



DREAMS ARE BUILT

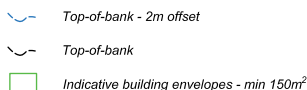
Building Services Pty Ltd


# Appendix 3

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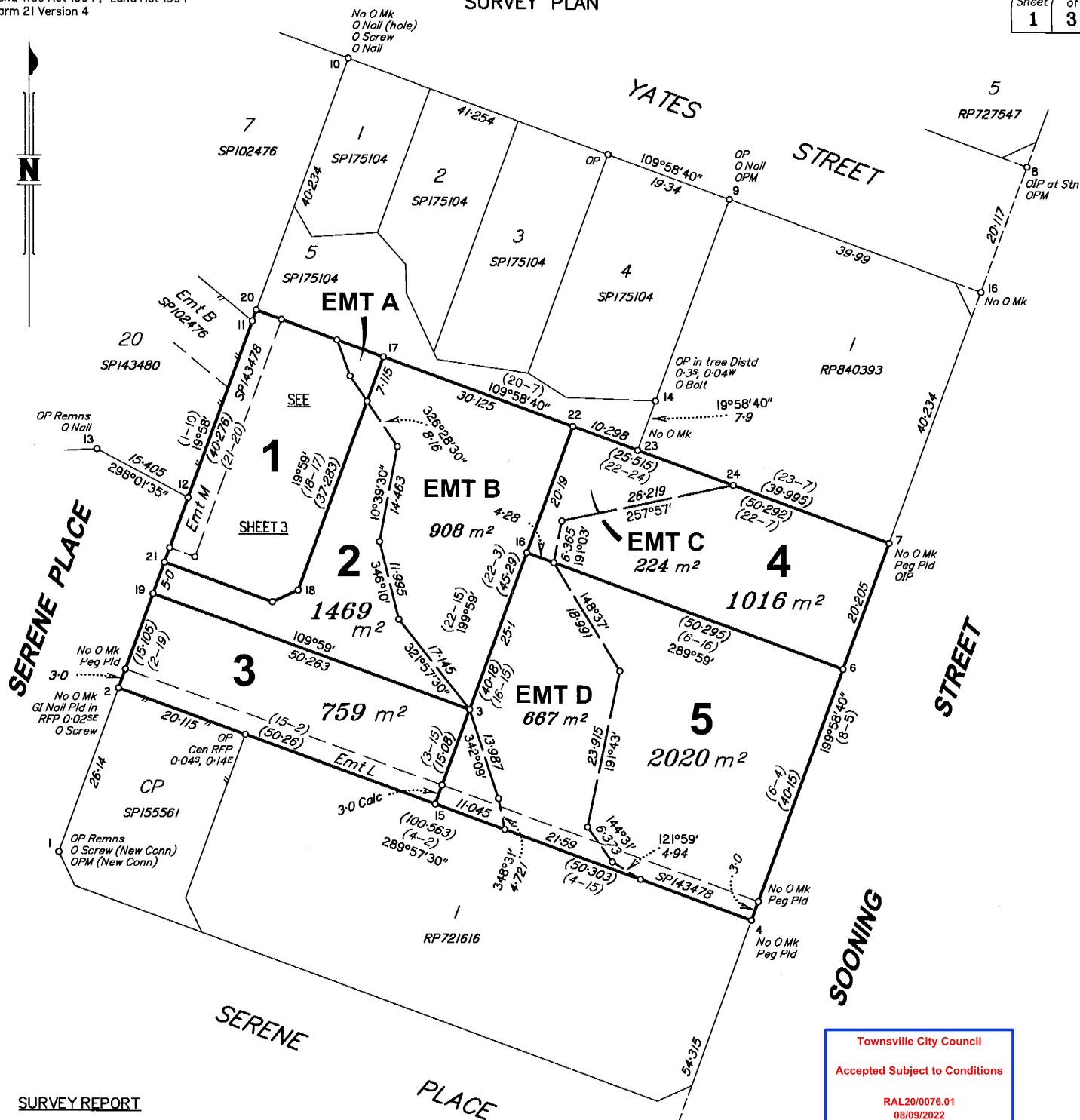


