

2030).

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 nearby Lower Moors SSSI, interest features of the SAC and SPA) arising from vibration, artificial lighting and noise effects;**
- **An archaeological Watching Brief during delivery of construction materials to monitor the potential for any impacts on buried remains in the inter-tidal area (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, OE2 and SS7 of the Isles of Scilly Local Plan 2015-2030.

C4 Before commencing any planting along the vegetation section of the rock revetment, details of the native plant species and planting schedule, shall be submitted to and approved in writing by the Local Planning Authority. Native plant species should be used to provide valuable habitat and to ensure no biodiversity net loss. 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 before successful establishment, 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).

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. Please note that from the 6th April 2008 a fee is now payable for the discharge of any conditions where details are required to be submitted pursuant to that condition. Details of the exact amount and the procedure to be followed can be found on the Council's website.
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.

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: 20th 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

Dear Dr Stephen Swabey

Please sign and complete this certificate.

This is to certify that decision notice: P/21/050/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:** Construction of a rock armour revetment in the south west corner of Porth Mellon Beach. Formalising pedestrian beach access track. (EIA Development) (Major Development) at: Porthmellon Beach Telegraph Road Porth Mellon 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;
 - 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 nearby Lower Moors SSSI, interest features of the SAC and SPA) arising from vibration, artificial lighting and noise effects;
 - An archaeological Watching Brief during delivery of construction materials to monitor the potential for any impacts on buried remains in the inter-tidal area (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.

LOCATION PLAN - PM2000

Porthmellon, St Mary's

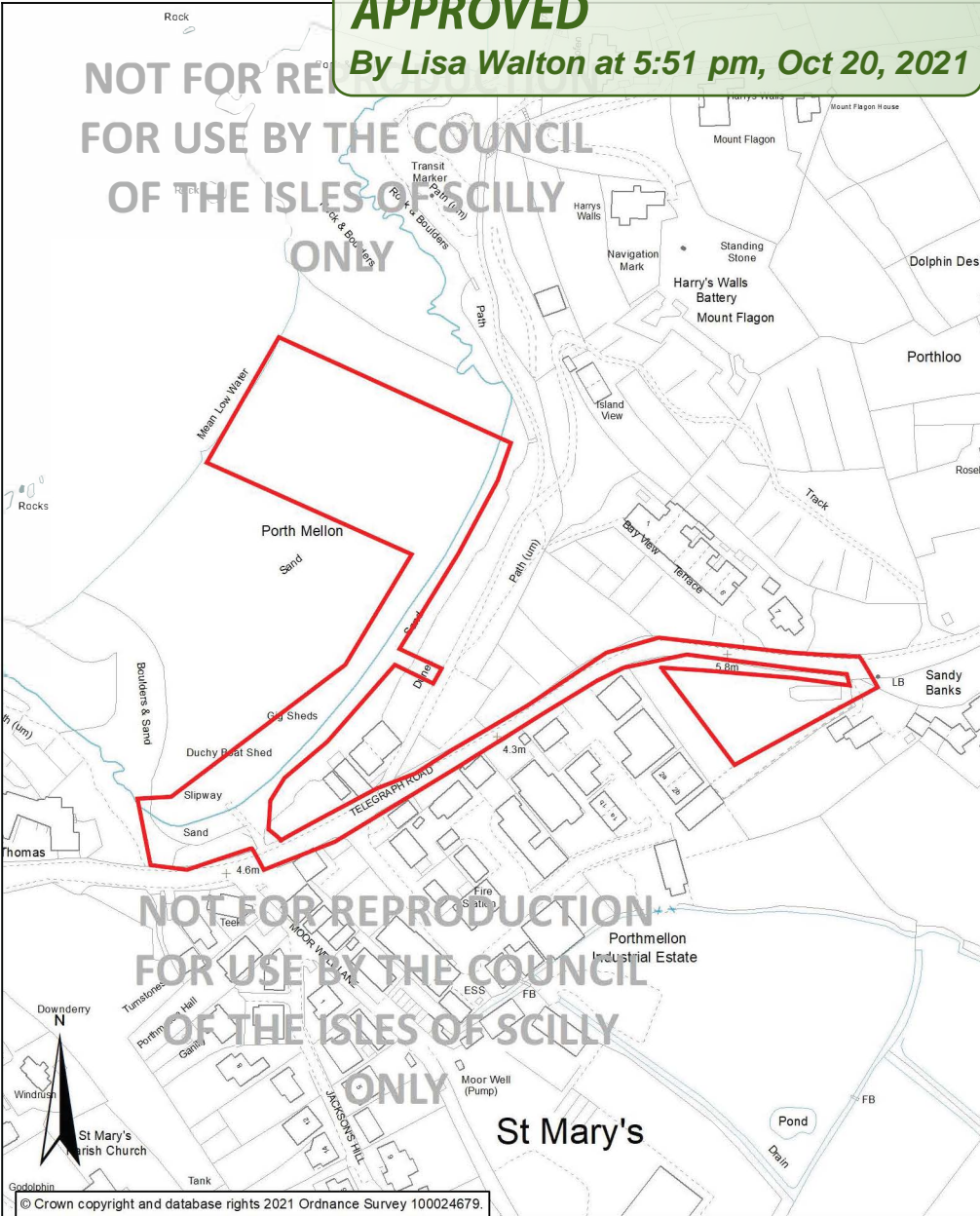
RECEIVED

By A King at 3:42 pm, Jul 28, 2021

APPROVED

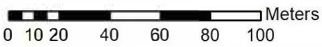
By Lisa Walton at 5:51 pm, Oct 20, 2021

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ONLY



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



Council of the ISLES OF SCILLY

ROCK STABILITY

- 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. NEITHER HAVE HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.
- SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM MEMBERS.

RECEIVED
By A King at 3:44 pm, Jul 28, 2021

APPROVED
By Lisa Walton at 5:51 pm, Oct 20, 2021

SURVEY
SoP 1: 90775.23, 10694.61
SoP 2: 90770.04, 10701.74
SoP 3: 90877.84, 10847.39
SoP 4: 90784.54, 10891.19
SoP 5: 90757.31, 10850.14
SoP 6: 90841.82, 10810.22
SoP 7: 90730.08, 10710.04
6. BEACH LEVELS AS OF FEB 2017

LEGEND:

- WORKING AREA
- ▨ PROPOSED CONTRACTOR'S COMPOUND & MATERIAL STORAGE AREA

Rev	Date	Description	Drawn	Check	Approv
P3	05APR19	WORKING AREA & COORDINATES	MH	MC	IC
P2	18SEP17	DRAWING AND NOTE AMENDMENTS	NH	MC	IC
P1	28JUL17	ISSUED FOR INFORMATION	MN	MC	IC

Client
COUNCIL OF THE ISLES OF SCILLY

PROJECT:
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site
Isles of Scilly
Porth Mellon

Client
Council of the Isles of Scilly
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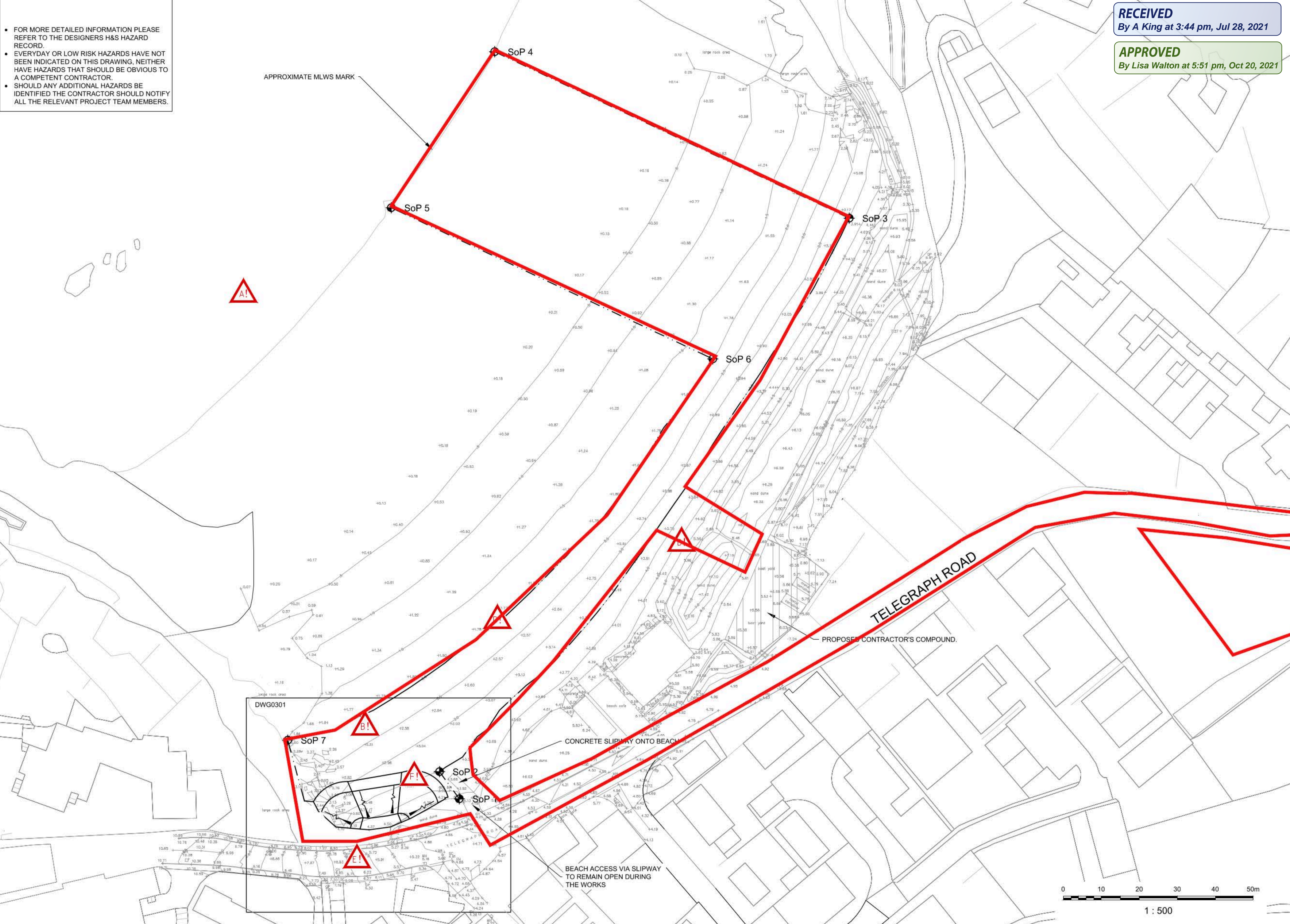
TITLE:
**SITE PLAN
PORTH MELLON**

Designed	M. NEEDHAM	Signet	<i>M. Needham</i>	Date	18SEP17
Drawn	M. NEEDHAM	Signet	<i>M. Needham</i>	Date	18SEP17
Checked	M. CLAUSEN	Signet	<i>M. Clausen</i>	Date	18SEP17
Approved	I. COOKE	Signet	<i>I. Cooke</i>	Date	18SEP17
Scale:	1:500	Datum:	ST.MARYS		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA008878		

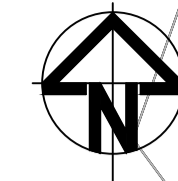
Suitability Description:
ISSUED FOR INFORMATION

Drawing Number:
UA008878-XX-XX-DR-CE-0300

Revision:
P3



APPROVED
By Lisa Walton at 5:51 pm, Oct 20, 2021



- HAZARD WARNINGS**
- A! WORKING ADJACENT TO WATER
 - B! SOFT AND UNSTABLE GROUND
 - C! DEEP EXCAVATIONS
 - D! PUBLIC BEACH
 - E! SERVICES
 - F! ROCK STABILITY
- 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, NEITHER HAVE HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.
SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM MEMBERS.

- 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
MHWs 2.79m
MLWN 1.39m
MLWN -0.91m
MLWS -2.21m
 - SETTING OUT POINTS (SoP) TO ORDNANCE SURVEY
SoP 1: 90775.23, 1069.61
SoP 2: 90770.0, 10701.7
SoP 3: 90877.8, 108.7.39
SoP 4: 9078.5, 10891.19
SoP 5: 90757.31, 10850.1
SoP 6: 908.82, 10810.22
SoP 7: 90730.08, 10710.0
6. BEACH LEVELS AS OF FEB 2017

RECEIVED
By Emma Kingwell at 1:59 pm, Jun 22, 2021

- LEGEND:**
- WORKING AREA
 - ▨ PROPOSED CONTRACTOR'S COMPOUND & MATERIAL STORAGE AREA

Rev	Date	Description	Drawn	Check	Approv
P3	05APR19	WORKING AREA & COORDINATES	MH	MC	IC
P2	18SEP17	DRAWING AND NOTE AMENDMENTS	NH	MC	IC
P1	28JUL17	ISSUED FOR INFORMATION	MN	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 Mellon

Council of the Isles of Scilly
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TITLE:

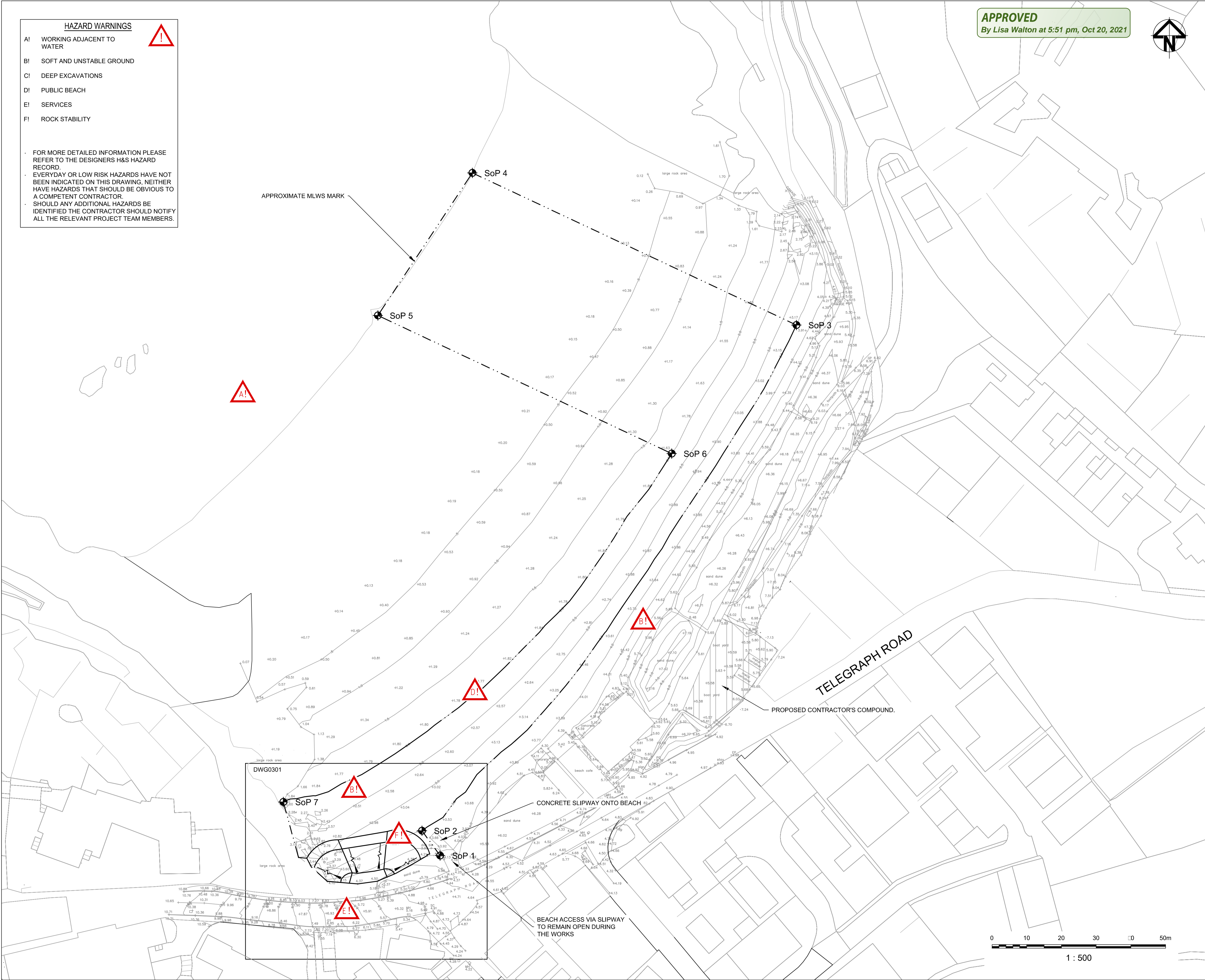
**SITE PLAN
PORTH MELLON**

Designed	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	18SEP17
Drawn	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	18SEP17
Checked	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	18SEP17
Approved	I. COOKE	Signed	<i>I. Cooke</i>	Date	18SEP17
Scale:	1:500	Datum:	ST.MARYS		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA008878		

Suitability Description:
ISSUED FOR INFORMATION

Drawing Number:
UA008878-XX-XX-DR-CE-0300

Revision:
P3



APPROVED

By Lisa Walton at 5:51 pm, Oct 20, 2021

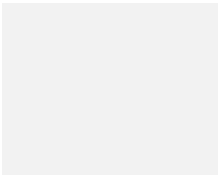
ISLES OF SCILLY DUNE & FLOOD DEFENCE SCHEME

Site Information- Porth Mellon

APRIL 2019



CONTACTS



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Civil Engineer

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United Kingdom

Isles of Scilly Dune & Flood Defence Scheme

Site Information- Porth Mellon- Porth Mellon

Author M. Clausen

Checker P. Valvona

Approver P. Valvona

Report No UA008878-ARC-XX-XX-SP-CE-0802

Date APRIL 2019

VERSION CONTROL

Version	Date	Author	Changes
P1	05-04-2019	MC	First Issue

This report dated 05 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.

