

Contact in case of enquiries (if different from above)	
Contact Name	Owen o Driscoll
Organisation Name (if applicable)	Owen O'Driscoll & Associates
Address	17 Bridge St., Skibbereen, Co. Cork 028/23283 owen@owenodriscoll.com

AQUACULTURE AND FORESHORE LICENCE APPLICATION FORM, for purposes of FISHERIES (AMENDMENT) ACT, 1997 and FORESHORE ACT, 1933

NB: The accompanying Guidance Notes should be read before completing this form.

Note: Details provided in Parts 1 and 2 will be made available for public inspection. Details provided in Parts 3 and 4 and any other information supplied will not be released except as may be required by law, including the Freedom of Information Act 1997 as amended.

USE BLOCK CAPITALS IN BLACK INK PLEASE

For Office Use
Application Ref. No. <u>T05/432B</u>
Date of Receipt (Dept. Stamp):



Type of Applicant (tick one)	
Sole Trader	<input type="checkbox"/>
Partnership	<input type="checkbox"/>
Company	<input checked="" type="checkbox"/>
Co-Operative	<input type="checkbox"/>
Other Please specify-	<input type="checkbox"/>

PART 1: PRELIMINARY DETAILS

Applicant's Name(s)
1. Crookhaven Fisherman's Association Ltd
Address: c/o Jimmy, Newman, Crookhaven, Co. Cork

PART 1: PRELIMINARY DETAILS

TYPE OF APPLICATION – please indicate relevant type of application	
This Application Form is valid for each type of application - <i>See Guidance Note 3.1</i>	
(i) Aquaculture Licence	<input type="checkbox"/>
(ii) Trial Licence	<input type="checkbox"/>
(iii) Foreshore Licence, if Marine Based	<input checked="" type="checkbox"/>
(iv) Review of Aquaculture Licence	<input checked="" type="checkbox"/>
(v) Renewal of Aquaculture Licence	<input checked="" type="checkbox"/>

TYPE OF AQUACULTURE

See Guidance Note 3.2

Indicate the relevant type of application with a tick.

(i) MARINE-BASED

- | | | |
|--|-------------------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Go to Parts 2.1 and 2.1A |
| Shellfish <i>Subtidal</i> | <input checked="" type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| <i>Intertidal</i> | <input type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| Seaweed/Aquatic Plants/Aquatic Fish Food | <input checked="" type="checkbox"/> | Go to Parts 2.3 and 2.3A |

(ii) LAND-BASED

- | | | | | |
|----------------|--------------------------|-------------------|--------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Shellfish | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |
| Aquatic Plants | <input type="checkbox"/> | Aquatic Fish Food | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |

- (iii) TRIAL LICENCE** Go to appropriate Parts as above and to Part 2.5.

PART 2: DETAILS RELATING TO THE PROPOSED AQUACULTURE

PROJECT

2.2 MARINE-BASED SHELLFISH AQUACULTURE

When filling out this section refer also to 2.2A and Guidance Note 3.3 for information on Conditions and Documents required with this application type

Proposed Site Location

- (i) Bay: Crookhaven Bay _____
- (ii) County: Cork _____
- (iii) OS Map No: 88 _____
- (iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]
080510, 025820
080890, 025940
081240, 026060
081300, 025920
080540, 025710 _____

- (v) Size of Site (hectares): 7.25ha _____

(vi) Species (common and scientific name) and whether native or non-native species: (see Guidance Notes 3.3.1)

Scallop: (Pecten maximus)

(vii) Whether production will be sub-tidal or inter-tidal? Sub-tidal

(viii) Please supply details of (a) source of seed e.g. wild hatchery and location and (b) means of collection and introduction to culture. Dependent on success of new hatchery facilities eg. Mulroy Bay in Donegal or through the collection of spat locally

NB Importation of seed into the State or movement of seed within the State requires notification to the Marine Institute as per the Fish Health Authorisation Regulations – See Guidance Notes Section 6

(ix) Method of culture (rope, trestles – intensive; bottom – extensive; other) Cages on the seabed

(x) Proposed number of lines/ropes/trestles as per site layout drawing
7 cages

(xi) Proposed Production Tonnage:

Year 1		Year 2		Year 3		Year 4		Year 5	70 kilos
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(xii) (a) Please outline the reasons for site selection:

Good tidal flows but relatively sheltered, existing licensed site and can achieve synergies with seaweed production

(b) If using trestles please outline the physical characteristics of the site which make it suitable for using trestles

N/A

(xiii) Is it intended that the product is for direct human consumption or half grown? Please specify

Human consumption

(xiv) How will the visual impact issues of the flotation devices for the proposed application be addressed?

N/A

(xv) Is the site located in Designated Shellfish Waters Area? (Refer to Guidance Note 3.3.2)

Yes

No

If yes give details.

If no outline the reasons why you believe the site suitable for the proposed aquaculture, notwithstanding its location outside Designated Shellfish Waters Area?

Site was already licensed as suitable for production of same and the site is suitable for the reasons outlined in xii

(xvi) Has the area been classified under Food Safety Legislation? (For Bivalve Molluscs) What is the current classification of the area for the proposed species applied for?

No but previously licensed area for shellfish production

(xvii) Is the site located in/adjacent to a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

No, the bay/site is not in a SPA, SAC or Natura 2000 site. However the site is adjacent to a SAC (Barley Cove to Ballyrisode SAC 1040) and a SPA (Sheeps head to Toe Head SPA 4156)

(xviii) Are there known sources of pollution in the vicinity e.g. sewage outfall? Yes / No
If yes please give full details.
No

(xix) Methods used to harvest the shellfish and details of any subsequent processing of shellfish
Dive Harvesting

(xx) Describe any proposed purification facilities to be used:
Run through depuration plant

(xxi) What are the main predators of the species to be cultivated?
Star fish and Crabs

(xxii) Describe the method(s) which will be used to control them Hand dived for starfish and records retained for predator control

See Part 2.2A for details of documentation to be included with this application type

2.3 MARINE-BASED SEAWEED/AQUATIC PLANTS/AQUATIC FISH FOOD AQUACULTURE

When filling out this section refer also to 2.3A and Guidance Note 3.3 for information on
Conditions and Documents required with this application type

Proposed Site Location

- (i) Bay: Crookhaven Bay
- (ii) County: Cork
- (iii) OS Map No: 88
- (iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]
080510, 025820
080890, 025940
081240, 026060
081300, 025920
080540, 025710
- (v) Size (hectares): 7.25ha

(vi) Species (common and scientific name): Green, Brown and Red Seaweeds :*Alaria esculenta* (dabberlocks, winged Kelp, Atlantic Wakame); *Laminaria digitate* (oarweed); *Saccharina latissimi* (sugar/sweet kelp); *Ulva lactuca* (sea lettuce); *Asparagopsis armata* (harpoon weed); *Porphyra* (Nori)

(vii) What is the source of plantlet : BMRS hatchery

(viii) Cultivation Method : 16 Longlines

(ix) Proposed total number of lines/ropes: 12 lines of 135m_ in length and 4 lines of 155m in length

(x) Proposed Production:

Year 1	18.6T	Year 2	24.6T	Year 3	24.6T	Year 4	24.6T	Year 5	24.6T
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(xi) Reasons for site selection: Crookhaven bay has ideal conditions for growing indigenous species of seaweed.

(xii) Provide detailed information on the techniques for cultivation in use or to be used. Are these techniques currently in use in the industry or are they new? Please give details;

Longline deployment techniques are currently in use in the industry. Seeded seaweed string will be prepared onshore at the BMRS hatchery. On arrival at the longline, the boat is tied to the header rope at one end in such a way that the boat can be quickly detached when needed. The header rope is detached from the anchor rope, making sure that the anchor rope has a buoy attached to the end or that it can be secured temporarily to the boat to avoid loss. Damp clothes are carefully removed from the collectors, and the header rope is then passed through the middle of the collector. The end of the culture string is untied from the end of the collector closest to the detached end of the header rope and secured through the lay of the header rope. The collector is held at either end, to avoid touching the small, delicate plants on the culture string. The anchor rope is then re-attached to the header rope, ensuring a stronger connection. The boat is then untied from the line and is pulled down the length of the header rope over hand. The collector should also be pulled down the length

of the header rope, the culture string spiralling around the larger diameter header rope. The string must not be coiled too loosely around the rope to ensure the plants anchor to the line. Upon reaching the other end of the longline, or the end of the culture string supply (whichever comes first), the end of the culture string is tied through the lay of the rope once again, as at the start. Before leaving the site, it is ensured that the header rope is submerged to a minimum of 0.5m below the surface. The buoys are then attached to the header rope, spacing them evenly down the length of the line.

(xiii) Methods used for harvesting.

A boat operated crane will be utilised to remove the longlines from the bay.

(xiv) Has the site sufficient space for the site structures including mooring blocks?

Yes, Detailed drawing attached.

Please provide separately detailed drawings of both over and under water structures including moorings.
(See Guidance Note on Site Structures 3.3.2)

(xv) How will the visual impact issues of the flotation devices for the proposed application be addressed?

The buoys within the site design are grey LD2 buoys. These are specifically designed to be almost invisible from the shore. (See note in relation to mitigation guidance)

(xvi) Is the site located in a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

If Yes give details

No, the bay/site is not in a SPA, SAC, or Natura 2000 site. However, the site is adjacent to a SAC (Barley Cove to Ballyrisode SAC 1040) and a SPA (Sheep's Head to Toe Head SPA 4156)

See Part 2.3A for details of documentation to be included with this application type

**2.6 Employment, Qualifications, Experience, etc
TO BE FILLED IN BY ALL AQUACULTURE APPLICANTS**

- (i) Please provide details of experience/qualifications of the applicant and any key personnel which are relevant to the aquaculture now proposed:

Jimmy Newman has over 20 years of experience of aquaculture farming and has been a fisherman all of his life. He was also involved in the FP7-funded project, CRABS, which investigated settlement of invertebrates in Crookhaven. The Bantry Marine Research Station (BMRS) has been in operation since 1991 as part of the Aquaculture and Fisheries Development Centre (AFDC), University College Cork. However in 2005 it was established as an independent research centre. Research work at the station has grown steadily and has included commercial trials and participation in EU research projects. It currently has a land based licence (Aquaculture licence no.422) and seaweed aquaculture licence (Aquaculture Licence no. T05/547A).

