

Stock Condition Survey Report

Tustin Estate, London Borough of Southwark

Southwark Council – Stock Condition Survey 2019

April 2020

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hunters

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Executive Summary

Our report sets out to establish the cost of maintaining the residential assets across the Tustin Estate over the next 30 years, by means of a stock condition survey. The costs included within our report, are based upon an inspection of the external and communal areas of each estate block, together with an internal sample survey of 30% of Southwark Council's rented flats, to include a 100% survey of the rented houses in Manor Grove, the estate grounds, garages (Manor Grove Only) and the retail/ business units below Bowness House. In addition, our brief required a condition survey of the Pilgrims Way Primary school. The school condition survey forms a separate report.

Residential Condition Survey

To assist Hunters in the provision of delivering a robust report on the condition of the Tustin estate, the services of a specialist Mechanical and Electrical engineer (M&E), Messrs. MCCE Limited were commissioned. The purpose to assess visually, the communal heating and electrical installations associated with the estate blocks, with an internal sample of Council rented dwellings. Where individual heating systems exist within homes a sample of these were inspected to understand their condition, e.g. Bowness House and Manor Grove Houses.

To understand the condition of the external concrete fabric of the buildings, Messrs. Martech Technical Services Limited had been engaged to report on their condition. Their survey findings and report are based upon a sample of intrusive inspections of the external concrete fabric, across the five estate blocks and a small sample of the houses where concrete is exposed as part of the buildings.

The report and costs associated with these each of these specialists are included within the appendices and individual main summary cashflows of our report.

Our report excludes the condition of the structural building frames across the five estate blocks. A summary report had been provided by the council by Messrs. Arup's on behalf of Southwark Council of all concrete framed buildings across the Borough. The report provided to Hunters was very much a summary of blocks rather than detailed in any content concerning the condition of the structures. At the time of this report and without any detail or recommendations being available, the council are continuing to review and obtain the detailed reports and any findings and associated costs will need to be added to our report to understand the structural condition of these five buildings. Should this information not be available, a structural survey of the buildings will be necessary as part of the wider options appraisal evaluation and the maintenance of the estate.

A structural report and findings commissioned as a separate exercise prior to the Hunters survey by Southwark Council of No. 81 Manor Grove (House) has been provided with an estimate of costs provided by the council to rectify observations made in the report by Messrs. Calford Seadon. We have shown the cost as a provisional sum in our tables of estimated costs. Whilst their report is bespoke to this individual property, the recommendations did not extend to the other 17 No. rented house in Manor Grove.

Hunters recommend to the council for a survey of the remaining rented houses to be extended based upon the findings in the structural report of No. 81 Manor Grove. In March 2020, we were asked to make enquires with structural engineers to provide a fee proposal to investigate and report upon the remaining homes. Following enquires and as a result of the changing Government policy at the time towards the current COVID 19 pandemic the structural engineers approached declined to provide a proposal until further Government guidance is published as they are following the stay at home recommended policy. When restrictions are eased, further enquires will again proceed for proposals to be provided. The report will provide an understanding of their structural integrity and whether similar issues exist to those exhibited in No. 81.

All inspections carried out, unless otherwise specified are visual "non intrusive". This means, we have not lifted carpets, removed panels or dug into or tested any of the structures/ fabric and are unable to report they are free of defects.

At the time of survey, the internal services e.g. soil/ waste pipes and rainwater goods are hidden behind ducted enclosed panels. These services run vertically throughout the blocks/ dwellings. To be able to understand the condition of the services and the existing fire stopping provision around pipework which penetrates floors/ walls between dwellings and any associated costs of work, we have highlighted as part of a joint survey between two specialists these areas must be investigated further.

1. A specialist Fire Risk Assessment (FRA) to level Type 4 (intrusive investigation) in lieu of the current Type 1 (non intrusive) undertaken by the council, providing a detailed assessment.
2. Detailed visual inspection and review by the Mechanical and Electrical engineer of the existing services, to enhance the already knowledgeable assessment of these services.

Under the council's legal duty, fire risk assessments of their blocks and a sample of dwelling types to an assessment level Type 1 have been undertaken and these will need to be updated regularly. These surveys identify and remove any fire risk hazards based upon a visual assessment by the council appointed framework consultant. Hunters recommendation is for the highest level of assessment Type 4 as this is destructive requiring all areas to be exposed and assessed for risk. The council have looked at the feasibility to undertake a type 4 destructive survey within homes inoccupation. This requiring the removal of ducted panels which will also need an asbestos refurbishment and demolition survey prior to disturbing ducts and associated materials. This was deemed impractical in occupied homes due to decanting of residents. The council will implement a programme of type 4 investigations/ surveys when homes become void.

To ensure fire safety is addressed, the council have reviewed their existing type 1 FRA inspections and provide a list of works considered necessary from the surveys with estimated costs. The information provided has been extrapolated to represent rented dwellings across the individual buildings to produce a profile of cost. These are included within the cashflows in our report. Hunters have only been asked to include the cost of the work derived by the council from their FRA reports by others. We have not interpreted the data and this has been undertaken by officers of the council.

In addition, and without being able to see these hidden services Messrs: MCCE Limited the M&E engineers have reviewed their costs and provided an assessment based upon their experiences and ages of similar projects and homes in estimating typical life expectancies of these services and their costs are included within their reports and our overall cashflow summaries.

Whilst a survey of the main Tustin estate below ground drainage is pending at the time of this report, based upon the results of below ground drainage survey and report of Pilgrim's Way primary school, the report recommendations of the school following discussion with the M&E engineer have been used to include a provisional sum of cost for the Tustin estate below ground drainage.

At the time of reporting drainage quotations have been provided to the council for consideration and instruction. For the purposes of our report, a provisional sum has been included for potential below ground drainage works.

The interior of leasehold homes is the responsibility of individual leaseholders to maintain. The costs within our report **do not** included costs associated with the interior of these homes, apart from costs associated with any communal services e.g. heating and or hot water pipework distribution where this is shared by all homes within the same block.

Sample Survey

The table below is a breakdown of all homes across the Tustin Estate by tenure. It includes, the total number of homes within each block, tenure split, how many were surveyed to meet our recommended agreed sample and our brief. 30% of Southwark Council homes have been surveyed internally. Externally, we have achieved a 100% visual no intrusive survey of each of the external and communal accessible areas of blocks and estate areas/ garages, together with a sample of accessible retail/ business units.

For the purposes of reporting, we have followed the block splits provided to us by Southwark Council. This means we have separately reported on the two block that make up Kentmere House and the four blocks of Hillbeck Close. See table over.

Survey sample and percentage achieved

Building Name	Type	Total Stock	SC Rented	Leasehold	Number Surveyed	% Surveyed
1-34 Bowness House	Block Dwellings	1 34	19	15	1 7	100% 3.7%
1-98 Heversham House	Block Dwellings	1 98	71	27	1 23	100% 3.2%
1-5,17-21 & 33-35 Kentmere House	Block Dwellings	1 13	13	0	1 5	100% 3.8%
6-16, 22-32 & 36-38 Kentmere House	Block Dwellings	1 25	23	2	1 8	100% 3.5%
2-40 Ullswater House	Block Dwellings	1 47	47	0	1 14	100% 3.0%
1-8 Hillbeck Close	Block Dwellings	1 5	0	0	1 3	100% 3.8%
9-16 Hillbeck Close	Block Dwellings	1 8	5	3	1 2	100% 4.0%
17-24 Hillbeck Close	Block Dwellings	1 8	7	1	1 4	100% 5.7%
25-32 Hillbeck Close	Block Dwellings	1 8	7	1	1 2	100% 2.9%
Manor Grove Houses	Houses	49	18	31	16	8.9%
Retail/ Business Units		9	0	9	6	67%
Estate Areas (Excludes - Towers)		1			1	100%
Estate Cleaners Office			1		1	100%
Garages & Stores		16			16	100%

Survey Cost and Cashflows

The report sets out Hunters forecasts for the cost of planned maintenance expenditure over the next 30 years based on the stock condition surveys carried out by our surveyors and the surveys inspections of specialists.

For Southwark Council to understand the full cost of expenditure over the next 30 years, other additional costs need to be considered.

These typically include:

- Cyclical Maintenance – e.g. Servicing of lifts, boilers, Communal Heating, ground maintenance etc.
- Responsive Maintenance (Day to day repairs)
- Improvements - Property, Environmental and energy efficiency, Equality Act Adaptations
- Ongoing Fire Risk Assessment Surveys of void homes Type 4 assessments. Existing cost estimate provided by South Council and included within current costs.
- Management and removal of asbestos - Current estimates included
- Asbestos - Refurbishment and demolition surveys

A separate exercise has been undertaken to review existing and historic energy data by others as part of a wider assessment of ongoing energy efficiencies of homes and this is part of an ongoing assessment and review by Southwark council. The results are not part of this report.

The results of any additional reports and their costs e.g. below ground drainage and structural frames of blocks when available to Southwark Council, will need to be combined with the planned maintenance and capital works costs to produce an overall cost for the next 30 years to Southwark Council. It is also important to note that the costs assumed throughout this report are estimates at December 2019 and do not include any allowance for inflation in the future. The base date is fourth quarter 2019.

Overall Costs years 1-30

The overall costs for 30 years across the Tustin estate including the costs to leaseholders and inclusive of preliminaries (Main Contractors costs e.g. administering a project and providing general machinery, site staff, facilities and site based services) shown separately, with the exclusion of "additional report costs" on page 2 is; £32,688,984.

Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
8,442,617	1,247,328	10,476,482	90,984	805,418	1,848,012	2,372,090	1,819,298	4,043,046	1,543,709	32,688,984

Additional we have looked at a selected number of improvement measures based upon resident feedback received at the Pre survey on site walkabout. These measures are included below, with an estimates budget cost inclusive of preliminaries of £922,003.

1. Roof Edge Safety Protection
2. Estate Improvements – Restricted access of motorized vehicles/ Pathway barriers
3. Cold Bridging – Protection of exposed surfaces from transfer of cold to internal dwellings

	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Roof Edge Protection	88,074	0	0	0	0	0	0	0	68,292	88,074	244,440
Estate Improvements - Access	30,750	0	0	0	0	0	0	0	0	30,750	61,500
Cold Bridging	231,198	231,198	0	0	0	0	0	0	0	0	462,396
Preliminaries 20%	70,004	46,240	0	0	0	0	0	0	13,658	23,765	153,667
Improvement Measures Total	420,026	277,438	0	0	0	0	0	0	81,950	142,589	922,003

Total estimated Tustin estate costs inclusive of preliminaries is £33,610,987.

Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
8,862,643	1,524,765	10,476,482	90,984	805,418	1,848,012	2,372,090	1,819,298	4,124,996	1,686,298	33,610,987

Overall Cost Years 1-30 – By Individual Building/ Type

The breakdown of the above costs for 30 years by block/ house/ garages, with the inclusion of estate area wide costs exclusive of improvement measures is £32,688,984:

Asset Name	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
1-34 Bowness House	1,389,909	550,149	1,098,452	3,361	25,920	658,373	256,302	328,204	401,754	63,804	4,776,229
1-98 Heversham House	3,211,165	347,494	4,505,731	8,948	104,096	143,840	1,246,180	527,072	1,195,973	390,709	11,681,208
1-5,17-21 & 33-35 Kentmere House	441,719	24,933	580,804	1,709	19,992	28,745	103,597	70,872	203,275	85,255	1,560,899
6-16, 22-32 & 36-38 Kentmere House	790,458	47,320	1,091,329	3,162	34,117	53,766	185,025	129,196	405,743	142,059	2,882,177
2-40 Ullswater House	1,026,753	74,424	1,283,697	4,610	55,553	496,360	258,713	245,667	795,008	139,665	4,380,449
1-8 Hillbeck Close	194,822	23,576	388,064	683	93,599	23,295	20,358	46,598	136,001	94,412	1,021,408
9-16 Hillbeck Close	140,723	23,320	387,809	427	93,344	29,712	11,288	45,320	121,187	91,852	944,982
17-24 Hillbeck Close	174,410	23,490	387,979	598	97,834	22,869	18,310	46,172	128,265	94,627	994,554
25-32 Hillbeck Close	173,853	26,802	387,979	598	97,154	17,687	19,700	48,629	131,577	85,220	989,198
Manor Grove Houses	647,177	52,901	215,557	30,811	124,721	159,330	54,549	100,307	267,394	144,169	1,796,916
Manor Grove Houses (Freehold)	7,037	141	53,808	0	558	3,375	2,774	7,922	17,986	1,398	94,999
Garages (Manor Grove)	17,882	0	3,302	0	19,841	3,302	0	17,276	57,671	32,292	151,567
New Boiler room for SELCHP	18,960	0	0	0	0	0	0	3,456	0	0	22,416
Retail	8,273	15,715	803	0	8,461	31,744	5,033	1,452	1,555	0	73,036
Void Maintenance	30,231	36,078	37,065	36,078	30,231	170,773	172,065	162,848	170,773	169,682	1,015,824
Towers - Estate Wide Works Only	49,175	986	54,103	0	0	4,845	18,203	38,312	8,891	8,570	183,084
Below Ground Tustin Estate Drainage Contingency	120,000	0	0	0	0	0	0	0	0	0	120,000
Total by Asset (Exclusive of Improvements)	£8,442,545	£1,247,329	£10,476,483	£90,985	£805,419	£1,848,018	£2,372,096	£1,819,304	£4,043,051	£1,543,715	£32,688,984

The costs throughout this report include leaseholders (for communal block and estate related works). However, internal dwellings (Bedsits, Flats and maisonettes) costs only include Southwark council rented tenures. This becomes more transparent on the individual block breakdowns where internal costs of homes only related to rented tenures and **DO NOT** include the interior of leasehold homes.

Glossary of Terms

It is important to note, in our “Summary Breakdown cashflows by individual asset” (Appendix B) our report outputs show all “Group Reporting” headings regardless of whether the group is applicable to a building or not. This is for formatting of report outputs only. Therefore, a number of these “Group reporting” may show zero costs over the 30 years or where there is a nominal cost included against these group headings. This is because a small proportion of work maybe allocated against the block, boundary, structure of the main building which also forms a boundary and or under estate boundaries, where the wall is consider by the surveyor to be part of the estate wide work. e.g. 1-34 Bowness House, block boundaries includes a cost in year 1 of £225, however the wall to the rear behind the shops and the estate has been included under the estate walls.

Likewise, not all groups have costs in every year. This will only occur where work is of a cyclical nature e.g. decorations every 7 years for example or where certain building components require replace before others but still have a life expectancy where the cost will reoccur again before the end of the 30 year cashflow.

The following are some general terms referred to throughout our report to help in your understanding of the presented information and costs.

Stock Condition Survey – Reports on the overall condition of the residential homes and other associated assets collectively, reporting on the repair and longer term maintenance needs. The costs are based upon a sample of all property types through a visual non intrusive inspection. The property sample for survey is independently selected by the surveying practice based upon the different types of properties across the housing stock. This ensures a representative sample of all property types are included in the overall report. The results of the surveys provide a cost over of capital maintenance over a projected 30 year period.

Data – This is the information collected by the surveyor about the condition of a surveyed property or asset

Assets – This refers to the individual type of property surveyed e.g. House, Flat, Maisonette, bedsit, Block (The individual building in which the flats relate) and other estate related buildings/ garages.

Preliminaries - Main contractors preliminaries are expenses incurred by the contractor for costs associated with management and staff, site establishment, temporary services, security, site compounds and welfare facilities, safety and environmental protection, management of sub-contractors, administration and day to day costs of running a project, not included in the material and labour costs for tendered items.

Schedule of Rates – This is a table of all building elements and includes a unit cost for labour and materials only exclusive of preliminaries. The data collected by the surveyor includes many different quantities and it is these quantities, which are multiplied by the rate contained in this table to produce a cashflow of cost for the property or asset surveyed.

Costed Tables/ cashflows – These are the tables containing costs you see in the appendices of the report.

Mechanical and Electrical (M&E) – Reference is made throughout this report to M&E. This is an abbreviation for mechanical and electrical. A specialist engineer was commissioned to look at the mechanical (Heating and ventilation) services within communal areas of blocks/ estate and electrical (Internal and communal lighting and power).

Group Reporting – This is a heading included within our cashflows. For the purposes of reporting, we have reported the costs against these “key” building components headings. Each cashflow contains several different building component headings associated with the type of property we are reporting against.

Each individual flat, Maisonette, house or block is made up of many different building components. To show all of these individually, is not practical for reporting purposes and understanding. Following government guidance on reporting of stock condition surveys, we collectively group similar building components under these “key” reporting headings.

We follow the latest, we follow the reporting requirements of Ministry of Housing, Communities and Local Government (MHCLG) guidance and best practice for reporting.

These group reporting headings used in our report are listed below, together with an indication of the typical individual building components that are included within each of the “Key” groups.

Group Reporting – By “Key” Building Components

- **Bathrooms** – This includes, bath/Shower/s, sink, W.C and floor coverings
- **Boundaries** – These cover boundaries e.g. fences, walls associated with individual houses, blocks and estate wide. This heading can appear under each of these property types and costs for different boundaries, subject to whether they are directly associated with the block or part of the wider estate.
- **Drainage - Above Ground** – Waste pipes, and rainwater goods
- **Electrical Installations** – The main and majority of electrical works are included throughout the report under the “Specialist Reporting” heading; mechanical and electrical (M&E). However, there are a few items relating to existing lightning protection systems (not Tested), aerials and smoke detectors (not Tested), that are included under a separate heading of “Electrical Installations”. There are no duplications in costs between the M&E specialist and this heading. The existing services within the property e.g. Consumer unit (fuse box), electrical wiring, and communal related electrics are covered by the specialist M&E engineer and included as either “dwelling Internals” or communal.

The specialist report further covered the external areas of the building e.g. Security cameras, street lighting, security lights. Lifts are also covered by the specialist report under the relevant heading of lifts.

- **Estates** – Includes all areas of an estate e.g. roads, walls, paths. There is a separate section reported by the specialist M&E engineer on estate lighting and related electrics see “M&E Estate lighting”.
- **External Buildings** – Any external stores relating to the house or block
- **External Doors** – Communal block entrance doors, individual flat and house main entrance doors, both front and rear where applicable. Our original survey data on front entrance doors has been overridden by the information produced by Southwark Council following their assessment of their type 1 Fire Risk Assessment (FRA) surveys referenced previously in our report.
- **External Wall Finish** – Includes the pointing (mortar), render or other finishes e.g. timber/ UPVC panels. A separate specialist survey covers external concrete repairs and their coatings. See Section “Concrete Repairs & Coatings”.
- **External Walls** – This covers the main structure of the wall e.g. bricks, stonework and concrete claddings. The structural frames of the blocks are not included as part of this report as information is awaited from a review of reports provided previously by Messrs: Arups on the condition of the structures and or by further investigation under separate instruction.

- **Estate Garages** – (Manor Grove Only) Collectively includes all elements associated with these garages e.g. roof, rainwater goods, walls, doors. See Estate Garages
- **Hard Surfacing's** – Pathways, roads and paving's
- **Heating & Hot Water** – This is covered under the following M&E engineer headings within the report and typically include Individual property boiler, radiators, heating system, hot water cylinders and cold water storage, communal heating systems and block located boiler rooms. "M&E Communal Services and dwelling internals". Refer to breakdowns in individual building reports. Where communal heating systems service all dwellings across individual blocks, these are classed as communal and therefore include costs of both Southwark council rented homes and leaseholders. Individual heating e.g. houses and flats without communal heating, only include costs for SC rented homes.
- **Internal Doors** – Property or Block, Internal doors (Excluded and to be covered under Fire Risk Assessment report under type 4 as referenced earlier in our report).
- **Internal Structural and Finishes** – Communal areas and dwellings, e.g. plastered finishes.
- **Kitchens** – all fitted kitchen components e.g. cupboards, sink and floor coverings (not white goods).
- **Roofs** – Main building roof coverings, facia/ soffits, porch roofs and roof structure.
- **Laundry** – Items associated with a laundry where applicable e.g. sinks etc.
- **Refuse** – Refuse disposal e.g. bin chute hoppers
- **Stairs & Balconies** – External communal and private stairs/ balcony areas, structure and coverings
- **Windows** – all windows within the house or block (Flats and communal windows).
- **Decorations** – We have included a separate estimated allowance of cost in our cashflows for renewal of existing decorations under the heading "External and Communal decorations". Separately, under the specialists reporting section by Messrs Martech, "Concrete Repairs & Coatings" they have included an allowance for specialist paint coatings to exposed concrete surfaces across the buildings as recommended in their report. The decoration costs are repeated every 7 years for the standard decoration to buildings, whereas the specialist paint coatings have a longer life expectancy.

Terms used in "Survey design" and "Schedule of Rates" (Appendix C & D)

A detailed list of the individual building elements available to our surveyors for survey, together with their allocated "Key" reporting groups is shown in our survey design questions in (**Appendix C**). This list will assist you in understanding the individual building components and their assigned reporting groups.

The specialist M&E engineer, whilst using their own building services components to report against, have collective grouped similar work together and these are included in the main report cashflows under the following headings:

- M&E Communal Services (All Tenures)
- M&E Dwelling Internals (SC Rented Tenures) – Excludes leaseholders
- M&E Lifts
- M&E Estate Lighting

Question Heading – The list shows the individual building component names/ questions included in a typical condition survey.

Unit (Unit of measure) – These show how the estimated quantity of work required has been measured for each of the individual building questions above. e.g. Meter's Squared (M2), Linear Meter/s (LM), Number (Num) example one kitchen. Some questions require an answer only (Ans). These are non costed items and do not require a quantity to be measured e.g. "bathroom space layout"; is it adequate or not. This example question is used by our database to contribute towards working out if a property is decent or not for decent homes.

Text (Question Answer)

The answer to an individual question, selected from several possible pre-defined answers. The most relevant one is used.

Typical life cycle

This is the typical expected life of an individual building component once a new one is installed. These are derived from Royal Institute of Chartered Surveyors (RICS) and Building Research Establishment (BRE) data , together with a wealth of our own building experiences and those of Local Authorities of the life expectancy of building elements based upon our observations and professional knowledge through undertaking many thousands of surveys and those of our clients.

These individual life cycles are applied to our surveys, only once an we have identified an initial year of replacement. Our experienced surveyors assess the condition the individual building components at the time of survey of the home or block. This methodology is applied to each individual building component seen. It is only then our database, applies these life cycles to project their future costs in addition to the initial replacement or repair year estimated by our surveyors.

This means in the example of a kitchen, which has a typical life of 20 years, if the installation has been assessed at the time of survey as requiring replacement in 4 years' time, the application of the future life cycle will show this in the costs requiring a further replacement again in 24 years' time.

Cost/ Schedule of Rates

The costs shown in our cashflow are derived from the information collected by our surveyors using the above methodology, for the individual dwelling, blocks, houses and estate wide works. The survey data is stored within our own Microsoft Access database. This data is then electronically interrogated using the quantity of work collected by our surveyors, linking this information to a schedule of rates (individual costs) to calculate the cost of the work. These survey results are then collectively used to produce the results seen in our overall reporting cashflows.

1 Introduction and scope of survey

- 1.1 This report sets out to describe the professional work undertaken to collect and present data on the condition of the housing stock owned and managed by Southwark Council (SC). This report details the various stages of the survey project and explains the principal findings and how these were achieved in practice.
- 1.2 A brief and scope of work had been drafted for the scope of a condition survey of the Tustin estate in a document dated 21 October 2019. The parties involved: Southwark Council, Hunters as the appointed consultant and their appointed specialists. A wider group including other consultants and a residents committee has been set up to review our stock condition survey and the options appraisal work of these other consultants. This work is separate from the main stock condition survey.
- 1.3 Southwark Council tendered the works for a stock condition survey of the Tustin estate to include Pilgrims' Way primary School, located on the estate, for an experienced consultancy to carry out an independent survey. This would include a fresh survey of all existing buildings, to include a sample of Southwark Council rented homes internally only. The sample size and methodology has been drawn by Hunters from information provided in an address list of all homes across the estate. The objective, to provide robust reported on the condition of existing homes over the next 30 years and associated costs to ensure homes are maintained to decent homes standards. The information from the survey, will be used by Southwark Council and stakeholders to help inform the options appraisal exercise which considers the future of the Tustin estate.
- 1.4 The stock condition survey also provides a basis upon which programmes of work can be formulated to manage and maintain the existing stock portfolio. This includes a separate report on the Pilgrims' Way Primary school.
- 1.5 Each report is intended to be a reference document and contains several costed tables (cashflows) which are generated from our in house database. A copy of our database containing all the information collected as part of this survey will be provided to Southwark Council following delivery of our final report, where further analysis of the data and results can be accessed by Southwark Council.
- 1.6 Additionally the survey was expected to inform Southwark Council on any category 1 hazards as part of decent homes programmes. This information is one of four sections (section A) "Housing Health & Safety Rating System" (HHSRS) used to understand homes that are non decent, and any newly arising need based upon rented tenures only.
- 1.7 All assets have been surveyed on a visual non intrusive basis as part of the stock condition survey. Properties were not inspected in relation to any aspect of Fire safety. This will be included and provided by Southwark Council and the costs added to the current survey of the costs of maintaining homes and to decent homes standards. This forming part of the councils ongoing options appraisal of the estate assets.
- 1.8 Further reports will include, but not limited to:

Fire Risk Assessments – Southwark council following a review of their type 1 surveys have provided a profile of costs for FRA works to the buildings. There will be further, more detailed surveys undertaken by the council as homes become void as part of a detailed type 4 recommended intrusive surveys. See additional reference on page 1 and 2 of our report.

Structural Engineer - Review and conducted further intrusive investigations of the Houses and based upon previous structural engineers' recommendations Messrs Calford Seadon of No. 81 Manor Grove.

Mechanical and Electrical specialists – Only when access to ducting and other inaccessible parts of the structure are undertaken as part of the void FRA inspections, it is recommended for an engineer to further inspect the condition of any hidden services. The costs currently included in the cashflow by the M&E specialist are based upon the engineer's experiences and knowledge of similar property assessment with similar ages.

Not part of this report (Pilgrims Way primary School) - For information a report is due week of 10 February on the condition of the below ground drainage of the Pilgrims Way Primary school and any recommendations based upon the condition of school below drainage, for potential extension of survey to parts of the min estate to understand its condition too.

Structural Engineer - A summary report has been issued by the council of the building structures undertaken by Messrs Arup's to include the blocks across the Tustin estate. The information provided was limited in nature. At the time of this report, we are awaiting any additional information from the council relating to any detailed reports that are available and their recommendations/ costs. Southwark council are seeking confirmation of any detailed reports from Arup's. Should detailed reports not be available, a structural report of the building frames of blocks on the Tustin estate should be undertaken for all to understand their condition as part of the overall options appraisal exercise.

- 1.9 Following the competitive tendering process in August 2019, Hunters were instructed in October to commence work on the project. Preparation work began immediately. This included Hunters delivering a survey design which was fit for purpose to collect our survey data.
- 1.10 Prior to on site surveys, Hunters, together with MCCE Limited (M&E Engineer) attended a joint Tustin estate site walkabout. This was in the presence of officers of Southwark Council, a local councillor and representatives and residents of the Tustin estate. The estate overview included visiting two maisonettes, one from Bowness Houses and the other in Heversham House. The objective to understand some of the concerns of those residents together with a visual walk through of their homes.

Shortly after our site visit, the local Southwark Housing team, shared amongst all stakeholders a summarised feedback form based upon individual blocks and the houses collated by the officers. The document known as "Starting the conversation questionnaire" provided anonymous collective responses from residents based upon several questions about their home/ block/ estate to include; the block in which they live and the estate in general. These summary sheets included replies from both rented and leasehold homeowners. The questionnaires issued are dated 15 October 2019 and were conducted during the October period by Southwark council officers.

The information was shared with our survey team as part of a briefing in advance of surveying the estates and properties, to provide further background on any concerns of residents pertaining to the assets across the estate.

On site surveys were programmed to commence in mid November 2019 for a duration of two/ three weeks.

- 1.11 Further mid survey meetings were attended by our project manager, with estate residents at TEPG project group meetings to provide an interim report on progress and to answer any further questions from the residents pertaining to our survey methodologies and interim issue of survey results as minuted at these meetings.
- 1.12 On site condition surveys were completed during December 2019.

2 Sample survey

Sample Survey

- 2.1 The project required a representative survey sample survey of all types of properties across the Tustin estate. Hunter's fee proposal included for a 100% visual accessible areas survey of all internal communal and external areas of blocks of flat dwellings, estate areas and garages.
- 2.2 A 30% internal sample was drawn by Hunters using information provided to us in the Southwark address list of homes and tenures across the estate. The address additional included, information on business/ Retail units and the garages located at Manor grove. We have further added the cleaner's store/ office (an individual detached building) located on Manor grove to the North West corner of the estate.
- 2.3 The internal sample was drawn independently by Hunters from the stock list provided by SC. Freehold properties (Houses) were removed from the list prior to the sample being selected. However, within the breakdown of costs by building/ block, we have used the 31 Freehold properties, together with those in the tower blocks to apportion the estate costs as an equal contribution across all homes on the estate. We have included these assets and their associated costs on the breakdown's costs by individual buildings/ type. We have been asked, not to apportion the costs of the garages on Manor grove or the decoration costs of them across the tenures. The garages are therefore shown as a separate building's costs.

- 2.4 The stock control numbers used for this survey across the Tustin estate are:

Blocks – a total of 9 No.- (Kentmere House, included as two blocks and Hillbeck Close four separate blocks)

Flats/ maisonettes and hostel bedsits - SC rented tenures – 200 No.

Houses/ Bungalows SC rented tenures – 18 No.

Leasehold Tenures – 49 (represented by a 100% survey of the External & Internal communal areas only)

Tustin Estate (Communal estate areas, roads, pathways and boundaries.)

Manor Grove Garage blocks – 2 No. (16 individual Garages)

Business/ Retail Units – 9 No.

- 2.5 For all block surveys a 100% coverage of all accessible and communal areas have been visually assessed, together with the garages. At the time of survey, we were unable to gain access to the interior of the garages and a provisional sum allowance is included for cost of internal work to partition walls. This allowance has been estimated based upon an independent survey by the councils appointed contractors. We were unable to gain access to three of the nine business units. These unsurveyed units have been represented from cloned surveyed units an additional allowance for external windows (not shop fronts) is included within the external costs of the units and their rear doors.

Estate Blocks

- 2.6 The stock list identified a total of 9 blocks across the estate. Hunters define a block as a single building containing more than one dwelling (Bedsit/ Flat/ Maisonette), located under one roof.

Whilst many will consider the properties in Kentmere House to be one block, together with the Hillbeck Close block, Southwark Council's address list showed these blocks as being individual. We have therefore, included these within our report under the following block names:

Kentmere House:

- 1-5, 17-21 & 33-35 Kentmere House
- 6-16, 22-32 & 36-38 Kentmere House

Hillbeck Close:

- 1-8 Hillbeck Close
- 9-16 Hillbeck Close
- 17-24 Hillbeck Close
- 25-32 Hillbeck Close

- 2.7 Working to the principles of using the following fields as archetypes, contained within the council's address list, a 30% sample from the archetype groups was drawn by Hunters, using the following information.

- By Block
- Property Type – House, Bedsit, Flat and Maisonette
- Year Built
- Floor location within the block
- Number of bedrooms

- 2.8 Following agreement of our selected sample of 30% of SC rented tenures, an agreed letter of communication was sent to all SC rented homes, in a single mailing. The letter informed customers of our intention to visit their home for survey. The 30% sample survey we refer to a target property, homes drawn from the above sample methodology we have selected as initial homes. As a result of residents not always being available, we chose two alternate properties from the sample archetype group to survey in the event access is not available to the target. In this way it ensures we still obtain a representative sample of all archetype groups. Due to the high nature of the sample 30%, it effectively meant it made sense to send a letter to all rented homes on the estate.

This is a recognised as best practice, in the event the target property is not available an alternative property of similar characteristics is surveyed, to achieve the required sample.

A full list of all homes surveyed is available in the address list within our Hunters database.

The survey achieved a 100% survey of all Blocks (SC rented and leaseholder tenures), Estate areas and garages, with a targeted 30% internal sample of SC rented tenures, to included 89% of rented houses, 67% of retail/ business units (Bowness House) and 100% of garages (Manor Grove) and estate cleaners office.

- 2.9 The sample drawn, and surveys achieved is shown in the table on [page 2](#).
- 2.10 The mechanical and electrical engineer gained access to visually assess all communal boiler plant rooms and undertook and assessment of approximately 10% rented of homes.

Survey precision

- 2.11 The precision derived from any sample is proportional to the size of the sample. Experience has shown that a population of approximately 250 records of housing stock is necessary to produce a precision of plus or minus 4% at 95% confidence. Clearly, the size of the overall sample 30% and 100% of all external estate areas, blocks and garages, by far exceeds such a small sample, and therefore we consider achieves a precision of more than plus or minus 4% at 95% confidence. The full sample gives a sound basis for an estimate of major repair costs, suitable for any business planning purpose and use as part of a wider options appraisal exercise.

3 Survey data

Data capture

- 3.1 Survey information was captured using Microsoft windows devices, with a bespoke "Hunters collect" developed survey installed with a pre-structured survey design. The survey design enabled surveyors to record basic descriptive information about properties and to record information on the individual building elements making up the properties and the initial replacement life of individual building components. A copy of the survey format used is attached at [Appendix C](#) of this report.
- 3.2 Our surveyors were required to capture information on stock condition, Decent Homes which incorporates the Housing Health & Safety Rating System (HHSRS). The stock condition survey included individual building elements and component groups used as part of best practice following Department of Communities and Local Government (DCLG) guidance June 2016, still referenced today. The data was transferred at regular intervals to our head office secure network. Validation routines operated to ensure that no data corruption occurred during the transferring process. A full back-up of survey data was maintained on each device as a contingency measure. Data was securely stored within an in-house Microsoft Access database ready for validation.
- 3.3 The survey data was captured under approximately 150 elemental headings. For each of these elements data was captured to describe the general configuration of the element and its materials, the timing of replacements or major repairs both in the short and long term, and the quantities applicable to these renewals.

Improvements

- 3.4 The stock condition survey brief did not require any improvement measures. We have however, included for the following improvements, based upon feedback from estate residents at the "walkaround" meeting prior to commencing any surveys on site and through discussions with Southwark council.

These measures include:

- **Roof Edge protection** – Additional and new flat rood protection around the roof perimeters
- **Estate Improvements Access** – An allowance for additional gated restrictions to help reduce motor bike traffic and cycle traffic across pedestrianised paths in particular, the areas at the front of Kentmere House/ Manor Grove houses, together with restricting access via the pathways at the end of the houses and estate roads.
- **Cold Bridging** – Estimated costs allowance to provide thermal insulation measures to exposed (overhanging rooms) to improve the thermal efficiency of these areas within homes.

Decent Homes and the Housing Health & Safety Rating System (HHSRS)

- 3.5 Data was captured against the risks identified in the indicative approach to the Housing Health and Safety Rating System as recommended by the Department for Communities and Local Government for use in condition surveys. (**Refer section 7**)

Validation

- 3.6 Once data had been entered into the prepared database; it was subjected to many validation checks. Range checks were applied to fields where values could be expected within known maximum and minimum values. Queries were constructed to apply range checks to types of property or to specific elements of buildings. Checks were also made to confirm the consistency of responses for property types and certain elements, and pricing data.
- 3.7 Finally, once all computer-generated checks had been completed, the data in its entirety was scrutinised, field-by-field, by the Field Team Leader. Any anomalous responses were clarified with surveyors and any necessary corrections were applied to the data. When the full scrutiny of the survey database had been completed, only then was the data passed as being in a satisfactory condition for reports to be generated.
- 3.8 Furthermore, our onsite team leader, shadowed our surveyors at the start and during all on site surveys, to ensure continuity of the survey brief was being adhered too and consistency between the survey team was being achieved. As part of our quality assurance an ongoing 5 percent quality control survey was conducted of surveyed assets by of our on site team leader.

Cloning and Extrapolation of Data

- 3.9 To obtain results that would be representative of the total Tustin estate housing stock, the data obtained from the sample surveys is grossed up, to represent all Southwark rented homes internally to enable all properties to be reported.

Houses/ Bedsits/ Flats and Maisonettes – SC Rented Tenures

- 3.10 Homes that were not included as part of the 30% of those surveyed are represented by “Cloning” the data from a surveyed home. The data from a surveyed property is cloned to an unsurveyed property type of similar characteristics in terms of property type, age, number of bedrooms and in the case of flats, a flat from within the same block and floor level. In this way all properties surveyed and cloned will have a complete “data set” which is used to build up a report and generate an output cashflow representing all SC rented tenures.

Blocks, Estate Communal areas and Garages

- 3.11 In the case of the above asset types, these achieved a 100% survey coverage. No cloning is necessary.
- 3.12 A detailed list of the properties surveyed and or cloned is included within the Hunters database.

4 Survey technique

Surveys

Access

- 4.1 The objective was to include a survey of the nine estate blocks, associated estate wide assets, retail/business units and our 30% sample of "Target" properties. To further assist our access process, communication with customers of SC was achieved through wider communications of the estate resident's liaison team about the Hunters survey process.
- 4.2 Whilst we were not always able to access our target property, Hunters surveyors followed our 3 call protocol to gain access. This includes three separate attempts on different days with a calling card left on the first visit and subsequent visits advising of our unanswered visit, requesting a call back. Our calling card also gave the customers an opportunity to ring the Hunters Freephone number to arrange an appointment. If access was not gained, we then called upon an alternate property from the same property archetype. This together with the overall awareness of the survey ensured we achieve our survey sample of rented homes.

5 Costings of Work

Application of Schedule of Rates

- 5.1 The information from the surveyed properties following validation of the data and our quality assurance inspections is then "Cloned" to the non surveyed properties. Once the data is checked to ensure full representation of all assets, the complete table of data is linked to the schedule of rates. Following further checks of compatibility between these two tables, the internal processes of our database produce costs for each item of work.
- 5.2 The cost of repairs for backlog and future major repairs are calculated in our database, using an in-built schedule of rates. This schedule is based upon costs of major repairs and renewal of items as at the 4th Quarter 2019 prices within the London region.
- 5.3 A facility exists for our surveyors to "spot price" major repair items where, in their view, a calculation of cost using the in-built schedule of rates would give an inaccurate answer. The surveyors were instructed only to use this facility in "exceptional" circumstances. To ensure continuity in data collection there is a high preference for the data to be quantified with estimated quantities helping to reduce surveyor variability in results. Most costs have been generated by our database applying the schedule of rates.
- 5.4 A copy of the schedule of rates is reproduced at **Appendix D**.
- 5.5 **It is important to note that the summaries within this report are inclusive of specialist costs from the results of their surveys following completion at the end of December 2019.** For SC to understand their full maintenance liability, further additional costs will need to be considered, typically to include:
 - Cyclical, Responsive and Void maintenance
 - Improvements – Property, Environmental and Energy efficiency
 - Fire Risk Assessment Survey Findings and costs
 - Management and removal of asbestos Refurbishment & Demolition surveys
 - Southwark Standards – Kitchens and Bathrooms
 - Structural Survey findings of No. 81 Manor Grove and associated houses

Economies of Scale

- 5.6 Many published schedules of rates incorporate certain assumptions as to the way work will be carried out. The costs seen within our cashflows are based upon the condition "at the time of survey" of many individual components of work. We have not programmed these to fall into collective programmes. This means we have not allowed for all kitchens and or bathrooms to be replaced at the same time. Based upon council policies and funding, if this were an available option, further economies of scale are potentially achievable. Additionally, we have included separate costs for scaffolding.

The cost of scaffolding, where included relates to when external work is required to include roofs, concrete repair and decorations, brickwork repairs and windows. The requirement for these individual components of may not always align with other repairs/ replacement at the same time. Therefore, it does not include for these economies in scaffolding. Economies in scaffolding can be achieved if all the work required externally was undertaken at the same time, however this may not always practical as a result of windows for example lasting longer until replacement is necessary versus concrete repairs and protective coatings which are necessary in earlier years.

Composite Rates

- 5.7 Schedule of rates items are composite in nature. This means that all items of work necessary to carry out a major repair/ renewal are included in the schedule of rates cost.
- 5.8 By way of example, the composite rate used in our Hunters database, for replacing a door includes all work necessary to complete the job. This would equate to the following work items in a schedule designed to be used to "assemble" individual work items:
 - a. Take off old door and cart away.
 - b. Provide and hang new door.
 - c. Provide and fix ironmongery.
 - d. Decorate door on both sides.

Contractors' Preliminaries

- 5.9 Costs generated directly from our computer database using the schedule of rates are exclusive of contractors' preliminaries. These are costs that reflect contractors' out-turn costs for overheads, site accommodation, profit, and general working conditions including scaffolding to low rise properties. Considering the level of pricing in the agreed schedule of rates, it is the opinion of Hunters an allowance in the range of 20% would be appropriate to be added to the base schedule of rates items, reflecting the type, nature and location of works associated with properties of this type. These would be higher if we had not included separate costs for the scaffolding. The 20% addition for contractors' preliminaries is an average, however, individual packages of work would attract different percentage additions for preliminaries according to project complexity, work content, and size.

Spot Prices

- 5.10 A small number of items of building work cannot be accurately priced using the schedule of rates. In the instance of a small but intricate repair, the use of the schedule of rates would not fully take account of the complexity of the job. In these cases, the surveyor enters a "spot price" or lump sum estimate of the cost in lieu of a quantity. The lump sum estimate effectively bypasses the schedule of rates mechanism and ensures that a more reflective estimate of cost appears in the cost reports. This are very low in number and for the purposes of continuity across the survey team most components and our answers are quantified with the schedule of rates being used.

Base Date

- 5.11 The base date used for costs is 4th Quarter 2019. All costs shown within our cashflows **do not** account for inflation in future years, they are at today's prices.

Cost Exclusions

Internal Plasterwork

- 5.12 No allowance for consequential plastering or the subsequent redecoration has been included in any of the cost estimates resulting from the stock condition survey.

Party Walls

- 5.13 No costs have been included in any of the cost estimates to reflect costs incurred regarding Party Wall legislation and the cost of any works to properties / land adjoining schemes.

Professional Fees

- 5.14 Except where explicitly stated, all costs contained in this report and the stock condition database exclude the cost of professional fees associated with the work.

Value Added Tax

- 5.15 As is the case for professional fees, except where explicitly stated, all costs contained in this report and the stock condition survey database exclude the cost of any Value Added Tax that would be applied to the work.

Leaseholders

- 5.16 The costs shown contained within the cashflows, report on the total stock regardless of tenure. The costs will be subject to recovery of costs from leaseholders shown within the building breakdowns at (**Appendices B**).
- 5.17 The provisions within individual leases and those of the retail/ business units may mean that it will not be possible to recover the full amount, but this cannot be ascertained without detailed examination of each lease. The scope of such work falls outside the remit of this project. The exception to this is the cashflows used in the comparison of costs exercise.

6 Meeting government standards

Decent Homes Standard

- 6.1 In 2000 the Government put forward a Decent Homes Standard that it expected all public sector housing to meet by the year 2010, and expressed to local authorities and housing associations that it also expected one third of their respective housing stocks to meet the Standard by 2004. The Standard was viewed by the Government as the minimum standard that all public sector housing had to achieve by 2010 or in such extended timescales as were agreed between central government and individual social landlords.
- 6.2 Post this period, the above methodology is still used as a benchmark to assess the condition of a housing stock. Furthermore, the homes (Fitness for Human Habitation) Act 2018 came into effect in March 2019 and references the 29 responses of the above HHSRS.

It is important to note, we have applied the indicative assessment of HHSRS for use in stock condition surveys and it is not based upon the full scoring methodology as applied by environmental health officers. We would recommend ensuring full compliance with the new Act, assessments are conducted to assess homes across the Tustin estate to ensure compliance with the above Act. In summary, the decent homes guidance operates on the basis that as "Key" individual, or other multiple components fall into disrepair, newly arising causes of non-decency will occur that require remedial action by major repairs. These newly arising circumstances are likely to be caused by the age of kitchens and bathrooms and the state of repair of the exteriors of properties. These causes are a feature of all housing stocks and do not reflect any shortcomings in the maintenance regime. If the original assessment of non-decency were to be replicated today, the numbers of properties with causes of non-decency are included in the summary table in **Appendix B**.

- 6.3 The costs to remedy non-decency and counts of non-decent properties are included as part of the above appendix and discussed in Section 11 – Results.
- 6.4 The Decent Homes standard has specific requirements for classifying a property as non-decent. These may be misleading and hide the true nature of the work that should be included in a works programme to address the causes of failure for Decent Homes. We have shown a summary of the standard below and have commented in Section 11 on the underlying trends that are visible in the data but not necessarily evident from the headline Decent Homes failure statistics.

The following are the criteria required for a dwelling to meet the Decent Homes Standard:

Section A

It does not contain a risk categorised as "severe" under the Housing Health and Safety Rating System (HHSRS). Cat 1.

Section B

It is in a reasonable state of repair. Dwellings failing on this point will be those where either:

- One or more key building components are old and need replacing (where key means external components, electrics, and gas heating source)
- or
- Two or more other building components are old and need replacing. (see Section C over)

Section C

It has reasonably modern facilities and services. Dwellings failing on this point are those that lack three or more of the following:

- A reasonably modern kitchen (20 years old or less).
- A kitchen with adequate space and layout.
- A reasonably modern bathroom (30 years old or less).
- An appropriately located bathroom and W.C.
- Adequate noise insulation (where external noise/neighbourhood noise is a problem).
- Adequate size and layout of common areas for blocks of flats.

Section D

It provides a reasonable degree of thermal comfort. Dwellings failing the standard are those where the occupants are unable to heat their homes to a reasonable level e.g. inadequate levels of insulation

Decent Homes – a Trigger for Action

- 6.5 The Decent Homes Standard is defined by the Department of Communities and Local Government as “a **minimum** standard that all housing should meet by 2010”. (Source: A Decent Home: Definition and guidance for implementation. DCLG – June 2006).
- 6.6 Central government guidance explains to social landlords that the standard should not be regarded as the only major repair work that should be undertaken but rather that it should be regarded as a “standard that **triggers action**”.
- 6.7 Strict adherence to the Decent Homes definition can lead to strategies that in practice may not produce the best value for money for social landlords. For instance, the guidance remarks that in a section relating to “Modern Facilities” where the standard requires three components to fail to render a property non-decent, “a home lacking two or fewer of the above is still classed as decent, therefore it is not necessary to modernise kitchens and bathrooms if a home meets the remaining criteria”.
- 6.8 Whilst this is an accurate statement used to assess the number of non-decent properties to provide a nationwide benchmark of condition, it will be apparent that any programme based solely on the strict interpretation of Decent Homes could result in two components in identical condition being treated differently according to the state of repair of other components in the property. For example, the kitchen and bathroom in a property could exceed the age threshold for modern facilities and yet the property could be classified as “decent” and no work programmed. The adjacent property with a kitchen and bathroom in an identical condition but with a further failure, possibly space within the kitchen, would qualify as “non-decent” and the kitchen and bathroom would be scheduled for renewal in any major repair programme.
- 6.9 In addition to any inconsistency of approach, the piecemeal approach to renewing installations and the similar effect on future programmes and responsive maintenance in the intervening period are likely to result in poorer value for money than could be expected from a managed and consistently organised programme of repair. The guidance anticipates this effect and advises authorities that “landlords are not expected to carry out only that work which contributes to making homes ‘decent’ and encourages authorities to secure better deals and to increase supply side efficiencies”.