CONTENTS

1.	INTRODUCTION	1
2.	SITE LOCATION & ACCESS	2
3.	SITE PHOTOS	3
4.	TOPOGRAPHIC SURVEY	5
5.	SERVICES AND UTILITY SEARCH	5
6.	GROUND INVESTIGATION	6
7.	DESIGN STATEMENTS	6
8.	DESIGNER'S HAZARD RECORD	6

APPENDICES

APPENDIX A

Topographic Surveys

APPENDIX B

Service Plans

APPENDIX C

Ground Investigation

APPENDIX D

Design Statements

APPENDIX E

Designer's Hazard Record

1. Introduction

This document forms the Site Information for the *works* at Porth Mellon 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 location & Access

Porth Mellon is located on the western coast of St. Marys. The bay measures approximately 240m and is flanked by rocky outcrops. Boatsheds and a restaurant are situated on the beach with an industrial estate located behind.

Nearest Postcode: TR21 0JY
Nation Grid Reference: SV9084710773

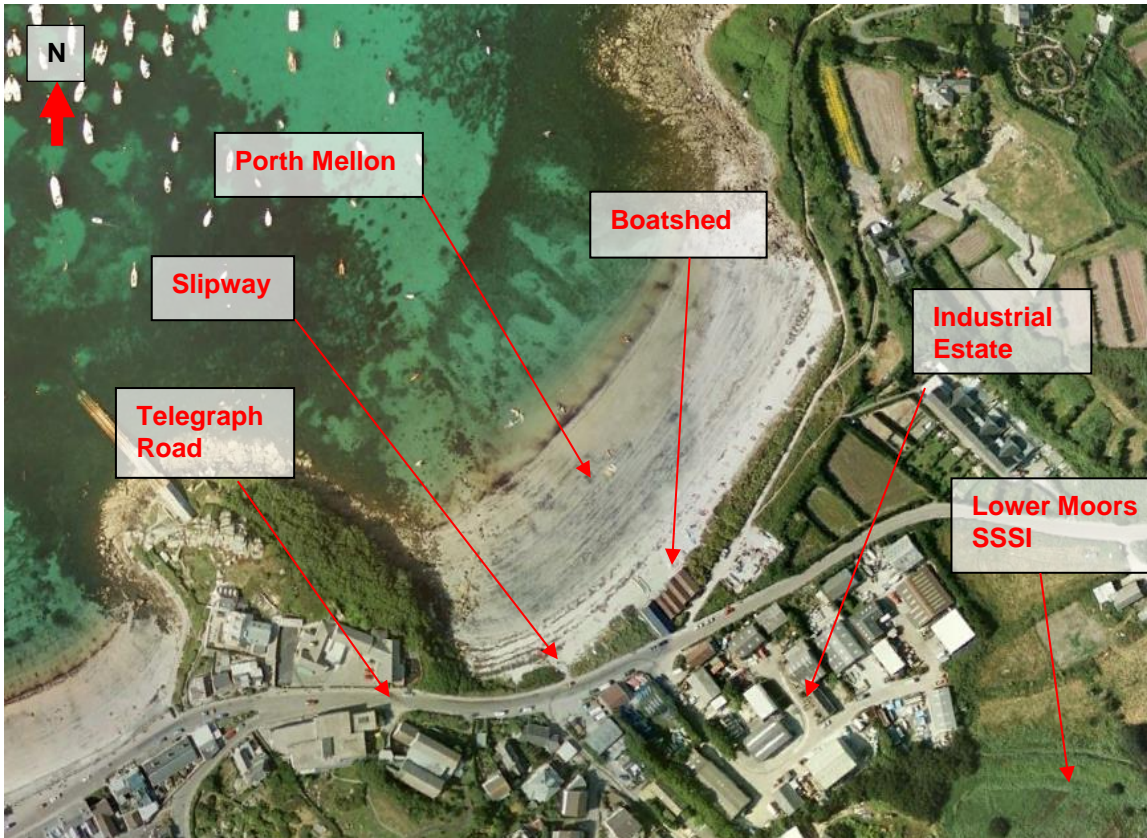


Figure 1: Porth Mellon Beach (Plymouth Coastal Observatory, 2016)

Porth Mellon beach is access via a slipway which adjoins to Telegraph Road. There is a track behind boatshed and the beach which leads to a coastal footpath.

3. Site Photos



Figure 2: Southwest corner of Porth Mellon beach where the revetment is proposed.



Figure 3: Southwest corner of Porth Mellon beach where the revetment is proposed. Note telegraph pole that may need to be relocated to accommodate the revetment.



Figure 4: Slipway onto Porth Mellon beach from Telegraph road.



Figure 5: Boatsheds and water sport business on Porth Mellon beach

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

Trial pits were undertaken by the Council of the Isles of Scilly to determine the material type at the expected revetment toe foundation depth.

See Appendix C for trial pit plans & results at Porth Mellon.

7. Design Statements

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

8. Designer's Hazard Record

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

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 | FB — Post / bollard |
| BT — British Telecom cover | FE — Roading eye |
| CATV — CATV cover | FS — Ridge |
| CH — Chimney | SC — Stopcock |
| DK — Drain | SP — Sign post |
| DR — Drainage | 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 | TR — Telegraph pole |
| GC — Gas cover | WL — Water level |
| GR — Grit box | WM — Water meter |
| GP — Gate post | WB — Benchmark |
| GU — Gully | WB — Borehole |
| IC — Inspection cover | WB — County boundary |
| IL — Invert level | WB — Fence |
| LB — Light bollard | WB — Hedge |
| LT — Light tower | WB — Pylon |
| LP — Lamp post | WB — Slope |
| JB — Junction box | WB — Slope |
| M — Manhole | WB — Stone face |
| m — metres | WB — Surface level |
| MC — Circular manhole | WB — Survey station |
| OC — Overhead Cable | WB — Triangulation pillar |



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 Mellon, St. Mary's Island

DRAWING TITLE

Topographic Survey

SCALE

1:500 @ A1

DATE

February 2017

DRAWN BY

D.W

CHECKED BY

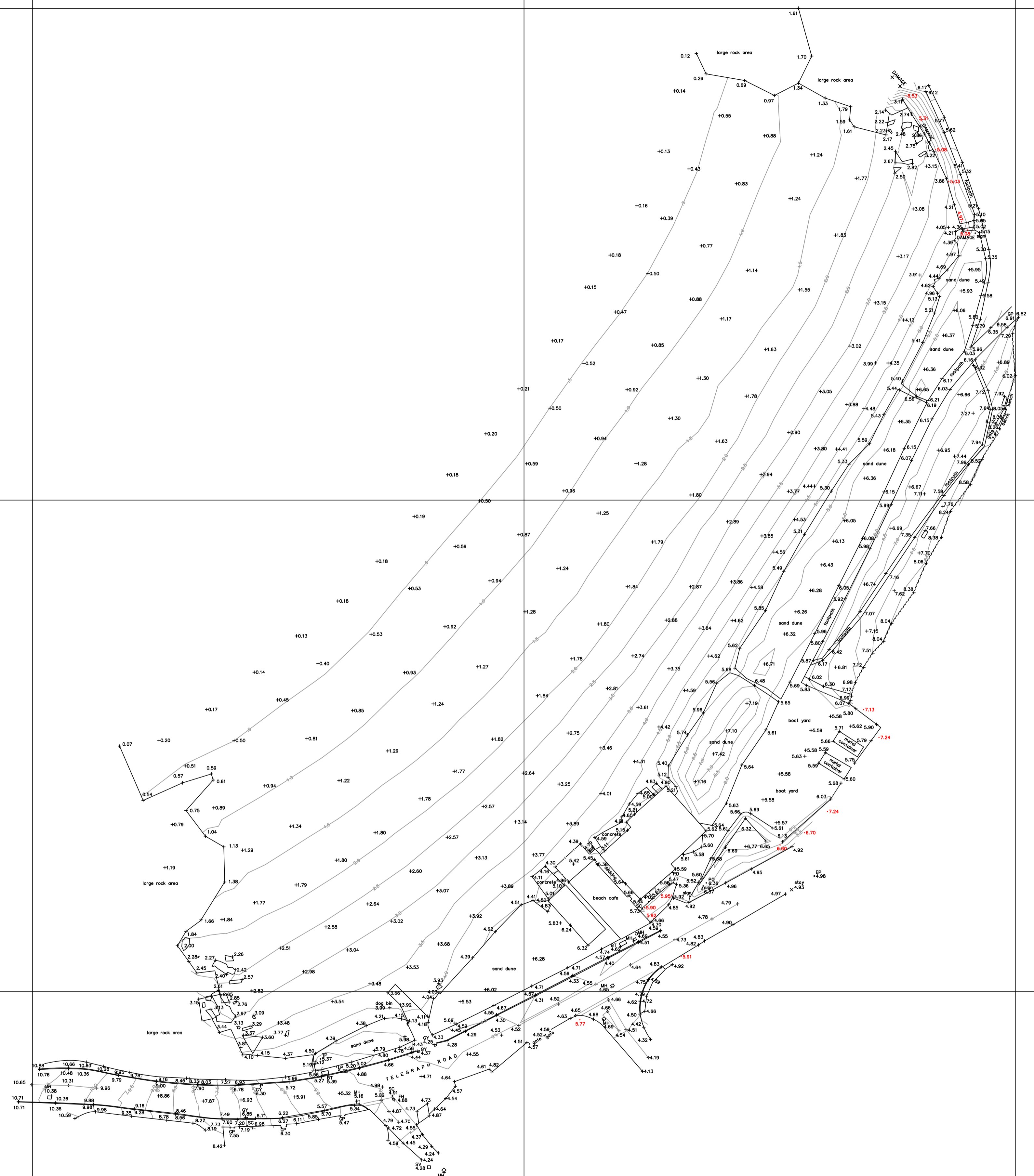
J.R.R

DRAWING NUMBER

BS2443/02.17/01/DW

REVISION

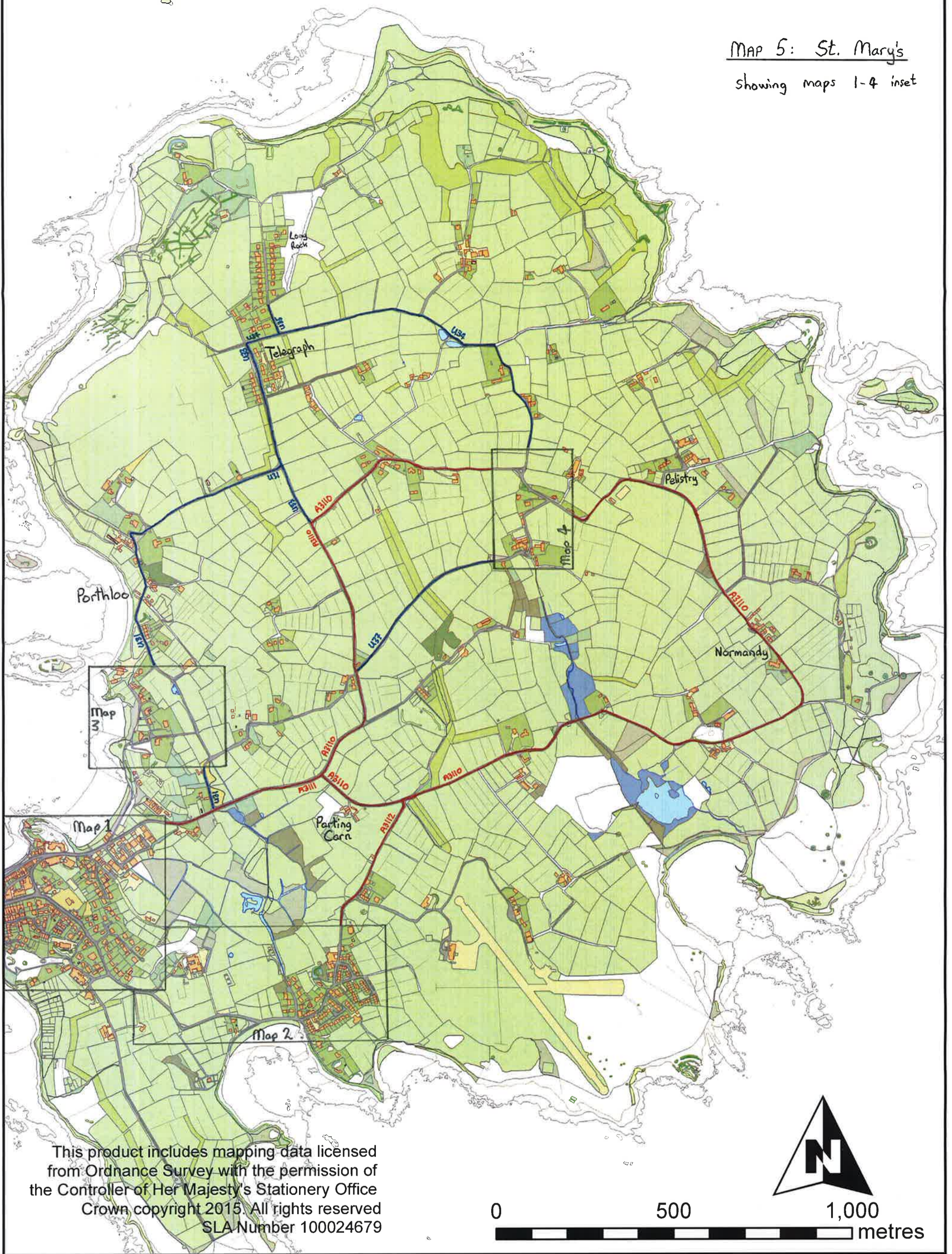
A



APPENDIX B

Service Plans

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



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 1st 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 & 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	Thorofare	A3111 The Parade (North) and (in two places) A3111 Hugh Street and ends of road (in two places) at <i>Town Beach</i>
U13	The Parade (East)	A3111 The Parade (North) and A3112 The Parade (South)
U14	Silver Street	A3111 Hugh Street and U16 Porthcressa Road
U15	Ingram's Opening	A3112 The Parade (South) and U16 Porthcressa Road
U16	Porthcressa Road	U14 Silver Street and U20 Buzza Street
U17	Porthcressa Road (Lane To South)	U16 Porthcressa Road and end of road where it meets F10 Porthcressa Promenade And Connecting Ways
U18	Porthcressa	U16 Porthcressa Road and U20 Buzza Street
U19	Buzza Road	U20 Buzza Street and end of road where it meets F12 Porthcressa Terrace To Buzza Road
U20	Buzza Street	A3112 Church Street and U19 Buzza Road
U21	Ram's Valley	U20 Buzza Street and end of road at a private gate (road inclusive of frontage of <i>Arden House</i>)
U22	Porthcressa Terrace	U20 Buzza Street and U21 Ram's Valley
U23	Rechabite Slipway	A3111 Lower Strand and end of road at <i>Town Beach</i>
U24	Well Cross	A3111 Lower Strand and A3112 Church Street
U25	Back Lane (Off Well Cross)	U24 Well Cross and U26 Church Road (North)
U26	Church Road (North)	A3111 Carn Thomas and A3112 Church Street
U27	Branksea Close	A3112 Church Road and end of road where it meets F15 Branksea Close (Estate Paths)
U28	Hospital Lane	A3112 Church Road and end of road where it meets F13 Mill Hill
U29	Moor Well Lane	A3111 Telegraph Road (Porthmellon) and end of road at entrance to the <i>Porthmellon waste management site</i>
U30	Porthmellon Industrial Estate Roads	A3111 Telegraph Road (Porthmellon) and all ends of road within the industrial estate
U31	Porthloo Lane	A3111 Pump Road and U33 Telegraph Road (North)
U32	Mount Flagon And Thomas' Porth	U31 Porthloo Lane and end of road at the frontage of <i>Camberdown</i> (inclusive)
U33	Telegraph Road (North)	A3110 Telegraph Road and U34 Pungie's Lane
U34	Pungie's Lane	U33 Telegraph Road (North) and A3110 High Lanes (a forked junction)
U35	McFarland's Down	U34 Pungie's Lane and end of road immediately before the junction with track leading to Long Rock
U36	Holy Vale	A3110 High Lanes and U37 Holy Vale Lane and looping onto itself
U37	Holy Vale Lane	A3110 Telegraph Road and U36 Holy Vale
U38	Ennor Close (Estate Roads)	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*)

