 200mm OF THE SUBGRADE. THE MATERIAL SHOULD THEN BE COMPACTED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS FOR DENSITY AND MOISTURE CONTENT.

FILL/SUB-BASE

SP8 COMPACTION TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE ALLOWED FOR IN THE TENDER FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW FOR SOIL COMPACTION TESTING TO ALL FILL FORMATIONS WHICH SUPPORT CONCRETE SLAB ON GROUND TYPE FLOORS AND EXTERNAL PAVEMENTS. TESTS SHALL BE CARRIED OUT BY AN INDEPENDENT 'NATA' REGISTERED LABORATORY IN ACCORDANCE WITH THE REQUIREMENTS OF AS1289. SUBMIT TEST REPORTS TO THE ENGINEER FOR REVIEW.

SP9 IMPORTED FILL IS TO BE WELL GRADED CRUSHED SANDSTONE, RIPPED SHALE OR APPROVED ALTERNATIVE, WITH A MINIMUM CBR OF 30%, PI 8% AND A MAX PARTICLE SIZE OF 75mm.

SP10 ALL FILL MATERIAL SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING 200mm LOOSE MEASUREMENT.

SP11 ALL FILL SHALL BE COMPACTED TO 98% STANDARD DRY DENSITY DETERMINED BY METHODS IN ACCORDANCE WITH AS1289. THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADJUSTED TO WITHIN 5% OF THE OPTIMUM MOISTURE CONTENT DURING COMPACTION TO ENSURE THAT THE SPECIFIED COMPACTION IS OBTAINED.

## STORMWATER DRAINAGE

SD1 PIPES UP TO 300mm DIAMETER SHALL BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS.

SD2 ALL "INTERNAL WORKS" WITHIN PROPERTY BOUNDARIES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 3500.3 (CURRENT EDITION).

SD3 ALL STORMWATER PIPES SHALL BE PROVIDED WITH MINIMUM PIPE COVER TO COMPLY WITH THE REQUIREMENTS OF AS/NZS 3500.3 (CURRENT EDITION).

SD4 INSTALLATION OF ALL BURIED CONCRETE STORMWATER PIPES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 3725 (CURRENT EDITION) *DESIGN FOR INSTALLATION OF BURIED CONCRETE PIPES*.

SD5 ENLARGERS, CONNECTORS AND JUNCTIONS SHALL BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300mm DIAMETER.

SD6 ALL STORMWATER DRAINAGE LINES SHALL HAVE A MINIMUM FALL OF 1% UNLESS NOTED OTHERWISE ON THE DRAWINGS. CARE SHALL BE TAKEN WITH SETTING LEVELS OF STORMWATER DRAINAGE LINES. GRADES SHOWN ON THE DRAWINGS SHALL NOT BE REDUCED WITHOUT THE WRITTEN CONSENT OF TRIAXIAL CONSULTING.

SD7 GRATES AND COVERS SHALL COMPLY WITH THE REQUIREMENTS OF AS 3996 (CURRENT EDITION).

SD8 AT ALL TIMES DURING THE CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE DOCUMENTED AND EXECUTED TO MITIGATE THE RISK OF PERSONAL INJURY AS A RESULT OF FALLS INTO PITS.

SD9 ALL EXISTING STORMWATER LOCATIONS, INCLUDING INVERTS, TO BE CONFIRMED BY THE BUILDER/CONTRACTOR PRIOR TO THE COMMENCEMENT OF CIVIL WORKS ON SITE.

SD10 ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN SHALL BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDANT/ENGINEER FOR FURTHER DIRECTIONS.

SD11 INSTALLATION OF ALL BURIED FLEXIBLE PIPELINES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 2566.2.

## SITEWORKS

SW1 ALL CONNECTIONS WITH EXISTING WORKS SHALL BE MADE SMOOTH.

SW2 ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO ACHIEVE A DENSITY EQUIVALENT TO THE ADJACENT MATERIAL.

SW3 ALL SERVICE TRENCHES SHALL BE BACKFILLED WITH SAND TO A LEVEL 300mm ABOVE THE PIPE. WHERE SERVICE TRENCHES ARE CONSTRUCTED UNDER VEHICULAR PAVEMENTS, BACKFILL THE REMAINDER OF THE TRENCH (TO UNDERSIDE OF PAVEMENT) WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN LAYERS NOT EXCEEDING 150mm DEPTH. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (CURRENT EDITION) OR A DENSITY INDEX OF NOT LESS THAN 75.

SW4 PROVIDE A 10mm WIDE EXPANSION JOINT BETWEEN ALL BUILDINGS AND CONCRETE OR UNIT PAVEMENTS.

## SEDIMENT AND EROSION CONTROL

SE1 CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION" (2004) (THE BLUE BOOK).

SE2 DISTURBANCE SHALL BE KEPT TO A MINIMUM AND WITHIN THE LIMITS OF THE CONSTRUCTION SITE.

SE3 ADDITIONAL CONTROLS SHALL BE INSTALLED AS REQUIRED AND IN ACCORDANCE WITH "THE BLUE BOOK".

SE4 ALL INSTALLED CONTROLS SHALL BE INSPECTED AT LEAST WEEKLY AND IMMEDIATELY FOLLOWING A RAIN EVENT. MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

SE5 COMPLETED AREAS SHALL BE PROGRESSIVELY VEGETATED.

SE6 CONTROL DEVICES, AS DETAILED, SHALL BE INSTALLED TO STORMWATER PITS IMMEDIATELY FOLLOWING THEIR CONSTRUCTION.

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7/287 MONA VALE ROAD
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60 CASTLE CIRCUIT,
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DRAWING TITLE
GENERAL NOTES

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SITE NOTE:

COUNCIL: NORTHERN BEACHES COUNCIL

DEVELOPMENT TYPE: NEW SINGLE DWELLING

TOTAL SITE AREA: 627 SQM

PRE DEVELOPMENT IMPERVIOUS AREA: 0 SQM

POST DEV IMPERVIOUS AREA: 341 SQM (54%)

ON-SITE DETENTION/RETENTION IS NOT REQUIRED.

CASTLE CIRCUIT BUSHLAND RESERVE

ROAD RESERVE

CASTLE CIRCUIT

CONTROL OF PRIORITY AND ENVIRONMENTAL WEEDS AND VEGETATION WITHIN THE SITE

NORTHERN BOUNDARY (46.43m)

WESTERN BOUNDARY (42.67m)

SOUTHERN BOUNDARY (36.73m)

EASTERN BOUNDARY (41.91m)

PROPOSED DRIVEWAY

PROPOSED DWELLING

EXISTING NEIGHBOURS SHARED DRIVEWAY (CONCRETE)

NATURE STRIP LAWN

SEWER MAIN PLOTTED UNDERGROUND MAIN (RAM APPROXIMATE POSITION ONLY)

D.P.200638

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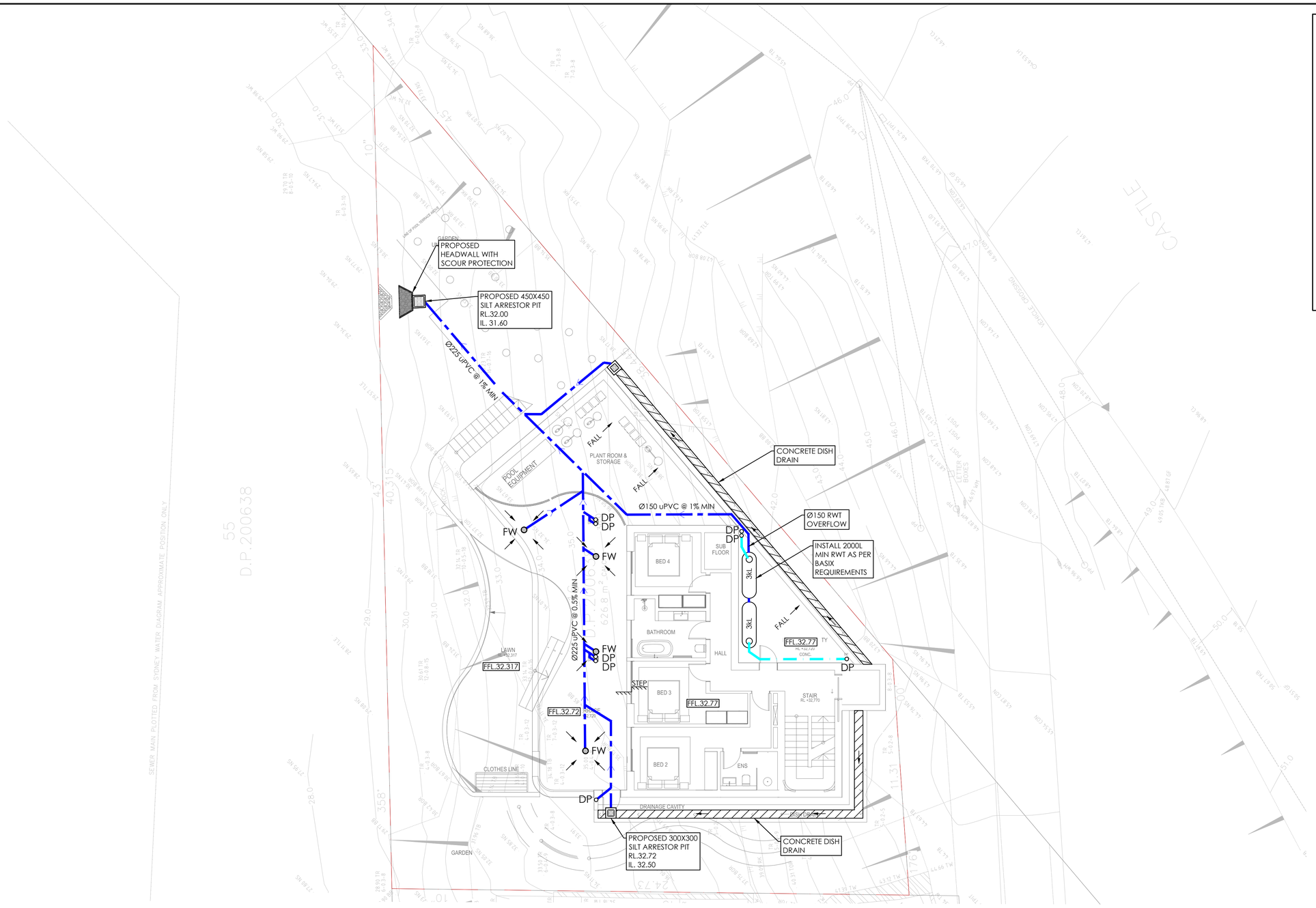
DRAWING TITLE

