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Regulated by RICS

Offices also at Victoria
and Plymouth

Tender Documents

Property:	Changing Places Modular Unit Jubilee Road Wadebridge PL27 7AE
Employer:	Wadebridge Town Council Town Hall The Platt Wadebridge PL27 7AQ
Contract Administrator:	RTP Surveyors Tremough Innovation Centre Penryn Cornwall TR10 9TA
Contact:	James Ruddle

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RTP Surveyors Limited is a company registered in
England and Wales No. 6526380

Information Page



RTP

NBS Preliminaries

RTP Surveyors

Wadebridge Town Council

Wadebridge Town Council Toilet Blocks, Jubilee Road

Prelims

15-11-2023

Installation of a Changing Places unit to the lower section of the Jubilee Road car park. Including new electric and water supply and drainage connection.

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A10

Project particulars

Clauses

110 The Project

1. Name: Groundworks, utilities connection and associated works for Changing Places Unit.
2. Location: Jubilee Road Car Park, Wadebridge. PL27 7AE
3. Timescale for construction work: To be confirmed. All works to be completed, including the installation and connection to the Changing Places unit prior to 22th March 2024.

120 Employer (client)

1. Name: Wadebridge Town Council
2. Address: Town Hall, The Platt, Wadebridge. PL27 7AE
3. Contact: Anne Minnis/Beverley Collins
4. Telephone: 01208 817081
5. Email: townclerk@wadebridge-tc.gov.uk and admin@@wadebridge-tc.gov.uk

130 Principal contractor (CDM)

1. Name: TBC
2. Address: TBC
3. Contact: TBC
4. Telephone: TBC
5. Email: TBC

140 Architect/ contract administrator

1. Name: RTP Surveyors Limited
2. Address: Tremough Innovation Centre, Penryn, TR10 9TA
3. Contact: James Ruddle
4. Telephone: Mobile – 07884115394
Office – 01326 318599
5. Email: jamesr@rtpssurveyors.co.uk

150 Principal designer

1. Name: RTP Surveyors Limited
2. Address: Tremough Innovation Centre, Penryn, TR10 9TA
3. Contact: James Ruddle
4. Telephone: Mobile – 07884115394
Office – 01326 318599
5. Email: jamesr@rtpssurveyors.co.uk

Ω End of Section

A11

Tender and contract documents

Clauses

110 Tender drawings

1. **The tender drawings are:** Refer to Tender Drawing Log. P230274 - 401, P230274 - 402, P230274 - 403, P230274 - 4014, P230274 - 405, P230274 - 406, P230274 - 407, P230274 - 408 and P230274 - 409, National Grid Enq No 4835565, South West Water Waste Strumap PL27 7AE. and Rise Adapt CP+0DOL v2.03 Groundworks.

120 Contract drawings

1. **The contract drawings:** The same as the tender drawings.

160 Pre-construction information

1. **Format:** The pre-construction information is described in these Preliminaries in section A34. It refers to information given elsewhere in the Preliminaries, specification, drawings and associated documents.

Ω End of Section

A12

The site/ existing buildings

Clauses

110 The site

1. **Description:** The site is a tarmac car park adjacent to playing fields and the River Camel. Site boundaries and plans P230274 - 401 and are included for reference in the tender package.

120 Existing buildings on/ adjacent to the site

1. **Description:** There are no existing buildings immediately in the vicinity of the changing places unit. Residential properties and shops are located on Jubilee Road.

140 Existing utilities and services

1. **Drawings:** (Information shown is indicative only): Information provided in (2) below, contractor to assess site as Section 7 in the Schedule of Rates. Drawing P230274 - 404 Site Topographical Survey provides some additional information. .
2. **Other information:**
 1. SWW - SK WR 3837285 Jubilee Rd Toilet Block PL27 7AE WW003 23-24- Provision of New Sewers.
 2. SWW - 3809655AS SWW water supply quote
 3. National Grid 05.10.23Budget_Estimate_4892202_1836524_1
 4. National Grid 05.10.23Budget_estimate_summary_4892202
 5. National Grid - 4835565 Plan
 6. The contractor is to ensure that they research the ground for services prior to undertaking excavations using service such as ww.linesearchbeforeudig.co.uk

180 Health and safety file

1. **Other documents:** There are no H&S files.
2. **Arrangements for inspection:** Wadebridge Town Council Administration 01208 812643

200 Access to the site

1. **Description:** Access to the site is through the main entrance to the car park. If taller vehicles require the goal posts opening, this can be arranged. This same applies to the exit road.
2. **Limitations:** We are unaware of any load restrictions differing from standard highways loadings.
3. **Access for inspections:** Provide access at reasonable times for both on-site and off-site work.

210 Parking

1. **Restrictions on parking of the Contractor's and employees' vehicles:** Use dedicated spaces within the contractors compound. See drawing P230274 - 409

220 Use of the site

1. **General:** Do not use the site for any purpose other than carrying out the Works.
2. **Limitations:** The car park and exit road will be in use during the works. Contractor to provide programme and method of controlling the areas requiring protection, traffic and pedestrian flow to minimise impact on the use of the area.

230 Surrounding land/ building uses

1. **General:** Adjacent or nearby uses or activities are as follows:
 - 1.1. The main use is a car park shared by the Council and the COOP. The car park is busy and is located near the town centre and shops. Access into the car park is off Jubilee Road and the exit is to the East adjacent a public footpath and residential properties..
 - 1.2. Land to the North of the site is public footpaths and the banks of the River Camel. To the East is a large playing field and childrens play area.
 - 1.3. To the West of the site is the river bank of the Polmorla River.

240 Health and safety hazards

1. **General:** The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However, the following hazards are or may be present:
 - 1.1. There is a the potential that the could be made up ground and any contaminates are unknown. Care should be taken when excavating. .
 - 1.2. Utilities services are present in the area. Refer to the Section A12 140 above. The contractor is to ensure that they research the ground for services prior to undertaking excavations using service such as www.linesearchbeforeudig.co.uk
 - 1.3. The car park will remain in operation during the works. Vehicle and pedestrian movements should considered leading up to and throughout the works. Movements should be adequately controlled. Works to be caried out by an accredited New Roads and Street Works Act 1991 contractor who is familiar with Highways Agency Specification for Highways Works.

The contractor is to ensure that they research the ground for services prior to undertaking excavations using service such as www.linesearchbeforeudig.co.uk

2. **Information:** The accuracy and sufficiency of this information is not guaranteed. Ascertain if any additional information is required to ensure the safety of all persons and the works.
3. **Site staff:** Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

250 Site visit

1. **Assessment:** Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
2. **Arrangements for visit:** Generally access can be any time as it is an open space and no requirement for any keys. Please inform the contract administrator prior to attending.

Ω End of Section

A13

Description of the work

Clauses

110 Preparatory work by others

1. **Details:** The sequence of works is to enable the excavation and bring in the utilities services. Installation of pad foundations and ducting, ramp and drainage. The management of National Grid and South West Water will be the responsibility of the Principal Contractor. The Changing Places manufacturer will then bring in the modular unit on the back of a lorry and lower into place. They will make the connections to the utilities services and test and commission the building. There will be external works for the Principal Contractor to continue with whilst the Changing Places supplier are installing for a two week period.

120 The works

1. **Description:** The preparation of site and installation of pad foundations for the installation of a modular Changing Places unit. Modular unit to be supplied and installed by manufacturer. Principal Contractor (PC) management and coordination required. PC also required to manage the process and install foul drainage connection to existing SWW inspection chamber (invert 4m app) in the car park. Trench and install new 25mm pipework to enable water supply from the Changing Places base to enable SWW to connect near site boundary at Jubilee Road. Elements of groundwork to enable National Grid to bring power supply to concrete base. Install concrete ramp and handrails for access to modular unit. Include all surface water drainage to same. Minor landscaping. Management of the traffic and pedestrians required at all times to the car park and surrounding areas of the works.

130 Work by others concurrent with the Contract

1. **Description:** Water supply pipework feed by SWW at Jubilee Road junction. PC to excavate and install pipework and standpipe to enable SWW connection.
Foul drainage connection to SWW inspection chamber and connection.
National Grid trenching and supply of cable supply to site.
Changing Places Manufacturer installation of the modular unit.

140 Completion work by others

1. **Description:** As items 110, 120 and 130 above.

Ω End of Section

A20

JCT minor works building contract with contractor's design (MWD)

Clauses

JCT minor works building contract with contractor's design

- The contract: JCT Minor Works Building Contract with Contractor's Design 2016 Edition.
- Requirement: Allow for the obligations, liabilities and services described.

The recitals

First - The Works and the Contract Administrator

- The work comprises: Construction of reinforced concrete base, ramp and handrails to the installation of a modular changing places unit (supplied and fitted by others). Trenching for services including new water supply, foul drainage connection and riser duct for National Grid electric supply, include liaison with utilities companies and Changing Places supplier. Management of live car park and public footpath.
- Architect/ Contract Administrator: See clause A10/140.

Second - Contractor's designed portion

- The Works include the design and construction of
 - All works relating to NRSWA, trenching, foul drainage pipework and connection, water supply pipe trenching and 25mm pipe installation and stand pipes. Electrical cable trenching from site boundary to the concrete base. Duct/openings required to enable the connection of the water, drainage and power within the reinforced concrete base..

Third - Contract documents

- Contract drawings: As listed in clause A11/120.
- Contract documents: The following have been prepared which show and describe the work to be done Work schedules.

Fourth - Priced documents

- Documents to be priced or provided by the Contractor: Work schedules

Articles

3 - Architect/ Contract Administrator

- Architect/ Contract Administrator: See clause A10/140.

4 and 5 - Principal Designer/ Principal Contractor

- Principal Designer: See clause A10/150.
- Principal Contractor: See clause A10/130.

Contract particulars

Fifth Recital and Schedule 2 - Base date

- Base date: 13th November 2023

Fifth Recital and clause 4.2 - Construction industry scheme (CIS)

- Employer at base date is not a 'contractor' for the purposes of the CIS.

Sixth Recital - CDM Regulations

- The project is not notifiable.

Seventh Recital - Framework agreement

- Framework agreement: Does not apply

Eighth Recital and Schedule 3 - Supplemental provisions

- Collaborative working: Supplemental Provision 1 applies.
- Health and safety: Supplemental Provision 2 applies.
- Cost savings and value improvements: Supplemental Provision 3 applies.
- Sustainable development and environmental considerations: Supplemental Provision 4 applies does not apply.
- Performance indicators and monitoring: Supplemental Provision 5 applies does not apply.
- Notification and negotiation of disputes: Supplemental Provision 6 applies.
- Where Supplemental Provision 6 applies, the respective nominees of the parties are
 - Employer's nominee: Wadebridge Town Council - Anne Minnis
 - Contractor's nominee: TO BE COMPLETED BY CONTRACTOR
- Or such replacement as each party may notify to the other from time to time.

Article 7 - Arbitration

- Article 7 and Schedule 1 apply.

Clause 2.3 - Commencement and Completion

- Works commencement date: TBC
- Date for Completion: 22nd March 2024

Clause 2.9 - Liquidated damages

- At the rate of £500.00 per calendar week or pro-rata thereto.

Clause 2.11 - Rectification period

- Period: 6 months from the date of practical completion.

Clause 4.3 - Interim payments

- Interim Valuation Dates
 - The first Interim Valuation Date is: 4 weeks after commencement date.
 - Thereafter at intervals of: Every 4 weeks.
- Payments due prior to practical completion
 - Percentage of total value of the work etc.: 95 per cent
- Payments becoming due on or after practical completion
 - Percentage of the total amount to be paid: 97½ per cent

Clause 4.3 and 4.8 - Fluctuations provision

- The following fluctuations provision applies: No fluctuations provision applies

Clause 4.8.1 - Supply of documentation for computation of amount to be finally certified

- Period: Three months from the date of practical completion.

Clause 5.3 - Contractor's Public Liability insurance - injury to persons or property

- The required level of cover for any one occurrence or series of occurrences arising out of one event
 - Not less than: £5 Million.

Clauses 5.4A, 5.4B and 5.4C - Insurance of the works, etc. - alternative provisions

- Clause 5.4A applies.

Clause 7.2 - Adjudication

- Nominating body: Royal Institution of Chartered Surveyors

Schedule 1 paragraph 2.1 - Arbitration

- Appointor of Arbitrator (and of any replacement): President or a Vice president of the: The Royal Institution of Chartered Surveyors.

The conditions - No Amendments

Section 1: Definitions and Interpretation - No Amendments

Section 2: Carrying out the Works - No Amendments

Section 3: Control of the Works - No Amendments

Section 4: Payment - No Amendments

Section 5: Injury, Damage and Insurance - No Amendments

Section 6: Termination - No Amendments

Section 7: Settlement of Disputes - No Amendments

Execution

Execution

- The contract: Will be executed under hand.

Contract guarantee bond

JCT public sector supplement

- Document: The JCT Public Sector Supplement 2011 - Fair Payment, Transparency and Building Information Modelling.

- Fair Payment provisions Apply.
- Transparency provisions Do not apply.
- Building information modelling provisions Do not apply.

Ω End of Section

A30

Tendering/ subletting/ supply

Main contract tendering

110 Scope

1. **General:** These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.

145 Tendering procedure

1. **General:** In accordance with the principles of: JCT Practice Note Option 2..
2. **Arithmetical errors:** Pricing document is dominant.

160 Exclusions

1. **Inability to tender:** Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
2. **Relevant parts of the work:** Define those parts, stating reasons for the inability to tender.

170 Acceptance of tender

1. **Acceptance:** No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non acceptance will be given.
2. **Costs:** No liability is accepted for any cost incurred in the preparation of any tender.

190 Period of validity

1. **Period:** After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 3 months.
2. **Date for possession/ commencement:** See section A20.

Pricing/ submission of documents

210 Preliminaries in the specification

1. The Preliminaries/ General conditions sections (A10-A56 inclusive) must not be relied on as complying with SMM7/ NRM2.

250 Priced documents

1. **Alterations:** Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
2. **Measurements:** Where not stated, ascertain from the drawings.
3. **Deemed included:** Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
4. **Submit:** With tender

310 Tender

1. **General:** Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

440 Schedule of rates

1. **Schedule of rates (unpriced):** Included with the tender documents. The contractor may insert additional items. All items must be fully priced.

2. Fully priced copy
 - 2.1. Submittal date: with the tender

500 Tender stage method statements

1. **Method statements:** Prepare, describing how and when the following is to be carried out:
 - 1.1. Managing the segregation from the public and limiting the disruption to the use of a fully operational car park, footpath and adjacent areas during the works.
2. **Statements:** Submit within one week of request.

510 Alternative method tenders

1. **General:** In addition to and at the same time as tendering for the Works as defined in the tender documents, alternative methods of construction/ installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
2. **Alternative tenders:** Such alternatives will be deemed to be alternative tenders and each must include a complete and precise statement of the effects on cost and programme.
3. **Safety method statement:** Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the Health and Safety Plan.
4. **Full technical data:** Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the Works.
5. **Submit:** With tender

515 Alternative time tenders

1. **General:** In addition to and at the same time as tendering based upon the date or period specified in section A20, an alternative tender based upon a different date for completion or period may be submitted.
2. **Date for completion:** If any such tender is accepted the date for completion inserted in the Contract will be the date stated in the alternative tender or determined from the period stated in the alternative tender.

520 Design documents

1. **Scope:** Include the following in the Contractor's Proposals:
 - 1.1. **Design drawings:** For the pad foundations for the Changing Places unit and ramp. All trenching, laying of foul and water supply pipework, backfill and surface finishes. Works to be able to complete the project in accordance with Building Regulations, associated legislation and approved codes of practice.
2. **Submit:** As soon as possible

530 Substitute products

1. **Details:** If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
2. **Compliance:** Substitutions accepted will be subject to the verification requirements of clause A31/200.

550 Health and safety information

1. **Content:** Describe the organization and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
2. **Include**
 - 2.1. A copy of the health and safety policy document, including risk assessment procedures.

- 2.2. Accident and sickness records for the past five years.
 - 2.3. Records of previous Health and Safety Executive enforcement action.
 - 2.4. Records of training and training policy.
 - 2.5. The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
3. **Submit:** Within one week of request

570 Outline construction phase health and safety plan

1. **Content:** Submit the following information within one week of request:
 - 1.1. Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
 - 1.2. Details of the management structure and responsibilities.
 - 1.3. Arrangements for issuing health and safety directions.
 - 1.4. Procedures for informing other contractors and employees of health and safety hazards.
 - 1.5. Selection procedures for ensuring competency of other contractors, the self-employed and designers.
 - 1.6. Procedures for communications between the project team, other contractors and site operatives.
 - 1.7. Arrangements for cooperation and coordination between contractors.
 - 1.8. Procedures for carrying out risk assessment and for managing and controlling the risk.
 - 1.9. Emergency procedures including those for fire prevention and escape.
 - 1.10. Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
 - 1.11. Arrangements for welfare facilities.
 - 1.12. Procedures for ensuring that all persons on site have received relevant health and safety information and training.
 - 1.13. Arrangements for consulting with and taking the views of people on site.
 - 1.14. Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
 - 1.15. Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
 - 1.16. Review procedures to obtain feedback.

590 Site Waste Management Plan

1. **Details:** Describe the procedures in which the waste will be managed during the works. Particularly the disposal of the existing tarmac surface.
 - 1.1. **Format:** PDF
2. **Development**
 - 2.1. **Responsibility:** Principal Contractor
 - 2.2. **Content:** Describe the procedures in which the waste will be managed during the works. Particularly the disposal of the existing tarmac surface.
 - 2.3. **Submittal date:** Before works commence.

599 Freedom of Information Act

1. **Records:** Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.

2. **Determination:** Submit requests received. Do not supply information to anyone other than the project participants without express written permission.
3. **Confidentiality:** Maintain at all times.

Subletting/ supply

640 'Listed' domestic subcontractors

1. **General:** The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:
 - 1.1. **The work:** It is essential that the sub contractor is accredited New Road and Street Works Act and be approved by South West Water to undertake drainage connection and new water supply works.

Ω End of Section

A31

Provision, content and use of documents

Definitions and interpretations

110 Definitions

1. **Meaning:** Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated here or in the appropriate referenced document.

120 Communication

1. **Definition:** Includes advise, inform, submit, give notice, instruct, agree, confirm, seek, provide or obtain information, consent or instructions, or make arrangements.
2. **Format:** In writing to the person named in clause A10/140 unless specified otherwise.
3. **Response:** Do not proceed until response has been received.

130 Products

1. **Definition:** Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
2. **Includes:** Goods, plant, materials, site materials and things for incorporation into the Works.

135 Site equipment

1. **Definition:** Apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
2. **Includes:** Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.
3. **Excludes:** Products and equipment or anything intended to form or forming part of the permanent works.

140 Drawings

1. **Definitions:** To BSRIA BG 6, 'A design framework for building services: Design activities and drawing definitions'.
2. **CAD data:** In accordance with ISO 19650.

145 Contractor's choice

1. **Meaning:** Selection delegated to the Contractor, but liability to remain with the specifier.

150 Contractor's Design

1. **Meaning:** Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

155 Submit proposals

1. **Meaning:** Submit information in response to specified requirements.

160 Terms used in specification

1. **Remove:** Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes removal and disposal of associated pipework, wiring, ductwork or other services.

2. **Remediate:** Action or measures taken to lessen, clean up, remove or mitigate the existence of hazardous materials; in accordance with standards, or requirements as may be set out by statutes, rules, regulations or specification.
3. **Fix:** Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
4. **Supply and fix:** As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.
5. **Keep for reuse:** Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, protect adequately and store until required by the employer/ purchaser, or until required for use in the works as instructed.
6. **Keep for recycling:** As 'keep for reuse', but relates to a naturally occurring material rather than a manufactured product.
7. **Make good:** Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
8. **Replace:** Supply and fix new products matching those removed. Execute work to match original new state of that removed.
9. **Repair:** Execute remedial work to restore something to its original working state. Make secure, sound and neat. Excludes redecoration and/ or replacement.
10. **Refix:** Fix removed products.
11. **Ease:** Adjust moving parts of designated products, or work to achieve free movement and good fit in open and closed positions.
12. **Match existing:** Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
13. **System:** Equipment, accessories, controls, supports and ancillary items (including installation) necessary for that section of the work to function.

170 Manufacturer and product reference

1. **Definition:** When used in this combination:
 - 1.1. **Manufacturer:** the person or legal entity under whose name or trademark the particular product, component or system is marketed
 - 1.2. **Product reference:** the proprietary brand name and/ or identifier by which the particular product, component or system is described.
2. **Currency:** References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

200 Substitution of products

1. **Products:** If an alternative product to that specified is proposed, obtain approval before ordering the product.
2. **Reasons:** Submit reasons for the proposed substitution.
3. **Documentation:** Submit relevant information, including:
 - 3.1. manufacturer and product reference;
 - 3.2. cost;
 - 3.3. availability;
 - 3.4. relevant standards;
 - 3.5. performance;
 - 3.6. function;
 - 3.7. compatibility of accessories;
 - 3.8. proposed revisions to drawings and specification;

- 3.9. compatibility with adjacent work;
- 3.10. appearance;
- 3.11. copy of warranty/ guarantee.
- 4. **Alterations to adjacent work:** If needed, advise scope, nature and cost.
- 5. **Manufacturers' guarantees:** If substitution is accepted, submit before ordering products.

210 Cross references

- 1. **Accuracy:** Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- 2. **Related terminology:** Where a numerical cross reference is not given, the relevant sections and clauses of the specification will apply.
- 3. **Relevant clauses:** Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- 4. **Discrepancy or ambiguity:** Before proceeding, obtain clarification or instructions.

220 Referenced documents

- 1. **Conflicts:** Specification prevails over referenced documents.

230 Equivalent products

- 1. **Inadvertent omission:** Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240 Substitution of standards

- 1. **Specification to British Standard or European Standard:** Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
- 2. **Before ordering:** Submit notification of all such substitutions.
- 3. **Documentary evidence:** Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250 Currency of documents and information

- 1. **Currency:** References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260 Sizes

- 1. **General dimensions:** Products are specified by their co-ordinating sizes.
- 2. **Timber:** Cross section dimensions shown on drawings are:
 - 2.1. Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
 - 2.2. Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

Documents provided on behalf of the employer

410 Additional copies of drawings/ documents

- 1. **Additional copies:** Issued free of charge.

440 Dimensions

- 1. **Scaled dimensions:** Do not rely on.

460 The specification

1. **Coordination:** All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

Documents provided by contractor/ subcontractors/ suppliers

600 Contractor's Design information

1. **General:** Complete the design and detailing of parts of the Works as specified.
2. **Provide**
 - 2.1. Production information based on the drawings, specification and other information.
 - 2.2. Liaison to ensure coordination of the work with related building elements and services.
3. **Master programme:** Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and reinspection.
4. **Information required:** Installation and connection for foul drainage system, including double non return valve, inspection chambers and rodding points.
Water supply excavation, pipe laying and backfill design include service risers, stop valves and chambers for connection to SWW mains on the site boundary.
Surface water drainage and slotted drainage channels, inspection chambers and rodding points.
Changing Places pad foundations design and calculations.
Reinforced concrete ramp design and calculations.
Building Control certification.
 - 4.1. **Format:** Paper and electronically (PDF)
 - 4.2. **Number of copies:** 2no.
5. **Information required:** Chlorination certificate for water supply connection.
 - 5.1. **Format:** Paper and electronically (PDF)
 - 5.2. **Number of copies:** 2no.
6. **Submit:** Within one week of request.

620 As-built drawings and information

1. **Contractor designed work:** Provide drawings/ information:
 - 1.1. Design of the concrete base and service risers. Installation of ramp and handrails.
Description/drawing of water supply and foul drainage, backfill and finish of trenching works.
2. **Submit:** At least two weeks before date for completion.

630 Technical literature

1. **Information:** Keep on site for reference by all supervisory personnel:
 - 1.1. Manufacturers' current literature relating to all products to be used in the Works.
 - 1.2. Relevant British, EN or ISO Standards.

640 Maintenance instructions and guarantees

1. **Components and equipment:** Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
2. **Information location:** In Building Manual.
3. **Emergency call out services:** Provide telephone numbers for use after completion. Extent of cover: office hours only.

Ω End of Section

A32 Management of the works

Generally

110 Supervision

1. **General:** Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
2. **Coordination:** Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

118 Vehicle safety requirements

1. **Vehicle equipment:** Ensure that all vehicles have the following:
 - 1.1. Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
 - 1.2. Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
 - 1.3. Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
 - 1.4. Side under run guards.
2. **Driver training**
 - 2.1. Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.
 - 2.2. Drivers must have a valid driving licence and be legally able to drive the vehicle.

120 Insurance

1. **Documentary evidence:** Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

125 Professional Indemnity Insurance

1. **Provide and maintain insurance in respect of Contractor Designed Works**
 - 1.1. **Level of cover:** Relates to claims or series of claims arising out of one event
 - 1.2. **Period of insurance for these purposes:** one year
2. Amount of indemnity required: £ 500,000.00.
3. Limit of cover for pollution/ contamination claims (If none is stated, the required level of cover shall be the full amount of the indemnity cover stated): £
4. **Expiry of required period of CDP Professional Indemnity insurance:**
5. (If no period is selected, the expiry date shall be 6 years from the date of practical completion of the Works).
6. **Documentary evidence:** Submit details before starting work on site and/ or policies and receipts for the insurances required.
 - 6.1. **Format:** PDF

130 Insurance claims

1. **Notice:** If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the employer/ client, the person administering the Contract on their behalf and the Insurers.

2. **Failure to notify:** Indemnify the employer/ client against any loss, which may be caused by failure to give such notice.

140 Climatic conditions

1. **Information:** Record accurately and retain:
 - 1.1. Daily maximum and minimum air temperatures (including overnight).
 - 1.2. Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

150 Ownership

1. **Alteration/ clearance work:** Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

Programme/ progress

210 Programme

1. **Master programme:** Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:
 - 1.1. Planning and mobilisation by the Contractor
 - 1.2. Subcontractor's work.
 - 1.3. Running in, adjustment, commissioning and testing of all engineering services and installations.
 - 1.4. Work resulting from instructions issued in regard to the expenditure of provisional sums.
 - 1.5. Work by others concurrent with the Contract.
2. Submit two copies.

245 Start of work on site

1. **Notice:** Before the proposed date for start of work on site give minimum notice of two weeks.

250 Monitoring

1. **Progress:** Record on a copy of the programme kept on site.
2. **Avoiding delays:** If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.

260 Site meetings

1. **General:** Site meetings will be held to review progress and other matters arising from administration of the Contract.
2. **Frequency:** Every two weeks
3. **Location:** TBC but on site or Wadebridge Town Council Offices
4. **Accommodation:** Ensure availability at the time of such meetings.
5. **Attendees:** Attend meetings and inform subcontractors and suppliers when their presence is required.
6. **Chairperson (who will also take and distribute minutes):** Contract Administrator

280 Photographs

1. **Number of locations:** Car park formation of base. Excavation, connection, backfill and finish to foul drainage. Excavation, laying of water supply pipework, backfill and finish. Excavation to enable ducting and backfill for National Grid cable. General of site security and public protection.
2. **Frequency of intervals:** Weekly

3. Image format: JPEG
4. Number of images from each location: Sufficient to cover areas.
5. Other requirements: Photographic evidence as works progress.

290 Notice of completion

1. Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
2. Associated works: Ensure necessary access, services and facilities are complete.
3. Period of notice (minimum): Two weeks

310 Extensions of time

1. Notice: When a notice of the cause of any delay or likely delay in the progress of the works is given under the contract, written notice must also be given of all other causes which apply concurrently.
2. Details: As soon as possible submit:
 - 2.1. Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
 - 2.2. An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
 - 2.3. All other relevant information required.

Control of cost

420 Removal/ replacement of existing work

1. Extent and location: Agree before commencement.
2. Execution: Carry out in ways that minimize the extent of work.

430 Proposed instructions

1. Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.

440 Measurement

1. Covered work: Give notice before covering work required to be measured.

450 Daywork vouchers

1. Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
2. Content: Before delivery each voucher must be:
 - 2.1. Referenced to the instruction under which the work is authorised.
 - 2.2. Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
3. Submit: By the end of the week in which the work has been executed.

470 Products not incorporated into the Works

1. Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
2. Evidence: When requested, provide evidence of freedom of reservation of title.

Ω End of Section

A33

Quality standards/ control

Standards of products and executions

110 Incomplete documentation

1. **General:** Where and to the extent that products or work are not fully documented, they are to be:
 - 1.1. Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
 - 1.2. Suitable for the purposes stated or reasonably to be inferred from the project documents.
2. **Contract documents:** Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

120 Workmanship skills

1. **Operatives:** Appropriately skilled and experienced for the type and quality of work.
2. **Registration:** With Construction Skills Certification Scheme.
3. **Verification:** When requested, operatives must produce evidence of skills/ qualifications.

130 Quality of products

1. **Generally:** New. (Proposals for recycled products may be considered).
2. **Supply of each product:** From the same source or manufacturer.
3. **Whole quantity of each product required to complete the Works:** Consistent kind, size, quality and overall appearance.
4. **Tolerances:** Where critical, measure a sufficient quantity to determine compliance.
5. **Deterioration:** Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

135 Quality of execution

1. **Generally:** Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
2. **Colour batching:** Do not use different colour batches where they can be seen together.
3. **Dimensions:** Check on-site dimensions.
4. **Finished work:** Without defects, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
5. **Location and fixing of products:** Adjust joints open to view so they are even and regular.

140 Evidence of Compliance

1. **Proprietary products:** Retain on site evidence that the proprietary product specified has been supplied.
2. **Performance specification:** Submit evidence of compliance, including test reports indicating:
 - 2.1. Properties tested.
 - 2.2. Pass/ fail criteria.
 - 2.3. Test methods and procedures.
 - 2.4. Test results.
 - 2.5. Identity of testing agency.
 - 2.6. Test dates and times.
 - 2.7. Identities of witnesses.
 - 2.8. Analysis of results.

150 Inspections

1. **Products and executions:** Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
 - 1.1. Date of inspection.
 - 1.2. Part of the work inspected.
 - 1.3. Respects or characteristics which are approved.
 - 1.4. Extent and purpose of the approval.
 - 1.5. Any associated conditions.

160 Related work

1. **Details:** Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
 - 1.1. Appropriately complete.
 - 1.2. In accordance with the project documents.
 - 1.3. To a suitable standard.
 - 1.4. In a suitable condition to receive the new work.
2. **Preparatory work:** Ensure all necessary preparatory work has been carried out.

170 Manufacturer's recommendations/ instructions

1. **General:** Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
2. **Exceptions:** Submit details of changes to recommendations or instructions.
3. **Execution:** Use ancillary products and accessories supplied or recommended by main product manufacturer.
4. **Products:** Comply with limitations, recommendations and requirements of relevant valid certificates.

180 Water for the works

1. **Mains supply:** Clean and uncontaminated.
2. **Other:** Do not use until:
 - 2.1. Evidence of suitability is provided.
 - 2.2. Tested to BS EN 1008 if instructed.

Samples/ approvals

210 Samples

1. **Products or executions:** Comply with all other specification requirements and in respect of the stated or implied characteristics either:
 - 1.1. To an express approval.
 - 1.2. To match a sample expressly approved as a standard for the purpose.

220 Approval of products

1. **Submissions, samples, inspections and tests:** Undertake or arrange to suit the Works programme.
2. **Approval:** Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
3. **Complying sample:** Retain in good, clean condition on site. Remove when no longer required.

230 Approval of execution

1. **Submissions, samples, inspections and tests:** Undertake or arrange to suit the Works programme.
2. **Approval:** Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
3. **Complying sample:** Retain in good, clean condition on site. Remove when no longer required.

Accuracy/ setting out generally

320 Setting out

1. **General:** Submit details of methods and equipment to be used in setting out the Works.
2. **Levels and dimensions:** Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
3. **Inform:** When complete and before commencing construction.

330 Appearance and fit

1. **Tolerances and dimensions:** If likely to be critical to execution or difficult to achieve, as early as possible either:
 - 1.1. Submit proposals; or
 - 1.2. Arrange for inspection of appearance of relevant aspects of partially finished work.
2. **General tolerances (maximum):** To BS 5606, tables 1 and 2.

340 Critical dimensions

1. **Critical dimensions:** Set out and construct the Works to ensure compliance with the tolerances stated.
2. **Location:** Detailed on drawings Tops of concrete pads and foundation blocks to provide the internal finished floor level of Changing Places unit to be 50mm above existing car park surface level..

360 Record drawings

1. **Site setting out drawing:** Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the Contract and hand over on completion.

Services generally

410 Services regulations

1. **New or existing services:** Comply with the Byelaws or Regulations of the relevant Statutory Authority.

420 Water regulations/ byelaws notification

1. **Requirements:** Notify Water Undertaker of any work carried out to (or which affects) new or existing services and submit any required plans, diagrams and details.
2. **Consent:** Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

430 Water regulations/ byelaws contractor's certificate

1. **On completion of the work:** Submit (copy where also required to the Water Undertaker) a certificate including:
 - 1.1. The address of the premises.

- 1.2. A brief description of the new installation and/ or work carried out to an existing installation.
- 1.3. The Contractor's name and address.
- 1.4. A statement that the installation complies with the relevant Water Regulations or Byelaws.
- 1.5. The name and signature of the individual responsible for checking compliance.
- 1.6. The date on which the installation was checked.

435 Electrical installation certificate

1. **Submit:** When relevant electrical work is completed.
2. **Original certificate:** To be lodged in the Building Manual.

445 Service runs

1. **General:** Provide adequate space and support for services, including unobstructed routes and fixings.
2. **Ducts, chases and holes:** Form during construction rather than cut.
3. **Coordination with other works:** Submit details of locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

Supervision/ inspection/ defective work

525 Access

1. **Extent:** Provide at all reasonable times access to the Works and to other places of the Contractor or subcontractors where work is being prepared for the Contract.
2. **Designate:** Contract Administrator

530 Overtime working

1. **Notice:** Prior to overtime being worked, submit details of times, types and locations of work to be done.
 - 1.1. **Minimum period of notice:** Two days
2. **Concealed work:** If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

540 Defects in existing work

1. **Undocumented defects:** When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
2. **Documented remedial work:** Do not execute work which may:
 - 2.1. Hinder access to defective products or work; or
 - 2.2. Be rendered abortive by remedial work.

560 Tests and inspections

1. **Timing:** Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
2. **Confirmation:** One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
3. **Records:** Submit a copy of test certificates and retain copies on site.