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

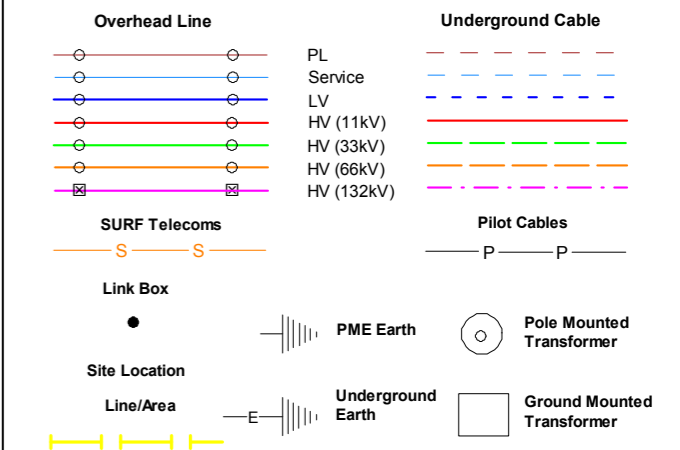
Mapping Enquiries: All areas 0121 623 9780
General Enquiries: All areas 0800 096 3080

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

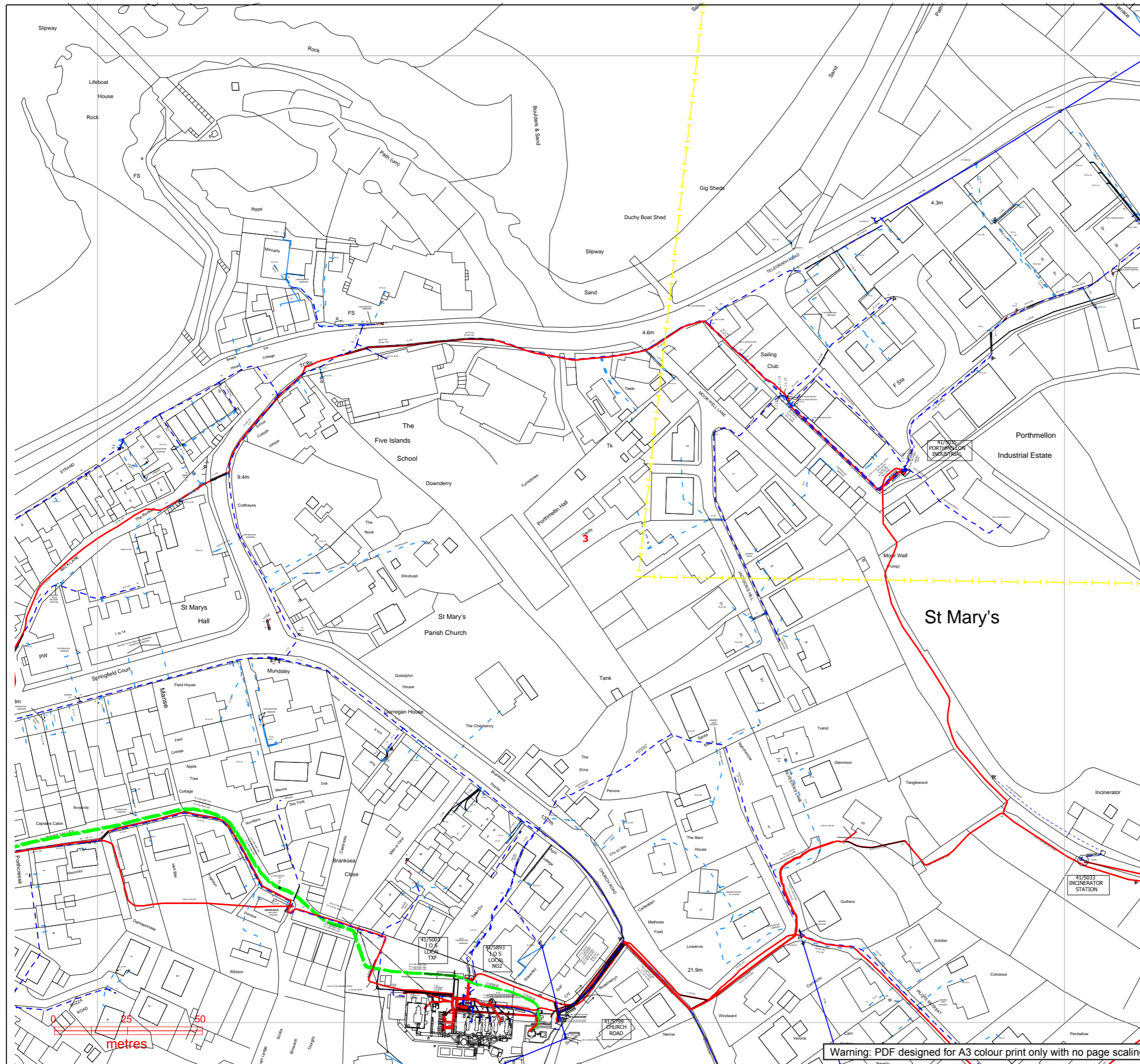
Date Requested: 08/03/2018
 Job Reference: 12386303
 Site Location: 90928 10785
 Requested by: Mr Ryan Haselden
 Your Scheme/Reference: iOS
 Exact Scales:
 1:1250 Area or Circle dig site
 1:500 Line dig site

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



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Contact Us

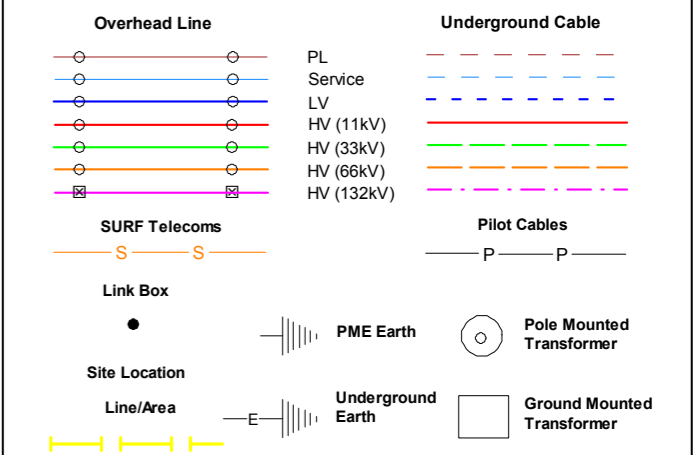
Mapping Enquiries: All areas 0121 623 9780
General Enquiries: All areas 0800 096 3080

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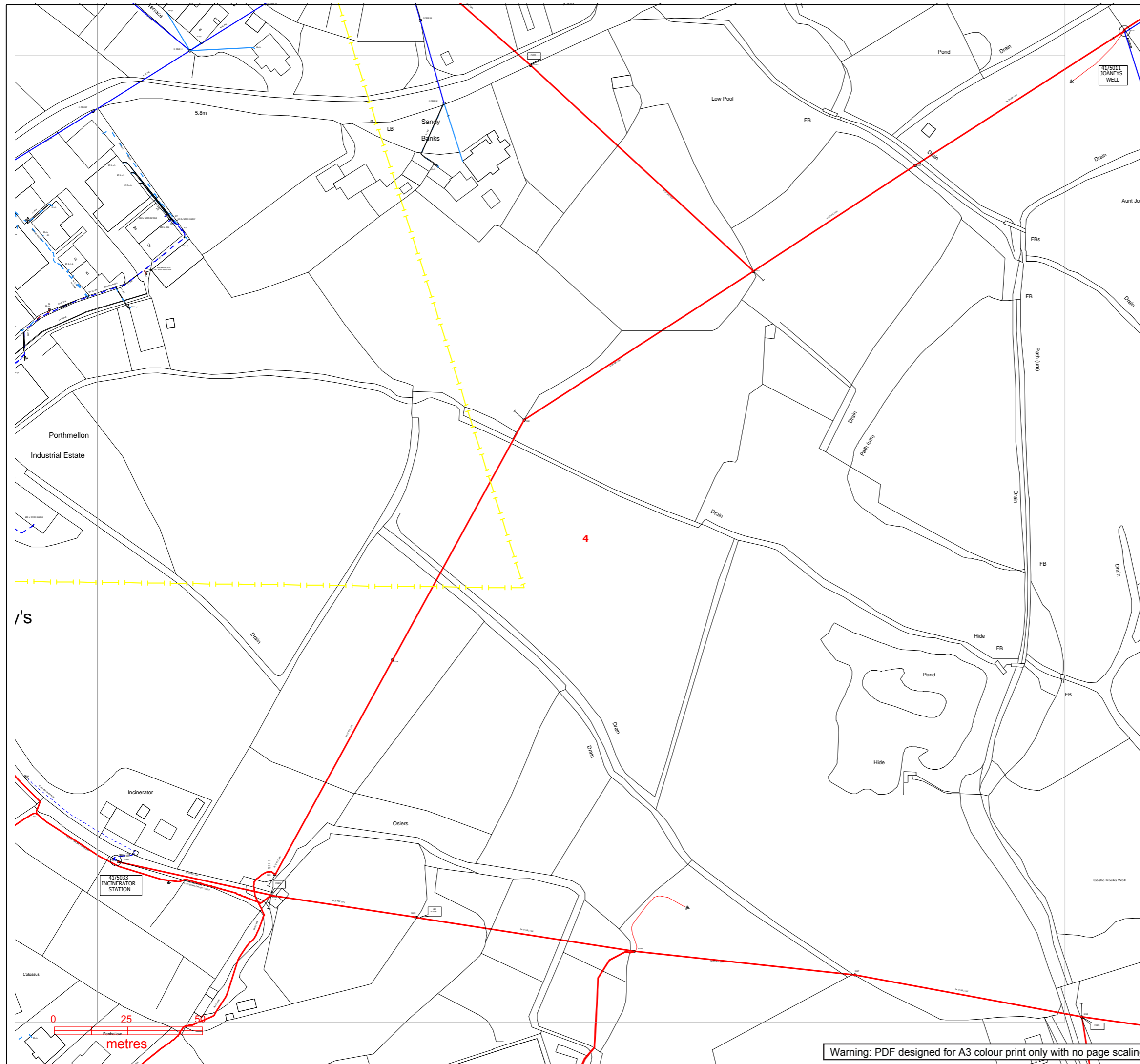
Date Requested: 08/03/2018
 Job Reference: 12386303
 Site Location: 90928 10785
 Requested by: Mr Ryan Haselden
 Your Scheme/Reference: IoS
 Exact Scales:
 1:1250 Area or Circle dig site
 1:500 Line dig site

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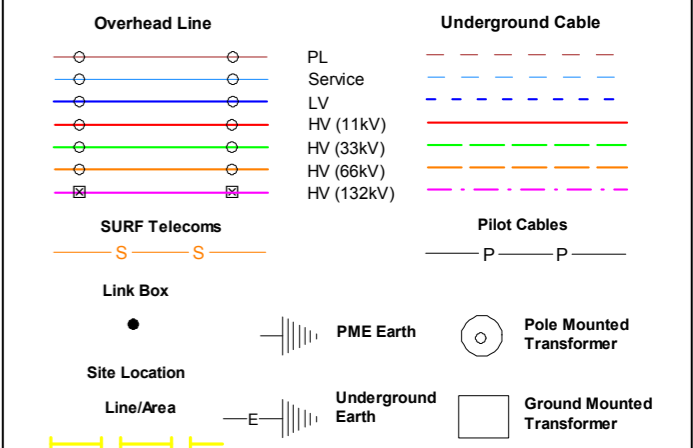
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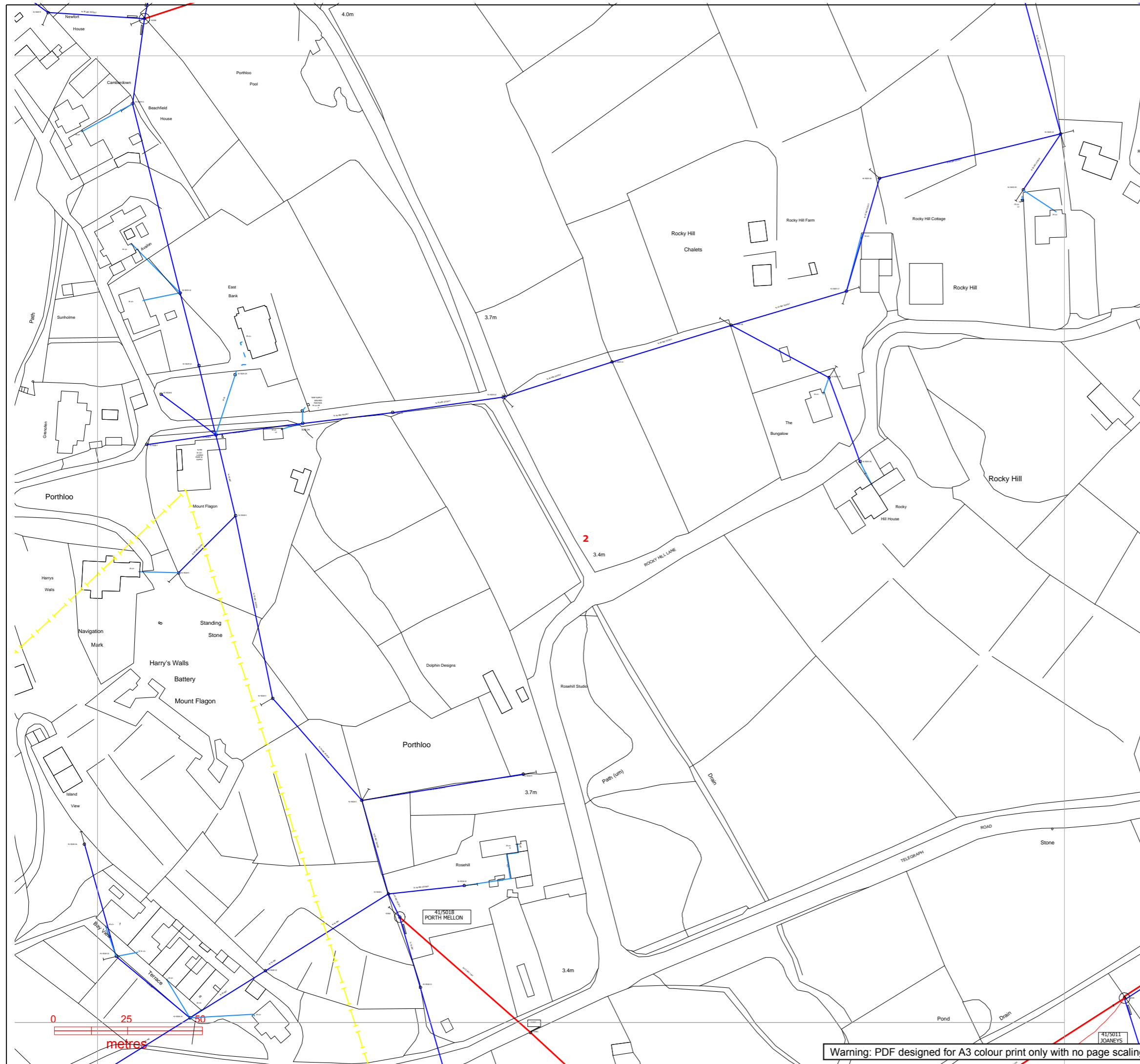
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Enquirer

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	Initial Enquiry	Work category	Utility Works
Start date	26/07/2018	Work type	Multiple excavations site
End date	26/01/2019	Site size	25039 metres square
Searched location	SV9084710773	Work type buffer*	25 metres
Confirmed location	90796 10822		
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.