SITE PLAN

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C2.00 | B |

## LEGEND - STORMWATER

| SYMBOL | DESCRIPTION |
|---|---|
| x 99.99 | EXISTING SPOT LEVEL |
| | EXISTING CONTOUR LEVEL |
| AG | AG. LINE @ 1.0% MIN. U.N.O. |
| | uPVC STORMWATER PIPE @ 1.0% MIN. U.N.O |
| | uPVC STORMWATER PIPE @ 1.0% MIN. TO RWT |
| DP | Ø100 uPVC DOWNPIPE |
| | GRATED INLET PIT (GIP) (U.N.O.) |
| RWO | RAINWATER OUTLET |
| FW | FLOOR WASTE |
| | OVERLAND FLOW PATH |
| GD | GRATED DRAIN |
| 99.99 | DESIGN LEVEL |
| TK. | TOP OF KERB |
| RL. | REDUCE LEVEL |
| IL. | INVERT LEVEL |
| FFL. | FINISHED FLOOR LEVEL |




## LEVEL 1 STORMWATER MANAGEMENT PLAN

SCALE 1:100

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DRAWING TITLE
BASEMENT STORMWATER MANAGEMENT PLAN

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C2.01 | B |


## LEGEND - STORMWATER

| SYMBOL | DESCRIPTION |
|---|---|
| x 99.99 | EXISTING SPOT LEVEL |
| | EXISTING CONTOUR LEVEL |
| AG | AG. LINE @ 1.0% MIN. U.N.O. |
| | uPVC STORMWATER PIPE @ 1.0% MIN. U.N.O |
| | uPVC STORMWATER PIPE @ 1.0% MIN. TO RWT |
| DP | Ø100 uPVC DOWNPIPE |
| | GRATED INLET PIT (GIP) (U.N.O.) |
| RWO | RAINWATER OUTLET |
| FW | FLOOR WASTE |
| | OVERLAND FLOW PATH |
| GD | GRATED DRAIN |
| 99.99 | DESIGN LEVEL |
| TK. | TOP OF KERB |
| RL. | REDUCE LEVEL |
| IL. | INVERT LEVEL |
| FFL. | FINISHED FLOOR LEVEL |

# LEVEL 2 STORMWATER MANAGEMENT PLAN

SCALE 1:100

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1.0m 0.0 2.0 4.0 6.0 8.0 10.0m

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DRAWING TITLE
GROUND FLOOR STORMWATER MANAGEMENT PLAN

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C2.02 | B |

## LEGEND - STORMWATER

| SYMBOL | DESCRIPTION |
|---|---|
| x 99.99 | EXISTING SPOT LEVEL |
| | EXISTING CONTOUR LEVEL |
| AG | AG. LINE @ 1.0% MIN. U.N.O. |
| | uPVC STORMWATER PIPE @ 1.0% MIN. U.N.O |
| | uPVC STORMWATER PIPE @ 1.0% MIN. TO RWT |
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| 99.99 | DESIGN LEVEL |
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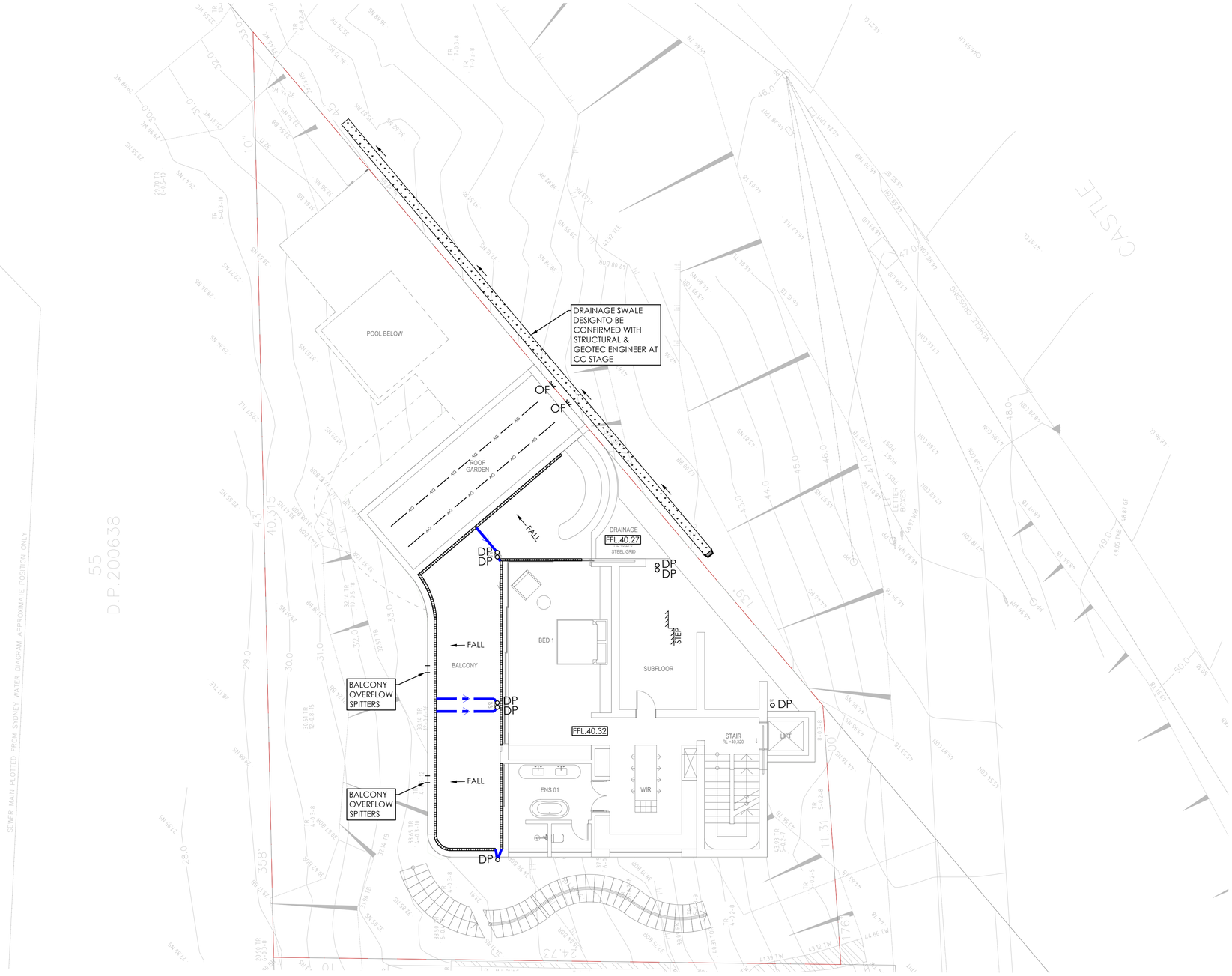


