

# Bill of Quantities for Stephenstown Infrastructure Site Investigation (FCC307-26)

Project Number: 22\_176

Revision: P01

Prepared By: MCF

Issued Date: 11.08.2026

Revised By: DRL



| Code                      | Item Description                                                                                                                                                                                                                                                                                                                                                      | Unit            | Quantity | Rate (€) | Amount (€) |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|----------|------------|
| <b>A</b>                  | <b>General Items and Provisional Services</b>                                                                                                                                                                                                                                                                                                                         |                 |          |          |            |
| A1                        | Offices and stores for the Contractor                                                                                                                                                                                                                                                                                                                                 | sum             | 1        |          |            |
| A2.2                      | Establish on site rotary drilling plant and equipment for a Green Category site                                                                                                                                                                                                                                                                                       | sum             | 1        |          |            |
| A2.4                      | Establish on site trial pitting and trenching plant and equipment for a Green Category site                                                                                                                                                                                                                                                                           | sum             | 1        |          |            |
| A2.7                      | Establish on site dynamic sampling and probing plant and equipment for a Green Category site                                                                                                                                                                                                                                                                          | sum             | 1        |          |            |
| A6                        | Appropriate storage, transport and off-site provisional disposal of excess contaminated arisings from borehole, trial pit or slit trench to EPA regulated landfill site (includes any PPE equipment but excludes laboratory testing on suspected contaminated materials). Note Item to be re-measured with delivery dockets and records maintained by the Contractor. | provisional sum | 1        |          |            |
| A6.1                      | Contractor's uplift on Item A6                                                                                                                                                                                                                                                                                                                                        | % Uplift        | 5%       |          |            |
| A7.2                      | Provide Engineer/Geologist (as per Item 2.3 of Specification)                                                                                                                                                                                                                                                                                                         | p.day           | 10       |          |            |
| A8                        | Set out the location at each exploratory hole or point                                                                                                                                                                                                                                                                                                                | nr              | 65       |          |            |
| A8.1                      | Establish the location and elevation (X, Y, Z) of the ground at each 'as-built' exploratory hole or point. Contractor rate to also include 'as-built' information regarding exiting services, manholes invert levels and existing wall foundations, as detail on contract drawings.                                                                                   | nr              | 65       |          |            |
| A9                        | Preparation of Health and Safety documentation and Safety Risk Assessment                                                                                                                                                                                                                                                                                             | sum             | 1        |          |            |
| A15                       | Traffic safety and management to include preparation of traffic management (TM) drawings for investigations on roads or pavement areas                                                                                                                                                                                                                                | provisional sum | 1        |          |            |
| A16                       | Provision of road opening licences and road damages bond                                                                                                                                                                                                                                                                                                              | provisional sum | 1        |          |            |
| A17                       | Contractors Uplift on items A15 and A16                                                                                                                                                                                                                                                                                                                               | % Uplift        | 5%       |          |            |
| A19                       | One master copy of Ground Investigation Report (Factual)                                                                                                                                                                                                                                                                                                              | sum             | 1        |          |            |
| A19.2                     | Electronic Copy of Ground Investigation Report                                                                                                                                                                                                                                                                                                                        | sum             | 1        |          |            |
| A21.2                     | Electronic copy of Geotechnical Interpretative Report                                                                                                                                                                                                                                                                                                                 | sum             | 1        |          |            |
| A24                       | Digital copy of trial pit, slit trench or core photographs                                                                                                                                                                                                                                                                                                            | nr              | 65       |          |            |
| A26                       | Storage of core boxes following completion of fieldworks                                                                                                                                                                                                                                                                                                              | wk              | 2        |          |            |
| A28                       | Provision of Insurances                                                                                                                                                                                                                                                                                                                                               | sum             | 1        |          |            |
| A30                       | Perform the role of PSCS                                                                                                                                                                                                                                                                                                                                              | sum             | 1        |          |            |
| A31                       | Contractor liaison with external bodies to obtain road opening licence, foreshore licence for marine investigations etc. (specify)                                                                                                                                                                                                                                    | sum             | 1        |          |            |
| A32                       | Contractor shall provide, prior to commencement of the works, a method statement detailing how the works will be carried out. this method statement will be review by the employer's representative and once agreed / approved it will be used to support the licence application to the department of housing, local government and heritage.                        | sum             | 1        |          |            |
| <b>Subtotal Section A</b> |                                                                                                                                                                                                                                                                                                                                                                       |                 |          |          |            |