Asset Owners

Terms and Conditions. Please note that this enquiry is subject always to our standard terms and conditions available at www.linesearchbeforeudig.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 LineSearchbeforeUdig 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

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
Cemex	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	Manx 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
Ørsted	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.

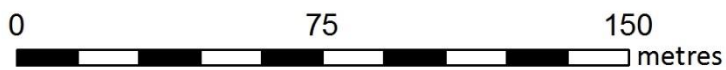
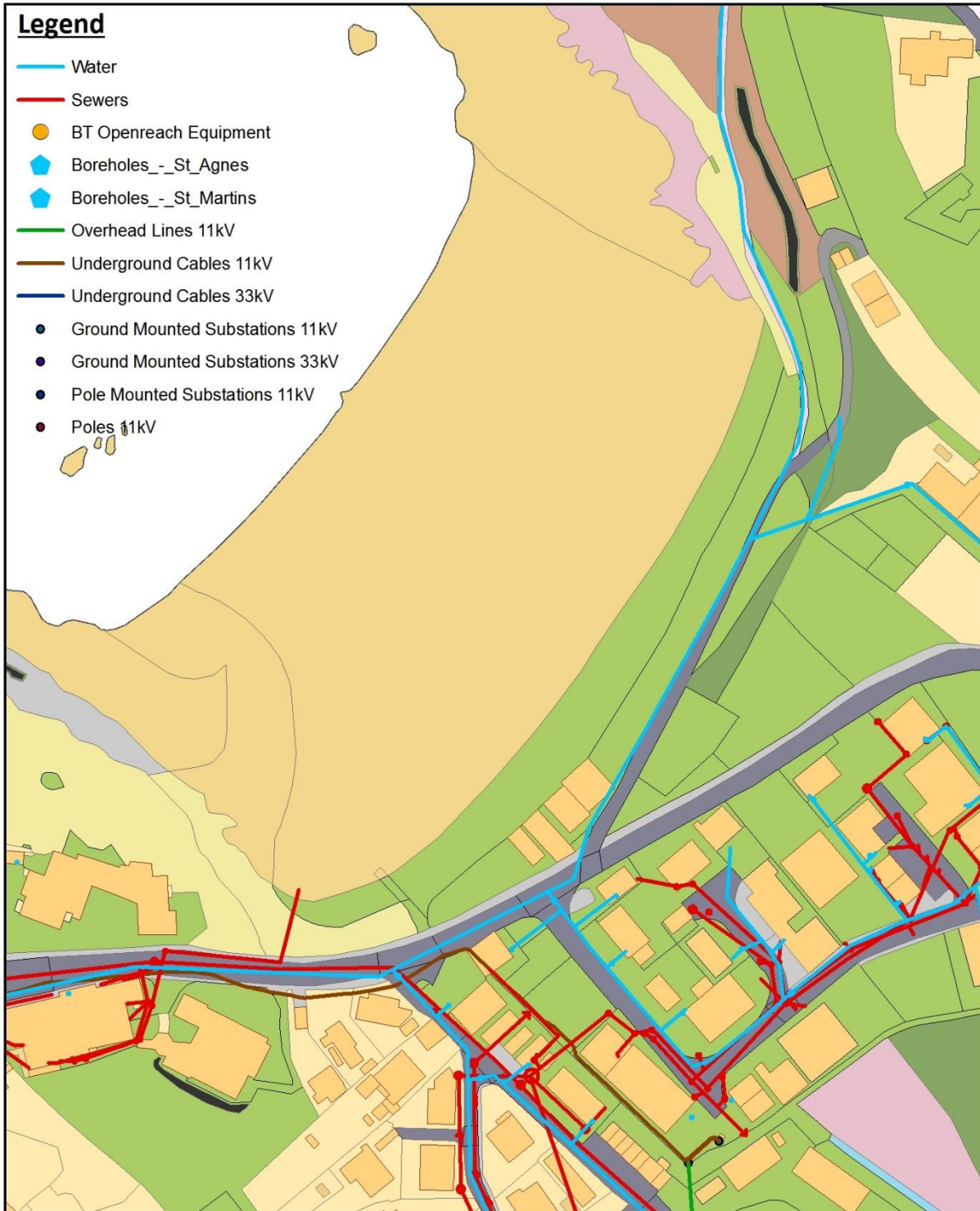
Non-LSBUD members (Asset owners not registered on LSBUD)			
Asset Owner	Preferred contact method	Phone	Status
BT	https://www.swns.bt.com/pls/mbe/welcome.home	08009173993	Not Notified
CenturyLink Communications UK Limited	plantenquiries@instalcom.co.uk	02087314613	Not Notified
CityFibre	asset.team@cityfibre.com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

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Porthmellon Beach, St Mary's



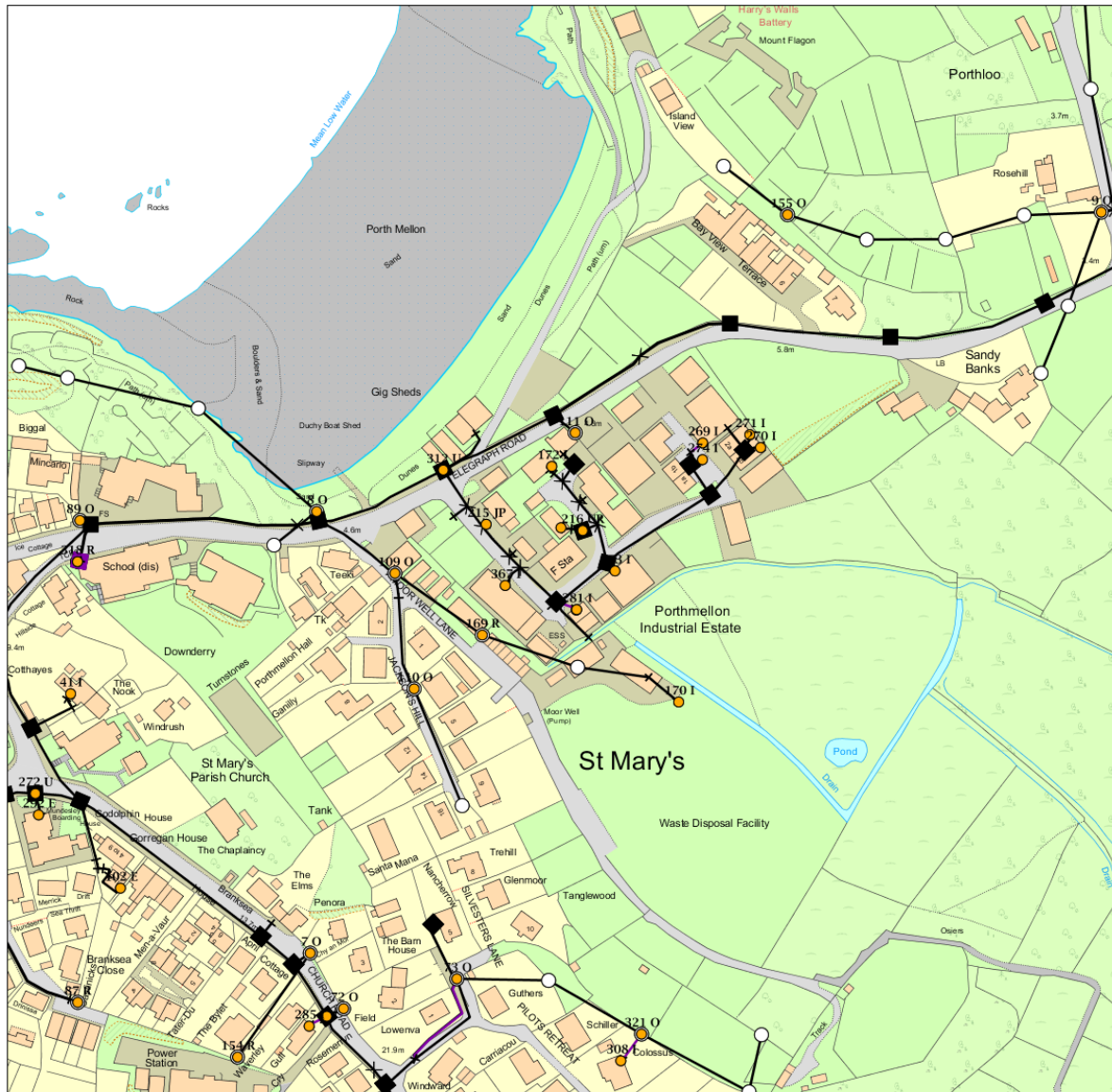
1:1,500 @ A4



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

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Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



openreach
BT

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

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KEY TO BT SYMBOLS

DP	
Planned DP	
PCP	
Planned PCP	
Built	
Planned	
Inferred	
Building	
Kiosk	
Hatchings	

Pole	
Planned Pole	
Joint Box	
Change Of State	
Split Coupling	
Duct Tee	
Planned Box	
Manhole	
Planned Manhole	
Cabinet	
Planned Cabinet	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above maybe disregarded.
Existing BT plant may not be recorded.
Information valid at time of preparation

openreach
a BT Group business

BT Ref : EEN10054L
Map Reference : (centre) SV9086810672
Easting/Northing : (centre) 90868,10672
Issued : 06/07/2017 10:05:41

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

APPENDIX C

Ground Investigation

TRIAL PIT – SUMMARY RESULTS Porth Mellon

PORTH MELLON

Trial Pit Number	Depth from beach level to bottom of excavation	Ordnance Datum Newlyn Level of beach prior to trial pit being undertaken (See Site Plan for level info.)
1	2.1m	c.3.77m
2	2.6m	c.3.98m

Pit 1 Results

0.7 – 2.1m (ground level) Loose sand with boulders

0.5 – 0.7m Loose to compact medium to coarse grained sand and gravel

0 (base of pit) – 0.5 Ram - sand, gravel and clay composite deposit (firm/stiff to dense/compact)



Figs 1 and 2 – Trial Pit 1 Porth Mellon



Fig 3 – Trial Pit 1 – Sand / Gravel / Clay composite

Pit 2 Results

Digging of pit ceased for Health and Safety reasons (combination of site location / stability of hole / practicalities)

0.4 – 2.6m (ground level) Loose Sand (fine grained)

0 (base of pit) – 0.4m medium grained orange sand (loose)



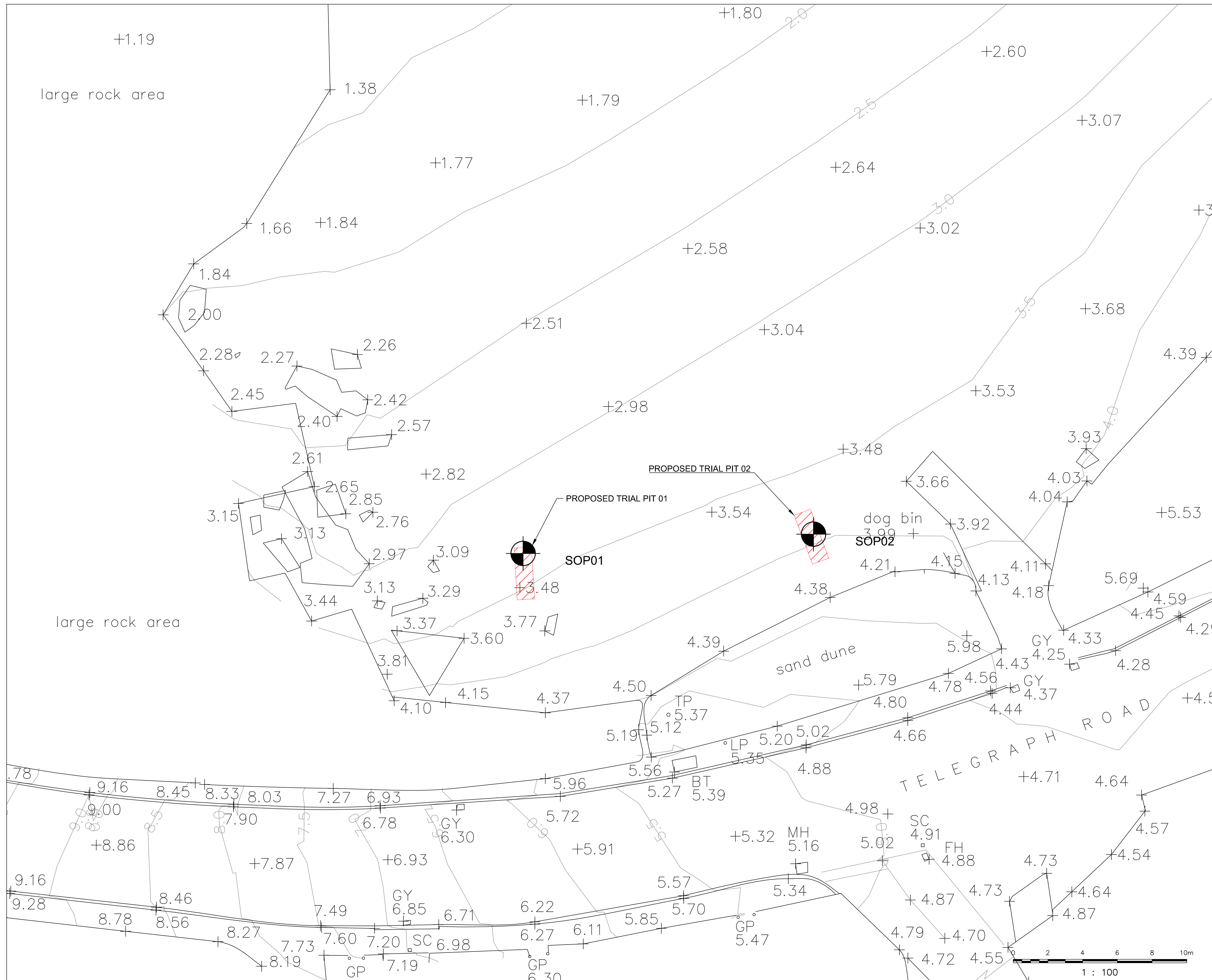
Fig 4 and 5 Pit 2 Porth Mellon



Fig 6 – Pit 2 Porth Mellon



Fig 7 – Medium grained sand at base of pit



- NOTES:**
- DO NOT SCALE FROM THIS DRAWING USE FIGURED DIMENSIONS ONLY
 - TRIAL PITS ARE TO BE 1000 x 3000mm CENTRED AROUND THE SOP.
 - ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN (ODN)
 - SOP 01: 0750 E 10 N
SOP 02: 07 E 10 N
 - TIDE INFORMATION RELATIVE TO ODN
MHWS 2.7m
MLWN 1.3m
MLWN 0.1m
MLWS 2.2m

- LEGEND:**
- SETTING OUT POINT :SOP
 - TRIAL PIT

Rev	Date	Description	Drawn	Check	Approv
P1	19APR17	FOR INFORMATION			

Client

COUNCIL OF THE ISLES OF SCILLY

PROJECT:
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site **Client**

Isles of Scilly 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/

ARCADIS Design & Consultancy for natural and built assets

Registered office: Coordinating office:
Arcadis House 680 Budshead Road
34 York Way Crowhill
London Plymouth PL6 5XR
N1 9AB Tel: +44 (0)1752 689 000

www.arcadis.com

TITLE:

**TRIAL PIT PLAN
PORTH MELLON
ST MARYS ISLAND**

Designed	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	19APR17
Drawn	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	19APR17
Checked	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	19APR17
Approved	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	19APR17
Scale:	1:100	Datum:	NEWLYN		
Original Size:	A1	Grid:	OS		
Suitability Code:	S0	Project Number:	UA00878		


Suitability Description:
**INITIAL STATUS
WORK IN PROGRESS**

Drawing Number: UA00878-XX-XX-DR-CE-0301 Revision: P01

APPENDIX D

Design Statements

SHORT FORM DESIGN STATEMENT

 ARCADIS Design & Consultancy for natural and built assets	Project Name	Number and Activity code
	Isles of Scilly – Porth Mellon	UA008878-ARC-XX-XX-RP-CE-0363-P2

Brief Description:

Porth Mellon is located on the western coast of St. Marys. The bay measures approximately 240m and is flanked by rocky outcrops. Access to the beach is via a slipway.

