



**IMPORTANT – THIS COMMUNICATION AFFECTS YOUR PROPERTY**

## **COUNCIL OF THE ISLES OF SCILLY**

Town Hall, St Mary's TR21 0LW

Telephone: 01720 424455 – Email: [planning@scilly.gov.uk](mailto:planning@scilly.gov.uk)

Town and Country Planning Act 1990

Town and Country Planning (Development Management Procedure) Order 2010

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### **PERMISSION FOR DEVELOPMENT**

**Application No:** P/21/051/FUL

**Date Application Registered:** 30th July 2021

**Applicant:** Dr Stephen Swabey  
Council Of The Isles Of Scilly  
Town Hall  
St Marys  
Isles of Scilly  
TR21 0LW

**Site address:** Porth Hellick Beach Porth Hellick St Mary's Isles of Scilly  
**Proposal:** Raising of the existing dune at the eastern end of Porth Hellick Bank to match the existing dune profile, new vehicular access ramp through the new section of dune onto the beach. Formalising beach access track at southern end (EIA Development).

In pursuance of their powers under the above Act, the Council hereby **PERMIT** the above development to be carried out in accordance with the following Conditions:

- C1 The development hereby permitted shall be begun before the expiration of three years from the date of this permission.**  
Reason: In accordance with the requirements of Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).
- C2 The development hereby permitted shall be carried out in accordance with the approved details only including:**
- Site Location Plan, Drawing Number: PH2500
  - Block Plan: Drawing number: UA008878-ARC-XX-XX-DR-CE-0500
  - Site Plan: Drawing number: UA008878-ARC-XX-XX-DR-CE-0500, Rev P3
  - Design Statement, Ref: UA008878-ARC-XX-XX-MS-CE-0561-P2
  - Proposed Plans, UA008878-ARC-XX-XX-DR-CE-0502 Rev P3
- These are stamped as APPROVED**  
Reason: For the clarity and avoidance of doubt and in the interests of the character and appearance of the Conservation Area, Area of Outstanding Natural Beauty and Heritage Coast in accordance with Policies OE1 and OE7 of the Isles of Scilly Local Plan (2015-2030).

#### **PRE-COMMENCEMENT CONDITION: Construction Environment Management Plan**

- C3 No development shall take place, including any works of transporting materials to the**



site, until a Construction Environmental Management Plan (CEMP) in addition to the indicative method statement, has been submitted to and approved in writing by, the local planning authority. The approved Statement shall be adhered to throughout the construction period. The CEMP shall incorporate:

- The timing of intended implementation, to avoid conflicting with breeding birds or harm to biodiversity features;
- The times during construction when specialist ecologists need to be present on site to oversee works, if required;
- Responsible persons and lines of communication;
- Monitoring, reporting and emergency responses;
- The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person;
- Industry standard, best-practice measures to control site run-off, manage soils and waste, manage fuel and other materials to prevent spillages and also emergency procedures in the event of a pollution incident;
- Standard best practice construction measures to avoid significant disturbance of adjacent features (human neighbours and, consequently, nesting and wintering bird populations within the SSSI, interest features of the SAC and SPA) arising from vibration, artificial lighting and noise effects;
- A groundworks strategy including in relation to the movement of ground at and around the Cloudisley Shovell grave marker and in the event of landing craft movement of materials along Porth Hellick sands; a watching brief during works (in case of unforeseen ground conditions occurring), details of the use and management of materials, waste management, a plan for Verification Control Documents;
- Risk assessments and method statements in light of revealed conditions (relating to Health and Safety and buried services) as well as to take account the recommendations of Foundation Works Risk Assessment (if required);
- Area(s) for the parking of vehicles of site operatives;
- Space for the loading and unloading of plant and materials;
- Storage of plant and materials used in constructing the development;
- Construction vehicles wheel washing facilities, if required;
- Measures to control the emission of dust and dirt during construction;
- A detailed scheme for reducing/re-using/recycling/disposing of waste resulting from the works.
- Details of any signage and protective barriers in relation to notifying users of the area, of the timescales of the works, including signs to re-direct or safeguard footpath users from avoiding the site works.

On completion of the development any contractors compound, temporary access and all plant, machinery, fencing, lighting and any other equipment or structures used as part of the construction process shall be removed from the site and, where appropriate, the land reinstated to its former condition within three months.

Reason: This is a pre-commencement condition that requires details that were not submitted as part of the application, but are required to fully understand the impact upon the Islands natural environment designation and to ensure that the construction of the development is adequately controlled and to protect the amenities of the area and essential infrastructure in accordance with Policies SS2, SS7 and OE2 of the Isles of Scilly Local Plan 2015-2030.

- C4** Before commencing any dune planting, details of the native plant species and planting schedule, as recommended by Natural England, shall be submitted to and approved in writing by the Local Planning Authority, in consultation with Natural England. Native dune species, such as Marram Grass *Ammophila arenaria* or Creeping Willow *Salix repens* should be used to provide flood defence and stabilise



the dune system, whilst supporting this valuable habitat. The planting shall be carried out in accordance with the approved details and any plants which, within a period of 5 years of completion of the project, die or are washed away before successful establishment to the dune, shall be replaced with new plants.

Reason: To ensure the works safeguard the wealth of biodiversity present on the Isles of Scilly and safeguards existing habitats and features in a bio-secure manner in accordance with Policies OE1 and OE2 of the Isles of Scilly Local Plan (2015-2030).

#### **PRE-COMMENCEMENT CONDITON: SWI: Memorial recording**

- C5** A) No groundworks or removal of the Sir Cloudesly Shovell memorial shall take place until a programme of memorial recording work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions, and:
1. The programme and methodology of site investigation and recording
  2. The programme for post investigation assessment
  3. Provision to be made for analysis of the site investigation and recording
  4. Provision to be made for publication and dissemination of the analysis and records of the site investigation
  5. Provision to be made for archive deposition of the analysis and records of the site investigation
  6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation
- B) No groundworks associated with the defences or removal of the Sir Cloudesly Shovell memorial shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).
- C) The archaeological recording condition will normally only be discharged when all elements of the WSI including on site works, analysis, report, publication (where applicable) and archive work has been completed.

Reason: A pre-commencement condition is necessary in this instance due to the need to ensure that a programme and methodology of site investigation and recording of archaeological features is undertaken before physical works commence on site. This is in accordance with the provisions of NPPF (2021) Chapter 16, paragraph 205 and Policy OE7 Isles of Scilly 2015-2030 Local Plan.

#### **Further Information**

1. In dealing with this application, the Council of the Isles of Scilly has actively sought to work with the applicants in a positive and proactive manner, in accordance with paragraph 38 the National Planning Policy Framework 2019.
2. It should be noted that some of the conditions attached to this consent are required to be complied with prior to the commencement of the development hereby approved, if those conditions are not fully adhered to, then the consent cannot lawfully be implemented, therefore a new application will be requested and consideration will be given to the expedience of enforcement action.
3. It should be noted that some of the conditions attached to this consent are required to be complied with prior to the commencement of the development hereby approved, if those conditions are not fully adhered to, then the consent cannot lawfully be implemented, therefore a new application will be requested and consideration will be given to the expedience of enforcement action.
4. The applicant and any contractors carrying out the approved works are required to liaise closely with the active users of this beach, as recognised in the pre-submission public consultation. Steps should be taken to minimise any restricted access to the beach and to work closely with users.

Signed:



**Chief Planning Officer**

*Duly Authorised Officer of the Council to make and issue Planning Decisions on behalf of the Council of the Isles of Scilly.*

**DATE OF ISSUE:** 21<sup>st</sup> October 2021





# COUNCIL OF THE ISLES OF SCILLY

Planning Department  
Town Hall, The Parade, St Mary's, Isles of Scilly, TR21 0LW  
☎0300 1234 105  
✉[planning@scilly.gov.uk](mailto:planning@scilly.gov.uk)

Dear Dr Stephen Swabey

## Please sign and complete this certificate.

This is to certify that decision notice: P/21/051/FUL and the accompanying conditions have been read and understood by the applicant: Dr Stephen Swabey.

1. **I/we intend to commence the development as approved:** Raising of the existing dune at the eastern end of Porth Hellick Bank to match the existing dune profile, new vehicular access ramp through the new section of dune onto the beach. Formalising beach access track at southern end. (EIA Development). at: Porth Hellick Beach Porth Hellick St Mary's Isles Of Scilly **on:** .....
2. I am/we are aware of any conditions that need to be discharged before works commence.
3. I/we will notify the Planning Department in advance of commencement in order that any pre-commencement conditions can be discharged.

You are advised to note that Officers of the Local Planning Authority may inspect the project both during construction, on a spot-check basis, and once completed, to ensure that the proposal has complied with the approved plans and conditions. In the event that the site is found to be inaccessible then you are asked to provide contact details of the applicant/agent/contractor (delete as appropriate):

**Name:** ..... **Contact Telephone Number:** .....  
**And/Or Email:** .....

**Print Name:** .....

**Signed:** .....

**Date:** .....

Please sign and return to the **above address** as soon as possible.

For the avoidance of doubt you are reminded to address the following condition(s) before you commence the implementation of this permission. Although we will aim to deal with any application to discharge conditions as expeditiously as possible, you are reminded to allow up to **8 weeks** for the discharge of conditions process.

## PRE-COMMENCEMENT CONDITION(S)



- C3 No development shall take place, including any works of transporting materials to the site, until a Construction Environmental Management Plan (CEMP) in addition to the indicative method statement, has been submitted to and approved in writing by, the local planning authority. The approved Statement shall be adhered to throughout the construction period. The CEMP shall incorporate:
- The timing of intended implementation, to avoid conflicting with breeding birds or harm to biodiversity features;
  - The times during construction when specialist ecologists need to be present on site to oversee works, if required;
  - Responsible persons and lines of communication;
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  - Standard best practice construction measures to avoid significant disturbance of adjacent features (human neighbours and, consequently, nesting and wintering bird populations within the SSSI, interest features of the SAC and SPA) arising from vibration, artificial lighting and noise effects;
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  - Area(s) for the parking of vehicles of site operatives;
  - Space for the loading and unloading of plant and materials;
  - Storage of plant and materials used in constructing the development;
  - Construction vehicles wheel washing facilities, if required;
  - Measures to control the emission of dust and dirt during construction;
  - A detailed scheme for reducing/re-using/recycling/disposing of waste resulting from the works.
  - Details of any signage and protective barriers in relation to notifying users of the area, of the timescales of the works, including signs to re-direct or safeguard footpath users from avoiding the site works.

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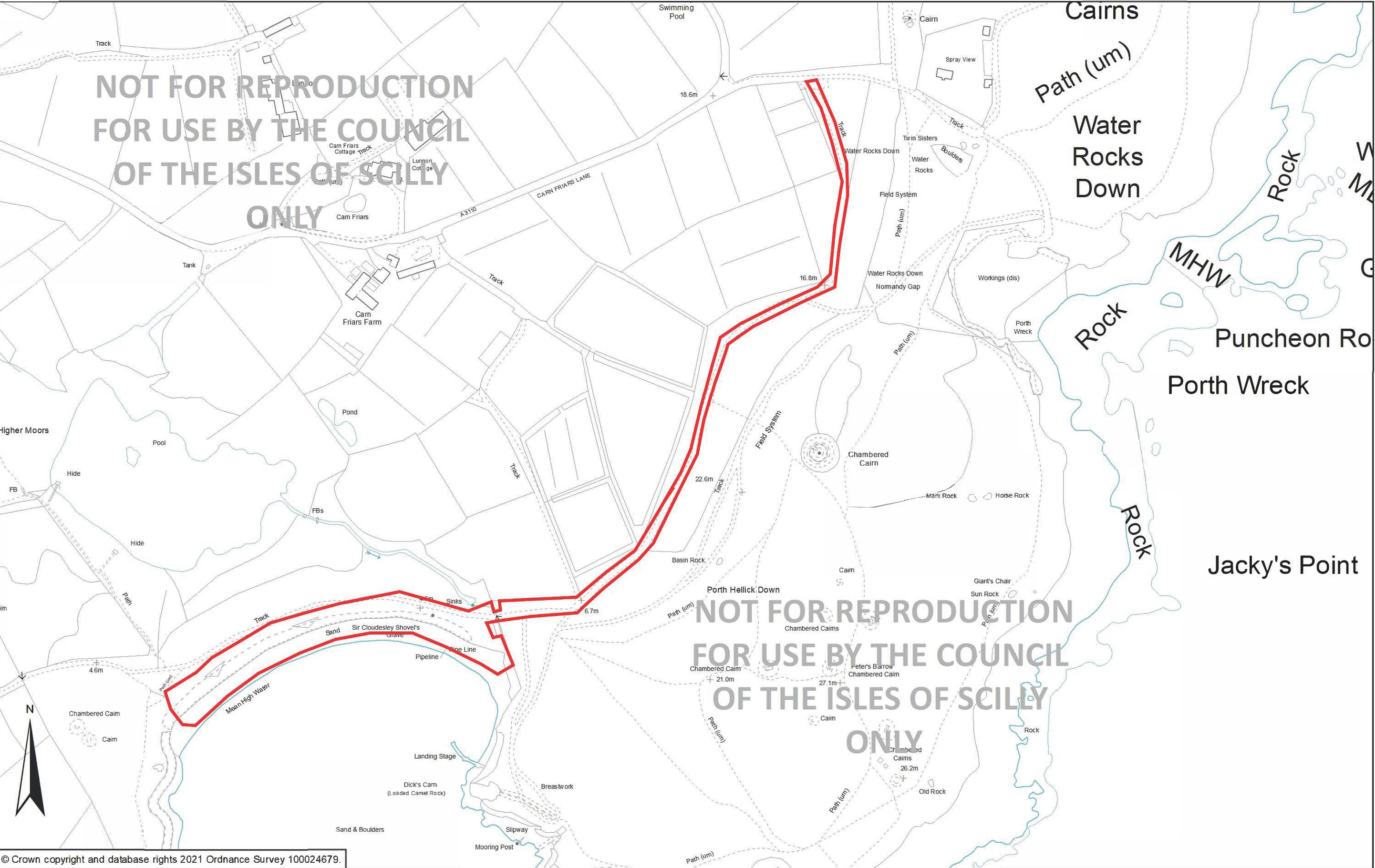
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  9. Provision to be made for analysis of the site investigation and recording
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LOCATION PLAN - PH2500  
Porth Hellick, St Mary's

APPROVED  
By Lisa Walton at 1:38 pm, Oct 21, 2021

RECEIVED  
By A King at 8:31 pm, Jul 28, 2021



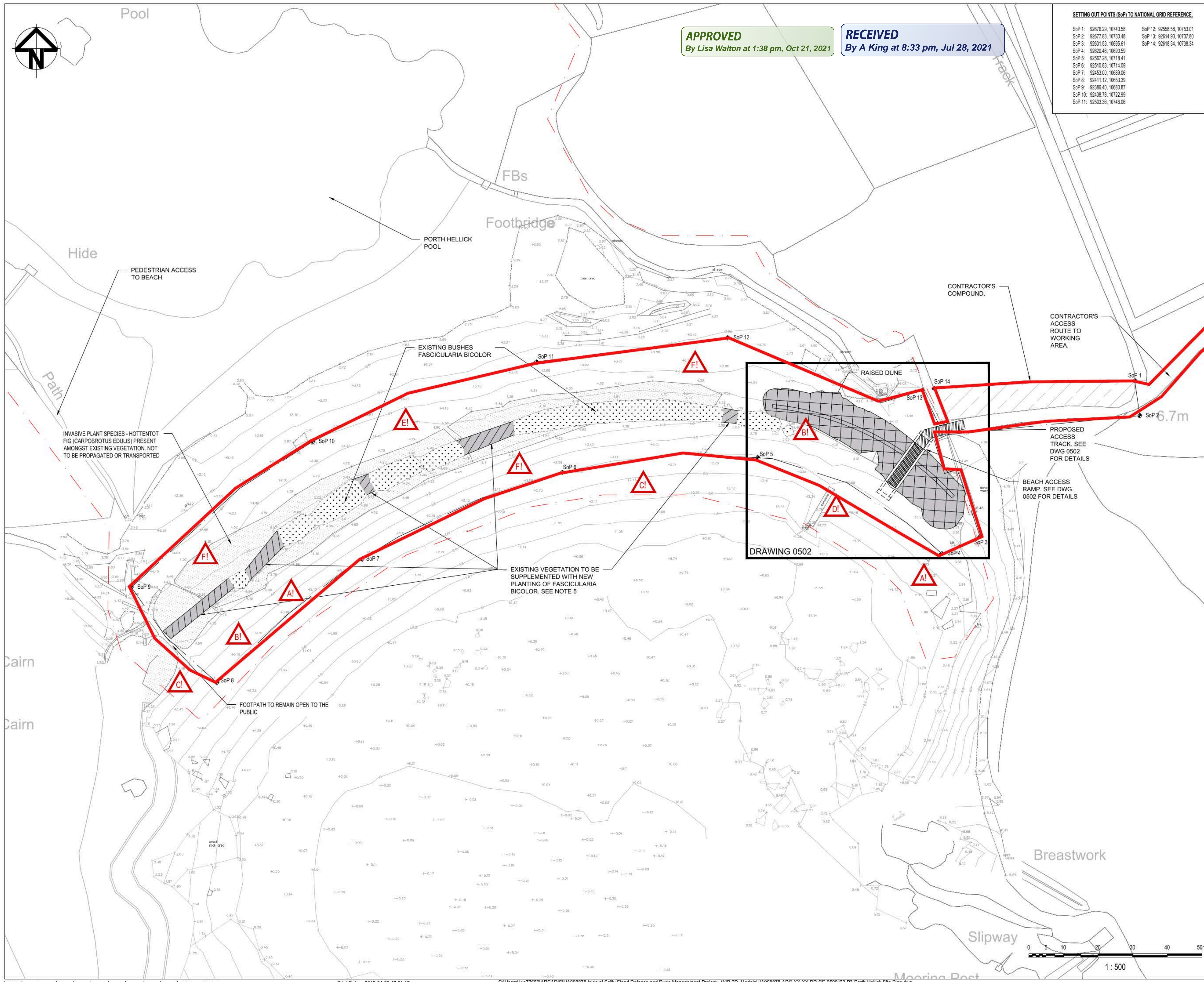
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Council of the Isles of Scilly, Town Hall, The Parade, St Mary's, Isles of Scilly, TR21 0LW







**APPROVED**  
By Lisa Walton at 1:38 pm, Oct 21, 2021

**RECEIVED**  
By A King at 8:33 pm, Jul 28, 2021

SETTING OUT POINTS (SoP) TO NATIONAL GRID REFERENCE.

