EMPLOYER’S REQUIREMENTS

FOR THE

DESIGN AND BUILD

OF

2 BUNGALOWS, 4 FLATS, WITH ASSOCIATED CAR PARKING, LANDSCAPING AND ANCILLARY SERVICES

AT

LAND AT ARMOURY DRIVE, GRAVESEND, KENT, DA12 1NB

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# SECTION 1 INTRODUCTION

## Section 1.1 Client and Project Introduction

### Introduction to Gravesham Borough Council

1. The Gravesham Borough of Kent is a local government district with borough status in North-West Kent. It borders the [Borough of Dartford](https://en.wikipedia.org/wiki/Borough_of_Dartford) and [Sevenoaks District](https://en.wikipedia.org/wiki/Sevenoaks_District) to the west, the Borough of [Tonbridge and Malling](https://en.wikipedia.org/wiki/Tonbridge_and_Malling) to the south, the [Medway](https://en.wikipedia.org/wiki/Medway) [unitary authority](https://en.wikipedia.org/wiki/Unitary_authorities_of_England) to the east and the [Thurrock](https://en.wikipedia.org/wiki/Thurrock) unitary authority of [Essex](https://en.wikipedia.org/wiki/Essex) to the north, via the [River Thames](https://en.wikipedia.org/wiki/River_Thames). Gravesham Borough Council administrative centre and largest town is Gravesend, which consists of predominantly low to mid-rise builds. The Council have been working hard to regenerate the area in recent years and provide much needed affordable housing.
2. Gravesham Council is committed to be Carbon Neutral by 2030. Therefore they welcome tenderers to provide detailed proposals along with cost breakdown for an alternative heating method to gas and to enhance the building fabric materials. The contractors should submit proposals to improve the performance of the external materials focusing on enhancing the building fabric materials but to not adopt passivhaus principles. The contractor should also consider that the buildings should not overheat and comply with building regulations and achieve the appropriate energy standards. There is a below the line section for contractors to provide a cost for the above proposals on the Contract Sum Analysis, refer to appendix 7.1.4. Your proposal should be submitted as part of the Contractor’s proposal section for the client to consider. The contractor is reminded the purpose of this scheme is provide housing for the over 55s therefore the heating system should be an easy to use system and operate similarly to that of a traditional heating system.

### The Project – Armoury Drive

Gravesham Borough Council Estate Regeneration Programme

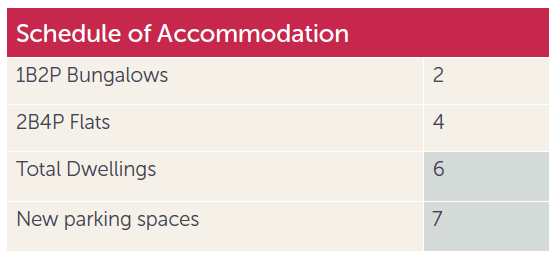
1. Gravesham Borough Council is undertaking their biggest programme of regeneration on a number of housing estates and sites across the borough. The council aims to transform places by building new neighbourhoods with well-designed affordable housing, streets and public spaces. The Council has aspirations to deliver circa 1000 new homes over the next 5 plus years and will deliver much needed new social housing including homes for residents over 55.
2. The council is committed to providing affordable housing and enduring neighbourhoods. Gravesham Borough Council is dedicated to providing exemplary housing, public spaces and streets that last a long time and are a pleasure to live in.
3. The regeneration includes Armoury Drive. The Development will help meet the central objectives of providing affordable homes and improving the condition of the area. Crucially it will also meet the wider objectives for neighbourhood renewal such as improving opportunities and quality of life, promoting social inclusion and reducing inequality.
4. The development of Armoury Drive will deliver 6 homes.

Armoury Drive Site

1. The site is owned by Gravesham Borough Council and is currently occupied by two buildings and fenced off green spaces. At present it can be accessed by car from Armoury Drive but future access will predominantly be from Albert Murray Close, with Armoury Drive providing access to one bungalow.
2. There are three mature trees at the west side along the brick fence which are under a TPO.

Scheme Description

1. All the new homes proposed will be Council owned and will be allocated to applicants registered with the Council for housing, in line with the Council’s Allocation Policy.
2. The proposed scheme consists of one block containing four flats and two detached bungalows. The schedule of accommodation is outlined below.



1. The bungalows are fully suitable for able-bodied elderly residents or those with impaired mobility. All six homes are designed to be M4 (2) Accessible and Adaptable compliant.
2. Bins are to be stored externally in the rear gardens for the bungalows. The flats have a communal bin area on the north end side of the flats’ frontage.
3. There is one mature tree in the front (Albert Murray Drive side) which is to be removed and replaced on a 1:2 basis.

Public Realm

1. The development seeks to maintain a continuity of an active frontage as per the existing buildings on the same roads.
2. The placement of the mass ensures retention of the existing trees where possible. The removed trees will be replaced on 1:2 ratio basis as per the planning policy.
3. The proposed scheme aims to create a relationship between the old and the new by aligning the proposed dwellings with the existing houses. This helps create a sense of continuity within the streetscape.

# SECTION 2 CONTRACT

## Section 2.1 Forms of Tender & Instructions to Tenderers

**FORM OF TENDER – CONTRACTOR’S PROPOSED DATES FOR COMPLETION OF SECTIONS**

For: TENDER – Armoury Drive (“the Works”)

To: SHARON DONALD, GRAVESHAM BOROUGH COUNCIL, CIVIC CENTRE, 132 WINDMILL ST, GRAVESEND DA12 1AU (“the Employer”)

**TO BE RETURNED ONLINE NO LATER THAN 12:00 NOON ON Thursday 10th June 2021.**

I/We…………………………………………………..

(Company Registration number ……………..…………….)

and carrying on business at

.........................................................................................................

.................................................................................................(“the Tenderer”)

I/We having examined the Instructions to Tenderers, Preliminaries, the Contract (including the Schedule of Amendments), the Employer's Requirements, Drawings and all other documents supplied by the Employer with the tender (collectively the "Tender Documents") issued by the Employer for the provision of the Works and in consideration of being invited by the Employer to submit a tender for the provision of the Works:

1. I/We hereby tender and undertake to execute and complete the whole of the said Works in conformity with the JCT Design and Build Contract 2016 including Preliminaries, Conditions of Contract, the Schedule of Amendments, the Employer's Requirements, Drawings, and all appendices, plans, pricing documents and all other Tender Documents for the sum of:

£ …………………………………………………………………………………………………………………………………………

in words ………………………………………………………………………………………………………………………………

exclusive of VAT (the “Tender Sum”).

1. I/We confirm that the Tender Sum includes all Provisional Sums and all contingencies and agree that this tender shall remain open for acceptance by you and shall not be withdrawn for a period of **90 days** from the closing date for return of tenders. The closing date for the return of tenders is no later than **12:00 Noon** **Thursday 10th June** **2021.**
2. I/We agree that the insertion by me/us of any conditions qualifying this tender or any unauthorised alteration to any of the Tender Documents shall cause the tender to be rejected and confirm that I/we have not inserted any conditions qualifying this tender or made any unauthorised alteration to any of the Tender Documents.
3. I/We certify that the details of this tender have not been communicated to any other person (except as authorised in the Instructions to Tenderers) or adjusted in accordance with any agreement or arrangement with any other person, firm or company.
4. I/We also certify that I/we am/are not a party to a scheme or arrangement under which any other tenderer was reimbursed any part of his/her tender cost.
5. I/We also certify that I/we have not done any of the acts or matters referred to in the Instructions to Tenderers.
6. I/We hereby warrant and undertake to you in the terms set out in the Instructions to Tenderers.
7. If my/our tender is accepted I/we will, if and when required by the Employer, forthwith procure that our ultimate holding or parent company will execute and deliver to the Employer, a Parent Company Guarantee in the form annexed to the Schedule of Amendments to the Contract.
8. If my/our Tender is accepted I/we will, forthwith and when required by the Employer obtain a Bond of a surety (approved by the Employer) for a sum equal to 10% of the Tender Sum in the form annexed to the Schedule of Amendments to the Contract and lodge that Bond with the Employer prior to the Date of Possession.
9. I/We understand that you are not bound to accept the lowest or any tender you may receive, and you will not pay any expenses incurred by us in connection with the preparation and submission of this tender.
10. Should my/our tender be accepted, and when requested by the Employer, I/we agree to execute the Contract and until the Contract is executed, I/We agree that there is not a binding contract between us.
11. I/We undertake to complete and deliver the whole of the Works comprised in the Contract by the Dates for Completion of Sections as proposed by us as follows;

Armoury Drive: ……………………………………… (to be inserted by Tenderer)

1. I/We attach duly completed Certificates of Public Liability, Employer's Liability and Professional Indemnity insurance which shall be effective for the period during which the Works are to be executed and completed and, in the case of Professional Indemnity insurance, for a period of twelve years from the date of practical completion of the Works
2. I/We undertake to permit the Employer or its agents to inspect such accounts or otherwise carry out such financial investigations as the Employer may consider necessary in regard to my/our financial standing and commercial viability.
3. I/We certify that this is a bona fide Tender.

Tenderer's Representative's Signature: …………………………………….

(Print Name in Full): .....................................…………………......

Position in Company/Firm (must be a director or secretary or another person authorised by the Company to sign)

Name of Company/Firm:

.................................................................................................................................................

Company registration no: ......................................………………………………………………………………………………….

Address: ...........................................………………………....................................................................

Tel. No(s): ................................................. Email address: …………………………….………………………………….

Date ..........................................................

**INSTRUCTIONS TO TENDERERS**

1. General Information

1.1 All queries in connection with the content of the Tender Documents must be submitted online through the Kent Business Portal by the time and date specified. Responses to any queries or request for information shall be sent by email from the Kent Business Portal.

1.2 Should any prospective Tenderer have any difficulty or request in connection with any of the Tender Documents themselves (not their content), they should contact the Employer’s Agent who shall endeavour to answer any enquiries.

1.3 The Employer’s Agent may circulate the responses to enquiries to all tenderers as and when they arise on an anonymous basis together with the questions asked.

1.4 The Tenderer is responsible for obtaining all information necessary for the preparation of its Tender and all costs, expenses and liabilities incurred by a Tenderer in connection with the preparation and submission of a Tender shall be borne by the Tenderer. Tenderers shall acknowledge upon submission of their tender that they have satisfied themselves that they fully understand the requirements set out in these Instructions to Tenderers, the Tender Documents and any clarification or additional information provided in response to any query.

1. Preparation of Tender

2.1 The Form of Tender, the Conditions and the Employer's Requirements and all other documentation issued and information supplied by the Employer relating to the tender ("the Tender Documents") shall be treated by the Tenderer as private and confidential for use only in connection with the Tender and any resulting contract and shall not be disclosed in whole or in part to any third party without the prior written consent of the Employer save to the extent necessary to obtain quotes for any insurance, from prospective sub-contractors or otherwise for their tender preparation.

2.2 The documents which constitute the Tender Documents and all copies thereof are and shall remain the property of the Employer and save for the purposes of the tender, must not be copied or reproduced in whole or in part and must be returned to the Employer upon demand.

2.3 The Tenderer must complete in full the Form of Tender and Contract Sum Analysis included in appendices.

2.4 Tenderers are also required to provide the following:

(a) Sub-contracting

Tenderers must provide details of any element of the Works to be sub-contracted, including the identity of the proposed sub-contractor, and also provide details of the capability of the sub-contractor to deal with the element of the Works.

(b) Other documents

Tenderers must also return with their tenders any other documents named or identified in these instructions as being required to be completed and returned.

2.5 A Tenderer will be deemed for all purposes connected with its Tender and the Contract to have carried out all researches, investigations and enquiries which can reasonably be carried out and to have satisfied itself as to the nature, extent and character of the Works (in the context of and as they are described in the Tender Documents), the extent of the premises, personnel, materials and equipment which may be required and any other matter which may affect its Tender. The Tenderer shall have no claim whatsoever against the Employer in respect of such matters and in particular (but without limitation) the Employer shall not make any payments to the successful Tenderer save as expressly provided for in the Contract and (save to the extent set out in the Contract) no compensation or remuneration shall otherwise be payable by the Employer to the Contractor in respect of the Works by reason of the scope of the Works being different to that envisaged by the Tenderer or otherwise.

1. Conditions of Tendering

3.1 Except as otherwise provided, the several documents comprising the Contract are to be taken as mutually explanatory of one another.

3.2 Should any additions or deletions to any of the Tender Documents, supplementary clauses or additional information be considered necessary prior to the date for submission of Tenders, these will be issued to Tenderers and will be deemed to then form part of the Tender Documents.

3.3 Tenderers shall be deemed to have satisfied itself before submitting their Tenders as to the accuracy and sufficiency of their pricing which shall (except in so far as it is otherwise provided in the Contract) cover all obligations under the Contract and Tenderers shall also be deemed to have obtained for themselves all necessary information as to risks, contingencies and any other circumstances which might reasonably influence or affect its Tender.

3.4 Any Tender submitted by a Tenderer in respect of which the Tenderer:

(a) has directly or indirectly canvassed any official of the Employer or obtained information from any other person who has been contracted to provide services/works to the Employer, concerning the award of the Contract or who has directly or indirectly obtained or attempted to obtain information from any such member or official concerning any other tenderer or Tender submitted by any other tenderer; or

(b) fixes or adjusts the Prices shown in its Contract Sum Analysis by or in accordance with any agreement or arrangement with any other person; or

(c) communicates to any person other than the Employer the amount or approximate amount of its Prices except where such disclosure is made in confidence in order to obtain quotations necessary to the preparation of the Tender or for the purposes of insurance or financing; or

(d) enters into any agreement with any other person that such other person shall refrain from submitting a Tender or shall limit or restrict the prices to be shown or referred to by another tenderer in its Tender; or

(e) offers to agree to pay to any person having direct connection with this Tender or does pay or give any sum of money, inducement or valuable consideration, directly or indirectly, for doing or having done or causing or having caused to be done in relation to any other Tenderer or any other persons proposed form of tender, any act or omission; or

in connection with the award of the Contract commits an offence under the Prevention of Corruption Acts 1889 to 1916 or gives any fee or reward the receipt of which is an offence under sub-section (2) of Section 117 of the Local Government Act 1972

Shall not be considered for acceptance and shall accordingly be rejected by the Employer provided always that such non-acceptance or rejection shall be without prejudice to any other civil remedies available to the Employer or any criminal liability which such conduct by a Tenderer may attract.

3.5 The Employer may in its absolute discretion refrain from considering any Tender if:

(a) it is not in accordance with these Instructions to Tenderers, and all other provisions of the Tender Documents or is in breach of any condition contained in the Conditions; or

(b) the Tenderer submitting the Tender makes or attempts to make any qualification or variation to the terms of the Conditions, the Form of Tender, the Employer's Requirements or other documentation save where a variation or alteration is invited or permitted by the Employer; or

(c) it contains gaps or omissions.

3.6 The Tender shall remain open for acceptance for a period of 90 days from the closing date for the receipt of tenders (see below).

3.7 The Employer shall not be bound to accept the lowest or any Tender submitted.

3.8 Any acceptance of a Tender by the Employer shall be in writing and shall be communicated to the Tenderer.

1. Tender Evaluation

4.1 The Contract shall be awarded on the basis of the tender which is 70% cost and 30% Quality split. Tender bids will be assessed using the BS 8534:2011 Marking Scheme.

4.2 Tenderers may be required to demonstrate their ability to carry out the Works and it may be necessary for officers/consultants of the Employer to visit the Tenderer's offices and interview the Tenderer. Therefore, during the tender evaluation process the Tenderer may be required to:

(a) attend meetings with the Employer and its representatives to present, explain or amplify details of its tender submission;

(b) provide any other information reasonably required by the Employer to enable a detailed evaluation of the Tenderer's submission; and

(c) arrange visits to other clients of the Tenderer or the provision of references.

4.3 Where errors in the computation of a tender are found the tenderer will be given details of such errors and afforded an opportunity of confirming or withdrawing its offer. Tenderers will not be given the opportunity to revise, amend or correct the amounts set out in their tenders.

1. Tenderers Warranties

5.1 In submitting a Form of Tender the Tenderer warrants and represents and undertakes with the Employer that:

(a) it has not done any of the acts or matters referred to in Section 4 above and has complied in all respects with these Instructions to Tenderers;

(b) all information, representations and other matters of fact communicated (whether in writing or otherwise) to the Employer by the Tenderer or its employees in connection with or arising out of the Tender are true, complete and accurate in all respects;

(c) it has carried out its own investigations and research and has satisfied itself in respect of all matters relating to the Contract including the Form of Tender, Employer's Requirements, Conditions of Contract, any Special Conditions, these Instructions to Tenderers and any other Tender Document and that it has not submitted the Form of Tender and has not entered into any Contract in reliance upon any information, representations (whether negligent or innocent) or assumptions (whether made orally, in writing or otherwise) which may have been made by the Employer except those expressly repeated or referred to in the Tender Documents and the only remedy or remedies available in respect of any misrepresentation or untrue statement made to it shall be any remedy available under this Contract but this clause shall not apply to any statement, representation or warranty made fraudulently, or to any provision of this Contract which was induced by fraud, for which the remedies available shall be all those available under the law governing this Contract.;

(d) it has full power and authority to enter into the Contract and carry out the Works and will if requested produce evidence of such to the Employer

(e) it is of sound financial standing and the Tenderer and its partners, directors, officers and employees are not aware of any circumstances (other than such circumstances as may be disclosed in the audited accounts or other financial statements of the Tenderer submitted to the Employer which may adversely affect such financial standing in the future;

(f) by the Date of Possession of the Site it will procure and during the period of the performance of the Contract it will have sufficient working capital, skilled staff, equipment, machinery and other resources available to carry out the Works in accordance with and for the duration of the performance of the Works under the Contract; and

(g) it has obtained or will have obtained by the Date of Possession of the Site any necessary consents, licences and permissions to enable it to carry out the Works and will from time to time throughout the duration of the performance of the Works under the Contract, obtain and maintain all further and other necessary consents, licences and permissions to enable it to carry out the Works.

1. Tender Submission

6.1 The Tenderers are invited to submit a tender for his own proposed Dates for Completion of both sections.

FORM OF TENDER – CONTRACTOR’S PROPOSED DATE FOR COMPLETION.

6.2 The Tender shall be made on the Forms of Tender included in the Tender Documents. The Forms of Tender must be duly completed, signed and dated by the Tenderer and submitted with the Contract Sum Analysis, Contractors Proposals and a signed Collusive Tendering Certificate.

All documents must be completed using black ink or typed.

6.3 The Forms of Tender must be signed:

(a) where the Tenderer is an individual, by that individual;

(b) where the Tenderer is a partnership, by at least two duly authorised partners;

(c) where the Tenderer is a company, within the meaning of the Companies Act, either by a director or secretary of the company, such person being duly authorised for that purpose or by another person duly authorised provided that proof of authority to sign is submitted with the Form of Tender;

and the Tenderer shall produce forthwith upon request by the Employer documentary evidence of any authorisation referred to in Section 6.3(c) above.

6.4 Submission of Documents: Your submission is to be uploaded through <https://www.kentbusinessportal.org.uk/>. Each tenderer is allocated 30mb space. Instructions on the upload process and troubleshooting can be found on <https://www.kentbusinessportal.org.uk/>. Your submission must include: -

A Microsoft Word copy of the completed documents

A scanned copy of the completed documents with a signature

Supporting appendices in separate zipped folders, numbered as requested

Tenders sent by post, fax or email, hardcopies (where not requested), additional content containing materials and documentation such as brochures, marketing literature, case studies of project histories (unless specifically requested), will not be considered and will result in disqualification from the tender process.

6.5 Tenders received after 12:00 hours on Thursday 10th June 2021 will NOT be considered.

6.6 All documents attached to or supplied with these Instructions to Tenderers are and shall remain the property of the Employer and shall be returned to the Employer upon request whether or not a tender is submitted.

1. Freedom of Information

The Employer is committed to open government and to meeting its legal responsibilities under the Freedom of Information Act 2000 (“the Act”) and the Environmental Information Regulations 2004 (“the Regulations”). Accordingly, all information submitted to the Employer may need to be disclosed (except where prohibited under statute or regulation) by the Employer in response to a request under the Act or Regulations. It may also be decided to include certain information in the publication scheme which is maintained under the Act. If you consider that any of the information included in your tender is commercially sensitive, please identify it and explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity. You should be aware that, even where you have indicated that information is commercially sensitive, The Employer may be required to disclose it if a request is received. Please also note that the receipt of any material marked “confidential” or equivalent by the Employer should not be taken to mean that the Employer accepts a duty of confidence by virtue of that marking. If a request is received, the Employer may also be required to disclose details of unsuccessful tenders.

1. Canvassing

8.1 Tenderers will face automatic disqualification from consideration if they lobby or canvass for the contract during the tendering process, any employee of the Employer.

## Section 2.2 Collusive Tendering Certificate

**GRAVESHAM BOROUGH COUNCIL**

**WORKS CONTRACT FOR ARMOURY DRIVE**

**GRAVESEND**

**COLLUSIVE TENDERING CERTIFICATE**

(See also the Instructions to Tenderers)

I/We certify that this is a bona fide Tender, intended to be competitive, and that I/we have not fixed or adjusted the amount of the Tender by or under or in accordance with any agreement or arrangement with any other persons. I/We also certify that I/we have not done and undertake that I/we will not do at any time before the hour and date specified for the return of this Tender any of the following acts:

1. Communicating to a person other than the person calling for those Tenders the amount or approximate amount of the proposed Tender, except where the disclosure, in confidence, of the approximate amount of the Tender was necessary to obtain insurance premium quotations required for the preparation of the Tender:
2. Entering into any agreement or arrangement with any other person that he shall refrain from tendering or as to the amount of any Tender to be submitted:
3. Offering or paying or giving or agreeing to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other Tender or proposed Tender for the said work any act or thing of the sort described above.

In this certificate, the “person” includes any person and any body or association, corporate or unincorporated: and “any agreement or arrangement” includes any such transaction, formal or informal, and whether legally binding or not.

Signed:

Print Name in Full:

Designation:

For and on behalf of:

Address:

Signed:

Print Name in Full:

Designation:

For and on behalf of:

Address:

Interests Declaration

* + - 1. We certify that no councillor or officer of the Council has any direct or indirect interest in our company or firm.

OR

* + - 1. We certify that the following councillor(s) and/or officers have a direct or indirect interest in the company or firm.

Councillor(s) Name(s) Interest

Officer(s) Name(s) Interest

## Section 2.3 Contractor’s Proposals and Quality Criteria

2.3.1 Contractor’s Proposals

1. The Contractor shall provide all necessary documents showing and describing the Contractor’s proposals for the design and construction of the Works (the “Contractor’s Proposals”).

2. The Contractor shall provide his Contractor’s Proposals with his tender return and these shall form part of the Contract Documents.

3. The Contractor’s Proposals shall demonstrate that they meet the Employer’s Requirements and provide best value and as a minimum provide and include the information as listed below:

* Propose a Master Programme including pre commencement activities and construction works.
* Provide Details of his design and construction team.
* Provide details of his head office and site management.
* Provide details of the proposed construction method (e.g. load bearing masonry, concrete frame, timber frame, MMC etc.)

2.3.2 Quality Criteria

1. Enclosed within this section are a number of questions for tenderers to answer. The responses to these questions will be marked in accordance with the method set out in the Evaluation Criteria included in this section and will be used to assess the quality component of the tender evaluation.

2. The responses to these questions should be explicitly targeted towards this tender since they have been drafted specifically to ascertain how Tenderers will provide services on this project.

3. The responses provided will be the only information taken into account when evaluating Tenderers’ responses to the questions. No additional material will be considered when evaluating the question.

4. As a consequence, any additional documentation that describes previous projects, marketing material or any other information submitted with the Tender will be disregarded for the purposes of assessing and marking this section.

5. Responses to each question must not exceed 2 side of A4 (Font size 12).

|  |  |
| --- | --- |
| QUESTION 1 | Provide method statements that explain how you intend to carry out the works, how you intend to deliver the project on time, detailing key activities, milestones, deliverables, risks and management strategies. Your answer should include a competitor programme appended to the answer. The answer should be a maximum of 2 sides of A4. |
| QUESTION 2 | Please provide a minimum of 3 client contact details for projects that have completed the Defect period to allow us to make arrangements to contact the client for references. Alongside the references, please provide the procedures and data that accurately captures how defects were raised, reported, monitored and completed within timeframes etc. |
| QUESTION 3 | Outline methodology for the development of the detailed design and the quality measures you will put in place. Please also provide examples of your experience with restricted sites and associated access constraints. |
| QUESTION 4 | Please list key risks and the proposed mitigation measures to ensure the successful delivery of Armoury Drive in both written and graphic form. |

2.3.3 Evaluation Criteria

1. The tenders will be evaluated on a combination of both the price submitted on the Form of Tender and the quality of the responses to the Questions 1 to 4 set out in this Section. These will be weighted so that in the overall assessment the prices submitted in the Form of Tender will represent 70% (seventy per cent) of the score (the Price Score) and the responses to the questions will represent 30% (thirty per cent) of the score (the Quality Score).

2. The prices will be converted through a points-based system to allow a total overall score to be calculated by aggregating the Price Score and the Quality Score.

3. The questions will be evaluated and given scores that will be weighted in accordance with the arrangement set out below.

|  |  |
| --- | --- |
|  | **Weighting** |
| **Price Score** | **70%** |
|  |  |
| **Quality Score** | **30%** |
| Question 1 | 30% |
| Question 2 | 30% |
| Question 3 | 20% |
| Question 4 | 20% |

4. The scoring system for each question assesses the response provided by the Tenderer on a scale of 1 to 5. The criteria for awarding scores are set out below.

|  |  |
| --- | --- |
| **Points** | **Scoring Rationale** |
| 0 | No response received or located within the documentation submitted |
| 1 | The Tenderer has submitted a response. However, it is clear that they have not understood or have not addressed the question. The response would require significant clarification or the response has no relevance to the question. |
| 2 | The submitted response has broadly met the expected criteria and the Tenderer has demonstrated a general understanding of the question. However, clarification of more than one or two minor points will be required. |
| 3 | The submitted response has almost met the expected criteria and the Tenderer has demonstrated a good understanding of the requirements. However, clarification of one or two minor points only may be required. |
| 4 | The submitted response has fully met the expected criteria required and the applicant has demonstrated a good understanding of the question. No further clarification of any points would be required. |
| 5 | The submitted response has fully met and expanded upon the expected criteria required. The Tenderer has demonstrated a very good understanding of the question and also proposed solutions that would be an enhancement to the original expected criteria. |

## Section 2.4 Contract Sum Analysis

# SECTION 3 EMPLOYER’S REQUIREMENTS

## Section 3.1 Preliminaries

3.1.1 Project Particulars

Name, Nature and Location

* + - 1. The name of the project is **ARMOURY DRIVE**.
      2. The nature of the project is the design and construction of 2 Bungalows and 1 Block containing 4 Flats, with associated parking, external works and landscaping works.
      3. The location of the site is Armoury Drive, Gravesend, DA12 1NB for which a Site Location Plan is included in the Appendices.
      4. The site boundaries are shown on the Site Boundary Plan included in the Appendices.
      5. The legal title is shown on the Report on Title included in the Appendices.

Accommodation Schedule

* + - 1. The project comprises the units shown on the Schedule of Accommodation included in the Appendices.

Names and addresses of Employer and Consultants

* + - 1. The Employer is:

Gravesham Borough Council

Civic Centre

132 Windmill Street

Gravesend

Kent DA12 1AU

* + - 1. The Employer's Agent is:

Potter Raper Ltd

Duncan House

Burnhill Road

Beckenham

Kent BR3 3LA

Email: nicola.ray@potterraper.co.uk; T 0208 658 3538

* + - 1. The Employer's Site Inspector is:

Potter Raper Ltd

Duncan House

Burnhill Road

Beckenham

Kent BR3 3LA

* + - 1. The Principal Designer is:

Potter Raper Ltd

Duncan House

Burnhill Road

Beckenham

Kent BR3 3LA

3.1.2 Tender and Contract Documents

Contract Drawings

The planning drawings will form part of the Employer’s Requirements and are used for the tender. It is the intention these will become the Contract Drawings. These drawings are listed in the Appendices.

3.1.3 The Site / Existing Buildings

Access to the site

* + - 1. The Contractor shall allow access to the site for the Employer, Employer’s Agent and its site inspector and authorised representatives to carry out regular inspections of the Works and hold meetings as necessary.

Site boundaries

* + - 1. The site boundaries are indicated on the Site Boundary Plan. Immediately upon taking possession of the site the Contractor shall carry out a site survey to verify the site boundaries. The accuracy of the site survey and all works dependant thereon shall be the Contractor’s responsibility and no costs will be borne by the Employer in correcting any errors resulting therefrom.
      2. The Employer has carried out topographical survey and these are included in the Appendices.

Existing buildings on or adjacent to the site

* + - 1. The Contactor is to allow for the demolition of the existing buildings and all other existing structures (garages, railings, boundary treatments etc.) within the red line boundary.
      2. The Contractor is to note that the adjoining buildings, access roads and footpaths will be in constant use during the progress of the Contract and he will be required to execute the Works, arrange for deliveries to and cartage from the site so as to cause the minimum of inconvenience to others.
      3. The Contractor is to ensure that unimpeded vehicular and pedestrian access is maintained at all times for the residents of the surrounding properties. The Contractor shall ensure that all access routes are kept clean at all times.
      4. The Contractor shall provide a Construction Phase plan that takes into consideration the existing vehicular access to Albert Murray Close and Armoury Drive.