- (ii) If a new application please provide details of projected employment creation during first four years of the proposed aquaculture project:
 (iii) In the case of a renewal please provide current and future details:

It is predicted that in year 1, approximately 12 lines will be deployed, in year 2 c. 16 lines, year 3:16 lines and 7 scallop cages w be deployed thereby utilising the whole site. year 4 c. 16 lines and 7 scallop cages year 5 c. 16 lines and 7 scallop cages
The world market for sea weed products is increasing dramatically.
Seaweed processing and sales activities will increase over the first 3-4 years
We envisage that for year 1-4 of this project there will be average of 0.75 full time equivalent jobs and 1 part time equivalent jobs.
Seaweed string is deployed on the longlines in December, with harvesting taking place in May/June.
The site remains fallow for the rest of the year from a seaweed growing perspective but scallops will continue to be reared all year round with intermittent inspections and monitoring by staff.
Applicant is working closely with Bantry Marine Research centre.

FULLTIME JOBS

Year 1:	0	Year 2:	1	Year 3:	1	Year 4:	1
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PART TIME JOBS

Year 1:	1	Year 2:	1	Year 3:	1	Year 4:	1
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PART 5: DECLARATION AND SIGNING

NB: Refer to Guidance Note Section 3.5 and Section 4 - Guidance on Declaration and Signing and Annual Aquaculture and Foreshore Licence Fees

If this is a renewal/review have you met all licence conditions of the existing aquaculture licence? If applicable, explain why you have not complied with all conditions:

Yes

I/We hereby declare the information provided in Parts 1, 2, 3 and 4 above to be true to the best of my/our knowledge and that I am over 18 years of age. I/We enclose an application fee* of € See Note with this application.

Signature(s) of Applicant(s):
(Please state capacity of persons signing on behalf of a Company/Co-op)

Ben St. J. J. J. J.
Director
Crosshaven Fishermen's
Association Limited

Date: 25/1/19

**NB All persons named on this licence application must sign and date this application form.
Only the existing licence holder(s) can apply for the renewal/review of an Aquaculture Licence.**

*Preferred method of payment is by cheque or bank draft. The fee should be made payable to the Department of Agriculture, Food and the Marine.

Refer to Guidance Note Section 4 - Guidance on Aquaculture and Foreshore Licence Fees

The application form should be forwarded, with the required documents and application fee, to:

**Aquaculture Licensing
Aquaculture & Foreshore Management Division
Department of Agriculture, Food and the Marine
National Seafood Centre
Clonakilty
Co. Cork
P85 TX47**

1 NO. SITE AT CROOKHAVEN HARBOUR CO.CORK

Co-ordinates & Area

Site T05/432B (6.0647 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

080519, 025778 to Irish National Grid Reference point
081283, 025997 to Irish National Grid Reference point
081306, 025919 to Irish National Grid Reference point
080540, 025710 to the first mentioned point.



80000

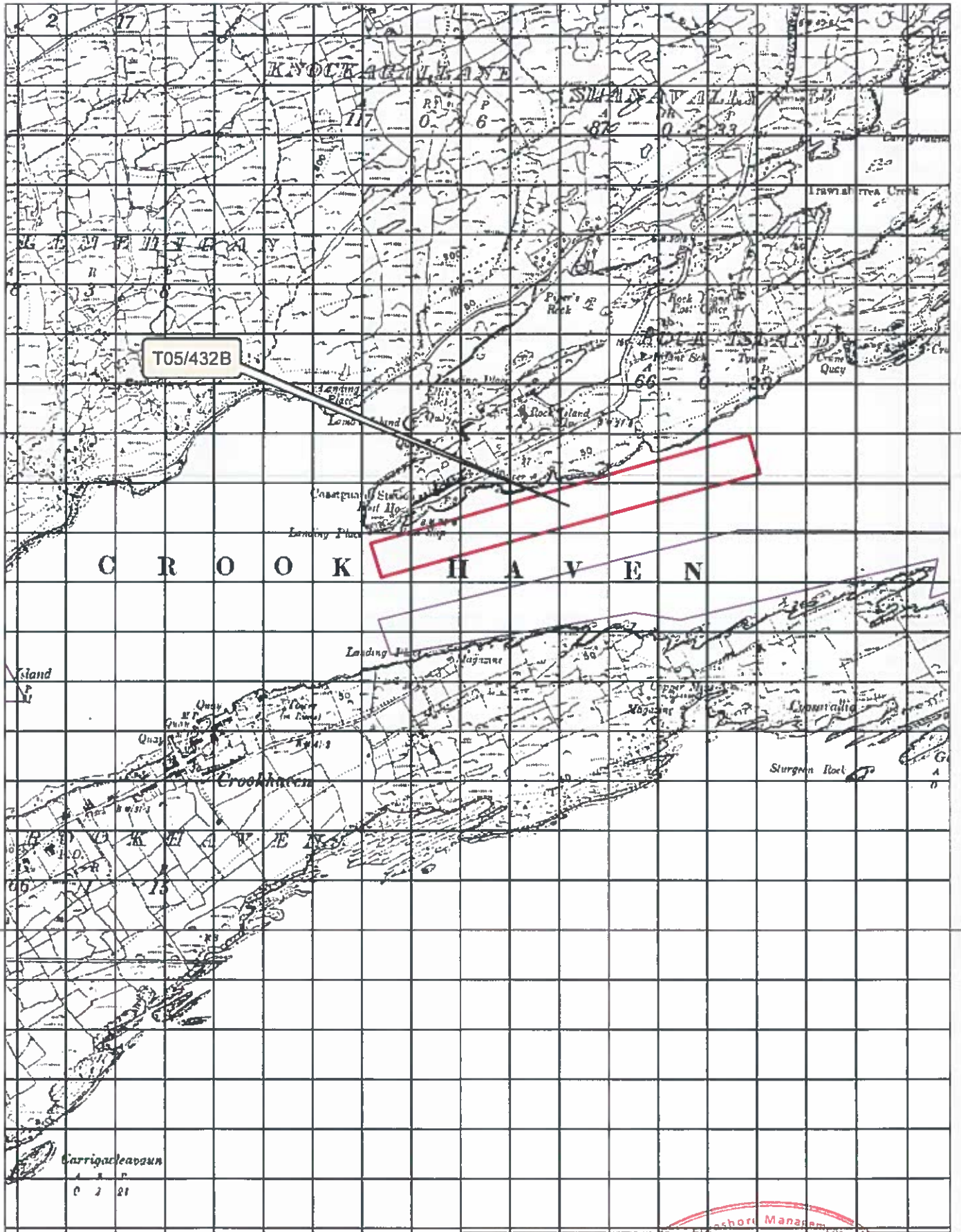
81000

26000

26000

25000

25000



80000

81000

- Aqua Culture Sites**
 <all other values>
- Site_Status**
- Under Appeal
 - Application
 - Lapsed
 - Licensed
 - Refused
 - Revoked
 - Surrendered
 - Withdrawn
 - 100 Meter Reference Grid

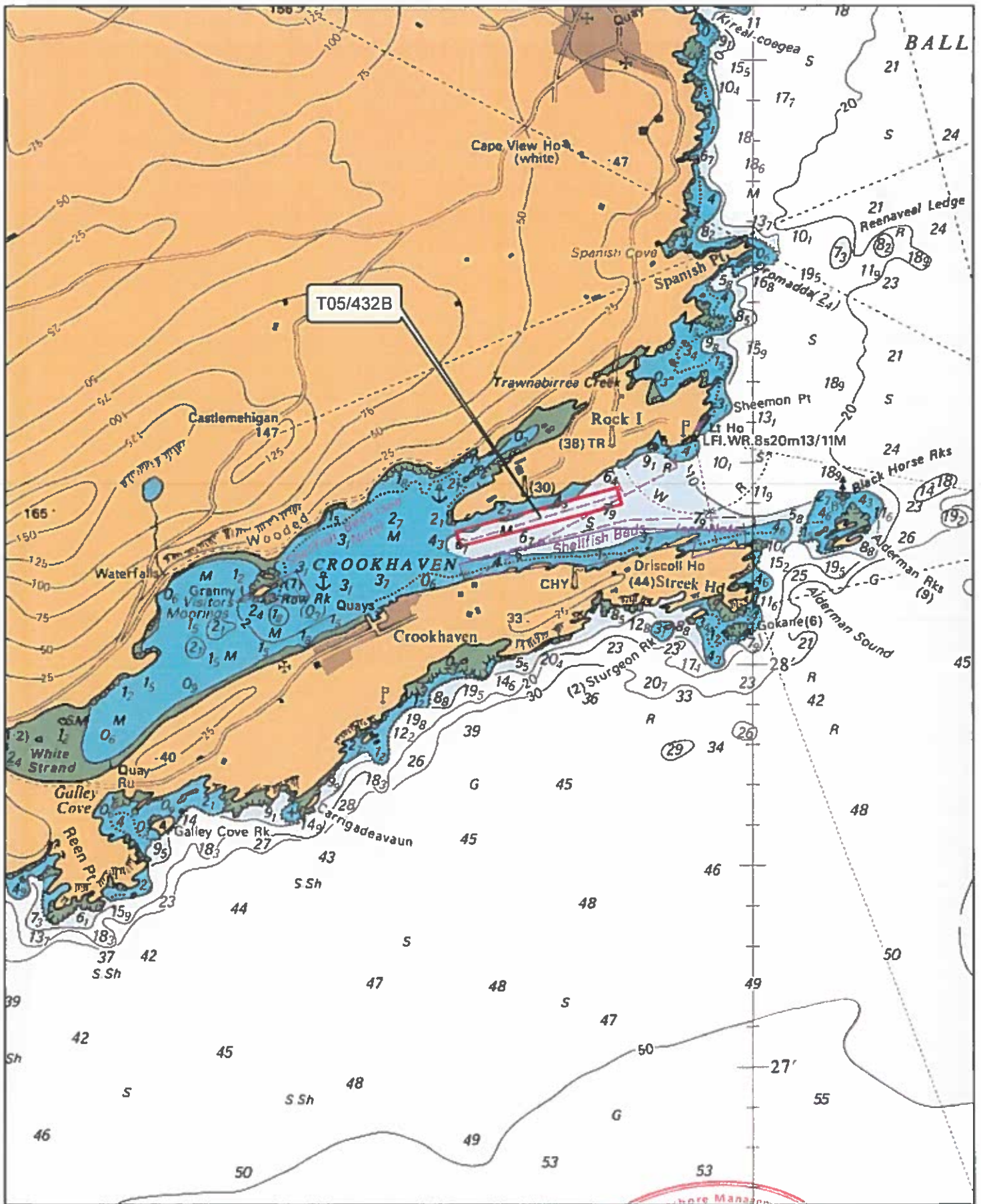
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Sites highlighted in red denotes Application

Ordnance Survey Ireland Licence No. EN 0076419
 © Ordnance Survey Ireland/Government of Ireland



