



Employer's Base Build Specification

Chancerygate

I4 Freebournes Road, Witham

May 2022

Revision	Notes	Date	Author
V19	Electricity Meter Procurement added.		
V20	Clarification notes on lifts and composite cladding clause amended to allow quadcore insulation	01.03.22	TH

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PRELIMINARIES AND PREAMBLES

NOTE TO PURCHASERS AND THEIR ADVISORS

The Developer is the Employer for the purpose of the construction contract and this document which is a contract document.

This project is to be procured on a design and build basis which requires the Contractor to manage and progress the design of the development beyond the detail set out in the tender documentation. This specification, the associated documents and drawings represent the minimum that is acceptable to the Employer. The Contractor may however depart from these requirements in certain circumstances. If the Employer has agreed to any such change, this is documented by way of an Employer's Instruction or is set out within the Contractor's Proposals document.

If there is any aspect of the design that is of particular concern to you or your Client, you should determine that a change has not been agreed before proceeding. Should you require further information on such matters, we suggest that you seek independent professional advice.

Purchasers should await the official confirmation of the postal address before ordering any stationery etc.

The development is required to comply with a number of regulations and the application of these may give rise to the need to install equipment or make adaptations that are not apparent at the outset. These may include the fitment of renewable energy installations, such as photovoltaic panels or wind turbines or other physical works. The completion of these works will be required to be carried out as part of the works and maintained thereafter by the Owner or Occupier of the unit.

NOTE TO CONTRACTORS

Where the Contractor wishes to use methods of construction, materials or working practices different to those described, named, or otherwise identified in this document, these must be agreed with the Employer and documented either prior to Contract or post contract by means of a variation. The obligation to prove equivalence is the Contractor's and the substitution is entirely at the Employer's discretion. This applies equally where a named manufacturer or supplier is identified.

ACCOMPANYING DOCUMENTATION

This document is to be read with the following documentation, which together comprise the Employer's Requirements:

- This base build specification
- JCT Contract Particulars and Schedule of Amendments
- Contract Sum Analysis Form
- Forms of Warranty, Sub-Contractors Form of Warranty and Novation Agreements
- Architects Drawings & Specification
- Structural & Civil Engineer's drawings
- Mechanical & Electrical Engineer's drawings
- Landscape Architects Drawing
- Topographical & Underground Services survey
- Utilities record drawings
- Statutory Services Quotations
- Building Regulations Application
- Copy of planning application/planning consent
- Flood Risk Assessment
- Ecology survey
- BREEAM Pre-Assessment

- CDM Pre-Construction Information Pack
- Index for Health and Safety files and Operating and Maintenance manuals
- Any third party agreements
- Chancerygate's policy on The Modern Slavery Act 2015 (available on www.chancerygate.com)

INFORMATION PROVIDED BY THE EMPLOYER

The Employer makes no representation as to the accuracy or completeness of any such survey or report or other document or from any representation or statement, whether negligently or otherwise contained therein.

DISCREPANCIES

Any discrepancies or errors within or between any of the documentation should be notified to the Employer's Project Manager in writing in order to determine the Employer's Instructions.

Where any question arises in respect of the interpretation or application of any standard to the Works, the Employer's decision shall be sought and such decision shall be final.

THIRD PARTY AGREEMENTS

The Contractor will comply with all other rights of third parties contained within any funding agreement, sale agreement or agreement for lease and the like.

Where none are included but are subsequently entered into, these will be issued by the Project Manager and the Contractor is to comply with these also.

PERFORMANCE BOND

The Contractor is to obtain the guarantee of a Bank or other financial institution in the form of a bond. The bond will be released at Practical Completion of the Contract, subject to it not being required and is to be equal to a minimum of 10% of the Contract Value.

NO CLAIM FOR ADDITIONS

No claim by the Contractor for additional payment or for any extension of time arising in any way whatsoever from lack of knowledge, failure to investigate will be admitted.

SCHEDULES OF CONDITION

The Contractor is responsible for preparing and agreeing any schedules of condition before the commencement of works, that he deems appropriate.

1.0 INTRODUCTION

1.1 PROJECT CONTACTS

Project Manager

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I.2 THE SITE

The Units comprise an open warehouse shell, with a mezzanine upper floor level, accessed by a stair core only, as indicated on the drawings. Where no upper floor is provided, there shall be no core or staircase.

The site is located within what was the Two Sisters Food Production site at Freebournes Road, in Witham. A location plan is attached at Appendix 2.

The site is vacant and has had the previous buildings demolished. 6F2 crush remains on site for re-use by the eventual Main Contractor.

Access to view the site is available by contacting the Project Manager.

I.3 THE PROJECT

The Project is indicated on the listed drawings comprises the design and construction of:

10 Units, across 3 terraces, and totalling 58,587ft² (5,443m²)

measured in accordance with the following Gross External Areas (measured in accordance with the current RICS code of Measuring Practice). The units are to be constructed to meet the floor areas above, subject to a maximum 3%+ / 0%- deviation on total area:

UNIT	GEA (sq ft)
1	6,060
2	5,801
3	6,007
4	5,855
5	5,242
6	7,029
7	6,889
8	4,381
9	5,221
10	6,071

The works are to include external site works including hard standings, landscaping, car parking, drainage, all work in connection with the provision of utilities to the development and any other work implied in the information provided, including without limitation, any S38, S106, S278 or similar works outside the curtilage of the site.

2.0 SUMMARY

2.1 STANDARDS OF FINISH AND WORKMANSHIP

The Contractor shall carry out his obligations under the contract so as to provide a building which complies with Building Regulations and all statutory requirements and by laws and the requirements of the Local Authority, Approved Building Inspector, Fire Officer and any other Statutory Authority or body, including, without limitation those listed within this and accompanying documentation.

The Contractor is responsible for all liaison with and charges arising from the appointment of JM Partnership as Approved Inspectors. The Employer will appoint the Approved Inspector however; the responsibility for meeting their requirements rests with the Contractor.

All elements of the works, materials and workmanship are to be designed and constructed in accordance with all applicable and relevant standards current at the time of execution of the works. Where there is any question as to the application of any such standard, the Employer will determine this.

The electrical installation must be installed, commissioned and tested by an NICEIC approved installer.

The Contractor shall ensure coordination of the mechanical and electrical services.

All water systems shall be installed in compliance with current water by-laws and shall be chlorinated on completion of the entire system.

The recommendations for gradients in the service yard and access roads, as set out in the Freight Transport Association document, Designing for Deliveries, latest version are to be adopted.

2.2 MATERIALS

All materials used in the permanent works shall be new, of good quality of their respective types and shall be free from blemish or defects. Where accepted by the Employer beforehand, the use of recycled materials may be considered for inclusion in the works. All timber used is to be from a certified sustainable source. Those acceptable Certification schemes are FSC, CSA, or SFI with a certificate of compliance. No other certification is acceptable. Certification is to be provided to the Employer immediately on request.