Existing mains/services

* + - 1. The Employer has obtained information on existing services and this is included in the Appendices.
      2. Notwithstanding the information provided by the Employer, the Contractor is entirely responsible for determining the location and layout of any existing services and drainage likely to affect the execution of the Works as no claim for extra costs arising from a lack of knowledge will be allowed.
      3. The contractor is entirely responsible for the disconnection of existing services prior to demolition.
      4. Allow for all precautions to secure all drainage connections, water, electric and gas mains, telephone cables, services and lines from injury by or through carrying out of the Works. In the event of any such mains, cables, services or lines being found in the way of the work or otherwise requiring attention or removal, the Contractor must protect same from damage and give notice to the Authorities or persons concerned and arrange for the lowering, diversion or removal of such mains, cables, services or lines as may be necessary at no additional cost to the contract.
      5. The Contractor is to allow for all works associated with any diversion works and the coordination of legal agreements.

Existing Trees

* + - 1. The Contractor must ensure that existing trees which are to be retained are adequately protected against excavation works, plant and other operations as any such trees damaged or destroyed are to be replaced with trees of the same type and maturity at the Contractor’s own expense. Measures taken to protect trees are to be to the complete satisfaction of the Employer’s Agent. The Contractor will be required to liaise with the Local Authority with regard to any tree preservation orders and relevant planning conditions. An Arboricultural Survey is included in the appendices.

Schedule of Conditions

* + - 1. The Contractor will be required to survey, record and photograph the condition of the footpaths, roads and boundaries adjacent to the site before the Contract commences and any reinstatement works necessary at the completion of the project will be the entire responsibility of the Contractor.
      2. The Employer's Agent will witness the surveys and one copy of each report including a complete set of photographs is to be supplied to the Employer's Agent.

3.1.4 Description of the Work

Scope of the Works

The scope of the works comprise the complete design, demolition, site clearance, de-contamination and construction of the Works including all associated services, drainage, infrastructure and external works.

The Contractor is referred to the schedule of accommodation in the appendices.

The Design and Construction of:

* 2 Bungalows, 4 Flats, Associated Car Parking, Landscaping and External Works.

The site will not be given to the Contractor as a cleared site and the works shall also include for all necessary demolition and site clearance works.

3.1.5 Form of Contract

Form of Contract

* + - 1. The Form of Contract is the Design and Build Contract 2016 issued by the Joint Contracts Tribunal.
      2. The Contract will be executed as a deed.
      3. The Contractor is to include any costs occasioned by compliance with the Conditions of Contract together with amendments and additions thereto which he shall be deemed to have examined and read in full.

Articles of Agreement, Contract Particulars and Conditions

* + - 1. The Contractor’s attention is drawn to the fact that the Articles of Agreement and Conditions to the Form of Contract shall be amended by the Schedule of Amendments included in the appendices.
      2. The Contract Particulars to the Form of Contract shall be completed as included in the appendices.

Insurance under Clause 6.5

* + - 1. The Contractor shall take out and maintain a policy of insurance under clause 6.5 of the Contract in the names of the Employer and Contractor for the amount of indemnity stated in the Contract Particulars.

Contract Period

* + - 1. The Contract Period shall include the period required by the Contractor for the development of the design which shall include the discharge of all Planning Conditions, Building Regulation submission and the development and production of all information required for the satisfactory progress and completion of the works.

Performance Bond

* + - 1. Upon the execution of this Contract, the Contractor shall deliver to the Employer a Performance Bond. The bond shall be in the form as included in the appendices.

Parent Company Guarantee

* + - 1. Upon the execution of this Contract, the Contractor shall deliver to the Employer a Parent Company Guarantee. The guarantee shall be in the form as included in the appendices.

Collateral warranties

* + - 1. The Contractor shall provide to the Employer a Collateral Warranty for each and every Consultant, sub-contractor or supplier with a design input appointed or engaged by the Contractor.
      2. The Collateral Warranties are to be provided to the Employer prior to any design and/or work being carried out by the Warrantor. Payment of monies due to the Contractor in respect of design fees carried out by Consultants shall not be made until Collateral Warranties have been provided.
      3. The Form of Collateral Warranty shall be as included in the appendices. A copy of the Warrantor’s Contract and Professional Indemnity cover shall be attached to the Collateral Warranty.
      4. Where required by the Contract Particulars the Contractor shall also provide Collateral Warranties in favour of any Funders in the form included in the appendices. A copy of the Warrantor’s Contract and Professional Indemnity cover shall be attached to the Collateral Warranty.

3.1.6 Tendering / Subletting / Supply

Tender Submission

1. The Contractor when submitting his tender will be deemed to have included for all necessary costs which will be incurred in the complete design, construction, completion and commissioning of this Contract other than those costs specifically noted as being paid for by the Employer.
2. The Contractor is deemed to have visited and inspected the site and adjacent areas before submitting his tender and satisfied himself as to the availability of access, character of the site, parking, availability of temporary and permanent services and condition of boundary walls and all local conditions and restrictions that are likely to affect the execution of the Works. No subsequent claim for additional costs for not complying with this clause will be considered.

Tender Documents

1. Any discrepancies or ambiguities between the various sections of the Tender Documents are to be clarified by the Contractor and the Employer's Agent prior to a tender being submitted as no subsequent claim for additional costs will be considered.

Master Programme

1. The Contractor shall provide a master programme with his tender.
2. The Contractor’s programme must show the period required for design development and allowance must be made to comply with the Employer’s Handover Procedures.
3. The Contractor’s programme must show the duration and milestone dates for the following activities;

* Design development and lead in
* Indicative dates for discharge of the planning conditions
* Stat Diversions and connections
* Critical paths for activities with a design input
* Critical paths for all other activities
* Placing of orders with Statutory Undertakers
* Milestone dates for Statutory Approvals
* Milestone dates for information required from the Employer
* Employer’s Handover Procedures (including snagging dates)

1. The Contractor’s programme must be updated during the Contract Period as required of the Employer’s Agent and for every progress meeting.

3.1.7 Provision, Content and Use of Documents

Contract Documents

1. The Contractor shall not divulge or use any documents in connection with this Contract except for the purposes of this Contract. The Contractor as beneficial owner hereby grants to the Employer an irrevocable royalty free non-exclusive of licence to use and reproduce all drawings, specifications and other documents and information of any kind which have been or are to be written, originated or made by or for the contractor pursuant to this contract, for any purpose relating to the works including without limitation the execution, completion, promotion, sale, letting, management, maintenance, repair, refurbishment or alteration of the works or any part thereof but nothing herein contained shall permit the use of any such drawings, specifications, documents and information prepared by or on behalf of the Contractor, for any purpose other than that for which they were originally prepared or provided.

Copyright

1. In accordance with the provisions of the current Copyright Acts, Copyright in all specifications and design briefs and any other documents provided to the Tenderer will remain the property of the Employer and the confidentiality of the said documents shall be respected.

3.1.8 Management of the Works

Supervision

1. The Contractor is required to employ a competent full time Person-in–Charge on the site for the duration of the Works. The Person-in-Charge shall not be replaced without the prior approval of the Employer.

Considerate Constructors Scheme

1. The scheme shall be registered with the Considerate Constructors Scheme and the Contractor shall include for all costs in connection with the scheme.

3.1.9 Quality Standards / Control

Quality, Testing and Approvals

1. All materials are to be new unless otherwise specified. Handle, store and fix materials with care to ensure that they are in perfect condition when incorporated into the Works.

Manufacturer's Recommendations

1. All materials are to be handled, stored and installed in strict accordance with the manufacturer’s written instructions and recommendations. Submit copies of manufacturer's recommendations to the Employer's Agent when requested.
2. The Contractor is to advise the Employer’s Agent if the manufacturer’s instructions and recommendations conflict with any other specific requirements contained in these Employer’s Requirements.
3. Where the manufacturer’s written instructions and recommendations require materials or products to be commissioned and tested in a prescribed manner the Contractor shall adhere to the manufacturer’s instructions in this respect.

Samples

1. Where approval of products or materials is specified or requested submit samples or other evidence of suitability. Do not confirm orders until approval has been obtained. Retain approved samples on site for comparison with products and materials used in the Works. Remove when no longer required. Where samples of finished work are specified or requested, obtain approval of stated characteristics before proceeding with the Works. Remove samples which are not part of the finished Works when no longer required.
2. The Contractor will be required to provide all necessary samples and colour charts. Where a selected product has options for colour choices the Contractor shall allow the Employer to select a choice of colours but such choice will be limited to 4nr variants.
3. The Contractor will be required to provide a detailed finishes schedule. Including for the employer’s selection in accordance with items 5 & 6 of 3.1.10.

Inspection and Testing

1. No work is to be covered up until the Employer, Employer's Agent, Employer’s Site Inspector, the Building Control Officer, the Defects Insurance Inspector or other appropriate person or body has inspected the relevant portion of the Works.
2. The Contractor’s attention is drawn to the fact that the Employer and the Employer’s Site Inspector, as a minimum, will require inspection of the works at the following stages;

* Piling - before pile caps
* Excavations - before pouring concrete
* Underground drainage - before backfilling
* Brickwork up to damp proof course level – to inspect damp proof courses
* Ground and upper floor slabs – prior to placing concrete to inspect reinforcement
* Cavity walls – before finally closing cavities
* External and Internal Walls - before plaster boarding or plastering
* Separating walls and ceilings – prior to closing up to inspect the fire stopping
* On completion of services – prior to covering up and boxing in
* Roofing – before and after completion of roof coverings

1. The Contractor shall give the Employer at least 48 hour notice of completion of the above stages and any other work stages that the Employer requires inspections to take place.
2. The Contractor shall provide to the Employer all test certificates that he reasonably requests at all relevant stages of the Contract and where possible prior to covering up the Works. The Employer will in particular require test certificates for piling, drainage, fire stopping at an early stage.
3. The Contractor shall notify the Employer and invite him and his representatives to all testing carried out on site which shall include the following;

* Tests to underground drainage
* Integrity tests to roofs
* Tests to rainwater installations
* Commissioning and testing of Controlled Entry Systems
* Tests to sanitary installations
* Tests to electrical installations
* Tests to all mechanical installations

Progress Photographs & Reporting

1. The Contractor shall provide progress photographs of the works on a regular monthly basis. The progress photographs shall be included in the Contractor’s Monthly Progress Reports and provided electronically to the Employer’s Agent.

Cash Flow Forecast

1. The Contractor shall provide an accurate Cash Flow Forecast with his tender.
2. The Contractor shall update the Cash Flow Forecast with each Application for Payment.

3.1.10 Security / Safety / Protection

Control of noise, pollution and other statutory obligations

1. Allow for complying with the Noise Insulation Regulations 1975 and all Statutory and Local Authority requirements regarding the control of noise, pollution etc. which are in force at the time of tender and take all necessary precautions to prevent nuisance from water, smoke, dust, rubbish and other causes and have due regard at all times for the adjoining owners and others residing in the vicinity of the site.
2. Provide for taking all reasonable precautions to ensure the efficient protection of all streams and waterways against pollution arising out of or by reason of the execution of the Works.
3. The Contractor's attention is drawn to the Control of Pollution Act 1974 and that no responsibility will be accepted by the Employer for contravention of the Act by the Contractor, his servants or his sub-contractors nor will any extension of the contract period be granted in respect of any delay due to the enforcement of the Act.
4. The Contractor’s attention is drawn to the Clean Air Act 1993 and that no responsibility will be accepted by the Employer for contravention of the Act by the Contractor, his servants or his sub-contractors nor will any extension of the contract period be granted in respect of any delay due to the enforcement of the Act.
5. Audible music devices will not be permitted to be used at any time.
6. No fires will be permitted on the sites.

Maintenance of roads

1. The Contractor shall ensure that vehicles and plant leave the site free of mud etc. and take all other precautions necessary to maintain and keep public and private roads free from mud, debris, etc. during the course of the Contract and make good any damage as it occurs to the satisfaction of the Employer's Agent and Local Authority.

Security and Night Watchman

1. Immediately upon taking possession of the site the Contractor shall provide and maintain temporary hoardings around the whole of the site to secure the site from unauthorised persons, trespass and fly tipping. The Contractor shall be wholly responsible for the security of the sites and all costs in connection until the completion of the Contract.
2. The buildings and site areas are to be left secure at the end of each working day.
3. The Contractor shall, where he considers it necessary to do so, install a site monitoring system/alarm or provide a night watchman for the security of the sites.
4. The Contractor is not permitted to use barbed wire or anti climb paint on the sites.

Protecting the Works

1. Allow for protecting the whole of the Works during the contract period.
2. Any existing grassed areas, paved areas or public and private access roads damaged by the Contractor must be made good at his own expense. The Contractor shall allow for reinstating damaged grassed areas with turf and maintaining to ensure proper growth.
3. Special attention should be given to the protection of pre-fabricated goods and the Contractor must ensure that no damage occurs during handling or storing on the sites. He shall be held solely responsible for the condition of all goods and materials until completion of the Works.
4. The Contractor shall adequately cover up and protect from damage all areas outside the boundaries of the Site which are subject to traffic by him and clear all such protection away and make good any damage caused as it occurs.
5. Allow for protecting all open excavations beyond the boundary of the site using block and mesh fencing.

3.1.11 Specific Limitation on Method / Sequence / Timing

Access to the Site

1. Access to the site will be from the public highways.

Use of the site

1. The Contractor will not be permitted to use the site for any purpose other than that of carrying out the work contained in the Contract. He will not be permitted to carry out the manufacture on the site of any article required for the Works if, in the opinion of the Employer's Agent, such work constitutes a nuisance and should be executed elsewhere. He shall obtain the approval of the Employer's Agent for the siting of the spoil heaps, temporary roads, rail and sleeper tracks, paths, sheds, temporary accommodation and other structures.

Limitation of working space

1. The Contractor must limit his operations to the area of the sites.
2. The Contractor shall not permit any workmen to trespass on any parts of the surrounding property outside the area of the Works included in the Contract and he shall be held liable for any damage which may arise from his neglect in this respect.
3. No materials are to be unloaded or stacked off the sites or on the adjoining existing roads.

Employees

1. If any employees of the Contractor misconduct themselves, or, in the opinion of the Employer's Agent, are incompetent, the Contractor shall, if so directed, remove such employees from employment on the Works.

Limitation of working hours

1. The Contractor will be expected to limit working hours of all operatives employed upon the Works to times between 0800 and 1800 hours on Mondays to Fridays and between 0800 and 1300 hours on Saturdays. No working will be allowed on Sundays or Bank Holidays. Should the Contractor wish operatives to work outside these hours he must first obtain permission in writing from the Employer's Agent.
2. Where the Local Authority imposes differing limitation of working hours the Local Authority’s limitations shall prevail at no additional cost to the Employer.

Overtime

1. No additional payment will be made for overtime.

The use and disposal of any materials found on site

1. Any building materials or other objects found on the site or produced as a result of the building operations, shall remain the property of the Employer and shall not be utilised in the Contract Works without the written consent of the Employer's Agent together with written agreement regarding the amount of credit to be allowed by the Contractor therefore.

Waste Disposal

1. The Contractor shall ensure that excavated spoil, rubbish, surplus materials, and the like arising from the Works are not deposited on an area other than a public or private tip controlled or recognised by the Local Authority and he shall comply with the Civic Amenities Act 1967 and other legislation governing the controlled tipping of refuse.
2. No material of whatever nature arising from the Works shall be burned or otherwise destroyed or disposed of on the site.

3.1.12 Facilities / Temporary Work / Services

Temporary accommodation for the use of the Employer

1. Allow for making available to the Employer's Agent a suitable room for use at site meetings etc. and provide all necessary lighting and heating. Allow for cleaning the temporary accommodation on a regular basis.
2. Allow for suitably equipping such a temporary structure with tables, chairs, etc. for use at site meetings.

Temporary accommodation for use by the Employer’s Site Inspector

1. Allow for making available to the Employer’s Site Inspector a suitable room for use during his site inspections and provide all necessary lighting and heating. Allow for cleaning the temporary accommodation on a regular basis.
2. Allow for suitably equipping such a temporary structure with a desk, chair and lockable cabinet for his use.

Temporary name boards and advertising

1. Immediately upon taking possession of the site, the Contractor shall provide and erect name boards for the Employer and consultant, in agreed positions, and alter the positions as required from time to time and dismantle and remove on completion.
2. The Contractor may be allowed to exhibit his own name boards which may include the names of his principal Sub Contractors and Consultants but this will be subject to consent from the Employer and on the strict understanding that this will not interfere with the Employer’s advertising requirements.
3. The Contractor shall obtain all the necessary permissions from the Local Authority for the erection of all name boards and advertising and pay for all costs in connection therewith.

Telephone and internet for use of the Employer

1. A separate telephone for the sole use of the Employer is not required.
2. The Contractor should however allow the Employer, the Employer’s Agent and other representatives reasonable use of his own telephone and internet connection during the course of the Contract at no additional cost.

Emergency telephone number and service

1. The Contractor will be required to inform the Employer's Agent of a name and telephone number on which he can be contacted at any time for all cases of emergency from the Date of Possession until the end of the contract period (including Bank Holidays).
2. The Contractor will be required to immediately inform the Employer's Agent with regard to any changes in name and telephone number as above and to provide all required labour, materials, plant and the like to carry out any emergency repairs that are the responsibility of the Contractor.

3.1.13 Contractor’s General Cost Items

Supervision

1. The Contractor is required to employ a competent full time Person-in-Charge on the sites for the duration of the works. The Person-in-Charge shall not be replaced without the prior approval of the Employer.

Construction Skills Certification Scheme

1. The Contractor shall ensure that all his employees including supervisory and management staff and all sub-contractors hold a current CSCS card under the Construction Skills Certification Scheme.

Disbursements arising from the employment of workpeople

1. Provide for all costs and expenses including the following in respect of all workpeople:

1. National Insurance Contributions

2. Pensions

3. Annual and Public Holidays

4. Travelling time, expenses, fares and transport

5. Guaranteed time

6. Non-productive time and other expenses in connection with overtime

7. Incentive and bonus payments

8. Extra payments to leading tradesmen and working foreman

9. Allowances in conformity with the Working Rule Agreement

10. Severance pay and obligations under the Redundancy Payments Act 1965

11. Disbursements under the Sick Payments scheme

12. Any other disbursements arising from the employment of labour

Design Team and Progress Meetings

1. The Contractor shall appoint his own Design Team for the development of the detailed design of the contract. This team shall include Architect, Structural Engineer, Mechanical and Electrical Services Engineer, and other specialists as required. The Employer recommends BPTW for the Architect service, but are not bound to use them.
2. Progress meetings will be held at minimum monthly intervals throughout the contract and are to be attended by the Contractor and where requested by the Employer members of the Contractor’s Design Team shall also attend. A Schedule of proposed meeting dates and times shall be agreed at the Pre-Contract meeting and minutes of all meetings will be prepared and distributed by the Employer’s Agent.
3. The Employer’s Agent will be responsible for the prompt preparation and distribution of Agendas and Minutes to formally review progress, obtain an update on current activities, difficulties and amendments.

Design Fees

1. The responsibility for payment of fees for this project are as follows:-

1 To be paid for by the Employer:-

1.1 Fees of the Employer’s Agent (Pre and Post Contract)

1.2 Fees of the Principal Designer (Pre and Post Contract)

1.3 Fees of the Party Wall Surveyors (Pre and Post Contract – only where appointed by the Employer)

1.3 Fees of the Clerk of Works (Post Contract)

2 To be paid for by the Contractor:-

2.1 All fees and charges in connection with clearing all of the Conditions included in the Planning Approval

2.2 Building control fees

2.3 All fees for the preparation of the Contractors Proposals including all drawings, quantities, etc

2.4 All post contract professional fees excluding items 1.1, 1.2 and 1.3 above

2.5 All fees, charges and capital contributions levied by all statutory authorities and other bodies

2.6 All fees and charges in connection with the adoption of all roads, footpaths, sewers and public areas.

2.7 Any other fees payable which are not listed to be paid for by the Employer.

Temporary accommodation for use of the Contractor

1. Allow for providing, erecting, dismantling and re-erecting from time to time as directed all temporary structures required for the storage and protection of materials and for the Contractor's own use as offices, mess rooms, dry shelters and the like and clearing away on completion.

Lighting and power for the Works

1. Allow for providing all necessary temporary lighting and power required for the execution and protection of the Works including temporary connections and distribution about the site and paying all fees and charges in connection therewith and clearing away on completion.
2. Temporary connections to existing services are to be made in a manner to be approved by the Employer's Agent and Statutory Authority.

Fuel consumption

1. The Contractor shall arrange for the installation of all gas, electricity and water meters. The Contractor shall be responsible for all gas, electricity, water and other fuel consumed prior to Completion. The Contractor will agree all fuel gauge and meter readings with the Employer's Agent or the Employer at the time of completion. If the first account received by the Employer for any fuel or power shows that part of the consumption is for fuel or power used prior to completion, the Employer will pay the whole account and agree with the Contractor the amount due to be reimbursed to the Employer. This will be done either by way of direct payment or by a deduction from the next payment due to the Contractor. This adjustment will not be made by way of a reduction to the Final Account.

Water for the Works

1. Allow for providing water for the Works including tapping the supply mains providing meters and all temporary plumbing required, paying all fees and water rates in connection therewith and clearing away on completion.

Temporary Telephone

1. The Contractor shall arrange for and provide a telephone on an independent line to the office of the Person-in-Charge and he shall be responsible for and pay all charges in connection therewith and for continuing and keeping the installation in good order and condition during the Contract.

Plant, tools and vehicles

1. Allow for providing all necessary plant, tools and vehicles and all requisite tarpaulins, temporary coverings, water chutes and lighting required for the expeditious carrying out and completion of the works in proper sequence including Sub-Contractors' work and at completion, or earlier as the various items become superfluous, clearing the same from the buildings and the site and making good any damage or omitted parts of the structure or finishings, the execution of which may have been temporarily suspended.

Safety, Health and Welfare of Workpeople

1. Comply with all relevant codes, regulations, agreements and statutes relating to safety, health and welfare in the building industry such as the Construction (Health, Safety and Welfare) Regulations, Factories Acts, Health and Safety at Work Etc Act and the like and all amendments thereto and in particular for the provision of the following:-

Shelter from inclement weather

Accommodation for clothing

Accommodation for and provision of meals

Drinking water supply

Sanitary conveniences

Washing facilities

First aid facilities

1. Sanitary accommodation so provided shall be connected to a soil drainage system whenever possible and the Contractor shall allow for making the necessary temporary connections, removal and making good all work disturbed.

The Construction (Design and Management) Regulations 2015

1. The Contractor shall ensure that adequate resources are allocated or will be allocated to the Works to enable him to comply with the requirements and prohibitions imposed on him by the Construction (Design & Management) Regulations 2015 and specific requirements laid down in this document and the Pre-Construction Health and Safety Information. The Contractor shall allow in his tender for all costs associated with complying with these requirements.
2. For the purpose of this contract it is proposed that the Principal Contractor referred to in the Construction (Design & Management) Regulations 2015 shall be the Contractor who is party to the Contract.
3. The Pre-Construction Information is included in Appendices.
4. The Contractor shall be required to submit his Construction Phase Health & Safety Plan prior to a commencement on site.
5. The Contractor will be required to provide all the necessary details for inclusion in the Health & Safety File. The Contractor shall fully co-operate with the Principal Designer to ensure that the requirements for the Health and Safety File, as stipulated in the Pre-Construction Information included in the Appendices, is provided prior to Practical Completion.

Removing rubbish, protective casings and coverings and cleaning the Works on completion

1. The Contractor is to clear away all dirt, rubbish and superfluous materials as they accumulate including that caused by Sub-Contractors and on completion clear away, including all plant, scaffolding, etc. No rubbish, tools, plant, etc is to be left on or under floors, in roof spaces or other voids or on the surrounding property.
2. On completion, clear out rainwater pipes and gutters, brush down roofs, wash all floors and pavings, sweep carpets, wash down paintwork and remove all stains and paint spots, clean all sanitary fittings and glass, both sides, oil all hinges, locks, bolts, etc to doors, windows and fittings, rod and flush drains etc, remove all protective tape and coverings and leave the whole of the premises in a clean and orderly condition fit for immediate occupation.
3. The Contractor must pay particular attention to keeping the site and works clean and tidy in order to cause the minimum inconvenience to the surrounding residents.

Drying the Works

1. Allow for providing all necessary temporary heating including fuel which may be required to enable the works to proceed at all times including that required to enable operatives to work during inclement weather, to protect the Works from damage due to frost and to enable trade to follow trade. Use of any permanent heating system will not be allowed without the written consent of the Employer's Agent.

Site administration and security

1. Allow for providing all watching and lighting which may be legally required or may reasonably be necessary for the safe keeping of the Works and premises. The Contractor shall be held responsible for the safety and security of the Works during the whole term of the Contract.
2. The Contractor's attention is particularly drawn to the fact that all necessary security measures shall be provided to ensure that the dwellings do not become squatted or vandalised prior to handover.

Transport for workpeople

1. Allow for all costs involved in transporting workpeople to and from the site.

General scaffolding

1. Allow for providing, erecting, altering and adapting as necessary, dismantling and finally clearing away all scaffolding necessary for the proper execution and easy access to the Works.
2. Scaffolding is to mean all putlog, independent or other similar scaffolding of the standard prescribed by the Working Rule Agreement and Factory Acts properly erected and boarded to the requirements of his own tradesmen and specialist Sub-Contractor tradesmen.

Temporary fencing, hoarding, screens, fans, planked footways, guard rails, gantries, etc.

1. Allow for providing all temporary fencing, hoarding, screens, fans, planked footways, guard rails, gantries and other similar items which the Contractor or the Employer's Agent considers necessary to protect the Works, adjoining owners and the general public, for the proper execution of the Works and for meeting the requirements of any Local or other Authority.
2. The Contractor shall provide a 2400mm high temporary hoarding comprising 18mm (minimum) plywood on suitable posts and bracings including 150 x 20mm softwood trims to the top and bottom of the hoarding. The hoarding shall be provided for the duration of the works and maintained to the satisfaction of the Employer and removed upon completion of the works.
3. Allow for painting the hoarding with two coats of paint to colours approved by the Employer. The Contractor is to allow for all necessary reprinting of the hoarding should it be required as a result of deterioration or vandalism to the hoarding.

Site direction boards

1. Provide direction boards as required. Submit details to the Employer's Agent for approval and make appropriate arrangements with the Local Authority or other Statutory Authorities to affix these boards in such locations as shall be necessary to indicate the location of the site.

Traffic Regulations

1. Allow for complying with all traffic, police or similar regulations which from time to time may be in force and which may affect operations on or about the sites.

Tests and Inspection of Works Executed

1. Allow for providing everything necessary for and carrying out all tests to satisfy the Employer, the Employer’s Site Inspector and the Employer's Agent as to the standard of materials, goods and workmanship together with all costs in connection therewith.
2. Allow for providing all reasonable access for the Employer, the Employer’s Site Inspector and the Employer’s Agent to carry out inspections of materials, goods and workmanship to satisfy himself as to its standard.

Employer’s Handover Procedures

1. The Contractor shall allow for all costs in connection with the Employer’s Handover Procedures.
2. The Employer’s Handover Procedures are included in the Appendices.

Defects during the Defects Liability Period

1. The Contractor shall allow for all costs in connection with the Employer’s Defects Procedures and for responding to defects occurring during the Defects Liability Period.
2. The Employer’s Defects Procedure is included in the Appendices.
3. The Contractor must comply with the Employers Defects Procedures and failure to do so will result in the Employer engaging offers to rectify any defects. All costs incurred by the Employer in doing so will be deducted from any monies due to the Contractor.

Residents Manuals

1. The Contractor will be required to provide a Residents Manual for each dwelling at Handover.
2. The Contractor shall provide a first draft of each of the Residents Manuals at least 6 months prior to the anticipated handover and a final draft at least 3 months prior to the anticipated handover.

Local Sourcing of Materials

1. The Contractor shall use reasonable endeavours to source materials from local suppliers and manufacturers. The Contractor shall provide the Employer with details of local sourcing of materials.

Training and Local Employment

1. The Contractor shall fully participate with the Local Authority’s employment and skills initiatives required by the Planning Consent and any Section 106 Agreements and shall use his reasonable endeavours to promote and recruit employees, subcontractors, suppliers and businesses from within the Borough.
2. The Contractor shall ensure that the employment and skills initiatives are supported by the Contractor’s subcontractors and will be incorporated into the sub contract arrangements.
3. The Contractor shall provide a monthly report on how he is participating with the employment and skills initiatives and as a minimum he shall monitor and record the following;

The number of local people and local businesses recruited for the Works

The names of companies that have secured contracts for the carrying out of the Works

A breakdown of the race and gender of people recruited in the carrying out of the Works

1. The Contractor shall use all reasonable endeavours to ensure that 20% of the total workforce employed for the Works are as a result of the employment and skills initiative.
2. The Contractor shall allow for all costs, whatsoever, in connection with this requirement.

Employer’s Construction Training Initiative

1. Although no formal Employer’s Construction Training Initiative exists for this scheme, and notwithstanding any Conditions imposed by the Planning Consent and any Section 106 Agreements, the Employer actively encourages the use of local labour and apprentices.
2. The Contractor shall allow for all other costs in connection with any informal initiatives instigated by them including overheads, profit, site supervision, equipment, off site training, monitoring, assessment, costs associated with non-productive time and abortive works and all other costs whatsoever in connection with this.

3.1.14 Works By Statutory Authorities etc.

1. The Contractor is to include in his tender for all fees, charges and capital contributions levied by Statutory and Local Authorities and Sub-Contractors on the entire project including all profits and attendances and builders work in connection charges.
2. The Contractor should allow for all costs in connection with works to be carried out by Statutory and Local Authorities. Any information included in this document in no way relieves the Contractor of his responsibility for the design, construction and completion of the Works.

Certificates and Warranties

1. Certificates of Testing, Guarantees and Forms of Warranty will be required by the Employer from all Statutory Authorities and specialist Sub-Contractors carrying out work or supplying goods.