## LEVEL 3 STORMWATER MANAGEMENT PLAN

SCALE 1:100

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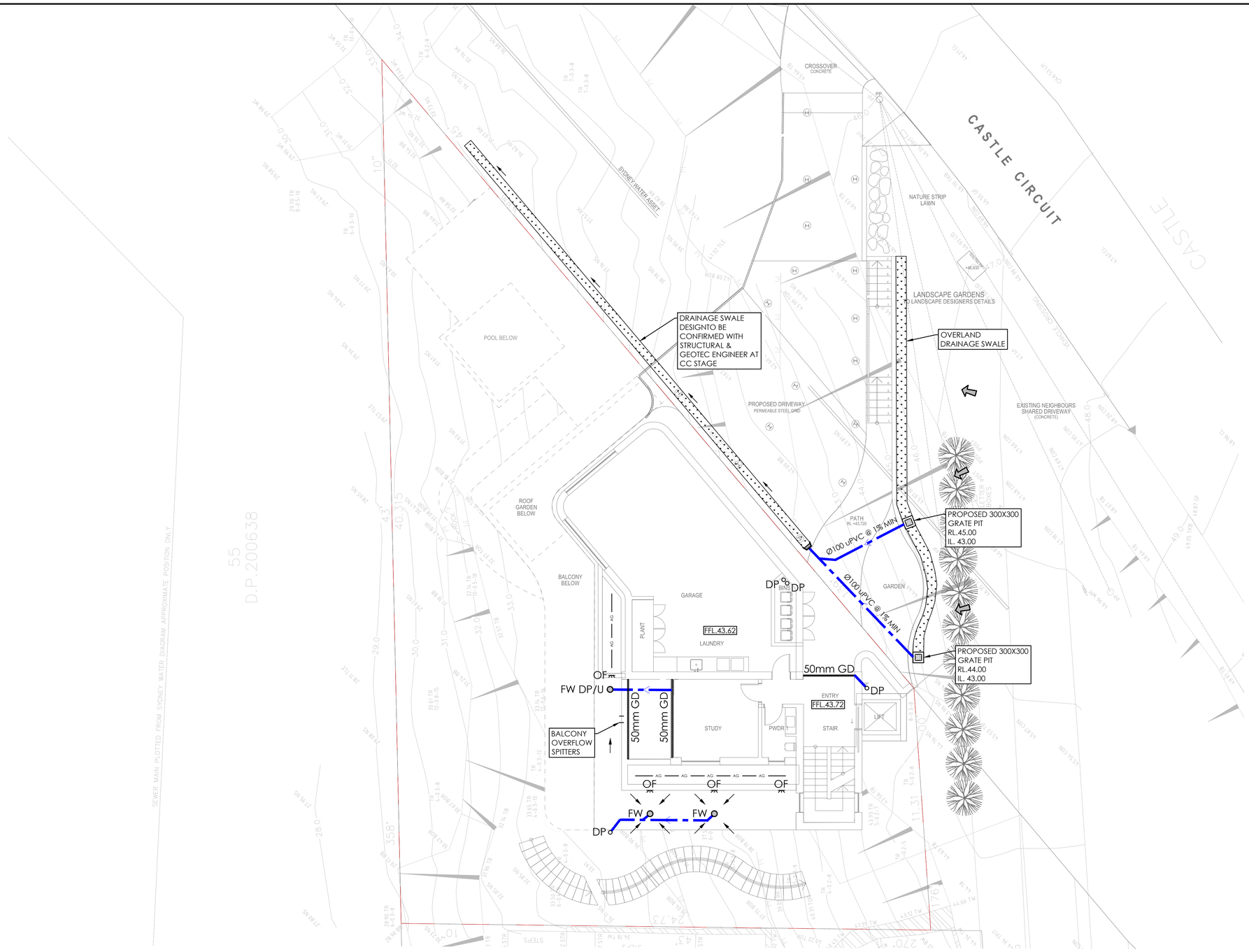
DRAWING TITLE
FIRST FLOOR STORMWATER MANAGEMENT PLAN

PROJECT No. TX17260.00 - C2.03 | DRAWING No. | ISSUE B




## LEGEND - STORMWATER

| SYMBOL | DESCRIPTION |
|---|---|
| x 99.99 | EXISTING SPOT LEVEL |
| | EXISTING CONTOUR LEVEL |
| AG | AG. LINE @ 1.0% MIN. U.N.O. |
| | uPVC STORMWATER PIPE @ 1.0% MIN. U.N.O |
| | uPVC STORMWATER PIPE @ 1.0% MIN. TO RWT |
| DP | Ø100 uPVC DOWNPIPE |
| | GRATED INLET PIT (GIP) (U.N.O.) |
| RWO | RAINWATER OUTLET |
| FW | FLOOR WASTE |
| | OVERLAND FLOW PATH |
| GD | GRATED DRAIN |
| 99.99 | DESIGN LEVEL |
| TK. | TOP OF KERB |
| RL. | REDUCE LEVEL |
| IL. | INVERT LEVEL |
| FFL. | FINISHED FLOOR LEVEL |

# LEVEL 4 STORMWATER MANAGEMENT PLAN

SCALE 1:100

**WARNING:**
BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF SERVICES IF SHOWN, ARE INDICATIVE ONLY AND NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES HAVE BEEN DOCUMENTED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE WORKS AFFECTED AREAS PRIOR TO ANY ON-SITE EXCAVATION.

**SERVICES NOTE:**
1. EXISTING SERVICES SHOWN ARE BASED ON SURVEY DATA RECEIVED BY THIS OFFICE.
2. ALL EXISTING SERVICES ARE SHOWN DIAGRAMMATIC ONLY. ALL SERVICES ARE TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.

**NOTE:**
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1.0m 0.0 2.0 4.0 6.0 8.0 10.0m

SCALE 1:100 AT A1 SHEET | 1:200 AT A3 SHEET

| AMENDMENTS | DATE | ISSUE | BY |
|---|---|---|---|
| ISSUED FOR DA | 02.05.2023 | B | JO.R |
| ISSUED FOR INFORMATION | 20.04.2023 | A | JO.R |

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NORTH POINT U.N.O.

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CADENCE & CO PTY LTD
7/287 MONA VALE ROAD
TERREY HILLS NSW 2084

PROJECT
PROPOSED NEW DWELLING
60 CASTLE CIRCUIT,
SEAFORTH NSW 2092

| DESIGNED | DRAWN | DATE | SIZE | CAD REF |
|---|---|---|---|---|
| JO.R. | JO.R. | MAR 23 | A1 | TX17260.00 - C01 |

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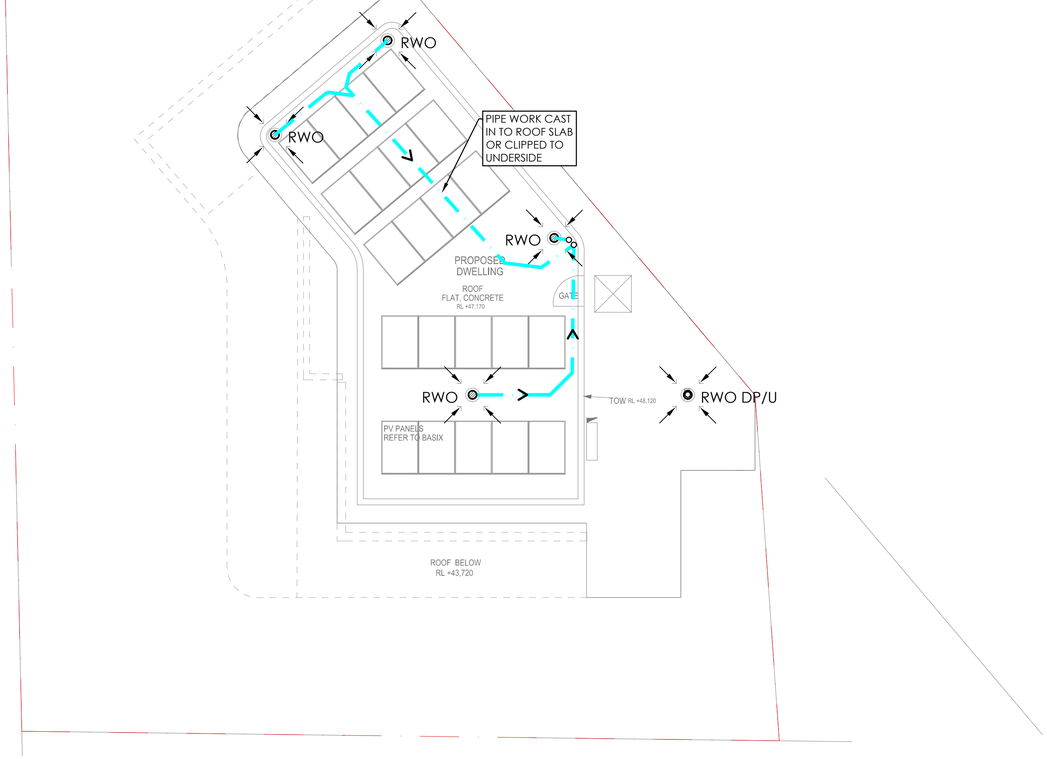
TO BE PRINTED IN COLOUR

DRAWING TITLE
ROOF STORMWATER MANAGEMENT PLAN

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C2.04 | B |

## LEGEND - STORMWATER

| SYMBOL | DESCRIPTION |
|---|---|
| x 99.99 | EXISTING SPOT LEVEL |
| | EXISTING CONTOUR LEVEL |
| AG | AG. LINE @ 1.0% MIN. U.N.O. |
| | uPVC STORMWATER PIPE @ 1.0% MIN. U.N.O |
| | uPVC STORMWATER PIPE @ 1.0% MIN. TO RWT |
| DP | Ø100 uPVC DOWNPIPE |
| | GRATED INLET PIT (GIP) (U.N.O.) |
| RWO | RAINWATER OUTLET |
| FW | FLOOR WASTE |
| | OVERLAND FLOW PATH |
| GD | GRATED DRAIN |
| 99.99 | DESIGN LEVEL |
| TK. | TOP OF KERB |
| RL. | REDUCE LEVEL |
| IL. | INVERT LEVEL |
| FFL. | FINISHED FLOOR LEVEL |




## ROOF STORMWATER MANAGEMENT PLAN

SCALE 1:100

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1.0m 0.0 2.0 4.0 6.0 8.0 10.0m

SCALE 1:100 AT A1 SHEET | 1:200 AT A3 SHEET

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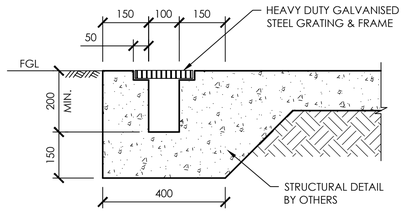
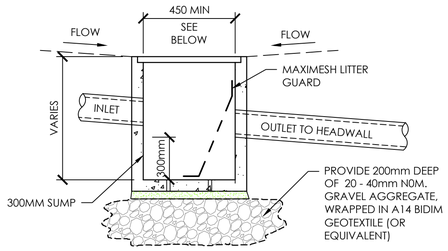
ROOF STORMWATER MANAGEMENT PLAN

PROJECT No. TX17260.00 - C2.04 | DRAWING No. C2.04 | ISSUE B




## TYPICAL GRATED DRAIN (GD) DETAIL

SCALE 1:10

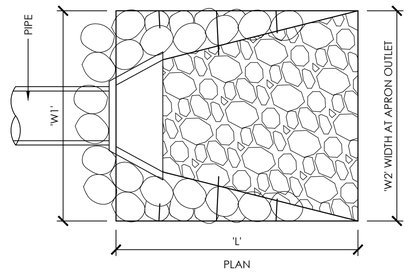



## TYPICAL SILT ARRESTOR PIT DETAIL

N.T.S.