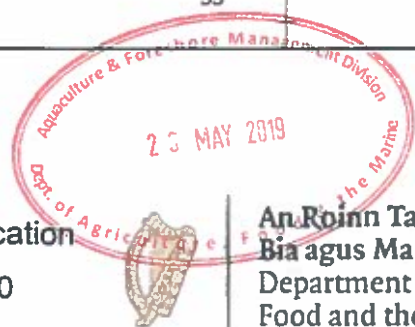
An Roinn Talmhaíochta, Bia agus Mara
 Department of Agriculture, Food and the Marine



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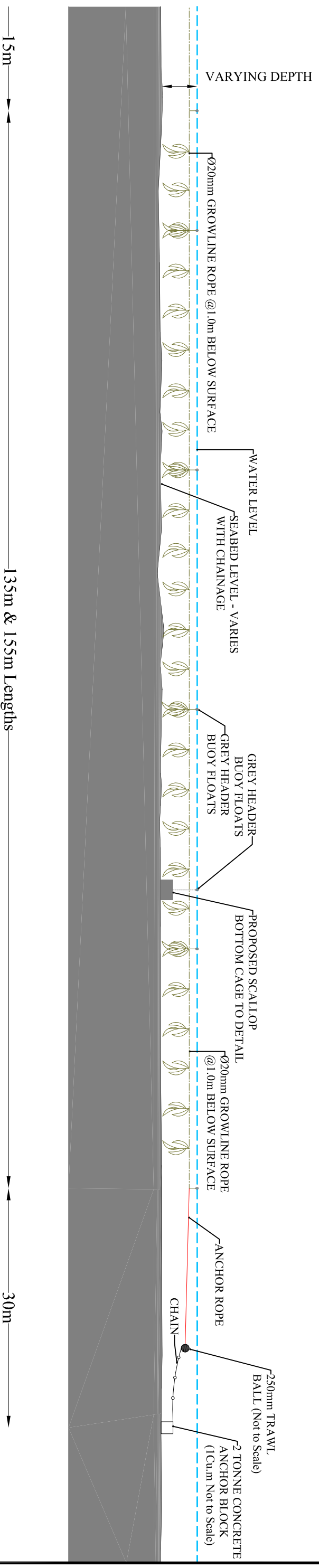
Sites highlighted in red denotes Application

Part of Admiralty Chart No =2184-0
Not to be used for Navigation

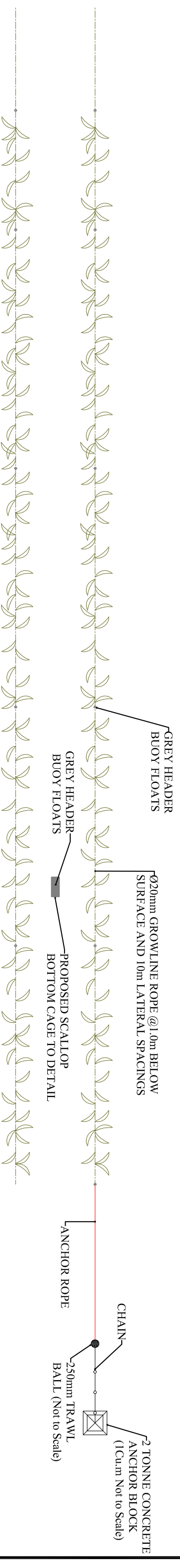


- Aqua Culture Sites**
<all other values>
- Site_Status**
- Under Appeal
 - Application
 - Lapsed
 - Licensed
 - Refused
 - Revoked
 - Surrendered
 - Withdrawn

**An Roinn Talmhaíochta,
Bia agus Mara**
Department of Agriculture,
Food and the Marine



TYPICAL SCALLOP BOTTOM CAGE SECTION DETAIL
SCALE 1:500



TYPICAL SCALLOP BOTTOM CAGE PLAN DETAIL
SCALE 1:500

VOM Associates
Tel: 028 21552 Mobile 086/8589108
10 Market Street, Skibbereen Co. Cork

Client
Crookhaven Fishermen's Association Ltd.

Date
February 2019

Scale
As Indicated

Project
Proposed Development - Crookhaven

Drawn By
E.O.M.

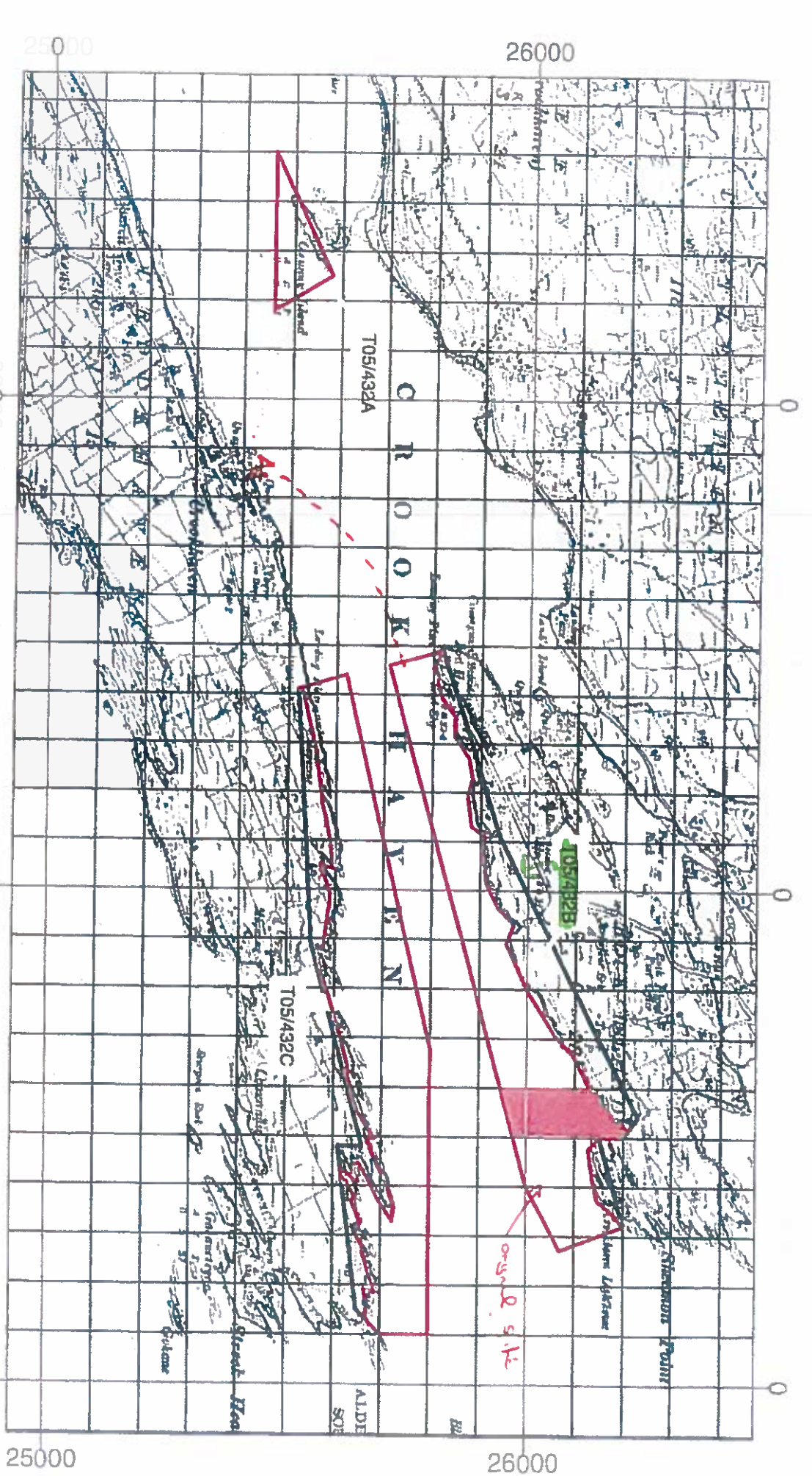
Checked
Checked

Drawing Title
Float & Scallop Cage Details

Dwg No.
5PC-02

Rev.
B

This drawing is for planning application purposes only.
Not to be used as a working drawing for building.



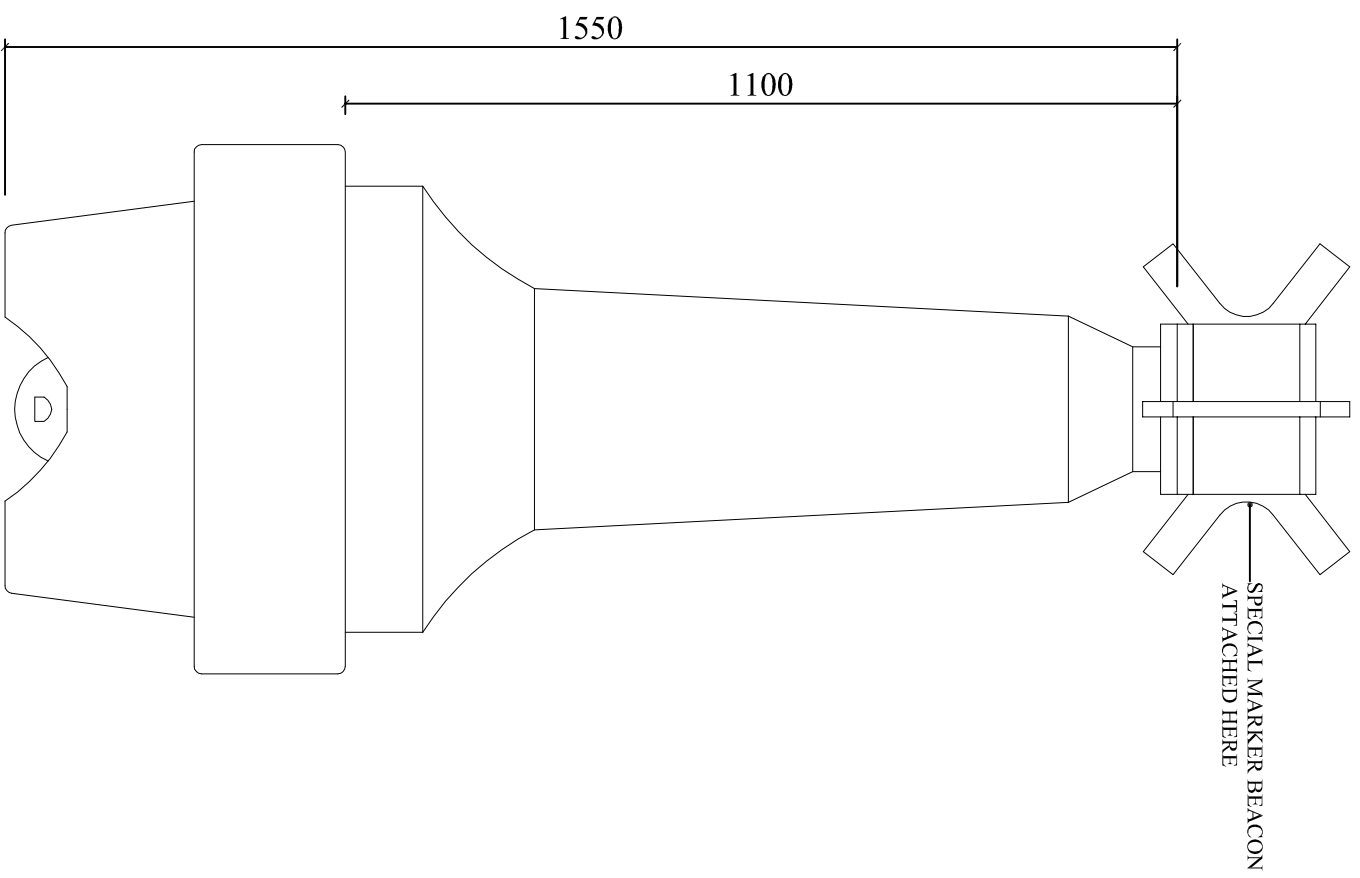
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Site Highlighted in red denotes application

