

**ALTERNATIVE CREST DETAIL**

SCALE: 1:50

SECONDARY FILTER LAYER, GEOTEXTILE AND GROUND SURFACE LEVEL TO BE RAISED TO MATCH CREST LEVEL WHEN REPROFILING IS APPLIED

EXISTING SURFACE

CONTINUE GEOTEXTILE TO UNDERSIDE OF TOPSOIL

GRANULAR FILL FROM EXCAVATED MATERIAL TO INSTATE DESIGN PROFILE AS REQUIRED

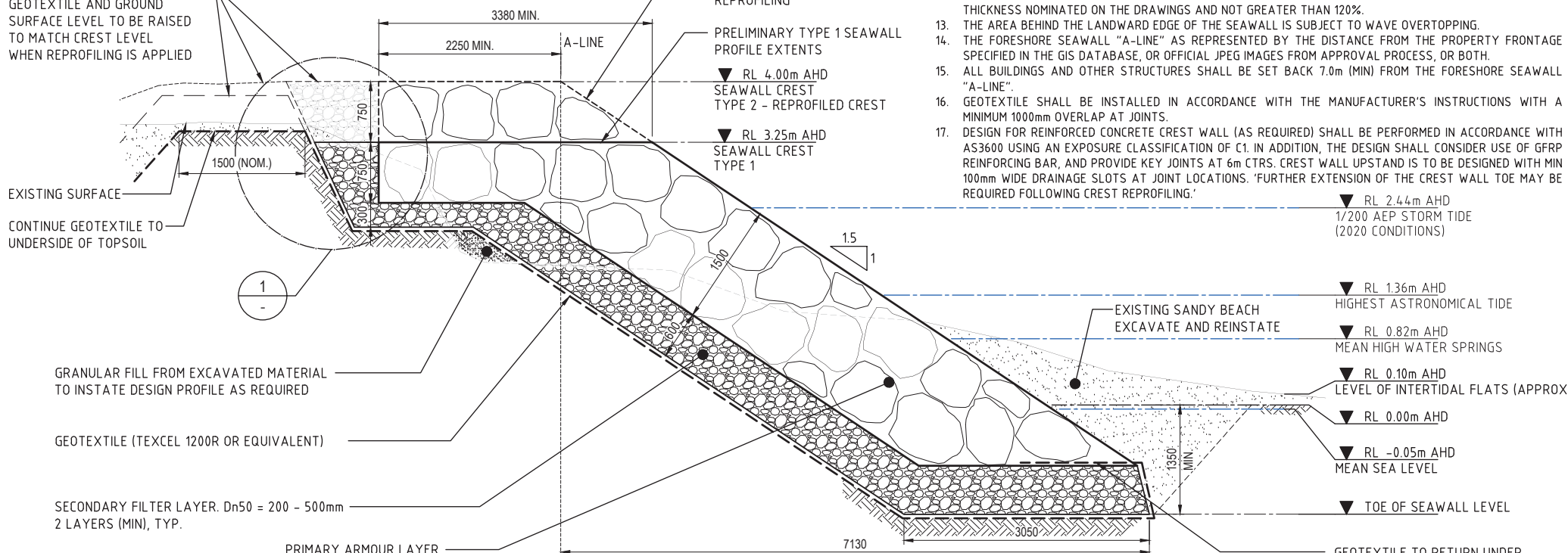
GEOTEXTILE (TEXCEL 1200R OR EQUIVALENT)

SECONDARY FILTER LAYER. Dn50 = 200 - 500mm 2 LAYERS (MIN), TYP.

PRIMARY ARMOUR LAYER  
 M15 = 750kg (D=650mm)  
 M50 = 1100kg (Dn50 = 750mm)  
 M85 = 1460kg (D=820mm)  
 2 LAYERS, TYP.

**SEAWALL CROSS SECTION**

SCALE 1:50



RL 2.44m AHD  
 1/200 AEP STORM TIDE (2020 CONDITIONS)

RL 1.36m AHD  
 HIGHEST ASTRONOMICAL TIDE

RL 0.82m AHD  
 MEAN HIGH WATER SPRINGS

RL 0.10m AHD  
 LEVEL OF INTERTIDAL FLATS (APPROX)

RL 0.00m AHD  
 MEAN SEA LEVEL

RL -0.05m AHD  
 MEAN SEA LEVEL

TOE OF SEAWALL LEVEL

GEOTEXTILE TO RETURN UNDER PRIMARY ARMOUR LAYER (DUTCH TOE) BY 1500mm (2xDn50)

