Cowan Consultancy
STRUCTURAL, CIVIL AND BUILDING CONSULTANTS

9 & 8 Harbourside, Langstone, Havant, Hampshire, PO9 1TJ

Construction Environmental Management Plan (CEMP) for the construction of the sea defences to the rear of 9 & 8 Harbourside, Havant, PO9 1TJ

On Behalf of: **Mr Robert Carrell**

Cowan Consultancy Ltd
3 Turnberry House
4400 Parkway
Whiteley
Fareham
Hampshire
PO15 7FJ

Telephone: 01489 577488
Fax: 01489 579873

www.cowanconsult.co.uk
consultants@cowanconsult.co.uk

Landguard Manor
Landguard Manor Road
Shanklin
Isle of Wight
PO37 7JB

Telephone: 01983 868497
Fax: 01983 865781

www.cowanconsult.co.uk
iow@cowanconsult.co.uk

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1.0 Introduction

The Construction Environmental Management Plan (CEMP) will detail how the proposed works, both during and after the reconstruction, will avoid, minimise or mitigate effects on ecology and the environment of the site and its surroundings.

It will do this by explaining why a new sea defence is required and by describing the proposed replacement works. It will demonstrate that the environmental and ecological issues applicable to the site have been considered and show that mitigation measures have been included in the method of reconstruction and that enhancement of the ecology has been included in the final design.

2.0 Background

Number 9 Harbourside are detached domestic dwellings. The approximately 50m long back gardens of each property slopes gently down towards Langstone Harbour. There is a small sea wall and concrete apron directly adjacent to the sea of No.9 Harbourside. This joins at No. 8 harbourside, a more formal reinforced concrete sea defence wall. Both sea defence structures are in poor condition and will not provide adequate protection to the properties in the future. Both sea defence structures need to be replaced. Replacement of the existing walls are therefore required to maintain the line of the existing sea defence.

Poor condition of sea defence wall adjacent Number 9 Harbourside (Oct 2024)

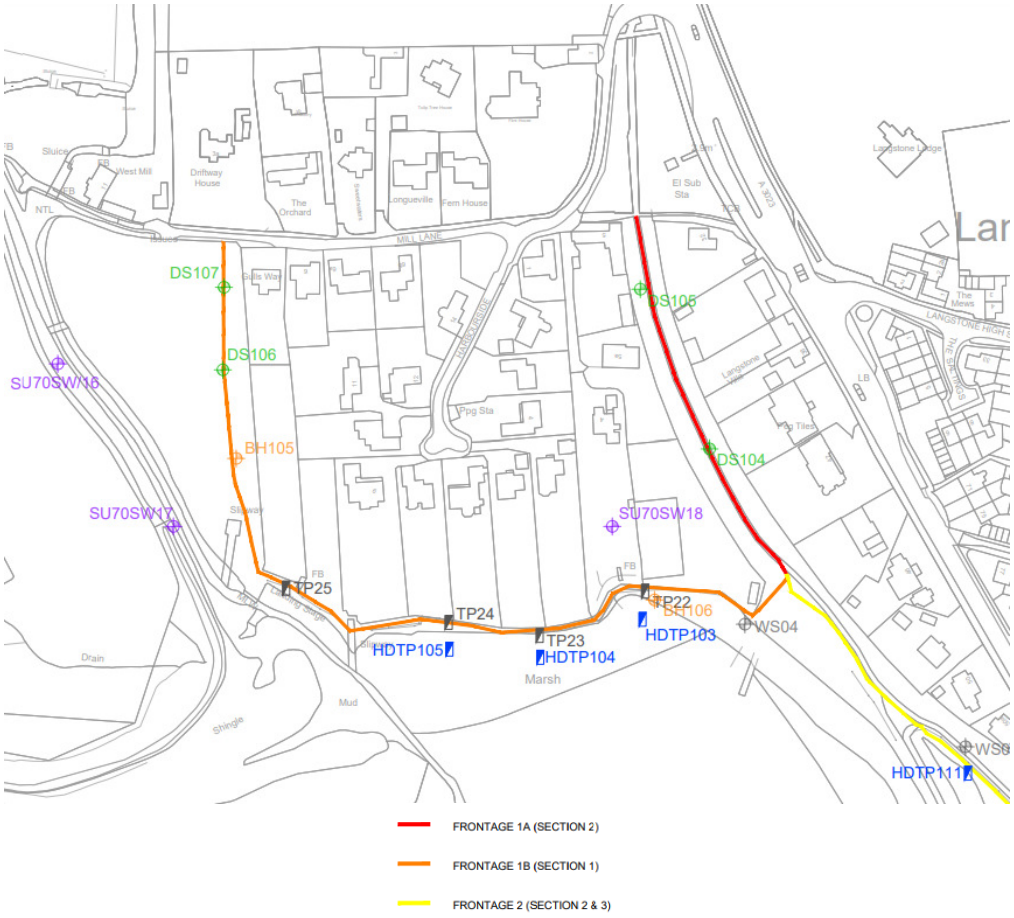
Poor condition of sea defence wall adjacent Number 8 Harbourside (Oct 2024)