2.3 PROHIBITED MATERIALS

The Contractor will not specify, use or allow to be used, and will use reasonable skill and care to see that others do not specify, use or allow to be used, in the Project, any materials or working practices or methods that are generally known at the time of specification, design or execution, to be deleterious to health or safety or to the durability of the Project.

2.4 EXCLUSIONS

The following works or installations are specifically excluded:

- Fire alarm installation.
- All portable fire fighting equipment, hose reels and extinguishers and any other fire fighting equipment, including any sprinkler installation.
- Any heating, lighting or power installations within the warehouse and at mezzanine level. Only the stair core where provided will be permanently lit, whilst a temporary viewing light will be fitted within the warehouse to aid viewing.
- Telephone and data systems. (although incoming ducts and Fibre DP box are not excluded).
- Supply agreements for permanent services supplies, or installation of gas metering. The installation of a gas meter and BT junction box is the responsibility of the occupier.
- Intruder alarm, CCTV, or any other security or access equipment of any kind.
- Any external signage, or fixings for signage. (Only the unit number is to be provided.)
- Canteen/kitchen catering equipment, servery and fittings.
- Cranes, lifting or handling equipment of any description including associated adaptations to the structure, ground slabs and foundations etc.
- Furniture, furnishings, blinds and fittings, shelving, process machinery of any type, racking, vehicle wash equipment, fuelling facilities or any other item not expressly detailed in this specification
- Unless shown on plans, passenger lifts, access platforms, including disabled access lifts or any other mechanical form of vertical access. The buildings are in any event to be designed to allow the later installation of a platform lift (inc. account taken in the floor slab in a defined location)
- Signage in connection with or required as a consequence of the building users' own health, safety and welfare needs.

2.5 HEALTH AND SAFETY

The Contractor will be obliged to adopt best practice in the construction and site management to ensure that the safety and welfare standards employed are representative of best practice.

The Contractor shall provide general-purpose industrial safety helmets for the use of all visitors to the Site. The Contractor shall also provide general-purpose safety footwear, hard hats and high visibility clothing for all visitors. (A minimum of 6 sets of PPE shall be available at all times for visitors.) Under no circumstances is any of the PPE to be used by site operatives.

The Contractor is to remove from site any person not complying with best practice in the adoption of PPE. The Employer and his Agents retain the right to require the removal of any such person and the Contractor shall not be entitled to any compensation, extension of time, or payment whatsoever consequent upon such removal.

3.0 SITE WORKS

3.1 CONSIDERATE CONSTRUCTORS SCHEME

The Contractor will be required to register the site and comply with the requirements and code of practice of the Considerate Constructors Scheme.

3.2 SITE WORKS GENERALLY

The Contractor is to undertake all necessary site excavations to reduce levels, identify service locations, create trenches, pits etc. This includes all excavation and backfilling required to supply services to the site.

The Contractor is to allow for any additional site clearance and demolition including the removal of vegetation, pre-existing features, additional obstructions encountered etc. required to be carried out following the main demolition/enabling works contract. Contractor to allow for any additional testing to enable clearance from site (e.g. WAC Testing).

3.3 INSPECTION OF THE SITE AND PHYSICAL CONDITIONS

The Contractor shall have fully acquainted himself with all information on all matters affecting the design and execution of the Works, the physical conditions (including the sub-surface conditions, location of services, any underground obstructions) and all other characteristics or conditions. The Contractor is also to have obtained all necessary information as to the risks, contingencies and all other circumstances which may have influence or affect the execution of the works.

The Contractor is to make any further enquiries or investigations he deems necessary or appropriate to satisfy himself in respect of the proposed development. Access for any further investigations should be arranged through the Project Manager. No failure on the part of the Contractor to discover or foresee any such condition, risk, contingency or circumstance whether the same ought reasonably to have been discovered or foreseen shall entitle the Contractor to an addition to the Contract sum or to an extension of time.

3.4 GEOTECHNICAL REPORT

A geotechnical investigation has been provided as part of the Employer's Requirements and the Contractor is to make his own arrangements with the relevant Consultant should he wish to place reliance on this report. The Contractor is to carry out all investigations he deems necessary or appropriate to further determine the characteristics of the sub soils and geotechnical characteristics of the site and design and construct the works to take account of such characteristics.

3.5 ENVIRONMENTAL REPORT

An environmental investigation has been provided as part of the Employer's Requirements.

The Contractor is to liaise with the Environmental Consultants for the project and follow any and all recommendations made in their report to address any contamination or environmental issues. The Contractor is to make his own arrangements with the relevant Consultant should he wish to place reliance on these reports. The Contractor is to abide by any recommendations in such reports as to further testing or analysis and liaise with the Environmental consultant accordingly. The Contractor is also to ensure that the works are carried out entirely in accordance with the recommendations in respect of working practices, the use of particular materials, monitoring, verification testing and the like. All such costs arising are to be borne by the Contractor.

The Contractor is to carry out all investigations he deems necessary or appropriate to further determine the characteristics of the sub-soils and environmental characteristics of the site and design and construct the works to take account of such characteristics.

The Contractor is reminded of the need to ensure that where the Planning Approval requires that approvals are sought from regulatory authorities, the Contractor must (where appropriate to the construction phase) as part of the Contract, discharge such obligations in full and provide written confirmation of such, underwritten by the relevant member of the professional team.

3.6 ARCHAEOLOGICAL ASSESSMENT

Where an archaeological assessment has been prepared, the Contractor is to carry out whatever works of investigation are required to discharge the requirements of that assessment and gain the agreement of the regulatory bodies accordingly. All such costs arising from this exercise are to be borne by the Contractor.

Where an archaeological investigation has been carried out, the Contractor is to allow for any variation to the ground conditions arising from these works. Where required by the Local Authority or other duly authorised body, the Contractor is to carry out any further investigations and enquiries to determine the requirements in respect of archaeological issues affecting the site. If required, the Contractor is to design and construct the works to take account of any requirements in respect of archaeological issues.

3.7 CONTINUED ACCESS

The Contractor shall ensure throughout the period of this Contract that the occupants of any neighbouring or adjoining premises have unimpeded access to their respective premises. Where the works require some temporary revision to the access arrangements, the Contractor is to be responsible for agreeing all such arrangements and the payment of any costs or any effect on the works.

3.8 USE AND MAINTENANCE OF ROADS, SEWERS, SERVICES ETC.

The Contractor shall be responsible for damage to roads, road verges, paths, services arising out of the execution of the works shall be responsible for observing any byelaws or other regulations.