610 Defective products/ executions

1. **Proposals:** Immediately any work or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.

2. **Acceptability:** Such proposals may be unacceptable and contrary instructions may be issued.

Work at or after completion

710 Work before completion

1. **General:** Make good all damage consequent upon the Works.
2. **Temporary markings, coverings and protective wrappings:** Remove unless otherwise instructed.
3. **Cleaning:** Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
4. **Cleaning materials and methods:** As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
5. **COSHH dated data sheets:** Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
6. **Minor faults:** Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
7. **Moving parts of new work:** Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

720 Security at completion

1. **General:** Leave the Works secure with, where appropriate, all accesses closed and locked.
2. **Keys:** Account for and adequately label all keys, and hand over together with an itemized schedule, retaining duplicate schedule signed as a receipt.

730 Making good defects

1. **Remedial work:** Arrange access with Contract Administrator.
2. **Rectification:** Give reasonable notice for access to the various parts of the Works.
3. **Completion:** Notify when remedial works have been completed.

740 Highway/ sewer adoption

1. **Adoption procedure:** Water Industry Act, Section 104
2. **Details:** Foul sewer connection
3. **Standard:** To the technical approval of the relevant statutory authority
4. **Defects liability/ rectification period:** 12 months
5. **Maintenance**
 - 5.1. Undertake to the satisfaction of the relevant statutory authority, including:
6. **Making good of damage due to reasonable wear and tear occurring during the period.**
 - 6.1. Clean at the end of the period.

Ω End of Section

A34 Security/ safety/ protection

Security, health and safety

120 Execution hazards

1. **Common hazards:** Not listed. Control by good management and site practice.
2. **Significant hazards:** The design of the project includes the following:
 - 2.1. **Hazard:** A). Trenching for installation of pipework. Collapsing excavations/falling into trench.
B). Vehicle movements on a live car park/road. Impact to workers.
C). Pedestrians within vicinity of work area.
D). Unknown services disturbance, possible electrocution or gas leak overcoming operative.
E) Working in deep foul sewer./confined space.
 - 2.2. **Precautions assumed:** A). Works to be carried out by accredited NRSWA contractor associated legislation and codes of practice with RAMS and demonstration of competence and qualifications of site operatives and management.
B). NRSWA guidelines, associated legislation and codes of practice and RAMS and general operative awareness including segregation and signage.
C). Segregation between work area and awareness of surroundings.
D). Scan ground, use www.linesearchbeforeudig.co.uk or similar to reference known services prior to excavating. Care to be taken in uncertain circumstances.
E). Qualified operatives to undertake the works.

130 Product hazards

1. **Hazardous substances:** Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document EH40: 'Workplace Exposure Limits'.
2. **Common hazards:** Not listed. Control by good management and site practice.
3. **Significant hazards:** Specified construction materials include the following:

140 Construction phase health and safety plan

1. **Submission:** Present to the employer/ client no later than 3 weeks.
2. **Confirmation:** Do not start construction work until the employer has confirmed in writing that the construction phase health and safety plan includes the procedures and arrangements required by the CDM Regulations.
3. **Content:** Develop the plan from, and draw on, the outline construction phase health and safety plan, clause A30/570, and the pre-tender health and safety plan/ pre-construction information.

150 Security

1. **Protection:** Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
2. **Access:** Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
3. **Special requirements:** Coordination with highways. utilities companies and Changing Places manufacturer.

160 Stability

1. **Responsibility:** Maintain the stability and structural integrity of the works and adjacent structures during the contract.
2. **Design loads:** Obtain details, support as necessary and prevent overloading.

170 Occupied premises

1. **Extent:** Existing buildings will be occupied and/ or used during the contract as follows: There are no occupied buildings but the car park and surrounding area is open to the general public and vehicular access..
2. **Works:** Carry out without undue inconvenience and nuisance and without danger to occupants and users.
3. **Overtime:** If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be allowed, provided that such overtime is authorized in advance.

200 Mobile telephones and portable electronic equipment

1. **Restrictions on use**
 - 1.1. N/A.

210 Safety provisions for site visits

1. **Safety:** Submit details in advance of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
2. **Protective clothing and/ or equipment:** Provide and maintain on site for visitors to the-site.

Protect against the following

330 Noise and vibration

1. **Standard:** Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
2. **Equipment:** Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
3. **Restrictions:** Do not use:
 - 3.1. Percussion tools and other noisy appliances without consent during the hours of 8am and 6pm.
 - 3.2. Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 Pollution

1. **Prevention:** Protect the site, the works and the general environment (including the atmosphere, land, streams and waterways) against pollution.
2. **Contamination:** If pollution occurs, report immediately, including to the appropriate authorities, and provide relevant information.

350 Pesticides

1. **Use:** Not permitted.

360 Nuisance

1. **Duty:** Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
2. **Surface water:** Prevent hazardous build-up on-site, in excavations and to surrounding areas and roads.

370 Asbestos containing materials

1. **Duty:** Report immediately any suspected materials discovered during execution of the works.
 - 1.1. Do not disturb.

- 1.2. Agree methods for safe removal or encapsulation.

371 Dangerous or hazardous substances

1. **Duty:** Report immediately suspected materials discovered during execution of the works.
 - 1.1. Do not disturb.
 - 1.2. Agree methods for safe removal or remediation.

375 Antiquities

1. **Duty:** Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the works.
2. **Preservation:** Keep objects in the exact position and condition in which they were found.

380 Fire prevention

1. **Duty:** Prevent personal injury or death, and damage to the Works or other property from fire.
2. **Standard:** Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by Construction Industry Publications and The Fire Protection Association (The 'Joint Fire Code').

390 Smoking on-site

1. **Smoking on-site:** Not permitted.

400 Burning on-site

1. **Burning on-site:** Not permitted.

430 Waste

1. **Waste:** Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
2. **Requirement:** Minimize production and prevent accumulation of waste. Keep the site and works clean and tidy. Clean out voids and cavities in the construction before closing.
3. **Disposal:** Collect and store in suitable containers. Remove from site and dispose of in a safe and competent manner, as approved and directed by the waste regulation authority.
4. **Recyclable material:** Sort and dispose of at a materials recycling facility approved by the waste regulation authority.
5. **Documentation:** Retain on-site.

440 Electromagnetic interference

1. **Duty:** Prevent excessive electromagnetic disturbance to apparatus outside the site.

460 Powder actuated fixing systems

1. **Use:** Not permitted.

470 Invasive species

1. **General:** Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or works economically, environmentally or ecologically.
2. **Special precautions:**
3. **Duty:** Report immediately any suspected invasive species discovered during execution of the works.
 - 3.1. Do not disturb.
 - 3.2. Agree methods for safe eradication or removal.

Protect the following

510 Existing services

1. **Confirmation:** Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
2. **Identification:** Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
3. **Work adjacent to services**
 - 3.1. Comply with service authority's/ statutory undertaker's recommendations.
 - 3.2. **Adequately protect, and prevent damage to services:** Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
4. **Identifying services**
 - 4.1. **Below ground:** Use signboards, giving type and depth;
 - 4.2. **Overhead:** Use headroom markers.
5. **Damage to services:** If any results from execution of the Works:
 - 5.1. Immediately give notice and notify appropriate service authority/ statutory undertaker.
 - 5.2. Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
 - 5.3. Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
6. **Marker tapes or protective covers:** Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

520 Roads and footpaths

1. **Duty:** Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
2. **Damage caused by site traffic or otherwise consequent upon the Works:** Make good to the satisfaction of the Employer, Local Authority or other owner.

530 Existing topsoil/ subsoil

1. **Duty:** Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
2. **Protection:** Before starting work submit proposals for protective measures.

540 Retained trees/ shrubs/ grassed areas

1. **Protection:** Preserve and prevent damage, except those not required.
2. **Replacement:** Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

550 Retained trees

1. **Protected area:** Unless agreed otherwise, do not:
 - 1.1. Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within the root protection area.
 - 1.2. Sever roots exceeding 25 mm in diameter. If unintentionally severed, give notice and seek advice.
 - 1.3. Change level of ground within an area 3 m beyond branch spread.

555 Wildlife species and habitats

1. General: Safeguard the following:
2. **Protected habitats and species:** Upon discovery immediately advise. Do not proceed until instruction is received.
3. **Education:** Ensure that employees and visitors to the site receive suitable instruction and awareness training.

560 Existing features

1. **Protection:** Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.

570 Existing work

1. **Protection:** Prevent damage to existing work, structures or other property during the course of the work.
2. **Removal:** Minimum amount necessary.
3. **Replacement work:** To match existing.

600 Existing furniture, fittings and equipment

1. **Protection:** Prevent damage or move as necessary to enable the Works to be executed. Reinstate in original positions.

630 Existing structures

1. **Duty:** Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
2. **Supports:** During execution of the Works:
 - 2.1. Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining that may be endangered or affected by the Works.
 - 2.2. Do not remove until new work is strong enough to support existing structure.
 - 2.3. Prevent overstressing of completed work when removing supports.
3. **Adjacent structures:** Monitor and immediately report excessive movement.
4. **Standard:** Comply with BS 5975 and BS EN 12812.

640 Materials for recycling/ reuse

1. **Duty:** Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
2. **Storage:** Stack neatly and protect until required by the Employer or for use in the Works as instructed.

Ω End of Section

A35

Specific limitations on method/ sequence/ timing

Clauses

130 Method/ sequence of work

1. **Specific Limitations:** Include the following in the programme:
 - 1.1. The installation of the concrete base, ramp, utility services and drainage connections are critical to the installation of the Changing Places unit and completion of the works in its entirety by 29/03/24. Therefore the sequencing of the work requires planning as such .

160 Use or disposal of materials

1. **Specific limitations:** Waste transfer notes required.

170 Working Hours

1. **Specific limitations:** Currently none to be aware of.

Ω End of Section

A36 Facilities/ temporary work/ services

Generally

110 Spoil heaps, temporary works and services

1. **Location:** Give notice and details of intended siting.
2. **Maintenance:** Alter, adapt and move as necessary. Remove when no longer required and make good.

Accommodation

210 Room for meetings

1. **Facilities:** Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.
2. **Furniture and Equipment:** Provide table and chairs for 4 people.

Temporary works

310 Roads

1. **Permanent roads, hard standings and footpaths on the site:** The following may be used, subject to clause A34/520:
 - 1.1. **Details:** The car park area can be used subject to making good. Element of works for trenching, backfill, road finish , kerbing to be in accordance with Highways and NRSWA guidance. Contractors design to enable compliance and suitability.
 - 1.2. **Protective or remedial measures:** Prevent damage to existing surfaces by protecting from heavy machinery.

340 Name boards/ advertisements

1. **Name boards/ advertisements:** To be confirmed and agreed with client and CA.

Services and facilities

410 Lighting

1. **Finishing work and inspection:** Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

430 Water

1. **Supply:** The existing mains may be used for the Works as follows:
 - 1.1. **Metering:** Metered by the Employer and charged to the Contractor
 - 1.2. **Source:** New water supply to be installed
 - 1.3. **Location of supply point:** As shown on drawings
2. **Continuity:** No responsibility will be accepted for the consequences of failure or restriction in supply.

440 Telephones

1. **Direct communication:** As soon as practicable after the Date of Possession provide the Contractor's person in charge with a mobile telephone.

540 Meter readings

1. **Charges for service supplies:** Where to be apportioned ensure that:
 - 1.1. Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
 - 1.2. Copies of readings are supplied to interested parties.

550 Thermometers

1. **General:** Provide on site and maintain in accurate condition a maximum and minimum thermometer for measuring atmospheric shade temperature, in an approved location.

570 Personal protective equipment

1. **General:** Provide for the sole use of other members of the project team, in sizes to be specified:
 - 1.1. Safety helmets to BS EN 397, neither damaged nor time-expired. Number required: 2
 - 1.2. High-visibility waistcoats to BS EN ISO 20471 Class Number required: 2.
 - 1.3. Disposable respirators to BS EN 149.FFP1S.
 - 1.4. Eye protection to BS EN ISO 16321-1 and BS EN ISO 16321-3.
 - 1.5. Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
 - 1.6. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

A37

Operation/ maintenance of the finished works

Generally

110 The building manual

1. **Responsibility:** The Contractor
2. **Content:** Obtain and provide comprehensive information for owners and users of the completed Works. Include an overview of the main design principles and describe key components and systems within the finished Works, so affording a complete understanding of the Works, including all buildings and their systems to enable efficient and safe operation and maintenance.
3. **Specific requirements:** Design of foundations. Excavation and backfill make up. Connection details. Chlorination certification. Any other relevant items not listed.
4. **Format:** Paper and digitally
5. **Number of copies:** 2
6. **Delivery to:** The Principal Designer by (date) 1 week after completion.

115 The Health and Safety File

1. **Responsibility:** the Principal Designer
2. **Content:** Obtain and provide the following information: on the works being carried out. Hazards that have not been eliminated through design and construction phases and how they have been addressed..
3. **Format:** Digitally
4. **Delivery to:** Client By (date): within 1 month after completion.

155 Content of the building manual

1. **General:** Details of the property, the parties, fire safety strategy, operational requirements and constraints of a general nature.
2. **Building fabric:** Design criteria, maintenance details, product details, and environmental and trafficking conditions.
3. **Building services:** Description and operation of systems, diagrammatic drawings, record drawings, identification of services, product details, equipment settings, maintenance schedules, consumable items, spares and emergency procedures.
4. **Documentation:** Guarantees, warranties, maintenance agreements, test certificates and reports.

160 Presentation of building manual

1. **Format:** A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
2. **Selected drawings needed to illustrate or locate items mentioned in the Manual:** Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
3. **As-built drawings:** The main sets may form annexes to the Manual.

Ω End of Section

A40

Contractor's general cost items: management and staff

Clauses - No Amendments

Ω End of Section

A41

Contractor's general cost items: site accommodation

Clauses - No Amendments

Ω End of Section

A42

Contractor's general cost items: services and facilities

Clauses - No Amendments

Ω End of Section

A43

Contractor's general cost items: mechanical plant

Clauses

110 Mechanical plant

1. Cost significant items: Excavators and breaking equipment possible hire of equipment suitable to undertake the civils/utilities works to the car park and footpath.

Ω End of Section

A44

Contractor's general cost items: temporary works

Clauses - No Amendments

Ω End of Section

A50

Work/ products by/ on behalf of the employer

Clauses

110 Work by/ on behalf of employer

1. **Title:** Purchase and Installation of Changing Places modular unit
2. **Description of work:** Responsibility of the Principal Contractor to liaise with and obtain critical information from the Changing Places manufacturer to ensure installation is correct. Changing Places manufacturer will require 2 weeks on site to install and test and commission. Contractor to continue with remaining elements of landscaping and groundworks during this period. This is to be confirmed.
3. **Carried out by:** Modular unit installation undertaken by Changing Places Manufacturer. No cost to Principal Contractor. Client has purchased the unit.
4. **Attendance:** Allow for the following additional to those reasonably required by the conditions of contract:- Allow for all general and specific attendances required by the changing places manufacturer. Details TBC.

120 Products provided by/ on behalf of employer

1. **General:** Details of such products are given in the work sections, for fixing as part of the contract. Use for no other purpose than the Works.
2. **Handling:** Accept delivery, check against receipts and take into appropriate storage.
3. **Surplus products:** Keep safe and obtain instructions.

Ω End of Section

A53

Work by statutory authorities/ undertakers

Clauses

120 Work by statutory undertakers

1. **Item:** National Grid - New power feed to site.
South West Water - New water supply to site boundary.
South West Water permission/liaison to connect to existing foul drainage run connection.
2. **Description of work:** National Grid -to excavate from sub station to position adjacent the Changing Places unit. Contractor to provide service riser to unit to enable Changing Places manufacturer to connect to the unit.
South West Water - to excavate within Jubilee Road to car park boundary. Contractor to excavate and lay new 25mm pipework and standpipes for SWW to connect.
South West Water - Contractor to communicate with SWW to enable the connection to SWW existing foul drainage in the car park.
3. Allow for general attendance.

Ω End of Section

A54

Provisional work/ items

Clauses

590 Contingencies

1. Provisional sum: Include: 10% of the calculated costs of the works for unforeseen items.

Ω End of Section

A55 Dayworks

Clauses

150 Daywork Charges

1. **General:** Where an instruction is issued requiring a variation which is not of a similar character or executed under similar conditions to work included in the Contract and where work cannot properly be measured and valued, the Contractor shall be allowed payment on a daywork basis at the following rates:
2. RICS/ Construction Confederation: Prime cost of labour: The sum of £
 - 2.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
3. Prime cost of materials and goods: The sum of £
 - 3.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
4. Prime cost of plant: The sum of £
 - 4.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
5. RICS/ Electrical Contractors' Association: Prime cost of labour: The sum of £
 - 5.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
6. Prime cost of materials and goods: The sum of £
 - 6.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR
7. Prime cost of plant: The sum of £
 - 7.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
8. RICS/ Electrical Contractors' Association of Scotland: Prime cost of labour: The sum of £
 - 8.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
9. Prime cost of materials and goods: The sum of £
 - 9.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
10. Prime cost of plant: The sum of £
 - 10.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
11. RICS/ Building Engineering Services Association: Prime cost of labour: The sum of £
 - 11.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
12. Prime cost of materials and goods: The sum of £
 - 12.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
13. Prime cost of plant: The sum of £
 - 13.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
14. RICS/ National Association of Plumbing, Heating and Mechanical Services contractors: Prime cost of labour: The Sum of £

- 14.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
- 15. Prime cost of materials and goods: The Sum of £
- 15.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.
- 16. Prime cost of plant: The Sum of £
- 16.1. Percentage adjustment to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.

Ω End of Section



Specification created using NBS Chorus



NBS Specification

RTP Surveyors

Wadebridge Town Council

Wadebridge Town Council Toilet Blocks, Jubilee Road SOW 15-11-2023

Installation of a Changing Places unit to the lower section of the Jubilee Road car park. Including new electric and water supply and drainage connection.

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D20

Excavating and filling

Generally/the site

112 Site investigation report

1. A report has not been provided.

145 Variations in ground water level

1. **Give notice:** If levels encountered are significantly different from levels in the site investigation report or previously measured.

150 Existing services, features and structures

1. **Services:** See section A12 for locations.
2. **Site features to be retained:** See section A12 for details.
3. **Structures:** See section A34 for details of protection.

Clearance/excavating

168 Site clearance

1. **Timing:** Before topsoil stripping, if any.
2. **General:** Clear site of rubbish, debris and vegetation. Do not compact topsoil.

170 Removing small trees, shrubs, hedges and roots

1. **Identification:** Refer to Objective Tree Consultancy BS5837 Tree Survey Report, ensure no trees are removed as per report recommendations.
2. **Small trees, shrubs and hedges:** Cut down only those not listed in Objective Tree Consultancy BS5837 Tree Survey Report.
3. **Roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
4. **Safety:** Comply with Forest Industry Safety Accord safety leaflets.

225 Handling topsoil

1. **Standard:** To BS 3882.
2. **Aggressive weeds**
 - 2.1. **Species:** Notify the presence of species included in the Weeds Act, section 2, or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - 2.2. **Give notice:** Obtain instructions before moving topsoil.
3. **Contamination:** Do not mix topsoil with:
 - 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 3.2. Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
 - 3.3. Oil, fuel, cement or other substances harmful to plant growth.
 - 3.4. Other classifications of topsoil.
4. **Multiple handling:** Keep to a minimum. Use topsoil immediately after stripping.

275 Foundation bearing

1. **Requirement:** Foundations are designed to bear on:

- 1.1. **Strata:**
- 1.2. **Safe bearing capacity (minimum):** Contractor design. Information provided by Changing Places manufacturer requirements. 150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad.
2. **Give notice:** If the material at the design depth of the foundation does not comply with this description, or contains soft or hard spots or highly variable material.

290 Foundations in made up ground

1. **Depth:** Excavate down to a natural formation of undisturbed subsoil.
2. **Discrepancy:** Give notice if this is greater or less than depth given.

310 Unstable ground

1. **Generally:** Ensure that the excavation remains stable at all times.
2. **Give notice:** Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
3. **Take action:** If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

330 Unrecorded features

1. **Give notice:** If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

Disposal of materials

410 Excavated topsoil storage

1. **Storage:** Stockpile in temporary storage heaps safely adjacent the excavation within the site fencing .

450 Water

1. **Generally:** Keep all excavations free from water until:
 - 1.1. Formations are covered.
 - 1.2. Below ground constructions are completed.
 - 1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. **Drainage:** Form surfaces of excavations and fill to provide adequate falls.
3. **Removal of water:** Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 Ground water level, springs or running water

1. **Give notice:** If it is considered that the excavations are below the water table.
2. **Springs/ Running water:** Give notice immediately if encountered.

457 Pumping

1. **General:** Do not disturb excavated faces or stability of adjacent ground or structures.
2. **Pumped water:** Discharge without flooding the site or adjoining property.
3. **Sumps:** Construct clear of excavations. Fill on completion.

3.1. Locations: Contractor's choice

Filling

500 Proposed fill materials

1. **Details:** Contractor design. Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - 1.1. Type and source of imported fill.
 - 1.2. Proposals for processing and reuse of material excavated on site.
 - 1.3. Test reports as required elsewhere.

510 Hazardous, aggressive or unstable materials

1. **General:** Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
 - 1.1. Frozen or containing ice.
 - 1.2. Organic.
 - 1.3. Contaminated or noxious.
 - 1.4. Susceptible to spontaneous combustion.
 - 1.5. Likely to erode or decay and cause voids.
 - 1.6. With excessive moisture content, slurry, mud or from marshes or bogs.
 - 1.7. Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
 - 1.8. Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

520 Frost susceptibility

1. **General:** Except as allowed below, fill must be non frost-susceptible as defined in the 'Specification for highway works', clause 801.8.
2. **Test reports:** If the following fill materials are proposed, submit a laboratory report confirming they are non frost- susceptible:
 - 2.1. Fine grained soil with a plasticity index less than 20%.
 - 2.2. Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
 - 2.3. Crushed chalk.
 - 2.4. Crushed limestone fill with average saturation moisture content in excess of 3%.
 - 2.5. Burnt colliery shale.
3. **Frost-susceptible fill:** May only be used:
 - 3.1. At depths below the finished ground surface greater than: 350 mm
 - 3.2. Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
 - 3.3. Where frost heave will not affect structural elements.

530 Placing fill

1. **Surfaces of excavations and areas to be filled:** Free from loose soil, topsoil, organic material, rubbish and standing water.
2. **Freezing conditions:** Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
3. **Adjacent structures, membranes and buried services**
 - 3.1. Do not overload, destabilise or damage.
 - 3.2. Submit proposals for temporary support necessary to ensure stability during filling.

- 3.3. Allow 14 days (minimum) before backfilling against in situ concrete structures.
4. **Layers:** Place so that only one type of material occurs in each layer.
5. **Earthmoving equipment:** Vary route to avoid rutting.

535 Compaction generally

1. **General:** Compact fill not specified to be left loose as soon as possible after placing.
2. **After compaction:** Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material and the like.
3. **Defective areas:** Remove and recompact to full thickness of layer using new material.

550 Geotextile sheet

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** Contractor's choice
2. **Type:** Contractor's choice
3. **Polymer type:** Contractor's choice
4. **Recycled content:** Contractor's choice
5. **Jointing:** Contractor's choice
6. **Preparation of subgrade:** Before laying sheet, remove humps and sharp projections. Fill hollows
7. **Protect from**
 - 7.1. Exposure to light.
 - 7.2. Contaminants.
 - 7.3. Materials listed as potentially deleterious by geotextile manufacturer.
 - 7.4. Wind uplift.

Bioremediation - Not Used

'specification for highway works: earthworks specification' appendices

850 Compacted general filling/ earthworks

1. **Specification:** MCHW Volume 1: 'Specification for highway works' (SHW), Earthworks section, clauses Contractor to check their design with their structural engineer..

Ω End of Section

E05

In situ concrete construction generally

To be read with preliminaries/ general conditions.

210 Contractor's structural design

1. **Description:** Concrete pads, foundation blocks and concrete ramp. Excavation for trenching, backfill and surface finish.
2. **Design responsibility:** Contractors design
3. **Requirement**
 - 3.1. **Generally:** As section B50.
 - 3.1.1. **Modifications:** None
 - 3.2. **Structure:** Contractor design . Complete the design and prepare reinforcement drawings and schedules in accordance with the designated code of practice and to satisfy the specified performance criteria. Information provided by Changing Places manufacturer requirements. 150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against contractors engineer's assumptions prior to C35 concrete pour.
 - 3.3. **Additional requirements:** None
4. **Member sizes and locations:** Pads and foundation blocks to be constructed to ensure the finished floor level of the Changing Places unit is 50mm higher than the existing surface of the car park.
5. **Design and production information:** As preliminaries

215 Contractor's structural detailing of reinforcement

1. **Responsibility:** Contractors design
2. **Requirement:** Complete the detailing/ scheduling of reinforcement in accordance with the designated code of practice.
3. **Design information**
 - 3.1. **Designed reinforcement:** Marked up general arrangement drawings
 - 3.2. **Additional reinforcement:** Provide and adjust spacing of reinforcement as required by designated code of practice for the control of cracking.
4. **Reinforcement**
 - 4.1. **Order of priority when clashes occur:** Contractors design
 - 4.2. **Other detailing requirements:** None

225 Temperature records

1. **Requirement:** Throughout period of concrete construction record:
 - 1.1. **Daily:**
 - 1.2. **Under adverse temperature conditions:** Temperature at commencement and end of placing.
2. **Equipment:**
 - 2.1. **Location:** In the shade, close to the structure.

235 Openings, inserts and fixings

1. **Requirement:** Collate all information.

2. **Submit:** Details where openings, inserts and fixings can only be accommodated by adjustments to reinforcement.
3. **Locate reinforcement:** To ensure specified minimum cover at openings and inserts and to be clear of fixing positions.

290 Accuracy of construction

1. **Setting out:** To BS 5964-1.
2. **Geometrical tolerances:**
 - 2.1. **Conflicts:** Notwithstanding tolerances specified elsewhere, do not exceed requirements for compliance with the designated code of practice.
 - 2.2. **Substitution of alternative requirements:**

300 Levels of structural concrete floors

1. **Tolerances (maximum)**
 - 1.1. **Level of floor:** As Preliminaries section A33
 - 1.2. **Steps in floor level:** Not applicable

310 Surface regularity of concrete floors to BS 8204 - general

1. **Standard:** To BS 8204-1 or -2.
2. **Measurement:** From underside of a 2 m straightedge (between points of contact) placed anywhere on surface and using a slip gauge.

410 In situ concrete construction - supervision/ checking

1. **Standard:** Contractor to comply with the guidance required for their design.

430 Surface cracking

1. **Description:** The surface directly beneath the supports for the Changing Places unit.
2. **Method of measurement:** Contractors designer to confirm requirement.
3. **Maximum crack width:**
4. **Action:** Should cracks occur that are wider than the maximum crack width:
 - 4.1. **Survey:** Frequency and extent of such cracks and investigate cause.
 - 4.2. **Report:** Findings together with recommendations for rectification.

Ω End of Section

E10

Mixing/casting/curing in situ concrete

Concrete

101 Specification

1. Concrete generally: To BS 8500-2.
2. Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

105 Designated concrete

1. Description: For pad foundation, ramp and any trench/drainage as required for contractors design. See information for Changing Places manufacturer requirements as follows. 150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against contractors engineer's assumptions prior to C35 concrete pour.
2. Designation: Included in contractor design
3. Fibres:
4. Aggregates
 - 4.1. Size (maximum): Contractor's choice
 - 4.2. Coarse recycled aggregates: Contractor's choice
 - 4.3. Additional aggregate requirements:
5. Special requirements for cement/ combinations: Included in contractor design
6. Consistence class: Included in contractor design
7. Chloride class: Included in contractor design
8. Admixtures: Included in contractor design
9. Additional mix requirements: Included in contractor design

115 Designated cement-bound concrete

1. Description: For car park and footpath areas is required for contractor design.
2. Designation: Included in contractor design
3. Minimum cement or combination content: 3%.
4. Aggregates
 - 4.1. Size (maximum): Included in contractor design
5. Coarse recycled aggregates: Included in contractor design

Materials, batching and mixing

215 Ready-mixed concrete

1. Production plant: Currently certified by a body accredited by UKAS to BS EN ISO/IEC 17065 for product conformity certification of ready-mixed concrete.
2. Source of ready-mixed concrete: Obtain from one source if possible . Otherwise, submit proposals.
 - 2.1. Name and address of depot: Submit before any concrete is delivered.
 - 2.2. Delivery notes: Retain for inspection.
3. Declarations of nonconformity from concrete producer: Notify immediately.

218 Site mixed concrete

1. Batching by mass
 - 1.1. Restrictions: Included in contractor design
 - 1.2. Accuracy of measuring devices: To BS EN 206, clause 9.6.2.2.
 - 1.2.1. Tolerances for quantity of constituent material: To BS EN 206, Table 27.
2. Batching by volume
 - 2.1. Restrictions: Included in contractor design
3. Mixing: To BS 8000-2.1, subsections 2, 3 and 4.

221 Information about proposed concretes

1. Submit when requested
 - 1.1. Details listed in BS 8500-1, clause 5.2.
 - 1.2. Additional information: Included in contractor design

230 Interruption of supply during concreting

1. Elements without joints: Where elements are detailed to be cast in a single pour without joints, make prior arrangements for a back-up supply of concrete.
2. Elsewhere
 - 2.1. Preparation: Manage pour to have a full face, and have materials available to form an emergency construction joint while concrete can still be worked.
 - 2.2. Before pour is completed: Submit location and details of joint, make proposals for joint preparation.

490 Properties of fresh concrete

1. Adjustments to suit construction process: Determine with concrete producer . Maintain conformity to the specification.

Project testing/ certification - Not Used

Placing/ compacting/ curing and protecting

640 Construction joints

1. Location of joints: Included in contractor design
2. Preparation of joint surfaces: Included in contractor design

648 Adverse temperature conditions

1. Requirement: Submit proposals for protecting concrete when predicted ambient temperatures indicate risk of concrete freezing or overheating.

650 Surfaces to receive concrete

1. Cleanliness of surfaces immediately before placing concrete: Clean with no debris, tying wire clippings, fastenings or free water.

670 Transporting

1. General: Avoid contamination, segregation, loss of ingredients, excessive evaporation and loss of workability . Protect from heavy rain.
2. Entrained air: Anticipate effects of transport and placing methods in order to achieve specified air content.

680 Placing

1. **Records:** Maintain for time, date and location of all pours.
2. **Timing:** Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
3. **Temperature limitations for concrete:** 30°C (maximum) and 5°C (minimum), unless otherwise specified. Do not place against frozen or frost covered surfaces.
4. **Continuity of pours:** Place in final position in one continuous operation up to construction joints. Avoid formation of cold joints.
5. **Discharging concrete:** Prevent uneven dispersal, segregation or loss of ingredients or any adverse effect on the formwork or formed finishes.
6. **Thickness of layers:** To suit methods of compaction and achieve efficient amalgamation during compaction.
7. **Poker vibrators:** Do not use to make concrete flow horizontally into position, except where necessary to achieve full compaction under void formers and cast-in accessories and at vertical joints.

690 Compacting

1. **General:** Fully compact concrete to full depth to remove entrapped air. Continue until air bubbles cease to appear on the top surface.
 - 1.1. **Areas for particular attention:** Around reinforcement, under void formers, cast-in accessories, into corners of formwork and at joints.
2. **Consecutive batches of concrete:** Amalgamate without damaging adjacent partly hardened concrete.
3. **Methods of compaction:** To suit consistence class and use of concrete.

720 Vibrators

1. **General:** Maintain sufficient numbers and types of vibrator to suit pouring rate, consistency and location of concrete.
2. **External vibrators:** Obtain approval for use .

810 Curing generally

1. **Requirement:** Keep surface layers of concrete moist throughout curing period, including perimeters and abutments, by either restricting evaporation or continuously wetting surfaces of concrete.
 - 1.1. **Surfaces covered by formwork:** Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
 - 1.2. **Top surfaces:** Cover immediately after placing and compacting. If covering is removed for finishing operations, replace it immediately afterwards.
2. **Surface temperature:** Maintain above 5°C throughout the specified curing period or four days, whichever is longer.
3. **Records:** Maintain details of location and timing of casting of individual batches, removal of formwork and removal of coverings. Keep records on site, available for inspection.

811 Coverings for curing

1. **Sheet coverings:** Suitable impervious material.
2. **Curing compounds:** Selection criteria:
 - 2.1. **Curing efficiency:** Not less than 75% or for surfaces exposed to abrasion 90%.
 - 2.2. **Colouring:** Fugitive dye.
 - 2.3. **Application to concrete exposed in the finished work:** Readily removable without disfiguring the surface.

- 2.4. Application to concrete to receive bonded construction/ finish: No impediment to subsequent bonding.
3. Interim covering to top surfaces of concrete: Until surfaces are in a suitable state to receive coverings in direct contact, cover with impervious sheeting held clear of the surface and sealed against draughts at perimeters and junctions.

818 Curing periods generally

1. Minimum periods: When not otherwise indicated, to BS EN 13670, Annex F.8.5.

840 Protection

1. Prevent damage to concrete, including
 - 1.1. Surfaces generally: From rain, indentation and other physical damage.
 - 1.2. Surfaces to exposed visual concrete: From dirt, staining, rust marks and other disfiguration.
 - 1.3. Immature concrete: From thermal shock, physical shock, overloading, movement and vibration.
 - 1.4. In cold weather: From entrapment and freezing expansion of water in pockets, etc.

Ω End of Section

E20

Formwork for in situ concrete

Generally/ preparation

110 Loadings

1. Requirement: Design and construct formwork to withstand the worst combination of the following:
 - 1.1. Total weight of formwork, reinforcement and concrete.
 - 1.2. Construction loads including dynamic effects of placing, compacting and construction traffic.
 - 1.3. Wind and snow loads.

132 Propping

1. General: Prevent deflection and damage to the structure. Carry down props to bearings strong enough to provide adequate support throughout concreting operations.
2. Method statement: Submit proposals for prop bearings and sequence of propping/ repropping and backpropping.
 - 2.1. Timing of submission: To be agreed between contractor and contractors designer.

145 Permanent formwork

1. Location and materials: If and where contractors design requires.
2. Standard: Design profiled steel shuttering as permanent formwork in accordance with BS EN 1993-1-3.