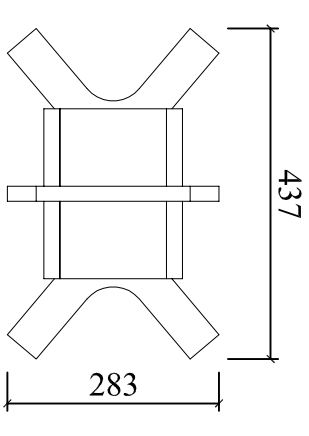
Printed under Licence No:6155

From The Ordnance Survey,

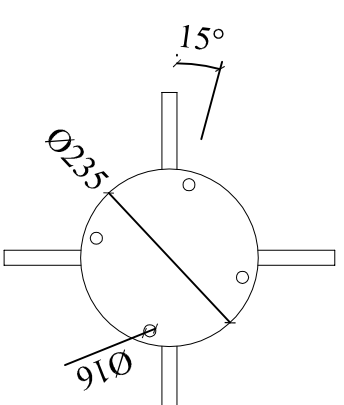
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ELEVATION: FLOATING MARKER BUOY
SCALE 1:10



ELEVATION: SPECIAL MARKER BEACON
SCALE 1:10



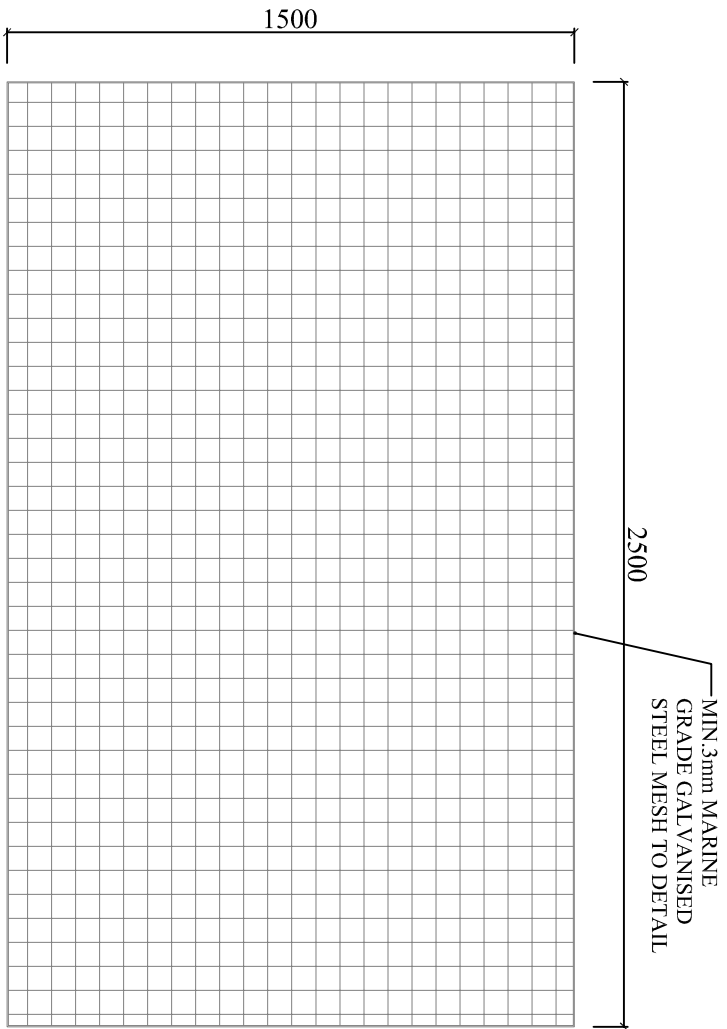
PLAN: SPECIAL MARKER BEACON
SCALE 1:10

Floating Marker Buoy Specification:

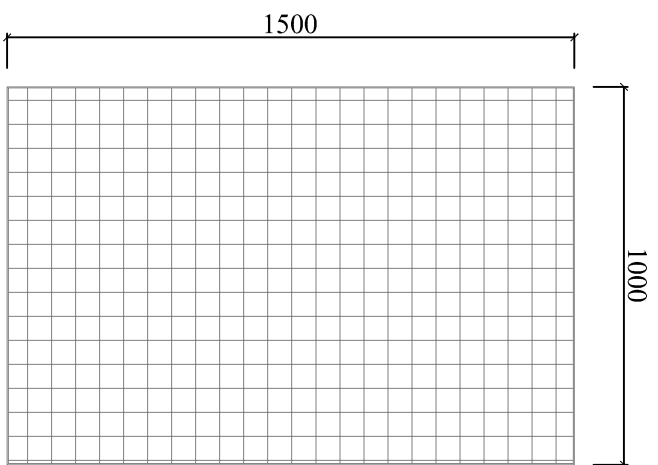
- Total Height 1550mm
- Total Weight 65kg
- Diameter 600mm
- Volume 189 Litres
- Focal View 1100mm
- Mooring Ring Diameter 25mm
- Mooring Line and Block Suitable for Location

This drawing is for planning application purposes only.
Not to be used as a working drawing for building.

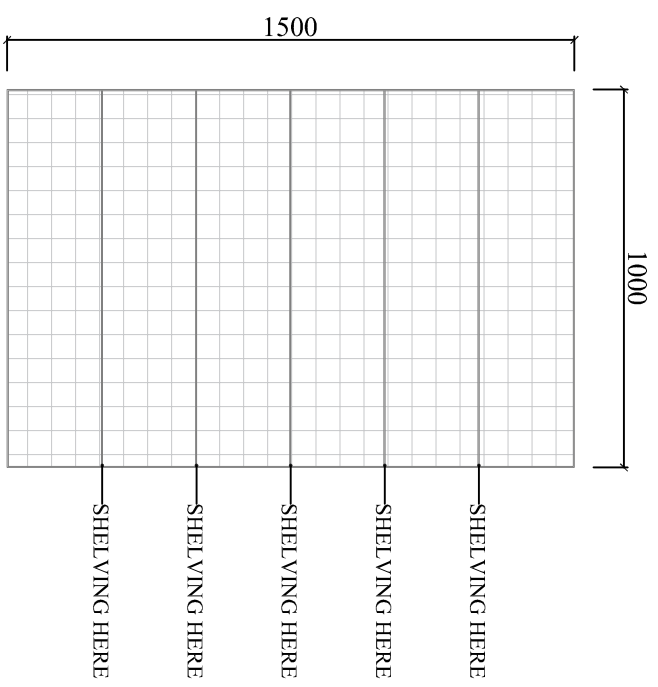
VOM Associates			
Tel: 028 21552 Mobile 086/8589108			
10 Market Street, Skibbereen Co. Cork			
Client	Crookhaven Fishermen's Association Ltd.		
Date	January 2019		
Project	Scale	Drawn By	Checked
Proposed Development - Crookhaven	1:10	E.O.M.	
Drawing Title	Dwg No.	CH-01	Rev.
Marker Buoy Details			



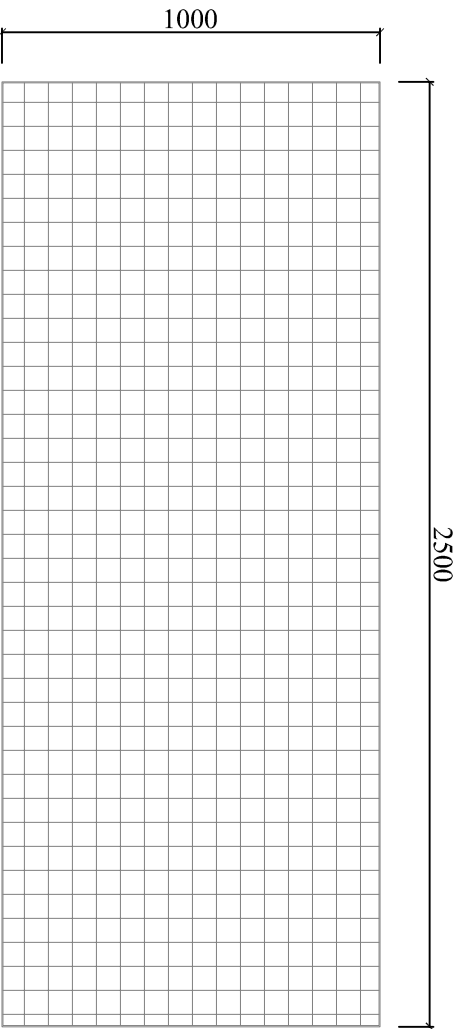
ELEVATION: SCALLOP BOTTOM CAGE
SCALE 1:20



FRONT/REAR ELEVATION: SCALLOP BOTTOM CAGE
SCALE 1:20



FRONT/REAR ELEVATION: SCALLOP BOTTOM CAGE - ACCESS MESH REMOVED
SCALE 1:20



PLAN: SCALLOP BOTTOM CAGE
SCALE 1:20

This drawing is for planning application purposes only.
Not to be used as a working drawing for building.

<p>VOM Associates Tel: 028 21552 Mobile 086/8589108 10 Market Street, Skibbereen Co. Cork</p>		Date	February 2019
		Client	Crookhaven Fishermen's Association Ltd.
<p>Drawing Title Typical Scallop Bottom Cage Details</p>		Scale	1:20
		Project	Proposed Development - Crookhaven
<p>Dwg No. 58C-01</p>		Drawn By.	E.O.M.
		Checked	
<p>Rev. B</p>			

Contact in case of enquiries (if different from above)	
Contact Name	Owen o Driscoll
Organisation Name (if applicable)	Owen O'Driscoll & Associates
Address	17 Bridge St., Skibbereen, Co. Cork 028/23283 owen@owenodriscoll.com

AQUACULTURE AND FORESHORE LICENCE APPLICATION FORM, for purposes of FISHERIES (AMENDMENT) ACT, 1997 and FORESHORE ACT, 1933

NB: The accompanying Guidance Notes should be read before completing this form.