SoP 1: 92676.29, 10740.58	SoP 12: 92556.58, 10753.01
SoP 2: 92677.83, 10730.48	SoP 13: 92614.90, 10737.80
SoP 3: 92631.53, 10695.61	SoP 14: 92618.34, 10738.34
SoP 4: 92620.46, 10690.59	
SoP 5: 92567.28, 10718.41	
SoP 6: 92510.83, 10714.09	
SoP 7: 92453.00, 10689.06	
SoP 8: 92411.12, 10653.39	
SoP 9: 92366.40, 10680.87	
SoP 10: 92438.78, 10722.99	
SoP 11: 92503.36, 10746.06	

- NOTES:
- DO NOT SCALE FROM THIS DRAWING USE FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
  - ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM LOCAL (ODL).
  - TIDE INFORMATION RELATIVE TO ODL:  
MHW 2.79m  
MHWN 1.39m  
MLWN -0.91m  
MLWS -2.21m
  - FASCICULARIA BICOLOR TO BE PLANTED TO PROVIDE A MINIMUM VEGETATED STRIP OF 4m WIDE ALONG THE CREST IN THE DESIGNATED PLANTING AREAS. A MIX OF MATURE & JUVENAL SPECIES TO BE PLANTED.
  - BEACH LEVELS RECORDED IN FEBRUARY 2017

- LEGEND:
- DUNE TO BE RAISED TO 5m AOD AND TO BE PROTECTED WITH BIODEGRADABLE COIR MATTING AND PLANTING
  - EXISTING FASCICULARIA BICOLOR BUSHES
  - PROPOSED FASCICULARIA BICOLOR BUSHES
  - INVASIVE PLANT SPECIES (CARPOBROTUS EDULIS) - HOTTENTOT FIG PRESENT AMONGST EXISTING VEGETATION
  - PROPOSED ACCESS TRACK
  - CONTRACTOR'S COMPOUND
  - HIGHER MOORS & PORTH HELICK POOL (ST. MARY'S) SSSI BOUNDARY
  - WORKING AREA BOUNDARY

P3	10APR19	WORKS AREA & COMPOUND ADDED	JW	MC	IC
P2	19SEP17	DRAWING AMENDMENTS	EB	MC	IC
P1	28JUL17	FOR INFORMATION	EB	MC	IC
Rev	Date	Description	Drawn	Check	Approv

**Client**

**COUNCIL OF THE ISLES OF SCILLY**

**PROJECT: ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME**

**Site**

Isles of Scilly  
Porth Hellick

**Client**

Council of the Isles of Scilly  
Address  
Town Hall  
St Marys, Isles of Scilly, TR21 0LW  
+44 (0)1720 424000  
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http://www.scilly.gov.uk/

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Coordinating office:  
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Crownhill  
Plymouth PL6 5XR  
Tel: +44 (0)1752 689 000

www.arcadis.com

**TITLE:**

**PORTH HELICK SITE PLAN**

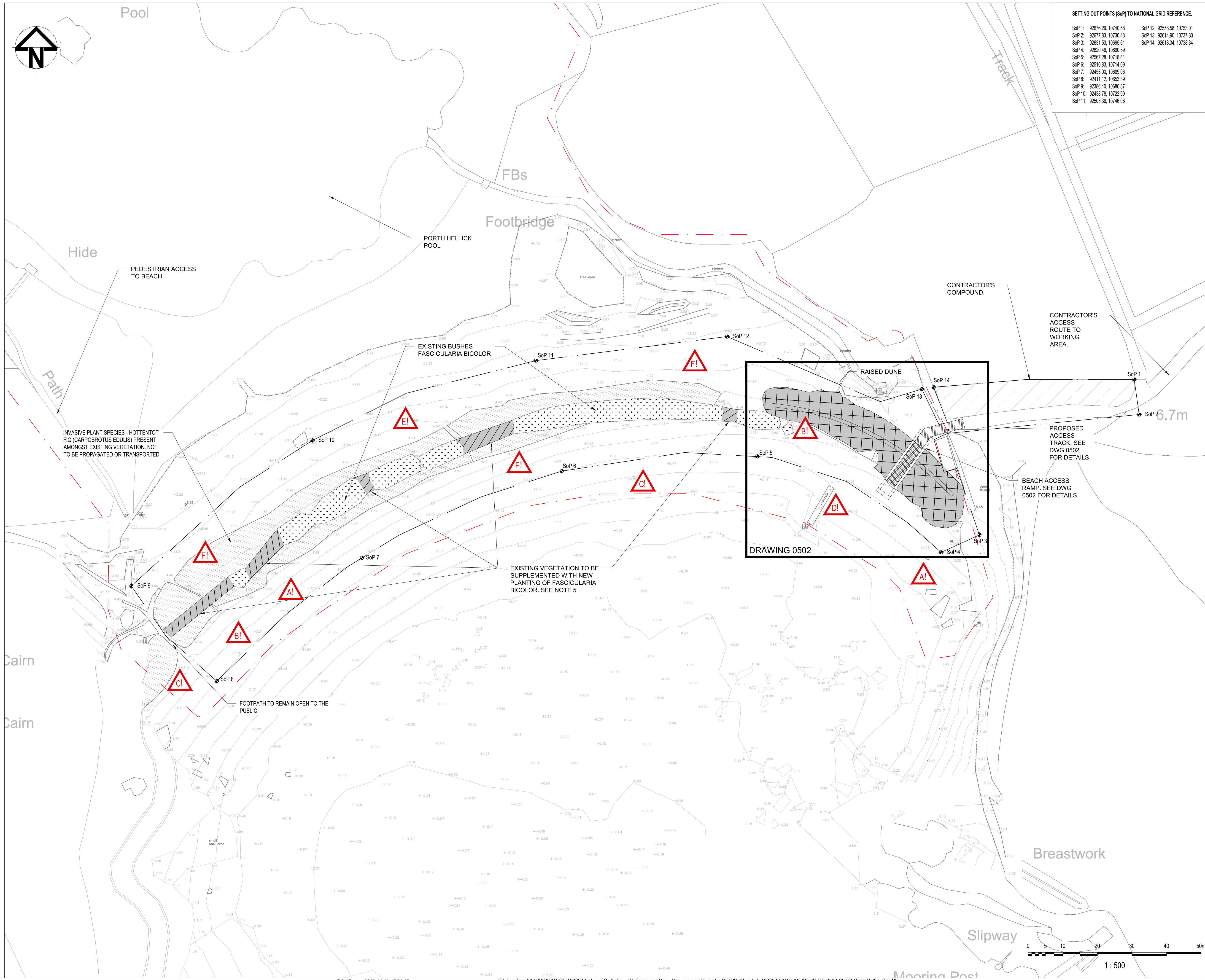
Designed	M. CLAUSEN	Signed	[Signature]	Date	29MAR19
Drawn	J. WATLING	Signed	[Signature]	Date	29MAR19
Checked	M. CLAUSEN	Signed	[Signature]	Date	29MAR19
Approved	I. COOKE	Signed	[Signature]	Date	29MAR19
Scale:	As shown	Datum:	NEWLYN		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA008878		

Suitability Description:  
**ISSUED FOR INFORMATION**

Drawing Number:  
UA008878-ARC-XX-XX-DR-CE-0500

Revision:  
P3





SETTING OUT POINTS (SoP) TO NATIONAL GRID REFERENCE.			
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  - BEACH LEVELS RECORDED IN FEBRUARY 2017

**RECEIVED**  
By Emma Kingwell at 2:31 pm, Jun 22, 2021

**APPROVED**  
By Lisa Walton at 1:39 pm, Oct 21, 2021

- LEGEND:
- DUNE TO BE RAISED TO 5m AOD AND TO BE PROTECTED WITH BIODEGRADABLE COIR MATTING AND PLANTING
  - EXISTING FASCICULARIA BICOLOR BUSHES
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Rev	Date	Description	Drawn	Check	Approv
P3	09ARP19	WORKS AREA & COMPOUND ADDED	JW	MC	IC
P2	19SEP17	DRAWING AMENDMENTS	EB	MC	IC
P1	28JUL17	FOR INFORMATION	EB	MC	IC

Client



COUNCIL OF THE ISLES OF SCILLY  
PROJECT:  
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site	Client
Isles of Scilly Porth Hellick	Council of the Isles of Scilly Address: Town Hall St Marys, Isles of Scilly, TR21 0LW +44 (0)1720 424000 enquiries@scilly.gov.uk http://www.scilly.gov.uk/



Registered office:  
Arcadis House  
34 York Way  
London  
N1 9AB

Coordinating office:  
680 Budshad Road  
Crownhill  
Plymouth PL6 5XR  
Tel: +44 (0)1752 689 000

www.arcadis.com

TITLE:  
PORTH HELICK SITE PLAN



Designed	M.CLAUSEN	Signed	[Signature]	Date	29MAR19
Drawn	J.WATLING	Signed	[Signature]	Date	29MAR19
Checked	M. CLAUSEN	Signed	[Signature]	Date	29MAR19
Approved	I. COOKE	Signed	[Signature]	Date	29MAR19
Scale:	As shown	Datum:	NEWLYN		
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Suitability Code:	S2	Project Number:	UA008878		

Suitability Description:  
ISSUED FOR INFORMATION

Drawing Number: UA008878-ARC-XX-XX-DR-CE-0500	Revision: P3
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**SHORT FORM DESIGN STATEMENT**

 <b>ARCADIS</b> <small>Design &amp; Consultancy for natural and built assets</small>	Project Name	Number and Activity code
	Isles of Scilly – Porth Hellick	UA008878-ARC-XX- XX-MS-CE-0561-P2
<b>Brief Description:</b> <p>Porth Hellick is located on the south-east coast of St. Marys. The 250-m wide bay is flanked on both ends by rocky outcrops.</p> <p>The backshore dune is made of coarse sand (4-10 mm particle size) and vegetation is well established along its crest including <i>Fascicularia Bicolour</i> and <i>Hottentot Fig</i> (<i>C.edulis</i>). There are gaps and low points due to the action of storm events during the past decade. It has been reported though that the dune is not particularly mobile.</p> <p>The eastern end of the dune suffers from severe human-induced erosion due to the action of boat launching. Additionally, the construction of the existing outfall required the excavation of dune which was not reinstated to match the existing dune levels.</p> <p>These low spots are potential paths for saline intrusion into the Higher Moors Pool, the main fresh water resource for St. Mary's, hence the sand dune defence needs improvement to continue to protect this natural resource.</p>		
		
<p>Figure 1: Aerial photograph of Porth Hellick. Image orientated north (Channel Coastal Observatory, 2016)</p>		



### Assumptions:

- Though the beach is tidal, the proposed work is located above the MHWS mark the construction area could still be affected by storm events.
- Existing water levels:

	Local CD	Equivalent AOD
HAT	6.3	3.39
MHWS	5.7	2.79
MHWN	4.3	1.39
MLWN	2.0	- 0.91
MLWS	0.7	- 2.21

- It is assumed that the existing ground is suitable and accessible for the works to raise the dune crest.
- It is assumed that, based on the existing data collated by the Channel Coastal Observatory through the South West Regional Monitoring Programme, the potential sediment transport in Porth Hellick is negligible (no change in sediment volume in the period 2007-2015).
- It is assumed that the existing plant species located on the crest of the existing dune is suitable to revegetate the existing gaps and the newly raised dune.
- It has been agreed with the client to raise the crest of the dune to +5.00 m ODN.
- It has been agreed with the client not to provide any clearance between the toe of the newly raised dune and the existing shed on the east end of the beach.
- It is understood that the client has in discussions with Dutchy and it no longer the intention of Dutchy that boats will be launched from the beach .
- It has been agreed with the client that the ramp will be used as an access track to the beach to undertake maintenance works on the existing beach outfall.

### Design Basis / design method:

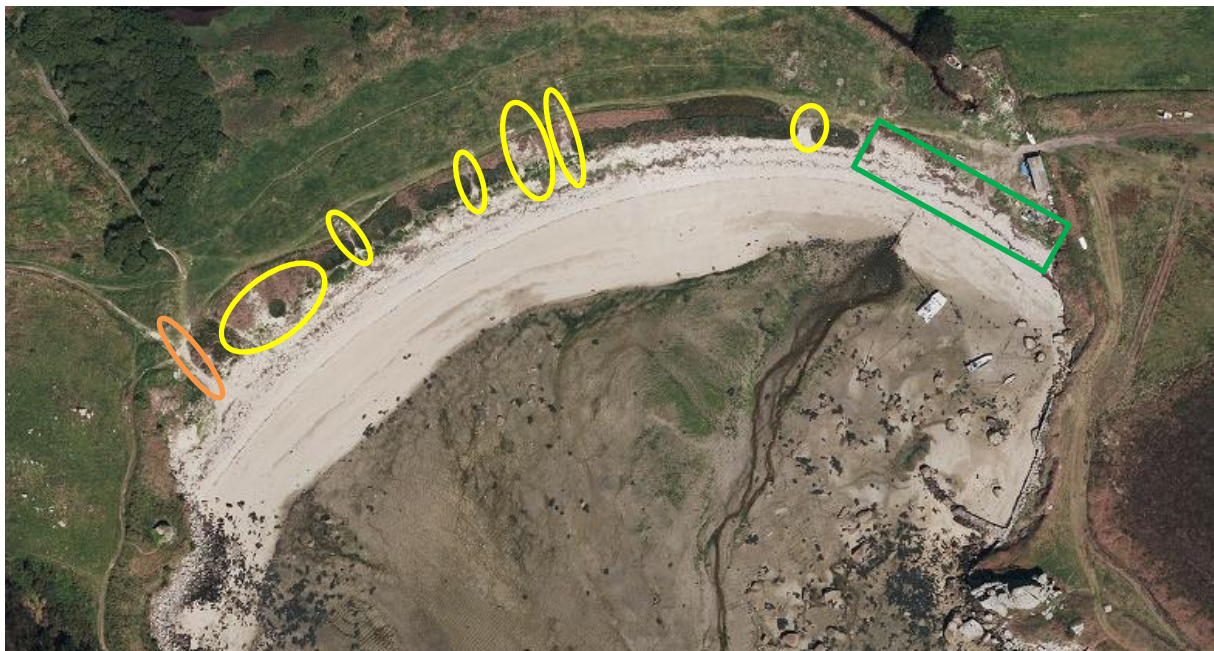


Figure 2. Key elements of the design

The focus of the design is on the following three elements:

1. Revegetation of the dune crest:

It can be observed in Figure 2 that the existing vegetation (*Fascicularia Bicolour*) on the crest of the dune has prevented beach material being moved to the rear of it. Therefore, it is proposed that non-vegetated



areas highlighted in yellow are revegetated with the same plant species found growing locally on the crest to provide a consistent and continuous line of defence against wave run-up and dune erosion.

The fascicularia plants are firmly established on the bank and their removal would do irreparable damage to the integrity of the bank's structure. Furthermore, their salt tolerance and development at this site has added a good metre of height to the bank and have helped stabilise and protect the bank during storm events. The Fascicularia are not encroaching on land beyond the bank and the use of the plant in selected areas will not extend its distribution beyond this site. Its use is with the aim to infill sections within the existing distribution and help provide those bare sections in the bank with a degree of protection that the rest of the bank already benefits from.

The Fascicularia plants also provide shelter on the landward side of the bank for other local vegetation. At present, some of these sheltered landward areas have been populated by *C.edulis* (Hottentot fig). None of this species will be transported or propagated at this area. Where possible areas with little or no vegetation on the landward side will be planted with species such as Sea Campion, Sea Holly, Sea Kale and Sea Rocket etc to help prevent the opportunist spread of *C edulis*.

#### 2. Installation of an elevated timber boardwalk:

The section highlighted in orange in Figure 2 at the western end of the site, is primarily used by members of the public to access the beach. This is causing the dune to erode, facilitating a path for sea water to reach the water resource during storm events. In this case, it is proposed to install a timber boardwalk which will be elevated above the underlying beach material (circa 100mm). This should stop further deterioration of the dune from the pedestrian induced erosion.

#### 3. Extending the dune:

The existing dune is to be extended along the section highlighted in green with its crest set to +5.00 ODN. To do so, the existing ground will be cleared to provide a suitable founding surface. The dune will be profiled in two sections, leaving a gap in between for the construction of the ramp. The slopes of the dune will match the existing (1V:6H approximately) and will be stabilised with 100% biodegradable geotextile mats (Coconet 800 or similar approved). The imported material is to be crushed Cornish granite 4-10 mm grading. Following point no.1, the crest will be revegetated with bush found growing locally on the crest. A mix of sapling and mature plants is to be used. The required volume to be imported is 276 m<sup>3</sup>.

The raised dune will require local profiling around the existing shed on the east end of the beach. An alternative layout of the dune was studied in order to provide clearance around the shed, but this resulted in the dune being bypassed by overtopping flows leading to saline intrusion in the Higher Moors SSSI.

#### 4. Installation of a flexible precast concrete block mattress:

This is to provide access to vehicles to carry out maintenance works on the outfall. The mattress will follow the profile of the newly raised dune onto the beach. It will be anchored at both ends with plain concrete beams and founded on a hardcore comprising 200mm thick Strataweb layers filled with the excavated material. The mattress will be covered with topsoil and seeded with native grasses.

#### 5. Installation of access track to block mattress

This will provide access to the above-mentioned works and will stop damage occurring from vehicles approaching the beach access ramp. The access track shall be a Bodpave 85, or similar approved, filled with 4-15mm aggregate and covered with top soil and seeded with native grasses.

**Designer's Risk Assessment:** *incl. Hazards that cannot be designed out. See Designer's Hazard Record for further information*

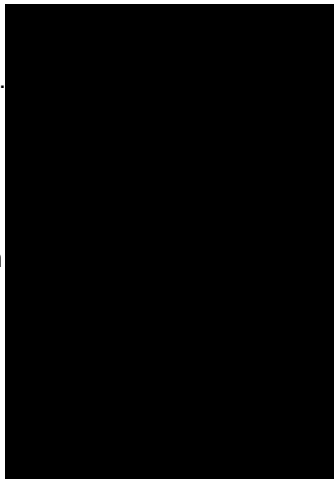
- A. Works adjacent to water – Though working above MHWS, the site could be effected by wave conditions and extreme tidal levels.
- B. Soft ground – Risk of machinery over turning
- C. Public beach – Risk public may enter works area.
- D. Services – Existing buried Higher Moors leat outfall pipe.
- E. Environmental sensitive dune designated as SSSI & AONB
- F. Invasive Plant Species - Hottentot Fig (*Carpobrotus Edulis*)



**Signed:** ...Emilio Bolanos...

**Reviewed:** ...Ma□ Clausen.....

**Approved:** ...Ian Cooke.....





**APPROVED**

*By Lisa Walton at 1:39 pm, Oct 21, 2021*



**ARCADIS**

Design & Consultancy  
for natural and  
built assets

# ISLES OF SCILLY DUNE & FLOOD DEFENCE SCHEME

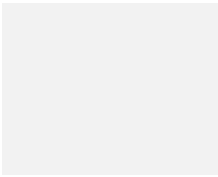
Site Information- Porth Hellick

APRIL 2019





## CONTACTS



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dd +44 (0) 1752 689 056  
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Plymouth  
PL6 8BX  
United Kingdom



# Isles of Scilly Dune & Flood Defence Scheme

## Site Information- Porth Hellick

Author	M. Clausen
Checker	I. Cooke
Approver	I. Cooke
Report No	UA008878-ARC-XX-XX-SP-CE-0803
Date	APRIL 2019

### VERSION CONTROL

Version	Date	Author	Changes
P1	09-04-2019	MC	First Issue

This report dated 09 April 2019 has been prepared for Council of the Isles of Scilly (the “Client”) in accordance with the terms and conditions of appointment dated 28 October 2016(the “Appointment”) between the Client and **Arcadis (UK) Limited** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.



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# APPENDICES

## APPENDIX A

Topographic Surveys

## APPENDIX B

Service Plans

## APPENDIX C

Design Statements

## APPENDIX D

Designer's Hazard Records



## 1. Introduction

This document forms the Site Information for the *works* at Porth Hellick on St. Mary's island, in the Isles of Scilly. It describes the existing conditions at the site and the information collected during the concept and detailed design phases of the scheme.

There are three *works* sites on the main island of St. Mary's, namely Porthloo, Porth Mellon and Porth Hellick with each site having separate Site and Work Information documents. See drawing □ document register for details.



## 2. Site locations & Access

Porth Hellick is located on the south-east coast of St. Marys. The 250-m wide bay is flanked on both ends by rocky outcrops. Higher Moors SSSI pool is located behind the beach and is the island's main drinking water resource.

Nearest Postcode: TR21 0NZ  
Nation Grid Reference: SV9247910719



Figure 1: Porth Hellick (Plymouth Coastal Observatory, 2016)

Porth Hellick beach is accessed by foot through Higher Moors SSSI board walks. Vehicle access is via an unsurfaced track to the east of the site. See figure 4 below:



Figure 2: Vehicle access to Porth Hellick from Carn Friars Lane as shown by the red line arrow. The orange lined arrow illustrates pedestrian access through Higher Moors SSSI from the A3110.



### 3. Site Photos



*Figure 3 Overview of Porth Hellick Bay*



*Figure 4: Profile view of Porth Hellick Dune. Pedestrian access only from the western end of dune (foreground of the photo).*





*Figure 5: Boathouse and informal slipway at the eastern end of the bay. The works are to raise the dune in this area.*



*Figure 6: View of the concrete outfall from the informal spillway. The works are to formalise the spillway and to raise the dune.*



## 4. Topographic Survey

See Appendix A for topographic survey.

## 5. Services and Utility Search

See Appendix B for utility service plans

A Linesearch – ‘before u dig’ (LSBUD) search was conducted and of its members, only Western Power Distribution was found to have services in the area.

Of its non-members, the following replies were received:

E-mail requests	Sent	Received	Utilities Found	Comments/Notes
BT	09/03/18	09/03/18	Yes	Outside of works area
CityFibre	09/03/18	-	Nil reply	
Colt	09/03/18	20/03/18	No	
CenturyLink Communications	09/03/18	-	Nil reply	
Energetics Electricity	09/03/18	14/03/18	No	
ENGIE	09/03/18	09/03/18	No	
GTC	09/03/18	-	Nil reply	
Isles of Scilly Council	03/08/18	06/08/18	Yes	
Interoute	09/03/18	09/03/18	No	
KPN	09/03/18	12/03/18	No	
Mobile Broadband Network Limited	09/03/18	-	Nil reply	
Sota	09/03/18	12/03/18	No	
Utility assets	09/03/18	-	Nil reply	
Verizon Business	09/03/18	09/03/18	No	
Virgin Media	09/03/18	-	Nil reply	
Vodafone	09/03/18	16/03/18	No	
Vttesse Networks	09/03/18	-	Nil reply	



The Council of the Isles of Scilly is responsible for the maintenance of roads, land drainage, mains water and sewer services and details can be found in Appendix E.