Notification

1. Notify all Service Authorities of proposed works before commencing site operations. So far as reasonable ascertain location of services or confirm that none exist in the vicinity of the Works. Protect, uphold, divert and maintain all services and pay all charges and fees in connection therewith. Do not interfere with their operation without the consent of the Service Authorities, or private owners, or the Employer's Agent as appropriate. Should any damage occur to any service immediately notify the Employer's Agent and the Service Authority and immediately arrange for the damage to be rectified.

3.1.15 Benchmarking Units

1. The Contractor shall provide a benchmark unit to allow the Contractor and Employer to set benchmarks for the quality of materials and workman ship for the dwellings. The location of the benchmark unit shall be agreed by the Employer.
2. The provision of benchmark unit shall be shown on the Contractor’s programme and be offered to the Employer and his representatives for snagging and de-snagging in accordance with programme. The benchmarking unit shall be provided in sufficient time to be of beneficial use in quality control and once agreed the benchmarking units shall set the target for the quality of materials and workmanship.

3.1.16 2012 Construction Commitments

1. The Contractor shall agree to adopt the 2012 Construction Commitments as set out by the Strategic Forum for Construction.
2. The Contractor shall provide an action plan which shall be implemented and actively monitored to demonstrate that the commitments are being adopted.
3. The Contractor shall sign up to the 2012 Commitments and return the signed declaration to the Strategic Forum 2012 Task Group, c/o CIC 26 Store Street London WC1E 7BT.

3.1.17 Key Performance Indicators

1. The Contractor shall provide the Employer with all reasonable information to enable the Employer to collate data on Key Performance Indicators which shall be collated on a monthly basis.
2. Provide reasonable data as the Employer may require to monitor KPI’s from time to time.

3.1.18 Employer’s Contract Compliance Checklists

1. The Employer implements a series of Contract Compliance Checklists to ensure compliance with the Contract and Employer’s Requirements and these are included in Section 4. The Contractor shall provide all information that is reasonably requested by the Employer in order to assist the monitoring and completion of the Checklist.

3.1.19 Property Information Requirements

1. The Contractor shall, at least 3 months prior to the anticipated Practical Completion, provide the following;

* Conveyance plans to a standard that is acceptable to the Land Registry
* Site plan showing details of the external works including all boundary walls, fences, access roads, hard and soft landscaping, car parking, cycle and bin stores
* Block plans showing internal layouts without any furniture (Scale no smaller than 1:1250)
* Floor plans of each unit showing internal layouts with furniture, bathroom and kitchen layouts (Scale 1:50). The floor plans shall include details of all built in wardrobes, cupboards, stores and washing machine spaces.
* Floor plans of each unit showing room dimensions in both metric and imperial units. The floor plans shall also provide the dimensions of all external areas (e.g. gardens, balconies, terraces, patios and the like). Floor plans shall indicate the gross internal floor areas of each unit.
* Mechanical and Electrical plans of each unit
* Elevations of each unit showing the facing materials used in the construction
* Full specification and samples of materials used (see below)
* Predicted Energy Assessments (PEAs)
* Energy Performance Certificates (EPCs)
* Wayleave Agreements obtained by the Contractor
* Legal Agreements obtained by the Contractor (e.g. Section 38, 278. 104 and 106 Agreements)
* Evidence of the discharge of all Planning Conditions

1. The Contractor shall, prior to the anticipated Practical Completion, provide the following;

* NHBC (or equivalent) for each unit
* Confirmation of connection and details of supplier for Utilities
* Evidence of Planning Condition discharges for all planning conditions except those which are conditioned to be applied for post-occupation.

1. All block plans, floor plans and other drawings are to be provided in .pdf and .dwg format.
2. The Contractor shall provide a full specification and samples of materials used for the following;

* Facing materials (e.g. brick or cladding)
* Roofing materials
* Windows and external doors
* Floor finishes
* Kitchen units and handles
* Kitchen worktops and splash backs
* Sanitary fittings and appliances
* Wall colours
* Ceramic tiles
* Skirting, door architraves and fine joinery
* Light fittings
* Ironmongery

1. The Contractor will be required to provide the full specifications and samples of materials stated above 6 months after being awarded the Contract.
2. A Show Home is not required however allowance should be made for reasonable and practical access for prospective tenants prior to completion. That access shall be safe and secure with the dwelling cleaned as required and provided with temporary protection to the floor to be removed on completion.

3.1.20 Guarantees and Warranties

1. The Contractor shall ensure that where products have the benefit of manufacturer’s guarantees or warranties that the guarantees are appropriately registered and activated and that the guarantees are handed to the Employer.
2. Where the guarantee is dependent on the production of proof of purchase this shall be attached to the guarantee.
3. The Contractor’s attention is specifically drawn to the fact that the Employer will require manufacturer’s guarantees for all boilers and kitchen appliances.

## Section 3.2 Statutory Requirements

3.2.1 Generally

1. The Contractor shall carry out and complete the works in compliance with all Statutory requirements and shall give all notices required by the Statutory Requirements.
2. The Contractor’s attention is particularly drawn to the Statutory Requirements listed below but he shall be deemed to be aware of all Statutory Requirements whether listed below or not.
3. Where there is a divergence between the Statutory Requirements and any other Employer’s Requirements the higher level of standard shall apply.
4. The Contractor shall pay all costs and charges in connection with these requirements.

3.2.2 The Control of Asbestos Regulations

1. The Contractor shall comply with the Control of Asbestos Regulations.
2. Where the Works includes demolitions, the Contractor shall be responsible for the identification of the presence of asbestos and must not undertake work in demolition until he has carried out a suitable and sufficient assessment as to whether asbestos is present or is liable to be present.
3. The Contractor shall employ an asbestos specialist to carry out an assessment and forward details of the report provided by the specialist to the Employer.
4. The Contractor shall not commence any demolition where asbestos is present or is liable to be present without having prepared a suitable written plan of work detailing how the work is to be carried out.
5. The Contractor shall forward a copy of his plan of work to the Employer.
6. The Contractor must hold a licence or employ a licensed specialist before undertaking any licensable work with asbestos.
7. The Contractor shall notify the appropriate enforcing authority of work with asbestos.
8. The Contractor shall provide the Employer with a “site clearance certificate” after all asbestos has been removed and before demolition commences.

3.2.3 The Building Regulations

1. The Contractor shall comply with the Building Regulations.
2. The Contractor shall be responsible for the giving of a Building Notice to the Local Authority and depositing full plans with the Local Authority.
3. The Contractor shall be responsible for giving the Local Authority notice of intention to commence the works and completion of certain stages of work as required by the Local Authority.
4. The Contractor shall obtain a Completion Certificate from the Local Authority to evidence that the works have complied with the Building Regulations.
5. The Contractor shall provide an Energy Performance Certificate for each dwelling in accordance with the Building Regulations.
6. Energy assessors must be a member of an accreditation scheme approved by the Secretary of state and the Contractor shall provide details of his Energy Assessor at the time of giving a building notice.
7. The Contractor shall provide the Employer with a copy of all Building Notices, Completion Certificates, Energy Performance Certificates and all other notices and certificates required under the Building Regulations

3.2.4 The Building (Approved Inspectors etc.) Regulations

1. The Contractor is to use South Thames Gateway Building Control as the Approved Inspector for Building Control signoff. The Contractor shall ensure that the Employer is provided with a copy of the Initial Notice given by the Approved Inspector to the Local Authority.
2. The Contractor shall provide copies of all Amendment Notices given by the Approved Inspector to the Local Authority.
3. The Contractor shall obtain a Plans Certificate from the Approved Inspector to evidence that the works comply with the Initial Notice.
4. The Contractor shall inform the Employer immediately should the Local Authority reject an initial Notice, an Amendment Notice, Plans Certificate or Final Certificate. The Contractor shall provide the Employer with copies of all such rejections

3.2.5 The Construction (Design and Management) Regulations

1. The Principal Contractor for the purposes of the CDM Regulations is the Contractor.
2. The Contractor shall comply with his duties and ensure that all duty holders in his control will comply with the duties under the CDM Regulations.
3. The Contractor shall only appoint or engage designers and contractors who the Principal Contractor has taken reasonable steps to ensure that the person to be appointed or engaged is competent.
4. The Contractor is referred to the Pre-Construction Information included in the Appendices. The Contractor must ensure that all the appropriate Health and Safety Information is provided under Regulation 19 and 32 of the CDM Regulations. This to be provided 8 weeks prior to the anticipated Practical Completion for review and inclusion in the Health and Safety File.

3.2.6 Party Wall Etc. Act

1. The Contractor shall comply with the Party Wall etc. Act.
2. The Contractor if they deem appropriate (or required), shall be responsible for the appointment of a Party Wall Surveyor to act on behalf of the Employer as the building owner.
3. Where the Contractor has appointed a Party Wall Surveyor, the Contractor shall be responsible for his fees and the fees of the adjoining owner’s surveyor.
4. Notwithstanding the appointment of the Party Wall Surveyors, the Contractor shall provide all necessary design and other information required to allow party structure notices to be issued and all awards to be agreed.
5. In addition, the Contractor shall be responsible for complying with all awards and allowing sufficient time within the contract for complying with the Party Wall etc. Act.
6. The Contractor will be required to obtain written confirmation from the Party Wall Surveyors that the awards have been complied with and that the works included in the awards have been completed to the satisfaction of the Party Wall Surveyors.
7. Notwithstanding the Party Wall etc. Act, the Contractor’s attention is drawn to the fact that the Contractor shall be wholly responsible for obtaining access to neighbouring land in order to carry out and complete the works. The Contractor shall be responsible for making all necessary agreements and paying all costs and charges in connection with this clause.

3.2.7 Town and Country Planning Acts or Orders

1. The Employer has obtained a granting of planning permission and a copy of the permission is included in the Appendices.
2. The Contractor shall be responsible for complying with the planning permission and all conditions imposed on the grant of planning permission.
3. The Contractor shall be responsible for discharging all reserved matters contained in the planning permission.
4. The Contractor shall provide copies of all applications to discharge any reserved matters to the Employer and provide a report at each site meeting of the progress of each application.
5. The Contractor’s attention is drawn to the fact that the Employer will not consider Practical Completion to have taken place where conditions or reserved matters have not been discharged.
6. The Contractor shall be responsible for paying all costs and charges in connection with complying with the granting of planning permission or the discharge of any conditions and reserved matters.
7. For the avoidance of doubt, any variations, alterations or changes brought about by the Contractor’s Proposal or complying with the granting of planning permission or the discharge of any conditions and reserved matters will not be treated as a change under Contract Condition 2.15.2.2 or 3.9.

3.2.8 Highways Act

1. The Contractor shall be responsible for obtaining all legal agreements for any improvement works to the existing adopted highways required by Section 278 of the Act.
2. The Contractor shall use his best endeavours to arrange for all new roads, pavements, drainage and street lighting to be adopted by the Local Authority. The Contractor shall be responsible for obtaining all legal agreements for any adopted works required by Section 38 of the Act.
3. Where the adopting Local Authority will not enter into any legal agreements under the Act the Contractor shall immediately notify the Employer.
4. The Contractor shall be responsible for paying all costs and charges in connection with complying with the above. For the avoidance of doubt the Employer will not include the cost of any returnable deposits or securities required by the Local Authority in any Payment Notices.

3.2.9 Water Industry Act

1. The Contractor shall be responsible for obtaining all legal agreements for any new sewer connections to the existing adopted highways required by Section 106 of the Act.
2. The Contractor shall use his best endeavours to arrange for all new drainage systems to be adopted by the Local Authority. The Contractor shall be responsible for obtaining all legal agreements for any adopted works required by Section 104 of the Act.
3. Where the adopting Local Authority will not enter into any legal agreements under the Act the Contractor shall immediately notify the Employer.
4. The Contractor shall be responsible for paying all costs and charges in connection with complying with the above. For the avoidance of doubt the Employer will not include the cost of any returnable deposits or securities required by the Local Authority in any Payment Notices.

3.2.10 Flood and Water Management Act

1. The Contractor shall ensure that all drainage installation comply with the Flood and Water Management Act.
2. In particular the Contractor shall where required by the Local Authority implement Sustainable Urban Drainage Solutions (SUDS) within his drainage design and obtain all necessary approvals from the relevant bodies before construction commences on site.

3.2.11 Gas Safety (Installation and Use) Regulations

1. The Contractor shall ensure that all gas installations comply with the Gas Safety (Installation and Use) Regulations.
2. The Contractor shall ensure that any persons carrying out gas work is competent and Gas Safe registered and has provided evidence of their engineer’s licence before any gas works are carried out.
3. The Contractor shall notify the Gas Safe Register of any gas works and on completion of the works he shall provide a Building Regulations Compliance Certificate to confirm that the works were carried out in accordance with the Gas Safety (Installation and Use) Regulations and have been self-certified as being compliant with the Building Regulations.
4. The Contractor’s attention is drawn to the fact that the Building Regulations Compliance Certificate is to confirm that the gas works have been carried out in accordance with the Gas Safety (Installation and Use) Regulations and will act as the Employer’s Gas Safety check. It is however a requirement of the Employer that any Gas Safety checks are dated no earlier than 15 calendar days prior to Practical Completion and if the compliance certificate is supplied outside of this period the Contractor shall retest the gas works and provide a further compliance certificate in the form of a recognised Landlord’s Gas Safety Record.
5. A Building Regulations Compliance Certificate and where applicable a Landlord’s Gas Safety Record shall be provided for each and every gas installation.

3.2.12 Street and Building Naming and Numbering

1. The Contractor shall make an application to the Local Authority to obtain the street and building naming and numbering for the project within the first 2 months of taking possession of the site. The Contractor is responsible for paying all costs and charges associated with complying with the above.
2. The Contractor’s attention is drawn to the fact that the application needs to be made in sufficient time as Practical Completion will not be accepted without the appropriate naming and numbering to have been allocated by the Local Authority.
3. The Contractor shall provide the Employer with confirmation of the naming and numbering and details of the post code for each property.
4. The Contractor shall allow the Employer to provide proposals for the building name and numbering for inclusion in the application to the Local Authority.

3.2.13 IET Wiring Regulations Seventeenth Edition

1. The Contractor shall ensure that all electrical installations comply with the IET wiring regulations Seventeenth Edition
2. In particular the Contractor shall comply with amendment 3 to BS 7671:2008 and ensure that consumer units and similar switchgear assemblies have non-combustible enclosures

3.2.14 Heat Network (Metering and Billing) Regulations

1. The Contractor shall ensure that all heating installations comply with the heat Network (metering and billing) Regulations.

## Section 3.3 General Design and Building Requirements

3.3.1 Document Hierarchy

1. Where there are any discrepancies within the below or any design standards the following document hierarchy shall prevail;

* Tender/Contract Drawings
* The Employer’s Requirements main text (this document)

3.3.2 Specification Documents

Landscaping Plans and Specification

1. The Employer has not commissioned a landscape plan as part of the Tender Drawings. It is expected that the Contractor will undertake the design development of the landscaped areas to the approval of the Employer.

3.3.3 Drawn Requirements

1. The Employer has commissioned the following Design Consultants to provide drawn requirements:

* Architect

1. The drawn requirements provided by the Design Consultant are identified and included in the Appendices.
2. No drawing, sketch or any other information whatsoever provided to the Contractor for tendering purposes shall alleviate or relieve the Contractor in any way from his responsibilities and liabilities under the Contract.
3. The Contractor is not to deviate from the drawn requirements without written approval from the Employer.

3.3.4 Accommodation Requirements

Dwelling requirements

1. The Works shall comprise the accommodation and minimum area requirements as shown in the Schedule of Accommodation located in the appendices.

Minimum room areas

1. The Contract Drawings detail room sizes which have been designed in accordance with the Employer’s minimum requirements. The Contractor shall construct all rooms to the sizes as shown on the Contract Drawings.
2. General storage volumes shall be free from boilers, hot water storage cylinders and other services equipment which shall be housed in separate cupboards.

Ceiling Heights

1. A minimum floor to ceiling height of 2.4m is required in all rooms.

Kitchen storage volumes

1. The following minimum kitchen storage volumes shall be provided:

|  |  |  |  |
| --- | --- | --- | --- |
| Occupancy | 2P | 3P | 4P |
| General storage (m3) | 1.7 | 1.7 | 2.0 |

3.3.5 Design and Standards

Approvals

1. The Contractor will be required to use reasonable skill and care to ensure and to provide documentary evidence where required that the design, construction, testing, completion and commissioning of the Works conforms to all relevant and current regulations and requirements including: -

- The Building Regulations which are to include all recommendations.

- Department of the Environment Circulars, Design Bulletins, Housing Development Notes and Domestic Energy Notes

- Current BSI British Standards, European Standards and Codes of Practice

- British Board of Agrément Certificates

- Building Research Establishment Digests, Guides and Housing Defects Prevention Unit: Defect Action Sheets

- Chartered Institution of Building Service Engineers (CIBSE) guidelines and publications

- National House Building Council requirements

- Current Institute of Electrical Engineers Regulations, 17th Edition

- British Telecom requirements

- Local Electricity Authority's requirements

- Electricity Council

- British Gas Regulations

- Gas Safe Register

- Local Water Authority Byelaws and National Water Council requirements

- Post Office House Numbering

- Local Authority Regulations and Byelaws

- Secured by Design Certification

- National Home Energy Rating Certification

1. The design, construction, testing, completion and commissioning of the Works shall be carried out in strict accordance with all current BSI British Standards, European Standards and Codes of Practice.
2. All proprietary products selected by the Contractor shall conform to the relevant BSI British Standards, European Standards and Codes of Practice and shall have the benefit of a British Board of Agrément Certificate.

Design and Quality Standards

1. The Contractor shall comply with the performance criteria and recommendations set out in the Design and Quality Standards April 2007 published by and inherited from the Housing Corporation.
2. The Contractor should note that these are minimum standards and these Employer’s Requirements are likely to set standards of a higher level. The standards of higher level shall prevail.

Part M Compliance

1. The Contractors attention is drawn to the requirement that all dwellings shall achieve a minimum standard of category M4 (2) Accessible and Adaptable. The Contractor is referred to the schedule of accommodation for the category and location of the dwellings.
2. The Contractor shall carry out a M4 (2) assessment and provide a copy to the Employer. The assessment shall be carried out by the Contractor’s Architect as soon as possible after the Date of Possession.

Secured by Design

1. The Contractor shall design and construct the Works to the principles of Secured by Design (SBD).
2. The Contractor is to ensure the sites achieve full SBD certification if an SBD application is made and the specifications regarding homes for multi-occupancy are met, in accordance with the current SBD New Homes guidance documents.
3. The Contractor shall complete the New Homes Application Form and make a formal application to the local Crime Prevention Design Advisors as soon as possible after the Date of Possession.
4. The Contractor shall consult with the local Crime Prevention Design Advisors and comply with their recommendations and provide the Employer with The Secured by Design Award for Developers.
5. A copy of the completed New Homes Application Form and feedback from the local Crimes Prevention Design Advisors shall be provided to the Employer.
6. The award shall be in the name of the Employer and provided prior to Practical Completion.

National Housing Federation

1. The Contractor shall whenever possible design and construct the Works to incorporate the principles of the National Housing Federation’s Standards and Quality in Development – A good practice guide.

National House Building Council (NHBC)

1. The Contractor shall register each dwelling with the National House Building Council (NHBC) and provide insurance cover for building failures.
2. The Contractor shall provide a Buildmark Choice cover for each dwelling and shall include for the optional extras to enhance cover for pre-completion Contractor insolvency, a further 2 years home damage cover against defects (giving a total of 12 years protection) and professional fees.
3. In schemes of mixed use or tenure the Contractor shall liaise with the NHBC to ensure that the correct Defects Insurance is obtained. For example the Contractor may have to provide Buildmark Choice cover for affordable rented and shared ownership units but Buildmark cover for private units.
4. The Contractor shall provide receipted evidence that all premiums have been paid to the NHBC and that all the dwellings have been registered as soon as possible after the Date of Possession.
5. For the avoidance of doubt, all NHBC requirements to achieve NHBC Building Warranties are deemed to be included.

Health and Wellbeing

1. The Contractor shall design the Works to take into consideration the health and wellbeing of the end users.
2. The Contractor shall in particular design and construct the Works to ensure that all sound, ventilation and overheating issues are taken into consideration.
3. The Contractor shall implement into his design all measures to prevent nuisance from pigeons or all other forms of pest.

Fire Safety and Regulations

1. The Contractor is responsible for obtaining the approval of the Local Authority Fire Officer for the design, construction, testing and completion of the Works.
2. The Contractor is to furnish the Employer with all documents and information that the Employer may reasonably request in order to fulfil his obligations under The Regulatory Reform (Fire Safety) Order 2005.
3. The Contractor shall design the works to ensure his design deals with the different aspects of fire strategy under the Building Regulations including fire alarms, means of escape, spread of fire, stability and fire separation, access for the fire fighters and equipment to assist fire fighters.
4. The Contractor shall produce a Fire Strategy Design at design lead-in for the Client and Employer’s Agent to review and comment.

Fire Stopping

1. The Contractor shall ensure that all fire stopping and penetration sealing is provided to maintain the performance of fire resisting walls, floors and roofs which have been compromised by services or voids.
2. The Contractor shall select fire stopping products that have been designed and tested as a system and are compatible with the fire resisting walls, floors and roofs for which they are intended. The Contractor in making his selection shall ensure that products are obtained from one manufacturer (e.g. Rockwool) rather than using several differing manufacturers.
3. The Contractor shall install all fire stopping products in strict accordance with the manufacturer’s details and consult the manufacturer’s Technical Department to resolve any issues with regards to the application of their products.
4. All fire stopping products used shall have Product Certification from either the Loss Prevention Certification Board or the Association of Specialist Fire Protection.
5. The Contractor is to ensure adequate fire stopping and compartmentalisation is achieved. The Contractor is referred to the publications and recommendations of the Building Research Establishment (BRE) in this respect (e.g. BRE Defect Action Sheet No 8).
6. The Contractor shall allow the Employer’s Site Inspector to inspect all fire stopping and penetration sealing before subsequently covering and closing up works. The Contractor shall give reasonable notice to allow inspections to take place.
7. On completion of the fire stopping the Contractor shall also obtain Installation Certification or a “certificate of conformity” from the Loss Prevention Certification Board or the Association of Specialist Fire Protection to demonstrate that the quality of workmanship used is of the required standard.
8. In addition to the contractor’s fire specialist signing off fire stopping, a detailed report with evidence/photos is to be provided alongside the product data sheets.

Sound insulation

1. The Contractor shall design and construct the Works to avoid airborne and impact sound between dwellings and rooms in accordance with the Building Regulations.
2. Notwithstanding the above the Employer requires a greater level of airborne and impact sound insulation than the Building Regulations and as a minimum the level of airborne sound insulation shall be at least 5dB higher and the level of impact sound insulation shall be at least 5dB lower than the performance standards in the Building Regulations.
3. The Contractor shall carry out pre-completion testing to demonstrate that the sound insulation complies with these requirements.
4. The Contractor shall consult with the building control bodies to agree a programme of testing and advise the Employer’s Agent of the agreed programme.
5. The Contractor must provide a copy of the results of the pre-completion testing to the Employer’s Agent and details of any remedial treatments where such tests have failed.
6. The Contractor shall provide a test certificate from an independent and approved source to confirm that the Contractor has provided the required sound insulation.
7. Where the Contractor elects to use Robust Details the scheme must be registered with Robust Details Limited and the use of Robust Details must be agreed with the Local Authority, Code Assessor, Defects Insurer and Employer.
8. The Contractor must pay particular attention to sound insulation in mixed use developments (e.g. residential/commercial developments) or where new developments abut existing properties of same use or mixed use.
9. The Contractor shall ensure that sound problems associated with room stacking, soil stacks or rainwater pipes passing through dwellings, slamming doors, reverberation and the like are taken into consideration during the development of the design.
10. Where changes in direction of soil vent pipes and rainwater pipes are above or within habitable rooms are unavoidable, the Contractor shall provide additional sound insulation over and above the Building Regulation requirements for straight pipes of this kind.
11. The Contractor shall ensure that additional sound insulation is provided to dwellings that abut or are in close proximity to plant rooms, lift shafts and other areas containing machinery or equipment that may cause noise nuisance. The Contractor shall demonstrate that additional sound insulation has been incorporated to all lift shaft walls which join habitable and non-habitable rooms to dwellings. The Contractor shall ensure that adequate sound attenuation is provided to all items of plant and equipment to prevent noise nuisance.

Insulants

1. The Contractor shall ensure that all insulating materials used in roof, wall and floor construction as well as hot water cylinders, cold water storage tanks and external doors have a Global Warming Potential (GWP) of less than 5 (manufacture and installation).

Microgeneration Certification Scheme (MCS)

1. Where microgeneration technologies to produce electricity and heat are required by these Employer’s Requirements the Contractor shall use products and installers that are certified under the Microgeneration Certification Scheme (MCS).

Management of Construction Sites

1. The Contractor shall be responsible for management of construction sites in an environmentally and socially considerate, responsible and accountable manner.
2. The Contractor shall achieve best practice standards under the Considerate Constructors Scheme (a total score between 24 and 31.5) as a minimum.
3. The Contractor shall also manage the construction sites in an environmentally sound manner in terms of resource use, energy consumption, waste management and pollution.
4. The Contractor shall source all site timber used on the project in accordance with the UK Government’s Timber Procurement Policy.

3.3.6 Development of Design

Generally

1. The Employer's Requirements establish the basis upon which the design, construction, testing, completion and commissioning of the works is to proceed.
2. The use of the term "approved" or "approval" throughout this document shall mean acceptance of general principle only and such "approval" shall not relieve the Contractor of any contractual design responsibilities.
3. All materials and workmanship shall be reasonably fit for the purpose for which they are intended and shall comply with British Standards and British Standard Codes of Practice. In all cases the latest editions of such Standards and Codes of Practice shall apply.
4. The Contract Drawings indicate the overall schematic envelope and parameters within which the Contractor is to develop the final design.
5. The Contractor may not vary the layout, dimensions or any other part of the works without written agreement from the Employer's Agent.
6. The Contractor’s attention is drawn to the fact that where materials and construction techniques are either described in these Employer’s Requirements or shown on the Contract Drawings these have been carefully considered by the Employer and proposed to the Local Authority. The Contractor shall not vary, change or deviate from any such materials or construction techniques without written agreement from the Employer’s Agent.
7. No drawing, illustration, layout, schedule or specification or any other information whatsoever provided to the Contractor for tendering purposes shall alleviate or relieve the Contractor in any way from his responsibilities and liabilities under the Contract.

Contractor’s Proposals

1. The Contractor shall provide fully dimensioned plans, elevations, sections and all other detailed construction information in support of his Contractor’s Proposals.
2. In particular the Contractor shall provide the following as a minimum;

* Floor plans showing Gross Internal Floor Areas, room areas and room dimensions
* Elevations
* Sections
* Furniture layouts
* Mechanical and electrical services layouts
* Kitchen plans and elevations
* Bathroom plans and elevations
* Drainage plans
* External works plans
* External mains plans showing the position of incoming mains

1. Plans, elevations, sections and all other detailed construction information shall be provided to a suitable scale (e.g. 1:5, 1:20 or 1:50).
2. Furniture, kitchen and bathroom layouts shall be fully co-ordinated with the mechanical and electrical services layouts to show the location of services in relation to furniture and fittings.
3. Kitchen plans shall identify the storage capacity that is achieved by the Contractor’s Proposals.
4. The Contractor shall provide a minimum of 4nr hard copies of his Contractor’s Proposals as detailed above and electronic copies (in .pdf and .dwg format) when requested by the Employer.

Whole Life Costing and Performance

1. The Contractor shall design and construct the Works to encourage the use of best value building designs to reduce the costs and disruption of unplanned repairs and maintenance.
2. The Employer is required to assess the scheme using whole life costing techniques and the Contractor shall provide all information that is reasonably requested by the Employer to demonstrate best value.
3. The Contractor shall provide a durability assessment with his tender which shall provide the life expectancy of the following components: -

* Windows
* Communal entrance doors
* Bungalow entrance doors
* Internal doors
* Roof tiles
* Fascias, soffits and bargeboards
* Rainwater goods
* Kitchen units
* All major M&E plant (e.g. CHP, boilers, pipe work, HIUs, BMS, etc)
* Fencing

1. The Employer is required to demonstrate that whole life costs are less than 80% of the construction costs over an assumed 60-year life at 3% discount.

Service Charge information Requirements

1. 6 months prior to Practical Completion the Contractor shall provide a property information sheet to be agreed by the employer. The Contractor shall allow for providing all reasonable information relevant to the Employers Service Charge calculations in the form of an agreed schedule. All properties will be detailed on this schedule.
2. The Contractor will allow for all costs associated with providing sufficient detailed information to the Employer for the estimation of the service charges. The Contractor is advised that reasonable detailed information on all plant and equipment will also be required. This information will include but not be limited to: manufacturer names, model numbers, capital costs and maintenance requirements.

3.3.7 Site Investigations and Surveys

1. The Employer has carried out site investigations and surveys and these are listed and included in the Appendices.
2. The Contractor will be responsible for all other additional and further site investigations and surveys for the design and construction of the Works.
3. The Contractor will be responsible for carrying out all further investigations and research concerning the location, condition and availability of Public Utility Services.
4. The Contractor will be responsible for all further soil investigation works to ensure that the design of the substructures is suitable for the site and that all contaminated soil is removed in accordance with the requirements of the local Environmental Services.
5. The Contractor shall take into account all the observations, conclusions and recommendations contained in the site investigations and surveys and shall be deemed to have fully ascertained the implications of the information contained therein and included for all costs in connection with their implementation.
6. No site investigation, survey or any other information whatsoever provided to the Contractor for tendering purposes shall alleviate or relieve the Contractor in any way from his responsibilities and liabilities under the Contract. The Employer in providing any site investigations or surveys makes no representation or warranty as to the accuracy or completeness of any such site investigation or survey and the Employer will have no liability whatsoever arising from their provision. The Contractor shall allow for all costs in connection with this clause.