The guidance summarises the position by stating that: "Social landlords and local housing authorities may deliver housing above this standard, but to ensure at least a minimum standard across all housing a common classification is needed to set and monitor the national target".

- 6.10 It should also be realised that many components that require capital works are not mentioned in the Decent Homes Standard. Examples of such areas of work are boundaries, paving, drainage, floor coverings, garages, lifts, rainwater goods.
- 6.11 A more realistic minimum scenario for most social landlords is to plan for the replacement of a few the key components which will need to be carried out in a planned and consistent manner to achieve optimum value for money combined with remaining items in the Decent Homes Standard.
- 6.12 It is should be noted, original design constraints of kitchen space layouts at Hillbeck close are poor and are not suited to current space standards and layouts without extending the existing kitchen into adjoining rooms and or extension of the dwellings. It was noted a number of residents have installed double cookers which greatly impede on the available space. It is understood from "A Typical" flat layout drawings provided as part of the options appraisal consideration into increasing space is being considered.

These are not included as part of the non decency table of homes, but are highlighted here. Existing layout without major change is considered difficult to achieve in these homes without major redesign.

7 Housing Health and Safety Rating System (HHSRS)

- 7.1 As part of the survey, surveyors were asked to record risks identified in the HHSRS. This aspect of the survey was conducted in accordance with government guidance on assessing risks as part of a large scale stock condition survey , which is contained in Figure G3 of Annex G of the CLG publication "Collecting, Managing and Using Housing Stock Information".
- 7.2 In total our surveyors recorded 4 property instances in the sample surveys where they considered a potential "severe" risk might exist. In each case it would be necessary to verify that the risk merited the classification of "severe".
- 7.3 "Severe" risks also constitute grounds for failure under the Decent Homes Standard. In most cases the remedial action will be accomplished by the day-to-day repairs service. The instances of severe risk have been notified to officers of the council for urgent action. At the time of this report these severe risk should no longer exist as they should have been actioned by the council.
- 7.4 The "severe" risks Cat 1 are listed below:

Electrical hazards and Damp and Mould

48 Heversham House	Partition wall other side of kitchen, damp/ electrical socket	£750
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Hot Surfaces & Materials

1 Heversham House – Cooker location	£750
31 Kentmere House – unsafe location for cooker/ poor provision	£750

Lighting/ Electrical hazard/ damp

64 Heversham House - No lighting reported in bedroom for 10 years due water/ damp and lighting not working in bedroom locations.	£2,250
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Hunters have separately reported these to Southwark Council upon their discovery for action. These HHSRS cat 1 related instances.

- 7.5 Risks classified as "moderate" or lesser degrees of risk can be extracted from the stock condition survey database. These risks are highlighted for review and sign off by Southwark Council from the information that will be provided in our database.

8 Caveats and Limitations

- 8.1 We have not sought to impose any particular limitations upon the survey beyond those of the normal surveying practice and caveats.
- 8.2 In accordance with the brief, we confirm that our inspections have been carried out on visual inspection only. We have not inspected areas that were unexposed or inaccessible at the time of the survey and consequently we are unable to report that such areas are free from defects or the condition of components or services in these areas.

We have not carried out any boroscopic investigation of buildings or any chemical testing of elements to establish the presence of the following (the results of which may lead to higher repair costs, which are not identified from the Hunters condition survey within this report, with the exception of those contained with the specialist concrete repair report by Messrs: Martech Technical Services:

- Asbestos based materials
- High alumina cement
- Chloride content of concrete
- Ph value of concrete
- Carbonation of concrete
- Woodwall slabs as permanent form work
- Urea Formaldehyde, the extent of free formaldehyde in which exceeds the level stated in BS5669:1979
- Lead based paints
- Materials containing loose fibres less than 3 microns in diameter

Trees

- 8.3 No account has been taken of any costs arising from tree root damage or any limitations on works proposals arising from trees.

Japanese Knotweed

- 8.4 Japanese Knotweed is now common, and we have not allowed for a detailed survey by a specialist to identify whether this plant or similar plants are present within the site.

Contamination

- 8.5 No tests have been undertaken to determine the presence of ground contamination and no costs are included in the condition survey database with regards to ground contamination.

History of Settlement / Subsidence

- 8.6 Surveyors have not had access to any historic records of settlement or subsidence in considering the structural integrity of buildings. Surveyors will have considered the origin of any structural cracking based upon the condition of the structure of the building in question and adjoining buildings. Costs for structural repair will have been based upon visual observation rather than research and costs allowed will also include for further intrusive investigation of any structural defects to be undertaken by a structural engineer.

Drainage

- 8.7 No surveys were made of below ground drainage. Where obvious signs of a problem existed, we would expect this to be included in the surveyors' annotations to the survey. No costs are shown as each instance will require more detailed intrusive inspection to determine the cause of problems and to provide an estimate of repair works. Typically, this type of repair work is funded from day-to-day repairs service budgets. No surveys using CCTV equipment were undertaken across the main Tustin estate.

Lateral risers & sub-mains

- 8.8 We, together with the mechanical and electrical engineer have not undertaken investigations to determine the extent and condition of lateral risers and sub-mains and are therefore unable to report on any repair costs in this respect. An assessment as referenced earlier in the report should be undertaken as part of works associated with the intrusive inspections of the FRA surveys of voids.

Restricted access

- 8.9 Limited or restricted access will have prevented inspection of all areas behind ducts and areas locked shut or inaccessible from ground level. Whilst we have visually reported on those areas that were accessible and visible at the time of our survey, we recommend in the event duct inspections are not practical a contingency allowance is made in respect of access and the potential work required to areas that remain hidden from view.

Lightning conductors

- 8.10 We have included an estimate only for works to the existing lightning conductors and we recommend a full test and evaluation of these to fully assess their replacement or through review of existing records. Existing reports and records will form the basis of inspections by suitably qualified specialists in due course.

Fire Risk Assessments

- 8.12 We have not undertaken any assessments in relation to the integrity or suitability of buildings either internal or externally as part of this survey for fire and are unable to comment on these areas. We have strongly recommended Southwark Council review this work and understand a survey inspection and programme is currently being reviewed to undertake type 4 FRA's when homes become void. Current estimates of costs have been provided by the council and are included within the cashflows. Any future intrusive Type 4 surveys of void properties when available to the council will need to review the reports and the information extrapolated to help refine their initial estimates. This cost can also be assessed from the estimates of work to be undertaken as part of their earlier evaluation of the type 1 surveys and used to continually refine the overall condition survey costs.

Specialist Sub Consultants

Mechanical and Electrical

- 9.15 A specialist consultant MCCE Limited has reported on all mechanical and electrical services installations. Whilst we have included their costs in the summary of costs and breakdowns reference to their condition is not part of our survey and their report must be used for costs and condition breakdowns. These reports are separate to our stock condition survey. We have therefore removed from our own surveys the components of work where there is a correlation to avoid any double counting in the costs between our own surveys and those provided for all M&E services throughout the buildings.

Structural Engineer/ Concrete Investigations

- 9.16 A specialist consultant has been instructed to undertake an inspection and sample intrusive investigations of the concrete exposed finishes across the blocks to report on their condition with recommendations. The report from Messrs Martech Technical Services is include at **Appendix E**. Their costs are further included within the summary and individual asset cashflows.

A summary report of the concrete structures has been provided by Southwark council, which formed part of a wider borough survey by Messrs: Arup's. As referenced earlier in this report the content was limited and we have asked for any additional detailed information from the council with any findings as to the condition of these structures. Should a detailed report not be available, a structural engineer should be appointed to review the existing structures with a report to the council on their condition and associated costs.

Third Party Liability

- 9.17 The report will be provided for your sole use and the stakeholders. Whilst it may be shown to other professional advisers acting for you, the content may not be disclosed to a third party without our express prior consent in writing without which, no responsibility to any third party can be accepted.

No express third party right and no purported third party right is conferred by this contract pursuant to the Contracts (Rights of Third Parties) Act 1999.

9 Survey Assumptions

Investment Profile

- 9.1 The cashflows of major repairs are calculated from the sum of surveyors' observations, which have been applied to the schedule of rates. Costs for repair items have been assigned to the timescales recommended by surveyors, which have resulted in a profile of major repair / renewals. The main elemental headings are described below with the constituent elements that make up each main collective element.

Roofs

- 9.2 This heading includes Main roof coverings and additional roofed areas, porch roofs, facias, soffits and bargeboards, any fall arrest system, rainwater goods, and lightning conductors.

External Walls

- 9.3 This element covers the wall structure, damp proof courses, chimney structures, and bin chutes.

External Wall Finish

- 9.4 This element allows for two types of external wall finishes to cope with situations where two finishes may be present on the same property e.g. render and pointing.

External Doors

- 9.5 Under this heading are elements for entrance doors, front communal entrance doors, patio or French doors, and rear or balcony doors.

Internal structural and Finishes

- 9.6 Under this heading may be found the separate elements of: wall plaster, ceiling plaster, ground floor construction, upper floor construction, communal floor coverings, stairs and balustrading and loft insulation.

Stairs & Balconies

- 9.78 This heading includes external areas: communal balcony structures, balustrades and handrails, their floor covering e.g. asphalt, private balcony balustrades and covering to individual units (where accessible), external staircases.

Windows

- 9.8 Covered under the main heading of windows are: main window type, and secondary window types, roof lights, windows to communal areas, and any automatic opening vents.

Kitchens

- 9.9 This heading includes: kitchen units, extract fans in kitchens, kitchen floor coverings, and communal kitchens. The report reflects the Southwark standards for replacement kitchens, and these supersede the costs of those in our original condition survey.

Electrical Installations

- 9.10 This category covers the electrical wiring installation, the consumer units, smoke detectors, which otherwise does not form part of the work covered by the M&E engineers report. – See Mechanical and Electrical Report by MCCE Limited.

Heating & Hot Water

- 9.11 This covers central heating boilers, distribution pipework, the hot water storage/provision, storage tanks and communal systems – See Mechanical and Electrical Report by MCCE Limited.

Bathrooms

- 9.12 Included under the general heading of bathroom are the sanitary fittings (bathroom installation), separate WCs, bathroom extract fans, floor coverings in bathrooms, showers and enclosures. The report reflects the Southwark standards for replacement bathrooms, and these supersede the costs of those in our original condition survey.

Boundaries

- 9.13 This covers pedestrian gates, front, rear and side boundaries, information on the curtilage of the property/ block and or estate.

Drainage Above Ground

- 9.14 This covers the above ground rainwater goods. – Also see Mechanical and Electrical Report by MCCE Limited.

External buildings

- 9.15 This heading comprises doors to bin stores, bin store structures, bin store wall finish, doors to stores, store roof structures, store walls.

Hard surfaces

- 9.16 The components associated with, Driveways, parking area surfaces and external environment associated with individual dwellings or blocks, paths, roads and external steps.

Estate Garages

- 9.17 This heading covers several elements about garages: garage fascia soffit and bargeboard, garage doors, garage roof, garage roof structure, garage walls, garage windows, garage rainwater goods.

Estate Areas

- 9.18 This component group includes estate wide related, boundaries, parking areas, Estate gates, Muga's areas, paths, paving, play areas and equipment, estate roads and street furniture across the estate/s.

Refuse

- 9.19 This includes the bin chute hoppers and point of chute exists within the bin rooms at the bottom of the chutes. We have not assessed or included the condition of the chutes internally.

Decorations

- 9.20 We have undertaken an assessment of the existing areas of the buildings that require decoration. The expectancy of renewal of decorations for the purposes of the report is cyclical every 7 years. We have not undertaken an assessment of the finishes within communal areas for fire spread of flame. This should from part of the separate FRA surveys by Southwark Council.

Asbestos Removal

- 9.21 The Council have a duty to continue to monitor asbestos across homes and to manage asbestos. Our brief excludes asbestos surveys and any works relating to identification. Ongoing management and removal are instructed by Southwark council and we are advised by the council this is regularly assessed and inspected by their appointed framework contractors.

Prior to our surveys onsite, we requested information as an awareness of instances and locations where asbestos has been found through several reports on homes provided by Southwark council. The very nature of our work is visual non intrusive. Whilst Hunters staff are not probing or removing materials in or around homes, we need to understand areas of potential hazards to our staff prior to survey.

We have not set out to report on any costs associated with asbestos and its removal or the costs of managing asbestos in place. We are aware however there are locations where asbestos will need to be removed prior to any work being undertaken. As an awareness to this, we have included a provisional sum for a small amount of potential removal associated with a small number of locations we have seen from reports that maybe affected. Actual costs must be obtained from full refurbishment and demolition survey prior to any works being undertaken.

10 Cyclical/ Response and Void Maintenance

The cashflows are exclusive of these components. Southwark Council will need to include these as part of their wider financial liabilities of total maintenance across the Tustin Estate.

- 10.1 Unlike data on major repairs, which can be captured from site inspections, assessment of the costs of cyclical and response maintenance cannot be made from these inspections. This information is gathered through review of historic records and adjust made to reflect future trends or known future maintenance e.g. decoration of windows where timber, if replacement to UPVC in the future, this item of work would need to be adjusted to reflect in lesser number of windows requiring decoration as a result of the newer UPVC materials.

Cyclical costs

These costs typical include, but not limited to cyclical external and internal communal decorations, lift maintenance, grounds maintenance, boiler servicing, periodic electrical inspection of Southwark council dwellings and all communal areas, lift servicing, communal heating servicing as examples and asbestos management.

Responsive costs

- 10.2 These costs typical include day-to-day repairs (call in from residents, leaks, blockages) and include the cost of aids and adaptations and asbestos testing/ removal.

Void costs

- 10.3 A profile of void costs has been provided by the council and are included within the report cashflows, Derived from historic void programmes across the Tustin estate to produce and indicative future expenditure.

11 Results

- 11.1 The brief required for estimates to be produced for dealing with backlog and future major repairs, as well as the cost of achieving the government's Decent Homes Standard. In addition, our costs include the provision for new installations of kitchens and bathrooms as part of the Southwark standards

Backlog & Future Major Repairs

- 11.2 Under the heading of major repairs we have included the costs of any backlog of major repairs and those repairs that fall due at the various stages of any cashflow that is shown. We have not shown any differentiation between backlog repairs and other major repairs as the distinction is largely meaningless. Costs are shown when repairs fall due. A larger total in the first year of a cashflow is therefore in part backlog work and in part other repairs that have become necessary at that time.
- 11.3 No alterations have been made to the timing of repairs. They are the times at which surveyors believe repairs will need to be carried out. Any landlord or major works contractor would seek to rearrange repairs into a logical programme that sought to achieve efficient planning of the works and economies of scale.
- 11.4 It should be noted that these costs do not include either day-to-day repairs or servicing operations and represent only those works necessary to keep the property to a reasonable state of repair. Except where explicitly stated they do not include any degree of improvement or upgrading except where this unavoidable or part of current good practice.
- 11.5 Because a few blocks across the estate are of medium and low-rise construction (excluding the Tower blocks as these do not form part of this report), we have included an estimate of cost for scaffolding of these buildings.

We have looked at those components of work from the survey data e.g. roofs, windows, external wall areas which require scaffolding to undertake this work and have profiled a cost for scaffold under the corresponding years. We have not allowed for programming these works, which may have the effect of reducing the scaffolding costs, where they to be programmed so all associated external works would fall within the same year therefore creating economies of scale in terms of the scaffolding cost.

Building elements

11.6 The survey contained responses under approximately 150 building elements. To make the overall findings of the survey more comprehensible in a written/tabular form we have rationalised these 150 elements under 19 headings for the purposes of tabular and graphical reports.

11.7 The 19 major elemental headings used are:

Roofs
External walls
External wall finish (i.e. rendering, pointing)
Windows
External doors
Stairs & balconies
Estate Areas
Boundaries
Garages
External buildings
Drainage (above ground)
Hard surfacing
Bathrooms
Kitchens
Internal structure and Finishes
Electrical installations
Laundry
Refuse
Decorations

11.8 For the purposes of this report we have included the costs from the specialist surveys. The results of these surveys are included under the following groups and used in the presentation of our report.

Mechanical and Electrical Communal Services – (M&E Communal Heating & Electrics)
Mechanical and Electrical Dwelling Internals – (M&E – Internal Rented)
Mechanical and Electrical Lifts – (Lifts)
Concrete Repairs and Coatings

Further costs are included for estate block scaffolding under a separate heading:

The following improvement costs are included within the cashflows, but they are not shown within the graph over.

Major works requirement

11.9 Using the data captured on site by our surveyors and applying this to the schedule of rates, this produces a cashflow of the work required to keep the properties in a tenantable condition over the next 30 years. Whilst the chart shows a significant backlog of major repair work over the first 5 years, the expenditure in year 1 and 3 are impacted on through the implementation of the following:

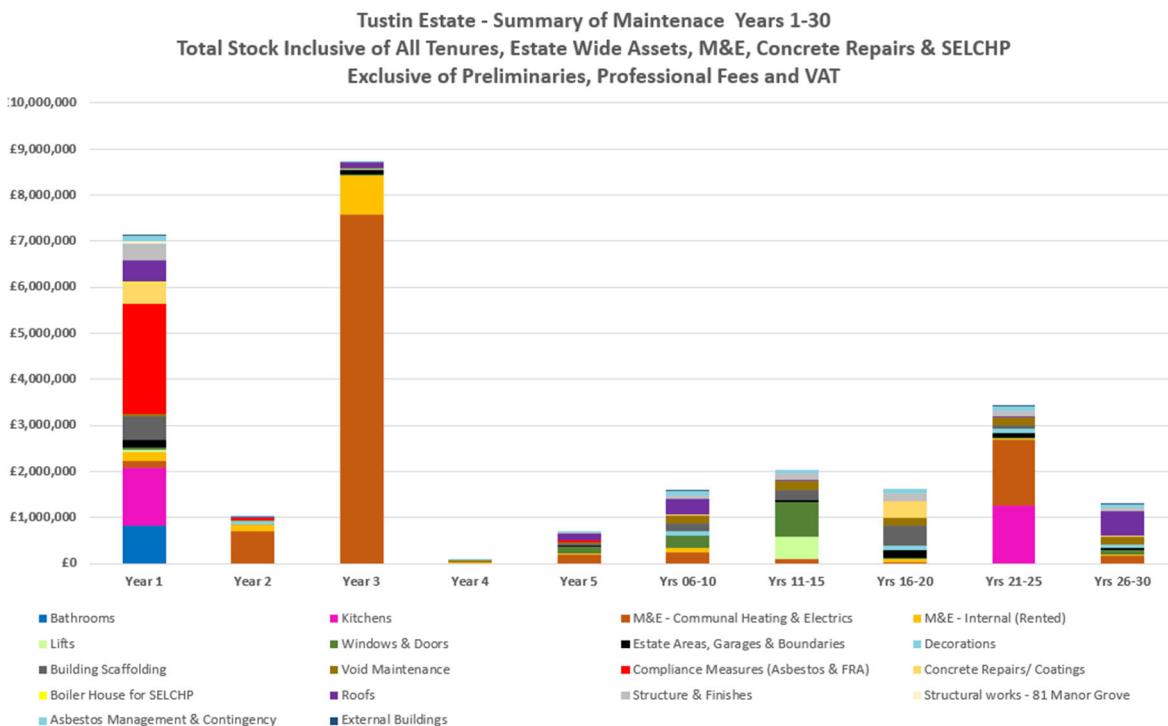
11.10 Year 1 (Total of £7.1 Million)

1. Compliance measures (Red) – Fire risk assessment works and associated asbestos removal necessary in association with the work. These account for £2,414,600, (33.8%).
2. Southwark Standards – New Kitchens (Magenta) and bathroom installations (Blue). These works account for £2,092,800, (29%).

11.11 Year 3 (Total of £8.7 Million)

M&E Communal Heating and electrics (Brown) – There is a significant investment required to upgrade and install the existing communal heating and associated electrics planned as part of the South East London Combined Heat and Power (SELCHP), planned as part of the Tustin estate options appraisal scheduled for years 2023/24 by Southwark Council. This cost represents the works necessary to the communal areas of existing blocks and all internal dwellings as will be required, together with the new installation of a communal system in Bowness House.

The future investment across the stock from year 3 reduces considerably when further investment will be necessary to maintain the existing dwellings over the remaining periods to year 30. See **Appendix C** of this report and chart below.



11.12 It should be recognised however that the timing of repairs is purely as recorded by surveyors in the field. In reality, costs would be smoothed and organised into logical programmes of works to achieve economies of scale and fit within budgetary constraints. This work lies outside the scope of this report, but the information given provides a starting point for discussion on this aspect and the preparation of outline programmes of work. The chart costs are nett of preliminaries, professional fees and VAT.

Business plan cashflow

11.12 Only when the cashflow for major works is combined with the other categories of cost it will be possible to produce a cashflow of the total maintenance commitment for the stock. The additional costs to produce this must include the following once evaluations of the intrusive surveys are known and the options appraisal has been undertaken:

Improvements – Already provided

Cyclical maintenance – These will be included as part of the options appraisal by Altair

Responsive maintenance – These will be included as part of the options appraisal by Altair

Intrusive surveys – Below ground drainage, Manor Grove Houses and Main building structures

The cashflows in our report at **Appendix C**, include selected improvements, void maintenance and a provisional sum for internal structural work at 81 Manor Grove.

In Years 6-10, work still focuses on M&E related works, however, other major repairs and renewals include external windows and rear doors and programmed roof covering replacements. Years 11-15 further roof covering renewals, windows and doors and the major works to lifts. Work in 21-25 starts to include for the replacement of kitchen installations programmed in year 1 with works again associated with the communal heating where components previously installed will be coming to the end of their life. Further detail of works over included within the cashflows and can be seen within the cashflow chart.

Due to the higher volume of work identified over years 1-3, the bar chart can be misleading when looking at the level of work required from years 6-10 onwards, due to the disproportional size of the bars in the earlier years by comparison. This is primarily due to the higher level of investment needed to maintain the stock due to lower levels of investment in recent years, but also the costs associated with the installation of a more energy efficient way of heating homes with the installation of SELCHP, together with new kitchen and bathroom installations estate wide to rented homes.

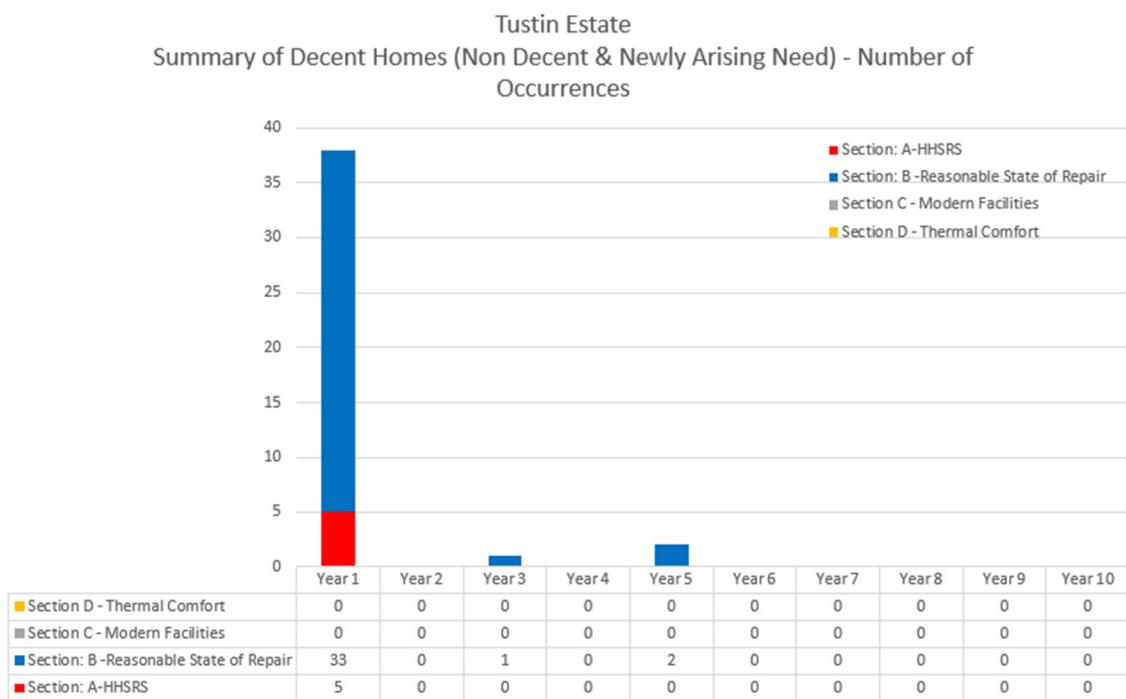
Decent Homes Standard

- 11.13 Section 6 described the Government's Decent Homes Standard in some detail. Surveyors recorded the individual factors that need to be considered in the Decent Homes Standard following the algorithm that is necessary to correctly ascertain whether a property is "Decent".
- 11.14 The overall extrapolated prediction of the number of properties that will contain causes of properties becoming Non-Decent, is given in the chart below. It should be recognised however that some properties will contain more than one cause of non-decency within an overall Decent Homes Criterion (e.g. A, B, C or D) and that the projected number of instances will decrease because of ongoing maintenance programmes.

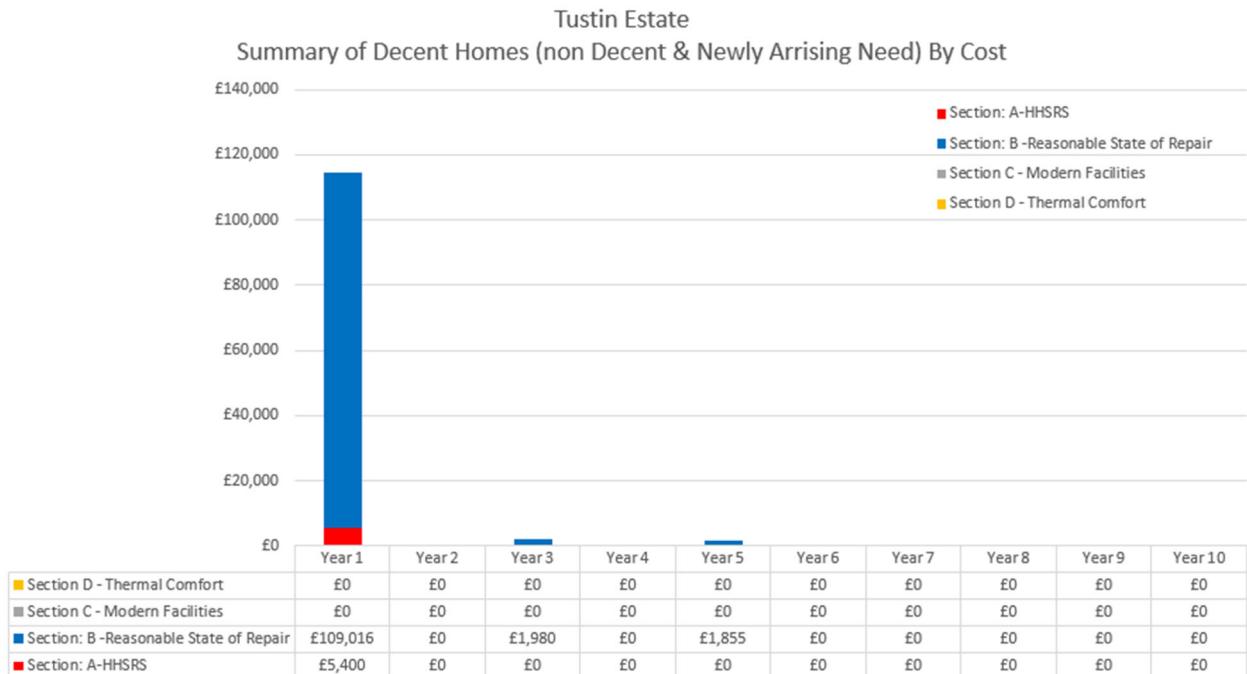
The profile is based upon the assumption that SC continue to maintain the housing stock, preventing newly arising need of non decency. The numbers included in the table show the total number of occurrences for each of the sections. However, an occurrence can occur once within a property. The table below shows the total number of non decent homes by the number of occurrences of non decency a total of 38 in year 1.

It is important to note, the results of the mechanical and electrical installations of heating and electrics within internal dwellings is not reflected within the tables below. The results of this survey have been conducted by the specialist engineer and our algorithms are unable to assess their external data. We have used an indicative representation based upon the "Raw" data collected by our surveyor on electrics and boilers, however, this can only be an estimate as the engineer's results are those of a specialist and not a building surveyor. These will need to be factored into the results. The results included the impact of the Southwark Standard for Kitchens and Bathrooms, however these are all currently reflected in year 1 and once installed there will be no future failures against newly arising need over the next 10 years.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Number of dwellings	38	0	1	0	2	0	0	0	0	0



- 11.15 The costs attributable to work to maintain the Decent Homes Standard are shown in the bar chart below. As is the case of the major repairs cashflow, these costs are exclusive of contractors' preliminaries, professional fees, and VAT. The total cost of maintenance over the first five years is estimated to be £16.9 million, and costs for the next five years (6-10) are estimated to be a further £1.2 million. Of this overall total, current non decency in year year1 is estimated at £109,016 representative of 38 properties.



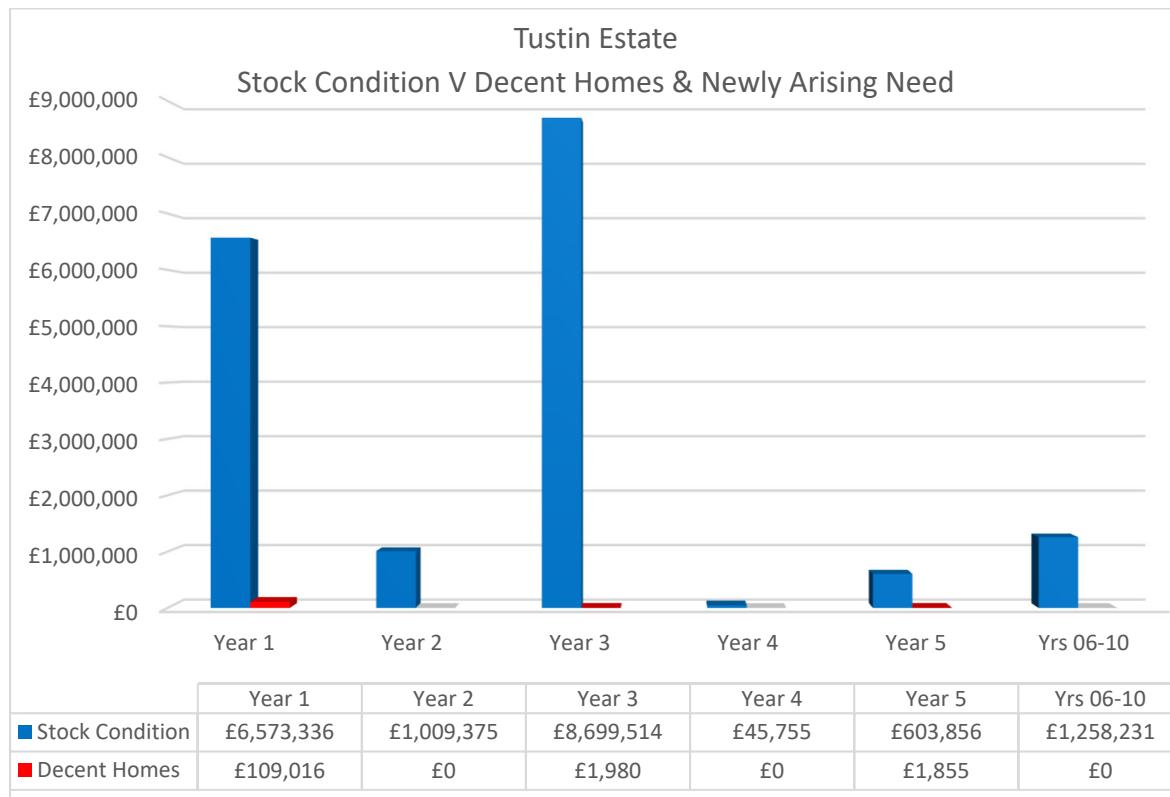
- 11.16 As with any costs produced within decent homes, these are heavily reliant upon an estimate of the date of installation of the component which is recorded by the surveyor. This is because the algorithm applied specifically to sections B and C, relates to the installation date of a component and further considers the year the work is anticipated for renewal. We would advise upon receipt of our database, that the dates of installation are refined for the key components of electrics, boilers, kitchens and bathrooms based upon records of installation and cyclical inspection.

This exercise would have the effect of changing estimated install dates to actual dates and the decent homes trigger year could alter the profile. The costs attributable to section B include boilers and electrical installations, however, as the trigger for these is also based upon date of installation, these could fall out following on update of install dates based upon SC's known dates from their stored records. Our database will need to be updated with the engineers estimated dates of installation to reflect any changes to the tables as a separate exercise.

- 11.17 The Government's Decent Homes Standard is limited in its scope in that there are many building elements that are maintained by a landlord, but which are not included in the Decent Homes Standard.

Furthermore, there are repairs which are necessary to keep homes in a tenable condition, but which nevertheless are not necessary to ensure compliance with the Decent Homes Standard as it needs a few factors to combine to "trigger" a non-decent result. It follows from this that the total of major repairs costs will substantially exceed the costs to maintain homes in a "Decent" condition.

The chart below, shows the relationship between the stock condition survey and the proportion of cost relating to current non decency (Year 1) and newly arising need work (Years 2-10). It is important to note, the cost shown in this graph are there to show the costs to remedy decent homes versus the overall costs in the stock condition survey. The costs to remedy non decency are already accounted for within the stock condition survey (Blue bars) and are not an addition to them.



Appendix A

Tustin Estate Total Number of Assets by Tenure and Sample Breakdown

Tustin Estate - Southwark Council
Estate Breakdown of Housing stock by Assets and Percentage Surveyed

Building Name	Type	Total Stock	SC Rented	Leasehold	Number Surveyed	% Surveyed
1-34 Bowness House	Block	1			1	100%
	Dwellings	34	19	15	7	37%
1-98 Heversham House	Block	1			1	100%
	Dwellings	98	71	27	23	32%
1-5,17-21 & 33-35 Kentmere House	Block	1			1	100%
	Dwellings	13	13	0	5	38%
6-16, 22-32 & 36-38 Kentmere House	Block	1			1	100%
	Dwellings	25	23	2	8	35%
2-40 Ullswater House	Block	1			1	100%
	Dwellings	47	47	0	14	30%
1-8 Hillbeck Close	Block	1			1	100%
	Dwellings	8	8	0	3	38%
9-16 Hillbeck Close	Block	1			1	100%
	Dwellings	8	5	3	2	40%
17-24 Hillbeck Close	Block	1			1	100%
	Dwellings	8	7	1	4	57%
25-32 Hillbeck Close	Block	1			1	100%
	Dwellings	8	7	1	2	29%
Manor Grove Houses	Houses	49	18	31	16	89%
Retail/ Business Units		9	0	9	6	67%
Estate Areas (Excludes - Towers)		1			1	100%
Estate Cleaners Office		1			1	100%
Garages & Stores		16			16	100%

Appendix B

Reporting of Costs

Summary of Maintenance – Total Estate

Tustin Estate - Southwark Council - Addendum
Stock Condition Survey Inclusive of Mechanical & Electrical - Summary of Maintenance Years 1-30
Inclusive of Selected Improvements, Preliminaries (Exclusive of Professional Fees & VAT)

Group Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Bathrooms	828,400	0	0	0	0	0	143	0	778	143	829,464
Boundaries	22,012	170	582	0	5,315	3,852	1,076	23,424	51,311	2,016	109,758
Drainage - Above Ground	13,403	0	0	0	0	0	596	23,852	292	23,649	61,792
Electrical Installations	142,893	27,638	25,850	0	11,744	221,017	44,268	9,411	364,167	30,430	877,418
External Buildings	13,435	0	0	0	0	25,252	0	0	178	23,990	62,855
External Doors	9,073	0	1,338	0	18,476	25,233	114,420	8,679	0	7,387	184,606
External Wall Finish	19,043	0	0	0	11,581	2,473	292	13,663	85,726	16,866	149,644
External Walls	203,996	0	0	0	0	4,277	3,969	0	75,361	454	0
Hard Surfaces	14,760	908	0	0	0	0	1,485	0	0	0	205,481
Internal Doors	32,393	0	0	0	2,187	3,816	33,789	0	41,160	0	113,345
Internal Structure & Finishes	41,286	3,069	0	1,200	5,071	1,039	45,033	26,984	1,296	23,436	148,414
Kitchens	1,264,400	0	0	0	4,244	0	0	4,244	1,264,400	0	2,537,288
Laundry	0	0	0	0	0	0	753	0	0	172	925
Refuse	42,000	0	0	0	1,538	0	1,000	0	0	0	44,538
Roofs	466,797	21,558	121,185	0	127,830	348,150	35,816	420	26,018	532,280	1,680,054
Stairs & Balconies	28,481	0	0	0	4,320	72,422	56,695	120,173	1,404	34,778	318,273
Windows	47,562	10,027	0	0	117,534	229,513	647,262	0	8,358	95,107	1,155,363
SCS Sub Total	3,189,934	63,370	148,955	1,200	314,117	936,736	982,628	306,211	1,845,542	790,254	8,578,947
Specialist Reporting											
M&E - Communal Services (All Tenures)	1,500	683,600	7,539,021	0	178,250	15,000	47,000	20,000	1,050,090	135,000	9,669,462
M&E - Dwelling Internals (SC Rented Tenures)	169,000	126,000	870,979	27,000	27,000	105,000	0	45,000	40,660	0	1,410,639
M&E - Lifts	51,000	0	0	0	0	0	480,000	0	0	0	531,000
Installation of Boiler House - For New SELCHP (M&E)	15,800	0	0	0	0	0	0	2,880	0	0	18,680
Concrete Repairs & Coatings	452,308	0	0	0	0	18,000	0	383,759	0	18,000	872,067
Structural Engineer (No. 81 Manor Grove)	45,000	0	0	0	0	0	0	0	0	0	45,000
Specialists Sub Total	734,608	809,600	8,410,000	27,000	205,250	138,000	527,000	451,639	1,090,750	153,000	12,546,847
Estate Garages											
Garages	2,902	0	0	0	16,534	0	0	11,645	45,307	26,910	103,298
Estate Garages - Structural Contingency	12,000	0	0	0	0	0	0	0	0	0	12,000
Estate Garages Sub Total	14,902	0	0	0	16,534	0	0	11,645	45,307	26,910	115,298
Estate Areas											
Estate	97,254	1,950	0	0	0	9,583	36,000	75,771	9,583	1,950	232,091
M&E - Estate Lighting	0	0	107,000	0	0	0	0	0	8,000	15,000	130,000
Estate Areas Sub Total	97,254	1,950	107,000	0	0	9,583	36,000	75,771	17,583	16,950	362,091
External & Communal Decorations											
(Excl Specialists Concrete Coatings & Towers)	4,483	64,400	16,004	0	0	86,137	5,733	80,404	86,137	70,133	413,431
Decorations Sub Total	4,483	64,400	16,004	0	0	86,137	5,733	80,404	86,137	70,133	413,431
Compliance Measures											
Fire Risk Assessment - Southwark Council - Works	2,299,400	0	0	0	0	0	0	0	0	0	2,299,400
Asbestos Removal - Associated Works	115,200	52,500	0	0	50,400	0	0	0	0	0	218,100
Compliance Measures Sub Total	2,414,600	52,500	0	0	50,400	0	0	0	0	0	2,517,500
Management & Contingency											
Below Ground Drainage contingency	100,000	0	0	0	0	0	0	0	0	0	100,000
Asbestos Management Per annum - Southwark Council	17,555	17,555	17,555	17,555	17,555	87,775	87,775	87,775	87,775	87,775	526,650
Management & Contingency Sub Total	117,555	17,555	17,555	17,555	17,555	87,775	87,775	87,775	87,775	87,775	626,650
Tustin Estate Sub Total	6,573,336	1,009,375	8,699,514	45,755	603,856	1,258,231	1,639,136	1,013,445	3,173,094	1,145,022	25,160,764
Preliminaries 20%	1,314,667	201,875	1,739,903	9,151	120,771	251,646	327,827	202,689	634,619	229,004	5,032,153
Sub Total	7,888,003	1,211,250	10,439,417	54,906	724,627	1,509,877	1,966,963	1,216,134	3,807,713	1,374,026	30,192,917
Associated Building Scaffolding Total	524,383	0	0	0	50,560	167,362	233,062	440,316	64,560	0	1,480,243
Void Maintenance (Excludes Cyclical & Responsive) Total	30,231	36,078	37,065	36,078	30,231	170,773	172,065	162,848	170,773	169,682	1,015,824
Tustin Estate Total (Excludes Improvement Measures)	8,442,617	1,247,328	10,476,482	90,984	805,418	1,848,012	2,372,090	1,819,298	4,043,046	1,543,709	32,688,984

Tustin Estate - Southwark Council - Addendum
Stock Condition Survey Inclusive of Mechanical & Electrical - Summary of Maintenance Years 1-30

Group Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Improvement Measures											
Roof Edge Protection	88,074	0	0	0	0	0	0	0	68,292	88,074	244,440
Estate Improvements - Access	30,750	0	0	0	0	0	0	0	0	30,750	61,500
Cold Bridging	231,198	231,198	0	0	0	0	0	0	0	0	462,396
Sub Total	350,022	231,198	0	0	0	0	0	0	68,292	118,824	768,336
Preliminaries 20%	70,004	46,240	0	0	0	0	0	0	0	13,658	23,765
Improvement Measures Total	420,026	277,438	0	0	0	0	0	0	81,950	142,589	922,003
Tustin Estate Total (Inclusive Improvement Measures)	8,862,643	1,524,765	10,476,482	90,984	805,418	1,848,012	2,372,090	1,819,298	4,124,996	1,686,298	33,610,987

Exclusions:

Cyclical & Responsive Maintenance

**Summary of Maintenance By
Blocks, Houses, Estate Wide Areas, Garages and
Retail/ Business Units**

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-34 Bowness House

Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
1-34 Bowness House	Block	Bathrooms	0	0	0	0	0	0	0	0	0	0	0	0			
1-34 Bowness House	Block	Boundaries	225	0	0	0	0	0	0	0	0	0	0	0		225	
1-34 Bowness House	Block	Drainage - Above Ground	3,198	0	0	0	0	0	0	0	14,520	0	5,962	23,680			
1-34 Bowness House	Block	Electrical Installations	18,700	0	0	0	0	0	0	0	0	18,700	0	37,400			
1-34 Bowness House	Block	External Buildings	4,779	0	0	0	0	0	0	0	0	0	0	4,779			
1-34 Bowness House	Block	External Doors	108	0	0	0	0	3,477	0	0	0	0	0	3,585			
1-34 Bowness House	Block	External Wall Finish	7,418	0	0	0	0	0	0	6,764	0	0	0	14,182			
1-34 Bowness House	Block	External Walls	154,232	0	0	0	0	0	135	0	0	0	0	154,367			
1-34 Bowness House	Block	Garages	0	0	0	0	0	0	0	0	0	0	0	0			
1-34 Bowness House	Block	Hard Surfaces	594	0	0	0	0	0	0	19,030	0	0	0	19,624			
1-34 Bowness House	Block	Internal Doors	583	0	0	0	0	1,166	0	0	0	0	0	1,749			
1-34 Bowness House	Block	Internal Structure & Finishes	208	0	0	0	1,289	0	0	0	0	0	0	1,289	2,786		
1-34 Bowness House	Block	Kitchens	0	0	0	0	0	0	0	0	0	0	0	0			
1-34 Bowness House	Block	Laundry	0	0	0	0	0	0	0	0	0	0	0	0			
1-34 Bowness House	Block	Refuse	15,000	0	0	0	0	0	0	0	0	0	0	15,000			
1-34 Bowness House	Block	Roofs	112,907	0	0	0	0	188,163	34,982	0	0	0	0	336,052			
1-34 Bowness House	Block	Stairs & Balconies	7,143	0	0	0	0	27,020	0	40,314	0	0	0	74,477			
1-34 Bowness House	Block	Windows	0	0	0	0	200,599	0	0	0	0	0	0	200,599			
		Block SCS Sub Total	325,095	0	0	0	1,289	420,425	35,117	80,628	18,700	7,251	888,505				
		Specialists															
1-34 Bowness House	Block	M & E - Communal Services	1,500	326,000	904,000	0	17,000	0	22,000	0	170,500	22,000	1,463,000				
		M & E - Lifts	12,000	0	0	0	0	0	110,000	0	0	0	122,000				
		Concrete Repairs & Coatings	66,344	0	0	0	0	3,000	0	66,208	0	3,000	138,552				
		Specialists Sub Total	79,844	326,000	904,000	0	17,000	3,000	132,000	66,208	170,500	25,000	1,723,552				
		Preliminaries 20%	80,988	65,200	180,800	0	3,658	84,685	33,423	29,367	37,840	6,450	522,411				
		Associated Building Scaffolding	127,024	0	0	0	0	115,024	0	115,024	0	0	357,072				
		SCS Block Total	612,951	391,200	1,084,800	0	21,947	623,134	200,540	291,227	227,040	38,701	3,491,540				
		Cost by Tenure Total Block															
		SC Rented	342,531	218,612	606,212	0	12,264	348,222	112,067	162,745	126,875	21,627	1,951,155	55.88%	19	3,423.08	102,692.36
		Leasehold	270,419	172,588	478,588	0	9,682	274,912	88,474	128,483	100,165	17,074	1,540,385	44.12%	15	3,423.08	102,692.36

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Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
1-34 Bowness House	Internal	Bathrooms	72,200	0	0	0	0	0	0	0	0	0	0	72,200					
1-34 Bowness House	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
1-34 Bowness House	Internal	Electrical Installations	0	7,278	0	0	0	4,276	8,346	1,068	10,486	2,136	33,590						
1-34 Bowness House	Internal	External Doors	0	0	0	0	0	0	26,581	0	0	0	0	26,581					
1-34 Bowness House	Internal	Internal Doors	1,475	0	0	0	0	0	0	0	0	0	0	1,475					
1-34 Bowness House	Internal	Internal Structure & Finishes	1,708	0	0	0	0	0	0	0	0	0	0	1,708					
1-34 Bowness House	Internal	Kitchens	110,200	0	0	0	0	0	0	0	0	110,200	0	220,400					
1-34 Bowness House	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
1-34 Bowness House	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
Rented SCS Dwellings Sub Total			185,583	7,278	0	0	0	4,276	34,927	1,068	120,686	2,136	355,954						
Specialists																			
M & E - Dwelling Services			1,000	96,000	1,000	1,000	1,000	4,500	0	5,000	4,500	0	114,000						
Management - Existing Asbestos			1,801	1,801	1,801	1,801	1,801	9,005	9,005	9,005	9,005	9,005	54,030						
Asbestos Removal			14,250	18,750	0	0	0	0	0	0	0	0	33,000						
Specialists Sub Total			17,051	116,551	2,801	2,801	2,801	13,505	9,005	14,005	13,505	9,005	201,030						
Fire Risk Assessment Works																			
1-34 Bowness House	Int & Ext	Fire Risk Assessment - Fire upgrade works	346,900	0	0	0	0	0	0	0	0	0	0	346,900					
Preliminaries 20%																			
Bowness House Rented Dwellings Total			109,907	24,766	560	560	560	3,556	8,786	3,015	26,838	2,228	180,777						
Preliminaries 20%			659,441	148,595	3,361	3,361	3,361	21,337	52,718	18,088	161,029	13,369	1,084,661		100.00%	19	1,902.91	57,087.41	
1-34 Bowness House	Int & Ext	Fire Risk Assessment - Fire upgrade works	91,500	0	0	0	0	0	0	0	0	0	0	91,500					
Preliminaries 20%																			
Internal & FED's Leaseholders Total			18,300	0	0	0	0	0	0	0	0	0	0	18,300					
Internal & FED's Leaseholders Total			109,800	0	0	0	0	0	0	0	0	0	0	109,800		100.00%	15	244.00	7,320.00