See Appendix E for LSBUD results and utility service plans.

## **6. Ground Investigation**

No ground investigation was undertaken at Porth Hellick, but the dune material can be described as a very loose GRAVEL with a fine to medium particles between 4-15mm (Cornish Granite).

## **7. Design Statements**

For background information on the designs and for remaining hazards see Appendix C for design statements.

## **8. Designer's Hazard Record**

For residual designer identified hazards that remain at the site see Appendix D.



# APPENDIX A

## Topographic Surveys



THIS DRAWING IS COPYRIGHT. Contractors and Consultants must check all dimensions on site. Only figured dimensions are to be used. Any discrepancies to be reported to the Project Manager before work proceeds. This drawing shall be used only for the purpose intended.

NOTES:  
GENERAL:  
Do not scale from this drawing

### Floor Plan Legend

B0.00 floor to beam height  
CH0.00 floor to ceiling height  
FL0.00 floor level  
C0.00 cill height  
W0.00 window head height  
D0.00 door head height

### Underground Utility Legend

Underground Services.	
Underground Comms cables	
Underground Earthrod	
Underground Electricity	
Underground Foul water	
Underground Fuel line	
Underground Gas	
Underground Heating ducts	
Underground Mains water	
Underground Storm water	
All assumed underground services are shown as dashed lines.	

This information must not be solely relied upon in the event of excavation or other works carried out. No liability of any kind whatsoever is accepted by Benchmark Surveys, its servants, or agents, for any error or omission in respect of information contained on this information. The actual position of underground services must be verified and established on site before any mechanical plant is used. All information is complete at time of issue.

### Remarks:

Datum and orientation fixed by  
GPS to Ordnance Survey  
Red = Feature Heights

### Feature Legend

BP — Boundary post	FB — Post box
BS — Boundary stone	FO — Post / bollard
BT — British Telecom cover	RE — Roading eye
CATV — CATV cover	RS — Ridge
CH — Chimney	SC — Stopcock
DR — Drain	SP — Sign post
DR — Drainpipe	SV — Stop valve
EP — Electricity pole	TF — Top of fence
EV — Eave	TOW — Top of wall
FI — Fire hydrant	TL — Traffic light
FL — Floor level	TP — Telegraph pole
GA — Gas cover	WL — Water level
GB — Grit box	WM — Water meter
GP — Gate post	BM — Benchmark
GU — Gully	BO — Borehole
IC — Inspection cover	CB — County boundary
IL — Invert level	FI — Fence
LB — Light bollard	H — Hedge
LT — Light tower	LP — Light pylon
LP — Lamp post	S — Slope
J — Junction box	SR — Stone face
M — Manhole	SL — Surface level
m — metres	SS — Survey station
MO — Circular manhole	TP — Triangulation pillar
OC — Overhead Cable	



Benchmark (Exeter) Limited  
Unit 12, Kingfisher Court  
Venny Bridges  
Pinhoe  
Exeter  
EX4 8JN  
TEL: 01392 467836  
FAX: 01392 468617  
email: sales@benchmarksurveys.co.uk  
www.benchmarksurveys.co.uk

### CLIENT

JacksonHyder Ltd

### SITE LOCATION

Porth Hellick, St. Mary's Island

### DRAWING TITLE

Topographic Survey

### SCALE

1:500 @ A1

### DRAWN BY

D.W

### DRAWING NUMBER

BS2443/02.17/03/DW

### REVISION

A

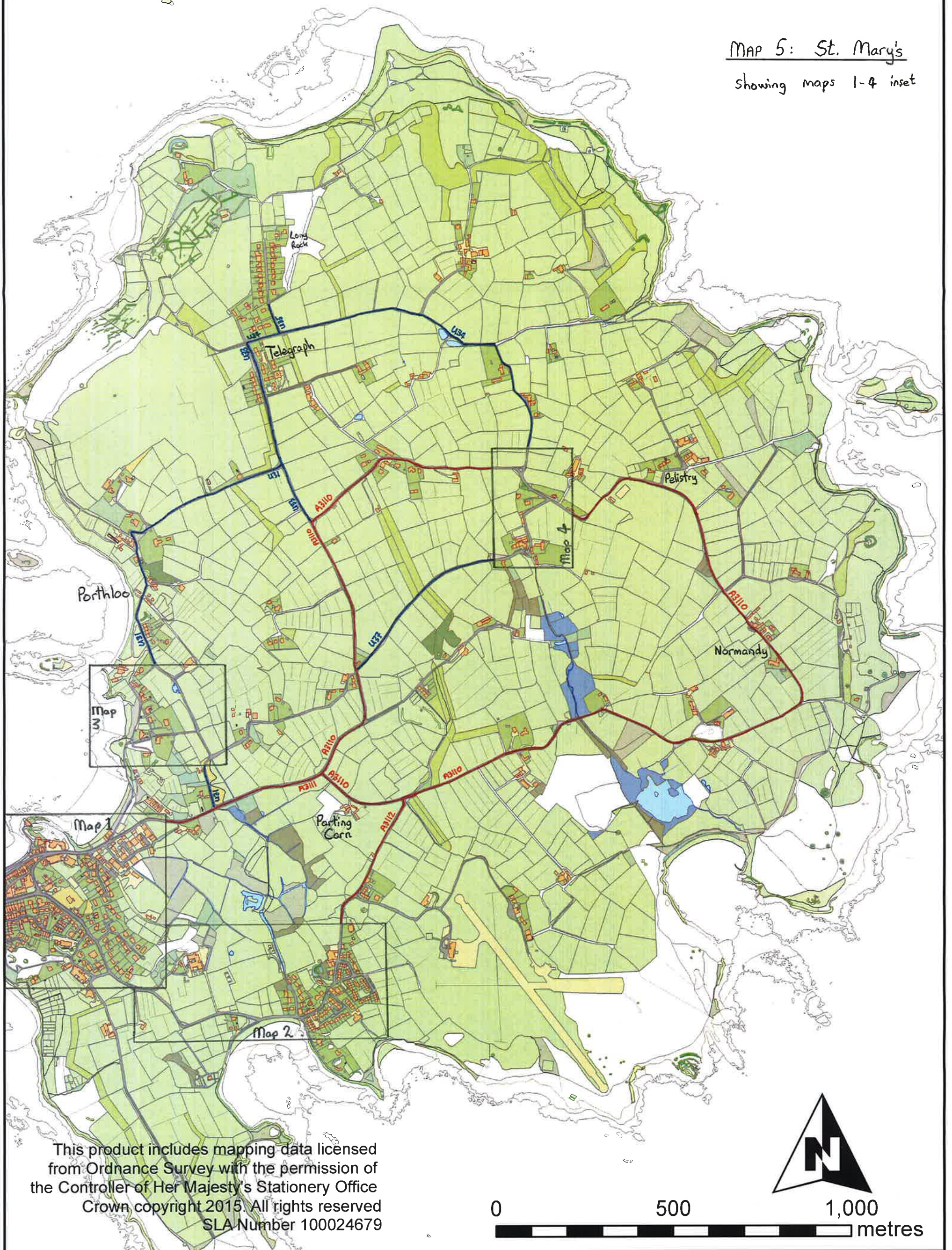


# APPENDIX B

## Service Plans



MAP 5: St. Mary's  
showing maps 1-4 inset



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SLA Number 100024679

0 500 1,000 metres



# LIST OF STREETS

## (Highways Maintainable At The Public Expense)

### Council of the Isles of Scilly

All highways maintainable at the public expense (the streets listed) in the Isles of Scilly are located on the island of St Mary's. Please refer to the Attached Maps for the linear extents of the streets listed.

This List was last updated on 1<sup>st</sup> March 2016.

### List, Part I – Roads

The streets listed in Part I (i. and ii.) are public roads.

- i. Roads, classified 'A' (*with or without dedicated footway(s) forming part of the road*)

Reference	Names of street	Route
A3110	Telegraph Road, Town Lane, High Lanes, Carn Friars Lane, Tremelethen Hill, Parting Carn Lane	Circular – names listed clockwise from junction with the A3111 Pump Road to the same junction
A3111	Pump Road, Telegraph Road (Porthmellon), Carn Thomas, Higher Strand, Lower Strand, The Parade (North), Hugh Street, The Bank	A3110 Telegraph Road/Parting Carn Lane junction to the end of the public road at <i>The Quay</i>
A3112	Old Town Lane, Old Town Road, Church Road, Church Street, The Parade (South)	A3110 Parting Carn Lane to the A3111 The Parade (North)

- ii. Roads, unclassified (*with or without dedicated footway(s) forming part of the road*)

Reference	Name or description of street	Running between
U01	Garrison Hill	U03 Jerusalem Terrace and end of road at the frontage of land owned by the Duchy of Cornwall (before the <i>Garrison Gate</i> )
U02	Garrison Lane	A3111 Hugh Street and U01 Garrison Hill
U03	Jerusalem Terrace	A3111 The Bank and U02 Garrison Lane
U04	Sally Port	U01 Garrison Hill south and end of road at frontage of <i>4 Sally Port</i> and end of road at frontage of <i>29 Sally Port</i>
U05	Little Porth Road	U04 Sally Port and U14 Silver Street
U06	Parsons Field (Service Road)	U05 Little Porth Road and end of road where it meets F02 Parsons Field To Garrison Lane (Upper) and F05 Parsons Field (Estate Paths)
U07	Little Porth Slipway	U05 Little Porth Road and end of road at <i>Porthcressa Beach &amp; Little Porth Beach</i>
U08	The Bank (Car Park)	A3111 The Bank and A3111 The Bank
U09	Atlantic Hotel Slipway	A3111 The Bank and end of road at <i>Town Beach</i>
U10	Well Lane	A3111 Hugh Street and U02 Garrison Lane
U11	Back Lane (Off Garrison Lane)	U02 Garrison Lane and U10 Well Lane



U12	<b>Thorofare</b>	A3111 The Parade (North) and (in two places) A3111 Hugh Street and ends of road (in two places) at <i>Town Beach</i>
U13	<b>The Parade (East)</b>	A3111 The Parade (North) and A3112 The Parade (South)
U14	<b>Silver Street</b>	A3111 Hugh Street and U16 Porthcressa Road
U15	<b>Ingram's Opening</b>	A3112 The Parade (South) and U16 Porthcressa Road
U16	<b>Porthcressa Road</b>	U14 Silver Street and U20 Buzza Street
U17	<b>Porthcressa Road (Lane To South)</b>	U16 Porthcressa Road and end of road where it meets F10 Porthcressa Promenade And Connecting Ways
U18	<b>Porthcressa</b>	U16 Porthcressa Road and U20 Buzza Street
U19	<b>Buzza Road</b>	U20 Buzza Street and end of road where it meets F12 Porthcressa Terrace To Buzza Road
U20	<b>Buzza Street</b>	A3112 Church Street and U19 Buzza Road
U21	<b>Ram's Valley</b>	U20 Buzza Street and end of road at a private gate (road inclusive of frontage of <i>Arden House</i> )
U22	<b>Porthcressa Terrace</b>	U20 Buzza Street and U21 Ram's Valley
U23	<b>Rechabite Slipway</b>	A3111 Lower Strand and end of road at <i>Town Beach</i>
U24	<b>Well Cross</b>	A3111 Lower Strand and A3112 Church Street
U25	<b>Back Lane (Off Well Cross)</b>	U24 Well Cross and U26 Church Road (North)
U26	<b>Church Road (North)</b>	A3111 Carn Thomas and A3112 Church Street
U27	<b>Branksea Close</b>	A3112 Church Road and end of road where it meets F15 Branksea Close (Estate Paths)
U28	<b>Hospital Lane</b>	A3112 Church Road and end of road where it meets F13 Mill Hill
U29	<b>Moor Well Lane</b>	A3111 Telegraph Road (Porthmellon) and end of road at entrance to the <i>Porthmellon waste management site</i>
U30	<b>Porthmellon Industrial Estate Roads</b>	A3111 Telegraph Road (Porthmellon) and all ends of road within the industrial estate
U31	<b>Porthloo Lane</b>	A3111 Pump Road and U33 Telegraph Road (North)
U32	<b>Mount Flagon And Thomas' Porth</b>	U31 Porthloo Lane and end of road at the frontage of <i>Camberdown</i> (inclusive)
U33	<b>Telegraph Road (North)</b>	A3110 Telegraph Road and U34 Pungie's Lane
U34	<b>Pungie's Lane</b>	U33 Telegraph Road (North) and A3110 High Lanes (a forked junction)
U35	<b>McFarland's Down</b>	U34 Pungie's Lane and end of road immediately before the junction with track leading to Long Rock
U36	<b>Holy Vale</b>	A3110 High Lanes and U37 Holy Vale Lane and looping onto itself
U37	<b>Holy Vale Lane</b>	A3110 Telegraph Road and U36 Holy Vale
U38	<b>Ennor Close (Estate Roads)</b>	A3112 Old Town Lane and A3112 Old Town Lane and the two ends of road which meet F19 Ennor Close (Estate Paths)

End of Part I



## List, Part II – Footways

The streets listed in Part II are public footways or public footpaths (*not forming part of a road*)

Reference	Name or description of street	Running between
F01	<b>The Bank To Jerusalem Terrace</b>	A3111 The Bank and U03 Jerusalem Terrace
F02	<b>Parsons Field To Garrison Lane (Upper)</b>	U06 Parson's Field (Service Road) and junction of U02 Garrison Lane & U04 Sally Port
F03	<b>Parsons Field To Garrison Lane (West)</b>	U06 Parsons Field (Service Road) and U02 Garrison Lane
F04	<b>Parsons Field To Garrison Lane (East)</b>	U06 Parsons Field (Service Road) and U02 Garrison Lane
F05	<b>Parsons Field (Estate Paths)</b>	U04 Sally Port and U05 Little Porth Road and U06 Parsons Field (Service Road)
F06	<b>Sally Port Steps And Passage</b>	U04 Sally Port (in two places) and end of footway at line of boundary of housing estate with land owned by the Duchy of Cornwall
F07	<b>Little Porth</b>	U05 Little Porth Road and end of footway at frontage of <i>29 Sally Port</i> and U07 Little Porth Slipway
F08	<b>Customs House To Town Beach</b>	A3111 Lower Strand and end of footway at <i>Town Beach</i>
F09	<b>The Parade To Porthcressa Road</b>	A3112 The Parade (South) and U16 Porthcressa Road
F10	<b>Porthcressa Promenade And Connecting Ways</b>	U07 Little Porth Slipway and U14 Silver Street and U16 Porthcressa Road and U17 Porthcressa Road (Lane To South) and U18 Porthcressa and F11 Buzza Road Slipway
F11	<b>Buzza Road Slipway</b>	U19 Buzza Road and end of footway at <i>Porthcressa Beach</i>
F12	<b>Porthcressa Terrace To Buzza Road</b>	U22 Porthcressa Terrace and U19 Buzza Road
F13	<b>Mill Hill</b>	U19 Buzza Road and U28 Hospital Lane
F14	<b>Hospital Lane To Dracaena</b>	U28 Hospital Lane and end of footway at gate at the frontage of <i>Dracaena</i>
F15	<b>Branksea Close (Estate Paths)</b>	U27 Branksea Close and looping onto itself (within the housing estate)
F16	<b>Rear Of Museum</b>	A3112 Church Street and A3112 Church Street
F17	<b>Strand Promenade And Way To Lifeboat Station</b>	A3111 Higher Strand and A3111 Carn Thomas and ends of footway at the <i>RNLI Lifeboat Station</i> and <i>Town Beach</i>
F18	<b>Carn Thomas To Church Road (North)</b>	A3111 Carn Thomas and U26 Church Road (North)
F19	<b>Ennor Close (Estate Paths)</b>	U38 Ennor Close (Estate Roads) and U38 Ennor Close (Estate Roads) and ends of footway within the housing estate
F20	<b>Mermaid Inn Slipway</b>	A3111 The Bank and end of footway at <i>Town Beach</i>

End of Part II






## Attached Maps

1. Hugh Town
2. Old Town
3. Mount Flagon and Thomas' Porth
4. Maypole and Holy Vale
5. St Mary's (*showing maps 1 to 4 inset*)

### Key to the Attached Maps

Colour lines denote approximate centre lines of highway, and are intended primarily to show the linear extents of the highway and individual streets listed.

	Road, classified 'A'	( <i>with or without dedicated footway(s) forming part of the road</i> )
	Road, unclassified	( <i>with or without dedicated footway(s) forming part of the road</i> )
	Footway	( <i>not forming part of a road</i> )

The Reference for each street listed is written at least once by the particular street.



**Contact Us**

**Mapping Enquiries:**

All areas 0121 623 9780

**General Enquiries:**

All areas 0800 096 3080

**Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA  
0800 6783 105**

Date Requested: 08/03/2018

Job Reference: 12386308

Site Location: 92558 10742

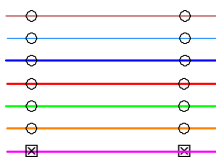
Requested by: Mr Ryan Haselden

Your Scheme/Reference: IoS

**IMPORTANT NOTICES**

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

**Overhead Line**



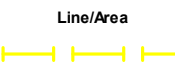
**SURF Telecoms**



**Link Box**



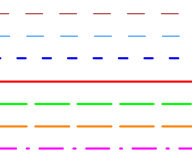
**Site Location**



**Line/Area**



**Underground Cable**



**Pilot Cables**



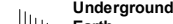
**PME Earth**



**Pole Mounted Transformer**



**Underground Earth**



**Ground Mounted Transformer**



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Overview











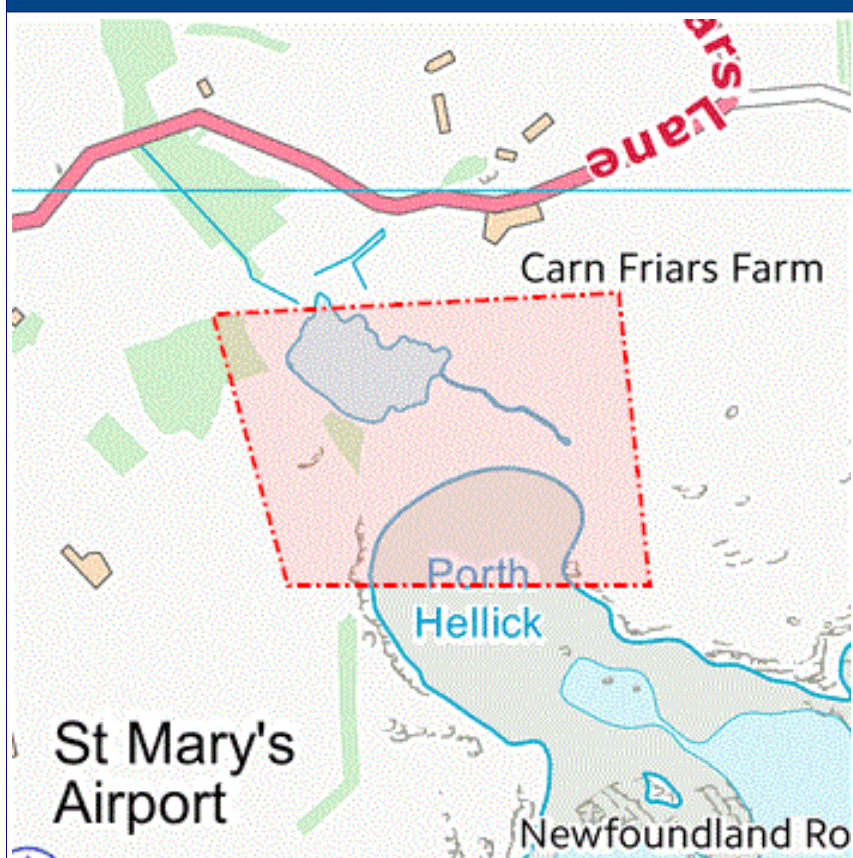
**Enquirer**

Name	Mr Ryan Haselden	Phone	4401752689010
Company	Arcadis	Mobile	Not Supplied
Address	Unit 7, Chamberlain House Research way, Plymouth Science Park Plymouth Devon PL6 8BT		
Email	ryan.haselden@arcadis.com		

**Enquiry Details**

Scheme/Reference	Isles of Scilly		
Enquiry type	Planned Works	Work category	Utility Works
Start date	26/07/2018	Work type	Multiple excavations site
End date	26/01/2019	Site size	118261 metres square
Searched location	SV9247910719	Work type buffer*	25 metres
Confirmed location	92474 10730		
Site Contact Name	Not Supplied	Site Phone No	Not Supplied
Description of Works	Not Supplied		

\* The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen.