3.3.8 Specialist Reports and Assessments

1. The Employer may have commissioned specialist reports and assessments and copies of these, where commissioned by the Employer, are listed and included in the Appendices.
2. The Contractor will be responsible for any further and supplemental specialist reports and assessments for the design and construction of the Works.
3. The Contractor shall take into account all the observations, conclusions and recommendations contained in the specialist reports and assessments and shall be deemed to have fully ascertained the implications of the information contained therein and included for all costs in connection with their implementation.
4. No specialist report, assessment or any other information whatsoever provided to the Contractor for tendering purposes shall alleviate or relieve the Contractor in any way from his responsibilities and liabilities under the Contract. The Employer in providing any site investigations or surveys makes no representation or warranty as to the accuracy or completeness of any such site investigation or survey and the Employer will have no liability whatsoever arising from their provision. The Contractor shall allow for all costs in connection with this clause.

3.3.9 Design Consultants

1. The Employer has commissioned the following Design Consultants to provide his drawn requirements:

* Architect

1. The drawn requirements provided by the Design Consultants are identified and included in these Tender Documents and form part of these Employer’s Requirements.
2. The Design Consultants will not be novated to the Contractor.
3. No drawing, sketch or any other information whatsoever provided to the Contractor for tendering purposes shall alleviate or relieve the Contractor in any way from his responsibilities and liabilities under the Contract.
4. The Contractor is not to deviate from the drawn requirements without written approval from the Employer.

3.3.10 Materials and Workmanship

Generally

1. The Contractor shall take into account the suitability, durability and replacement availability of all building components and materials when making his selection.
2. Tolerances in construction shall be in accordance with the requirements of BS 5606 Grade 1 accuracy for "good work" except where otherwise described.
3. The words "or other approved" shall be deemed to follow all references to proprietary products, manufacturers or suppliers.
4. BS 8000 for workmanship on building sites shall apply where applicable.
5. The Contractor will be required to liaise with and include for any additional sound insulation measures as required by the Local Authority.
6. Where a manufacturer's reference or trade name is quoted, all work incorporating that product must be carried out strictly in accordance with the manufacturer's recommendations.
7. All gaps and holes shall be properly sealed to minimise rodent ingress

Demolitions

1. The Contractor is to comply with the relevant bye-laws of the Local Authority in respect of the demolition of buildings.
2. The use of explosives is not permitted unless expressly authorised by the Local Authority.
3. Materials arising from the demolitions, etc. except those described as to be stored for re use or handed to the Employer, shall become the property of the Contractor and removed from the works as they arise.
4. The Contractor shall be entirely responsible during the progress of the works for any damage or disturbance caused to buildings, roads, footpaths, etc. whether public or private, arising directly or indirectly out of, or consequent upon the works and any such damage shall be made good at the expense of the Contractor and to the satisfaction of the Employer's Agent.
5. The contractor should make an allowance to demolish and remove from site the existing buildings and all associated debris.

Concrete work

1. Slump tests are to be carried out to BS 1881M and the slump is to be the minimum consistent with the requirements as to density, strength and suitable workability.
2. The Contractor is to supply, at his own expense, test cubes of the concrete as deposited in the work, and these are to be of 150 mm cube, cast in iron moulds from the concrete at the place where it is being finally deposited. Four cubes are to be taken from the first batch of concrete used for every separate portion of the work, and subsequently whenever a change is made, whether in cement or aggregates. The test cubes, generally, are to be cast and cured to BS 1881M. The cubes are to be removed from the moulds 24 hours after casting marked and dated and cured as described in BS 1881M. Two cubes of each set of four are to be despatched to an approved testing laboratory in time for testing at seven days, and the remaining two for testing at 28 days. For cubes crushed at age 7 days, the equivalent crushing strength at 28 days will be assessed at 50 per cent above the 7 day value.
3. Should the result of the cube tests, as specified, be unsatisfactory, the concrete work is to be stopped and not proceeded with until instructed. The executed work involved will be liable to rejection and if so directed, is to be cut out and re-executed or otherwise rectified at the Contractor's expense.
4. The Contractor will not be required to provide cube tests if he provides documentary evidence that the concrete mixes comply with BS 5328 Part 2 designated mixes of concrete.
5. A record of all tests is to be kept on site identifying the tests with the parts of the work to which they relate.
6. Notwithstanding the above the Contractor shall provide all necessary cube tests and other documentary evidence as required by the Local Authority or Defects Insurer.

Brickwork and Blockwork

1. Bricks shall be clay FL designated to BS 3921: 1985.
2. Blocks shall be dense concrete or lightweight as appropriate and comply with BS 6073 Part 1 and 2.

Woodwork and Joinery

1. Joists, binders, plates, purlins, rafters and other timbers of a structural nature shall be stress graded determined in accordance with BS 4978: 1973.
2. All structural timbers shall be impregnated with an approved solvent preservative of sufficient toxic strength to guarantee the protection of the timber against fungal and insect attack and is to be a process approved by the Wood Preservation Association and to be in accordance with BS 1282.
3. Include for applying two coats of an approved preservative to all holes and cuts formed after timbers have been treated with preservative.
4. Hardwood shall be selected and suitable for its use in the works as defined by BS 1186 and will be from a sustainable-managed forest. No hardwood from rainforests or other endangered tree species is to be used. Written confirmation will be required by the Employer's Agent of the hardwood source.
5. Woodwork and joinery shall be free from imperfections such as bowing, twisting, scratches, chipping, splits, indentations, glue marks and staining.

Fire Doors

1. All fire doors shall be provided with test certificates to demonstrate that they perform to the fire resistance standards required (including door frame and ironmongery).

Ironmongery

1. Ironmongery shall include for all necessary oiling and adjusting on completion.
2. Locks shall include for provision of two keys to each lock.
3. All ironmongery to fire rated doors must be CE marked or evidenced to its suitability for use with fire doors.

Metalwork

1. Steel to be galvanised shall be thoroughly and evenly coated and free from pin holes, lumps, surplus galvanising or other defects.
2. Where galvanised surfaces are cut or scratched, they shall be made good with one coat of “Galvafroid" cold galvanising process.

Services Installations

1. The Contractor is to provide a services and metering strategy for client approval.
2. The Contractor is to allow for testing the whole of the plumbing services, waste pipes and fittings, and all labour, appliances and water provided for so doing, until the new plumbing services are in perfect working order.
3. The tests on the whole of the cold-water installations shall be carried out in the manner prescribed by the Statutory Undertaker and a test certificate shall be obtained.
4. Before the installations are accepted, the whole is to be left in perfect working order to the satisfaction of the Statutory Undertaker. A printed set of working instructions for each installation is to be left in a prominent position in each unit.
5. Radiators should be level.
6. Radiators shall have integral brackets and securely fixed to the wall. Lift odd fixings will not be acceptable.
7. Radiators shall be pre-finished and free from any dents, chips or other blemishes. On site painting of radiators is not acceptable.
8. All electrical switches, sockets, outlets and other electrical fittings shall be level.
9. Where electrical switches, sockets, outlets or other electrical fittings need to be grouped together the Contractor should ensure that spaces between the faceplates are consistent (not less than 15mm) and all the faceplates are level.
10. Light fittings shall be selected so that replacement bulbs can be easily obtained by the resident.
11. The test on the whole of cold-water installations shall be carried out in the manner prescribed by the statutory undertaker and a test certificate shall be obtained.
12. Before the installations are accepted, the whole is to be left in perfect working order to the satisfaction of the statutory undertaker. A printed set of working instructions for each installation is to be left in a prominent position in each unit.
13. The contractor shall allow for 2 radiators in large living and dining areas.

Glazing

1. All specialist glass (e.g. laminated, toughened or fire rated glass) must bear a BS/Kitemark to demonstrate its classification.

Painting and Decoration

1. Walls and ceilings shall be free from hairline cracks and properly prepared for painting.
2. Plaster skimming and jointing shall be carried out in accordance with the recommendations of British Gypsum to create seamless and smooth joints ready for final decoration. All angles beads shall also be properly installed.
3. Painting shall be free from all defects such as running, wrinkling, water spotting, clouding, bleeding, blisters, brush marks and all other defects.
4. Painting shall be consistent, even, smooth and uniform in colour. Defects and imperfections noted when viewed in the light and from approximately 30cm away shall be rectified by the Contractor. Particular attention should be paid to areas adjacent to light fittings such as in kitchens containing under pelmet/cupboard lighting. All mitres and joints in woodwork shall be neat and properly filled. Shrinkage or excessive gaps will not be permitted.
5. Architraves and skirtings shall not have excessive gaps with adjacent wall finishes.
6. Edges of doors shall be sanded smooth to remove any rough edges or splinters.
7. The Contractor is to mask all electrical fittings, sockets, outlets and all other points prior to painting to ensure that they are adequately protected.
8. All electrical fittings, sockets, outlets and all other points are to be neatly caulked.
9. The Contractor is also to protect all windows, door frames, ironmongery, finishes and the like to prevent paint splashes. All paint splashes shall be removed by the Contractor.
10. Patch repairs to walls and ceilings are not acceptable.
11. The Contractor’s attention is drawn to the fact that the Employer requires all cupboards, stores and other such areas to be properly finished to the same standard as habitable rooms. Decorations around boilers and associated flues shall also be properly completed.
12. Exposed walls behind sanitary fittings, kitchen fittings, radiators and the like shall be fully painted to match the adjacent walls.
13. All mastic joints are evenly applied.

Drainage

1. All pipes, ducts, cables, mains and other services exposed by the excavations shall be effectively supported by timbers or other means, and if damaged, the Contractor shall immediately notify the appropriate authorities and any damage shall be made good to the satisfaction of the appropriate Authority at the Contractor's expense.

Landscaping Works

1. The Contractor is reminded that planting and seeding can only be carried out at certain times of the year and he should take this into account when programming the works. It is the Employer's intention that the landscaping should be completed before occupation and the Contractor will be required to show how he intends to co-ordinate his programme so that this can be achieved.

Prohibited materials

1. The use of the following materials shall not be permitted: -

* High alumina cement;
* Calcium chloride admixtures for use in concrete;
* Asbestos or asbestos containing products as defined in The Asbestos Regulations 1987 or any statutory modification or re-enactment thereof;
* Asbestos substitutes or any naturally occurring or man-made mineral fibres with a thickness of 3 microns or less and a length of 200 microns or less or which contain any fibres not sealed or otherwise stabilised to prevent migration of fibres;
* Wood wool slabs in permanent formwork to concrete or in structural elements;
* Urea formaldehyde in foams or other materials which may release gases in quantities which may be hazardous with reference to any limit set by the Health and Safety Executive;
* Plywood or sheet materials with glues, resins and surface treatments that produce irritant volatiles;
* Naturally occurring aggregates for use in reinforced concrete which do not comply with British Standard 882:1992 and/or naturally occurring aggregates for use in concrete which do not comply with British Standard 8110:1985 (as amended or supplemented);
* Calcium silicate, aggregate bricks or tiles;
* Lead, lead in decorative finishes or any products containing lead which may be ingested, inhaled or absorbed except where copper alloy fittings containing lead are specifically required in drinking water pipework by any relevant statutory requirements or use of lead for flashings and other roof abutment work;
* Plastics for water storage and delivery that release toxic materials
* A non-replenishable tropical hardwood;
* Materials including or requiring chlorofluorocarbons (CFC's) or hydrofluorocarbons (HFC's) in their manufacture or any other such materials prohibited by the Montreal Protocol;
* Pre-made dense plaster (solid or hollow core) internal partitions;
* Perforated bricks or hollow blocks;
* Peat;
* Ready mix concrete containing aggregate apt to cause “mundic concrete”;
* Slip bricks;
* Iberian slate;
* Colliery waste;
* PTEE fabrics and
* All other materials or substances generally known at the time of specification to be deleterious or hazardous to health and safety or the durability of the Development in the particular circumstances in which they are to be used and having regard to the Guidance "Good Practice in Selection of Construction Materials" dated 16 May 1997 sponsored by the British Property Federation and British Council of Offices and the BRE Digest or are otherwise not in accordance with British Standards or Codes of Practice or good building practice or techniques.

## Section 3.4 Demolitions and Site Clearance

3.4.1 Demolitions and Site Clearance

Generally

1. The Contractor is to ensure that all demolitions are carried out in a manner as to prevent nuisance from noise, dust and other forms of pollution. The Contractor shall provide all necessary Method Statements prior to commencing any demolitions.

Demolishing of structures on site

1. The Contractor is to allow for demolition of all existing structures within the red line boundary. All demolition related documentation is to be issued to the client and form part of the H&S file.
2. The Contractor shall allow for breaking up all existing foundations, concrete ground slabs, basement structures and all other obstructions in the ground. Upon completion of demolition works backfill all areas and make up level with adjacent ground level. Thoroughly consolidate and leave level.

Trees and hedges

1. The Contractor shall protect all trees and hedges identified on the drawings or required by the Planning Consent as being retained or protected by a Tree Preservation Order (TPO). The Contractor shall be responsible for replacing any damaged trees, shrubs, hedges or the like to the satisfaction of the Employer.

Site clearance

1. Allow for clearing the whole of the site of all vegetable matter, rubbish and debris, removing old walls, fencing, etc and grubbing up any pipe, roots or other obstructions including concrete, rubble, hardcore or other hard materials and cutting down and removing any unwanted hedging, trees, undergrowth and the like and grubbing up the roots thereof.
2. Remove all trees and roots as required, except where these have been identified earlier as being retained.
3. Remediation of contaminated earth.
4. Allow for clearing the whole of the site of all contaminated earth.

Eradication of Japanese Knotweed

1. Allow for carrying out a site survey to identify the presence of Japanese Knotweed. Remove all Japanese Knotweed and cart away to a licensed and approved tip or eradicate as necessary.

Removal of Asbestos

1. Allow for carrying out a site survey to identify the presence of any asbestos or asbestos based products hazardous to health. Remove all asbestos and cart away to a licensed and approved tip.

Pest control

1. The Contractor shall allow for clearing vermin from the site and ensure that vermin does not spread to adjoining properties during the demolition works.

Adjoining properties and boundaries

1. The Contractor is required to rebuild a section of the brick boundary wall and undertake any necessary repairs using appropriate and matching materials to the Employers approval.
2. The Contractor shall protect the adjoining properties and safeguard all the existing boundaries.

## Section 3.5 Shell and Core Requirements

3.5.1 Substructures

Generally

1. The substructures shall be designed by a Structural Engineer and shall take into account all ground and loading conditions.
2. The Contractor shall satisfy himself with regard to the conditions and nature of the soil and assess for himself the nature of the ground, level of the water table, access difficulties and any other information required in order to construct the substructures as no claim on the grounds of want of knowledge will be entertained.
3. The Contractor is to take into account any remediation measures that are required to contaminated land and carry out remediation works.
4. The Contractor is to take into account any protection measures that are required to land at risk of Radon and carry out any protection measures.
5. All remediation and protection measures shall be carried out to the approval of the Local Authority, Environmental Agency and the Defects Insurer.
6. The Contractor is to take into account all adjoining structures and boundaries in the design of the substructures. Allow for all temporary supports and permanent retaining structures.
7. Allow for breaking up all obstructions encountered during the groundworks.
8. Allow for removing all buried items encountered during the groundworks (e.g. underground storage tanks).
9. The substructures shall incorporate effective damp proof membranes and damp-proof courses to prevent the passage of damp from the ground to the inside of the building.
10. All walls below the damp proof courses shall be constructed in masonry suitable for the circumstances. The Contractor must use good quality facing bricks or other approved materials where such walls are exposed.
11. The Contractor shall pay particular attention to prevent frost attack, sulphate attack and efflorescence to the Works. The Contractor is referred to the publications and recommendations of the Building Research Establishment (BRE) in this respect (e.g. BRE Digest 250).

Ground Floor Structures

1. Generally, the ground floor structures shall comprise in situ concrete, proprietary precast concrete or beam and block flooring.
2. Ground floor voids shall be left clear and be provided with adequate ventilation, using square hole pattern terracotta air bricks. Internal sleeper walls shall similarly be vented to maintain ventilation. Where periscope vents are required these shall be Glidevale or similar and the Contractor shall ensure that they are properly installed and connected.
3. All oversite shall be treated with an approved weed killer and provided with damp proof membranes and blinding beds to prevent damp and growth of organic materials and mould.
4. Concrete floors shall be insulated below the screed and to all edges.
5. Accessible ducts for pipework and wiring shall be provided in the ground floor construction.
6. Where proprietary precast concrete or beam and block flooring is proposed the Contractor shall obtain a Sub Contractor’s Collateral Warranty for the designs and specifications of the Works.

Damp proof courses and membranes

1. Damp proof courses shall be adequately lapped and taped.
2. Damp proof membranes shall be adequately lapped, turned up walls to DPC level and securely fixed prior to applying finishings. Where necessary damp proof membranes shall be laid on blinding beds.

Piled or specialist foundations

1. Should piled or specialist foundations be required the Contractor shall use a Sub Contractor who is recognised in carrying out such works and provide details of the Sub Contractor that he intends to use for approval by the Employer.
2. Should piled or specialist foundations be required the Contractor shall provide the following:

a) Full details of all designs and specifications for the Works

b) A photographic survey of surrounding buildings prior to commencing the Works

c) A Sub Contractor’s Collateral Warranty for the designs and specifications of the Works

d) Load tests on one pile where required by Building Control or the Defects Insurer

e) Integrity testing of all piles

f) Concrete cube tests for each pile

g) Two copies of all reports and test result

1. The Contractor’s attention is drawn to the fact that he must provide the Employer’s Agent with the items listed above in a timely manner and in particular load, integrity and cube tests must be provided within two weeks of the final pile being poured.

Protected trees

1. Existing trees are to be protected. The Contractor will be required to design the foundations so as not to cause damage to the tree roots and also to provide sufficient foundation to the new buildings.

Levels

1. The Contractor’s attention is drawn to the fact that the site levels vary considerably and the design shall be significantly developed to take into consideration levels of all dwellings, gardens, access roads, footpaths, roads and hard surfacings. All existing and proposed levels shall be submitted and approved by the Local Authority and Employer and all boundary treatments needed to achieve adequate retaining structures are to be agreed with the adjoining owner.
2. The Contractor shall pay particular attention to the detailing of levels and damp-proof courses and membranes in the areas adjacent to entrances. Finished external ground floor levels shall generally be 150mm below finished internal ground floor levels. The Contractor shall provide a design that prevents water and moisture ingress and also makes the necessary provision for ramped and level access to the dwellings as required.

Prohibited materials, workmanship or forms of construction

1. Plastic air bricks shall not be used
2. Torn or inadequately lapped damp proof courses and membranes will not be allowed.
3. In situ concrete floors shall be screeded and not receive a power floated finish.

3.5.2 Frame and Upper Floors

Generally

1. The frame and upper floors shall be designed by a Structural Engineer and shall take into account all ground and loading conditions.

Floor structure

1. Floor construction shall be of in situ reinforced concrete or precast concrete construction as appropriate including all necessary supports. Timber floors are acceptable to houses but are not to be used in flats unless they are an integral element of the timber framed construction referred to above.
2. Floors shall be constructed to avoid unacceptable deflection.
3. All timber floors shall be constructed using treated timber.
4. Proprietary timber joists are acceptable provided they meet the performance criteria of traditional timber joists.
5. All floors within units shall be designed and constructed to optimise sound isolation between rooms in a dwelling shall provide an optimum resistance to sound achieving a minimum sound insulation of 40 Rw dB.
6. Floors within service ducts or risers shall be constructed of steel chequer plate flooring. Notwithstanding this all service ducts and risers shall be properly fire compartmentalised.
7. All precast concrete plank floors shall be installed in accordance with the manufacturer’s details and in particular ends of planks built into party walls shall be properly installed to avoid sound transmission.
8. Holes or openings for services and the like shall be properly formed at the works and any on site cutting shall only be carried out where approved by the Manufacturer in writing.

Floor coverings

1. Concrete ground and intermediate floors shall be finished with reinforced screeds over thermal and sound insulation materials as appropriate.
2. Floor boarding to timber floors shall be moisture resistant and tongued and grooved, glued and screwed. Floor boarding shall not be less than 18mm thick.
3. Chipboard flooring should not be used in kitchens, bathrooms, cylinder cupboards and other wet areas. WBP grade plywood shall be used.
4. Floor boarding shall be protected during the works.

Access for services

1. All floor structures must be designed to allow access to plumbing and mechanical for maintenance purposes.
2. All service locations and runs shall be clearly marked on the floors.

Fire stopping and compartmentalisation

1. The Contractor is to ensure adequate fire stopping and compartmentalisation is achieved.

Prohibited materials, workmanship or forms of construction

1. Ends of timber joists shall not be built directly into masonry walls (i.e. joist hangers must be used).
2. Precast concrete floors shall be free draining during construction.
3. Floor boarding to receive a floor finish by others will not be accepted if the floor boarding is excessively stained, marked or defaced or has large cut outs or damaged areas.

3.5.3 Roofs

Roof structures

1. Roof structures shall be designed by a Structural Engineer.
2. Roofs shall be of a suitable construction in accordance with the Planning and Contract Drawings.
3. Roof timbers shall be pressure impregnated with preservative.
4. Roofs shall be adequately drained to the satisfaction of the Employer, Local Authority and Defects Insurer.
5. Roof trussed rafters shall be manufactured by a member of TRADA. The Contractor shall provide a BM TRADA Q-Mark product certification for the trussed rafters.

Roof coverings

1. The Contractor is to provide roof coverings to the approval of the Planning Authority, Defects Insurer and Employer. The coverings and associated detailing are to be in accordance with the manufacturer's instructions.
2. The Contractor shall ensure that the roof coverings are provided with a 20-year insurance backed guarantee.
3. Roof coverings shall be high performance roof coverings to the approval of the Planning Authority, Defects Insurer and Employer. The coverings and associated detailing are to be in accordance with the manufacturer's instructions.
4. Pitched roof coverings shall achieve an expected life of 60 years and flat roof coverings shall achieve an expected life of 25 years.
5. Roof coverings shall not have any signs of ponding or undulations.
6. Roof coverings shall have the benefit of British Board of Agreement Certificates.
7. Flashings and the like shall be lead and detailed in accordance with the recommendations of the Lead Sheet Association. All lead shall be finished with one coat of patination oil. Where a proprietary roof covering has been proposed the flashings recommended by the manufacturer are to be used.
8. Penetrations through the roof coverings shall be kept to a minimum and must be adequately sealed.
9. The Contractor shall undertake an electronic integrity test to all flat roofs on completion of the roofing and all subsequent trades on the roof and provide the results of the tests to the Employer. Any leaks or imperfections detected as a result of the tests shall be made good at the Contractor’s expense.

Ridges, hips and verges

1. Dry ridges, hips and verges secured using proprietary fixing systems are to be used.

Eaves boarding

1. Fascia, soffit and barge boards shall be PVCu unless otherwise required by the Planning Authority.
2. Good quality proprietary products shall be used and shall achieve an expected life of 35 years.
3. Eaves should be adequately ventilated and designed to prevent ingress by birds, wasps and other insects.

Parapets

1. Parapets are to be covered with high performance copings to the approval of the Planning Authority and Employer.
2. Precast concrete copings shall be adequately weathered, throated and grooved and bedded on suitable damp-proof courses.
3. Where proprietary copings are used they shall be fixed in accordance with the manufacturer’s instructions complete with all necessary purpose made angles, ends and intersections and weather seals. Mastic joints are not acceptable.
4. Provide self-finish metal balustrades where shown on the drawings.

Roof ventilation

1. Allow for providing adequate ventilation to the roof in accordance with the Building Regulations.

Roof access

1. Allow for providing access to the roof for future maintenance. Hatches shall be pre-formed, insulated, weatherproofed, draught stripped and have suitable locks and shall be a minimum of 600 x 600mm.
2. Allow for a safe walkway and access platform in all roof spaces so that all plant and aerials can be accessed.
3. Allow for adequate lighting to all roof spaces. All lighting shall be controlled by neon indicator switches which shall be positioned in locations agreed with the Employer.
4. Notice to be installed in roof spaces “Not to be used for storage”.

Insulation

1. Insulation shall be provided to the roof in accordance with the Building Regulations.
2. All pipework and tanks in the roof spaces shall be adequately lagged.

Entrance canopies

1. Provide entrance canopies to all communal and individual entrance doors.
2. All entrance canopies are to have rainwater goods.
3. All entrances are to be illuminated.

Prohibited materials, workmanship or forms of construction

1. Second hand roof slates or tiles shall not be used.
2. Loose fibre, chipping or particle type insulating materials are not permitted.
3. GRP or plastic performed entrance canopies shall not be used unless approved by the Employer.
4. Timber fascia, soffits and bargeboards shall not be used unless approved by the Employer.
5. Cement mortar in bedding ridges, hips and verges is not permitted unless approved by the Employer.
6. Metalwork externally shall not be painted and shall be self-finished.
7. Single ply roofing membranes shall not be used unless approved by the Employer.

3.5.4 Rainwater Installation

Generally

1. Supply and fit new rainwater pipes and deep flow gutters of sufficient size to discharge all water shed from roofs and gutters and shall be of sufficient falls to allow easy drainage.
2. All rainwater pipes shall be external.
3. Rainwater pipes and deep flow gutters shall be uPVC. All gutters and rainwater pipes shall be to the approval of the Planning Authority and Employer.
4. Rainwater pipes and deep flow gutters shall achieve an expected life of 15 years.
5. Rainwater shall discharge into the drains.
6. All deep flow gutters shall be provided with suitable wire balloons or leaf guards.
7. Changes in direction of rainwater pipes are not acceptable.
8. All rainwater pipes shall be provided with rodding points where they enter the underground drainage system.
9. The Contractor’s attention is drawn to the fact that the Local Water Authority’s permission will be required to discharge into sewers. All costs related to obtaining this permission should be allowed for by the Contractor.

Prohibited materials, workmanship or forms of construction

1. Internal rainwater pipes are not acceptable.

3.5.5 Stairs

Generally

1. Straight flights are to be incorporated wherever possible.
2. Winders should be avoided.
3. Single steps shall not be used.
4. All staircases should allow standard furniture to be carried up.
5. Staircases shall not pitch directly down to doors.
6. Paint all exposed balustrades and handrails.
7. Staircases shall not be squeaky.

Stairs to Individual Units

1. Staircases shall be double vacuum preservative treated wrought softwood with softwood or MDF treads and risers.
2. Provide wrought softwood balustrades and handrails. Handrails shall be moulded and shall extend beyond the lowest riser.
3. Paint all exposed balustrades and handrails.

Prohibited materials, workmanship or forms of construction

1. Staircases constructed using plywood, fibreboard or particle board shall not be permitted.
2. Open treads to staircases are not permitted.
3. Glazed panels to staircases shall not be used.

3.5.6 External and Party Walls

Generally

1. The external wall and party walls shall be designed to achieve the necessary loading, thermal and acoustic requirements.
2. All materials used for the elevational treatments shall be to the approval of the Planning Authority, Defects Insurer and Employer.
3. The Contractor shall use materials which will not suffer from frost attack, efflorescence or other excessive defects. The Contractor is referred to the publications and recommendations of the Building Research Establishment (BRE) in this respect (e.g. BRE Digest 250).
4. All facework, render and cladding shall be properly cleaned down and left free from mortar, cement, splashes and other stains on completion.
5. Party or separating walls between individual dwellings shall be constructed using solid or cavity wall masonry construction. Metal stud construction will be accepted as an alternative construction provided it meets all the necessary requirements. In addition, if metal stud construction is proposed the Contractor shall incorporate security mesh within the construction.

Facing bricks

1. Facing bricks shall be as shown on the planning drawings.
2. The method of pointing and colour of mortar shall be to the approval of the Planning Authority and Employer.

Glazing

1. Glazing materials shall be to the approval of the Planning Authority, Defects Insurer and Employer. The glazing and associated detailing are to be in accordance with the manufacturer’s instructions. Full-height windows within bedrooms to have privacy panels to lower half.

Timber screens

1. Timber screens shall be as shown on the planning drawings.

Cladding

1. Cladding shall be as shown on the planning drawings.
2. Cladding materials shall be to the approval of the Planning Authority, Defects Insurer and Employer. The cladding and associated detailing are to be in accordance with the manufacturer’s instructions.
3. Cladding materials shall be secret fixed and in accordance with the manufacturer’s recommendations.
4. Timber cladding shall not be used.

Feature work

1. The Contractor is to allow for all feature work (brick bands, arches, cills, render bands, etc) as shown on the planning drawings or as required by the Planning Authority.

Wall ties and cavities

1. Wall ties shall be stainless steel of the appropriate length and fully bedded.
2. Weep holes are to be provided and fitted with proprietary screens of a consistent colour.
3. Cavities shall be constructed in accordance with good building practice and kept clear of all mortar droppings, rubbish, etc.
4. Cavities shall be closed with thermally insulated cavity closers.
5. The Contractor shall allow the Employer’s Site Inspector to inspect all cavity walls before finally closing up the walls.

Insulation

1. It is the Employer’s intention that the thermal requirements of the Building Regulations are exceeded by 30%. The following thermal performance is therefore required:  
     
   U Values for the external walls, glazing and the profiled metal roofing should achieve a minimum of 30% improvement over Part L thermal:

External walls:0.20 w/m2k

Floor: 0.17 w/m2k

Roof: 0.14 w/m2k

1. Windows/Glazing: 1.40 w/m2kCavity insulation retaining clips manufactured by the cavity insulation manufacturer shall be used.
2. Cavity insulation shall be kept clear of all mortar droppings and other debris.