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-34 Bowness House													Per Dwelling by Tenure					
Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area	Estate	Estate	6,421	129	0	0	0	633	2,377	5,002	633	129	15,323					
	M&E Estate		0	0	7,064	0	0	0	0	0	528	990	8,583					
		Estate Areas Sub Total	6,421	129	7,064	0	0	633	2,377	5,002	1,161	1,119	23,905					
		Preliminaries 20%	1,284	26	1,413	0	0	127	475	1,000	232	224	4,781					
		Estate Areas Total	7,705	154	8,477	0	0	759	2,852	6,003	1,393	1,343	28,686					
Cost by Tenure Total Block																		
		<i>SC Rented</i>	4,306	86	4,737	0	0	424	1,594	3,355	778	750	16,030	55.88%	19	28.12	843.71	
		<i>Leasehold</i>	3,399	68	3,740	0	0	335	1,258	2,648	615	592	12,656	44.12%	15	28.12	843.71	
													34					
Estate Cleaners Store													Per Dwelling by Tenure					
		Estate Cleaners Store	11	0	0	0	0	510	798	16	726	89	16	2,166				
		Estate Cleaners Store Sub Total	11	0	0	0	0	510	798	16	726	89	16	2,166				
		Preliminaries 20%	2	0	0	0	0	102	160	3	145	18	3	433				
		Estate Cleaners Store Total	13	0	0	0	0	612	957	20	872	107	20	2,599				
Cost by Tenure Total Block																		
		<i>SC Rented</i>	7	0	0	0	0	342	535	11	487	60	11	1,453	55.88%	19	2.55	76.45
		<i>Leasehold</i>	6	0	0	0	0	270	422	9	385	47	9	1,147	44.12%	15	2.55	76.45
													34					
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)													Per Dwelling by Tenure					
		Decorations	0	8,500	0	0	0	0	8,500	0	8,500	8,500	8,500	42,500				
		Decorations (Estate & Cleaners Stores)	0	0	1,512	0	0	1,655	143	1,512	1,655	143	1,618					
		Decorations Sub Total	0	8,500	1,512	0	0	10,155	143	10,012	10,155	8,643	49,118					
		Preliminaries 20%	0	1,700	302	0	0	2,031	29	2,002	2,031	1,729	9,824					
		Decorations Total	0	10,200	1,814	0	0	12,186	171	12,014	12,186	10,371	58,942					
Cost by Tenure Total Block																		
		<i>SC Rented</i>	0	5,700	1,014	0	0	6,810	96	6,714	6,810	5,796	32,938	55.88%	19	57.79	1,733.59	
		<i>Leasehold</i>	0	4,500	800	0	0	5,376	76	5,300	5,376	4,576	26,004	44.12%	15	57.79	1,733.59	
													34					
Improvement Measures													Per Dwelling by Tenure					
		Roof Edge Protection	0	0	0	0	0	0	0	0	22,932	0	22,932					
		Estate Improvements - Access	3,508	0	0	0	0	0	0	0	0	3,508	7,017					
		Cold Bridging	84,180	84,180	0	0	0	0	0	0	0	0	168,360					
		Improvements Sub Total	87,688	84,180	0	0	0	0	0	0	22,932	3,508	198,308					
		Preliminaries 20%	17,538	16,836	0	0	0	0	0	0	4,586	702	39,662					
		Improvements Total	105,226	101,016	0	0	0	0	0	0	27,518	4,210	237,970					
Cost by Tenure Total Block																		
		<i>SC Rented</i>	58,803	56,450	0	0	0	0	0	0	15,378	2,353	132,983	55.88%	19	233.30	6,999.12	
		<i>Leasehold</i>	46,423	44,566	0	0	0	0	0	0	12,140	1,857	104,987	44.12%	15	233.30	6,999.12	
													34					
Block Summary																		
		Block All Assets Total Incl Prelims	1,495,135	651,165	1,098,452	3,361	25,920	658,373	256,302	328,204	429,273	68,014	5,014,199					
Cost by Tenure Total Block																		
		<i>SC Rented</i>	1,065,087	429,443	615,324	3,361	15,968	377,328	166,485	191,388	310,930	43,906	3,219,220	55.88%	19	5,647.75	169,432.64	
		<i>Leasehold</i>	430,047	221,722	483,128	0	9,952	281,045	89,816	136,816	118,343	24,108	1,794,978	44.12%	15	3,988.84	119,665.23	
													34					

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

1-98 Heversham House

Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
1-98 Heversham House	Internal	Bathrooms	269,800	0	0	0	0	0	0	0	0	0	0	269,800					
1-98 Heversham House	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
1-98 Heversham House	Internal	Electrical Installations	0	0	0	0	5,520	25,975	21,549	6,207	25,288	22,236	106,775						
1-98 Heversham House	Internal	External Doors	0	0	0	0	0	0	48,600	2,430	0	0	0	51,030					
1-98 Heversham House	Internal	Internal Doors	4,435	0	0	0	0	0	0	0	0	0	0	4,435					
1-98 Heversham House	Internal	Internal Structure & Finishes	14,781	0	0	1,200	0	0	0	0	0	0	0	15,981					
1-98 Heversham House	Internal	Kitchens	411,800	0	0	0	0	0	0	0	0	411,800	0	823,600					
1-98 Heversham House	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
1-98 Heversham House	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
Rented SCS Dwellings Sub Total			700,816	0	0	1,200	5,520	25,975	70,149	8,637	437,088	22,236	1,271,621						
Specialists																			
M & E - Dwelling Services			0	0	355,000	0	0	0	0	0	0	0	0	355,000					
Management - Existing Asbestos			6,257	6,257	6,257	6,257	6,257	31,285	31,285	31,285	31,285	31,285	31,285	187,710					
Asbestos Removal			53,250	33,750	0	0	0	0	0	0	0	0	0	87,000					
Specialists Sub Total			59,507	40,007	361,257	6,257	6,257	31,285	31,285	31,285	31,285	31,285	31,285	629,710					
Fire Risk Assessment Works																			
1-98 Heversham House	Int & Ext	Fire Risk Assessment - Fire upgrade works	1,001,500	0	0	0	0	0	0	0	0	0	0	1,001,500					
Preliminaries 20%			352,365	8,001	72,251	1,491	2,355	11,452	20,287	7,984	93,675	10,704	580,566						
Bowness House Rented Dwellings Total			2,114,188	48,008	433,508	8,948	14,132	68,712	121,721	47,906	562,048	64,225	3,483,397		100.00%	71	1,635.40	49,061.93	
1-98 Heversham House	Int & Ext	Fire Risk Assessment - Fire upgrade works	140,750	0	0	0	0	0	0	0	0	0	0	140,750					
Preliminaries 20%			28,150	0	0	0	0	0	0	0	0	0	0	28,150					
Internal & FED's Leaseholders Total			168,900	0	0	0	0	0	0	0	0	0	0	168,900		100.00%	27	208.52	6,255.56

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-98 Heversham House

														Per Dwelling by Tenure						
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area		Estate	Estate		18,507	371	0	0	0	1,824	6,850	14,419	1,824	371	44,165					
		M&E Estate			0	0	20,361	0	0	0	0	0	1,522	2,854	24,738					
				Estate Areas Sub Total	18,507	371	20,361	0	0	1,824	6,850	14,419	3,346	3,225	68,903					
				Preliminaries 20%	3,701	74	4,072	0	0	365	1,370	2,884	669	645	13,781					
				Estate Areas Total	22,208	445	24,433	0	0	2,188	8,221	17,302	4,015	3,871	82,683					
Cost by Tenure Total Block														Per Dwelling by Tenure						
					<i>SC Rented</i>	16,089	323	17,702	0	0	1,585	5,956	12,535	2,909	2,804	59,903	72.45%	71	28.12	843.71
					<i>Leasehold</i>	6,119	123	6,732	0	0	603	2,265	4,767	1,106	1,066	22,780	27.55%	27	28.12	843.71
																		98		
														Per Dwelling by Tenure						
Estate Cleaners Store		Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
		Estate Cleaners Store			31	0	0	0	0	1,470	2,300	47	2,094	256	47	6,243				
					Estate Cleaners Store Sub Total	31	0	0	0	1,470	2,300	47	2,094	256	47	6,243				
					Preliminaries 20%	6	0	0	0	294	460	9	419	51	9	1,249				
					Estate Cleaners Store Total	37	0	0	0	1,764	2,760	56	2,512	307	56	7,492				
Cost by Tenure Total Block														Per Dwelling by Tenure						
					<i>SC Rented</i>	27	0	0	0	1,278	1,999	41	1,820	222	41	5,428	72.45%	71	2.55	76.45
					<i>Leasehold</i>	10	0	0	0	486	760	16	692	85	16	2,064	27.55%	27	2.55	76.45
																		98		
														Per Dwelling by Tenure						
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
		Decorations			0	14,000	0	0	0	14,000	0	14,000	14,000	14,000	70,000					
		Decorations (Estate & Cleaners Stores)			0	0	4,358	0	0	4,769	411	4,358	4,769	411	19,076					
					Decorations Sub Total	0	14,000	4,358	0	0	18,769	411	18,358	18,769	14,411	89,076				
					Preliminaries 20%	0	2,800	872	0	0	3,754	82	3,672	3,754	2,882	17,815				
					Decorations Total	0	16,800	5,230	0	0	22,523	493	22,030	22,523	17,293	106,892				
Cost by Tenure Total Block														Per Dwelling by Tenure						
					<i>SC Rented</i>	0	12,171	3,789	0	0	16,318	357	15,960	16,318	12,529	77,442	72.45%	71	36.36	1,090.73
					<i>Leasehold</i>	0	4,629	1,441	0	0	6,205	136	6,069	6,205	4,764	29,450	27.55%	27	36.36	1,090.73
																		98		
														Per Dwelling by Tenure						
Improvement Measures		Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
		Roof Edge Protection			0	0	0	0	0	0	0	0	45,360	0	45,360					
		Estate Improvements - Access			10,112	0	0	0	0	0	0	0	0	10,112	20,224					
		Cold Bridging			147,018	147,018	0	0	0	0	0	0	0	0	294,036					
					Improvements Sub Total	157,130	147,018	0	0	0	0	0	0	45,360	10,112	359,620				
					Preliminaries 20%	31,426	29,404	0	0	0	0	0	0	9,072	2,022	71,924				
					Improvements Total	188,556	176,422	0	0	0	0	0	0	54,432	12,134	431,544				
Cost by Tenure Total Block														Per Dwelling by Tenure						
					<i>SC Rented</i>	136,607	127,816	0	0	0	0	0	0	39,435	8,791	312,649	72.45%	71	146.78	4,403.51
					<i>Leasehold</i>	51,949	48,606	0	0	0	0	0	0	14,997	3,343	118,895	27.55%	27	146.78	4,403.51
																		98		
Block Summary														Per Dwelling by Tenure						
					<i>Block All Assets Total Incl Prelims</i>	3,399,721	523,915	4,505,731	8,948	104,096	143,840	1,246,180	527,072	1,250,405	402,843	12,112,752				
Cost by Tenure Total Block														Per Dwelling by Tenure						
					<i>SC Rented</i>	2,														

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-5,17-21 & 33-35 Kentmere House

Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Per Dwelling by Tenure					
														% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
1-5,17-21 & 33-35 Kentmere House	Block	Bathrooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-5,17-21 & 33-35 Kentmere House	Block	Boundaries	2,928	0	0	0	0	0	0	0	0	0	0	0	0	2,928			
1-5,17-21 & 33-35 Kentmere House	Block	Drainage - Above Ground	1,242	0	0	0	0	0	0	0	0	0	0	0	0	3,229	4,471		
1-5,17-21 & 33-35 Kentmere House	Block	Electrical Installations	4,550	0	0	0	91	0	0	0	0	0	4,550	91	9,282				
1-5,17-21 & 33-35 Kentmere House	Block	External Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-5,17-21 & 33-35 Kentmere House	Block	External Doors	0	0	0	0	0	0	0	2,278	0	0	0	0	0	0	0	2,278	
1-5,17-21 & 33-35 Kentmere House	Block	External Wall Finish	0	0	0	0	2,473	0	0	0	0	20,276	0	0	0	0	0	22,749	
1-5,17-21 & 33-35 Kentmere House	Block	External Walls	1,944	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,944	
1-5,17-21 & 33-35 Kentmere House	Block	Garages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-5,17-21 & 33-35 Kentmere House	Block	Hard Surfaces	0	454	0	0	567	0	0	1,701	0	0	0	0	0	0	0	2,722	
1-5,17-21 & 33-35 Kentmere House	Block	Internal Doors	265	0	0	0	0	1,325	0	0	0	0	0	0	0	0	0	1,590	
1-5,17-21 & 33-35 Kentmere House	Block	Internal Structure & Finishes	1,872	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,872	
1-5,17-21 & 33-35 Kentmere House	Block	Kitchens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-5,17-21 & 33-35 Kentmere House	Block	Laundry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-5,17-21 & 33-35 Kentmere House	Block	Refuse	6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,000	
1-5,17-21 & 33-35 Kentmere House	Block	Roofs	37,572	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35,822	
1-5,17-21 & 33-35 Kentmere House	Block	Stairs & Balconies	2,250	0	0	0	2,160	0	0	11,659	0	0	7,519	0	0	0	0	23,588	
1-5,17-21 & 33-35 Kentmere House	Block	Windows	0	0	0	0	0	1,114	54,608	0	0	0	0	0	0	0	0	55,722	
		Block SCS Sub Total	58,623	454	0	0	5,291	2,439	56,886	13,360	24,826	46,661	208,540						
		Specialists																	
1-5,17-21 & 33-35 Kentmere House	Block	M & E - Communal Services	0	15,600	440,300	0	9,750	0	0	0	48,750	15,000	529,400						
		M & E - Lifts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Concrete Repairs & Coatings	29,359	0	0	0	0	1,026	0	20,192	0	1,026	51,605						
		Specialists Sub Total	29,359	15,600	440,300	0	9,750	1,026	0	20,192	48,750	16,026	581,005						
		Preliminaries 20%	17,596	3,211	88,060	0	3,008	693	11,377	6,710	14,715	12,537	157,909						
		Associated Building Scaffolding	25,753	0	0	0	0	0	18,553	14,843	0	0	0	59,149					
		SCS Block Total	131,332	19,265	528,360	0	18,049	4,158	86,816	55,105	88,291	75,225	1,006,602						
		Cost by Tenure Total Block																	
		SC Rented	131,332	19,265	528,360	0	18,049	4,158	86,816	55,105	88,291	75,225	1,006,602						
		Leasehold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
															100.00%	13	2,581.03	77,430.94	
															0.00%	0	0.00	0.00	
																13			

Building/Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Per Dwelling by Tenure				
														% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
1-5,17-21 & 33-35 Kentmere House	Internal	Bathrooms	49,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49,400
1-5,17-21 & 33-35 Kentmere House	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-5,17-21 & 33-35 Kentmere House	Internal	Electrical Installations	0	0	0	0	0	0	10,689	0	0	0	10,689	0	0	0	0	21,378
1-5,17-21 & 33-35 Kentmere House	Internal	External Doors	0	0	0	0	0	0	0	8,394	0	0	0	0	0	0	0	8,394
1-5,17-21 & 33-35 Kentmere House	Internal	Internal Doors	7,670	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,670
1-5,17-21 & 33-35 Kentmere House	Internal	Internal Structure & Finishes	649	0	0	0	0	0	0	0	0	0	0	0	0	0	0	649
1-5,17-21 & 33-35 Kentmere House	Internal	Kitchens	75,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150,800
1-5,17-21 & 33-35 Kentmere House	Internal	Roofs	0</td															

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-5,17-21 & 33-35 Kentmere House

													Per Dwelling by Tenure								
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Estate Area		Estate	Estate		2,455	49	0	0	0	242	909	1,913	242	49	5,859						
		M&E Estate			0	0	2,701	0	0	0	0	0	202	379	3,282						
				Estate Areas Sub Total	2,455	49	2,701	0	0	242	909	1,913	444	428	9,140						
				Preliminaries 20%	491	10	540	0	0	48	182	383	89	86	1,828						
				Estate Areas Total	2,946	59	3,241	0	0	290	1,090	2,295	533	513	10,968						
	Cost by Tenure Total Block				<i>SC Rented</i>	2,946	59	3,241	0	0	290	1,090	2,295	533	513	10,968	100.00%	13	28.12	843.71	
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00	
														Per Dwelling by Tenure							
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Estate Cleaners Store		Estate Cleaners Store	Estate Cleaners Store		4	0	0	0	195	305	6	278	34	6	828						
				Estate Cleaners Store Sub Total	4	0	0	0	195	305	6	278	34	6	828						
				Preliminaries 20%	1	0	0	0	39	61	1	56	7	1	166						
				Estate Cleaners Store Total	5	0	0	0	234	366	7	333	41	7	994						
	Cost by Tenure Total Block				<i>SC Rented</i>	5	0	0	0	234	366	7	333	41	7	994	100.00%	13	2.55	76.45	
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00		
														Per Dwelling by Tenure							
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	3,250	0	0	0	3,250	0	3,250	3,250	3,250	16,250						
		Decorations (Estate & Cleaners Stores)			0	0	578	0	0	633	55	578	633	55	2,531						
				Decorations Sub Total	0	3,250	578	0	0	3,883	55	3,828	3,883	3,305	18,781						
				Preliminaries 20%	0	650	116	0	0	777	11	766	777	661	3,756						
				Decorations Total	0	3,900	694	0	0	4,659	65	4,594	4,659	3,965	22,537						
	Cost by Tenure Total Block				<i>SC Rented</i>	0	3,900	694	0	0	4,659	65	4,594	4,659	3,965	22,537	100.00%	13	57.79	1,733.59	
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00		
														Per Dwelling by Tenure							
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Improvement Measures					9,954	0	0	0	0	0	0	0	0	0	19,908						
Roof Edge Protection					1,341	0	0	0	0	0	0	0	0	0	1,341						
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0						
Cold Bridging																					
				Improvements Sub Total	11,295	0	0	0	0	0	0	0	0	0	11,295						
				Preliminaries 20%	2,259	0	0	0	0	0	0	0	0	0	2,259						
				Improvements Total	13,555	0	0	0	0	0	0	0	0	0	13,555						
	Cost by Tenure Total Block				<i>SC Rented</i>	13,555	0	0	0	0	0	0	0	0	13,555	27,109	100.00%	13	69.51	2,085.31	
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00	
														Per Dwelling by Tenure							
Block Summary					Block All Assets Total Incl Prelims				455,274	24,933	580,804	1,709	19,992	28,745	103,597	70,872	203,275	98,810	1,588,008		
					Cost by Tenure Total Block				<i>SC Rented</i>	455,274	24,933	580,804	1,709	19,992	28,745	103,597	70,872	203,275	98,810	1,588,008	
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	4,071.82	122,154.46

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

6-16, 22-32 & 36-38 Kentmere House

Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
6-16, 22-32 & 36-38 Kentmere House	Block	Bathrooms	0	0	0	0	0	0	0	0	0	0	0	0			
6-16, 22-32 & 36-38 Kentmere House	Block	Boundaries		2,928	0	0	0	0	0	0	0	0	0	0		2,928	
6-16, 22-32 & 36-38 Kentmere House	Block	Drainage - Above Ground		1,242	0	0	0	0	0	0	0	0	0	2,732		3,974	
6-16, 22-32 & 36-38 Kentmere House	Block	Electrical Installations		8,750	0	0	0	91	0	0	0	0	8,750	91		17,682	
6-16, 22-32 & 36-38 Kentmere House	Block	External Buildings		0	0	0	0	0	0	0	0	0	0	0		0	
6-16, 22-32 & 36-38 Kentmere House	Block	External Doors		0	0	0	0	0	0	2,278	0	0	0	0		2,278	
6-16, 22-32 & 36-38 Kentmere House	Block	External Wall Finish		0	0	0	0	2,473	0	0	0	60,580	0	0		63,053	
6-16, 22-32 & 36-38 Kentmere House	Block	External Walls		1,215	0	0	0	0	0	0	0	0	0	0		1,215	
6-16, 22-32 & 36-38 Kentmere House	Block	Garages		0	0	0	0	0	0	0	0	0	0	0		0	
6-16, 22-32 & 36-38 Kentmere House	Block	Hard Surfaces		0	454	0	0	567	0	0	1,701	0	0	0		2,722	
6-16, 22-32 & 36-38 Kentmere House	Block	Internal Doors		265	0	0	0	0	1,325	0	0	0	0	0		1,590	
6-16, 22-32 & 36-38 Kentmere House	Block	Internal Structure & Finishes		1,872	0	0	0	0	0	0	0	0	0	0		1,872	
6-16, 22-32 & 36-38 Kentmere House	Block	Kitchens		0	0	0	0	0	0	0	0	0	0	0		0	
6-16, 22-32 & 36-38 Kentmere House	Block	Laundry		0	0	0	0	0	0	0	0	0	0	0		0	
6-16, 22-32 & 36-38 Kentmere House	Block	Refuse		6,000	0	0	0	0	0	0	0	0	0	0		6,000	
6-16, 22-32 & 36-38 Kentmere House	Block	Roofs		77,452	0	0	0	0	0	0	0	0	75,702	0		153,154	
6-16, 22-32 & 36-38 Kentmere House	Block	Stairs & Balconies		2,250	0	0	0	2,160	0	0	19,193	0	7,519	0		31,122	
6-16, 22-32 & 36-38 Kentmere House	Block	Windows		0	0	0	0	0	1,114	97,514	0	0	0	0		98,628	
Block SCS Sub Total			101,974	454	0	0	5,291	2,439	99,792	20,894	69,330	86,044	0			386,218	

Per Dwelling by Tenure																		
Building/ Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
6-16, 22-32 & 36-38 Kentmere House	Internal	Bathrooms	87,400	0	0	0	0	0	0	0	0	0	0	87,400				
6-16, 22-32 & 36-38 Kentmere House	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0				
6-16, 22-32 & 36-38 Kentmere House	Internal	Electrical Installations	0	0	0	0	1,380	22,449	1,380	0	23,829	0	49,038					
6-16, 22-32 & 36-38 Kentmere House	Internal	External Doors	0	0	0	0	0	0	13,990	0	0	0	0	13,990				
6-16, 22-32 & 36-38 Kentmere House	Internal	Internal Doors	10,620	0	0	0	0	0	0	0	0	0	0	10,620				
6-16, 22-32 & 36-38 Kentmere House	Internal	Internal Structure & Finishes	1,526	0	0	0	0	0	0	0	0	0	0	1,526				
6-16, 22-32 & 36-38 Kentmere House	Internal	Kitchens	133,400	0	0	0	0	0	0	0	133,400	0	266,800					
6-16, 22-32 & 36-38 Kentmere House	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0				
6-16, 22-32 & 36-38 Kentmere House	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0				
Rented SCS Dwellings Sub Total			232,946	0	0	0	1,380	22,449	15,370	0	157,229	0	429,374					
Specialists																		
M & E - Dwelling Services			1,000	1,000	70,000	1,000	1,000	1,250	0	5,000	1,250	0	81,500					
Management - Existing Asbestos			1,635	1,635	1,635	1,635	1,635	8,175	8,175	8,175	8,175	8,175	49,050					
Asbestos Removal			23,000	0	0	0	0	0	0	0	0	0	23,000					
Specialists Sub Total			25,635	2,635	71,635	2,635	2,635	9,425	8,175	13,175	9,425	8,175	153,550					
Fire Risk Assessment Works																		
6-16, 22-32 & 36-38 Kentmere House	Int & Ext	Fire Risk Assessment - Fire upgrade works	192,234	0	0	0	0	0	0	0	0	0	192,234					
Preliminaries 20%			90,163	527	14,327	527	803	6,375	4,709	2,635	33,331	1,635	155,032					
Bowness House Rented Dwellings Total			540,978	3,162	85,962	3,162	4,818	38,249	28,254	15,810	199,985	9,810	930,190		100.00%	23	1,348.10	40,443.03
6-16, 22-32 & 36-38 Kentmere House	Int & Ext	Fire Risk Assessment - Fire upgrade works	9,750	0	0	0	0	0	0	0	0	0	9,750					
Preliminaries 20%			1,950	0	0	0	0	0	0	0	0	0	1,950					
Internal & FED's Leaseholders Total			11,700	0	0	0	0	0	0	0	0	0	11,700		100.00%	2	195.00	5,850.00

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

6-16, 22-32 & 36-38 Kentmere House

														Per Dwelling by Tenure						
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area		Estate	Estate		4,721	95	0	0	0	465	1,748	3,678	465	95	11,267					
		M&E Estate			0	0	5,194	0	0	0	0	0	388	728	6,311					
				Estate Areas Sub Total	4,721	95	5,194	0	0	465	1,748	3,678	854	823	17,577					
				Preliminaries 20%	944	19	1,039	0	0	93	350	736	171	165	3,515					
				Estate Areas Total	5,665	114	6,233	0	0	558	2,097	4,414	1,024	987	21,093					
	Cost by Tenure Total Block																			
					<i>SC Rented</i>	5,212	105	5,734	0	514	1,929	4,061	942	908	19,405	92.00%	23	28.12	843.71	
					<i>Leasehold</i>	453	9	499	0	0	45	168	353	82	79	1,687	8.00%	2	28.12	843.71
																		25		
														Per Dwelling by Tenure						
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Cleaners Store		Estate Cleaners Store			8	0	0	0	375	587	12	534	65	12	1,593					
					Estate Cleaners Store Sub Total	8	0	0	0	375	587	12	534	65	12	1,593				
					Preliminaries 20%	2	0	0	0	75	117	2	107	13	2	319				
					Estate Cleaners Store Total	9	0	0	0	450	704	14	641	78	14	1,911				
	Cost by Tenure Total Block																			
					<i>SC Rented</i>	9	0	0	0	414	648	13	590	72	13	1,758	92.00%	23	2.55	76.45
					<i>Leasehold</i>	1	0	0	0	36	56	1	51	6	1	153	8.00%	2	2.55	76.45
																		25		
														Per Dwelling by Tenure						
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	6,250	0	0	0	6,250	0	6,250	6,250	6,250	31,250					
		Decorations (Estate & Cleaners Stores)			0	0	1,112	0	0	1,217	105	1,112	1,217	105	4,866					
					Decorations Sub Total	0	6,250	1,112	0	0	7,467	105	7,362	7,467	6,355	36,116				
					Preliminaries 20%	0	1,250	222	0	0	1,493	21	1,472	1,493	1,271	7,223				
					Decorations Total	0	7,500	1,334	0	0	8,960	126	8,834	8,960	7,626	43,340				
	Cost by Tenure Total Block																			
					<i>SC Rented</i>	0	6,900	1,227	0	0	8,243	116	8,127	8,243	7,016	39,873	92.00%	23	57.79	1,733.59
					<i>Leasehold</i>	0	600	107	0	0	717	10	707	717	610	3,467	8.00%	2	57.79	1,733.59
																		25		
														Per Dwelling by Tenure						
Building/Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Improvement Measures					16,380	0	0	0	0	0	0	0	0	16,380	32,760					
Roof Edge Protection					2,580	0	0	0	0	0	0	0	0	2,580	5,160					
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0					
Cold Bridging					Improvements Sub Total	18,960	0	0	0	0	0	0	0	0	18,960	37,920				
					Preliminaries 20%	3,792	0	0	0	0	0	0	0	0	3,792	7,584				
					Improvements Total	22,752	0	0	0	0	0	0	0	0	22,752	45,504				
	Cost by Tenure Total Block																			
					<i>SC Rented</i>	20,932	0	0	0	0	0	0	0	0	20,932	41,864	92.00%	23	60.67	1,820.16
					<i>Leasehold</i>	1,820	0	0	0	0	0	0	0	0	1,820	3,640	8.00%	2	60.67	1,820.16
																		25		
Block Summary																				
<i>Block All Assets Total Incl Prelims</i>					813,210	47,320	1,091,329	3,162	34,117	53,766	185,025	129,196	405,743	164,811	2,927,681					
Cost by Tenure Total Block					<i>SC Rented</i>	780,667	43,788	1,010,900	3,162	31,773	52,525	172,484	120,126	389,283	152,411	2,757,117	92.00%	23	3,995.82	119,874.67
					<i>Leasehold</i>	32,543	3,533	80,429	0	2,344	1,241	12,542	9,071	16,461	12,400	170,563	8.00%	2	2,842.72	85,281.64

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

1-8 Hillbeck Close													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
1-8 Hillbeck Close	Block	Bathrooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-8 Hillbeck Close	Block	Boundaries	2,104	0	0	0	0	0	0	3,442	3,713	0	9,259				
1-8 Hillbeck Close	Block	Drainage - Above Ground	298	0	0	0	0	0	0	0	0	696	994				
1-8 Hillbeck Close	Block	Electrical Installations	0	4,400	0	0	0	0	55	0	4,400	0	8,855				
1-8 Hillbeck Close	Block	External Buildings	0	0	0	0	0	5,953	0	0	0	5,953	11,906				
1-8 Hillbeck Close	Block	External Doors	0	0	0	0	0	0	977	0	0	0	977				
1-8 Hillbeck Close	Block	External Wall Finish	0	0	0	0	0	989	0	0	0	0	989				
1-8 Hillbeck Close	Block	External Walls	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Block	Garages	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Block	Hard Surfaces	3,016	0	0	0	0	0	0	0	0	0	0	3,016			
1-8 Hillbeck Close	Block	Internal Doors	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Block	Internal Structure & Finishes	803	0	0	0	322	0	0	5,196	0	6,559	12,880				
1-8 Hillbeck Close	Block	Kitchens	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Block	Laundry	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Block	Refuse	0	0	0	0	0	0	1,000	0	0	0	1,000				
1-8 Hillbeck Close	Block	Roofs	0	1,847	0	0	32,268	0	0	0	0	31,026	65,141				
1-8 Hillbeck Close	Block	Stairs & Balconies	0	0	0	0	0	5,939	0	1,611	351	0	7,901				
1-8 Hillbeck Close	Block	Windows	0	0	0	0	15,498	0	3,343	0	0	9,279	28,120				
		Block SCS Sub Total	6,221	6,247	0	0	49,077	11,892	5,375	10,249	8,464	53,513	151,038				
		Specialists															
1-8 Hillbeck Close	Block	M & E - Communal Services	0	9,600	296,800	0	6,000	0	0	0	38,000	17,000	367,400				
		M & E - Lifts	0	0	0	0	0	0	0	0	0	0	0				
		Concrete Repairs & Coatings	15,174	0	0	0	0	750	0	10,301	0	750	26,975				
		Specialists Sub Total	15,174	9,600	296,800	0	6,000	750	0	10,301	38,000	17,750	394,375				
		Preliminaries 20%	4,279	3,169	59,360	0	11,015	2,528	1,075	4,110	9,293	14,253	109,083				
		Associated Building Scaffolding	16,140	0	0	0	12,640	0	0	12,640	16,140	0	57,560				
		SCS Block Total	41,814	19,016	356,160	0	78,732	15,170	6,450	37,299	71,897	85,516	712,055				
		Cost by Tenure Total Block															
		SC Rented	41,814	19,016	356,160	0	78,732	15,170	6,450	37,299	71,897	85,516	712,055	100.00%	8	2,966.90	89,006.91
		Leasehold	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00

Per Dwelling by Tenure																		
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
1-8 Hillbeck Close	Internal	Bathrooms	30,400	0	0	0	0	0	0	0	0	0	0	30,400				
1-8 Hillbeck Close	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	292	0	0	292				
1-8 Hillbeck Close	Internal	Electrical Installations	0	0	0	0	0	0	1,068	0	0	0	1,068	2,136				
1-8 Hillbeck Close	Internal	External Doors	0	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Internal	Internal Doors	0	0	0	0	0	0	7,080	0	0	0	0	7,080				
1-8 Hillbeck Close	Internal	Internal Structure & Finishes	1,320	0	0	0	0	0	0	0	0	0	0	1,320				
1-8 Hillbeck Close	Internal	Kitchens	46,400	0	0	0	0	0	0	0	46,400	0	0	92,800				
1-8 Hillbeck Close	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0				
1-8 Hillbeck Close	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0				
Rented SCS Dwellings Sub Total			78,120	0	0	0	0	0	8,148	0	46,692	1,068	134,028					
Specialists																		
M & E - Dwelling Services			0	0	24,000	0	0	0	0	0	0	0	0	24,000				
Management - Existing Asbestos			569	569	569	569	569	2,845	2,845	2,845	2,845	2,845	2,845	17,070				
Asbestos Removal			0	0	0	0	11,700	0	0	0	0	0	0	11,700				
Specialists Sub Total			569	569	24,569	569	12,269	2,845	2,845	2,845	2,845	2,845	2,845	52,770				
Fire Risk Assessment Works																		
1-8 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	47,304	0	0	0	0	0	0	0	0	0	0	47,304				
Preliminaries 20%			25,199	114	4,914	114	2,454	569	2,199	569	9,907	783	46,820					
Bowness House Rented Dwellings Total			151,192	683	29,483	683	14,723	3,414	13,192	3,414	59,444	4,696	280,922		100.00%	8	1,170.51	35,115.30
1-8 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	0	0	0	0	0	0	0	0	0	0	0					
Preliminaries 20%			0	0	0	0	0	0	0	0	0	0	0					
Internal & FED's Leaseholders Total			0	0	0	0	0	0	0	0	0	0	0		100.00%	0	0.00	0.00

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

1-8 Hillbeck Close

													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area		Estate	Estate		1,511	30	0	0	0	149	559	1,177	149	30	3,605					
		M&E Estate			0	0	1,662	0	0	0	0	0	124	233	2,019					
				Estate Areas Sub Total	1,511	30	1,662	0	0	149	559	1,177	273	263	5,625					
				Preliminaries 20%	302	6	332	0	0	30	112	235	55	53	1,125					
				Estate Areas Total	1,813	36	1,995	0	0	179	671	1,412	328	316	6,750					
	Cost by Tenure Total Block				<i>SC Rented</i>	1,813	36	1,995	0	0	179	671	1,412	328	316	6,750	100.00%	8	28.12	843.71
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00
																			8	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Cleaners Store		Estate Cleaners Store			2	0	0	0	0	120	188	4	171	21	4	510				
				Estate Cleaners Store Sub Total	2	0	0	0	0	120	188	4	171	21	4	510				
				Preliminaries 20%	0	0	0	0	0	24	38	1	34	4	1	102				
				Estate Cleaners Store Total	3	0	0	0	0	144	225	5	205	25	5	612				
	Cost by Tenure Total Block				<i>SC Rented</i>	3	0	0	0	144	225	5	205	25	5	612	100.00%	8	2.55	76.45
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00
																			8	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	3,200	0	0	0	3,200	0	3,200	3,200	3,200	16,000					
		Decorations (Estate & Cleaners Stores)			0	0	356	0	0	389	34	356	389	34	1,557					
				Decorations Sub Total	0	3,200	356	0	0	3,589	34	3,556	3,589	3,234	17,557					
				Preliminaries 20%	0	640	71	0	0	718	7	711	718	647	3,511					
				Decorations Total	0	3,840	427	0	0	4,307	40	4,267	4,307	3,880	21,069					
	Cost by Tenure Total Block				<i>SC Rented</i>	0	3,840	427	0	0	4,307	40	4,267	4,307	3,880	21,069	100.00%	8	87.79	2,633.59
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00	
																			8	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Improvement Measures					7,560	0	0	0	0	0	0	0	0	0	7,560	15,120				
Roof Edge Protection					826	0	0	0	0	0	0	0	0	0	826	1,652				
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0	0				
Cold Bridging					Improvements Sub Total	8,386	0	0	0	0	0	0	0	0	8,386	16,772				
				Preliminaries 20%	1,677	0	0	0	0	0	0	0	0	0	1,677	3,354				
				Improvements Total	10,063	0	0	0	0	0	0	0	0	0	10,063	20,126				
	Cost by Tenure Total Block				<i>SC Rented</i>	10,063	0	0	0	0	0	0	0	0	10,063	20,126	100.00%	8	83.86	2,515.80
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00
																			8	
Block Summary																				
Block All Assets Total Incl Prelims					204,885	23,576	388,064	683	93,599	23,295	20,358	46,598	136,001	104,475	1,041,534					
Cost by Tenure Total Block					<i>SC Rented</i>	204,885	23,576	388,064	683	93,599	23,295	20,358	46,598	136,001	104,475	1,041,534	100.00%	8	4,339.73	130,191.76
					<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00

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9-16 Hillbeck Close

Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
9-16 Hillbeck Close	Internal	Bathrooms	19,000	0	0	0	0	0	0	0	0	0	0	19,000					
9-16 Hillbeck Close	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
9-16 Hillbeck Close	Internal	Electrical Installations	0	0	0	0	0	6,412	0	0	0	0	0	12,824					
9-16 Hillbeck Close	Internal	External Doors	0	0	0	0	0	0	0	0	0	0	0	0					
9-16 Hillbeck Close	Internal	Internal Doors	0	0	0	0	0	0	0	0	0	0	0	2,655					
9-16 Hillbeck Close	Internal	Internal Structure & Finishes	0	0	0	0	0	0	0	0	0	0	0	0					
9-16 Hillbeck Close	Internal	Kitchens	29,000	0	0	0	0	0	0	0	0	0	0	29,000	0	58,000			
9-16 Hillbeck Close	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
9-16 Hillbeck Close	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
Rented SCS Dwellings Sub Total			48,000	0	0	0	0	6,412	2,655	0	35,412	0	92,479						
Specialists																			
M & E - Dwelling Services			0	0	24,000	0	0	0	0	0	0	0	0	24,000					
Management - Existing Asbestos			356	356	356	356	356	1,780	1,780	1,780	1,780	1,780	1,780	10,680					
Asbestos Removal			0	0	0	0	11,700	0	0	0	0	0	0	11,700					
Specialists Sub Total			356	356	24,356	356	12,056	1,780	1,780	1,780	1,780	1,780	1,780	46,380					
Fire Risk Assessment Works																			
9-16 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	29,565	0	0	0	0	0	0	0	0	0	0	29,565					
Preliminaries 20%			15,584	71	4,871	71	2,411	1,638	887	356	7,438	356	33,685						
Bowness House Rented Dwellings Total			93,505	427	29,227	427	14,467	9,830	5,322	2,136	44,630	2,136	202,109		100.00%	5	1,347.39	40,421.76	
9-16 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	5,250	0	0	0	0	0	0	0	0	0	0	5,250					
Preliminaries 20%			1,050	0	0	0	0	0	0	0	0	0	0	1,050					
Internal & FED's Leaseholders Total			6,300	0	0	0	0	0	0	0	0	0	0	6,300		100.00%	3	70.00	2,100.00

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9-16 Hillbeck Close

													Per Dwelling by Tenure								
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Estate Area		Estate	Estate		1,511	30	0	0	0	149	559	1,177	149	30	3,605						
		M&E Estate			0	0	1,662	0	0	0	0	0	124	233	2,019						
				Estate Areas Sub Total	1,511	30	1,662	0	0	149	559	1,177	273	263	5,625						
				Preliminaries 20%	302	6	332	0	0	30	112	235	55	53	1,125						
				Estate Areas Total	1,813	36	1,995	0	0	179	671	1,412	328	316	6,750						
Cost by Tenure Total Block																					
				<i>SC Rented</i>	1,133	23	1,247	0	0	112	419	883	205	197	4,219	62.50%	5	28.12	843.71		
				<i>Leasehold</i>	680	14	748	0	0	67	252	530	123	118	2,531	37.50%	3	28.12	843.71		
													Per Dwelling by Tenure								
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Estate Cleaners Store		Estate Cleaners Store			2	0	0	0	0	120	188	4	171	21	4	510					
				Estate Cleaners Store Sub Total	2	0	0	0	0	120	188	4	171	21	4	510					
				Preliminaries 20%	0	0	0	0	24	38	1	34	4	1	102						
				Estate Cleaners Store Total	3	0	0	0	0	144	225	5	205	25	5	612					
Cost by Tenure Total Block																					
				<i>SC Rented</i>	2	0	0	0	90	141	3	128	16	3	382	62.50%	5	2.55	76.45		
				<i>Leasehold</i>	1	0	0	0	54	84	2	77	9	2	229	37.50%	3	2.55	76.45		
													Per Dwelling by Tenure								
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	3,200	0	0	0	3,200	0	3,200	3,200	3,200	16,000						
		Decorations (Estate & Cleaners Stores)			0	0	356	0	0	389	34	356	389	34	1,557						
				Decorations Sub Total	0	3,200	356	0	0	3,589	34	3,556	3,589	3,234	17,557						
				Preliminaries 20%	0	640	71	0	0	718	7	711	718	647	3,511						
				Decorations Total	0	3,840	427	0	0	4,307	40	4,267	4,307	3,880	21,069						
Cost by Tenure Total Block																					
				<i>SC Rented</i>	0	2,400	267	0	0	2,692	25	2,667	2,692	2,425	13,168	62.50%	5	87.79	2,633.59		
				<i>Leasehold</i>	0	1,440	160	0	0	1,615	15	1,600	1,615	1,455	7,901	37.50%	3	87.79	2,633.59		
													Per Dwelling by Tenure								
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Improvement Measures					7,560	0	0	0	0	0	0	0	0	0	7,560	15,120					
Roof Edge Protection					826	0	0	0	0	0	0	0	0	0	826	1,652					
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0	0					
Cold Bridging					Improvements Sub Total	8,386	0	0	0	0	0	0	0	0	8,386	16,772					
					Preliminaries 20%	1,677	0	0	0	0	0	0	0	0	1,677	3,354					
					Improvements Total	10,063	0	0	0	0	0	0	0	0	10,063	20,126					
Cost by Tenure Total Block																					
				<i>SC Rented</i>	6,290	0	0	0	0	0	0	0	0	0	6,290	12,579	62.50%	5	83.86	2,515.80	
				<i>Leasehold</i>	3,774	0	0	0	0	0	0	0	0	0	3,774	7,547	37.50%	3	83.86	2,515.80	
Block Summary																					
					Block All Assets Total Incl Prelims	150,787	23,320	387,809	427	93,344	29,712	11,288	45,320	121,187	101,916	965,108					
Cost by Tenure Total Block																					

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17-24 Hillbeck Close

Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
17-24 Hillbeck Close	Internal	Bathrooms	26,600	0	0	0	0	0	0	0	0	0	0	26,600					
17-24 Hillbeck Close	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
17-24 Hillbeck Close	Internal	Electrical Installations	0	0	0	0	0	0	1,602	0	0	0	1,602	3,204					
17-24 Hillbeck Close	Internal	External Doors	0	0	0	0	0	0	0	0	0	0	0	0					
17-24 Hillbeck Close	Internal	Internal Doors	0	0	0	0	0	0	6,195	0	0	0	0	6,195					
17-24 Hillbeck Close	Internal	Internal Structure & Finishes	480	0	0	0	0	0	0	0	0	0	0	480					
17-24 Hillbeck Close	Internal	Kitchens	40,600	0	0	0	0	0	0	0	0	40,600	0	81,200					
17-24 Hillbeck Close	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
17-24 Hillbeck Close	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
Rented SCS Dwellings Sub Total			67,680	0	0	0	0	0	7,797	0	40,600	1,602	117,679						
Specialists																			
M & E - Dwelling Services			0	0	24,000	0	0	0	0	0	0	0	0	24,000					
Management - Existing Asbestos			498	498	498	498	498	2,490	2,490	2,490	2,490	2,490	2,490	14,940					
Asbestos Removal			0	0	0	0	15,300	0	0	0	0	0	0	15,300					
Specialists Sub Total			498	498	24,498	498	15,798	2,490	2,490	2,490	2,490	2,490	2,490	54,240					
Fire Risk Assessment Works																			
17-24 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	41,391	0	0	0	0	0	0	0	0	0	0	41,391					
Preliminaries 20%			21,914	100	4,900	100	3,160	498	2,057	498	8,618	818	42,662						
Bowness House Rented Dwellings Total			131,483	598	29,398	598	18,958	2,988	12,344	2,988	51,708	4,910	255,972		100.00%	7	1,218.91	36,567.43	
17-24 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	1,750	0	0	0	0	0	0	0	0	0	0	1,750					
Preliminaries 20%			350	0	0	0	0	0	0	0	0	0	0	350					
Internal & FED's Leaseholders Total			2,100	0	0	0	0	0	0	0	0	0	0	2,100		100.00%	1	70.00	2,100.00

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

17-24 Hillbeck Close

													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area		Estate	Estate		1,511	30	0	0	0	149	559	1,177	149	30	3,605					
		M&E Estate			0	0	1,662	0	0	0	0	0	124	233	2,019					
				Estate Areas Sub Total	1,511	30	1,662	0	0	149	559	1,177	273	263	5,625					
				Preliminaries 20%	302	6	332	0	0	30	112	235	55	53	1,125					
				Estate Areas Total	1,813	36	1,995	0	0	179	671	1,412	328	316	6,750					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	1,586	32	1,745	0	0	156	587	1,236	287	276	5,906	87.50%	7	28.12	843.71	
				<i>Leasehold</i>	227	5	249	0	0	22	84	177	41	39	844	12.50%	1	28.12	843.71	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Cleaners Store		Estate Cleaners Store			2	0	0	0	120	188	4	171	21	4	510					
				Estate Cleaners Store Sub Total	2	0	0	0	120	188	4	171	21	4	510					
				Preliminaries 20%	0	0	0	0	24	38	1	34	4	1	102					
				Estate Cleaners Store Total	3	0	0	0	144	225	5	205	25	5	612					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	3	0	0	0	126	197	4	179	22	4	535	87.50%	7	2.55	76.45	
				<i>Leasehold</i>	0	0	0	0	18	28	1	26	3	1	76	12.50%	1	2.55	76.45	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	3,200	0	0	0	3,200	0	3,200	3,200	3,200	16,000					
		Decorations (Estate & Cleaners Stores)			0	0	356	0	0	389	34	356	389	34	1,557					
				Decorations Sub Total	0	3,200	356	0	0	3,589	34	3,556	3,589	3,234	17,557					
				Preliminaries 20%	0	640	71	0	0	718	7	711	718	647	3,511					
				Decorations Total	0	3,840	427	0	0	4,307	40	4,267	4,307	3,880	21,069					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	0	3,360	374	0	0	3,769	35	3,734	3,769	3,395	18,435	87.50%	7	87.79	2,633.59	
				<i>Leasehold</i>	0	480	53	0	0	538	5	533	538	485	2,634	12.50%	1	87.79	2,633.59	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Improvement Measures					7,560	0	0	0	0	0	0	0	0	7,560	15,120					
Roof Edge Protection					826	0	0	0	0	0	0	0	0	826	1,652					
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0					
Cold Bridging					Improvements Sub Total	8,386	0	0	0	0	0	0	0	8,386	16,772					
					Preliminaries 20%	1,677	0	0	0	0	0	0	0	1,677	3,354					
					Improvements Total	10,063	0	0	0	0	0	0	0	10,063	20,126					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	8,805	0	0	0	0	0	0	0	0	8,805	17,611	87.50%	7	83.86	2,515.80	
				<i>Leasehold</i>	1,258	0	0	0	0	0	0	0	0	1,258	2,516	12.50%	1	83.86	2,515.80	
Block Summary																				
					Block All Assets Total Incl Prelims	184,473	23,490	387,979	598	97,834	22,869	18,310	46,172	128,265	104,690	1,014,680				
Cost by Tenure Total Block																				
					<i>SC Rented</i>	176,012	20,629	343,156	598	87										