**Site Map**




## Asset Owners

**Terms and Conditions.** Please note that this enquiry is subject always to our standard terms and conditions available at [www.lineasearchbeforeudig.co.uk](http://www.lineasearchbeforeudig.co.uk) ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

**Notes.** Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.

**Validity and search criteria.** The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LineasearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

**Asset Owners & Responses.** Please note the enquiry results include the following:

1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

1. **LSBUD Members who have assets registered within your search area. ("Affected")**
  - a. These LSBUD Members will either:
    - i. Ask for further information ("Email Additional Info" noted in status). The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.
    - ii. Respond directly to you ("Await Response"). In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.
2. **LSBUD Members who do not have assets registered within your search area. ("Not Affected")**
3. **Non LSBUD Members who may have assets within your search area.** Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

**National Grid.** Please note that the LSBUD service only contains information on National Grid's Gas above 7 bar asset, all National Grid Electricity Transmission assets and National Grid's Gas Distribution Limited above 2 bar asset.

For National Grid Gas Distribution Ltd below 2 bar asset information please go to [www.beforeyoudig.nationalgrid.com](http://www.beforeyoudig.nationalgrid.com)



**LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.**

### List of affected LSBUD members

Asset Owner	Phone/Email	Emergency Only	Status
Western Power Distribution	08000963080	08006783105	Await response

**LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD Members make regular changes to their assets and this list may vary for new enquiries in the same area.**

### List of not affected LSBUD members

AWE Pipeline	BOC Limited (A Member of the Linde Group)	BP Exploration Operating Company Limited
BPA	Carrington Gas Pipeline	CATS Pipeline c/o Wood Group PSN
Ceme	Centrica Storage Ltd	CLH Pipeline System Ltd
Concept Solutions People Ltd	ConocoPhillips (UK) Ltd	DIO (MOD Abandoned Pipelines)
E.ON UK CHP Limited	EirGrid	Electricity North West Limited
ENI Himor c/o Penspen Ltd	EnQuest NNS Limited	EP Langage Limited
ESP Utilities Group	ESSAR	Esso Petroleum Company Limited
Fulcrum Pipelines Limited	Gamma	Gateshead Energy Company
Gigaclear PLC	Gtt	Hafren Dyfrdwy
Humbly Grove Energy	IGas Energy	INEOS FPS Pipelines
INEOS Manufacturing (Scotland and TSEP)	INOVYN Enterprises Limited	Intergen (Coryton Energy or Spalding Energy)
Mainline Pipelines Limited	Manchester Jetline Limited	Man Cable Company
Marchwood Power Ltd (Gas Pipeline)	Melbourn Solar Limited	National Grid Gas (Above 7 bar), National Grid Gas Distribution Limited (Above 2 bar) and National Grid Electricity Transmission
Northumbrian Water Group	NPower CHP Pipelines	Oikos Storage Limited
Orsted	Perenco UK Limited (Purbeck Southampton Pipeline)	Petroineos
Phillips 66	Premier Transmission Ltd (SNIP)	Prysmian Cables & Systems Ltd (c/o Western Link)
Redundant Pipelines - LPDA	RWEnpower (Little Barford and South Haven)	SABIC UK Petrochemicals
Scottish Power Generation	Seabank Power Ltd	Severn Trent (Chester area only)
SGN	Shell (St Fergus to Mossmorran)	Shell Pipelines
SSE (Peterhead Power Station)	Tata Communications (c/o JSM Construction Ltd)	Total (Colnbrook & Colwick Pipelines)
Total Finaline Pipelines	Transmission Capital	UK Power Networks
Uniper UK Ltd	Vattenfall	Veolia ES SELCHP Limited
Westminster City Council	Wingas Storage UK Ltd	Zayo Group UK Ltd c/o JSM Group Ltd



The following Non-LSBUD Members may have assets in your search area. It is **YOUR RESPONSIBILITY** to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non-LSBUD members (Asset owners not registered on LSBUD)			
Asset Owner	Preferred contact method	Phone	Status
BT	<a href="https://www.swns.bt.com/pls/mbe/welcome.home">https://www.swns.bt.com/pls/mbe/welcome.home</a>	08009173993	Not Notified
CenturyLink Communications UK Limited	<a href="mailto:plantenquiries@instalcom.co.uk">plantenquiries@instalcom.co.uk</a>	02087314613	Not Notified
CityFibre	<a href="mailto:asset.team@cityfibre.com">asset.team@cityfibre.com</a>	033 3150 7282	Not Notified
Colt	<a href="mailto:plantenquiries@catelecomuk.com">plantenquiries@catelecomuk.com</a>	01227768427	Not Notified
Energetics Electricity	<a href="mailto:plantenquiries@energetics-uk.com">plantenquiries@energetics-uk.com</a>	01698404646	Not Notified
ENGIE	<a href="mailto:nrsua@cofely-gdfsuez.com">nrsua@cofely-gdfsuez.com</a>	01293 549944	Not Notified
GTC	<a href="https://pe.gtc-uk.co.uk/PlantEnqMembership">https://pe.gtc-uk.co.uk/PlantEnqMembership</a>	01359240363	Not Notified
Interoute	<a href="mailto:interoute.enquiries@plancast.co.uk">interoute.enquiries@plancast.co.uk</a>	02070259000	Not Notified
Isles of Scilly Council	<a href="mailto:planning@scilly.gov.uk">planning@scilly.gov.uk</a>	01720424350	Not Notified
KPN (c/-Instalcom)	<a href="mailto:kpn.plantenquiries@instalcom.co.uk">kpn.plantenquiries@instalcom.co.uk</a>	n/a	Not Notified
Mobile Broadband Network Limited	<a href="mailto:mbnl.plant.enquiries@turntown.com">mbnl.plant.enquiries@turntown.com</a>	01212 621 100	Not Notified
Sota	<a href="mailto:SOTA.plantenquiries@instalcom.co.uk">SOTA.plantenquiries@instalcom.co.uk</a>		Not Notified
Utility assets Ltd	<a href="mailto:assetrecords@utilityassets.co.uk">assetrecords@utilityassets.co.uk</a>		Not Notified
Verizon Business	<a href="mailto:osp-team@uk.verizonbusiness.com">osp-team@uk.verizonbusiness.com</a>	01293611736	Not Notified
Virgin Media	<a href="http://www.digdat.co.uk">http://www.digdat.co.uk</a>	08708883116	Not Notified
Vodafone	<a href="mailto:osm.enquiries@atkinsglobal.com">osm.enquiries@atkinsglobal.com</a>	01454662881	Not Notified
Vtesse Networks	<a href="https://plant.interoute.com/plant-enquiries/">https://plant.interoute.com/plant-enquiries/</a>	01992532100	Not Notified
Wales and The West Utilities	<a href="http://www.wuutilities.co.uk/login.asp">www.wuutilities.co.uk/login.asp</a>	02920278912	Not Notified

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# APPENDIX C

## Design Statements



## SHORT FORM DESIGN STATEMENT

 <b>ARCADIS</b> <small>Design &amp; Consultancy for natural and built assets</small>	Project Name	Number and Activity code
	Isles of Scilly – Porth Hellick	UA008878-ARC-XX- XX-MS-CE-0561-P3
<b>Brief Description:</b> <p>Porth Hellick is located on the south-east coast of St. Marys. The 250-m wide bay is flanked on both ends by rocky outcrops.</p> <p>The backshore dune is made of coarse sand (4-10 mm particle size) and vegetation is well established along its crest including <i>Fascicularia Bicolour</i> and <i>Hottentot Fig</i> (<i>C.edulis</i>). There are gaps and low points due to the action of storm events during the past decade. It has been reported though that the dune is not particularly mobile.</p> <p>The eastern end of the dune suffers from severe human-induced erosion due to the action of boat launching. Additionally, the construction of the existing outfall required the excavation of dune which was not reinstated to match the existing dune levels.</p> <p>These low spots are potential paths for saline intrusion into the Higher Moors Pool, the main fresh water resource for St. Mary's, hence the sand dune defence needs improvement to continue to protect this natural resource.</p>		
		
<p>Figure 1: Aerial photograph of Porth Hellick. Image orientated north (Channel Coastal Observatory, 2016)</p>		



### Assumptions:

- Though the beach is tidal, the proposed work is located above the MHWS mark the construction area could still be affected by storm events.
- Existing water levels:

	Chart Datum (CD)	Ordnance Datum Local (ODL)
HAT	6.3	3.39
MHWS	5.7	2.79
MHWN	4.3	1.39
MLWN	2.0	- 0.91
MLWS	0.7	- 2.21

- It is assumed that the existing ground is suitable and accessible for the works to raise the dune crest.
- It is assumed that, based on the existing data collated by the Channel Coastal Observatory through the South West Regional Monitoring Programme, the potential sediment transport in Porth Hellick is negligible (no change in sediment volume in the period 2007-2015).
- It is assumed that the existing plant species located on the crest of the existing dune is suitable to revegetate the existing gaps and the newly raised dune.
- It has been agreed to raise the crest of the dune to +5.00 m ODL.
- It has been agreed not to provide any clearance between the toe of the newly raised dune and the existing shed on the east end of the beach.
- It is agreed that the beach access ramp will not be designed to accommodate the launching of boats and is intended to protect the dune from vehicles accessing the beach to maintain the existing outfall.
- 

### Design Basis / design method:

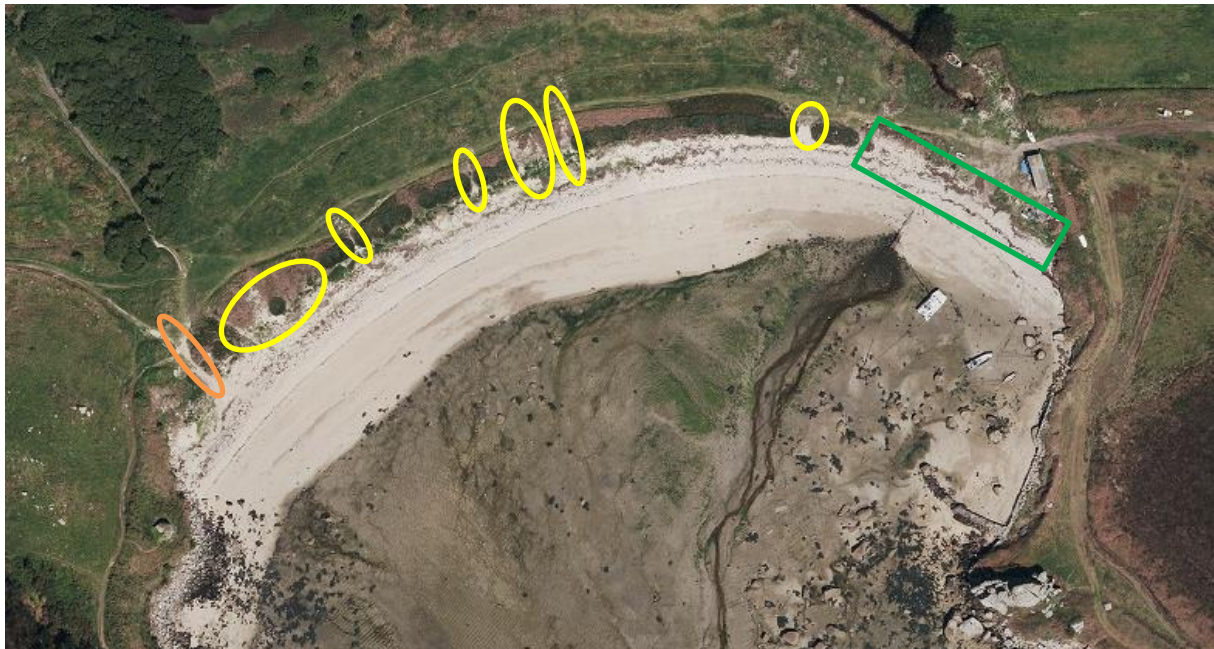


Figure 2. Key elements of the design

The focus of the design is on the following three elements:

#### 1. Revegetation of the dune crest:

It can be observed in Figure 2 that the existing vegetation (*Fascicularia Bicolour*) on the crest of the dune has prevented beach material being moved to the rear of it. Therefore, it is proposed that non-vegetated



areas, highlighted in yellow, are revegetated with the same plant species found growing locally on the crest to provide a consistent and continuous line of defence against wave run-up and dune erosion.

The fascicularia plants are firmly established on the bank and their removal would do irreparable damage to the integrity of the bank's structure. Furthermore, their salt tolerance and development at this site has added a good metre of height to the bank and have helped stabilise and protect the bank during storm events. The Fascicularia are not encroaching on land beyond the bank and the use of the plant in selected areas will not extend its distribution beyond this site. Its use is with the aim to infill sections within the existing distribution and help provide those bare sections in the bank with a degree of protection that the rest of the bank already benefits from.

The Fascicularia plants also provide shelter on the landward side of the bank for other local vegetation. At present, some of these sheltered landward areas have been populated by *C.edulis* (Hottentot fig). None of this species will be transported or propagated at this area. Where possible areas with little or no vegetation on the landward side will be planted with species such as Sea Campion, Sea Holly, Sea Kale and Sea Rocket etc to help prevent the opportunist spread of *C edulis*.

#### 2. Installation of an elevated timber boardwalk:

The section highlighted in orange in Figure 2 at the western end of the site, is primarily used by members of the public to access the beach. This is causing the dune to erode, facilitating a path for sea water to reach the water resource during storm events. In this case, it is proposed to install a timber boardwalk which will be elevated above the underlying beach material (circa 100mm). This should stop further deterioration of the dune from the pedestrian induced erosion. This aspect of the scheme will be let under a separate contract and is not part of the dune recharge project.

#### 3. Extending the dune:

The existing dune is to be extended along the section highlighted in green with its crest set to +5.00 ODN. To do so, the existing ground will be cleared to provide a suitable founding surface. The dune will be profiled in two sections, leaving a gap in between for the construction of the ramp. The slopes of the dune will match the existing (1V:6H approximately) and will be stabilised with 100% biodegradable geotextile (Coconet 800 or similar approved). The imported material is to be crushed Cornish granite 4-10 mm grading. Following point no.1, the crest will be revegetated with bush found growing locally on the crest. A mix of sapling and mature plants is to be used. The required volume to be imported is 276 m<sup>3</sup> although allowance will need to be made for wastage.

The raised dune will require local profiling around the existing shed on the east end of the beach. An alternative layout of the dune was studied in order to provide clearance around the shed, but this resulted in the dune being bypassed by overtopping flows leading to saline intrusion in the Higher Moors SSSI.

#### 4. Installation of a flexible precast concrete block mattress:

This is to provide access to vehicles to carry out maintenance works on the outfall. The mattress will follow the profile of the newly raised dune onto the beach. It will be anchored at both ends with mass concrete beams and founded Strataweb layers filled with the imported material. The mattress will be covered with topsoil and seeded with native grasses.

#### 5. Installation of access track to block mattress

This will provide access to the above-mentioned works and will stop damage occurring from vehicles approaching the beach access ramp. The access track shall be formed from a 300mm compacted stone layer underlain by geotextile to prevent subsidence.

**Designer's Risk Assessment:** *incl. Hazards that cannot be designed out. See Designer's Hazard Record for further information*

- A. Works adjacent to water – Though working above MHWS, the site could be affected by wave conditions and extreme tidal levels.
- B. Soft ground – Risk of machinery over turning
- C. Public beach – Risk public may enter works area.
- D. Services – Existing buried Higher Moors leat outfall pipe.
- E. Environmental sensitive dune designated as SSSI & AONB



F. Invasive Plant Species - Hottentot Fig (Carpobrotus Edulis)

**Signed:** ...Emilio

**Reviewed:** ...Ma□ Clausen...


**Approved:** ...Ian Cooke.....



**APPENDIX D**

**Designer’s Hazard Records**



	<h2 style="text-align: center;">Health &amp; Safety - Designer's Hazard Record</h2>	
	<b>Project Title</b> Isles of Scilly Flood Defence and Dune Management Project – Porth Hellick	<b>Project Code</b> UA008878-ARC-XX-XX-HS-CE-0562-P3

**Assessment Coverage:**  
  
 The dune recharge at the eastern extent of Porth Hellick beach including the installation of a beach access ramp over the newly raised dune and an approach access track to the beach ramp.

**1. Scope of Commission and Coverage of Assessment:**  
 This part of the scheme comprises the following elements:
 

- Restoration of the existing backshore beach dune to +5.00 m ODL.
- Installation of a flexible precast concrete block mattress to facilitate access to vehicles to the beach when carrying out maintenance works on the leat outfall.
- Installation of an access track from the approach field to rear of the dune ramp.

**2. Brief Description of the Works:**

- Recharging the dune to +5.00 m ODN, including the stabilisation with 100% biodegradable geotextile and re-vegetation of the crest.
- Installation of the vehicle access ramp over the dune to access the beach
- Installation of a vehicle approach track to the ramp.

**3. Key Risk Reduction measures taken during design process:**

- The footprint of the works has been kept above the MHWS mark.
- Excavation works have been kept to a minimum by adopting the concrete Dycel block solution for the access ramp.
- The Dycel blocks are to be individually laid by hand and cabled together onsite thereby reducing the size of the plant required when compared to lifting & positioning factory constructed mats.
- The stabilisation of the dune is to be achieved with 100% biodegradable geotextile, reducing the environmental impact of the solution on the SSSI.

**4. Significant Project Specific Hazards Remaining:**

- Works adjacent to water. Though working is above MHWS, the site could be affected by wave conditions and extreme tidal levels.
- Soft & unstable ground – The dune is formed of gravel (4-10mm particle size). Risk of machinery overturning
- Public beach – Possibility of public entering the works area.
- Services – Higher Moors leat outfall pipe buried in dune.
- Environmentally sensitive dune designated SSSI & AONB
- Invasive plant species- Hottentot Fig (Carpobrotus Edulis) present amongst existing native vegetation on the dune.

**5. Specific Construction Requirements**

- The Dycel blocks weigh 45kg each and will need to be lifted by machinery to avoid manual handling issues when constructing the beach access ramp.