**RAL20/0076**  
**02/06/2022**



<b>AMT</b> A - DA ISSUE / DRAFT B - DA R-Response		<b>BY DATE</b> iss: 08/20/2020 iss: March/2022		<b>PLAN TITLE:</b> PLAN OF SUBDIVISION	<b>Property Details</b> <b>Site Address:</b> 2800 Sooning Street, MELLY BAY QLD 4810 <b>Lot 1 on RP 727801</b> <b>Road Property Description:</b> 2800 Sooning Street, MELLY BAY QLD 4810 <b>Lot 1 on RP 727801</b> <b>Site Area:</b> 2800 Sooning Street & Serrano Place Low density residential zoning <b>Road Frontage:</b> 2800 Sooning Street <b>Nearest Precincts:</b> R-10, R-15, R-20, R-25, R-30, R-35, R-40, R-45, R-50, R-55, R-60, R-65, R-70, R-75, R-80, R-85, R-90, R-95, R-100, R-105, R-110, R-115, R-120, R-125, R-130, R-135, R-140, R-145, R-150, R-155, R-160, R-165, R-170, R-175, R-180, R-185, R-190, R-195, R-200, R-205, R-210, R-215, R-220, R-225, R-230, R-235, R-240, R-245, R-250, R-255, R-260, R-265, R-270, R-275, R-280, R-285, R-290, R-295, R-300, R-305, R-310, R-315, R-320, R-325, R-330, R-335, R-340, R-345, R-350, R-355, R-360, R-365, R-370, R-375, R-380, R-385, R-390, R-395, R-400, R-405, R-410, R-415, R-420, R-425, R-430, R-435, R-440, R-445, R-450, R-455, R-460, R-465, R-470, R-475, R-480, R-485, R-490, R-495, R-500, R-505, R-510, R-515, R-520, R-525, R-530, R-535, R-540, R-545, R-550, R-555, R-560, R-565, R-570, R-575, R-580, R-585, R-590, R-595, R-600, R-605, R-610, R-615, R-620, R-625, R-630, R-635, R-640, R-645, R-650, R-655, R-660, R-665, R-670, R-675, R-680, R-685, R-690, R-695, R-700, R-705, R-710, R-715, R-720, R-725, R-730, R-735, R-740, R-745, R-750, R-755, R-760, R-765, R-770, R-775, R-780, R-785, R-790, R-795, R-800, R-805, R-810, R-815, R-820, R-825, R-830, R-835, R-840, R-845, R-850, R-855, R-860, R-865, R-870, R-875, R-880, R-885, R-890, R-895, R-900, R-905, R-910, R-915, R-920, R-925, R-930, R-935, R-940, R-945, R-950, R-955, R-960, R-965, R-970, R-975, R-980, R-985, R-990, R-995, R-1000, R-1005, R-1010, R-1015, R-1020, R-1025, R-1030, R-1035, R-1040, R-1045, R-1050, R-1055, R-1060, R-1065, R-1070, R-1075, R-1080, R-1085, R-1090, R-1095, R-1100, R-1105, R-1110, R-1115, R-1120, R-1125, R-1130, R-1135, R-1140, R-1145, R-1150, R-1155, R-1160, R-1165, R-1170, R-1175, R-1180, R-1185, R-1190, R-1195, R-1200, R-1205, R-1210, R-1215, R-1220, R-1225, R-1230, R-1235, R-1240, R-1245, R-1250, R-1255, R-1260, R-1265, R-1270, R-1275, R-1280, R-1285, R-1290, R-1295, R-1300, R-1305, R-1310, R-1315, R-1320, R-1325, R-1330, R-1335, R-1340, R-1345, R-1350, R-1355, R-1360, R-1365, R-1370, R-1375, R-1380, R-1385, R-1390, R-1395, R-1400, R-1405, R-1410, R-1415, R-1420, R-1425, R-1430, R-1435, R-1440, R-1445, R-1450, R-1455, R-1460, R-1465, R-1470, R-1475, R-1480, R-1485, R-1490, R-1495, R-1500, R-1505, R-1510, R-1515, R-1520, R-1525, R-1530, R-1535, R-1540, R-1545, R-1550, R-1555, R-1560, R-1565, R-1570, R-1575, R-1580, R-1585, R-1590, R-1595, R-1600, R-1605, R-1610, R-1615, R-1620, R-1625, R-1630, R-1635, R-1640, R-1645, R-1650, R-1655, R-1660, R-1665, R-1670, R-1675, R-1680, R-1685, R-1690, R-1695, R-1700, R-1705, R-1710, R-1715, R-1720, R-1725, R-1730, R-1735, R-1740, R-1745, R-1750, R-1755, R-1760, R-1765, R-1770, R-1775, R-1780, R-1785, R-1790, R-1795, R-1800, R-1805, R-1810, R-1815, R-1820, R-1825, R-1830, R-1835, R-1840, R-1845, R-1850, R-1855, R-1860, R-1865, R-1870, R-1875, R-1880, R-1885, R-1890, R-1895, R-1900, R-1905, R-1910, R-1915, R-1920, R-1925, R-1930, R-1935, R-1940, R-1945, R-1950, R-1955, R-1960, R-1965, R-1970, R-1975, R-1980, R-1985, R-1990, R-1995, R-2000, R-2005, R-2010, R-2015, R-2020, R-2025, R-2030, R-2035, R-2040, R-2045, R-2050, R-2055, R-2060, R-2065, R-2070, R-2075, R-2080, R-2085, R-2090, R-2095, R-2100, R-2105, R-2110, R-2115, R-2120, R-2125, R-2130, R-2135, R-2140, R-2145, R-2150, R-2155, R-2160, R-2165, R-2170, R-2175, R-2180, R-2185, R-2190, R-2195, R-2200, R-2205, R-2210, R-2215, R-2220, R-2225, R-2230, R-2235, R-2240, R-2245, R-2250, R-2255, R-2260, R-2265, R-2270, R-2275, R-2280, R-2285, R-2290, R-2295, R-2300, R-2305, R-2310, R-2315, R-2320, R-2325, R-2330, R-2335, R-2340, R-2345, R-2350, R-2355, R-2360, R-2365, R-2370, R-2375, R-2380, R-2385, R-2390, R-2395, R-2400, R-2405, R-2410, R-2415, R-2420, R-2425, R-2430, R-2435, R-2440, R-2445, R-2450, R-2455, R-2460, R-2465, R-2470, R-2475, R-2480, R-2485, R-2490, R-2495, R-2500, R-2505, R-2510, R-2515, R-2520, R-2525, R-2530, R-2535, R-2540, R-2545, R-2550, R-2555, R-2560, R-2565, R-2570, R-2575, R-2580, R-2585, R-2590, R-2595, R-2600, R-2605, R-2610, R-2615, R-2620, R-2625, R-2630, R-2635, R-2640, R-2645, R-2650, R-2655, R-2660, R-2665, R-2670, R-2675, R-2680, R-2685, R-2690, R-2695, R-2700, R-2705, R-2710, R-2715, R-2720, R-2725, R-2730, R-2735, R-2740, R-2745, R-2750, R-2755, R-2760, R-2765, R-2770, R-2775, R-2780, R-2785, R-2790, R-2795, R-2800, R-2805, R-2810, R-2815, R-2820, R-2825, R-2830, R-2835, R-
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# SURVEY REPORT

The northern end of the Sooning Street alignment has been fixed from SPI75104, with the southern end fixed from SPI43480

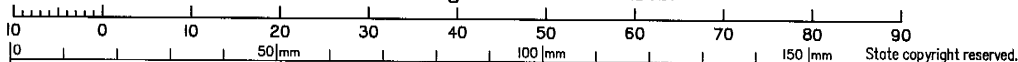
The Serene Place alignment (Nth-Sth) has been fixed from SPI55561.

The northern subject boundary has been fixed from OIP off Stn 7, origin RP840393 on the east end, and Remns of OP at Stn 11a. This has been validated with OIP off Stn 11 and OBolt off Stn 14.

The southern alignment of the subject lot has been fixed from OScrew off Stn 2 on the west end and deed distances used from Stn 8 down Sooning Street to Stn 5. This has been validated by OP found at Stn 2a.

Peg placed at all new corners, unless otherwise stated.

Scale 1:600 - Lengths are in metres.



I, Stephen JESS hereby certify that the land comprised in this plan was surveyed by me personally, and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 22/07/2022

Cadastral Surveyor

Date 9/8/2022

**Plan of Lots 1-5 and Emt A in Lot 1, Emt B in Lot 2, Emt C in Lot 4 & Emt D in Lot 5**

Cancelling Lot 1 on RP727081

LOCAL GOVERNMENT: TOWNSVILLE CITY

LOCALITY: NELLY BAY

Meridian: MGA Zone 55 vide SPI75104

Survey Records: No

Townsville City Council  
Accepted Subject to Conditions  
RAL20/0076.01  
08/09/2022