Note: Details provided in Parts 1 and 2 will be made available for public inspection. Details provided in Parts 3 and 4 and any other information supplied will not be released except as may be required by law, including the Freedom of Information Act 1997 as amended.

USE BLOCK CAPITALS IN BLACK INK PLEASE

For Office Use
Application Ref. No. <u>T05/432C</u>
Date of Receipt (Dept. Stamp):



Type of Applicant (tick one)	
Sole Trader	<input type="checkbox"/>
Partnership	<input type="checkbox"/>
Company	<input checked="" type="checkbox"/>
Co-Operative	<input type="checkbox"/>
Other	Please specify- <input type="checkbox"/>

PART 1: PRELIMINARY DETAILS

Applicant's Name(s)
1. Crookhaven Fisherman's Association Ltd
Address: c/o Jimmy, Newman, Crookhaven, Co. Cork

PART 1: PRELIMINARY DETAILS

TYPE OF APPLICATION – please indicate relevant type of application	
This Application Form is valid for each type of application - <i>See Guidance Note 3.1</i>	
(i) Aquaculture Licence	<input type="checkbox"/>
(ii) Trial Licence	<input type="checkbox"/>
(iii) Foreshore Licence, if Marine Based	<input checked="" type="checkbox"/>
(iv) Review of Aquaculture Licence	<input checked="" type="checkbox"/>
(v) Renewal of Aquaculture Licence	<input checked="" type="checkbox"/>

TYPE OF AQUACULTURE

See Guidance Note 3.2

Indicate the relevant type of application with a tick.

(i) **MARINE-BASED**

- | | | |
|--|-------------------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Go to Parts 2.1 and 2.1A |
| Shellfish <i>Subtidal</i> | <input checked="" type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| <i>Intertidal</i> | <input type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| Seaweed/Aquatic Plants/Aquatic Fish Food | <input checked="" type="checkbox"/> | Go to Parts 2.3 and 2.3A |

(ii) **LAND-BASED**

- | | | | | |
|----------------|--------------------------|-------------------|--------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Shellfish | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |
| Aquatic Plants | <input type="checkbox"/> | Aquatic Fish Food | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |

- (iii) **TRIAL LICENCE** Go to appropriate Parts as above and to Part 2.5.

PART 2: DETAILS RELATING TO THE PROPOSED AQUACULTURE

PROJECT

2.2 MARINE-BASED SHELLFISH AQUACULTURE

When filling out this section refer also to 2.2A and Guidance Note 3.3 for information on Conditions and Documents required with this application type

Proposed Site Location

- (i) Bay: Crookhaven Bay _____
- (ii) County: Cork _____
- (iii) OS Map No: 88 _____
- (iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]

080560, 025620
081320, 025800
081900, 025800
081900, 025700
081850, 025650
081520, 025610
081110, 025550
081520, 025660
080590, 025520

- (v) Size of Site (hectares): 14.5ha

(vi) Species (common and scientific name) and whether native or non-native species: (see Guidance Notes 3.3.1)

Scallop: (Pecten maximus)

(vii) Whether production will be sub-tidal or inter-tidal? Sub-tidal

(viii) Please supply details of (a) source of seed e.g. wild hatchery and location and (b) means of collection and introduction to culture. Dependent on success of new hatchery facilities eg. Murloy Bay in Donegal or through the collection of spat locally.

NB Importation of seed into the State or movement of seed within the State requires notification to the Marine Institute as per the Fish Health Authorisation Regulations – See Guidance Notes Section 6

(ix) Method of culture (rope, trestles – intensive; bottom – extensive; other) Cages on the seabed

(x) Proposed number of lines/ropes/trestles as per site layout drawing
15 cages

(xi) Proposed Production Tonnage:

Year 1	Year 2	Year 3	Year 4	Year 5	150 kilos
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(xii) (a) Please outline the reasons for site selection:

Good tidal flows but relatively sheltered, existing licensed site and can achieve synergies with seaweed production.

(b) If using trestles please outline the physical characteristics of the site which make it suitable for using trestles

N/A

(xiii) Is it intended that the product is for direct human consumption or half grown? Please specify

Human Consumption

(xiv) How will the visual impact issues of the flotation devices for the proposed application be addressed?

N/A

(xv) Is the site located in Designated Shellfish Waters Area? (Refer to Guidance Note 3.3.2)

Yes

No

If yes give details.

If no outline the reasons why you believe the site suitable for the proposed aquaculture, notwithstanding its location outside Designated Shellfish Waters Area?

Site was already licensed as suitable for production of same and the site is suitable for the reasons outlined in xii

(xvi) Has the area been classified under Food Safety Legislation? (For Bivalve Molluscs) What is the current classification of the area for the proposed species applied for?

No but previously licensed area for shellfish production

(xvii) Is the site located in/adjacent to a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

No, the bay/site is not in a SPA, SAC or Natura 2000 site. However the site is adjacent to a SAC (Barley Cove to Ballyrisode SAC 1050) and a SPA (Sheeps head to Toe Head SPA 4156)

(xviii) Are there known sources of pollution in the vicinity e.g. sewage outfall? Yes / No
If yes please give full details.

No

(xix) Methods used to harvest the shellfish and details of any subsequent processing of shellfish.
Dive harvesting

(xx) Describe any proposed purification facilities to be used:
Run through depuration plant

(xxi) What are the main predators of the species to be cultivated?

Starfish and Crabs

(xxii) Describe the method(s) which will be used to control them

Hand dived for starfish and records retained for predator control

See Part 2.2A for details of documentation to be included with this application type

2.3 MARINE-BASED SEAWEED/AQUATIC PLANTS/AQUATIC FISH FOOD AQUACULTURE

When filling out this section refer also to 2.3A and Guidance Note 3.3 for information on Conditions and Documents required with this application type

Proposed Site Location

- (i) Bay: Crookhaven Bay
- (ii) County: Cork
- (iii) OS Map No: 88
- (iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]
080560, 025620
081320, 025800
081900, 025800
081900, 025700
081850, 025650
081520, 025610
081110, 025550
081520, 0256660
080590, 025520
- (v) Size (hectares): 14.5ha

(vi) Species (common and scientific name): Green, Brown and Red Seaweeds : *Alaria esculenta* (dabberlocks, winged Kelp, Atlantic Wakame); *Laminaria digitate* (oarweed); *Saccharina latissimi* (sugar/sweet kelp); *Ulva lactuca* (sea lettuce); *Asparagopsis armata* (harpoon weed); *Porphyra* (Nori)

(vii) What is the source of plantlet : BMRS hatchery

(viii) Cultivation Method: 48 Longlines

(ix) Proposed total number of lines/ropes: 48 X 155m longlines

(x) Proposed Production:

Year 1	18.15T	Year 2	49.5T	Year 3	79.2T	Year 4	79.2T	Year 5	79.2T
--------	--------	--------	-------	--------	-------	--------	-------	--------	-------

(xi) Reasons for site selection: Crookhaven Bay has ideal conditions for growing indigenous species of seaweed

(xii) Provide detailed information on the techniques for cultivation in use or to be used. Are these techniques currently in use in the industry or are they new? Please give details;

Longline deployment techniques are currently in use in the industry. Seeded seaweed string will be prepared onshore at the BMRS hatchery. On arrival at the longline, the boat is tied to the header rope at one end in such a way that the boat can be quickly detached when needed. The header rope is detached from the anchor rope, making sure that the anchor rope has a buoy attached to the end or that it can be secured temporarily to the boat to avoid loss. Damp clothes are carefully removed from the collectors, and the header rope is then passed through the middle of the collector. The end of the culture string is untied from the end of the collector closest to the detached end of the header rope and secured through the lay of the header rope. The collector is held at either end, to avoid touching the small, delicate plants on the culture string. The anchor rope is then re-attached to the header rope, ensuring a stronger connection. The boat is then untied from the line and is pulled

down the length of the header rope over hand. The collector should also be pulled down the length of the header rope, the culture string spiralling around the larger diameter header rope. The string must not be coiled too loosely around the rope to ensure the plants anchor to the line. Upon reaching the other end of the longline, or the end of the culture string supply (whichever comes first), the end of the culture string is tied through the lay of the rope once again, as at the start. Before leaving the site, it is ensured that the header rope is submerged to a minimum of 0.5m below the surface. The buoys are then attached to the header rope, spacing them evenly down the length of the line.

(xiii) Methods used for harvesting.

A boat operated crane will be utilised to remove the longlines from the bay.

(xiv) Has the site sufficient space for the site structures including mooring blocks?

Yes, Detailed drawing attached.

Please provide separately detailed drawings of both over and under water structures including moorings. (See Guidance Note on Site Structures 3.3.2)

(xv) How will the visual impact issues of the flotation devices for the proposed application be addressed?

The buoys within the site design are grey LD2 buoys. These are specifically designed to be almost invisible from the shore. (See note in relation to mitigation guidance)

(xvi) Is the site located in a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

If Yes give details

No, the bay/site is not in a SPA, SAC, or Natura 2000 site. However, the site is adjacent to a SAC (Barley Cove to Ballyrisode SAC 1040) and a SPA (Sheep's Head to Toe Head SPA 4156)

See Part 2.3A for details of documentation to be included with this application type

**2.6 Employment, Qualifications, Experience, etc
TO BE FILLED IN BY ALL AQUACULTURE APPLICANTS**

- (i) Please provide details of experience/qualifications of the applicant and any key personnel which are relevant to the aquaculture now proposed:

Jimmy Newman has over 20 years of experience of aquaculture farming and has been a fisherman all of his life. He was also involved in the FP7-funded project, CRABS, which investigated settlement of invertebrates in Crookhaven. The Bantry Marine Research Station (BMRS) has been in operation since 1991 as part of the Aquaculture and Fisheries Development Centre (AFDC), University College Cork. However in 2005 it was established as an independent research centre. Research work at the station has grown steadily and has included commercial trials and participation in EU research projects.

It currently has a land based licence (Aquaculture licence no.422) and seaweed aquaculture licence (Aquaculture Licence no. T05/547A).

- (ii) If a new application please provide details of projected employment creation during first four years of the proposed aquaculture project:
 (iii) In the case of a renewal please provide current and future details:

It is predicted that in year 1, approximately 11 lines will be deployed, in year 2 c. 30 lines, year 3 c. 48 lines and the 15 cages year 4 c. 48 lines and the 15 cages year 5 c. 48 lines and the 15 cages

The world market for sea weed products is increasing dramatically.