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

25-32 Hillbeck Close

Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
25-32 Hillbeck Close	Internal	Bathrooms	26,600	0	0	0	0	0	0	0	0	0	0	26,600					
25-32 Hillbeck Close	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
25-32 Hillbeck Close	Internal	Electrical Installations	0	2,760	0	0	0	0	2,760	0	2,760	0	0	8,280					
25-32 Hillbeck Close	Internal	External Doors	0	0	0	0	0	0	0	0	0	0	0	0					
25-32 Hillbeck Close	Internal	Internal Doors	0	0	0	0	0	0	6,195	0	0	0	0	6,195					
25-32 Hillbeck Close	Internal	Internal Structure & Finishes	0	0	0	0	0	0	0	0	0	0	0	0					
25-32 Hillbeck Close	Internal	Kitchens	40,600	0	0	0	0	0	0	0	0	40,600	0	81,200					
25-32 Hillbeck Close	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
25-32 Hillbeck Close	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
Rented SCS Dwellings Sub Total			67,200	2,760	0	0	0	0	8,955	0	43,360	0	122,275						
Specialists																			
M & E - Dwelling Services			0	0	24,000	0	0	0	0	0	0	0	0	24,000					
Management - Existing Asbestos			498	498	498	498	498	2,490	2,490	2,490	2,490	2,490	2,490	14,940					
Asbestos Removal			0	0	0	0	11,700	0	0	0	0	0	0	11,700					
Specialists Sub Total			498	498	24,498	498	12,198	2,490	2,490	2,490	2,490	2,490	2,490	50,640					
Fire Risk Assessment Works																			
25-32 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	41,391	0	0	0	0	0	0	0	0	0	0	41,391					
Preliminaries 20%			21,818	652	4,900	100	2,440	498	2,289	498	9,170	498	42,861						
Bowness House Rented Dwellings Total			130,907	3,910	29,398	598	14,638	2,988	13,734	2,988	55,020	2,988	257,167		100.00%	7	1,224.61	36,738.17	
25-32 Hillbeck Close	Int & Ext	Fire Risk Assessment - Fire upgrade works	1,750	0	0	0	0	0	0	0	0	0	0	1,750					
Preliminaries 20%			350	0	0	0	0	0	0	0	0	0	0	350					
Internal & FED's Leaseholders Total			2,100	0	0	0	0	0	0	0	0	0	0	2,100		100.00%	1	70.00	2,100.00

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

25-32 Hillbeck Close

													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Area		Estate	Estate		1,511	30	0	0	0	149	559	1,177	149	30	3,605					
		M&E Estate			0	0	1,662	0	0	0	0	0	124	233	2,019					
				Estate Areas Sub Total	1,511	30	1,662	0	0	149	559	1,177	273	263	5,625					
				Preliminaries 20%	302	6	332	0	0	30	112	235	55	53	1,125					
				Estate Areas Total	1,813	36	1,995	0	0	179	671	1,412	328	316	6,750					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	1,586	32	1,745	0	0	156	587	1,236	287	276	5,906	87.50%	7	28.12	843.71	
				<i>Leasehold</i>	227	5	249	0	0	22	84	177	41	39	844	12.50%	1	28.12	843.71	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Estate Cleaners Store		Estate Cleaners Store			2	0	0	0	120	188	4	171	21	4	510					
				Estate Cleaners Store Sub Total	2	0	0	0	120	188	4	171	21	4	510					
				Preliminaries 20%	0	0	0	0	24	38	1	34	4	1	102					
				Estate Cleaners Store Total	3	0	0	0	144	225	5	205	25	5	612					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	3	0	0	0	126	197	4	179	22	4	535	87.50%	7	2.55	76.45	
				<i>Leasehold</i>	0	0	0	0	18	28	1	26	3	1	76	12.50%	1	2.55	76.45	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations			0	3,200	0	0	0	3,200	0	3,200	3,200	3,200	16,000					
		Decorations (Estate & Cleaners Stores)			0	0	356	0	0	389	34	356	389	34	1,557					
				Decorations Sub Total	0	3,200	356	0	0	3,589	34	3,556	3,589	3,234	17,557					
				Preliminaries 20%	0	640	71	0	0	718	7	711	718	647	3,511					
				Decorations Total	0	3,840	427	0	0	4,307	40	4,267	4,307	3,880	21,069					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	0	3,360	374	0	0	3,769	35	3,734	3,769	3,395	18,435	87.50%	7	87.79	2,633.59	
				<i>Leasehold</i>	0	480	53	0	0	538	5	533	538	485	2,634	12.50%	1	87.79	2,633.59	
													Per Dwelling by Tenure							
Building/ Asset			Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30	
Improvement Measures					7,560	0	0	0	0	0	0	0	0	7,560	15,120					
Roof Edge Protection					826	0	0	0	0	0	0	0	0	826	1,652					
Estate Improvements - Access					0	0	0	0	0	0	0	0	0	0	0					
Cold Bridging					Improvements Sub Total	8,386	0	0	0	0	0	0	0	8,386	16,772					
					Preliminaries 20%	1,677	0	0	0	0	0	0	0	1,677	3,354					
					Improvements Total	10,063	0	0	0	0	0	0	0	10,063	20,126					
Cost by Tenure Total Block																				
				<i>SC Rented</i>	8,805	0	0	0	0	0	0	0	0	8,805	17,611	87.50%	7	83.86	2,515.80	
				<i>Leasehold</i>	1,258	0	0	0	0	0	0	0	0	1,258	2,516	12.50%	1	83.86	2,515.80	
Block Summary																				
					Block All Assets Total Incl Prelims	183,916	26,802	387,979	598	97,154	17,687	19,700	48,629	131,577	95,283	1,009,325				
Cost by Tenure Total Block																				
					<i>SC Rented</i>	175,453	23,941	343,156	598	86,										

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

2-40 Ullswater House

Per Dwelling by Tenure																			
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
2-40 Ullswater House	Internal	Bathrooms	178,600	0	0	0	0	0	0	0	0	0	0	178,600					
2-40 Ullswater House	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0	0					
2-40 Ullswater House	Internal	Electrical Installations	0	0	0	0	0	150,682	0	0	150,682	0	0	301,364					
2-40 Ullswater House	Internal	External Doors	0	0	0	0	0	0	0	0	0	0	0	0					
2-40 Ullswater House	Internal	Internal Doors	0	0	0	0	0	0	0	0	41,160	0	0	41,160					
2-40 Ullswater House	Internal	Internal Structure & Finishes	1,100	0	0	0	0	0	0	0	0	0	0	1,100					
2-40 Ullswater House	Internal	Kitchens	272,600	0	0	0	0	0	0	0	272,600	0	0	545,200					
2-40 Ullswater House	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0	0					
2-40 Ullswater House	Internal	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0	0					
			Rented SCS Dwellings Sub Total		452,300	0	0	0	0	150,682	0	0	464,442	0	1,067,424				
Specialists																			
			M & E - Dwelling Services	500	500	258,500	500	500	2,500	0	2,500	2,500	0	268,000					
			Management - Existing Asbestos	3,342	3,342	3,342	3,342	3,342	16,710	16,710	16,710	16,710	16,710	100,260					
			Asbestos Removal	0	0	0	0	0	0	0	0	0	0	0					
			Specialists Sub Total		3,842	3,842	261,842	3,842	3,842	19,210	16,710	19,210	19,210	16,710	368,260				
Fire Risk Assessment Works																			
2-40 Ullswater House	Int & Ext	Fire Risk Assessment - Fire upgrade works	227,950	0	0	0	0	0	0	0	0	0	0	227,950					
			Preliminaries 20%		136,818	768	52,368	768	768	33,978	3,342	3,842	96,730	3,342	332,727				
			Bowness House Rented Dwellings Total	820,910	4,610	314,210	4,610	4,610	203,870	20,052	23,052	580,382	20,052	1,996,361		100.00%	47	1,415.86	42,475.76
2-40 Ullswater House	Int & Ext	Fire Risk Assessment - Fire upgrade works	0	0	0	0	0	0	0	0	0	0	0	0					
			Preliminaries 20%		0	0	0	0	0	0	0	0	0	0					
			Internal & FFD's Leaseholders Total	0	0	0	0	0	0	0	0	0	0	0		100.00%	0	0.00	0.00

2-40 Ullswater House

Estate Areas - Cost by Tenure													% of Total		Stock	£ Cost / Annum	£ Cost / Years 1-30				
Building/ Asset			Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30						
Estate Area	Estate	Estate			8,876	178	0	0	0	875	3,285	6,915	875	178	21,181						
		M&E Estate			0	0	9,765	0	0	0	0	0	730	1,369	11,864						
			Estate Areas Sub Total		8,876	178	9,765	0	0	875	3,285	6,915	1,605	1,547	33,045						
			Preliminaries 20%		1,775	36	1,953	0	0	175	657	1,383	321	309	6,609						
			Estate Areas Total		10,651	214	11,718	0	0	1,049	3,943	8,298	1,926	1,856	39,654						
Cost by Tenure Total Block																					
			SC Rented		10,651	214	11,718	0	0	1,049	3,943	8,298	1,926	1,856	39,654	100.00%	47	28.12	843.71		
			Leasehold		0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00		

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And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

Building/Asset	Type	Group_Reportng	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Per Dwelling by Tenure					
														% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Estate Cleaners Store		Estate Cleaners Store	15	0	0	0	705	1,103	23	1,004	123	23	2,994						
		Estate Cleaners Store Sub Total	15	0	0	0	705	1,103	23	1,004	123	23	2,994						
		Preliminaries 20%	3	0	0	0	141	221	5	201	25	5	599						
		Estate Cleaners Store Total	18	0	0	0	846	1,324	27	1,205	147	27	3,593						
Cost by Tenure Total Block			<i>SC Rented</i>	18	0	0	0	846	1,324	27	1,205	147	27	3,593	100.00%	47	2.55	76.45	
			<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00	
																47			
Building/Asset	Type	Group_Reportng	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Per Dwelling by Tenure					
														% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
External & Communal Decorations (Excl Specialists Concrete Coatings & Towers)		Decorations	0	19,600	0	0	0	19,600	0	19,600	19,600	19,600	98,000						
		Decorations (Estate & Cleaners Stores)	0	0	2,090	0	0	2,287	197	2,090	2,287	197	9,149						
		Decorations Sub Total	0	19,600	2,090	0	0	21,887	197	21,690	21,887	19,797	107,149						
		Preliminaries 20%	0	3,920	418	0	0	4,377	39	4,338	4,377	3,959	21,430						
		Decorations Total	0	23,520	2,508	0	0	26,265	237	26,028	26,265	23,757	128,579						
Cost by Tenure Total Block			<i>SC Rented</i>	0	23,520	2,508	0	0	26,265	237	26,028	26,265	23,757	128,579	100.00%	47	91.19	2,735.72	
			<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00	
																47			
Building/Asset	Type	Group_Reportng	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Per Dwelling by Tenure					
														% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30		
Improvement Measures																			
Roof Edge Protection			31,500	0	0	0	0	0	0	0	0	0	31,500	63,000					
Estate Improvements - Access			4,850	0	0	0	0	0	0	0	0	0	4,850	9,700					
Cold Bridging			0	0	0	0	0	0	0	0	0	0	0	0					
		Improvements Sub Total	36,350	0	0	0	0	0	0	0	0	0	36,350	72,700					
		Preliminaries 20%	7,270	0	0	0	0	0	0	0	0	0	7,270	14,540					
		Improvements Total	43,620	0	0	0	0	0	0	0	0	0	0	43,620	87,240				
Cost by Tenure Total Block			<i>SC Rented</i>	43,620	0	0	0	0	0	0	0	0	0	43,620	87,240	100.00%	47	61.87	1,856.17
			<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00
																47			
Block Summary																			
			Block All Assets Total Incl Prelims	1,070,373	74,424	1,283,697	4,610	55,553	496,360	258,713	245,667	795,008	183,285	4,467,689					
			Cost by Tenure Total Block	<i>SC Rented</i>	1,070,373	74,424	1,283,697	4,610	55,553	496,360	258,713	245,667	795,008	183,285	4,467,689	100.00%	47	3,168.57	95,057.22
			<i>Leasehold</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0	0.00	0.00
																	47		

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

Manor Grove Houses - SC Rented													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Manor Grove Houses	External	Boundaries	3,492	170	582	0	4,993	3,852	1,076	0	27,819	2,016	44,000				
Manor Grove Houses	External	Drainage - Above Ground	0	0	0	0	0	0	0	4,768	0	0	4,768				
Manor Grove Houses	External	Electrical Installations	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	External	External Buildings	5,656	0	0	0	0	1,440	0	0	178	178	7,452				
Manor Grove Houses	External	External Doors	3,166	0	669	0	12,885	2,798	4,197	773	0	2,172	26,660				
Manor Grove Houses	External	External Wall Finish	1,350	0	0	0	2,454	0	292	4,870	4,870	876	14,712				
Manor Grove Houses	External	External Walls	4,733	0	0	0	0	0	1,350	0	0	0	6,083				
Manor Grove Houses	External	Hard Surfaces	0	0	0	0	3,143	3,969	0	594	454	0	8,160				
Manor Grove Houses	External	Internal Structure & Finishes	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	External	Refuse	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	External	Roofs	20,594	14,170	121,185	0	0	0	834	420	26,018	95,153	278,374				
Manor Grove Houses	External	Stairs & Balconies	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	External	Windows	47,562	0	0	0	50,153	6,686	16,160	0	8,358	0	128,919				
Manor Grove Houses	Internal	Bathrooms	68,400	0	0	0	0	0	0	0	0	0	68,400				
Manor Grove Houses	Internal	Drainage - Above Ground	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	Internal	Electrical Installations	1,913	0	0	0	4,360	534	7,343	2,136	4,671	3,206	24,163				
Manor Grove Houses	Internal	Internal Doors	7,080	0	0	0	0	0	0	0	0	0	7,080				
Manor Grove Houses	Internal	Internal Structure & Finishes	5,802	0	0	0	0	0	0	0	0	0	5,802				
Manor Grove Houses	Internal	Kitchens	104,400	0	0	0	0	0	0	0	0	104,400	0	208,800			
Manor Grove Houses	Internal	Roofs	0	0	0	0	0	0	0	0	0	0	0				
Manor Grove Houses	Internal	Stairs & Balconies	838	0	0	0	0	0	0	0	0	0	838				
		Estate Houses Sub Total	274,986	14,340	122,436	0	77,988	19,279	31,252	13,561	176,768	103,601	834,211				
		M & E - Services	166,000	28,000	50,979	24,000	24,000	96,000	0	30,000	31,660	0	450,638				
		Concrete Repairs & Coatings	20,364	0	0	0	0	3,000	0	27,815	0	3,000	54,179				
		Structural Engineer (Houses) - Contingency	45,000	0	0	0	0	0	0	0	0	0	45,000				
		Management - Existing Asbestos	1,676	1,676	1,676	1,676	1,676	8,380	8,380	8,380	8,380	8,380	50,280				
		Asbestos Removal	11,700	0	0	0	0	0	0	0	0	0	11,700				
		Sub Total	244,740	29,676	52,655	25,676	25,676	107,380	8,380	66,195	40,040	11,380	611,797				
		Preliminaries 20%	103,945	8,803	35,018	5,135	20,733	25,332	7,926	15,951	43,362	22,996	289,202				
		Estate Houses Sub Total	348,685	38,479	87,673	30,811	46,409	132,712	16,306	82,146	83,401	34,376	900,999				
		Fire Risk Assessment Works - Southwark Council	11,700	0	0	0	0	0	0	0	0	0	11,700				
		Preliminaries 20%	2,340	0	0	0	0	0	0	0	0	0	2,340				
		Total FRAWorks	14,040	0	0	0	0	0	0	0	0	0	14,040				
Estate Area													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Estate Area	Estate	Estate	3,399	68	0	0	0	335	1,258	2,648	335	68	8,112				
		M&E Estate	0	0	3,740	0	0	0	0	0	280	524	4,544				
		Estate Areas Sub Total	3,399	68	3,740	0	0	335	1,258	2,648	615	592	12,656				
		Preliminaries 20%	680	14	748	0	0	67	252	530	123	118	2,531				
		Estate Areas Total	4,079	82	4,488	0	0	402	1,510	3,178	737	711	15,187				
Estate Cleaners Store													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Estate Cleaners Store	Estate Cleaners Store	Estate Cleaners Store	6	0	0	0	270	422	9	385	47	9	1,147				
		Estate Cleaners Store Sub Total	6	0	0	0	270	422	9	385	47	9	1,147				
		Preliminaries 20%	1	0	0	0	54	84	2	77	9	2	229				
		Estate Cleaners Store Total	7	0	0	0	324	507	10	461	56	10	1,376				
External & Communal Decorations													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
(Exl Specialists Concrete Coatings & Towers)	Decorations	Decorations	4,483	0	0	0	0	4,483	4,483	0	4,483	4,483	22,415				
	Decorations (Estate & Cleaners Stores)	Decorations (Estate & Cleaners Stores)	0	0	800	0	0	876	76	800	876	76	3,504				
		Decorations Sub Total	4,483	0	800	0	0	5,359	4,559	800	5,359	4,559	25,919				
		Preliminaries 20%	897	0	160	0	0	1,072	912	160	1,072	912	5,184				
		Decorations Total	5,380	0	961	0	0	6,431	5,470	961	6,431	5,470	31,103				
Improvement Measures													Per Dwelling by Tenure				
Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Roof Edge Protection			0	0	0	0	0	0	0	0	0	0	0				
Estate Improvements - Access			1,857	0	0	0	0	0	0	0	0	0	1,857			3,714	
Cold Bridging			0	0	0	0	0	0	0	0	0	0	0				
		Improvements Sub Total	1,857	0	0	0	0	0	0	0	0	0	1,857			3,714	
		Preliminaries 20%	371	0	0	0	0	0	0	0	0	0	371			743	
		Improvements Total	2,228	0	0	0	0	0	0	0	0	0	2,228			4,457	
		Estate Houses Total	649,405	52,901	215,557	30,811	124,721	159,330	54,549	100,307	267,394	146,397	1,801,372	100.00%	18	3,335.87	100,076.24

**Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT**

Manor Grove Houses - Freehold

Houses - Freehold Split of Estate based costs											% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Houses	Shared Lighting Across Houses	0	0	37,021	0	0	0	0	0	12,340	0	49,361		
Estate	Estate	5,854	117	0	0	0	577	2,167	4,561	577	117	13,971		
Estate	M&E Estate	0	0	6,441	0	0	0	0	0	482	903	7,825		
Estate	Estate Cleaners Store	10	0	0	0	465	727	15	662	81	15	1,975		
Estate	Estate Area & Cleaners Store Decorations	0	0	1,379	0	0	1,509	130	1,379	1,509	130	6,034		
Manor Grove Houses - Freehold Sub Total		5,864	117	44,840	0	465	2,813	2,312	6,602	14,988	1,165	79,166		
Preliminaries 20%		1,173	23	8,968	0	93	563	462	1,320	2,998	233	15,833		
Manor Grove Houses - Freehold Sub Total		7,037	141	53,808	0	558	3,375	2,774	7,922	17,986	1,398	94,999	100%	31
													102.15	3,064.49

												Per Dwelling by Tenure					
Building/ Asset	Type	Group_Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30
Improvement Measures																	
Roof Edge Protection			0	0	0	0	0	0	0	0	0	0	0				
Estate Improvements - Access			3,199	0	0	0	0	0	0	0	0	3,199	6,398				
Cold Bridging			0	0	0	0	0	0	0	0	0	0	0				
		Improvements Sub Total	3,199	0	0	0	0	0	0	0	0	3,199	6,398				
		Preliminaries 20%	640	0	0	0	0	0	0	0	0	640	1,280				
		Improvements Total	3,839	0	0	0	0	0	0	0	0	3,839	7,678	100.00%	31	8.26	247.66
		Manor Grove Houses - Freehold Total	10,875	141	53,808	0	558	3,375	2,774	7,922	17,986	5,237	102,677	100.00%	31	110.41	3,312.16

Other Assets

Estate Garages - Excludes Garages to Towers/ Below Heversham House

Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Estate Garages (Manor Grove Site Only)	Garages	Garages	2,902	0	0	0	16,534	0	0	11,645	45,307	26,910	103,298
		<i>Estate Garages - Structural Contingency</i>	12,000	0	0	0	0	0	0	0	0	0	12,000
		Garages Sub Total	14,902	0	0	0	16,534	0	0	11,645	45,307	26,910	115,298
		Preliminaries 20%	2,980	0	0	0	3,307	0	0	2,329	9,061	5,382	23,060
		Garages Total	17,882	0	0	0	19,841	0	0	13,974	54,368	32,292	138,358
	Garages	Estate Area & Cleaners Store Decorations	0	0	2,752	0	0	2,752	0	2,752	2,752	0	11,008
		Garages Decorations Sub Total	0	0	2,752	0	0	2,752	0	2,752	2,752	0	11,008
		Preliminaries 20%	0	0	550	0	0	550	0	550	550	0	2,202
		Garages Decorations Total	0	0	3,302	0	0	3,302	0	3,302	3,302	0	13,210
Installation of Boiler House - For New SELCHP (M&E)			15,800	0	0	0	0	0	0	2,880	0	0	18,680
		Preliminaries 20%	3,160	0	0	0	0	0	0	576	0	0	3,736
		Total	18,960	0	0	0	0	0	0	3,456	0	0	22,416

Retail/ Business Units (Shell & Core) Only - Includes Rear Windows & Doors

Retail Business Units (Open & Closed, Only) - Includes Retail Windows & Doors													Per Dwelling by Tenure										
	Building/ Asset	Type	Group_ Reporting	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	% of Total	Stock	£ Cost/ Annum	£ Cost/ Years 1-30					
Retail Unit		External	Windows	0	10,027	0	0	1,114	20,000	0	0	0	0	31,141									
		Internal	Drainage - Above Ground	1,200	0	0	0	0	0	0	0	0	0	1,200									
		Internal	External Doors	4,994	0	669	0	5,591	5,414	4,194	0	0	0	20,862									
		Internal	Internal Structure & Finishes	700	3,069	0	0	346	1,039	0	1,210	1,296	0	7,660									
				Estate Office Sub Total		6,894	13,096	669	0	7,051	26,453	4,194	1,210	1,296	0	60,863							
				Preliminaries 20%		1,379	2,619	134	0	1,410	5,291	839	242	259	0	12,173							
				Retail Units Total		8,273	15,715	803	0	8,461	31,744	5,033	1,452	1,555	0	73,036	100.00%	9	270.50	8,115.07			
Management & Contingency																							
Below Ground Drainage contingency				100,000	0	0	0	0	0	0	0	0	0	100,000									
Asbestos Management Per annum - Southwark Council				0	0	0	0	0	0	0	0	0	0	0									
				Preliminaries 20%		20,000	0	0	0	0	0	0	0	0	20,000								
				Management & Contingency Total		120,000	0	0	0	0	0	0	0	0	120,000								
Void Maintenance (Excludes Cyclical & Responsive) Total													30,231	36,078	37,065	36,078	30,231	170,773	172,065	162,848	170,773	169,682	1,015,824

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance By Block/ Houses Inclusive of Retail, Estate
And Mechanical Electrical Costs, Exclusive of Improvements, Professional Fees & VAT

Tower Blocks													
Estate													
Ambleside House													
		Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	
Ambleside House	Estate M&E Estate	13,597	273	0	0	0	1,340	5,033	10,593	1,340	273	32,448	
		0	0	14,959	0	0	0	0	0	1,118	2,097	18,175	
		Ambleside House Total	13,597	273	14,959	0	0	1,340	5,033	10,593	2,458	2,370	50,622
		Preliminaries 20%	2,719	55	2,992	0	0	268	1,007	2,119	492	474	10,124
			16,316	327	17,951	0	0	1,608	6,040	12,712	2,950	2,844	60,747
		By Tenure											
		SC Rented	14,277	286	15,707	0	0	1,407	5,285	11,123	2,581	2,488	53,154
		Leasehold	2,040	41	2,244	0	0	201	755	1,589	369	355	7,593
			63										
			28.12										
Grasmere Point	Estate M&E Estate	13,597	273	0	0	0	1,340	5,033	10,593	1,340	273	32,448	
		0	0	14,959	0	0	0	0	0	1,118	2,097	18,175	
		Grasmere Point Total	13,597	273	14,959	0	0	1,340	5,033	10,593	2,458	2,370	50,622
		Preliminaries 20%	2,719	55	2,992	0	0	268	1,007	2,119	492	474	10,124
			16,316	327	17,951	0	0	1,608	6,040	12,712	2,950	2,844	60,747
		By Tenure											
		SC Rented	15,863	318	17,452	0	0	1,563	5,872	12,359	2,868	2,765	59,060
		Leasehold	453	9	499	0	0	45	168	353	82	79	1,687
			70										
			28.12										
Windermere Point	Estate M&E Estate	13,786	276	0	0	0	1,358	5,103	10,740	1,358	276	32,898	
		0	0	15,167	0	0	0	0	0	1,134	2,126	18,427	
		Windermere Point Total	13,786	276	15,167	0	0	1,358	5,103	10,740	2,492	2,403	51,326
		Preliminaries 20%	2,757	55	3,033	0	0	272	1,021	2,148	498	481	10,265
			16,543	332	18,200	0	0	1,630	6,123	12,888	2,991	2,883	61,591
		By Tenure											
		SC Rented	14,050	282	15,458	0	0	1,384	5,201	10,946	2,540	2,449	52,310
		Leasehold	2,493	50	2,743	0	0	246	923	1,942	451	434	9,281
			62										
			28.12										
Cashflow Exclusions:													
Cyclical, Responsive & Void Maintenance													

Appendix C

Survey Design

Tustin Estate - Southwark Council

Survey Design

Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Heating & Hot Water	138	Cold Water Storage	YES	Ans	Block	None or None Visible
Heating & Hot Water	138	Cold Water Storage	YES	Ans	Block	Tank in Roof space
Heating & Hot Water	138	Cold Water Storage	YES	Ans	Block	Tank Room
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Mains Direct
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Tank in Roof space
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Tank In Cupboard
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Combination Tank/Cyl
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Communal
Heating & Hot Water	139	Cold Water Storage	YES	Num	Internal	Not Seen
Roofs	140	Roof Loft Insulation	YES	M2	Internal	0mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	0-50mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	50-100mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	100-150mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	150-200mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	200-250mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	250-280mm
Roofs	140	Roof Loft Insulation	YES	M2	Internal	280mm +
Roofs	140	Roof Loft Insulation	YES	M2	Internal	No access
Roofs	140	Roof Loft Insulation	YES	M2	Internal	Other dwelling above
Roofs	141	Roof Loft Insulation	YES	Ans	Block	0mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	0-50mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	50-100mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	100-150mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	150-200mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	200-250mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	250-280mm
Roofs	141	Roof Loft Insulation	YES	Ans	Block	280mm +
Roofs	141	Roof Loft Insulation	YES	Ans	Block	No access
Bathrooms	142	Communal Bathroom	NO	Ans	Block	No
Bathrooms	142	Communal Bathroom	NO	Ans	Block	Yes
Roofs	143	Roof Pipe Insulation	NO	LM	Internal	Not Applicable
Roofs	143	Roof Pipe Insulation	NO	LM	Internal	Yes
Roofs	143	Roof Pipe Insulation	NO	LM	Internal	Required
Bathrooms	144	Bathroom	YES	Num	Block	None
Bathrooms	144	Bathroom	YES	Num	Block	Bath WC WHB present
Bathrooms	144	Bathroom	YES	Num	Block	Bath WHB only
Bathrooms	144	Bathroom	YES	Num	Block	Bath WC only
Bathrooms	145	Bathroom	YES	Num	Internal	None
Bathrooms	145	Bathroom	YES	Num	Internal	Bath WC WHB present
Bathrooms	145	Bathroom	YES	Num	Internal	Bath WHB only
Bathrooms	145	Bathroom	YES	Num	Internal	Bath WC only
Bathrooms	145	Bathroom	YES	Num	Internal	No Bath WC WHB present
Bathrooms	145	Bathroom	YES	Num	Internal	No Bath WHB only
Bathrooms	146	Shower over bath	YES	Num	Internal	None
Bathrooms	146	Shower over bath	YES	Num	Internal	Electric Shower
Bathrooms	146	Shower over bath	YES	Num	Internal	Mixer Taps
Bathrooms	147	Shower over bath	YES	Num	Block	None
Bathrooms	147	Shower over bath	YES	Num	Block	Electric Shower
Bathrooms	147	Shower over bath	YES	Num	Block	Mixer Taps
Bathrooms	148	Separate Shower Enclosure	YES	Num	Internal	None
Bathrooms	148	Separate Shower Enclosure	YES	Num	Internal	Tray & Glass
Bathrooms	148	Separate Shower Enclosure	YES	Num	Internal	Tray & Curtain
Bathrooms	148	Separate Shower Enclosure	YES	Num	Internal	Wet Room/ Toilet & Basin
Bathrooms	148	Separate Shower Enclosure	YES	Num	Internal	Wet Room- No WC
Bathrooms	149	Separate Shower Enclosure	YES	Num	Block	None
Bathrooms	149	Separate Shower Enclosure	YES	Num	Block	Tray & Glass
Bathrooms	149	Separate Shower Enclosure	YES	Num	Block	Tray & Curtain
Bathrooms	149	Separate Shower Enclosure	YES	Num	Block	Wet Room/ Toilet & Basin
Bathrooms	149	Separate Shower Enclosure	YES	Num	Block	Wet Room- No WC
Bathrooms	150	Separate Shower type	YES	Num	Internal	Electric Shower
Bathrooms	150	Separate Shower type	YES	Num	Internal	Mains Mixer
Bathrooms	150	Separate Shower type	YES	Num	Internal	Thermostatic non-mixer
Bathrooms	151	Separate Shower type	YES	Num	Block	None
Bathrooms	151	Separate Shower type	YES	Num	Block	Electric Shower
Bathrooms	151	Separate Shower type	YES	Num	Block	Mains Mixer
Bathrooms	151	Separate Shower type	YES	Num	Block	Thermostatic non-mixer
Bathrooms	155	Bathroom Extract Fan	YES	Num	Internal	Present
Bathrooms	155	Bathroom Extract Fan	YES	Num	Internal	Not Present, Not Feasible
Bathrooms	155	Bathroom Extract Fan	YES	Num	Internal	Not Present, feasible
Bathrooms	155	Bathroom Extract Fan	YES	Num	Internal	Mechanical System
Bathrooms	156	Bathroom Extract Fan	YES	Num	Block	Present
Bathrooms	156	Bathroom Extract Fan	YES	Num	Block	Not Present, not feasible
Bathrooms	156	Bathroom Extract Fan	YES	Num	Block	Not Present, feasible
Bathrooms	156	Bathroom Extract Fan	YES	Num	Block	Passivent air extraction
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	Satisfactory
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	Inadequate- Improvement Not Possible
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	Inadequate Space - improvement possible
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	Access through main bedroom
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	WC is external
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	WC without WHB off kitchen
Bathrooms	157	Bathroom Space Layout	NO	Ans	Internal	WC/ nearest WHB not on same floor
Bathrooms	158	Bathroom Space Layout	NO	Ans	Block	None
Bathrooms	158	Bathroom Space Layout	NO	Ans	Block	Satisfactory

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Bathrooms	158	Bathroom Space Layout	NO	Ans	Block	Inadequate- Improvement Not Possible
Bathrooms	158	Bathroom Space Layout	NO	Ans	Block	Inadequate Space - Improvement possible
Bathrooms	159	WC Additional	YES	Num	Internal	None
Bathrooms	159	WC Additional	YES	Num	Internal	WC and WHB present
Bathrooms	159	WC Additional	YES	Num	Internal	WC only
Bathrooms	160	WC Additional	YES	Num	Block	None
Bathrooms	160	WC Additional	YES	Num	Block	WC and WHB present
Bathrooms	160	WC Additional	YES	Num	Block	WC only
Bathrooms	161	WC Extract fan	YES	Num	Internal	Present
Bathrooms	161	WC Extract fan	YES	Num	Internal	Not Present, not feasible
Bathrooms	161	WC Extract fan	YES	Num	Internal	Not Present, feasible
Bathrooms	161	WC Extract fan	YES	Num	Internal	Mechanical System
Bathrooms	161	WC Extract fan	YES	Num	Internal	Not Applicable
Bathrooms	162	Extract fans WC Only	YES	Num	Block	Present
Bathrooms	162	Extract fans WC Only	YES	Num	Block	Passive Air extraction
Bathrooms	162	Extract fans WC Only	YES	Num	Block	Not present feasible
Bathrooms	162	Extract fans WC Only	YES	Num	Block	N/A
Drainage - Above Ground	163	Internal Soil Vent Pipe	YES	LM	Internal	Cast Iron
Drainage - Above Ground	163	Internal Soil Vent Pipe	YES	LM	Internal	UPVC
Drainage - Above Ground	163	Internal Soil Vent Pipe	YES	LM	Internal	Not seen
Drainage - Above Ground	164	Internal Soil Vent Pipe	YES	LM	Block	Cast Iron
Drainage - Above Ground	164	Internal Soil Vent Pipe	YES	LM	Block	UPVC
Drainage - Above Ground	164	Internal Soil Vent Pipe	YES	LM	Block	Not seen
Kitchens	166	Kitchen	YES	Num	Internal	None
Kitchens	166	Kitchen	YES	Num	Internal	Up to 5 Units
Kitchens	166	Kitchen	YES	Num	Internal	6 to 8 Units
Kitchens	166	Kitchen	YES	Num	Internal	9 to 12 Units
Kitchens	166	Kitchen	YES	Num	Internal	13 to 15 Units
Kitchens	167	Kitchen	YES	Num	Block	None
Kitchens	167	Kitchen	YES	Num	Block	Up to 5 Units
Kitchens	167	Kitchen	YES	Num	Block	6 to 8 Units
Kitchens	167	Kitchen	YES	Num	Block	9 to 12 Units
Kitchens	167	Kitchen	YES	Num	Block	Kitchen - Catering or Commercial
Kitchens	168	Kitchen Space Layout	YES	Ans	Internal	Adequate Good
Kitchens	168	Kitchen Space Layout	YES	Ans	Internal	Inadequate Poor
Kitchens	168	Kitchen Space Layout	YES	Ans	Internal	Not Applicable
Kitchens	171	Kitchen Extractor Fan	YES	Num	Block	Present
Kitchens	171	Kitchen Extractor Fan	YES	Num	Block	Not Present
Kitchens	171	Kitchen Extractor Fan	YES	Num	Block	Install extractor fan
Kitchens	171	Kitchen Extractor Fan	YES	Num	Block	Passivent
Kitchens	172	Kitchen Extractor Fan	YES	Num	Internal	Present
Kitchens	172	Kitchen Extractor Fan	YES	Num	Internal	Not Present
Kitchens	172	Kitchen Extractor Fan	YES	Num	Internal	Mechanical System
	173	Communal Area Size and Layout	NO	Ans	Internal	Adequate
	173	Communal Area Size and Layout	NO	Ans	Internal	Inadequate Improvement Possible
	173	Communal Area Size and Layout	NO	Ans	Internal	Inadequate Improvement Not Possible
Stairs & Balconies	174	Communal Stair Structure	YES	Num	Block	None
Stairs & Balconies	174	Communal Stair Structure	YES	Num	Block	Concrete Staircase
Stairs & Balconies	174	Communal Stair Structure	YES	Num	Block	Steel Staircase
Stairs & Balconies	174	Communal Stair Structure	YES	Num	Block	Timber Staircase
Stairs & Balconies	175	Floor Covering stairs	YES	Num	Block	None
Stairs & Balconies	175	Floor Covering stairs	YES	Num	Block	carpet
Stairs & Balconies	175	Floor Covering stairs	YES	Num	Block	Vinyl sheet or tile
Stairs & Balconies	175	Floor Covering stairs	YES	Num	Block	Other
Stairs & Balconies	176	Communal handrail	YES	LM	Block	None
Stairs & Balconies	176	Communal handrail	YES	LM	Block	Timber
Stairs & Balconies	176	Communal handrail	YES	LM	Block	metal
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	None
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	Carpet
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	Ceramic Tile
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	Vinyl sheet or tile
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	Non-slip vinyl sheet
Stairs & Balconies	177	Floor finish Corridors	YES	M2	Block	Laminate
	178	Heating Fuel Main	NO	Ans	Internal	Gas
	178	Heating Fuel Main	NO	Ans	Internal	Electric
	178	Heating Fuel Main	NO	Ans	Internal	Solid Fuel
	178	Heating Fuel Main	NO	Ans	Internal	Oil
	178	Heating Fuel Main	NO	Ans	Internal	Biomass
	178	Heating Fuel Main	NO	Ans	Internal	Other
Heating & Hot Water	180	Boiler	YES	Num	Block	No Central heating
Heating & Hot Water	180	Boiler	YES	Num	Block	Communal Cond Combi
Heating & Hot Water	180	Boiler	YES	Num	Block	Communal Combi
Heating & Hot Water	180	Boiler	YES	Num	Block	Communal Standard
Heating & Hot Water	180	Boiler	YES	Num	Block	Warm Air
Heating & Hot Water	180	Boiler	YES	Num	Block	Night Storage
Heating & Hot Water	180	Boiler	YES	Num	Block	Night Storage & panel
Heating & Hot Water	180	Boiler	YES	Num	Block	Panel Heaters Only
	181	Heating Extent	NO	Ans	Block	None
	181	Heating Extent	NO	Ans	Block	Full
	181	Heating Extent	NO	Ans	Block	Partial
	182	Heating Extent	NO	Ans	Internal	None
	182	Heating Extent	NO	Ans	Internal	Full
	182	Heating Extent	NO	Ans	Internal	Partial

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Heating & Hot Water	183	Boiler	YES	Num	Internal	Domestic Cond Combi
Heating & Hot Water	183	Boiler	YES	Num	Internal	Domestic Combi
Heating & Hot Water	183	Boiler	YES	Num	Internal	Domestic Standard
Heating & Hot Water	183	Boiler	YES	Num	Internal	Night Storage
Heating & Hot Water	183	Boiler	YES	Num	Internal	Night Storage & panel
Heating & Hot Water	183	Boiler	YES	Num	Internal	Domestic Back Boiler & Fire Front
Heating & Hot Water	183	Boiler	YES	Num	Internal	Domestic Electric Wet System
Heating & Hot Water	183	Boiler	YES	Num	Internal	Warm Air
Heating & Hot Water	183	Boiler	YES	Num	Internal	Solid/ Multi Fuel Stove
Heating & Hot Water	183	Boiler	YES	Num	Internal	Panel Heaters Only
Heating & Hot Water	183	Boiler	YES	Num	Internal	Communal Cond Combi
Heating & Hot Water	183	Boiler	YES	Num	Internal	Communal Combi
Heating & Hot Water	183	Boiler	YES	Num	Internal	Communal Standard
Heating & Hot Water	183	Boiler	YES	Num	Internal	No Central heating
Heating & Hot Water	188	Radiators & Distribution	YES	Num	Block	Standard rads
Heating & Hot Water	188	Radiators & Distribution	YES	Num	Block	None
Heating & Hot Water	188	Radiators & Distribution	YES	Num	Block	LST Radiators
Heating & Hot Water	188	Radiators & Distribution	YES	Num	Block	Underfloor Heating from Boiler
Heating & Hot Water	189	Radiators & Distribution	YES	Num	Internal	Standard rads
Heating & Hot Water	189	Radiators & Distribution	YES	Num	Internal	None
Heating & Hot Water	189	Radiators & Distribution	YES	Num	Internal	LST Radiators
Heating & Hot Water	189	Radiators & Distribution	YES	Num	Internal	Underfloor Heating from Boiler
	190	Radiator TRVs	NO	Ans	Internal	Present
	190	Radiator TRVs	NO	Ans	Internal	None
Heating & Hot Water	195	Heating Hot water	YES	Num	Internal	From Combi/ Condensing Boiler
Heating & Hot Water	195	Heating Hot water	YES	Num	Internal	Communal No Cylinder
Heating & Hot Water	195	Heating Hot water	YES	Num	Internal	Pressurised Cylinder
Heating & Hot Water	195	Heating Hot water	YES	Num	Internal	Non Pressurised Cylinder
Heating & Hot Water	196	Heating Hot water	YES	Flats	Block	None
Heating & Hot Water	196	Heating Hot water	YES	Flats	Block	From Combi/ Condensing Boiler
Heating & Hot Water	196	Heating Hot water	YES	Flats	Block	Calorifier
	200	Hot & Cold Water Distribution	YES	Flats	Block	N/A
	200	Hot & Cold Water Distribution	YES	Flats	Block	Copper
	200	Hot & Cold Water Distribution	YES	Flats	Block	Galvanised
	200	Hot & Cold Water Distribution	YES	Flats	Block	Plastic
	200	Hot & Cold Water Distribution	YES	Flats	Block	Lead
	200	Hot & Cold Water Distribution	YES	Flats	Block	Mixed
Electrical Installations	204	Power & Lighting	YES	Flats	Block	None
Electrical Installations	204	Power & Lighting	YES	Flats	Block	Rewire
Electrical Installations	204	Power & Lighting	YES	Flats	Block	Partial rewire
Electrical Installations	205	Consumer Unit Type	YES	Num	Block	None
Electrical Installations	205	Consumer Unit Type	YES	Num	Block	Communal
Electrical Installations	207	Emergency Lighting	YES	Num	Block	Present
Electrical Installations	207	Emergency Lighting	YES	Num	Block	Not Present
Electrical Installations	208	Door Entry System	YES	Flats	Block	None
Electrical Installations	208	Door Entry System	YES	Flats	Block	Concierge
Electrical Installations	208	Door Entry System	YES	Flats	Block	Voice and Camera
Electrical Installations	208	Door Entry System	YES	Flats	Block	Voice Only
Electrical Installations	208	Door Entry System	YES	Flats	Block	Push button
Electrical Installations	209	Intruder alarm system	NO	Ans	Block	None
Electrical Installations	209	Intruder alarm system	NO	Ans	Block	Linked
Electrical Installations	209	Intruder alarm system	NO	Ans	Block	Independent
Building Services	211	Fire Fighting Equipment	NO	Ans	Block	Not Applicable
Building Services	211	Fire Fighting Equipment	NO	Ans	Block	No
Building Services	211	Fire Fighting Equipment	NO	Ans	Block	Yes
Laundry	212	Laundry	NO	Ans	Block	No
Laundry	212	Laundry	NO	Ans	Block	Yes
Laundry	213	Laundry Floor Covering	YES	M2	Block	Vinyl
Laundry	213	Laundry Floor Covering	YES	M2	Block	Ceramic
Laundry	214	Laundry Sink	YES	Num	Block	no sink
Laundry	214	Laundry Sink	YES	Num	Block	sink unit < 3m worktop
Laundry	214	Laundry Sink	YES	Num	Block	sink unit > 3m worktop
Laundry	215	Laundry Extract fan	YES	Num	Block	Extractor fan present
Laundry	215	Laundry Extract fan	YES	Num	Block	Extractor fan not present
Laundry	215	Laundry Extract fan	YES	Num	Block	Install Extractor fan
Internal Doors	216	Internal Doors Fire	YES	Num	Block	None
Internal Doors	216	Internal Doors Fire	YES	Num	Block	Fire Door Std Glazing
Internal Doors	216	Internal Doors Fire	YES	Num	Block	Fire Door Toughened Glazing
Internal Doors	216	Internal Doors Fire	YES	Num	Block	Fire Door Unglazed
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	None
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Softwood Unglazed
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Softwood Toughened Glazing
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Softwood Std Glazing
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Composite Std Glazing
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Composite Toughened Glazing
Internal Doors	217	Internal Doors Non Fire	YES	Num	Block	Composite Unglazed
Internal Doors	218	Internal Doors	YES	Num	Internal	Softwood Unglazed
Internal Doors	218	Internal Doors	YES	Num	Internal	Softwood Std Glazing
Internal Doors	218	Internal Doors	YES	Num	Internal	Softwood Toughened Glazing
Internal Doors	218	Internal Doors	YES	Num	Internal	Fire Door Std Glazing
Internal Doors	218	Internal Doors	YES	Num	Internal	Fire Door Toughened Glazing
Internal Doors	218	Internal Doors	YES	Num	Internal	Fire Door Unglazed
Internal Doors	218	Internal Doors	YES	Num	Internal	Composite Std Glazing