3.9 TEMPORARY BUILDINGS

The Contractor is to provide all temporary buildings including mess rooms, offices, male and female toilets, lockable storage sheds, other temporary accommodation and facilities. The contractor shall make arrangements for the provision of electricity and water to the temporary facilities at his own cost for the duration of the works. The Contractor is to provide suitable accommodation for site meetings adequately heated, cooled and lit with table and chairs sufficient to accommodate Project Meetings. This room may be part of the Contractors' own Site offices. The Contractor is to provide and keep all accommodation in clean and sanitary condition.

3.10 SECURITY

The Contractor shall safeguard all existing and completed work, materials, goods and plant against damage and theft and in the event of any loss or damage he shall be required to make good the same at his own expense. The Contractor must take all reasonable steps to prevent trespass or entry of unauthorised persons upon the site during the period of possession and the execution of the works until Practical Completion.

3.11 MARKETING BOARD

The Employer will arrange for and erect a sign board advertising the development in a location to be identified. The Contractor is to allow access to the site for the sign erection contractors, subject to them complying with any reasonable restrictions required by the Contractor for reasons of health and safety etc. The Contractor is also to allow for attendance thereon as required, including the use of mess facilities whilst the signs are erected, adapted, relocated or taken down. At no time during the course of the works are any marketing signs to be relocated, taken down or otherwise adapted without approval.

3.12 TEMPORARY FENCING AND HOARDING

Where, or to the extent, the site is unfenced, the Contractor shall erect a 2.4m plywood hoarding to those site boundaries agreed with the Employer and maintained in good condition. It is to be finished and decorated in RAL 6018 (Yellow Green). Signs will be provided by the Employer as free issue for fixing by the Contractor. The Contractor is to maintain the hoarding in a good and clean condition and is to redecorate and repair the hoarding throughout the project as required by the Employer. No Contractor's notices are to be affixed to the hoarding except where required to satisfy the requirements of relevant authorities and health and safety. Any vandalism is to be made good immediately. Where agreed with the Employer, temporary fencing may be used.

3.13 SIGNS AND UNIT NUMBERING

Supply and fix all statutory signs including those reasonably required under the Health and Safety legislation concerning the occupation and use of buildings.

Supply and fix unit number signs to the units. The numbers are to be formed in 3mm powder coated aluminium using colour matched fixings. The letters/numbers are to be fixed as agreed with the Project Manager. No unit numbering is to be undertaken until the unit designations have been confirmed as acceptable by the Local Authority and Post Office.

4.0 REGULATIONS & APPROVALS

4.1 POSTAL ADDRESS

The Contractor is to apply to the Local Authority for a postal address for the completed scheme. The Employer is to be consulted on road names/estate names and has sole discretion in this matter.

4.2 PLANNING APPROVAL

The Employer and Contractor will co-operate with one another to discharge all pre-commencement conditions. This includes the provision of all information necessary and the entering into of any arrangements or agreements at no extra cost.

The Contractor is responsible for the discharge of all conditions, reserved matters, obligations etc. and ensuring that the conditions of the final proposals are confirmed as approved in writing by the local planning authority. This is to include any amendments arising. The Contractor is to prepare and maintain a schedule of all conditions.

The Employer will remain responsible for all payments under any Section 106 agreement, but the Contractor is obliged to ensure that the design and execution of the works are compliant with the requirements of such Agreement and be responsible for all costs and charges arising from the need to discharge the planning conditions.

4.3 BUILDING REGULATIONS/ENERGY PERFORMANCE

The development is to comply with the Building Regulations. The provision of all calculations, design information and all other things necessary to secure approval is the responsibility of the Contractor. This is to include the provision of SBEM calculations, the execution of air testing and the provision of an Energy Performance Certificate for each unit as required.

4.4 SUSTAINABILITY

The Contractor shall ensure the requirements of the approved Energy Strategy are achieved.

The Contractor will ensure that the buildings achieve a "Very Good" BREEAM rating in accordance with BREEAM 2018 Industrial (Shell only). A BREEAM Pre-Assessment document is included in the Employers Requirements demonstrating how this could be achieved. The contractor will not be permitted to pass on responsibility for obtaining any non-mandatory credits to future Purchasers/Tenants unless credit can be achieved in a recommendation form only (e.g. making reference to use of Green Building Guide).

The site is registered under BREEAM 2018. Registration number is : BREEAM- to follow.

The Contractor is required to highlight mandatory credits proposed to be passed onto to future Purchasers/Tenants within their tender submission.

The Contractor is to ensure that It provides the following in addition evbern if not noted elsewhere:

- Install 20% passive ducting in addition to current electric car charging points
- Install bird boxes, insect hotels/log piles in new developments as standard – liaise with Ecologist/Landscape Architect as requirements set out in the PEA.
- Inclusion of amenity space: installation of fixed picnic tables in accessible green areas and even trim trails (if sufficient space)
- Greater use of trees on site as have greater impact on CO2 reduction. – liaise with Ecologist/Landscape Architect as the LPA have set out preferred domestic tree species .

4.5 S278/MINOR WORKS LICENCES

The Contractor shall construct/modify entrances/exit crossovers and pavements in accordance with Engineers Drawings.

The Employer will remain responsible for all payments under any Section 278 Agreement, but the Contractor is obliged to ensure that the design and execution of the works are compliant with the requirements of such Agreement and be responsible for all costs and charges arising from the need to discharge the appropriate conditions. Fees are not 'payments', and shall be payable by the Contractor.

Where a S278 is not required, the Contractor will be responsible for obtaining a Minor Works Licence and the Contractor is obliged to ensure that the design and execution of the works are compliant with the requirements of such Licence and be responsible for all costs and charges arising from the need to discharge the appropriate conditions.

5.0 COMPLETION

5.1 COMPLETION OF THE SCHEME

The Contractor must give the Employers Agent at least 4 weeks' notice of the anticipated dates of Practical Completion of the whole or parts of the works. The Works shall be left in a clean state on Completion. The Works must be thoroughly cleaned inside and out.

At Practical Completion, the Works must be left secure (as agreed with Employer) with all accesses locked. A minimum of two sets of keys must be labelled and handed to the Project Manager together with an itemised schedule. The site is to be secured by the provision and maintenance of fencing or other such enclosure as the Employer may require for the vacant period following completion.

The Contractor shall employ the services of Building and Workplace Solutions to create an Operation & Maintenance Manual, As Built Drawings and Health & Safety Files. The fees for this are to be separately identified in the tender submission.

The Contractor is to provide (where not previously issued) at Practical Completion:

1. Final (or part final) Certificate issued by the Building Control Authority or Approved Inspector (including the Energy Performance Certification)
2. Test and commissioning certificates for every unit and all services installations including chlorination certificates.
3. Floor flatness survey, including confirmation from the Engineer as to the compliance of the survey with this specification.
4. Guarantees in respect of proprietary products including cladding coatings (e.g. Colorcoat guarantee)
5. A typed schedule of MPRN (gas), MPAN & meter numbers (electricity), and meter serial numbers (water) and all meter readings
6. Two sets plus spare keys for the main entrance door to each unit and any internal lockable doors clearly labelled and presented in a proprietary key box.
7. Two sets plus spare keys to any padlock securing the site entrances, or access cards etc as appropriate.