| <b>B</b>                  | <b>Percussion boring and dynamic sampling</b>                                                                                                                                                                                                                                                                                                                         |                 |          |          |            |
| B                         | <b>Percussion boring and dynamic sampling</b>                                                                                                                                                                                                                                                                                                                         |                 |          |          |            |
| B1                        | Move boring plant and equipment to the site of each exploratory hole and set up                                                                                                                                                                                                                                                                                       | nr              | 25       |          |            |
| B3                        | Hand digging and CAT scan at borehole location to confirm absence of utility ducts (maximum depth of 1.20m or lesser if ground is assessed as potentially unstable)                                                                                                                                                                                                   | nr              | 25       |          |            |
| B4                        | Advance borehole between existing ground level and 10 m depth                                                                                                                                                                                                                                                                                                         | m               | 250      |          |            |
| B9                        | Advance borehole through hard stratum or obstruction                                                                                                                                                                                                                                                                                                                  | h               | 5        |          |            |
| B11                       | Backfill borehole with cement/bentonite grout or bentonite pellets (where standpipe or piezometer is not installed)                                                                                                                                                                                                                                                   | m3              | 20       |          |            |
| B12                       | Standing time for borehole plant, equipment and crew                                                                                                                                                                                                                                                                                                                  | hr              | 25       |          |            |
| B24                       | Reinstatement of grass areas                                                                                                                                                                                                                                                                                                                                          | m2              | 5        |          |            |
| <b>Subtotal Section B</b> |                                                                                                                                                                                                                                                                                                                                                                       |                 |          |          |            |
| <b>C</b>                  | <b>Rotary boring</b>                                                                                                                                                                                                                                                                                                                                                  |                 |          |          |            |
| C                         | <b>Rotary drilling with and without core recover</b>                                                                                                                                                                                                                                                                                                                  |                 |          |          |            |
| C15                       | Move rotary drilling plant and equipment to the site of each exploratory drillhole and set up on gradient less than 20%                                                                                                                                                                                                                                               | nr              | 25       |          |            |
| C17                       | Hand digging and CAT scan at rotary drillhole location to confirm absence of utility ducts (maximum depth of 1.20m or lesser if ground is assessed as potentially unstable)                                                                                                                                                                                           | nr              | 25       |          |            |
| C18                       | Break out surface obstructions where present at exploratory drillhole                                                                                                                                                                                                                                                                                                 | hr              | 5        |          |            |
| C19                       | Standing time for rotary drilling plant, equipment and crew                                                                                                                                                                                                                                                                                                           | hr              | 10       |          |            |
| C41                       | Rotary drill in hard strata to obtain cores of the specified diameter between existing ground level and 10m depth                                                                                                                                                                                                                                                     | m               | 125      |          |            |
| C48                       | Backfill rotary drillhole with cement/bentonite grout or bentonite pellets (where standpipe or piezometer is not required)                                                                                                                                                                                                                                            | m3              | 10       |          |            |
| <b>Subtotal Section C</b> |                                                                                                                                                                                                                                                                                                                                                                       |                 |          |          |            |
| <b>D</b>                  | <b>Pitting and trenching</b>                                                                                                                                                                                                                                                                                                                                          |                 |          |          |            |
|                           | <b>Trial pits and trenches</b>                                                                                                                                                                                                                                                                                                                                        |                 |          |          |            |
| D3                        | Move equipment to the site of each trial pit and/or trench of not greater than 4.5m depth                                                                                                                                                                                                                                                                             | nr              | 57       |          |            |
| D6                        | Excavate trial pit between existing ground level and 3.0m depth (TP = 1.5m x 1.5m x 1.2m deep)                                                                                                                                                                                                                                                                        | nr              | 21       |          |            |
| D9                        | Excavate trial trench between existing ground level and 3.0m depth (ST = 0.6 x 1.2 deep x Trench Length)                                                                                                                                                                                                                                                              | m3              | 250      |          |            |
| D12                       | Set up trial pit in road area to include erection of traffic management systems (works supervised by Engineer/Geologist with valid CSCS Card for Signing, Lighting and Guarding at Roadworks)                                                                                                                                                                         | nr              | 5        |          |            |