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Internal Doors	218	Internal Doors	YES	Num	Internal	Composite Toughened Glazing
Internal Doors	218	Internal Doors	YES	Num	Internal	Composite Unglazed
Internal Doors	218	Internal Doors	YES	Num	Internal	None
Internal Structure & Finishes	219	Internal Walls Structural Stability	YES	M2	Internal	No cracking
Internal Structure & Finishes	219	Internal Walls Structural Stability	YES	M2	Internal	Cracking - Differential
Internal Structure & Finishes	219	Internal Walls Structural Stability	YES	M2	Internal	Cracking Suspected Structural
Internal Structure & Finishes	220	Internal Walls Structural Stability	YES	M2	Block	No cracking
Internal Structure & Finishes	220	Internal Walls Structural Stability	YES	M2	Block	Cracking
Internal Structure & Finishes	221	Floors Structural Stability	YES	M2	Internal	No defects
Internal Structure & Finishes	221	Floors Structural Stability	YES	M2	Internal	Concrete Floor Heave
Internal Structure & Finishes	221	Floors Structural Stability	YES	M2	Internal	Timber Floor deflection
Internal Structure & Finishes	222	Floors Structural Stability	YES	M2	Block	No defects
Internal Structure & Finishes	222	Floors Structural Stability	YES	M2	Block	Concrete Floor Heave
Internal Structure & Finishes	222	Floors Structural Stability	YES	M2	Block	Timber Floor deflection
Roofs	225	Roofs	YES	M2	Block	Concrete Tiles
Roofs	225	Roofs	YES	M2	Block	Natural slates
Roofs	225	Roofs	YES	M2	Block	Artificial slates
Roofs	225	Roofs	YES	M2	Block	Clay
Roofs	225	Roofs	YES	M2	Block	Felt
Roofs	225	Roofs	YES	M2	Block	Asphalt
Roofs	225	Roofs	YES	M2	Block	Metal
Roofs	225	Roofs	YES	M2	Block	Water Proof membrane
Roofs	225	Roofs	YES	M2	Block	Sedum
Roofs	225	Roofs	YES	M2	Block	Other/specialist
Roofs	226	Roof Finish Main	YES	M2	External	Concrete Tiles
Roofs	226	Roof Finish Main	YES	M2	External	Natural slates
Roofs	226	Roof Finish Main	YES	M2	External	Artificial slates
Roofs	226	Roof Finish Main	YES	M2	External	Clay
Roofs	226	Roof Finish Main	YES	M2	External	Felt
Roofs	226	Roof Finish Main	YES	M2	External	Asphalt
Roofs	226	Roof Finish Main	YES	M2	External	Metal
Roofs	226	Roof Finish Main	YES	M2	External	Water Proof membrane
Roofs	226	Roof Finish Main	YES	M2	External	Sedum
Roofs	226	Roof Finish Main	YES	M2	External	Other/specialist
Roofs	227	Roof Finish Main	YES	M2	Block	Concrete Tiles
Roofs	227	Roof Finish Main	YES	M2	Block	Natural slates
Roofs	227	Roof Finish Main	YES	M2	Block	Artificial slates
Roofs	227	Roof Finish Main	YES	M2	Block	Clay
Roofs	227	Roof Finish Main	YES	M2	Block	Felt
Roofs	227	Roof Finish Main	YES	M2	Block	Asphalt
Roofs	227	Roof Finish Main	YES	M2	Block	Metal
Roofs	227	Roof Finish Main	YES	M2	Block	Water Proof membrane
Roofs	227	Roof Finish Main	YES	M2	Block	Sedum
Roofs	227	Roof Finish Main	YES	M2	Block	Other/specialist
Roofs	228	Flashing - Main Roof	YES	LM	External	None
Roofs	228	Flashing - Main Roof	YES	LM	External	Lead
Roofs	228	Flashing - Main Roof	YES	LM	External	Zinc
Roofs	228	Flashing - Main Roof	YES	LM	External	Copper
Roofs	228	Flashing - Main Roof	YES	LM	External	Felt
Roofs	228	Flashing - Main Roof	YES	LM	External	Other
Roofs	229	Flashing - Main Roof	YES	LM	Block	None
Roofs	229	Flashing - Main Roof	YES	LM	Block	Lead
Roofs	229	Flashing - Main Roof	YES	LM	Block	Zinc
Roofs	229	Flashing - Main Roof	YES	LM	Block	Copper
Roofs	229	Flashing - Main Roof	YES	LM	Block	Felt
Roofs	229	Flashing - Main Roof	YES	LM	Block	Other
Roofs	230	Fascia Soffit & Barge - Main Roof	YES	LM	Block	PVCu
Roofs	230	Fascia Soffit & Barge - Main Roof	YES	LM	Block	Timber
Roofs	230	Fascia Soffit & Barge - Main Roof	YES	LM	Block	Other
Roofs	230	Fascia Soffit & Barge - Main Roof	YES	LM	Block	Asbestos
Roofs	230	Fascia Soffit & Barge - Main Roof	YES	LM	Block	Open Eaves
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	PVCu
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	Timber
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	Other
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	Asbestos
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	Open Eaves
Roofs	231	Fascia Soffit & Barge - Main Roof	YES	LM	External	None Part Structure
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	None
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Aluminium
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Cast iron/metal
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Finlock
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Lead
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Other
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	PVCu
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Felt
Drainage - Above Ground	232	Roof Gutters - Main	YES	LM	Block	Asbestos
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	None
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	PVCu
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Cast iron/metal
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Finlock
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Lead
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Other
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Aluminium

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Felt
Drainage - Above Ground	233	Roof Gutters - Main	YES	LM	External	Asbestos
Drainage - Above Ground	234	Roof Downpipes	YES	LM	Block	Not Applicable
Drainage - Above Ground	234	Roof Downpipes	YES	LM	Block	Cast Iron
Drainage - Above Ground	234	Roof Downpipes	YES	LM	Block	PVCu
Drainage - Above Ground	234	Roof Downpipes	YES	LM	Block	Asbestos
Drainage - Above Ground	235	Roof Downpipes	YES	LM	External	Not Applicable
Drainage - Above Ground	235	Roof Downpipes	YES	LM	External	Cast Iron
Drainage - Above Ground	235	Roof Downpipes	YES	LM	External	PVCu
Drainage - Above Ground	235	Roof Downpipes	YES	LM	External	Asbestos
Roofs	238	Roof Construction Type	NO	Ans	External	Duo Pitched
Roofs	238	Roof Construction Type	NO	Ans	External	Duo Pitched with Hip end
Roofs	238	Roof Construction Type	NO	Ans	External	Flat
Roofs	238	Roof Construction Type	NO	Ans	External	Mono Pitched
Roofs	239	Roof Construction Type	NO	Ans	Block	Duo Pitched
Roofs	239	Roof Construction Type	NO	Ans	Block	Duo Pitched with Hip end
Roofs	239	Roof Construction Type	NO	Ans	Block	Flat
Roofs	239	Roof Construction Type	NO	Ans	Block	Mono Pitched
Roofs	240	Roof Structure	NO	Ans	Block	Structurally Sound
Roofs	240	Roof Structure	NO	Ans	Block	Structurally unsound
Roofs	241	Roof Structure	YES	M2	Internal	Structurally Sound
Roofs	241	Roof Structure	YES	M2	Internal	Structurally unsound
Roofs	241	Roof Structure	YES	M2	Internal	Other dwelling Over
Roofs	242	Roof ventilation	NO	Ans	Block	None
Roofs	242	Roof ventilation	NO	Ans	Block	Yes
Roofs	243	Roof ventilation Adequate	NO	Ans	External	None
Roofs	243	Roof ventilation Adequate	NO	Ans	External	Yes
Windows	244	Dormer Windows Present	NO	Ans	External	No
Windows	244	Dormer Windows Present	NO	Ans	External	Yes
Windows	245	Dormer Windows Present	NO	Ans	Block	No
Windows	245	Dormer Windows Present	NO	Ans	Block	Yes
Roofs	246	Dormer Roof Finish	YES	M2	Block	Concrete Tiles
Roofs	246	Dormer Roof Finish	YES	M2	Block	Natural slates
Roofs	246	Dormer Roof Finish	YES	M2	Block	Artifical slates
Roofs	246	Dormer Roof Finish	YES	M2	Block	Clay Tiles
Roofs	246	Dormer Roof Finish	YES	M2	Block	Felt
Roofs	246	Dormer Roof Finish	YES	M2	Block	Asphalt
Roofs	246	Dormer Roof Finish	YES	M2	Block	Metal
Roofs	247	Dormer Roof Finish	YES	M2	External	None
Roofs	247	Dormer Roof Finish	YES	M2	External	Concrete Tiles
Roofs	247	Dormer Roof Finish	YES	M2	External	Natural slates
Roofs	247	Dormer Roof Finish	YES	M2	External	Artifical slates
Roofs	247	Dormer Roof Finish	YES	M2	External	Clay Tiles
Roofs	247	Dormer Roof Finish	YES	M2	External	Felt
Roofs	247	Dormer Roof Finish	YES	M2	External	Asphalt
Roofs	247	Dormer Roof Finish	YES	M2	External	Metal
Roofs	248	Rooflights	YES	Num	External	None
Roofs	248	Rooflights	YES	Num	External	Velux Rooflight
Roofs	248	Rooflights	YES	Num	External	Roof light other
Roofs	249	Rooflights	YES	Num	Block	None
Roofs	249	Rooflights	YES	Num	Block	Velux Rooflight
Roofs	249	Rooflights	YES	Num	Block	Roof light other
	256	Roof Fall Arrest System	NO	Ans	Block	No
	256	Roof Fall Arrest System	NO	Ans	Block	Yes
External Walls	257	Chimney	YES	Num	External	None
External Walls	257	Chimney	YES	Num	External	Shared Rebuild
External Walls	257	Chimney	YES	Num	External	Stand Alone Rebuild
External Walls	257	Chimney	YES	Num	External	Stand Alone Repoint/ Re render
External Walls	257	Chimney	YES	Num	External	Shared Repoint/ Re render
External Walls	258	Chimney	YES	M2	Block	None
External Walls	258	Chimney	YES	M2	Block	Shared Rebuild
External Walls	258	Chimney	YES	M2	Block	Stand Alone Rebuild
External Walls	258	Chimney	YES	M2	Block	Stand Alone Repoint/ Re render
External Walls	258	Chimney	YES	M2	Block	Shared Repoint/ Re render
External Walls	260	Chimney Configuration	NO	Ans	External	None
External Walls	260	Chimney Configuration	NO	Ans	External	One Chimney Only
External Walls	260	Chimney Configuration	NO	Ans	External	2-3 Chimneys
External Walls	260	Chimney Configuration	NO	Ans	External	4-5 Chimneys
External Walls	260	Chimney Configuration	NO	Ans	External	More Than 5 Chimneys
Electrical Installations	261	Electrical Installation	YES	One	Internal	Upgrade
Electrical Installations	261	Electrical Installation	YES	One	Internal	Rewire
Electrical Installations	262	Consumer Unit Type	YES	One	Internal	MCBs
Electrical Installations	262	Consumer Unit Type	YES	One	Internal	Splitload with MCBs or RCD
Electrical Installations	262	Consumer Unit Type	YES	One	Internal	None
Electrical Installations	264	Smoke Detectors	YES	Num	Internal	None
Electrical Installations	264	Smoke Detectors	YES	Num	Internal	Mains Wired
Electrical Installations	264	Smoke Detectors	YES	Num	Internal	Battery
Electrical Installations	264	Smoke Detectors	YES	Num	Internal	Heat Detector
Electrical Installations	265	CO Detectors	NO	Ans	Internal	No
Electrical Installations	265	CO Detectors	NO	Ans	Internal	Yes
Windows	267	Windows	YES	Num	External	DG PVCu
Windows	267	Windows	YES	Num	External	DG Timber
Windows	267	Windows	YES	Num	External	Metal frame DG

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Windows	267	Windows	YES	Num	External	Metal frame SG
Windows	267	Windows	YES	Num	External	Sash Windows
Windows	267	Windows	YES	Num	External	SG Wood Windows
Windows	267	Windows	YES	Num	External	Triple Glazed PVCu Windows
Windows	267	Windows	YES	Num	External	SG PVCu
Windows	267	Windows	YES	Num	External	SG Sash Windows
Windows	268	Windows Dwellings	YES	Num	Block	DG PVCu
Windows	268	Windows Dwellings	YES	Num	Block	DG Timber
Windows	268	Windows Dwellings	YES	Num	Block	Metal frame DG
Windows	268	Windows Dwellings	YES	Num	Block	Sash Windows
Windows	268	Windows Dwellings	YES	Num	Block	Metal frame SG
Windows	268	Windows Dwellings	YES	Num	Block	SG Wood Windows
Windows	268	Windows Dwellings	YES	Num	Block	Triple Glazed PVCu Windows
Windows	268	Windows Dwellings	YES	Num	Block	SG PVCu
Windows	268	Windows Dwellings	YES	Num	Block	SG Sash Windows
Windows	269	Windows Secondary	YES	Num	Block	None
Windows	269	Windows Secondary	YES	Num	Block	DG PVCu
Windows	269	Windows Secondary	YES	Num	Block	DG Timber
Windows	269	Windows Secondary	YES	Num	Block	Metal frame DG
Windows	269	Windows Secondary	YES	Num	Block	Sash Windows
Windows	269	Windows Secondary	YES	Num	Block	Metal frame SG
Windows	269	Windows Secondary	YES	Num	Block	SG Wood Windows
Windows	269	Windows Secondary	YES	Num	Block	Triple Glazed PVCu Windows
Windows	269	Windows Secondary	YES	Num	Block	SG PVCu
Windows	269	Windows Secondary	YES	Num	Block	SG Sash Windows
Windows	270	Windows Secondary	YES	Num	External	None
Windows	270	Windows Secondary	YES	Num	External	DG PVCu
Windows	270	Windows Secondary	YES	Num	External	DG Timber
Windows	270	Windows Secondary	YES	Num	External	Metal frame DG
Windows	270	Windows Secondary	YES	Num	External	Sash Windows
Windows	270	Windows Secondary	YES	Num	External	Metal frame SG
Windows	270	Windows Secondary	YES	Num	External	SG Wood Windows
Windows	270	Windows Secondary	YES	Num	External	Triple Glazed PVCu Windows
Windows	270	Windows Secondary	YES	Num	External	SG PVCu
Windows	270	Windows Secondary	YES	Num	External	SG Sash Windows
Windows	271	Bay Windows	YES	Num	Block	No
Windows	271	Bay Windows	YES	Num	Block	Yes
Windows	272	Bay Windows	YES	Num	External	No
Windows	272	Bay Windows	YES	Num	External	Yes
Windows	273	Windows Communal	YES	Num	Block	None
Windows	273	Windows Communal	YES	Num	Block	DG PVCu
Windows	273	Windows Communal	YES	Num	Block	DG Timber
Windows	273	Windows Communal	YES	Num	Block	Metal frame DG
Windows	273	Windows Communal	YES	Num	Block	DG Sash Windows
Windows	273	Windows Communal	YES	Num	Block	Metal frame SG
Windows	273	Windows Communal	YES	Num	Block	SG Wood Windows
Windows	273	Windows Communal	YES	Num	Block	Triple Glazed PVCu Windows
Windows	273	Windows Communal	YES	Num	Block	SG PVCu
Windows	273	Windows Communal	YES	Num	Block	SG Sash Windows
Windows	274	Glazed Screens Comm	YES	M2	Block	None
Windows	274	Glazed Screens Comm	YES	M2	Block	Glazed Screen
Windows	275	Windows	YES	Num	Block	None
Windows	275	Windows	YES	Num	Block	DG PVCu
Windows	275	Windows	YES	Num	Block	DG Timber
Windows	275	Windows	YES	Num	Block	Metal frame DG
Windows	275	Windows	YES	Num	Block	DG Sash Windows
Windows	275	Windows	YES	Num	Block	Metal frame SG
Windows	275	Windows	YES	Num	Block	SG Wood Windows
Windows	275	Windows	YES	Num	Block	Triple Glazed PVCu Windows
Windows	275	Windows	YES	Num	Block	SG PVCu
Windows	275	Windows	YES	Num	Block	SG Sash Windows
External Walls	276	External Walls	YES	M2	External	Cavity Brickwork
External Walls	276	External Walls	YES	M2	External	Solid Brick
External Walls	276	External Walls	YES	M2	External	Non traditional system build
External Walls	276	External Walls	YES	M2	External	Stone
External Walls	276	External Walls	YES	M2	External	Timber Frame
External Wall Finish	277	External Wall Finish	YES	M2	External	Repointing
External Wall Finish	277	External Wall Finish	YES	M2	External	PVC-u Clad
External Wall Finish	277	External Wall Finish	YES	M2	External	Render / painted render
External Wall Finish	277	External Wall Finish	YES	M2	External	Tyrolean/pebbledash
External Wall Finish	277	External Wall Finish	YES	M2	External	Tile hanging
External Wall Finish	277	External Wall Finish	YES	M2	External	Timber cladding
External Wall Finish	277	External Wall Finish	YES	M2	External	Thermal Insulation Panel render system
External Wall Finish	277	External Wall Finish	YES	M2	External	Curtain walling
Roofs	281	Roof Porch	YES	M2	Block	None
Roofs	281	Roof Porch	YES	M2	Block	Concrete Tiles
Roofs	281	Roof Porch	YES	M2	Block	Natural Slate
Roofs	281	Roof Porch	YES	M2	Block	Artificial Slates
Roofs	281	Roof Porch	YES	M2	Block	Clay
Roofs	281	Roof Porch	YES	M2	Block	Felt
Roofs	281	Roof Porch	YES	M2	Block	Metal
Roofs	281	Roof Porch	YES	M2	Block	Other
Roofs	282	Roof Porch	YES	M2	External	None

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Roofs	282	Roof Porch	YES	M2	External	Concrete Tiles
Roofs	282	Roof Porch	YES	M2	External	Natural Slate
Roofs	282	Roof Porch	YES	M2	External	Artificial Slates
Roofs	282	Roof Porch	YES	M2	External	Clay
Roofs	282	Roof Porch	YES	M2	External	Felt
Roofs	282	Roof Porch	YES	M2	External	Metal
Roofs	282	Roof Porch	YES	M2	External	Other
Roofs	283	Porch Roof Structure	NO	Ans	Block	None
Roofs	283	Porch Roof Structure	NO	Ans	Block	Lean-To
Roofs	283	Porch Roof Structure	NO	Ans	Block	Pitched
Roofs	283	Porch Roof Structure	NO	Ans	Block	Flat
Roofs	283	Porch Roof Structure	NO	Ans	Block	Other
Roofs	284	Porch Roof Structure	NO	Ans	External	None
Roofs	284	Porch Roof Structure	NO	Ans	External	Lean-To
Roofs	284	Porch Roof Structure	NO	Ans	External	Pitched
Roofs	284	Porch Roof Structure	NO	Ans	External	Flat
Roofs	284	Porch Roof Structure	NO	Ans	External	Other
Roofs	285	Porch Fascias	YES	LM	External	None
Roofs	285	Porch Fascias	YES	LM	External	PVCu
Roofs	285	Porch Fascias	YES	LM	External	Timber
Roofs	286	Porch Fascias	YES	LM	Block	None
Roofs	286	Porch Fascias	YES	LM	Block	PVCu
Roofs	286	Porch Fascias	YES	LM	Block	Timber
Drainage - Above Ground	287	Porch Downpipes	YES	LM	External	None
Drainage - Above Ground	287	Porch Downpipes	YES	LM	External	PVCu
Drainage - Above Ground	287	Porch Downpipes	YES	LM	External	Cast Iron
Drainage - Above Ground	288	Porch Downpipes	YES	LM	Block	None
Drainage - Above Ground	288	Porch Downpipes	YES	LM	Block	PVCu
Drainage - Above Ground	288	Porch Downpipes	YES	LM	Block	Cast Iron
Drainage - Above Ground	289	Porch Gutters	YES	LM	Block	None
Drainage - Above Ground	289	Porch Gutters	YES	LM	Block	PVCu
Drainage - Above Ground	289	Porch Gutters	YES	LM	Block	Cast Iron
Drainage - Above Ground	289	Porch Gutters	YES	LM	Block	Aluminium
Drainage - Above Ground	289	Porch Gutters	YES	LM	Block	Felt
Drainage - Above Ground	290	Porch Gutters	YES	LM	External	None
Drainage - Above Ground	290	Porch Gutters	YES	LM	External	PVCu
Drainage - Above Ground	290	Porch Gutters	YES	LM	External	Cast Iron
Drainage - Above Ground	290	Porch Gutters	YES	LM	External	Aluminium
Drainage - Above Ground	290	Porch Gutters	YES	LM	External	Felt
External Walls	291	Porch Wall Structure	YES	M2	External	None
External Walls	291	Porch Wall Structure	YES	M2	External	Solid Brick
External Walls	291	Porch Wall Structure	YES	M2	External	Cavity
External Walls	291	Porch Wall Structure	YES	M2	External	Timber Frame
External Walls	291	Porch Wall Structure	YES	M2	External	Concrete
External Walls	291	Porch Wall Structure	YES	M2	External	Solid Stone
External Walls	291	Porch Wall Structure	YES	M2	External	Other
External Walls	292	Porch Wall Structure	YES	M2	Block	None
External Walls	292	Porch Wall Structure	YES	M2	Block	Solid Brick
External Walls	292	Porch Wall Structure	YES	M2	Block	Cavity
External Walls	292	Porch Wall Structure	YES	M2	Block	Timber Frame
External Walls	292	Porch Wall Structure	YES	M2	Block	Concrete
External Walls	292	Porch Wall Structure	YES	M2	Block	Solid Stone
External Walls	292	Porch Wall Structure	YES	M2	Block	Other
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	None
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Repoint
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Other
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Render - Chipped
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Render - Painted
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Render - Plain
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Tile Hung
External Wall Finish	293	Porch Wall Finish	YES	M2	Block	Timber Clad
External Wall Finish	294	Porch Wall Finish	YES	M2	External	None
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Repoint
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Other
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Render - Chipped
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Render - Painted
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Render - Plain
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Tile Hung
External Wall Finish	294	Porch Wall Finish	YES	M2	External	Timber Clad
Windows	295	Porch Windows	YES	Num	External	None
Windows	295	Porch Windows	YES	Num	External	DG Metal Windows
Windows	295	Porch Windows	YES	Num	External	DG PVCu Windows
Windows	295	Porch Windows	YES	Num	External	DG Wood Windows
Windows	295	Porch Windows	YES	Num	External	Other Double Glazed
Windows	295	Porch Windows	YES	Num	External	Other Single Glazed
Windows	295	Porch Windows	YES	Num	External	SG Metal Windows
Windows	295	Porch Windows	YES	Num	External	SG Wood Windows
Windows	295	Porch Windows	YES	Num	External	SG PVCu Windows
Windows	296	Porch Windows	YES	Num	Block	None
Windows	296	Porch Windows	YES	Num	Block	DG Metal Windows
Windows	296	Porch Windows	YES	Num	Block	DG PVCu Windows
Windows	296	Porch Windows	YES	Num	Block	DG Wood Windows
Windows	296	Porch Windows	YES	Num	Block	Other Double Glazed

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Windows	296	Porch Windows	YES	Num	Block	Other Single Glazed
Windows	296	Porch Windows	YES	Num	Block	SG Metal Windows
Windows	296	Porch Windows	YES	Num	Block	SG Wood Windows
Windows	296	Porch Windows	YES	Num	Block	SG PVCu Windows
Roofs	297	Canopies	YES	M2	External	None
Roofs	297	Canopies	YES	M2	External	GRP
Roofs	297	Canopies	YES	M2	External	Concrete
Roofs	297	Canopies	YES	M2	External	Timber mineral felt
Roofs	297	Canopies	YES	M2	External	Glazed
Roofs	298	Canopies Cantilever	YES	M2	Block	None
Roofs	298	Canopies Cantilever	YES	M2	Block	GRP
Roofs	298	Canopies Cantilever	YES	M2	Block	Concrete
Roofs	298	Canopies Cantilever	YES	M2	Block	Glazed
External Walls	299	Wall Structure Main	YES	M2	Block	Cavity Brickwork
External Walls	299	Wall Structure Main	YES	M2	Block	Solid Brick
External Walls	299	Wall Structure Main	YES	M2	Block	Non traditional system build
External Walls	299	Wall Structure Main	YES	M2	Block	Stone
External Walls	299	Wall Structure Main	YES	M2	Block	Timber Frame
External Walls	299	Wall Structure Main	YES	M2	Block	Concrete & Panel
External Walls	300	Wall Structure Main	YES	M2	External	Cavity Brickwork
External Walls	300	Wall Structure Main	YES	M2	External	Solid Brick
External Walls	300	Wall Structure Main	YES	M2	External	Non traditional system build
External Walls	300	Wall Structure Main	YES	M2	External	Stone
External Walls	300	Wall Structure Main	YES	M2	External	Timber Frame
External Walls	301	Wall Structure defects (Main)	YES	M2	External	None
External Walls	301	Wall Structure defects (Main)	YES	M2	External	Replace spalling brickwork
External Walls	301	Wall Structure defects (Main)	YES	M2	External	Replace wall ties
External Walls	302	Wall Structure defects (Main)	YES	M2	Block	None
External Walls	302	Wall Structure defects (Main)	YES	M2	Block	Spalling
External Walls	302	Wall Structure defects (Main)	YES	M2	Block	Bulging
External Walls	302	Wall Structure defects (Main)	YES	M2	Block	Structural Cracking
External Walls	303	Rising Damp - Failed DPC	YES	LM	Block	No
External Walls	303	Rising Damp - Failed DPC	YES	LM	Block	Yes
External Walls	304	External Walls Structural Stability	YES	Ans	External	No defects
External Walls	304	External Walls Structural Stability	YES	Ans	External	Bulging wall
External Walls	304	External Walls Structural Stability	YES	Ans	External	Cracking above lintel
External Walls	304	External Walls Structural Stability	YES	Ans	External	Cracking from foundation level
External Wall Finish	306	Thermal insulation (Main)	NO	Ans	External	Cavity wall insulation present
External Wall Finish	306	Thermal insulation (Main)	NO	Ans	External	Cavity wall insulation not present
External Wall Finish	306	Thermal insulation (Main)	NO	Ans	External	Solid wall insulated
External Wall Finish	306	Thermal insulation (Main)	NO	Ans	External	Solid wall not insulated
External Wall Finish	306	Thermal insulation (Main)	NO	Ans	External	Cavity wall insulated render
External Wall Finish	307	Thermal insulation (Main)	YES	Ans	Block	Cavity wall insulation present
External Wall Finish	307	Thermal insulation (Main)	YES	Ans	Block	Cavity wall insulation not present
External Wall Finish	307	Thermal insulation (Main)	YES	Ans	Block	Solid wall insulated
External Wall Finish	307	Thermal insulation (Main)	YES	Ans	Block	Solid wall not insulated
External Wall Finish	307	Thermal insulation (Main)	YES	Ans	Block	Cavity wall insulated render
External Walls	308	Lintels	YES	Num	External	Not visible
External Walls	308	Lintels	YES	Num	External	Stone
External Walls	308	Lintels	YES	Num	External	Concrete
External Walls	308	Lintels	YES	Num	External	Brickwork
External Walls	309	Lintels	YES	Num	Block	Not visible
External Walls	309	Lintels	YES	Num	Block	Stone
External Walls	309	Lintels	YES	Num	Block	Concrete
External Walls	309	Lintels	YES	Num	Block	Brickwork
External Walls	310	Cills	YES	LM	External	None
External Walls	310	Cills	YES	LM	External	Stone
External Walls	310	Cills	YES	LM	External	Tile
External Walls	310	Cills	YES	LM	External	Concrete
External Walls	310	Cills	YES	LM	External	Brickwork
External Walls	311	Cills	YES	LM	Block	None
External Walls	311	Cills	YES	LM	Block	Stone
External Walls	311	Cills	YES	LM	Block	Tile
External Walls	311	Cills	YES	LM	Block	Concrete
External Walls	311	Cills	YES	LM	Block	Brickwork
External Walls	312	Mullions	YES	Num	External	Stone
External Walls	312	Mullions	YES	Num	External	Concrete
External Walls	312	Mullions	YES	Num	External	No Mullions
External Wall Finish	314	Wall Finish Main	YES	M2	External	Repointing
External Wall Finish	314	Wall Finish Main	YES	M2	External	PVC-u Clad
External Wall Finish	314	Wall Finish Main	YES	M2	External	Render / painted render
External Wall Finish	314	Wall Finish Main	YES	M2	External	Tyrolean/pebbledash
External Wall Finish	314	Wall Finish Main	YES	M2	External	Tile hanging
External Wall Finish	314	Wall Finish Main	YES	M2	External	Timber cladding
External Wall Finish	314	Wall Finish Main	YES	M2	External	Thermal Insulation Panel render system
External Wall Finish	314	Wall Finish Main	YES	M2	External	Curtain walling
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Repointing
External Wall Finish	315	Wall Finish Main	YES	M2	Block	PVC Clad
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Render - painted render
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Tyrolean - Pebbledash
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Tile hanging
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Timber cladding
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Thermal Insulation Panel render system

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External Wall Finish	315	Wall Finish Main	YES	M2	Block	Curtain walling
External Wall Finish	315	Wall Finish Main	YES	M2	Block	Brick Slips
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	None
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Repointing
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	PVC-u Clad
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Render/painted render
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Tyrolean/pebbledash
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Tile hanging
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Timber cladding
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Thermal Insulation Panel render system
External Wall Finish	316	Wall Finish External (other)	YES	M2	External	Curtain walling
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	None
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Repointing
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	PVC Clad
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Render -painted render
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Tyrolean - Pebbledash
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Tile hanging
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Timber cladding
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Thermal Insulation Panel render system
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Curtain walling
External Wall Finish	317	Wall Finish External Other	YES	M2	Block	Brick Slips
External Walls	318	Rising Damp - Bridged DPC	YES	LM	Block	No
External Walls	318	Rising Damp - Bridged DPC	YES	LM	Block	Yes
Internal Structure & Finishes	319	Rising Damp - Bridged DPC	NO	Ans	External	No
Internal Structure & Finishes	319	Rising Damp - Bridged DPC	NO	Ans	External	Yes
External Walls	320	DPC	YES	Ans	External	DPC present
External Walls	320	DPC	YES	Ans	External	DPC not present
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	None
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Metal
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Wood
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Glazed
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Brickwork Rebuild
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Brickwork Repoint
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Bwk & Rail Rebuild
Stairs & Balconies	324	Balconies Balustrade	YES	LM	External	Bwk & Rail Repoint
Stairs & Balconies	325	Balconies Structure - Comm	YES	M2	Block	None
Stairs & Balconies	325	Balconies Structure - Comm	YES	M2	Block	Timber
Stairs & Balconies	325	Balconies Structure - Comm	YES	M2	Block	Metal
Stairs & Balconies	325	Balconies Structure - Comm	YES	M2	Block	Concrete
Stairs & Balconies	326	Balconies Structure	YES	M2	External	None
Stairs & Balconies	326	Balconies Structure	YES	M2	External	Timber
Stairs & Balconies	326	Balconies Structure	YES	M2	External	Metal
Stairs & Balconies	326	Balconies Structure	YES	M2	External	Concrete
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	None
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Metal
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Wood
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Glazed
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Brickwork Rebuild
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Brickwork Repoint
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Bwk & Rail Rebuild
Stairs & Balconies	327	Balconies Balustrade - Comm	YES	LM	Block	Bwk & Rail Repoint
Stairs & Balconies	328	Balconies Structure - Private	YES	M2	Block	None
Stairs & Balconies	328	Balconies Structure - Private	YES	M2	Block	Timber
Stairs & Balconies	328	Balconies Structure - Private	YES	M2	Block	Metal
Stairs & Balconies	328	Balconies Structure - Private	YES	M2	Block	Concrete
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	None
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Metal
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Wood
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Glazed
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Brickwork Rebuild
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Brickwork Repoint
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Bwk & Rail Rebuild
Stairs & Balconies	329	Balconies Balustrade - Private	YES	LM	Block	Bwk & Rail Repoint
Roofs	332	Roof Finish Secondary	YES	M2	External	None
Roofs	332	Roof Finish Secondary	YES	M2	External	Concrete Tiles
Roofs	332	Roof Finish Secondary	YES	M2	External	Natural slates
Roofs	332	Roof Finish Secondary	YES	M2	External	Artificial slates
Roofs	332	Roof Finish Secondary	YES	M2	External	Clay tiles
Roofs	332	Roof Finish Secondary	YES	M2	External	Felt
Roofs	332	Roof Finish Secondary	YES	M2	External	Asphalt
Roofs	332	Roof Finish Secondary	YES	M2	External	Metal
Roofs	332	Roof Finish Secondary	YES	M2	External	Sedum
Roofs	332	Roof Finish Secondary	YES	M2	External	Waterproof Membrane
Roofs	333	Roof Finish Secondary	YES	M2	Block	None
Roofs	333	Roof Finish Secondary	YES	M2	Block	Concrete Tiles
Roofs	333	Roof Finish Secondary	YES	M2	Block	Natural slates
Roofs	333	Roof Finish Secondary	YES	M2	Block	Artificial slates
Roofs	333	Roof Finish Secondary	YES	M2	Block	Clay tiles
Roofs	333	Roof Finish Secondary	YES	M2	Block	Felt
Roofs	333	Roof Finish Secondary	YES	M2	Block	Asphalt
Roofs	333	Roof Finish Secondary	YES	M2	Block	Metal
Roofs	333	Roof Finish Secondary	YES	M2	Block	Sedum
Roofs	333	Roof Finish Secondary	YES	M2	Block	Waterproof Membrane

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Roofs	334	Roof Structure Extension	NO	Ans	External	Structurally Sound
Roofs	334	Roof Structure Extension	NO	Ans	External	Structurally unsound
Roofs	335	Roof Type Extension	NO	Ans	External	Duo Pitched
Roofs	335	Roof Type Extension	NO	Ans	External	Duo Pitched with Hip end
Roofs	335	Roof Type Extension	NO	Ans	External	Flat
Roofs	335	Roof Type Extension	NO	Ans	External	Mono Pitched
Roofs	336	Roof Type Extension	NO	Ans	Block	Duo Pitched
Roofs	336	Roof Type Extension	NO	Ans	Block	Duo Pitched with Hip end
Roofs	336	Roof Type Extension	NO	Ans	Block	Flat
Roofs	336	Roof Type Extension	NO	Ans	Block	Mono Pitched
Roofs	337	Fascia Soffits & Barge - Extension	YES	LM	Block	None
Roofs	337	Fascia Soffits & Barge - Extension	YES	LM	Block	PVCu
Roofs	337	Fascia Soffits & Barge - Extension	YES	LM	Block	Timber
Roofs	337	Fascia Soffits & Barge - Extension	YES	LM	Block	Asbestos
Roofs	338	Fascia Soffits & Barge - Extension	YES	LM	External	None
Roofs	338	Fascia Soffits & Barge - Extension	YES	LM	External	PVCu
Roofs	338	Fascia Soffits & Barge - Extension	YES	LM	External	Timber
Roofs	338	Fascia Soffits & Barge - Extension	YES	LM	External	Asbestos
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	None
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	Cavity Brickwork
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	Solid Brick
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	Non traditional system build
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	Solid Stone
External Walls	339	External Wall Structure (Extension)	YES	M2	Block	Timber Frame
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	None
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	Cavity Brickwork
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	Solid Brick
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	Non traditional system build
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	Solid Stone
Internal Structure & Finishes	340	External Wall Structure (Extension)	YES	M2	External	Timber Frame
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Cavity wall insulation present
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Cavity wall insulation not present
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Solid wall insulated
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Solid wall not insulated
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Cavity wall insulated render
External Wall Finish	341	Thermal insulation (Extension)	NO	Ans	Block	Cavity wall not insulated render
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Repointing
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	PVC-u Clad
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Render / painted render
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Tyrolean/pebbledash
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Tile hanging
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Timber cladding
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Thermal Insulation Panel render system
External Wall Finish	342	Wall Finish Extension	YES	M2	Block	Curtain walling
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Repointing
External Wall Finish	343	Wall Finish Extension	YES	M2	External	PVC-u Clad
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Render / painted render
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Tyrolean/pebbledash
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Tile hanging
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Timber cladding
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Thermal Insulation Panel render system
External Wall Finish	343	Wall Finish Extension	YES	M2	External	Curtain walling
External Wall Finish	344	Thermal insulation - Extension	NO	Ans	External	Cavity wall insulation present
External Wall Finish	344	Thermal insulation - Extension	NO	Ans	External	Solid wall insulated
External Wall Finish	344	Thermal insulation - Extension	NO	Ans	External	Solid wall not insulated
External Wall Finish	344	Thermal insulation - Extension	NO	Ans	External	Cavity wall insulated render
External Wall Finish	344	Thermal insulation - Extension	NO	Ans	External	Cavity wall not insulated render
External Doors	347	Com Ent Door 1	YES	Num	Block	None
External Doors	347	Com Ent Door 1	YES	Num	Block	PVC-u Double Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	PVC-u Single Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	PVC-u Unglazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Softwood Double Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Softwood Single Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Softwood Unglazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Hardwood Double Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Hardwood Single Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Hardwood Unglazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Composite Double Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Composite Single Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Composite Unglazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Aluminium Double Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Aluminium Single Glazed
External Doors	347	Com Ent Door 1	YES	Num	Block	Communal Doors Lining & Architraves
External Doors	348	Com Ent Door 1 Integ Door & Frame	YES	M2	Block	Not Applicable
External Doors	348	Com Ent Door 1 Integ Door & Frame	YES	M2	Block	Yes
External Doors	348	Com Ent Door 1 Integ Door & Frame	YES	M2	Block	No
External Doors	349	Com Ent Door 2	YES	Num	Block	None
External Doors	349	Com Ent Door 2	YES	Num	Block	PVC-u Double Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	PVC-u Single Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	PVC-u Unglazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Softwood Double Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Softwood Single Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Softwood Unglazed

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
External Doors	349	Com Ent Door 2	YES	Num	Block	Hardwood Double Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Hardwood Single Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Hardwood Unglazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Composite Double Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Composite Single Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Composite Unglazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Aluminium Double Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Aluminium Single Glazed
External Doors	349	Com Ent Door 2	YES	Num	Block	Communal Doors Lining & Architraves
External Doors	350	Com Ent Door 2 Integ Door & Frame	NO	Ans	Block	Not Applicable
External Doors	350	Com Ent Door 2 Integ Door & Frame	NO	Ans	Block	No
External Doors	350	Com Ent Door 2 Integ Door & Frame	NO	Ans	Block	Yes
External Doors	351	Entrance Doors Front	YES	Num	External	PVCu Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	PVCu Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	PVCu Unglazed
External Doors	351	Entrance Doors Front	YES	Num	External	Softwood Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Softwood Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Softwood Unglazed
External Doors	351	Entrance Doors Front	YES	Num	External	Hardwood Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Hardwood Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Hardwood Unglazed
External Doors	351	Entrance Doors Front	YES	Num	External	Composite Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Composite Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Composite Unglazed
External Doors	351	Entrance Doors Front	YES	Num	External	Aluminium Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Aluminium Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Other Double Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Other Single Glazed
External Doors	351	Entrance Doors Front	YES	Num	External	Other Unglazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	PVCu Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	PVCu Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	PVCu Unglazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Softwood Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Softwood Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Softwood Unglazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Hardwood Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Hardwood Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Hardwood Unglazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Composite Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Composite Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Composite Unglazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Aluminium Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Aluminium Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Other Double Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Other Single Glazed
External Doors	352	Entrance Doors Front	YES	Num	Internal	Other Unglazed
External Doors	353	Entrance Doors Front	YES	Num	Block	PVCu Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	PVCu Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	PVCu Unglazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Softwood Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Softwood Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Softwood Unglazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Hardwood Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Hardwood Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Hardwood Unglazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Composite Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Composite Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Composite Unglazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Aluminium Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Aluminium Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Other Double Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Other Single Glazed
External Doors	353	Entrance Doors Front	YES	Num	Block	Other Unglazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	None
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	PVCu Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	PVCu Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	PVCu Unglazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Softwood Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Softwood Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Softwood Unglazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Hardwood Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Hardwood Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Hardwood Unglazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Composite Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Composite Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Composite Unglazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Aluminium Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Aluminium Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Other Double Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Other Single Glazed
External Doors	355	Entrance Doors Rear or Balcony	YES	Num	Internal	Other Unglazed
External Doors	356	Entrance Doors Rear	YES	Num	External	None
External Doors	356	Entrance Doors Rear	YES	Num	External	PVCu Double Glazed

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
External Doors	356	Entrance Doors Rear	YES	Num	External	PVCu Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	PVCu Unglazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Softwood Double Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Softwood Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Softwood Unglazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Hardwood Double Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Hardwood Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Hardwood Unglazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Composite Double Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Composite Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Composite Unglazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Aluminium Double Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Aluminium Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Other Double Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Other Single Glazed
External Doors	356	Entrance Doors Rear	YES	Num	External	Other Unglazed
Electrical Installations	357	External security light	NO	Ans	External	None
Electrical Installations	357	External security light	NO	Ans	External	Light at front entrance
Electrical Installations	357	External security light	NO	Ans	External	Light at rear entrance
Electrical Installations	357	External security light	NO	Ans	External	Lights at front & rear
Electrical Installations	357	External security light	NO	Ans	External	Not Possible
Electrical Installations	358	External security light	YES	Num	Block	None
Electrical Installations	358	External security light	YES	Num	Block	Light at front entrance
Electrical Installations	358	External security light	YES	Num	Block	Light at rear entrance
Electrical Installations	358	External security light	YES	Num	Block	Lights at front & rear
External Doors	359	Patio Doors	YES	Num	External	None
External Doors	359	Patio Doors	YES	Num	External	PVC-u Single Glazed
External Doors	359	Patio Doors	YES	Num	External	PVC-Double Glazed
External Doors	359	Patio Doors	YES	Num	External	Composite Single Glazed
External Doors	359	Patio Doors	YES	Num	External	Composite Double Glazed
External Doors	359	Patio Doors	YES	Num	External	Other Single Glazed
External Doors	359	Patio Doors	YES	Num	External	Other Double Glazed
Hard Surfaces	360	Steps	YES	Num	External	None
Hard Surfaces	360	Steps	YES	Num	External	Concrete Steps
Hard Surfaces	360	Steps	YES	Num	External	Metal Steps
Hard Surfaces	360	Steps	YES	Num	External	Timber Steps
Hard Surfaces	360	Steps	YES	Num	External	Stone Steps
Hard Surfaces	360	Steps	YES	Num	External	PC Concrete step
Hard Surfaces	361	Steps	YES	M2	Block	None
Hard Surfaces	361	Steps	YES	M2	Block	Concrete Steps
Hard Surfaces	361	Steps	YES	M2	Block	Metal Steps
Hard Surfaces	361	Steps	YES	M2	Block	Timber Steps
Hard Surfaces	361	Steps	YES	M2	Block	Stone Steps
Hard Surfaces	361	Steps	YES	M2	Block	PC Concrete step
Stairs & Balconies	362	External Stairs	YES	Flights	Block	None
Stairs & Balconies	362	External Stairs	YES	Flights	Block	Concrete Staircase - straight
Stairs & Balconies	362	External Stairs	YES	Flights	Block	Steel Staircase - straight
Stairs & Balconies	362	External Stairs	YES	Flights	Block	Timber Staircase - Straight
Stairs & Balconies	362	External Stairs	YES	Flights	Block	Steel Staircase - spiral
Stairs & Balconies	362	External Stairs	YES	Flights	Block	Timber Staircase - spiral
Stairs & Balconies	363	External handrail	YES	LM	Block	None
Stairs & Balconies	363	External handrail	YES	LM	Block	Handrails & balustrade - timber
Stairs & Balconies	363	External handrail	YES	LM	Block	Handrails & balustrade - Metal
Stairs & Balconies	363	External handrail	YES	LM	Block	Handrail only timber
Stairs & Balconies	363	External handrail	YES	LM	Block	Handrail only Metal
Boundaries	364	Boundary Front	YES	LM	External	None
Boundaries	364	Boundary Front	YES	LM	External	Solid Brick < 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Solid Brick > 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Repointing < 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Repointing > 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Re-render < 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Re-render > 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Stone wall < 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Stone wall > 1.0m high
Boundaries	364	Boundary Front	YES	LM	External	Timber Fencing <1.0m
Boundaries	364	Boundary Front	YES	LM	External	Timber Fencing > 1.0m
Boundaries	364	Boundary Front	YES	LM	External	Metal Fencing < 1.2m
Boundaries	364	Boundary Front	YES	LM	External	Metal Fencing > 1.2m
Boundaries	365	Boundary Front	YES	M2	Block	None
Boundaries	365	Boundary Front	YES	M2	Block	Solid Brick < 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Solid Brick > 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Repainting < 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Repainting > 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Re-render < 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Re-render > 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Stone wall < 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Stone wall > 1.0m high
Boundaries	365	Boundary Front	YES	M2	Block	Timber Fencing <1.0m
Boundaries	365	Boundary Front	YES	M2	Block	Timber Fencing > 1.0m
Boundaries	365	Boundary Front	YES	M2	Block	Metal Fencing < 1.2m
Boundaries	365	Boundary Front	YES	M2	Block	Metal Fencing > 1.2m
Hard Surfaces	366	Paths 1	YES	M2	Block	Concrete
Hard Surfaces	366	Paths 1	YES	M2	Block	Paving Slabs

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Hard Surfaces	366	Paths 1	YES	M2	Block	Tarmac
Hard Surfaces	366	Paths 1	YES	M2	Block	Brick Paviour
Hard Surfaces	366	Paths 1	YES	M2	Block	Gravel
Hard Surfaces	366	Paths 1	YES	M2	Block	None
Hard Surfaces	367	Paths 1	YES	M2	External	Concrete
Hard Surfaces	367	Paths 1	YES	M2	External	Paving Slabs
Hard Surfaces	367	Paths 1	YES	M2	External	Brick Paviour
Hard Surfaces	367	Paths 1	YES	M2	External	Tarmac
Hard Surfaces	367	Paths 1	YES	M2	External	Gravel
Hard Surfaces	367	Paths 1	YES	M2	External	None
Boundaries	368	Boundary Rear	YES	LM	External	None
Boundaries	368	Boundary Rear	YES	LM	External	Solid Brick < 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Solid Brick > 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Repointing < 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Repointing > 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Re-render < 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Re-render > 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Stone wall < 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Stone wall > 1.0m high
Boundaries	368	Boundary Rear	YES	LM	External	Timber Fencing < 1.0m
Boundaries	368	Boundary Rear	YES	LM	External	Timber Fencing > 1.0m
Boundaries	368	Boundary Rear	YES	LM	External	Metal Fencing < 1.2m
Boundaries	368	Boundary Rear	YES	LM	External	Metal Fencing > 1.2m
Boundaries	369	Boundary Rear	YES	M2	Block	None
Boundaries	369	Boundary Rear	YES	M2	Block	Solid Brick < 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Solid Brick > 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Repointing < 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Repointing > 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Re-render < 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Re-render > 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Stone wall < 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Stone wall > 1.0m high
Boundaries	369	Boundary Rear	YES	M2	Block	Timber Fencing < 1.0m
Boundaries	369	Boundary Rear	YES	M2	Block	Timber Fencing > 1.0m
Boundaries	369	Boundary Rear	YES	M2	Block	Metal Fencing < 1.2m
Boundaries	369	Boundary Rear	YES	M2	Block	Metal Fencing > 1.2m
Hard Surfaces	370	Paths 2	YES	M2	Block	None
Hard Surfaces	370	Paths 2	YES	M2	Block	Brick Paviour
Hard Surfaces	370	Paths 2	YES	M2	Block	Concrete
Hard Surfaces	370	Paths 2	YES	M2	Block	Gravel
Hard Surfaces	370	Paths 2	YES	M2	Block	Paving Slabs
Hard Surfaces	370	Paths 2	YES	M2	Block	Tarmac
Hard Surfaces	371	Paths 2	YES	M2	External	None
Hard Surfaces	371	Paths 2	YES	M2	External	Brick Paviour
Hard Surfaces	371	Paths 2	YES	M2	External	Concrete
Hard Surfaces	371	Paths 2	YES	M2	External	Gravel
Hard Surfaces	371	Paths 2	YES	M2	External	Paving Slabs
Hard Surfaces	371	Paths 2	YES	M2	External	Tarmac
Boundaries	372	Boundary Side	YES	LM	External	None
Boundaries	372	Boundary Side	YES	LM	External	Solid Brick < 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Solid Brick > 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Repointing < 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Repointing > 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Re-render < 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Re-render > 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Stone wall < 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Stone wall > 1.0m high
Boundaries	372	Boundary Side	YES	LM	External	Timber Fencing < 1.0m
Boundaries	372	Boundary Side	YES	LM	External	Timber Fencing > 1.0m
Boundaries	372	Boundary Side	YES	LM	External	Metal Fencing < 1.2m
Boundaries	372	Boundary Side	YES	LM	External	Metal Fencing > 1.2m
Boundaries	373	Boundary Side	YES	M2	Block	None
Boundaries	373	Boundary Side	YES	M2	Block	Solid Brick < 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Solid Brick > 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Repointing < 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Repointing > 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Re-render < 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Re-render > 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Stone wall < 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Stone wall > 1.0m high
Boundaries	373	Boundary Side	YES	M2	Block	Timber Fencing < 1.0m
Boundaries	373	Boundary Side	YES	M2	Block	Timber Fencing > 1.0m
Boundaries	373	Boundary Side	YES	M2	Block	Metal Fencing < 1.2m
Boundaries	373	Boundary Side	YES	M2	Block	Metal Fencing > 1.2m
Boundaries	374	Boundary Side 2	YES	LM	External	None
Boundaries	374	Boundary Side 2	YES	LM	External	Solid Brick < 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Solid Brick > 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Repointing < 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Repointing > 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Re-render < 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Re-render > 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Stone wall < 1.0m high
Boundaries	374	Boundary Side 2	YES	LM	External	Stone wall > 1.0m high