SP335558

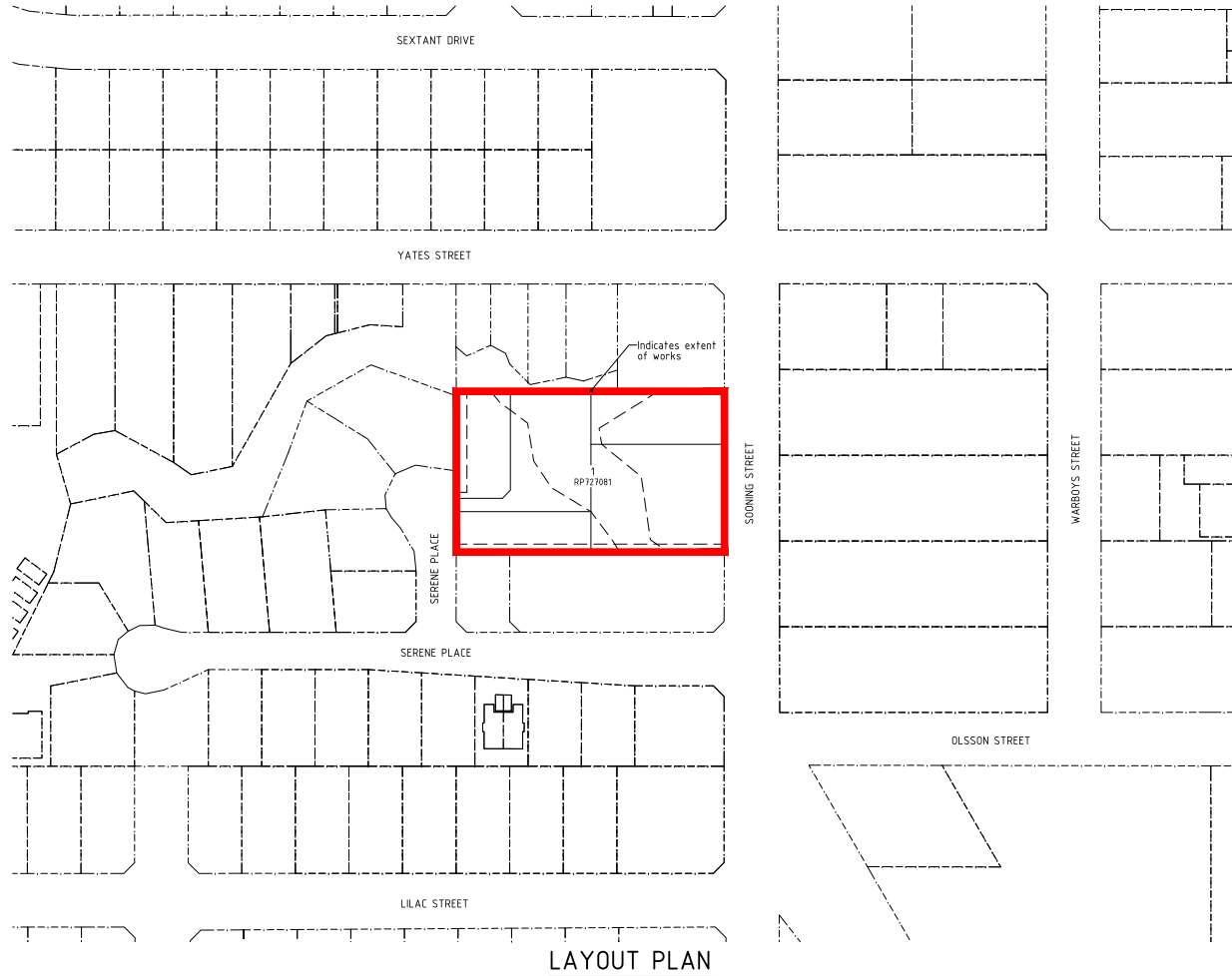
Scale: 1:600  
Format: STANDARD

# 5 Traditional Residential Lot Subdivision

## 28 Sooning Street, Magnetic Island

### SCHEDULE OF DRAWINGS

DWG No.	DESCRIPTION
BNC0060/C01	LOCALITY PLAN
BNC0060/C02	LOT LAYOUT & BULK EARTHWORKS PLAN
BNC0060/C03	WATER & SEWER RETICULATION LAYOUT PLAN
BNC0060/D01	EROSION & SEDIMENT CONTROL MANAGEMENT NOTES
BNC0060/D02	EROSION & SEDIMENT CONTROL LAYOUT PLAN
BNC0060/D03	EROSION & SEDIMENT CONTROL CONSTRUCTION DETAILS



### ASSOCIATED DRAWINGS

TOWNSVILLE CITY COUNCIL STANDARD DRAWINGS	
STANDARD DRAWINGS WATER	
SD-305	STREET POSITIONING OF MAIN, VALVES, HYDRANTS AND DOMESTIC WATER SERVICE CONNECTIONS
SD-315	TYPICAL MAINS CONSTRUCTION RETICULATION MAIN ARRANGEMENT
SD-320	TYPICAL MAINS CONSTRUCTION CONNECTION TO EXISTING MAINS.
SD-325	EMBEDMENT & TRENCH FILL TYPICAL ARRANGEMENT
SD-330	STANDARD EMBEDMENT ALL PIPE TYPES
SD-345	VALVE AND HYDRANT IDENTIFICATION IDENTIFICATION AND MARKERS & MARKER POSTS
SD-350	TYPICAL VALVE AND HYDRANT INSTALLATION VALVE ARRANGEMENT
SD-355	TYPICAL VALVE AND HYDRANT INSTALLATION HYDRANT AND AIR RELIEF VALVES
SD-370	SOIL CLASSIFICATION GUIDELINES AND ALLOWABLE BEARING PRESSURES FOR ANCHORS AND THRUST BLOCKS.
SD-371	THRUST BLOCK DETAILS- CONCRETE BLOCKS
SD-372	THRUST AND ANCHOR BLOCKS - GATE VALVES AND VERTICAL BENDS
SD-373	RESTRAINED JOINT SYSTEM DN100 TO DN375 DI MAINS
SD-377	FLANGED JOINTS BOLTING DETAILS
STANDARD DRAWINGS SEWERAGE	
SD-405	LEGENDS FOR SEWERAGE DRAWINGS
SD-440	PRESSURE MAIN DISCHARGE TO MAINTENANCE HOLE
SD-455	PROPERTY CONNECTION DETAILS BURIED INTERFACE METHOD
SD-460	EMBEDMENT & TRENCH FILL TYPICAL ARRANGEMENT
SD-461	PIPE EMBEDMENT SUPPORT TYPES
SD-470	MAINTENANCE HOLES SEWERS - DN 300 CAST IN-SITU
SD-471	MAINTENANCE HOLES SEWERS - DN 300 CHANGE IN LEVEL DETAILS & CHANNEL ARRANGEMENTS
SD-473	MAINTENANCE HOLES TYPICAL CHANNEL DETAILS
SD-474	MAINTENANCE HOLES ALTERNATIVE DROP CONNECTIONS
SD-475	MAINTENANCE HOLES TYPICAL MH COVER ARRANGEMENTS
SD-484	MAINTENANCE HOLES PIPE CONNECTION DETAILS

**Townsville City Council**  
**Accepted Subject to Conditions**  
**OPW22/0116**  
**28/10/2022**

Scale 1:1000 @ A1  
0 10 20 30 40m

All work is to be carried out in accordance with LOCAL AUTHORITY'S standard details.

#### ENGINEERING CERTIFICATION

Signed: *John Single*  
JOHN SINGLE - RPEQ 24378

THE ORIGINAL OF THIS DOCUMENT IS COMPLETED TO THE SCALE NOTED.  
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Traffic | Flood Modelling