Blockwork

1. The internal leaf of cavity walls shall be of concrete blockwork and finished internally with Hardwall plaster. The use of metal stud walls as internal leafs to cavity construction is also acceptable (but not to party or separating walls).

Movement and construction joints

1. The Contractor is to ensure that adequate movement and construction joints are provided. Movement and construction joints are to be carefully located and pointed with a sealant of an approved colour compatible with the colour of the selected facing bricks.

Fire stopping and compartmentalisation

1. The Contractor is to ensure adequate fire stopping and compartmentalisation is achieved. The Contractor is referred to the publications and recommendations of the Building Research Establishment (BRE) in this respect (e.g. BRE Defect Action Sheet No 8).

Damp proof courses

1. Provide horizontal damp proof courses under all walls and partitions and all other damp-proof courses and cavity trays as required.
2. Insulated damp proof courses shall be used in order to avoid cold bridging.
3. Cavity trays shall be pre-formed proprietary systems.
4. Proprietary cavity wall closers, such as Thermabate, shall be used where required.
5. The Contractor shall allow the Employer’s Site Inspector to examine all damp-proof courses prior to subsequently covering up the damp proof courses.

Lintels

1. Provide all necessary precast concrete or steel lintel. All lintels shall be properly insulated to avoid cold bridging.

Sample panels

1. Allow for preparing 2nr sample panels for the facing brickwork and obtain the Employer’s Agent’s approval before proceeding. Allow for maintaining the panel as control specimens and for clearing away on completion.

Prohibited materials, workmanship or forms of construction

1. Second hand, stained or chipped facing bricks shall not be used.
2. Sand faced bricks are not to be used.
3. Render which is not self-coloured shall not be used.
4. Render angle and stop beads which may be prone to rusting shall not be used.
5. Loose fibre, chipping or particle type insulation shall not be used.

3.5.7 Windows

Generally

1. All windows shall be double glazed high performance UPVC.
2. The Contractor shall ensure that the windows are provided with a 10-year insurance backed guarantee.
3. The Contractor shall provide details of his proposed window manufacturer and window system with his Contractor’s Proposals at the time of tender and he shall not deviate from his selection without the written consent of the Employer.
4. The Contractor shall provide a sample window for approval of the Employer’s Agent prior to ordering the windows.
5. The Contractor is required to demonstrate that all windows can be safely operated and cleaned by the Residents. Safe cleaning should be achieved by the use of Easy Clean hinges where possible. The Contractor is also required to provide a cleaning strategy for the regular cleaning and maintenance of all other windows which are not in the demise of the Residents (e.g. communal windows).
6. The Contractor must provide fire windows to with an unobstructed opening of 0.40m², which is beyond the building regulations requirement of 0.33m² to all flats first floor and above (1 fire window per unit). Appropriate escape catches and hinges must be fitted to ensure this clear opening is achieved. Windows (particularly top opening casements and roof windows) must be designed to remain open without needing to be held by a person making their escape.
7. Notwithstanding the acceptance of the Contractor’s Proposals, the manufacturer and window system including the agreement of window types and fenestration shall be approved by the Planning Authority and Employer. The Contractor will be required to provide fabrication drawings and/or window schedules for approval prior to manufacture.
8. Rooms provided with patio, French or balcony doors shall ensure that the doors are provided with sidelights containing opening lights or that the rooms in which the doors are located also contains a window with opening lights to provide sufficient ventilation without the need to open the patio, French or balcony doors.
9. The Contractor shall pay particular attention in the selection of patio, French of balcony doors to ensure that they meet the requirements of Secured By Design and that they can be adequately restrained when in the “open” position by the use of restrictors, stays and the like to prevent damage. Sliding patio doors are to be avoided.
10. All windows shall be provided with non-glazed trickle vents (not in the glazed section) where whole house ventilation or other methods of room ventilation are not employed. Trickle vents shall be Titon complete with external canopies and grilles to prevent the ingress of rainwater and insects. Where the Contractor proposes that trickle vents are not required as a result of his Contractor’s Proposals for ventilation he must inform the Employer before dispensing with the requirement to provide trickle vents and provide confirmation from the Building Control Officer that trickle vents are not required.
11. All window frames shall be set back from the face of the building by a minimum of 75mm or as otherwise required by the Planning Authority.
12. All windows shall be provided with external cills with adequate drips to ensure proper protection and weathering.
13. It is the Employer’s intention that the thermal requirements of the Building Regulations are exceeded by 30%/. The following thermal performance is therefore required:  
      
    U Values for the external walls, glazing and the profiled metal roofing should achieve a minimum of 30% improvement over Part L thermal:

External walls:0.20 w/m2k

Floor: 0.17 w/m2k

Roof: 0.14 w/m2k

Windows/Glazing: 1.40 w/m2k

Opening lights

1. Opening lights are to be manufactured from the same material as the frame.
2. Opening lights are not to be oversized causing damage to the opening mechanism or making them difficult to clean by the residents.
3. The position of opening lights is to be carefully considered so as not to be restricted by adjacent sinks, baths and the like. Opening lights shall not be positioned at high level so as to prevent easy operation. Where opening lights are positioned in locations that may present difficulties in opening the Contractor shall provide suitable remote opening mechanisms.
4. All opening lights shall be sized and hinged to permit cleaning of all external glass surfaces of the window from within the dwelling or communal area.
5. Easy clean window hinges are to be provided to facilitate cleaning.

Glass and glazing

1. All glazing will be hermetically sealed double-glazing units with a 10-year guarantee against failure of the seal. Where triple glazing is required to comply with the Planning Authority, Building Regulations, Acoustic Reports or the Code for Sustainable Homes the Contractor shall provide triple glazing in lieu of double glazing.
2. All windows to have toughened glass.
3. All glass shall be clear glass free from scratches, bubbles, stones, knots or other defects. Defective glass will not be accepted and will have to be replaced by the Contractor.
4. Glass to bathrooms, toilets and shower rooms shall be obscured glass.
5. Safety glass shall be installed in critical locations as required by the Building Regulations.
6. Laminated glass shall be installed on all ground floor windows and those easily accessible above ground floor as required by Secured by Design.
7. Low E glass shall be installed to prevent heat loss and solar gain as required.
8. All safety, laminated and Low E glass shall be properly kite marked to identify the glass installed.
9. All glazing shall be internally beaded.

Window ironmongery

1. All window ironmongery shall be good quality and robust. Plastic components shall not be used. All ironmongery shall be SAA unless otherwise specified.
2. Ground floor windows and those that are easily accessible to entry shall have key operated locks. Fire escape route windows, however, must not have key operated locks but the glazing to these windows shall be laminated glass.
3. All windows are to be fitted with child proof restrictors. The type of restrictor shall be approved by the Employer.
4. All windows are to be fitted with easy clean hinges, stay and lockable handles capable of being locked in a night vent position.
5. All windows are to be fitted with stay and lockable handles capable of being locked in a night vent position (100mm).
6. Opening mechanisms shall be positioned and designed to suit the proposed user group and shall be fixed at a maximum height of 1250 mm.
7. All opening lights shall be provided with locks that can be operated with a key. All locks shall be suited and a key shall be provided for each opening light.

Mastic sealant

1. The gap between the external wall and the window frames shall have an effective mastic seal complete with foam backers.
2. Gaps shall be neat and pointed with a sealant of an approved colour compatible with the colour of the selected facing bricks or surrounding material.
3. The window frames internally shall also be pointed with a sealant to match the adjoining internal decorations. Mastic seals shall not exceed 3mm wide.

Window boards

1. Provide 25mm MDF window boards with rounded front edges and returned ends and gloss painted. The underside of window boards shall be fully decorated.

Curtain battens and Poles

1. Provide wrought softwood decorated curtain battens above all windows and entrance doors. All curtain battens shall be securely fixed and painted to match the wall colour. Curtain battens are to be a minimum of 25 x 50mm and shall extend a minimum of 150mm beyond each reveal.
2. Contractor to allow for installation of curtain poles to fixed to battens to the approval of the Employer in the living areas and bedrooms.

Secured by Design

1. All windows shall be carefully selected and fixed to achieve a Secured by Design certification and PAS 24:2016. The window manufacturer must be able to provide the necessary Secured by Design certification by the Crime Prevention Officer.
2. All windows shall comply and be tested to BS 7950.

Prohibited materials, workmanship and forms of construction

1. Components using recycled pvc-u are not permitted.
2. Externally beaded glazing units are not permitted.
3. Large or insufficient mastic seals between external walls and windows frames are not acceptable.
4. Spring loaded mechanisms for windows are not permitted.
5. Secondary glazing is not permitted.
6. Mechanical joints are not permitted.
7. Velux rooflights are not permitted unless they are shown on the drawings or prior approval is obtained from the Employer. Where Velux rooflights are acceptable they shall be provided with child proof safety catches and poles for opening.

3.5.8 External Doors

Generally

1. Individual entrance doors to the dwellings shall be solid core flush doors to the approval of the Employer. The pattern of the door must be agreed with the Employer.
2. The Contractor shall provide external doors in accordance with appendix ‘7.1.15’ where applicable.
3. All external doors shall be PAS 24:2016 certified.
4. All external door frames shall be set back a minimum of 75 mm from the face of the building or as otherwise required by the Local Authority.
5. Door frames must be robust and securely fixed at centres not exceeding 600 mm. The rebates for the door leaf are to be at least 18 mm deep and cut from the solid frame material.
6. All external doors are to have proprietary level thresholds.
7. Proprietary thresholds are to be suitable for wheelchair access and to provide adequate protection to prevent water ingress.
8. Patio doors to private gardens are to be double glazed units and shall comply with “Secured by Design” certification. Secondary external doors are to have a level threshold.
9. Threshold details can be a problem; therefore, the Contractor’s attention is drawn to the requirement for level access and the need to avoid cold bridging.

Softwood doors

1. Softwood doors shall be high performance factory finished doors. The doors shall be approved by the Planning Authority and Employer.
2. All timber shall be treated.

Aluminium doors

1. Aluminium doors shall be self-finished polyester powder coated doors. The doors shall be approved by the Planning Authority and Employer.
2. Composite aluminium/timber doors are acceptable.

External Doors to Self-Contained Units

1. All fire doors, frames and ironmongery to be stamped or certificated in accordance with fire legislation.
2. All fire rated doors shall have intumescent strips, smoke seals, additional hinges, etc. to comply with the Building Regulations.
3. The pattern of external doors is to be approved by the Planning Authority and the Employer and the external doors shall comply with the following criteria: -

- Factory applied decoration with an 8-year guarantee, or a 10-year durability statement against blistering, cracking, flaking or erosion of the coating.

- 10-year double glazing unit guarantee against failure of seal.

- Factory fitted glazing and beading to BS 5713.

- Factory fitted ironmongery and fittings.

1. Following the recent Government public announcement that the following 30-minute fire resistance doors have been prohibited:

Manse Masterdor;

Masterdor;

Permadoor;

Solar Windows and;

Bowater by Birtley

1. The Council confirm that 30-minute fire doors together with all other products manufactured from these companies, their parent company or any of their subsidiary companies are not permitted to be specified and installed
2. The Contractor shall ensure that the external doors are provided with a 10-year insurance backed guarantee except decorations and glazing which shall be provided with guarantees as stated above.
3. All external door frames shall be set back a minimum of 75 mm from the face of the building or as otherwise required by the Local Authority.
4. Door frames must be robust and securely fixed at centres not exceeding 600 mm. The rebates for the door leaf are to be at least 18 mm deep and cut from the solid frame material.
5. All external doors are to have proprietary level thresholds.
6. Proprietary thresholds are to be suitable for wheelchair access and to provide adequate protection to prevent water ingress.
7. Patio doors to private gardens are to be double glazed units and shall also comply with “Secured by Design” certification. Secondary external doors are to have a level threshold.

Glass and glazing

1. All glazing will be hermetically sealed double-glazing units with a 10-year guarantee against failure of the seal.
2. All glass to be toughened glass
3. All glass shall be clear glass free from scratches, bubbles, stones, knots or other defects. Defective glass will not be accepted and will have to be replaced by the Contractor.
4. Laminated safety glass shall be used in all doors and sidelights.

External door ironmongery

1. Ironmongery to individual entrance doors shall include the following: -

- 3 Nr heavy duty washered butt hinges

- door numerals

- Ultra-wide angle secure to view door viewer from UAP limited

- security chain or stay

- automatic deadlock rim latch

- door closers

- fire rated letter plate no larger than 260 x 40 mm with draught sealed internal cover and anti-vandal shroud

- mortice bolts at top and bottom of door, with non-removable keys.

1. Notwithstanding the above ironmongery to all external doors shall comply with the “Secured by Design” requirements below and any Local Authority requirements in respect of emergency escape in the event of fire.
2. Floor fixed door stops shall be provided.
3. External doors including patio, French or balcony doors which open outwards shall be provided with a robust door stay or restraint to prevent the door being damaged by wind.

Mastic sealant

1. The gap between the external wall and the door frames shall have an effective mastic seal.
2. Gaps shall be neat and pointed with a sealant of an approved colour compatible with the colour of the selected facing bricks or surrounding material.

Secured by Design

1. All external doors shall be carefully selected and fixed to achieve a Secured by Design certification. The door manufacturer must be able to provide the necessary Secured by Design certification by the Crime Prevention Officer.

Prohibited materials, workmanship and forms of construction

1. Components using recycled pvc-u are not permitted.
2. Externally beaded glazing units are not permitted.
3. External doors with single plywood panels are not acceptable.
4. Large or insufficient mastic seals between external walls and door frames are not acceptable.

Letter Box

1. Provide 1nr letter box for each dwelling.

3.5.9 Internal Walls and Partitions

Generally

1. Load-bearing and separating walls shall be designed by a Structural Engineer and shall take into account all ground and loading conditions.
2. All internal walls to communal areas shall be blockwork. Perpends and bed joints to block walls shall be fully filled and sealed with mortar.
3. All other internal walls to upper floors shall be blockwork or robust timber or metal stud partitions.
4. All blockwork walls shall be provided with the appropriate damp proof courses, wall starters, bed reinforcement, soft joints and the like in accordance with good building practice.
5. Timber or metal stud partitions shall comprise studs at 400 mm centres vertically and 600 mm centres horizontally, with noggins at all plasterboard edges and equipment fixing position. Timber members shall not be less than 50 x 75mm.
6. Separating walls shall be extended into the roof space and adequately fire stopped at the junction of roof finishing. The Contractor is referred to the publications and recommendations of the Building Research Establishment (BRE) in this respect (e.g. BRE Defect Action Sheet No 8).
7. Party, separating or communal corridor walls shall be constructed to comply with Secured by Design and should incorporate additional construction components such as timber sheeting, minimum 9mm thick or expanded metal sheeting if required to be compliant. Sufficient noggins shall be provided in appropriate positions for the installation of all fixtures and fittings and for the provision of grab rails and mobility supports at a later date.
8. Partitions to kitchens shall be capable of supporting kitchen fittings and all other fixtures.
9. Partitions to bathrooms shall be lined with minimum 19mm Class 2 plywood to their inner face to allow supporting the future installation of grab rails and other mobility aids and are to be subsequently covered with plasterboard. The lining shall be to the full height of the partition.
10. Board materials to be tiled shall be moisture resistant and of sufficient thickness to avoid flexing.
11. Plasterboard to partitions shall not be less than 12.7mm thick with all joints properly sealed.
12. All internal walls and partitions shall be designed and constructed in such a way that walls between all rooms shall provide optimum resistance to sound achieving a minimum sound insulation of 40 Rw dB.
13. Sound insulating material shall be provided to all internal stud partitions and shall be not less than 60mm thick. Proprietary acoustic insulation shall be used and installed in accordance with the manufacturer’s instructions to ensure optimum sound resistance.
14. All stud partitions shall be provided with acoustic sealant at head and sole plates to seal air paths. Acoustic sealant shall also be provided around electrical sockets and fittings.
15. Stud partitions that house boilers, cylinders, heat interface units and other items of plant shall be insulated to prevent noise nuisance and heat gain into adjacent areas.

## Section 3.6 Fitting Out Requirements

3.6.1 Internal Doors

Generally

1. The Contractor shall provide internal doors in accordance with appendix ‘7.1.15’ where applicable.
2. All internal doors within the dwellings shall be oak veneer with smooth finish.
3. All internal doors shall have hardwood lippings on all edges of the door.
4. Doors shall be fire rated in accordance with the Building Regulations.
5. All fire rated doors shall have intumescent strips, smoke seals, additional hinges, etc to comply with the Building Regulations.
6. Allow a 15 mm gap below all internal doors to accept carpet.
7. Door frames and linings shall be joinery quality softwood for painting.

Architraves

1. See “Wall Finishes”.

Ironmongery

1. All door furniture and ironmongery shall be good quality, brushed stainless steel, where appropriate ironmongery shall comply with Category A of BS 5872.
2. Doors shall be fitted with a minimum of 1 pair of heavy-duty butt hinges, mortice latch and handle set. Fire rated doors shall be fitted with the necessary ironmongery required to achieve the desired fire rating and certification.
3. Door furniture shall be fitted to doors 1050 mm above finished floor level.
4. All fire rated doors where required by Building Control shall be fitted with Perkomatic concealed door closers and correctly adjusted to prevent the door slamming.

Door stops

1. Door stops are to be provided for all doors. Door stops are to be robust and skirting mounted.

Bathroom, shower room and WC doors

1. All doors shall open outwards.
2. All doors shall be fitted with 1½ pairs of heavy-duty butt hinges.
3. All doors shall be provided with lever furniture and shall have thumb turns internally with an emergency coin release externally.
4. All thumb turns should be sufficiently sized to enable use by elderly residents.

Airing cupboard and storage doors

1. Doors to airing cupboards and storage areas shall have storey height frames with an upper door to maximise storage space where the floor to ceiling height allows this.
2. Doors to airing cupboards and storage doors shall be vented as necessary to prevent condensation or mould growth.
3. All doors shall be fitted with 1½ pairs of heavy-duty butt hinges.
4. Cupboards that can be closed from the inside shall be fitted with a mortice lock set with handles on both sides.
5. Provide slatted shelving. A minimum of three rows shall be provided to each cupboard.
6. Slatted shelving shall be removable. Slats shall be a minimum of 25 x 50mm on suitable bearers plugged and screwed to the structure.
7. Slatted shelving shall be wrought softwood and left unpainted.

Prohibited materials, workmanship or forms of construction

1. Cellular and hollow core doors are not permitted.
2. Sliding bolts must not be fitted to the inside face of bathroom doors.
3. Georgian wired glass is not acceptable.

3.6.2 Wall Finishes

Plasterwork

1. Masonry surfaces are to receive Hardwall plaster with a Thistle finish plaster coat.
2. All plaster work is to be brought to a fine trowel finish ready to receive decorations.
3. Galvanised mild steel angle and stop beads are to be used to all arises and ends.
4. Seal joint of windows and door frames and internal wall finish with an approved mastic sealant from Dow Corning or equivalent.
5. Plasterboard surfaces are to receive a coat of Thistle board finish plaster.
6. Plasterboard surfaces to be tiled shall be suitably sealed. Plasterboard used in kitchens and bathrooms must be moisture resistant.

Wall tiling

1. Tiles to bathrooms, shower rooms and WCs shall be white gloss finish ceramic glazed wall tiles 150mm x 150mmto the approval of the Employer.
2. Tiles to kitchens shall be white gloss finish ceramic tiles 150mm x 150mm to the approval of the Employer.
3. Surfaces to be tiled shall receive a coat of Unibond prior to fixing the tiles.
4. Tiling shall have straight edge trims and approved mastic to internal corners, worktops, around fittings or other abutments.
5. Tiling is to be returned in the window reveals where it falls within a tiled area and a tiled cill is to be provided.
6. All horizontal duct and pipe boxings are to be tiled.
7. Allow for tiling 450 mm high above worktops in kitchens and down to skirting level in all appliance spaces.
8. Allow for tiling three courses behind wash hand basins or cleaner’s sinks.
9. Allow for full height tiling to bath surrounds.
10. Allow for full height tiling to shower rooms.
11. Where wash hand basins are fitted adjacent to baths the full height tiling to the bath surrounds and wash hand basins shall be continuous.

Skirtings, architraves and trims

1. Allow for MDF skirting, architraves and trims throughout. Bathrooms and WCs are to have coved skirting to match the vinyl sheeting flooring in lieu of MDF.
2. Skirting shall be 25 x 100mm pencil rounded.
3. Architraves shall be 25 x 50mm pencil rounded.
4. All skirting, architraves and trims shall be pre primed all round before fixing.
5. All skirting, architraves and trims shall be securely fixed to their backgrounds.

Prohibited materials, workmanship and forms of construction

1. Carlite plaster must not be used.
2. Direct decoration to plasterboard is not acceptable.
3. Wall tiling shall be set out so as to avoid unnecessary cut tiles at edges and margins.

3.6.3 Floor Finishes

Screeds

1. Screeds shall be provided to concrete floors and shall be a minimum of 75 mm thick reinforced and finished with a proprietary dust sealer and free from damage and stains.
2. All screeds to concrete floors shall be level and free from all imperfections ready to receive floor finishes.

Floor coverings

1. Allow for Altro non-slip vinyl sheet flooring with welded joints to bathrooms, kitchens and WCs. For storage/airing cupboards floor covering of adjacent area to continue into the storage space. The flooring is to be agreed by the Employer.
2. Allow for vinyl to living area, hallways and bedrooms. The flooring is to be agreed by the employer.
3. Allow for carpet to staircases and landings within the dwellings. Where cupboards are present, floor covering of adjacent area to continue into the storage space. The flooring is to be Gala Carpet or other approved by the Employer.
4. Vinyl sheet flooring in wet areas i.e. kitchens WCs and bathrooms is to be manufactured by Altro and should be laid with the minimum number of joints.
5. Vinyl sheet flooring to bathrooms shall be extended behind the framing to the bath panel before the bath panels are fitted and a mastic sealant applied to all junctions.
6. Vinyl sheet flooring to bathrooms shall have coved skirtings with welded joints.
7. Vinyl sheet flooring around WC pans and pedestals shall be sealed with approved mastic.
8. All other vinyl sheet flooring shall be sealed at all edges with an approved colour matched silicone sealant.
9. The Employer shall be allowed to choose the colours of the floor coverings.
10. The Contractor shall ensure that all floor coverings are fully protected until completion of the works.

Skirtings

1. See “Wall Finishes”.

Dividers

1. Allow for aluminium trims at junctions between differing floor finishes.
2. Allow for aluminium trims at all door openings.

Prohibited materials, workmanship and forms of construction

1. Any excessive unevenness or lumps in screeds.
2. All floor finishes shall be protected and as new at handover. Scratched, stained or otherwise damaged floor finishes shall not be accepted.

3.6.4 Ceiling Finishes

Generally

1. Allow for all timber framework or proprietary suspended ceiling systems as required.

Plasterwork

1. Ceiling finishes generally and finishes to sloping soffits of staircases shall consist of a minimum 12.5 mm Gypsum plasterboard finished to receive Thistle board finish plaster.
2. Plasterboard surfaces are to receive a coat of Thistle board finish plaster.
3. Ceilings in bathrooms and the main bedroom are to be designed to be capable of supporting the future installation of a hoist and hoist rails.
4. Galvanised mild steel angle and stop beads are to be used to all arises and angles.
5. Ceilings in toilets, bathrooms and kitchens shall be moisture resistant.

Prohibited materials, workmanship or forms of construction

1. Direct decoration to plasterboard is not acceptable.
2. Artex or other forms of textured finish are not permitted.
3. Access panels in ceilings are to be avoided.

3.6.5 Kitchen Installations

Generally

1. Kitchen fittings and appliances shall be from the Howden’s range of kitchens to the approval of the Employer.
2. Kitchen units shall be from the Howdens Greenwich range in either white (gloss) or Oak.
3. Should the Contractor wish to use an alternative range or manufacturer he must provide these details with his Contractor’s Proposals at the time of tender.
4. The kitchen layouts shall be designed to the National Housing Federation’s “Standards and Quality in development” good practice guide section 5. All the essential standards shall be met.
5. The colour of the kitchen carcass shall match the colour of the door fronts (White or Oak).
6. Kitchen cupboards for tall storage shall be provided but these should not count towards the total volume capacity.
7. Fridge spaces shall be a minimum space of 650mm and provided at the end of a worktop run but not with a worktop over. Fridge spaces shall not be next to cooker or oven spaces.
8. Standard height wall units.
9. Wall units shall not be provided over fridge spaces in case it has to be removed to accommodate a full fridge/freezer. Wall units shall not be provided over sink locations.
10. Base units shall be a minimum 600mm deep.
11. Base units shall incorporate sufficient space for the storage of large cooking pots and pans.
12. Base units shall incorporate at least one drawer line base unit with three drawers.
13. Sink and food preparation surfaces shall have adequate levels of light.
14. Sink positions shall be below windows where possible.
15. Dishwasher spaces shall be provided to accommodate a 600mm deep dishwasher complete with electrical, water and waste connections adequately capped off for future connections. The service connections shall be located such that the dishwasher can be connected without the need for cutting or removing adjacent units. Dishwasher spaces shall be provided with removable base unit but these should not count towards the total volume capacity. The dishwasher space shall not be more than 1m from the waste connection point.
16. Cooker spaces shall be a minimum width of 630mm to accommodate a 600 x 600 cooker. No wall units shall be located directly above the cooker space and be a minimum of 150mm away from the edge of the cooker space.
17. The cooker spaces shall be provided with electrical and gas supplies to allow the Resident to install either an electric or gas cooker in the future. Cooker control panels and connection spurs shall be provided. Including ignition switch and chain to secure gas appliance to wall.
18. Washing machine spaces shall be a minimum width of 650mm to accommodate a 600 deep washing machine.
19. Washing machine spaces shall be provided with electrical points, hot and cold-water supply and waste connections adequately capped for future connections.
20. Where possible washing machine spaces shall be located in a separate adequately ventilated utility cupboard off the hallway.
21. Double spigots to be provided
22. Service and waste pipes shall be neatly located so as not to affect the storage capacity of kitchen fittings and the positioning of kitchen appliances. All access points shall be easily located.
23. The Contractor shall provide kitchen plans and elevations to a scale of 1:20 for each kitchen type. The drawings must be approved by the Employer prior to the Contractor ordering the fittings and appliances.
24. The Contractor shall provide the Employer with at least three options for the kitchen cupboard and drawer fronts, handles and worktops for approval prior to ordering. All colours must be agreed with the Employer.

Hinges

1. Hinges shall be 170° zinc plated steel hinges.

Drawer Options

1. Drawer boxes shall be pre fitted epoxy coated metal sides and rear, 15mm MFC base and have standard closing action.
2. Drawer runners shall be powder coated metal with nylon runner wheels.
3. Care should be taken to ensure that drawers can be opened fully once all other kitchen fittings and appliances have been installed.

Worktops

1. Worktops shall be 28mm textured laminate worktops 600mm deep with a double bull nose profile.
2. All cut edges to worktops shall be sealed with PVA or similar to prevent moisture damage.
3. All exposed edges to worktops shall be provided with matching laminate, with the exception of cooker spaces which shall be provided with metal edgings.

Sinks

1. Provide heavy gauge stainless steel (18 gauge) ‘sit on’ single sink with drainer.
2. Sinks shall be securely fixed in accordance with the manufacturer’s instructions.
3. Sinks shall be complete with chromium plated wastes, plug and chains.

Taps

1. Provide chromium plated lever taps to sinks. Monobloc mixer taps are not acceptable.

Prohibited materials, workmanship or forms of construction

1. Scratched kitchen units, worktops, sinks or accessories will not be accepted.

3.6.6 Fixtures and Fittings

Curtain battens and poles

1. Provide curtain battens to each window opening. Curtain battens shall extend a minimum of 150mm beyond the window reveal and shall be plugged and screwed to the structure.
2. Provide wooden curtain pole and fixtures to living rooms and bedrooms.
3. Curtain battens shall be wrought softwood minimum 25mm thick and fully painted.

Airing/Linen cupboards

1. Provide an airing/linen cupboard to each dwelling.
2. Cupboards over 1.2m3 shall have a light fitting.
3. Provide slatted shelving. A minimum of three rows shall be provided to each cupboard.
4. Slatted shelving shall be removable. Slats shall be a minimum of 25 x 50mm on suitable bearers plugged and screwed to the structure.
5. Slatted shelving shall be wrought softwood and left unpainted.
6. Provide natural ventilation to all airing/linen cupboards.
7. Provide small radiator from wet system with TRV
8. Airing/linen cupboards shall be kept free from hot water cylinders or other plant.

Bathrooms, WCs and shower rooms

1. Provide 450 x 600 mm bevelled edge copper backed mirrors fixed with dome headed screws above all wash hand basins. Contractor to allow for a larger mirror in wheelchair compliant/adaptable units to accommodate disabled and non-disabled residents
2. Supply and fit a standard radiator to WCs, bathrooms and shower rooms with towel rail fixed to the wall above the radiator. The finish of the towel rail is to match the sanitaryware finish. The towel rail is to be approved by the employer prior to installation.
3. Provide a shower rail and curtain to each shower over a bath.
4. Contractor to allow for extractor fans to all bathrooms.
5. Supply and fit a shaver point.

Storage

1. Provide other internal storage areas as shown on the drawings.
2. All internal storage areas shall be provided with slatted shelving to maximise storage and a minimum of 1.5m2 shelf area.
3. Slatted shelving shall be removable.
4. Slatted shelving shall be wrought softwood left unpainted.
5. Provide natural ventilation to all storage areas.
6. Storage areas shall be provided with artificial lighting where over 1.2m2 in area.
7. Wardrobes to include 3No slated shelves and 1No hanging rail.

Hat and coat hooks

1. Provide 1nr robust hat and coat hook per occupant in the hallway of each dwelling. Employer to approve.
2. All hat and coat hooks in hallways shall be securely fixed on a painted softwood rail.
3. Provide 1nr hat and coat hook to all bathroom and WC doors.