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Boundaries	374	Boundary Side 2	YES	LM	External	Timber Fencing <1.0m
Boundaries	374	Boundary Side 2	YES	LM	External	Timber Fencing > 1.0m
Boundaries	374	Boundary Side 2	YES	LM	External	Metal Fencing < 1.2m
Boundaries	374	Boundary Side 2	YES	M2	External	Metal Fencing > 1.2m
Boundaries	375	Boundary Side 2	YES	M2	Block	None
Boundaries	375	Boundary Side 2	YES	M2	Block	Solid Brick < 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Solid Brick > 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Repointing < 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Repointing > 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Re-render < 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Re-render > 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Stone wall < 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Stone wall > 1.0m high
Boundaries	375	Boundary Side 2	YES	M2	Block	Timber Fencing <1.0m
Boundaries	375	Boundary Side 2	YES	M2	Block	Timber Fencing >1.0m
Boundaries	375	Boundary Side 2	YES	M2	Block	Metal Fencing < 1.2m
Boundaries	375	Boundary Side 2	YES	M2	Block	Metal Fencing > 1.2m
Boundaries	376	Retaining wall	YES	LM	External	Retaining wall < 1.5m
Boundaries	376	Retaining wall	YES	LM	External	Retaining wall > 1.5m
Boundaries	376	Retaining wall	YES	LM	External	No retaining wall
Boundaries	377	Retaining wall	YES	M2	Block	Retaining wall < 1.5m
Boundaries	377	Retaining wall	YES	M2	Block	Retaining wall > 1.5m
Boundaries	377	Retaining wall	YES	M2	Block	No retaining wall
Boundaries	378	Gates	YES	Num	Block	None
Boundaries	378	Gates	YES	Num	Block	Metal single
Boundaries	378	Gates	YES	Num	Block	Timber single
Boundaries	378	Gates	YES	Num	Block	Metal double
Boundaries	378	Gates	YES	Num	Block	Timber double
Boundaries	378	Gates	YES	Num	Block	Security Metal
Boundaries	378	Gates	YES	Num	Block	Metal Gallows
Boundaries	379	Gates	YES	Num	External	None
Boundaries	379	Gates	YES	Num	External	Metal single
Boundaries	379	Gates	YES	Num	External	Timber single
Boundaries	379	Gates	YES	Num	External	Metal double
Boundaries	379	Gates	YES	Num	External	Timber double
Hard Surfaces	380	Driveway	YES	M2	External	None
Hard Surfaces	380	Driveway	YES	M2	External	Brick Paviour
Hard Surfaces	380	Driveway	YES	M2	External	Concrete
Hard Surfaces	380	Driveway	YES	M2	External	Gravel
Hard Surfaces	380	Driveway	YES	M2	External	Paving Slabs
Hard Surfaces	380	Driveway	YES	M2	External	Tarmac
Hard Surfaces	381	Driveways	YES	M2	Block	None
Hard Surfaces	381	Driveways	YES	M2	Block	Brick Paviour
Hard Surfaces	381	Driveways	YES	M2	Block	Concrete
Hard Surfaces	381	Driveways	YES	M2	Block	Gravel
Hard Surfaces	381	Driveways	YES	M2	Block	Paving Slabs
Hard Surfaces	381	Driveways	YES	M2	Block	Tarmac
Hard Surfaces	382	Roads 1	YES	M2	Block	None
Hard Surfaces	382	Roads 1	YES	M2	Block	Brick & Block Paving
Hard Surfaces	382	Roads 1	YES	M2	Block	Concrete
Hard Surfaces	382	Roads 1	YES	M2	Block	Gravel
Hard Surfaces	382	Roads 1	YES	M2	Block	Tarmac
Hard Surfaces	382	Roads 1	YES	M2	Block	Paving Slabs
Hard Surfaces	383	Parking & External Environment	NO	Ans	External	None
Hard Surfaces	383	Parking & External Environment	NO	Ans	External	In Curtlidge
Drainage - Above Ground	384	External Soil Vent Pipe	YES	LM	Block	None
Drainage - Above Ground	384	External Soil Vent Pipe	YES	LM	Block	Cast Iron
Drainage - Above Ground	384	External Soil Vent Pipe	YES	LM	Block	PVCu
Drainage - Above Ground	385	External Soil Vent Pipe	YES	LM	External	None
Drainage - Above Ground	385	External Soil Vent Pipe	YES	LM	External	Cast Iron
Drainage - Above Ground	385	External Soil Vent Pipe	YES	LM	External	PVCu
Drainage - Above Ground	385	External Soil Vent Pipe	YES	LM	External	Asbestos
Drainage - Above Ground	385	External Soil Vent Pipe	YES	LM	External	Other
Garages	390	Garage roof construction	NO	M2	External	None
Garages	390	Garage roof construction	NO	M2	External	Flat
Garages	390	Garage roof construction	NO	M2	External	lean to
Garages	390	Garage roof construction	NO	M2	External	Pitched
Garages	391	Garage roof construction	NO	Ans	Block	None
Garages	391	Garage roof construction	NO	Ans	Block	Flat
Garages	391	Garage roof construction	NO	Ans	Block	lean to
Garages	391	Garage roof construction	NO	Ans	Block	Pitched
Garages	392	Garage roof finish	YES	M2	External	None
Garages	392	Garage roof finish	YES	M2	External	Artificial Slates
Garages	392	Garage roof finish	YES	M2	External	Clay Tiles
Garages	392	Garage roof finish	YES	M2	External	Concrete Tiles
Garages	392	Garage roof finish	YES	M2	External	Felt
Garages	392	Garage roof finish	YES	M2	External	Metal
Garages	392	Garage roof finish	YES	M2	External	Natural Slate
Garages	392	Garage roof finish	YES	M2	External	AC sheet
Garages	392	Garage roof finish	YES	M2	External	Corrugated Metal
Garages	392	Garage roof finish	YES	M2	External	Corrugated Mineral Cement
Garages	393	Garage roof finish	YES	M2	Block	None
Garages	393	Garage roof finish	YES	M2	Block	Artificial Slates

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Garages	393	Garage roof finish	YES	M2	Block	Clay Tiles
Garages	393	Garage roof finish	YES	M2	Block	Concrete Tiles
Garages	393	Garage roof finish	YES	M2	Block	Felt
Garages	393	Garage roof finish	YES	M2	Block	Metal
Garages	393	Garage roof finish	YES	M2	Block	Natural Slate
Garages	393	Garage roof finish	YES	M2	Block	AC sheet
Garages	393	Garage roof finish	YES	M2	Block	Corrugated Metal
Garages	393	Garage roof finish	YES	M2	Block	Corrugated Mineral Cement
Garages	394	Garage construction	YES	M2	Block	None
Garages	394	Garage construction	YES	M2	Block	Brick
Garages	394	Garage construction	YES	M2	Block	system build concrete
Garages	394	Garage construction	YES	M2	Block	system build other
Garages	394	Garage construction	YES	M2	Block	Stonework
Garages	394	Garage construction	YES	M2	Block	Wood
Garages	395	Garage construction	YES	M2	External	None
Garages	395	Garage construction	YES	M2	External	Brick
Garages	395	Garage construction	YES	M2	External	system build concrete
Garages	395	Garage construction	YES	M2	External	system build other
Garages	395	Garage construction	YES	M2	External	Stonework
Garages	395	Garage construction	YES	M2	External	Wood
Garages	396	Garage wall finish	YES	M2	External	None
Garages	396	Garage wall finish	YES	M2	External	PVC-u Clad
Garages	396	Garage wall finish	YES	M2	External	Render - Chipped
Garages	396	Garage wall finish	YES	M2	External	Render - Painted
Garages	396	Garage wall finish	YES	M2	External	Render - Plain
Garages	396	Garage wall finish	YES	M2	External	Tile Hung
Garages	396	Garage wall finish	YES	M2	External	Timber Clad
Garages	396	Garage wall finish	YES	M2	External	AC sheet
Garages	396	Garage wall finish	YES	M2	External	Pointed
Garages	397	Garage wall finish	YES	M2	Block	None
Garages	397	Garage wall finish	YES	M2	Block	PVC-u Clad
Garages	397	Garage wall finish	YES	M2	Block	Render - Chipped
Garages	397	Garage wall finish	YES	M2	Block	Render - Painted
Garages	397	Garage wall finish	YES	M2	Block	Render - Plain
Garages	397	Garage wall finish	YES	M2	Block	Tile Hung
Garages	397	Garage wall finish	YES	M2	Block	Timber Clad
Garages	397	Garage wall finish	YES	M2	Block	AC sheet
Garages	397	Garage wall finish	YES	M2	Block	Pointed
Garages	398	Garages Fascias, Soffits & Bardge	YES	LM	Block	None
Garages	398	Garages Fascias, Soffits & Bardge	YES	LM	Block	PVCu
Garages	398	Garages Fascias, Soffits & Bardge	YES	LM	Block	Timber
Garages	398	Garages Fascias, Soffits & Bardge	YES	LM	Block	Other
Garages	399	Garages Fascias, Soffits & Bardge	YES	LM	External	None
Garages	399	Garages Fascias, Soffits & Bardge	YES	LM	External	PVCu
Garages	399	Garages Fascias, Soffits & Bardge	YES	LM	External	Timber
Garages	399	Garages Fascias, Soffits & Bardge	YES	LM	External	Other
Garages	400	Garage RWG	YES	LM	External	None
Garages	400	Garage RWG	YES	LM	External	PVCu
Garages	400	Garage RWG	YES	LM	External	Cast Iron
Garages	400	Garage RWG	YES	LM	External	Other
Garages	401	Garage RWG	YES	LM	Block	None
Garages	401	Garage RWG	YES	LM	Block	PVCu
Garages	401	Garage RWG	YES	LM	Block	Cast Iron
Garages	401	Garage RWG	YES	LM	Block	Other
Garages	402	Garage Doors	YES	Num	External	None
Garages	402	Garage Doors	YES	Num	External	Garage Door metal
Garages	402	Garage Doors	YES	Num	External	Garage Door Timber
Garages	403	Garage Doors	YES	Num	Block	None
Garages	403	Garage Doors	YES	Num	Block	Garage Door metal
Garages	403	Garage Doors	YES	Num	Block	Garage Door Timber
Garages	404	Garage windows	YES	Num	Block	None
Garages	404	Garage windows	YES	Num	Block	Metal Windows
Garages	404	Garage windows	YES	Num	Block	Timber Windows
Garages	405	Garage windows	YES	Num	External	None
Garages	405	Garage windows	YES	Num	External	Metal Windows
Garages	405	Garage windows	YES	Num	External	Timber Windows
Garages	406	Garage Pedestrian Doors	YES	Num	External	None
Garages	406	Garage Pedestrian Doors	YES	Num	External	Garage Door timber
Garages	406	Garage Pedestrian Doors	YES	Num	External	Garage Door metal
Garages	407	Garage Pedestrian Doors	YES	Num	Block	None
Garages	407	Garage Pedestrian Doors	YES	Num	Block	Garage Door timber
Garages	407	Garage Pedestrian Doors	YES	Num	Block	Garage Door metal
Garages	408	Garage Floor/ Hard Standing	YES	M2	External	Concrete
Garages	408	Garage Floor/ Hard Standing	YES	M2	External	Paving
Garages	408	Garage Floor/ Hard Standing	YES	M2	External	Not seen
Garages	409	Garage Floor/ Hard Standing	YES	M2	Block	Concrete
Garages	409	Garage Floor/ Hard Standing	YES	M2	Block	Paving
Garages	409	Garage Floor/ Hard Standing	YES	M2	Block	Not seen
Garages	412	Car Port Roof Structure	YES	M2	Block	None
Garages	412	Car Port Roof Structure	YES	M2	Block	Metal
Garages	413	Car Port Roof Structure	YES	M2	External	None
Garages	413	Car Port Roof Structure	YES	M2	External	Metal

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Garages	413	Car Port Roof Structure	YES	M2	External	Timber
Garages	414	Car Port Roof Material	YES	M2	Block	None
Garages	414	Car Port Roof Material	YES	M2	Block	Artificial Slates
Garages	414	Car Port Roof Material	YES	M2	Block	Clay Tiles
Garages	414	Car Port Roof Material	YES	M2	Block	Concrete Tiles
Garages	414	Car Port Roof Material	YES	M2	Block	Mineral Felt
Garages	414	Car Port Roof Material	YES	M2	Block	Metal
Garages	414	Car Port Roof Material	YES	M2	Block	Natural Slate
Garages	414	Car Port Roof Material	YES	M2	Block	AC sheet
Garages	414	Car Port Roof Material	YES	M2	Block	Corrugated Metal
Garages	414	Car Port Roof Material	YES	M2	Block	Corrugated Mineral Cement
Garages	415	Car Port Roof Material	YES	M2	External	None
Garages	415	Car Port Roof Material	YES	M2	External	Artificial Slates
Garages	415	Car Port Roof Material	YES	M2	External	Clay Tiles
Garages	415	Car Port Roof Material	YES	M2	External	Concrete Tiles
Garages	415	Car Port Roof Material	YES	M2	External	Mineral Felt
Garages	415	Car Port Roof Material	YES	M2	External	Metal
Garages	415	Car Port Roof Material	YES	M2	External	Natural Slate
Garages	415	Car Port Roof Material	YES	M2	External	AC sheet
Garages	415	Car Port Roof Material	YES	M2	External	Corrugated Metal
Garages	415	Car Port Roof Material	YES	M2	External	Corrugated Mineral Cement
Garages	416	Car port Roof	NO	Ans	Block	None
Garages	416	Car port Roof	NO	Ans	Block	Pitched
Garages	416	Car port Roof	NO	Ans	Block	Flat
Garages	417	Car port Roof	NO	Ans	External	None
Garages	417	Car port Roof	NO	Ans	External	Pitched
Garages	417	Car port Roof	NO	Ans	External	Flat
Garages	418	Car Port Fascias Soffits	YES	LM	External	None
Garages	418	Car Port Fascias Soffits	YES	LM	External	PVCu
Garages	418	Car Port Fascias Soffits	YES	LM	External	Timber
Garages	419	Car Port Fascias Soffits	YES	LM	Block	None
Garages	419	Car Port Fascias Soffits	YES	LM	Block	PVCu
Garages	419	Car Port Fascias Soffits	YES	LM	Block	Timber
Garages	420	Car Port Rainwater disposal	YES	LM	Block	None
Garages	420	Car Port Rainwater disposal	YES	LM	Block	PVCu
Garages	420	Car Port Rainwater disposal	YES	LM	Block	Other
Garages	421	Car Port Rainwater disposal	YES	LM	External	None
Garages	421	Car Port Rainwater disposal	YES	LM	External	PVCu
Garages	421	Car Port Rainwater disposal	YES	LM	External	Other
Garages	422	Car Port Hard standing/flooring	YES	M2	Block	None
Garages	422	Car Port Hard standing/flooring	YES	M2	Block	Concrete
Garages	422	Car Port Hard standing/flooring	YES	M2	Block	Pre cast concrete or block paving
Garages	423	Car Port Hard standing/flooring	YES	M2	External	None
Garages	423	Car Port Hard standing/flooring	YES	M2	External	Concrete
Garages	423	Car Port Hard standing/flooring	YES	M2	External	Pre cast concrete or block paving
External Buildings	444	Store Roof finish main	YES	M2	External	None
External Buildings	444	Store Roof finish main	YES	M2	External	Artificial Slates
External Buildings	444	Store Roof finish main	YES	M2	External	Clay Tiles
External Buildings	444	Store Roof finish main	YES	M2	External	Concrete Tiles
External Buildings	444	Store Roof finish main	YES	M2	External	Felt
External Buildings	444	Store Roof finish main	YES	M2	External	Glass
External Buildings	444	Store Roof finish main	YES	M2	External	Metal
External Buildings	444	Store Roof finish main	YES	M2	External	Natural Slate
External Buildings	445	Store Roof finish main	YES	M2	Block	None
External Buildings	445	Store Roof finish main	YES	M2	Block	Artificial Slates
External Buildings	445	Store Roof finish main	YES	M2	Block	Clay Tiles
External Buildings	445	Store Roof finish main	YES	M2	Block	Concrete Tiles
External Buildings	445	Store Roof finish main	YES	M2	Block	Felt
External Buildings	445	Store Roof finish main	YES	M2	Block	Glass
External Buildings	445	Store Roof finish main	YES	M2	Block	Metal
External Buildings	445	Store Roof finish main	YES	M2	Block	Natural Slate
External Buildings	446	Store Roof Structure main	YES	M2	Block	None
External Buildings	446	Store Roof Structure main	YES	M2	Block	Flat
External Buildings	446	Store Roof Structure main	YES	M2	Block	Lean-To
External Buildings	446	Store Roof Structure main	YES	M2	Block	Duo Pitched
External Buildings	447	Store Roof Structure main	NO	M2	External	None
External Buildings	447	Store Roof Structure main	NO	M2	External	Flat
External Buildings	447	Store Roof Structure main	NO	M2	External	Lean-To
External Buildings	447	Store Roof Structure main	NO	M2	External	Duo Pitched
External Buildings	448	Store Wall Finish main	YES	M2	External	None
External Buildings	448	Store Wall Finish main	YES	M2	External	Pointed
External Buildings	448	Store Wall Finish main	YES	M2	External	Render - Chipped
External Buildings	448	Store Wall Finish main	YES	M2	External	Render - Plain
External Buildings	448	Store Wall Finish main	YES	M2	External	Tile Hung
External Buildings	448	Store Wall Finish main	YES	M2	External	Timber Clad
External Buildings	449	Store Wall Finish main	YES	M2	Block	None
External Buildings	449	Store Wall Finish main	YES	M2	Block	Pointed
External Buildings	449	Store Wall Finish main	YES	M2	Block	Render - Chipped
External Buildings	449	Store Wall Finish main	YES	M2	Block	Render - Plain
External Buildings	449	Store Wall Finish main	YES	M2	Block	Tile Hung
External Buildings	449	Store Wall Finish main	YES	M2	Block	Timber Clad
External Buildings	450	Store Wall Structure main	YES	M2	Block	None
External Buildings	450	Store Wall Structure main	YES	M2	Block	Cavity brickwork

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
External Buildings	450	Store Wall Structure main	YES	M2	Block	Concrete
External Buildings	450	Store Wall Structure main	YES	M2	Block	Solid Brick
External Buildings	450	Store Wall Structure main	YES	M2	Block	Solid Stone
External Buildings	450	Store Wall Structure main	YES	M2	Block	Timber Frame
External Buildings	451	Store Wall Structure main	YES	M2	External	None
External Buildings	451	Store Wall Structure main	YES	M2	External	Cavity brickwork
External Buildings	451	Store Wall Structure main	YES	M2	External	Concrete
External Buildings	451	Store Wall Structure main	YES	M2	External	Solid Brick
External Buildings	451	Store Wall Structure main	YES	M2	External	Solid Stone
External Buildings	451	Store Wall Structure main	YES	M2	External	Timber Frame
External Buildings	452	Store Door	YES	Num	Block	None
External Buildings	452	Store Door	YES	Num	Block	Aluminium Double Glazed
External Buildings	452	Store Door	YES	Num	Block	Aluminium Single Glazed
External Buildings	452	Store Door	YES	Num	Block	Composite Double Glazed
External Buildings	452	Store Door	YES	Num	Block	Composite Single Glazed
External Buildings	452	Store Door	YES	Num	Block	Composite Unglazed
External Buildings	452	Store Door	YES	Num	Block	Hardwood Double Glazed
External Buildings	452	Store Door	YES	Num	Block	Hardwood Single Glazed
External Buildings	452	Store Door	YES	Num	Block	Hardwood Unglazed
External Buildings	452	Store Door	YES	Num	Block	PVC-u Double Glazed
External Buildings	452	Store Door	YES	Num	Block	PVC-u Single Glazed
External Buildings	452	Store Door	YES	Num	Block	PVC-u Unglazed
External Buildings	452	Store Door	YES	Num	Block	Softwood Double Glazed
External Buildings	452	Store Door	YES	Num	Block	Softwood Single Glazed
External Buildings	452	Store Door	YES	Num	Block	Softwood Unglazed
External Buildings	453	Store Windows	YES	Num	Block	None
External Buildings	453	Store Windows	YES	Num	Block	DG Metal framed
External Buildings	453	Store Windows	YES	Num	Block	DG PVCu
External Buildings	453	Store Windows	YES	Num	Block	DG Timber
External Buildings	453	Store Windows	YES	Num	Block	SG Timber
External Buildings	453	Store Windows	YES	Num	Block	SG Metal
External Buildings	453	Store Windows	YES	Num	Block	SG PVCu
External Buildings	454	Store Windows	YES	Num	External	None
External Buildings	454	Store Windows	YES	Num	External	DG Metal framed
External Buildings	454	Store Windows	YES	Num	External	DG PVCu
External Buildings	454	Store Windows	YES	Num	External	DG Timber
External Buildings	454	Store Windows	YES	Num	External	SG Timber
External Buildings	454	Store Windows	YES	Num	External	SG Metal
External Buildings	454	Store Windows	YES	Num	External	SG PVCu
External Buildings	455	Store Fascia Soffits & Barge	YES	LM	Block	None
External Buildings	455	Store Fascia Soffits & Barge	YES	LM	Block	Other
External Buildings	455	Store Fascia Soffits & Barge	YES	LM	Block	PVCu
External Buildings	455	Store Fascia Soffits & Barge	YES	LM	Block	Timber
External Buildings	456	Store Fascia Soffits & Barge	YES	LM	External	None
External Buildings	456	Store Fascia Soffits & Barge	YES	LM	External	Other
External Buildings	456	Store Fascia Soffits & Barge	YES	LM	External	PVCu
External Buildings	456	Store Fascia Soffits & Barge	YES	LM	External	Timber
External Buildings	457	Store RWG	YES	LM	Block	None
External Buildings	457	Store RWG	YES	LM	Block	Aluminium
External Buildings	457	Store RWG	YES	LM	Block	Cast iron/metal
External Buildings	457	Store RWG	YES	LM	Block	Finlock
External Buildings	457	Store RWG	YES	LM	Block	Lead
External Buildings	457	Store RWG	YES	LM	Block	PVCu
External Buildings	457	Store RWG	YES	LM	Block	Other
External Buildings	458	Store RWG	YES	LM	External	None
External Buildings	458	Store RWG	YES	LM	External	Aluminium
External Buildings	458	Store RWG	YES	LM	External	Cast iron/metal
External Buildings	458	Store RWG	YES	LM	External	Finlock
External Buildings	458	Store RWG	YES	LM	External	Lead
External Buildings	458	Store RWG	YES	LM	External	PVCu
External Buildings	458	Store RWG	YES	LM	External	Other
External Buildings	459	Cycle Store	NO	Ans	Block	Not Applicable
External Buildings	459	Cycle Store	NO	Ans	Block	No
External Buildings	459	Cycle Store	NO	Ans	Block	Yes
External Buildings	460	Store Door	YES	Num	External	None
External Buildings	460	Store Door	YES	Num	External	Timber
External Buildings	460	Store Door	YES	Num	External	Metal
External Buildings	460	Store Door	YES	Num	External	PVCu
Refuse	461	Refuse Disposal	YES	Num	External	None Seen
Refuse	461	Refuse Disposal	YES	Num	External	Bin
Refuse	461	Refuse Disposal	YES	Num	External	Bin in enclosure
Refuse	462	Refuse Disposal	YES	Storeys	Block	None
Refuse	462	Refuse Disposal	YES	Storeys	Block	Chute
Refuse	462	Refuse Disposal	YES	Storeys	Block	External Enclosure Only
Electrical Installations	465	Security Cameras	YES	Num	Block	Not Applicable
Electrical Installations	465	Security Cameras	YES	Num	Block	Present - Number of Cameras
Hard Surfaces	467	Roads	YES	M2	Block	Brick Paviour
Hard Surfaces	467	Roads	YES	M2	Block	Concrete
Hard Surfaces	467	Roads	YES	M2	Block	Gravel
Hard Surfaces	467	Roads	YES	M2	Block	Paving Slabs
Hard Surfaces	467	Roads	YES	M2	Block	Tarmac
Hard Surfaces	467	Roads	YES	M2	Block	Not Applicable
Electrical Installations	471	Aerials	YES	Flats	Block	Individual

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Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Electrical Installations	471	Aerials	YES	Flats	Block	Communal System
Electrical Installations	472	External & Street Lighting	YES	Num	Block	None
Electrical Installations	472	External & Street Lighting	YES	Num	Block	Column - Street Light
Electrical Installations	472	External & Street Lighting	YES	Num	Block	Column Mounted - Security Light
Electrical Installations	472	External & Street Lighting	YES	Num	Block	Wall Mounted - Security Light
Electrical Installations	472	External & Street Lighting	YES	Num	Block	Wall Mounted - Street Light
Internal Structure & Finishes	478	Penetrating Walls damp	NO	Ans	Internal	No
Internal Structure & Finishes	478	Penetrating Walls damp	NO	Ans	Internal	Yes
Internal Structure & Finishes	480	Penetrating Roof damp	NO	Ans	Internal	No
Internal Structure & Finishes	480	Penetrating Roof damp	NO	Ans	Internal	Yes
Internal Structure & Finishes	481	Penetrating Rainwater goods	NO	Ans	Internal	No
Internal Structure & Finishes	481	Penetrating Rainwater goods	NO	Ans	Internal	Yes
Internal Structure & Finishes	486	Penetrating Wdw or door openings	NO	Ans	Internal	No
Internal Structure & Finishes	486	Penetrating Wdw or door openings	NO	Ans	Internal	Yes
Building Services	503	Water Booster Pumps	YES	Num	Block	None
Building Services	503	Water Booster Pumps	YES	Num	Block	Yes
Internal Structure & Finishes	506	Means of Escape Signage	YES	Ans	Block	No
Internal Structure & Finishes	506	Means of Escape Signage	YES	Ans	Block	Yes
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Vinyl
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Carpet
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Quarry Tile
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Laminate
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Timber Boarded
Bathrooms	508	Bathroom Floor Covering	YES	M2	Block	Screed/Concrete
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Vinyl
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Carpet
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Quarry Tile
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Laminate
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Timber Boarded
Bathrooms	509	Bathroom Floor Covering	YES	M2	Internal	Screed/Concrete
Stairs & Balconies	510	Stair Structure	YES	Num	Internal	None
Stairs & Balconies	510	Stair Structure	YES	Num	Internal	Concrete Staircase
Stairs & Balconies	510	Stair Structure	YES	Num	Internal	Steel Staircase
Stairs & Balconies	510	Stair Structure	YES	Num	Internal	Timber Staircase
Stairs & Balconies	511	Stair Balustrade	YES	LM	Internal	Missing
Stairs & Balconies	511	Stair Balustrade	YES	LM	Internal	Timber
Stairs & Balconies	511	Stair Balustrade	YES	LM	Internal	Steel
Kitchens	512	Kitchen Floor	YES	M2	Internal	Vinyl
Kitchens	512	Kitchen Floor	YES	M2	Internal	Carpet
Kitchens	512	Kitchen Floor	YES	M2	Internal	Quarry Tile
Kitchens	512	Kitchen Floor	YES	M2	Internal	Laminate
Kitchens	512	Kitchen Floor	YES	M2	Internal	Timber Boarded
Kitchens	512	Kitchen Floor	YES	M2	Internal	Screed/Concrete
Building Services	513	Fire Alarm	NO	Flats	Block	Not Applicable
Building Services	513	Fire Alarm	NO	Flats	Block	No
Building Services	513	Fire Alarm	NO	Flats	Block	Yes
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Self Finish Painted
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Asphalt
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Specialist Finish
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Quarry Tile
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Timber Boards
Stairs & Balconies	515	Balconies Finish	YES	M2	External	Vinyl
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Self Finish Painted
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Asphalt
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Specialist Finish
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Quarry Tile
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Timber Boards
Stairs & Balconies	516	Balcony Finish - Comm	YES	M2	Block	Vinyl
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Self Finish Painted
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Asphalt
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Specialist Finish
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Quarry Tile
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Timber Boards
Stairs & Balconies	517	Balconies Finish - Private	YES	M2	Block	Vinyl
Hard Surfaces	518	Roads 2	YES	M2	Block	None
Hard Surfaces	518	Roads 2	YES	M2	Block	Brick & Block Paving
Hard Surfaces	518	Roads 2	YES	M2	Block	Concrete
Hard Surfaces	518	Roads 2	YES	M2	Block	Gravel
Hard Surfaces	518	Roads 2	YES	M2	Block	Tarmac
Hard Surfaces	518	Roads 2	YES	M2	Block	Paving Slabs
Hard Surfaces	519	Paving 1	YES	M2	Block	None
Hard Surfaces	519	Paving 1	YES	M2	Block	Brick & Block Paving
Hard Surfaces	519	Paving 1	YES	M2	Block	Concrete
Hard Surfaces	519	Paving 1	YES	M2	Block	Gravel
Hard Surfaces	519	Paving 1	YES	M2	Block	Tarmac
Hard Surfaces	519	Paving 1	YES	M2	Block	Paving Slabs
Hard Surfaces	520	Paving 2	YES	M2	Block	None
Hard Surfaces	520	Paving 2	YES	M2	Block	Brick & Block Paving
Hard Surfaces	520	Paving 2	YES	M2	Block	Concrete
Hard Surfaces	520	Paving 2	YES	M2	Block	Gravel
Hard Surfaces	520	Paving 2	YES	M2	Block	Tarmac
Hard Surfaces	520	Paving 2	YES	M2	Block	Paving Slabs
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Plaster

Tustin Estate - Southwark Council

Survey Design

Group Reporting	Q Ref	Question Heading	2ndry_Q	Unit	Type	Answer
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Artex
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Mixed
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Remove Polystyrene Tiles
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Boarded
Internal Structure & Finishes	521	Ceiling Finishes	YES	M2	Internal	Part Suspended Mixed
Internal Structure & Finishes	522	Wall Finishes	YES	M2	Internal	Plaster
Internal Structure & Finishes	522	Wall Finishes	YES	M2	Internal	Artex
Internal Structure & Finishes	522	Wall Finishes	YES	M2	Internal	Mixed
Internal Structure & Finishes	522	Wall Finishes	YES	M2	Internal	Other
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Plaster
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Artex
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Mixed
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Remove Polystyrene Tiles
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Boarded
Internal Structure & Finishes	523	Ceiling Finishes	YES	M2	Block	Part Suspended Mixed
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Plaster
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Artex
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Mixed
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Ceramic Wall Tiles
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Rendered
Internal Structure & Finishes	524	Wall Finishes	YES	M2	Block	Other
Windows	526	AOVs Communal Windows	YES	Num	Block	Not Applicable
Windows	526	AOVs Communal Windows	YES	Num	Block	Present
Building Services	527	Dry or Wet Risers	YES	Storeys	Block	Not Applicable
Building Services	527	Dry or Wet Risers	YES	Storeys	Block	Dry
Building Services	527	Dry or Wet Risers	YES	Storeys	Block	Wet
Electrical Installations	528	Lightning Protection System	YES	Storeys	Block	Not Applicable
Electrical Installations	528	Lightning Protection System	YES	Storeys	Block	No
Electrical Installations	528	Lightning Protection System	YES	Storeys	Block	Yes
Roofs	529	Roof Accessibility	YES	Storeys	Block	Not Applicable
Roofs	529	Roof Accessibility	YES	Storeys	Block	Fixed ladder
Roofs	529	Roof Accessibility	YES	Storeys	Block	Ladder Required
Roofs	529	Roof Accessibility	YES	Storeys	Block	Walk Out Access
Stairs & Balconies	530	Floor Covering stairs Other	YES	Num	Block	None
Stairs & Balconies	530	Floor Covering stairs Other	YES	Num	Block	carpet
Stairs & Balconies	530	Floor Covering stairs Other	YES	Num	Block	Vinyl sheet or tile
Stairs & Balconies	530	Floor Covering stairs Other	YES	Num	Block	Other
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	None
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	Carpet
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	Ceramic Tile
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	Vinyl sheet or tile
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	Non-slip vinyl sheet
Stairs & Balconies	531	Floor finish Corridors 2ndry	YES	M2	Block	Laminate
Estate	600	Roads 1	YES	M2	Estate	Tarmac
Estate	601	Roads 2	YES	M2	Estate	Tarmac
Estate	602	Paths 1	YES	M2	Estate	Paving Slabs
Estate	603	Paths 2	YES	M2	Estate	Tarmac
Estate	604	Paths 3	YES	M2	Estate	Tarmac
Estate	605	Paths 4	YES	M2	Estate	Paving Slabs
Estate	606	Bollards & Posts 1	YES	Num	Estate	Metal
Estate	607	Bollards & Posts 2	YES	Num	Estate	Concrete
Estate	608	Gates 1	YES	Num	Estate	Automatic ramp
Estate	609	Gates 2	YES	Num	Estate	gallows
Estate	610	Gates 3	YES	Num	Estate	Vehicular
Estate	612	Barriers	YES	Num	Estate	Electric Gates
Estate	613	Fencing 1	YES	Num	Estate	Bike Hoops
Estate	614	Fencing 2	YES	Num	Estate	Hooped Railings
Estate	617	Road Gulleys 1	YES	LM	Estate	Metal CI Channels
Estate	618	Road Gulleys 2	YES	Num	Estate	Cast Iron Small
Estate	619	Road Gulleys 3	YES	Num	Estate	Cast Iron Standard
Estate	621	Road/ Parking Bay Markings	YES	LM	Estate	Paint
Estate	622	Seating	YES	Num	Estate	Concrete_Timber

Appendix D

Schedule of Rates

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Heating & Hot Water	138	Cold Water Storage	Ans	Communal	None or None Visible		0.00
Heating & Hot Water	138	Cold Water Storage	Ans	Communal	Tank in Roof space	40	280.80
Heating & Hot Water	138	Cold Water Storage	Ans	Communal	Tank Room	40	280.80
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Mains Direct	60	1,188.00
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Tank in Roof space	45	280.80
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Tank In Cupboard	40	558.46
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Combination Tank/Cyl	30	518.73
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Communal	30	486.00
Heating & Hot Water	139	Cold Water Storage	Num	Dwelling Internal	Not Seen	30	0.00
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	0mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	0-50mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	50-100mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	100-150mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	150-200mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	200-250mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	250-280mm	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	280mm +	25	19.91
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	No access		0.00
Roofs	140	Roof Loft Insulation	Ans	Dwelling Internal	Other dwelling above		0.00
Roofs	141	Roof Loft Insulation	Ans	Communal	0mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	0-50mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	50-100mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	100-150mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	150-200mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	200-250mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	250-280mm	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	280mm +	25	19.91
Roofs	141	Roof Loft Insulation	Ans	Communal	No access		0.00
Bathrooms	142	Communal Bathroom	Ans	Communal	No		0.00
Bathrooms	142	Communal Bathroom	Ans	Communal	Yes		0.00
Roofs	143	Roof Pipe Insulation	Ans	Dwelling Internal	Not Applicable		0.00
Roofs	143	Roof Pipe Insulation	Ans	Dwelling Internal	Yes		0.00
Roofs	143	Roof Pipe Insulation	Ans	Dwelling Internal	Required		0.00
Bathrooms	144	Bathroom	Num	Communal	None		0.00
Bathrooms	144	Bathroom	Num	Communal	Bath WC WHB present	30	3,517.95
Bathrooms	144	Bathroom	Num	Communal	Bath WHB only	30	3,517.95
Bathrooms	144	Bathroom	Num	Communal	Bath WC only	30	3,517.95
Bathrooms	145	Bathroom	Num	Dwelling Internal	None		0.00
Bathrooms	145	Bathroom	Num	Dwelling Internal	Bath WC WHB present	30	2,415.96
Bathrooms	145	Bathroom	Num	Dwelling Internal	Bath WHB only	30	1,716.12
Bathrooms	145	Bathroom	Num	Dwelling Internal	Bath WC only	30	1,716.12
Bathrooms	145	Bathroom	Num	Dwelling Internal	No Bath WC WHB present	30	777.60
Bathrooms	145	Bathroom	Num	Dwelling Internal	No Bath WHB only	30	329.40
Bathrooms	146	Shower over bath	Num	Dwelling Internal	None		0.00
Bathrooms	146	Shower over bath	Num	Dwelling Internal	Electric Shower	15	245.69
Bathrooms	146	Shower over bath	Num	Dwelling Internal	Mixer Taps	20	151.09
Bathrooms	147	Shower over bath	Num	Communal	None		0.00
Bathrooms	147	Shower over bath	Num	Communal	Electric Shower	12	245.69
Bathrooms	147	Shower over bath	Num	Communal	Mixer Taps	20	151.09
Bathrooms	148	Separate Shower Enclosure	Num	Dwelling Internal	None		0.00
Bathrooms	148	Separate Shower Enclosure	Num	Dwelling Internal	Tray & Glass	30	955.80
Bathrooms	148	Separate Shower Enclosure	Num	Dwelling Internal	Tray & Curtain	30	610.20
Bathrooms	148	Separate Shower Enclosure	Num	Dwelling Internal	Wet Room/ Toilet & Basin	30	3,427.92
Bathrooms	148	Separate Shower Enclosure	Num	Dwelling Internal	Wet Room- No WC	30	2,742.12
Bathrooms	149	Separate Shower Enclosure	Num	Communal	None		0.00
Bathrooms	149	Separate Shower Enclosure	Num	Communal	Tray & Glass	30	955.80
Bathrooms	149	Separate Shower Enclosure	Num	Communal	Tray & Curtain	30	610.20
Bathrooms	149	Separate Shower Enclosure	Num	Communal	Wet Room/ Toilet & Basin	30	3,427.92
Bathrooms	149	Separate Shower Enclosure	Num	Communal	Wet Room- No WC	30	2,742.12
Bathrooms	150	Separate Shower type	Num	Dwelling Internal	Electric Shower	15	415.80
Bathrooms	150	Separate Shower type	Num	Dwelling Internal	Mains Mixer	20	262.44
Bathrooms	150	Separate Shower type	Num	Dwelling Internal	Thermostatic non-mixer	20	151.09
Bathrooms	151	Separate Shower type	Num	Communal	None		0.00
Bathrooms	151	Separate Shower type	Num	Communal	Electric Shower	12	415.80
Bathrooms	151	Separate Shower type	Num	Communal	Mains Mixer	15	262.44
Bathrooms	151	Separate Shower type	Num	Communal	Thermostatic non-mixer	15	151.09
Bathrooms	155	Bathroom Extract Fan	Num	Dwelling Internal	Present		98.91
Bathrooms	155	Bathroom Extract Fan	Num	Dwelling Internal	Not Present, Not Feasible		0.00
Bathrooms	155	Bathroom Extract Fan	Num	Dwelling Internal	Not Present, feasible		0.00
Bathrooms	155	Bathroom Extract Fan	Num	Dwelling Internal	Mechanical System	20	308.88
Bathrooms	156	Bathroom Extract Fan	Num	Communal	Present	15	353.16
Bathrooms	156	Bathroom Extract Fan	Num	Communal	Not Present, not feasible		0.00
Bathrooms	156	Bathroom Extract Fan	Num	Communal	Not Present, feasible	15	453.60
Bathrooms	156	Bathroom Extract Fan	Num	Communal	Passivent air extraction	35	420.01
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	Satisfactory		0.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	Inadequate- Improvement Not Possible		0.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	Inadequate Space - improvement possible	100	3,240.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	Access through main bedroom	100	3,240.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	WC is external	100	5,400.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	WC without WHB off kitchen	100	540.00
Bathrooms	157	Bathroom Space Layout	Ans	Dwelling Internal	WC/ nearest WHB not on same floor	100	1,404.00
Bathrooms	158	Bathroom Space Layout	Ans	Communal	None		0.00
Bathrooms	158	Bathroom Space Layout	Ans	Communal	Satisfactory		0.00
Bathrooms	158	Bathroom Space Layout	Ans	Communal	Inadequate- Improvement Not Possible		0.00
Bathrooms	158	Bathroom Space Layout	Ans	Communal	Inadequate Space - Improvement possible	100	2,700.00
Bathrooms	159	WC Additional	Num	Dwelling Internal	None		0.00
Bathrooms	159	WC Additional	Num	Dwelling Internal	WC and WHB present	30	777.60
Bathrooms	159	WC Additional	Num	Dwelling Internal	WC Only	30	307.80
Bathrooms	160	WC Additional	Num	Communal	None		0.00
Bathrooms	160	WC Additional	Num	Communal	WC and WHB present	30	777.60
Bathrooms	160	WC Additional	Num	Communal	WC only	30	438.83
Bathrooms	161	WC Extract fan	Num	Dwelling Internal	Present	15	98.91
Bathrooms	161	WC Extract fan	Num	Dwelling Internal	Not Present, not feasible		0.00
Bathrooms	161	WC Extract fan	Num	Dwelling Internal	Not Present, feasible		0.00
Bathrooms	161	WC Extract fan	Num	Dwelling Internal	Mechanical System	20	308.88
Bathrooms	161	WC Extract fan	Num	Dwelling Internal	Not Applicable		0.00
Bathrooms	162	Extract fans WC Only	Num	Communal	Present	15	353.16

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Bathrooms	162	Extract fans WC Only	Num	Communal	Passive Air extraction	50	420.01
Bathrooms	162	Extract fans WC Only	Num	Communal	Not present feasible	15	353.79
Bathrooms	162	Extract fans WC Only	Num	Communal	N/A		0.00
Drainage - Above Ground	163	Internal Soil Vent Pipe	LM	Dwelling Internal	Cast Iron	60	85.41
Drainage - Above Ground	163	Internal Soil Vent Pipe	LM	Dwelling Internal	UPVC	50	24.46
Drainage - Above Ground	163	Internal Soil Vent Pipe	LM	Dwelling Internal	Not seen		0.00
Drainage - Above Ground	164	Internal Soil Vent Pipe	LM	Communal	Cast Iron	60	85.41
Drainage - Above Ground	164	Internal Soil Vent Pipe	LM	Communal	UPVC	50	24.46
Drainage - Above Ground	164	Internal Soil Vent Pipe	LM	Communal	Not seen		0.00
Kitchens	166	Kitchen	Units	Dwelling Internal	None		0.00
Kitchens	166	Kitchen	Units	Dwelling Internal	Up to 5 Units	20	3,861.12
Kitchens	166	Kitchen	Units	Dwelling Internal	6 to 8 Units	15	4,244.44
Kitchens	166	Kitchen	Units	Dwelling Internal	9 to 12 Units	15	4,503.60
Kitchens	166	Kitchen	Units	Dwelling Internal	13 to 15 Units	20	4,765.82
Kitchens	167	Kitchen	Num	Communal	None		0.00
Kitchens	167	Kitchen	Num	Communal	Up to 5 Units	15	3,861.12
Kitchens	167	Kitchen	Num	Communal	6 to 8 Units	15	4,244.44
Kitchens	167	Kitchen	Num	Communal	9 to 12 Units	15	4,503.60
Kitchens	167	Kitchen	Num	Communal	Kitchen - Catering or Commercial	15	15,400.00
Kitchens	168	Kitchen Space Layout	Ans	Dwelling Internal	Adequate Good		0.00
Kitchens	168	Kitchen Space Layout	Ans	Dwelling Internal	Inadequate Poor	100	1,620.00
Kitchens	168	Kitchen Space Layout	Ans	Dwelling Internal	Not Applicable		0.00
Kitchens	171	Kitchen Extractor Fan	Num	Communal	Present	15	98.91
Kitchens	171	Kitchen Extractor Fan	Num	Communal	Not Present		0.00
Kitchens	171	Kitchen Extractor Fan	Num	Communal	Install extractor fan	15	353.79
Kitchens	171	Kitchen Extractor Fan	Num	Communal	Passivent	35	420.01
Kitchens	172	Kitchen Extractor Fan	Num	Dwelling Internal	Present	15	98.91
Kitchens	172	Kitchen Extractor Fan	Num	Dwelling Internal	Not Present		0.00
Kitchens	172	Kitchen Extractor Fan	Num	Dwelling Internal	Mechanical System	20	200.88
Communal Area Size and Layout	173	Kitchens	Ans	Dwelling Internal DH	Adequate		0.00
Communal Area Size and Layout	173	Kitchens	Ans	Dwelling Internal DH	Inadequate Improvement Possible	100	2,160.00
Communal Area Size and Layout	173	Kitchens	Ans	Dwelling Internal DH	Inadequate Improvement Not Possible		0.00
Stairs & Balconies	174	Communal Stair Structure	Num	Communal	None		0.00
Stairs & Balconies	174	Communal Stair Structure	Num	Communal	Concrete Staircase	100	5,508.00
Stairs & Balconies	174	Communal Stair Structure	Num	Communal	Steel Staircase	80	4,455.00
Stairs & Balconies	174	Communal Stair Structure	Num	Communal	Timber Staircase	80	1,566.00
Floor Coverings	175	Floor Covering stairs	Num	Communal	None		0.00
Floor Coverings	175	Floor Covering stairs	Num	Communal	carpet	15	39.80
Floor Coverings	175	Floor Covering stairs	Num	Communal	Vinyl sheet or tile	15	35.99
Floor Coverings	175	Floor Covering stairs	Num	Communal	Other	20	27.00
Stairs & Balconies	176	Communal handrail	LM	Communal	None		0.00
Stairs & Balconies	176	Communal handrail	LM	Communal	Timber	50	107.42
Stairs & Balconies	176	Communal handrail	LM	Communal	metal	50	182.98
Floor Coverings	177	Floor finish Corridors	M2	Communal	None		0.00
Floor Coverings	177	Floor finish Corridors	M2	Communal	Carpet	15	39.80
Floor Coverings	177	Floor finish Corridors	M2	Communal	Ceramic Tile	40	69.28
Floor Coverings	177	Floor finish Corridors	M2	Communal	Vinyl sheet or tile	15	35.99
Floor Coverings	177	Floor finish Corridors	M2	Communal	Non-slip vinyl sheet	15	35.99
Floor Coverings	177	Floor finish Corridors	M2	Communal	Laminate	20	39.32
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Gas		0.00
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Electric		0.00
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Solid Fuel		0.00
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Oil		0.00
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Biomass		0.00
Heating & Hot Water	178	Heating Fuel Main	Ans	Dwelling Internal	Other		0.00
Heating & Hot Water	180	Boiler	Num	Communal	No Central heating		0.00
Heating & Hot Water	180	Boiler	Num	Communal	Communal Cond Combi	15	2,160.00
Heating & Hot Water	180	Boiler	Num	Communal	Communal Combi	15	2,160.00
Heating & Hot Water	180	Boiler	Num	Communal	Communal Standard	15	2,160.00
Heating & Hot Water	180	Boiler	Num	Communal	Warm Air	15	3,402.00
Heating & Hot Water	180	Boiler	Num	Communal	Night Storage	15	302.40
Heating & Hot Water	180	Boiler	Num	Communal	Night Storage & panel	15	354.24
Heating & Hot Water	180	Boiler	Num	Communal	Panel Heaters Only	15	108.00
Heating & Hot Water	181	Heating Extent	Ans	Communal	None		0.00
Heating & Hot Water	181	Heating Extent	Ans	Communal	Full		0.00
Heating & Hot Water	181	Heating Extent	Ans	Communal	Partial		0.00
Heating & Hot Water	182	Heating Extent	Ans	Dwelling Internal	None		0.00
Heating & Hot Water	182	Heating Extent	Ans	Dwelling Internal	Full		0.00
Heating & Hot Water	182	Heating Extent	Ans	Dwelling Internal	Partial		0.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Domestic Cond Combi	15	1,273.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Domestic Combi	15	1,273.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Domestic Standard	15	1,273.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Night Storage	25	302.40
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Night Storage & panel	25	354.24
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Domestic Back Boiler & Fire Front	25	2,268.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Domestic Electric Wet System	15	3,466.80
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Warm Air	20	3,402.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Solid/ Multi Fuel Stove	25	1,900.80
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Panel Heaters Only	25	108.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Communal Cond Combi	100	0.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Communal Combi	100	0.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	Communal Standard	20	2,160.00
Heating & Hot Water	183	Boiler	Num	Dwelling Internal	No Central heating	15	1,273.00
Heating & Hot Water	188	Radiators & Distribution	Num	Communal	Standard radi	40	101.57
Heating & Hot Water	188	Radiators & Distribution	Num	Communal	None		0.00
Heating & Hot Water	188	Radiators & Distribution	Num	Communal	LST Radiators	30	178.20
Heating & Hot Water	188	Radiators & Distribution	Num	Communal	Underfloor Heating from Boiler		0.00
Heating & Hot Water	189	Radiators & Distribution	Num	Dwelling Internal	Standard radi	30	101.57
Heating & Hot Water	189	Radiators & Distribution	Num	Dwelling Internal	None		0.00
Heating & Hot Water	189	Radiators & Distribution	Num	Dwelling Internal	LST Radiators	30	178.20
Heating & Hot Water	189	Radiators & Distribution	Num	Dwelling Internal	Underfloor Heating from Boiler		0.00
Heating & Hot Water	190	Radiator TRVs	Ans	Dwelling Internal	Present		0.00
Heating & Hot Water	190	Radiator TRVs	Ans	Dwelling Internal	None		0.00
Heating & Hot Water	195	Heating Hot water	Num	Dwelling Internal	From Combi/ Condensing Boiler		0.00
Heating & Hot Water	195	Heating Hot water	Num	Dwelling Internal	Communal No Cylinder		0.00
Heating & Hot Water	195	Heating Hot water	Num	Dwelling Internal	Pressurised Cylinder	30	842.40
Heating & Hot Water	195	Heating Hot water	Num	Dwelling Internal	Non Pressurised Cylinder	30	410.73

