

Q1 - CONSTRUCTION SEQUENCE STATEMENT

Introduction

The purpose of the works is to stabilise the existing concrete sheet pile wall along Commercial Road at the south-west corner of Findochty Harbour. The issue was identified during a repair which was being completed to the road behind the wall.

Our Offer is based on construction of a rock armour buttress to the face of the existing piles, as described in more detail elsewhere in our Tender Submission, and as issued by Moray Council as part of the Tender documentation.

Outline Sequence of Operations and Extent of Works

- Mobilise to site
- Protect members of the public (pedestrians, vehicle, and harbour users) by excluding from the Works & compound areas
- Import crushed stone to form temporary access to beach level.
- Create access track and infill undermined hole from beach side.
- Install geotextiles, perforated pipes, and place and compact 6N stone.
- Place secondary and primary armour stone.
- Remove temporary access materials and clear site.

Pre-Mobilisation

As can be noted on our Programme (submitted as response to Technical Question no. 3), following Contract Award, we will prepare and submit Health, Safety and Environmental documentation to The Moray Council (TMC) for acceptance. At the same time, we will formally issue our Design for the Works to Moray Council for approval and prepare and submit the application for Marine License. Once we have received formal acceptance of our proposal, both by Moray Council and Marine Scotland, mobilisation of the required resources would get underway.

Setting up site

We will set up our temporary site compound, vehicle parking, and storage on Commercial Street, exact location to be agreed with Moray Council, but to be situated to minimise disruption to the community. We will delineate our compound area, using Security fencing, and road cones and barriers will be used to exclude pedestrians and vehicles from both the compound area and our planned access point to the temporary access track (see **Methodology Plan** in Appendix A).

Construction Works

Our **Methodology Plan** (App. A) shows our planned approach to installation of the armoured slope.

Our operational personnel would consist of:

- 1 Nr General Foreman, with 2 Nr General operatives, visiting Engineer as required
- 1 Nr 12Te wheeled excavator & 1 Nr 14Te tracked excavator
- 1 nr 9Te forward tipping dumper with 1 nr ride on double drum roller

Initially, we would protect the existing road surface using hardwood timbers or similar to create a durable point, located at the start of the temporary access track, to unload imported rock material. This material would be then loaded using the wheeled excavator and placed by the tracked excavator over the existing stone revetment and onto the beach

to create a temporary access track. This temporary track would continue to be pushed out and along towards the Works area, at which point the beach formation can be graded and import of 6N can start.

On reaching the undermined hole, we would fill the area with 6N and install the perforated drainage pipes (MDPE pipe rather than uPVC, for strength) and geotextile, thereby allowing water flow to continue. Filling with 6N would continue until the point that the secondary and primary armour could start. The armour slope would be placed as soon as possible to protect the secondary armour and 6N fill from losses due to wave and tidal action.

Importing of 6N/Secondary/primary armour material would continue until the required profile and extent was reached.

The temporary access track will then be removed, again using 2 Nr excavators, and removed from site by road lorries, allowing us to remove our temporary fencing, compound and welfare unit and demobilise from site.

Key Challenges

Working in Tidal Conditions

As noted in our Tender Clarification document, we would schedule the works around Spring tides that occur during the day, thereby minimising disturbance and night noise nuisance to residents. Initially we would work tidally, one **dayshift** per day, to install the temporary access track. We would install this track from existing road level down to a finished level of approximately MHWN, which would then allow us to maximise the amount of time we were able to work per tidal day shift.

The slope toe would have to be installed at a low Spring tide, and we would then install the lower primary and secondary armour (i.e., nearest the slope toe) up to the first bench level, which is approximately at MHWN. Once this is achieved, and as tides move into Neep tides, we will work normal day shifts as all the works will be above High Neep tide level.

Removal of the temporary access track would revert to working a low tide **dayshift**, again to minimise nuisance to the community.