**6. Means by which significant hazards are conveyed to contractors and others:**

- Hazard markers added to drawings



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Date of Review	
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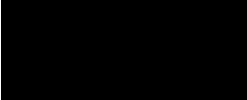
<b>Assessed by:</b>
---------------------

Name	M. Clausen	Signature		Date	29/03/2019
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<b>Reviewed by:</b>
---------------------

Name	Ian Cooke	Signature		Date	29/03/2019
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	<b>Health &amp; Safety - Designer's Hazard Record</b>			Project Code/Doc No: UA008878-ARC-XX-XX-HS-CE-0562	
	Project Title: Isles of Scilly Flood Defence and Dune Management Project – Porth Hellick	Assessor (Name): M. Clausen	Assessor (Signature): 	Date: 29/03/19	Revision: P3

Ref	Activity & Hazard	Level of Risk (optional)	Design Input to Eliminate or Reduce Hazards, and Hazards Remaining	Residual Hazard?
A	Working adjacent to water		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes
B	Soft <input type="checkbox"/> unstable ground		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes
C	Public beach		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes
D	Services- Higher Moors Outfall		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes
E	Environmental sensitive dune. Designated SSSI <input type="checkbox"/> AONB		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes
F	Invasive Plant Species - Hottentot Fig (Carpobrotus Edulis)		This is an unavoidable consequence of the works and the contract is to mitigate the associated risks	Yes



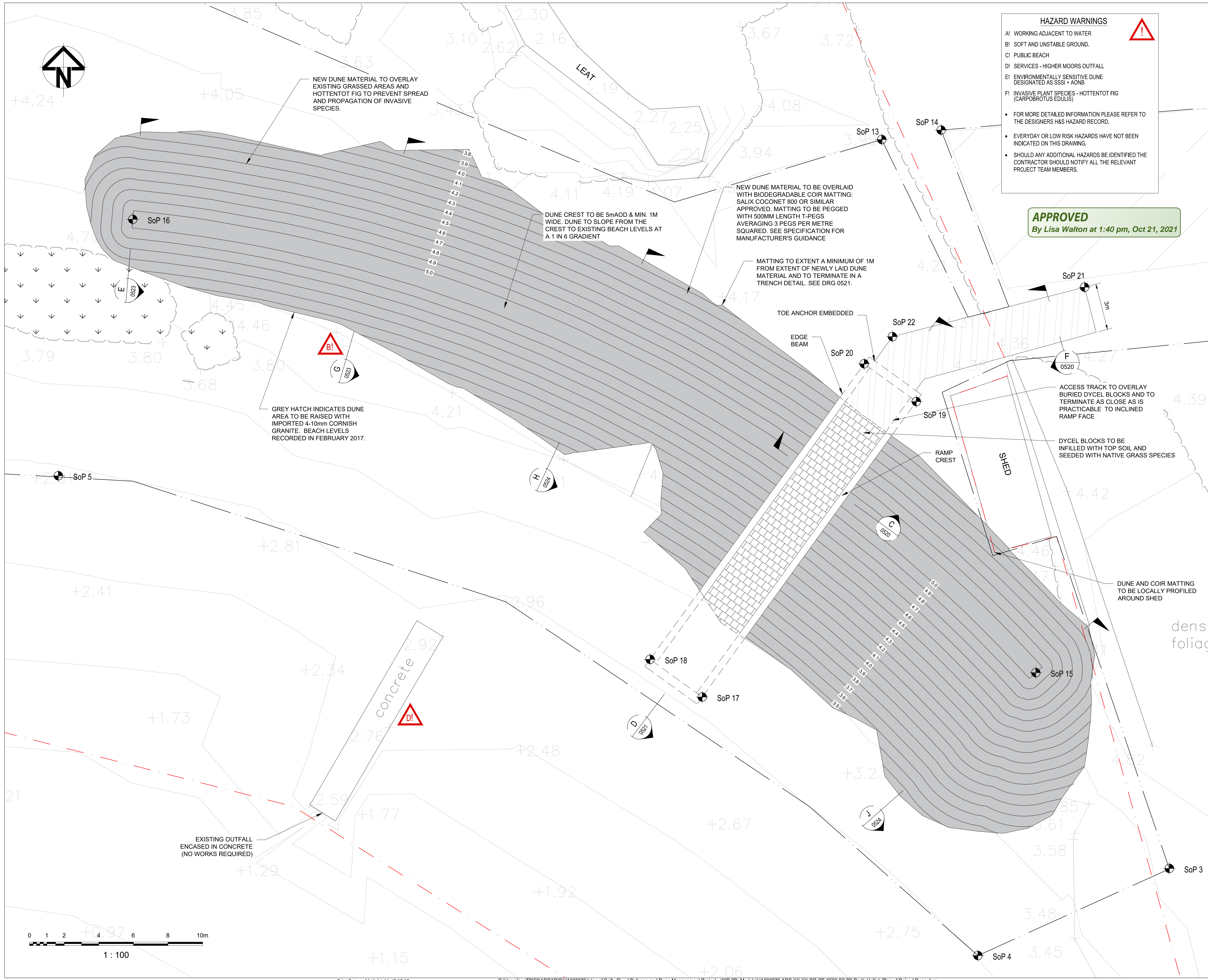
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Three decorative orange lines are positioned in the bottom right corner of the page. One line is horizontal, extending from the left edge. Two other lines are diagonal, starting from the bottom left and extending towards the top right, intersecting the horizontal line.





**HAZARD WARNINGS**

A! WORKING ADJACENT TO WATER  
B! SOFT AND UNSTABLE GROUND.  
C! PUBLIC BEACH  
D! SERVICES - HIGHER MOORS OUTFALL  
E! ENVIRONMENTALLY SENSITIVE DUNE DESIGNATED AS SSSI + AONB  
F! INVASIVE PLANT SPECIES - HOTTENTOT FIG (CARPOBROTUS EDULIS)

FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S HAZARD RECORD.

EVERYDAY OR LOW RISK HAZARDS HAVE NOT BEEN INDICATED ON THIS DRAWING.

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- TIDE INFORMATION RELATIVE TO ODN  
MHW 2.79m  
MHWN 1.39m  
MLWN -0.91m  
MLWS -2.21m
- FASCICULARIA BICOLOR TO BE PLANTED TO PROVIDE A MINIMUM VEGETATED STRIP OF 4m WIDE ALONG THE CREST CRETRE. PLANTS TO BE A MIX OF MATURE & JUVENAL SPECIES.
- SETTING OUT POINTS (SoP) TO NATIONAL GRID REFERENCE  
SoP 3: 92631.53, 10695.61    SoP 21: 92626.63, 10729.26  
SoP 4: 92620.46, 10690.59    SoP 22: 92615.56, 10726.40  
SoP 5: 92627.28, 10718.41  
SoP 15: 92623.81, 10706.96  
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SoP 18: 92601.51, 10707.73  
SoP 19: 92616.90, 10722.64  
SoP 20: 92613.89, 10724.82
- BEACH LEVELS RECORDED IN FEBRUARY 2017.

**LEGEND:**

AREA WHERE THE DUNE IS TO BE RAISED TO 5m AOD AND TO BE PROTECTED WITH BIODEGRADABLE COIR MATTING AND PLANTING

EXISTING DENSE VEGETATION

ACCESS TRACK

CONTRACTOR'S COMPOUND

EXISTING FASCICULARIA BICOLOR BUSHES

HIGHER MOORS & PORTH HELICK POOL (ST. MARY'S) SSSI BOUNDARY

WORKING AREA BOUNDARY

P3	09APR19	COORDINATES ADDED	JW	MC	IC
P2	19SEP17	DRAWING AMENDMENTS	MN	MC	IC
P1	28JUL17	FOR INFORMATION	EB	MC	IC
Rev	Date	Description	Drawn	Check	Approv

**Client**

**COUNCIL OF THE ISLES OF SCILLY**

**PROJECT: ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME**

**Site**

Isles of Scilly  
Porth Hellick

**Client**

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Crownhill  
Plymouth PL6 5XR  
Tel: +44 (0)1752 689 000

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**TITLE:**

**PORTH HELICK PLAN OF RAISED DUNE**

Designed	M. CLAUSEN	Signed	[Signature]	Date	09APR19
Drawn	J. WATLING	Signed	[Signature]	Date	09APR19
Checked	M. CLAUSEN	Signed	[Signature]	Date	09APR19
Approved	I. COOKE	Signed	[Signature]	Date	09APR19
Scale:	1:100	Datum:	NEWLYN		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA008878		

**ISSUED FOR INFORMATION**

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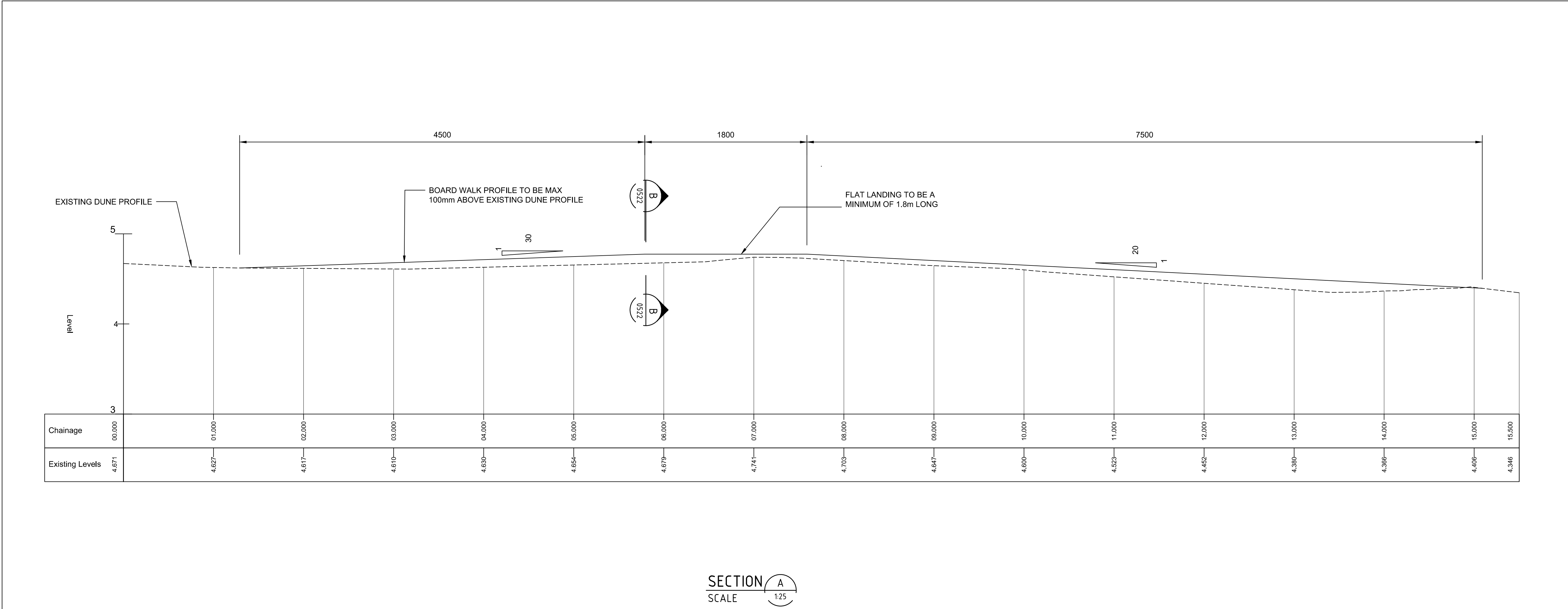
Revision:  
P3

Print Date: 2019-04-09 17:07:37

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- TIDE INFORMATION RELATIVE TO ODN  
MHWS 2.79m  
MHWN 1.39m  
MLWN -0.91m  
MLWS -2.21m
- RAMP LENGTHS ARE INDICATIVE

**LEGEND:**

Rev	Date	Description	Drawn	Check	Approv
P1	28JUL17	FOR INFORMATION			

**Client**

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**PROJECT:**  
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

**Site**

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Porth Hellick

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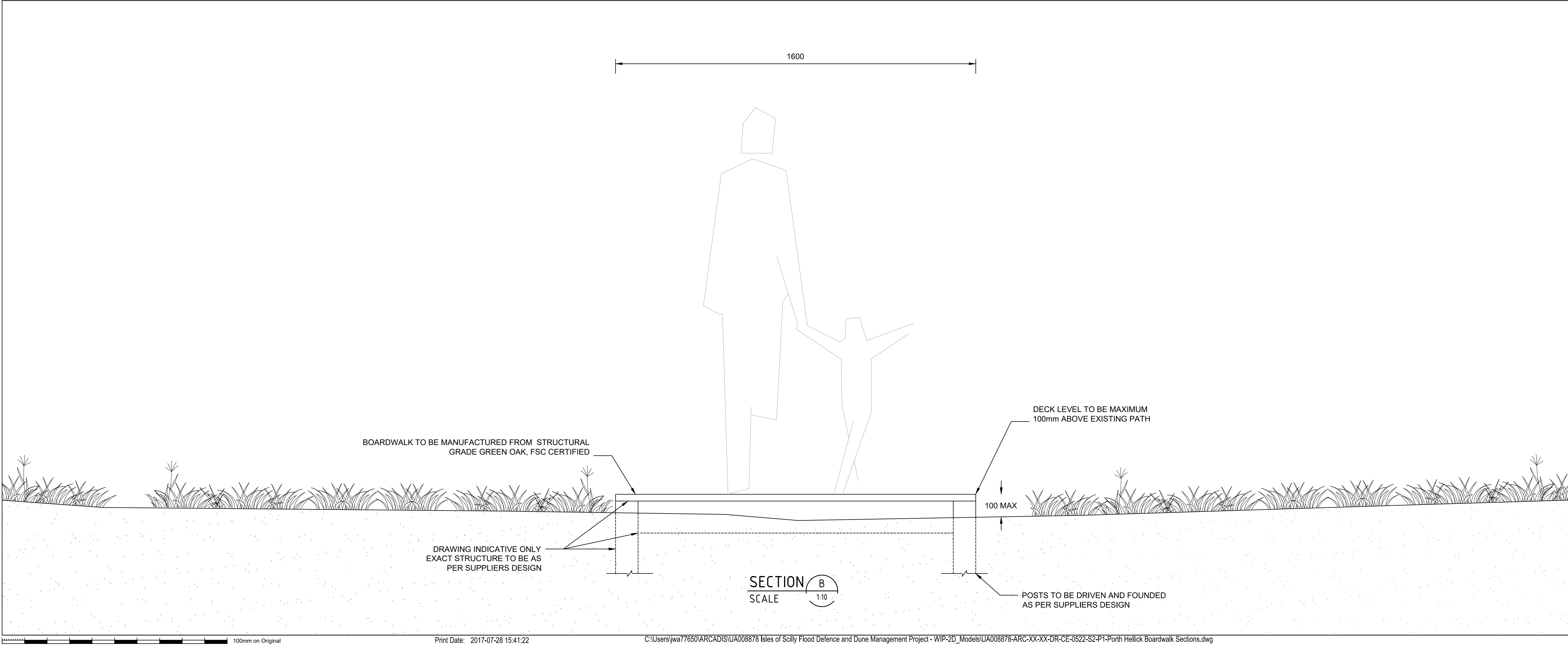
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Designed	E. BOLANOS	Signed	Date
Drawn	E. BOLANOS	Signed	28APR17
Checked	M. CLAUSEN	Signed	28JUL17
Approved	I. COOKE	Signed	28JUL17
Scale:	AS SHOWN	Datum:	NEWLYN
Original Size:	A1	Grid:	OS
Suitability Code:	S2	Project Number:	UA008878

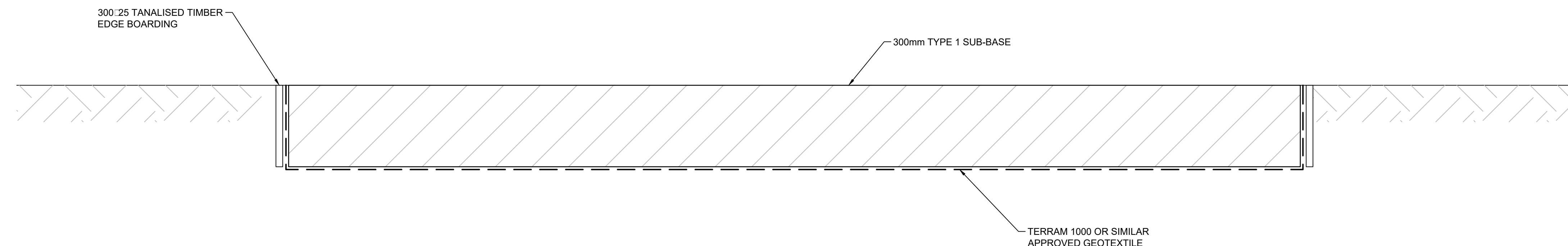
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Revision: P1