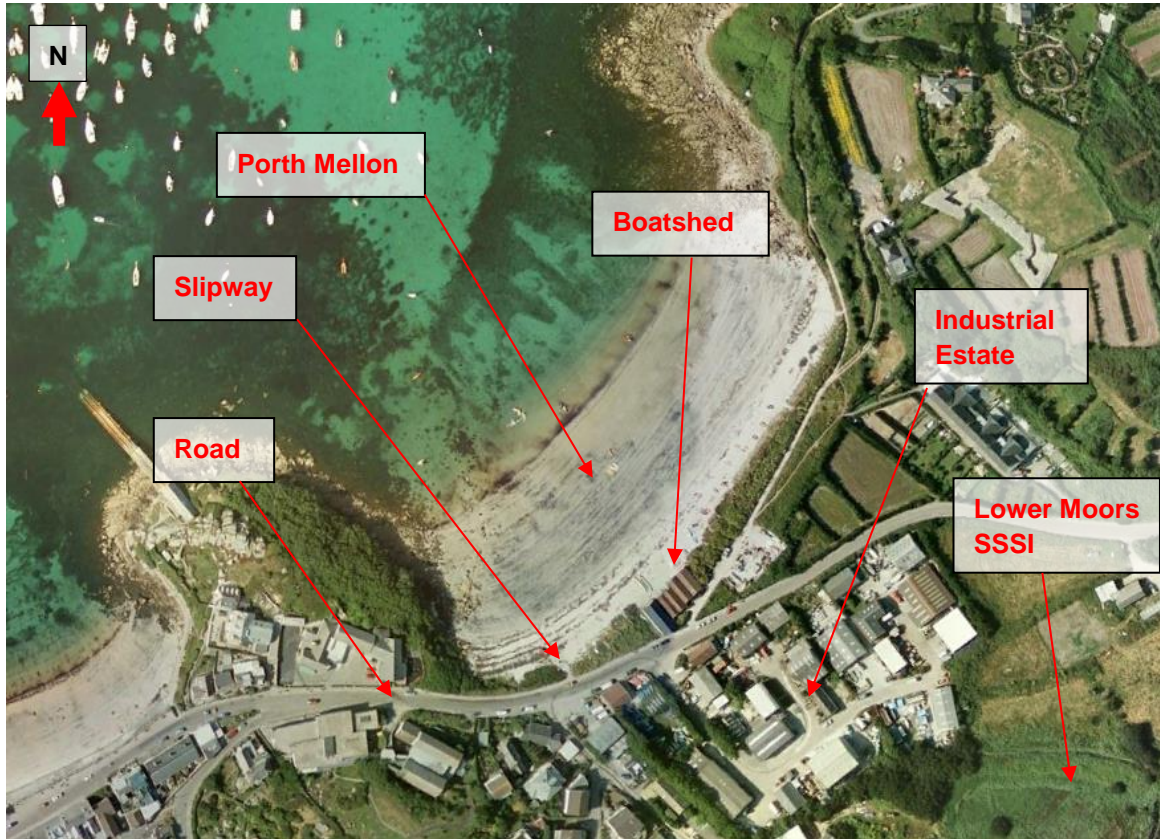


Figure 1: Porth Mellon beach

The aim of the scheme is to reduce the vulnerability of Telegraph Road from undermining and increase resilience of key infrastructure from coastal flooding. This will principally be achieved by the construction of a rock revetment to dissipate wave forces and to reduce overtopping. The revetment will also afford increase protection to the Industrial Estate, Recycling Centre, Substation and the Lower Moors SSSI located behind the beach by reducing overtopping flows.

At the northern end of the beach there is a small stone retaining wall and a set of stairs that provides access from the coastal path. The dunes located behind the beach are of sufficient depth to offer protection to the properties from coastal flooding.

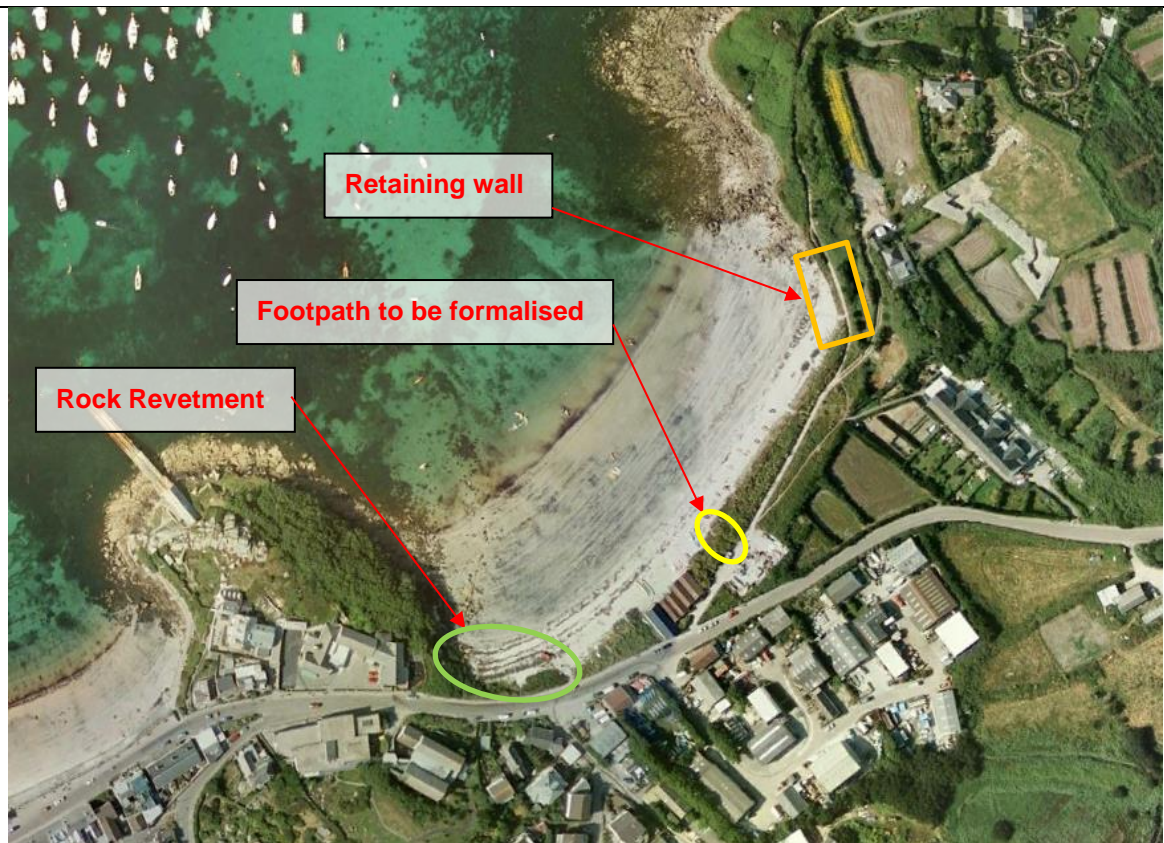


Figure 2: Porth Mellon beach – Proposed works

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

1. Repairs to the existing retaining wall:

This is proposed at the north end of the beach highlighted by the orange rectangle in Figure 2. The face of the wall has voids where mortar and stones have washed out. The wall shall be repaired using locally sourced granite stones and cobbles and secured with rapid set mortar. The toe of the wall shall be exposed along its full length to assess the repairs required. These works do not form part of the Revetment Construction scheme and the intention is for the local contractor to undertake the works.

2. Installation of a boardwalk to formalise a path across the dune:

The section highlighted by the yellow oval in Figure 2 is situated just to the north of the boatshed and is primarily used by the public to access the beach. This is causing the dune to erode locally raising the potential for a breach during storm events. It is proposed that a timber/recycled plastic boardwalk is installed that would act as a flexible path surface to follow the dune profile. This should alleviate further deterioration of the dune from the pedestrian induced erosion. These works do not form part of the Revetment Construction scheme and the intention is for the local contractor to undertake the works.

3. Installing a Rock Revetment:

A new rock revetment shall be installed in the area highlighted by the green ellipse in the southern corner. The revetment will provide increased protection to Telegraph Road from continued erosion as well as protection to the industrial estate to the rear of the beach. The revetment crest will be set to a minimum crest level of 6.19m ODL. The rounded flanks of the revetment will be constructed with a slope of 1:3. The centre section will be constructed to match the end sections and therefore the revetment slope may vary. The toe will have a foundation level of 0.5m ODN to prevent scour holes forming. The structure will be underlain with a geotextile that will be wrapped around leading stones in the toe of the revetment to form a Dutch toe. The geotextile will act as the underlayer for the revetment, and act as a filter between the cliff and the beach to prevent the smaller material from leeching out through the main armour layer. A layer of site won rock shall be placed between the western exposed face of the revetment and the cliff to match

the alignment of the cliff face. This will offer some protection to the cliff toe and give an aesthetic consistency although it will not be integral to the performance to the underlying revetment.

Assumptions:

- Though the beach is tidal, the proposed work is located above the MHWS tide mark, however, the construction area could still be effected by rising tide levels and 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

- Numerical modelling using MIKE21 software was undertaken to identify the design parameters for the site. The design was undertaken using a 1:200yr joint probability wave and water level event with allowance for climate change, assuming a 50yr design life.
- It is assumed that the existing ground is suitable and accessible for the construction of the new rock armour revetment.
- It is assumed the earth bank between the beach and Telegraph road is stable, of a suitable height when the vegetation is removed and will not collapse as the rock armour revetment is built up.
- It is assumed that ground conditions as witnessed in the Trial Pits on the foreshore are suitable for placing rock armour without resulting in any significant settlement.
- It is assumed that the revetment will tie into the existing cliff and rocks on the beach in the south and an existing retaining wall adjacent to the slipway.

Design Basis/ design method:

Design water and wave conditions:

SWL (mAOD)	Hs (m)	Tm (s)	Comments
4.24	1.01	12.51	1:200yr joint probability

Designer’s Risk Assessment: *incl. Hazards that cannot be designed out – A full summary can be found in the Designers Hazard Record*

- A. Works adjacent to water
- B. Soft ground
- C. Deep excavations
- D. Public beach
- E. Services
- F. Unstable Rocks during initial placement.

References: incl.

- CIRIA, CUR, CETMEF (2007). The Rock Manual. The use of rock in hydraulic engineering (2nd edition). C683, CIRIA, London
- Eurotop: Wave Overtopping of Sea Defences and Related Structures: Assessment Manual (2007)
- Reeve, D et al (2004). Coastal Engineering: Processes, theory, and design practice. UK: Spon Press
- Kirsty McConnell (1998). Revetment systems against wave attack - A design manual. London: Thomas Telford Publishing.
- Geofabrics - Coastal and River Defence Systems: Design Guidance High Performance Square

Signed: [Redacted]

[Redacted]

[Redacted]

APPENDIX E

Designer's Hazard Record

Health & Safety - Designer's Hazard Record



Project Title
Isles of Scilly Flood Defence and Dune Management
Project – Porth Mellon

Project Code
UA008878-ARC-XX-XX-
HS-CE-0362-P3

Assessment Coverage:

The works involve the design and installation of a revetment in the south west corner of Porth Mellon beach.

1. Scope of Commission and Coverage of Assessment:

The scheme entails the construction of a rock armour revetment in the south west corner of Porth Mellon beach.

2. Brief Description of the Works:

1. Construction of rock revetment with a crest height of 6.19mAOD underlain with a geotextile.
2. Overlay the revetment structure with any site won rock to offer additional protection to the cliff face.

3. Key Risk Reduction measures taken during design process:

1. Toe of revetment has been designed to be buried relative to beach levels recorded during topographic survey dated February 2017. This is to reduce the likelihood of the public climbing over the revetment and to minimise the beach take.
2. Revetment crest is positioned as to minimise the risk of interference with telegraph pole and overhead cables.
3. Warning symbols used on the drawings to highlight the hazards.

4. Significant Project Specific Hazards Remaining:

- A. Works adjacent to water – Risk of sea inundating works area from wave action and high tides.
- B. Soft & unstable ground – Risk of machine instability on beach/dunes.
- C. Deep excavations - Excavations are to be made to depths to 0.5m ODL which may lead to deep excavations dependant on the current beach profile. Risk of collapse during rising tide levels.
- D. Public beach – Risk of public entering the works area.
- E. Services – There is an abandoned sewer running from the former secondary school to the cliff face adjacent to the revetment. – This was not located on a site walkover and is not thought to be live. Non-recorded services may exist on the works area.
- F. Rocks forming the revetment may be unstable when initially placed – Rocks should be placed to the stated requirements in the specification.

5. Specific Construction Requirements

1. The Contractor shall construct the revetment without damaging the existing telegraph pole and overhead cables.

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

1. Hazard markers added to drawings and the information presented in this document

Date of Review

Assessed by:

Name Maxwell Needham Signature  Date 05/04/2019

Reviewed by:

Name

Ian Cooke

Signature



Date

05/04/2019



Health & Safety - Designer's Hazard Record

Project Code/Doc No:
UA008878-ARC-XX-XX-HS-CE-0362

Project Title:

Assessor (Name):

█	█	█	█ Hazards, and Hazards Remaining	Residual Hazard?
A	Works undertaken in or near water- Risk of sea inundating works area from wave action and high tides.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
B	Soft & unstable ground-The backshore dune is formed of sand and is susceptible to erosion from machine or foot traffic. Risk of machine instability on beach/dunes.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
C	Deep excavations - Excavations are to be made to depths to 0.5m ODN which may lead to deep excavations dependant on the current beach profile. Risk of collapse during rising tide levels.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
D	Working on public beach- Risk of public entering the works area.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
E	Services- There is an abandoned sewer running from the former secondary school to the cliff face adjacent to the revetment. – This was not located on a site walkover and is not thought to be live as the school is demolished. Telegraph pole and cover BT cables shall be protected during the works.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
F	Unstable Rock units- Rocks forming the revetment may be unstable when initially placed – Rocks should be placed by a machine and their stability ensured before operative's approach workings.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes


Arcadis (UK) Limited

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Derriford
Plymouth
PL6 8BX
United Kingdom
T: +44 (0)1752 689 000

[arcadis.com](https://www.arcadis.com)



SHORT FORM DESIGN STATEMENT

 ARCADIS Design & Consultancy for natural and built assets	Project Name	Number and Activity code
	Isles of Scilly – Porth Mellon	UA008878-ARC-XX-XX-RP-CE-0363-P1

Brief Description:

Porth Mellon is located on the western coast of St. Marys. The bay measures approximately 240m and is flanked by rocky outcrops. Access to the beach is via a slipway.

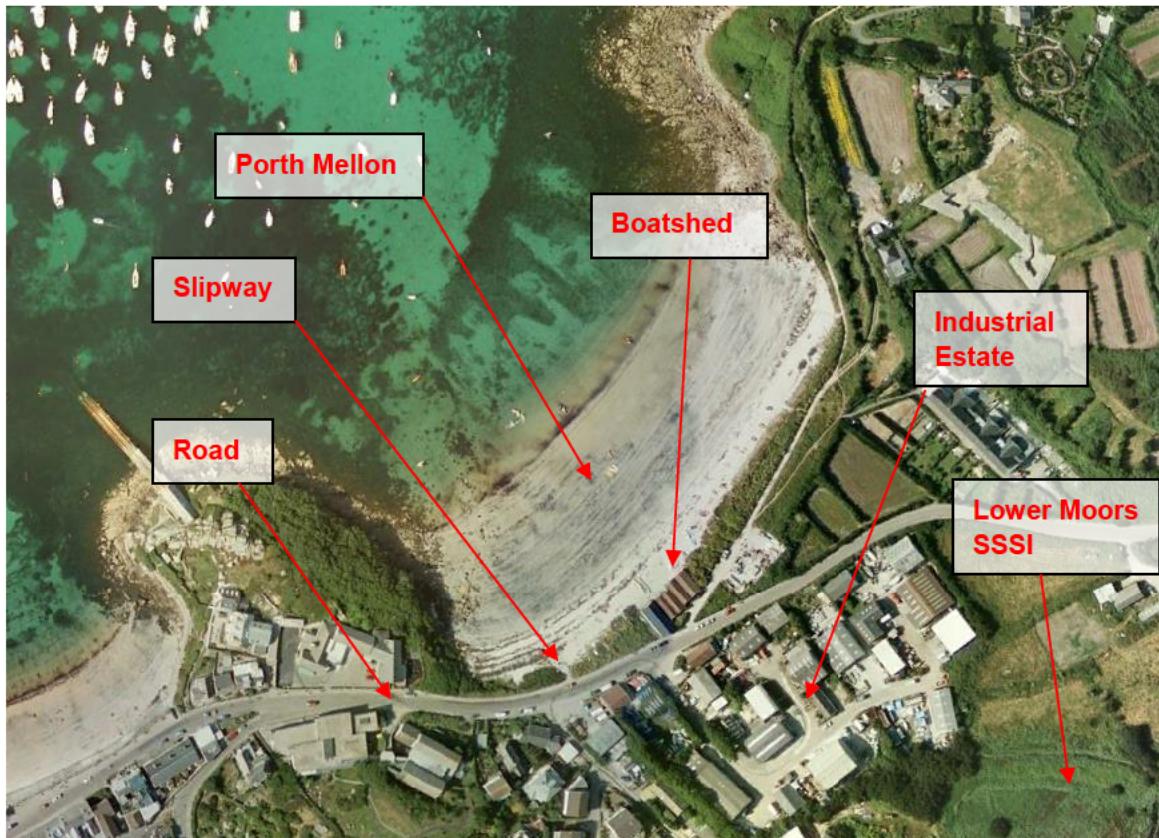


Figure 1: Porth Mellon beach

The aim of the scheme is to reduce the vulnerability of Telegraph Road from undermining and increase resilience of key infrastructure from coastal flooding. This will principally be achieved by the construction a rock revetment to dissipate wave forces and to reduce overtopping. The revetment will also afford increase protection to the Industrial Estate, Recycling Centre, Substation and the Lower Moors SSSI located behind the beach by reducing overtopping flows.