3.0 Scope of work and project description

The purpose of the works is to provide a replacement sea defence wall along the approximately 30m long rear boundary to No.9 and 8 Harbourside. This will remove the existing defunct sea defences and replace them.

A sheet piled and reinforced concrete sea wall was chosen as the Aecom Langstone Flood and Coastal Erosion Management scheme suggested this type of wall as the best solution in this specific location. The solution has good qualities for a sea defence and is a suitable construction technique for the site-specific available access and storage of materials.

Details of the proposed replacement sea defence wall is shown on the drawings appended to this report. The wall is to be formed by installing sheet piles at the foot of the proposed concrete apron/reinforced concrete sea defence/retaining wall. The crest level of the new sea wall will be as proposed in the above noted scheme and set at 4.000m AOD. The general area of the works is shown in the extract below:



Proposed works plan shoing proposed works at No.9 and 8 Harbourside from the Aecom Langstone Flood and
Coastal Erosion Management Scheme report

4.0 Working methods

4.1 Site limits / Site Compound and Storage

This section details the general arrangement for the site compound and working area, the storage of materials, access to the site and the method in which the works will be undertaken.

The site will comprise the rear portion of the garden to 9 Harbourside and the approximate 30m width of beach adjoining the existing wall along the rear boundary.

The site compound and store will be just off of Mill Land approximately 150m from the rear garden to No. 9 Harbourside.

Materials delivered to site will comprise the sheet piles, 6F5 crushed concrete to construct temporary hardstandings.

Measures to avoid pollution incidents during construction in accordance with current best practice guidelines including the provision of spill kits and the appropriate storage of materials and machinery away from the watercourse. No storage of materials will be allowed adjacent to the Langstone Harbour SAC, SPA, SSSI and Ramsar site.

Fuel for the machinery will be stored in a bunded area within the works compound / hardstanding area adjacent to Mill Lane at some 50m distance from Langstone Harbour, and all refuelling will take place in this area. Machinery to be parked in this area outside working hours to reduce the risk from any leakage while unattended.

In the unlikely event that any soil is contaminated by oil it will be carefully excavated and removed from site for appropriate disposal.

To further reduce the possibility of pollution, the contractor should use plant nappies wherever they are appropriate. These can capture contaminants from static equipment such as generators and compressors and provide a safe location for refuelling small plant.

4.2 Site Access

The plant used in the construction will be a 16T excavator with Movax side grip hammer, to install sheet piles, and a 5T dumper to move material as required. Works vehicular access will by via the rear garden of No.9 Harbourside. At the start and end of the working days, and as dictated by tides, the dumper will track back to the site compound. Works will be undertaken from garden side of the new wall and no machinery to operate on the foreshore.

4.3 Schedule of works

The following is a schedule of proposed works for the installation of the new sea defence wall:

- Existing scattered debris in all work areas are to be carefully collected by hand.
- Construct Hardstanding/ turning area/ compound/ enlarge entrance South of Mill Lane, area 20.00m x 25.00m. Excavate to reduce levels approx. 300mm and cart top soil to temporary bund and seal. Provide geogrid 30/30 and multitrack 1000 geotextile to formation. Import 6F5 crushed concrete and level/ compact to form compound area.
- Set up site welfare and site toilet in compound
- Diesel to be stored in the site compound in a bunded tank with spill kit.

<u>Sheet Piling</u>

- To provide pollution control to ensure that no pollution (such as debris from dust or surface run off, as well as chemicals or fuel) is able to enter the estuary, a fibre matting barrier (Frog Environmental FlocMat or similar approved) along the seaward edge of the works will be installed prior to any demolition or removal of material in the area of the foreshore.
- Construct Piling platform on the shore, garden side of the existing concrete apron where present, ready for sheet piling works, excavate to reduce levels/ regulate existing ground and provide geotextile to formation. Import 6F5 crushed concrete to form stable working platform. Area 31.00m x 4.00m x 0.3m. Reinstate on completion of piling works.
- Off load 4m sheet piles with 16 ton excavator from Mill Lane, sheets to be delivered on small rigid trucks due to site access.
- Store sheet piles in site compound ready for use.
- Install VL603 4m sheet piles from the shore side working platform with a 16 ton excavator and a Movax side grip hammer.