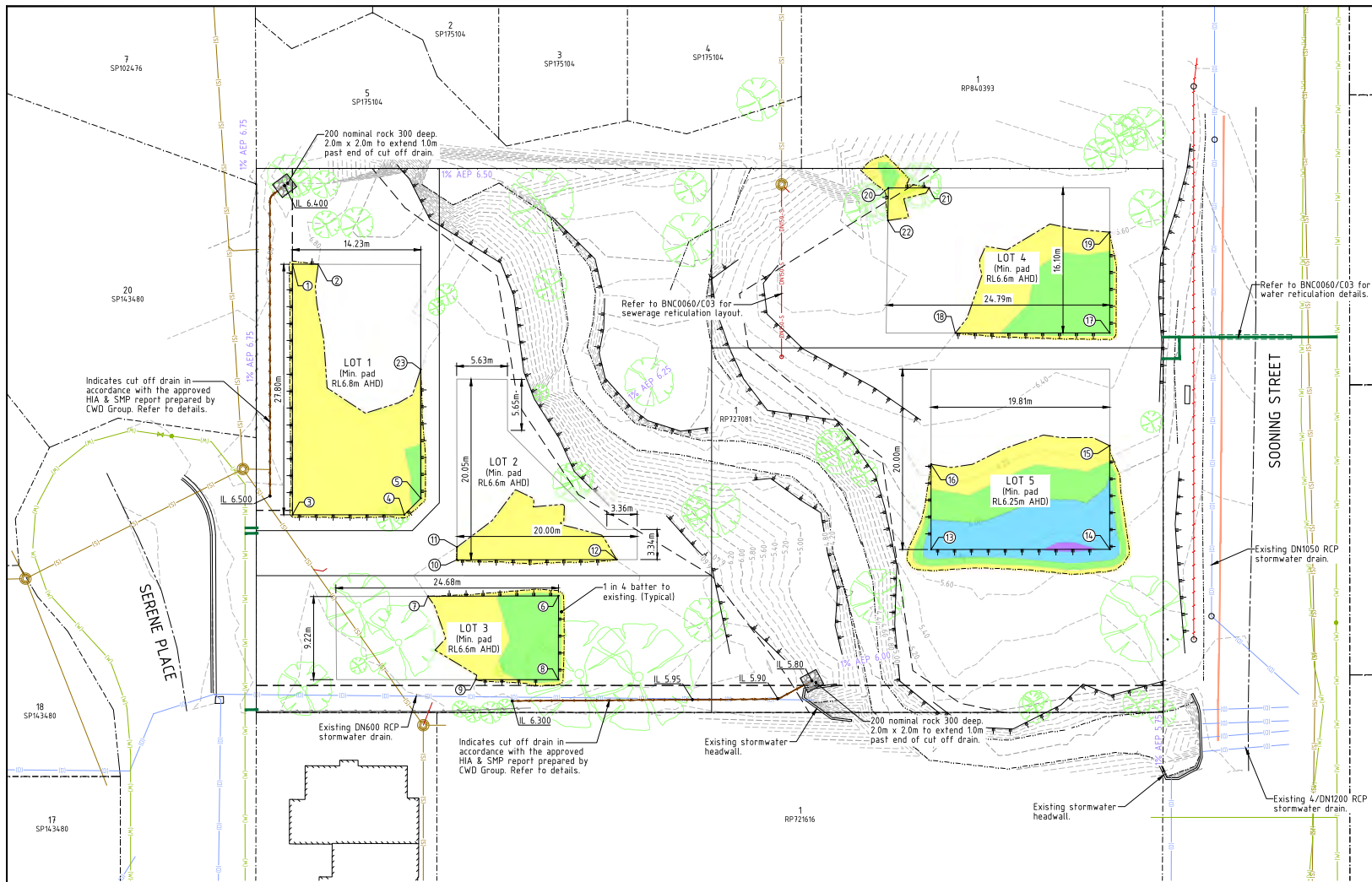
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A P1	ISSUED FOR CONSTRUCTION PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL "OPW"	13/10/2022 12/08/2022
Issue	Description	Date
Drawn ML Date 12/08/2022	In Association With BNC PLANNING Pty Ltd	LOCALITY PLAN
Checked JS	28 SOONING STREET 5 LOT SUBDIVISION Lot 1 on RP727081 MAGNETIC ISLAND	Drawing Number BNC0060/C01
Approved JS		Issue A
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BASE SURVEY  
AME SURVEYS (DETAIL SURVEY -  
28 SOONING STREET, NELLY BAY)

Document Set ID: 27226895  
Document Set ID: 19825568  
Version: 1, Version Date: 17/06/2025  
Version: 3, Version Date: 31/10/2022





### LEGEND

1% AEP 6.50	- 1% AEP flood level.
---	- Existing RP boundary.
---	- Existing major contour.
---	- Existing minor contour.
---	- DN150 S88 Sewer main.
---	- Easement boundary.
---	- Building pad extents.
---	- Top of batter.
---	- Toe of batter.
---	- Change of grade.
---	- Invert of drain.
---	- Existing stormwater drain line.
---	- Existing sewer main.
---	- Existing sewer manhole.
---	- Existing water main.
---	- Existing fence line.
---	- Existing power line.

### SETOUT POINTS

Point #	Easting	Northing
1	483823.898	7881269.277
2	483826.584	7881268.294
3	483814.403	7881243.153
4	483826.061	7881238.917
5	483828.401	7881240.011
6	483839.050	7881224.622
7	483825.430	7881229.526
8	483835.870	7881215.887
9	483827.254	7881219.020
10	483829.836	7881232.228
11	483830.315	7881233.551
12	483846.499	7881226.193

### SETOUT POINTS

Point #	Easting	Northing
13	483879.647	7881255.336
14	483898.289	7881208.579
15	483902.199	7881219.390
16	483882.879	7881224.228
17	483906.471	7881231.139
18	483890.384	7881236.979
19	483910.287	7881241.640
20	483888.895	7881254.647
21	483893.138	7881253.107
22	483887.611	7881251.272
23	483833.270	7881253.449

### CUT/FILL DEPTHS

0.0 to 0.1 m	Yellow
0.1 to 0.25 m	Green
0.25 to 0.5 m	Blue
0.5 to 0.75 m	Purple

### Earthworks Quantities

Cut - 20m<sup>3</sup>  
Fill - 109m<sup>3</sup>  
Balance - 89m<sup>2</sup> imported fill  
No bulking factor has been applied.

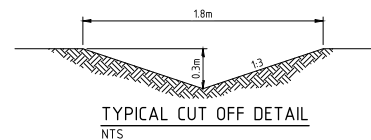
### FLOODING / STORMWATER NOTES:

- Flood levels have been interpolated from the approved HIA & SMP report prepared by CWD Group.
- Stormwater network have been designed and detailed in accordance with the approved HIA & SMP report prepared by CWD Group.
- Building pads/envelopes have been provided in accordance with the approved HIA & SMP report prepared by CWD Group.
- No additional modeling or audit of the approved HIA & SMP report prepared by CWD Group has been undertaken.

### EARTHWORKS NOTES:

- All approved fill material should be placed, compacted & tested in accordance with AS3798 'Guidelines on Earthworks for Commercial and Residential Developments'. Level 1 inspection, testing & certification is required for all fill exceeding 300mm in depth.
- Existing surface under all earthworks areas is to be stripped of all vegetation and topsoil, and suitably stockpiled for re-spreading at the completion of works. Ground surface treatment (GST) is to be carried out in accordance with AS3798, local Council specification and/or TMR standards.
- Unless directed otherwise by the geotechnical engineer on site or by the relevant local Authority specification (for work subject to approval/adoption by the local Authority) filling shall be compacted in accordance with Table 5.1 of AS3798. Absolute minimum density ratios are the following:
  - Residential lot fill - 95% STD;
  - Commercial fill (for minor loads) - 98% STD;
  - Subgrade (Exceeding 300mm below pavement) - 95% STD
  - Subgrade (Within 300mm of pavement) - 98% STD
- Imported general fill material (if required) should be:
  - Cohesive and non-dispersive in nature and be of suitable quality for commercial/industrial final use.
  - Low Plasticity
    - Liquid limit of less than 45%
    - Plasticity index of less than 15%
    - Shrink/swell index of less than 10%
  - Target soaked CBR 5%
  - Maximum particle size of 75mm with at least 80% passing the 19mm sieve.
  - Quality testing to confirm imported fill quality should be carried out prior to delivery to site.
- The Contractor shall minimise disturbance to all areas outside of those areas where earthworks are being undertaken. The Contractor shall be responsible for reinstating disturbed areas to existing conditions or better at the completion of works.