170 Work below ground

1. Description: - Pad foundations
2. Casting vertical faces against faces of excavation: Permitted provided face of excavation is stable
 - 2.1. Requirements: Contractor design to confirm requirements

Construction

310 Accuracy

1. General requirement for formwork: Accurately and robustly constructed to produce finished concrete in the required positions and to the required dimensions.
2. Formed surfaces: Free from twist and bow (other than any required cambers).
3. Intersections, lines and angles: Square, plumb and true.

Striking - Not Used

Formed finishes - Not Used

Ω End of Section

E30

Reinforcement for in situ concrete

Reinforcement

110 Quality assurance of reinforcement

1. Standards
 - 1.1. Reinforcement: To BS 4449, BS 4482, BS 4483 or BS 6744.
 - 1.2. Cutting and bending: To BS 8666.
2. Source of reinforcement: Companies holding valid certificates of approval for product conformity issued by the UK Certification Authority for Reinforcing Steels (CARES).

Workmanship - Not Used

Ω End of Section

E40

Designed joints in in situ concrete

To be read with preliminaries/ general conditions.

120 Construction/ movement joints generally

1. **Accuracy:** Position and form joints accurately, straight, well-aligned and truly vertical, horizontal or parallel with setting out lines of the building.
2. **Modifications to joint design or location:** Included in contractor design
3. **Placing concrete to form movement joints**
 - 3.1. Maintain effectiveness of joints. Prevent concrete entering joints, penetrating or impregnating compressible joint fillers.
 - 3.2. Do not place concrete simultaneously on both sides of movement joints.

211 Formed joints in concrete wearing surfaces

1. **Temporary forms:** Square edged with a steel top surface.
2. **Placing concrete:** Compact thoroughly at edges to give level, closely abutted joints with no lipping.

Ω End of Section

E41

Worked finishes to in situ concrete

To be read with preliminaries/ general conditions.

120 Directly finished concrete wearing surfaces

1. Description: To concrete pad foundation and ramp.
2. Abrasion resistance class to BS 8204-2: Contractors design
3. Tolerances
 - 3.1. Surface regularity: As clause E05 with brushed finish
 - 3.2. Level: Permissible deviation of wearing surface from datum (maximum): To ensure the foundation blocks provides a level surface between each foundation pad for the Changing Places unit to be installed..
4. Curing: As section E10.

150 Finishing

1. Timing: Carry out at optimum times in relation to setting and hardening of concrete.
2. Prohibited treatments to concrete surfaces
 - 2.1. Wetting to assist surface working.
 - 2.2. Sprinkling cement.

230 Brushed finish

1. Surface on completion: Light even texture.

Ω End of Section

L30

Stairs/ ladders/ walkways/ handrails/ balustrades

Preliminary information/ requirements

105 Contractor's design

1. Description: Key Clamp galvanised steel handrail to ramped area.
2. Design responsibility: Determine the type, sizes and numbers of fixings
3. Structural and fire requirements
 - 3.1. Generally: As section B50.
 - 3.2. Modifications: None
 - 3.3. Design: Complete the design in accordance with the designated code of practice to satisfy specified performance criteria.
4. Functional requirements: External walkways to BS 8300-1
5. Additional requirements: Ensure compliance with Building Regulations and BS 8300.
6. Design and production information: As Preliminaries section A31
7. Timing of submissions: As Preliminaries section A31

107 Completion of design

1. Description: Key Clamp galvanised steel handrail to ramped area.
2. Requirement: Complete the detailed design to satisfy specified performance criteria and coordinate with the detailed design of related and adjacent work.
 - 2.1. Standard: To Building Regulations (Eng) Approved Documents K and M
3. Structural requirements: As section B50.
4. Additional requirements: None
5. Design and production information: As Preliminaries section A31
6. Timing of submissions: As Preliminaries section A31

130 Site dimensions

1. Procedure: Before starting work on designated items take site dimensions.

Components - Not Used

Installation - Not Used

Completion - Not Used

Ω End of Section

N16

Bird and vermin control systems

General

120 Rodent control

1. Description: TO DUCTS
2. System manufacturer: Contractor's choice
3. Detection: None
4. Prevention: Guards
5. Elimination: None
6. Other requirements: None

System performance - Not Used

Products - Not Used

Fabrication - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

P30

Trenches, pipeways and pits for buried engineering services

General

140 Buried engineering services systems

1. Description: FOR LV ELECTRICAL CABLES. FOR WATER SERVICE PIPES
2. Positions and dimensions: To enable connection to the Changing Places unit distribution board and incoming mains location as per Manufacturers drawing.
3. Service routes and enclosures: Contractor design
 - 3.1. Support and backfill: Contractor design
 - 3.2. Accessories: Contractor design
4. Access points: Contractor design

150 Access and inspection chamber systems

1. Description: FOR WATER SERVICE PIPES
2. Positions and dimensions: Part of contractor design.
3. Chamber material: Part of contractor design.
 - 3.1. Other chamber materials: Part of contractor design.
4. Backfill: Part of contractor design.
5. Cover slabs
 - 5.1. Type: Part of contractor design.
 - 5.2. Thickness: Part of contractor design.
 - 5.3. Openings: Part of contractor design.
6. Accessories: Part of contractor design.
 - 6.1. Bedding: Part of contractor design.

150 Access and inspection chamber systems Type A

1. Description: FOR LV ELECTRICAL CABLES
2. Positions and dimensions: Part of contractor design.
3. Chamber material: Part of contractor design.
 - 3.1. Other chamber materials: Part of contractor design.
4. Backfill: Part of contractor design.
5. Cover slabs
 - 5.1. Type: Part of contractor design.
 - 5.2. Thickness: Part of contractor design.
 - 5.3. Openings: To suit access covers
6. Accessories: Part of contractor design.
 - 6.1. Bedding: Part of contractor design.

System performance

210 Design

1. Design: Complete the design of The access and inspection chamber systems and the buried engineering services systems.

2. **Extent of work**
 - 2.1. **Type of service:** For water service, drainage pipes & for LV electrical cables
 - 2.2. **Location:** As required to comply with current legislation and enable connection to the Changing Places unit.
3. **Ground investigation report:** Submit proposals for ground investigation to provide data for the design of the proposed work
4. **Performance criteria:** Provide accessibility to services for inspection and testing. Provide an additional duct routes for future services to a proposed electric car charger riser.

Products

301 Access covers, manhole tops and frames

1. **Description:** Stop tap for mains water supply to Changing Places Unit. Most appropriate location to be confirmed by contractor prior to installation.
2. **Standard:** To BS EN 124-1 and BS EN 124-2
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice

305 Proprietary access and inspection chambers

1. **Description:** For water services
2. **Standard:** To BS EN 13598-1
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice

305 Proprietary access and inspection chambers Type A

1. **Description:** For electric car charging point.
2. **Standard:** To BS EN 13598-1
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice

305 Proprietary access and inspection chambers Type B

1. **Description:** Foul drainage
2. **Standard:** To BS EN 13598-1
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice

320 Pipeducts

1. **Description:** FOR ELECTRIC CABLE PIPES
2. **Manufacturer:** Contractor's choice
 - 2.1. **Product reference:** Contractor's choice

411 Selected as-dug material

1. **Material:** Selected, free from vegetable matter, rubbish, frozen soil and excluding lumps and stones retained on a 40 mm sieve.

412 Granular material

1. **Material:** Granular: To Department for Transport (DfT) 'Specification for the reinstatement of openings in highways'.

475 Drawlines

1. Number of drawlines: One per duct
2. Material: To the requirements of service undertakers
 - 2.1. Diameter: To the requirements of service undertakers

480 Plastics warning devices for underground cables and pipelines

1. Manufacturer: Contractor's choice
2. Legend: 'CAUTION - ELECTRICAL CABLES BELOW' every 300 mm along the tape length
3. Wire detection aid: Not required

Execution

610 Routes of services below ground

1. Locations of existing service runs and pipeducts: Scarring is noted to the public footpath, communications cables and other services may be present. The location of the existing foul drainage is shown on Waste strumap PL27 7AE
2. Site survey: Required
 - 2.1. Purpose: To verify location of existing services
 - 2.2. Submit: Copy of survey, notifying the design team of any discrepancies
3. Locations of new service runs and pipeducts: Submit proposals
 - 3.1. Temporary markings: For hard surfaces, indicate new service runs and pipeducts with clearly visible waterproof markings

620 Existing roads and pavings

1. Excavation and backfilling: To Department for Transport (DfT) 'Specification for the reinstatement of openings in highways'

625 Trenches

1. Trench depth: No less than 750mm for water supply. Contractor design for all trenching.
2. Trench width: Contractor's choice
3. Trench sides: Contractors design
4. Trench bottoms: Remove mud, rock projections, boulders and hard spots. Trim level
5. Inspection: Provide sufficient notice for SWW to inspect.

630 Cutting tree roots in service trenches

1. Protected area: See report provided by Objective Tree Consultancy Limited, adhere to recommendations.
2. Roots in protected area: Do not cut.
3. Roots exceeding 25 mm diameter: Give notice and do not cut without permission.
4. Cutting: See report provided by Objective Tree Consultancy Limited, adhere to recommendations.
5. Unintentionally severed roots: See report provided by Objective Tree Consultancy Limited, adhere to recommendations.
6. Backfilling: Retained topsoil, as section D20

640 Laying pipeducts

1. General: Lay straight to line, true to gradient or level on an even continuous bed
2. Clearance between pipeducts where they cross (minimum): 50 mm

3. **Drawlines:** During laying, thread through pipeducts. Leave in place for future pulling through of services
 - 3.1. **Length:** As specified by service undertaker
4. **Seal:** Ends of pipeducts terminating inside buildings.
 - 4.1. **Material:** Vermin-proof expanding foam
5. **Protection:** Protect from ingress of debris. During construction, temporarily seal all exposed ends

645 Pipeduct bedding and surround – selected as-dug material

1. **As-dug bed:** Trimmed by hand, level or to accurate gradient. Replace overdig with compacted spoil
2. **Bedding:** Selected as-dug material thoroughly compacted by hand in 150 mm maximum layers
 - 2.1. **Thickness (minimum):** 100 mm
3. **Surround:** Selected as-dug material. Lay and compact to 150 mm (minimum) above pipeduct crown

665 Pipeduct runs near foundations

1. **Concrete surround:** Provide in locations where bottom of trench is lower than bottom of foundation. Measurements are horizontal clear distances between nearest edges of foundations and pipe trenches
 - 1.1. **Trenches less than one metre from foundations:** Top of concrete surround not lower than bottom of foundation

670 Bedding of frames for access covers and surface boxes

1. **Bedding:** Bed solidly in cement:sand mortar, centrally over opening and level with surrounding finishes
 - 1.1. **Hard surfaces:** Road and pavement finishes to be flush, and square with block or slab joints
 - 1.2. **Soft landscaping:** In grassed areas set 30 mm below soil surface. Haunch the back edge of the bedding so that it is not visible

675 Backfilling generally

1. **Backfill from top of pipeduct surround:** Contractors design
2. **Backfilling:** Contractors design

680 Backfilling under roads and pavings

1. **Backfill from top of pipeduct surround:** Contractors design
2. **Backfilling:** Contractors design

Completion

910 Inspection

1. **Dates for inspection:** Sufficient time and notice to be given to SWW to inspect.
 - 1.1. **Requirement:** Give notice
 - 1.2. **Period of notice (minimum):** As required by SWW
2. **Inspection of pipeducts:** Before backfilling.
 - 2.1. **Inspection by:** Service undertaker's representative

920 Testing

1. **Timing:** Where services require testing as set out in the respective work section; undertake tests before backfilling the service

2. Notice for inspection (minimum): As required by SWW
3. Defects: Report immediately.

930 Documentation

1. Record drawings: Submit details of system make-ups, locations and arrangement of services
 - 1.1. Format: Electronic Electronic
2. Submittal date: At handover

Ω End of Section

P31

Holes, chases, covers and supports for services

Products - Not Used

Execution

610 Coordination

1. Locations and dimensions of holes and chases for services: Submit details Works to be carried out in association with the Changing Places manufacturers requirements. Contractor to liaise with Changing Places manufacturer..

630 Holes, recesses and chases in precast concrete

1. Cutting and drilling: Not permitted except as indicated on drawings.

690 Installing pipe sleeves

1. Sleeves: Fit to pipes passing through building fabric.
2. Material: Match pipeline.
3. Size: One or two sizes larger than pipe to allow clearance.
4. Finish: Install sleeves flush with building finish. In areas where floors are washed down, install protruding 100 mm above floor finish.
5. Masking plates: Fit at visible penetrations, including through false ceilings of occupied rooms.

710 Sealing

1. Description: Risers to the Changing Places unit.
2. Service: Electrical conduits Soil vent pipes Waste pipes
3. Location: Pipe sleeves through walls and floors
4. Sealing material: Expanding foam and Silicone sealant
5. Method: Neatly around pipes cutting off flush with the top.
6. Performance requirement: Prevent insect ingress Watertight

Ω End of Section

Q10

Kerbs/ edgings/ channels/ paving accessories

Types of kerbs/edgings and channels

112 Precast concrete

1. **Description:** Works to be carried out by HRSWA accredited contractor setting of kerbs and drainage to be contractor design in accordance with the relevant approved legislation.
2. **Standard:** To BS EN 1340.
3. **Recycled content:** Contractor's choice

180 Drainage channel systems with gratings

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** For car park/ramp drainage
2. **Size:** Sized/designed by contractor
3. **Type of fall:** Integral continuous fall
4. **Finish:** Standard
5. **Cover gratings:** Galvanized steel, slotted
 - 5.1. **Fixings:** Locking bars and bolts
 - 5.2. **Finish/ Colour:** Galvanized

Roads/paving accessories/ marking/ demarcation

395 Road marking (thermoplastic)

1. **Standard:** Road Safety Markings Association standard specification document for road marking and road studs (StanSpec).
2. **Manufacturer:** Contractor's choice
 - 2.1. **Product reference:** Contractor's choice
3. **Colour:** White For remarking parking bays affected by the works and new disabled bays.
4. **Retroreflectivity to BS EN 1436:** Not required (Class R0)

Laying

510 Laying kerbs, edgings and channels

1. **Cutting:** Neat, accurate and without spalling. Form neat junctions.
 - 1.1. **Long units (450 mm and over) minimum length after cutting:** 300 mm.
 - 1.2. **Short units minimum length after cutting:** The lower of one third of their original length or 50 mm.
2. **Bedding of units:** Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
3. **Securing of units:** After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

520 Adverse weather

1. **Conditions:** Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

530 Concrete for foundations, races and haunching

1. **Standard:** To BS 8500-2.
2. **Designated mix:** Not less than GEN0 or Standard mix ST1.
3. **Workability:** Very low.

540 Cement mortar bedding

1. **General:** To section Z21.
2. **Mix (Portland cement:sand):** 1:3.
 - 2.1. **Portland cement:** Class CEM I 42.5 to BS EN 197-1.
 - 2.2. **Sand:** to BS EN 12620, grade 0/4 or 0/2 (MP).
3. **Bed thickness:** 12-40 mm.

570 Channels

1. **Installation:** To an even gradient, without ponding or backfall.
2. **Lowest points of channels:** 6 mm above drainage outlets.

580 Drainage channel systems

1. **Installation:** To an even gradient, without ponding or backfall. Commence laying from outlets.
2. **Silt and debris:** Removed from entire system immediately before handover.
3. **Washing and detritus:** Safely disposed without discharging into sewers or watercourses.

620 Accuracy

1. **Deviations (maximum)**
 - 1.1. **Level:** ± 6 mm.
 - 1.2. **Horizontal and vertical alignment:** 3 mm in 3 m.

625 Regularity of paved surfaces

1. **Maximum undulation of (non-tactile) paving surface:** 3 mm.
 - 1.1. **Method of measurement:** Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
2. **Difference in level between adjacent units (maximum)**
 - 2.1. **Joints flush with the surface:** Twice the joint width (with 5 mm max difference in level).
 - 2.2. **Recessed, filled joints:** 2 mm.
 - 2.2.1. **Recess depth (maximum):** 5 mm.
 - 2.3. **Unfilled joints:** 2 mm.
3. **Sudden irregularities:** Not permitted.

630 Narrow mortar joints

1. **Jointing:** Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled, tightly butted and surplus mortar removed immediately.
 - 1.1. **Joint width:** 3 mm.

640 Tooled mortar joints

1. **Jointing:** Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
 - 1.1. **Joint width:** 6 mm.

650 Sealant movement joints

1. **Joint filler:** Compressible cellular rubber or plastics compatible with specified sealant.
2. **Filler installation:** Built in as work proceeds, extending through haunching and foundation. Filler positioned accurately to fully support sealant at the recommended depth below exposed faces of units.
3. **Joint width:** 10 mm
4. **Sealant:** Contractor's choice
 - 4.1. **Colour:** Colour match to kerbs
5. **Sealant application:** As section Z22.

Ω End of Section

Q20

Granular sub-bases to roads/ pavings

To be read with preliminaries/ general conditions.

110 Thicknesses of sub-base/ subgrade improvement layers

1. Thicknesses: See sections: Q22 Coated macadam/asphalt roads/pavings Q21 In situ concrete roads/pavings/bases. Contractors design/engineer drawings/calculations requirements .

120 Checking of subgrades

1. Anticipated subgrade conditions
 - 1.1. Soil type: Contractors design/engineer drawings/calculations requirements
 - 1.2. Plasticity index:
 - 1.3. CBR (minimum):
 - 1.4. Depth below formation level to groundwater table:
2. Subgrade variation: If material appears to vary from anticipated conditions, or if there are extensive soft spots,
3. Submit: Results and obtain instructions before proceeding.

130 Herbicides

1. Type: Contractor's choice
2. Application: To subgrade of Car park/footpath.

140 Excavation of subgrades

1. Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
2. Soft spots and voids: Give notice.
3. Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.

145 Preparation and compaction of subgrades

1. Timing: Immediately before placing sub-base.
2. Soft or damaged areas: Contractor design to ensure Excavate and replace with sub-base material, compacted in layers 300 mm (maximum) thick
3. Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ pavings when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

150 Subgrades for vehicular areas

1. Preparation and treatment: To Highways Agency 'Specification for highway works', clauses 616 and 617.

180 Notice

1. Give notice: On completion of compaction of sub-base
 - 1.1. Period of notice: Contractor design - 5 working days

200 Subgrade improvement layer (capping)

1. **Material:** To Highways Agency 'Specification for highway works', table 6/1, Class Contractor to confirm requirements.
2. **Standard:** Placed and compacted to Highways Agency 'Specification for highway works', table 6/1, clauses 612 and 613.3, 613.8, 613.9, 613.10 and 613.13.

205 Highways agency Type 2 unbound mixture for sub-base

1. **Material:** Contractor to advise on clause 205 and 210 - Type 2 unbound mixture to Highways Agency 'Specification for highway works', clauses 801 and 804.

210 Highways agency Type 1 unbound mixture for sub-base

1. **Material:** Contractor to advise on clause 205 and 210 - Type 1 unbound mixture to Highways Agency 'Specification for highway works', clauses 801 and 803.

211 Granular material

1. **Quality:** Of a known suitability for use in sub-bases, free from excessive dust, well graded, all pieces less than 75 mm in any direction, minimum 10% fines value of 50 kN when tested in a soaked condition to BS 812-111 or a resistance to fragmentation of LA50 for the Los Angeles test to BS EN 1097-2, and in any one layer only one of the following:
 - 1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
 - 1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 1.3. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
 - 1.4. Natural gravel.
 - 1.5. Natural sand.
2. **Filling:** Spread and levelled in 150 mm maximum layers, each layer thoroughly compacted.

220 Frost susceptible granular material

1. **Definition (non frost susceptible material):** To Highways Agency 'Specification for highway works' clause 801.8.
2. **Depth of frost susceptible material below final surface of paving (minimum):** 450 mm
3. **Testing:** Test materials used if required and supply certificates.

225 Placing of material with high sulfate content

1. **Standard:** To Highways Agency 'Specification for highway works', clauses 801.2 and 801.3.
 - 1.1. **Separation distance (minimum):** Contractors design/engineer drawings/calculations requirements

230 Placing granular material generally

1. **Preparation:** Loose soil, rubbish and standing water removed.
2. **Structures, membranes and buried services:** Ensure stability and avoid damage.

240 Laying granular sub-bases for vehicular areas

1. **General:** Spread and levelled in layers. As soon as possible thereafter compact each layer.
2. **Standard:** To Highways Agency 'Specification for highway works' clause 802.
3. **At drainage fittings, inspection covers, perimeters and where local excavation and backfilling has taken place:** Take particular care to compact fully.

310 Accuracy

1. Permissible deviation from required levels, falls and cambers (maximum)
 - 1.1. Subgrades
 - 1.1.1. Roads and parking areas: +20 -30 mm.
 - 1.1.2. Footways and recreation areas: ± 20 mm.
 - 1.2. Sub-bases
 - 1.2.1. Roads and parking areas: +10 -30 mm
 - 1.2.2. Footways and recreation areas: To suit Local Authority standards

330 Cold weather working

1. Frozen materials: Do not use.
2. Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.

340 Protection

1. Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
2. Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

Ω End of Section

Q21

In situ concrete roads/ pavings/ bases

Types of paving

118 Paving with embedded metal (designed concrete)

1. Description: Concrete base and ramp for Changing Places unit.
2. Subgrade improvement layer: Contractors design/engineer drawings/calculations requirements
 - 2.1. Compacted thickness: Contractors design/engineer drawings/calculations requirements
3. Geotextile filter: Contractors design/engineer drawings/calculations requirements
4. Granular sub-base: Contractors design/engineer drawings/calculations requirements
 - 4.1. Compacted thickness: Contractors design/engineer drawings/calculations requirements
5. Separation membrane: Polyethylene sheet 125 micrometres thick, edges lapped 300 mm.
6. Embedded metal: Contractors design/engineer drawings/calculations requirements
7. Designed concrete: To BS 8500-2.
 - 7.1. Compressive strength class minimum (cylinder/ cube): Contractors design/engineer drawings/calculations requirements
 - 7.2. Target density (oven-dry): Contractors design/engineer drawings/calculations requirements
 - 7.3. Fibres: Contractors design/engineer drawings/calculations requirements
 - 7.4. Aggregate
 - 7.4.1. Size (maximum): Contractors design/engineer drawings/calculations requirements
 - 7.4.2. Type/ Density: Contractors design/engineer drawings/calculations requirements
 - 7.4.3. Coarse recycled aggregate: Contractors design/engineer drawings/calculations requirements
 - 7.4.4. Additional aggregate requirements: Contractors design/engineer drawings/calculations requirements
 - 7.5. Design chemical class: Contractors design/engineer drawings/calculations requirements
 - 7.6. Limiting values for composition
 - 7.6.1. Water:cement ratio (maximum): Contractors design/engineer drawings/calculations requirements
 - 7.6.2. Cement/ Combination content (minimum): Contractors design/engineer drawings/calculations requirements
 - 7.6.3. Cement/ Combination content (maximum): Contractors design/engineer drawings/calculations requirements
 - 7.6.4. Air content in situ (minimum): Contractors design/engineer drawings/calculations requirements
 - 7.7. Consistence class: Contractors design/engineer drawings/calculations requirements
 - 7.8. Permitted cement/ combinations: Contractors design/engineer drawings/calculations requirements
 - 7.9. Chloride class: Contractors design/engineer drawings/calculations requirements
 - 7.10. Admixtures: Contractors design/engineer drawings/calculations requirements
 - 7.11. Colour: Contractors design/engineer drawings/calculations requirements
 - 7.12. Additional mix requirements: Contractors design/engineer drawings/calculations requirements
8. Slab thickness (minimum): Contractors design/engineer drawings/calculations requirements
9. Finish: Brush textured as Highway Agency 'Specification for Highway Works' clause 1026

General/ preparation

140 Ready-mixed concrete

1. **Production plant:** Currently certified by a body accredited by UKAS to BS EN ISO/IEC 17065 for product conformity certification.
2. **Source of ready-mixed concrete:** Obtain from one source if possible. Otherwise, submit proposals.
 - 2.1. **Name and address of depot:** Submit before any concrete is delivered.
 - 2.2. **Delivery notes:** Retain for inspection.
3. **Declarations of nonconformity from concrete producer:** Notify immediately.

141 Site mixed concrete

1. **Batching by mass**
 - 1.1. **Restrictions:** None
 - 1.2. **Accuracy of measuring devices:** To BS EN 206-1, clause 9.6.2.2.
 - 1.2.1. **Tolerances for quantity of constituent material:** To BS EN 206-1, table 21.
2. **Batching by volume**
 - 2.1. **Restrictions:**
3. **Mixing:** To BS 8000-2.1, subsections 2, 3 and 4.

145 Admixtures

1. **Calcium chloride and admixtures containing calcium chloride:** Do not use.

150 Reinforcement

1. **Description:** Reinforcement as per contractor design for pad foundations base and ramp. Pad design to suit requirements of Rise Adapt drawing CP+0 DoL V2.03 Groundworks and Services. Ramp reinforcement to include rebar for toe upstand.
2. **Standard:** To Contractors design/engineer drawings/calculations.
 - 2.1. **Product form/ designation:** Contractors design/engineer drawings/calculations
 - 2.2. **Strength grade:** Contractors design/engineer drawings/calculations
3. **Cutting and bending:** To BS 8666.
4. **Supplier:** A firm currently approved by the UK Certification Authority for Reinforcing Steels (CARES).
5. **Nominal cover:** Contractors design/engineer drawings/calculations
6. **Cleanliness:** Free from corrosive pitting, loose material and contaminants which may adversely affect reinforcement, concrete, or bond between the two.

240 Sub-base preparation

1. **Surface:** Sound, free of debris, mud and soft spots, and suitably close textured.
2. **Levels and falls:** Within specified tolerances:
 - 2.1. **Vehicular areas:** ± 20 mm.
 - 2.2. **Pedestrian areas:** ± 12 mm.
 - 2.3. **Drainage outlets:** +0 to -10 mm of required finished level.
3. **Kerbs and edgings:** Complete, adequately bedded and haunched, and to required levels.

260 Steel formwork

1. **Side forms:** Steel, drilled for dowel bars, free from warping and kinks.
2. **Fixing**

- 2.1. To required line, ± 10 mm.
- 2.2. To required level, ± 3 mm.
3. **Locking plates:** Use where necessary to ensure rigidity and prevent movement during laying and compaction of concrete.
4. **Removal of forms:** Six hours (minimum) after completing compaction. Treat exposed edges with waterproof compound.

Laying concrete

310 Transporting concrete

1. **General:** Avoid contamination, segregation, loss of ingredients, excessive evaporation and loss of workability. Protect from heavy rain.
2. **Entrained air:** Anticipate effects of transport and placing methods in order to achieve specified air content.
3. **Placing:** Use suitable walkways and barrow runs for traffic over reinforcement and freshly placed concrete.

320 Laying concrete generally

1. **Timing:** Place as soon as practicable after mixing and while sufficiently plastic for full compaction. After discharge from the mixer do not add water or retemper.
2. **Temperature of concrete at point of delivery**
 - 2.1. In hot weather (maximum): 30°C .
 - 2.2. In cold weather (minimum): 5°C .
3. **Cold weather**
 - 3.1. Do not use frozen materials.
 - 3.2. Do not place concrete against frozen or frost covered surfaces.
 - 3.3. Do not place concrete when air temperature is below 3°C on a falling thermometer. Do not resume placing until rising air temperature has reached 3°C .
4. **Surfaces on which concrete is to be placed:** Free from debris and standing water.
5. **Placing in final position:** Place in one continuous operation up to construction joints.
 - 5.1. Do not place concrete simultaneously on both sides of movement joints.
6. **Spreading:** Spread and strike off with surcharge sufficient to obtain required compacted thickness.
7. **Adjacent work:** Form neat junctions and prevent damage. Keep clean all channels, kerbs, inspection covers, etc.

330 Compacting

1. **General:** Fully compact concrete to full depth (until air bubbles cease to appear on the surface) especially around reinforcement, cast-in accessories, into corners and at joints.
2. **Poker vibrators:** Do not use to make concrete flow into position. Do not allow to come into contact with fabric reinforcement.
3. **Wet formed joint grooves:** Rectify any irregularities by means of a vibrating float.
4. **Finish:** A dense, even textured surface free from laitance or excessive water.
 - 4.1. **Excess concrete:** Remove from top of groove formers.

340 Manhole cover and gully grating frames

1. **General:** Set frames in independent concrete slabs placed over, but slightly larger than, exterior of manhole shaft or gully pot and any concrete surround.
2. **Positioning of joints in main slab:** Set out so that manhole/ gully slabs are adjacent to a main transverse joint, wherever possible.

3. **Joints:** Separate the independent slabs from main slabs with 25 mm thick joint filler board. Set board 20 mm below top of slab to form a sealing groove.

350 Levels

1. **Lines and levels of finished surface:** Smooth and even, with regular falls to prevent ponding.
2. **Finished surfaces:** Within ± 6 mm of required levels (+6 or -0 mm adjacent to gullies and manholes).

360 Surface regularity

1. **General:** Where appropriate in relation to the geometry of the surface, the variation in gap under a 3 m straightedge (with feet) placed anywhere on the surface to be not more than 5 mm.
2. **Sudden irregularities:** Not permitted.

Joints

410 Joints generally

1. **Layout:** All joints to be accurately located, straight and well aligned.
2. **Construction joints made at end of working day:** Form as contraction joints.
3. **Modifications to joint design or location:** Submit proposals.
4. **Temporary support:** Prior to concreting, set formwork, dowel bars, tie bars, joint filler boards, sealing groove fillets and the like rigidly in position and support to prevent displacement. Maintain support until concrete has set.
5. **Keep clean**
 - 5.1. Do not allow concrete to enter gaps or voids in formwork or to render movement joints ineffective.
 - 5.2. Do not allow concrete to impregnate or penetrate materials used as compressible joint fillers.

450 Contraction joints with sawn groove

1. **Standard:** To Concrete Society Technical Report 28.
2. **Temperature:** Do not start sawing if temperature is falling.
3. **Sawn groove**
 - 3.1. **Timing:** Cut as early as possible after the slab has been placed but without causing edges of groove to spall.
 - 3.2. **Width (minimum):** 3 mm.
 - 3.3. **Depth:** 3 mm per 10 mm depth of slab or 50 mm, whichever is the greater.
4. **Upper portion of joint:** Enlarge by sawing a groove:
 - 4.1. **Width (minimum):** 13 mm.
 - 4.2. **Depth:** If required Contractors design/engineer drawings/calculations

460 Contraction joints with wet formed groove

1. **Standard:** To Concrete Society Technical Report 28.
2. **Bottom crack inducer:** Preservative treated softwood, triangular section, height 50 mm
 - 2.1. Locate vertically below the top groove within a horizontal tolerance of ± 10 mm.
 - 2.2. Fix to sub-base to retain in position when concrete is placed.
3. **Wet formed groove:** Form when surface of concrete is plastic.
 - 3.1. **Groove depth:** If required Contractors design/engineer drawings/calculations
 - 3.2. **Temporary fillet:** 20 mm wide. Remove when concrete is fully cured.

4. **Completion:** Recompact displaced concrete without overworking. Round edges of groove to 5 mm radius.

470 Expansion joints

1. Joint filler board
 - 1.1. **Type:** If required Contractors design/engineer drawings/calculations
 - 1.2. **Standard:** To Highway Agency 'Specification for Highway Works', clause 1015.
 - 1.3. **Thickness:** 25 mm.
 - 1.4. **Depth:** Joint filler board must extend from underside of sealing groove fillet to full depth of slab to provide complete separation of adjacent slabs.
 - 1.5. **Holes for dowel bars:** Accurately bored or punched holes to form a sliding fit for dowel bars.
2. **Completion:** Round upper edges of slabs at joints to 5 mm radius. Do not overwork concrete.

Surface finish

530 Brushed finish

1. **Direction:** Generally at right angles to the longitudinal direction of the slab, but to a chevron pattern on ramp, with ridges falling to edge of slab
2. **Texture depth:** Approximately 1 mm with finished surface having an overall even texture.

Curing/ protection/ finishing

610 Curing

1. **General:** Immediately after completion of surface treatment prevent evaporation from surface and exposed edges of slabs for a minimum period of seven days.
2. **Early curing**
 - 2.1. Cover with waterproof sheeting held clear of surface. Seal against draughts at edges and junctions.
 - 2.2. Do not apply sprayed compounds or sheets in direct contact until surface is in a suitable state and will not be marked.
3. **Coverings for curing:** Contractor's choice of:
 - 3.1. Impervious sheet material.
 - 3.2. Resin based aluminized curing compound containing a fugitive dye and with an efficiency index of 90% when tested to BS 7542.
 - 3.3. Sprayed plastics film.

615 Curing periods

1. **Description:** To concrete base and ramp to Changing Places unit.
2. **General:** Curing periods are in days (minimum).
 - 2.1. **Definition of 't':** The average surface temperature of concrete in degrees Celsius during the curing period.
3. **Curing periods**
 - 3.1. **Drying winds or dry, sunny weather (relative humidity < 50%):** As Contractors design/engineer drawings/calculations
 - 3.2. **Intermediate conditions (relative humidity between 50 and 80%):** As Contractors design/engineer drawings/calculations
 - 3.3. **Damp weather, protected from sun and wind (relative humidity > 80%):** As Contractors design/engineer drawings/calculations

4. Curing periods for concretes using admixtures or other types of cements/ combinations: Submit proposals.

660 Protection

1. Prevent damage to concrete
 - 1.1. From rain, indentation, physical damage, dirt, staining, rust marks and other disfiguration.
 - 1.2. From thermal shock.
 - 1.3. In cold weather, from freezing expansion of water trapped in pockets, etc.
 - 1.4. By use as a building platform or for storing, mixing or preparing materials.

670 Opening to traffic

1. Light vehicles: As Contractors design/engineer recommendations.
2. Heavy vehicles: As Contractors design/engineer recommendations.