8. A CCTV of the entire drainage system serving the site, along with written confirmation from the appropriate consultant as to the acceptability of the works. The survey is also to include as a minimum, a full colour video, marked up plans indicating the route of each run to scale and survey record sheets.
9. All drains to be jet washed prior to completion and all interceptors, gullies, chambers and the like to be pumped, flushed and left clear of residue.
10. One electronic, and one master paper copy of all as built drawings, operation and maintenance manuals and health and safety files for the Employer, the content of which is to accord with the indexes prepared by the Principal Designer.

Note that although the Principal Designer is employed by the Employer, the Contractor is responsible for managing the provision of information to the PD and for checking that all information from sub-contractors and suppliers is correct, before it is submitted to the PD or approved by the Contractor as 'final/as-built'.

11. One electronic copy of all as built drawings, operation and maintenance manuals and health and safety files for each unit, to be left securely in each unit as required by the CDM Regulations.

It is acknowledged that much of this information will be provided as part of the Health and Safety or O&M Manuals.

5.2 SNAGGING WORKS

The Contractor shall carry out an inspection prior to offering the project for Practical Completion and execute all works of snagging identified during that inspection. When these works are completed, the Contractor shall notify the Project Manager accordingly. Where there are works of a snagging nature required to be carried out to the Project, these are to be attended to without undue delay and in such a manner as to account for the possible occupation of Units by Purchasers.

5.3 SUBCONTRACTOR WARRANTIES

The Contractor is to provide warranties in favour of the Employer and any funding party in the form provided by the Employer, prior to Practical Completion from the following subcontractors with design responsibility.

- Ground improvement works (including piling if appropriate)
- Steel frame including secondary steelwork
- Roofing and cladding (including rooflights)
- Ground floor slab (and upper floors where designed by the subcontractor)
- Windows/curtain walling and personnel doors
- M&E Installations min PII £2m each and every claim
- Lifts (or product guarantee if no warranty available)
- Level access doors
- Any other installation that is designed by a subcontractor.

5.4 ANNUAL MAINTENANCE (DURING THE RECTIFICATION PERIOD)

The Contractor is to include in tender sum annual maintenance costs for all works required during Rectification Period to ensure all warranties/guarantees remain valid.

6.0 SUB STRUCTURE

6.1 UNDERGROUND SERVICES

The Contractor is to determine the position of all underground services and drainage and to have included in his costs for all costs which may be incurred in carrying out his building operations in the vicinity of any such existing services, or diversion of the services as required to complete the project

including the execution of any repairs necessary to allow connection to those services. Compliance with the public or statutory authorities in this respect is the sole responsibility of the Contractor.

6.2 EARTHWORKS AND SUBSTRUCTURE

The whole of the substructure, works to the boundaries and other earthworks works are to be carried out to accord with the Engineer's design. Generally, the site shall be designed and constructed as level as possible, subject to the requirement of good drainage.

6.3 BELOW GROUND DRAINAGE

If any existing drainage is to be incorporated into the works, any repairs required are to be executed as part of the main contract. In the event that repairs are required a further CCTV is to be carried out following these confirming the acceptability of the repairs

Connections from the site boundary to main foul and surface water sewers will be made in accordance with the requirements of the Water Authority, Local Authority and Environment Agency and be by gravity, incorporating any attenuation or storage arrangements required by such authorities. Road drains shall be suitable for the volume of surface water disposal and the axle loads of current maximum legally permitted articulated vehicle on UK roads.

7.0 SUPER STRUCTURE

7.1 STEEL FRAME

The steel frame will be to the Engineer's design as configured on the drawings with a minimum clear height to underside of haunch/valley beams and throughout the warehouse as shown on the Architect's drawings. These are:

UNITS	Clear height to haunch
Units 1 - 4	8.4m
Units 5 -7	8.4m
Units 8 - 10	8.4m

The mezzanine floors will be designed so that offices can be fitted to have a clear floor to suspended ceiling height of 2.7m.

The frame including purlins will be capable of supporting a maximum general superimposed service loading of 0.15 KN/m² over the area of the roof and capable of accommodating the loads imposed by sign positions, photovoltaic panels, canopies, etc. as shown on the drawings.

All steelwork will be shotblasted and primed prior to delivery to site and will be touched up where required, the warehouse steelwork will receive factory applied coat of high build zinc phosphate. Galvanised surfaces of purlins and sheeting rails will be left un-coated. All steelwork is to be left clean and unmarked on completion to the satisfaction of the Employer. Where remedial works are required to webs, flanges beams, columns or other steelworks that is visible in the completed Building, the whole are of the affected steelworks will be coated to provide a uniform appearance. Where fire protection is carried out using an intumescent paint treatment, the areas of the frame receiving this treatment will be in white, where there is overspray on adjacent surfaces, these must either be overcoated to achieve a consistent appearance, or left clean of overspray.

Where recessed or covered loading areas or other details are created such that they may be used as a perch or roost by birds, they are to be provided with proprietary bird netting.

7.2 MEZZANINE AND CORE STRUCTURE

Where a mezzanine floor is provided the structural steelwork is to be configured to provide a minimum clear height from finished floor to finished possible future ceiling level as shown on the Architect's drawings. Requirements for the construction of the floor deck are specified elsewhere.

7.3 GROUND FLOOR SLAB

7.3.1 General

Some 3-weeks prior to the concrete floor being laid a pre-contract meeting shall be convened by the Main Contractor/Developer. Attendees at this meeting shall include representatives from all of the following:-

- Chancerygate Project Manager
- Developer or Employers Agent
- Main Contractor
- Consultant Engineer
- Flooring Contractor
- Concrete Supplier

The meeting will discuss all aspects of the floor installation to a standard format and will include:-

- Installing Floor Contractor Team and Method
- Equipment
- Design
- Joints
- Concrete
- Environment
- Colour Harder
- Protection and Cleaning
- Aftercare

Minutes will be taken by the Contract/Flooring Sub-Contractor and distributed to all parties at the meeting.

7.3.2 Warehouse Slab

The Contractor is not to use a fibre reinforced slab without the prior agreement of the Employer.

A reinforced concrete ground floor slab with a power floated finish will be provided to all floor areas within the building. The ground floor slab within the warehouse shall be designed to accommodate a UDL of 37.5kn/m² (with minimum thickness of 150mm) or 50kn/m² (with minimum thickness of 175mm) and a rack leg loading of 5 tonne placed in a back to back situation (with centre line base plates based a minimum distance of 150mm away from floor joints) anywhere on the floor. The joint layout is to be agreed with the Employer before construction.