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Heating & Hot Water	196	Heating Hot water	Flats	Communal	None		0.00
Heating & Hot Water	196	Heating Hot water	Flats	Communal	From Combi/ Condensing Boiler		0.00
Heating & Hot Water	196	Heating Hot water	Flats	Communal	Calorifier	30	210.60
Heating & Hot Water	199	Secondary Heating	Num	Dwelling Internal	None		0.00
Heating & Hot Water	199	Secondary Heating	Num	Dwelling Internal	Gas open flue fire	25	2,393.28
Heating & Hot Water	199	Secondary Heating	Num	Dwelling Internal	Gas balanced flue fire	25	2,393.28
Heating & Hot Water	199	Secondary Heating	Num	Dwelling Internal	Open fire	35	1,313.28
Heating & Hot Water	199	Secondary Heating	Num	Dwelling Internal	Electric focal point fire	20	450.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	N/A		0.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	Copper	60	147.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	Galvanised	45	147.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	Plastic	60	147.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	Lead	80	147.00
Heating & Hot Water	200	Hot & Cold Water Distribution	Flats	Communal	Mixed	60	147.00
Electrical Installations	204	Power & Lighting	Flats	Communal	None		0.00
Electrical Installations	204	Power & Lighting	Flats	Communal	Rewire	30	2,500.00
Electrical Installations	204	Power & Lighting	Flats	Communal	Partial rewire	30	1,600.00
Electrical Installations	205	Consumer Unit Type	Flats	Communal	None		0.00
Electrical Installations	205	Consumer Unit Type	Flats	Communal	Communal	30	1,200.00
Electrical Installations	207	Emergency Lighting	Num	Communal	Present	20	450.00
Electrical Installations	207	Emergency Lighting	Num	Communal	Not Present		0.00
Electrical Installations	208	Door Entry System	Flats	Communal	None		0.00
Electrical Installations	208	Door Entry System	Flats	Communal	Concierge	15	14,040.00
Electrical Installations	208	Door Entry System	Flats	Communal	Voice and Camera	15	452.90
Electrical Installations	208	Door Entry System	Flats	Communal	Voice Only	15	325.00
Electrical Installations	208	Door Entry System	Flats	Communal	Push button	15	185.00
Electrical Installations	209	Intruder alarm system	Ans	Communal	None		0.00
Electrical Installations	209	Intruder alarm system	Ans	Communal	Linked		0.00
Electrical Installations	209	Intruder alarm system	Ans	Communal	Independent		0.00
Building Services	211	Fire Fighting Equipment	Ans	Communal	Not Applicable		0.00
Building Services	211	Fire Fighting Equipment	Ans	Communal	No		0.00
Building Services	211	Fire Fighting Equipment	Ans	Communal	Yes		0.00
Laundry	212	Laundry	Ans	Communal	No		0.00
Laundry	212	Laundry	Ans	Communal	Yes		0.00
Laundry	213	Laundry Floor Covering	M2	Communal	Vinyl	15	28.60
Laundry	213	Laundry Floor Covering	M2	Communal	Ceramic	40	65.76
Laundry	214	Laundry Sink	Num	Communal	no sink		0.00
Laundry	214	Laundry Sink	Num	Communal	sink unit < 3m worktop	20	581.04
Laundry	214	Laundry Sink	Num	Communal	sink unit > 3m worktop	20	581.04
Laundry	215	Laundry Extract fan	Num	Communal	Extractor fan present	15	381.00
Laundry	215	Laundry Extract fan	Num	Communal	Extractor fan not present		0.00
Laundry	215	Laundry Extract fan	Num	Communal	Install Extractor fan	12	1,090.80
Internal Doors	216	Internal Doors Fire	Num	Communal	None		0.00
Internal Doors	216	Internal Doors Fire	Num	Communal	Fire Door Std Glazing	30	145.80
Internal Doors	216	Internal Doors Fire	Num	Communal	Fire Door Toughened Glazing	30	145.80
Internal Doors	216	Internal Doors Fire	Num	Communal	Fire Door Unglazed	30	145.80
Internal Doors	217	Internal Doors Non Fire	Num	Communal	None		0.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Softwood Unglazed	30	265.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Softwood Toughened Glazing	30	335.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Softwood Std Glazing	30	295.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Composite Std Glazing	40	295.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Composite Toughened Glazing	40	335.00
Internal Doors	217	Internal Doors Non Fire	Num	Communal	Composite Unglazed	30	265.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Softwood Unglazed	65	265.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Softwood Std Glazing	65	295.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Softwood Toughened Glazing	65	335.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Fire Door Std Glazing	65	795.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Fire Door Toughened Glazing	65	860.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Fire Door Unglazed	65	735.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Composite Std Glazing	65	295.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Composite Toughened Glazing	65	335.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	Composite Unglazed	65	295.00
Internal Doors	218	Internal Doors	Ans	Dwelling Internal	None		0.00
Internal Structure & Finishes	219	Internal Walls Structural Stability	Ans	Dwelling Internal	No cracking		0.00
Internal Structure & Finishes	219	Internal Walls Structural Stability	Ans	Dwelling Internal	Cracking - Differential	100	44.83
Internal Structure & Finishes	219	Internal Walls Structural Stability	Ans	Dwelling Internal	Cracking Suspected Structural	100	850.00
Internal Structure & Finishes	220	Internal Walls Structural Stability	Ans	Communal	No cracking		0.00
Internal Structure & Finishes	220	Internal Walls Structural Stability	Ans	Communal	Cracking	100	86.18
Internal Structure & Finishes	221	Floor Structural Stability	Ans	Dwelling Internal	No defects		0.00
Internal Structure & Finishes	221	Floors Structural Stability	Ans	Dwelling Internal	Concrete Floor Heave	100	850.00
Internal Structure & Finishes	221	Floors Structural Stability	Ans	Dwelling Internal	Timber Floor deflection	100	350.00
Internal Structure & Finishes	222	Floors Structural Stability	Ans	Communal	No defects		0.00
Internal Structure & Finishes	222	Floors Structural Stability	Ans	Communal	Concrete Floor Heave	100	850.00
Internal Structure & Finishes	222	Floors Structural Stability	Ans	Communal	Timber Floor deflection	100	850.00
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Concrete Tiles	55	52.75
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Natural slates	95	96.61
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Artificial slates	40	52.74
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Clay	60	86.19
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Felt	20	139.14
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Asphalt	25	139.93
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Metal	40	78.97
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Water Proof membrane	25	184.68
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Sedum	30	209.52
Roof Finish Main	225	Roofs	M2	Dwelling Internal DH	Other/specialist	30	113.40
Roof Finish Main	226	Roof Finish Main	M2	House	Concrete Tiles	55	52.75
Roof Finish Main	226	Roof Finish Main	M2	House	Natural slates	95	96.61
Roof Finish Main	226	Roof Finish Main	M2	House	Artificial slates	40	52.74
Roof Finish Main	226	Roof Finish Main	M2	House	Clay	60	86.19
Roof Finish Main	226	Roof Finish Main	M2	House	Felt	20	139.14
Roof Finish Main	226	Roof Finish Main	M2	House	Asphalt	25	139.93
Roof Finish Main	226	Roof Finish Main	M2	House	Metal	40	78.97
Roof Finish Main	226	Roof Finish Main	M2	House	Water Proof membrane	25	184.68
Roof Finish Main	226	Roof Finish Main	M2	House	Sedum	30	118.80
Roof Finish Main	226	Roof Finish Main	M2	House	Other/specialist	30	113.40
Roof Finish Main	227	Roof Finish Main	M2	Communal	Concrete Tiles	55	52.75
Roof Finish Main	227	Roof Finish Main	M2	Communal	Natural slates	95	96.61
Roof Finish Main	227	Roof Finish Main	M2	Communal	Artificial slates	40	52.74

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Roof Finish Main	227	Roof Finish Main	M2	Communal	Clay	60	86.19
Roof Finish Main	227	Roof Finish Main	M2	Communal	Felt	20	139.14
Roof Finish Main	227	Roof Finish Main	M2	Communal	Asphalt	25	139.93
Roof Finish Main	227	Roof Finish Main	M2	Communal	Metal	40	78.97
Roof Finish Main	227	Roof Finish Main	M2	Communal	Water Proof membrane	25	184.68
Roof Finish Main	227	Roof Finish Main	M2	Communal	Sedum	30	209.52
Roof Finish Main	227	Roof Finish Main	M2	Communal	Other/specialist	30	307.80
Roofs	228	Flashing - Main Roof	LM	House	None		0.00
Roofs	228	Flashing - Main Roof	LM	House	Lead	60	129.77
Roofs	228	Flashing - Main Roof	LM	House	Zinc	75	39.40
Roofs	228	Flashing - Main Roof	LM	House	Copper	95	129.77
Roofs	228	Flashing - Main Roof	LM	House	Felt	20	48.91
Roofs	228	Flashing - Main Roof	LM	House	Other	60	48.91
Roofs	229	Flashing - Main Roof	LM	Communal	None		0.00
Roofs	229	Flashing - Main Roof	LM	Communal	Lead	50	129.77
Roofs	229	Flashing - Main Roof	LM	Communal	Zinc	50	39.40
Roofs	229	Flashing - Main Roof	LM	Communal	Copper	95	129.77
Roofs	229	Flashing - Main Roof	LM	Communal	Felt	20	48.91
Roofs	229	Flashing - Main Roof	LM	Communal	Other	50	48.91
Roofs	230	Fascia Soffit & Barge - Main Roof	LM	Communal	PVCu	30	41.93
Roofs	230	Fascia Soffit & Barge - Main Roof	LM	Communal	Timber	40	41.93
Roofs	230	Fascia Soffit & Barge - Main Roof	LM	Communal	Other	30	41.93
Roofs	230	Fascia Soffit & Barge - Main Roof	LM	Communal	Asbestos	35	41.93
Roofs	230	Fascia Soffit & Barge - Main Roof	LM	Communal	Open Eaves		0.00
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	PVCu	35	41.93
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	Timber	50	41.93
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	Other	50	41.93
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	Asbestos	35	41.93
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	Open Eaves		0.00
Roofs	231	Fascia Soffit & Barge - Main Roof	LM	House	None Part Structure		0.00
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	None		0.00
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Aluminium	30	52.74
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Cast iron/metal	45	55.90
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Finlock	50	233.92
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Lead	60	135.60
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Other	30	28.85
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	PVCu	20	28.85
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Felt	20	44.49
Drainage - Above Ground	232	Roof Gutters - Main	LM	Communal	Asbestos	35	49.68
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	None		0.00
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	PVCu	20	28.85
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Cast iron/metal	45	55.90
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Finlock	50	233.92
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Lead	60	135.60
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Other	50	28.85
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Aluminium	35	52.74
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Felt	20	44.49
Drainage - Above Ground	233	Roof Gutters - Main	LM	House	Asbestos	35	49.68
Drainage - Above Ground	234	Roof Downpipes	LM	Communal	Not Applicable		0.00
Drainage - Above Ground	234	Roof Downpipes	LM	Communal	Cast Iron	60	49.68
Drainage - Above Ground	234	Roof Downpipes	LM	Communal	PVCu	30	30.89
Drainage - Above Ground	234	Roof Downpipes	LM	Communal	Asbestos	30	49.68
Drainage - Above Ground	235	Roof Downpipes	LM	House	Not Applicable		0.00
Drainage - Above Ground	235	Roof Downpipes	LM	House	Cast Iron	60	49.68
Drainage - Above Ground	235	Roof Downpipes	LM	House	PVCu	30	30.89
Drainage - Above Ground	235	Roof Downpipes	LM	House	Asbestos	30	49.68
Roofs	238	Roof Construction Type	Ans	House	Duo Pitched		0.00
Roofs	238	Roof Construction Type	Ans	House	Duo Pitched with Hip end		0.00
Roofs	238	Roof Construction Type	Ans	House	Flat		0.00
Roofs	238	Roof Construction Type	Ans	House	Mono Pitched		0.00
Roofs	239	Roof Construction Type	Ans	Communal	Duo Pitched		0.00
Roofs	239	Roof Construction Type	Ans	Communal	Duo Pitched with Hip end		0.00
Roofs	239	Roof Construction Type	Ans	Communal	Flat		0.00
Roofs	239	Roof Construction Type	Ans	Communal	Mono Pitched		0.00
Roofs	240	Roof Structure	Ans	Communal	Structurally Sound		0.00
Roofs	240	Roof Structure	Ans	Communal	Structurally unsound		0.00
Roofs	241	Roof Structure	M2	Dwelling Internal	Structurally Sound		0.00
Roofs	241	Roof Structure	M2	Dwelling Internal	Structurally unsound	100	44.83
Roofs	242	Roof ventilation	Ans	Communal	None		0.00
Roofs	242	Roof ventilation	Ans	Communal	Yes		0.00
Roofs	243	Roof ventilation Adequate	Ans	House	None		0.00
Roofs	243	Roof ventilation Adequate	Ans	House	Yes		0.00
Windows	244	Dormer Windows Present	Ans	House	No		0.00
Windows	244	Dormer Windows Present	Ans	House	Yes		0.00
Windows	245	Dormer Windows Present	Ans	Communal	No		0.00
Windows	245	Dormer Windows Present	Ans	Communal	Yes		0.00
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Concrete Tiles	55	52.75
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Natural slates	95	96.61
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Artifical slates	40	52.74
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Clay Tiles	60	59.18
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Felt	20	139.14
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Asphalt	25	139.93
Roof Finish Main	246	Dormer Roof Finish	M2	Communal	Metal	40	78.97
Roof Finish Main	247	Dormer Roof Finish	M2	House	None		0.00
Roof Finish Main	247	Dormer Roof Finish	M2	House	Concrete Tiles	55	52.75
Roof Finish Main	247	Dormer Roof Finish	M2	House	Natural slates	95	96.61
Roof Finish Main	247	Dormer Roof Finish	M2	House	Artifical slates	40	52.74
Roof Finish Main	247	Dormer Roof Finish	M2	House	Clay Tiles	60	59.18
Roof Finish Main	247	Dormer Roof Finish	M2	House	Felt	20	139.14
Roof Finish Main	247	Dormer Roof Finish	M2	House	Velux Rooflight	30	1,242.00
Roof Finish Main	248	Rooflights	Num	House	Roof light other	30	1,242.00
Roof Finish Main	249	Rooflights	Num	Communal	None		0.00
Roof Finish Main	249	Rooflights	Num	Communal	Velux Rooflight	30	1,242.00

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost	
Roof Finish Main	249	Rooflights	Num	Communal	Roof light other	30	1,242.00	
Roofs	256	Roof Fall Arrest System	Ans	Communal	No		0.00	
Roofs	256	Roof Fall Arrest System	Ans	Communal	Yes		0.00	
Wall Structure	257	Chimney	Num	House	None		0.00	
Wall Structure	257	Chimney	Num	House	Shared Rebuild	60	432.00	
Wall Structure	257	Chimney	Num	House	Stand Alone Rebuild	60	432.00	
Wall Structure	257	Chimney	Num	House	Stand Alone Repoint/ Re render	60	45.09	
Wall Structure	257	Chimney	Num	House	Shared Repoint/ Re render	60	45.09	
Wall Structure	258	Chimney	M2	Communal	None		0.00	
Wall Structure	258	Chimney	M2	Communal	Shared Rebuild	60	432.00	
Wall Structure	258	Chimney	M2	Communal	Stand Alone Rebuild	60	432.00	
Wall Structure	258	Chimney	M2	Communal	Stand Alone Repoint/ Re render	60	45.09	
Wall Structure	258	Chimney	M2	Communal	Shared Repoint/ Re render	60	45.09	
Wall Structure	260	Chimney Configuration	Ans	House	None		0.00	
Wall Structure	260	Chimney Configuration	Ans	House	One Chimney Only		0.00	
Wall Structure	260	Chimney Configuration	Ans	House	2-3 Chimneys		0.00	
Wall Structure	260	Chimney Configuration	Ans	House	4-5 Chimneys		0.00	
Wall Structure	260	Chimney Configuration	Ans	House	More Than 5 Chimneys		0.00	
Electrical Installations	261	Electrical Installation	Num	Dwelling Internal	Upgrade	35	1,650.00	
Electrical Installations	261	Electrical Installation	Num	Dwelling Internal	Rewire	35	3,125.00	
Electrical Installations	262	Consumer Unit Type	Num	Dwelling Internal	MCBs	30	557.22	
Electrical Installations	262	Consumer Unit Type	Num	Dwelling Internal	Splitload with MCBs or RCD	30	668.66	
Electrical Installations	262	Consumer Unit Type	Num	Dwelling Internal	None		0.00	
Electrical Installations	264	Smoke Detectors	Num	Dwelling Internal	None		0.00	
Electrical Installations	264	Smoke Detectors	Num	Dwelling Internal	Mains Wired	15	534.41	
Electrical Installations	264	Smoke Detectors	Num	Dwelling Internal	Battery	10	689.61	
Electrical Installations	264	Smoke Detectors	Num	Dwelling Internal	Heat Detector	15	534.41	
Electrical Installations	265	CO Detectors	Ans	Dwelling Internal	No		0.00	
Electrical Installations	265	CO Detectors	Ans	Dwelling Internal	Yes		0.00	
Windows	267	Windows	Num	House	DG PVCu	30	557.22	
Windows	267	Windows	Num	House	DG Timber	30	557.22	
Windows	267	Windows	Num	House	Metal frame DG	30	534.41	
Windows	267	Windows	Num	House	Metal frame SG	30	534.41	
Windows	267	Windows	Num	House	Sash Windows	30	668.66	
Windows	267	Windows	Num	House	SG Wood Windows	30	557.22	
Windows	267	Windows	Num	House	Triple Glazed PVCu Windows	30	834.40	
Windows	267	Windows	Num	House	SG PVCu	30	557.22	
Windows	267	Windows	Num	House	SG Sash Windows	30	557.22	
Windows	268	Windows Dwellings	Num	Communal	DG PVCu	30	557.22	
Windows	268	Windows Dwellings	Num	Communal	DG Timber	30	557.22	
Windows	268	Windows Dwellings	Num	Communal	Metal frame DG	30	534.41	
Windows	268	Windows Dwellings	Num	Communal	Sash Windows	30	668.66	
Windows	268	Windows Dwellings	Num	Communal	Metal frame SG	45	534.41	
Windows	268	Windows Dwellings	Num	Communal	SG Wood Windows	30	557.22	
Windows	268	Windows Dwellings	Num	Communal	SG PVCu	30	557.22	
Windows	268	Windows Dwellings	Num	Communal	SG Sash Windows	30	557.22	
Windows	269	Windows Secondary	Num	Communal	None		0.00	
Windows	269	Windows Secondary	Num	Communal	DG PVCu	30	557.22	
Windows	269	Windows Secondary	Num	Communal	DG Timber	30	557.22	
Windows	269	Windows Secondary	Num	Communal	Metal frame DG	30	534.41	
Windows	269	Windows Secondary	Num	Communal	Sash Windows	30	668.66	
Windows	269	Windows Secondary	Num	Communal	Metal frame SG	45	534.41	
Windows	269	Windows Secondary	Num	Communal	SG Wood Windows	30	557.22	
Windows	269	Windows Secondary	Num	Communal	Triple Glazed PVCu Windows	30	834.40	
Windows	269	Windows Secondary	Num	Communal	SG PVCu	30	557.22	
Windows	269	Windows Secondary	Num	Communal	SG Sash Windows	30	557.22	
Windows	270	Windows Secondary	Num	House	None		0.00	
Windows	270	Windows Secondary	Num	House	DG PVCu	30	557.22	
Windows	270	Windows Secondary	Num	House	DG Timber	30	557.22	
Windows	270	Windows Secondary	Num	House	Metal frame DG	30	534.41	
Windows	270	Windows Secondary	Num	House	Sash Windows	30	668.66	
Windows	270	Windows Secondary	Num	House	Metal frame SG	45	534.41	
Windows	270	Windows Secondary	Num	House	SG Wood Windows	30	557.22	
Windows	270	Windows Secondary	Num	House	Triple Glazed PVCu Windows	30	834.40	
Windows	270	Windows Secondary	Num	House	SG PVCu	30	557.22	
Windows	270	Windows Secondary	Num	House	SG Sash Windows	30	557.22	
Windows	271	Bay Windows	Num	Communal	No		0.00	
Windows	271	Bay Windows	Num	Communal	Yes		30	689.61
Windows	272	Bay Windows	Num	House	No		0.00	
Windows	272	Bay Windows	Num	House	Yes		30	689.61
Windows	273	Windows Communal	Num	Communal	None		0.00	
Windows	273	Windows Communal	Num	Communal	DG PVCu	30	557.22	
Windows	273	Windows Communal	Num	Communal	DG Timber	30	557.22	
Windows	273	Windows Communal	Num	Communal	Metal frame DG	30	534.41	
Windows	273	Windows Communal	Num	Communal	DG Sash Windows	30	688.66	
Windows	273	Windows Communal	Num	Communal	Metal frame SG	45	534.41	
Windows	273	Windows Communal	Num	Communal	SG Wood Windows	30	557.22	
Windows	273	Windows Communal	Num	Communal	Triple Glazed PVCu Windows	30	834.40	
Windows	273	Windows Communal	Num	Communal	SG PVCu	30	557.22	
Windows	273	Windows Communal	Num	Communal	SG Sash Windows	30	557.22	
Windows	274	Glazed Screens Comm	M2	Communal	None		0.00	
Windows	274	Glazed Screens Comm	M2	Communal	Glazed Screen	60	773.22	
Windows	275	Windows	Num	Dwelling Internal DH	None		0.00	
Windows	275	Windows	Num	Dwelling Internal DH	DG PVCu	30	557.22	
Windows	275	Windows	Num	Dwelling Internal DH	DG Timber	30	557.22	
Windows	275	Windows	Num	Dwelling Internal DH	Metal frame DG	30	534.41	
Windows	275	Windows	Num	Dwelling Internal DH	DG Sash Windows	30	688.66	
Windows	275	Windows	Num	Dwelling Internal DH	Metal frame SG	45	534.41	
Windows	275	Windows	Num	Dwelling Internal DH	SG Wood Windows	30	557.22	
Windows	275	Windows	Num	Dwelling Internal DH	Triple Glazed PVCu Windows	30	834.40	
Windows	275	Windows	Num	Dwelling Internal DH	SG PVCu	30	557.22	
Windows	275	Windows	Num	Dwelling Internal DH	SG Sash Windows	30	557.22	
Wall Structure	276	External Walls	M2	Dwelling Internal DH	Cavity Brickwork	100	224.42	
Wall Structure	276	External Walls	M2	Dwelling Internal DH	Solid Brick	100	318.60	
Wall Structure	276	External Walls	M2	Dwelling Internal DH	Non traditional system build	100	729.00	
Wall Structure	276	External Walls	M2	Dwelling Internal DH	Stone	100	318.60	

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Wall Structure	276	External Walls	M2	Dwelling Internal DH	Timber Frame	100	224.42
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Repointing	60	45.09
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	PVC-u Clad	35	146.08
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Render / painted render	35	53.30
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Tyrolean/pebbledash	60	52.75
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Tile hanging	45	84.48
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Timber cladding	35	185.94
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Thermal Insulation Panel render system	35	729.00
External Wall Finish	277	External Wall Finish	M2	Dwelling Internal DH	Curtain walling	60	2,096.28
Roofs	281	Roof Porch	M2	Communal	None		0.00
Roofs	281	Roof Porch	M2	Communal	Concrete Tiles	55	52.75
Roofs	281	Roof Porch	M2	Communal	Natural Slate	95	96.61
Roofs	281	Roof Porch	M2	Communal	Artificial Slates	40	52.74
Roofs	281	Roof Porch	M2	Communal	Clay	60	86.19
Roofs	281	Roof Porch	M2	Communal	Felt	20	44.49
Roofs	281	Roof Porch	M2	Communal	Metal	40	78.97
Roofs	281	Roof Porch	M2	Communal	Other	30	56.00
Roofs	282	Roof Porch	M2	House	None		0.00
Roofs	282	Roof Porch	M2	House	Concrete Tiles	55	52.75
Roofs	282	Roof Porch	M2	House	Natural Slate	95	96.61
Roofs	282	Roof Porch	M2	House	Artificial Slates	40	52.74
Roofs	282	Roof Porch	M2	House	Clay	60	86.19
Roofs	282	Roof Porch	M2	House	Felt	20	44.49
Roofs	282	Roof Porch	M2	House	Metal	40	78.97
Roofs	282	Roof Porch	M2	House	Other	30	56.00
Roofs	283	Porch Roof Structure	Ans	Communal	None		0.00
Roofs	283	Porch Roof Structure	Ans	Communal	Lean-To		0.00
Roofs	283	Porch Roof Structure	Ans	Communal	Pitched		0.00
Roofs	283	Porch Roof Structure	Ans	Communal	Flat		0.00
Roofs	283	Porch Roof Structure	Ans	Communal	Other		0.00
Roofs	284	Porch Roof Structure	Ans	House	None		0.00
Roofs	284	Porch Roof Structure	Ans	House	Lean-To		0.00
Roofs	284	Porch Roof Structure	Ans	House	Pitched		0.00
Roofs	284	Porch Roof Structure	Ans	House	Flat		0.00
Roofs	284	Porch Roof Structure	Ans	House	Other		0.00
Roofs	285	Porch Fascias	LM	House	None		0.00
Roofs	285	Porch Fascias	LM	House	PVCu	30	69.87
Roofs	285	Porch Fascias	LM	House	Timber	50	41.93
Roofs	286	Porch Fascias	LM	Communal	None		0.00
Roofs	286	Porch Fascias	LM	Communal	PVCu	30	69.87
Roofs	286	Porch Fascias	LM	Communal	Timber	40	69.88
Drainage - Above Ground	287	Porch Downpipes	LM	House	None		0.00
Drainage - Above Ground	287	Porch Downpipes	LM	House	PVCu	30	30.89
Drainage - Above Ground	287	Porch Downpipes	LM	House	Cast Iron	60	49.68
Drainage - Above Ground	288	Porch Downpipes	LM	Communal	None		0.00
Drainage - Above Ground	288	Porch Downpipes	LM	Communal	PVCu	30	30.89
Drainage - Above Ground	288	Porch Downpipes	LM	Communal	Cast Iron	60	49.68
Drainage - Above Ground	289	Porch Gutters	LM	Communal	None		0.00
Drainage - Above Ground	289	Porch Gutters	LM	Communal	PVCu	20	28.85
Drainage - Above Ground	289	Porch Gutters	LM	Communal	Cast Iron	45	55.90
Drainage - Above Ground	289	Porch Gutters	LM	Communal	Aluminium	30	52.74
Drainage - Above Ground	289	Porch Gutters	LM	Communal	Felt	30	44.49
Drainage - Above Ground	290	Porch Gutters	LM	House	None		0.00
Drainage - Above Ground	290	Porch Gutters	LM	House	PVCu	20	28.85
Drainage - Above Ground	290	Porch Gutters	LM	House	Cast Iron	45	55.90
Drainage - Above Ground	290	Porch Gutters	LM	House	Aluminium	35	52.74
Drainage - Above Ground	290	Porch Gutters	LM	House	Felt	20	44.49
Wall Structure	291	Porch Wall Structure	M2	House	None		0.00
Wall Structure	291	Porch Wall Structure	M2	House	Solid Brick	80	318.60
Wall Structure	291	Porch Wall Structure	M2	House	Cavity	100	351.00
Wall Structure	291	Porch Wall Structure	M2	House	Timber Frame	80	224.42
Wall Structure	291	Porch Wall Structure	M2	House	Concrete	80	64.80
Wall Structure	291	Porch Wall Structure	M2	House	Solid Stone	100	318.60
Wall Structure	291	Porch Wall Structure	M2	House	Other	50	95.04
Wall Structure	292	Porch Wall Structure	M2	Communal	None		0.00
Wall Structure	292	Porch Wall Structure	M2	Communal	Solid Brick	80	318.60
Wall Structure	292	Porch Wall Structure	M2	Communal	Cavity	100	25.74
Wall Structure	292	Porch Wall Structure	M2	Communal	Timber Frame	80	224.42
Wall Structure	292	Porch Wall Structure	M2	Communal	Concrete	80	64.80
Wall Structure	292	Porch Wall Structure	M2	Communal	Solid Stone	100	318.60
Wall Structure	292	Porch Wall Structure	M2	Communal	Other	80	23.27
External Wall Finish	293	Porch Wall Finish	M2	Communal	None		0.00
External Wall Finish	293	Porch Wall Finish	M2	Communal	Repaint	60	45.09
External Wall Finish	293	Porch Wall Finish	M2	Communal	Other	40	65.53
External Wall Finish	293	Porch Wall Finish	M2	Communal	Render - Chipped	50	65.53
External Wall Finish	293	Porch Wall Finish	M2	Communal	Render - Painted	45	53.30
External Wall Finish	293	Porch Wall Finish	M2	Communal	Render - Plain	45	53.30
External Wall Finish	293	Porch Wall Finish	M2	Communal	Tile Hung	60	84.48
External Wall Finish	293	Porch Wall Finish	M2	Communal	Timber Clad	35	147.60
External Wall Finish	294	Porch Wall Finish	M2	House	None		0.00
External Wall Finish	294	Porch Wall Finish	M2	House	Repaint	60	45.09
External Wall Finish	294	Porch Wall Finish	M2	House	Other	60	614.01
External Wall Finish	294	Porch Wall Finish	M2	House	Render - Chipped	50	65.53
External Wall Finish	294	Porch Wall Finish	M2	House	Render - Painted	45	53.30
External Wall Finish	294	Porch Wall Finish	M2	House	Render - Plain	45	53.30
External Wall Finish	294	Porch Wall Finish	M2	House	Tile Hung	60	84.48
External Wall Finish	294	Porch Wall Finish	M2	House	Timber Clad	35	147.60
Windows	295	Porch Windows	Num	House	None		0.00
Windows	295	Porch Windows	Num	House	DG Metal Windows	30	534.41
Windows	295	Porch Windows	Num	House	DG PVCu Windows	30	557.22
Windows	295	Porch Windows	Num	House	DG Wood Windows	30	557.22
Windows	295	Porch Windows	Num	House	Other Double Glazed	30	557.22
Windows	295	Porch Windows	Num	House	Other Single Glazed	30	557.22
Windows	295	Porch Windows	Num	House	SG Metal Windows	30	534.41
Windows	295	Porch Windows	Num	House	SG Wood Windows	30	557.22
Windows	295	Porch Windows	Num	House	SG PVCu Windows	30	557.22
Windows	296	Porch Windows	Num	Communal	None		0.00

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Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Windows	296	Porch Windows	Num	Communal	DG Metal Windows	30	534.41
Windows	296	Porch Windows	Num	Communal	DG PVCu Windows	30	557.22
Windows	296	Porch Windows	Num	Communal	DG Wood Windows	30	557.22
Windows	296	Porch Windows	Num	Communal	Other Double Glazed	30	557.22
Windows	296	Porch Windows	Num	Communal	Other Single Glazed	30	557.22
Windows	296	Porch Windows	Num	Communal	SG Metal Windows	30	534.41
Windows	296	Porch Windows	Num	Communal	SG Wood Windows	30	557.22
Windows	296	Porch Windows	Num	Communal	SG PVCu Windows	30	557.22
Roofs	297	Canopies	M2	House	None		0.00
Roofs	297	Canopies	M2	House	GRP	30	345.50
Roofs	297	Canopies	M2	House	Concrete	80	351.00
Roofs	297	Canopies	M2	House	Timber mineral felt	20	44.49
Roofs	297	Canopies	M2	House	Glazed	40	84.49
Roofs	298	Canopies Cantilever	M2	Communal	None		0.00
Roofs	298	Canopies Cantilever	M2	Communal	GRP	30	345.50
Roofs	298	Canopies Cantilever	M2	Communal	Concrete	75	445.50
Roofs	298	Canopies Cantilever	M2	Communal	Glazed	40	351.00
Wall Structure	299	Wall Structure Main	M2	Communal	Cavity Brickwork	100	224.42
Wall Structure	299	Wall Structure Main	M2	Communal	Solid Brick	80	318.60
Wall Structure	299	Wall Structure Main	M2	Communal	Non traditional system build	30	47.41
Wall Structure	299	Wall Structure Main	M2	Communal	Stone	80	318.60
Wall Structure	299	Wall Structure Main	M2	Communal	Timber Frame	80	224.42
Wall Structure	299	Wall Structure Main	M2	Communal	Concrete & Panel	80	257.21
Wall Structure	300	Wall Structure Main	M2	House	Cavity Brickwork	100	224.42
Wall Structure	300	Wall Structure Main	M2	House	Solid Brick	80	318.60
Wall Structure	300	Wall Structure Main	M2	House	Non traditional system build	100	1,080.00
Wall Structure	300	Wall Structure Main	M2	House	Stone	100	318.60
Wall Structure	300	Wall Structure Main	M2	House	Timber Frame	80	224.42
Wall Structure	301	Wall Structure defects (Main)	M2	House	None		0.00
Wall Structure	301	Wall Structure defects (Main)	M2	House	Replace spalling brickwork	20	224.42
Wall Structure	301	Wall Structure defects (Main)	M2	House	Replace wall ties	20	318.60
Wall Structure	302	Wall Structure defects (Main)	M2	Communal	None		0.00
Wall Structure	302	Wall Structure defects (Main)	M2	Communal	Spalling	100	250.00
Wall Structure	302	Wall Structure defects (Main)	M2	Communal	Bulging		250.00
Wall Structure	302	Wall Structure defects (Main)	M2	Communal	Structural Cracking	100	2,850.00
Wall Structure	303	Rising Damp - Failed DPC	LM	Communal	No		0.00
Wall Structure	303	Rising Damp - Failed DPC	LM	Communal	Yes	20	48.60
Wall Structure	304	External Walls Structural Stability	Ans	House	No defects		0.00
Wall Structure	304	External Walls Structural Stability	Ans	House	Bulging wall	100	0.00
Wall Structure	304	External Walls Structural Stability	Ans	House	Cracking above lintel	100	48.60
Wall Structure	304	External Walls Structural Stability	Ans	House	Cracking from foundation level	100	0.00
External Wall Finish	306	Thermal insulation (Main)	Ans	House	Cavity wall insulation present	50	140.40
External Wall Finish	306	Thermal insulation (Main)	Ans	House	Cavity wall insulation not present	50	140.40
External Wall Finish	306	Thermal insulation (Main)	Ans	House	Solid wall insulated		0.00
External Wall Finish	306	Thermal insulation (Main)	Ans	House	Solid wall not insulated		0.00
External Wall Finish	306	Thermal insulation (Main)	Ans	House	Cavity wall insulated render	50	65.53
External Wall Finish	307	Thermal insulation (Main)	Ans	Communal	Cavity wall insulation present	50	140.40
External Wall Finish	307	Thermal insulation (Main)	Ans	Communal	Cavity wall insulation not present	50	140.40
External Wall Finish	307	Thermal insulation (Main)	Ans	Communal	Solid wall insulated	100	0.00
External Wall Finish	307	Thermal insulation (Main)	Ans	Communal	Solid wall not insulated		0.00
External Wall Finish	307	Thermal insulation (Main)	Ans	Communal	Cavity wall insulated render	50	65.53
Wall Structure	308	Lintels	Num	House	Not visible		0.00
Wall Structure	308	Lintels	Num	House	Stone	100	351.00
Wall Structure	308	Lintels	Num	House	Concrete	100	351.00
Wall Structure	308	Lintels	Num	House	Brickwork	100	351.00
Wall Structure	309	Lintels	Num	Communal	Not visible		0.00
Wall Structure	309	Lintels	Num	Communal	Stone	60	351.00
Wall Structure	309	Lintels	Num	Communal	Concrete	60	351.00
Wall Structure	309	Lintels	Num	Communal	Brickwork	60	351.00
Wall Structure	310	Cills	LM	House	None		0.00
Wall Structure	310	Cills	LM	House	Stone	100	246.08
Wall Structure	310	Cills	LM	House	Tile	60	87.42
Wall Structure	310	Cills	LM	House	Concrete	100	49.45
Wall Structure	310	Cills	LM	House	Brickwork	100	329.00
Wall Structure	311	Cills	LM	Communal	None		0.00
Wall Structure	311	Cills	LM	Communal	Stone	20	246.08
Wall Structure	311	Cills	LM	Communal	Tile	20	87.42
Wall Structure	311	Cills	LM	Communal	Concrete	20	49.45
Wall Structure	311	Cills	LM	Communal	Brickwork	100	329.00
Wall Structure	312	Mullions	Num	House	Stone	100	146.08
Wall Structure	312	Mullions	Num	House	Concrete	100	49.45
Wall Structure	312	Mullions	Num	House	No Mullions		0.00
External Wall Finish	314	Wall Finish Main	M2	House	Repointing	60	45.09
External Wall Finish	314	Wall Finish Main	M2	House	PVC-u Clad	35	146.08
External Wall Finish	314	Wall Finish Main	M2	House	Render / painted render	35	53.30
External Wall Finish	314	Wall Finish Main	M2	House	Tyrolean/pebbledash	60	37.80
External Wall Finish	314	Wall Finish Main	M2	House	Tile hanging	45	84.48
External Wall Finish	314	Wall Finish Main	M2	House	Timber cladding	35	185.94
External Wall Finish	314	Wall Finish Main	M2	House	Thermal Insulation Panel render system	35	729.00
External Wall Finish	314	Wall Finish Main	M2	House	Curtain walling	60	2,096.28
External Wall Finish	315	Wall Finish Main	M2	Communal	Repainting	60	49.45
External Wall Finish	315	Wall Finish Main	M2	Communal	PVC Clad	35	146.08
External Wall Finish	315	Wall Finish Main	M2	Communal	Render - painted render	60	53.30
External Wall Finish	315	Wall Finish Main	M2	Communal	Tyrolean - Pebbledash	60	146.08
External Wall Finish	315	Wall Finish Main	M2	Communal	Tile hanging	45	84.48
External Wall Finish	315	Wall Finish Main	M2	Communal	Timber cladding	35	185.94
External Wall Finish	315	Wall Finish Main	M2	Communal	Thermal Insulation Panel render system	25	729.00
External Wall Finish	315	Wall Finish Main	M2	Communal	Curtain walling	40	2,096.28
External Wall Finish	315	Wall Finish Main	M2	Communal	Brick Slips	25	35.27
External Wall Finish	316	Wall Finish External (other)	M2	House	None		0.00
External Wall Finish	316	Wall Finish External (other)	M2	House	Repainting	60	45.09
External Wall Finish	316	Wall Finish External (other)	M2	House	PVC-u Clad	25	146.08
External Wall Finish	316	Wall Finish External (other)	M2	House	Render/painted render	50	53.30
External Wall Finish	316	Wall Finish External (other)	M2	House	Tyrolean/pebbledash	60	64.80
External Wall Finish	316	Wall Finish External (other)	M2	House	Tile hanging	45	84.48
External Wall Finish	316	Wall Finish External (other)	M2	House	Timber cladding	35	185.94
External Wall Finish	316	Wall Finish External (other)	M2	House	Thermal Insulation Panel render system	35	729.00

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External Wall Finish	316	Wall Finish External (other)	M2	House	Curtain walling	60	2,096.28
External Wall Finish	317	Wall Finish External Other	M2	Communal	None		0.00
External Wall Finish	317	Wall Finish External Other	M2	Communal	Repointing	60	45.09
External Wall Finish	317	Wall Finish External Other	M2	Communal	PVC Clad	25	146.08
External Wall Finish	317	Wall Finish External Other	M2	Communal	Render -painted render	60	53.30
External Wall Finish	317	Wall Finish External Other	M2	Communal	Tyrolean - Pebbledash	60	146.08
External Wall Finish	317	Wall Finish External Other	M2	Communal	Tile hanging	45	84.48
External Wall Finish	317	Wall Finish External Other	M2	Communal	Timber cladding	35	185.94
External Wall Finish	317	Wall Finish External Other	M2	Communal	Thermal insulation panel render system	25	729.00
External Wall Finish	317	Wall Finish External Other	M2	Communal	Curtain walling	40	2,096.28
External Wall Finish	317	Wall Finish External Other	M2	Communal	Brick Slips	60	137.74
Wall Structure	318	Rising Damp - Bridged DPC	LM	Communal	No		0.00
Wall Structure	318	Rising Damp - Bridged DPC	LM	Communal	Yes		0.00
Wall Structure	319	Rising Damp - Bridged DPC	Ans	House	No		0.00
Wall Structure	319	Rising Damp - Bridged DPC	Ans	House	Yes		0.00
Wall Structure	320	DPC	Ans	House	DPC present		0.00
Wall Structure	320	DPC	Ans	House	DPC not present	40	172.45
Stairs & Balconies	324	Balconies Balustrade	LM	House	None		0.00
Stairs & Balconies	324	Balconies Balustrade	LM	House	Metal	60	0.00
Stairs & Balconies	324	Balconies Balustrade	LM	House	Wood	50	209.63
Stairs & Balconies	324	Balconies Balustrade	LM	House	Glazed	35	172.45
Stairs & Balconies	324	Balconies Balustrade	LM	House	Brickwork Rebuild	100	160.11
Stairs & Balconies	324	Balconies Balustrade	LM	House	Brickwork Repoint	100	45.09
Stairs & Balconies	324	Balconies Balustrade	LM	House	Bwk & Rail Rebuild	60	182.98
Stairs & Balconies	324	Balconies Balustrade	LM	House	Bwk & Rail Repoint	100	45.09
Stairs & Balconies	325	Balconies Structure - Comm	M2	Communal	None		0.00
Stairs & Balconies	325	Balconies Structure - Comm	M2	Communal	Timber	100	137.53
Stairs & Balconies	325	Balconies Structure - Comm	M2	Communal	Metal	100	137.53
Stairs & Balconies	325	Balconies Structure - Comm	M2	Communal	Concrete	80	185.94
Stairs & Balconies	326	Balconies Structure	M2	House	None		0.00
Stairs & Balconies	326	Balconies Structure	M2	House	Timber	30	0.00
Stairs & Balconies	326	Balconies Structure	M2	House	Metal	75	136.95
Stairs & Balconies	326	Balconies Structure	M2	House	Concrete	100	210.60
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	None		0.00
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Metal	75	0.00
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Wood	30	195.48
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Glazed	35	136.95
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Brickwork Rebuild	100	388.28
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Brickwork Repoint	100	45.09
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Bwk & Rail Rebuild	75	216.62
Stairs & Balconies	327	Balconies Balustrade - Comm	LM	Communal	Bwk & Rail Repoint	75	45.09
Stairs & Balconies	328	Balconies Structure - Private	M2	Communal	None		0.00
Stairs & Balconies	328	Balconies Structure - Private	M2	Communal	Timber	20	0.00
Stairs & Balconies	328	Balconies Structure - Private	M2	Communal	Metal	100	44.83
Stairs & Balconies	328	Balconies Structure - Private	M2	Communal	Concrete	100	80.61
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	None		0.00
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Metal	20	86.18
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Wood	20	139.15
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Glazed	35	139.15
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Brickwork Rebuild	50	78.97
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Brickwork Repoint	50	45.09
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Bwk & Rail Rebuild	50	184.68
Stairs & Balconies	329	Balconies Balustrade - Private	LM	Communal	Bwk & Rail Repoint	50	45.09
Roof Finish Main	332	Roof Finish Secondary	M2	House	None		0.00
Roof Finish Main	332	Roof Finish Secondary	M2	House	Concrete Tiles	55	52.75
Roof Finish Main	332	Roof Finish Secondary	M2	House	Natural slates	95	96.61
Roof Finish Main	332	Roof Finish Secondary	M2	House	Artificial slates	40	52.74
Roof Finish Main	332	Roof Finish Secondary	M2	House	Clay tiles	60	59.18
Roof Finish Main	332	Roof Finish Secondary	M2	House	Felt	20	139.14
Roof Finish Main	332	Roof Finish Secondary	M2	House	Asphalt	25	139.93
Roof Finish Main	332	Roof Finish Secondary	M2	House	Metal	40	78.97
Roof Finish Main	332	Roof Finish Secondary	M2	House	Sedum	30	118.80
Roof Finish Main	332	Roof Finish Secondary	M2	House	Waterproof Membrane	25	184.68
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	None		0.00
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Concrete Tiles	55	52.75
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Natural slates	95	96.61
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Artificial slates	40	52.74
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Clay tiles	60	59.18
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Felt	20	139.14
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Asphalt	25	139.93
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Metal	40	78.97
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Sedum	30	118.80
Roof Finish Main	333	Roof Finish Secondary	M2	Communal	Waterproof Membrane	25	184.68
Roofs	334	Roof Structure Extension	Ans	House	Structurally Sound		0.00
Roofs	334	Roof Structure Extension	Ans	House	Structurally unsound		0.00
Roofs	335	Roof Type Extension	Ans	House	Duo Pitched		0.00
Roofs	335	Roof Type Extension	Ans	House	Duo Pitched with Hip end		0.00
Roofs	335	Roof Type Extension	Ans	House	Flat		0.00
Roofs	335	Roof Type Extension	Ans	House	Mono Pitched		0.00
Roofs	336	Roof Type Extension	Ans	Communal	Duo Pitched		0.00
Roofs	336	Roof Type Extension	Ans	Communal	Duo Pitched with Hip end		0.00
Roofs	336	Roof Type Extension	Ans	Communal	Flat		0.00
Roofs	336	Roof Type Extension	Ans	Communal	Mono Pitched		0.00
Roofs	337	Fascia Soffits & Barge - Extension	LM	Communal	None		0.00
Roofs	337	Fascia Soffits & Barge - Extension	LM	Communal	PVCu	30	41.93
Roofs	337	Fascia Soffits & Barge - Extension	LM	Communal	Timber	40	41.93
Roofs	337	Fascia Soffits & Barge - Extension	LM	Communal	Asbestos	35	41.93
Roofs	338	Fascia Soffits & Barge - Extension	LM	House	None		0.00
Roofs	338	Fascia Soffits & Barge - Extension	LM	House	PVCu	30	41.93
Roofs	338	Fascia Soffits & Barge - Extension	LM	House	Timber	30	41.93
Roofs	338	Fascia Soffits & Barge - Extension	LM	House	Asbestos	35	41.93
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	None		0.00
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	Cavity Brickwork	100	224.42
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	Solid Brick	80	318.60
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	Non traditional system build	80	0.00
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	Solid Stone	100	318.60
Wall Structure	339	External Wall Structure (Extension)	M2	Communal	Timber Frame	80	224.42