Seaweed processing and sales activities will increase over the first 3-4 years

We envisage that for year 1-4 of this project there will be average of 075 full time equivalent jobs and 1 part time equivalent jobs.

Seaweed string is deployed on the longlines in December, with harvesting taking place in May/June.

The site remains fallow for the rest of the year from a seaweed growing perspective but scallops will continue to be reared all year round with intermittent inspections and monitoring by staff.

Applicant is working closely with Bantry Marine Research Station

FULLTIME JOBS

Year 1:	0	Year 2:	1	Year 3:	1	Year 4:	1
---------	---	---------	---	---------	---	---------	---

PART TIME JOBS

Year 1:	1	Year 2:	1	Year 3:	1	Year 4:	1
---------	---	---------	---	---------	---	---------	---

PART 5: DECLARATION AND SIGNING

NB: Refer to Guidance Note Section 3.5 and Section 4 - Guidance on Declaration and Signing and Annual Aquaculture and Foreshore Licence Fees

If this is a renewal/review have you met all licence conditions of the existing aquaculture licence? If applicable, explain why you have not complied with all conditions:

Yes

I/We hereby declare the information provided in Parts 1, 2, 3 and 4 above to be true to the best of my/our knowledge and that I am over 18 years of age. I/We enclose an application fee* of € See Note with this application.

Signature(s) of Applicant(s):
(Please state capacity of persons signing on behalf of a Company/Co-op)

By S. J. Falin
Director
Crosshaven Fisheries
Association Limited

Date: 25/1/19

**NB All persons named on this licence application must sign and date this application form.
Only the existing licence holder(s) can apply for the renewal/review of an Aquaculture Licence.**

*Preferred method of payment is by cheque or bank draft. The fee should be made payable to the Department of Agriculture, Food and the Marine.

Refer to Guidance Note Section 4 - Guidance on Aquaculture and Foreshore Licence Fees

The application form should be forwarded, with the required documents and application fee, to:

**Aquaculture Licensing
Aquaculture & Foreshore Management Division
Department of Agriculture, Food and the Marine
National Seafood Centre
Clonakilty
Co. Cork
P85 TX47**

1 NO. SITE AT CROOKHAVEN HARBOUR CO.CORK

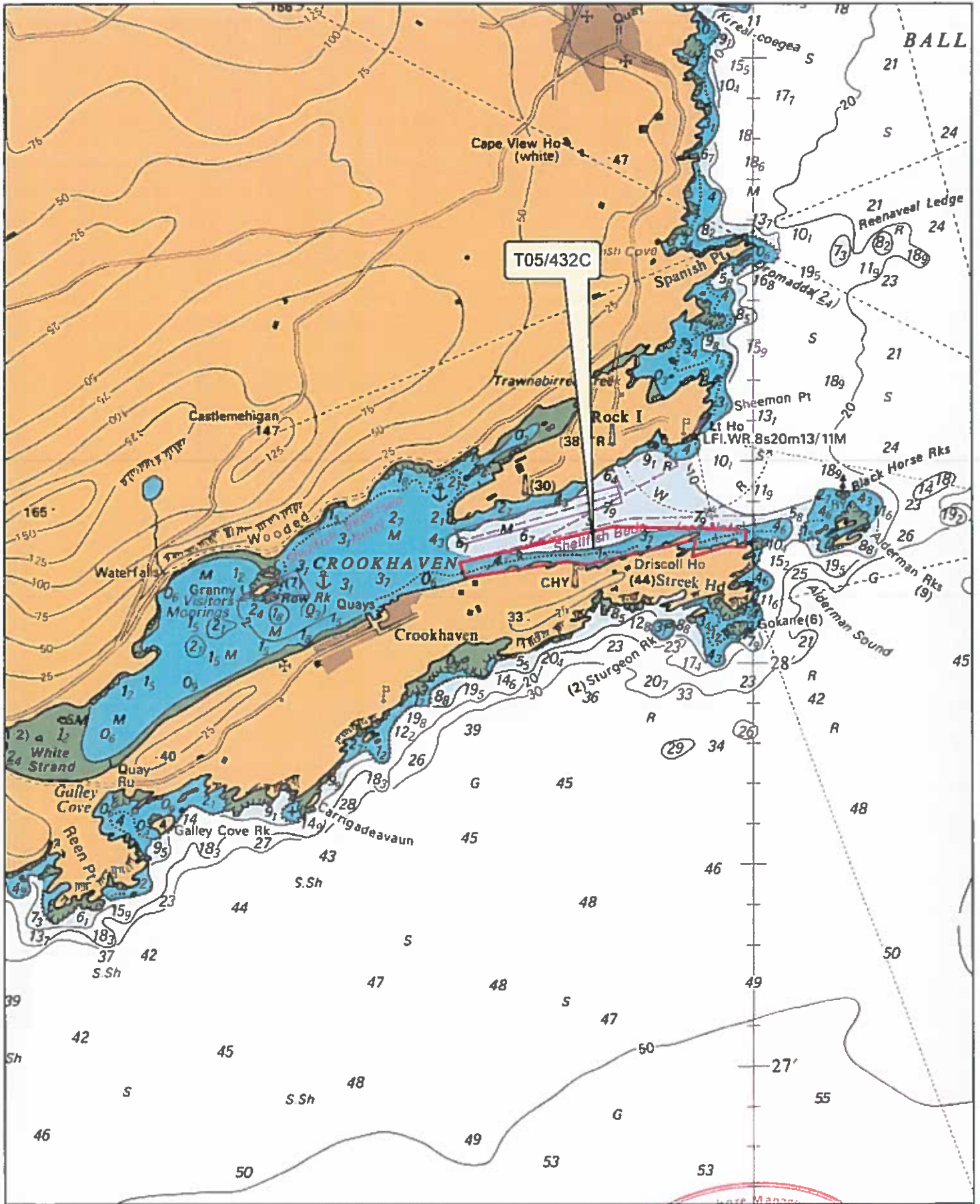
Co-ordinates & Area

Site T05/432C (14.4895 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

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081200, 025800 to Irish National Grid Reference point
081900, 025800 to Irish National Grid Reference point
081900, 025718 to Irish National Grid Reference point
081798, 025718 to Irish National Grid Reference point
081645, 025669 to Irish National Grid Reference point
081661, 025748 to Irish National Grid Reference point
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081052, 025638 to Irish National Grid Reference point
080560, 025554 to the first mentioned point.





Aqua Culture Sites
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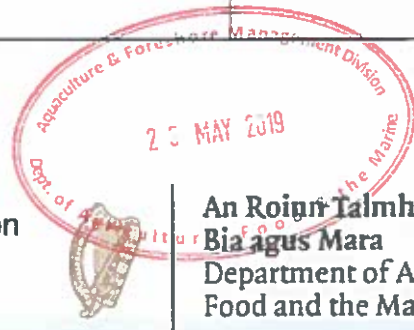
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- Application
- Lapsed
- Licensed
- Refused
- Revoked
- Surrendered

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Sites highlighted in red denotes Application

Part of Admiralty Chart No =2184-0

Not to be used for Navigation



An Roinn Talmhaíochta,
 Bia agus Mara
 Department of Agriculture,
 Food and the Marine