Ω End of Section

Q22

Asphalt roads/ pavings

Types of paving

170 Proprietary vehicular paving

1. Description: TO CAR PARK TO ALL ROADS
2. Subgrade improvement layer: Contractor's choice
 - 2.1. Compacted thickness: Contractor's choice
3. Geotextile: To Contractor Design
 - 3.1. Manufacturer: Contractor's choice
 - 3.1.1. Product reference: Contractor's choice
4. Granular sub-base: Contractor's choice
 - 4.1. Compacted thickness: Contractor's choice
5. Base: To BS EN 13108-1, Contractor's choice.
 - 5.1. Paving grade: To Contractor design
 - 5.2. Compacted thickness: Contractor's choice
6. Binder course: To BS EN 13108-1, Contractor's choice.
 - 6.1. Paving grade: To Contractors design
 - 6.2. Compacted thickness: Contractor's choice
7. Laying/ Compaction: Base and binder course to BS 594987.
8. Surface course
 - 8.1. Manufacturer: Contractor's choice
 - 8.1.1. Product reference: Contractor's choice
 - 8.2. Slip/ Skid resistance: To Contractor design
 - 8.3. Compacted thickness: Contractor's choice
 - 8.4. Laying/ Compaction: Contractor's choice

175 Proprietary pedestrian paving

1. Description: Footpath
2. Subgrade improvement layer: Contractor's choice
 - 2.1. Compacted thickness: Contractor's choice
3. Geotextile: To Contractor design
 - 3.1. Manufacturer: Contractor's choice
 - 3.1.1. Product reference: Contractor's choice
4. Granular sub-base: Contractor's choice
 - 4.1. Compacted thickness: Contractor's choice
5. Binder course: To BS EN 13108-1, Contractor's choice.
 - 5.1. Paving grade: To Contractor design
 - 5.2. Slip/ Skid resistance: To Contractor design
 - 5.3. Compacted thickness: Contractor's choice
 - 5.4. Laying/ Compaction: To BS 594987.
6. Surface course
 - 6.1. Manufacturer: Contractor's choice

- 6.1.1. Product reference: Contractor's choice
- 6.2. Compacted thickness: Contractor's choice
- 6.3. Laying/ Compaction: Contractor's choice

Preparatory work/ requirements

195 Hard landscaping materials specification

- 1. Minimum 'BRE Green Guide to Specification' online rating: Contractor's choice

220 Bituminous materials generally

- 1. Suppliers' names: Submit.
 - 1.1. Timing (minimum): Two weeks before starting work.
- 2. Test certificates: At the time of delivery for each manufacturing batch submit certificate:
 - 2.1. Confirming compliance with this specification and the relevant standard.
 - 2.2. Stating full details of composition of mix.

240 Acceptance of surfaces

- 1. Surface: Sound, clean and suitably close textured.
- 2. Level tolerances: To BS 594987.
- 3. Kerbs and edgings: Complete, adequately bedded and haunched and to the required levels.

250 Abutments

- 1. Vertical edges of manholes, gullies, kerbs and other abutments: Clean and paint with a thin uniform coating of TBC as part of contractor design.
- 2. Finishing: Tamp surface around projections.
 - 2.1. Level: Flush or not more than 3 mm above projections.

Laying

310 Laying generally

- 1. Preparation: Remove all loose material, rubbish and standing water.
- 2. Adjacent work: Form neat junctions. Do not damage.
- 3. Channels, kerbs, inspection covers etc: Keep clean.
- 4. New paving
 - 4.1. Keep traffic free until it has cooled to prevailing atmospheric temperature.
 - 4.2. Do not allow rollers to stand at any time.
 - 4.3. Prevent damage.
 - 4.4. Lines and levels: With regular falls to prevent ponding.
 - 4.5. Overall texture: Smooth, even and free from dragging, tearing or segregation.
 - 4.6. State on completion: Clean.

320 Adverse weather

- 1. Frozen materials: Do not use.
- 2. Suspend laying
 - 2.1. During freezing conditions
 - 2.2. If the air temperature reaches 0°C, or in calm dry conditions -3°C, on a falling thermometer.

- 2.3. **Hot rolled asphalt:** During periods of continuous or heavy rain or if there is standing water on the base.

330 Levels

1. **Permissible deviation from the required levels, falls and cambers (maximum):** In accordance with BS 594987, clause 5.2.

340 Flatness/ Surface regularity

1. **Deviation of surface:** Where appropriate in relation to the geometry of the surface, the variation in gap under a 3 m straightedge placed anywhere on the surface to be not more than:
 - 1.1. **Base:** As Highways specification for Highways Works and Local Authority requirements.
 - 1.2. **Binder course:** As Highways specification for Highways Works and Local Authority requirements.
 - 1.3. **Surface course:** As Highways specification for Highways Works and Local Authority requirements.
 - 1.4. Where a straightedge cannot be used the surface must be of a comparable standard of accuracy when judged by eye.

351 Contractor's use of pavements

1. **Preparation for final surfacing**
 - 1.1. **Timing:** Defer laying until as late as practicable.
 - 1.2. **Immediately before laying final surfacing:** Clean and make good the base/ binder course. Allow to dry.
 - 1.3. **Adhesion:** Contractor's choice
 - 1.3.1. **Application rate:** As manufacturer's recommendation
 - 1.3.2. **Accuracy:** Uniform, without puddles.
 - 1.4. **Finishing:** Allow emulsion to break completely before applying surface.

Completion

390 Documentation

1. **Standard:** Contractor design. Compliance to the relevant specification.
 - 1.1. **Declaration of conformity:** Submit.
2. **Number of copies:** 2no PDF
3. **Submission:** Two weeks after request

395 Slip resistance testing

1. **Surfaces to be tested:** Contractor to confirm if testing is required as part of their design.
 - 1.1. **Surface condition:**
2. **Timing:** Post final clean, prior to handover
3. **Period of notice (minimum):**
4. **Test standard:**
 - 4.1. **Testing authority:**
 - 4.2. **Witnessing/ Certification:** Arrange for tests to be witnessed/ certified by:
 - 4.3. **Report:** Submit.
 - 4.3.1. **Format:**

Ω End of Section

Q30

Seeding/ turfing

General information/requirements

115 Seeded and turfed areas

1. **Growth and development:** Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
2. **Appearance:** A closely knit, continuous ground cover of even density, height and colour.

120 Climatic conditions

1. **General:** Carry out the work while soil and weather conditions are suitable.

145 Watering

1. **Quantity:** Wet full depth of topsoil.
2. **Application:** Even and without displacing seed, seedlings or soil.
3. **Frequency:** As necessary to ensure the establishment and continued thriving of all seeding/turfing.

146 Watering

1. **Quantity:** Wet full depth of topsoil.
2. **Application:** Even and without displacing seed, seedlings or soil.
3. **Frequency:**

150 Water restrictions

1. **Timing:** If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

160 Notice

1. **Give notice before**
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Preparing seed bed.
 - 1.5. Seeding or turfing.
 - 1.6. Visiting site during maintenance period.
2. **Period of notice:** 1 week

Preparation

210 Herbicide

1. **Description:** Car park verges disturbed by the works
2. **Type:** Suitable for suppressing perennial weeds.
3. **Timing:** Allow fallow period before cultivation.
 - 3.1. **Duration:** As manufacturer's recommendation

212 Seed bed cleaning before sowing

1. **Description:** Car park verges disturbed by the works
2. **Operations:** As seed supplier's recommendations.

250 Soil requirements

1. **Type**
 - 1.1. **Seeded areas:** Existing topsoil

Seeding

311 Grass seed

1. **Description:** Car park verges disturbed by the works
2. **Supplier:** Contractor's choice
 - 2.1. **Mixture reference:** Contractor's choice

330 Sowing

1. **General:** Establish good seed contact with the root zone.
2. **Method:** To suit soil type, proposed usage, location and weather conditions during and after sowing

335 Grass sowing season

1. **Grass seed generally:** April to June

Turfing - Not Used

Protecting/cutting - Not Used

Maintenance - Not Used

Ω End of Section

Q41

Barriers/ guardrails

Types of barriers/ guardrails

240 Handrail systems

1. Description: To entrance to ramp and perimeter of landing outside the Changing Places unit.
2. System manufacturer: Keyclamp
3. Material: Galvanised steel
 - 3.1. Cross-section: Circular 42mm diameter
 - 3.2. Finish: Galvanised
4. Height above ground surface (to upper surface of handrail)
 - 4.1. Upper handrail:
 - 900–1000 mm from a ramp surface or pitch line of a stair.
 - 900–1100 mm from a landing surface
 - 4.2. Lower handrail: 600 mm
5. Accessories:

Performance/ inspection/ testing

300 Contractor's structural design

1. Design responsibility: Holding down bolts for Key Clamp handrail.
2. Requirement
 - 2.1. Generally: As per manufacturers recommendation..
3. Member sizes and locations: As per manufacturer's recommendations.
4. Design and production information: As preliminaries
5. Timing of submissions:

340 Site testing anchorages in drilled holes

1. Description: Holding down bolts for Key Clamp handrail system.
2. Test parapet posts: Install on site.
3. Loading tests: To BS 5080-1.
 - 3.1. Frequency of testing: As manufacturer recommendations.
4. Anchorage loadings: Incrementally in tension to 10% above the nominal tensile load determined in accordance with design loading.
 - 4.1. Load holding periods
 - 4.1.1. Incremental loads: Not less than 30 seconds.
 - 4.1.2. Test loads: Not less than 5 minutes.
 - 4.2. Readings: Take after applying load and at the end of the time intervals stated.
 - 4.3. Movement: Total not to exceed 1 mm during test.
 - 4.3.1. Any evidence of slip during loading shall constitute failure.
5. Test results: Submit prior to full parapet installation.

Installation

405 Competence

1. **Operatives:** Contractors must employ competent operatives.
2. **Qualifications:** Submit certification of training.

410 Work on or adjacent to highways

1. **Requirement:** Comply with the Department for Transport's 'Safety at street works and road works. A code of practice'. Retain a copy of this document on site at all times during the course of the works.

420 Alignment

1. **Erection:** Fences/ barriers to present a flowing alignment. Tops of posts to follow ground profile.
2. **Tolerance:** ± 30 mm of prescribed alignment and, within any 10 m length, ± 15 mm from the straight or required radius.

490 Damage repair to galvanized surfaces

1. **Areas of repair:** Minor damage, including fixings and fittings.
 - 1.1. Total area of repair not to exceed 0.5% of total surface area.
 - 1.2. Each area not to exceed 1000 mm².
2. **Renovation:** Use low melting point zinc alloy repair rods or powders or at least two coats of zinc-rich paint to BS 4652.

Completion

900 Documentation

1. **Contents**
 - 1.1. General product information.
 - 1.2. Installation information.
 - 1.3. Inspection and maintenance reports.
2. **Number of copies:** 2no PDF
3. **Submission:** Two weeks after request by contract administrator Two weeks after request by contract administrator

Ω End of Section

Q50

Site/ street furniture/ equipment

Gates, barriers and parking controls

190 Bollards

1. Description: To protect the access to the Changing Places unit as per drawing P230274-404. Cast Iron with the appearance of Architectural Street Furnishings (ASF 106) or similar approved.
2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Submit proposals
3. Material: Cast iron
 - 3.1. Finish as delivered: As manufactured
 - 3.2. Colour:
4. Height above ground: 1100 mm
5. Top: Domed
6. Special features: Red and white reflective band, 150 mm high at top of bollard
7. Method of fixing: Root, 300 mm below ground, set in concrete base

Site and street furniture - Not Used

Installation - Not Used

Ω End of Section

R12

Below ground drainage systems

General

110 Below ground drainage system

1. **Description:** Foul and surface water drainage to be contractor design. Foul drainage to enable connection of the Changing Places unit to the existing South West Water system, a new back drop shaft will be required, existing foul drainage is approx 4 metres deep.
New surface water drainage to be provided as shown on plans to accept drainage channels to Changing Places unit.
2. **Surface water and rainwater drainage sources:** Contractor design to be able to connect the rainwater pipe from the changing places unit and the surface water drainage.
3. **Foul drainage sources:** Contractor design to be able to connect the foul waste from the changing places unit and connect to the new foul drainage system.
4. **Pipes, bends and junctions:** Contractor design.
 - 4.1. **Accessories:** Contractor design.
5. **Manholes, inspection chambers, traps, and separators:** Contractor design.
 - 5.1. **Accessories:** Contractor design.
6. **Disposal:** Contractor design.
7. **Accessories – general:** Contractor design.

System performance

211 Design – below ground drainage systems

1. **Design:** Complete the design of the below ground drainage system in accordance with BS EN 752, BS EN 1295-1 and BS EN 1610.
2. **Ground conditions:** Silt, clay, sandy clay - soft
3. **Performance criteria:** The choice of design assumptions is left to the judgement of the Contractor/Contractors Designer.
4. **Proposals:** Submit drawings, technical information, calculations and manufacturers' literature.

Products

352 Access points – plastics

1. **Description:** - FOUL DRAINAGE
2. **Standard:** To BS 4660 and Kitemark certified, to BS EN 13589-1, or Agrément certified.
3. **Manufacturer:** Contractor's choice
4. **Nominal diameter:**
5. **Bases**
 - 5.1. **Product reference:** Contractor's choice
6. **Raising pieces**
 - 6.1. **Product reference:** Contractor's choice
 - 6.2. **Heights:** Part of contractor design
7. **Access covers and frames**
 - 7.1. **Product reference:** Contractor's choice
 - 7.2. **Loading grades to BS EN 124:** Part of contractor design

355 Antiflood valves

1. **Description:** Double non return valve to be fitted to new foul drainage pipework from the changing places unit prevent backflow from the existing foul inspection chamber. Access required to maintain the valve.
2. **Manufacturer:** Contractor's choice
 - 2.1. **Product reference:** Contractor's choice

367 Rat barriers

1. **Description:**
2. **Manufacturer:**
 - 2.1. **Product reference:**

371 Rodding points

1. **Description:** Provide necessary rodding access points to new foul and surface water drainage as part of contractor design.
2. **Standards**
 - 2.1. **Cast iron:** To BS 437 and Kitemark certified, or Agrément certified.
 - 2.2. **Clay:** To BS EN 295-1 and Kitemark certified, or Agrément certified.
 - 2.3. **Concrete:** To BS 5911-6 and Kitemark certified, or Agrément certified.
 - 2.4. **Plastics:** To BS 4660 and Kitemark certified, to BS EN 13598-1 or Agrément certified.
3. **Material:** As contractors design.
4. **Manufacturer:** Contractor's choice
 - 4.1. **Product reference:** Contractor's choice
5. **Sizes:** As required from contractor design.

373 Root barriers

1. **Description:** To foul and surface water drainage, as contractor design.
2. **Manufacturer:** Contractor's choice
 - 2.1. **Product reference:** Contractor's choice

379 Warning marker tapes

1. **Description:** - FOUL DRAINAGE
2. **Type:** Heavy gauge polyethylene. Heavy gauge polyethylene.
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice
4. **Message:** FOUL SEWER BELOW
5. **Wire detection aid:** Not required

379 Warning marker tapes Type A

1. **Description:** - SURFACE WATER DRAINAGE
2. **Type:** Heavy gauge polyethylene.
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Contractor's choice
4. **Message:** SURFACE WATER DRAIN BELOW
5. **Wire detection aid:** Not required

401 Inspection chambers – plastics

1. Description: For foul and surface water drainage.
2. Standard: To BS EN 13598-1, BS EN 13598-2 or Agrément certified.
3. Diameter: As contractor design.
4. Manufacturer: Contractor's choice
5. Bases
 - 5.1. Product reference: Contractor's choice
6. Shaft units
 - 6.1. Product reference: Contractor's choice
7. Access covers and frames
 - 7.1. Product reference: Contractor's choice
 - 7.2. Loading grades to BS EN 124: As per contractor design.

407 Manholes and inspection chambers – concrete

1. Description: For foul and surface water drainage.
2. Standards
 - 2.1. To BS 5911-3 and BS EN 1917 and Kitemark certified; or
 - 2.2. To BS 5911-4 and BS EN 1917.
3. Manufacturer: Contractor's choice
4. Shape: As contractor design.
5. Sizes: As contractor design.
6. Cement type and content: To BS 5911-1 and BS EN 1916
7. Chamber sections
 - 7.1. Product reference: Contractor's choice
 - 7.2. Jointing type:
8. Cover slabs
 - 8.1. Product reference: Contractor's choice
 - 8.2. Thickness: As contractor design.
 - 8.3. Loading grades to BS EN 124: As contractor design.
 - 8.4. Openings: To suit access covers.
9. Steps: As contractor design.
10. Vortex flow control unit: As contractor design.

409 Manholes – concrete – additional components for deep manholes

1. Standards
 - 1.1. To BS 5911-3 and BS EN 1917 and Kitemark certified; or
 - 1.2. To BS 5911-4 and BS EN 1917.
2. Manufacturer: Contractor's choice
3. Cement type and content: To BS 5911-3 and BS EN 1917 and Kitemark certified; or to BS 5911-4 and BS EN 1917
4. Landing slabs
 - 4.1. Product reference: Contractor's choice
 - 4.2. Sizes: As contractor design.
5. Reducing slabs
 - 5.1. Product reference: Contractor's choice

- 5.2. Sizes: As contractor design.
- 6. Straight backed tapers
 - 6.1. Product reference: Contractor's choice
 - 6.2. Nominal sizes: As contractor design.
- 7. Shaft sections
 - 7.1. Product reference: Contractor's choice
 - 7.2. Sizes: As contractor design.

412 Manholes and inspection chambers – plastics

- 1. Description: Foul drainage in car park.
- 2. Standard: To BS EN 13598-2
- 3. Manufacturer: Contractor's choice
 - 3.1. Product reference: Contractor's choice
- 4. Material: As contractor design.
- 5. Shape: As contractor design.
- 6. Size: As contractor design.
- 7. Formwork for concrete surround: As contractor design.
- 8. Steps: As contractor design.
- 9. Vortex flow control unit: As contractor design.

439 Manhole steps

- 1. Description: To Foul drainage system
- 2. Standard: To BS EN 13101.
- 3. Type: Part of contractor design.
- 4. Manufacturer: Contractor's choice
 - 4.1. Product reference: Contractor's choice
- 5. Material: Part of contractor design.

444 Sealing for concrete manholes – bituminous strips

- 1. Description: Foul drainage
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice

446 Sealing for concrete manholes – mortar

- 1. Description: Foul drainage
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice

448 Sealing for concrete manholes – sealant

- 1. Description: Foul drainage
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice

475 Access ladders

- 1. Description: To foul drainage if required as part of contractor design.
- 2. Standard: To BS 4211.

3. Manufacturer: Contractor's choice
 - 3.1. Product reference: Contractor's choice
4. Finish: Galvanized to BS EN ISO 1461.

483 Concrete

1. Description: Foul and surface water systems.
2. Standard: Contractors design to comply with statutory requirements.
3. Concrete: Contractors design to comply with statutory requirements.

496 Granular material – natural

1. Description: To foul and surface water drainage.
2. Standards: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
3. Supplier : Contractor's choice
4. Recycled content: Contractor's choice
5. Size: Dependent on location – see Execution clauses in this section, and in sections R16, R17 and R18, if used.

498 Granular sub-base material

1. Description: To areas which have been excavated for laying of pipes.
2. Standard: To Highways England Volume 1, 'Specification for Highway Works', Type 1 Unbound mixtures for sub-base.
3. Recycled content: Contractor's choice

Fabrication

510 Vermin gratings for outfalls and outlet headwalls

1. Construction: Mild steel frame extending 75 mm beyond pipe opening all around, with 25 mm maximum opening steel mesh grille. Top hinged on built-in fish-tail straps and with bottom pin lock.
2. Finish: Galvanized to BS EN ISO 1461 after fabrication.

Execution

611 Existing drains

1. Setting out: Before starting work, check invert levels and positions of existing drains, sewers, inspection chambers and manholes against drawings. Report discrepancies.
2. Protection: Protect existing drains to be retained and maintain normal operation if in use.

613 Excavated material

1. Turf, topsoil, hardcore, etc: Set aside for use in reinstatement.

616 Selected fill for backfilling

1. Selected fill: As-dug material, free from vegetable matter, rubbish, frozen soil and material retained on a 40 mm sieve.
 - 1.1. Compaction: By hand in 100 mm layers.

623 Lower part of trench – general

1. Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
 - 1.1. Width (minimum): External diameter of pipe plus 300 mm.

635 Formation for beddings

1. **Timing:** Excavate to formation immediately before laying beddings or pipes.
2. **Mud, rock projections, boulders and hard spots:** Remove. Replace with consolidated bedding material.
3. **Local soft spots:** Harden by tamping in bedding material.
4. **Inspection of excavated formations:** Give notice.

680 Concrete surround for pipe runs near foundations

1. **Class Z surround:** Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):
 - 1.1. **Trenches less than 1 m from foundations:** Top of concrete surround not lower than bottom of foundation.
 - 1.2. **Trenches more than 1 m from foundations:** Top of concrete surround not lower than D mm below bottom of foundation, where D mm is horizontal distance of trench from foundation, less 150 mm.

683 Laying pipelines

1. **Laying pipes:** To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
2. **Ingress of debris:** Seal exposed ends during construction.
3. **Timing:** Minimize time between laying and testing.

685 Jointing pipelines

1. **Connections:** Durable, effective and free from leakage.
2. **Junctions, including to differing pipework systems:** With adaptors intended for the purpose.
3. **Cut ends of pipes:** Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
4. **Jointing or mating surfaces:** Clean and, where necessary, lubricate immediately before assembly.
5. **Allowance for movement:** Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
6. **Jointing material:** Do not allow to project into bore of pipes and fittings.

689 Pipelines passing through structures

1. **Pipelines that must be cast in or fixed to structures (including manholes, catchpits and inspection chambers):** Provide 600 mm long rocker pipes adjacent to the external face of the structure (or both faces where appropriate, e.g. walls to footings), with flexible joints at both ends.
 - 1.1. **Distance to rocker pipe from structure (maximum):** 150 mm.
2. **Provision for movement for pipelines that need not be cast in or fixed to structures (e.g. walls to footings)**
 - 2.1. **Rocker pipes as specified above; or**
 - 2.2. **Openings in the structures to give 50 mm minimum clearance around the pipeline. Closely fit a rigid sheet to each side of opening to prevent ingress of fill or vermin.**

691 Bends at base of soil stacks

1. **Type:** Nominal 90° rest bends
 - 1.1. **Radius to centreline of pipe (minimum):** 200 mm
2. **Height of invert of horizontal drain at base of stack below centreline of lowest branch pipe (minimum):** 450 mm

3. **Bedding:** Do not impair flexibility of pipe couplings.
 - 3.1. **Material:** Concrete.

693 Direct connection of ground floor wcs to drains

1. Drop from crown of WC trap to invert of drain (maximum): 1.3 m
2. Horizontal distance from the drop to a ventilated drain (maximum): 6 m.

695 Backdrop pipes outside manhole walls

1. Excavation beneath backdrop pipe: Backfill.
 - 1.1. **Material:** Concrete.
2. Pipe encasement:
 - 2.1. **Material:** Concrete.
 - 2.2. **Thickness (minimum):** 150 mm.

697 Installing flexible couplings

1. **Ends of pipes to be joined:** Cut cleanly and square.
2. **Outer surfaces of pipes to be joined:** Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines and/ or apply a cement grout over the sealing area.
3. **Clamping bands:** Tighten carefully to make gastight and watertight seals.

699 Connections to sewers

1. **General:** Connect new pipework to existing adopted sewers to the requirements of the adopting authority or its agent.

705 Initial testing of pipelines

1. **Before testing**
 - 1.1. **Cement mortar jointing:** Leave 24 h.
 - 1.2. **Solvent welded pipelines:** Leave 1 h.
2. **Method:** Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

711 Trench supports

1. **Removal of trench supports and other obstacles:** Sufficient to permit compacted filling of all spaces.

713 Installing root barriers

1. **Root barrier installation:** Full depth of excavation. Fit closely to trench wall nearest the tree.

715 Backfilling to pipelines

1. **Backfilling above top of surround or protective cushion:** Material excavated from trench, compacted in layers 300 mm (maximum) thick.
2. **Heavy compactors:** Do not use before there is 600 mm (total) of material over pipes.

718 Backfilling over concrete

1. **Minimum times from placing concrete**
 - 1.1. **Backfilling generally:** 24 h.
 - 1.2. **Heavy compactors and traffic loads:** 72 h.

720 Backfilling under roads and pavings

1. Backfilling from top of surround or protective cushion up to formation level: Granular sub-base material, laid and compacted in 150 mm layers.

722 Public roads and pavings – Eng, Wales, Scot

1. Excavating and backfilling of trenches: To Department for Transport 'Specification for the reinstatement of openings in highways'.

728 Laying warning marker tapes

1. Installation: During backfilling, lay continuously over pipelines.
2. Depth: 300-400 mm.
 - 2.1. Pipelines deeper than 2 m: Lay an additional tape 600 mm above the top of the pipeline.

732 Temporary bridges

1. Trench bridges: As necessary to prevent construction traffic damaging pipes after backfilling.

734 Installing access points and gullies

1. Bedding
 - 1.1. Material: Part of Contractors design.
 - 1.2. Thickness (minimum): Part of Contractors design.
2. Surround
 - 2.1. Material: Part of Contractors design.
 - 2.2. Thickness (minimum): Part of Contractors design.
 - 2.3. Height: Part of Contractors design.
3. Backfilling
 - 3.1. Material: Part of Contractors design.
 - 3.2. Compaction: By hand in 100 mm layers.
4. Setting out relative to adjacent construction features: Square and tightly jointed.
5. Permissible deviation in level of external covers and gratings: +0 to -6 mm.
6. Raising pieces (clay and concrete units): Joint with 1:3 cement:sand mortar.
7. Exposed openings: Fit purpose made temporary caps. Protect from traffic.

736 Installing rodding points

1. Bedding and surround
 - 1.1. Material: Concrete.
 - 1.2. Thickness (minimum): Part of Contractors design.
2. Permissible deviation in level of external covers and gratings: +0 to -6 mm.

741 Installing inspection chambers – plastics

1. Bedding
 - 1.1. Material: Contractor design.
 - 1.2. Thickness (minimum): Contractor design.
2. Surround
 - 2.1. Material: Contractor design.
 - 2.2. Thickness (minimum): Contractor design.
3. Backfilling: Contractor design.

- 3.1. Compaction: By hand in 100 mm layers.
- 4. Concrete collar
 - 4.1. Material: Contractor design.
 - 4.2. Thickness (minimum): Contractor design.
 - 4.3. Width (minimum): Contractor design.
- 5. Seating: Contractor design.

743 Installing concrete manholes

- 1. Bases
 - 1.1. Material: Contractor design.
 - 1.2. Thickness (minimum): Contractor design.
- 2. Surround
 - 2.1. Material: Contractor design.
 - 2.2. Thickness (minimum): Contractor design.
 - 2.3. Height: Contractor design.
- 3. Backfilling
 - 3.1. Material: Contractor design.
 - 3.2. Compaction: By hand in 100 mm layers.

753 Fixing manhole steps

- 1. Fixing: Part of Contractors design.
- 2. Positioning: 300 mm vertical centres staggered 300 mm horizontally, with lowest step 300 mm (maximum) above benching and top step 450 mm (maximum) below top of cover.

755 Jointing concrete manhole chamber sections

- 1. Jointing and sealing: Part of Contractors design.
- 2. Inner joint surface: Trim surplus jointing material extruded into chamber and point neatly.

773 Installing access covers and frames

- 1. Seating: Part of Contractors design.
- 2. Bedding and haunching of frames: Continuously.
 - 2.1. Material: 1:3 cement:sand mortar
 - 2.2. Top of haunching: 30 mm below surrounding surfaces.
- 3. Horizontal positioning of frames
 - 3.1. Centred over openings.
 - 3.2. Square with joints in surrounding paving.
- 4. Vertical positioning of frames
 - 4.1. Level; or
 - 4.2. Marry in with levels of surrounding paving.
- 5. Permissible deviation in level of external covers and frames: +0 to -6 mm.

776 Exposed openings in inspection chambers, access points, fittings and equipment

- 1. General: Fit purpose made temporary caps. Protect from site traffic.

Completion

901 Removal of debris and cleaning

1. **Preparation:** Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
 - 1.1. **Timing:** Before cleaning, final testing, CCTV inspection if specified, and immediately before handover.
2. **Cleaning:** Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
3. **Washings and detritus:** Do not discharge into sewers or watercourses.
4. **Covers:** Securely replace after cleaning and testing.

903 Temporary measures

1. **Water used to stabilize tanks and the like during installation:** Drain.

911 Testing and inspection

1. **Dates for testing and inspection:** Give notice.
 - 1.1. **Period of notice:** 1 week

921 Final testing of private gravity drains and sewers up to dn 300

1. **Before testing**
 - 1.1. **Cement mortar jointing:** Leave 24 h.
 - 1.2. **Solvent welded pipelines:** Leave 1 h.
2. **Standard:** To Building Regulations.
3. **Method:** Contractor's choice

931 Final testing of adoptable and large private sewers

1. **Standard (sewers up to and including size DN 750)**
 - 1.1. **England, Wales and Northern Ireland:** To WRc 'Sewers for adoption'.
 - 1.2. **Scotland:** To WRc 'Sewers for Scotland'.
2. **Method:** Contractor's choice

941 Water testing of manholes and inspection chambers

1. **Timing:** Before backfilling.
2. **Standard**
 - 2.1. **Exfiltration:** To BS EN 1610.
 - 2.2. **Method:** Testing with water (method W).
 - 2.3. **Infiltration:** No identifiable flow of water penetrating the chamber.

971 CCTV inspection of private pipelines

1. **General:** Carry out and record internal inspection using CCTV equipment.
 - 1.1. **Locations to be inspected:** Foul and surface water drains
2. **Illumination:** Of adequate intensity.
3. **Recording:** Provide continuous position recording, still photographs and stopping of the camera at any point.
 - 3.1. **Copy of videotape recording:** Submit.

976 CCTV inspection of adoptable pipelines

1. **General:** Permit the Adopting Authority or its agent to carry out and record internal CCTV inspection of pipelines and associated manholes after completion.
 - 1.1. **Locations to be inspected:** Adoptable foul and surface water sewers
2. **Pipelines under highways:** Complete construction, except for laying of wearing course, before inspection.

978 Lifting keys

1. **Lifting keys:** Supply suitable keys for each type of access cover.
 - 1.1. **Timing:** At completion.

Ω End of Section

Z20

Fixings and adhesives

Products

310 Fasteners generally

1. **Materials:** To have:
 - 1.1. Bimetallic corrosion resistance appropriate to items being fixed.
 - 1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. **Appearance:** Submit samples on request.

320 Packings

1. **Materials:** Noncompressible, corrosion proof.
2. **Area of packings:** Sufficient to transfer loads.

330 Nailed timber fasteners

1. **Nails**
 - 1.1. **Steel:** To BS 1202-1 or BS EN 10230-1.
 - 1.2. **Copper:** To BS EN 1202-2.
 - 1.3. **Aluminium:** To BS 1202-3.

340 Masonry fixings

1. **Light duty:** Plugs and screws.
2. **Heavy duty:** Expansion anchors or chemical anchors.

350 Plugs

1. **Type:** Proprietary types to suit substrate, loads to be supported and conditions expected in use.

360 Anchors

1. **Types**
 - 1.1. **Expansion:** For use in substrate strong enough to resist forces generated by expansion of anchor.
 - 1.2. **Adhesive or chemical**
 - 1.2.1. For use in substrate where expansion of anchor would fracture substrate.
 - 1.2.2. For use in irregular substrate where expansion anchors cannot transfer load on anchor.
 - 1.3. **Cavity:** For use where the anchor is retained by toggles of the plug locking onto the inside face of the cavity.

370 Wood screws

1. **Type**
 - 1.1. Wood screws (traditional pattern).
 - 1.1.1. **Standard:** To BS 1210.
 - 1.2. Wood screws.
 - 1.2.1. **Pattern:** Parallel, fully threaded shank or twin thread types.
2. **Washers and screw cups:** Where required are to be of same material as screw.

380 Miscellaneous screws

1. Type: To suit the fixing requirement of the components and substrate.
 - 1.1. Pattern: Self-tapping, metallic drive screws, or power driven screws.
2. Washers and screw cups: Where required to be of same material as screw.

390 Adhesives

1. Standards
 - 1.1. Hot-setting phenolic and aminoplastic: To BS 1203.
 - 1.2. Thermosetting wood adhesives: To BS EN 12765.
 - 1.3. Thermoplastic adhesives: To BS EN 204.

410 Powder actuated fixing systems

1. Types of fastener, accessories and consumables: As recommended by tool manufacturer.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

620 Fixing through finishes

1. Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

640 Fixing cramps

1. Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
2. Fasteners: Fix cramps to frames with screws of same material as cramps.
3. Fixings in masonry work: Fully bed in mortar.

650 Nailed timber fixing

1. Penetration: Drive fully in without splitting or crushing timber.
2. Surfaces visible in completed work: Punch nail heads below wrot surfaces.
3. Nailed timber joints: Two nails per joint (minimum), opposed skew driven.

660 Screw fixing

1. Finished level of countersunk screw heads
 - 1.1. Exposed: Flush with timber surface.
 - 1.2. Concealed (holes filled or stopped): Sink minimum 2 mm below surface.

670 Pelleted countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Pellets: Cut from matching timber, match grain and glue in to full depth of hole.
3. Finished level of pellets: Flush with surface.

680 Plugged countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Plugs: Glue in to full depth of hole.
3. Finished level of plugs: Projecting above surface.

690 Using powder actuated fixing systems

1. Powder actuated fixing tools: To BS 4078-2 and Kitemark certified.
2. Operatives: Trained and certified as competent by tool manufacturer.

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
2. Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
3. Finished adhesive joints: Fully bonded. Free of surplus adhesive.

Ω End of Section

Z21 Mortars

Cement gauged mortars

110 Cement gauged mortar mixes

1. **Specification:** Proportions and additional requirements for mortar materials are specified elsewhere.

120 Sand for site made cement gauged masonry mortars

1. **Standard:** To BS EN 13139.
2. **Grading:** 0/2 (FP or MP).
 - 2.1. **Fines content** where the proportion of sand in a mortar mix is specified as a range (e.g. 1:1: 5-6):
 - 2.1.1. **Lower proportion of sand:** Use category 3 fines.
 - 2.1.2. **Higher proportion of sand:** Use category 2 fines.
3. **Sand for facework mortar:** Maintain consistent colour and texture. Obtain from one source.