**1. GENERAL NOTES**

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION (DRAWINGS, SPECIFICATIONS, BASIS OF DESIGN).
- U.N.O. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS IN METRES RELATIVE TO AUSTRALIAN HEIGHT DATUM (AHD).
- ALL DIMENSIONS RELATING TO EXISTING WORK, GROUND AND SEABED LEVELS, SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SITE DRAINAGE AND GENERAL MAINTENANCE OF THE AREA DURING CONSTRUCTION.
- NATIVE SAND AND EXISTING SEAWALL MATERIALS PROVIDED BY EXCAVATION AND DEMOLITION WORKS MAY BE REUSED PROVIDED THEY MEET DESIGN SPECIFICATIONS.
- ALL SAND TO BE SIEVED THROUGH A 50mm SIEVE PRIOR TO BACKFILLING.
- SAND SHALL BE WASHED INTO WALL TO FILL THE VOIDS BETWEEN BOULDERS AT THE CONCLUSION OF THE ROCK WORK. ANY EXCESS SAND FROM EXCAVATIONS SHOULD BE PLACED SEAWARD OF THE WALL.
- PRIMARY AND SECONDARY ARMOUR SHALL BE A ROUGH, ANGULAR, DURABLE ROCK SUITABLE FOR COASTAL PROTECTION AND MEET THE MATERIAL REQUIREMENTS OF AS 2758.6 (2019) SECTION 9 FOR HIGH RISK EXPOSURE CLASSIFICATION (SECTION 7).
- PRIMARY ARMOUR (M50 = 1100kg) SHALL HAVE A UNIFORM GRADE FROM M15 = 750kg TO M85 = 1460kg (650 - 820mm) WITH A MAXIMUM DIMENSION NOT MORE THAN 3x THE MINIMUM DIMENSION FOR ANY SINGLE ROCK.
- PRIMARY AND SECONDARY ARMOUR SHALL BE FREE OF TOPSOIL AND ORGANIC MATTER.
- PLACEMENT OF ARMOUR ROCKS SHALL ENSURE THAT EACH ROCK IS IN FIRM CONTACT WITH AT LEAST THREE OTHER STONES OF THE SAME LAYER TO FORM A TIGHTLY INTERLOCKED PLACEMENT FREE OF LOOSE ROCKS.
- THE MINIMUM THICKNESS OF THE LAYERS OF THE ARMOUR ROCK SHALL NOT BE LESS THAN 90% OF THE LAYER THICKNESS NOMINATED ON THE DRAWINGS AND NOT GREATER THAN 120%.
- THE AREA BEHIND THE LANDWARD EDGE OF THE SEAWALL IS SUBJECT TO WAVE OVERTOPPING.
- THE FORESHORE SEAWALL "A-LINE" AS REPRESENTED BY THE DISTANCE FROM THE PROPERTY FRONTAGE SPECIFIED IN THE GIS DATABASE, OR OFFICIAL JPEG IMAGES FROM APPROVAL PROCESS, OR BOTH.
- ALL BUILDINGS AND OTHER STRUCTURES SHALL BE SET BACK 7.0m (MIN) FROM THE FORESHORE SEAWALL "A-LINE".
- GEOTEXTILE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WITH A MINIMUM 1000mm OVERLAP AT JOINTS.
- DESIGN FOR REINFORCED CONCRETE CREST WALL (AS REQUIRED) SHALL BE PERFORMED IN ACCORDANCE WITH AS3600 USING AN EXPOSURE CLASSIFICATION OF C1. IN ADDITION, THE DESIGN SHALL CONSIDER USE OF GFRP REINFORCING BAR, AND PROVIDE KEY JOINTS AT 6m CTRS. CREST WALL UPSTAND IS TO BE DESIGNED WITH MIN 100mm WIDE DRAINAGE SLOTS AT JOINT LOCATIONS. FURTHER EXTENSION OF THE CREST WALL TOE MAY BE REQUIRED FOLLOWING CREST REPROFILING.