<u>Earthworks</u>

- Install filter drain from CH0.0 to CH145.00. Excavate 450mm wide trench and place 150mm land drain in non woven geotextile. 80/40 reject stone fill to 450mm deep.
- Excavate to strip top soil from chainage 0 to 145 average width 7.6m not exceeding 300mm.
- Supply and lay non woven multitrack 1000 geotextile to formation. Cart top soil to temporary bund and seal.
- Import clay to form section profiles 1 to 8. Load and cart bunded top soil and spread over clay bund.
- All personnel and supervisor to be adequately qualified and carry the appropriate cscs card.
- Duration of job to be set by agreed programs
- Labour levels to be adequate to achieve given target dates

Working Hours:

- Working Hours will be 08:00hrs – 16.30hrs Monday to Friday,

Work Sequencing:

1. Pre-Start Documentation Assessment
2. Pre-Start Meeting
3. Provision of Competency Proof
4. Induction – All Personnel are to report to the site manager for an Induction
5. RAMS Briefing – Key aspects of all works to be explained to all workers by Matt Smith prior to works starting All operatives and subcontractors are to read/understand this and sign acknowledgement of receipt.
6. All works are to be carried out in accordance with the safe system of work established within this document. Where risks arise that are not covered, works must cease, and a point of work risk assessment must be completed by the supervisor or contracts managers.
7. All personnel to be provided with correct ppe and training.
8. Sufficient supervision is provided to ensure job is completed safely.
9. All work areas are to be kept clear and clean Work area will be tided daily
10. All tools to be kept and maintained to a suitable standard.
11. All received Materials will be protected and stored appropriately
12. Manual Handling activities will include localized shifting etc. of drainage pipes etc safe lifting techniques will be employed .

Specific details to note:

- Smoking is not permitted and this includes the use of electronic/vape style cigarettes.
- The use of iPods, MP3 players, earbuds/headphones and radios etc. is forbidden at any time whilst undertaking works. They may only be used during specified break periods, in designated safe areas.
- All minimum site protective equipment to be worn at all times; or as specified in the risk assessment and method statement.
  The safe operating capacity of any machine must not be exceeded, where in doubt – seek the advice of the site management.
- All vehicles/deliveries to access site via Mill Lane
- Deliveries will be coordinated by the site manager

5.0 Ecology

An Ecological Appraisal is to be undertaken for the site as its immediate surrounds may support nesting birds, foraging waterbirds, reptiles and small mammals. Report findings will need to be considered once produced.

5.1 Designated Sites

A desk study confirmed that the site coincides with the following statutory designated sites;
• Chichester and Langstone Harbours are Special Protection Area (SPA) and Special Areas of Conservation (SACs) which is designated for its breeding and wintering bird populations.
• Langstone Harbour Site of Special Scientific Interest (SSSI), the Harbour is host to a diverse range of habitats, including intertidal mudflats, Seagrass meadows, and Atlantic saltmarsh. These habitats provide feeding grounds and refuge for internationally important assemblages of wildfowl and wading birds, perfect conditions for a Bass nursery, and even a haul out site for a small colony of Harbour Seals.

5.2 Threats to Ecological Receptors

The potential impacts of the construction works on ecological receptors are listed below:
• The killing or injury of animals during site clearance operations
• The loss of habitats that animals use for feeding, refuge or breeding
• Disturbance to foraging or roosting waterbirds during winter
• Pollution incidents that may impact on coastal habitats

Some of the above impacts could be detrimental to the interest features of the designated sites.

5.3 Avoidance and Mitigation Measures

The following working methods are proposed to avoid, reduce or mitigate the potential impacts on ecological receptors. Any recommendations within the Arboriculture Development Statement should also be followed.

5.4 Timing of works

All works will be undertaken between April and September to avoid any impacts on wintering or migratory wildfowl and waders and the site clearance operations will be timed to avoid the reptile hibernation period, which is typically between November and March, inclusive. The works will be restricted to daylight hours to avoid the use of external lighting to prevent unnecessary disturbance to nocturnal and crepuscular species such as bats.

Any changes to the proposed work schedule will be agreed with the Local Planning Authority prior to commencement.

5.5 Project Set Up

All personnel involved in the construction works will be briefed on the ecological mitigation strategy and relevant wildlife legislation. Zones for the piling of soil, storage of materials and machinery associated with the project will be clearly defined. Fuel, oil and other chemicals will be stored in appropriate containers that are impervious to the material being stored. Leaking and empty containers will be removed from the site immediately.