160 Cements for mortars

1. **Cement:** To BS EN 197-1 and CE marked.
 - 1.1. **Types:** Portland cement, CEM I.
 - 1.1.1. **Portland limestone cement,** CEM II/A-L or CEM II/A-LL.
2. **Portland slag cement,** CEM II/B-S.
3. **Portland fly ash cement,** CEM II/B-V.
 - 3.1. **Strength class:** 32.5, 42.5 or 52.5.
4. **White cement:** To BS EN 197-1 and CE marked.
 - 4.1. **Type:** Portland cement, CEM I.
 - 4.2. **Strength class:** 52.5.
5. **Sulfate resisting Portland cement**
 - 5.1. **Type:** To BS EN 197-1 Sulfate resisting Portland cement, CEM I/SR and CE marked.
6. **To BS EN 197-1 fly ash cement,** CEM II/B-V and CE marked.
 - 6.1. **Strength class:** 32.5, 42.5 or 52.5.
7. **Masonry cement:** To BS EN 413-1 and CE marked.
 - 7.1. **Class:** MC 12.5.

180 Admixtures for site made cement gauged mortars

1. **Air entraining (plasticizing) admixtures:** To BS EN 934-3 and compatible with other mortar constituents.
2. **Other admixtures:** Submit proposals.
3. **Prohibited admixtures:** Calcium chloride, ethylene glycol and any admixture containing calcium chloride.

200 Storage of cement gauged mortar materials

1. **Sands and aggregates:** Keep different types/ grades in separate stockpiles on hard, clean, free-draining bases.
2. **Factory made ready-mixed lime:sand/ ready to use retarded mortars:** Keep in covered containers to prevent drying out or wetting.

3. Bagged cement/ hydrated lime: Store off the ground in dry conditions.

210 Making cement gauged mortars

1. Batching: By volume. Use clean and accurate gauge boxes or buckets.
 - 1.1. Mix proportions: Based on dry sand. Allow for bulking of damp sand.
2. Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
 - 2.1. Mortars containing air entraining admixtures: Mix mechanically. Do not overmix.
3. Working time (maximum): Two hours at normal temperatures.
4. Contamination: Prevent intermixing with other materials.

Lime:sand mortars - Not Used

Ω End of Section

Z22 Sealants

Products

310 Joints

1. Description: Between paving and slotted drainage.
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Contractor's choice Submit proposals
3. Primer, backing strip, bond breaker: Types recommended by sealant manufacturer.
4. Fire performance
 - 4.1. Fire resistance: Not required
 - 4.2. Reaction to fire: Not required

Execution

610 Suitability of joints

1. Presealing checks
 - 1.1. Joint dimensions: Within limits specified for the sealant.
 - 1.2. Substrate quality: Surfaces regular, undamaged and stable.
2. Joints not fit to receive sealant: Submit proposals for rectification

620 Preparing joints

1. Surfaces to which sealant must adhere
 - 1.1. Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
 - 1.2. Clean using materials and methods recommended by sealant manufacturer.
2. Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.
3. Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps.
4. Protection: Keep joints clean and protect from damage until sealant is applied.

630 Applying sealants

1. Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
2. Environmental conditions: Do not dry or raise temperature of joints by heating.
3. Sealant application: Fill joints completely and neatly, ensuring firm adhesion to substrates.
4. Sealant profiles
 - 4.1. Butt and lap joints: Slightly concave.
 - 4.2. Fillet joints: Flat or slightly convex.
5. Protection: Protect finished joints from contamination or damage until sealant has cured.

Ω End of Section



Specification created using NBS Chorus



Schedule of Works

1.1	SCOPE OF WORKS	Item/Note	Cost
1.1.1	Preparation for and installation of a Changing Places Modular unit to the North East area of the Jubilee Road car park in Wadebridge. Works include the excavation, trench preparation, laying of pipework and connection of new mains water supply, foul and surface water drainage and making good and connection to SWW mains and to existing adjacent ditch with regard surface water. SWW to provide water supply from mains in the road up to site boundary. Interface with Nation Grid for the supply of new single phase service (18kVA) to enable Changing Places manufacturer to connect to the modular unit. Allow for management of National Grid and general attendance. Installation and design of pad foundations for Changing Places unit, ramp, paving handrails and associated landscaping.		
1.1.2	Preparation and contractor design of pad foundations for the modular unit.		
1.1.3	Provision of ducts/risers for drainage, water and electrical services to the unit.		
1.1.4	Closure application and excavation of the public footpath and installation of new 25mm MDPE pipework from the boundary of the car park exit to the location of the unit. Ready for connection to South West Water within the public highway, stand pipe required either end of new pipework in accordance with South West Water requirements. Backfill, reinstatement of paving and affected areas. Contractor design for trenching, backfill, surface finish and access chambers.		
1.1.5	Excavation of the car park to enable new 110mm PVCu foul drainage from the unit to the existing South West water inspection chamber. Include installation of backdrop connection (4 metre deep approx.) to existing chamber. Backfill, reinstatement of existing car park and affected areas. Contractor to liaise and obtain necessary permissions to make connection. Backfill, reinstatement of paving and affected areas. Contractor design for trenching, backfill, surface finish and access chambers.		
1.1.6	Excavation of the soft landscaping and section of car park to enable the new power cable installation from National Grid to the unit. Backfill, reinstatement of existing affected areas.		

1.1.7	Manage and coordinate the Utilities companies and enabling works.	
1.1.8	Manage the coordination of the Changing Places unit delivery and enabling works.	
1.1.9	Ensure works are carried out in accordance with The New Roads and Street Works Act 1991 (NRSWA) and Highways Agency Specification for Highways Works.	
1.1.10	Contractor to be familiar with Highways Agency Specification for Highways Work and Highways Agency Specification for Highways Works.	
1.1.11	Form paving/ramps and handrails to provide access to the unit. Contractor design and handrail fixings.	
1.1.12	Allow for the installation of bollard protection.	
1.1.13	Make good to surfacing. Burn off existing car park demarcation lines and lay new disabled car parking spaces.	
1.1.14	Provide underground duct work for the provision of future electric car charging. Contractor design for trenching, backfill, surface finish and access chambers.	
1.1.15	General attendance allowance required for the management/coordination of SWW, National Grid and Changing Places Manufacturer.	
1.2	PRELIMINARIES	
1.2.1	The contractor is to provide preliminary costs in accordance with the NBS Preliminaries.	Note
1.2.2	The form of contract will be JCT Minor Works Building Contract with Contractors Design 2016 edition.	Note
1.2.3	Contractors are to allow for all site set up and necessary provisions as required under CDM 2015 and HSE regulation, for example, site accommodation and WC, along with all other Preliminary items and these items should be allowed for under the Preliminaries (section 1.0.0) within the summary price page at the end of this schedule of works.	Note

1.2.4	Preliminaries can be provided as a separate cost or within individual tender figures. The contractor must note which is to be used:	Note
1.3	Scaffold/Access	
1.3.1	Contractor to allow for full access, including access equipment to fully carry out the works. Contractor to confirm the price of the access equipment here. Contractor to allow for all full protection as required.	Item
1.3.2	The contractor to be aware the car park, exit road and paving will still be operational and will be required to provide proposals on the management of vehicular and pedestrian routes to minimise the impact of the work. Draft proposals to be submitted at tender stage.	Item
1.3.3	The contractor must undertake a site inspection to determine access and excavation protection requirement.	Item
1.3.4	The contractor is to ensure that they provide a secure site and prevent unauthorised access to areas of work, including all necessary temporary screens, fencing, and/or warning signage, etc.	Item
1.4	PRACTICAL COMPLETION	
1.4.1	The following must be provided to allow Practical Completion of the works:	Note
1.4.2	Completion of all contracted and instructed works.	Note
1.4.3	All snagging items completed or only de-minimis items remaining.	Note
1.4.4	Building control completion certificate and all associated documentation, chlorination certification, etc.	Note
1.4.5	Drainage test and CCTV records.	Note
1.4.6	Operations and maintenance manual. Arranged as zip folder and issued to contract administrator.	Note
1.4.7	Photographic records as requested below.	Note

1.5	Notes/special considerations	
1.5.1	The contractor must take photographs of all key stages and significant details for record. This will be required to meet the criteria of building control.	Note
1.5.2	Unless otherwise stated. The contractor must allow to supply and fit all scheduled items.	Note
1.5.3	The contractor must allow to liaise with Building Control to notify commencement of works and book in relevant inspections at key stages. The contractor must also liaise to ensure certification is provided.	Note
1.6	Contractors design portion	
1.6.1	To confirm, the contractors design portion is for the following elements:	Note
1.6.2	Using the Changing Places manufacturer (Rise Adapt) information, design the pad foundations for the modular Changing Places unit. (Drawing CP+0 DoL V2.03 Groundworks & Services included for reference, actual drawings to be provided by Rise Adapt shortly).	Note
1.6.3	The ramp, sub base, paving and handrails.	Note
1.6.4	Slotted drainage channel and pipework for surface water,	Note
1.6.5	In accordance with South West Water requirements, design the excavation, laying of pipework and protection, connection to existing South West Water foul drainage and connection to the Changing Places, backfill and surfacing. Including double non return valve, necessary inspection chambers and rodding access points.	Note
1.6.6	In accordance with South West Water requirements, design the excavation, new 25mm water supply pipe and standpipes from the Changing Places unit to the site boundary for South West Water to connect to the mains in the road. Include for backfill and surfacing and stop tap chambers.	Note
1.6.7	The service connection/access points to enable services to rise from the trenching for Rise Adapt to connect to the Changing Places unit.	Note

1.6.8	The trench, duct, inspection chamber for drawstrings to allow for future installation of 2no electric car charging points adjacent the new disabled spaces.	Note	
1.6.9	Backfill/reinstatement works including the surfacing and demarcation in accordance with the relevant bodies.	Note	

2.0 Schedule of Rates

2.1	The rates for labour and schedule of rates are to include for profit of overhead charges, supervision, welfare facilities, national and other insurances, value added tax, national insurance and other pension contributions, holidays with pay and paid public holidays, stamps, incentive payments, non-productive overtime (except where authorised by the supervising Surveyor), travelling time, fares and travelling expenses, tool money, provision of water and electricity and the use of scaffolding and non-mechanical plant unless brought and retained on the site solely for the use in connection with day work.	Note
2.2	Where overtime is authorised an additional sum shall be paid to the Contractor for non-productive development of the net cost to the Contractor.	Note
2.3	Work carried out by the apprentices will be valued at the trade rates quoted below reduced to the same proportion as the full rates bear to the apprentice's rates in the working rule agreement.	Note
2.4	Extra rates for discomfort, inconvenience to risk (e.g. work at heights), or to work having extra skill (e.g. chargehand, scaffolding and plant operators) shall be added net to the hourly rates quoted below at the rates set out in the working rule agreement applicable to the works provided always that the extra skill is necessary to the work being executed as day work.	Note
2.5	Schedule of rates; inclusive rates of labour as defined below:	
2.5.1	Labourer	Item
2.5.2	Groundworker	Item
2.5.3	Carpenter	Item
2.5.4	Plumber	Item
2.5.5	Electrician	Item
2.5.6	Bricklayer	Item

2.6	Materials		
2.6.1	Add for profit and overhead charges on the net cost materials purchased after all discount other than cash discounts not exceeding 5% 'on cost' percentage.	Item	
2.7	Plant		
2.7.1	Add for profit and overhead charges on the net cost of invoice rates for the following used solely in connection with day work.	Item	
2.7.2	Mechanical plant.	Item	
2.7.3	Non-mechanical plant.	Item	
2.7.4	Transport when used solely in connection with day work 'on cost' percentage.	Item	
2.00	Section 2 Total		

3.0 General

- | | | |
|-----|--|------|
| 3.1 | <p>It is noted that services are located within the vicinity of all excavations and foundations. The contractor is to ensure that they research the ground for services prior to undertaking excavations using service such as the following to prevent any disruption to existing services and scan the ground:</p> <p>www.linesearchbeforeudig.co.uk</p> | Note |
| 3.2 | <p>Groundworks are to be carried out by an accredited New Roads and Street Works Act 1991 contractor and should be familiar with the Highways Agency Specification for Highways Works.</p> | Note |
| 3.3 | <p>Drainage, water supply and works associated with National Grid are to be undertaken by an accredited New Roads and Street Works Contractor and will be able to certify that any plumbing, installation or maintenance work satisfies the Water Supply (Water Fittings) Regulations 1999. A certificate of completion must be provided to the contract administrator.</p> <p>All works to be carried out in accordance with associated legislation and codes of practice, together with any other Street Authority and Licencing requirements.</p> | Note |
| 3.4 | <p>Works to and adjacent to trees are to be carried out as per recommendations within Objective Tree Consultancy BS5837 Tree Survey Report & Preliminary Constraints Analysis dated 27th October 2023.</p> | Note |
| 3.5 | <p>Contractor must have all of the necessary qualifications, skills, knowledge and experience to be able to undertake the works in competent manner. And must adhere to the current Building Regulations, all other relevant associated legislation and codes of practice.</p> | Note |

4.0	Site Preparations	
4.1	Using a qualified tree surgeon, cut back the overhanging tree branches as recommendations in Objective Tree Consultancy report to enable the works to be undertaken and the Changing Places unit to be installed. Remove debris from site.	Item
4.2	Allow to set up site compound and site separation from the trees as per the Site Management recommendations on page 17 and 20 and site plans of Objective Tree Consultancy report. In addition to the site compound, protection of the site area is required, supply and fit and maintain tree protection fencing as per objective Tree Consultancy report.	Item
4.3	Care should be taken and the advice followed from Objective Tree Consultants report with regard to tree roots when setting out the foundations and excavating.	Item
4.4	Remove and set aside the boulders to the perimeter of the rear of the car park in the vicinity of the works. Replace to rear of Changing places unit upon completion.	Item
4.0	Section 4 Total	

5.0	Foundations	
5.1	As shown on drawing P230274-406 carefully cut into surface layers of the car park to avoid undue damage to the surrounding area and the bond between the surface course and binder course. Excavate to reduced levels to form pad foundations based on the drawing from Rise Adapt CP+0 DoL V2.03 Groundworks Service (GW A). Ensure the level of the Changing Places finished floor level is 50mm above the existing car park surface. Remove and dispose of spoil off site. Refer to NBS Preliminaries Clause A20 and NBS D20.	Item
5.2	Installation of the concrete pad foundations is the responsibility of the contractor to check ground conditions and confirm with their structural engineer to ensure the design of the foundations is suitable based on the requirements of the Rise Adapt Changing Places modular unit. The following description is the basis of the design from Rise Adapt. Construct 150mm MOT Type 1, compacted to achieve min 50kN/m2 allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against engineer's assumptions prior to C35 concrete pour. Allow for 8no pad foundations for unit size 8480 x 3500mm. In accordance with NBS E05, E10, E20, E30, E40, E41 and Q10.	Item
5.0	Section 5 Total	

6.0	Ramp/Drainage	
6.1	Allow to excavate to reduced levels, well compacted granular sub base by mechanical means. Form 100mm thick new concrete ramp with maximum gradient of 1:12 at 1500mm clear in width and 100mm upstand to the outer edge. Level access platforms as indicated on drawings P2030274-205 and P230274-206. Provide a crossfall towards the upstand of the ramp not to exceed 1:50 to assist with the drainage of surface water. Construct in accordance with Building Regulations Approved document K and M. In accordance with NBS E05, E10, E20, E30, E40, E41 and Q10.	Item
6.2	Excavate for installation of metal slotted drainage channel between the changing places unit and the new ramp surface. Ensure level access is not compromised at the ramp and door thresholds to the changing places unit. Additional slotted drainage to external perimeter of the ramp as per drawing P230274-410. Drainage to disperse into the existing drainage ditch to the North (behind) the Changing Places unit. Allow for rodding point, bends, bedding and reinstatement. Allow for testing and CCTV survey of new drainage. In accordance with NBS R12 and Z20.	Item
6.0	Section 6 Total	

7.0	Galvanised Handrail	
7.1	Handrail to be Key Clamp with a circular handrail diameter of no more than 45mm and provide a top surface of the handrail between 900mm and 1000mm to the surface of the ramp finish and between 900mm and 1100mm from a landing. Construct in accordance with Building Regulations Approved document K and M, as shown on drawing P230247 - 407 and in accordance with L30, Q41 and Z20.	Item
7.0	Section 7 Total	

8.0	New Water Pipework	
8.1	Set up area to enable the closure of the public footpath to the side of the exit road of the car park and undertake the work in accordance with The New Roads and Street Works Act 1991 (NRSWA) and Highways Agency Specification for Highways Works.	Item
8.2	Excavate trench as shown on drawing P230274-408 to enable the provision of the new water supply to the new Changing Places unit. Carefully cut into surface layers to avoid undue damage to the surrounding area, the bond between the surface course and binder course. Excavate and stockpile reusable materials within the confines of the site barriers. Trench width to enable adequate access for the placement and compaction of the surround to apparatus. Trench walls/excavations should be adequately supported and protected from the ingress of water as far as reasonably practicable and the excavation edge should be in a safe and stable condition. In accordance with NBS D20 & P30.	Item
8.3	Lay new 25mm MDPE pipework, access chambers and stop valves, contractor design. Service Pipes shall be laid with an even grade where possible, with cover between a depth of 750mm to 1350mm from the finished ground level. The pipework must be protected from stones by either bedding in fine sand/pea gravel/selected fine soil or laid in a suitable ducting. The pipe should be capped off with mechanical fittings and clear from any contamination. Ensure standpipe is provided for South West Water connection and connection to new changing places unit. The area should be safe and clear from obstructions. The pipe must be a minimum of 350mm away from other utility services such as gas or electric if its being laid in the same trench. Work to be in accordance with Water Supply (Water Fittings) Regulations 1999 and the latest Streetworks UK good practice guidance. Depth of pipe to be confirmed with South West Water prior to excavating. Allow to fit rodent control expanding foam between the riser and pipework, cutting neatly back. In accordance with NBS D20, P30 & P31.	Item

8.4	Photograph the installation and check with South West Water that they do not need to inspect the installation prior to backfilling and reinstating the surfacing.	Item
8.5	Pipework must be chlorinated before connection and must be carried out within 10 calendar dates of the connection date. Ensure allowance is made for chlorination to be undertaken. In order to safeguard water quality and public health, it is a requirement that your private supply pipe(s) are disinfected (chlorinated) and tested in certain circumstances, before a connection(s) is allowed to the water main. Disinfection must be carried out to 'BS EN 806' to ensure there is no detriment to public health. If you require more information regarding this process, please contact us on 0800 083 1821 or see the chlorination guidance on our website at: www.southwestwater.co.uk/waterconnections DO NOT DISINFECT THE SERVICE PIPE(S) UNTIL YOU HAVE BEEN GIVEN A CONNECTION DATE FROM SOUTH WEST WATER.	Item
8.6	Confirm connection with South West Water and have site presence to meet the SWW representative to ensure they are satisfied and can make the connection to the mains supply.	Item
8.7	Following sign off of the installation, backfill and reinstate surfacing ensuring no ponding to the reinstatement. In accordance with NBS Q20, Q21 and Q22.	Item
8.0	Section 8 Total	

9.0	New Drainage Connection	
9.1	Securely cordon off car park to enable the excavation and installation of new foul drainage from the new changing places unit to the existing inspection chamber within the car park as shown on drawing P230274 - 408. Undertake the work in accordance with The New Roads and Street Works Act 1991 (NRSWA) and Highways Agency Specification for Highways Works. Include for the management and signage provision to enable the car park to remain operational. Provide proposal for car park segregation for client approval prior to commencing works. In accordance with NBS D20 & P30.	Item
9.2	The invert level of the existing sectional pre cast concrete inspection chamber is approximately <u>4 metres</u> , contractor to hold the relevant qualifications and be fully experienced in undertaking and managing works at this depth.	Note
9.3	Form new sectional inspection chamber to receive foul drainage from the changing places unit. In accordance with NBS P30 and R12.	Item
9.4	Excavate trench as per drawing P230274 - 408 to enable the provision of the new 110mm PVCu foul drainage to the new Changing Places unit. Carefully cut into surface layers to avoid undue damage to the surrounding area, the bond between the surface course and binder course. Excavate and stockpile reusable materials within the confines of the site barriers. Trench width to enable adequate access for the placement and compaction of the surround to apparatus. Trench walls/excavations should be adequately supported and protected from the ingress of water as far as reasonably practicable and the excavation edge should be in a safe and stable condition, where necessary the support system should be designed. Operatives should be fully trained to work in the depths and conditions. Allow to fit rodent control expanding foam between the riser and pipework, cutting neatly back. In accordance with NBS D20, P30 & P31. In accordance with NBS D20, P30, P31 and R12.	Item

9.5	Allow for the excavation, installation of chamber, suitable water tight lid and double flap backwater valve to be installed in the appropriate location to the foul drainage pipework. Future maintenance require to the valve. Allow to make good to adjacent disturbed surfaces. In accordance with NBS P30.	Item
9.6	Allow to form new drop shaft connection into the existing inspection chamber (as shown on drawing P230274-408. Include all necessary rodding access, pipe protection ensure minimal disturbance to the existing drainage operation. Provide photographic evidence of connection. In accordance with NBS P30.	Item
9.7	Photograph the installation and check with South West Water that they do not need to inspect the installation prior to backfilling and reinstating the surfacing.	Item
9.8	Confirm connection proposal with South West Water and have site presence to meet the SWW representative to ensure they are satisfied and can make the connection to the existing drainage system.	Item
9.9	Backfill the trench with suitable the set aside reuseable material, providing the correct pipework encasement protection, granular fill, base, binder course and finish course suitable for the use in car parks. In accordance with NBS P30, Q20, Q21 & Q2.	Item
9.10	Clean down and prepare existing surfaces, reinstate the full lines of car parking spaces disturbed following the excavation works. Set out spaces and hatching for the 2no disabled parking spaces and apply lining as per drawings P230274 406 and P230274- 408.	Item
9.11	Allow for testing and CCTV survey of new drainage and connection to mains sewer. Provide footage.	Item
9.12	Make good to soft landscaping to rear of Changing Places unit. In accordance with NBS Q30.	Item
9.0	Section 9 Total	

10.0	Electrical Duct		
10.1	Allow Provisional Sum for works to enable changing places manufacturer to make electrical connection from National Grids installation.		£3,000.00
10.0	Section 10 Total		

Summary Collection Bought Forwards

Section 1.0 – Scope (Nothing to bring forwards)

Section 2.0 – Schedule of Rates

Section 3.0 – General (Notes – Nothing to bring forwards)

Section 4.0 – Site Preparations

Section 5.0 – Foundations

Section 6.0 – Ramp/Drainage

Section 7.0 – Galvanised Handrail

Section 8 .0 – New Water Pipework

Section 9.0 – New Drainage Connection

Section 10.0 – Electrical Duct (Provisional Sum)	£3,000.00
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Sub-Total

Contingency Sum of 10% of Sub Total

Total



Appendix B

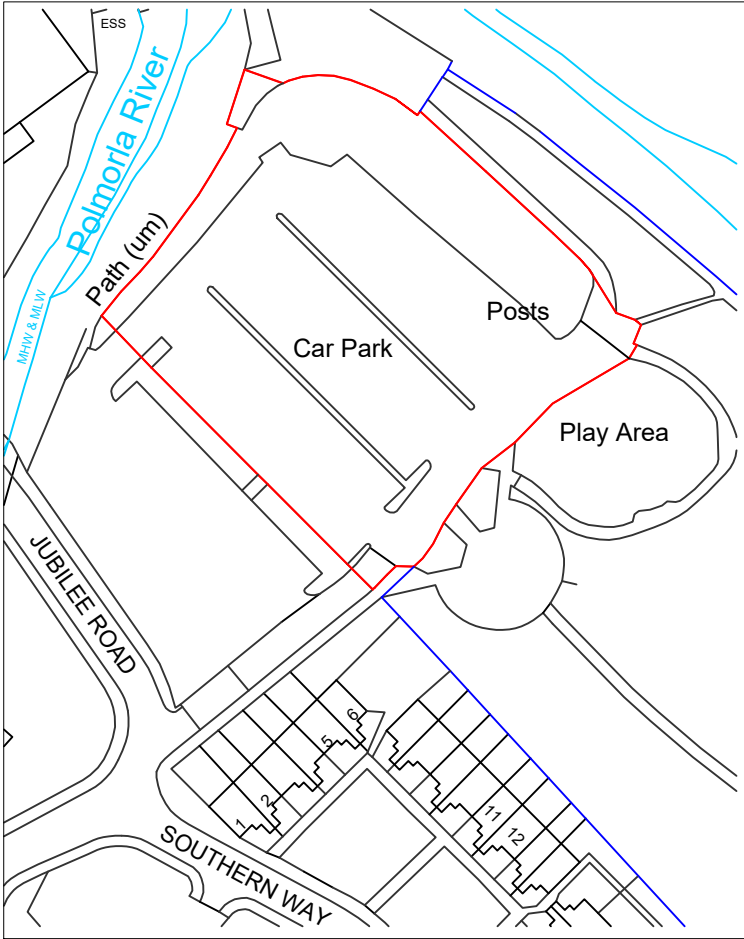
Drawings

Date:



Stage	Ref		Project	Ref	
Preliminary	100		Topographic	TG	
Planning	200		Land Registry	LR	
Building Regs	300		Party wall	PW	
Tender	400				
Contract	500				
Construction	600				
As Built	700				

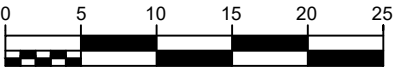
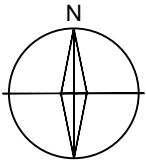
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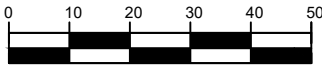
LOCATION PLAN
1:1250



BLOCK PLAN
1:500



Scale 1:500



Scale 1:1250

REVISION	AMENDMENT	INITIAL	DATE

- STATUS
- ☐ Preliminary
 - ☐ Planning
 - ☐ Building Regulations
 - ☒ Tender
 - ☐ Contract
 - ☐ As Built

PROJECT
Jubilee Rd Pay & Display Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT
Wadebridge Town Council

DRAWING TITLE
Location Plan and Block Plan



CHARTERED BUILDING SURVEYORS

RTP Surveyors
Tremough Innovation Centre
Penryn, Cornwall, TR10 9TA

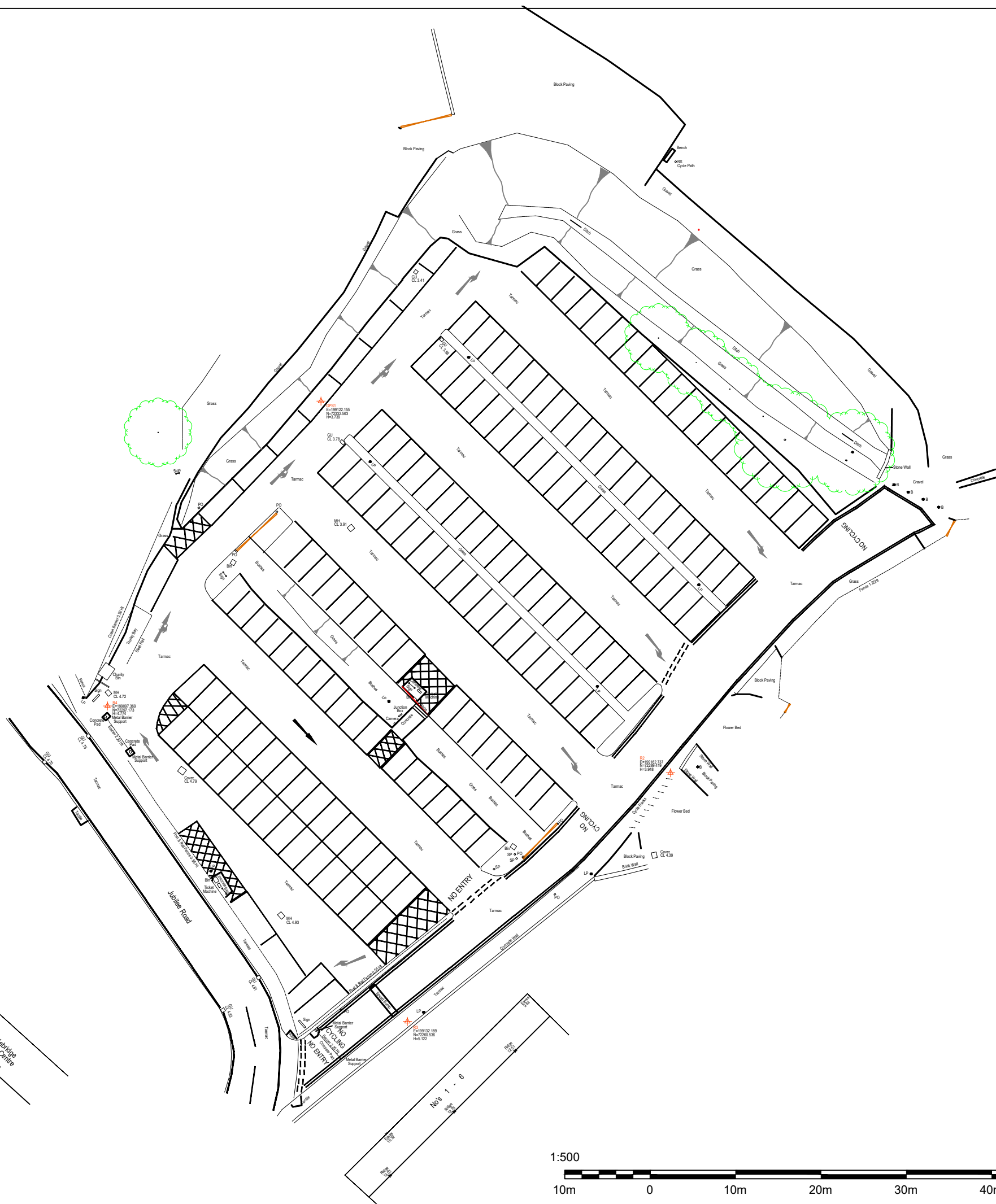
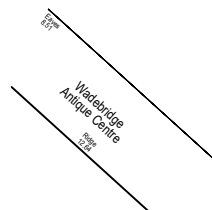
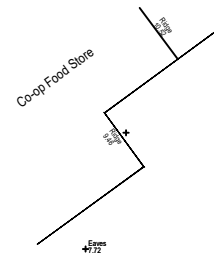
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www.rtpsurveyors.co.uk

Offices also at Bodmin and Plymouth

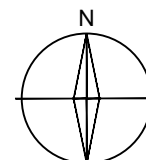
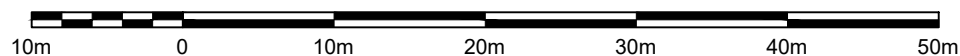


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DATE	CHECKED BY			
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1:500



- STATUS
- ☐ Sketch Scheme
 - ☐ Planning
 - ☐ Building Regulations
 - ☒ Tender
 - ☐ Contract
 - ☐ As Built

PROJECT
Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT
Wadebridge Town Council

DRAWING TITLE
Existing Site Plan



CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

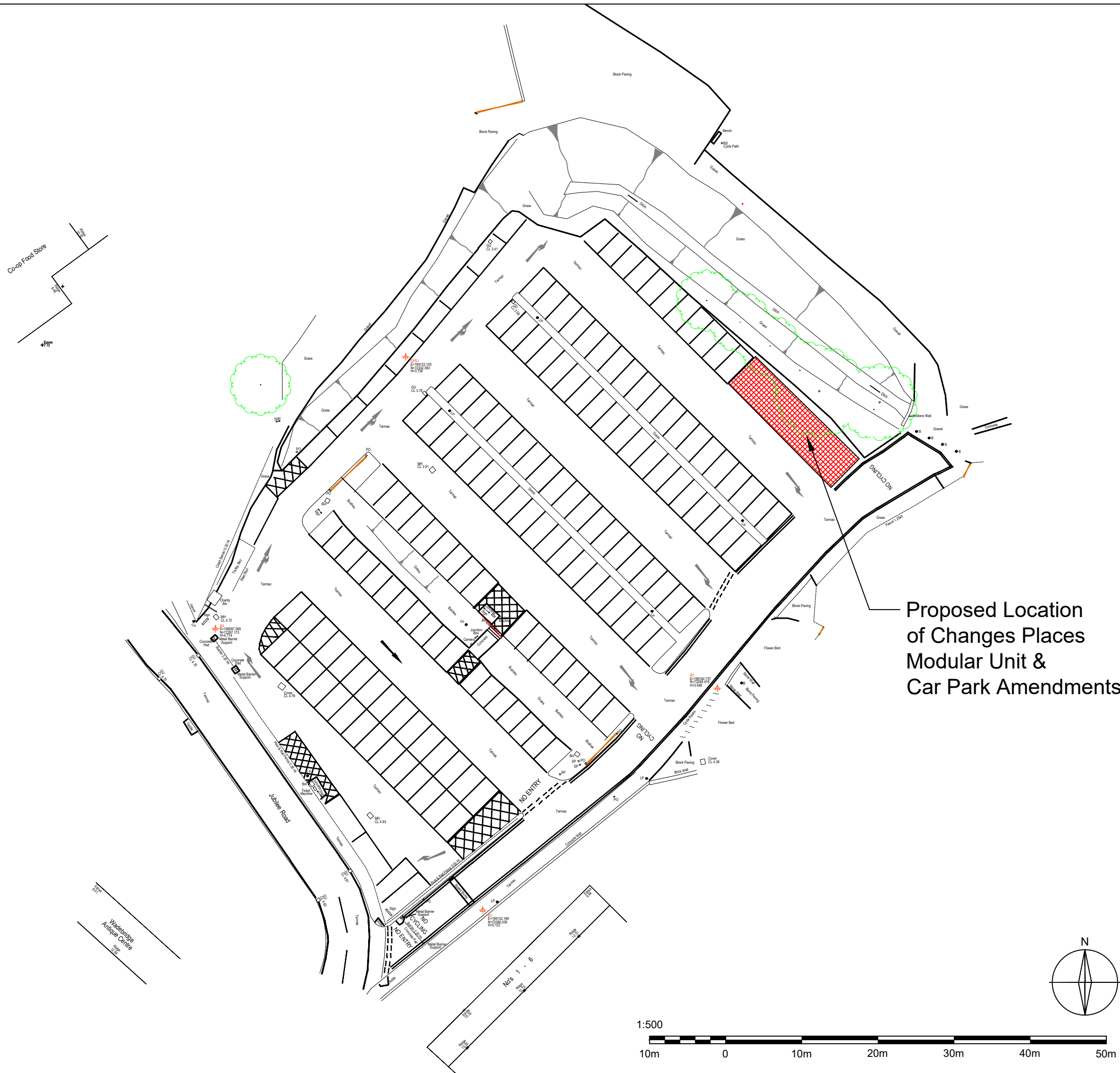


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Proposed Location
of Changes Places
Modular Unit &
Car Park Amendments

- STATUS
- ☐ Sketch Scheme
 - ☐ Planning
 - ☐ Building Regulations
 - ☒ Tender
 - ☐ Contract
 - ☐ As Built

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT

Wadebridge Town Council

DRAWING TITLE

Proposed Site Plan



CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

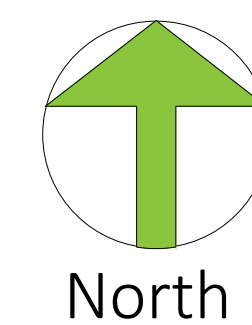
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Sheet 01

SHEET LAYOUT

Notes

Survey is referenced to OS Grid and Level Datum

Rev	Description	Drawn/Chk	Date
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Survey Dimensions Ltd
Measured surveys of land and buildings

Project Title:
Jubilee Road Car Park
Jubilee Road
Wadebridge
PL27 7AE

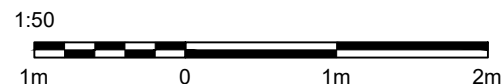
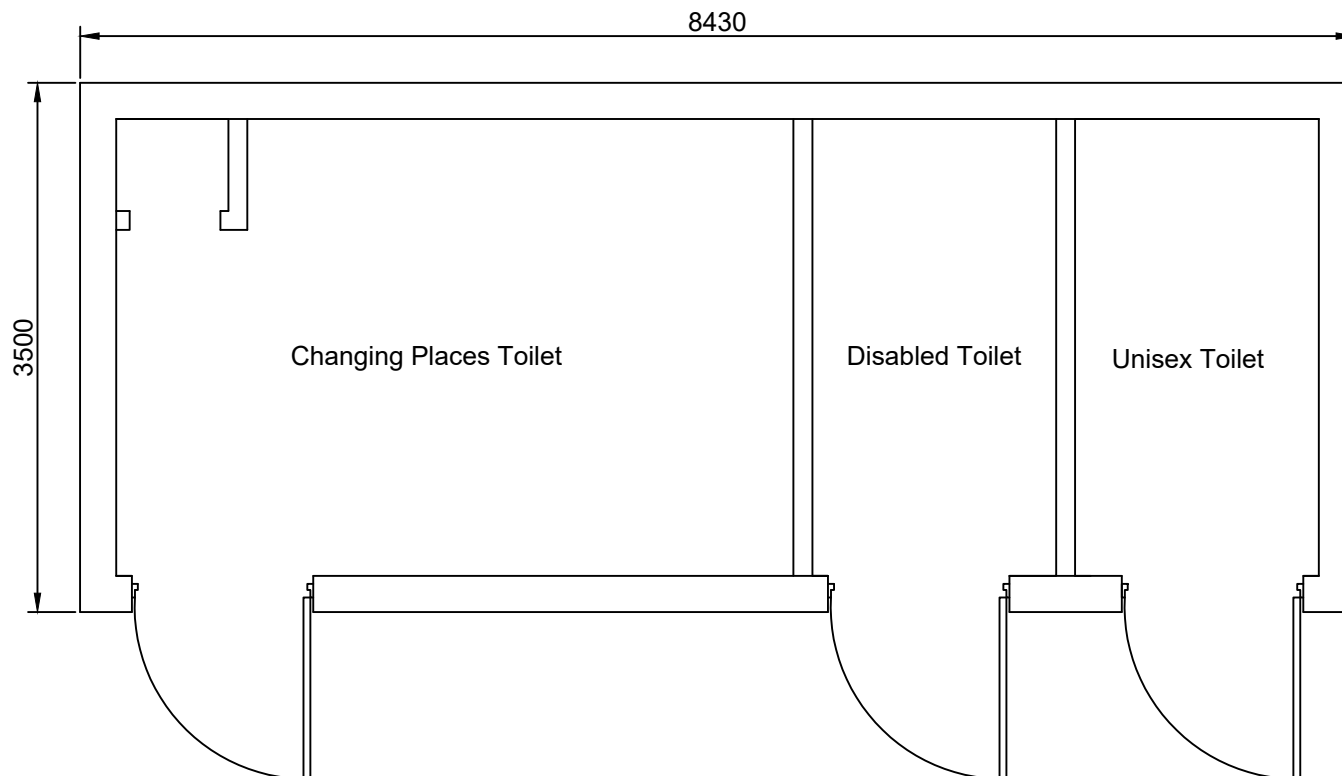
Client:
RTP Surveyors

Drawing Title: **Site Topographic Survey**

Scale: 1 : 200	@ AD	Drawn: RC
Date: 03-10-2023		Checked: MWS
Drawing Name: SURVEY		Surveyor: RC

Diag. No. P230274-404	Rev.
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 Only figured dimensions are to be used.
 This drawing shall be used only for the purpose intended.