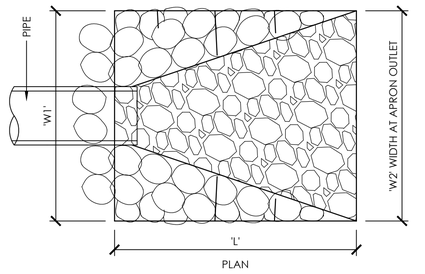
450 X 450 PLAN INTERNAL PIT DIMENSIONS FOR PITS LESS THAN 600 DEEP
600 X 600 PLAN INTERNAL PIT DIMENSIONS FOR PITS LESS THAN 900 DEEP
600 X 900 PLAN INTERNAL PIT DIMENSIONS FOR PITS 900 TO 1200 DEEP
900 X 900 PLAN INTERNAL PIT DIMENSIONS FOR PITS GREATER THAN 1200 DEEP

**NOTE:** STORMWATER PITS LESS THAN 600 SQUARE AND 600 DEEP MAY BE REPLACED WITH PLASTIC PITS IF NOT LOCATED IN ROADWAYS AND WRITTEN PERMISSION IS OBTAINED FROM THE ENGINEER.




## ROCK SCOUR PROTECTION HEADWALL DETAIL

N.T.S.

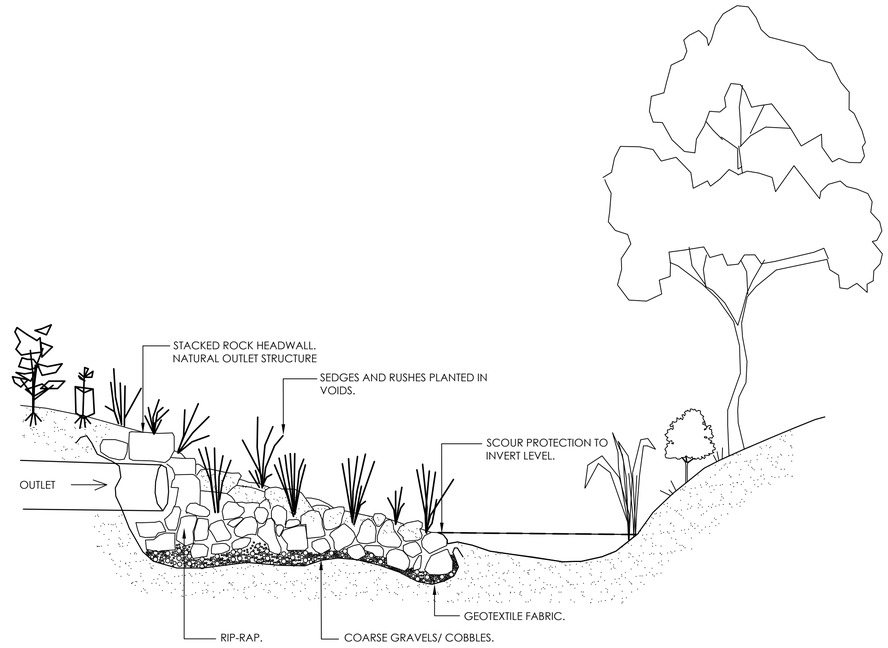



## ROCK SCOUR PROTECTION DETAIL

N.T.S.

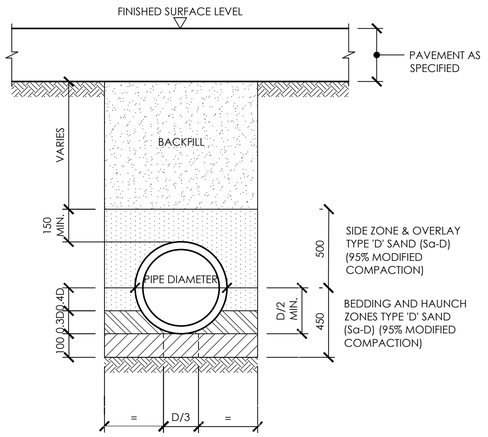
## ROCK SCOUR SCHEDULE

| DESCRIPTION | ROCK SIZES | | L | W1 | W2 | THICKNESS |
|---|---|---|---|---|---|---|
| | $D_{50}$ | $D_{10}$ | | | | T |
| HW1 AND HW3 | 200 | 100 | 1125 | 1125 | 1725 | 200 |



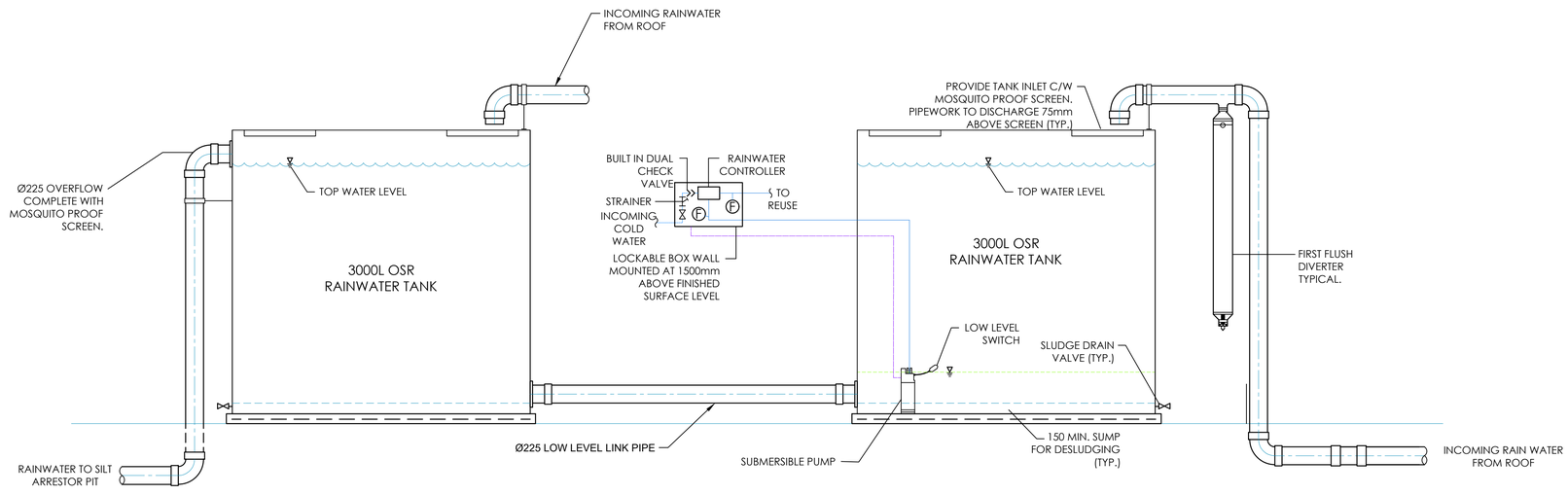

## OUTLET DETAIL

NTS (SOURCE: NSW OFFICE OF WATER GUIDELINES)




## DRAINAGE TRENCH BACKFILLING

SCALE 1:20 AT A1




## RAINWATER RE-USE TANK DETAIL

N.T.S.