At the northern end of the beach there is a small stone retaining wall and a set of stairs that provides access from the coastal path. The dunes located behind the beach are of sufficient depth to offer protection to the properties from coastal flooding.

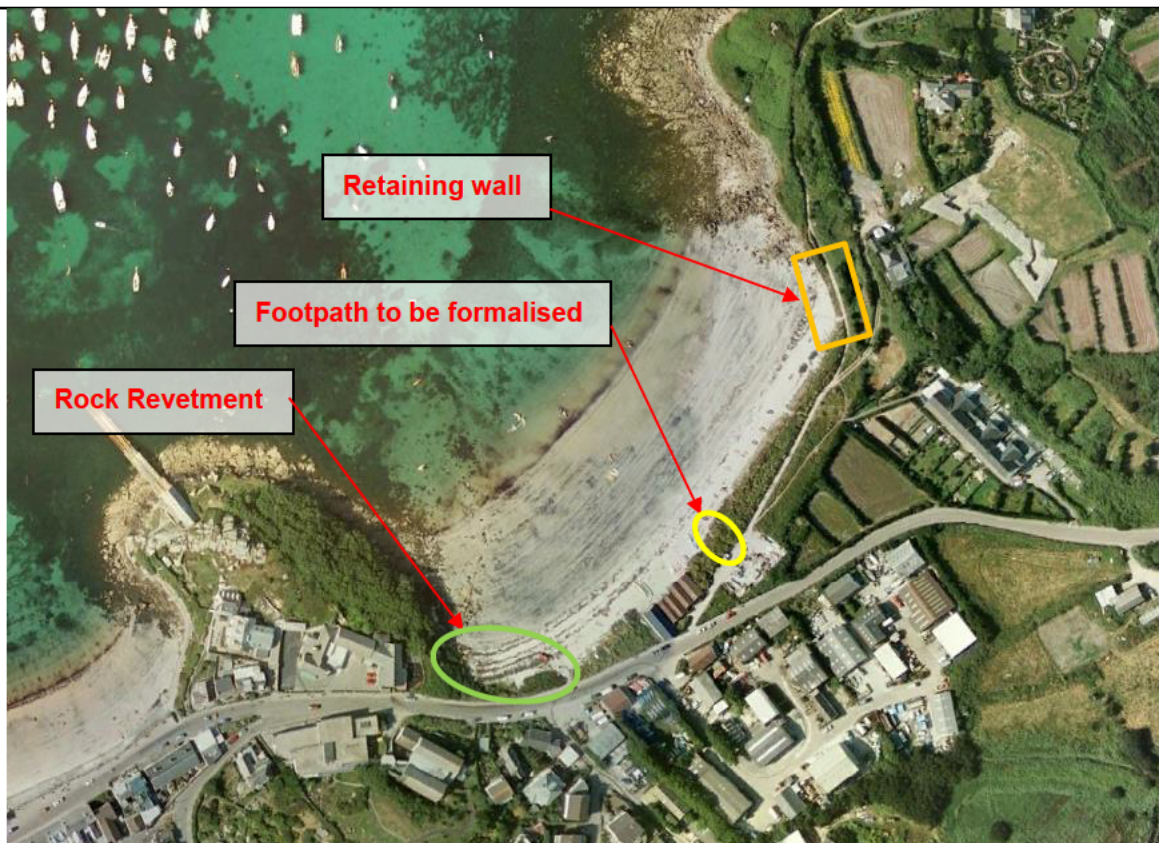


Figure 2: Porth Mellon beach – Proposed works

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

1. Repairs to the existing retaining wall:

This is proposed at the north end of the beach highlighted by the orange rectangle in Figure 2. The face of the wall has voids where mortar and stones have washed out. The wall shall be repaired using locally sourced granite stones and cobbles and secured with rapid set mortar. The toe of the wall shall be exposed along its full length to assess the repairs required.

2. Installation of a boardwalk to formalise a path across the dune:

The section highlighted by the small yellow oval in Figure 2 is situated just to the north of the boatshed, and is primarily used by members of the public to access the beach. This is causing the dune to erode locally raising the potential for a breach during storm events. It is proposed to that a timber/recycled plastic boardwalk is installed that would act as a flexible path surface to follow the dune profile. This should alleviate further deterioration of the dune from the pedestrian induced erosion.

3. Installing a Rock Revetment:

A new rock revetment shall be installed in the area highlighted by the green ellipse in the southern corner. The revetment will provide increased protection to Telegraph Road from continued erosion as well as protection to the industrial estate to the rear of the beach. The revetment crest will be set to a minimum crest level of 6.19m ODN. The rounded flanks of the revetment will be constructed with a slope of 1:3. The centre section will be constructed to match the end sections and therefore the revetment slope may vary. The toe will have a foundation level of 0.5m ODN to prevent scour holes forming. The structure will be underlain with a geotextile that will be wrapped around leading stones in the toe of the revetment to form a "Dutch toe". The geotextile will act as the underlayer for the revetment, and act as a filter between the cliff and the beach to prevent the smaller material from leeching out through the main armour layer. A layer of site won rock shall be placed between the western exposed face of the revetment and the cliff to match the alignment of the cliff face. This will offer some protection to the cliff toe and give an aesthetic consistency although it will not be integral to the performance to the underlying revetment.

Assumptions:

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

	Local CD	Equivalent Local OD
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

- Numerical modelling using MIKE21 software was undertaken to identify the design parameters for the site. The design was undertaken using a 1:200yr joint probability wave and water level event with allowance for climate change, assuming a 50yr design life.
- It is assumed that the existing ground is suitable and accessible for the construction of the new rock armour revetment.
- It is assumed the earth bank between the beach and Telegraph road is stable and will not collapse as the rock armour revetment is built up.
- It is assumed that ground conditions as witnessed in the Trial Pits on the foreshore are suitable for placing rock armour without resulting in any significant settlement.
- It is assumed that the revetment will tie into the existing cliff and rocks on the beach in the south and an existing retaining wall adjacent to the slipway.

Design Basis/ design method:

Design water and wave conditions:

SWL (mAOD)	Hs (m)	Tm (s)	Comments
4.24	1.01	12.51	1:200yr joint probability

Designer's Risk Assessment: *incl. Hazards that cannot be designed out – A full summary can be found in the Designers Hazard Record*

- A. Works adjacent to water
- B. Soft ground
- C. Deep excavations
- D. Public beach
- E. Services
- F. Trimming of Geotextile
- G.** Unstable Rocks during initial placement.

References: incl.

- CIRIA, CUR, CETMEF (2007). The Rock Manual. The use of rock in hydraulic engineering (2nd edition). C683, CIRIA, London
- Eurotop: Wave Overtopping of Sea Defences and Related Structures: Assessment Manual (2007)
- Reeve, D et al (2004). Coastal Engineering: Processes, theory, and design practice. UK: Spon Press
- Kirsty McConnell (1998). Revetment systems against wave attack - A design manual. London: Thomas Telford Publishing.
- Geofabrics - Coastal and River Defence Systems: Design Guidance High Performance Square

Signed

Review

Approv



HAZARD WARNINGS

- A WORKING ADJACENT TO WATER
- B SOFT AND UNSTABLE GROUND
- C DEEP EXCAVATIONS
- D PUBLIC BEACH
- E SERVICES
- F ROCK STABILITY

• FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNER'S HAZARD RECORD.

• EVERYDAY OR LOW RISK HAZARDS HAVE NOT BEEN INDICATED ON THIS DRAWING, NEITHER HAVE HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.

• SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM MEMBERS.

- NOTES:**
- DO NOT SCALE FROM THIS DRAWING USE FIGURED DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - ALL LEVELS IN METRES RELATIVE TO ORDINANCE DATUM LOCAL (ODL).
 - TIDE INFORMATION RELATIVE TO ODL:
MHW 2.7m
MLWN 1.3m
MLWN 0.1m
MLWS 2.21m
 - SETTING OUT POINTS (SoP) TO ORDINANCE SURVEY
SoP 1: 075 05.10 03
SoP 2: 07 00.10 03.4
SoP 10: 075 07.77, 10 03.47
SoP 11: 074 02.10 04.4
SoP 12: 073 02.10 07.73
SoP 13: 0750.13, 10 05.50
BEACH LEVELS AS OF FEB 2017

RECEIVED
By Emma Kingwell at 1:58 pm, Jun 22, 2021

- LEGEND:**
- - - WORKING AREA
 - - - APPROXIMATE BEACH FINISH LEVEL
 - - - APPROXIMATE TOE OF CLIFF
 - [Hatched Box] ESTIMATED BURIED EXTENT OF REVETMENT
 - [Rock Pattern Box] ESTIMATE EXPOSED EXTENT ROCK REVETMENT
 - [Dotted Box] ROCK TO OVERLAY REVETMENT

Rev	Date	Description	Drawn	Check	Approv
P2	05APR17	WORKING AREA - SoPs ADDED	MN	MC	IC
P1	10SEP17	ISSUED FOR INFORMATION	MN	MC	IC

Client

COUNCIL OF THE ISLES OF SCILLY

PROJECT:
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site
Isles of Scilly
Porth Mellon

Client
Council of the Isles of Scilly
Address
Town Hall
St Marys, Isles of Scilly, TR21 0LW
Tel: 01752 424000
enquiries@scilly.gov.uk
http://www.scilly.gov.uk/

ARCADIS Design & Consultancy for natural and built assets

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Arcadis House
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London
N1 2AB

Coordinating office:
10 Budshhead Road
Crownhill
Plymouth PL5 5XR
Tel: 044 01752 0000

www.arcadis.com

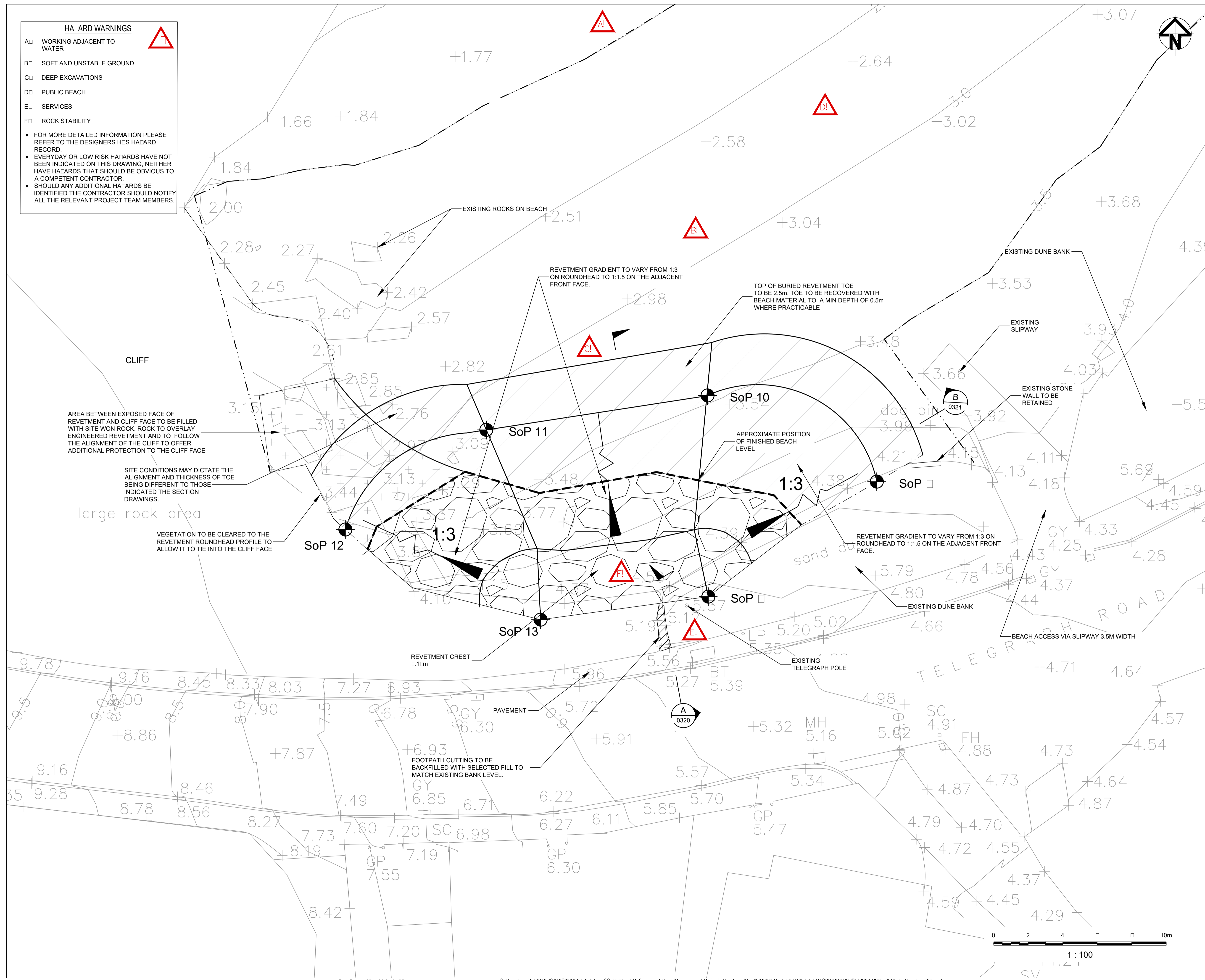
TITLE:
REVETMENT PLAN
PORTH MELLON

Designed	M. NEEDHAM	Signed	1:SEP17
Drawn	M. NEEDHAM	Signed	1:SEP17
Checked	M. CLAUSEN	Signed	1:SEP17
Approved	I. COOKE	Signed	1:SEP17