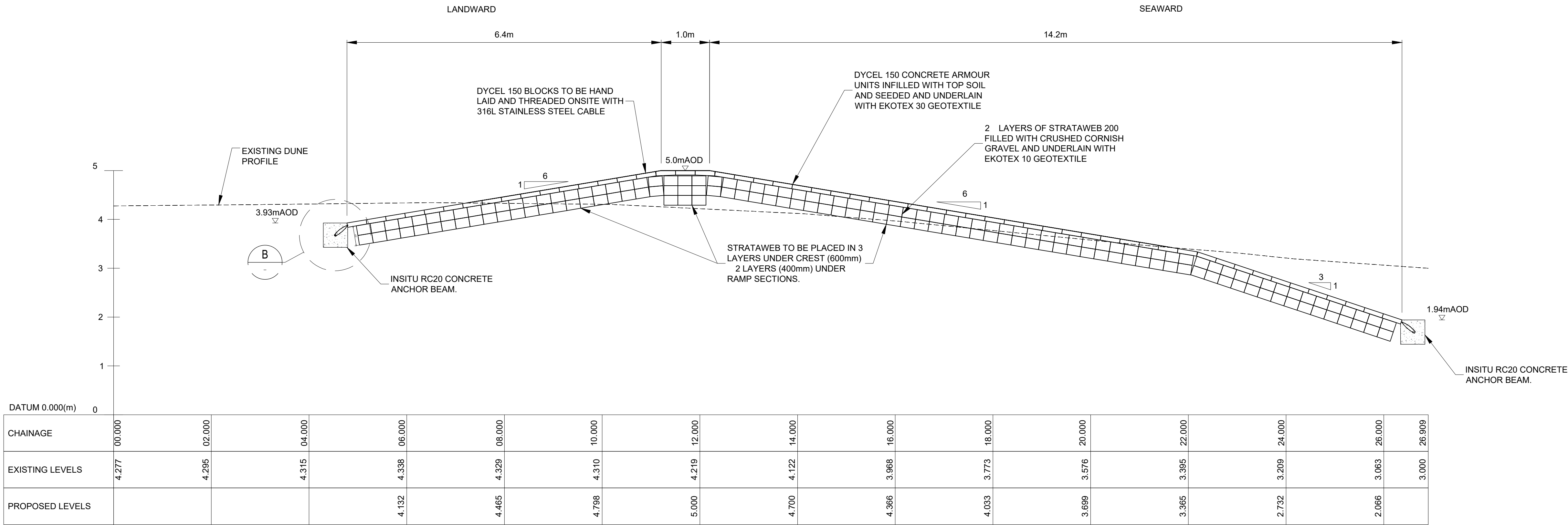


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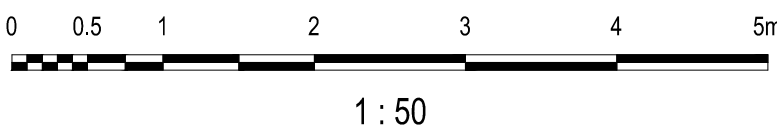
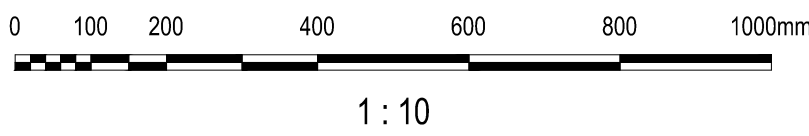
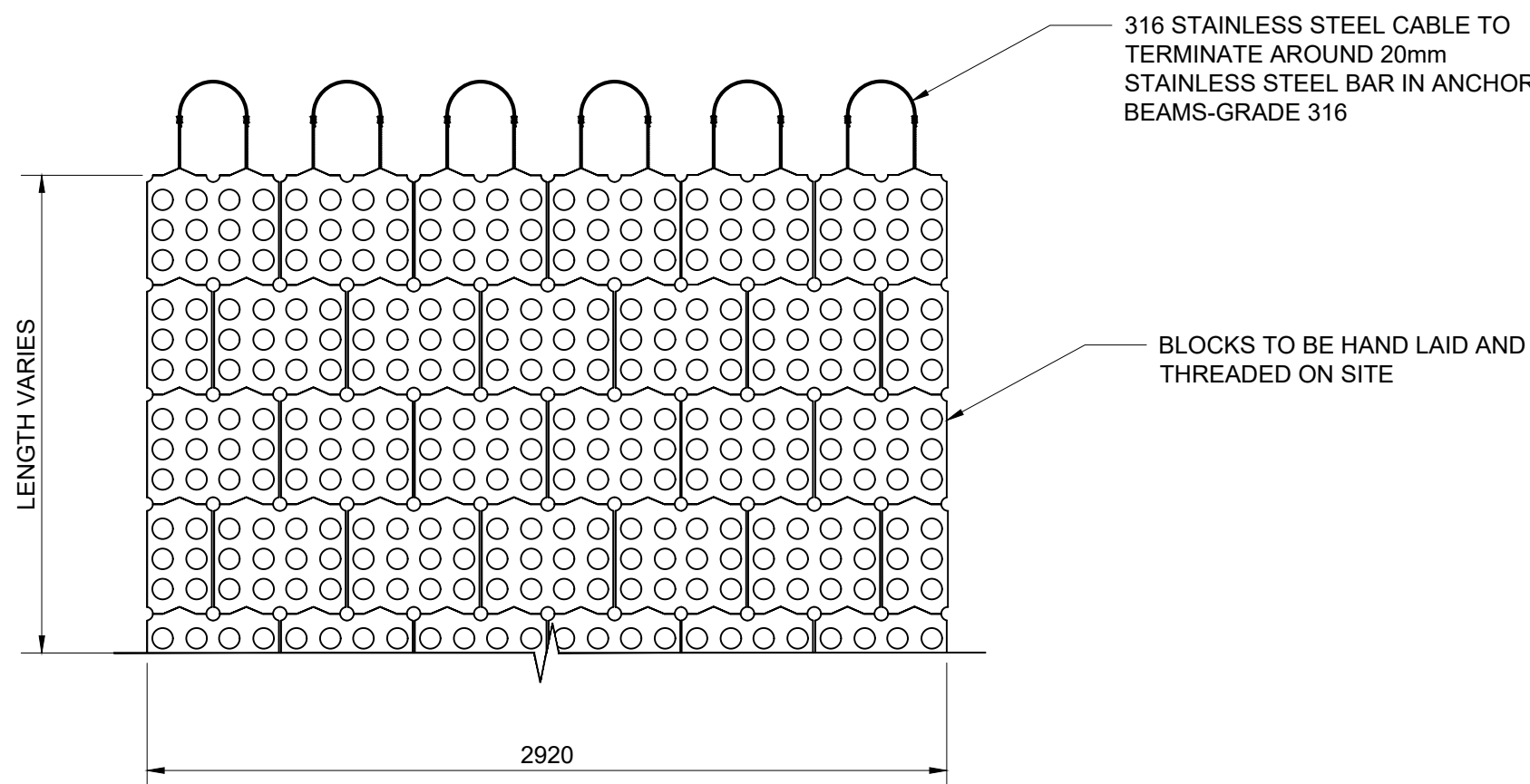
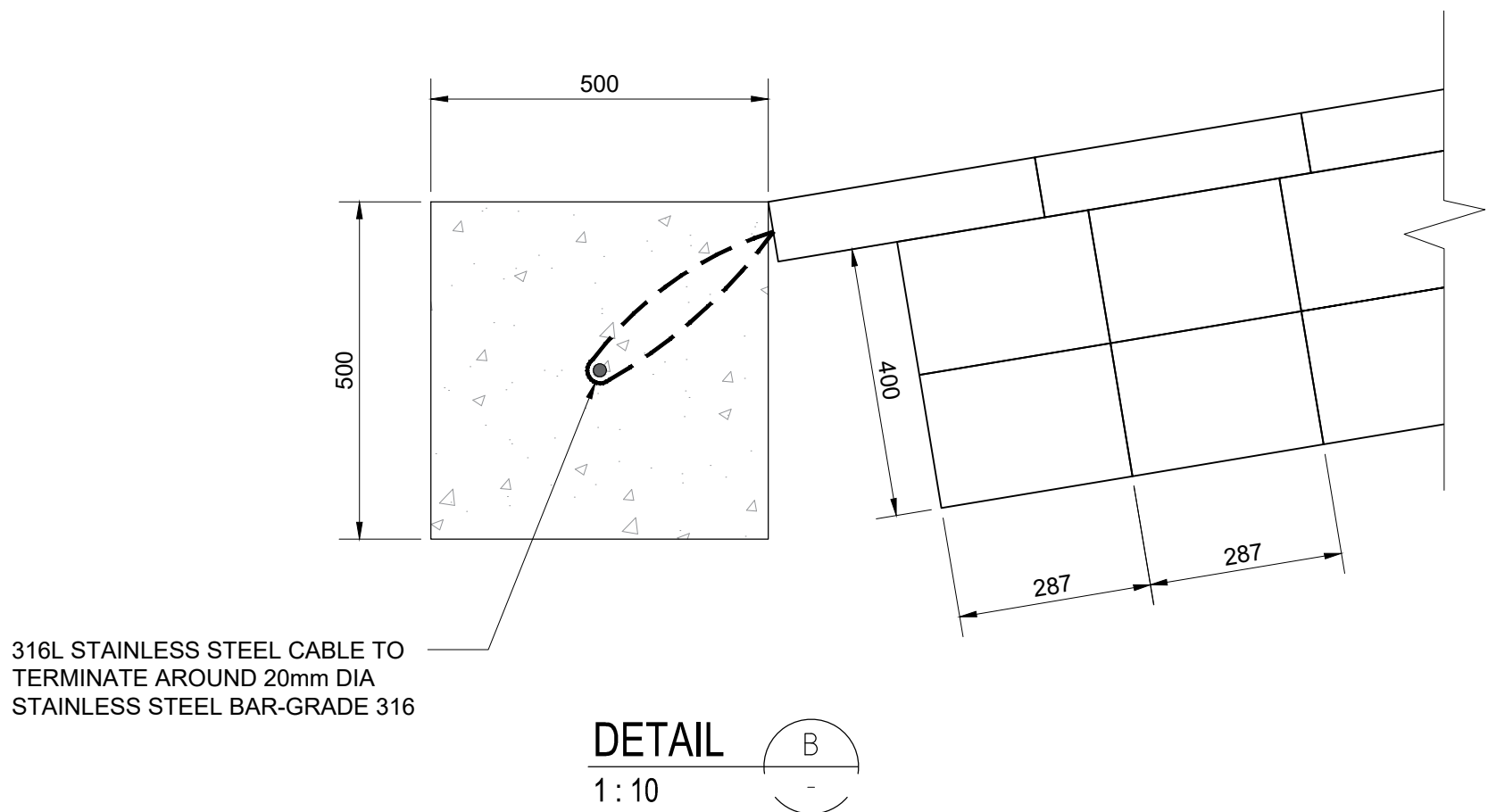
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Revision:  
P3





SECTION D  
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  - TIDE INFORMATION RELATIVE TO ODL:  
MHS 2.79m  
MHN 1.39m  
MLWN -0.91m  
MLWS -2.21m
  - FOR GRASS SEED MIX, SEE WORKS INFORMATION
  - BEACH LEVELS RECORDED IN FEBRUARY 2017.

**RECEIVED**  
By Emma Kingwell at 2:32 pm, Jun 22, 2021

LEGEND:

Rev	Date	Description	Drawn	Check	Approv
P3	09APR19	DRAWING & NOTE AMENDMENTS	JW	MC	IC
P2	19SEP17	DRAWING AMENDMENTS	EB	MC	IC
P1	28JUL17	FOR INFORMATION	EB	MC	IC

Client



COUNCIL OF THE ISLES OF SCILLY

PROJECT:  
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site

Isles of Scilly  
Porth Hellick

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TITLE:

PORTH HELICK  
SECTIONS D  
AND RAMP DETAILS

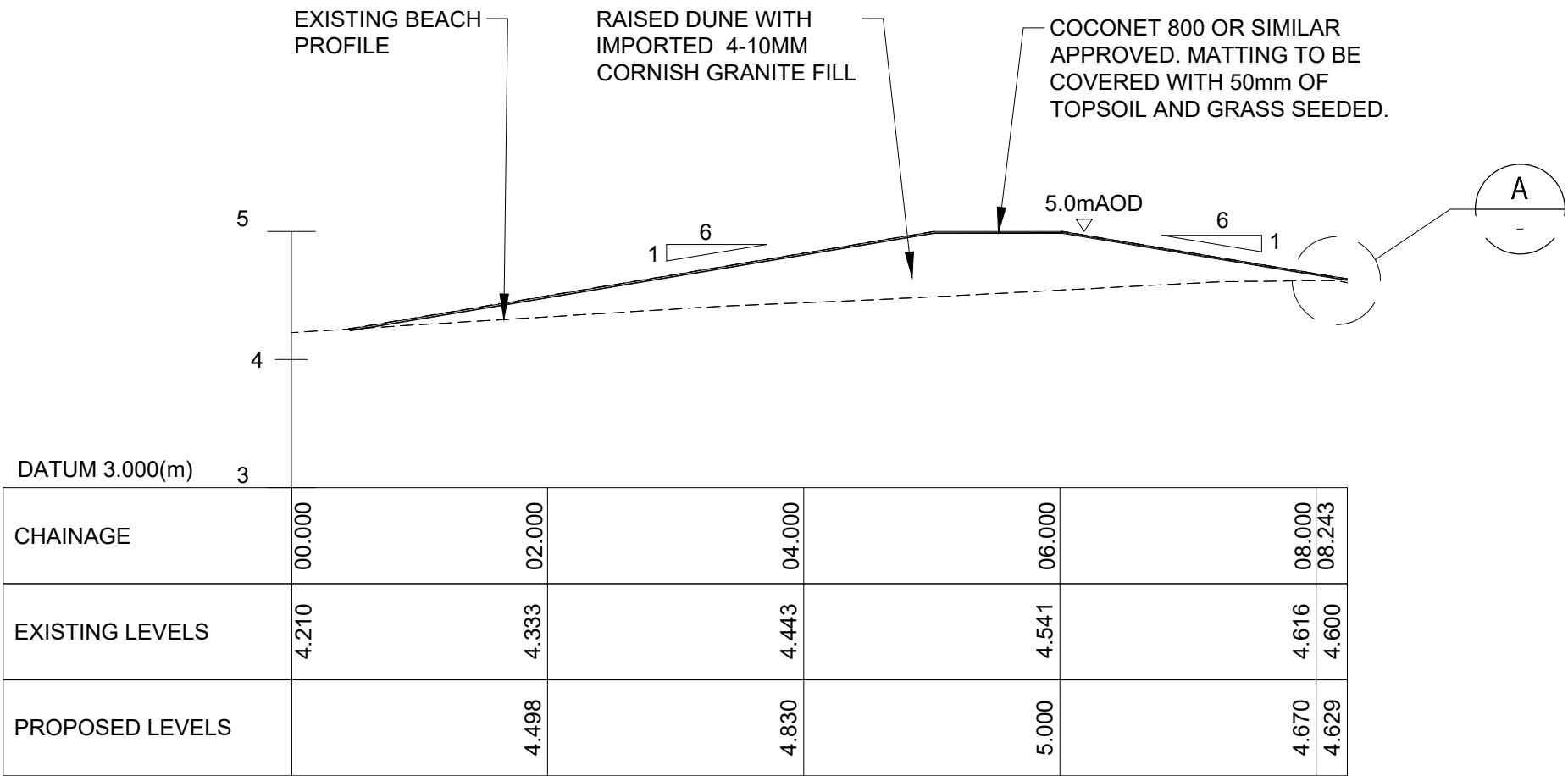
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Approved	I. COOKE	Signed		Date	09APR19
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Suitability Description:  
**ISSUED FOR INFORMATION**

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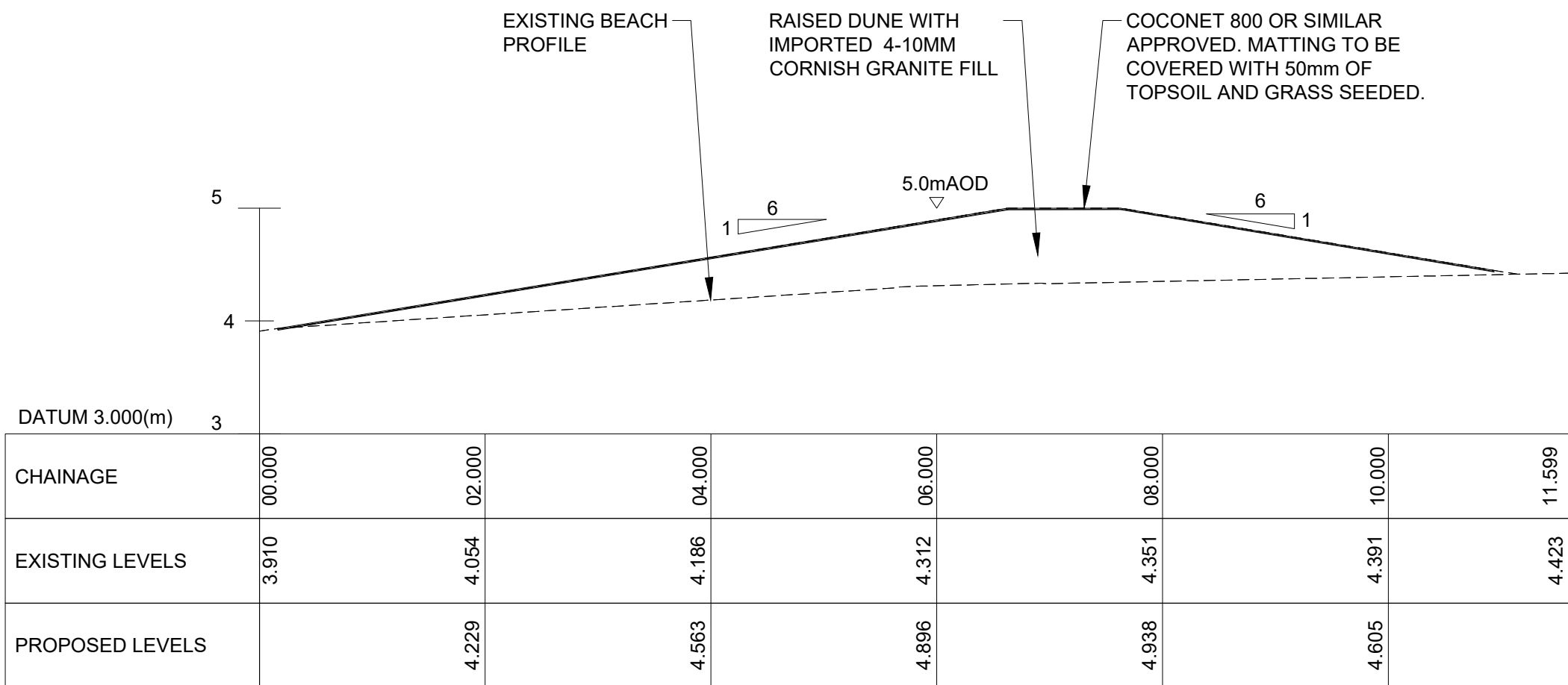
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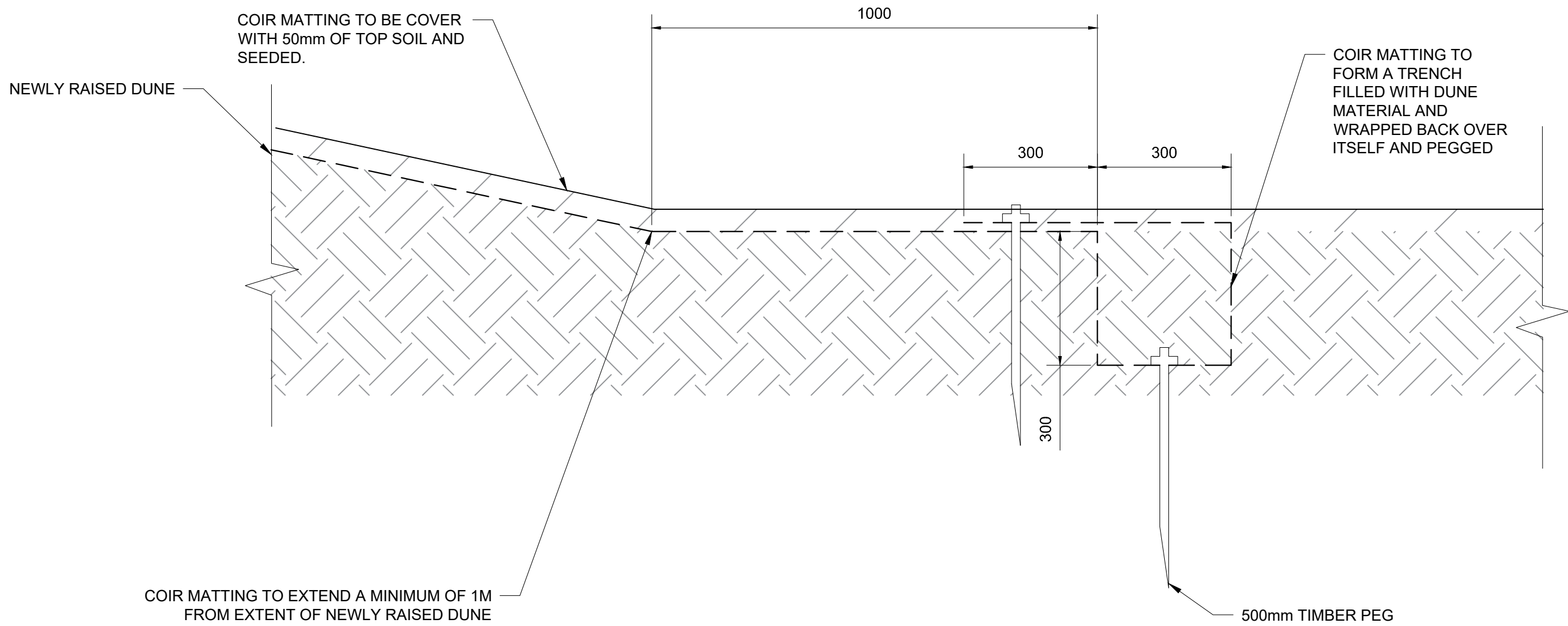
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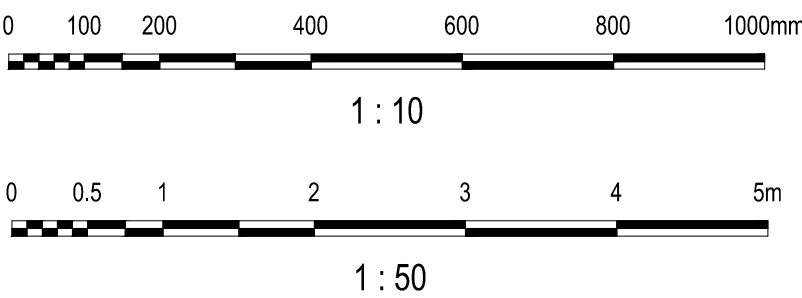
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1 : 50



DETAIL A

1 : 10



NOTES:

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- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM LOCAL (ODL).
- TIDE INFORMATION RELATIVE TO ODL:  
MHWs 2.79m  
MHW 1.39m  
MLWN -0.91m  
MLWS -2.21m
- FOR GRASS SEED MIX, SEE WORKS INFORMATION
- BEACH LEVELS RECORDED IN FEBRUARY 2017.