| | | | |
|---|---|---|---|
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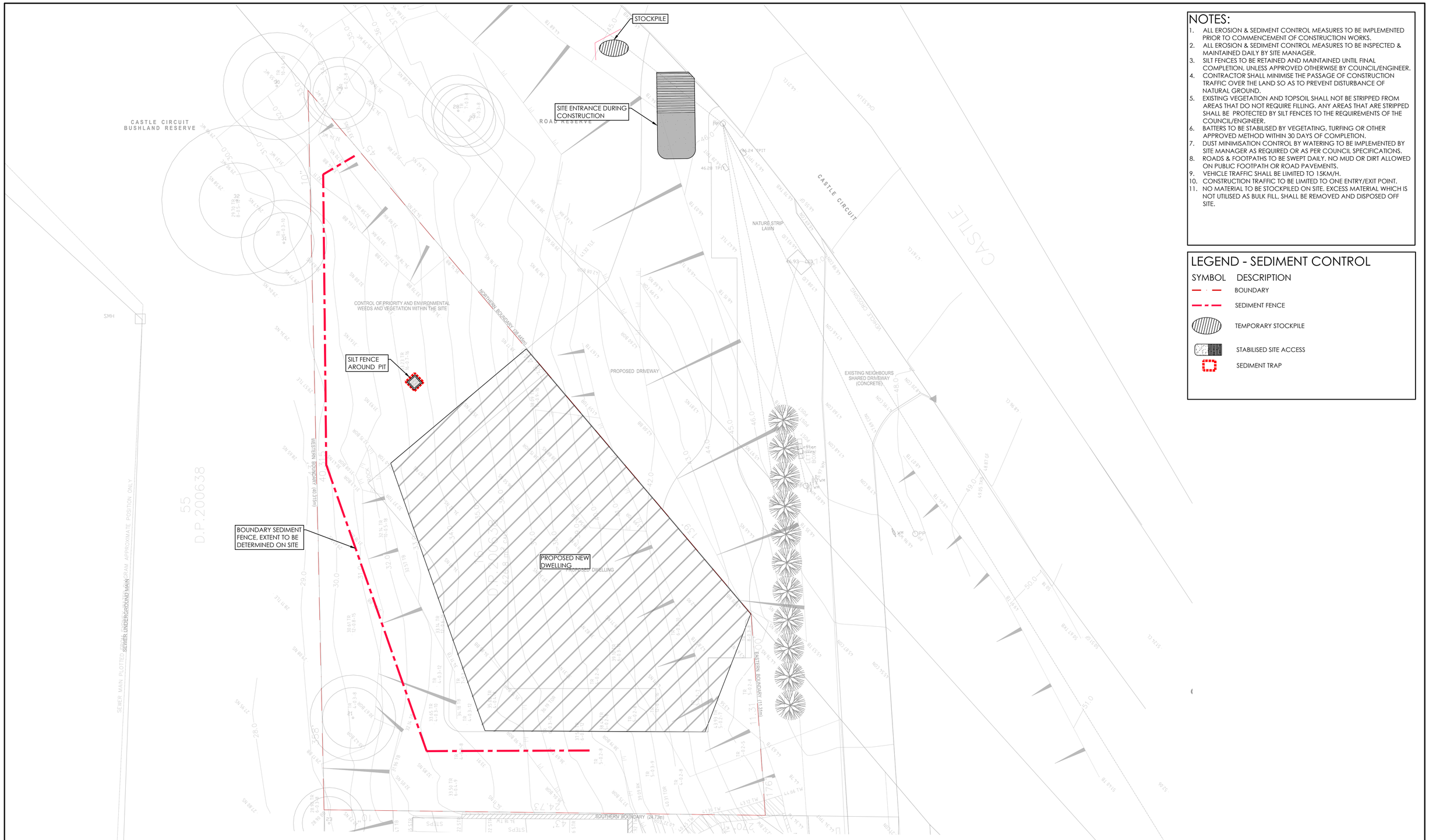
STORMWATER MANAGEMENT DETAILS

PROJECT No. TX17260.00 - DRAWING No. C2.05 ISSUE B




## NOTES:

1. ALL EROSION & SEDIMENT CONTROL MEASURES TO BE IMPLEMENTED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS.
2. ALL EROSION & SEDIMENT CONTROL MEASURES TO BE INSPECTED & MAINTAINED DAILY BY SITE MANAGER.
3. SILT FENCES TO BE RETAINED AND MAINTAINED UNTIL FINAL COMPLETION, UNLESS APPROVED OTHERWISE BY COUNCIL/ENGINEER.
4. CONTRACTOR SHALL MINIMISE THE PASSAGE OF CONSTRUCTION TRAFFIC OVER THE LAND SO AS TO PREVENT DISTURBANCE OF NATURAL GROUND.
5. EXISTING VEGETATION AND TOPSOIL SHALL NOT BE STRIPPED FROM AREAS THAT DO NOT REQUIRE FILLING. ANY AREAS THAT ARE STRIPPED SHALL BE PROTECTED BY SILT FENCES TO THE REQUIREMENTS OF THE COUNCIL/ENGINEER.
6. BATTERS TO BE STABILISED BY VEGETATING, TURFING OR OTHER APPROVED METHOD WITHIN 30 DAYS OF COMPLETION.
7. DUST MINIMISATION CONTROL BY WATERING TO BE IMPLEMENTED BY SITE MANAGER AS REQUIRED OR AS PER COUNCIL SPECIFICATIONS.
8. ROADS & FOOTPATHS TO BE SWEPT DAILY. NO MUD OR DIRT ALLOWED ON PUBLIC FOOTPATH OR ROAD PAVEMENTS.
9. VEHICLE TRAFFIC SHALL BE LIMITED TO 15KM/H.
10. CONSTRUCTION TRAFFIC TO BE LIMITED TO ONE ENTRY/EXIT POINT.
11. NO MATERIAL TO BE STOCKPILED ON SITE. EXCESS MATERIAL WHICH IS NOT UTILISED AS BULK FILL, SHALL BE REMOVED AND DISPOSED OFF SITE.

## LEGEND - SEDIMENT CONTROL

| SYMBOL | DESCRIPTION |
|---|---|
| | BOUNDARY |
| | SEDIMENT FENCE |
| | TEMPORARY STOCKPILE |
| | STABILISED SITE ACCESS |
| | SEDIMENT TRAP |

## SEDIMENT & EROSION CONTROL PLAN

SCALE 1:100

1.0m 0.0 2.0 4.0 6.0 8.0 10.0m

SCALE 1:100 AT A1 SHEET | 1:200 AT A3 SHEET

| | | | |
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SEDIMENT & EROSION CONTROL PLAN

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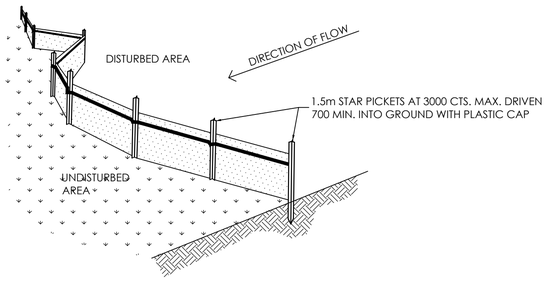
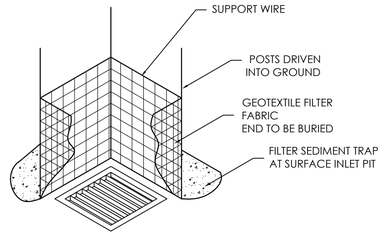
|---|---|---|
| TX17260.00 | C3.00 | B |




## TYPICAL SILT FENCE DETAIL

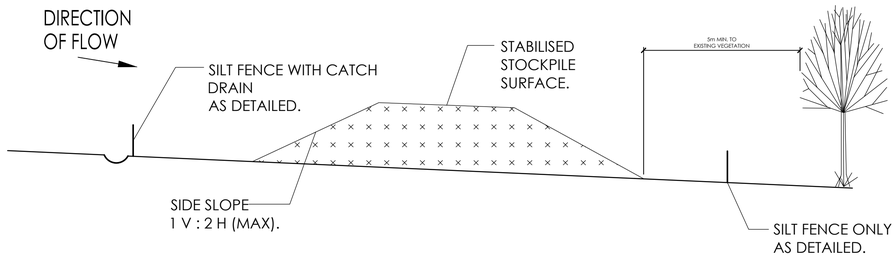
N.T.S.

PROVIDE 1m RETURNS AT 30m INTERVALS TYPICAL.




## TYPICAL SEDIMENT TRAP AT SURFACE INLET PIT

N.T.S.

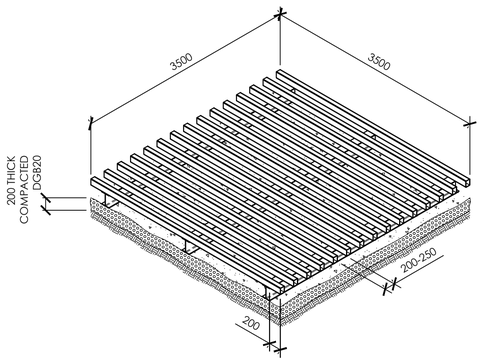



## TYPICAL STOCKPILE DETAIL

N.T.S.

## 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.




## SHAKER PAD ( CATTLE-GRID)

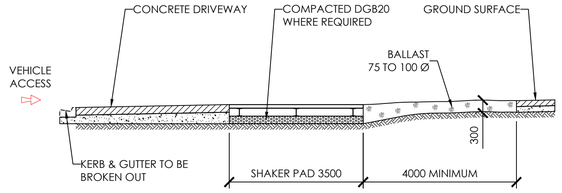
A CORRECTLY DESIGNED AND INSTALLED SHAKER PAD WILL ASSIST IN PREVENTING SEDIMENT TRANSFER FROM A SITE. ANY STABILISED ACCESS POINT (SAP) CAN BE DESIGNED WITH A SHAKER PAD (COMPULSORY IN TYPE II SAP'S).

SHAKER PADS CAN BE DESIGNED AND CONSTRUCTED TO ENABLE RE-USE ON FUTURE PROJECTS.