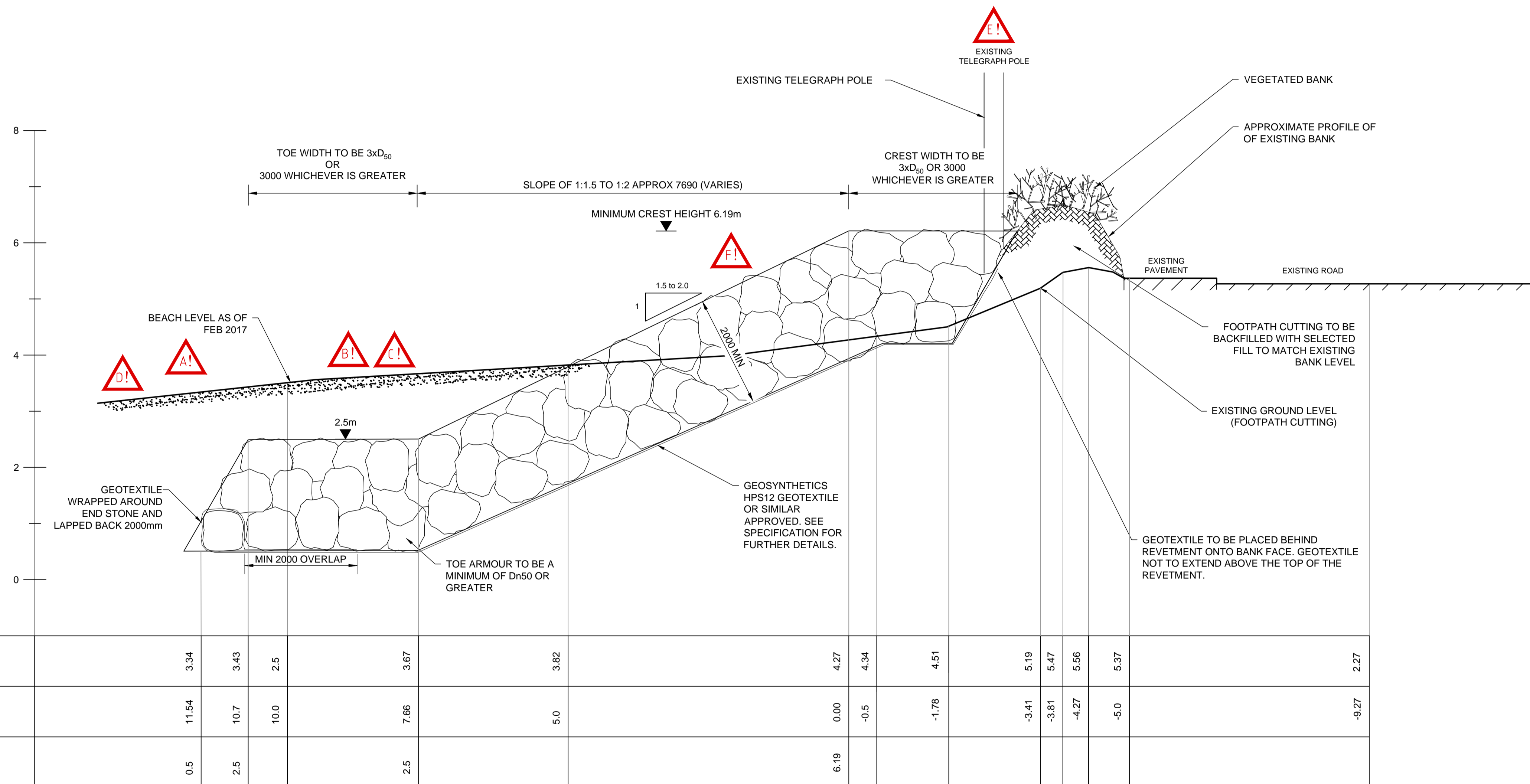
Scale: 1:100 Datum: ST.MARYS
Original Size: A1 Grid: OS
Suitability Code: S2 Project Number: UA00170

Suitability Description:
ISSUED FOR INFORMATION

Drawing Number: UA00170XX:XX:DR:CE:0302 Revision: P2



- HAZARD WARNINGS**
- A! WORKING ADJACENT TO WATER
 - B! SOFT AND UNSTABLE GROUND
 - C! DEEP EXCAVATIONS
 - D! PUBLIC BEACH
 - E! SERVICES
 - F! ROCK STABILITY
- 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, NEITHER HAVE HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.
- SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM MEMBERS.



DATUM: -1.00m

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
EXISTING LEVELS		3.34	3.43	2.5		3.67		3.82		4.27	4.34	4.51		5.19	5.47	5.56	5.37				2.27	
CHAINAGE		11.54	10.7	10.0		7.66		5.0		0.00	-0.5	-1.78		-3.41	-3.81	-4.27	-5.0				-9.27	
PROPOSED LEVELS		0.5	2.5			2.5				6.19												

SECTION A
0320

- NOTES:**
- DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY
 - ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM LOCAL (ODL).
 - TIDE INFORMATION RELATIVE TO ODL
MHW 2.79m
MLWN 1.39m
MLWN -0.91m
MLWS -2.21m
 - BEACH LEVELS AS OF FEB 2017

RECEIVED
By Emma Kingwell at 1:58 pm, Jun 22, 2021

LEGEND:

Rev	Date	Description	Drawn	Check	Approv
P3	05APR19	DRAWING AND NOTE AMENDMENTS	MH	MC	IC
P2	18SEP17	DRAWING AND NOTE AMENDMENTS	RH	MC	IC
P1	28JUL17	ISSUED FOR INFORMATION	MN	MC	IC

Client
COUNCIL OF THE ISLES OF SCILLY

PROJECT:
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site
Isles of Scilly
Porth Mellon

Client
Council of the Isles of Scilly
Address
Town Hall
St Marys, Isles of Scilly, TR21 0LW
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http://www.scilly.gov.uk/

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 680 Budshead Road, Crownhill, Plymouth PL6 5XR
Tel: +44 (0)1752 689 000

www.arcadis.com

TITLE:
PORTH MELLON
ROCK REVETMENT
SECTION A

Designed	M.NEEDHAM	18SEP17
Drawn	M.NEEDHAM	18SEP17
Checked	M.CLAUSEN	18SEP17
Approved	I.COOKE	18SEP17
Scale:	NTS	Datum: ST.MARYS
Original Size:	A1	Grid: OS
Suitability Code:	S2	Project Number: UA008878

ISSUED FOR INFORMATION

Drawing Number:	UA008878-ARC-XX-XX-DR-CE-0320	Revision:	P3
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HAZARD WARNINGS



- A! WORKING ADJACENT TO WATER
 - B! SOFT AND UNSTABLE GROUND
 - C! DEEP EXCAVATIONS
 - D! PUBLIC BEACH
 - E! SERVICES
 - F! ROCK STABILITY
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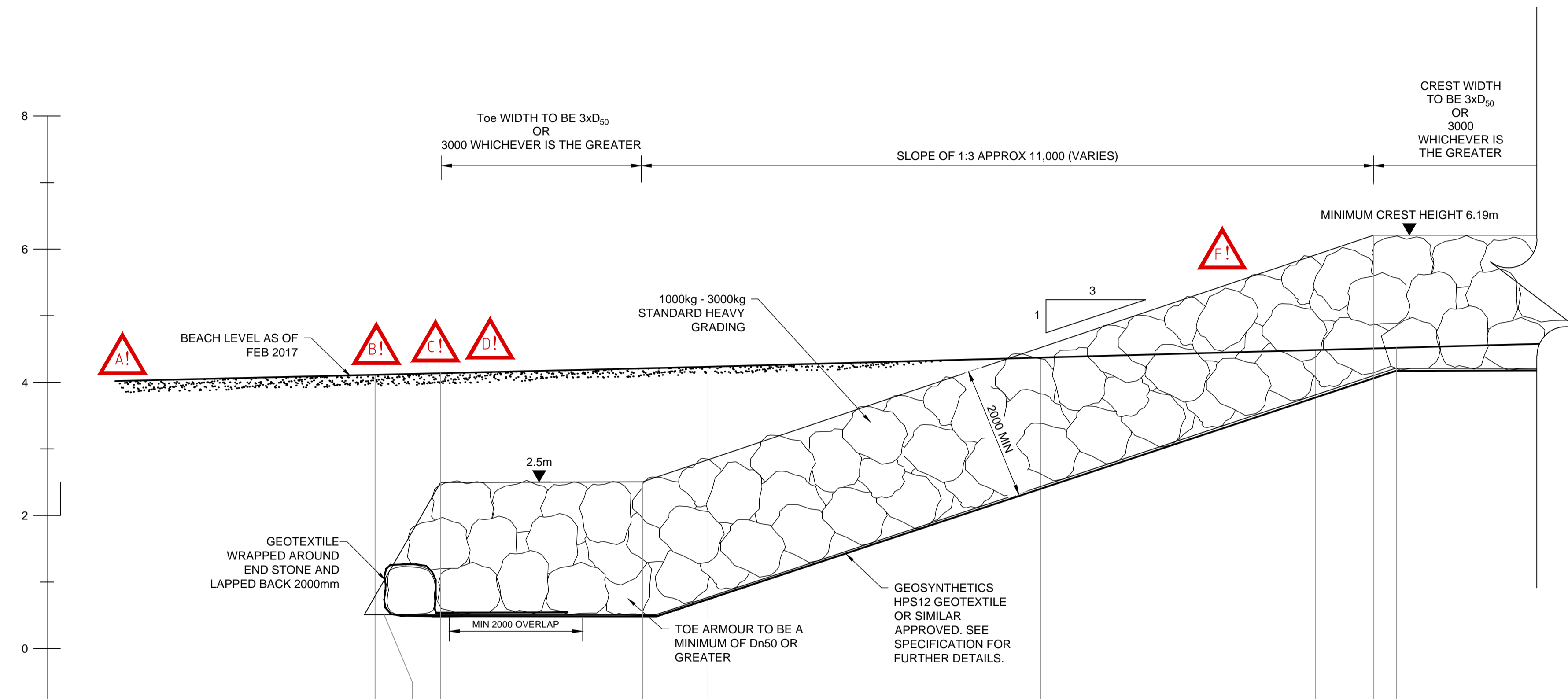
NOTES:

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY
2. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
3. ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM LOCAL (ODL).
4. TIDE INFORMATION RELATIVE TO ODL
 MHWS 2.79m
 MLWN 1.39m
 MLWN -0.91m
 MLWS -2.21m

RECEIVED

By Emma Kingwell at 1:58 pm, Jun 22, 2021

LEGEND:



	15.00	14.86	14.02	2.50	10.98	10.00	5.00	0.87	0.00	-0.34	4.48	5.51	4.51
EXISTING LEVELS	4.11	4.12	4.12	4.21	4.23								
CHAINAGE													
PROPOSED LEVELS	0.50	2.50							6.19				

SECTION B
0320

Rev	Date	Description	Drawn	Check	Approv
P3	05APR19	DRAWING AND NOTE AMENDMENTS	MH	MC	IC
P2	18SEP17	DRAWING AND NOTE AMENDMENTS	RH	MC	IC
P1	28JUL17	ISSUED FOR INFORMATION	MN	MC	IC

Client
COUNCIL OF THE ISLES OF SCILLY

PROJECT:
ISLES OF SCILLY FLOOD DEFENCE AND DUNE MANAGEMENT SCHEME

Site: Porth Mellon
 Client: 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/

ARCADIS Design & Consultancy
 For national and local clients

Registered office: Arcadis House, 34 York Way, London N1 9AB
 Coordinating office: 680 Budshead Road, Crownhill, Plymouth PL6 5XR
 Tel: +44 (0)1752 689 000

www.arcadis.com

TITLE:
PORTH MELLON ROCK ARMOR DETAILS SECTION B

Designed	M.NEEDHAM	Signed	<i>M. Needham</i>	Date	18SEP17
Drawn	M.NEEDHM	Signed	<i>M. Needham</i>	Date	18SEP17
Checked	M.CLAUSEN	Signed	<i>M. Clausen</i>	Date	18SEP17
Approved	I.COOKE	Signed	<i>I. Cooke</i>	Date	18SEP17
Scale:	NTS	Datum:	ST.MATYS		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA008878		

Suitability Description:
ISSUED FOR INFORMATION

Drawing Number:	UA008878-ARC-XX-XX-DR-CE-0321	Revision:	P3
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- HAZARD WARNINGS**
- A! WORKING ADJACENT TO WATER
 - B! SOFT AND UNSTABLE GROUND
 - C! DEEP EXCAVATIONS
 - D! PUBLIC BEACH
 - E! SERVICES
 - F! GEOTEXTILE TRIMMING
 - G! ROCK STABILITY
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WALKWAY OVERLAP TO BE BURIED INTO BEACH AND SECURED WITH STAKES TO PREVENT MOVEMENT AS PER MANUFACTURERS RECOMMENDATION.

HAHN KUNSTSTOFFE ROLL ELEMENT
2 FLEXIBLE FLOORING TYPE
TIMBER/RECYCLED PLASTIC ROLL
DECKING OR CONTRACTOR
APPROVED ALTERNATIVE



EXISTING SAND DUNE

GRADIENT 1:7.5

GRADIENT 1:7.5

DUNE WIDTH TO BE TRIMMED
LOCALLY ALONG PATH AND DUNE
INTERFACE TO ACCOMMODATE
WALKWAY.

DUNE WIDTH TO BE TRIMMED
LOCALLY ALONG PATH AND DUNE
INTERFACE TO ACCOMMODATE
WALKWAY.

WALKWAY TO BE INSTALLED LEVEL WITH ROAD
SURFACE AND SECURED APPROPRIATELY AS PER
MANUFACTURERS RECOMMENDATIONS.

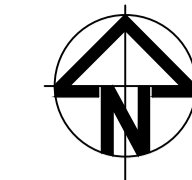
WALKWAY TO FOLLOW
EXISTING PROFILE OF
INFERRED FOOTPATH



INFORMAL FOOTPATH THROUGH THE DUNE AS VIEWED FROM THE BEACH



INFORMAL FOOTPATH THROUGH THE DUNE AS VIEWED FROM THE ROAD



- 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 NEWLYN (ODN)
 - TIDE INFORMATION RELATIVE TO ODN
MHWS 2.7m
MLWN 1.3m
MLWN 0.1m
MLWS -2.21m

RECEIVED
By Emma Kingwell at 1:57 pm, Jun 22, 2021

LEGEND:

Rev	Date	Description	Drawn	Check	Approv
P2	18SEP17	DRAWING AND NOTE AMENDMENTS	RH	MC	IC
P1	28/07/17	ISSUED FOR INFORMATION	MN	MC	IC

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

Site
Isles of Scilly
Porth Mellon

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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ARCADIS Design & Consultancy
for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 680 Budehead Road, Crownhill, Plymouth PL6 5XR
Tel: +44 (0)1752 689 000

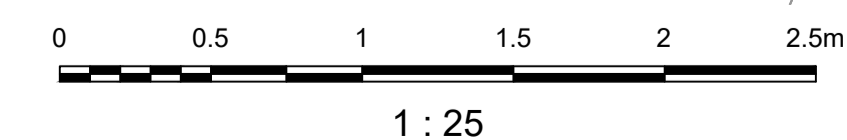
www.arcadis.com

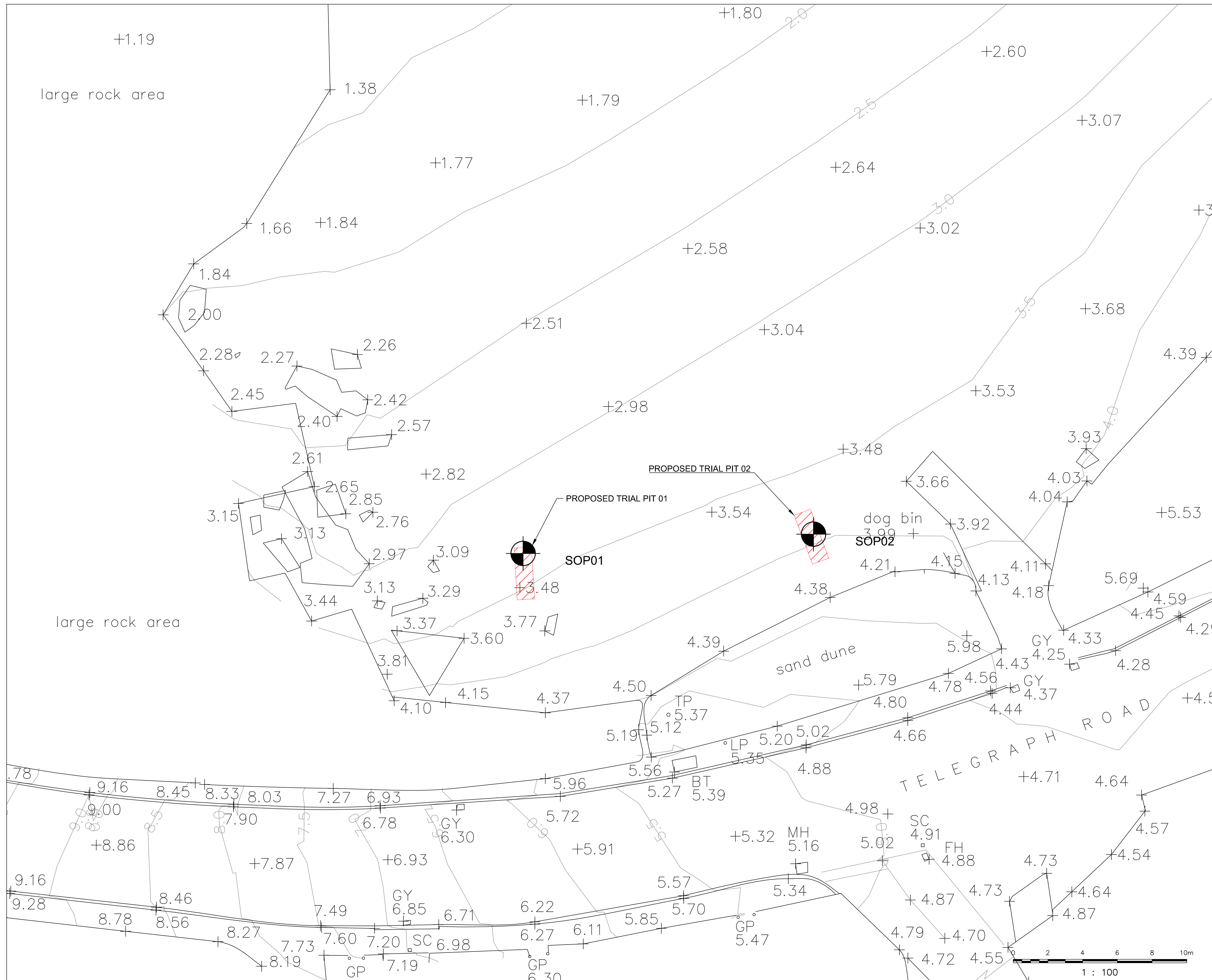
TITLE:
BEACH ACCESS PLAN
PORTH MELLON

Designed	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	18SEP17
Drawn	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	18SEP17
Checked	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	18SEP17
Approved	I. COOKE	Signed	<i>I. Cooke</i>	Date	18SEP17
Scale:	1:25	Datum:	NEWLYN		
Original Size:	A1	Grid:	OS		
Suitability Code:	S2	Project Number:	UA00878		