Note

- Units less than 30,000 sq ft – 37.5kN/m²
- Units greater than 30,000 sqft – 50kN/m²

Loadings based on a rack height of 1.75m level and 1.0 tonne pallet loads based on 150 x 150 mm base plates set at a minimum back to back distance of 300mm.

The ground floor slab will be constructed so that the top surface is within the tolerances of flatness and levelness as defined in the Concrete Society Technical Report 34 of FM2 (10m) or FM3 (8.5m or lower) (Note in latest 4th edition FM3 is equivalent of 3rd edition FM2) for free movement areas for the slab and property II and IV (compliance is also required to within 500mm of any level access goods door

openings). The floor is to also be neatly hand trowelled to those areas inaccessible to the power float (e.g. within column webs).

After the final power floating operation the floor slab is to be sprayed with an acrylic based, curing, sealing, anti-dusting and hardening membrane (Sika Proseal or similar and approved). Any use of the slab following the sealing operation, for storage or as access for other construction works, may only be permitted where sufficient protection to the slab is in situ.

The ground floor slab wearing surface shall have a minimum abrasion resistance of AR3 in accordance with table 2 of BS 8204. If this is required to be demonstrated, then the Employer may at his sole discretion require that these tests are not carried out.

The floor and goods door threshold detail is to be designed to minimise the likelihood of driven water ingress at goods door positions. Refer to Appendix I.

The floor is to be independently surveyed and results to prove its acceptance provided as soon as practical after completion of the slab, with a copy of the survey provided to the Employer along with confirmation of compliance from the Engineer. Any remedial works are to be carried out by the contractor, prior to Practical Completion.

7.4 GAS PROTECTION

Gas protection membranes are to be provided in accordance with Environmental Reports and Structural Engineers recommendations.

Where CS2 or CS3 is required, the membrane is to be independently surveyed and approved by a competent and appropriately qualified engineer to ensure appropriate regulatory sign off.

7.5 MEZZANINE FLOORS

Where a mezzanine floor is indicated on the drawings, it is to be constructed using a profiled structural formwork system of galvanised steel construction. The concrete is to have a power floated sealed finish.

The upper structural floors are to accommodate a minimum superimposed UDL of 4+1K_n/m².

All concrete work is to be in accordance with this specification, the Engineer's specification/requirements and the Local Authority requirements, finished to levels appropriate to the design.

The upper floor slab will be constructed so that the top surface is within the following tolerances. The floor is to be constructed to within + or – 10mm of the design datum and flatness is to be within 5mm between points on a 3m x 3m grid measured using the principles set out in TR34. The floor is also to be neatly trowelled to those areas inaccessible to the power float (e.g. within column webs).

8.0 EXTERNAL CONSTRUCTION

8.1 CLADDING

The elevational treatment of all walls is to be in accordance with the Architects drawings.

The cladding is to be designed and constructed to be totally watertight and prevent interstitial condensation and cold bridging. All panels (whether used in internal or external applications) are to be rated to the approval of the Loss Prevention Certification Board in terms of combustibility and to be grade EXT-A rated for fire walls (and special risk assessed walls) and EXT-B for all other external walls.

Cladding panels and components suffering any damage whatsoever will be replaced or repaired at the Contractors cost. The Employer at his sole discretion reserves the right to reject any repair that he determines is unacceptable.

All roofing and cladding work is to be carried out to the satisfaction of the Independent Cladding Inspector and the Contractor is to be responsible for contacting and notifying the Independent Cladding Inspector so that they may arrange inspections at an appropriate time during construction. The Contractor is advised that the Independent Cladding Inspector's final report and the defects/issues raised therein will be treated as part of the snagging list. All costs associated with this inspection and reporting process (but not the consequences thereof) will be borne by the Employer, although the Contractor will be required to provide welfare facilities for their use.

Site assembled cladding

Where indicated on the drawings, the cladding is to be site assembled trapezoidal profile cladding as shown on the drawings, 0.55mm thick profiled galvanised steel sheeting to BS 2989 with a BSC Colorcoat HPS200 or Colorcoat Prisma external finish. To achieve 30 year Confidex Guarantee, which is to be in the name of the Employer.

The Cladding is to be designed and constructed to accommodate wind loads calculated in accordance with BS 6399: Part 2: 1997 and read in conjunction with BRE Digest 436 part 1:1997 and is to be insulated using insulation quilt with appropriate spacers combined with internal 0.4mm thick galvanised steel liner panels with a white internal surface finish fixed outside the sheeting rails.

The internal liner panels will have taped joints to provide a suitable vapour barrier. External cladding colours will be from the manufacturer's standard range as approved by the Local Authority and in accordance with this specification and is to include all necessary flashings, weatherings, drip sections etc which are to perform to the same standards as the remainder. At external corner locations, the cladding is to be finished with a profiled cladding closure flashing.

It will be a requirement to provide horizontal drip sections, with a face depth of 50mm minimum and vertical corner or jamb flashings with a face width of 50mm minimum

Prefabricated composite cladding panels

Where indicated on the drawings, the cladding is to be prefabricated, insulated, composite cladding panels such as Kingspan Microrib, or similar, holding a valid LPCB certificate of product conformity to be fully compliant with LPSI 181 Part 1:Issue 1.2 2014

External cladding colours will be from the manufacturer's standard range as approved by the Local Authority and compliant with this specification and is to include all necessary flashings, weatherings, drip sections etc which are to perform to the same standards as the remainder. At external corner locations, the cladding is to be finished with a proprietary cladding closure flashing. To achieve 30 year Confidex Guarantee, which is to be in the name of the Employer.

8.2 ROOFING

The roof is to be constructed of either a built up or a composite cladding system, at the Contractor's discretion. The disposition of rooflights over the warehouse area will be as even as possible, subject to constraints imposed by any applicable fire and boundary Conditions. Mansafe systems are only to be provided to areas that may not otherwise be accessed from the perimeter of the building by mobile elevating work platforms.

The warehouse roof will be covered with 0.7mm thick profiled PVC Plastisol HPS 200 coated galvanised steel sheeting, with colours chosen from the standard range. The roof cladding and fixings will be installed in accordance with the manufacturer's recommendations, and the recommendations of any organisation or body as described in this document. Any composite panels are to be rated to the approval of the Loss Prevention Certification Board in terms of combustibility. Any Factory Applied Weather Seals applied are to be airtight and watertight.

Insulation will be provided using insulation quilt and an underlining of galvanised steel 0.7mm thick liner panels with white internal coating and taped/sealed joints, laid in the over purlin position. The insulation is to be concealed at junctions with rooflights by a closing trim.

The minimum roof pitch to the warehouse/production unit will be 6°.

The internal lining to the main roof will be Class O rating for surface spread of flame as tested to BS.476:Part 7:1987.