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By Emma Kingwell at 2:32 pm, Jun 22, 2021

LEGEND:

Rev	Date	Description	Drawn	Check	Approv
P1	09APR19	FOR INFORMATION	EB	MC	IC

Client



COUNCIL OF THE ISLES OF SCILLY

PROJECT:  
ISLES OF SCILLY FLOOD  
DEFENCE AND DUNE  
MANAGEMENT SCHEME

Site

Isles of Scilly  
Porth Hellick

Client

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TITLE:

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SECTIONS E AND G

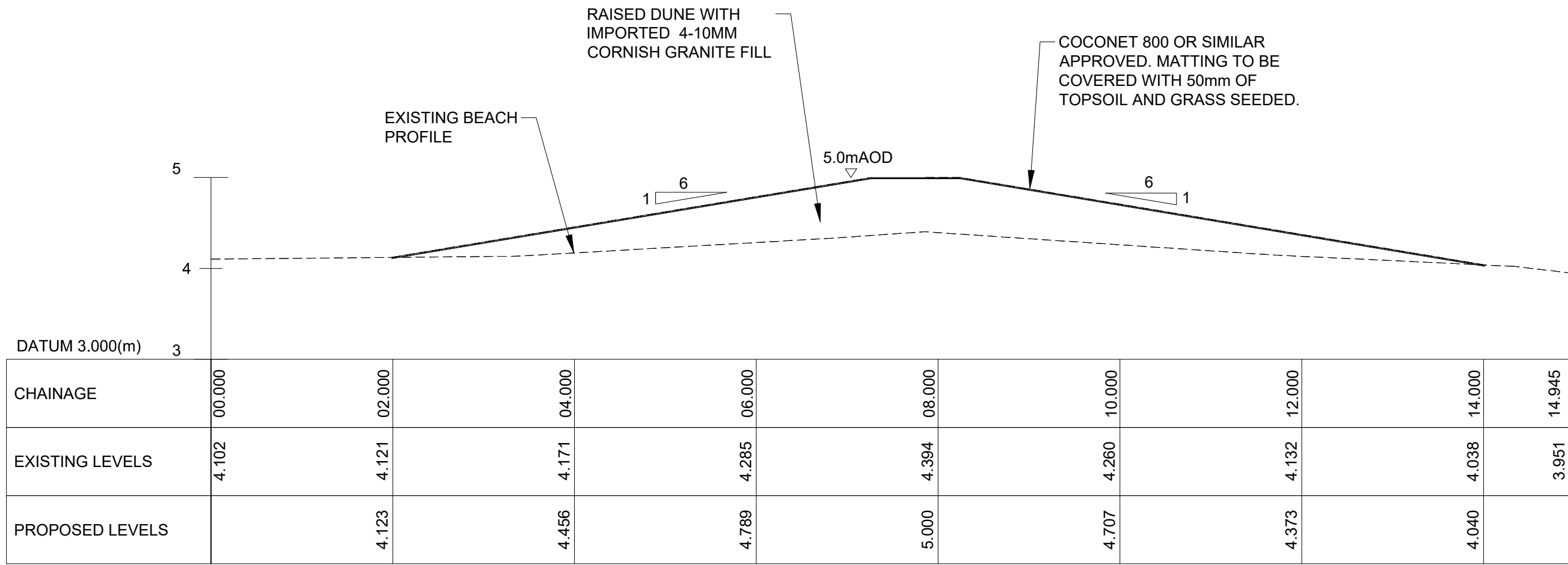
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Drawn	J. WATLING	Signed	Date
Checked	M. CLAUSEN	Signed	Date
Approved	I. COOKE	Signed	Date
Scale:	1:50	Datum:	NEWLYN
Original Size:	A1	Grid:	OS
Suitability Code:	S2	Project Number:	UA008878

Suitability Description:  
ISSUED FOR INFORMATION

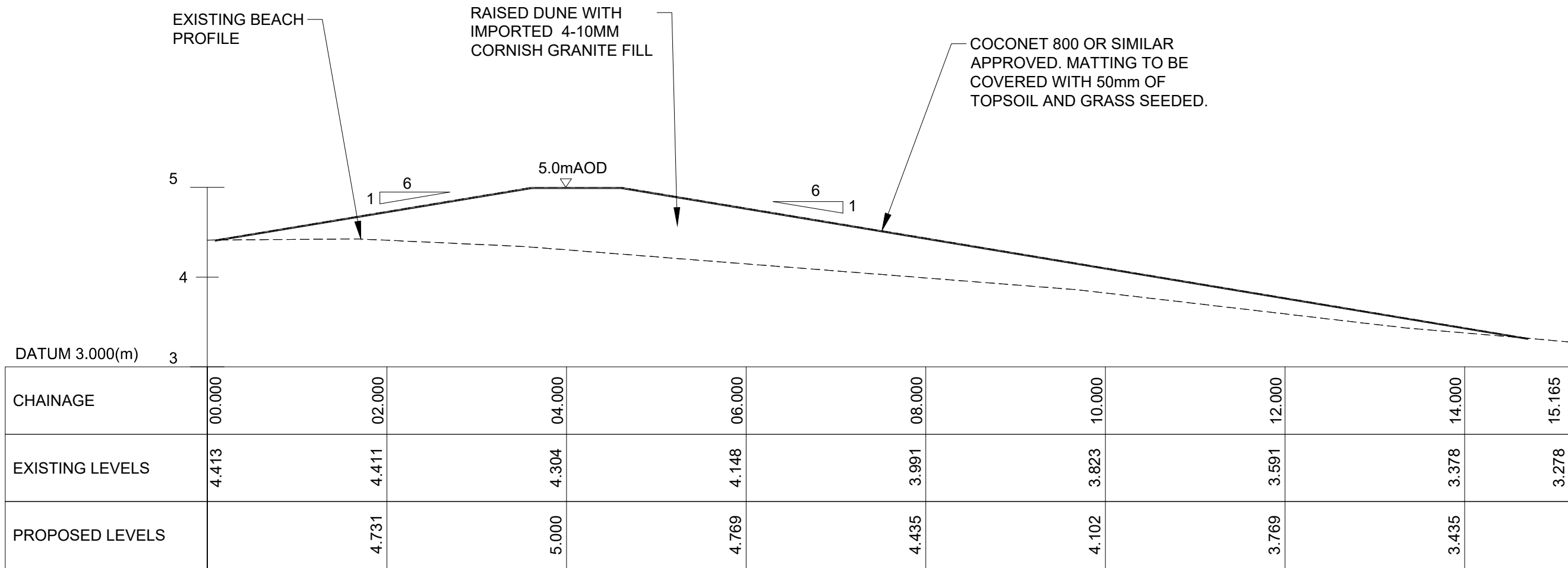
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Revision:  
P1





SECTION H  
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SECTION J  
1 : 50

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- TIDE INFORMATION RELATIVE TO ODL:  
MHWs 2.79m  
MHWn 1.39m  
MLWN -0.91m  
MLWS -2.21m
- FOR GRASS SEED MIX, SEE WORKS INFORMATION
- BEACH LEVELS RECORDED IN FEBRUARY 2017.

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LEGEND:

P1	09APR19	FOR INFORMATION	JW	MC	IC
Rev	Date	Description	Drawn	Check	Approv

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ISLES OF SCILLY FLOOD  
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Isles of Scilly  
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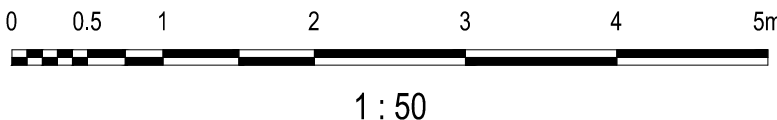
PORTH HELICK  
SECTIONS H AND J

Designed	M. CLAUSEN	Signed	Date
Drawn	J. WATLING	Signed	Date
Checked	M. CLAUSEN	Signed	Date
Approved	I. COOKE	Signed	Date
Scale:	1:50	Datum:	NEWLYN
Original Size:	A1	Grid:	OS
Suitability Code:	S2	Project Number:	UA008878

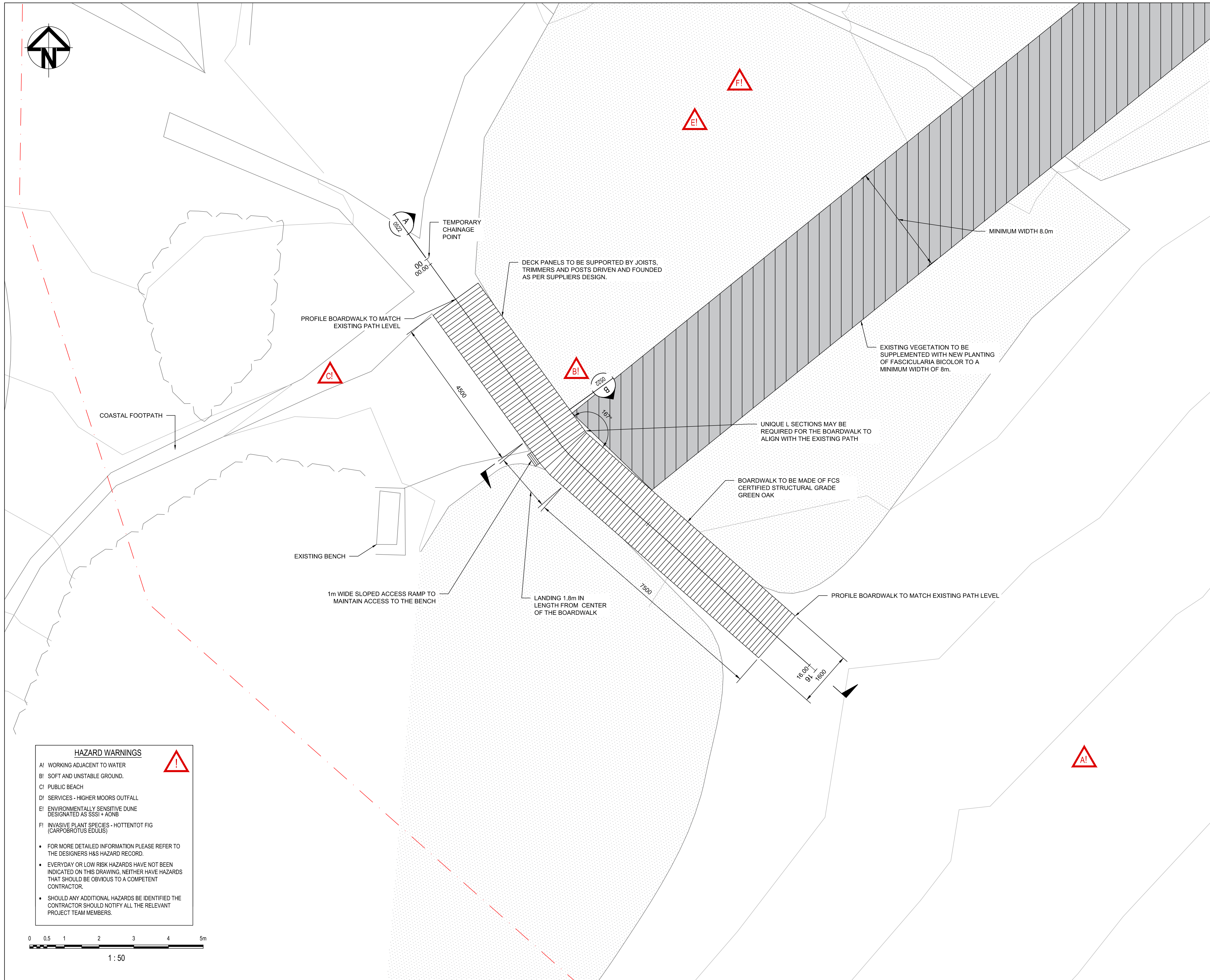
Suitability Description:  
**ISSUED FOR INFORMATION**

Drawing Number:  
UA008878-ARC-XX-XX-DR-CE-0524

Revision:  
P1







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- ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN (ODN).
- TIDE INFORMATION RELATIVE TO ODN  
MHS 2.79m  
MHW 1.39m  
MLWN -0.91m  
MLWS -2.21m
- BOARDWALK TO BE MANUFACTURED FROM FSC CERTIFIED TIMBER
- FASCICULARIA BICOLOR TO BE PLANTED TO PROVIDE A MINIMUM VEGETATED STRIP OF 8m WIDE. MATURE SPECIES TO BE INCLUDED IN DESIGNATED PLANTING AREAS
- CHAINAGE POINT COORDINATES:  
00: SV 92391 10673 (NGR)  
16: SV 92403 10661 (NGR)

**LEGEND:**

- PROPOSED FASCICULARIA BICOLOR BUSHES
- EXISTING DENSE VEGETATION
- INVASIVE PLANT SPECIES (CARPOBROTUS EDULIS) - HOTTENTOT FIG PRESENT AMONGST EXISTING VEGETATION
- HIGHER MOORS & PORTH HELLICK POOL (ST. MARY'S) SSSI BOUNDARY

**RECEIVED**

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Rev	Date	Description	Drawn	Check	Approv
P2	19SEPT17	DRAWING AMENDMENTS	EB	MC	IC
P1	28JUL17	FOR INFORMATION	EB	MC	IC

**Client**

**COUNCIL OF THE ISLES OF SCILLY**

**PROJECT: ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME**

**Site**

Isles of Scilly  
Porth Hellick

**Client**

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**TITLE:**

**PORTH HELLICK  
TIMBER BOARDWALK  
PLAN**

Designed	E. BOLANOS	Signed	Date
Drawn	E. BOLANOS	Signed	28JUL17
Checked	M. CLAUSEN	Signed	28JUL17
Approved	I. COOKE	Signed	28JUL17
Scale:	1:50	Datum:	NEWLYN
Original Size:	A1	Grid:	OS
Suitability Code:	S2	Project Number:	UA008878

Suitability Description:

**ISSUED FOR INFORMATION**

Drawing Number:	Revision:
UA008878-ARC-XX-XX-DR-CE-0501	P2

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**APPROVED***By Lisa Walton at 1:41 pm, Oct 21, 2021***RECEIVED** Classification: CONTROLLED*By A King at 12:11 pm, Jul 29, 2021*

## NEC3 engineering and construction contract (ECC) Works Information

### Project / Contract information

Project Name	Isles of Scilly Dune & Flood Defence Scheme- Porth Hellick
Project Reference	Adaptive Scilly
Contract Reference	CloS to advise
Date	20 February 2021
Version Number	F1
Author	Maximillian Clausen / Stephen Swabey

### Revision history

Revision date	Summary of changes	Version number
09-04-2019	First Issue	P1
20-02-2021	Final Issue	F1





**Cyfoeth  
Naturiol  
Cymru  
Natural  
Resources  
Wales**

## **Part 2: Non-returnable Documents**

NEC – ECC 3<sup>rd</sup> Ed.

## **Works Information**

### **Contents List**

- WI 100** Description of the *works*
- WI 200** General constraints on how the *Contractor* provides the *works*
- WI 300** *Contractor's* design
- WI 400** Completion
- WI 500** Programme
- WI 600** Quality Assurance
- WI 700** Tests and inspections
- WI 800** Management of the *works*
- WI 900** Working with the *Employer* and Others
- WI 1000** Services and other things to be provided
- WI 1100** Health and safety
- WI 1200** Subcontracting
- WI 1300** Title
- WI 1400** Acceptance or procurement procedure (Options C and E)
- WI 1500** Accounts and records (Options C and E)
- WI 1600** Parent Company Guarantee (Option X4)
- WI 1700** Performance Bond (Option X13)
- WI 1800** Advanced payment bond (Option X14)
- WI 1900** Low Performance damages (Option X17)
- WI 2000** Employer's work specifications and drawings

**APPENDIX A: EMPLOYER'S MINIMUM TECHNICAL REQUIREMENTS:  
EA MTR**

**APPENDIX B: WORKS SPECIFICATION**



## Definitions List

Term	Description
CESWI	Civil Engineering Specification for the Water Industry, 7th Edition
EA MTR	Environment Agency Minimum Technical Requirements
SHW	Specification for Highway Works

## Preamble

This Works Information describe and specify the *works*. For details of the technical standards and the list of drawings used see **WI 2000**, *Employer's work specification*.

### WI 100 Description of the works

#### WI 101 Project objectives

1. The project objectives are:

To reduce saline intrusion into the Higher Moors Pool, by closing potential flow paths and raising the crest along low sections by recharging the dune and securing it with planted vegetation.

#### WI 102 Dune Recharge

1. The dune shall be recharged with granite that matches the type and colour found in the Isles of Scilly, namely Cornish Granite. The granite shall be quarried from one of the igneous batholith intrusions found in Cornwall or Devon. Any other sources of granite shall be approved before use by the *Project Manager*.
2. The granite grading shall be 1-5mm.
3. The new dune material shall overlay the existing grassed areas and the Hottentot Fig where indicated on Figure 2 of the MS-CE-0561-P2 document in both yellow and orange outlining. For the avoidance of doubt, this includes underneath the proposed boardwalk at the west of the beach. The existing Hottentot Fig shall be replaced with the over-seeding mix (see 8) where it has been removed.
4. The dune recharge shall have a minimum crest finish level of 5.0m AOD at the coordinates shown on drawing UA008878-ARC-XX-XX-DR-CE-0502-S2-P3 and a volume of about 276 m<sup>3</sup>. At this location the crest shall be a minimum of 1m wide and the material shall slope from the crest at a gradient of 1 in 6, to match the existing dune profile. In other parts of the dune, the dune recharge shall have a minimum crest finish level consistent with the dune levels surrounding the gaps.
5. The recharged dune shall be overlaid with a biodegrade coir matting – Salix Coconet 800 or similar approved. The matting shall be laid and overlapped using the manufacturer's 'Shoreline Installation' guidance and shall be pinned in position with 500mm length Salix T-



pegs averaging 3 pegs per metre squared. See Works Specification, Appendix B for manufacturer's guidance.

6. The matting shall extend a minimum of 1m from the extent of the newly laid dune material and shall terminate in a trench detail. See drawing UA008878-ARC-XX-XX-DR-CE-0521-S2-P3.
7. The matting shall be overlaid with 50mm of topsoil and seeded with grass seed mixture 4, to clause 2.56, point 1.
8. The matting shall be planted with over-seeding with a bespoke wildflower mix of maritime grassland wildflowers including Thrift (*Armeria maritima*), Sea Plantain (*Plantago maritima*), Lady's Bedstraw (*Galium verum*), Hare's-foot Clover (*Trifolium arvense*), Bird's foot trefoil (*Lotus corniculatus*) and Sea Campion (*Silene uniflora*) in a 4m wide planting strip along the crest of the newly raised dune. The 4m wide strip shall be planted with an approximate coverage of 2m each side of the crest centre line i.e. an equal coverage to front and rear face of the dune. The matting shall be cut in a T-shape to allow the plant roots to be bedding into the dune.

### **WI 103 Dune Vehicle Ramp**

1. A beach access ramp shall be created through the newly raised dune. The ramp extents are shown by the coordinates on drawing UA008878-ARC-XX-XX-DR-CE-0502-S2-P3. The ramp design is shown in drawing UA008878-ARC-XX-XX-DR-CE-0520-S2-P3.
2. Geosynthetics Ekotek 10 geotextile or similar approved shall be laid to provide a formation layer to the ramp core.
3. The ramp core shall be formed from Strata Web 200 infilled with the dune recharge material: 1-5mm Cornish Granite. Note, the volume of dune recharge material required for the ramp core has not been included in the volume noted in WI102 (4) above. The width of the core shall be 10 Strata web cells wide. This requires two standard 8 cell wide mats to be cut down to make the required width. The Strata web shall be opened and J-pinned in position as per the manufacturer's recommendations. See Works Specification for details.
4. Under the ramp crest, the Strata Web shall be laid in three layers. Under the ramp slopes, it shall be laid in two layers. The Ekotex 10 shall encase the sides of Strata Web cells and be tucked under Dycel blocks by 600mm
5. The formation layer to the ramp surface shall be Geosynthetics Ekotex 30. It shall over lay the full width of the ramp and tuck under the edge beams.
6. The ramp surface shall be formed from hand laid Dycel 150 blocks and shall form a 2.92m wide surface i.e. 6 full blocks assuming an 8mm gap between the internal blocks.
7. The blocks shall be threaded together on site with 8mm stainless steel wire rope to grade 316L. The cable ends shall be looped and swaged with copper ferrules. The loops lengths to suit position of the termination bar
8. A 500mm x 500mm anchor block shall be formed at each end of the ramp. It shall be formed of RC20/25 mass concrete. The anchor block shall have a 20mm diameter stainless steel bar (grade 316L) at its centre to terminate the mattress loops around.
9. The ramp shall have edge beams cast along the full length of the ramp in RC 20 concrete. The top level of the beams shall match the ramp surface so that the depth of the ramp is



approximately 750mm at its centre where there are 3 layers of Strata Web and will reduce to approximately 550mm where two layers of Strata Web are used.

#### WI 104 Approach track to dune vehicle ramp

1. The approach track shall be 3m wide and set-out to the coordinates shown on the drawings. The track shall over lay the dune ramp and terminate as close as is practicable.
2. The track shall be formed from a compacted 300mm layer of Type 1 (Clause 803, SHW), underlain with a Terram 1000 geotextile or similar approved.
3. The track edge shall be finished with 25x300mm tannalised timber boards.

#### WI 105 Elevated boardwalk

1. The elevated boardwalk will be elevated about 100 mm above the existing beach surface. The approach track shall be 3m wide and set-out to the plan shown on the drawing DR-CE-0501-S2-P2 in the position at the western end of the dune renourishment between set-out points 8 and 9 in drawing UA008878-ARC-XX-XX-DR-CE-0500-S2-P3.
2. Although the design drawing DR-CE-0501-S2-P2 states the boardwalk shall be constructed of "FCS certified structural grade green oak", the material that may be used could be plastic boardwalk as currently used by the Isles of Scilly Wildlife Trust (<https://www.ios-wildlifetrust.org.uk/recycled-plastic-boardwalk>) and manufactured by Filcris ([www.filcris.co.uk](http://www.filcris.co.uk)). This will be confirmed by the *Employer* prior to construction.
3. The design drawing of the boardwalk is amended by making the width of the boardwalk 2.5 m.
4. The boardwalk design is also amended by making the materials suitable for bearing the weight of a horse at walking pace. See the guide on 'Surfaces' at [Free Leaflets | British Horse Society \(bhs.org.uk\)](http://Free Leaflets | British Horse Society (bhs.org.uk)) for details on design standards.

#### WI 107 Concrete

1. See BS 8500-1: 2015+A1:2016 designated concrete mix details. A summary of the details is as follows:

Table A.15 Summary of requirements for designated concretes<sup>A)</sup>

Concrete designation	Min. strength class	De-fault slump class	Max. w/c ratio	Min. cement or combination content (kg/m <sup>3</sup> ) for 20 mm max. aggregate size	Cement and combination types
GEN0	C6/8	S3	—	120	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V
GEN1	C8/10	S3	—	180	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V
GEN2	C12/15	S3	—	200	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V
GEN3	C16/20	S3	—	220	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V
RC20/25	C20/25	S3	0.70	240	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V
RC25/30	C25/30	S3	0.65	260	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V <sup>B)</sup>
RC28/35	C28/35	S3	0.60	280	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V <sup>B)</sup>
RC30/37	C30/37	S3	0.55	300	CEM I, IIA, IIB-S, IIB-V, IIIA, IVB-V <sup>B)</sup>

#### WI 200 General constraints on how the *Contractor* provides the works



**WI 201 General constraints**

1. The *Contractor* shall comply with the following constraints in addition to those identified in the CESWI & EA Minimum Technical Requirements.
2. The *Contractor* shall comply with the constraints and measures identified in the Construction Environment Management Plan (CEMP)
3. The *Contractor* is required to undertake a pre & post level survey of the proposed dune recharge area. See 1.8, EA MTR, point 3 & Works Specification, point 4 for details.