Signage

1. Provide chrome door numerals or letters.

3.6.7 Decorations

Generally

1. Decorations to all internal and external surfaces shall receive an applied decoration to achieve a minimum life of five years before maintenance redecoration is required.
2. Paint colours are to be agreed with the Employer. Colours are to be from BS 4800 range.

Painting to plaster

1. Allow for finishing all plastered walls and ceilings with one mist and two full coats of eggshell paint except to kitchens, bathrooms and WC's.
2. Allow for finishing all plastered walls and ceilings to kitchens, bathrooms and WC's with a proprietary durable, washable and breathable paint suited to high humidity.

Painting to joinery

1. All joinery shall be knotted, stopped and primed all round before fixing.
2. All internal joinery shall be knotted, primed, stopped and painted with one undercoat and two finishing coats of satin paint.
3. All external joinery shall be knotted, primed, stopped and painted with one undercoat and two finishing coats of satin paint.

Painting to metalwork

1. Allow for self-finish to all radiators.
2. All paint to heating pipework shall be heat resistant.
3. Non-ferrous metals shall be primed with a calcium plumbate primer.
4. All internal metalwork including exposed pipes shall be primed and painted with two undercoats and two finishing coats of full gloss oil paint.
5. All metalwork primed off site shall have all oil and grease removed before painting.
6. All external metalwork shall be primed and painted with two undercoats and two finishing coats of full gloss oil paint.

Prohibited materials, workmanship or forms of construction

1. Acrylic primers shall not be used.
2. Paints which are subject to “yellowing” and easily affected by light, heat or environmental contaminants are prohibited.
3. Painting which shows common defects such as settling, bleeding, running, wrinkling, blistering, or other defects will not be accepted.
4. Poor “touching up” to correct defects will not be allowed.

3.6.8 Sanitary Fittings

Generally

1. Sanitary ware shall be white from an approved supplier (Armitage Shanks, Twyfords or similar).
2. All sanitary appliances shall be capable of being easily isolated by using inline isolators.
3. Where products are not specified the Contractor shall select water efficient taps, showers and toilets which incorporate aerated taps and showerheads, flow regulators, low flush toilets and the like to encourage water saving and improving water quality.

Baths

1. Baths shall be 700 x 1700mm long heavy grade pressed steel enamel baths (no handles).
2. Baths shall have non-slip bottoms.
3. Baths shall be complete with chromium plated overflows, wastes, plug and chains.
4. Provide chromium plated thermostatically controlled mixer taps with shower head on fixed slider rail over bath.
5. Baths shall be provided with white proprietary panels.

Wash hand basins

1. Wash hand basins shall be vitreous china with pedestals to bathrooms. Wash hand basins shall be 500 – 600mm width. Wash hand basins in separate WCs shall be 400 – 600mm width and may be wall hung.
2. Wash hand basins shall be complete with chromium plated overflows and plug and chain.
3. Provide chromium plated lever taps to sinks. Monobloc mixer taps are not acceptable.

WC suites

1. WC suites shall be vitreous china low-level wash down type with a low volume flush.
2. WC’s shall have heavy duty white plastic seats and covers.
3. Joints between WC traps and wastes shall be made using proprietary connections with self-sealing connectors.

Showers

1. Showers shall be provided above baths in accordance with the Contract Drawings.
2. Showers shall be thermostatic surface mounted showers with riser and shall be chromium plated.
3. Full height weighted shower curtains to the approval of the Employer shall be provided.

## Section 3.7 Specific Requirements: Armoury Drive

3.7.1 Site Boundaries

1. A significant area of the site is grassed with four existing trees within its perimeter. The trees along the West side of the site are under TPO. At present it can be accessed by car from Armoury Drive but there is a future possibility to access it from Albert Murray Close. The Contractor is to ensure as little disturbance as possible to residents and allow for best practices of the Considerate Constructor’s scheme.
2. The Contractor is advised that development site is within Gravesham Borough Council’s ownership.
3. All boundary treatment within the site is to be renewed to the approval of the Employer and the Planning Authority and in accordance with the contract drawings.

3.7.2 Boundary Walls and Hard Landscaping

1. Hard Landscaping and Boundary Wall treatments are to the approval of the Local Authority and Employer. Boundary walls are to be made good after the demolition of the existing buildings on site.
2. The works shall include (where possible) the reuse of materials, such as bricks, to be used on the garden and other boundary walls.
3. The design is to incorporate the water tower existing materials such as bricks, plaques/inscriptions for preservation purposes, as part of the heritage interpretation for the site.

3.7.3 Street and Building Signage

1. Provide and fix all street and building names and numbers and external signs to the approval of the Local Authority, Employer and the Royal Mail.
2. The street and building signage shall be robust and professionally designed and manufactured with vandal proof fixings. Plastic or painted signs will not be permitted.
3. The street and building signage shall be located in prominent and high-level positions in locations to be agreed with the Employer.
4. The Contractor is to allow for installation of street lighting which adequately illuminates the external parking bays and entrance to the property.
5. Contractor to allow for client and Employer’s Agent signage during the construction period.
6. The Contractor is to consider Royal British Legion Industries for site signage. Further information is located in Appendices 7.1.16.

3.7.4 Refuse

1. Provide adequate communal enclosed external bin store for the Flats as required by the Local Authority and as shown on the Contract Drawings.
2. Provide each bungalow with its own secured bin space, located in the rear garden as required by the Local Authority and as shown on the Contract Drawings.
3. Refuse storage shall be robust design to the approval of the Employer and the Local Authority.
4. Refuse storage shall be sensitively located and not positioned in areas which may cause nuisance. Refuse storage should not be positioned in close proximity to windows.
5. The Contractor shall provide all refuse and recycling bins. Where the refuse and recycling bins can only be rented from the Local Authority.

3.7.5 Bathrooms

1. Low profile showers are to be installed in the bungalows, refer to Clause 3.8.5 for further guidance. The design and specification are to be agreed with the Employer.
2. Where baths are shown these are to be designed to Building Regulations M4 (2) Accessible and Adaptable to accommodate a shower and wet room if required.

3.7.6 Wheelchair Adaptation Allowance

1. Should the Client identify a suitable tenant during construction stage, there is a below the line figure for Contractors to provide a cost for adaptation features to the bungalows in the Contract Sum Analysis.

3.7.7 Communication Installations

Generally

1. The Contractor shall design the communication installations so that telephone and television points are sensibly located adjacent to power points. The Employer encourages the use of multi-use sockets to minimise the number of outlets and provide neat installations.

Telephone installations

1. The telephone installations shall be executed complete to enable the Resident to obtain a telephone service contract from their preferred supplier.
2. Television installations shall include for the provision of TV aerials which should be located in positions to be agreed with the Employer.
3. Provide an additional BT socket adjacent to the TV aerial point in the living room; this shall be wired back to the main BT point for future digital TV provision.
4. Provide a telephone point to each Living Room and Bedroom.
5. All television installations will be required to meet the approval of the Employer.

TV installations

1. The Contractor is to provide a TV aerial/Integrated reception System to serve each dwelling.
2. The TV installation shall be compatible with digital technology and Sky Q.
3. Digital terrestrial TV and satellite installations/aerials/dishes are to be provided to service each Bungalow, connected to the internal outlets and tested.
4. A satellite TV socket outlet and a digital terrestrial TV outlet must be provided in the lounge and all bedrooms.
5. The terrestrial TV installation shall be checked to ensure it is capable of receiving both analogue and digital channels and, if required, an appropriate amplifier shall be fitted.
6. Provide a digital terrestrial TV aerial point to each Living Room and each Bedroom.
7. Provide an additional BT socket adjacent to the living room TV aerial point; this shall be wired back to the main BT point for future digital TV provision.

Testing

1. The Contractor shall test all television installations to ensure that they are in full working order at Practical Completion and provide a test certificate to confirm compliance with this clause.

## Section 3.8 Specific Requirements: Accessible and Adaptable Dwellings

3.8.1 Accessible and Adaptable Dwellings

Generally

1. The Accessible and Adaptable Dwellings shall comply with all Sections of the Employer’s Requirements in every respect but the Fitting Out and Services Requirements to the Wheelchair units shall be enhanced or varied as detailed in this Section.
2. All units shall be designed to meet Building Regulations (2015 edition) Approved Document M4 (2) A & B. The Contractor’s attention is brought to the Schedule of Accommodation in Appendices 7.1.7, which identifies the fitting out requirements of each unit under the Building Regulations (2015 edition).
3. The Contractor shall provide detailed layout drawings including kitchen and bathroom layouts for approval by the Employer. The Employer will need to consult the Local Authority’s Occupational Therapist on the designs and the Contractor shall allow sufficient time in his programme to facilitate this consultation.

3.8.2 Windows

1. Consideration shall be given to floor to window cill heights.
2. Ironmongery to windows is to be suitable for wheelchair users. Ironmongery shall be at a manageable height and easy to use.

3.8.3 External and Internal Doors

Generally

1. All internal doors shall have a minimum clear opening of 750mm. In accordance with the M4 (2) requirement for clear openings.
2. All Front Entrance Doors shall have a minimum clear opening of 850. In accordance with the M4 (2) requirement for Front Entrance Doors.
3. Front Entrance Doors shall not be glazed in the bottom half.
4. Doors to bathrooms and toilets shall open outwards.

Ironmongery

1. Pull handles shall be provided to the inside face of external doors. Allow for 2nr per door approximately 200mm long. Both at a height of 1040mm to centre.
2. Pull handles shall be provided to each internal door. Allow for 1nr 200mm long fixed vertically on pull side and 1nr 450mm long fixed horizontally on push side. Both at a height of 1040mm to centre.
3. Lever furniture to be 150mm “D” or “L” style minimum 25mm diameter.

3.8.4 Kitchen Installations

Generally

1. Base units shall incorporate deep pan drawers or pull out shelves or baskets.

3.8.5 Sanitary and Disposal Installations

Baths (Where shown on the drawings)

1. Baths shall be 700 x 1700mm long heavy grade pressed steel enamel baths with non-slip bottoms (no handles).
2. Provide one quarter turn lever taps to baths.
3. Bath panels must be easily removable.
4. Provide a thermostatically controlled shower above the bath.
5. Provide a shower rail and curtain above the bath

Wash hand basins

1. Wash hand basins are to have chromium plated plug, chain and wastes located on the front of the basin.
2. Provide one quarter turn lever taps to wash hand basins.

Showers (if applicable)

1. All shower rooms as identified on the drawings shall be constructed as a wet room and have a level access shower to be agreed by the employer.
2. The showers shall be wall mounted and thermostatically controlled to the approval of the Employer. All controls shall be lever action and operable from a wheelchair.
3. Provide a shower rail and weighted curtain to each shower position. Shower curtains shall be floor length, weighted and have tie backs.

3.8.6 Electrical Installations

Generally

1. All items of electrical equipment, sockets and switches shall be located at the appropriate heights and locations.
2. Two-way light switching shall be provided in bedrooms and all other locations where appropriate.
3. Switches shall be wide rocker types.
4. Contractor to allow for a wheelchair charging area.
5. Contractor to provide 1nr external electrical socket to each rear garden of houses and 1nr electrical socket for communal area of flat block.

Track Hoist

1. The Contractor shall provide a structure that can take hoisting from living areas to Bathroom and WC facilities to be approved by the employer. The track specification, path and hoisting facility to be specified and instructed by the OT once a tenant has been identified.
2. Contractor to demonstrate full height knock out panels on Construction Drawings for future door between main bedroom and the bathroom.
3. Contractor to allow for sliding doors/pocket door, which are to be approved by the Employer, if a track hoist is required by the OT.
4. Contractor to allow for electrical provisions for future installation of a track hoist.

## ~~Section 3.9 Fitting Out Requirements: Wheelchair User Dwelling~~

~~Application of this Fit Out Standard~~

~~The Contractor shall assume that the Wheelchair Unit is to be fitted out in accordance with this Section 3.9 (incorporating carried over requirements from 3.7 and 3.8)~~

~~At the latest, 6 months prior to Practical Completion, the Employer may require certain Wheelchair Units to be fitted out in accordance with Section 3.7 and 3.8 only. In other words, there may be certain Wheelchair Units to which Section 3.9 will not apply.~~

~~If the Employer instructs to omit this Section 3.9 from applying to the Wheelchair User Dwelling, as defined in the Schedule of Accommodation, a deduction will be made from the Contract Sum in the amount equal to Item 4.11 in the Contract Sum Analysis.~~

~~Kitchen Installations~~

~~Worktops~~

~~Only sink and hob worktops shall be made adjustable in accordance with paragraph 3.34 and table 3.4 of the Building Regulations (2015 edition) Approved Document M4 (3B). Unless otherwise instructed by the client. All adjustable worktops to be a winder system and not pegged.~~

~~Sinks~~

~~Sinks shall be adjustable with telescopic trap or flexible plumbing connections in accordance with paragraph 3.34 of the Building Regulations (2015 edition) Approved Document M4 (3B). Unless otherwise instructed by the client. Must be a winder system and not pegged.~~

~~The contractor shall use best endeavours to conceal flexible connections under the sink and at the same time make easily accessible.~~

~~Internal and External Doors~~

~~All internal doors shall have a minimum clear opening of 900mm. Over and beyond the M4 (3) requirements of 850mm.~~

~~All entrance doors shall have a minimum clear opening of 900mm and shall not be glazed in the bottom half. Over and beyond the M4 (3) requirements of 850mm.~~

~~All access gates or doors leading up to the wheelchair dwellings shall have a clear opening of 900mm. Over and beyond the M4 (3) requirements of 850mm.~~

~~Fixtures and Fittings~~

~~Bathroom, toilets and shower rooms~~

~~Wash hand basins shall be adjustable with telescopic trap or flexible plumbing connections.~~

~~Ironmongery~~

~~Kick plates shall be provided to both sides of entrance doors. Allow for 400mm high kick plates.~~

~~Kick plates shall be provided to the push side of all internal doors. Allow for 300mm high kick plates for the full width of the door. Allow for fixing the kick plates 15mm from the bottom of doors to allow fitting carpets.~~

~~Collapsible letter baskets shall be provided to doors with letter boxes. The Contractor shall provide a recess of 150mm for the letter basket in accordance with 3.22 and diagram 3.3 of the Building Regulations (2015 edition) Approved Document M4 (3B).~~

~~Radiators~~

~~LST radiators to be fitted in all wheelchair user dwellings.~~

~~Wall finishes~~

~~Wall tiling~~

~~Tiling to toilets, bathrooms and shower rooms shall be full height tiling to all areas.~~

~~Electrical Installations~~

~~Track Hoist (Wording)~~

~~The Contractor shall provide a structure that can take hoisting from living areas to Bathroom and WC facilities to be approved by the employer. The track specification, path and hoisting facility to be specified and instructed by the OT once a tenant has been identified.~~

~~Contractor to demonstrate full height knock out panels on Construction Drawings for future door between main bedroom and the bathroom.~~

~~Contractor to allow for sliding doors, which are to be approved by the Employer, if a track hoist is required by the OT.~~

~~Contractor to allow for electrical provisions for future installation of a track hoist.~~

## Section 3.10 External Works Requirements

3.10.1 Generally

1. The External Works shall be carried out in accordance with the Plans, Sections, Details, Specifications and Schedules by BPTW which form part of these Employer’s Requirements under 7.1.5.
2. The design and construction of the external works shall generally comply with the drawn requirements, the conditions of the Planning Approval and the specific requirements stated below.
3. The Contractor shall submit his proposals for the external works to the Employer and Planning Authority for approval.
4. The design and construction of all roads, pavements, car parking, associated drainage, lighting and landscaping shall be to the Local Authority’s adoptable standards, whether they are adopted or remain as private areas.
5. The Contractor shall use his reasonable endeavours to ensure that all roads, pavements, car parking, associated drainage, lighting and landscaping are adopted by the Local Authority and he shall pay all fees, bonds, etc in conjunction with this requirement.
6. No area of the external works shall be left without an approved treatment.
7. Particular care shall be taken to sites with significant changes in levels so that adequate retaining walls are provided, land drainage is provided where required and that landscaped areas can be maintained with ease.
8. All boundaries and divisions between private gardens shall have boundary walls, railings or fencing as appropriate. Where existing dilapidated boundary walls, railings or fencing is present these shall not be acceptable and shall either be replaced or renewed or new boundary walls, railings or fences shall be provided in front of any such boundary walls, railings or fencing where the legal ownership cannot be determined.

3.10.2 Disabled Persons

1. The whole of the External Works shall be designed and constructed to Part M4 (2) of the Building Regulations and shall take into account the requirements of disabled persons and wheelchair users.
2. Particular care should be taken to achieve the criteria for level and ramped approaches.
3. The Contractor is reminded that the Works are to comply with Lifetime Homes and stepped approaches to dwellings will not be allowed.
4. Communal facilities such as external and refuse storage shall be designed to take into consideration the requirements of disabled persons and wheelchair users.
5. All access gates shall have a clear opening of 875mm and level areas to each side of the gate.

3.10.3 Site Clearance

1. Allow for clearing the whole of the site of all vegetable matter, rubbish, debris and contaminated earth, paths, footways, removing old walls, fencing, etc and grubbing up any pipes, drains, services, roots and other obstructions including concrete rubble, hardcore and other hard materials and cutting down and removing any unwanted hedging, trees, undergrowth and the like and grubbing up the roots thereof.
2. All areas shall be left free from builder’s rubble, debris, etc at Handover.

3.10.4 Grassed and Planted Areas (including trees)

1. Provide all grassed and planted areas including all trees all as shown on the Contract Drawings.
2. Landscape areas must be free from contamination, construction debris, large stones and weeds at hand over and covered with a minimum of 250 mm thick topsoil to turfed areas and a minimum of 450 mm to planting beds. Imported topsoil is to be good quality loam, free from large stones (50 mm or over) and weeds. Topsoil is to be generally levelled to avoid pooling and must be at least 150 mm below DPC level where it abuts dwellings. Imported topsoil shall be certified as “clean” topsoil free from any contaminants.
3. The Contractor is to make allowance for general settlement and expected compaction of the topsoil. The above thicknesses are deemed to be “finished” thicknesses.
4. The Contractor’s attention is drawn to the fact that the Local Authority or Defects Insurer may require higher levels of topsoil cover depending on the remediation strategy and those higher requirements shall prevail.
5. Planting shall be designed to achieve all year-round effect and to minimise maintenance. Landscape design shall be carried out in consultation with the Employer, Local Authority and Police Architectural Liaison officer.
6. All areas of hard and soft landscaping are to be subject to a 12 months Rectification period but the Employer will maintain the soft landscaped areas during this period. Turfing or planting that does not take during the Rectification Period due to the use of inferior turfing or planting or other defects due to poor installation shall be the responsibility of the Contractor.
7. Turf shall be good quality to BS 3969. All turfed areas are to be left mown and free from matted or dead grass and weeds at Handover. The turf shall have a 300mm mulched border.
8. All grassed areas shall be designed to be capable of being mowed and maintained with ease. Grassed areas to sloping areas where there will be a difficulty in access for grass cutting should be avoided.
9. Provide 300mm mulched margin to all private grassed areas .
10. All cultivated areas shall be properly dug over and ameliorants shall be added into the topsoil.
11. All cultivated areas shall be treated with an approved herbicide before turfing or planting.
12. Trees shall be protected and staked. Provide tree grilles and cages as necessary.
13. Plants shall be obtained from a supplier who is an approved member of the Horticultural Trades Association.
14. All trees and plants shall be identified with a plastic label and include all maintenance instructions.
15. Planted areas shall be finished with a layer of ornamental medium grade bark mulch. The mulch shall be retained by means of precast concrete edgings.
16. The proposed trees shall be to the approval of the Planning Authority and Employer.

3.10.5 Paved and Patio Areas

1. Provide all paved and patio areas all as shown on the Contract Drawings.
2. Patio areas shall be provided and shall have a minimum fall of 1:80 away from the building.
3. Patio areas shall be 400mm x 400mm smooth buff paving slabs in accordance with the landscape masterplan.
4. Pedestrian footpaths leading up to the front entrance door shall be buff paving slabs.
5. Kerbs and edge restraints shall be provided complete with adequate benching and haunching.
6. All paved areas shall be properly drained to avoid ponding.

3.10.6 Car Parking and Roads

1. Provide all new roads, pavements, car parking, associated drainage, lighting and landscaping all as shown on the Contract Drawings.
2. All hard-landscaped areas shall be designed to avoid pooling of water by being set to falls.
3. Access roads shall have separate pedestrian footpaths wherever possible and speed restrictions shall be incorporated to reduce vehicle speed.
4. Access shall be designed throughout the development to take into consideration people with mobility, visual and hearing difficulties. Access must be provided throughout the site without the use of steps.
5. Access to dwellings from the curtilage shall slope away from the building with gradients of 1:12 maximum for 5.0 metres or 1:15 maximum for 10.0 metres, the minimum gradient is to be 1:80.
6. Kerbs and edge restraints shall be provided complete with adequate benching and haunching.
7. Dropped kerbs and tactile paving shall be provided to crossing points. Also allow dropped kerbs to refuse bin areas.
8. Car parking spaces shall be properly delineated, signed and numbered to the approval of the Employer.

3.10.7 Crossovers

1. Provide crossings all as shown on the Contract Drawings.
2. The design and construction of the crossings shall generally comply with the drawn requirements and the requirements of the Local Authority.

3.10.8 Retaining Walls, Boundary Walls and Handrails

1. Provide all retaining and boundary walls as shown on the Contract Drawings.
2. The Contractor is to allow for all other retaining and boundary walls as required.
3. Any retaining walls shall be designed by a Structural Engineer and shall take into account all ground and loading conditions. The Contractor is to allow for any retaining walls or works thereto required to adjacent property as a result of the works.
4. The finish to all retaining and boundary walls shall be to the approval of the Planning Authority and Employer.
5. Provide all necessary guarding and handrails as required for changes in levels. Guarding and handrails shall be polyester powder coated or other low maintenance material.

3.10.9 Fencing & Railings

1. Provide all fencing as shown on the Contract Drawings.
2. Fencing and gates are to be designed with security as prime importance.
3. Timber fencing is to be treated timber close boarded fencing with concrete posts and concrete gravel boards unless otherwise shown on the drawings.
4. Concrete gravel boards shall be 300mm.
5. Fencing to rear boundaries and between private gardens is to be a minimum of 1.80m high or higher as shown on the drawings or as required by Secured by Design or necessitated by the topography of the site. Low level fencing to front garden boundaries may be less than 1.80m where agreed with the Crime Prevention Officer.
6. All gates shall have suitable hinges, latches, bolts and locks.
7. Any railings and metal fences are to be powder coated.

3.10.10 External taps and irrigation

1. Provide an external tap to the rear gardens of each property in positions to be agreed with the Employer. The external tap shall be a standpipe type manufactured by Edwards Standpipes.
2. All external taps shall have an online isolation valve, be insulated and lockable.

3.10.11 Refuse Storage

1. Provide adequate communal enclosed external bin store for the Flats as required by the Local Authority and as shown on the Contract Drawings.
2. Provide each bungalow with it’s own secured bin space, located in the rear garden as required by the Local Authority and as shown on the Contract Drawings.
3. Refuse storage shall be robust design to the approval of the Employer and the Local Authority.
4. Refuse storage shall be sensitively located and not positioned in areas which may cause nuisance. Refuse storage should not be positioned in close proximity to windows.
5. The Contractor shall provide all refuse and recycling bins. Where the refuse and recycling bins can only be rented from the Local Authority the Contractor shall arrange for their delivery prior to Practical Completion.

3.10.12 Cycle Spaces / Storage

1. Where possible provide secure, covered and accessible individual cycle storage facilities for all dwellings within rear gardens.
2. Where provided, cycle storage should be fully covered to protect the storage from the elements.
3. Cycle storage should be lockable and secure.
4. Cycle storage should be of a robust design to the approval of the Employer.

3.10.13 External Lighting and Power

1. Provide external lighting as shown on the Contract Drawings.
2. The whole of the electrical installation shall be carried out in accordance with the 17th Edition IEE Regulations and to the requirements of the Local Authority and Statutory Undertaker. All lighting and power installations shall be RCD/RCBO protected.
3. External lighting shall be lit with low maintenance, low energy and vandal resistant fittings.
4. External lighting shall be designed to prevent unnecessary glare or nuisance to residents or adjoining properties. External lighting should not be positioned in close proximity to bedroom windows.
5. External lighting shall be provided with photo sensitive controls.
6. Provide adequate lighting to all common areas not lit from the street. Include for adequate lighting to bin stores and the bicycle stands.
7. Provide adequate lighting to the front entrances, rear doors and patio doors.
8. Lighting levels are to meet BS7671 “Lux” levels.
9. All cable runs are to be concealed.
10. All controls must be labelled.
11. Test the whole of the electrical installation and leave in good working order; satisfactory test certificates shall be issued to the Employer prior to Practical Completion.
12. The tests shall be carried out to the satisfaction of the Local Authority, Statutory Undertaker and the Employer's Agent and shall be at the Contractor's expense including the cost of electricity consumed.

3.10.14 Street Furniture

1. Provide all street furniture as shown on the Contract Drawings.
2. The street furniture shall be robust and securely fixed.

3.10.15 Prohibited materials, workmanship and forms of construction

1. Gravel, pea shingle or similar materials shall not be used for roads, pavements, paths, pavings or patio areas.
2. Seeding for grass will not be permitted.
3. Fencing with defects such as splits, large knots, splinters, etc will not be accepted.
4. Controls for services (e.g. stopcocks) shall not be located in cycle or refuse stores.
5. No water features will be permitted.

3.10.16 Licenses / Oversailing

1. The Contractor is responsible for obtaining all licences for temporary structures (which include and not limited to site office and welfare accommodation, tower cranes, excavations and storage of materials, gantries, hoists, chutes, site huts, hoardings, skips, scaffolding, temporary crossings, vault bridges etc.), paying all fees and complying with Gravesham Borough Councils Licensing Requirements. The Contractor’s Tender / Contract sum shall be deemed to account for all costs of whatsoever nature associated therewith.
2. The Contractor shall take full responsibility for obtaining and paying for any necessary additional licenses (including tower crane oversail licences) and the like necessary to enable the Works to proceed. The Contractor will be deemed to have consulted with statutory bodies, adjoining owners, leaseholders and all other interested parties accordingly. The Contractor’s Tender / Contract sum shall be deemed to account for all costs of whatsoever nature associated therewith’

## Section 3.11 Drainage and External Mains Requirements

3.11.1 Generally

1. The design and construction of the drainage and external mains shall comply with the requirements of the Local Authority and Statutory Undertakers.
2. The Contractor shall submit his proposals for the drainage and external mains to the Employer and Planning Authority for approval.
3. The design and construction of the drainage shall be to the Local Authority’s adoptable standards whether it is adopted or remains private.
4. The Contractor shall use his best endeavours to ensure that the drainage is adopted by the Local Authority and he shall pay all fees, bonds, etc. in conjunction with this requirement.

3.11.2 Drainage

1. The foul and surface water drainage systems shall be designed to properly function when carrying the maximum anticipated loads and shall comply with the requirements of the Local Authority.
2. The drainage system shall be designed to be a gravity system without the need for pumping stations.
3. The drainage system shall be designed to avoid running under buildings.
4. Allow for locating and diverting any existing drainage including reconnecting to new or existing systems.
5. Other than the final drainage connections, the Contractor shall not connect to the existing drainage system. All redundant drain runs shall be plugged and manholes in filled.
6. Drain runs shall be laid to falls to ensure they are self-cleaning, and at suitable depths to provide maximum protection.
7. The Contractor shall allow for protecting all existing live drain runs, manholes and gullies, etc.
8. The Contractor is to allow for underground rainwater attenuation as required by the Local Authority.
9. Manholes are to be brick, PVC-u or concrete as required.
10. All manholes shall be accessible.
11. All manholes shall be of adequate strength for pedestrian or vehicular traffic as appropriate.
12. All manholes shall be appropriately located to facilitate ease of access.
13. Manholes located in paved areas with block paviors shall have recessed covers and inlaid with matching finish.
14. Gullies are to be securely bedded in concrete.
15. All gullies shall have rodding points.
16. Drainage channels shall be provided where required.
17. Drainage channels are to be securely bedded in concrete.
18. All drainage channels shall have galvanised gratings which shall be accessible.
19. Drainage gullies shall be provided to communal bin stores to facilitate cleaning down.
20. The Contractor shall test the whole of the drainage systems to the approval of the Local Authority and Employer.
21. The Contractor shall clean out the whole of the drainage system prior to handover by jetting or other means. The Contractor shall ensure that no builder’s debris, rubbish etc. has entered the drainage system during the construction works.
22. The Contractor shall carry out a CCTV survey of the drainage systems prior to handover to ensure that there are no defects or obstructions in the drainage system. A copy of the CCTV survey shall be handed to the Employer

3.11.3 Land Drainage

1. Land drainage or sub-soil drainage shall be provided to areas which are susceptible to flooding or waterlogging or have high water tables, poor sub-soil drainage or where the construction works have affected the natural flow of ground and rainwater.

3.11.4 External Mains

1. The Contractor shall provide electricity, gas, telephone and water mains to the dwellings and pay for all costs and charges in connection with their provision.
2. The Contractor shall agree the positions of all meters and plant with the Statutory Undertakers and Employer.
3. Gas and water meters shall be located externally and be capable of being read by the Statutory Undertakers and residents. Meters shall not be located internally within the buildings and shall be capable of being read remotely.
4. Provision shall be made for the future installation of credit/key meters.
5. No meters shall be located in soft landscaping and shall be accessible from paved areas.
6. All meters must be clearly labelled to identify which dwelling they serve.
7. Allow for locating, disconnecting and diverting any existing external mains as required.
8. The Contractor is to provide additional external mains for use as fire hydrants as required by the Local Authority or Fire Authority.
9. The Contractor is to include for all builder’s work in connection with the external mains.
10. The provision below is in addition to the installation of normal BT services.
11. Fibre optic communications should be installed to all dwellings. The inclusion of Fibre infrastructure is to include the main distribution location (Street cabinet/s or internal cabinet/s), structured cabling from distribution cabinet to dwelling and power provision to said cabinets.
12. External cabling (running through BT ducts) will be installed by the nominated contractor. For all internal cabling (both individual housing and blocks of flats) the contractor will run the cable from termination point (dwelling) to the distribution point (or external wall of housing where CSP is to be located).