Roof lights will be provided to 15% of the warehouse floor area (i.e. an area of rooflights equivalent to 15% of the full height warehouse floor space) using site assembled triple skin, GRP translucent roof lights fixed and fully sealed to the purlins in accordance with manufacturer's instructions including the standards of the National Federation of Roofing Contractors, and are to be non-fragile for a period of 25 years. Non-fragile rooflights are to accord with Class A or B of The Advisory Committee for Roof Safety Document ACR (M) 001:2019. All rooflights are to have internal closure flashings.

8.3 RAINWATER GOODS

Rainwater drainage is to be provided to all areas of the building utilising either gravity or a syphonic drainage system. The above ground rainwater drainage system is to be of equal or lower capacity to the below ground system to reduce the likelihood of surcharge.

Where a gravity system is used, the installation shall use HPS200 or equivalent finish perimeter wall gutters connecting to matching circular external downpipes connected using a proprietary sleeve to the drainage system. The downpipes are to be fitted with a rodding eye access plate. Weir outlets are to be provided to divert any flow above the design criteria away from the building in a manner that will warn of blockage and not cause damage to the property.

A syphonic system is only to be used where agreed beforehand with the Employer and will require a cloaking detail with fixings and materials to be agreed with the Employer in advance. If a syphonic system is to be used, it is to be a self-priming system and the system is to be fully insulated internally & externally clad to match the remainder of the elevation.

8.4 WINDOWS

The glazing system shown on the drawings to the principal elevations will be a fully thermally broken system comprising polyester powder coated aluminium mullions and transoms complete with factory sealed double glazed top hung units and will be to a module as shown on the Architects drawings. Glazing is to be in Pilkington Optifloat Tinted Grey to the outer pane and a clear inner pane. Spandrel panels, where necessary, will be in insulated panels.

Internal window reveals are to be designed with sufficient depth to accommodate blinds notwithstanding the use of opening windows. The internal window heads reveals and cills are to be clad with MDF board to cover the insulation and overlap details. The windows are to be fitted using a concealed fixing system and visible fixings, including straps are not acceptable. The windows are to be fitted so that there is a positive fall to the external cills away from the building. . The window installation is to be compatible with the cladding system.

8.5 MAIN PERSONNEL ENTRANCE DOORS

Main Personnel entrance doors are to be commercial quality, aluminium framed, polyester powder coated units incorporating hermetically sealed double glazing tinted to Architects design to achieve a U-value equal to or greater than that of the window units. The doors are to be colour matched with the window units and complete with all necessary furniture and ironmongery to satisfy means of escape and security requirements. The doors or an adjacent panel are to have a letter plate fitted. The doors are to be designed to allow them to be automated, although no automation is required as part of the base build. Doors are to be compatible with the cladding system.

8.6 EXTERNAL PERSONNEL DOORS – OTHER AREAS

Doors other than those to the main entrance are to be lockable from within using either the panic ironmongery or a separate locking mechanism. Where necessary, the doors are to be fire resisting. Fire exit doors to the warehouse areas will be proprietary galvanised mild steel construction, polyester

powder coated items. All such doors are to have proprietary panic equipment ironmongery, and overhead door brakes and restrictors. All fire exit doors adjacent to loading doors are to incorporate external lockable access.

8.7 LEVEL ACCESS DOORS

Level access doors for loading purposes are to be provided to each unit as indicated on the drawings.

The doors are to be sectional insulated overhead units fitted with lockable shoot bolts with interlock and are to be as Assa Abloy 1042P type doors or equivalent complete with tracks and all necessary operational gear. The doors are to be electrically operated incorporating a dead man switch and manual chain operation in the event of a power failure. A cable break device is required. Door protection bollards are to be provided externally (1 no at either side of the loading doors). These are to be tubular steel and painted in alternating black and yellow bands.

8.8 PEDESTRIAN CANOPIES

Canopies are to be provided to the pedestrian entrances as indicated on the Architect's drawings. The canopies are to be steel or aluminium framed with a glazed canopy. All metalwork is to be spray painted or polyester powder coated and the glazing is to be tinted to an agreed sample. The canopy is to be supported independently of the main structure.

The canopy is to drain to the main rainwater system and is to be provided with gutters and downpipes as necessary. The canopies are not to be provided with any lighting to the units themselves and it is anticipated that any illumination will be from building mounted fittings adjacent.

9.0 INTERNAL

9.1 INTERNAL WALLS

Compartment walls between cores and warehouse

Compartment walls between the entrance cores and warehouse areas will be metal stud construction, plasterboarded both sides to provide the necessary fire resistance. Any door or window openings within the wall will be afforded the same degree of fire protection as required for the wall.

Unit division walls (party walls)

Unit division walls are to be constructed using white wall construction. Where white wall construction used, system is to be LPCB compliant inclusive of fire protected secondary steels where necessary. A Blockwork and self-finished / Jumbo panel solution will be considered so long as it meets the necessary, regulations, insurance requirements and receives a white-painted finish.

Perimeter walls

Cladding system to be left exposed.

Other partitions

Any other partitions and linings are to be proprietary, lightweight metal stud partitions with plasterboard, painted facings, constructed to the appropriate fire and acoustic requirements.

9.2 STAIRCASES

Stairs are to be pre-cast concrete construction to include stainless steel handrail and balusters designed for ambulant disabled access. The finished floor levels of staircases shall coincide with the finished floor levels of

the areas served. Alternative forms of stair construction will be considered, but must first be agreed by the Employer.

9.3 DOORS AND JOINERY GENERALLY

Where internal doors are shown on the drawings, these are to be solid cored/light oak hardwood veneered (standard sized not floor to ceiling) units with hardwood lippings set in painted mdf or softwood frames and linings. To be fire resisting and provided with vision panels as required. Vision panels are to be clear glazed and all ironmongery necessary to satisfy the operational, security, fire and means of escape requirements are to be provided. Any veneered doors are to be matched to the Employer's satisfaction. All ironmongery is to be satin stainless steel and is to include overhead hydraulic door closers, kick plates, finger plates etc.

10.0 FINISHES

10.1 WAREHOUSE AND ANY MEZZANINE AREAS

Walls:	Self finished liner panels to cladding. Any plasterboard areas to be painted as elsewhere.
Ceiling:	Self finished liner panels, with underside of structural floor to soffit under mezzanine areas.
Floor:	Power floated concrete floor.
Joinery:	Satin paint (Brilliant White) – Note doors included in clause 9.3 above. Painted mdf or softwood window boards and jamb/head surrounds to windows under first floor mezzanine
Steelwork:	Factory applied finish in grey with intumescent paint as required.
Guard Rails:	Galvanised Kee Klamp type guard rail system with handrail and knee rail

10.2 ENTRANCE AREA (WHERE SHOWN ON THE DRAWINGS)

Walls:	Painted with one mist coat and two coats vinyl matt Dulux or equal emulsion paint in standard (BS) colour paint on plasterboard.
Ceiling:	Suspended ceiling as Zentia Dune eVo 600 x 600mm lay in tiles in 24mm grid system with a stove enamelled finish on galvanised wire hangers.
Floor:	Contract-grade carpet tile to reception floor with painted mdf or softwood skirting. In the main entrance lobby area a surface fixed entrance mat is to be provided.
Joinery:	Painted mdf or softwood skirtings, architraves and door linings, with clear satin lacquer to light oak hardwood doors and satin to remainder.