5.6 Working Methods

Prior to the engineering works beginning, all vegetation will be removed using hand tools under the supervision of an ecologist, who will check for the presence of nesting birds, small mammals, reptiles and invertebrates. If Schedule 1 birds are found nesting, then works will be delayed until the young have dispersed.

The vegetation will be cut back to around 5 cm using hand tools and the site left overnight for any animals using crevices in the soil to move away from the area of works. The arisings will be removed from the site to prevent animals from using them as a refuge. Any animals that are found during the works will be moved to a safe location away from the area of works. A suitable recipient area is scrub further along the coast to the south. Both of these areas provide corridors to suitable habitat off site.

5.7 Control of pollution to adjacent habitats

Due to the nature of the work, pollution incidents are extremely unlikely. Small amounts of dust may be emitted during the removal of existing concrete and piling exercise. There are no statutory or guidance limits for the deposition of dust on vegetation and ecosystems although draft guidance from the Highways Agency suggests that some sensitive species appear to be affected by levels above 1,000 mg/m2/day. Dust emitted through construction processes will be kept to a minimum by a number of methods, including: using water as a dust suppressant during dry weather and removing and debris/loose material before construction begins.

Machinery and materials for construction will be stored as far away from aquatic habitats as possible and no machinery will be refuelled on site, the storage area as noted earlier will be used for these items.

The construction methodology will ensure that there will be no pollution of the inter-tidal habitats from the deposition of silt/dust or other pollutants.

5.8 Roles and responsibilities

Ecology Clerk of Works (ECoW)

Prior to the start of site clearance an ECoW will be appointed. The ECoW will take responsibility for advising the relevant persons about ecological issues, and ensuring the measures specified within this document are implemented correctly and in line with best practice. The ECoW will also be responsible for planning and reacting to incidents as they occur. ECoW responsibilities include:
• Thoroughly understanding the ecological issues and best practice methods relevant to the project;

• Fulfilling the requirement of this CEMP.

• Advising on the location of sensitive ecological features and the type of protection or mitigation required.

• Supervising and monitoring the implementation and maintenance of protective or mitigation measures to ensure legal compliance and safeguard sensitive ecological receptors.

• Liaising with and reporting to the construction project manager, site personnel and contractors and the Eastleigh Borough Council about ecological issues.

• Educating relevant personnel (principally site staff and contractors) about ecologically sensitive features, legal obligations, best practice, and procedures.

• Ensuring that this CEMP is updated/ revised according to new information.

Contractors

Key to the successful delivery of the measures set out in this CEMP will be the collaboration of all project personnel, especially those involved in site clearance and construction activities. The CEMP will be distributed to key representatives of construction personnel, ideally as part of site induction, including the project management team and all appointed contractors and sub-contractors. The contractors' responsibilities will include the following:
• Adhering to the relevant provisions made within this Plan and complying with the advice of the ECoW.

• Ensuring that protective measures described are maintained for the required duration and understood by all site personnel.

• Contacting the ECoW regarding any uncertainties or activities that may impact on ecological features.

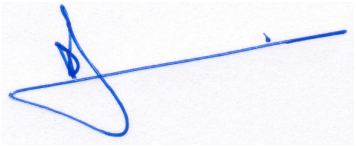
6.0 Summary and Conclusions

Despite the numerous statutory designated sites that are coincident with the area of works, the Ecological Appraisal has concluded that the works will have no significant impact on designated sites, that there are no Habitats of Principal Importance and that the adjacent habitats will experience only temporary disturbance during the works.

The pre-works ecological survey will check for nesting birds and arrange for relocation of stag beetles, small mammals and reptiles if found. If there are nesting or protected birds, the works will be deferred until they have gone.

Overall the scheme will enhance the coastal protection to No 9 Harbourside and provide beneficial effect to the local wildlife, whilst causing only temporary disturbance during construction.