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82000

27000

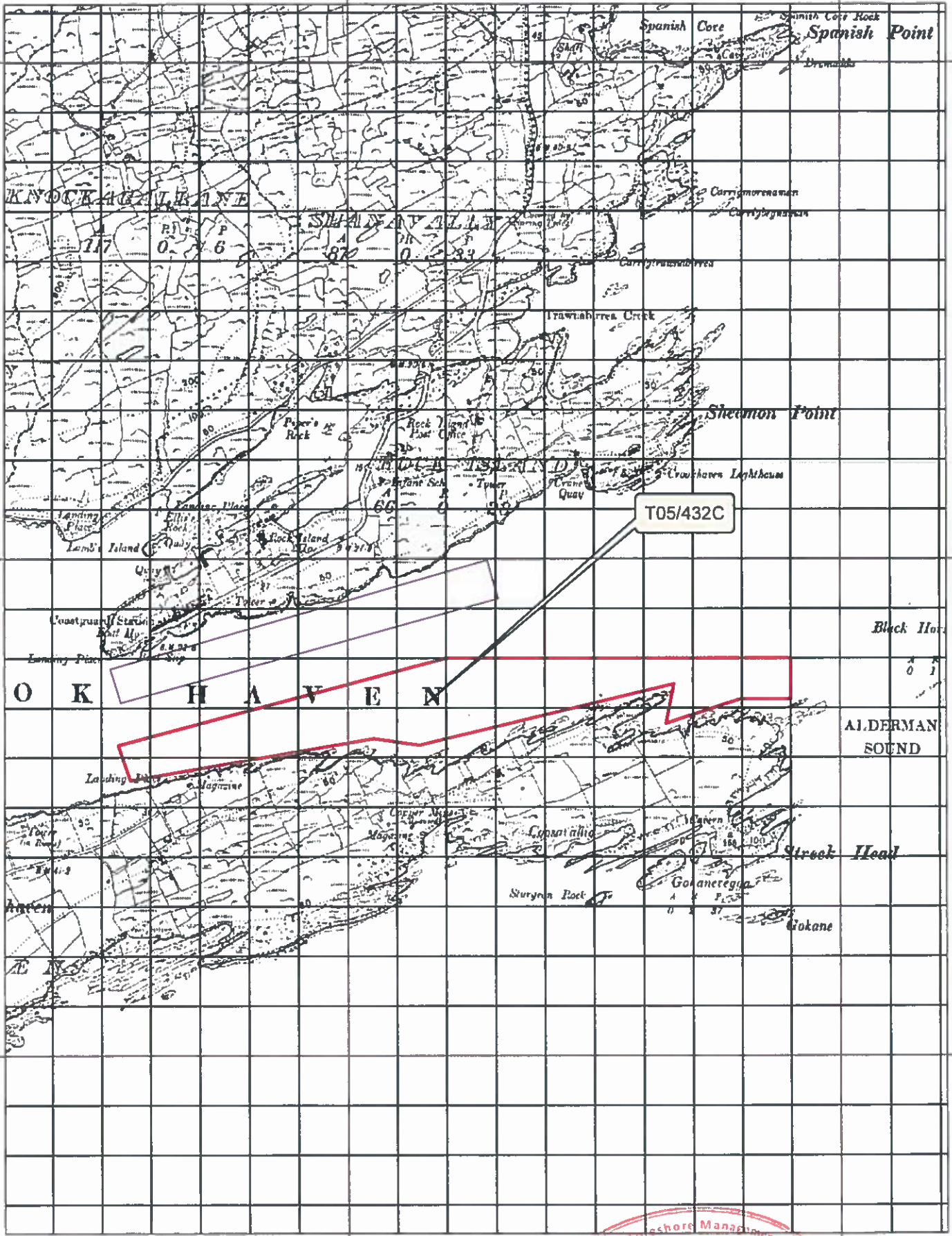
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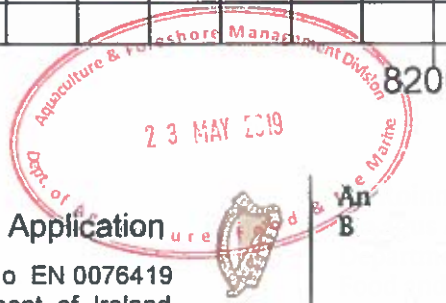
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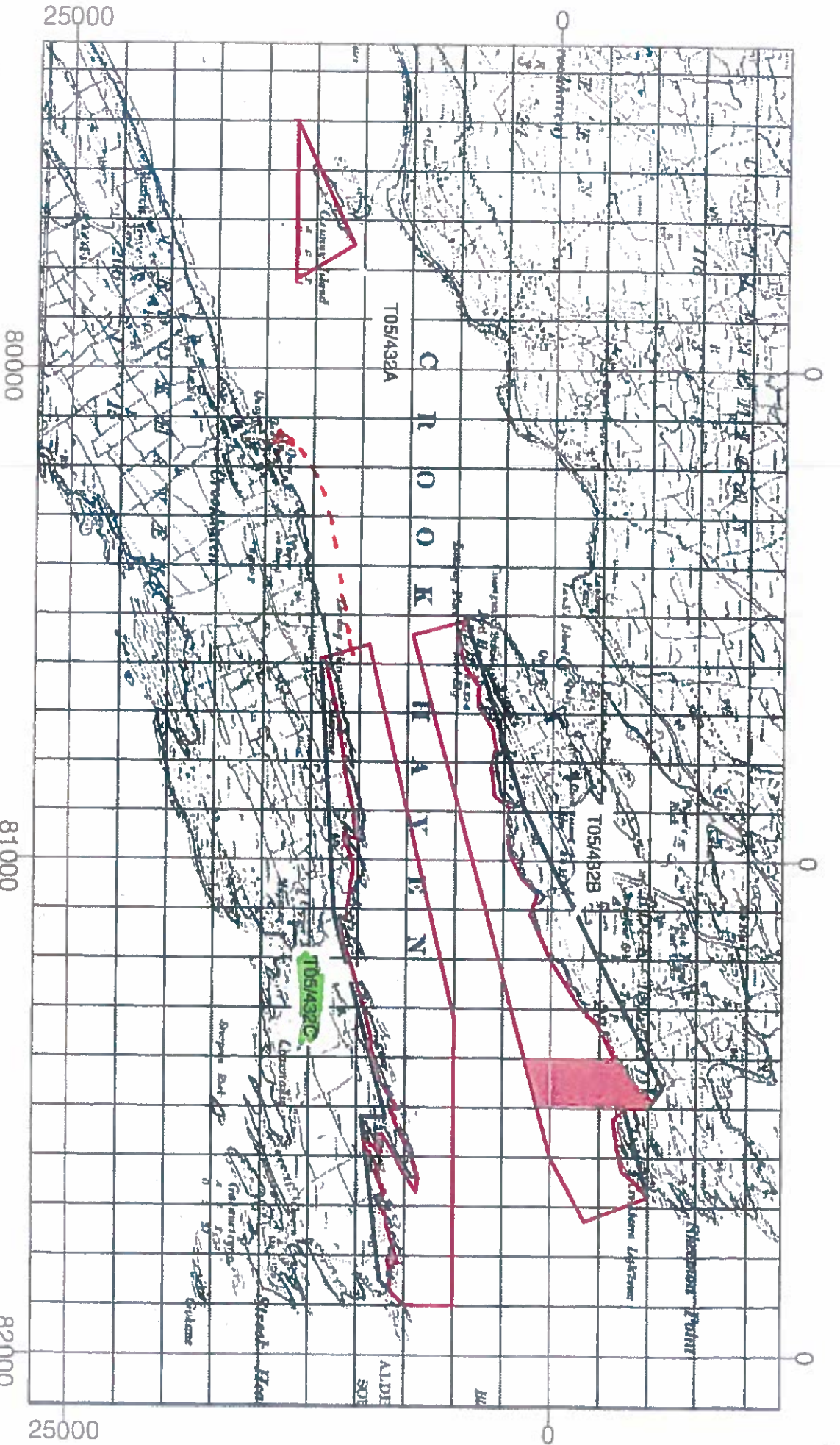
- Site_Status
-  Under Appeal
 -  Application
 -  Lapsed
 -  Licensed
 -  Refused
 -  Revoked
 -  Surrendered
 -  Withdrawn
 - 100 Meter Reference Grid

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Sites highlighted in red denotes Application

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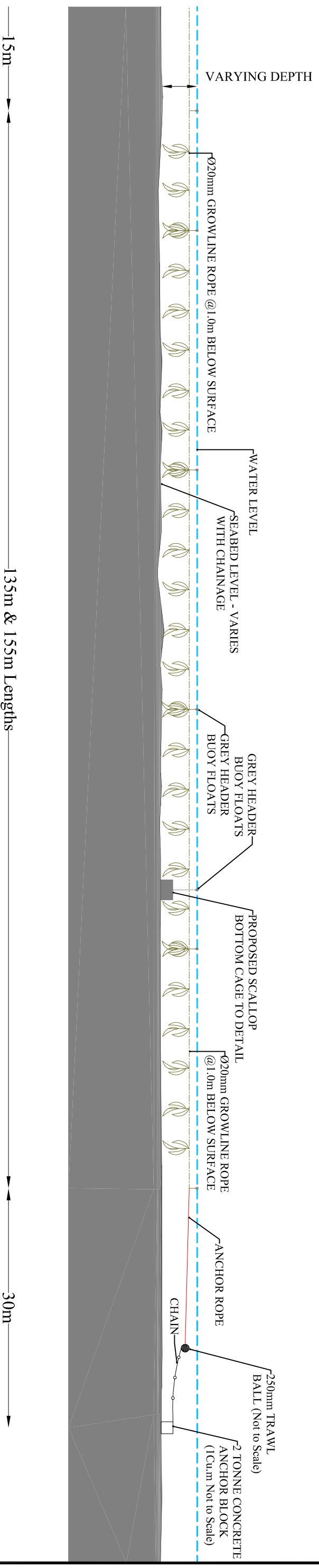




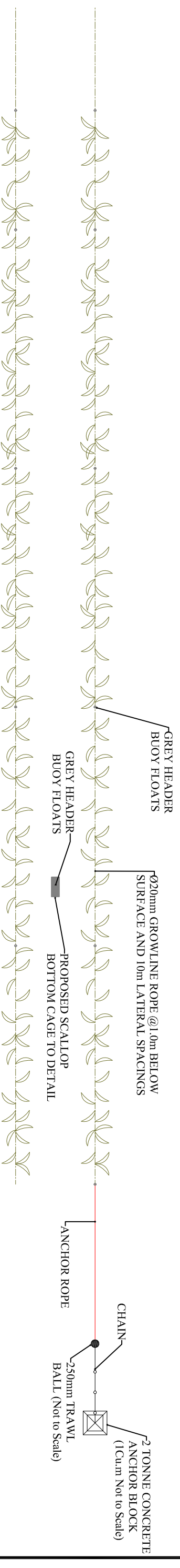
Aqua Culture Sites
 Site Status
 Application
 Application Lapsed
 Application Refused
 Application Renewed
 Application Withdrawn
 License Awarded
 License Revoked
 License Surrendered
 License
 Withdrawn
 Overlaid
 100meter Reference Grid

1:10,560

Site Highlighted in red denotes application
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TYPICAL SCALLOP BOTTOM CAGE SECTION DETAIL
SCALE 1:500



TYPICAL SCALLOP BOTTOM CAGE PLAN DETAIL
SCALE 1:500

VOM Associates
Tel: 028 21552 Mobile 086/8589108
10 Market Street, Skibbereen Co. Cork

Client
Crookhaven Fishermen's Association Ltd.

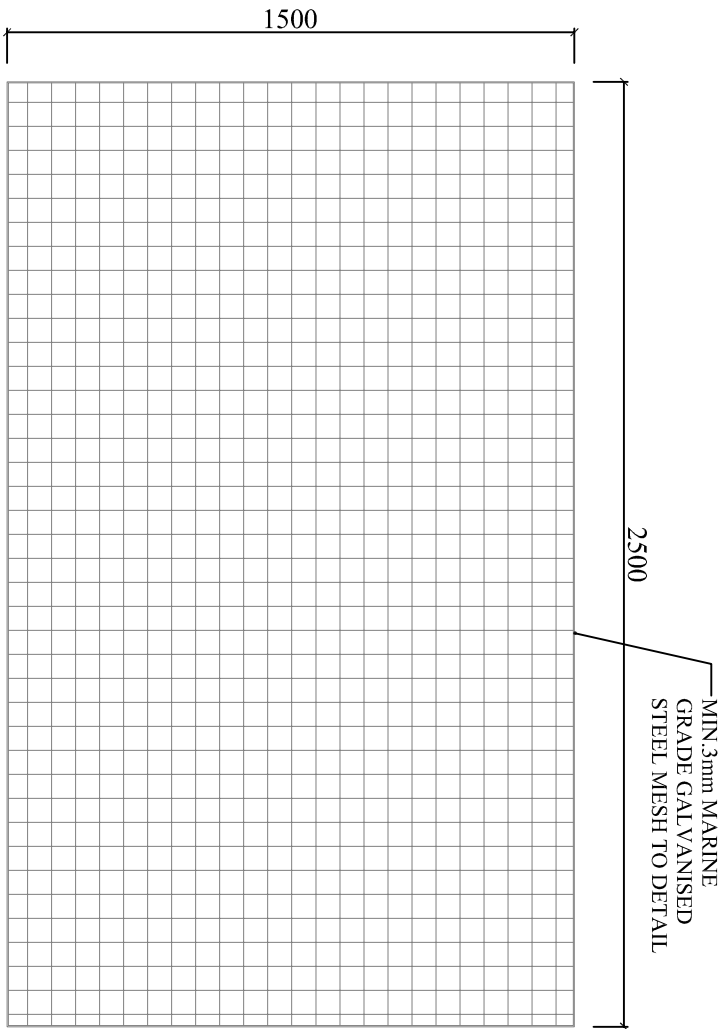
Date February 2019
Scale As Indicated

Project
Proposed Development - Crookhaven

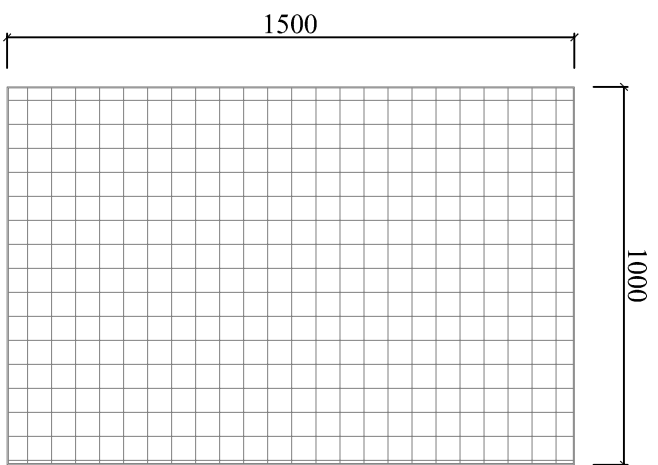
Drawn By: E.O.M.
Checked
Dwg No. 5PC-02
Rev. B