STATUS

- ☐ Sketch Scheme
- ☐ Planning
- ☐ Building Regulations
- ☒ Tender
- ☐ Contract
- ☐ As Built

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT

Wadebridge Town Council

DRAWING TITLE

Proposed Floor Plan



CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

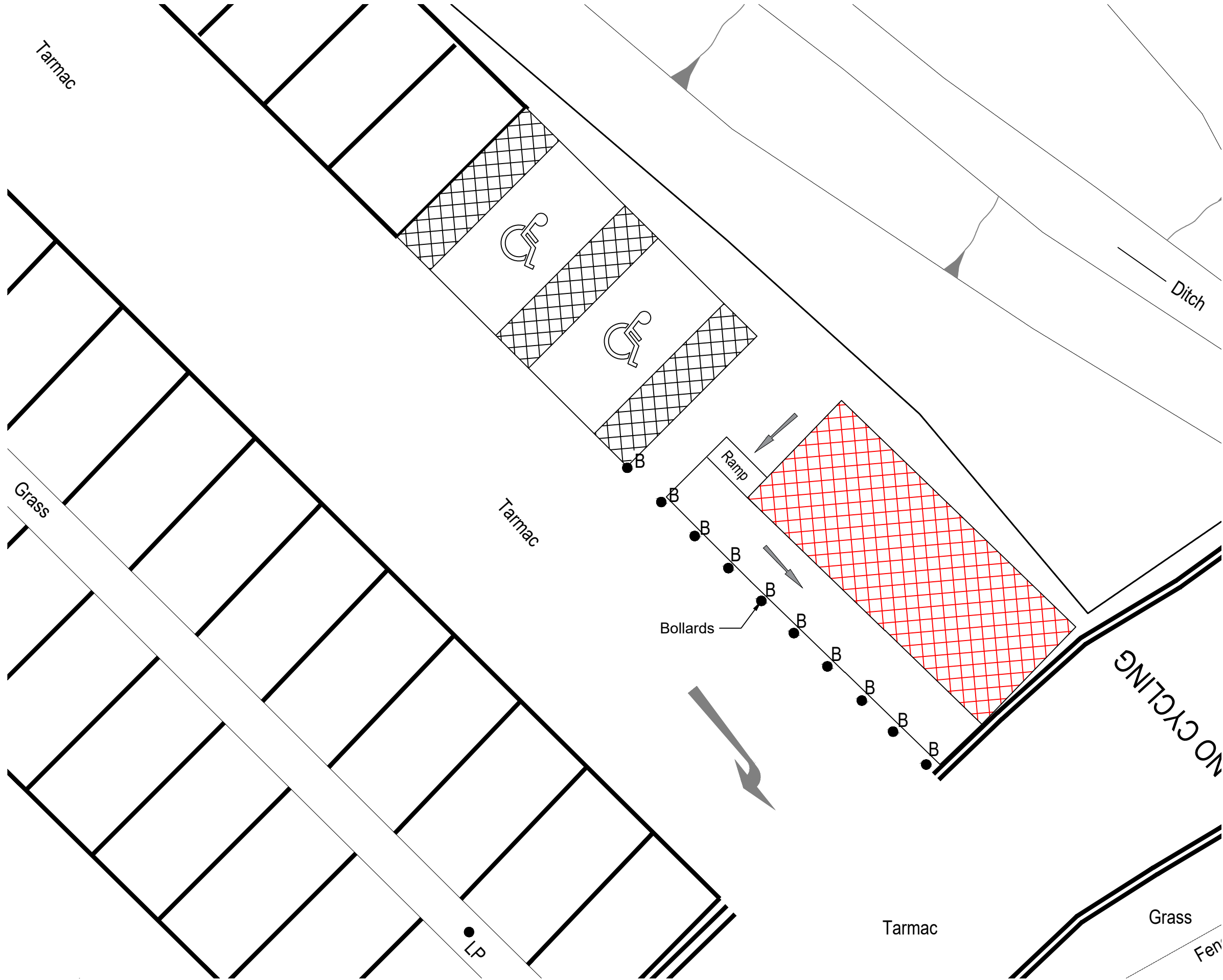


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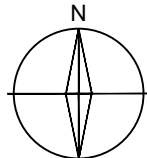
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1:100
2m 0 2m



STATUS

Sketch Scheme

Planning

Building Regulations

Tender

Contract

As Built

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT

Wadebridge Town Council

DRAWING TITLE

Proposed Site Layout

RTP

CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

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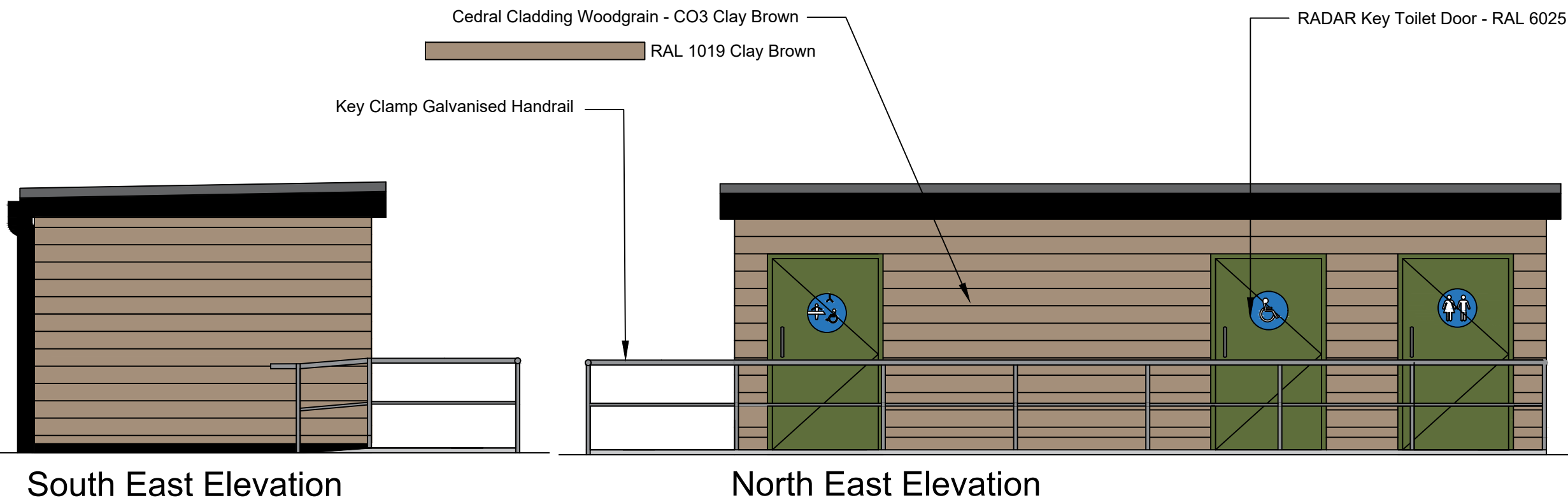
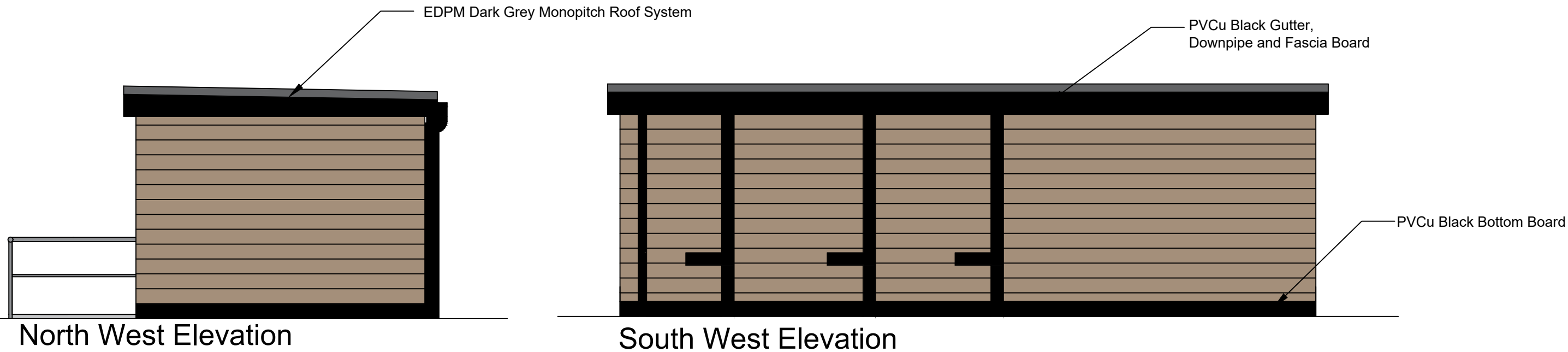
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STATUS

☐

 Sketch Scheme

☐

 Planning

☐

 Building Regulations☒☐☐

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT

Wadebridge Town Council

DRAWING TITLE

Proposed Elevations

RTP

CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

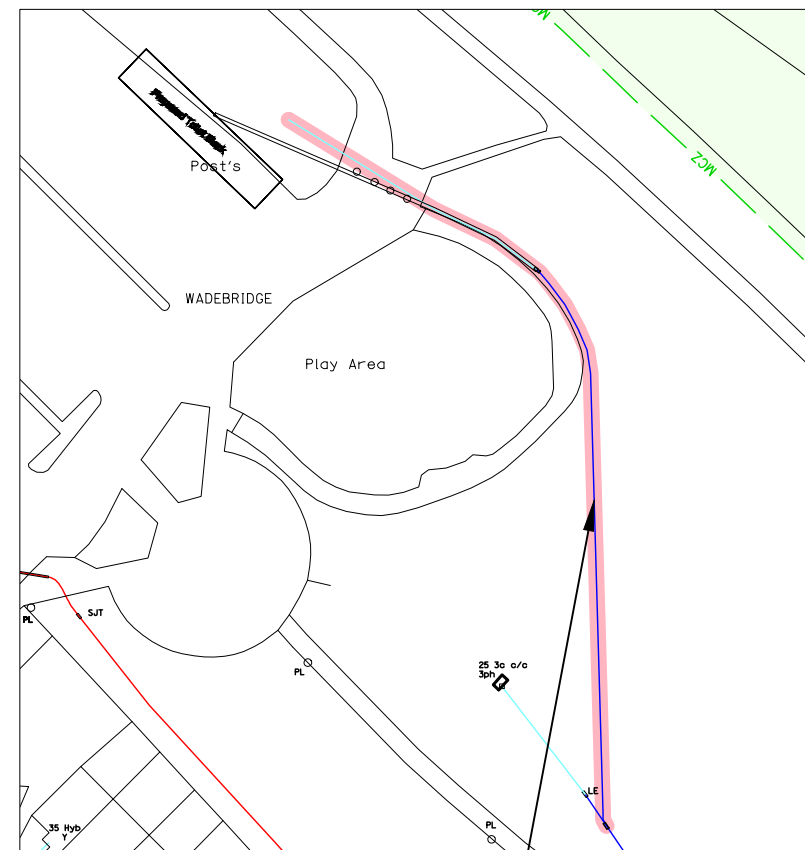
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New Foul Drainage
Required to Existing
SWW Inspection Chamber
(Invert Approx 4m)



Proposed National
Grid Supply Trench
and Cable

Proposed Excavation
+ New 25mm Water Supply Pipe.
Standpipes required for SWW Connection
at Boundary and Connection at Modular Unit

SWW New Water Supply to Boundary
That Connects to Contractors Standpipe

- STATUS
- ☐ Sketch Scheme
 - ☐ Planning
 - ☐ Building Regulations
 - ☒ Tender
 - ☐ Contract
 - ☐ As Built

PROJECT
Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT
Wadebridge Town Council

DRAWING TITLE
Proposed Excavation &
Utilities Routes



CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF



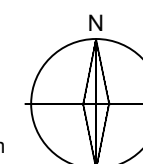
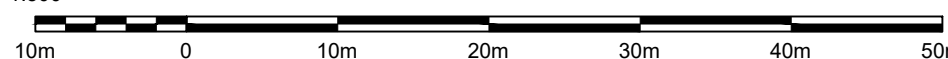
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1:500





STATUS

Sketch Scheme

Planning

Building Regulations

Tender

Contract

As Built

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

CLIENT

Wadebridge Town Council

DRAWING TITLE

Contractor Site Compound
& Site Access

RTP

CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

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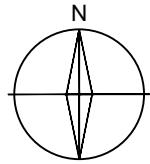
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1:100
2m 0 2m 4m



STATUS

☐ Sketch Scheme

☐ Planning

☐ Building Regulations

☒ Tender

☐ Contract

☐ As Built

PROJECT

Jubilee Rd Car Park
Jubilee Rd
Wadebridge
PL27 7AE

Wadebridge Town Council

Proposed Surface Water
Drainage Layout

 RTP

CHARTERED BUILDING SURVEYORS

RTP Surveyors
9 Mount Folly Square
Bodmin, Cornwall, PL31 2DF

T 01208 892020
F 01208 269476
E Bodmin@rtpsveyors.co.uk
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 RICS®

Office also at Falmouth

SCALE 1:100	DRAWN BY JB	DRAWING NO. P230274-410	REV.	SIZE A3
Nov 23	CHECKED BY JR			

This drawing is copyright. All materials and workmanship to comply with the current British Standards and codes of practice.
Contractors to check ALL dimensions. Work from figured dimensions ONLY.
Report ANY discrepancy to Architect or Surveyor before proceeding.
IF IN ANY DOUBT ASK.



Appendix B

Pre-Construction Information

CDM – Pre-Construction Information

Nature of project		Comments/response
Name of client		Wadebridge Town Council (Anne Minnis)
Location of project		Jubilee Road Car Park, Wadebridge, PL27 7AE
Nature of construction work to be carried out. (e.g., scope of works)		Installation of Changing Places modular unit. Associated groundworks for foundations, surface water and foul drainage, new electrical power provision, new water supply and amended parking provision.
Timescale for completion of construction work		3 months and before 27 th March.
Contact names and addresses of the project team. (If appointed)		See below.
Client		Anne Minnis Wadebridge Town Council Town Hall, The Platt Wadebridge PL27 7AQ
Principal Designer		RTP Surveyors Ltd Tremough Innovation Centre Penryn Cornwall TR10 9TA Contact : James Ruddle jamesr@rtpsurveyors.co.uk
Principal Contractor		To be confirmed.
The existing environment		Comments/response
Surrounding land uses and related restrictions adjacent to proposed construction site. (e.g., premises, schools, shops, or factories)		The existing land is used as a car park, it has a tarmac finish with lining demarcation and soft landscaping to the perimeter. The car park is located adjacent Jubilee Park, a play area and is close to the River Camel. The entrance to the car park is off Jubilee Road, the exit road runs parallel to the play area and a row of terraced houses nearer Southern Way. Jubilee Road continues past the car park to a dead end and provides access and further parking to the rear of shops and a COOP supermarket. Associated risks from the works will require controlling and be securely separated from the works area. These include vehicle and site operative movements, excavations and containing spoil. Restrictions outside of the work area include vehicles and parking access and egress, clearly signing these routes for the public. Restricting and diverting pedestrian access such as pathway closures. This list is not exhaustive.

	We understand there is an embargo from the junction of Jubilee Road and Southern Way where any road closure works are required to be carried out between the hours of 7pm and 7am as the road is deemed to be traffic sensitive.
Planning restrictions, which may affect health and safety	There are currently no planning restrictions that may affect health and safety.
Existing services including both underground and overhead	The existing foul sewer is located beneath an inspection chamber within the car park. See drawings P230274 – 408 for proposed excavation and utilities routes. South West Water Struplot and National Grid Enq No. 4835565. Services access chambers were noted within the public footpath along with scarring to road and paving surfaces. There are no overhead services within or adjacent to the work area. Service plans are included within the Appendix of this document. The contractor is to familiarise themselves with these plans and services locations on site prior to commencing works. If any further investigation is required, the Principal Contractor should use their experience and due diligence to ensure the works can be carried out safely.
Existing traffic systems and restrictions (e.g., access for emergency services, waste disposal, deliveries, etc.)	A dedicated parking area will be provided on site for contractor parking. See drawing P230274-409 for the existing traffic system attached to the Specification of Works and Preliminaries. Height restrictions should be observed with the car park goal posts for deliveries or for vehicles as the maximum height barrier is 2.3m. Arrangements will need to be made to enable the barriers to be open and closed. Access to emergency vehicles should be maintained at all times. Access and egress should be maintained at all times unless previously agreed with the Contract administrator and Wadebridge Town Council. Note:- The upper car park is leased/owned by the COOP and Wadebridge Town Council will be required to share car park access and egress

	amendments/restrictions whilst the works are in progress.
Existing structures (Any hazardous materials in existing structures which are being demolished or refurbished, any fragile materials which require specific safety precautions or have instability problems, structural limitations, or loadings)	There are no existing buildings. There is the car park tarmac hardstanding and raised grasses kerb islands providing separation of car parking bays. Access will be required to South West Waters inspection chamber and subsequent foul connection within the car park.
Relevant information relating to the presence of Asbestos or any other known hazardous substances or materials	An asbestos register does not exist and an asbestos refurbishment and demolition survey has not been undertaken due to no structures being present. Care should be taken during excavation works, should any materials suspected hazardous materials become exposed during the works, the Contractor must stop work and make the Principal Contractor aware if any issues arise as soon as practicable.
Ground conditions (e.g., contamination, instability, possible subsidence, old mine workings or underground obstructions)	We understand the soil is described as "Soliscape 20: Loamy and clayey floodplain soils with naturally high groundwater Texture: Loamy and clayey". We are unaware of any contamination, instability, etc to the ground. The tarmac surface to the car park and footpath is in reasonable condition with no significant undulations.
Existing fire and emergency procedures	There are no existing fire and emergency procedures. The Principal Contractor is responsible for generating a fire risk assessment during works detailing emergency routes and escape procedures. This is to be provided within the Principal Contractors Construction Phase Plan (CPP). Access for emergency vehicles must be maintained for the duration of the works.
Existing permit to work arrangement that are to be enforced on this project	There are no existing permits to work. The contractor must allow for all associated licences and permissions in compliance with South West Water, National Grid, Highways Agency, and New Roads and Streetworks Act 1991 requirements.
Existing security arrangements that are to be enforced on this project	Ensure the goal post barriers remain closed and locked unless being used by the Principal Contractor or their sub contractors. Barriers should only remain open at the time of the vehicle movement and be closed immediately afterwards. The car park and work areas should remain secure

	at all times.
Existing drawings and existing health and safety file	Comments/response
Available drawings of structure(s) to be demolished or incorporated in the proposed structure(s) (This may include a health and safety file prepared for the structure(s) and held by the client)	No H&S File exists. Drawings of design scheme and Plans are attached to the Specification of Works and Preliminaries (contract documents).
Client-specific site-wide elements	Comments/response
Positioning of site access and egress points (e.g., for deliveries and emergencies)	Principal Contractor to provide their proposed programme of works including their proposals for the sectional closure, amended vehicle and pedestrian movements of the car park and footpath showing routes for vehicle movements for access and egress for client approval. Note:- The upper car park is leased/owned by the COOP and Wadebridge Town Council will be required to share car park access and egress amendments/restrictions whilst the works are in progress.
Location of temporary site accommodation/welfare facilities	A dedicated site compound has been agreed with client. This is to be located at the bottom of the car park as shown on drawing P230274-409 attached to Specification of Works and Preliminaries. The contractor must allow for suitable provisions under the CDM 2015 regulations and health and safety requirements.
Location of unloading, layout, and storage areas	Principal Contractor to submit proposals with Construction Phase Plan.
Traffic/pedestrian routes	Principal Contractor to submit proposals with Construction Phase Plan. Note:- Principal Contractor to provide their proposed programme of works including their proposals for the sectional closure, amended vehicle and pedestrian movements of the car park and footpath showing routes for vehicle movements for access and egress for client approval.

Overlap with client's undertaking	Comments/response
Consideration of the health and safety issues which arise when the project is to be located in premises occupied or partially occupied by the client or effected by the works (i.e., other activities on or adjacent to the site)	The car park and surrounding areas are to remain operational during the works. Principal Contractor to ensure they minimise the operational impact whilst undertaking works to the car park and public footpath and areas where the general public use. The Principal Contractor will be required to liaise with the Changing Places manufacturer who has been appointed separately by the Client. The close liaison is to ensure the works being carried out are fully suitable for the installation of the Changing Places unit. Coordination of the manufacturer's installation dates and then installation on site will need to be coordinated to ensure both the manufacturer and Principal Contractor can complete their element so of work in the timeframe required without causing obstruction to each other. Principal Contractor to have assessed and agreed the Changing Places manufacturers Risk Assessment and Method Statements (RAMS) prior to the installation of the unit. The Principal Contractor will also need to provide the coordination of services with National Grid for the new electrical supply to the unit and also South West Water for the new water supply to the site boundary and the connection into the foul drainage system.
Site rules	Comments/response
Specific site rules which the client or the Principal Designer may wish to lay down as a result of the points above or for other reasons. (e.g., specific permit-to-work rules, emergency procedures)	Construction Phase Plan. Fire and Emergency Plan and Traffic Management Plan to be shared with the Principal Designer and Wadebridge Town Council. Principal Contractor to ensure that works are carried in accordance with the New Roads and Street Works Act 1999, Water Supply (Water Fittings) Regulations 1999 and any other relevant permit/permission required from South West Water or National Grid. Should hot works be required, the Principal Contractor must provide details to the Principal Designer for discussions. A method statement must be provided in this instance and must not proceed until agreed with a hot works permit in accordance with HSG 168 for management of control and risk.

Continuing liaison	Comments/response
Procedures for considering the health and safety implications of design elements of the principal contractor's and other contractors' packages	CPP and RAMS to be provided by Principal Contractor. Sub-contractor's RAMS to be reviewed by Principal Contractor. All to be submitted to Principal Designer for consideration. Any design changes to be distributed to all parties, with designer's risk registers updated accordingly.
Procedures for dealing with unforeseen eventualities during project execution resulting in substantial design change and which might affect resources	All to be submitted to Principal Designer and Client for consideration. Approval required from Client (via Contract Administrator/QS) prior to changes being instructed.
Key performance indicators	Comments/response
Are there any specific KPIs that the client proposes to initiate during the project that are related to health and safety? (i.e., noise/dust emissions, accidents, health, and safety inspections/audits)	Principal Contractor to monitor health and safety throughout the project. Works to be undertaken in accordance with RAMS and Construction Phase Plans as completed by the Principal Contractor.

Refer to L153 HSE Legal Guidance for CDM requirement and risks which the Principal Contractor must consider in the Construction Phase Plan. Copy of Schedule 3 risks attached.

Schedule 3 Risks:

The following are potential risks with comments in bold beneath.

- 1) Work which puts workers at risk of burial under earthfalls, engulfment swampland of falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.

Risks of falling from height during works, risk of falling into excavations and inspection chambers. Principal Contractor to propose Safe Systems of Work (SSOW) and provide protection such as guarding to prevent accidental falling. Deep excavations to be undertaken by suitably qualified operatives and with top man.

Risk of collapse. PC to provide necessary trench support/protection to prevent collapse of excavation. Limit the amount of exposure to rain or snow ingress to prevent softening the walls of the excavation.

- 2) Work which puts workers at risk from chemical or biological substances constituting a particular danger to the safety or health of workers of involving a legal requirement for health monitoring:

Leptospirosis risks from vermin requires control measures, including PPE and hygiene provision (to be provided by PC).

In dry and dusty weather conditions, the site may require damping down to avoid excessive dust. Minimum PPE requirements should include dust masks, boots, and gloves.

All workers on site should have access to hand-washing facilities. Current HSE guidelines must be adhered to with regards to working on this site.

Principal Contractor to address all such issues in CPP and RAMS.

- 3) Work with ionizing radiation requiring the designation of controlled or supervised areas under regulation 16 of the Ionising Radiations Regulations 1999:

Principal Contractor to put together and review COSHH information and assessment for all relevant works.

- 4) Work near high voltage power lines:

National Grid will bring in new power supply to rear of Changing Places unit. Principal Contractor to submit RAMS.

- 5) Work exposing workers to the risk of drowning:

Water retained in excavations and inspection chambers. Principal Contractor to submit RAMS.

- 6) Work on wells, underground earthworks, and tunnels:

Not considered relevant to the site.

- 7) Work exposing workers to the risk of drowning; - Tide times and weather forecasts to be assessed prior to each day's work to ensure that the contractor is not cut off by the tide.

Not considered relevant to the site.

- 8) Work conducted by workers in caissons with a compressed air atmosphere:

Not considered relevant to the site.

- 9) Work involving the use of explosives:

Not considered relevant to the site.

- 10) Work involving the assembly or dismantling of heavy prefabricated components:

Installation of new inspection chambers. Principal Contractor to submit RAMS.

James Ruddle BSc (Hons) AssocRICS
On behalf of RTP Surveyors
November
2023



Appendix C

National Grid Information

Budget Estimate

Wadebridge Wadebridge Town Council Town
RTP Surveyors
Tremough Innovation Centre
Tremough Campus
Penryn
Cornwall
TR10 9TA

National Grid Electricity Distribution
National Grid E D
Lostwithiel Road
BODMIN
Cornwall
PL31 1DE

Telephone: 01208 892275
Email: clangton@nationalgrid.co.uk

Our ref
4892202

Date
05/10/2023

Dear Wadebridge Wadebridge Town Council Town,

Budget Estimate for electricity connection works by National Grid Electricity Distribution (South West) plc ("NGED") for a 18.00kVA Connection at Jubilee Rd Pay & Display Car Park Jubilee Rd, Wadebridge, PL27 7AE

Thank you for your recent enquiry. I am pleased to provide an indication of NGED's likely costs to carry out the connection works for you ("the Budget Estimate").

Our estimate for this work is based upon the information you have provided and is shown below.

Estimated Connection Charge	Contestable works	£ 14,344.00
	Non-Contestable works	£ 543.00
	VAT at 20 %	£ 2,977.00
	Total	£ 17,864.00

Non-Contestable works are those works that only NGED can undertake. It is possible for you to get someone else to quote for the contestable part of the works. For further information please visit our website: <https://nationalgrid.co.uk/Connections/Competition-in-Connections.aspx>

Your supply will have the following electrical characteristics

Voltage	230 Volts
Phase	Single Phase
Agreed Import Capacity	18kVA
Agreed Export Capacity	0kVA

Please note that the proposed works and estimated connection charge is for **guidance purposes** only and has been derived from a desk-top design exercise. It is non-binding and subject, in particular, to any legal permission, wayleaves and any other consents being successfully obtained. It is based on present day prices. It does not include the cost of any necessary on-site civil works, which should be provided by you at your expense.

Enclosures

Please also find enclosed:

- Our summary document entitled "Budget Estimates - Your Budget Estimate Explained"
- A drawing showing the indicative point of connection (POC) of the new assets to our existing distribution system, in

relation to the proposed development. Plan Number: N/A

Competition in Connections

The Budget Estimate is based upon NGED undertaking both the contestable and non-contestable connection works. You are able to seek competitive prices for some or all of the contestable elements.

You have the option to appoint an Independent Connection Provider (ICP) or Independent Distribution Network Operator (IDNO) to carry out some of the connection works, referred to as the Contestable Connection Works. Any connection works that can only be undertaken by NGED are referred to as Non-contestable Connection Works. See our enclosed Budget Estimate guide for more information.

Proposed Connection Works

Our estimate of the connection charge is for providing the following works:

Estimate for NGED to Supply and install
a single phase service (18kVA) with
mains extension required:

- 1) Install 65m of 3c 185 WC
- 2) Install 30m of Multicore Service
(3c 25mm S/C - 18kVA)
- 3) Install Multicore cut out (SNE)
- 4) Install one way service joint
- 5) Install Branch joint to make live

Please note that these proposals are based upon a desk top provisional investigation and no site visit or detailed study has been carried out.

The estimate does not include costs for any reinforcement or diversionary work that may be required, or for any environmental, or stability studies which may also be necessary, although these are generally only required for larger capacity connections.

Progression to Connection Offer stage

This Budget Estimate is not a legally binding contract, but sets out the amount we reasonably estimate we would require you to pay for the connection works under a formal Connection offer.

If you would like us to undertake a more detailed analysis, including an assessment of any network reinforcement required we can provide a formal Connection Offer. Further information regarding how to apply is provided in our enclosed summary guide.