| D13                       | Set up at slit trench in road area to include erection of traffic management systems (works supervised by Engineer/Geologist with valid CSCS Card for Signing, Lighting and Guarding at Roadworks)                                                                                                                                                                    | nr              | 10       |          |            |
| D14                       | Saw cut paved areas in advance of works                                                                                                                                                                                                                                                                                                                               | m               | 380      |          |            |
| D15                       | Breaking out hard material or surface obstructions                                                                                                                                                                                                                                                                                                                    | hr              | 30       |          |            |
| D20                       | Standing time for excavation plant, equipment and crew for machine dug trial pit or trench                                                                                                                                                                                                                                                                            | hr              | 15       |          |            |
|                           | <b>Daily provision of pitting crew and equipment</b>                                                                                                                                                                                                                                                                                                                  |                 |          |          |            |
| D36                       | Provision of excavation plant equipment and crew for machine dug trial pits or trenches as directed by the Investigation Supervisor or the Archaeologist; maximum depth 3.0m                                                                                                                                                                                          | day             | 5        |          |            |
| D43                       | Extra over Items D36-D38 & D39-D41 for breaking out hard strata or obstructions                                                                                                                                                                                                                                                                                       | day             | 5        |          |            |
|                           | <b>General</b>                                                                                                                                                                                                                                                                                                                                                        |                 |          |          |            |
| D44                       | Bring pump to the position of each exploratory pit or trench                                                                                                                                                                                                                                                                                                          | nr              | 10       |          |            |
| D45                       | Pump water from pit or trench                                                                                                                                                                                                                                                                                                                                         | hr              | 5        |          |            |
| D47                       | Leave open observation pit or slit trench as instructed by Investigation Supervisor                                                                                                                                                                                                                                                                                   | day             | 5        |          |            |
| D48                       | Leave open trial pit as instructed by Investigation Supervisor                                                                                                                                                                                                                                                                                                        | day             | 5        |          |            |
|                           | <b>Trial pit/slit trench backfill &amp; reinstatement works</b>                                                                                                                                                                                                                                                                                                       |                 |          |          |            |
| D49                       | Backfill trial pit or trench excavation with arisings/excavated materials                                                                                                                                                                                                                                                                                             | m3              | 100      |          |            |
| D50                       | Reinstatement grassed surface to include replacing of sod and reseeded                                                                                                                                                                                                                                                                                                | m2              | 150      |          |            |
| D51                       | Backfill trenches and trial pits in paved areas with imported granular fill (CL 804 sub-base)                                                                                                                                                                                                                                                                         | m3              | 90       |          |            |
| D51                       | Backfill trenches and trial pits in paved areas with imported granular fill (CL 503)                                                                                                                                                                                                                                                                                  | m3              | 50       |          |            |
| D53                       | Reinstatement of asphalt/bituminous pavement (Cycle/Footway - AC10)                                                                                                                                                                                                                                                                                                   | m2              | 20       |          |            |
| D53                       | Reinstatement of asphalt/bituminous pavement (Carriageway - AC14)                                                                                                                                                                                                                                                                                                     | m2              | 60       |          |            |
| D54                       | Repair of road markings                                                                                                                                                                                                                                                                                                                                               | m               | 20       |          |            |
| <b>Subtotal Section D</b> |                                                                                                                                                                                                                                                                                                                                                                       |                 |          |          |            |
| <b>E</b>                  | <b>Sampling and monitoring during intrusive investigation</b>                                                                                                                                                                                                                                                                                                         |                 |          |          |            |
| E2                        | Tub sample                                                                                                                                                                                                                                                                                                                                                            | nr              | 120      |          |            |
| E3                        | Bulk sample                                                                                                                                                                                                                                                                                                                                                           | nr              | 100      |          |            |
| E5                        | Open-tube thick-walled sample (0 to 10m depth)                                                                                                                                                                                                                                                                                                                        | nr              | 25       |          |            |