3.11.5 Prohibited materials, workmanship or forms of construction

1. Connection into existing drainage systems, other than final connections is not permitted.
2. Manhole covers and frames which are unlevelled, loose or provide trip hazards will not be accepted.
3. Manhole covers and frames in grass or soft landscape areas will not be accepted.
4. Damaged or defective meter boxes will not be accepted.
5. Pumping stations are not allowed.

## Section 3.12 Works Outside the Boundary of the Site

3.12.1 Generally

1. The design and construction of any works outside the boundary of the site shall be carried out to the approval of the Local Authority or Statutory Undertaker.
2. The Contractor shall enter into any separate agreements with the Local Authority or Statutory Undertakers as required to carry out any works outside the boundary of the site. The agreements shall include but not limited to Section 38 and 278 Agreements under the Highways Act and Section 104 and 106 Agreements under the Water Industry Act.
3. The Contractor shall pay for all costs and charges in connection with these requirements.

3.12.2 Drainage Connections

1. Allow for all work in connecting the new drainage to the existing system.
2. Allow for diverting and relocating the existing drainage including reconnecting to new or existing.

3.12.3 Roads and Pavings

1. Allow for extending, altering and adapting the existing access roads, footways, kerbs and path edgings as indicated on the layout plans or as otherwise required by the Local Authority.
2. Allow for removing any redundant crossovers and extending the pavement.

3.12.4 Crossovers

1. The design and construction of the crossings shall generally comply with the drawn requirements and the requirements of the Local Authority.

3.12.5 Incoming Services/Connections

1. Allow for altering the routes of existing services, service equipment, equipment and junction boxes, external lighting, etc.
2. Allow for all work in connecting the new services to the existing supplies.

3.12.6 Protection

1. Allow for all watching, lighting and temporary barriers etc as necessary to protect the works, workforce, residents and the public in general.

# SECTION 4 MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS

## Section 4.1 Mechanical, Electrical and Plumbing Services

4.1.1 Services Generally

Generally

1. The overall design objective of the services systems design is to achieve optimum efficiencies and reduce operational and maintenance risks.
2. The contractor’s attention is drawn to the Review of Utilities & Below Ground Services document included in the appendices. This is for guidance only and the contractor shall allow for their own surveys and investigations.
3. The whole of the plumbing, mechanical, heating, ventilation, electrical, gas, lift and all other services installations shall comply with the requirements of any statutory instrument, Local Authority, Statutory Undertaker and Defects Insurer.
4. All gas installations shall be carried out by a gas engineer who are registered to work safely and legally and included on the Gas Safe Register. The Contractor shall provide details of the Gas Safe registered engineer’s ID card. The Contractor shall ensure that the Gas Safe registered engineer notifies the Local Authority about the installation of new heat producing gas appliances and provides a Building Regulations Compliance Certificate in the format recommended by the Gas Safe Register.
5. The Contractor shall comply with all Gas Safe Register Technical Bulletins.
6. All electrical installations shall be carried out by an NICEIC registered Contractor.
7. The Contractor shall ensure that the electrical installations are covered by the NICEIC Insurance Backed Warranty.
8. All services installations shall be designed and constructed to enable easy access for maintenance and renewal of plant, equipment and controls.
9. The Contractor shall ensure that all plumbing, mechanical, heating, ventilation and all other services are installed in such a manner so as not to cause defects such as “pipe creaking”, “water hammer” or other such defects. The Employer will require that all installations are checked and tested to allow the identification and correction of any such defects.
10. The Contractor’s attention is drawn to the fact that the Employer may also employ his own Services Consultant or Contractor at all stages of the design, construction, commissioning, testing and handover of all Mechanical, Electrical and Plumbing Services. The Contractor shall cooperate with the Employer’s Services Consultant or Contractor in every respect and provide all necessary information required to enable him to monitor the design and construction of the services and ensure that a successful handover of the services is achieved.

Drawings

1. The Contractor shall provide two sets of coordinated Construction Drawings for the whole of the plumbing, mechanical, heating, ventilation, electrical, gas, lift and all other services installations for comment by the Employer. The drawings shall be provided at least four weeks before any services installations commence on site.
2. Drawings shall show the location and routes of all services pipework, plant, equipment, electrical points and controls.
3. The Contractor shall provide all design calculations in support of his design as requested by the Employer (e.g. flow calculations, heating calculations, sizing calculations, etc).
4. The Contractor shall not deviate from the coordinated Construction Drawings without the prior approval of the Employer.

Testing and commissioning

1. On completion of the works the Contractor shall test and commission the whole of the plumbing, mechanical, heating, ventilation, electrical, gas, lift and all other services installations and leave them all in good working order.
2. The Contractor shall afford the Employer the opportunity to be present at all tests carried out on the services.
3. The Contractor shall provide as a minimum, test certificates for each dwelling for the following:

1) Certificate of compliance with the Water Supply (Water Fittings) Regulations 1999.

2) Certificate of compliance with The Gas Safety (Installation and Use) Regulations 1998. Test certificates must be provided in the format recommended by The Gas Safe Register.

3) Certificate of compliance that the electrical installations have been installed and tested to BS 7671 (IEE Wiring Regulations). Test certificates must be modelled on those in BS 7671.

4) Test certificates for the Lift Installations.

5) Test certificates for the renewable technologies installed.

6) Test certificates for the sanitary and disposal installations.

Prohibited materials, workmanship and forms of construction

1. The use of tundishes should be avoided.
2. Stub stacks and air admittance valves are not permitted.
3. Combined traps for sink/washing machine assemblies are not permitted.
4. Pipework or fittings with push fit joints are not permitted.
5. Pipework or fittings must not be buried in concrete or screeded floors.
6. Pipework or fittings must not be buried in walls or plaster.
7. Pipework or fittings must not be notched into floor joists. Where notching cannot be avoided metal protection plates shall be provided over the pipework.
8. Pipework or fittings must be routed so as not to obstruct or restrict appliance spaces.
9. Electric heating is not permitted except in airing cupboards.
10. Air source heat pumps as a form of renewable technology are not permitted.

4.1.2 Design Criteria

Temperature Criteria

1. The installations within the buildings will be designed to maintain the internal conditions with an external ambient temperature of -3°C.

|  |  |
| --- | --- |
| Room | Design Temp (°C) |
|  |  |
| Living Room | 22 |
| Dining Room | 22 |
| Bedroom | 18 |
| Hall, Landing | 18 |
| Kitchen | 18 |
| Bathroom | 22 |

Ventilation Rates

1. Ventilation shall be provided as required by Part F of the Building Regulations, design must also meet CIBSE Guides and NHBC.
2. Natural or passive ventilation solutions are preferred by the Employer.
3. The design criteria for intermittent (type 1), Passive (type 2), Continuous mechanical extract (type 3) and MVHR (type 4) are laid out in Approved Document F and this should be the basis used for the design of these systems.

Thermal Comfort and Overheating

1. The effects of summer heat gain and overheating should be considered including in common areas of buildings.
2. The overheating prevention and cooling strategy shall be developed in accordance with the following hierarchy:

1. Minimise internal heat generation through energy efficient design;

2. Reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation and green roofs and walls;

3. Manage the heat within the building through exposed internal thermal mass and high ceilings;

4. Implement natural ventilation strategy within the dwellings and communal areas;

5. Use energy efficient mechanical ventilation systems where necessary; and

6. Use mechanical cooling systems.

1. Risk of overheating shall be minimised by means of passive measures where possible such as provision of solar shading or thermal mass. Use of mechanical cooling shall be considered as a last resort.
2. The design shall ensure appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.
3. The building should deliver thermal comfort levels in occupied spaces in accordance with the criteria set out in CIBSE Guide An Environmental Design or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type).
4. The thermal modelling analyses shall inform design and the temperature control strategy.

Air Infiltration for Design

1. The calculation of heat losses used to size the boiler and radiators shall take account of the level of ‘air tightness’ adopted in construction and allow for appropriate natural air change rates. The effect of any mechanical ventilation system provided in the dwelling shall also be taken into account.

Building Fabric Standards

1. The following U-values (W/m2.K) should be taken as a minimum building fabric energy efficiency requirement. It is the Employer’s attention that a minimum of 30% improvement over Part L (2010 Edition).

|  |  |
| --- | --- |
| Element | Proposed specification for the development |
| External walls | 0.20 |
| Roof | 0.14 |
| Ground floor | 0.17 |
| Windows | 1.4 |
| External Doors | 1.4 |
| Air permeability | 5 (m3/s/m2 @50pa) |
| Y - value | 0.08 |

Fire Alarm

1. An analogue addressable automatic fire detection and alarm system shall be provided in accordance with BS 5839: 2002 providing both audible and visual means of fire alert.

Energy Consumption

1. The building elements will be designed to ensure that energy consumption is kept to a minimum within the constraints of the specified operational parameters. All services plant and system must be selected with energy conservation in mind.

Water Consumption

1. Sanitary appliances, pipework ancillaries and brassware will be designed to ensure that water consumption is kept to a minimum, calculated in accordance with the Code for Sustainable Homes criteria for Levels 3 and 4, i.e. ≤105 litres / person / day.

NOx Emissions

1. All boiler appliances will be supplied with certification demonstrating that dry NOx emissions are less than 40 mg /kWh, in accordance with Code for Sustainable Homes criteria.

Legionnaires Disease

1. Engineering services systems will be designed to minimise the risk of Legionnaires disease associated with water supply systems. The recommendations of the Health and Safety Executive and Chartered Institution of Building Services Engineers will be adopted in this respect.

Insulants

1. All insulation products will be supplied with certification demonstrating that the Global Warming Potential (GWP) is less than 5.0.

Gas Flues

1. Where individual heating systems are provided boilers shall be located so that flues can pass directly through an external wall without the need for excessive runs of flue pipes. Two – pipe flues with inner and outer pipes for fresh air intake and exhaust gases are not permitted.
2. Where two – pipe flues or long lengths of flue pipes are required the Contractor’s Proposals must be agreed with the Employer before proceeding and in any event the following additional measures shall be incorporated;

* Flues shall not be more than 10m in overall length
* No flues shall run through adjoining properties or in roof voids that cannot be directly accessed from the dwelling it serves
* Flues should be sealed internally and externally with sand and cement to prevent lateral movement
* Where flues are encased in duct casings or in ceiling voids then robust access panels must be provided at no more than 2m intervals to allow for visual inspections to be made along the whole length of the flue. In addition access panels for inspection must be provided where there are joints in the flue or where there are changes in direction in the flue
* In every room where a flue passes through including when they are in ceiling voids in that room a hard wired carbon monoxide detector with battery back up shall be provided to each and every room.

1. The Contractor’s attention is drawn to Gas Safe Register Technical Bulletin TB008 “Room sealed fan draught flue systems concealed within voids” and he shall comply with its recommendations.

4.1.3 Sanitary and Disposal Installations

Soil, waste and overflow pipework

1. All internal visible soil, waste and overflow pipes shall be white.
2. All external visible soil, waste and overflow pipes shall be black.
3. Internal soil stacks shall not pass through living accommodation where possible. All soil stacks shall be adequately insulated against noise transmission.
4. All overflow pipes shall discharge to outside the building.
5. All overflow pipes for hot water shall be be copper or PVC.
6. All overflow pipes located in the roof space shall be insulated.
7. Soil and waste pipes shall be properly supported and include cleaning and rodding points which shall be easily accessible.
8. Cleaning and rodding points shall be provided at each floor level as a minimum. The position of all cleaning and rodding points shall be agreed with the Employer.
9. Waste pipes shall be provided adjacent to washing machine spaces and dishwasher spaces for connection of appliances by others. Standpipes shall be trapped and have removable caps.
10. Proprietary flashings are to be fitted to all pipes passing through roofs and a ventilating cowl shall be fixed to the head of each pipe. Soil and vent pipes are to discharge via ridge vents or neatly positioned on rear roof slopes.
11. All traps are to be white HD polythene two-piece traps with a 75mm deep seal.
12. Soil and waste pipe arrangements to bathrooms shall allow for the future connection of showers.
13. Soil and waste pipes shall be of appropriate materials taking into regard their location. In particular soil and waste pipes in vulnerable locations such as basement or under croft car parks shall be in cast iron. The Contractor shall also take into the consideration the fire safety requirements of the Building Regulations when selecting the materials for soil and waste pipes.

Ductwork

1. All internal pipe work shall be encased in ducts using rigid moisture resistant boarding.
2. Allow for screw-on access panels to all ducts. Chromium plated brass cups and screws shall be used.

4.1.4 Water Installations

Generally

1. Installations shall be designed taking into consideration the Plumbing Engineering Services Design Guide published by the Institute of Plumbing.
2. The design for water installations shall take into account all precautions to prevent Legionella Pneumophilia.
3. All stopcocks, control valves, meters and fittings shall be located in visible and accessible positions.
4. All stopcocks, control valves, meters and fittings shall be properly labelled with engraved metal or traffolyte tags.
5. All pipes serving sanitary appliances and plant shall incorporate in-line isolator valves to allow the appliances or plant to be disconnected and replaced.
6. All pipes, tanks and cylinders must be properly insulated to prevent freezing or unwanted heat gain.
7. All pipes, tanks and cylinders must be properly insulated to prevent condensation.
8. All pipes shall be copper with capillary jointed fittings, screwed iron or PVC with copper tails to sinks, baths, showers and radiators
9. All pipes must be neatly fixed and properly supported.
10. All stop valves and drain down valves must be provided at the appropriate locations.
11. Provide all necessary overflow pipes. Overflows shall be sensibly located and discharge externally in positions so as not to cause damage to the fabric.
12. Manifolds for pipe in pipe systems shall be located in airing cupboards.

Cold water

1. Provide a separate cold-water supply to each dwelling of adequate size and flow to meet the peak demands.
2. Pumped boosted water supplies shall be provided where necessary to provide adequate flow rates. Pumped boosted water supplies will be expected in developments of significant size or with three or more floors.
3. Booster pumps shall be obtained from a recognised supplier and shall consist of a minimum of three variable speed pumps with inverter controls arranged as duty, assist and standby. The booster pressure shall be sufficient to overcome the static head and the pipework pressure drop at the design flow rate and supply water at 3.0 bar.
4. The tops of all risers in boosted water supplies shall be fitted with anti-shock and vacuum break valves.
5. Pipework used in boosted water systems shall be MDPE (where underground) or copper, galvanised steel or high-quality plastic (Aquasystem or other equal and approved). Pipework shall be sized not to exceed 1.5m/s velocity at design flows to avoid velocity noise. All pipework above ground shall be insulated and vapour sealed to prevent unwanted heat gain.
6. The installation of boosted water supplies shall conform to the requirements of BS 6700:2006.
7. Individual or communal water tanks shall be provided as necessary. All tanks shall have the appropriate capacity. All tanks shall be properly supported, be insulated and have appropriate covers and be capable of isolation. Float valves shall be the equilibrium type.
8. Notwithstanding the above communal water tanks should be avoided.
9. All tanks shall incorporate overflow and warning pipes which shall be located so that faults can be promptly detected and any discharges will be routed so as not to cause any damage to the plant room or building.
10. All tanks shall be provided with an electromagnetic water treatment unit which shall be a Hydromag as manufactured by Hydrotec Limited and shall be suitably sized for the system being provided.
11. Limescale inhibitors (descalers) shall be installed to all incoming mains.
12. Stopcocks shall be provided in agreed positions where the incoming main enters the dwelling. A Surestop stopcock shall be provided within the dwelling for the use of the Resident.
13. Additionally, a stopcock shall be provided outside of the dwelling (flats only) to allow the Employer to shut off water supplies in case of an emergency. The stopcock shall be located in a lockable riser cupboard or be able to be locked.
14. Water meters shall be provided to each dwelling to allow water usage to be read.

Hot water

1. Provide hot water supplies to each dwelling of adequate size and flow to meet the demands.
2. Combination boilers for the provision of hot water are acceptable. The Contractor will need to demonstrate that the selected combination boilers will provide adequate hot water.

4.1.5 Heating Installations

Individual Heating Systems

1. A gas central heating and hot water installation is required for each unit. All-electric installations shall not be provided unless approved by the Employer.
2. A gas fired whole dwelling fully pumped heating system with hot water radiators is generally required to each dwelling. The system shall comprise a thermostatically controlled A-rated condensing combi boiler, pump, radiators, clock programmer, air and hot water temperature controls and all necessary kitemarked pipework and valves to make the system fully operational. The complete system shall be installed to the standards laid out in the Domestic Heating Compliance Guide.
3. Boilers should be located so that flues pass directly through an external wall. Excessive flue routes or flues passing through adjoining properties are not permitted. Boiler flues should be shielded in exposed situations.
4. Flue outlets should be positioned in accordance with the Gas Safe Regulations.
5. Boilers manufactured by Worcester Bosch from the Greenstar Range shall be used.
6. A detailed design of the proposed installation, complete with heat loss calculations showing due regard to the thermal requirements of the dwelling shall be provided. Design calculations shall assume that any adjoining property is unheated and radiators shall be sized to allow the system to run at flow and return temperatures that take advantage of the increased efficiency available when flue gas condensing takes place in the boiler. All work associated with the gas boiler shall be carried out by Gas Safe registered operatives.
7. The cold-water connection to a combi boiler shall include a scale reducing cartridge. Combi boilers shall include seven-day time switches manufactured by Honeywell or Danfos. All boilers are to be sited to avoid extended flue runs above false ceilings and where ever possible shall be located in a cupboard within the kitchen. Flue terminals shall be positioned in accordance with Gas Safe guidance and the information provided by the boiler manufacturer. A suitable terminal guard should be provided where flue terminals are fitted less than 2 metres above ground level.
8. Consideration must be given in the designing of systems for larger dwellings, to zoning off sections of the property to comply with Building Regulation requirements. Automatic control of the system shall consist of a three port or zone valves. A room thermostat shall generally be located in the main living room or in a central area where there is a sufficiently large heating requirement to allow the thermostat to provide good control.
9. Radiators manufactured by Stelrad from the Compact Range or similar approved shall be used.
10. All radiators shall be fitted with thermostatic valves manufactured by Honeywell and the minimum water circulation requirements for the boiler shall be provided by the use of a pressure operated by-pass. Thermostatic valves shall not be fitted to radiators in bathrooms or areas containing the room thermostat.
11. The position of radiators shall be agreed with the Employer.
12. An appropriate chemical corrosion inhibitor shall be installed within the system in strict accordance with the manufacturer’s instructions.
13. Controls for heating installations shall be robust and shall include a time clock and programmer. Controls shall be located in the kitchen giving independent control of hot water and heating systems.
14. Heating temperature is to be controlled by a thermostat located in the hallway adjacent to the living room door and away from radiators.
15. The heating system shall be left in operation for at least 72 hours and then drained down, flushed through and recharged.
16. Inhibitor by Sentinel shall be added to the system when recharging.
17. The heating systems shall be checked to ensure that unwanted noise is not generated and the selection of heating plant and equipment shall reflect this requirement.
18. Provide an electro magnet water descaling device manufactured by SpiroTech to heating and hot water systems.
19. Provide a tubular heater to each airing cupboard which does not contain a hot water cylinder.
20. Heating system controls, such as thermostats, shall be designed for good usability in accordance with the principles set out in BSRIAs “BCIA 1/2007 Controls for End Users”.

4.1.6 Ventilation Systems

Domestic Mechanical Ventilation Systems

1. Passive ventilation is preferred but where mechanical ventilation is necessary it shall meet the requirements of the Building Regulations.
2. Where the Contractor elects to provide Passive Stack Ventilation in lieu of a mechanical system or Mechanical Ventilation with Heat Recovery (MVHR) he shall provide his Proposals to the Employer for approval. The Contractor shall ensure any systems proposed are recognised systems that have a British Board of Agreement Certificate or are approved by the Building Research Establishment.
3. Where intermittent (system 1) extract fans are used they shall be selected to achieve quiet operation. Toilet, bathroom and shower extract fans shall be timer controlled and shall be activated by the light switch. Extract fans shall be controlled via a key operated fused spur outside of the room at high level. Due note must be taken of the requirement for additional trickle ventilators when using intermittent extract fan systems.
4. Kitchen extract fans shall have a humidistat and shall not be timer controlled.
5. Intermittent extract fans shall be selected to provide the required rate of extract against the calculated air flow resistance of the duct system. Generally, extended ductwork systems will require the use of centrifugal fans.
6. The ductwork for all domestic ventilation systems shall be made up of hard plastic round or rectangular ducts with properly designed fittings. Joints shall be sealed with the appropriate adhesive and tape. The use of flexible ducts must be kept to an absolute minimum and will only be allowed for the final connection to fan spigots or terminal valves or grilles. Rectangular flexible must not be used under any circumstances.
7. Ductwork must be designed with consideration to the likelihood of condensation forming in it and if necessary drain points shall be provided. Ducts shall slope to prevent condensation running into fans unless they are designed to cope with it.
8. The extract (and the supply with MVHR systems) rates shall be measured and where necessary adjusted to the design figures. Evidence of the measured rates and details of maintenance regimes, filter models and replacement schedules shall be included in the handover documentation.

4.1.7 Gas Installations

Gas Installations

1. Provide a separate metered gas installation to each unit.
2. All gas pipework shall be clearly marked and labelled.
3. A gas point shall be provided to each boiler and cooker point. Cooker points (where appliances are not provided) shall be capped off.
4. Provide a gas shut off valve to each unit.
5. Where a cupboard contains any gas appliance the cupboard should be suitably vented.
6. Gas meter to be either located in a GRP box supplied by the gas supplier or within a ventilated fire resistant service riser or cupboard. Locations of gas meters are to be agreed with the Employer.
7. The gas installation must comply with BS 6400:2006 and BS 6891:2005 the Gas Safety Regulations and the recommendations of the British Gas Specification and the Institution of Gas Engineers & Managers (IGEM). All piping laid below a suspended ground floor in a ground floor duct or embedded in a floor screed or wall plaster or passing through masonry (whether sleeved or not) must be protected against corrosion by a PVC sheath or be suitably wrapped to prevent damage by corrosion.
8. All gas installation work must be carried out by registered Gas Safe operatives.
9. A gas point shall be provided to each boiler and cooker point. Cooker points (where appliances are not provided) shall be capped off.
10. All appliances served by the gas installation shall be provided with an easily accessible isolation valve.

4.1.8 Electrical Installations

Schedule of fittings

1. The electrical installation shall, as a minimum, be in accordance with the below Schedule of Electrical Fittings hereafter.

|  |  |
| --- | --- |
| Kitchen | 3 double outlets above worktop (all dwellings). |
| Kitchen Appliance Spaces | Unswitched socket outlet at 750mm above finished floor level in each appliance space. Please see below “4.1.9 (2)” |
| Living area | 5 double switched socket outlets. Sockets are to be coordinated with the telephone and TV positions. |
| Double bedrooms | 3 double switched socket outlets. Sockets are to be coordinated with the telephone and TV positions. |
| Single bedrooms | 2 double switched socket outlets |
| Dining area | 2 double switched socket outlets |
| Hall | 1 single switched socket outlet at each level |
| Landing for loft light | 1 single switched socket outlet. Red engraved neon switch |
| Airing cupboard | 1 un-switched socket at low level for tubular heater (if applicable) |
| Airing cupboard | Fused spur for immersion heater with red engraved neon switch located outside of the cupboard |
| Bathroom | 1 shaver socket |
| Home office | 3 additional double switched socket outlets and data outlet |
| Walk-in store | 1 double switched socket outlet |
| Generally | A suitably positioned point (blanked off) shall be provided to allow for the future installation of a burglar alarm system in hall. |
| Private Gardens | 1 single switched socket outlet. External type by rear door |
| Parking Spaces | Provide containment to all car parking bays to enable the installation of electric car charging points. In accordance with 4.1.9 (29-33) |

Fittings and Cables

1. The electrical supplies to the washing machine, washer/dryer (where provided or space required as specified elsewhere), cooker (for the low-level cooker outlet and additionally for the gas ignition system as specified elsewhere), cooker hood (where fitted) tumble dryer (where provided or space required as specified elsewhere) and dishwasher (where provided or space required as specified elsewhere) shall comprise an unswitched socket outlet at 750mm above finished floor level in each appliance space (these socket outlets shall be in addition to the kitchen socket outlets scheduled elsewhere) connected to a multi gang switched control panel (grid switch) with a separate switch, fuse and neon indicator for each appliance located 225mm above worktop level to centre of outlet. The appliance switches for all of these appliances shall be grouped on the control panel and each appliance shall have a separate switch clearly engraved for the appliance served (including gas cooker ignition).
2. Switches and socket outlets are to be flush fitting.
3. Switches are to be Wide Rocker Switches.
4. All double sockets switches are to be located near outside edge for easy use by the elderly, handicapped or partially sighted.
5. All cable runs are to be concealed within the fabric of the building or in the roof space. Cables buried in plaster or screed shall be conduit protected.

Mains installations

1. Each unit shall have a separate electrical supply connected to a split load CCU located in a suitable semi-recessed cabinet in the ground floor store room or within storage cupboards in hallways to flats.
2. Consumer units shall be equipped with appropriate RCD and MCB protection with 2 spare ways.
3. Electric meters shall be located in a purpose made meter cupboard.

Power and lighting installations

1. Electrical fittings shall be fitted at the following height from the finished floor level measured to the bottom of the fitting:

|  |  |
| --- | --- |
| Socket outlets, BT and TV points  Socket outlets above worktops  Cooker unit  Switch plate  CCU  Heating controls  Shower socket  Door entry phone handset  Lamp holders | 450 mm above finished floor  150 mm above worktop  150 mm above worktop  1200 mm above finished floor  1500 mm from finished floor level to bottom edge of panel  1200 mm above finished floor  1200 mm above finished floor  1200 mm above finished floor  2100 mm above finished floor |

1. All socket outlets, except those serving fridges and freezers, shall be RCD protected.
2. The Contractor is to ensure that a double socket outlet is positioned next to each telephone and data point.
3. All fused spurs and isolators are to be clearly engraved to identify their operation. Plastic labels will not be permitted.
4. Spurs for immersion heaters, fridge, tumble dryer/dishwasher and washing machine and ventilators shall incorporate an indicator light.
5. Allow for a provision of a core vent for tumble dryer if feasible.
6. The Contractor shall ensure the lighting design provides adequate levels of lighting for the proposed user.
7. Supply and fix a shaver point.
8. Light fittings to bathrooms and toilets shall be sealed light fittings, easily openable for maintenance. The type of light fitting proposed by the Contractor is to be approved by the Employer.
9. Switches to all bathrooms. No pull cords.
10. Two-way light switching shall be provided to halls and landings.
11. Two-way/pole light switch to living/dining areas to allow independent operation.
12. All light fittings (except kitchen and wet rooms) shall be low energy pendant light fittings, minimum 18 watts. Provide low energy light bulbs to all fittings.
13. Light fittings to kitchen shall be a spotlight bar proposed by the Contractor for approval by the Employer.
14. Light fittings to communal halls and landings shall be Marlin Lighting’s Trim Line fittings or similar approved.
15. Lighting to communal areas is to be on a time delay and controlled by either a relay switch or touch sensitive type switch.
16. Provide emergency lighting installations where required.

External lighting installations

1. External weatherproof recessed bulkhead light fittings shall be located at the front and rear entrances to houses and shall incorporate PIR controls and comply with emergency light regulations.
2. The external lighting layout shall comply with Secured by Design. The layouts are also to be approved by the Planners and Employer.

Electrical heating installations

1. Airing cupboards without hot water cylinders shall be fitted with an electrical convecting bar heater with fused switched spur and neon indicator outside the cupboard. All bar heaters shall be provided with protective grills.
2. The immersion heater shall be a single element type with the illuminated switch for the immersion heater located in the hall and wired directly to the consumer unit and clearly engraved in red as "immersion heater".

Car Charging points

1. Provide ducting and suitable cabling to the number of electric car charging points required by the Planning Authority and Gravesham Borough Council.
2. Suitable ducting and cabling be wired back to the mains supply the cabling and ducting should be able to incorporate Pay as You Go metered charging points to enable a low charge (6-8 hours). Approval to connection point and location to be approved by GBC.
3. The Provision should allow for future charging units to incorporate a pair of 13A ‘pay as you go’ metered charging points LCD screens, contact reader, access door and integral LED lighting. Provision should also allow for charging units to be compatible with Chargemaster, Engie, Charge Your Car, Siemens, Electric Blue or similar approved and shall be capable of being enabled by an RFID card.
4. The contractor is to liaise early on with UKPN in terms of capacity as, if more than 20% can be achieved, the client would want to consider further provisions (depending on cost).
5. Provide individual charging points to each bungalow, location to be approved by GBC.

Smoke, heat and carbon monoxide detectors

1. Provide separately fused mains connected smoke detectors with trickle charge stand by battery to each hall/landing. The smoke detectors shall be linked where there is more than one in a unit.
2. All smoke, heat and CO2 detectors must be Firex.
3. Smoke detectors to be installed to LD2 Standard and hard-wired Optical detectors are to be fitted in all units. All detectors are to have a silence/test button, to be mains powered, and fitted with a sealed-in, non-removable, lithium battery power backup. All detectors are to have a 10-year guarantee on both the unit and the battery.
4. Provide a separately fused mains connected carbon monoxide detector with battery back-up located within 3 metres of the boiler and any other gas appliance.