10.3. STAIRCASE AREAS (WHERE SHOWN ON THE DRAWINGS)

Walls:	Painted with one mist coat and two coats vinyl matt Dulux or equal emulsion paint in standard (BS) colour paint on plasterboard.
Ceiling:	Suspended ceiling as Zentia Dune eVo 600 x 600mm lay in tiles in 24mm grid system with a stove enamelled finish on galvanised wire hangers.
Stairs:	Contract-grade carpet tile to treads and risers with aluminium nosings with steel inserts. Handrails and balustrading to be satin stainless steel. At landings, the carpet is to continue.
Joinery:	Painted mdf or softwood skirtings, architraves and door linings, with clear satin lacquer to light oak hardwood doors and satin to remainder.

10.4. NOT USED

10.5 NOT USED

11.0 SERVICES

11.1 INCOMING SERVICES

The Contractor is to make applications for quotations to supply incoming mains services to the development. The Contractor is to make a fixed price allowance in the tender for BWIC and attendance etc as necessary, including all excavation work, disposal of spoil etc. The Contractor's cost in relation to these elements of work is to be fixed. The appointed Contractor will liaise with the local utility companies to ensure adequate capacity is available on the network to facilitate the construction of the development, to obtain details of the location of the distribution network and to obtain quotations for the works.

Electricity will be supplied to external lighting, goods doors, emergency exit signs, warehouse viewing light and where cores are required, temporary heaters, sockets and lighting. The incoming gas and water services will be terminated at point of entry and the gas left unmetered. Foul and waste water connections will be provided, but capped close to the floor level for connection by others.

Generally the following services shall be installed:

- a) Incoming electricity services including procurement of electricity meters.
- b) Incoming gas services to the meter position (no meter is to be fitted)
- c) Incoming water services including meters.
- d) BT Fibre service to each unit and 1 No spare telecom duct.
- e) Emergency lighting.
- f) Small power
- g) Above ground drainage system

The incoming services are to be located within the warehouse area in an agreed location, such that the majority of elements are close to one another. It is accepted that the gas supply may be in an alternative location due to routing arrangements prevailing.

Underground ductwork is to be provided to the sizes and terminating in the positions shown on the drawings, complete with drawcords. Ducts are to be fitted to enter squarely to the floor and are to be left plugged or otherwise temporarily sealed at Practical Completion. Ducts are not to foul the internal partitions.

Any supply pipework shall be carried out in copper tube and fittings, and any pipework within ceiling voids, unheated areas etc shall be insulated, complete with identification bands, throughout. Final connections to taps and appliances shall be via suitable service valves to allow for isolation.

11.2 ELECTRICITY

Each unit shall be provided with a separately metered 3 phase electrical supply.

The Contractor will be responsible for procuring the electricity meters which will be transferred to the Employer at Practical Completion.

The size of the electricity supply shall be calculated based on a requirement of 75w/m² (based on the GIA). The minimum electricity supply to any unit shall be 69kVA irrespective of the calculation result.

Unit No.	ELECTRIC (kVA)
1	45 kVA
2	45 kVA
3	45 kVA
4	45 kVA
5	45 kVA
6	45 kVA
7	45 kVA
8	45 kVA
9	45 kVA
10	45 kVA
Landlord	35 kVA

TOTAL	474 kVA
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11.3 GAS

Each unit shall be provided with an un-metered gas supply to serve future gas installations. The gas supply shall be valved and capped within an external GRP kiosk for which the Contractor shall provide suitable concrete bases. The size of the supply shall be calculated to provide sufficient gas for heating the building and the provision of domestic hot water based on calculations using the CIBSE design method for heat losses. An earth connection is to be provided for connection to any subsequently installed meter, by others. Loads are:

Unit No.	LOAD -GAS (kWH)
Site wide	511 kWH
TOTAL	511 kWH

11.4 WATER

Each unit shall be provided with a metered water supply. The Contractor shall complete the relevant application forms detailing the number of appliances to be served to allow the utility company to calculate the size of supply required. The flow rates for each unit shall be 0.66l/s and all below ground pipework shall be in barrier pipe with all above ground pipework in copper. :

The design shall be in accordance with BS6700 and BS EN 806 and shall be installed and tested in accordance with the Water Board's and the Water Regulations guidelines. The mains services shall be sterilised in accordance with Clause 506 of CP310 immediately prior to being put into service. The Contractor shall be responsible for carrying out this work and for making any temporary connections necessary. Allow for hydrants and washouts as per LWA.

The contractor to allow for an additional landlord's supply to serve watering points for landscaping purposes. This water shall be provided with sufficient backflow prevention to meet WRAS guidance for water quality category (where BREEAM prevents, the contractor shall include for suitable visits with sufficient sized bowsers to carry out landscape watering).

11.5 TELECOMS

Each unit shall be provided with an incoming duct from BT and BT Fibre Distribution Point connected to BT Fibre Network.

A second spare telecoms duct shall be connected into a site wide distribution system which shall be terminated at the site boundary in a chamber to allow future connection by independent telecoms/cable operators.

(Note – spare telecoms duct and chambers to be a separate colour and independent to BT ducts and chambers).

Include BT line or GSM card for lifts serving those units identified on the Architect's drawings as having them.

12.0 MECHANICAL SERVICES

12.1 BASIS OF DESIGN

The services to be installed shall be designed on the following basis to obtain the conditions specified:

External design conditions

Winter -3°C db, Saturated

Summer 30°C db, 20°C wb

Internal design conditions

Staircases & Core 18°C ± 2°C
Toilets 20°C ± 2°C
Warehouse Elements 16°C + 2°C (gas sizing only)

Ventilation

Core 0.5 air changes per hour
Toilets 6 air changes per hour
Entrance 3 air changes per hour
Warehouse Elements 0.5 air changes per hour (gas sizing only)

12.2 COLD WATER SERVICE

The metered cold water supply shall be provided into the building with valved connections left for the end user to extend. The incoming water supply shall be complete with isolating valve, double check valve, drain cock and blank end. The incoming water configuration shall be in line with the Water Regulations and the Water Authorities requirements. All below ground pipework shall be in barrier pipe with all above ground pipework in copper table X.

12.3 ABOVE SLAB DRAINAGE

Drainage terminations to be provided at ground floor slab level for later connection by others to the future ground floor WCs shown on the drawings.

12.4 FIRE HYDRANT

Where required by the fire authority, the Contractor is to allow for the provision of a fire hydrant installation, or the adaptation of the existing infrastructure to accord with their requirements.