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Clifton Scannell Emerson  
Associates

| Code                                    | Item Description                                                                                                                                                       | Unit | Quantity | Rate (€) | Amount (€) |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|----------|------------|
| E17                                     | Other specialist environmental/contamination sampling as specified by Investigation Supervisor (L6)<br>(Note: Sample rate includes provision of specialist containers) | nr   | 21       |          |            |
| Subtotal Section E                      |                                                                                                                                                                        |      |          |          |            |
| F                                       | Probing and cone penetration testing                                                                                                                                   |      |          |          |            |
| Subtotal Section F                      |                                                                                                                                                                        |      |          |          |            |
| G                                       | Geophysical Surveying                                                                                                                                                  |      |          |          |            |
| Subtotal Section G                      |                                                                                                                                                                        |      |          |          |            |
| H                                       | In situ testing                                                                                                                                                        |      |          |          |            |
| H1.1                                    | Standard penetration test in percussive borehole, depth range 0 to 10m (every 1m)                                                                                      | nr   | 250      |          |            |
| H1.2                                    | Standard penetration test in percussive borehole, depth range 10 to 20m                                                                                                | nr   | 125      |          |            |
| H7                                      | Hand penetrometer test (set of 3 readings/trial pit location)                                                                                                          | nr   | 21       |          |            |
| H8                                      | Hand shear vane test (set of 3 readings)                                                                                                                               | nr   | 21       |          |            |
| Soil Infiltration Test (BRE Digest 365) |                                                                                                                                                                        |      |          |          |            |
| H21                                     | Carry out pre-soaking of test areas                                                                                                                                    | nr   | 8        |          |            |
| H22                                     | Carry out soakaway tests in accordance with BRE Digest 365 (3 Cycles)                                                                                                  | nr   | 8        |          |            |
| H23                                     | Provision of water supply for infiltration testing                                                                                                                     | sum  | 1        |          |            |
| H25                                     | Calculation of infiltration rate for each test location                                                                                                                | nr   | 8        |          |            |
| Plate Bearing Test                      |                                                                                                                                                                        |      |          |          |            |
| H29                                     | Set up at each plate test location to include kentledge/reaction weight for plate test using a 300mm diameter plate. Test in accordance with NRA SRW CL642             | nr   | 21       |          |            |
| H32                                     | Extra over items H29-H31 for test durations in excess of 2 hours per location                                                                                          | hr   | 5        |          |            |
| H33                                     | Provide plate test report with load steelement plot and calculation of Ks and CBR value to HD 25-26/ 10                                                                | nr   | 21       |          |            |
| Subtotal Section H                      |                                                                                                                                                                        |      |          |          |            |
| I                                       | Instrumentation                                                                                                                                                        |      |          |          |            |
| Subtotal Section I                      |                                                                                                                                                                        |      |          |          |            |
| J                                       | Installation monitoring and sampling                                                                                                                                   |      |          |          |            |
| Subtotal Section J                      |                                                                                                                                                                        |      |          |          |            |
| K                                       | Geotechnical laboratory testing                                                                                                                                        |      |          |          |            |
| K1                                      | Classification                                                                                                                                                         |      |          |          |            |
| K1.1                                    | Moisture content                                                                                                                                                       | nr   | 92       |          |            |
| K1.2                                    | Liquid and plastic limit                                                                                                                                               | nr   | 92       |          |            |
| K1.4                                    | Linear shrinkage                                                                                                                                                       | nr   | 46       |          |            |