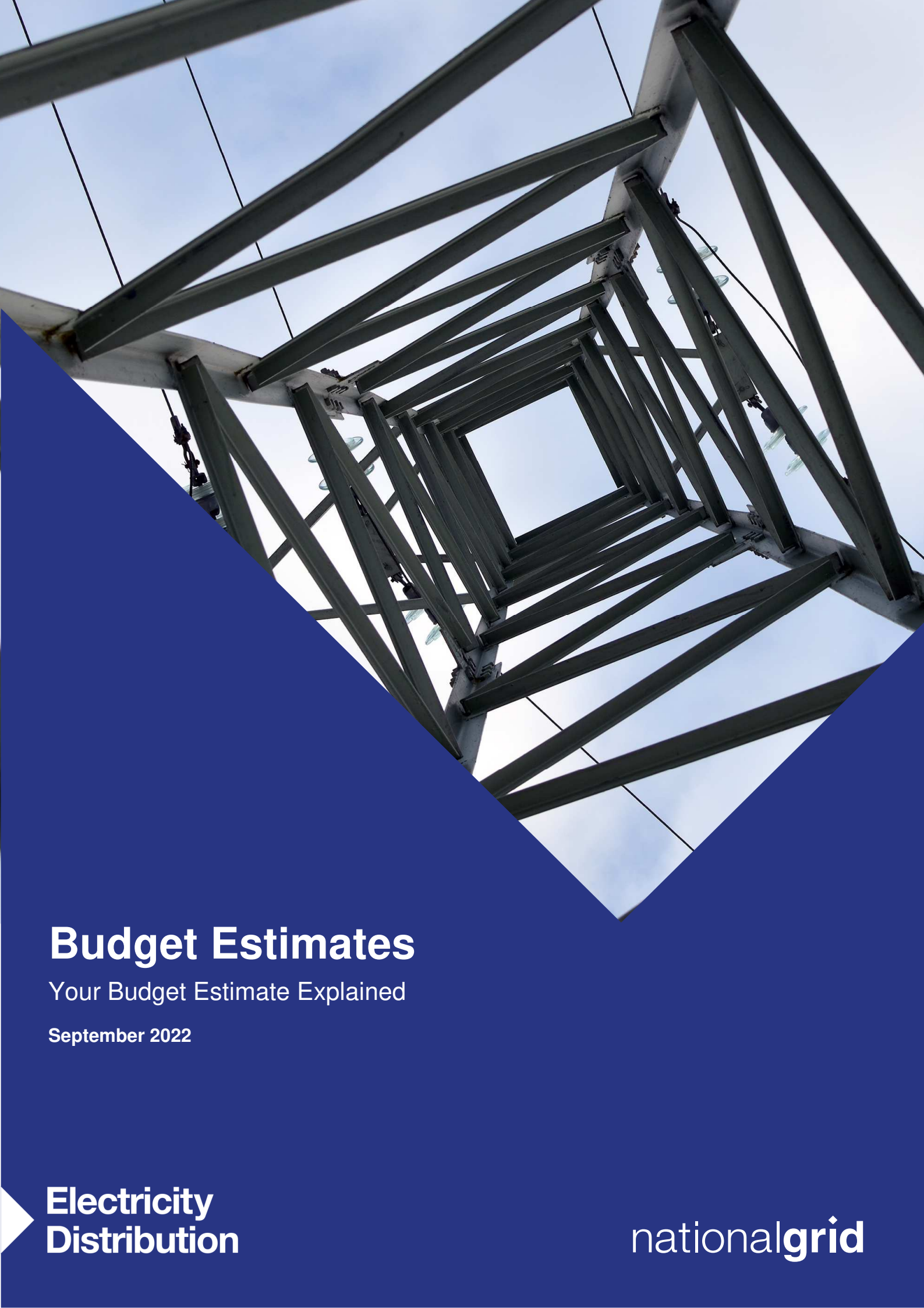
Upon receipt of your application we will carry out detailed network studies to finalise the design of the connection works (and any associated reinforcement works), and provide a Connection Offer detailing the works required, the associated costs, timescales, payment terms and conditions for the connection.

If you have any queries regarding this Budget Estimate please do not hesitate to contact me via the contact details at the top of this letter.

Yours sincerely,

Carl Langton
Planner





Budget Estimates

Your Budget Estimate Explained

September 2022

**Electricity
Distribution**

nationalgrid

A guide to help you understand your Budget Estimate and to outline your options for obtaining an offer to connect to NGED's Distribution System

Thank you for requesting a Budget Estimate for a connection to our distribution system. This guide is designed to help you understand the basis upon which the Budget Estimate is prepared and to highlight the options available to you should you wish to proceed to a formal offer for connection (the 'Connection Offer').

Budget Estimate

Provision of a Budget Estimate is a free of charge service, the purpose of which is to give you an indication of the likely cost of your connection(s). We do not carry out any detailed design work and the assessment is carried out as a desktop exercise that does not take account of any site specific considerations. You should note that the estimate that we provide at this stage may vary significantly from the price subsequently calculated in any Feasibility Study or Connection Offer. This is because it does not include the costs for any necessary network reinforcement, changed circumstances, or other influencing factors that come to light when the detailed investigation is undertaken. A Budget Estimate is not a formal offer for connection and cannot be accepted by you.

Exclusions from the Budget Estimate

Costs associated with the following activities are **NOT** included in the Budget Estimate:

- The diversion of our existing assets (if any) or any third party apparatus that is required
- Any associated reinforcement works
- Any on-site excavation and reinstatement
- The inclusion of any payment required in accordance with the Electricity (Connection Charges) Regulations 2017
- Any associated civil works, for example the provision of a substation plinth
- Detailed earthing studies are your responsibility
- Permits required under the Traffic Management Act 2004
- Out-of-hours working
- Legal requirements or consents
- Disturbing loads, for example motors, welders, electric vehicle chargers, heat pumps, etc.
- Any associated disconnections
- Any associated temporary supply

- Final competitive tenders and increases in labour, contract, or material costs
- Any required surveys, including any site survey
- Testing and commissioning (where applicable) that is undertaken in accordance with Engineering Recommendation G99 that must be witnessed by us
- Any impact on the transmission system and/or NGESO requirements arising

Application of the Electricity (Connection Charges) Regulations 2017 (ECCRs)

If your new electricity connection will connect to and utilise assets installed and paid for in respect to a previous connection the ECCRs may come in to effect. The ECCRs empower us to recover from you a proportion of those costs and refund the initial connection customer. Any calculated ECCR payments will be included in your Connection Offer.

Ways to proceed

If you want to take your enquiry further there are a number of ways you can proceed. You can request:

- A Feasibility Study; or
- A formal Connection Offer; or
- A Study & Offer quotation (Distributed Energy Resources (DER) only – limitations apply)

Feasibility Study

A Feasibility Study is generally used for more complex connections and involves a more detailed assessment that may consider a number of connection options. When more than one viable option is available we will provide estimated costs for each option. Once you have decided which option you would like to progress you can apply for a Connection Offer. There is a charge associated for this work; therefore we recommend you speak to your NGED contact first to find out more.

Formal Connection Offer

If you request a Connection Offer we will undertake a more detailed assessment of the network, design the solution, including any reinforcement required and calculate the associated connection charge. The Connection

Offer will include two options for acceptance. The first option will include a price for us to undertake all the connection works.

The second option will include a price for us to undertake just the works that only we are allowed to do; the 'non-contestable works'. You can get a competitive quotation for the remaining works; the 'contestable works' and may appoint an accredited Independent Connection Provider (ICP) to undertake these works. For further information please see our section on Competitions in Connections.

The Connection Offer is open for acceptance for 90 days and includes all our terms and conditions for connection. Once accepted it will become a binding contract between us.

The Connection Offer will include charges for the costs we incur in preparing it. For those Connection Offers that include an element of works at extra high voltage (22kV and above) we will charge you for the costs incurred regardless of whether or not you accept the Connection Offer (see 'Assessment & Design Fees' below).

Study & Offer Process

If you are unsure of the capacity you wish to connect, a Study & Offer quotation allows you to assess the capacity options available without submitting multiple formal applications. Please note that this option is only available for generation connections with export capacity of 5MVA and above.

Each application allows up to three different capacity options you may require. We conduct a Feasibility Study for the approximate cost and works required to connect the generation to our network. This includes an indication of any reinforcement or diversionary works that may be required.

The standard application form should be completed as well as an additional covering form for the Study & Offer process. For more information

www.nationalgrid.co.uk/connections-landing/connection-offers-and-agreements/types-of-connection-offer

Assessment & Design Fees (A&D Fees)

If your proposed electricity connection requires work at 22kV and above we will charge you for the time we spend preparing the connection offer in accordance with the Electricity (Connection Offer Expenses) Regulations 2018, (the 'A&D Fee'). We will require payment even if you do not accept the Connection Offer. The charge covers costs we reasonably incur when assessing the impacts of the proposed connection on the distribution/transmission system, designing the connection (including any

reinforcement works) and preparing the Connection Offer. Further information may be found on our website:

www.nationalgrid.co.uk/connections-landing/connections-regulations-and-policy/electricity-connection-offer-expenses-regulations

How to apply

You can apply in writing via the following addresses:

National Grid Electricity Distribution (East & West Midlands)

Records Team
6th Floor
Toll End Road
Tipton
DY4 0HH

NGED.newsuppliesmids@nationalgrid.co.uk

National Grid Electricity Distribution (South Wales)

Records Team
Phoenix Way
Swansea Enterprise Park
Llansamlet
Swansea
SA7 9HW

NGED.newsupplieswales@nationalgrid.co.uk

National Grid Electricity Distribution (South West)

Records Team
Lostwithiel Road
Bodmin
Cornwall
PL31 1DE

NGED.newsupplies@nationalgrid.co.uk

You can also apply **online**:

www.nationalgrid.co.uk/connections-landing/connecting-dwellings-or-commercial-premises/apply-online-for-a-new-connection

If you are unsure as to how to proceed you can also contact us to discuss your connection proposals further. Please see the 'Connection Appointments' section in this Guide.

Competition in Connections (CiC)

We offer a complete and comprehensive connection service but, if you wish, there are other companies you may ask to undertake some of the work known as the 'contestable' work. ('Non-contestable' works are the elements of the connections work which must be completed by NGED). An Independent Connection Provider (ICP) can build electricity networks for adoption by us or by an Independent Distribution Network Operator (IDNO).

An IDNO is a company that can construct electricity networks, arranges connections to NGED's network or adopt networks built by ICPs then retains ownership of and be responsible for the operation, repair and maintenance of that new network.

The ICP must be registered with Lloyds Register EMEA under the National Electricity Registration Scheme (NERS) and they are required to work in accordance with the national framework and NGED documents that provide specifications for design, material procurement and installation and recording of assets.

The new connection (up to the start of your electrical installation) will be adopted by us (where no IDNO is involved) and become part of our electricity network on satisfactory final inspection, testing and connection. We will own the new connection from that time, and will take responsibility for future operation, repair, maintenance and replacement (subject to any guarantee requirements of the Adoption Agreement).

More information regarding Competition in Connections can be found on our website at

www.nationalgrid.co.uk/connections-landing/competition-in-connections

Safety

If you are already on site, or about to move on to site, please remember to take adequate precautions to protect yourself from potential electrical hazards.

Overhead Lines

Particular care must be taken in the handling of mechanical plant, cranes, scaffolding or ladders in the vicinity of our overhead lines. You should always seek guidance before any work takes place on site from your appointed Site Manager, who will ensure that all works are carried out safely and in accordance with Health and Safety Guidance Instruction GS6 – Avoidance of Danger from Overhead Electric Power Lines. (hse.gov.uk/pubns/gs6.htm)

Safe Excavation

Obtain the latest copies of our cable records for the site from linesearchbeforeudig.co.uk. You must excavate by hand digging trial holes to establish the actual positions of all cables before any mechanical excavation works commence. Please contact your Site Manager who will help you ensure that all your works are carried out safely and in accordance with Health and Safety Guidance Instruction HSG47 – Avoiding Danger From Underground Services. (hse.gov.uk/pubns/gs47.htm)

Legal Permissions and Consents

We have a legal obligation to provide new electricity connections, as well as to maintain and upgrade the existing distribution system in our area. For a new connection we need land rights to install and thereafter use, maintain and renew our equipment on privately owned land. When this is necessary we secure our equipment by legal agreement (Wayleaves and/or Deeds) with landowners. This helps to ensure that the equipment stays where it has been placed and can be maintained when necessary.

All land rights/legal and consents must be in place before we install and energise a new connection to our network. It is important that customers/developers are aware that the statutory process for acquiring compulsory land rights can be time consuming, it is not guaranteed to be successful and could be extremely costly. For this reason you should be prepared and if a third party is involved in the scheme, to start the negotiations before instructing us to pursue the compulsory land rights process.

Please note that we cannot energise our equipment until land rights are legally secured.

Please see the Legal Process on our website – www.nationalgrid.co.uk/connections-landing/legal-permissions-and-consents

National Grid Electricity System Operator (NGESO) – The Electricity Transmission System

Larger installations, (typically generation requiring 1MW of export capacity and above and demand requiring 10MW of import capacity and above) may have an impact on the National Grid Electricity System Operator (NGESO) transmission system. Although we may flag any existing limiting network conditions in your Budget Estimate, it does not take account of any impact of the proposed connection(s) on the transmission system, including the outcome of any modification application that we may be required to submit to NGESO.

We may be required to request a 'Statement of Works' from NGESO in accordance with section 6.5.5, or a Modification in accordance with section 6.9 of the Connection and Use of System Code (the "CUSC") in order to ascertain the effect of the proposed connection on the transmission system. On receipt of this request, NGESO will consider, in accordance with the CUSC, whether or not a formal modification application is required.

For further information concerning the Statement of Works process please see our website – www.nationalgrid.co.uk/our-network/statement-of-works

Further Network Information

We have a large range of network asset data available for access by third party users through a variety of services.

Constraint Maps

The constraint map provides an overview of our EHV networks (33kV and above), highlighting those circuits which are operating at or near their limits for the connection of any further Distributed Generation (DG)

Please see the constraint maps for all four NGED areas on our website –

www.nationalgrid.co.uk/our-network/distributed-generation-ehv-constraint-maps

Network Capacity Maps

The network capacity map provides an indication of the networks capability to connect large-scale developments to major substations. The network capacity map is a guide to show the network where a connection is more likely to be achieved without significant reinforcement.

The map does not replace a full Formal Application in determining network capacity.

Please see the capacity map on our website for a login – www.nationalgrid.co.uk/our-network/network-capacity-map

Alternative Connections

NGED offers alternative connections, which enable customers willing to have their capacity temporarily reduced to connect ahead of the required reinforcement without contribution. The level of curtailment experienced by the

connection can be fixed or dynamic, depending on the type of alternative connection offered.

Please see alternative connections webpage – www.nationalgrid.co.uk/connections-landing/connection-offers-and-agreements/alternative-connections

Flexible Power - Flexibility

DNO's are committed to openly comparing reinforcement and market flexibility, it has become one of the new fast moving areas when it comes to managing electricity distribution networks.

Any significant reinforcement scheme once at feasibility study or formal offer stage will require a flexibility assessment.

For more information, please visit

www.nationalgrid.co.uk/network-flexibility-map

Connection Appointments

Make an appointment with an engineer to discuss your requirements and the connection process ahead of making an actual application for a connection to the network.

To find out more or make an appointment

Call;

South Wales & South West: **0800 028 6229**

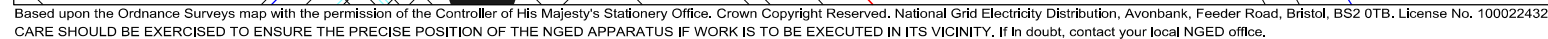
East & West Midlands: **0800 121 4909**

Email:

NGED.connectappoint@nationalgrid.co.uk

national**grid**

PLEASE NOTE: This plan ONLY shows assets owned by National Grid Electricity Distribution (NGED), Electricity assets owned by National Grid Electricity Transmission (NGET) and IDNO's (Independent Network Operators) MAY be present in this area.



- 1) Install 65m of 3c 185 WC
- 2) Install 30m of Multicore Service (3c 25mm S/C - 18kVA)
- 3) Install Multicore cut out (SNE)
- 4) Install one way service joint
- 5) Install Branch joint to make live

Provide All Excavations Install Mains and Service Cable Record Cable Lay Re-instate	
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Collect and fit meter box

REV.	DATE	SCHEME PROGRESS BLOCK		DRN	CHK'D
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UNDERGROUND CABLES SERVICES CABLE SIZES AS SHOWN OVERHEAD LINES PYLON ☒ POLE ☐ STAY ☐					
DUCT & ALKATHENE TUBE HOUSE METER POSITIONS - EXTERNAL INTERNAL				 nationalgrid Electricity Distribution	
				TITLE	
				- Jubilee Rd Pay & Display Car Park - Jubilee Road - Wadebridge, PL27 7AE	
				DEVELOPER.	
				BUILDER.	
				ARCHITECT Drg. No.	
				O.S. MAP.	
				@ A3	
				SCALE 1:500	
				PARISH.	
				11kV DIAG.	
				LV. DIAG.	
				PLAN No.	
TRAFFIC SENSITIVE AREA YES/NO				Enq No. 4835565 of	



Appendix D

South West Water New Supply

RTP SURVEYORS
JAKE BARCLAY
TREMOUGH INNOVATION CENTRE TREMOUGH CAMPUS
PENRYN, CORNWALL
TR10 9TA

Free Phone: 0800 083 1821
DX No.: 119850 EXETER 10
Ref: W/R 3809655 / 01 / AA

09 August 2023

Dear Jake Barclay

**SECTION 45 AND/OR SECTION 55 WATER INDUSTRY ACT 1991
PROPOSED NEW WATER CONNECTION(S) AT:**

JUBILEE RD PAY & DISPLAY CAR PARK JUBILEE RD, WADEBRIDGE. Work Request: 3809655

Further to your application and site survey carried out on the 02 August 2023 at the above location, please find below a summary of the proposed new connection(s):

Number of connections - 1

Diameter(s) - 25

Number of trenches - 1

Total excavation length - 18.00 Metres

The cost of this work is £6,607.00, of which £6,132.00 is contestable and a breakdown is shown in the table overleaf.

Please note new connection charges include overheads and administration costs such as processing your application and any relevant inspections.

Contained within this quotation you will find the following details:

- Breakdown of costs
- Contestable and non-contestable activity and charges
- Infrastructure charges (where applicable)
- Job specific requirements and information
- Connection and payment options
- Standard conditions

The following are exclusions from this quotation:

- *Work associated with the laying of private pipe work and plumbing*
- *Any third party costs, such as an easement, for laying your private pipe work*

Yours sincerely



Ashleigh Steer
New Connections Team

COST BREAKDOWN

In order to help choose who provides your connection services, we have separated the contestable work from the non-contestable work. Contestable work is open to competition and can be provided by alternative contractors, connection providers or South West Water. Work that South West Water must carry out is referred to as non-contestable.

DESCRIPTION OF COVERAGE	Charge £	VAT %	VAT
NON-CONTESTABLE			
Non-construction			
Application Fee - Company Laid Offsite Connection(s)	151.00	20.0	30.20
Administration Fee - Company Laid Offsite Connection (per connection)	42.00	20.0	8.40
Contribution toward general cost of internal and external Water Regulations Inspections (per connection)	27.00	20.0	5.40
Water Infrastructure Charges			
Standard Rate Infrastructure Charge - Water	96.00	0.0	0.00
Sewerage Infrastructure Charges			
Standard Rate Infrastructure Charge - Sewerage	707.00	0.0	0.00
Income Offsets			
Income offset(s) clean - will only be offset against infrastructure charges	-397.00	0.0	0.00
Income offset(s) waste - will only be offset against infrastructure charges	-195.00	0.0	0.00
Sub Total	431.00		44.00
CONTESTABLE			
Connection Costs			
Trench 1			
25mm water connection including up to 2 metres of excavation; pipe laying and reinstatement (C)	1,732.00	0.0	0.00
16m of additional excavation, pipe laying and reinstatement in made surface - up to 90mm diameter	4,400.00	0.0	0.00

COST BREAKDOWN

In order to help choose who provides your connection services, we have separated the contestable work from the non-contestable work. Contestable work is open to competition and can be provided by alternative contractors, connection providers or South West Water. Work that South West Water must carry out is referred to as non-contestable.

DESCRIPTION OF COVERAGE	Charge £	VAT %	VAT
Sub Total	6,132.00		0.00

Net Charge	£6,563.00
VAT	£44.00
GRAND TOTAL (including VAT)	£6,607.00



South West
Water

Peninsula House, Rydon Lane, Exeter, EX2 7HR
www.southwestwater.co.uk

Job specific requirements and information

Work Request: 000003809655

Work Order: 10239248 - SURVEY completed by contractor	
Trench 1	
No of Connections	1
Size of Connection (mm)	25
Pipe Material	MDPE
REINSTATEMENT SURFACE	
Road (Length & Type)	6m / TARMAC
Footpath (Length & Type)	12m / TARMAC
Total Connection Length	18m
Proposed Meter Location	External
Excavation Carried Out By	SWW
PRELIMINARY STREETWORKS	
Land Type	Public Highway
Traffic Lights	4 Way
Road Marking	White and Yellow
Width of Road	6.1m
Width of Footpath	1.8m
Speed Limit of Road	30
Traffic Direction	Single carriageway & two way
WATER MAIN DETAILS	
Is it a Trunk Main?	N
Mains Shut Required?	N
Water Main Size	150MM
Water Main Material	DUCTILE IRON
Pressure to the Nearest Hydrant	4.8
Pressure Units	BAR
CUSTOMER DETAILS	
Customer Name	JACK BARCLAY

ADDITIONAL INFORMATION

Charges

Income Offsets

From 1 April 2020, income offsets will no longer be deducted from requisitions. Instead, the payment will apply to every first-time new connection (clean or waste) to the Company's network and will be deducted from infrastructure charges. The income offset is calculated on a per property basis for a domestic house and will be deducted from the infrastructure charges payable for the connection. Where the building is not for a single dwelling a different scenario, then the relevant multiplier that is used for previous site usage will be used as a means for calculating the income offset.

If you receive a quotation that has a negative value due to income offsets, we will require written confirmation (we will accept an email) that you accept the quotation and the quote reference number you are accepting.

Infrastructure

Infrastructure Charges are separate from and additional to connection charges. They are permitted under Section 146 of The Water Industry Act 1991. Infrastructure Charges need to be paid by anyone who wishes to build or develop a property, and are used to cover the cost of the extra demand on our existing network. This ensures that the extra demand does not reduce the level of service currently enjoyed by other customers in the area.

They are applicable to the following whether connecting directly or indirectly:

- Building of new domestic premises, including permanent caravans
- Additional new premises on the site of demolished premises
- Conversion of existing building into additional units/dwellings
- First time connection of an existing property
- New commercial and industrial units

There are similar infrastructure charges for connection to the sewerage network. If your new property is serviced for sewerage by South West Water, we will also quote these at the same time as the water infrastructure charges.

Our Charges arrangement Infrastructure Charges in more detail. For further information please visit our website www.southwestwater.co.uk and search for charges arrangement.

Installation

Disinfection

In order to safeguard water quality and public health, it is a requirement that your private supply pipe(s) are disinfected (chlorinated) and tested in certain circumstances, before a connection(s) is allowed to the water main. Disinfection must be carried out to 'BS EN 806' to ensure there is no detriment to public health. If you require more information regarding this process, please contact us on 0800 083 1821 or see the chlorination guidance on our website at www.southwestwater.co.uk/waterconnections. PLEASE DO NOT DISINFECT THE SERVICE PIPE(S) UNTIL YOU HAVE BEEN GIVEN A CONNECTION DATE FROM SOUTH WEST WATER.

Water Pressure and Storage

For household and non-household connections, you may wish to consider tank storage and/or booster within your private system. We'll provide a minimum of 7 metres static head, which meets with the requirements of the Water Industry Act 1991, (We can't guarantee pressure above 7 metres static head) which is the standard for domestic use.

You should also keep in mind the following points:

- Water pressure will vary depending on the season and time of day
- Water supplies may be interrupted for planned (normally with notice) or emergency maintenance (often without notice)
- We may alter the pressure in the network to meet with demands (but we'll always maintain the minimum)



The designer/installer should install the system in accordance with the Water Supply (Water Fittings) Regulations 1999 and Notification provided prior to installation. If you choose to install a plumbing system directly from the mains water supply and we alter the pressure, we are not liable for any failure of the plumbing system or for the consequences of not installing a storage based system.

Traffic Management

Footpath Closure

A footpath closure is required in order to for us to install your new water connection. The Highway Authority request a minimum of 14 weeks notice for a planned footpath closure before your water connection can take place. A footpath closure will be requested once the terms of the application are satisfied (including payment) and a request for a connection date received. Please ensure you include these time scales into your planning and/or build program.

Traffic Lights

There is a highway requirement for us to plan your new water connection with traffic lights. Planning traffic lights setup can take a minimum of four weeks notice with the Highway Authority before the work can take place. Please ensure you include these time scales into your planning and/or build program.

Connection and payment options

Acceptance of the quotation

Full security payment will be required before a connection to our water mains can commence. The quickest method is payment by Credit/Debit card.

Please note other pre connection conditions must be satisfied before we are able to commence planning a new connection. A Road Closure Notice will not be served on receipt of a payment alone.

We offer three different methods of payment:

- **Credit/Debit card**
To pay by credit or debit card please call our Helpline on 0800 083 1821 between the hours of 8:30am and 4:00pm Monday to Friday.
American Express (Amex) and Visa Electron are not accepted.
- **Cheque**
If you would prefer to pay by cheque, please make it payable to South West Water. You will need to write your work request number on the back along with any plot numbers that you are paying for (if applicable) and send it to:

South West Water
PO Box 4762
Worthing
BN11 9NT

You will need to allow 10 working days for the payment to clear.

- **BACS**
If you would like to make payment by BACS, please see the 'How to pay for a water connection' on our website at www.southwestwater.co.uk/waterconnections.

Connection Only

If excavation; pipe laying; traffic management; and reinstatement have been included in the works within this quote, then you have the option to undertake this work yourself. This is called a connection only and there is a fixed rate charge for this connection option. Please contact the New Connections Team for further information.

Please note that any apparatus placed under the highway surface (excavation works/boring/tunnelling), on the highway surface (such as an inspection box) or over the highway (such as telephone wires) all require a licence under Section 50 of The New Roads and Street Works Act 1991. Please refer to your local Highway Authority for further information.

Should you need to work in land that is not in your ownership then you will need to gain permission from the land owner to do so and obtain an easement.

We reserve the right to carry out all required excavation, pipe laying and reinstatement around our trunk mains infrastructure.

South West Water allows Developers to self lay water mains and services.

As an alternative to having new mains and service connections installed by us, developers can arrange for the work to be carried out by qualified contractors that are accredited with the Water Industry Registration Scheme (WIRS) which is administered by Lloyds Registers. For more information please visit <http://www.southwestwater.co.uk/selflay>

Standard conditions for the provision of goods and services of Pennon Group Plc and South West Water Limited

These standard conditions of sale together with any special conditions ("the Conditions") specified in writing by Pennon Group Plc and/or South West Water Limited ("The Company") shall apply to the contract ("the Contract") between the Company and any person, firm or company ("the Purchaser") placing an order with the Company for the supply of goods and/or supply of services ("the services") detailed either overleaf or in a letter from the Company to the Purchaser which refers to the Conditions. In the event of any conflict between any special and standard conditions the special conditions shall prevail.

IMPORTANT: CONDITIONS 2, 3, 4, 5, 7, 9 and 10 PROVIDE THAT CERTAIN RISKS ARE TO BE BORNE BY THE PURCHASER AND MAY AFFECT THE PURCHASER'S INSURANCE ARRANGEMENTS.

1. QUOTATIONS AND ACCEPTANCE

Quotations are open for acceptance in writing or (where pre-payment is required prior to the carrying out of the Services) by payment of the quotation sum within the period stated in the quotation or when no period is stated within Sixty (60) days from the date of issue. The Company reserves the right to correct any error or omission in the quotation.

Purchase orders not based on the Company's quotations are not binding on the Company until accepted by the Company in writing. Customers requesting Credit accounts are asked to supply Bankers and two trade references. Credit accounts are not ordinarily available and may be refused without reason.

2. PRICE AND provision of services

All prices quoted are exclusive of VAT, packing, delivery, insurance and other charges where appropriate unless otherwise stated. VAT will be charged at the current ruling rate on the day of provision of the Services. The Company reserves the right to adjust prices on quotations and order acceptances in proportion to any increases in costs incurred by the Company or revision of the Company's tariffs between the date of receipt of the Purchaser's acceptance of the quotation and date of provision of the Services.

Any times quoted for provision of the Services represent the Company's best estimate and are given in good faith, time not being of the essence of the Contract and the Company will not be liable for any loss or damage arising from any late or non-provision howsoever caused. In the event of the Purchaser failing to accept provision of the Services at the agreed time and/or place the Company shall be entitled to make a charge for such failure including inter alia a charge for any storage or materials or goods re-visits to the site and travelling costs which may be incurred by reason of such failure.

3. RISK

Risk of loss of or damage to or destruction to any goods which form part of the Services passes to the Purchaser on completion of the provision of the Services. Where the Services consist of goods only risk passes to the Purchaser on delivery to the Purchaser.

4. DAMAGE IN TRANSIT AND LOSS IN DELIVERY

Every care is taken in packing any goods which form part of the Services for delivery and no responsibility is accepted by the Company for damage in transit or non-delivery. Unless otherwise instructed by the Purchaser, the Company acting as agents for the Purchaser covers all goods which form part of the Services by insurance against transit damage and loss in delivery and any claims under this insurance will be made by the Company acting as agents for the Purchaser. Such claims will only be considered if the carriers and the Company receive notification in writing of such damage within seven (7) days of delivery or in the event of non-delivery within twenty-one (21) days of despatch.

5. MATERIAL

Every care will be taken of Purchaser's property provided to the Company on loan or for repair or servicing which is in the Company's possession, on its premises or under the control of its employees, but no liability for damage to, or loss of the Purchaser's property howsoever arising will be accepted by the Company.

6. PAYMENT TERMS

Payments against the Company's invoice is due to be received by the Company not later than fourteen (14) days from the date of the invoice. The Company reserves the right without formal notification to charge interest on any amount outstanding at the due date at two per cent (2%) per month accruing daily and in addition to pass on any charges for solicitors fees, collecting agency fees or court costs incurred by the Company in collecting any such overdue monies from the Purchaser. Time of payment shall be of the essence. Failure of the Purchaser to meet the payment terms shall entitle the Company to withhold the provision of the Services under the Contract or any other contract for goods or services between the Purchaser and the Company until all payments due have been made, but the Purchaser shall in all such cases remain liable for the cost of all materials purchased and work expended specifically for the purpose of the Contract and any such other contract, less an allowance for any value thereof realised or as utilised for other purposes. Where the Company has reason to believe that the Purchaser will not meet its payment obligations the Company reserves the right by written notice to require immediate payment of all outstanding monies, to withhold performance of outstanding orders and to require prepayment before the Services or any future services are provided.

7. DESCRIPTION

Every effort is made to ensure the accuracy of all descriptions, illustrations, drawings, dimensions, weights or other particulars furnished in catalogues, data sheets, price lists, order confirmations and other documents issued by or on behalf of the Company but the Company will not be bound by them unless expressly confirmed by the Company in writing to the Purchaser for the purpose of the accepted order. The Purchaser shall satisfy itself that the Goods stipulated in its order is sufficient and suitable for the purpose intended. THE COMPANY EXCLUDES ANY REPRESENTATION IMPLIED OR STATUTORY AS TO THE QUALITY DESCRIPTION OR FITNESS OF THE SERVICES EXCEPT AS STATED IN THESE CONDITIONS.

8. COPYRIGHT

The Company reserves the copyright, design right and all other intellectual property rights ("the Rights") in all drawings, quotations and other documents ("Documentation") concerning any goods which form part of the Services. Where any Documentation has been supplied to or obtained by the Purchaser the Purchaser undertakes not to reproduce by any process or make accessible to any third party the Documentation without the prior written permission of the Company.

The Purchaser will immediately inform the Company of any claim that any goods which form part of the Services infringe a third party's Rights. The Company will have the sole conduct of proceedings and the Purchaser will give the Company all reasonable assistance at the Company's expense and the Company will indemnify the Purchaser in respect thereof.

The Purchaser will indemnify and keep indemnified the Company against any loss or claim that the Goods infringe any third party's Rights where they are made to the Purchaser's specifications for which purpose the Purchaser hereby gives his irrevocable consent.

9. GUARANTEE AND EXCLUSION OF LIABILITY

Subject to the payment terms and all other obligations of the Purchaser being strictly observed the Company gives the following guarantee which excludes and takes the place of any condition or warranty implied by statute or otherwise. Where the Services provided or parts thereof consist of works carried out by the Company and/or goods supplied by the Company and such works and/or goods have become defective in some manner within seven (7) days of their being carried out or supplied (as the case may be) the Company will correct at its own expense such defects.

The Company is under no further liability in contract or otherwise for any loss, damage and injury arising directly or indirectly from or in relation to the provision of the Services or the quality fitness or description of any goods which form part of the Services or their correspondence with sample. The guarantee is personal to the Purchaser and does not extend to third parties, nor does it apply to defects caused by wear and tear, abnormal conditions of working, accident, misuse neglect or damage beyond the Company's control. In addition, this guarantee does not apply to any goods which form part of the Services which have been manufactured in accordance with the instructions or specifications of the Purchaser except to the extent that the Company has not manufactured any such goods to the design, instructions or specifications of the Purchaser.

SAVE AS EXPRESSLY PROVIDED IN THIS CONDITION THE COMPANY SHALL BE UNDER NO LIABILITY (INCLUDING LIABILITY FOR ANY DIRECT OR CONSEQUENTIAL LOSS OR DAMAGE) OF WHATSOEVER KIND HOWSOEVER CAUSED WHETHER OR NOT DUE TO THE NEGLIGENCE OR WILFUL DEFAULT OF THE COMPANY, ITS SERVANTS OR AGENTS ARISING OUT OF OR IN CONNECTION WITH THE PROVISION OF THE SERVICES. IF THIS PROVISION IS HELD TO BE WHOLLY OR PARTLY INEFFECTIVE IN RELATION TO ANY CLAIM, ANY DAMAGES RECOVERED BY THE PURCHASER SHALL BE LIMITED TO THE PRICE OF THE GOODS OR, IF LOWER, TO THE REASONABLE COST TO THE COMPANY OF REMEDYING THE BREACH OF DUTY.

Nothing contained in this condition shall exclude or restrict:-

i) Any liability of the Company for death or personal injury (as defined in the Unfair Contract Terms Act 1977 ("the Act") resulting from negligence (as defined in the Act);

ii) Any liability of the Company for breach of the implied undertakings as to title contained in the Act;

iii) Where the Purchaser deals as a consumer within the meaning of the Act, any liability of the Company for breach of its implied undertakings as to conformity of the Services with description or sample as to their quality or fitness for a particular purpose contained in the Act.

The Purchaser confirms that he has fully read and understood these conditions and in particular the provisions of Clauses 6 and 8 and that the Purchaser accepts the same as being reasonable for the purposes of the Act having regard to the prevailing circumstances.

Where proprietary items manufactured by a third party are supplied to a Purchaser the guarantee shall be in the form of the guarantee given by the third party to the Company unless stated in writing by the Company.

10. TITLE

Ownership of the goods to be provided as part of the Services shall remain with the Company until payment in full for all the Services has been received by it in accordance with the terms of the Contract

If such payment is overdue in whole or in part, the Company may (without prejudice to any of its other rights) recover or resell any goods forming part of the Services or any of them and may enter upon the Purchaser's premises by its servants or agents, for which purpose which the Purchaser hereby gives his irrevocable consent.