**WI 202 Site Access**

1. A nesting bird check must be carried out by the *Contractor* prior to works commencing
2. Access to site by vehicle is via an unsurfaced track from Carn Friars Lane. Pedestrian access is also available through Higher Moors SSSI. See Site Information for further details: UA008878-ARC-XX-XX-SP-CE-0803
3. Access must be by unvegetated tracks wherever possible

**WI 203 Working Area**

1. The *Contractor's* working area and compound is indicated on drawing UA008878-ARC-XX-XX-DR-CE-0500.
2. If the *Contractor* wishes to modify these areas, he shall obtain written permission from the *Project Manager*.
3. The working area must be clearly demarcated

**WI 204 Parking**

1. The *Contractor* shall provide adequate parking for site-based personnel and visitors within the compound area. No parking is allowed outside of this area, unless permission is obtained from the *Project Manager*.

**WI 205 Working Hours**

1. No additional constraints to 1.27 EA MTR in terms of local limits on working hours.

**WI 206 Operational constraints**

1. The working area boundary is shown above the Mean High-Water Spring (MHWS) level. The Contractor should note that this is a still water level and the working area will be subject to wave action during unsettled periods. The contractor is required to plan works around tide times and to monitor weather forecasts/conditions to make sure that the risk to staff and machinery is kept to a minimum and managed in accordance with the latest H&S legislation.

**WI 208 Existing services**

1. All known services information is included within the Site Information. Prior to carrying out the works the *Contractor* is to independently verify the location of all known services, and actively search for any previously unidentified services prior to carrying out any intrusive ground works.
2. The *Contractor* shall undertake all discussions with Utility Companies to gain the required permissions for the works on or around services.

**WI 209 Ground conditions**



1. No specific ground investigation has been undertaken. The beach material is described in the Site Information.

#### **WI 210 Permanent Access**

1. Porth Hellick beach shall remain open to public via the footpath shown at the western end of the beach. See drawing UA008878-ARC-XX-XX-DR-CE-0500.
2. The owner of an existing boat shed adjacent to the proposed dune recharge may require access to it during the course of the works. The Contractor should facilitate convenient and safe access to it when it is practicable to do so.

#### **WI 211 Storage of fuel and chemicals**

1. No additional constraints to those identified in the MTR

#### **WI 212 Pollution, ecological and environmental impacts**

1. Debris burning shall not be permitted under any circumstances.
2. Works shall follow best practice guidance for pollution control. All materials, including machinery, shall be securely stored in the site compound when not in use. Staff shall be appropriately trained on how to use spill kits correctly. Small plant (including generators) shall be placed within drip-trays or over plant nappies.
3. Detailed construction method statements will be prepared following Institute of Air Quality Management (IAQM) guidelines on dust management for medium risk-sites.
4. Out of hours works will be avoided wherever reasonably practicable.
5. Noise impacts will be minimised by adherence to measures described in BS 5228, to reduce noise impacts from construction by 5dB to 15dB.
6. Detailed construction method statements will be prepared following Institute of Lighting Practitioners (ILP) guidance. Note, it is required that that no light is projected onto Porth Hellick Pool and that light placement and lux levels follow the Bat Conservation Trust and ILP Guidance Note 08/18 on Bats and Artificial Lighting.
7. All construction work on the dunes must be completed before the end of the first week of April, before the ringed plover (*Charadrius hiaticula*) breeding season commences in mid-April each year.
8. No vehicle traversing across the dune grassland at the rear of the beach should cause damage to the existing grassland. Enviro-mats must be laid and used by vehicles in this area.
9. Waste that is recyclable will be sorted within the construction compound, placed into the relevant storage disposal container, and then removed from site for disposal at an appropriate recycling facility.
10. All potentially contaminated material will be subject to Waste Acceptance Criteria testing.
11. Any excavated clay that cannot be reused would be bulked on site and disposed of at an appropriately licenced waste management facility.
12. All residual waste material will be removed from site and disposed of at an appropriately licenced waste management facility.
13. Detailed construction method statements will be prepared following CIRIA guidance to include:



- a. Site storage of fuel and any chemicals on site will be above Mean High Water Spring and away from high-risk locations.
- b. All chemicals of a hazardous nature will be stored in bunded, locked containers in surfaced areas (bund to contain 110% of the capacity of the liquid stored).
- c. Plant, equipment and vehicle refuelling will only be permitted at designated refuelling areas.
- d. Refuelling and bulk deliveries will be supervised.
- e. Emergency spill kits will be available at all times and operatives should be trained in their use. Any spillages would be contained and reported.
- f. Drip trays will be used to prevent oil leaking from machinery when parked or stored and during refuelling.

#### **WI 213 Archaeological requirements**

- 1. The grave marker of Sir Cloudeley Shovell is located within the working area. The existing location and orientation of the grave marker shall be noted using GPS and the grave marker then carefully removed prior to works commencing. The CloS Project Director will arrange for a photographic record and field survey to be completed prior to it being moved. The grave marker shall not be moved until the record and survey are completed.
- 2. An archaeological Watching Brief will be implemented during the temporary removal of this asset to further examine and record the asset and its footprint.
- 3. The grave marker shall be stored within the site compound and marked off to avoid damage from construction activities
- 4. The grave marker shall be replaced as close as possible to its original location and orientation following completion of construction works
- 5. A photographic condition survey of Carn Friars Scheduled Monument (Ref: 1011950) will be undertaken by CloS before, during and after construction to identify any impact on the fabric of the site. The *Contractor* will ensure this survey is facilitated.
- 6. All *Contractor* delivery vehicles passing through the Scheduled Monument will access the construction compound via the existing farm track; no deviation from this track will be permitted.

#### **WI 214 Confidentiality**

- 1. The *Contractor* shall not disclose information regarding the works to third parties without the acceptance of the *Project Manager*.
- 2. All contact from third parties will be forwarded to the *Project Manager*.
- 3. The *Contractor* may publicise the services only with the *Employer's* written permission.

#### **WI 215 Security and protection on the site**

- 1. The *Contractor* is responsible for the security of the site and for vehicles and pedestrians entering and leaving the site.
- 2. Security measures shall include ensuring that the *Contractor's* personnel are easily identifiable.

#### **WI 216 Protection of existing structures and services**

- 1. An existing outfall for controlling the level of Higher Moors Pool is shown on the contract drawings. This is outside the working area and should not interface with the proposed works.



**WI 217 Protection of the works**

1. The *Contractor* should state in the Method Statement any measures they will employ to protect the works in the temporary state during periods of unsettled sea states.

**WI 218 Cleanliness of the roads**

1. No additional constraints to those identified in the MTR.

**WI 219 Traffic Management**

1. The *Contractor* is responsible for traffic safety and management including obtaining all approvals, e.g. road closures and openings. Before any work in, or affecting the use of, any highway or road is commenced, the *Contractor's* proposed method of working, including any special traffic requirements, is agreed with and confirmed in writing to, the *Project Manager*, and all relevant authorities.
2. The *Contractor* shall produce a Traffic Management Plan to be submitted to the *Project Manager* at least two weeks prior to construction of the works.
3. The Traffic Management Plan is to include, but is not limited to, the following:
  - Access routes to be taken by heavy vehicles, noting any height or weight restrictions
  - Details for keeping roads clear of dust and mud
  - Timings for heavy load movements
  - Vehicular routing
  - Parking restrictions for construction vehicles on the public highway surrounding the site
  - Pedestrian walkways around the site
  - Storage areas
  - Timetable for removal of site compound equipment
4. The *Contractor* shall co-operate with the relevant authorities concerning works in, or access to, the highway. The *Contractor* informs the *Project Manager* of any requirements or arrangements made with the relevant authorities.
5. The *Contractor* shall be responsible for liaising with the public regarding road closures and regular movements on the highway.

**WI 220 Condition survey**

1. At least two weeks prior to taking possession of the Site, the *Contractor* shall undertake condition surveys in accordance with the *Employer's* Minimal Technical Requirements (1.35).
2. The *Contractor* shall make a note of any existing damage and bring this to the attention of the *Project Manager*.
3. The *Contractor* shall repeat the condition survey on completion of the works in accordance with the *Employers* Minimum Technical Requirements (MTR) and provide a copy to the *Project Manager*.
4. Photographs, surveys and inventories must be date stamped, NRG referenced, and copies held by the *Contractor*. The *Contractor* shall provide these to the *Project Manager* and the *Supervisor*.



5. The *Contractor* shall undertake condition surveys with the *Supervisor*, and any others invited by the *Contractor*, *Project Manager* or *Supervisor*. The *Contractor*, *Project Manager* and *Supervisor* shall notify each other in advance if any others are invited.
6. The *Contractor* is to give at least one weeks' notice to the *Project Manager* and *Supervisor* prior to undertaking any condition survey.
7. All record photographs and videos shall comply with the requirements of the MTR.

#### **WI 221 Consideration of Others**

1. No additional constraints to those identified in the MTR.

#### **WI 222 Control of site personnel**

1. The *Contractor* shall ensure that all persons working on or visiting the Site hold a valid and current Construction Skills Certification Scheme (CSCS) card. A member of the site team shall escort persons without this card at all times.
2. The *Contractor* will maintain a visitors' book recording the date, the time in, the time out, evidence of a specific Health and Safety induction, CSCS number, and the name and company of the person visiting.

#### **WI 223 Site cleanliness**

1. No additional constraints to those identified in the MTR.

#### **WI 224 Waste materials**

1. Any construction related materials shall be disposed of away from site without any contamination of the waterways or surrounding land. Disposal must be in accordance with the Site Waste Management Plan (SWMP) and by a licensed waste disposal *contractor* with an audit trail. Refer to 1.14 EA MTR.
2. The *Contractor* determines volumes of waste to be disposed of offsite and applies for the appropriate licences.
3. The SWMP shall be submitted to the Project Manager for acceptance before prior to works on site commencing.

#### **WI 225 Deleterious and hazardous materials**

1. No additional constraints to those identified in the MTR.

#### **WI 226 Consents & Licencing**

1. Work shall not commence until Planning Permission, Maritime Management Organisation and Site of Special Scientific Interest licences are obtained
2. A Marine Management Organisation (MMO) Licence is not required for the proposed works as long as the working area is maintained above the MHWS mark.
3. Planning and any other statutory body consent will be obtained by the *Employer*.

#### **WI 227 Excavating Material**

1. Excavated material is to be placed in an area to be agreed with the *Project Manager* prior to any excavation taking place.
2. The *Contractor* is responsible for removing any excavated material from the site which cannot be redistributed within the working area.



3. The *Contractor* is responsible for all, permits, permissions and costs associated with removal and disposal of surplus material.

#### **WI 228 Reinstatement**

1. The works area, in particular the grassed compounded areas, and the unpaved access track to site shall be reinstated in their preconstruction condition.

#### **WI 300 Contractor's design**

##### **WI 301 Design responsibility**

1. The Contractor is not required to design any elements of the scheme.

#### **WI 400 Completion**

##### **WI 401 Completion definition**

1. The following are absolute requirements for Completion to be certified, without these items, the *Employer* is unable to use the works:
  - The whole of the *works* has been completed in accordance with the Works Information.
  - There are no Defects that prevent safe access and operation by the *Employer*.
  - There are no Defects that present a health and safety hazard to the public or landowners.
  - 1No. paper copy and 1No. electronic copy of the final Health and Safety File.
  - 1No. hard copy and 1No. electronic version of the As Built drawings.

##### **WI 402 Access to information following Completion**

1. The *Contractor* shall provide all information relevant to the works to the *Project Manager* following completion. The *Contractor* shall retain copies of all information for inspection by the *Project Manager* for the duration of the contract liability period.
2. The *Contractor* shall retain a copy of all design records, software code, supplier's details and other relevant information for a period of at least 12 years following Completion and shall make these available to the *Employer* on request.

##### **WI 403 Final Clean**

1. The *Contractor* shall leave the site in a clean, tidy condition and having removed all Equipment, Plant and Materials.

##### **WI 404 Security**

1. All existing landowner security arrangements shall be reinstated upon completion unless agreed otherwise. The *Contractor* shall ensure that landowner security is maintained at a similar level to that which currently exists on the site during the implementation of the works.

##### **WI 405 Pre-Completion arrangements**

1. Prior to any works being offered for takeover or Completion the *Contractor* shall arrange a joint inspection with the *Supervisor*, *Project Manager* and the *Employer*.
2. The initial inspection shall take place a minimum of three weeks in advance of the planned Completion.

#### **WI 500 Programme**



**WI 501 Programme Requirements**

1. The *Contractor* shall programme the dune recharge and ramp construction works to make best use of tidal working periods so as to minimise the exposure of underlayers to unfavourable sea conditions.

**WI 502 Revised Programmes**

1. Submission of revised programmes shall be accompanied with a written explanation of the changes.

**WI 600 Quality Assurance****WI 601 Samples**

1. Concrete cube samples shall be required to verify the strength of the concrete. The procedure shall be in line with the MTR (4.9).

**WI 602 Quality Statement**

1. The *Contractor* shall submit his quality statement for the works to the *Project Manager* within 4 weeks of the starting date.

**WI 603 Quality management system**

1. The *Contractor's* quality management system shall comply with the requirements of ISO 9001 and ISO 14001.

**WI 700 Tests and inspections**

1. The Contractor shall keep daily photographic records of all works carried out. All structures, pipework, formation levels, construction materials etc. to be buried shall be photographed prior to and during burying operations.

**WI 800 Management of the works****WI 801 Project team - Others**

1. Refer to Contract Data for details.

**WI 802 Communications**

1. No additional requirements to those stated in the MTR

**WI 900 Working with the *Employer* and Others****WI 901 Sharing the Working Areas with the *Employer* and Others**

1. The *Contractor* is required to co-operate with Others in sharing the working areas they need in connection with the works.
2. Statutory bodies (the local planning authority, Natural England etc.) may arrive at site unannounced to assess whether the *works* are being implemented within the conditions of the granted consent. The *Contractor* shall co-operate with any reasonable requests and share the working area.

**WI 1000 Services and other things to be provided**



**WI 1001 Services and other things for the use of the *Employer, Project Manager or Others***

1. The details of services and other things for the use of the *Employer, Project Manager or Others* to be provided by the *Contractor* are listed in the Environment Agency Minimum Technical Requirements (1.2)
2. The *Contractor* is responsible for obtaining all temporary service connections required for the duration of the works, including power, water, gas and telecommunications. Where no fixed connection is to be used, or is unavailable, the *Contractor* is responsible for making alternative arrangements. In the case of sewerage for instance, the *Contractor* is responsible for safely disposing of any waste generated if no connection to a public sewer is available.

**WI 1002 Services and other things to be provided by the *Employer***

1. The *Employer* is responsible for the following: -
  - Obtaining permission from the landowner to use the site for the purposes of the *works*. The *Contractor* should not approach any landowner directly unless authorised to do so by the *Employer*.
  - Giving the *Contractor* access to the site. The *Contractor* must give 5 working days' notice to the *Employer* to gain access to the site during the defects correction period.

**WI 1100 Health and safety****WI 1101 Health and safety requirements**

1. The *Contractor* shall comply with all applicable legislation for the health, safety and welfare of his people or any other person in or near the Site of the *works*.
2. The *Contractor* copies the *Project Manager* into all correspondence with the *Principal Designer*.
3. The *Contractor* shall fulfil the role of *Principal Contractor* under the Construction Design and Management Regulations 2015 for the duration of the works.

**Toolbox talks**

1. The *Contractor* shall provide regular toolbox talks to site personnel to ensure that health and safety issues, the requirements of the contract and the design and the contents of method statements are communicated throughout the site team.

**Incident reporting**

1. The *Contractor* shall provide a written report within 21 days of the incident, unless otherwise agreed with the *Project Manager*.

**First Aid**

1. The *Contractor* shall provide first aid facilities; Materials and personnel trained in first aid, for the benefit of his own people, those of his Sub-contractors and the site staff of the Project Manager, Supervisor and Employer.

**Provision of Life Saving Equipment**

1. The majority of the works will be undertaken immediately adjacent to water. Lifesaving equipment will be provided to the satisfaction of the *Project Manager*.

**WI 1102 Method statements**



1. The *Contractor* shall prepare a list of all Method Statements he intends to issue, and submit such Method Statements to the *Project Manager* at least two weeks in advance of carrying out the items of work.
2. The Contractor shall not commence any permanent works until the *Project Manager* has approved in writing the *Contractor's* working methods for forming the works.
3. The *Contractor* provides the works in accordance with the accepted method statement.

#### **WI 1103 Legal requirements**

1. The Principal Contractor duties under the CDM Regulations 2015 shall be undertaken by the *Contractor*.
2. The Principal Designer duties under the CDM Regulations 2015 shall be undertaken by the *Employer's* consultant
3. The Client duties under the CDM Regulations 2015 shall be undertaken by the *Employer*.

#### **WI 1104 Inspections**

1. The *Contractor* shall provide a competent health and safety officer whilst *works* are being carried out on the Site.
2. The *Contractor's* health and safety officer carries out weekly audits of the Site and submits copies of audit reports and proposed remedial actions to the *Supervisor* prior to the end of the following week.
3. The *Employer* may carry out site audits. The *Contractor* shall assist with these audits and comply with any recommendations made during such audits.

#### **WI 1200 Subcontracting**

1. The *Contractor* is responsible for all the work.

#### **WI 1300 Title**

1. Not required.

#### **WI 1400 Acceptance or procurement produce (Option C, D, E and F)**

1. Not required.

#### **WI 1500 Accounts and records (Options C, D, E & F)**

1. Not required.

#### **WI 1600 Parent company guarantee (Option X4)**

1. Not required.

#### **WI 1700 Performance Bond (Option X13)**

1. Not required.

#### **WI 1800 Advance payment bond (Option X14)**

1. Not required.

#### **WI 1900 Low Performance damages (Option X17)**



1. Not required.

## **WI 2000      *Employer's work specifications and drawings.***

### **WI 2100      *Employer's work specification***

1. The *Employer's* minimum technical requirements are the Civil Engineering Specification for the Water Industry (CESWI), 7th Edition, supplemented by the Environment Agency's Minimum Technical Requirements (EA MTR). See Appendix A.
2. The Specification for Highway Works (SHW) standards are applicable where it is referenced in the Works Information.
3. The Works Information is appended by a Works Specification (Appendix B). This document amends existing or includes additional clauses to those stated in CEWSI & the EA MTR.
4. In so far as any information contained within the Works Information (including the Works Specification) may conflict or be inconsistent with any provision of CESWI 7 and/or the EA MTR then the particular information contained within the Works Information shall always take precedence.
5. CEWSI & EA MTR clauses should be read as those clauses which are applicable to works apply and those that are not relevant should be ignored. E.g. Clause **2.102: Precast Concrete Box Culverts** is not applicable as it is not shown on the drawings and not mentioned in the Works Information. Therefore, text relating to those clauses in CEWSI & EA MTR should be ignored. However, if the design is modified during construction to include works for such an item, then the clause should be adhered to.
6. The following reports and specifications form a part of the Works Information:
  - Appendix A - Employer's Minimum Technical Requirements- (EA MTR)
  - Appendix B - Works Specification

N.B. It is assumed the *Contractor* will have access to CESWI 7 and other industry standard references made within the Works Information and hence will not be distributed as part of the Contract Documents.

### **WI 2200      *Drawings***

1. The following drawings form a part of the Works Information:
  - UA008878-ARC-XX-XX-DR-CE-0500-Porth Hellick Site Plan
  - UA009765-ARC-XX-XX-DR-CE-0502-Porth Hellick Plan of Raised Dune
  - UA009765-ARC-XX-XX-DR-CE-0520-Porth Hellick Sections C & F
  - UA009765-ARC-XX-XX-DR-CE-0521-Porth Mellon Sections D
  - UA009765-ARC-XX-XX-DR-CE-0523-Porth Mellon Sections E & G
  - UA009765-ARC-XX-XX-DR-CE-0524-Porth Mellon Sections H & J
  - DR-CE-0501-S2-P2-Porth Hellick Timber Boardwalk Plan
  - UA008878-ARC-XX-XX-DR-CE-0522-S2-P1- Boardwalk Sections



## **APPENDIX A**

### **EMPLOYER'S MINIMUM TECHNICAL REQUIREMENTS- EA MTR**



## **APPENDIX B**

### **WORKS SPECIFICATION**