### LAYOUT PLAN



Scale 1:250 @ A1

ENGINEERING CERTIFICATION

Signed: *John Single*  
JOHN SINGLE - RP02 24398

THE ORIGINAL OF THIS DOCUMENT IS COMPLETED TO THE SCALE NOTED.  
AS REPRODUCTION CAN DISTORT SIZE & SHAPE USE ONLY THE DIMENSIONS  
PROVIDED ON ARCHITECTURAL &/OR ENGINEERING DRAWINGS. VERIFY  
DIMENSIONS ON SITE BEFORE CONSTRUCTION.

All work is to be carried out in accordance  
with LOCAL AUTHORITY'S standard details.

**NORTHERN CONSULTING**  
engineers

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Traffic | Flood Modelling

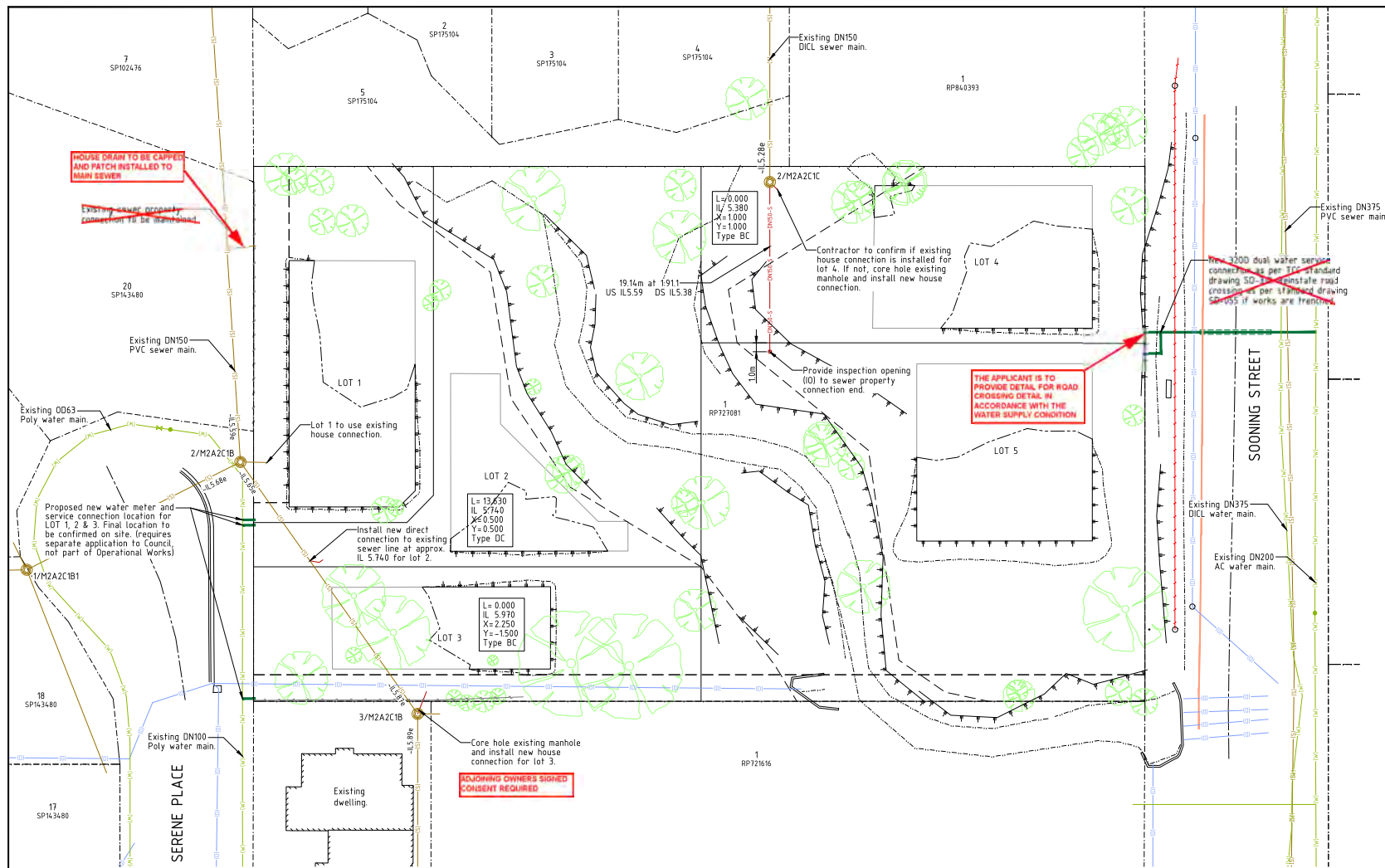
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Issue	Description	Date
Drawn ML	In Association With BNC PLANNING Pty Ltd	
Date 12/08/2022		
Checked JS	28 SOONING STREET 5 LOT SUBDIVISION	
Approved JS	Lot 1 on RP727081 MAGNETIC ISLAND	
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LOT LAYOUT & BULK EARTHWORKS PLAN		
Drawing Number BNC0060/C02		Issue A

Townsville City Council

Accepted Subject to Conditions

OPW22/0116  
28/10/2022



## LAYOUT PLAN

### LEGEND

- Existing RP boundary.
- DN150 S8 Sewer main.
- Easement boundary.
- Building pad extents.
- Top of batter.
- Toe of batter.
- Change of grade.
- Invert of drain.
- Existing stormwater drain line.
- Existing sewer main.
- Existing sewer manhole.
- Existing water main.
- Existing fence line.
- Existing power line.

### NOTES:

- All PVC-m & MDPE water mains & fittings are to be Class PN16 cast iron outside diameter compatible unless shown otherwise.
- Cover to water mains are as follows:
  - 600mm min. general.
  - 600mm min. under roads & open drains.
  - At valve locations the water main lowered to obtain required cover to valve.
- Road crossings backfilled with crusher dust to underside of pavement.
- All fittings socket end unless shown otherwise.
- Valves & hydrants located directly opposite property boundary pegs unless shown otherwise.
- PVC-m pipe may be deflected to achieve minor alignment changes in property boundaries. For maximum deflections refer to manufacturer's specification.
- Refer to Council standard drawings SD-310 for sizes & domestic water service connection details.
- Refer to Council standard drawings SD-325 & SD-330 for trench pipe installation details.

### NOTES:

- House connection X&Y dimensions as per Council Standard drawings.
- All DN150 sewer mains & fittings shall be uPVC class SN8.
- All DN100 sewer mains & fittings shall be uPVC class SN10.
- Cored connection to manhole as per Council Standard drawing SD-411.

### SEWERAGE RETICULATION-

- Distance between manholes, centerline to centerline and grade.
- 2850m at 1:95.0 US IL2.30 DS IL2.10
- Up Stream & Down Stream Sewer line Invert Levels.

### SERVICES:-

- Direct connection (DC)
- 1000 manhole connection - Benching (BC)
- Distance from downstream manhole to Y-junction - dimension 'L'.
- Invert level at limit of house connection branch.
- Allotment connection dimension 'X'.
- Allotment connection dimension 'Y'.
- Type of junction (EX - Existing).