Payment in full shall become due immediately upon the commencement of any act or proceeding in which the Purchaser's solvency is involved.

The Purchaser shall forthwith give the Company notice of the appointment of an administrator under the Insolvency Act 1986 and such notice shall not entitle the administrator to possess the goods unless title has already passed.

11. TERMINATION

The Company may, by written notice to the Purchaser and without liability to the Purchaser and without prejudice to any rights accrued to the Company prior to termination of the Contract, forthwith terminate the Contract in the event that the Purchaser:-

i) Becomes insolvent, bankrupt, has a receiver or manager or, an administrative receiver or administrator appointed or commences liquidation or winding up or enters into any composition with its creditors; or

ii) Commits a breach of the terms of the Contract and, if the breach is capable of rectification, fails to rectify the same within such reasonable period as the Company may specify in writing

The Company reserves the right to enter upon the Purchaser's property and to remove therefrom any item of the Company's in respect of which payment has not been made in full at the date of termination and the Purchaser shall deliver up of the same to the Company.

12. FORCE MAJEURE

The Company shall not be liable to the Purchaser for any failure to fulfil any terms of any transactions governed by the Conditions if fulfillment thereof has been delayed, hindered or prevented by any circumstances whatsoever which is not within the Company's reasonable control and if by reason of any such circumstances the Company is able to fulfil some but not all of its orders the Company may allocate its available supplies or services amongst its customers including subsidiary or associated companies of the Company as in its absolute discretion it thinks reasonable.

13. CANCELLATION

No cancellation of a Purchaser's order for the Services will be accepted. However the Company may agree in writing to accept full or part cancellation of any order upon such terms as it thinks fit.

14. ASSIGNMENT AND SUBCONTRACTING

The Purchaser shall not assign the Contract without the Company's prior written consent but the Company may assign or subcontract its obligations hereunder without Consent but without being relieved of its obligations.



Appendix E

South West Water

New Drainage Connection

Jake Barclay
RTP Surveyors
Tremough Innovation Centre
Tremough Campus
Penryn
TR10 9TA

Direct line: (01392) 443644
Planning Team: (01392) 442836
Our ref: WR 3837285/SK
Email: developerservicesplanning@southwestwater.co.uk

29 September 2023

Dear Mr Barclay

Pre Planning: Point of connection enquiry – Provision of new public sewers

Proposal: Commercial development of 1no new toilet block
Location: Jubilee Road Car Park, Wadebridge, Cornwall, PL27 7AE

Further to my letter dated 22 September 2023 regarding the Pre-Planning Point of Connection Enquiry for the above proposal, I am now able to provide the following response.

The following has been based upon the information in your completed application form and accompanying correspondence. Therefore, should any of the information now be different, please ensure that you inform South West Water of any amendments to ensure the response is accurate.

Please note: The following information is a desk-top budget estimate to provide an approximation of the costs for the above proposed development. If you would like South West Water to provide a formal offer for any of the activities detailed in this letter, please forward the relevant application to Developer Services.

To download these applications and view associated timescales for these activities, please visit our website: www.southwestwater.co.uk/building-and-development

The estimates provided are based on the New Connection and Developer Services – Charging Arrangements 2023-24 and is valid until 31 March 2024. For further information, please refer to the company's Charging Arrangements 2023-24 document. This can be located on our website: www.southwestwater.co.uk/building-and-development/charging-arrangements

The estimate has been split into sections for ease of use:

Section 1: Site specific charges waste water sewer requisitions

Section 2: Sewer connections

Section 3: Adoption of public sewers

Section 4: Infrastructure charges

Section 5: Income Offsets

Section 6: Environmental Incentives

Section 7: Surface Water Run-off Destination Hierarchy

Section 9: Asset Protection

Application forms and timescale for delivery of these processes can be found on our website at www.southwestwater.co.uk/building-and-development

You can if you wish, use an alternative provider, i.e., another Undertaker to supply your site. This is known as New Appointees and Variations (NAV's). Further details of what a NAV is can be found at <https://www.ofwat.gov.uk/regulated-companies/markets/nav-market>
Details of how South West Water interact with a NAV can be found at - www.southwestwater.co.uk/building-and-development/nav

Should you require a Pre-Planning: Point of Connection enquiry for the clean water services for this site, please contact the Developer Services Pre-Development Team.

I trust this provides the information required for the proposed development. However, if you have any questions or queries, please contact me on direct line: 01392 443644.

Alternatively, you can contact the Pre-Development Team on 01392 442836 or via email: DeveloperServicesPlanning@southwestwater.co.uk.

Yours sincerely



Sally Kirk
Pre-Development Coordinator

Section 1: Site specific charges for a sewer requisition

If a customer does not wish to self-lay, the company can provide a service to construct a sewerage connection for domestic purposes on behalf of the customer.

Point of connection – Foul lateral drain

This an onsite connection 100mm foul lateral drain to our 450mm diameter combined sewer located across the carpark (MH 1301).

Budget Estimate

The estimated cost of this work is shown below: (all priced exclude VAT)

Public records

I have enclosed plans to show the location of the public sewers in the vicinity of the site and the indicative route for the proposed sewers to the points of connection. The information indicated on the plan is only as a guide and no assurance as to the accuracy is given or implied. The Company accepts no liability whatsoever for any error or omission in the information.

Section 2: Sewer connections

This covers the connection of the property/properties to the public sewer.

Applications should be made whether the connection is directly to the public sewer or indirectly (via private drain).

No.	Description	Unit	Value	Contestable/Non contestable		Total
SC1	Admin Fee	Per application	£80.00	Non-contestable	1	£80.00
SC2	Inspection Fee (Visit)	Per connection	£219.00	Non-contestable	1	£219.00

Total £299.00

Total cost for the sewer connections: £299.00

(all priced exclude VAT)

** Additional fees will be applicable if further inspections are required.*

Section 3: Adoption of public sewers without a Pump Station

If the development is to be adopted into the company sewerage system, sewers and pumping stations must be constructed in accordance with defined standard and processes.

Unless otherwise stated charges are fixed. The prices quoted will be amended only if a cost change is generated by the customer.

No.	Description	Unit	Value	Contestable/Non contestable	No	Total
SA1	Admin Fee	Per application	£489.00	Non-contestable	1	£489.00
SA2	Technical Vetting Fee without PS	Per property with a minimum fee £375.25	£19.00	Non-contestable	1	£375.25
SA4	Inspection Fee	Per property with a minimum fee £980.00	£52.00	Non-contestable	1	£980.00
Total						£1,844.25

Total cost for the adoption of the public sewers: £1,844.25

(All priced to exclude VAT)

* Additional fees will be applicable if further vetting or inspections are required

All Section 104 agreements will need to be supported by a bond. This bond should be 10% of the construction costs of the scheme.

Included within the charges are:

1. The administration fee covers administration of the process including the provision of maintenance and vesting certificates.
2. Vetting – covers the review of the drawings in accordance with the specification.
3. The vetting cost is based on one submission and two re-submissions. Should there be any subsequent re-submissions further fees will apply.
4. Inspection fees are based ongoing inspections during construction, maintenance inspection and one revisit for remedial inspection. Should there be any subsequent re-inspections further fees will apply.
5. The company will undertake the first CCTV inspection of the sewers. Should a subsequent CCTV inspection be required to prove that remedial work is complete the developer will be required to provide and fund this.

Excluded from the charges:

1. The company will not monitor the alarms to the pumping station until such time as the pumping station is vested.
2. Any jetting required enabling CCTV inspection. It is the developer's responsibility to make sure that the sewers are clean and ready for CCTV.
3. Any compensation payable to third party landowners for access or rights for the sewer laying or discharge.

Security

Cash bond (maximum value of bond) - £3,000

Other security - this can be by means of an insurance policy, bank guarantee or other means as agreed with the developer and the Company.

A construction schedule should be submitted by the developer for confirmation of the bonding value. If no schedule is submitted before technical approval is granted, the Company's schedule will be used.

Control of Pollution – I would highlight to you as detailed in the Sewer Sector Guidance (Design Construction Guidance) section A10 an extract of which is below.

A10 CONTROL OF POLLUTION DURING CONSTRUCTION AND PRIOR TO ADOPTION

1. The developer should maintain the integrity of separate surface water sewer systems and is responsible for any blockages, pumping station breakdown, cross-connections, etc., and any impact (e.g., flooding or pollution, etc.) up to the time the sewers are adopted.
2. The developer should include in their S104 Application a plan for approval by the sewerage company to demonstrate how sediment and other debris will be managed to avoid any sediment or debris being discharged into the proposed drainage system, any public sewer or a surface water body. The developer should comply with this plan at all times during construction and during any maintenance carried out prior to adoption.

Section 4: Infrastructure charges

The infrastructure charge is authorised under Section 146(2) of the Water Industry Act 1991. Charges have been set to recover the costs of network reinforcement involving new development from those making demand on the water and sewerage systems rather than from existing customers of the water and sewerage companies.

To calculate the infrastructure charge for the toilet block, please complete the enclosed loading sheet and return to Developer Services by email to developerservicesplanning@southwestwater.co.uk

Section 5: Income Offsets

From 1 April 2020, income offsets no longer be deducted from requisitions. It should also be noted that from 1 April 2025 income offsets will not be available in line with the Ofwat Charging Rules.

Instead, the payment will apply to every first-time new connection (clean or waste) to the Company's network and will be deducted from infrastructure charges.

The income offset is calculated on a per property basis for a domestic house and will be deducted from the infrastructure charges payable for the connection. Where the building is not for a single dwelling a different scenario, then the relevant multiplier that is used for previous site usage will be used as a means for calculating the income offset.

Payment of income offsets

Income offsets may only be applied once. Therefore, if they have already been deducted as part of one the following examples, they will not be deducted again: -

- a. As part of a previous requisition
- b. As part of a previous Asset Payment to an SLP

Income offsets will only be offset against infrastructure charges where the individual plot connection is made on or after the 1 April 2020.

To calculate the income offset for the toilet block, please complete the enclosed loading sheet and return to Developer Services by email to developerservicesplanning@southwestwater.co.uk

Section 6: Environmental Incentives

South West Water are offering to reduce the water infrastructure charge for new development by 75%. The reduced rate will apply to infrastructure charges for developments which meet the specified criteria.

Developers will need to demonstrate, using the building regulations calculator that:

- properties are built with water efficient fittings and fixed appliances.
- mean water usage would not exceed the potential consumption of 110 litres per person, per day rather than the 125 litres per person, per day expected in the relevant Building Regulations.

Applications for this scheme will need to be submitted at the same time as the application for the relevant service.

Please note late or retrospective applications for the sustainable infrastructure charge cannot be accepted onto the scheme and it is currently only available on clean water infrastructure charges.

Section 7: Surface Water Run-off Destination Hierarchy

The statutory Water and Sewerage Undertaker supports the Planning Policy Guidance for Flood Risk & Coastal Change statement. The applicant must demonstrate how its proposed development will have separate foul and surface water drainage systems and not be detrimental to existing infrastructure, the public and environment (and that any provisions for protecting infrastructure have been agreed with SWWL as service-provider). You will need to demonstrate that the prospective surface run-off will discharge as high up the hierarchy of drainage options as is reasonably practicable (with evidence that the Run-off Destination Hierarchy has been addressed, and reasoning as to why any preferred disposal route is not reasonably practicable): In all cases, where there is a risk of flooding the development will be made safe and flood risk not increased elsewhere.

1. Water re-use (smart water butts/rainwater harvesting etc.)
Provide written evidence as to why water re-use practises are not a viable option for your proposal.
2. Discharge into the ground (infiltration); or where not reasonably practicable,
Provide written evidence as to why Infiltration devices, including Soakaways, Swales, Infiltration Basins and Filter Drains do not meet the design standards as specified in either H3 Building Regulation standards for areas less than 100m². Soakaways

serving larger areas must meet the design standard specified in BS EN 752-4 (para 3.36) or BRE Digest 365 Soakaway Design.

3. Discharge to a surface waterbody; or where not reasonably practicable,
Provide written evidence for refusal of discharge consent from owner of water body (Environment Agency, Local Authority, Riparian Owner etc)
4. Discharge to a surface water sewer, highway drain, or another drainage system; or where not reasonably practicable,
Provide written evidence for refusal of discharge to drainage system (Highway Authority, Environment Agency, Local Authority, Private ownership)
5. Discharge to a combined sewer. (Subject to Sewerage Undertaker carrying out capacity evaluation)
South West Water will carry out a hydraulic capacity review of the combined sewerage network before permission will be granted to discharge to the combined sewer.

In relation to discharges of surface water drainage of streets, please refer to Sewer Sector Guidance (Design and Construction Guidance) and in particular section A8 (an extract of which is below).

A8 DRAINAGE OF STREETS

1. The sewerage company is not obliged to accept runoff from newly-constructed streets into the public sewer system. The developer should note that acceptance of this runoff into the works and, ultimately, the public sewer system, is only by agreement, which will not be unreasonably withheld.
2. Where the developer wishes to connect drainage from streets to a surface water sewer or a combined sewer, they should discuss this with the sewerage company as early as possible as the specific consent of the sewerage company will be required in advance. The connection of drainage from streets to a foul sewer will not be permitted.
3. The connection of runoff from publicly-adoptable highways to a public sewer is regulated by the Water Industry Act 1991 Section 115. Some sewerage companies may have a separate formal agreement for such discharges. This agreement is formally between the highway authority and the sewerage company but, prior to adoption of the highway, the developer as owner is party to the agreement. Section 115 also deals with connections of surface water to a highway drainage system.
4. It is particularly important to have an agreement in place which confirms the area of highway being drained to the public sewer, especially where there are issues regarding capacity, connection to a combined sewer or where only highway drainage is to be connected to the public sewer.

Land Drainage – please refer to Sewer Sector Guidance (Design and Construction Guidance) and in particular section A9 (an extract of which is below).

A9 LAND DRAINAGE

1. Sewerage companies have no duty to accept land drainage runoff, flows from natural watercourses or groundwater to the public sewer system, and this is not normally permitted.

Having reviewed the current information as to proposed surface water disposal for this development, please note that method proposed to discharge into a surface water body is acceptable and meets with the Run-off Destination Hierarchy. However, should this method be amended, South West Water will require clear evidence to demonstrate why the preferred methods listed within the Run-off Destination Hierarchy have been discounted by the applicant.

Section 8: Asset Protection

Waste Water

Please find enclosed a plan showing the approximate location of a public 450mm combined sewer in the vicinity. Please note that no development will be permitted within 3.5 metres of the sewer, and ground cover should not be substantially altered. Where possible, the sewer must also be located within a public open space.

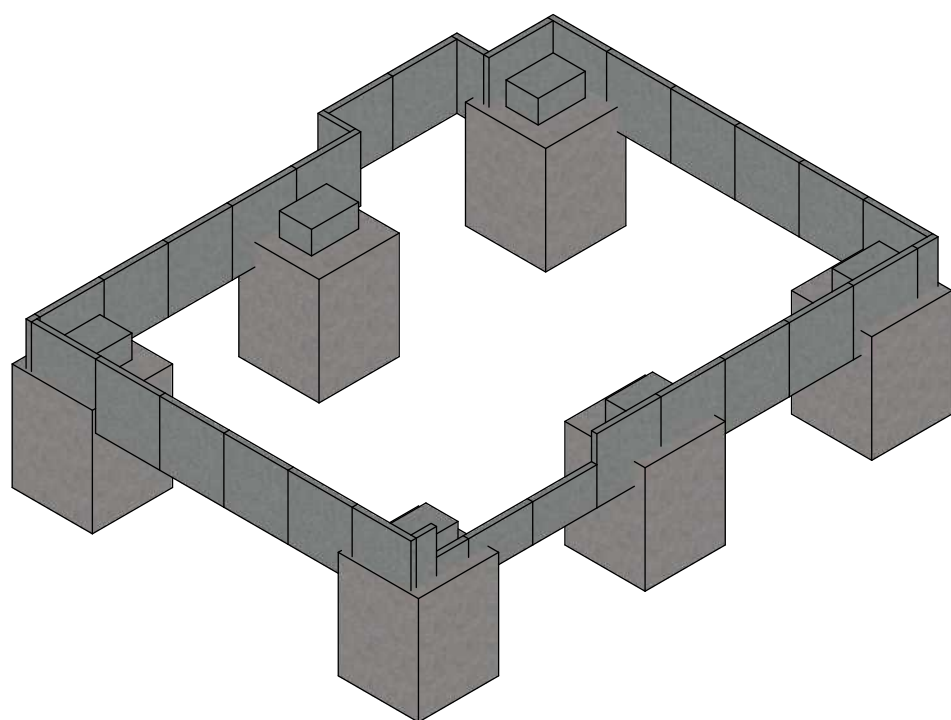
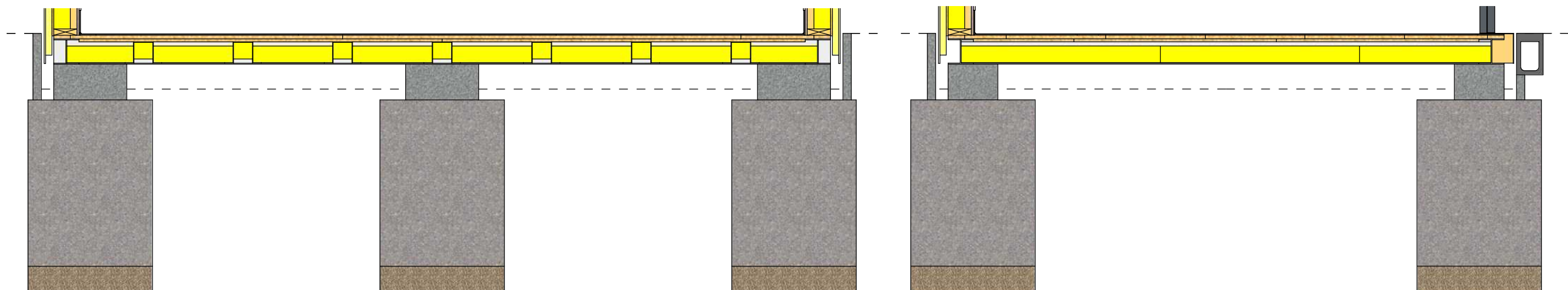
Should the development encroach on the 3.5 metre easement, the sewer will need to be diverted at the expense of the applicant. The ground cover of the sewer should not be substantially altered and, where possible, must also be located within a public open space.

The precise position of water mains and sewers must be ascertained by hand digging trial holes after first contacting South West Water, who will give such information as is available regarding the general location of the mains and sewer in the area. No liability is accepted for the accuracy of any information given as to the position or existence of water mains and sewers. In particular, service pipes and drainage connection are not generally shown on mains records, but their presence should be anticipated, and precautions taken to avoid damage. We recommend that before you proceed with any proposal that you precisely identify the location of the water mains and sewers and not rely on our drawings as an accurate position of them.



Appendix F

Rise Adapt Foundation



Drawings for illustrative purposes only. Foundations calculations and installation to be carried out by others.

150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against engineer's assumptions prior to C35 concrete pour.



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This document shall be read in conjunction with associated models, specifications, drawings, and related documents.

Details of project and drawings

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Drawing name: A Groundworks - Overview

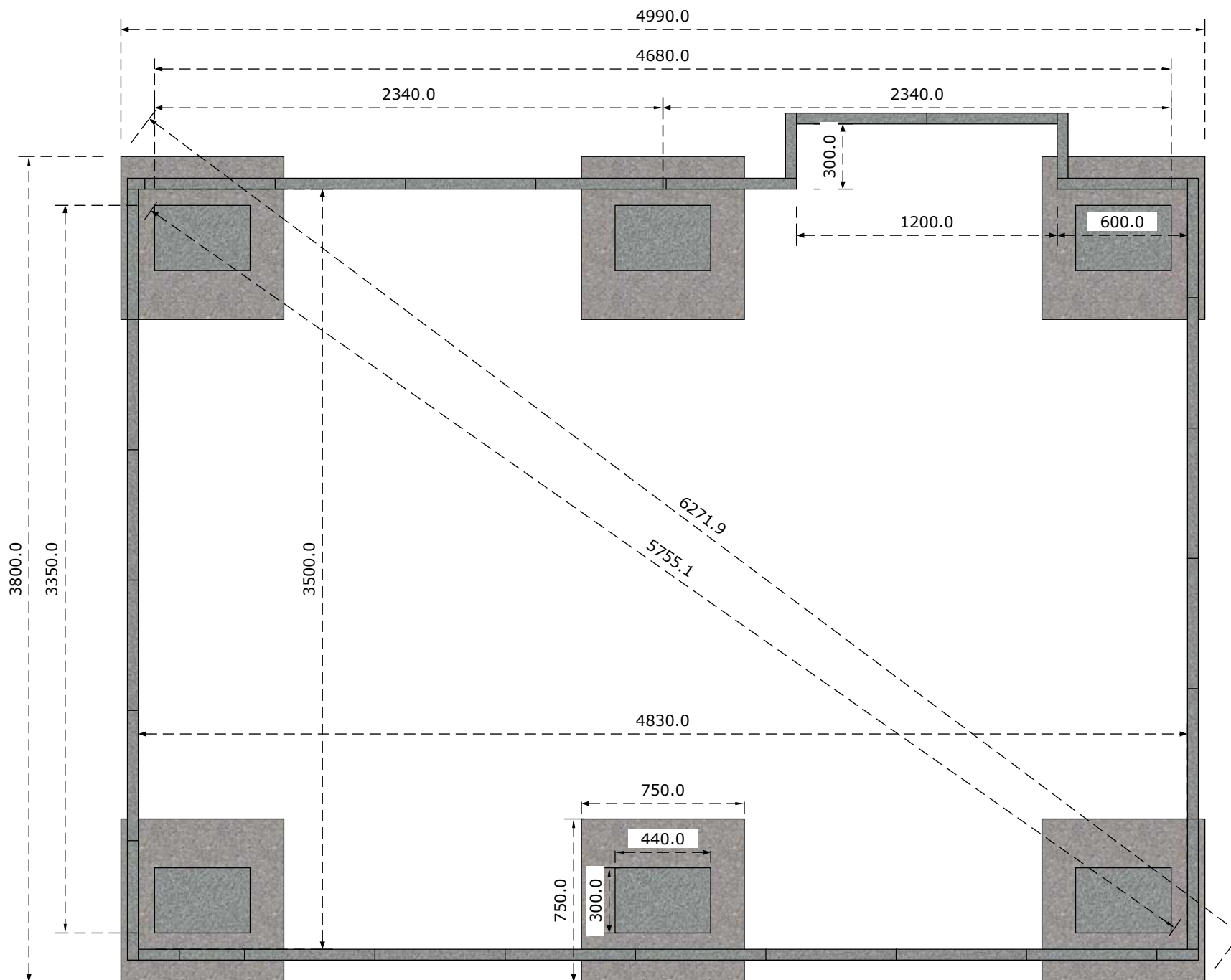
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date	12.10.2022	revision	0
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Client

TEMPLATE

Site address

TEMPLATE



Drawings for illustrative purposes only. Foundations calculations and installation to be carried out by others.

150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against engineer's assumptions prior to C35 concrete pour.



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Details of project and drawings

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Drawing name: A Groundworks - Layout

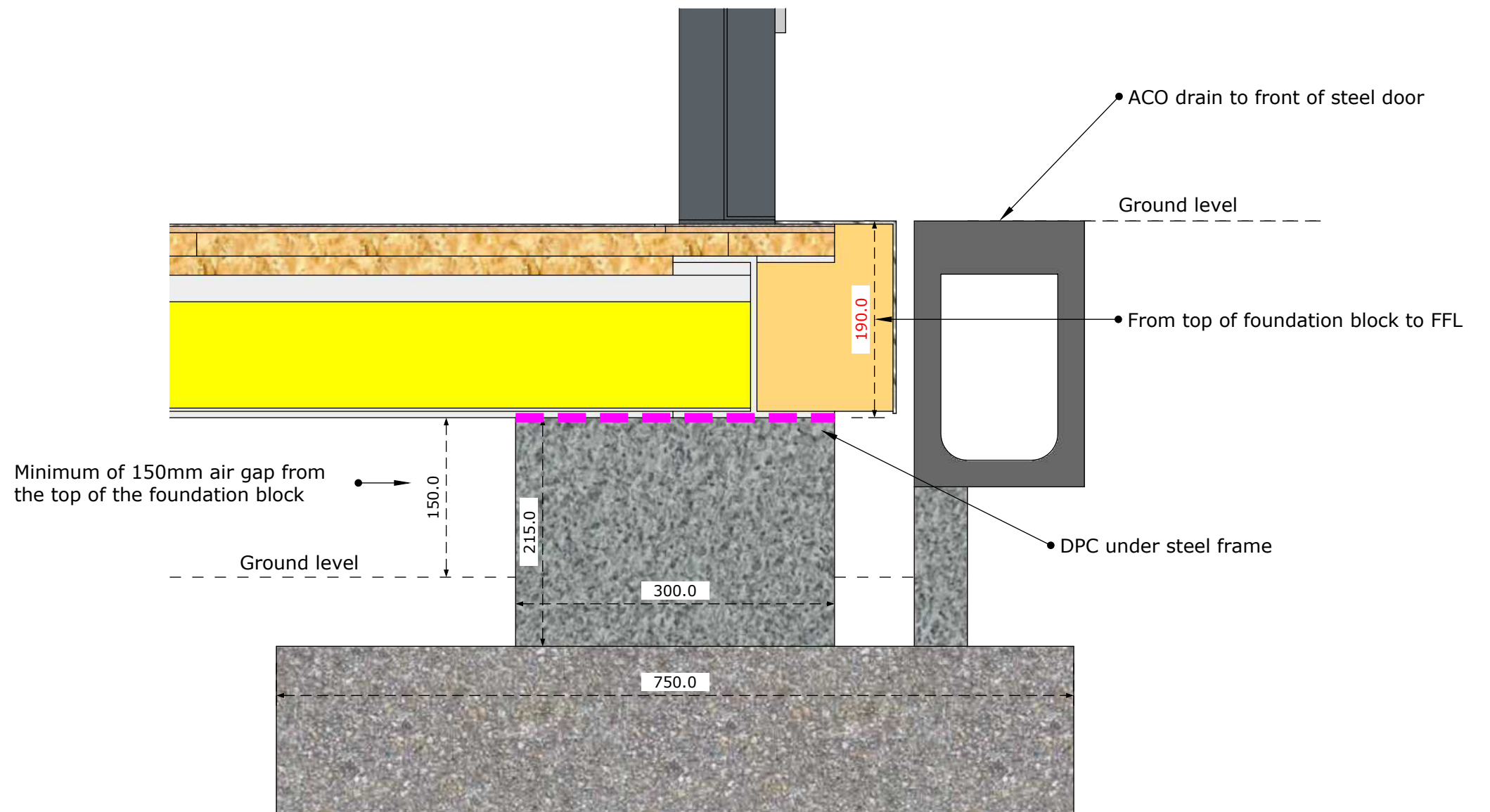
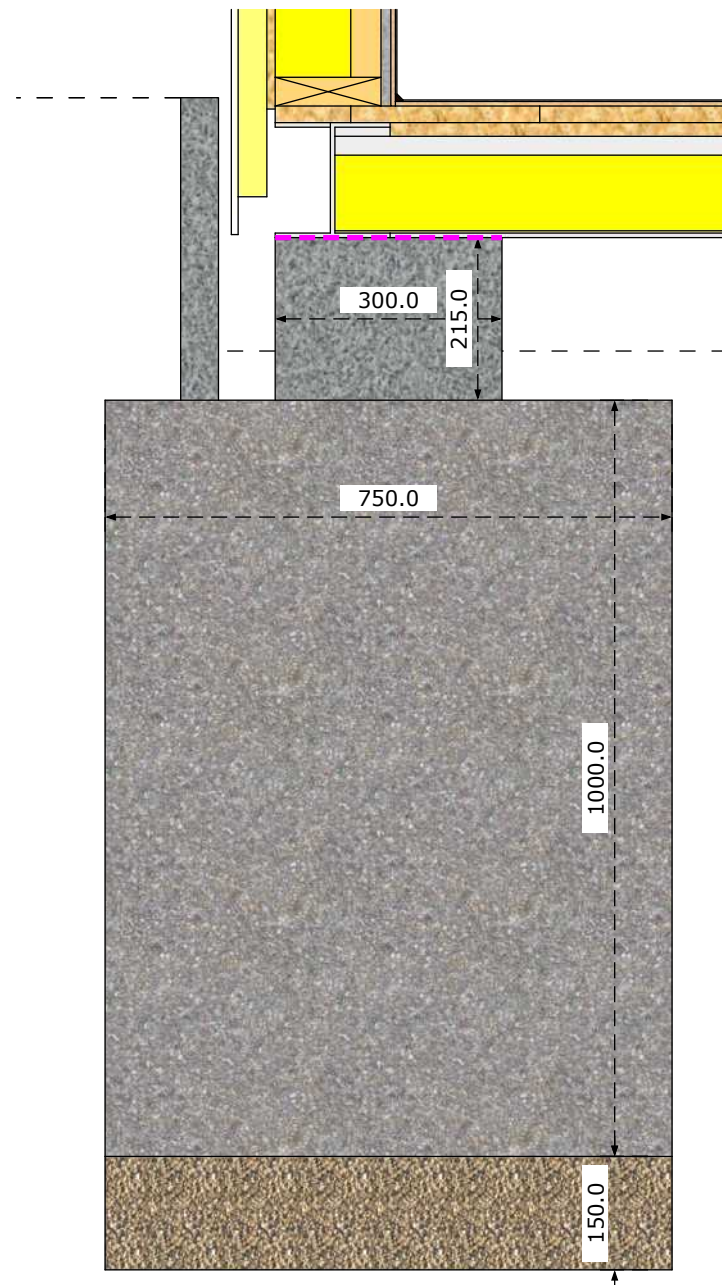
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Client

TEMPLATE

Site address

TEMPLATE



Drawings for illustrative purposes only. Foundations calculations and installation to be carried out by others.

150mm MOT Type 1, compacted to achieve min 50kN/m² allowable GBP. 750 x 750 x 1000mm concrete pads. 440 x 300 x 215mm foundation blocks, centred on each concrete pad. 450mm DPC on foundation blocks. 600mm x 600mm x 50mm slabs on edge, to create retaining perimeter. Typical load 26.0 kN per concrete pad. Ground conditions to be assessed and checked against engineer's assumptions prior to C35 concrete pour.



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Details of project and drawings

Project name: TEMPLATE
Drawing name: A Groundworks - Details

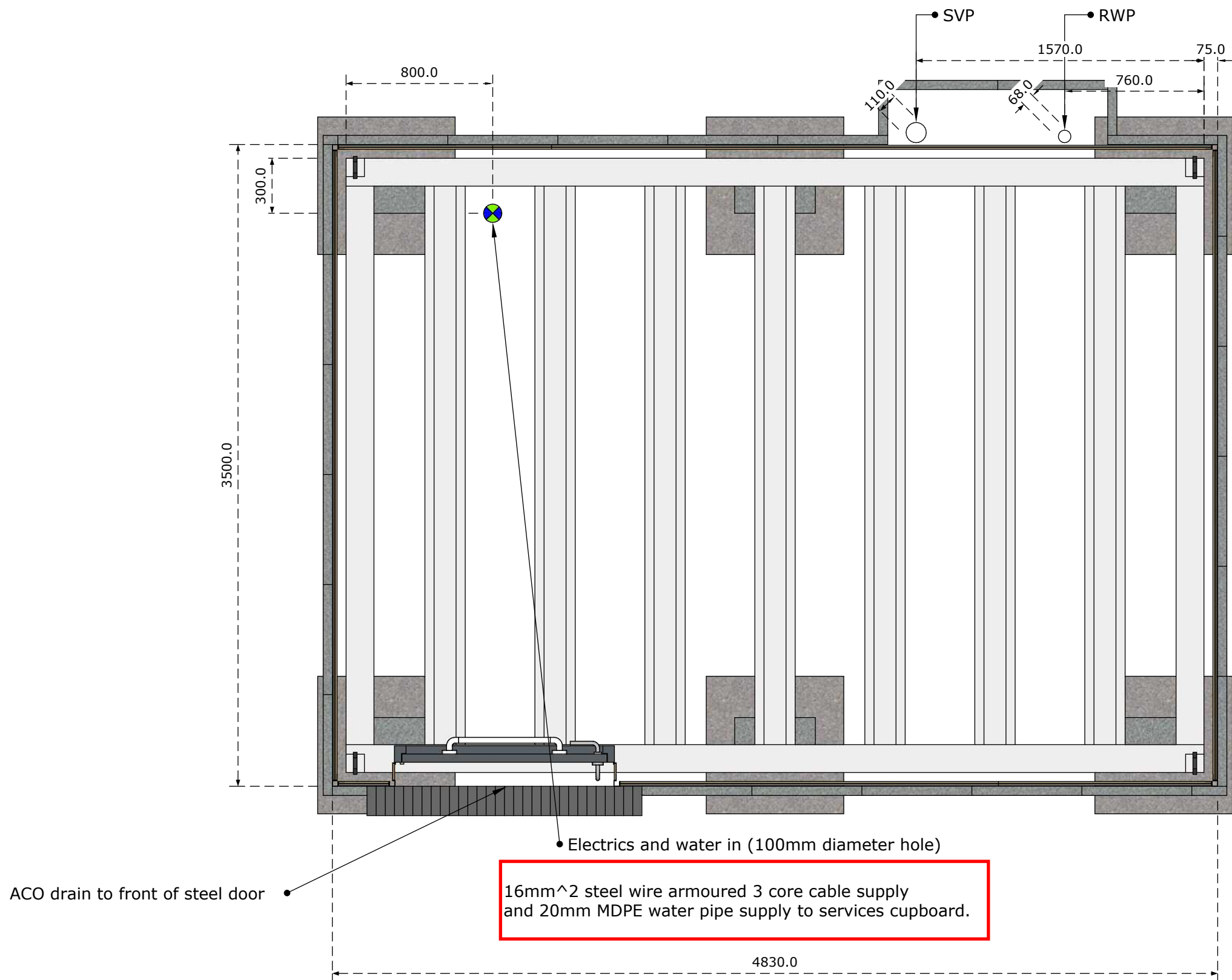
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Client

TEMPLATE

Site address

TEMPLATE



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Details of project and drawings

Project name: TEMPLATE
Drawing name: A Groundworks - Services

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Client

TEMPLATE

Site address

TEMPLATE