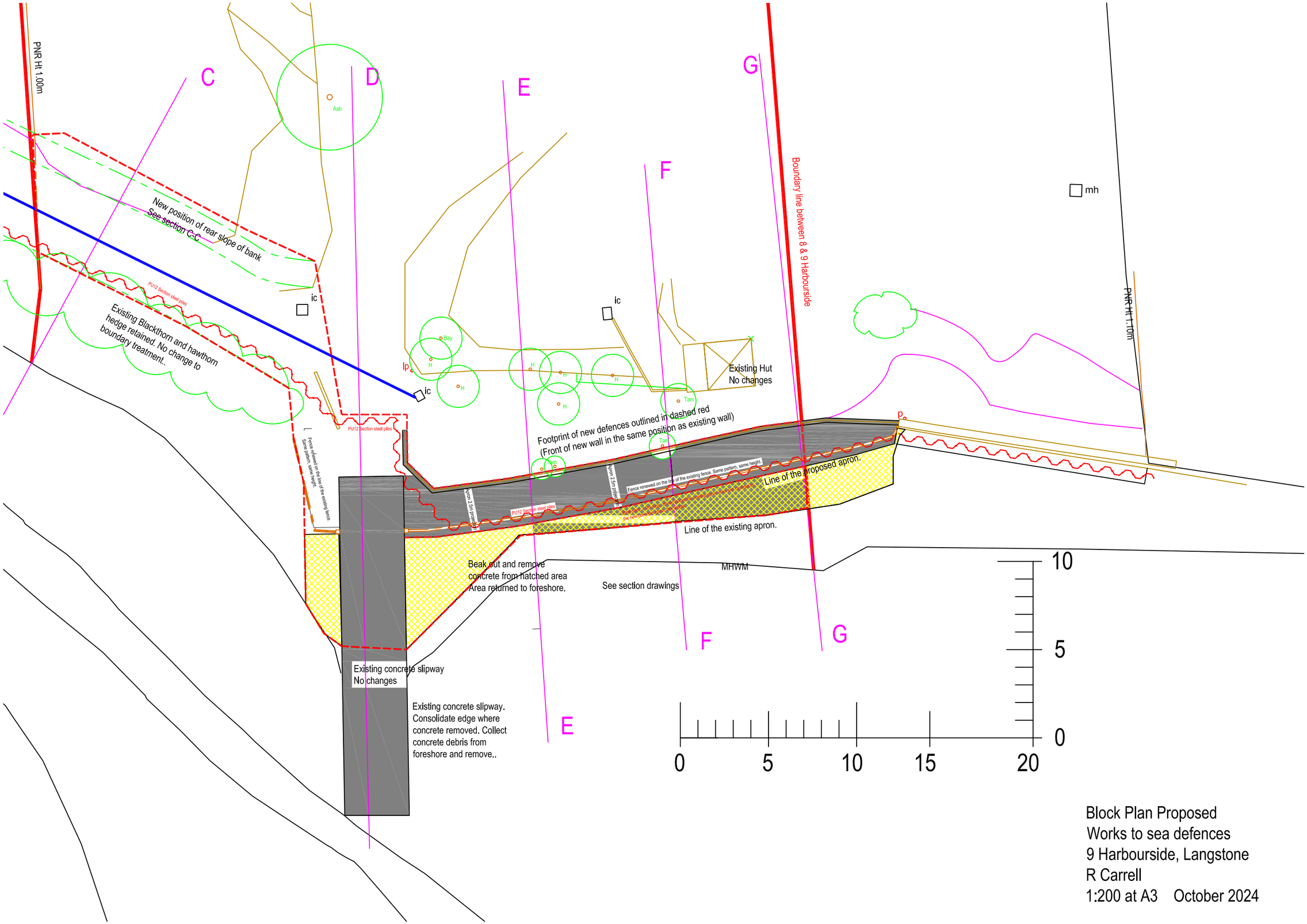
Yours sincerely



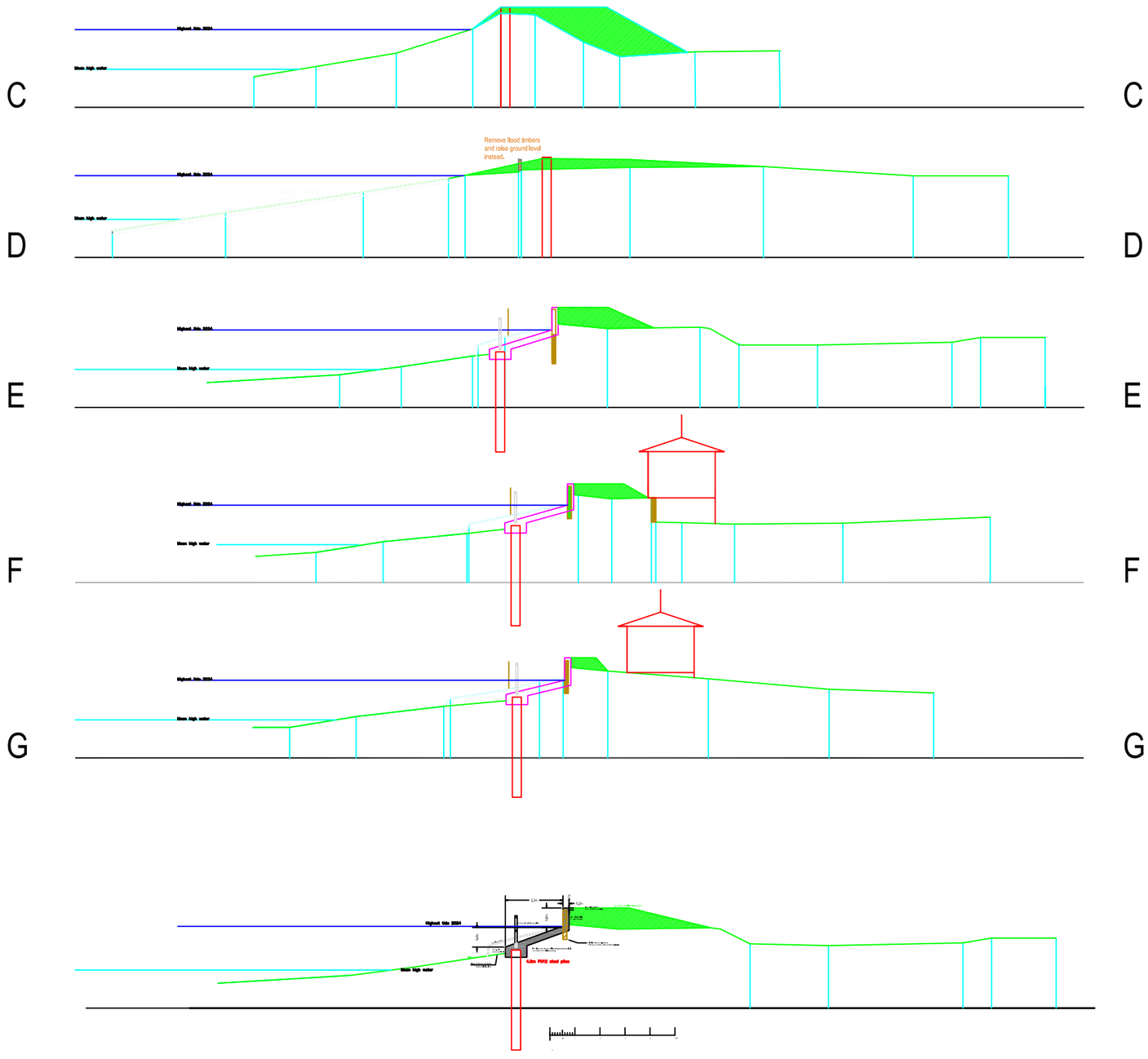
ELVIN GOMERY B.Eng (Hons) MICE
For and on behalf of Cowan Consultancy Ltd.