Townsville City Council

Accepted Subject to Conditions

OPW22/0116

28/10/2022

Scale 1:250 @ A1

### ENGINEERING CERTIFICATION

Signed: *John Single*  
JOHN SINGLE - RPEQ 24378

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Issue		Description		Date
Drawn ML	12/08/2022	In Association With BNC PLANNING Pty Ltd	WATER & SEWER RETICULATION LAYOUT PLAN	
Checked JS		28 SOONING STREET 5 LOT SUBDIVISION Lot 1 on RP727081 MAGNETIC ISLAND		
Approved JS			Drawing Number BNC0060/C03	Issue A

BASE SURVEY  
AME Surveys (DETAIL SURVEY -  
20 SOONING STREET, NEELY BAY)

Document Set ID: 27226895

Document Set ID: 19825568

Version 1, Version Date: 17/06/2025

Version 3, Version Date: 31/10/2022

# Erosion & Sediment Control

## EROSION & SEDIMENT CONTROL NOTES:

### GENERAL:

- The sub-contractors undertaking works following the completion of the civil works will be responsible for maintaining and implementing additional measures as necessary to suit the type of construction occurring and in accordance with IECA best practices guides.
- It is assumed that the earthworks will be placed in accordance with the fall direction of the finished earthworks.
- The Contractor shall allow for the development of a Erosion and Sediment Control Plan (ESCP) for the "Construction Phase" that is to be submitted to the Superintendent and local Council for approval prior to the commencement of works on-site. The plan must comply with;
  - Environmental Protection Act 1994 (EPA) and all its subordinate legislation; and
  - Local Council standards;
  - using appropriate principals and techniques detailed in the International Erosion Control Association (IECA) Best Practices

The plan must include (but not be limited to):

- Certified by a "suitably qualified person";
- Performance standards, hold points and end points;
- Include maps, calculations, timing/staging and rainfall events/design criteria;
- Include specifications and construction details;
- Include soil and water management plans;
- Contain supporting documentation;
- Include maintenance and monitoring program;
- Include geotechnical advice relating to the stability of the site during and after works, including details on revegetation and stabilisation of the site.

During the construction phase of the project the Contractor shall assume ALL responsibility for the protection of the site and the compliance to their ESCP.

For the purpose of ESCP, the "Construction Phase" is defined as the period commencing the day of possession of site and ceasing the day of receipt of the Practical Completion Certificate provided by the Superintendent, ensure that the site is stable.

The supplied ESCP provided with the tender documents may be adopted by the Contractor during the construction phase should this align with their construction methodology.

The Principal Contractor is the nominated responsible entity in relation to erosion and sediment control matters during construction.

- All drainage, erosion and sediment controls to be installed and be operational before commencing up-slope works.
- All control measures to be inspected at least weekly and after significant run-off producing storms.
- Control measures may be removed when on-site when 70% permanent soil coverage is obtained over all upstream disturbed land.
- All disturbed surface to be re-vegetated and established prior to removal of devices.

### RESPONSIBILITY:

- This ESCP concept has been prepared by a Suitably Qualified Person - John Single TCC Accreditation No. SQP-073.
- The Responsible Person nominated for on-site implementation of this ESCP construction is the Contractor's Construction Manager.
- The Site Foreman nominated for overseeing and implementing site works is the Contractor's site foreman.

### ESCP OBJECTIVE:

- The objective of this ESCP concept is to ensure works are carried out in the following manner:
  - Minimise exposure of disturbed soils at any time, i.e. land clearing should be staged to minimise the extent and duration of soil exposure.
  - Diversion of runoff from upstream undisturbed areas around disturbed areas.
  - Site discharge shall have <50mg/L TSS, turbidity not >10% of the receiving waters turbidity and PH 6.5-8.5, unless defined otherwise.
  - Oils and grease - no visible films or odour.
  - Litter - no visible litter washed or blown from the site.
  - Exposed soil/finished earthworks is to be protected (soil binder, mulch, etc) as soon as practical.
- This ESCP concept is a living document that can and should be modified by suitably qualified site personnel (Responsible Person or Site Foreman) if:
  - Site conditions change;
  - The adopted measures fails to achieve the required treatment standard and/or overall ESCP objective;

Any changes will need to comply with the intent of the original ESCP.

### HYDROMULCH SPECIFICATION:

- Hydromulch is to be applied to all disturbed areas (even areas beyond the anticipated extents shown) at the completion of works UNO on other drawings. hydromulch on lots will be limited to the extent shown on the drawings. The entire verge is to hydromulched.
- Prior to the hydromulch being applied to all exposed areas (topsoil & natural) the Contractor shall undertake a minimum of four (4) soil tests to determine the required treatment of the finished surface. The number of tests shall be confirmed by the Superintendent prior to sampling. In lieu of topsoil testing, all topsoil shall be treated with gypsum at 2.0kg/m<sup>2</sup> prior to the placement of hydromulch
- Topsoil to be re-spread 50mm to 100mm over lots, batters, table drains, mitigation and areas of disturbance.
- The hydromulch mix shall be designed for an application rate of 2.5 t/ha and include mix seed (refer below for minimum seed mix), fertiliser, pulp (paper preferable) and acrylic polymer or other tackifier (typically 5 to 10% by weight).
  - Minimum seed mix:
  - BOTHRIODILOA pertusa 40kg/ha
  - Japanese Millet 10kg/ha

### SEDIMENT FENCE:

- Not to be located in areas of concentrated flow.
- Normally located along the contour with a maximum catchment area of 0.6ha per 100m length of fence.
- Woven fabrics are preferred, non-woven fabrics may be used on small work sites, i.e. operational period less than 6 months or on sites where significant sediment runoff is not expected.
- Where fence need to be located across the contour the layout shall conform to 'typical layout across grade'.
- Fences are required 2.0m min. from toe of cut or fill batters. Where not practical one fence can be at the toe with a second fence 1.0m min. away. Fence should not be located parallel with toe if concentration of flow will occur behind the fence.

### TEMP CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP:

- Adjacent stormwater runoff to be diverted away from entry/exit.
- Wheel - wash or spray unit may be required during wet weather.
- Safety issued must be considered at all times, incorporate traffic control devices to the satisfaction of the Superintendent.

### DEVICE DESIGN:

- The devices (sediment traps, catch drains, diversion channels) are anticipated to be evolving structures such that they will change in level as the earthworks are undertaken. The details shown on the typical sections for the devices are the minimum / critical requirements.
- The devices have been designed for the following:
  - Diversion channel - 1 in 2 year ARI as device is anticipated to be in place for <12 months.
  - Flow diversion bund - 1 in 5 year ARI as device is anticipated to be in place for 12-24 months.
  - Catch drain - 1 in 2 year ARI as device is anticipated to be in place for <12 months.
  - Sediment basin - 3 to 12 months, 1/2 year ARI flow. (design as Type 2 device)
  - Sediment trap - 3 to 12 months, 1/2 year ARI flow. (design as Type 2 device)
  - Sediment basin spillway - 3 to 12 months, 1 in 20 year ARI.
  - Sediment trap spillway - 3 to 12 months, 1 in 10 year ARI.
  - Temporary culvert crossings - 1 in 1 year ARI.
- The design storm for sediment basin / trap sizing is the 85th percent five-day event. This is due to water discharging into sensitive waters.