Low energy bulbs

1. All light fittings shall have working low energy light bulbs fitted at Practical Completion.

Two way switching

1. The Contractor shall ensure that all lighting points to hallways have two way switching.
2. Two-way/pole light switch to living/dining areas to allow independent operation.

Boiler cupboards

1. All boilers shall be combination boilers and housed in separate kitchen wall cupboards where they are located in kitchens.
2. Allow for removable covers to all supply pipes to boilers. The removable covers shall be fitted in a neat and workmanlike manner.
3. All boilers which cannot be located in kitchens may be located in living rooms but they shall be contained in full height purpose made cupboards with suitable doors and ironmongery to match the internal doors in the dwellings (see drawings for locations).

Gas supply pipes

1. All gas supply pipes fixed to the outside of the buildings shall be concealed in polyester powder coated covers. The purpose of this requirement is aesthetic and the Contractor shall ensure that his proposals are diligently chosen to the Employers approval and installed in a workmanlike manner.

Energy & Sustainability

1. The contractor’s attention is drawn to the energy and sustainability statement provided in the M&E pack.
2. The contractor’s design shall have a reduction in CO2 over Part L 2014 of the Building Regulations by 2.0% in accordance with the sustainability statement.

4.1.9 Protective Installations

Lightning Protection

1. The Contractor shall carry out a full risk assessment to determine the need for a Lightning Protection System.
2. Where required the Contractor shall provide a Lightning Protection System.
3. The Contractor shall carry out all necessary soil resistivity tests prior to carrying out the works.
4. On completion of the works the Lightning Protection System shall be tested and shown on a record drawing.

4.1.10 Communication Installations

Door Entry Bells

1. The contractor shall supply and fit hardwired doorbells to all individual units.

4.1.11 Builders Work in Connection with Services

Generally

1. Allow for all necessary builders work in connection with the services.

Precast or Masonry Units

1. Holes in precast units or masonry units shall be formed using the appropriate methods.

Pipework

1. All exposed pipework (where not boxed in) must be painted
2. All pipework passing through concrete, masonry and other materials must be properly sleeved and protected against corrosion.

Duct Casings

1. All waste, soil and vent pipes shall be properly cased with a moisture resistant boarding or other boarding suitable for their location, finishes and subsequent use.
2. All waste, soil and vent pipes shall not be visible.

Access

1. All services shall be provided with robust access points and panels.
2. All access points and panels shall be proprietary metal or plastic access panels.

Fire stopping and compartmentalisation

1. The Contractor is to ensure adequate fire stopping and compartmentalisation is achieved.

Prohibited materials, workmanship or forms of construction

1. The services shall be designed to minimise the need for access panels. Suspended ceilings with removable panels are not permitted.
2. Pipework shall not be buried in floors or walls.

# SECTION 5 PRACTICAL COMPLETION AND HANDOVER

## Section 5.1 Completion Generally

5.1.1 General

1. The Contractor shall comply with GBC requirements as indicated herein and in appendix 7.1.3. The date (or dates in the case of sectional completion) for completion of the project will be as stated in the Building Contract. Handover shall generally comprise Practical Completion of the entire development. The Contractor should have completed their own quality control snagging prior to notifying handover and at the time of handover all dwellings their curtilage and relevant common areas shall be defect free.
2. The Contractor shall notify GBC of projected handover dates throughout the contract. GBC lettings team will require a 3-month minimum notification period of the expected handover date (or dates) to facilitate choice based lettings.
3. The Contractor’s attention is drawn to the fact that the properties should be handed over to GBC in a manageable quantity at each and every handover.
4. The Contractor shall provide GBC with a 12 week, 8 week and 4 week notice leading up to handover.

5.1.2 Completion of the Development in Sections or Parts

1. On large schemes where it is impractical for GBC to take Handover of an entire development, GBC may elect to take partial possession or contractual sectional completions. In such circumstances this will be written into the Building Contract and the Contractor shall ensure that all necessary access, egress, services, drainage and other associated facilities are also complete and compliant with CDM Requirements in relation to the occupation of the part or section of the development to be occupied and that the Contractor does not then enter into the completed works for any reason.
2. Contractors are required to comply with all procedures and requirements for handover whether offering complete handover of the entire development or any part thereof.
3. The Contractor shall also ensure that partial possession does not contravene any planning requirements.
4. Where GBC accepts possession of any section or part of the works that is reliant upon work located elsewhere on the site, such as a district/communal heating system, the Contractor shall complete such other work in sufficient time to permit possession and allow handover to take place.
5. A full report addressing Health and Safety will be required prior to handover to ensure all matters affecting the occupation of units and their interface with the remaining construction works have been addressed with a new traffic management plan having been approved.
6. During execution of the remainder of the works the Contractor will ensure that completed sections or parts of the works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

5.1.3 Quality Control – Benchmark Properties

1. The Contractor shall identify a benchmark property. The Contractor shall invite the client and client’s representative/Employer’s Agent to view the completed property at least 3 months before the first scheduled handover. This property will then be used as a quality benchmark to agree the standards of workmanship and finish quality for the remainder of the completed dwellings.
2. The benchmark property will be the last unit of the tenure type to be handed over. The benchmark property is not to be used for storage of materials and equipment or as additional office space or welfare facilities for site staff during the period prior to handover.

5.1.4 Snagging by the Contractor

1. The Contractor shall be responsible for snagging the dwellings before offering for snagging by GBC to ensure they meet the standards agreed from the benchmarking exercise.
2. The Contractor shall provide notice to the Employer or the Employer's Agent 3 months prior to the anticipated Completion Date with a list of snagging dates for GBC together with dates by which the snagging shall be substantially complete. The Employer’s Agent will be expected to manage this process and to keep GBC informed of any quality issues that arise together with proposals for their resolution.

5.1.5 Mechanical and Electrical Installation Demonstrations

1. The Contractor shall arrange for comprehensive M&E demonstrations to GBC staff covering all aspects of the Mechanical and Electrical installations. The demonstrations should cover:

* communal systems including distribution and waste, communal boiler plant with focus on specialist installations such as renewable energy installations, entry systems, TV reception systems, back up generators and the like:
* interior features including positions of stop cocks, CCU, items such as boiler operation, mechanical ventilation system, heated towel rails, intercoms, TV and telephone provision, feature lighting (bulb changes) etc.
* external installations such as lighting, vehicle gates where applicable.

1. The demonstrations should be pitched at both technical and non-technical staff. Back up literature covering the headline features of each installation is required together with trouble shooting guidance for typical problems such as loss of hot water/heating. The demonstration literature should reflect what is inserted into the Resident User manual and Operation and Maintenance Manual but not necessarily repeat the same detail.
2. The Contractor will also facilitate and support GBC own induction sessions for new residents. Specialist sub-contractors will be expected to attend these sessions, particularly where new or unusual technologies are present such as solar thermal, PV, MVHR etc.

5.1.6 Pre-Handover Inspection of Individual Properties

1. In the case of individual properties, the Contractor shall offer dwellings for inspection by GBC complete with all mains services connected and operational, all M&E installations fully operational and be in a clean and tidy condition with light bulbs fitted. Heating and hot water shall be turned on and baths shall be left filled to the overflow level with bath panels, duct covers and the like removed. Loft hatches shall be removed and a ladder and lighting provided for inspection purposes. Dwellings will be inspected by GBC in conjunction with the Employer’s Agent in accordance with GBC’s checklist and then de-snagged by the Contractor to the satisfaction of GBC’s Clerk of Works/Quality Control Inspector who will use discretion in relation to decorative matters.
2. Additional checks will be carried out to fixtures and fittings in sale dwellings to check the condition and fitting of the items such as shower screens, cookers, hoods and white goods etc.
3. The Contractor shall carry out one or more induction sessions for the benefit of GBC’s staff, to familiarise them with the development layout and services. The Contractor shall also facilitate and support GBC’s own induction sessions for new residents. Specialist sub- contractors will be expected to attend such sessions especially where complex or innovative new technologies are incorporated into the development.

5.1.7 Testing and Commissioning

1. Notwithstanding the notices required for the handover of dwellings, the Contractor by arrangement with GBC shall demonstrate the proper completion by all trades, with all services being connected, commissioned and demonstrably working.
2. The Contractor shall be responsible for the payment of all main electricity, telephone and water company charges up to and including the day of Practical Completion or sectional completion, including the cost of such utility services required for commissioning and testing of Contractor's and Employer's plant, equipment or installations.
3. The Contractor shall arrange for each of their sub-contractors to provide to GBC staff with an induction for all specialist equipment and services such as boosted water systems, district/communal heating, lifts etc.

5.1.8 Resident’s user guide

1. At least one month before Practical Completion, the Contractor shall provide the Employer with a draft Resident’s User Manual for approval.

5.1.9 Cleanliness of Site at Handover

1. The Contractor shall ensure that any areas handed over during the contract are provided to GBC with a high standard of cleanliness. This means that the windows are cleaned inside and out, any carpets and hard surface flooring and all general surfaces cleaned down.
2. The Contractor shall ensure that any materials, debris or dust from the ongoing works is kept clear of the areas handed over.

5.1.10 Practical Completion (Day of Handover)

1. The Contractor is advised that GBC will not take handover on the following days: Fridays, During the fortnight before Christmas, Within the period 24th December to 2nd January following, both dates inclusive; Within the building industry Easter Holiday period.
2. However, in the case of General Needs and Affordable dwellings for rent, handover will normally be scheduled for a Tuesday, Wednesday and Thursday, with the exception of Bank Holidays. Special arrangements may apply particularly where large schemes are being handed over details of which will be discussed by GBC with the Contractor as necessary.
3. At handover, each dwelling shall be fit for habitation being clean, safe, secure with all services and all fixtures and finishes present and in full working order.
4. All common areas serving dwellings to be handed over must also be complete. Temporary protective flooring covers are to be provided and removed once all residents moved in. The Contractor’s is to account for this within his tender/contract sum.
5. Notwithstanding inclusion in Appendix 7.1.13 of GBC’s, checklist of the information required at handover, on the day of handover, the Contractor shall prepare the dwellings by ensuring the following steps are taken:

• central heating is turned on, with thermostat set at 16 degrees

• all internal lights are switched on

• all sinks, basins and baths are filled with hot water to 2cm below the overflow

• a key is provided in each window lock

• all external doors are unlocked

• at the front door hand a key ring with all the keys to all external door locks labelled with the postal address to the client

• all keys will be labelled and organised into sets

1. On the day of Handover, the Employer's Agent, GBC, and the Contractor will record all gas, electricity and water meter readings. The Contractor is responsible for all energy and water used including standing charges, up to and including the day of handover. The Contractor will record the utility supplier, meter readings and reference numbers, including the meter point reference number (MPRN) and the meter point administration number (MPAN) for electricity, and the (MPRS) metering point registration system for gas in GBC’s handover form.
2. The Contractor should provide GBC with a copy of their notification to the appropriate statutory authority which contains the property address, the handover date, MPRS and MPRN or MPAN numbers, the meter number and reading and confirmation that the account is now transferred to GBC for each home and landlord’s supply. For rented properties the accounts should be addressed to “Housing Manager” c/o the local GBC office (to be advised).
3. Upon completion of the Handover inspections, representatives from the Employer’s Agent, the Contractor and GBC Development, Housing, and Asset Management departments will sign a Handover Acceptance Form for each completed dwelling. Any information that remains outstanding after the time of handover will result in GBC having to give consideration to withholding the release of any final retention monies that may be due to the Contractor until such time that the outstanding information is provided by the Contractor.

5.1.11 Refuse Bins

1. The Contractor shall liaise with the Local Authority and coordinate the provision of refuse bins, including accounting for any purchase cost if not free issue by the Local Authority which must be include in his Tender/Contract Sum, suitable for local waste management to be on site and capable of being used by residents before or on the day of handover. The number and type of refuse bins must be agreed by the contractor with the Local Authority and the requisite number of bins placed in each bin store by the Contractor.

# SECTION 6 MAINTENANCE AND DEFECTS

## Section 6.1 Maintenance and Defects

6.1.1 Defects Administration Generally

1. The Contractor is advised that GBC’s Repairs Team will be responsible for managing the reporting of defects received from their residents and subsequently informing the Employer’s Agent and Contractor of the details. The Contractor is then responsible for the administering of the defects rectification works and shall provide to GBC and the Employer’s Agent a contact name, telephone number and email address for the Contractor’s representative responsible for dealing with defects.
2. The Contractor must also provide GBC with their policy on how they deal with out of office hours defects. In the event of an emergency, the Contractor must have adequate out of hours cover in place. This must include emergency cover during public holidays, especially the Christmas period. The Contractor shall provide GBC with details of their emergency out of hours response telephone numbers, especially those contractors responsible for mechanical and electrical services and specialist equipment such as lifts, water pumping, district/communal heating etc.

6.1.2 Defects Procedures

1. The Contractor shall be liable for the rectification of all defects which arise due to the Contractor failing to comply with the obligations of the contract including those after practical completion for a period of 12 months.
2. All calls from occupants reporting defects will be routed through GBC’s Customer Services Centre in order to filter non-essential calls and monitor all calls relating to defects. The necessary contact details shall be provided to the Contractor by GBC and shall be inserted into the Resident’s User Manual.
3. GBC will email a defect notification to the Contractor with a copy to the Employer’s Agent. The notification will provide contact details for access with a clear indication of the defects priority. The Contractor is then required to make their own arrangements with the resident for access to inspect, ascertain the works required and then carry out the necessary rectification works. The Contractor shall keep GBC and the Employer’s Agent informed of their progress in rectifying defects on a weekly basis.
4. The Contractor shall provide GBC with a weekly report setting out the defects reported, the date they were reported, when access was gained, an indication of progress of the defects being rectified or the actual date of rectification. The Contractor is to provide this information to GBC with a copy to the Employer’s Agent, by no later than 3.00pm on the Friday of each week.
5. The Contractor will be required to respond to all defects within the following prescribed timescales. If defects are not attended to within the prescribed timescale, GBC will arrange for the Contractor’s emergency call-out Contractors to attend to the defect(s). The costs for this will then be deducted from the retention monies held by GBC under the Contract.
6. On occasion there may be certain repairs that will need to be dealt with at the end of the Defects Liability Period e.g. settlement cracks or if the repair is not an emergency and is reported very close to the end of first year inspection. For the avoidance of doubt the Contractor shall not be entitled to leave any defect notified during the Defects Liability Period until end of defects unless GBC or their Employer’s Agent have agreed.
7. Notwithstanding the foregoing, GBC recognises that on occasion, Contractors might incur expense for abortive callouts and such situations will be reviewed on their individual merit as and when they arise. In the case of legitimate abortive callouts, GBC will consider making a maximum payment of £50 plus VAT per abortive callout to the Contractor. This can apply for example where no defect is discovered or on the occasion of a second broken appointment. In all cases a report with supporting evidence must be provided to GBC within 48 hours of the abortive callout for consideration. If the claim is accepted the amount should be invoiced separately to GBC and not included in the Final Account unless otherwise agreed by GBC.

6.1.3 Response Times for Rectifying Defects

1. The Contractor shall comply with the following response times for the purposes of clause 2.35 of the Contract unless there are valid reasons for failure to do so:

Priority 1 – 24 Hour Emergencies

These are defects that constitute an unacceptable security, health or safety risk or involve a defect which if not attended to immediately would be detrimental to the property.

The following is a list (though not exhaustive) of examples, which might fall under this category.

• Complete electrical failure

• Dangerous electrical faults

• Complete lighting failure

• Boiler flue defects

• Serious water leaks from plumbing

• Blocked foul drain, soil pipe or sole WC

• Dangerous structure reports

• Failure of heating systems

• Failure of hot/cold water services or Emergency systems

• Specialist equipment failure such as Warden call

• Lift failure

• Access control and door entry phone system failure

• Loss of security where the contractor is responsible

• Loss of drinking water supply where the Contractor is responsible

• Loss of Gas supply where the Contractor is responsible

Emergencies must be remedied by the Contractor at his expense immediately, and certainly within 24 hours of the Contractor being notified by GBC or the Employer’s Agent either by written notification or by telephone. This includes weekends and evenings outside normal working hours.

The Contractor may elect to use GBC’s emergency call out contractor and pay all the costs associated therewith. The Contractor must respond to GBC or the Employer’s Agent within two hours of receiving notification of an emergency defect stating the proposed remedial action. Should the Contractor fail to act upon the call out then GBC will use its own Emergency call out personnel and deduct all reasonable costs incurred from any monies outstanding to the Contractor under the Contract.

Priority 2 – 7 Calendar Days – Urgent Repairs

These can be described as problems, which severely inconvenience residents.

The following is a list of examples (though not exhaustive), which might fall under this category.

• Public area lighting failure (unless a security breach)

• Minor loss of heating and/or hot water

• General plumbing faults

• Repairs to rainwater goods

• Roofing repairs to counter rain penetration

• Blocked guttering, downpipes, gullies and soakaways

• Communal TV

• Minor electrical faults such as defective switches and lights

Urgent repairs must be attended to within 7 calendar days of the Contractor being notified and in certain circumstances may need to be treated as emergencies when instructed as such by GBC.

Priority 3 - 1 Calendar Month - Routine Repairs

These are problems other than Priority 1 or Priority 2 defects which render the accommodation difficult to use and cannot be left until the end of the defects liability period.

The following is a list of examples (though not exhaustive), that might fall under this category.

• Repairs to joinery

• Easing doors and windows

• Repairs to boundaries and paths (unless a safety or security risk)

• Tiling and plaster repairs

• Redecoration following major leak or other major damage

• Routine repairs must be attended to within 28 calendar days

Priority 4 Other Defects

These are non-urgent problems that do not fall within the foregoing categories of priority, which subject to GBC’s agreement, can be left to the end of defects liability period.

The following examples (though not exhaustive), might fall under this category.

• Shrinkages and the like

• Redecoration following minor repair

• General building settlement repairs

Where defects are of a scale or seriousness that they cannot be completed within the timescale stipulated, then they shall be completed within the period of time stated by GBC or the Employer’s Agent. In calculating such a period of time, GBC or their Employer’s Agent shall have regard to the nature and scope of the likely remedial works.

Notwithstanding the foregoing, in urgent cases where life or property is at risk or further damage may occur, GBC may decide to undertake remedial work at the Contractor’s expense without first serving notice on the Contractor.

6.1.4 Protocol for Defect Rectification During the Defects Rectification Period (DRP)

1. When a defect categorised as an emergency is sent to the Contractor, the Contractor is required to contact the occupier within 2 hours and shall rectify/make safe the defect forthwith and no later than 24 hours following notification by the Employer’s Agent or GBC. The Contractor shall immediately inform GBC or the Employer’s Agent when the works have been completed or if there are any issues preventing the works from being completed within the required timeframe and/or if they have only carried out a temporary repair.
2. When a defect categorised as a non-emergency is notified to the Contractor by the Employer’s Agent or GBC, the contractor is required to make contact with the occupier within 24 hours and to rectify the defect with 5 working days. The Contractor must inform the Employer’s Agent and GBC when an appointment has been made to carry out the works, and when the works have been completed and/or if there are any issues preventing the works from being completed within the response time. Where the issue will prevent the repair being undertaken within the agreed target timescale, GBC’s Customer Services Team will contact the occupier to advise of the delay.
3. In the event that the repair is delayed due to non-availability of parts or no access, the response time will be extended to an agreed target timescale not exceeding 20 days. If the repair is delayed due to access not being granted by the occupier, the Contractor must update the Employer’s Agent and GBC within 24 hours of attempting access so that GBC can address this with the occupier. If an appointment has not been made with the occupier prior to the Contractor’s attempt to gain access, GBC will not consider this to be a no access attempt. If the repair is delayed due to parts being unavailable, the Contractor is required to provide a weekly update on the status of the repair until the defect is rectified. In situations where, for example, the heating does not work owing to a delay in parts being available, a back-up facility must be provided. This might involve, for example, oil filled electric radiators or hot air blowers and all costs in supplying and running these will be the Contractor's responsibility.
4. Defects that are reported and deemed to be cosmetic or non-urgent as decided by GBC will be notified to the Contractor with an acknowledgement as to whether or not they may be left to the end of the DRP to be made good.
5. The Contractor is required to provide the Employer’s Agent and GBC with a weekly progress report which includes an update on each defect reported.
6. The Contractor and Employer’s Agent must provide detailed information to GBC on any issues which may arise when contacting or visiting occupiers. This includes and may not be limited to the following:

• Failure to contact the occupier

• Failure to agree on appointment arrangements

• No access to complete works

• Unable to complete works due to delay in availability of parts

• The occupier being unhappy with the works that have taken place

• The occupier being rude/offensive/violent towards the Contractor

6.1.5 Inspections and Making Good Defects Certification

1. Approximately 2 weeks prior to the expiry of the 12 months defect rectification period, the Employer’s Agent will arrange to inspect the properties and prepare and circulate to GBC and the Contractor a list of defects to be attended to as required under the terms of the contract.
2. GBC will write to occupiers advising the date of the end of defects inspection. Occupiers will be offered two appointment dates to allow access to their property. The contractor must attend this inspection. A copy of the list of defects recorded during the inspection shall be issued by the Employer’s Agent to GBC and the Contractor. The inspection sheet format is to be created by the Employers Agent using Microsoft OneNote.
3. Should access not be provided after two attempts, GBC will write to the resident concerned advising them that their matter is now closed.
4. Wherever possible, a date for making good defects should be agreed by the Contractor with the occupier at the time of the end of defects inspection and their telephone contact details taken. The Contractor shall then complete all defects works as detailed in the end of defects liability report within 60 days of the initial inspection taking place.
5. The Employer’s Agent shall monitor the completion of the defects works and ensure the occupier signs off the defects when the defects works have been satisfactory completed and report to GBC accordingly.
6. The Contractor must notify the Employer’s Agent and GBC immediately it becomes aware of any issues preventing the defects works from being completed within the timeframes stipulated in the Employer’s Requirements.
7. When the Contractor has made good all defects he should notify the Employer’s Agent and shall provide a sign off sheet for each dwelling confirming the defects works that have been rectified to the satisfaction of the resident. The sheet will contain details of the defects and be signed and dated by the occupier (printed name, signature, telephone number and date). Copies will be circulated by GBC to the Employer’s Agent.
8. If defects are not attended to within 60 days, the Employer will arrange for its own Contractors to attend to the defects. The costs for this will be deducted from the Contractor’s retention monies held by the Employer under the Building Contract.
9. The Employer’s Agent, in conjunction with the Contractor, shall check that defects to communal areas are rectified and shall also inspect any dwellings where defects have not been fully signed off by the occupier. When the Employer’s Agent is satisfied that all defects have been rectified, he will issue the Notice of Completion of Making Good Defects.
10. GBC will not agree to issue the Certificate of Making Good Defects until there is evidence that all defects have been dealt with. In turn this will mean that the Employer’s Agent will be unable to issue the Final Statement.

6.1.6 Abortive Defects Call Outs and Rechargeable Defects Works

1. The contractor shall confirm their policy relating to defects call outs outside of their contractual requirements. Should the Contractor decide to charge for such defects call outs, a schedule of the Contractor’s charges must be included within the Contractor’s tender, which will be taken into consideration by GBC as part of their tender evaluation.
2. GBC will attempt to investigate all occupier reports of defects to reduce the incidence of abortive defects call outs. However, it is envisaged that instances may occur where occupiers have reported defects which are later identified as general maintenance items.
3. The contractor shall liaise with the Employer’s Agent to ensure that potential recharges are recorded accurately. The Employer’s Agent will then administer the reclaim of these charges from GBC at the end of the defects liability period.

6.1.7 Defects in Default of the Contract Requirements

1. The Contractor will be deemed to be in default of his Building Contract obligations in the following circumstances where, having been given sufficient opportunity to carry out defect remedial works and thus mitigate any potential loss they may suffer from having others carry out the remedial work;

• The Contractor does not remedy the defect, shrinkage or other fault (the Defects) within the response times stipulated within the Employer’s Requirements.

• The Contractor cannot source parts, or get a specialist contractor to attend within the agreed response times under the Contract and has not advised GBC of this.

• The Contractor is unwilling to remedy a defect that has been identified as a defect by the Employer’s Agent or GBC unless GBC has given prior written confirmation that this will not be regarded as a default.

1. Where a Contractor is deemed to be in default GBC will contact the Employer’s Agent and may without prejudice to any right GBC has under clause 2.35 of the Building Contract - instruct the Employer’s Agent to serve notice on the Contractor. The notice will advise the Contractor of the default and request that the defect is rectified within 10 working days or such other period as may be stipulated by the Employer’s Agent. In the event the Contractor fails to comply with this notice GBC will be entitled to rely upon clause 2.35 and appoint a ‘step in’ Contractor in order to complete the remedial works. In these circumstances’ costs will be recoverable from the Contractor in accordance with clause 2.35 of the Building Contract.

# SECTION 7 APPENDICES

## Section 7.1 List of Appendices

All documents listed below are located on the Appendices CD.

7.1.1 Additional Tender Documentation (Empty at Tender)

7.1.2 Contractor’s Proposals (Empty at Tender)

7.1.3 JCT D&B 2016 Building Contract Amendments

DRAFT JCT - Armoury\_Drive\_Design\_and\_Build\_Contract\_2016\_Edition.pdf

ABI Performance Bond.doc

NHF Form of Agreement for Collateral Warranty.doc

Parent Company Guarantee Form.doc

JCT 2016 Building Contract Amendments.docx

7.1.4 Standard Contract Sum Analysis Format

Armoury Drive CSA.xlsx

7.1.5 Contract Drawings

AMD-BPTW-01-ZZ-DR-A-1701-P02-S4.pdf

AMD-BPTW-02-ZZ-DR-A-1702-P04-S4.pdf

AMD-BPTW-XX-00-DR-A-0001-P01-S4.pdf

AMD-BPTW-XX-00-DR-A-0100-P01-S4.pdf

AMD-BPTW-XX-XX-DO-A-0603-P06-S4.pdf

AMD-BPTW-XX-XX-DO-A-0603-P06-S4.pdf

AMD-BPTW-ZZ-00-DR-A-0101-P03-S4.pdf

AMD-BPTW-ZZ-00-DR-A-0105-P01-S4.pdf

AMD-BPTW-ZZ-00-DR-A-2201-P01-S4.pdf

AMD-BPTW-ZZ-00-ST-A-5601-P03-S4.pdf

AMD-BPTW-ZZ-00-ST-A-5701-P03-S4.pdf

AMD-BPTW-ZZ-00-ST-A-5901-P03-S4.pdf

AMD-BPTW-ZZ-01-DR-A-0102-P02-S4.pdf

AMD-BPTW-ZZ-01-DR-A-0103-P02-S4.pdf

AMD-BPTW-ZZ-XX-DR-A-2001-P01-S4.pdf

AMD-BPTW-ZZ-XX-DR-A-2002-P01-S4.pdf

AMD-BPTW-ZZ-XX-DR-A-2003-P01-S4.pdf

AMD-BPTW-ZZ-XX-DR-A-2004-P01-S4.pdf

AMD-BPTW-ZZ-XX-DR-A-2210-P01-S4.pdf

7.1.6 Site location Boundary

AMD-BPTW-XX-00-DR-A-0001-P01-S4.pdf

7.1.7 Accommodation Schedule

Armoury Drive - Accommodation Schedule (PRL version).docx

7.1.8 Planning Documents

Planning Submission

Planning Submission Application.pdf

Planning Approval

Planning Approval (20200561).pdf

Planning Committee Report (Supplementary).pdf

Planning Committee Report.pdf

7.1.9 Topographical Survey

L9329 - ALBERT MURRAY CLOSE, DA12 1LT.dwg

L9329 - ALBERT MURRAY CLOSE, DA12 1LT.pdf

7.1.10 Information on Existing Services

Cadent Gas

534873, 182215, TQ3482 300 m, 145 m.pdf

534884, 182248, TQ3482 226 m, 109 m.pdf

534894, 182170, TQ3482 226 m, 109 m.pdf

534903, 182212, TQ3482 428 m, 207 m.pdf

SGN Gas

14523028\_SGN (002).pdf

Customer Letter.pdf

Dig Safely Measures to avoid injury and damage to gas pipes.pdf

Know what's below.pdf

Map key.pdf

Valve safety advice.pdf

UKPN Electric

South+of+England.pdf

UKPN Customer Letter.pdf

UKPN\_14523028.pdf

BT.pdf

Grid.pdf

Linesearch.pdf

NATIONAL GRID.PDF

Plan.pdf

Virgin.pdf

7.1.11 Surveys and Investigations

1. Archaeological

AOC - SJA, Albert Murray Close DBA 03.04.2020.pdf

1. Ecology

551310ltAug19FV01\_PEA.pdf

551310ltAug20FV01\_Bats.pdf

Former St Johns Ambulance Brigade HQ. KCC Ecological Advice Service. Sept 20.pdf

Preliminary Ecological Appraisal.pdf

1. Geotechnical

17753\_Albert Murray Close\_Preliminary Investigation Report\_ISSUED.pdf

1. Heritage

200903 Albert Murray Close heritage assessment final (1).pdf

Heritage Statement copy.docx

1. Horticultural

Four.jpg

One.jpg

Three.jpg

Two.jpg

1. Topographical

L9329 - ALBERT MURRAY CLOSE, DA12 1LT.dwg

L9329 - ALBERT MURRAY CLOSE, DA12 1LT.pdf

7.1.12 Pre-Construction Information

1. 29.02 - B9175 - Armoury Drive 04.01.2021.pdf
2. 01STATs
3. Archaeological
4. DRAs
5. Ecology
6. Geotechnical
7. Heritage
8. Topographical

7.1.13 Employer’s handover procedure

Armoury Drive - Handover Procedure.pdf

7.1.14 Report on Title

Report on Title.doc

7.1.15 Door Specification

Fire Door Product Offering.pdf