THE SHAKER PAD:

- MUST BE DESIGNED AND CERTIFIED BY A PRACTICING STRUCTURAL ENGINEER. THE CERTIFIED DESIGN SHOULD BE SUBMITTED WITH THE RELEVANT APPLICATION
- CAN BE CONSTRUCTED FROM ANY SUITABLE MATERIAL
- MUST BE LOCATED ON A SUITABLE PREPARED AND COMPACTED SUB-GRADE/BASE MATERIAL
- MUST BE SITUATED SUCH THAT THE RUNGS OF THE SHAKER PAD ARE LEVEL WITH THE ADJOINING NATURAL SURFACE
- MUST BE A MINIMUM 3.5M IN LENGTH
- MUST BE A MINIMUM 3.5M IN WIDTH
- MUST HAVE CLEAR SPACING BETWEEN RUNGS OF 200 - 250MM
- RUNGS MUST HAVE A MAXIMUM WIDTH (BEARING AREA) OF 75MM
- MUST HAVE A MINIMUM CLEAR DEPTH OF 300MM IE FROM THE TOP OF THE RUNG TO THE FINISHED SUB-GRADE/BASE LEVEL

THE SHAKER PAD MUST BE PROVIDED WITH SUITABLE BARRIERS AT THE SIDES TO ENSURE THAT ALL TYRES OF VEHICLES LEAVING THE SITE TRAVERSE THE DEVICE.




## STABILISED CONSTRUCTION ENTRANCE 'TRUCK SHAKER'

N.T.S. (DIMENSIONS IN MILLIMETERS)

## NOTES

THE TEMPORARY VEHICULAR CROSSING MUST:

CONNECT TO AN EXISTING GUTTER LAYBACK (WHERE KERB AND GUTTER EXIST). IF A GUTTER LAYBACK DOES NOT EXIST THEN THE CONNECTION MUST BE MADE TO THE GUTTER BY REMOVING THE ADJACENT KERB SECTION ONLY. CONNECT TO A DISH CROSSING (WHERE KERB AND GUTTER DOES NOT EXIST). IF A DISH CROSSING DOES NOT EXIST, THEN IT MUST BE CONSTRUCTED IN ACCORDANCE WITH DETAILS CONTAINED IN COUNCIL'S ISSUED FOOTPATH CROSSING LEVELS.

IT SHOULD BE NOTED THAT THESE TYPES OF SAPS ARE CONSIDERED TO BE APPLICABLE FOR THE MAJORITY OF ACTIVITIES HOWEVER SOME SITES MAY REQUIRE SPECIAL CONSIDERATION.

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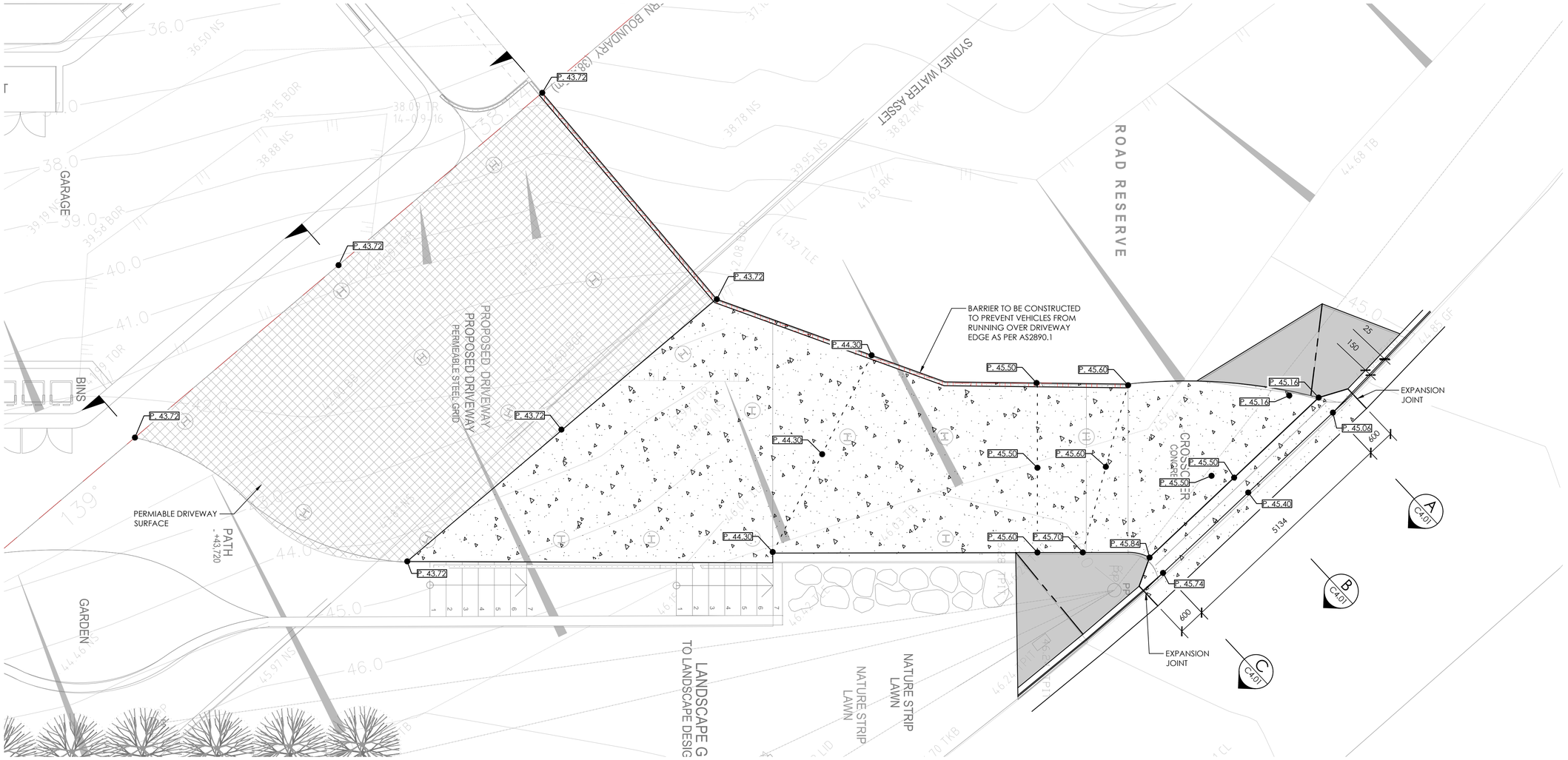
| TX17260.00 | C3.01 | B |




## VEHICLE CROSSING PLAN

SCALE 1:50 AT A1

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0.5m 0.0 1.0 2.0 3.0 4.0 5.0m

SCALE 1:50 AT A1 SHEET | 1:100 AT A3 SHEET

| | | | |
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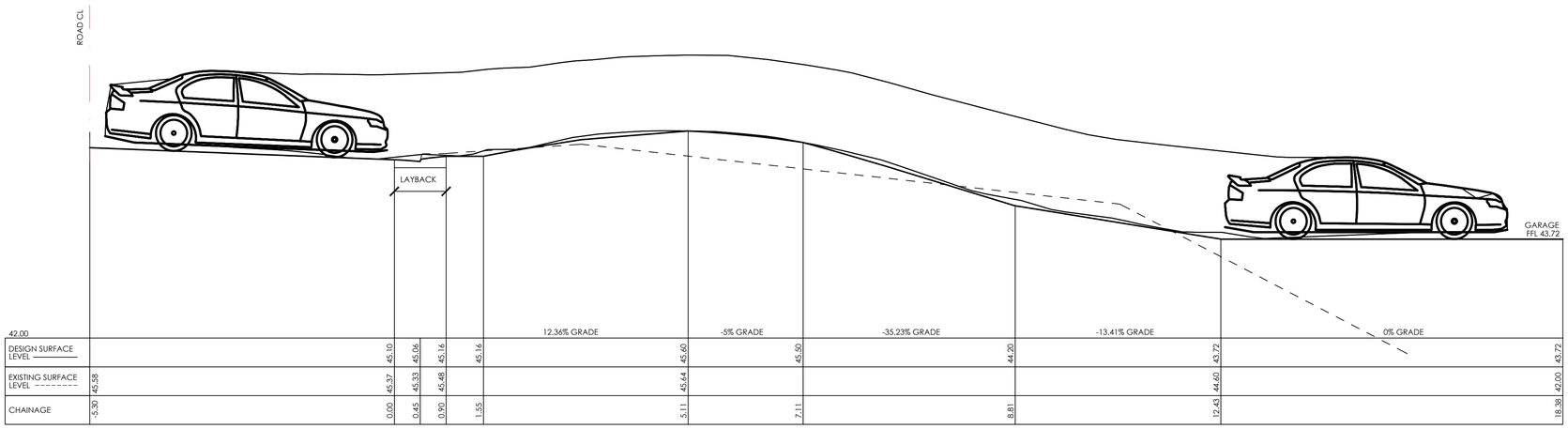
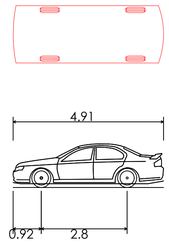
DRAWING TITLE
VEHICLE CROSSING PLAN