REVISION:	FOR CONSTRUCTION
DATE:	12.10.2022
APPROVED:	Z. COUPER RPEQ:18495
INTERNAL DRG No:	10995-S1

**DRAFT**

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REVISION	DATE	REVISION DESCRIPTION	DRAWN	DESIGNED	APPROVED

BMT Environment Australia  
 LEVEL 5, 348 EDWARD ST  
 BRISBANE CITY  
 QLD 4000  
 AUSTRALIA  
 TELEPHONE: (07) 3831 6744

PROJECT DESCRIPTION:  
**BEACHMERE A-LINE SEAWALL REFERENCE DESIGN**

SITE LOCATION:  
 BEACHMERE, QLD

CLIENT  
 MORETON BAY REGIONAL COUNCIL

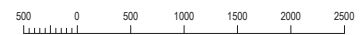
TITLE:  
**TYPICAL SECTION**

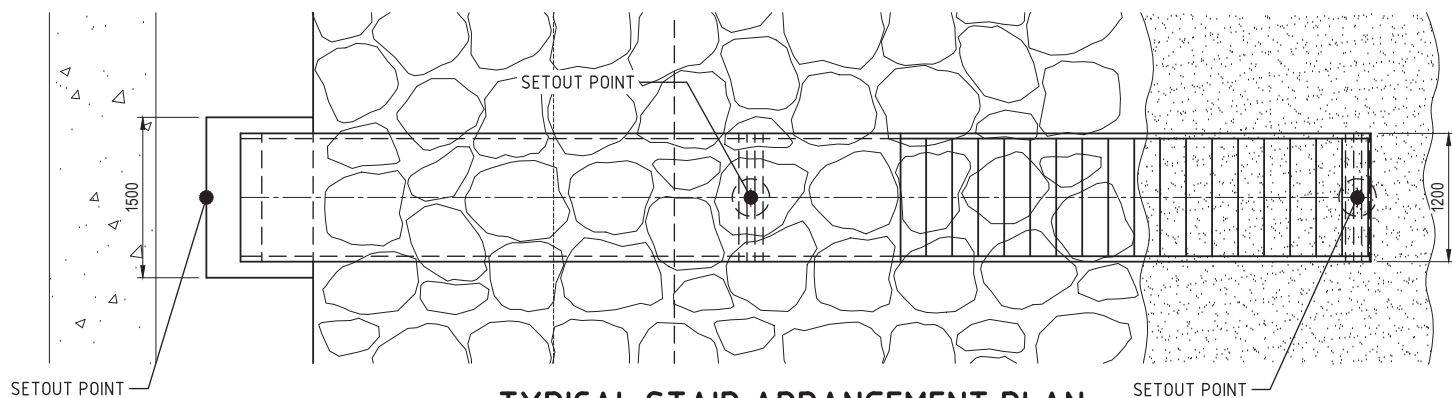
PROJECT:  
 BEACHMERE SHORELINE MANAGEMENT PROJECT