DAVID BUTTON BSc (Hons) CEng

Appendix 1



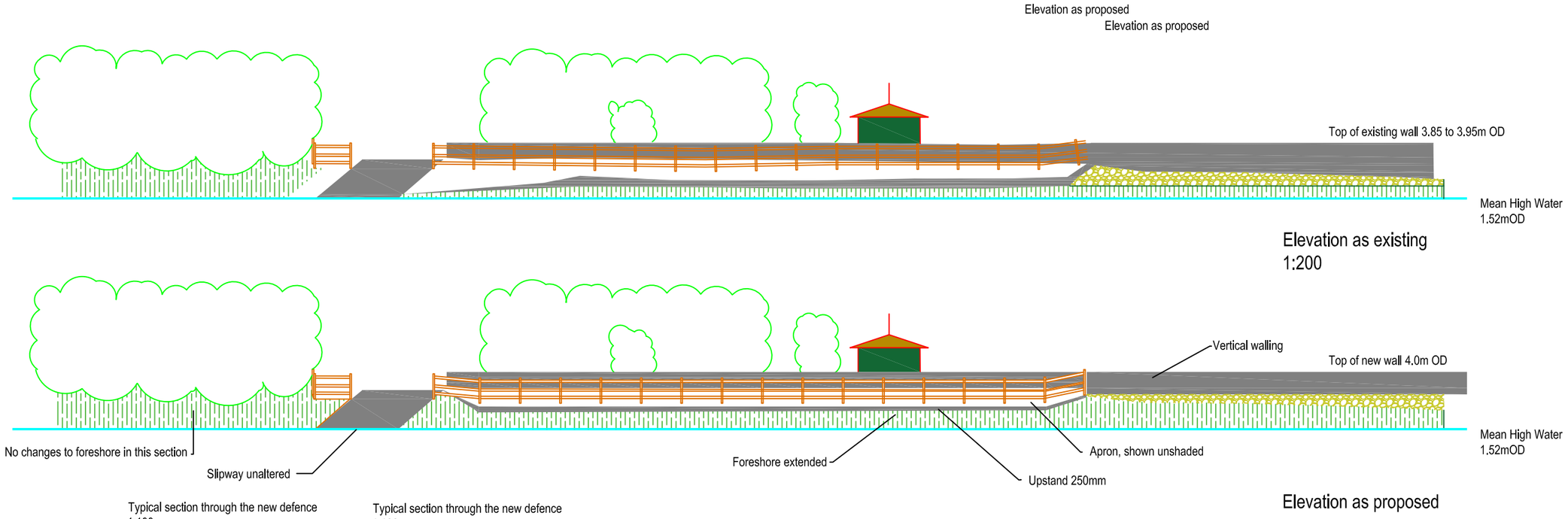
Block Plan Proposed
Works to sea defences
9 Harbourside, Langstone
R Carrell
1:200 at A3 October 2024