Suitability Description:
ISSUED FOR INFORMATION

Drawing Number: UA008878-XX-XX-DR-CE-0322
Revision: P2





- NOTES:**
- DO NOT SCALE FROM THIS DRAWING USE FIGURED DIMENSIONS ONLY
 - TRIAL PITS ARE TO BE 1000 x 3000mm CENTRED AROUND THE SOP.
 - ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN (ODDN)
 - SOP 01: 0750 E 10 N
SOP 02: 07 E 10 N
 - TIDE INFORMATION RELATIVE TO ODN
MHWS 2.7m
MLWN 1.3m
MLWN 0.1m
MLWS 2.2m

RECEIVED
By Emma Kingwell at 1:59 pm, Jun 22, 2021

- LEGEND:**
- SETTING OUT POINT :SOP
 - TRIAL PIT

Rev	Date	Description	Drawn	Check	Approv
P1	19APR17	FOR INFORMATION			

Client

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

Site
 Isles of Scilly

Client
 Council of the Isles of Scilly
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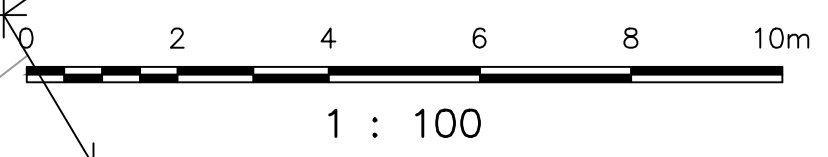
www.arcadis.com

TITLE:
TRIAL PIT PLAN PORTH MELLON ST MARYS ISLAND

Designed	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	19APR17
Drawn	M. NEEDHAM	Signed	<i>M. Needham</i>	Date	19APR17
Checked	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	19APR17
Approved	M. CLAUSEN	Signed	<i>M. Clausen</i>	Date	19APR17
Scale:	1:100	Datum:	NEWLYN		
Original Size:	A1	Grid:	OS		
Suitability Code:	S0	Project Number:	UA00878		

Suitability Description:
INITIAL STATUS
WORK IN PROGRESS

Drawing Number: UA00878-XX-XX-DR-CE-0301
 Revision: P01



APPROVED

By Lisa Walton at 5:54 pm, Oct 20, 2021

RECEIVED on Classification: CONTROLLED
By A King at 12:16 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 Mellon
Project Reference	Adaptive Scilly
Contract Reference	CloS to advise
Date	22 February 2021
Version Number	F1
Author	Maximillian Clausen / Stephen Swabey

Revision history

Revision date	Summary of changes	Version number
05-04-2019	First Issue	P1
22-02-2021	Final Issue	F1



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

**Part 2: Non-returnable
Documents**

NEC – ECC 3rd Ed.

**Section 8
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: ROCK REVETMENT 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 the vulnerability of Telegraph Road from undermining and increase resilience of key infrastructure to coastal flooding. This will principally be achieved by the construction of a rock revetment to dissipate wave forces and to reduce overtopping. The revetment will also afford increase protection to the Industrial Estate, Recycling Centre, Substation and the Lower Moors SSS located behind the beach by reducing overtopping flows from this section of the beach. Pedestrian access across the dunes will be formalised by installation of a 'sand ladder' walkway in one dune gap, as 'Beach Access'.

WI 102 Rock Armour Revetment

1. The rocks used in the construction of the revetment shall be handled and placed in accordance with the requirements of the Revetment Specification. See Appendix B: UA008878-ARC-XX-XX-SP-CE-0832.
2. Setting Out Points (SoP) correspond to the rear of the crest and the intersection between the revetment face and the toe. See drawing UA008878-ARC-XX-XX-DR-CE-0302-P2 for details.
3. The revetment shall be underlain with a geotextile, ensuring it meets the properties stated in the Rock Specification (see Appendix B).
4. Where the geotextile is wrapped around the foremost rock of the toe, it shall be lapped back by a minimum of 2000mm and trapped in place by the rocks which form the toe.
5. The crest & toe top level width shall be $3 \times D_{n50}$ (median nominal rock diameter) or 3000mm whichever is greater.
6. The revetment armour layer thickness, including the crest and toe, shall be a minimum of 2000mm.
7. Revetment slope grade shall vary and smoothly transition along its length from 1 in 3 at the extremities of the roundheads to 1 in 1:5 at its centre.

WI 103 Roundheads

1. The eastern roundhead shall butt up against the existing sand dune with the top toe level being 2.5mAOD and the top crest level being 6.19mAOD.
2. The cliff face shall be cleared of vegetation to the profile of the western revetment roundhead to allow it to tie into the cliff face without obstruction.
3. The western revetment roundhead toe layer thickness & alignment may be dictated by site conditions. If two layers of D_{N50} rock cannot be achieved due to the level of the rock bed, then a single layer of D_{N90} rocks may be substituted. If this is deemed necessary, then the type of toe detail, its extents, and rock selection shall be discussed with the *Supervisor* before the works commence.

WI 104 Beach Access Walkway

1. The existing informal walkway through the dunes located to the west of the boatyard will be trimmed to a width of 1.2 m then covered by a sand ladder constructed and installed as specified in UA008878-ARC-XX-XX-DR-CE-0322-P2. [NB – the example of a sand ladder product given in the drawing is a Hahn Kunststoffe 'Roll-out Element' footpath plank.]
2. The existing cross-sectional profile of the dune shall not be altered by installation of the sand ladder.

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)

WI 202 Site Access

1. Access to site is via a slipway into the beach from Telegraph Road.
2. If construction materials are to be transported to site via landing craft, the landing craft must deliver those materials to the beach area on the rocky shore and shingle shore, where possible (see pg. 119 of EIA) and at the southern end of the beach to avoid prehistoric field systems (see pg. 178 of EIA)

WI 203 Working Area

1. The *Contractor's* working area and compound is indicated on drawing UA008878-ARC-XX-XX-DR-CE-0300-P3.
2. If the *Contractor* wishes to modify these areas, he shall obtain written permission from the *Project Manager*.

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. Sections of the work along the foreshore are at risk of being cut off by the incoming tide and are exposed to wave action. The contractor will be 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 managed in accordance with the latest H&S legislation.
2. Telegraph Road shall remain open to vehicular traffic for the duration of the contact. See WI 219.
3. Several commercial properties are located on the beach and behind the beach at Porth Mellon Business Park. Consideration shall be given to methods of working to reduce any adverse impacts on their operation e.g. noise, dust, plant movements etc.

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. A ground investigation was undertaken on the 17th May 2017 to determine the level of the periglacial clay deposits, colloquially known as Ram, which underlie the beach material. See Site Information: UA008878-ARC-XX-XX-DR-CE-0301-P1, for trial pit locations and TRIAL PIT SUMMARY - Porth Mellon for trial pit logs.

WI 210 Permanent Access

1. A footpath is illustrated on the 1:25,000 O.S. map behind the existing dune, adjacent to the compound, at the rear of the beach where the unnamed lane joins Telegraph Road. Access to the footpath shall remain unhindered by the works at all times.
2. Signs shall be placed at each end of the footpath where it is adjacent to the works, to advise the public when work is being undertaken

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 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 guidance.
7. 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.
8. All potentially contaminated material will be subject to Waste Acceptance Criteria testing.
9. Any excavated clay that cannot be reused would be bulked on site and disposed of at an appropriately licenced waste management facility.
10. All residual waste material will be removed from site and disposed of at an appropriately licenced waste management facility.
11. 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. An archaeological Watching Brief shall be maintained during delivery of construction materials to monitor the potential for any impacts on buried remains in the inter-tidal area.
2. This will be organised through the CloS Project Director, but no construction material can be delivered to site unless this Watching Brief is in place.

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 stone wall adjacent to the slipway and marked on the plan shall be retained.

WI 217 Protection of the works

1. See Appendix B for details on how the how the revetment works should be protected during construction.

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* 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
- Plant movements between the compound and the working area are along a short section of the public highway. A Traffic Management Plan shall minimise the impact on the public road and to the commercial activities at Porth Mellon Business Park located behind the beach
4. The *Contractor* co-operates 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.
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 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* 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 Minimum Technical Requirements.

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 a Site Waste Management Plan (SWMP) produced by the *Contractor* and by a licensed waste
2. The *Contractor* shall determine volumes of waste to be disposed of offsite and apply for the appropriate licences
3. The SWMP shall be submitted to the Project Manager for acceptance prior to works on site commencing.

WI 225 Deleterious and hazardous materials

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

WI 226 Consents & Licencing

1. A Marine Management Organisation (MMO) Licence is required for the proposed works. Work is not to commence on site prior to the MMO licence being in place. See **WI 1002**.

WI 227 Excavating Material

1. Excavated material is to be placed in an area agreed with the *Project Manager*.
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. Any vegetation removed from the existing bank at the rear of the revetment, shall be replanted with marram grass to ensure bare patches of sandy soil are vegetated.

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 requirement 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.
 - 1 paper copy and 1 digital copy of the final Health and Safety File shall be provided.

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 revetment 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 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 602 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. At the commencement of the armour stone placement, the *Contractor* shall be required by the *Supervisor* to construct a test section of the structure which shall be used to demonstrate the quality of placing of armour stone for all layers, for approval by the *Supervisor*. See Appendix B, section 4.3 for further details.
2. No revetment layer shall be covered by a subsequent layer until the profile of the former layer has been approved by the *Supervisor*. See Appendix B, section 4.5 for further details.
3. Upon completion of the works the *Contractor* will undertake a level survey of the revetment for acceptance by the *Supervisor*. See Appendix B, section 4.8 for further details.
4. The *Contractor* shall keep daily photographic records of all works carries out. All structures, pipework, formation levels, construction materials etc buried shall be photographed prior 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. The Marine Management Organisation may arrive at site unannounced to assess whether the *works* are being implemented within the conditions of the granted licence. The *Contractor* shall co-operate with any requests and share the working area.
3. Officials from the local planning authority 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 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, 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*.
 - Obtaining Marine Management Organisation consent for the *works*.
 - Obtaining planning permission and any other necessary statutory consents.
 - 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 to 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* provides 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 Subcontractors 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 submit Method Statements & Risk Assessments to the *Project Manager* at least two weeks in advance of carrying out items of work including proposed method of forming the revetment profiles indicated on the drawings.
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- Arcadis.
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* assists in these audits and complies 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 General Specification for the rock revetment is The Rock Manual – The Use of Rock in Hydraulic Engineering 2nd Edition (CIRIA C683) 2007. This is supplemented by additional clauses contained within the Particular Rock Revetment Specification. See Appendix B.
4. In so far as any information contained within the Works Information 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 prevail.
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 - Rock Revetment 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-0300-P3-PorthMellonSitePlan
 - UA008878-ARC-XX-XX-DR-CE-0302-P2-PorthMellonRevetmentPlan
 - UA008878-ARC-XX-XX-DR-CE-0303-P3-Porth Mellon Services Plan
 - UA008878-ARC-XX-XX-DR-CE-0320-P3-Porth Mellon Revetment Section A
 - UA008878-ARC-XX-XX-DR-CE-0320-P3-Porth Mellon Revetment Section B

APPENDIX A

EMPLOYER'S MINIMUM TECHNICAL REQUIREMENTS- EA MTR

APPENDIX B

ROCK REVETMENT SPECIFICATION

Health & Safety - Designer's Hazard Record

**Project Title**

Isles of Scilly Flood Defence and Dune Management Project – Porth Mellon

Project CodeUA008878-ARC-XX-XX-
HS-CE-0362-P2**Assessment Coverage:**

The works involve the design and installation of a revetment in the south west corner of Porth Mellon beach. At the northern end of the beach an existing retaining wall shall be repaired and repointed. An existing path across the dune, located just to the north of the boathouses will be formalised as part of the works.

1. Scope of Commission and Coverage of Assessment:

This part of the scheme comprises the following elements:

1. Installation of a rock armour revetment in the south west corner of the beach.
2. Repairs and repointing of the existing retaining seawall at the northern end of the beach.
3. Installation of an elevated timber/recycled plastic boardwalk to access the beach from the lane adjacent to the boatsheds.

2. Brief Description of the Works:

1. A walkover of the site and visual inspection of the existing conditions along the beach.
2. Design of a rock revetment located in the southern corner of the beach.
3. Specification of a flexible pedestrian walkway to access the beach from the road adjacent to the boat sheds.

3. Key Risk Reduction measures taken during design process:

1. Toe of revetment has been designed to be buried relative to beach levels recorded during topographic survey dated February 2017. This is to reduce the likelihood of the public climbing over the revetment and to minimise the beach take.
2. Location of BT cable and telegraph pole located in the bank between the proposed revetment and Telegraph Road. Contractor to assess whether revetment can be constructed without risk of damage to the pole and disruption to the service.
3. Warning symbols used on the drawings to highlight the hazards.

4. Significant Project Specific Hazards Remaining:

- A. Works adjacent to water – Risk of sea inundating works area from wave action and high tides.
- B. Soft & unstable ground – Risk of machine instability on beach/dunes.
- C. Deep excavations - Excavations are to be made to depths to 0.5m ODN which may lead to deep excavations dependant on the current beach profile. Risk of collapse during rising tide levels.
- D. Public beach – Risk of public entering the works area.
- E. Services – There is an abandoned sewer running from the former secondary school to the cliff face adjacent to the revetment. – This was not located on a site walkover and is not thought to be live. Non-recorded services may exist on the works area.
- F. Trimming of geotextile between the cliff/bank face and the rock revetment – Contractors are to ensure rocks are not liable to move during this operation to prevent entrapment.
- G. Rocks forming the revetment may be unstable when initially placed – Rocks should be placed by a machine and their stability ensured before operative's approach workings.

5. Specific Construction Requirements

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

- 1. Hazard markers added to drawings


Date of Review	
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Assessed by:

Name Maxwell Needham Signature _____ Date 18/09/2017

Reviewed by:

Name Ian Cooke Signature _____ Date 18/09/2017

	Health & Safety - Designer's Hazard Record			Project Code/Doc No: UA008878-ARC-XX-XX-HS-CE-0362	
	Project Title: Isles of Scilly Flood Defence and Dune Management Project – Porth Mellon	Assessor (Name): Maxwell Needham	Assessor (Signature):	Date: 18/09/17	Revision: P2

Ref	Activity & Hazard	Level of Risk (optional)	Design Input to Eliminate or Reduce Hazards, and Hazards Remaining	Residual Hazard?
A	Works undertaken in or near water- Risk of sea inundating works area from wave action and high tides.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
B	Soft & unstable ground-The backshore dune is formed of sand and is susceptible to erosion from machine or foot traffic. Risk of machine instability on beach/dunes.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
C	Deep excavations - Excavations are to be made to depths to 0.5m ODN which may lead to deep excavations dependant on the current beach profile. Risk of collapse during rising tide levels.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
D	Working on public beach- Risk of public entering the works area.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
E	Services- There is an abandoned sewer running from the former secondary school to the cliff face adjacent to the revetment. – This was not located on a site walkover and is not thought to be live. Non-recorded services may exist on the works area.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
F	Trimming of Geotextile- Trimming of geotextile between the cliff/bank face and the rock revetment – Contractors are to ensure rocks are not liable to move during this operation to prevent entrapment.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes
G	Unstable Rock units- Rocks forming the revetment may be unstable when initially placed – Rocks should be placed by a machine and their stability ensured before operative's approach workings.		This hazard is an unavoidable consequence of the works and the contractor is to mitigate the associated risks	Yes