Drawing Title
Float & Scallop Cage Details

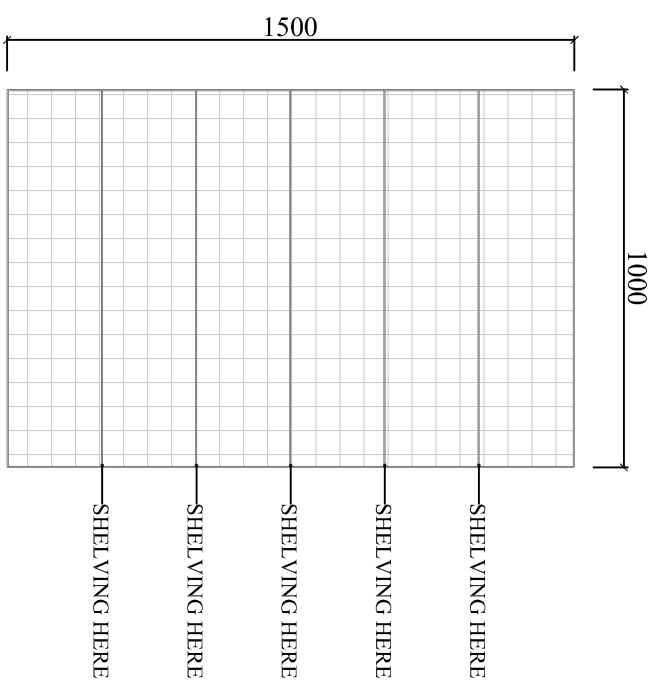
This drawing is for planning application purposes only.
Not to be used as a working drawing for building.



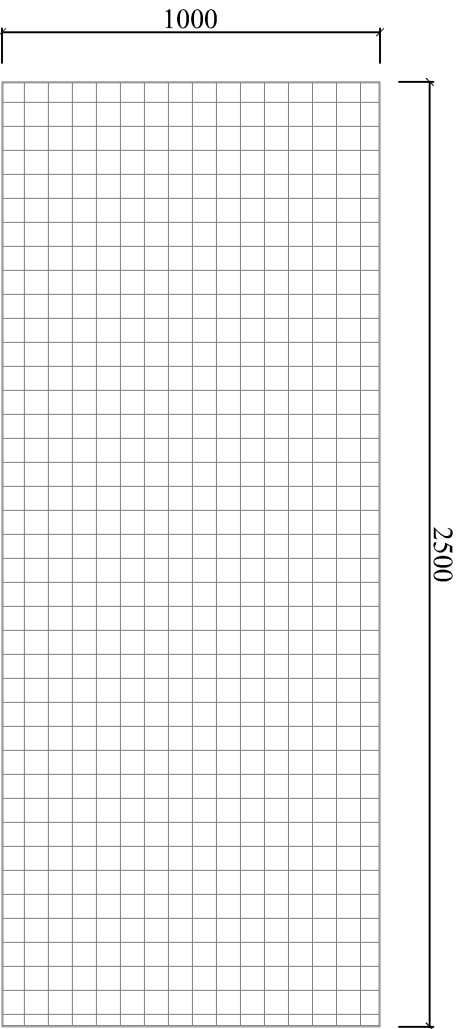
ELEVATION: SCALLOP BOTTOM CAGE
SCALE 1:20



FRONT/REAR ELEVATION: SCALLOP BOTTOM CAGE
SCALE 1:20



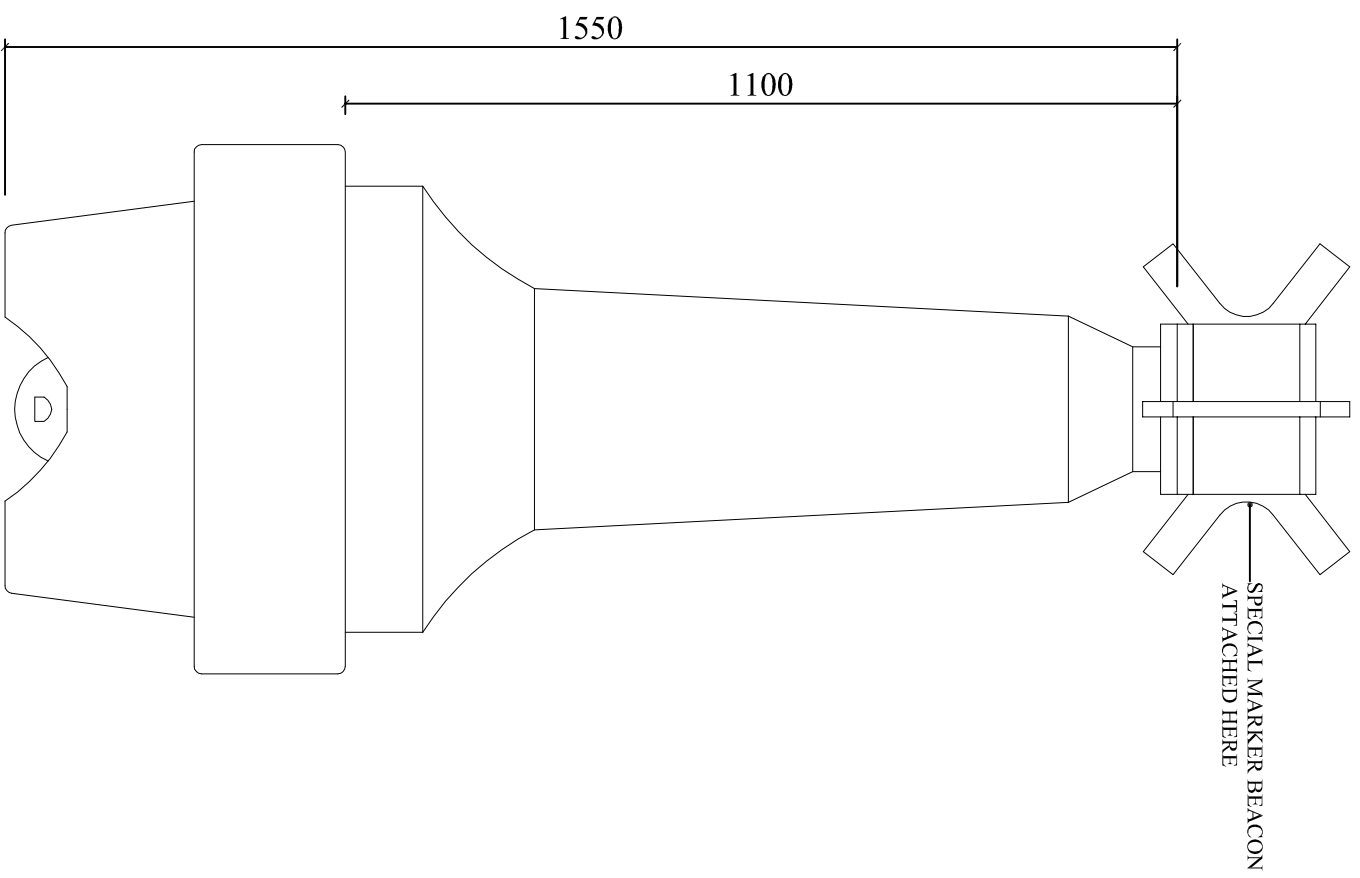
FRONT/REAR ELEVATION: SCALLOP BOTTOM CAGE - ACCESS MESH REMOVED
SCALE 1:20



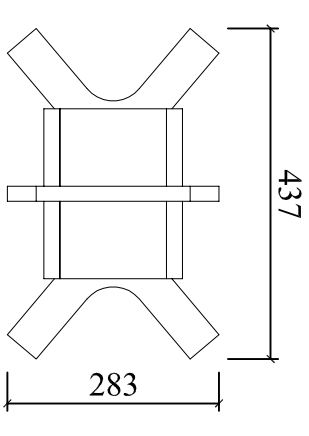
PLAN: SCALLOP BOTTOM CAGE
SCALE 1:20

This drawing is for planning application purposes only.
Not to be used as a working drawing for building.

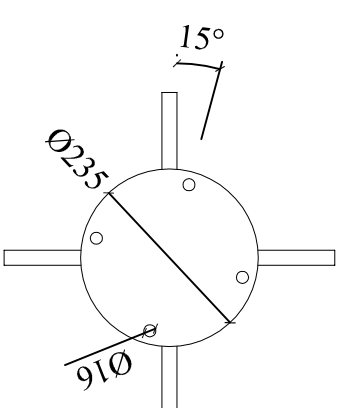
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		Client	Crookhaven Fishermen's Association Ltd.
<p>Drawing Title Typical Scallop Bottom Cage Details</p>		Scale	1:20
		Project	Proposed Development - Crookhaven
<p>Dwg No. 58C-01</p>		Drawn By.	E.O.M.
		Checked	
<p>Rev. B</p>			



ELEVATION: FLOATING MARKER BUOY
SCALE 1:10



ELEVATION: SPECIAL MARKER BEACON
SCALE 1:10



PLAN: SPECIAL MARKER BEACON
SCALE 1:10

Floating Marker Buoy Specification:

- Total Height 1550mm
- Total Weight 65kg
- Diameter 600mm
- Volume 189 Litres
- Focal View 1100mm
- Mooring Ring Diameter 25mm
- Mooring Line and Block Suitable for Location

VOM Associates
Tel: 028 21552 Mobile 086/8589108
10 Market Street, Skibbereen Co. Cork

Client	Crookhaven Fishermen's Association Ltd.	Date	January 2019
Project	Proposed Development - Crookhaven	Scale	1:10
Drawing Title	Marker Buoy Details	Drawn By	E.O.M.
		Checked	
		Dwg No.	CH-01
		Rev.	