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C4.00 | A |

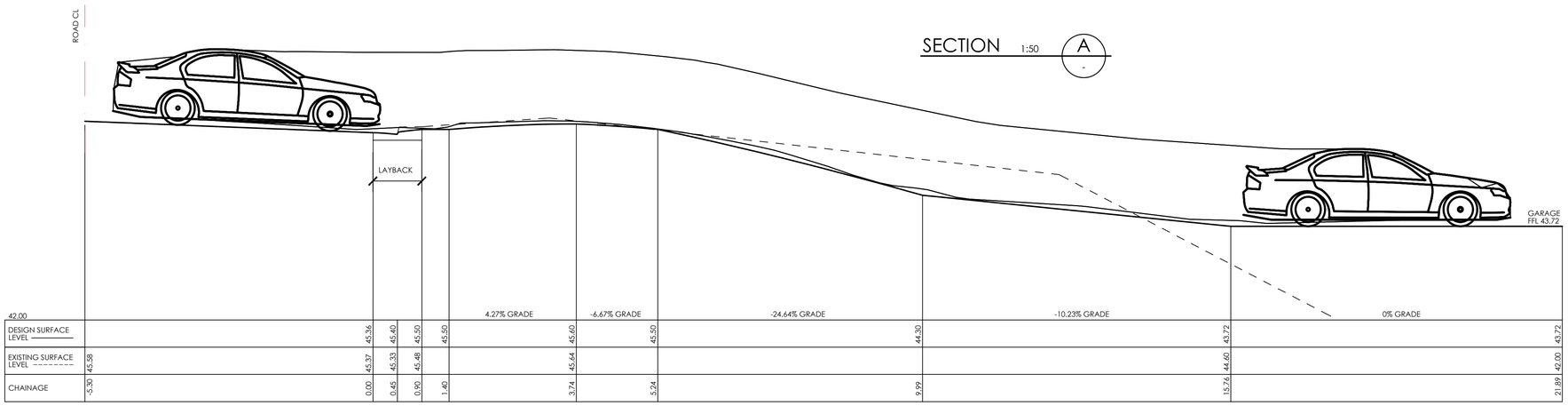



B85 Ground Clearance (2004)

| | |
|---|---|
| Overall Length | 4.910m |
| Overall Width | 1.870m |
| Overall Body Height | 1.421m |
| Min Body Ground Clearance | 0.120m |
| Track Width | 1.770m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 8.000m |

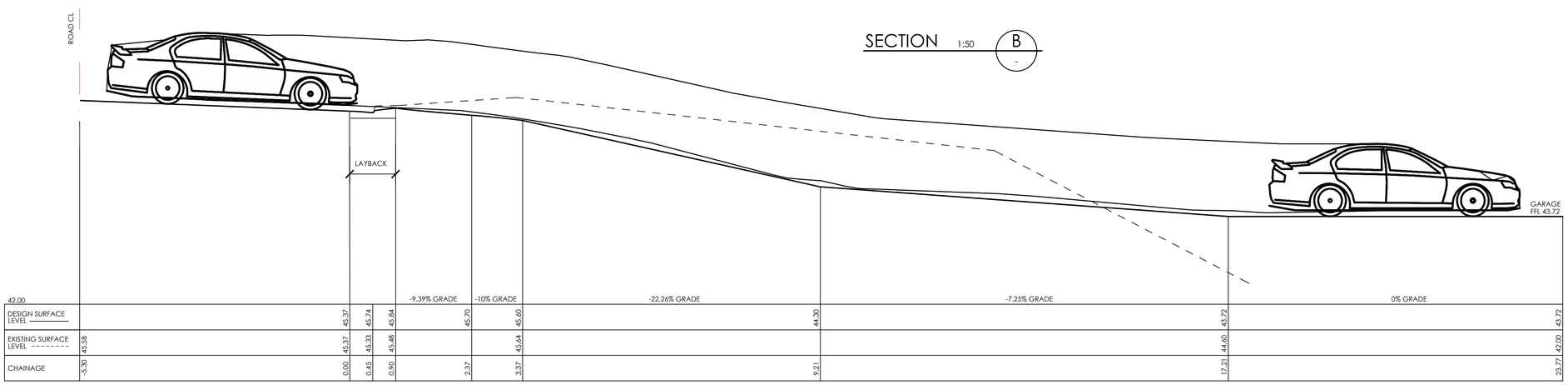
SECTION 1:50 A -




## VERTICAL CLEARANCE ANALYSIS

- VERTICAL CLEARANCE ANALYSIS UNDERTAKEN USING CIVIL3D2020 VEHICLE TRACKING MODULE.
- LONGITUDINAL SECTION 1V:1H.
- VEHICLE/S USED IN VERTICAL CLEARANCE ANALYSIS,
  - B85 TEMPLATE AS2890.1:2004.
- VERTICAL CLEARANCE RESULTS:
  - VEHICLE CLEARS SURFACE

SECTION 1:50 B -




SECTION 1:50 C -

NOTE:
THIS IS A PLANNING DRAWING ONLY, FOR THE PURPOSE OF CONCEPTUAL DESIGN AND/OR PLANNING. FURTHER DETAILED ENGINEERING DESIGN INCLUDING SPECIFICATIONS, SIZING AND STORMWATER INVERTS TO BE PROVIDED PRIOR TO CONSTRUCTION CERTIFICATE AND FOR CONSTRUCTION ISSUE.

0.5m 0.0 1.0 2.0 3.0 4.0 5.0m

SCALE 1:50 AT A1 SHEET | 1:100 AT A3 SHEET

| ISSUED FOR DA | 02.05.2023 | A | JO.R |
|---|---|---|---|
| AMENDMENTS | DATE | ISSUE | BY |

NOT FOR CONSTRUCTION

NORTH POINT U.N.O.

CLIENT
CADENCE & CO PTY LTD
7/287 MONA VALE ROAD
TERREY HILLS NSW 2084

PROJECT
PROPOSED NEW DWELLING
60 CASTLE CIRCUIT,
SEAFORTH NSW 2092

| DESIGNED | DRAWN | DATE | SIZE | CAD REF |
|---|---|---|---|---|
| JO.R. | JO.R. | MAR 23 | A1 | TX17260.00 - C01 |

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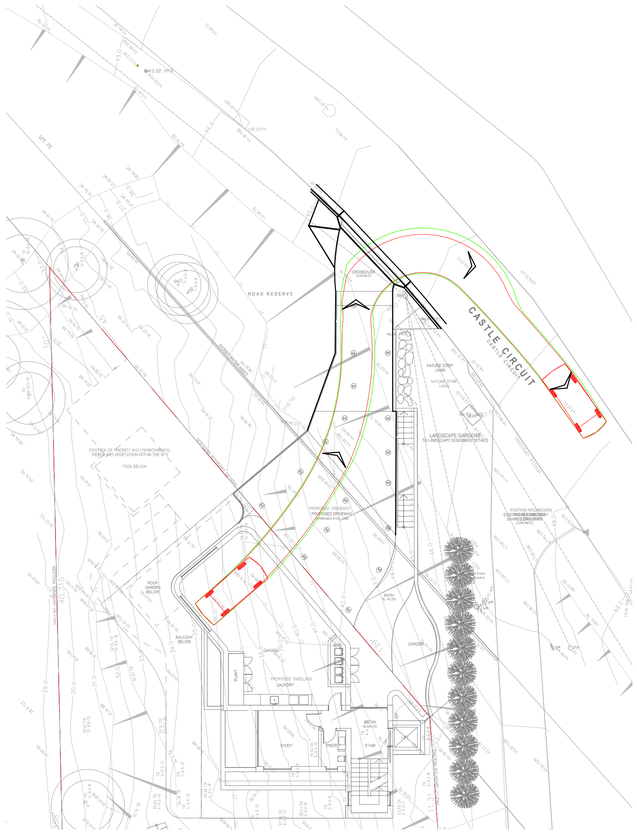
DRAWING TITLE
VEHICLE CROSSING SECTIONS

| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C4.01 | A |

# SWEPT PATH ANALYSIS

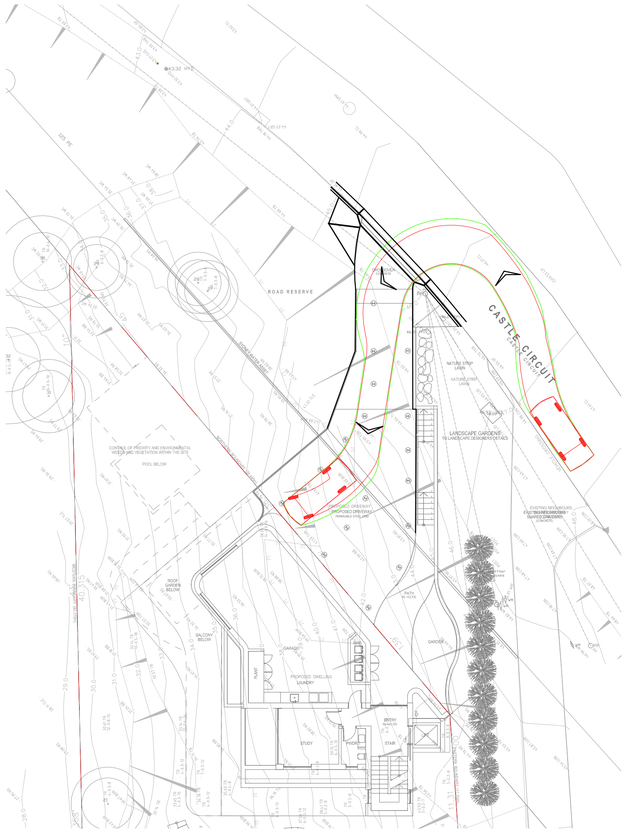
| SYMBOL | DESCRIPTION |
|---|---|
| | WHEEL PATH EXTENT (FORWARD) |
| | VEHICLE CHASSIS ENVELOPE (FORWARD) |
| | WHEEL PATH EXTENT (REVERSE) |
| | VEHICLE CHASSIS ENVELOPE (REVERSE) |
| | ARROW FORWARD DIRECTION |
| | ARROW REVERSE DIRECTION |

- VEHICLE SWEPT PATH ANALYSIS UNDERTAKEN USING CIVIL3D2020 VEHICLE TRACKING MODULE.
- DESIGN SPEED
  - FORWARD = 5km/h U.N.O.
  - REVERSE = 2.5km/h U.N.O.
- VEHICLE/S USED IN SWEPT PATH ANALYSIS,
  - B85 TEMPLATE AS2890.1:2004 (REALISTIC RADIUS).