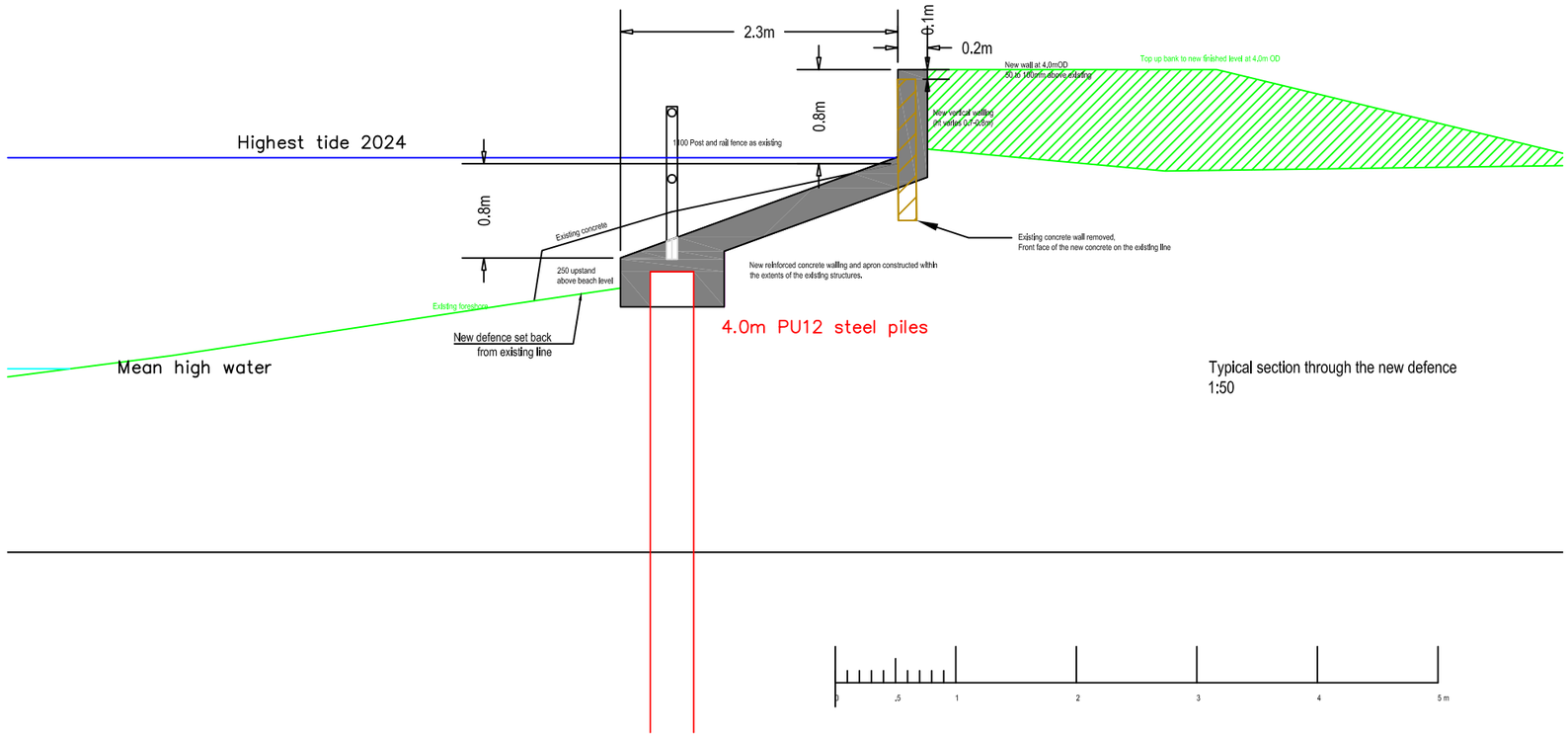


Sections through seawall

Works to sea defences
9 Harbourside, Langstone
R Carrell

October 2024
1:200 at A3

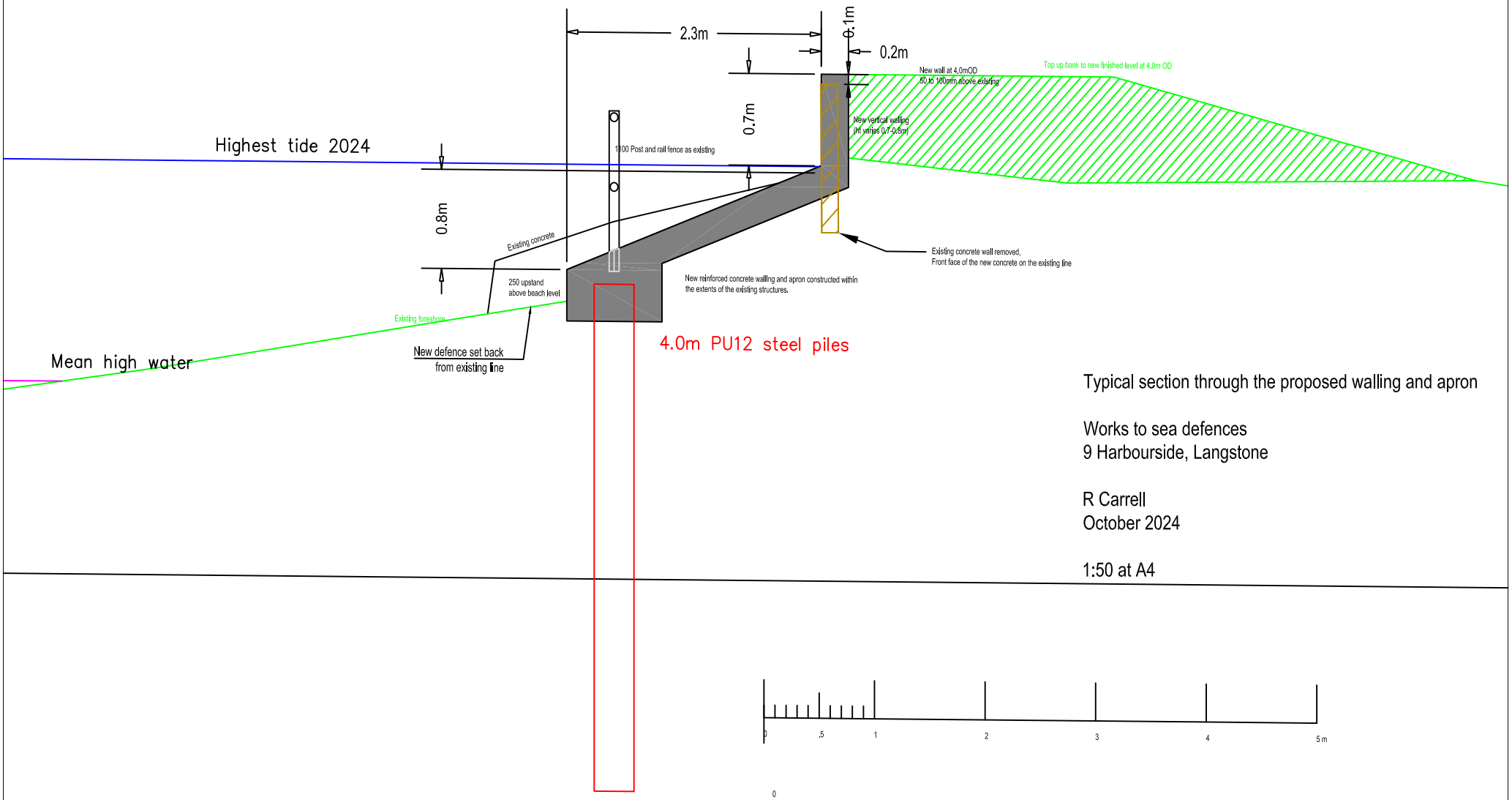




Elevations and Typical Section

Works to sea defences
9 Harbourside
Langstone

R Carrell
October 2024



Typical section through the proposed walling and apron

Works to sea defences
9 Harbourside, Langstone

R Carrell
October 2024

1:50 at A4