Poor Condition of Existing Area

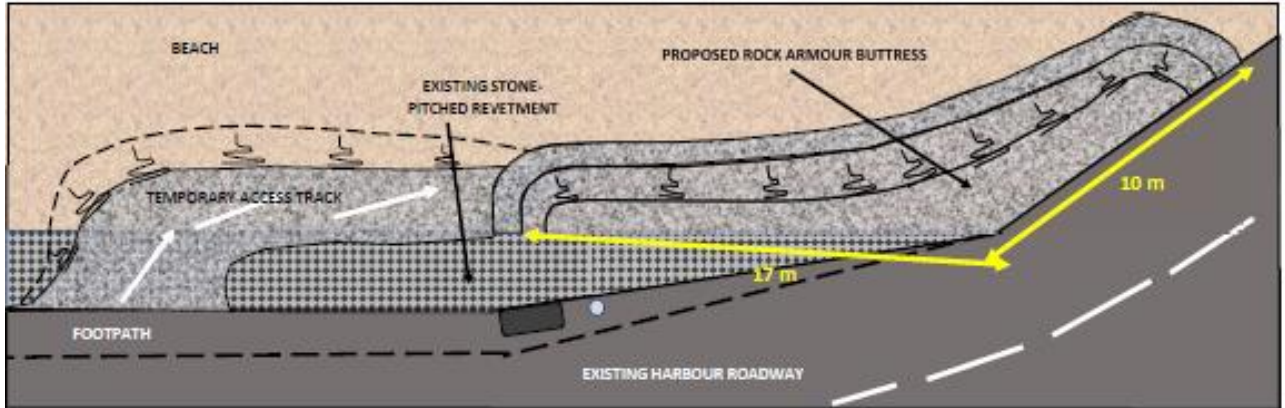
Our solution and planned method of installation does not impose any additional loading on the existing wall or road. As we are constructing all works from the seaward side, and not carrying out any intrusive excavation works from the roadside, we will not impose further loading on the Commercial Street side.

Working in Proximity to the Public Road

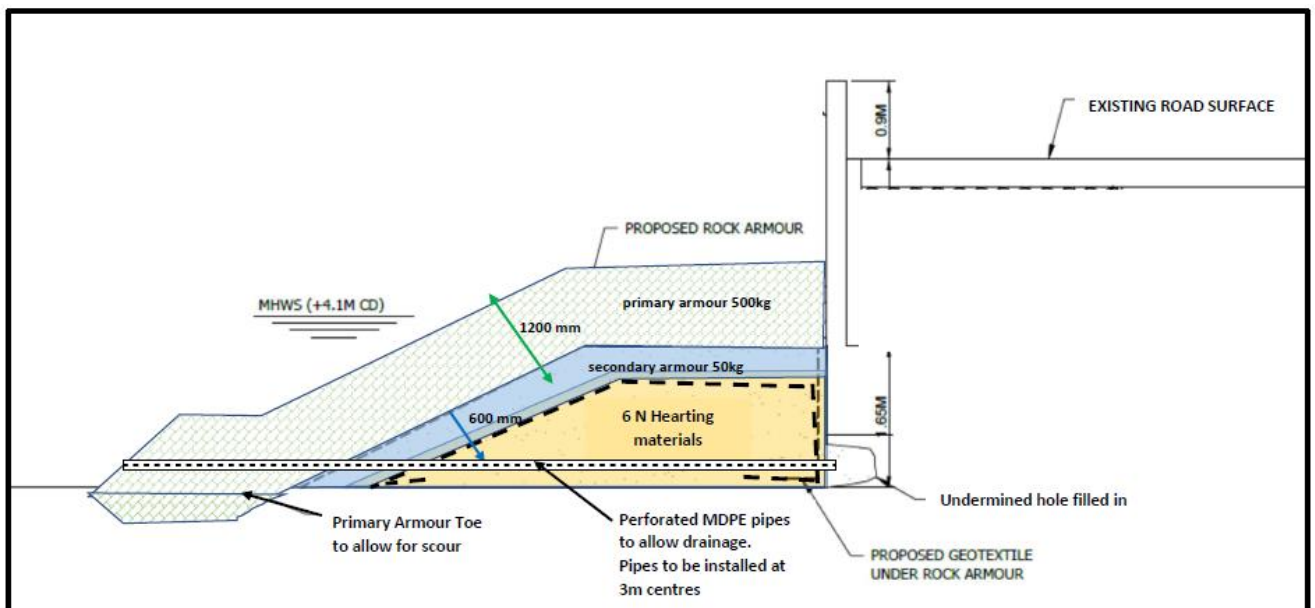
As noted above, we will create both a secured compound and material tipping/loading area to allow import/export of the required quarry materials. We anticipate that this will be located on Commercial Street, on the section that runs from the White Statue in a NW direction. There are alternative ways to access the properties on this section of Commercial Street and traffic can be diverted around Jubilee Terrace. We will use Heras or similar fencing, with cones, barriers, and signage to clearly direct pedestrians and vehicles away from the Compound and the Works. As we anticipate the Works taking 4 weeks or thereby, this should not cause significant disruption to the community. In advance of mobilising to site, we will work with the Moray Council to install relevant early warning signage and provide information about the Works to the community, to mitigate complaints.

APPENDIX TO Q1

SKETCHES



METHODOLOGY PLAN



PROPOSED SECTION