DRAWING STATUS:  
 DRAFT

DRAWING No.:  
**A10995-S1**

REVISION:  
 A





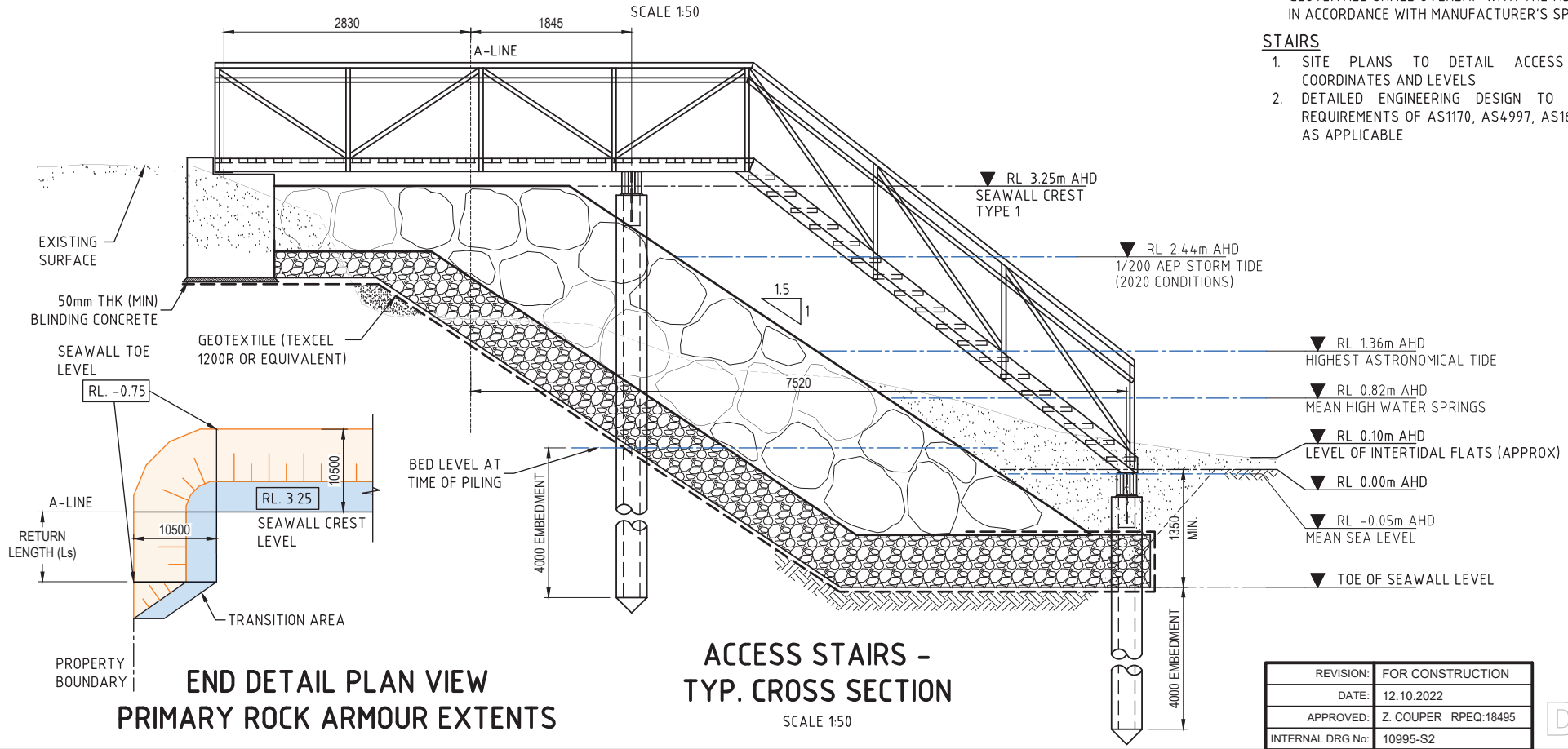
**TYPICAL STAIR ARRANGEMENT PLAN**

**1. GENERAL NOTES CONT.**

- 18. SEAWALL END DETAIL APPLIES TO TERMINATIONS IN NATURAL FILL AND IS INDICATIVE ONLY. RESPONSIBILITY FOR THE USE OF THIS INDICATIVE DESIGN AT ANY SPECIFIC SITE RESTS EXCLUSIVELY WITH THE APPROPRIATELY QUALIFIED RPEQ ENGINEER.
- 19. SEAWALL RETURN LENGTH (LS) TO BE DETERMINED FOR A SPECIFIC SITE TAKING INTO CONSIDERATION THE LENGTH OF THE SEAWALL, SEAWALLS ON ADJACENT PROPERTIES, AND SPECIFIC WAVE CONDITIONS IN THE SITE BEACH COMPARTMENT.
- 20. THE SEAWALL TIE-IN TO EXISTING ADJACENT APPROVED SEAWALLS SHALL CONFORM WITH APPROPRIATE STANDARDS AND GUIDELINES FOR STRUCTURAL AND GEOTECHNICAL ENGINEERING, AND ARMOUR STABILITY, AND ACCOUNT FOR DURABILITY AND SITE DRAINAGE. WALL TRANSITION SHALL BE CONSIDERED AT THE SEAWALL TOE, CREST, AND INTERFACE WITH THE NATIVE EARTH MATERIAL. GEOTEXTILE SHALL OVERLAP WITH THE ADJACENT SEAWALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

**STAIRS**

- 1. SITE PLANS TO DETAIL ACCESS STAIRS SETOUT COORDINATES AND LEVELS
- 2. DETAILED ENGINEERING DESIGN TO CONFORM TO THE REQUIREMENTS OF AS1170, AS4997, AS1664, AS1657, AS2159 AS APPLICABLE



**ACCESS STAIRS - TYP. CROSS SECTION**

SCALE 1:50

**END DETAIL PLAN VIEW  
PRIMARY ROCK ARMOUR EXTENTS**

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DATE:	12.10.2022
APPROVED:	Z. COUPER RPEQ.18495
INTERNAL DRG No:	10995-S2

**DRAFT**

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REVISION	DATE	REVISION DESCRIPTION	DRAWN	DESIGNED	APPROVED

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BRISBANE CITY  
QLD 4000  
AUSTRALIA  
TELEPHONE: (07) 3831 6744

PROJECT DESCRIPTION:  
**BEACHMERE A-LINE SEAWALL  
REFERENCE DESIGN**

SITE LOCATION:  
BEACHMERE, QLD

CLIENT  
MORETON BAY REGIONAL COUNCIL

TITLE:  
**ACCESS STAIRS - GENERAL ARRANGEMENT**

PROJECT:  
BEACHMERE SHORELINE MANAGEMENT PROJECT

DRAWING STATUS:  
DRAFT

DRAWING No.:  
**A10995-S2**

REVISION:  
**A**