| K1.9                                    | Particle size distribution by wet sieving                                                                                                                              | nr   | 92       |          |            |
| K1.12                                   | Sedimentation by hydrometer                                                                                                                                            | nr   | 92       |          |            |
| K2                                      | Chemical and electrochemical                                                                                                                                           |      |          |          |            |
| K2.2                                    | Mass loss on ignition                                                                                                                                                  | nr   | 25       |          |            |
| K2.3                                    | Acid soluble sulphate content of soil sample                                                                                                                           | nr   | 25       |          |            |
| K2.4                                    | Water soluble sulphate content of soil sample (2:1 water/soil extract)                                                                                                 | nr   | 25       |          |            |
| K2.5                                    | Total sulphur content of soil sample                                                                                                                                   | nr   | 25       |          |            |
| K2.6                                    | Sulphate content of groundwater sample                                                                                                                                 | nr   | 5        |          |            |
| K2.8                                    | Chloride content of groundwater sample                                                                                                                                 | nr   | 5        |          |            |
| K2.12                                   | pH value                                                                                                                                                               | nr   | 25       |          |            |
| Code                                    | Item Description                                                                                                                                                       | Unit | Quantity | Rate (€) | Amount (€) |
| K3                                      | Compaction related                                                                                                                                                     |      |          |          |            |
| K3.1                                    | Dry density/moisture content relationship using 2.5 kg rammer (5 pt)                                                                                                   | nr   | 11       |          |            |
| K3.5                                    | Moisture Condition Value at natural moisture content                                                                                                                   | nr   | 11       |          |            |
| K3.6                                    | Moisture Condition Value/moisture content relationship (5 pt)                                                                                                          | nr   | 11       |          |            |
| K3.8                                    | California Bearing Ratio on re-compacted disturbed sample                                                                                                              | nr   | 11       |          |            |
| K3.10                                   | California Bearing Ratio on push-in mould sample (unsoaked)                                                                                                            | nr   | 21       |          |            |
| K6                                      | Shear strength (total stress)                                                                                                                                          |      |          |          |            |
| K6.1                                    | Shear strength by the laboratory vane method (set of 3)                                                                                                                | nr   | 21       |          |            |
| K8                                      | Rock and aggregate testing                                                                                                                                             |      |          |          |            |
| K8.14                                   | Uniaxial compressive strength                                                                                                                                          | nr   | 50       |          |            |
| K8.18                                   | Point Load Strength Index on rock core (axial or diametral)                                                                                                            | nr   | 50       |          |            |
| Subtotal Section K                      |                                                                                                                                                                        |      |          |          |            |
| L                                       | Geoenvironmental Laboratory Testing                                                                                                                                    |      |          |          |            |
| L7                                      | Rilta Suite Test                                                                                                                                                       | nr   | 21       |          |            |
| Subtotal Section L                      |                                                                                                                                                                        |      |          |          |            |

| Summary of Bill of Quantities |                                                        |            |
|-------------------------------|--------------------------------------------------------|------------|
| Section                       | Description                                            | Total<br>€ |
| A                             | General Items and Provisional Services                 |            |
| B                             | Percussion Boring and Dynamic Sampling                 |            |
| C                             | Rotary Boring                                          |            |
| D                             | Pitting and Trenching                                  |            |
| E                             | Sampling and Monitoring During Intrusive Investigation |            |
| F                             | Probing and Cone Penetration Testing                   |            |
| H                             | In Situ Testing                                        |            |
| I                             | Instrumentation                                        |            |
| J                             | Installation Monitoring and Sampling                   |            |
| K                             | Geotechnical Laboratory Testing                        |            |
| L                             | Geoenvironmental Laboratory Testing                    |            |
| Total Tender Price (ex VAT)   |                                                        |            |