### ADDITIONAL & TEMPORARY DEVICES:

- Rock and/or geofabric lined chutes will be required in catch drains where there is a longitudinal change in invert level >0.3m, refer to IECA for standard chute details.

### DUST MANAGEMENT:

- Appropriate control is required during all construction activities. This is initially assumed to occur as water application via a water truck.
- In the event that an area will be exposed for more than 5 days without water application, a non-vegetation soil binder will be required. Either a cationic bitumen emulsion or organic based binder will be required. For further details, refer to IECA soil binder specification located at <https://www.austieca.com.au/documents/item/2271>

### IDENTIFICATION OF INCIDENT OR FAILURE:

- Non-compliance with the ESCP Objectives will be identified by the following:
  - Build-up of sediment off the site, i.e. on roadways, kerb and channel, etc;
  - Excessive sediment build-up on the site at ESC devices;
  - Excessive erosion on the site;
  - Release of construction material from the site;
  - Poorly maintained, damaged or failed ESC devices;
  - Deteriorated water quality, as identified by the Environmental Consultant, attributed to construction activities;
  - Excessive dust.

### CORRECTIVE ACTION:

- After any identification of incident or failure, the source/cause is to be investigated and corrected immediately. Corrective measures for potential incident or failure include, but are not limited to the following:

- Build-up of sediment off the site - collect and dispose of material in a manner that will not cause ongoing environmental nuisance or harm. Amended/rectified ESC measures where appropriate to reduce the risk of further sediment loss.
- Excessive sediment build-up on the site - collect and dispose of material in a manner that will not cause ongoing environmental nuisance or harm. Amended/rectified ESC upstream measures where appropriate and review/modify maintenance/inspection timing.
- Sediment/mud on public roads - sweep/wash streets. Ensure appropriate kerb inlet/table drain protection is in place if streets are washed. Clean out and rectify exit rumble pad and/or review traffic management for vehicles exiting the site.
- Excessive erosion in drainage devices - investigate cause and identify if additional in channel flow control devices are required. This may include upgraded lining methods, rock check dams or other velocity control devices.
- Release of construction material/litter from the site - collect and dispose of material in a manner that will not cause ongoing environmental nuisance or harm then review existing devices and litter control practices.
- Poorly maintained, damaged or failed ESC devices - review maintenance and inspection records. Confirm that inspection and maintenance procedures have been followed and if necessary increase the frequency of inspections or rectification timeframe to ensure devices are in good working order at all times.
- Deteriorated water quality - increase runoff capture devices and prevent free discharge from site. Collect and treat runoff on-site, ensuring appropriate water quality targets are achieved, prior to discharging from site.
- Excessive dust - increase dust suppression works, i.e. incorporate additional water cart during periods of high winds. Alternately, apply a dust suppression binder and continue to monitor the binders' performance.

- If the release of excessive sediment and/or other materials off-site is identified during two (2) consecutive site inspections, or water quality monitoring indicates levels are not within the water quality targets on two (2) consecutive tests, review and revise the ESCP or reduce the rate, extent and/or duration of soil exposure.

- If collection and treatment of run-off is required and the water quality targets are not being achieved prior to release, undertake the following:

- To reduce suspended solids - add an appropriate flocculent (e.g. gypsum), then retest.
- Modify pH - add acid if pH is too high or hydrated lime if pH is too low, then retest.

### MONITORING, RECORDS & MAINTENANCE:

- The contractor shall ensure that ESC measures are maintained and in good working order at all times. The contractor shall visually inspect ESC measures in accordance with the associated inspection and record plan and maintain records of these checks.

- All measures should be inspected:
  - Daily when rain is occurring;
  - Weekly, regardless of weather or works occurring on-site;
  - Within 24 hours prior to expected rainfall;
  - Immediately after a rainfall event.

- The Responsible Person will be responsible for preparing monthly reports that record the following as a minimum:
  - Records of any failures in ESC measures, identifying the reason for failure and the corrective actions implemented to prevent or reduce the risk of re-occurrence.
  - Photographic evidence of ESC measures.
  - For stormwater releases from the site, record the results of water quality samples. In addition, records shall be kept of the reason for the release, the date of the release, date of sampling and the amount of rainfall during the previous 24 hours.
  - Records of any complaints received, including date, time, person making complaint and the action taken to resolve the complaint.

Townsville City Council

Accepted Subject to Conditions

OPW22/0116  
28/10/2022

All work is to be carried out in accordance with LOCAL AUTHORITY'S standard details.

### ENGINEERING CERTIFICATION

Signed:   
JOHN SINGLE - RPEQ 24378

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A P1	ISSUED FOR CONSTRUCTION PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL "OPW"		13/10/2022 12/08/2022
Issue	Description		Date
Drawn KJM	In Association With BNC PLANNING Pty Ltd		EROSION & SEDIMENT CONTROL MANAGEMENT NOTES
Date 12/08/2022			
Checked	28 SOONING STREET 5 LOT SUBDIVISION Lot 1 on RP727081		Drawing Number BNC0060/Q01
Approved	MAGNETIC ISLAND		
COPYRIGHT ©			Issue A

### DESIGN CERTIFICATION

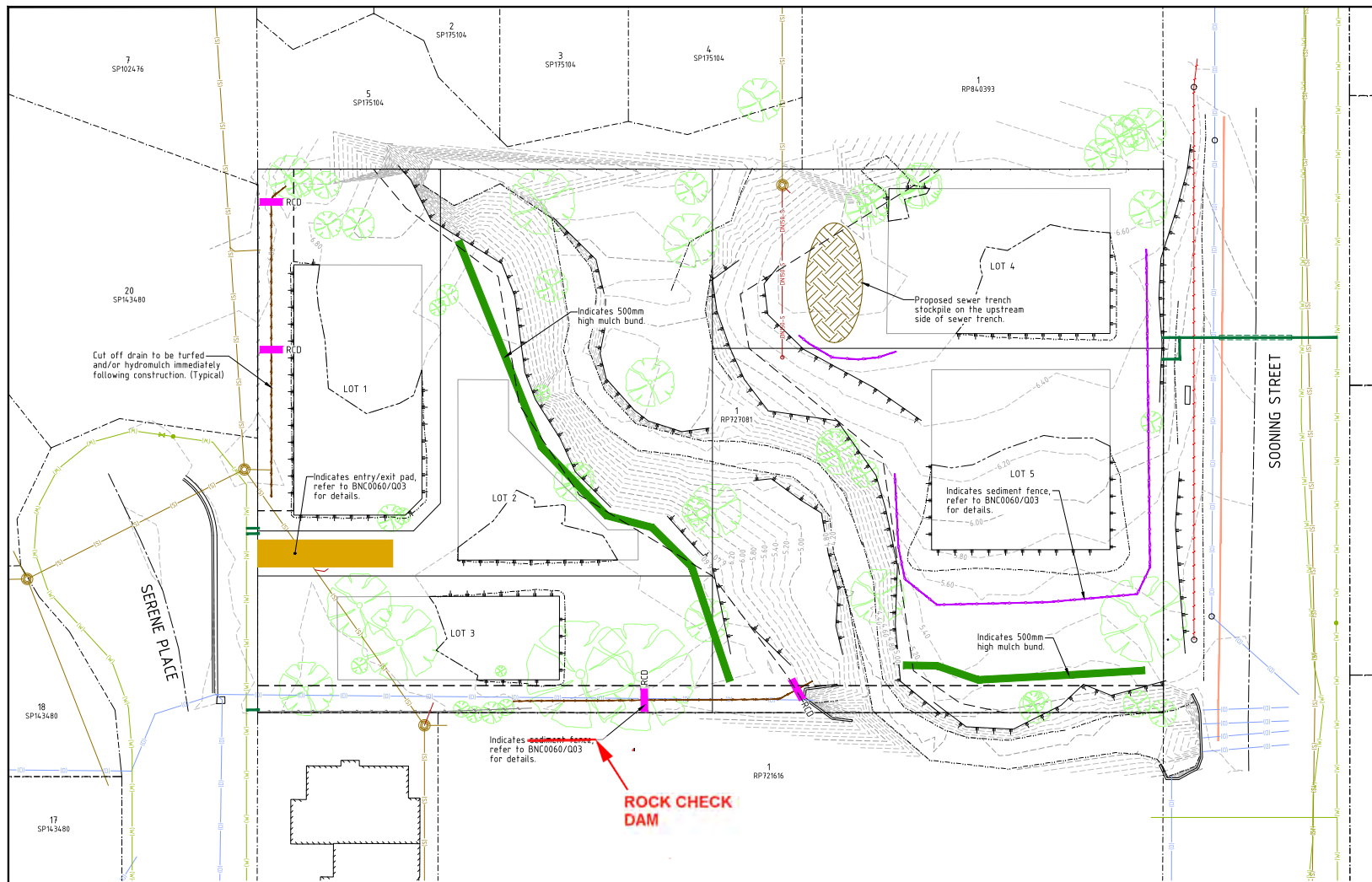
Signed:   
JOHN SINGLE - TCC Accreditation No. SQP-073