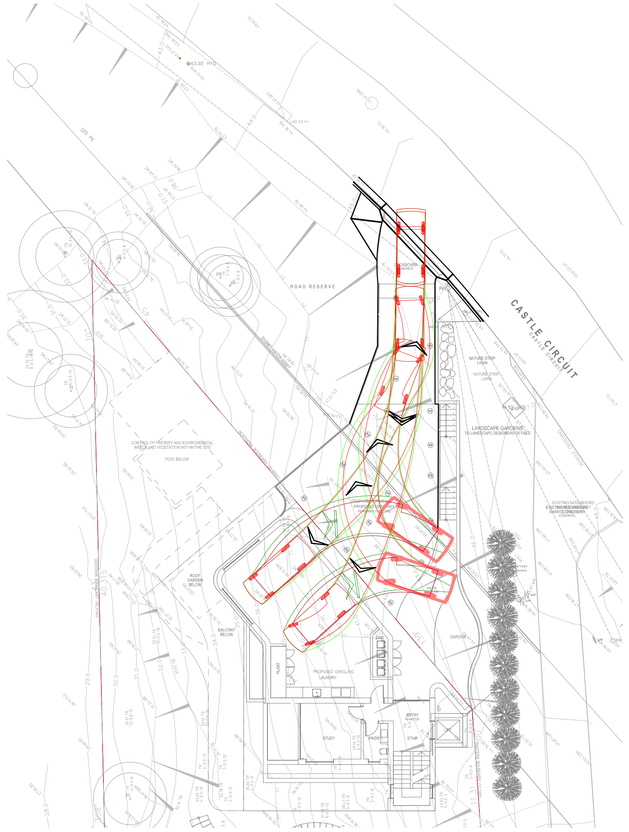

VEHICLE EXIT PATH

SCALE 1:200 AT A1




VEHICLE ENTRY PATH

SCALE 1:200 AT A1




VEHICLE TURNAROUND PATH

SCALE 1:200 AT A1

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2.0m 0.0 4.0 8.0 12.0 16.0 20.0m

SCALE 1:200 AT A1 SHEET | 1:400 AT A3 SHEET

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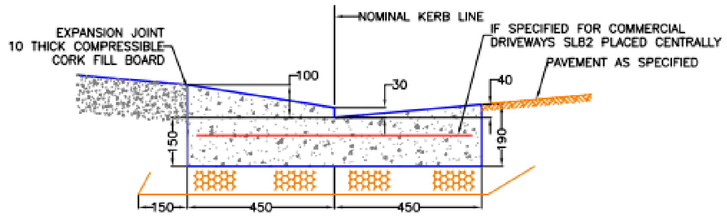
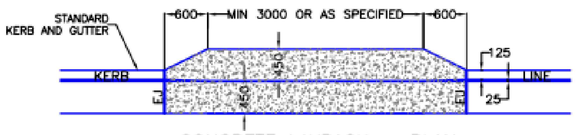
DRAWING TITLE
VEHICLE SWEPT PATH ANALYSIS

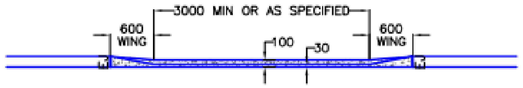
| PROJECT No. | DRAWING No. | ISSUE |
|---|---|---|
| TX17260.00 | C4.02 | A |



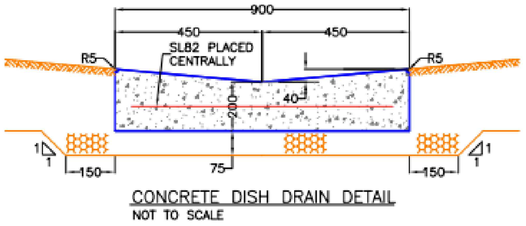

STANDARD CONCRETE LAYBACK DETAIL
NOT TO SCALE



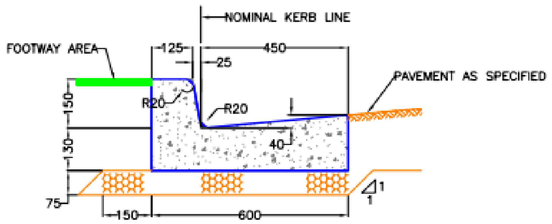

CONCRETE LAYBACK – PLAN
NOT TO SCALE



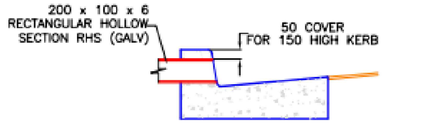

CONCRETE LAYBACK – FRONT ELEVATION
NOT TO SCALE




CONCRETE DISH DRAIN DETAIL
NOT TO SCALE




CONCRETE KERB & GUTTER DETAIL
NOT TO SCALE




PRIVATE PIPE CONNECTION TO KERB DETAIL
SCALE – NOT TO SCALE

## STANDARD KERB AND GUTTER NOTES

1. KERB AND GUTTER, CONCRETE EDGING, DISH DRAINS AND THE LIKE SHALL BE POURED IN PLAIN CONCRETE AND FINISHED WITH A STEEL TROWEL.
2. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 25MPa AT 28 DAYS.
3. FOR ELEMENTS CONTRUCTED USING SLIPFORM, REINFORCEMENT WILL NOT BE REQUIRED PROVIDED THAT THE CONCRETE COMPRESSIVE STRENGTH IS NOT LESS THAN 32MPa AT 28 DAYS.
4. WHERE COUNCIL OR ITS REPRESENTATIVE DIRECTS THAT THE GUTTER IS TO BE RETAINED, THE CONTRACTOR SHALL PLACE A 75mm DEEP SAW CUT IN THE GUTTER INVERT AND REMOVE THE KERB AND OR LAYBACK.
5. WHERE EXISTING KERB AND ASSOCIATED ELEMENT IS TO BE REPLACED SAW CUT IN THE ASPHALT MINIMUM 500mm FROM LIP OF GUTTER, COMPACT SUBGRADE AND INSTALL ASPHALT STRIP TO MAKE SMOOTH TRANSITION.
6. THE CONSTRUCTION OF ALL VEHICLE CROSSINGS AND ASSOCIATED WORKS WITHIN THE ROAD RESERVE MUST BE UNDERTAKEN BY A COUNCIL APPROVED CONTRACTOR.

| No | DATE | AMENDMENTS | INITIALS |
|---|---|---|---|
| 1 | 16/06/22 | INITIATE DRAWINGS | JM |

LEVEL DATUM: AHD
CO-ORD SYSTEM: N.A.
SURVEYED: N.A.
WORK-AS-EXECUTED BY: N.A.
DATE: 00/00/0000

PLOT DATE: 07/07/2022
PRELIMINARY
DRAWN BY: THOMAS LAU
DATED: 20/04/18
INITIATED BY: STEVE WATSON (ASSET MANAGER)

DESIGN APPROVED
DESIGNED BY: THOMAS LAU
DATED: 20/04/18
APPROVED BY: E. HAVENSTEIN
DESIGN MANAGER

APPROVED FOR CONSTRUCTION
PROJ. MGR: N.A.
DATE: (00/00/0000)
APPROVED BY: THOMAS LAU
PRINCIPAL ENGINEER

A 0 0.10 0.20 0.30 0.40 0.50 METRES 1:20 @ A3
B 0 0.2 0.4 0.6 0.8 1 METRES 1:40 @ A3
C 0 0.5 1.0 1.5 2.0 2.5 METRES 1:100 @ A3

northern beaches council

STANDARD DRAWINGS
CONCRETE KERB DETAILS AND NOTES
CONCRETE DISH DRAIN AND LAYBACK DETAILS & NOTES

DRAWING NO. 3 REVISION: 1

ISSUED FOR DA 02.05.2023 A JO.R
AMENDMENTS DATE ISSUE BY

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NORTH POINT U.N.O.

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CADENCE & CO PTY LTD
7/287 MONA VALE ROAD
TERREY HILLS NSW 2084

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PROPOSED NEW DWELLING
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|---|---|---|---|---|
| JO.R. | JO.R. | MAR 23 | A1 | TX17260.00 - C01 |

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DRAWING TITLE
COUNCIL'S STANDARD DETAILS

PROJECT No. TX17260.00
DRAWING No. C4.03
ISSUE A