13.0 ELECTRICAL SERVICES

13.1 ELECTRICAL SERVICES

The services to be installed shall be designed on the following basis, to obtain the conditions specified. The incoming electrical supply shall terminate into a minimum 12-way split load TPN distribution board or 8-way MCCB panel boards where applicable, complete with suitably sized incoming isolator and outgoing MCBs/MCCBs/RCBOs with all wiring in PVC singles in Conduit/Trunking and PVC/SWA/PVC. All wiring is to be concealed within the core areas and where practical within the warehouse.

Where a core area is provided, small power shall be provided and shall generally comprise: Flush mounted twin 13A switched socket outlets for cleaning and general purposes at the top and bottom of the staircase. In addition a radial supply to level access doors on all units is to be provided along with a twin 13A switched socket outlet adjacent to the distribution board.

13.2 LIGHTING INSTALLATION

The lighting Installation shall be designed to comply with the requirements of the lighting guides published by CIBSE including emergency lighting. The minimum lux levels will be as follows:

Circulation Areas 200 Lux
Car parking 20 Lux
Entrance Doors 50 Lux
Loading Bays 50 Lux
General Yard Areas 20 Lux

The lighting shall comprise recessed LED downlights in the main entrance. Staircases are to have wall mounted LED bulkheads to provide normal & emergency lighting.

All internal stair core & entrance lobby lighting shall be controlled via presence detection. Emergency lighting shall be controlled via a key switch adjacent to the distribution board.

External lighting will be photocell and time clock controlled with key override switches mounted adjacent to the distribution board to meet local planning conditions. Floodlights shall be installed on the building to provide illumination to the car parking and loading areas with lamp heads angled so as to not produce glare for nearby buildings. Where required to achieve lux levels column mounted street lights shall be installed.

A system of lighting is to be provided that covers all areas of good vehicle movements, car parking areas and the warehouse perimeter. Lighting is to be provided either with building mounted lighting, or column mounted fittings, or a combination of both to achieve the required lux levels.

13.3 WAREHOUSE LIGHTING

Temporary lighting (for viewing purposes) to the warehouse shall comprise a single flood light mounted in a location to be agreed to assist with viewing. This is to be supplied from the warehouse lighting and power distribution board and switched separately adjacent to the warehouse access door from the core.

13.4 EMERGENCY LIGHTING

Emergency lighting shall be provided to all fire exits and other areas to the Fire Officers' requirements and relevant standards.

13.5 SMALL POWER

Wall mounted small power will comprise wall mounted general purpose sockets to be installed in stairwells and core areas.

Plant areas and ceiling void accessories are of the surface metalclad type.

Supplies to Roller Doors and dock levellers

A switched isolator shall be connected to each door or dock leveller as required. Door control panel and wiring by specialist door installer.

Gates

2no ducts shall be provided for future gate automation from the reception position of each units to the indicative locations are indicated on the Building Service Engineers Drawings, exact locations are to be agreed on site, with a duct and chamber linking to serve future automated pedestrian gate.

13.6 FIRE ALARM

No fire alarm installation shall be provided.

13.7 ELECTRICAL INSTALLATION FOR MECHANICAL SERVICES

The Contractor shall provide supplies to any items of mechanical plant as required and the Contractor shall carry out all controls wiring.

13.8 EARTHING AND TESTING

The installation shall conform to the IEE Regulations and the relevant British Standards and a separate earth bar complete with test link shall be provided adjacent to the main panel. From the earth bar earth cables shall be connected to the incoming gas, water services, lightning protection system and structural steelwork.

13.9 LIGHTNING PROTECTION

A complete lightning protection system scheme LPS Level 4 shall be provided to the whole development to comply with BS EN 62305:2011

13.10 ELECTRIC CAR CHARGING POINTS

Active

Provide at least one dual outlet 7.2kW electric car charging points in locations indicated on Architects drawings. Electric car charging points shall be plinth- or concrete slab-mounted.

Passive

Provide ducts from the relevant unit for an additional 20% of car park spaces serving each unit (and in all across the whole development) to be served by double car charging points in the future.

14.0 EXTERNAL WORKS

14.1 GENERALLY

The service yard and estate access roads shall be designed and constructed to accommodate the maximum vehicle weights permitted in the UK. Yard areas shall be constructed with reinforced concrete to a minimum thickness of 175mm with construction and expansion joints. The service yards shall have a light brush finish with flat bay edges. All joints shall be filled with joint filler capable of withstanding heavy duty traffic including fork lift trucks. Any areas of reduced loading are to be identified within the health and safety file and agreed beforehand with the Employer and Engineer. Such areas are to be clearly indicated on site if required by the Employer.

Full white linings to car parking areas will be one coat road marking paint or incorporated into the block paving using contrasting blocks. Full white linings to roadways and access routes etc. are to be provided as indicated on the drawings.

Protective barriers, or bollards will be provided in the service yard area where shown on the drawings.

14.2 FOOTPATHS

Ancillary paths and margins around the warehouse are to be provided sufficient to accommodate the traffic imposed upon them during normal and maintenance use. The margins of the warehouse are to have a shingle strip. Where the footpaths connect with the frontage, there is to be a return section of paved surfacing.

14.3 FENCING AND BOUNDARY ENCLOSURES

Boundary enclosures will be provided as identified in the drawings.

Where not specified on drawings the fencing to the yard areas is to be 2m high paladin style fencing, coloured black.

Manually operated hinged vehicular gate and pedestrian swing gates are to be provided as indicated on the drawings. The gates are to be capable of incorporating a proximity card access system and automation. They are also to be capable of locking by padlock. The gates are to be in either ppc steel or aluminium construction. The design and construction is to be agreed with the Employer before manufacturer. Where both pedestrian and vehicular gates are provided, then they shall both be capable of automation.

Entrance gates to be ducted for future automation.

Note – The gap between the underside of gates and finished external finish is to be no greater than 150mm unless explicitly agreed in writing with the Employer before installation.

I 4.4 CYCLE STORAGE

Cycle storage is to be provided to each unit, with numbers of hoops as shown on the Architect's drawings.

I 4.5 REFUSE ENCLOSURE

External refuse storage areas are to be provided in locations indicated on the drawings. Where not shown, the refuse storage is to be within the units, and if required under the BREEAM Pre-assessment report, to be marked out on the floor and with suitable signage..

I 4.6 LANDSCAPING

The landscaping scheme is to be executed in accordance with the Landscape Architects and Local Authority's requirements

Trees, shrubs and other plants to be detailed and described on a landscape plan and agreed with the Local Authority, will be planted, with bark mulching, watered, staked and supported as necessary and maintained (which includes replacing all damaged, failing or missing flora) for 12 months post Practical Completion.

I 4.7 NOT USED

Appendix I – Shutter Door Threshold Detail