BASE SURVEY  
AME Surveys (DETAIL SURVEY -  
28 SOONING STREET, NEWCASTLE)  
Document Set ID: 19825568

Document Set ID: 19825568

Version 1, Version Date: 17/06/2025





# LEGEND

- Existing RP boundary.
- Existing major contour.
- Existing minor contour.
- DN150 S
- DN150 S8 Sewer main.
- Easement boundary.
- Building pad extents.
- Top of batter.
- Toe of batter.
- Change of grade.
- Invert of drain.
- Existing stormwater drain line.
- Existing sewer main.
- Existing sewer manhole.
- Existing water main.
- Existing fence line.
- Existing power line.

# NOTES:

1. Refer to BNC0060/Q01 for notes.
2. Refer to BNC0060/Q03 for details.
3. Re-spread topsoil with natural grasses and seeds to all building pads and areas of disturbance. Irrigate and fertilise until established.
4. Minimise extent of disturbance where possible.

## LAYOUT PLAN

Townsville City Council  
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OPW22/0116  
28/10/2022

Scale 1:250 @ A1

All work is to be carried out in accordance with LOCAL AUTHORITY'S standard details.

### ENGINEERING CERTIFICATION

Signed: *John Single*  
JOHN SINGLE - RPEQ 24378

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A P1 ISSUED FOR CONSTRUCTION PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL "OPW"		13/10/2022 12/08/2022	
Issue	Description	Date	
Drawn ML Date 12/08/2022	In Association With BNC PLANNING Pty Ltd	EROSION & SEDIMENT CONTROL LAYOUT PLAN	
Checked JS	28 SOONING STREET		
Approved JS	5 LOT SUBDIVISION Lot 1 on RP727081 MAGNETIC ISLAND		
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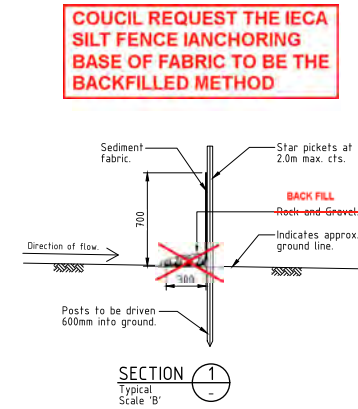
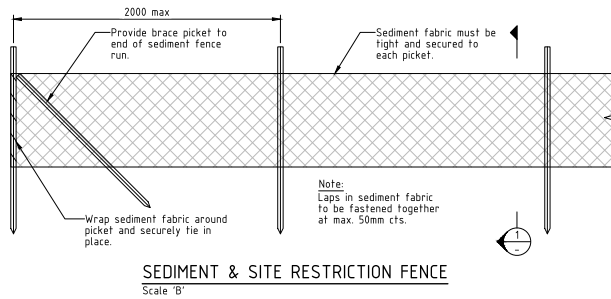
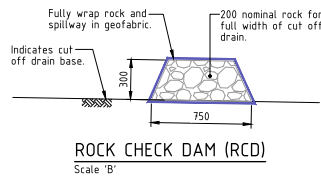
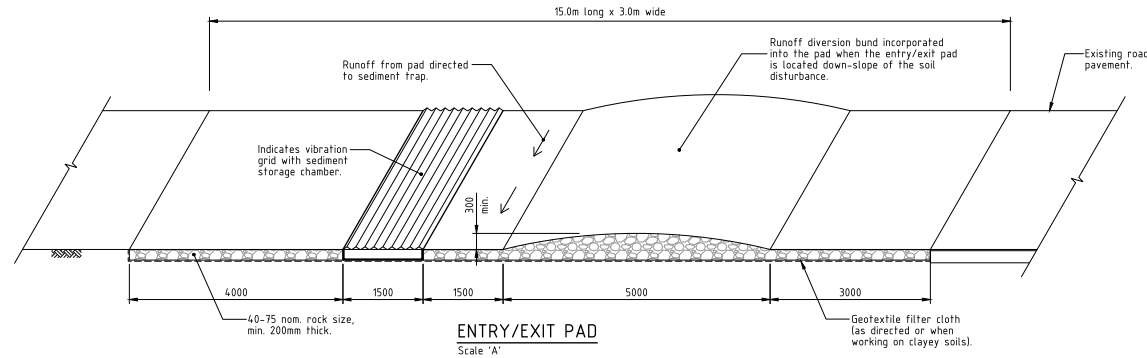
BASE SURVEY  
AME SURVEYS (DETAIL SURVEY -  
20 SOONING STREET, NELLY BAY)

Document Set ID: 27226895

Document Set ID: 19825568

Version: 3, Version Date: 31/10/2022

Version: 1, Version Date: 17/06/2025



**COUNCIL REQUEST THE IECA  
SILT FENCE ANCHORING  
BASE OF FABRIC TO BE THE  
BACKFILLED METHOD**

**Townsville City Council**

**Accepted Subject to Conditions**

**OPW22/0116**  
**28/10/2022**

Scale 'A' 1:150 @ A1  
Scale 'B' 1:120 @ A1

ENGINEERING CERTIFICATION

Signed: *John Single*

JOHN SINGLE - RP0024378

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Issue	Description	Date
Drawn KJM Date 12/08/2022	In Association With BNC PLANNING Pty Ltd	
Checked JS	28 SOONING STREET 5 LOT SUBDIVISION Lot 1 on RP727081 MAGNETIC ISLAND	
Approved JS		
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EROSION & SEDIMENT CONTROL CONSTRUCTION DETAILS		
Drawing Number BNC0060/Q03		Issue A