Tustin Estate
Schedule of Rates & Indicative Life Cycles - Fourth Quarter 2019

Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Wall Structure	340	External Wall Structure (Extension)	M2	House	None		0.00
Wall Structure	340	External Wall Structure (Extension)	M2	House	Cavity Brickwork	100	224.42
Wall Structure	340	External Wall Structure (Extension)	M2	House	Solid Brick	80	318.60
Wall Structure	340	External Wall Structure (Extension)	M2	House	Non traditional system build	60	27.55
Wall Structure	340	External Wall Structure (Extension)	M2	House	Solid Stone	100	318.60
Wall Structure	340	External Wall Structure (Extension)	M2	House	Timber Frame	80	224.42
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Cavity wall insulation present		0.00
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Cavity wall insulation not present		0.00
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Solid wall insulated		0.00
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Solid wall not insulated		0.00
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Cavity wall insulated render	50	65.53
External Wall Finish	341	Thermal insulation (Extension)	Ans	Communal	Cavity wall not insulated render		0.00
External Wall Finish	342	Wall Finish Extension	M2	Communal	Repointing	60	45.09
External Wall Finish	342	Wall Finish Extension	M2	Communal	PVC-u Clad	25	146.08
External Wall Finish	342	Wall Finish Extension	M2	Communal	Render / painted render	60	53.30
External Wall Finish	342	Wall Finish Extension	M2	Communal	Tyrolean/pebbledash	60	29.70
External Wall Finish	342	Wall Finish Extension	M2	Communal	Tile hanging	45	84.48
External Wall Finish	342	Wall Finish Extension	M2	Communal	Timber cladding	35	185.94
External Wall Finish	342	Wall Finish Extension	M2	Communal	Thermal Insulation Panel render system	35	729.00
External Wall Finish	342	Wall Finish Extension	M2	Communal	Curtain walling	40	2,096.28
External Wall Finish	343	Wall Finish Extension	M2	House	Repointing	60	45.09
External Wall Finish	343	Wall Finish Extension	M2	House	PVC-u Clad	25	146.08
External Wall Finish	343	Wall Finish Extension	M2	House	Render / painted render	50	53.30
External Wall Finish	343	Wall Finish Extension	M2	House	Tyrolean/pebbledash	60	773.20
External Wall Finish	343	Wall Finish Extension	M2	House	Tile hanging	45	84.48
External Wall Finish	343	Wall Finish Extension	M2	House	Timber cladding	35	185.94
External Wall Finish	343	Wall Finish Extension	M2	House	Thermal Insulation Panel render system	35	729.00
External Wall Finish	343	Wall Finish Extension	M2	House	Curtain walling	60	2,096.28
External Wall Finish	344	Thermal insulation - Extension	Ans	House	Cavity wall insulation present		0.00
External Wall Finish	344	Thermal insulation - Extension	Ans	House	Solid wall insulated		0.00
External Wall Finish	344	Thermal insulation - Extension	Ans	House	Solid wall not insulated		0.00
External Wall Finish	344	Thermal insulation - Extension	Ans	House	Cavity wall insulated render	50	65.53
External Wall Finish	344	Thermal insulation - Extension	Ans	House	Cavity wall not insulated render		0.00
External Doors	347	Com Ent Door 1	Num	Communal	None		0.00
External Doors	347	Com Ent Door 1	Num	Communal	PVC-u Double Glazed	30	1,647.82
External Doors	347	Com Ent Door 1	Num	Communal	PVC-u Single Glazed	30	1,647.82
External Doors	347	Com Ent Door 1	Num	Communal	PVC-u Unglazed	30	1,647.82
External Doors	347	Com Ent Door 1	Num	Communal	Softwood Double Glazed	30	773.20
External Doors	347	Com Ent Door 1	Num	Communal	Softwood Single Glazed	30	804.62
External Doors	347	Com Ent Door 1	Num	Communal	Softwood Unglazed	20	773.20
External Doors	347	Com Ent Door 1	Num	Communal	Hardwood Double Glazed	30	899.17
External Doors	347	Com Ent Door 1	Num	Communal	Hardwood Single Glazed	30	869.17
External Doors	347	Com Ent Door 1	Num	Communal	Hardwood Unglazed	30	835.00
External Doors	347	Com Ent Door 1	Num	Communal	Composite Double Glazed	30	804.62
External Doors	347	Com Ent Door 1	Num	Communal	Composite Single Glazed	30	804.62
External Doors	347	Com Ent Door 1	Num	Communal	Composite Unglazed	30	773.20
External Doors	347	Com Ent Door 1	Num	Communal	Aluminium Double Glazed	30	1,447.82
External Doors	347	Com Ent Door 1	Num	Communal	Aluminium Single Glazed	30	1,447.82
External Doors	347	Com Ent Door 1	Num	Communal	Communal Doors Lining & Architraves	30	1,447.82
External Doors	348	Com Ent Door 1 Integ Door & Frame	M2	Communal	Not Applicable		0.00
External Doors	348	Com Ent Door 1 Integ Door & Frame	M2	Communal	Yes	30	108.00
External Doors	348	Com Ent Door 1 Integ Door & Frame	M2	Communal	No		0.00
External Doors	349	Com Ent Door 2	Num	Communal	None		0.00
External Doors	349	Com Ent Door 2	Num	Communal	PVC-u Double Glazed	30	1,647.82
External Doors	349	Com Ent Door 2	Num	Communal	PVC-u Single Glazed	30	1,647.82
External Doors	349	Com Ent Door 2	Num	Communal	PVC-u Unglazed	30	1,647.82
External Doors	349	Com Ent Door 2	Num	Communal	Softwood Double Glazed	30	773.20
External Doors	349	Com Ent Door 2	Num	Communal	Softwood Single Glazed	30	804.62
External Doors	349	Com Ent Door 2	Num	Communal	Softwood Unglazed	30	773.20
External Doors	349	Com Ent Door 2	Num	Communal	Hardwood Double Glazed	30	899.17
External Doors	349	Com Ent Door 2	Num	Communal	Hardwood Single Glazed	20	869.17
External Doors	349	Com Ent Door 2	Num	Communal	Hardwood Unglazed	30	835.00
External Doors	349	Com Ent Door 2	Num	Communal	Composite Double Glazed	30	804.62
External Doors	349	Com Ent Door 2	Num	Communal	Composite Single Glazed	30	804.62
External Doors	349	Com Ent Door 2	Num	Communal	Composite Unglazed	20	773.20
External Doors	349	Com Ent Door 2	Num	Communal	Aluminium Double Glazed	20	1,447.82
External Doors	349	Com Ent Door 2	Num	Communal	Aluminium Single Glazed	20	1,447.82
External Doors	349	Com Ent Door 2	Num	Communal	Communal Doors Lining & Architraves	20	1,447.82
External Doors	350	Com Ent Door 2 Integ Door & Frame	Ans	Communal	Not Applicable		0.00
External Doors	350	Com Ent Door 2 Integ Door & Frame	Ans	Communal	No		0.00
External Doors	350	Com Ent Door 2 Integ Door & Frame	Ans	Communal	Yes	30	108.00
External Doors	351	Entrance Doors Front	Num	House	PVCu Double Glazed	30	1,398.60
External Doors	351	Entrance Doors Front	Num	House	PVCu Single Glazed	30	1,398.60
External Doors	351	Entrance Doors Front	Num	House	PVCu Unglazed	30	1,398.60
External Doors	351	Entrance Doors Front	Num	House	Softwood Double Glazed	30	810.00
External Doors	351	Entrance Doors Front	Num	House	Softwood Single Glazed	30	810.00
External Doors	351	Entrance Doors Front	Num	House	Softwood Unglazed	30	810.00
External Doors	351	Entrance Doors Front	Num	House	Hardwood Double Glazed	40	669.18
External Doors	351	Entrance Doors Front	Num	House	Hardwood Single Glazed	40	669.18
External Doors	351	Entrance Doors Front	Num	House	Hardwood Unglazed	40	669.18
External Doors	351	Entrance Doors Front	Num	House	Composite Double Glazed	30	804.62
External Doors	351	Entrance Doors Front	Num	House	Composite Single Glazed	30	804.62
External Doors	351	Entrance Doors Front	Num	House	Composite Unglazed	30	773.20
External Doors	351	Entrance Doors Front	Num	House	Aluminium Double Glazed	30	1,447.82
External Doors	351	Entrance Doors Front	Num	House	Aluminium Single Glazed	30	1,447.82
External Doors	351	Entrance Doors Front	Num	House	Other Double Glazed	30	1,447.82
External Doors	351	Entrance Doors Front	Num	House	Other Single Glazed	30	1,397.52
External Doors	351	Entrance Doors Front	Num	House	Other Unglazed	30	1,397.52
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	PVCu Double Glazed	30	1,398.60
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	PVCu Single Glazed	30	1,398.60
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	PVCu Unglazed	30	1,398.60
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Softwood Double Glazed	30	810.00
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Softwood Single Glazed	30	810.00
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Softwood Unglazed	30	810.00
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Hardwood Double Glazed	40	669.18
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Hardwood Single Glazed	40	669.18
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Hardwood Unglazed	40	669.18

Tustin Estate
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Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Composite Double Glazed	30	804.62
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Composite Single Glazed	30	804.62
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Composite Unglazed	30	773.20
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Aluminium Double Glazed	30	1,447.83
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Aluminium Single Glazed	30	1,447.83
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Other Double Glazed	30	1,447.83
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Other Single Glazed	30	1,397.52
External Doors	352	Entrance Doors Front	Num	Dwelling Internal DH	Other Unglazed	30	1,397.52
External Doors	353	External Doors	Num	Communal	PVCu Double Glazed	30	1,398.60
External Doors	353	External Doors	Num	Communal	PVCu Single Glazed	30	1,398.60
External Doors	353	External Doors	Num	Communal	PVCu Unglazed	30	1,398.60
External Doors	353	External Doors	Num	Communal	Softwood Double Glazed	30	810.00
External Doors	353	External Doors	Num	Communal	Softwood Single Glazed	30	810.00
External Doors	353	External Doors	Num	Communal	Softwood Unglazed	30	810.00
External Doors	353	External Doors	Num	Communal	Hardwood Double Glazed	40	669.18
External Doors	353	External Doors	Num	Communal	Hardwood Single Glazed	40	669.18
External Doors	353	External Doors	Num	Communal	Hardwood Unglazed	40	669.18
External Doors	353	External Doors	Num	Communal	Composite Double Glazed	30	804.62
External Doors	353	External Doors	Num	Communal	Composite Single Glazed	30	804.62
External Doors	353	External Doors	Num	Communal	Composite Unglazed	30	773.20
External Doors	353	External Doors	Num	Communal	Aluminium Double Glazed	30	804.62
External Doors	353	External Doors	Num	Communal	Aluminium Single Glazed	30	1,447.83
External Doors	353	External Doors	Num	Communal	Other Double Glazed	30	1,447.83
External Doors	353	External Doors	Num	Communal	Other Single Glazed	30	1,447.83
External Doors	353	External Doors	Num	Communal	Other Unglazed	30	1,397.52
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	None		0.00
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	PVCu Double Glazed	30	1,398.60
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	PVCu Single Glazed	30	1,398.60
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	PVCu Unglazed	30	1,398.60
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Softwood Double Glazed	30	810.00
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Softwood Single Glazed	30	810.00
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Softwood Unglazed	30	918.00
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Hardwood Double Glazed	30	669.18
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Hardwood Single Glazed	30	669.18
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Hardwood Unglazed	50	669.18
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Composite Double Glazed	30	804.62
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Composite Single Glazed	30	804.62
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Composite Unglazed	30	773.20
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Aluminium Double Glazed	30	804.62
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Aluminium Single Glazed	30	1,447.83
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Other Double Glazed	30	1,447.83
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Other Single Glazed	30	1,447.83
External Doors	355	Entrance Doors Rear or Balcony	Num	Dwelling Internal DH	Other Unglazed	30	1,397.52
External Doors	356	Entrance Doors Rear	Num	House	None		0.00
External Doors	356	Entrance Doors Rear	Num	House	PVCu Double Glazed	30	1,398.60
External Doors	356	Entrance Doors Rear	Num	House	PVCu Single Glazed	30	1,398.60
External Doors	356	Entrance Doors Rear	Num	House	PVCu Unglazed	30	1,398.60
External Doors	356	Entrance Doors Rear	Num	House	Softwood Double Glazed	30	810.00
External Doors	356	Entrance Doors Rear	Num	House	Softwood Single Glazed	30	810.00
External Doors	356	Entrance Doors Rear	Num	House	Softwood Unglazed	30	810.00
External Doors	356	Entrance Doors Rear	Num	House	Hardwood Double Glazed	40	669.18
External Doors	356	Entrance Doors Rear	Num	House	Hardwood Single Glazed	40	669.18
External Doors	356	Entrance Doors Rear	Num	House	Hardwood Unglazed	40	669.18
External Doors	356	Entrance Doors Rear	Num	House	Composite Double Glazed	30	804.62
External Doors	356	Entrance Doors Rear	Num	House	Composite Single Glazed	30	804.62
External Doors	356	Entrance Doors Rear	Num	House	Composite Unglazed	30	773.20
External Doors	356	Entrance Doors Rear	Num	House	Aluminium Double Glazed	30	804.62
External Doors	356	Entrance Doors Rear	Num	House	Aluminium Single Glazed	30	1,447.83
External Doors	356	Entrance Doors Rear	Num	House	Light at front entrance	20	55.08
External Doors	356	Entrance Doors Rear	Num	House	Light at rear entrance	20	113.40
External Doors	356	Entrance Doors Rear	Num	House	Lights at front & rear	20	30.24
External Doors	356	Entrance Doors Rear	Num	House	Not Possible		0.00
Electrical Installations	357	External security light	Ans	House	None		0.00
Electrical Installations	357	External security light	Ans	House	Light at front entrance		0.00
Electrical Installations	357	External security light	Ans	House	Light at rear entrance		0.00
Electrical Installations	357	External security light	Ans	House	Lights at front & rear		0.00
Electrical Installations	357	External security light	Ans	House	Other Double Glazed		0.00
Electrical Installations	357	External security light	Ans	House	Other Single Glazed		0.00
Electrical Installations	357	External security light	Ans	House	Other Unglazed		0.00
Electrical Installations	358	External security light	Num	Communal	None		0.00
Electrical Installations	358	External security light	Num	Communal	Light at front entrance	20	55.08
Electrical Installations	358	External security light	Num	Communal	Light at rear entrance	20	113.40
Electrical Installations	358	External security light	Num	Communal	Lights at front & rear	20	30.24
External Doors	359	Patio Doors	Num	House	None		0.00
External Doors	359	Patio Doors	Num	House	PVC-u Single Glazed	30	368.00
External Doors	359	Patio Doors	Num	House	PVC-u Double Glazed	30	368.00
External Doors	359	Patio Doors	Num	House	Composite Single Glazed	30	804.62
External Doors	359	Patio Doors	Num	House	Composite Double Glazed	30	804.62
External Doors	359	Patio Doors	Num	House	Other Single Glazed	30	30.24
External Doors	359	Patio Doors	Num	House	Other Double Glazed	30	68.47
Hard Surfaces	360	Steps	Num	House	None		0.00
Hard Surfaces	360	Steps	Num	House	Concrete Steps	70	0.00
Hard Surfaces	360	Steps	Num	House	Metal Steps	50	8,748.00
Hard Surfaces	360	Steps	Num	House	Timber Steps	25	165.00
Hard Surfaces	360	Steps	Num	House	Stone Steps	80	485.00
Hard Surfaces	360	Steps	Num	House	PC Concrete step	70	362.00
Hard Surfaces	361	Steps	M2	Communal	None		0.00
Hard Surfaces	361	Steps	M2	Communal	Concrete Steps	70	0.00
Hard Surfaces	361	Steps	M2	Communal	Metal Steps	50	8,748.00
Hard Surfaces	361	Steps	M2	Communal	Timber Steps	25	165.00
Hard Surfaces	361	Steps	M2	Communal	Stone Steps	80	485.00
Hard Surfaces	361	Steps	M2	Communal	PC Concrete step	70	362.00
Stairs & Balconies	362	External Stairs	Flights	Communal	None		0.00
Stairs & Balconies	362	External Stairs	Flights	Communal	Concrete Staircase - straight	100	299.78
Stairs & Balconies	362	External Stairs	Flights	Communal	Steel Staircase - straight	50	299.78
Stairs & Balconies	362	External Stairs	Flights	Communal	Timber Staircase - Straight	100	299.78
Stairs & Balconies	362	External Stairs	Flights	Communal	Steel Staircase - spiral	50	299.78
Stairs & Balconies	362	External Stairs	Flights	Communal	Timber Staircase - spiral	100	299.78
Stairs & Balconies	363	External handrail	LM	Communal	None		0.00
Stairs & Balconies	363	External handrail	LM	Communal	Handrails & balustrade - timber	30	251.00

Tustin Estate
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Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Stairs & Balconies	363	External handrail	LM	Communal	Handrails & balustrade - Metal	50	351.00
Stairs & Balconies	363	External handrail	LM	Communal	Handrail only timber	30	37.80
Stairs & Balconies	363	External handrail	LM	Communal	Handrail only Metal	50	37.80
Boundaries	364	Boundary Front	LM	House	None	0.00	
Boundaries	364	Boundary Front	LM	House	Solid Brick < 1.0m high	50	84.16
Boundaries	364	Boundary Front	LM	House	Solid Brick > 1.0m high	60	84.16
Boundaries	364	Boundary Front	LM	House	Repointing < 1.0m high	50	45.09
Boundaries	364	Boundary Front	LM	House	Repointing > 1.0m high	50	45.09
Boundaries	364	Boundary Front	LM	House	Re-render < 1.0m high	50	53.30
Boundaries	364	Boundary Front	LM	House	Re-render > 1.0m high	50	53.30
Boundaries	364	Boundary Front	LM	House	Stone wall < 1.0m high	100	312.00
Boundaries	364	Boundary Front	LM	House	Stone wall > 1.0m high	100	312.00
Boundaries	364	Boundary Front	LM	House	Timber Fencing <1.0m	20	44.80
Boundaries	364	Boundary Front	LM	House	Timber Fencing > 1.0m	20	44.80
Boundaries	364	Boundary Front	LM	House	Metal Fencing < 1.2m	20	64.37
Boundaries	364	Boundary Front	LM	House	Metal Fencing > 1.2m	20	64.37
Boundaries	365	Boundary Front	M2	Communal	None	0.00	
Boundaries	365	Boundary Front	M2	Communal	Solid Brick < 1.0m high	35	84.16
Boundaries	365	Boundary Front	M2	Communal	Solid Brick > 1.0m high	20	84.16
Boundaries	365	Boundary Front	M2	Communal	Repointing < 1.0m high	35	45.09
Boundaries	365	Boundary Front	M2	Communal	Repointing > 1.0m high	50	45.09
Boundaries	365	Boundary Front	M2	Communal	Re-render < 1.0m high	50	53.30
Boundaries	365	Boundary Front	M2	Communal	Re-render > 1.0m high	50	53.30
Boundaries	365	Boundary Front	M2	Communal	Stone wall < 1.0m high	50	312.00
Boundaries	365	Boundary Front	M2	Communal	Stone wall > 1.0m high	80	312.00
Boundaries	365	Boundary Front	M2	Communal	Timber Fencing <1.0m	20	44.80
Boundaries	365	Boundary Front	M2	Communal	Timber Fencing > 1.0m	20	44.80
Boundaries	365	Boundary Front	M2	Communal	Metal Fencing < 1.2m	50	64.37
Boundaries	365	Boundary Front	M2	Communal	Metal Fencing > 1.2m	50	64.37
Hard Surfaces	366	Paths 1	M2	Communal	Concrete	40	59.40
Hard Surfaces	366	Paths 1	M2	Communal	Paving Slabs	40	37.80
Hard Surfaces	366	Paths 1	M2	Communal	Tarmac	30	37.80
Hard Surfaces	366	Paths 1	M2	Communal	Brick Paviour	40	46.42
Hard Surfaces	366	Paths 1	M2	Communal	Gravel	20	37.80
Hard Surfaces	366	Paths 1	M2	Communal	None	0.00	
Hard Surfaces	367	Paths 1	M2	House	Concrete	40	59.40
Hard Surfaces	367	Paths 1	M2	House	Paving Slabs	40	37.80
Hard Surfaces	367	Paths 1	M2	House	Brick Paviour	60	46.42
Hard Surfaces	367	Paths 1	M2	House	Tarmac	30	37.80
Hard Surfaces	367	Paths 1	M2	House	Gravel	20	37.80
Hard Surfaces	367	Paths 1	M2	House	None	0.00	
Boundaries	368	Boundary Rear	LM	House	None	0.00	
Boundaries	368	Boundary Rear	LM	House	Solid Brick < 1.0m high	60	229.50
Boundaries	368	Boundary Rear	LM	House	Solid Brick > 1.0m high	60	229.50
Boundaries	368	Boundary Rear	LM	House	Repointing < 1.0m high	50	45.09
Boundaries	368	Boundary Rear	LM	House	Repointing > 1.0m high	50	45.09
Boundaries	368	Boundary Rear	LM	House	Re-render < 1.0m high	50	53.30
Boundaries	368	Boundary Rear	LM	House	Re-render > 1.0m high	50	53.30
Boundaries	368	Boundary Rear	LM	House	Stone wall < 1.0m high	80	312.00
Boundaries	368	Boundary Rear	LM	House	Stone wall > 1.0m high	80	312.00
Boundaries	368	Boundary Rear	LM	House	Timber Fencing <1.0m	20	44.80
Boundaries	368	Boundary Rear	LM	House	Timber Fencing > 1.0m	20	44.80
Boundaries	368	Boundary Rear	LM	House	Metal Fencing < 1.2m	20	64.37
Boundaries	368	Boundary Rear	LM	House	Metal Fencing > 1.2m	20	64.37
Boundaries	369	Boundary Rear	M2	Communal	None	0.00	
Boundaries	369	Boundary Rear	M2	Communal	Solid Brick < 1.0m high	60	229.50
Boundaries	369	Boundary Rear	M2	Communal	Solid Brick > 1.0m high	60	229.50
Boundaries	369	Boundary Rear	M2	Communal	Repointing < 1.0m high	50	45.09
Boundaries	369	Boundary Rear	M2	Communal	Repointing > 1.0m high	50	45.09
Boundaries	369	Boundary Rear	M2	Communal	Re-render < 1.0m high	50	53.30
Boundaries	369	Boundary Rear	M2	Communal	Re-render > 1.0m high	50	53.30
Boundaries	369	Boundary Rear	M2	House	Stone wall < 1.0m high	80	312.00
Boundaries	369	Boundary Rear	M2	House	Stone wall > 1.0m high	80	312.00
Boundaries	369	Boundary Rear	M2	House	Timber Fencing <1.0m	20	44.80
Boundaries	369	Boundary Rear	M2	House	Timber Fencing > 1.0m	20	44.80
Boundaries	369	Boundary Rear	M2	House	Metal Fencing < 1.2m	20	64.37
Boundaries	369	Boundary Rear	M2	House	Metal Fencing > 1.2m	20	64.37
Hard Surfaces	370	Paths 2	M2	Communal	None	0.00	
Hard Surfaces	370	Paths 2	M2	Communal	Brick Paviour	40	46.42
Hard Surfaces	370	Paths 2	M2	Communal	Concrete	40	59.40
Hard Surfaces	370	Paths 2	M2	Communal	Gravel	20	37.80
Hard Surfaces	370	Paths 2	M2	Communal	Paving Slabs	40	37.80
Hard Surfaces	370	Paths 2	M2	Communal	Tarmac	30	37.80
Hard Surfaces	371	Paths 2	M2	House	None	0.00	
Hard Surfaces	371	Paths 2	M2	House	Brick Paviour	60	46.42
Hard Surfaces	371	Paths 2	M2	House	Concrete	40	59.40
Hard Surfaces	371	Paths 2	M2	House	Gravel	20	37.80
Hard Surfaces	371	Paths 2	M2	House	Paving Slabs	40	37.80
Hard Surfaces	371	Paths 2	M2	House	Tarmac	30	37.80
Boundaries	372	Boundary Side	LM	House	None	0.00	
Boundaries	372	Boundary Side	LM	House	Solid Brick < 1.0m high	50	229.50
Boundaries	372	Boundary Side	LM	House	Solid Brick > 1.0m high	50	229.50
Boundaries	372	Boundary Side	LM	House	Repointing < 1.0m high	50	45.09
Boundaries	372	Boundary Side	LM	House	Repointing > 1.0m high	50	45.09
Boundaries	372	Boundary Side	LM	House	Re-render < 1.0m high	35	53.30
Boundaries	372	Boundary Side	LM	House	Re-render > 1.0m high	35	53.30
Boundaries	372	Boundary Side	LM	House	Stone wall < 1.0m high	50	312.00
Boundaries	372	Boundary Side	LM	House	Stone wall > 1.0m high	50	312.00
Boundaries	372	Boundary Side	LM	House	Timber Fencing <1.0m	20	44.80
Boundaries	372	Boundary Side	LM	House	Timber Fencing > 1.0m	20	44.80
Boundaries	372	Boundary Side	LM	House	Metal Fencing < 1.2m	20	64.37
Boundaries	372	Boundary Side	LM	House	Metal Fencing > 1.2m	20	64.37
Boundaries	373	Boundary Side	M2	Communal	None	0.00	
Boundaries	373	Boundary Side	M2	Communal	Solid Brick < 1.0m high	35	229.50
Boundaries	373	Boundary Side	M2	Communal	Solid Brick > 1.0m high	35	229.50
Boundaries	373	Boundary Side	M2	Communal	Repointing < 1.0m high	50	45.09
Boundaries	373	Boundary Side	M2	Communal	Repointing > 1.0m high	50	45.09

Tustin Estate
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Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical_Life_Cycle	Unit_Cost
Boundaries	373	Boundary Side	M2	Communal	Re-render < 1.0m high	50	53.30
Boundaries	373	Boundary Side	M2	Communal	Re-render > 1.0m high	50	53.30
Boundaries	373	Boundary Side	M2	Communal	Stone wall < 1.0m high	80	312.00
Boundaries	373	Boundary Side	M2	Communal	Stone wall > 1.0m high	80	312.00
Boundaries	373	Boundary Side	M2	Communal	Timber Fencing <1.0m	20	44.80
Boundaries	373	Boundary Side	M2	Communal	Timber Fencing > 1.0m	20	44.80
Boundaries	373	Boundary Side	M2	Communal	Metal Fencing < 1.2m	20	64.37
Boundaries	373	Boundary Side	M2	Communal	Metal Fencing > 1.2m	20	64.37
Boundaries	374	Boundary Side 2	LM	House	None		0.00
Boundaries	374	Boundary Side 2	LM	House	Solid Brick < 1.0m high	50	229.50
Boundaries	374	Boundary Side 2	LM	House	Solid Brick > 1.0m high	50	229.50
Boundaries	374	Boundary Side 2	LM	House	Repointing <1.0m high	50	45.09
Boundaries	374	Boundary Side 2	LM	House	Repointing > 1.0m high	50	45.09
Boundaries	374	Boundary Side 2	LM	House	Re-render < 1.0m high	35	53.30
Boundaries	374	Boundary Side 2	LM	House	Re-render > 1.0m high	35	53.30
Boundaries	374	Boundary Side 2	LM	House	Stone wall < 1.0m high	50	312.00
Boundaries	374	Boundary Side 2	LM	House	Stone wall > 1.0m high	50	312.00
Boundaries	374	Boundary Side 2	LM	House	Timber Fencing <1.0m	20	44.80
Boundaries	374	Boundary Side 2	LM	House	Timber Fencing > 1.0m	20	44.80
Boundaries	374	Boundary Side 2	LM	House	Metal Fencing < 1.2m	20	64.37
Boundaries	374	Boundary Side 2	LM	House	Metal Fencing > 1.2m	20	64.37
Boundaries	375	Boundary Side 2	M2	Communal	None		0.00
Boundaries	375	Boundary Side 2	M2	Communal	Solid Brick < 1.0m high	35	229.50
Boundaries	375	Boundary Side 2	M2	Communal	Solid Brick > 1.0m high	35	229.50
Boundaries	375	Boundary Side 2	M2	Communal	Repointing < 1.0m high	50	45.09
Boundaries	375	Boundary Side 2	M2	Communal	Repointing > 1.0m high	50	45.09
Boundaries	375	Boundary Side 2	M2	Communal	Re-render < 1.0m high	50	53.30
Boundaries	375	Boundary Side 2	M2	Communal	Re-render > 1.0m high	50	53.30
Boundaries	375	Boundary Side 2	M2	Communal	Stone wall < 1.0m high	80	312.00
Boundaries	375	Boundary Side 2	M2	Communal	Stone wall > 1.0m high	80	312.00
Boundaries	375	Boundary Side 2	M2	Communal	Timber Fencing <1.0m	20	44.80
Boundaries	375	Boundary Side 2	M2	Communal	Timber Fencing > 1.0m	20	44.80
Boundaries	375	Boundary Side 2	M2	Communal	Metal Fencing < 1.2m	20	64.37
Boundaries	375	Boundary Side 2	M2	Communal	Metal Fencing > 1.2m	20	64.37
Boundaries	376	Retaining wall	LM	House	Retaining wall < 1.5m	60	1,296.00
Boundaries	376	Retaining wall	LM	House	Retaining wall > 1.5m	60	1,512.00
Boundaries	376	Retaining wall	LM	House	No retaining wall		0.00
Boundaries	377	Retaining wall	M2	Communal	Retaining wall < 1.5m	50	210.60
Boundaries	377	Retaining wall	M2	Communal	Retaining wall > 1.5m	50	172.80
Boundaries	377	Retaining wall	M2	Communal	No retaining wall		0.00
Boundaries	378	Gates	Num	Communal	None		0.00
Boundaries	378	Gates	Num	Communal	Metal single	20	75.60
Boundaries	378	Gates	Num	Communal	Timber single	20	85.00
Boundaries	378	Gates	Num	Communal	Metal double	20	175.60
Boundaries	378	Gates	Num	Communal	Timber double	20	124.00
Boundaries	378	Gates	Num	Communal	Security Metal	20	1,300.00
Boundaries	378	Gates	Num	Communal	Metal Gallows	20	2,500.00
Boundaries	379	Gates	Num	House	None		0.00
Boundaries	379	Gates	Num	House	Metal single	30	75.60
Boundaries	379	Gates	Num	House	Timber single	30	85.00
Boundaries	379	Gates	Num	House	Metal double	30	175.60
Boundaries	379	Gates	Num	House	Timber double	30	124.00
Hard Surfaces	380	Driveway	M2	House	None		0.00
Hard Surfaces	380	Driveway	M2	House	Brick Paviour	60	68.31
Hard Surfaces	380	Driveway	M2	House	Concrete	40	84.65
Hard Surfaces	380	Driveway	M2	House	Gravel	20	59.40
Hard Surfaces	380	Driveway	M2	House	Paving Slabs	40	55.90
Hard Surfaces	380	Driveway	M2	House	Tarmac	30	54.37
Hard Surfaces	381	Driveways	M2	Communal	None		0.00
Hard Surfaces	381	Driveways	M2	Communal	Brick Paviour	30	68.31
Hard Surfaces	381	Driveways	M2	Communal	Concrete	60	84.65
Hard Surfaces	381	Driveways	M2	Communal	Gravel	20	59.40
Hard Surfaces	381	Driveways	M2	Communal	Paving Slabs	40	55.90
Hard Surfaces	381	Driveways	M2	Communal	Tarmac	30	54.37
Hard Surfaces	382	Roads 1	M2	Communal	None		0.00
Hard Surfaces	382	Roads 1	M2	Communal	Brick & Block Paving	30	68.31
Hard Surfaces	382	Roads 1	M2	Communal	Concrete	60	84.65
Hard Surfaces	382	Roads 1	M2	Communal	Gravel	20	59.40
Hard Surfaces	382	Roads 1	M2	Communal	Tarmac	30	54.37
Hard Surfaces	382	Roads 1	M2	Communal	Paving Slabs	30	55.90
Hard Surfaces	383	Parking & External Environment	Ans	House	None		0.00
Hard Surfaces	383	Parking & External Environment	Ans	House	In Cullridge		0.00
Drainage - Above Ground	384	External Soil Vent Pipe	LM	Communal	None		0.00
Drainage - Above Ground	384	External Soil Vent Pipe	LM	Communal	Cast Iron	60	85.41
Drainage - Above Ground	384	External Soil Vent Pipe	LM	Communal	PVCu	50	43.00
Drainage - Above Ground	385	External Soil Vent Pipe	LM	House	None		0.00
Drainage - Above Ground	385	External Soil Vent Pipe	LM	House	Cast Iron	60	85.41
Drainage - Above Ground	385	External Soil Vent Pipe	LM	House	PVCu	50	43.00
Drainage - Above Ground	385	External Soil Vent Pipe	LM	House	Asbestos	50	77.47
Drainage - Above Ground	385	External Soil Vent Pipe	LM	House	Other	100	77.47
Garages	390	Garage roof construction	M2	House	None		0.00
Garages	390	Garage roof construction	M2	House	Flat	85	89.70
Garages	390	Garage roof construction	M2	House	Lean to		0.00
Garages	390	Garage roof construction	M2	House	Pitched		0.00
Garages	390	Garage roof finish	M2	House	None		0.00
Garages	392	Garage roof finish	M2	House	Artificial Slates	40	52.74
Garages	392	Garage roof finish	M2	House	Clay Tiles	60	59.18
Garages	392	Garage roof finish	M2	House	Concrete Tiles	55	52.75
Garages	392	Garage roof finish	M2	House	Felt	20	44.49
Garages	392	Garage roof finish	M2	House	Metal	50	78.97
Garages	392	Garage roof finish	M2	House	Natural Slate	95	96.61
Garages	392	Garage roof finish	M2	House	AC sheet	40	81.93
Garages	392	Garage roof finish	M2	House	Corrugated Metal	50	78.97

Tustin Estate
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Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Garages	392	Garage roof finish	M2	House	Corrugated Mineral Cement	35	78.97
Garages	393	Garage roof finish	M2	Communal	None		0.00
Garages	393	Garage roof finish	M2	Communal	Artificial Slates	40	52.74
Garages	393	Garage roof finish	M2	Communal	Clay Tiles	60	59.18
Garages	393	Garage roof finish	M2	Communal	Concrete Tiles	55	52.75
Garages	393	Garage roof finish	M2	Communal	Felt	20	44.49
Garages	393	Garage roof finish	M2	Communal	Metal	50	78.97
Garages	393	Garage roof finish	M2	Communal	Natural Slate	95	96.61
Garages	393	Garage roof finish	M2	Communal	AC sheet	40	81.93
Garages	393	Garage roof finish	M2	Communal	Corrugated Metal	50	78.97
Garages	393	Garage roof finish	M2	Communal	Corrugated Mineral Cement	35	78.97
Garages	394	Garage construction	M2	Communal	None		0.00
Garages	394	Garage construction	M2	Communal	Brick	80	0.00
Garages	394	Garage construction	M2	Communal	system build concrete	80	29.70
Garages	394	Garage construction	M2	Communal	system build other	80	45.09
Garages	394	Garage construction	M2	Communal	Stonework	80	27.55
Garages	394	Garage construction	M2	Communal	Wood	50	27.55
Garages	395	Garage construction	M2	House	None		0.00
Garages	395	Garage construction	M2	House	Brick	60	124.80
Garages	395	Garage construction	M2	House	system build concrete	50	101.25
Garages	395	Garage construction	M2	House	system build other	45	318.60
Garages	395	Garage construction	M2	House	Stonework	100	0.00
Garages	395	Garage construction	M2	House	Wood	40	49.45
Garages	396	Garage wall finish	M2	House	None		0.00
Garages	396	Garage wall finish	M2	House	PVC-u Clad	25	86.40
Garages	396	Garage wall finish	M2	House	Render - Chipped	50	65.53
Garages	396	Garage wall finish	M2	House	Render - Painted	45	53.30
Garages	396	Garage wall finish	M2	House	Render - Plain	45	53.30
Garages	396	Garage wall finish	M2	House	Tile Hung	50	84.48
Garages	396	Garage wall finish	M2	House	Timber Clad	35	147.60
Garages	396	Garage wall finish	M2	House	AC sheet	30	81.93
Garages	396	Garage wall finish	M2	House	Pointed	60	43.78
Garages	397	Garage wall finish	M2	Communal	None		0.00
Garages	397	Garage wall finish	M2	Communal	PVC-u Clad	25	86.40
Garages	397	Garage wall finish	M2	Communal	Render - Chipped	50	65.53
Garages	397	Garage wall finish	M2	Communal	Render - Painted	45	53.30
Garages	397	Garage wall finish	M2	Communal	Render - Plain	45	53.30
Garages	397	Garage wall finish	M2	Communal	Tile Hung	75	84.48
Garages	397	Garage wall finish	M2	Communal	Timber Clad	35	147.60
Garages	397	Garage wall finish	M2	Communal	AC sheet	75	81.93
Garages	397	Garage wall finish	M2	Communal	Pointed	75	43.78
Garages	398	Garages Fascias, Soffits & Bardge	LM	Communal	None		0.00
Garages	398	Garages Fascias, Soffits & Bardge	LM	Communal	PVCu	30	0.00
Garages	398	Garages Fascias, Soffits & Bardge	LM	Communal	Timber	30	41.93
Garages	398	Garages Fascias, Soffits & Bardge	LM	Communal	Other	30	69.88
Garages	399	Garages Fascias, Soffits & Bardge	LM	House	None		0.00
Garages	399	Garages Fascias, Soffits & Bardge	LM	House	PVCu	30	0.00
Garages	399	Garages Fascias, Soffits & Bardge	LM	House	Timber	30	41.93
Garages	399	Garages Fascias, Soffits & Bardge	LM	House	Other	30	69.88
Garages	400	Garage RWG	LM	House	None		0.00
Garages	400	Garage RWG	LM	House	PVCu	30	29.78
Garages	400	Garage RWG	LM	House	Cast Iron	60	49.68
Garages	400	Garage RWG	LM	House	Other	30	49.68
Garages	401	Garage RWG	LM	Communal	None		0.00
Garages	401	Garage RWG	LM	Communal	PVCu	30	29.78
Garages	401	Garage RWG	LM	Communal	Cast Iron	30	49.68
Garages	401	Garage RWG	LM	Communal	Other	30	49.68
Garages	402	Garage Doors	Num	House	None		0.00
Garages	402	Garage Doors	Num	House	Garage Door metal	40	1,880.00
Garages	402	Garage Doors	Num	House	Garage Door Timber	30	518.60
Garages	403	Garage Doors	Num	Communal	None		0.00
Garages	403	Garage Doors	Num	Communal	Garage Door metal	15	1,680.00
Garages	403	Garage Doors	Num	Communal	Garage Door Timber	15	318.60
Garages	404	Garage windows	Num	Communal	None		0.00
Garages	404	Garage windows	Num	Communal	Metal Windows	30	132.84
Garages	404	Garage windows	Num	Communal	Timber Windows	30	132.84
Garages	405	Garage windows	Num	House	None		0.00
Garages	405	Garage windows	Num	House	Metal Windows	40	132.84
Garages	405	Garage windows	Num	House	Timber Windows	30	132.84
Garages	406	Garage Pedestrian Doors	Num	House	None		0.00
Garages	406	Garage Pedestrian Doors	Num	House	Garage Door timber	30	420.00
Garages	406	Garage Pedestrian Doors	Num	House	Garage Door metal	35	475.00
Garages	407	Garage Pedestrian Doors	Num	Communal	None		0.00
Garages	407	Garage Pedestrian Doors	Num	Communal	Garage Door timber	30	420.00
Garages	407	Garage Pedestrian Doors	Num	Communal	Garage Door metal	35	475.00
Garages	408	Garage Floor/ Hard Standing	M2	House	Concrete	60	78.97
Garages	408	Garage Floor/ Hard Standing	M2	House	Paving	40	80.61
Garages	408	Garage Floor/ Hard Standing	M2	House	Not seen		0.00
Garages	409	Garage Floor/ Hard Standing	M2	Communal	Concrete	20	101.52
Garages	409	Garage Floor/ Hard Standing	M2	Communal	Paving	20	59.18
Garages	409	Garage Floor/ Hard Standing	M2	Communal	Not seen		0.00
Garages	412	Car Port Roof Structure	M2	Communal	None		77.47
Garages	412	Car Port Roof Structure	M2	Communal	Metal	45	78.97
Garages	412	Car Port Roof Structure	M2	Communal	Timber	85	80.61
Garages	413	Car Port Roof Structure	M2	House	None		41.93
Garages	413	Car Port Roof Structure	M2	House	Metal	45	78.97
Garages	413	Car Port Roof Structure	M2	House	Timber	85	80.61
Garages	414	Car Port Roof Material	M2	Communal	None		0.00
Garages	414	Car Port Roof Material	M2	Communal	Artificial Slates	40	52.74
Garages	414	Car Port Roof Material	M2	Communal	Clay Tiles	60	59.18
Garages	414	Car Port Roof Material	M2	Communal	Concrete Tiles	55	52.75
Garages	414	Car Port Roof Material	M2	Communal	Mineral Felt	20	44.49
Garages	414	Car Port Roof Material	M2	Communal	Metal	40	78.97
Garages	414	Car Port Roof Material	M2	Communal	Natural Slate	95	96.61
Garages	414	Car Port Roof Material	M2	Communal	AC sheet	40	81.93
Garages	414	Car Port Roof Material	M2	Communal	Corrugated Metal	50	78.97
Garages	414	Car Port Roof Material	M2	Communal	Corrugated Mineral Cement	35	44.49

Tustin Estate
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Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Garages	415	Car Port Roof Material	M2	House	None		0.00
Garages	415	Car Port Roof Material	M2	House	Artificial Slates	40	52.74
Garages	415	Car Port Roof Material	M2	House	Clay Tiles	60	59.18
Garages	415	Car Port Roof Material	M2	House	Concrete Tiles	55	52.75
Garages	415	Car Port Roof Material	M2	House	Mineral Felt	20	44.49
Garages	415	Car Port Roof Material	M2	House	Metal	40	78.97
Garages	415	Car Port Roof Material	M2	House	Natural Slate	95	96.61
Garages	415	Car Port Roof Material	M2	House	AC sheet	40	81.93
Garages	415	Car Port Roof Material	M2	House	Corrugated Metal	50	78.97
Garages	415	Car Port Roof Material	M2	House	Corrugated Mineral Cement	35	44.49
Garages	416	Car port Roof	Ans	Communal	None		0.00
Garages	416	Car port Roof	Ans	Communal	Pitched		0.00
Garages	416	Car port Roof	Ans	Communal	Flat		0.00
Garages	417	Car port Roof	Ans	House	None		0.00
Garages	417	Car port Roof	Ans	House	Pitched		0.00
Garages	417	Car port Roof	Ans	House	Flat		0.00
Garages	418	Car Port Fascias Soffits	LM	House	None		0.00
Garages	418	Car Port Fascias Soffits	LM	House	PVCu	35	0.00
Garages	418	Car Port Fascias Soffits	LM	House	Timber	45	52.75
Garages	419	Car Port Fascias Soffits	LM	Communal	None		0.00
Garages	419	Car Port Fascias Soffits	LM	Communal	PVCu	35	44.83
Garages	419	Car Port Fascias Soffits	LM	Communal	Timber	45	52.75
Garages	420	Car Port Rainwater disposal	LM	Communal	None		0.00
Garages	420	Car Port Rainwater disposal	LM	Communal	PVCu	20	29.78
Garages	420	Car Port Rainwater disposal	LM	Communal	Other	20	80.61
Garages	421	Car Port Rainwater disposal	LM	House	None		0.00
Garages	421	Car Port Rainwater disposal	LM	House	PVCu	20	29.78
Garages	421	Car Port Rainwater disposal	LM	House	Other	20	86.18
Garages	422	Car Port Hard standing/flooring	M2	Communal	None		0.00
Garages	422	Car Port Hard standing/flooring	M2	Communal	Concrete	60	80.61
Garages	422	Car Port Hard standing/flooring	M2	Communal	Pre cast concrete or block paving	65	143.64
Garages	423	Car Port Hard standing/flooring	M2	House	None		0.00
Garages	423	Car Port Hard standing/flooring	M2	House	Concrete	60	80.61
Garages	423	Car Port Hard standing/flooring	M2	House	Pre cast concrete or block paving	65	143.64
External Buildings	444	Store Roof finish main	M2	House	None		0.00
External Buildings	444	Store Roof finish main	M2	House	Artificial Slates	40	52.74
External Buildings	444	Store Roof finish main	M2	House	Clay Tiles	60	59.18
External Buildings	444	Store Roof finish main	M2	House	Concrete Tiles	55	52.75
External Buildings	444	Store Roof finish main	M2	House	Felt	20	44.49
External Buildings	444	Store Roof finish main	M2	House	Glass	40	0.00
External Buildings	444	Store Roof finish main	M2	House	Metal	50	78.97
External Buildings	444	Store Roof finish main	M2	House	Natural Slate	95	96.61
External Buildings	445	Store Roof finish main	M2	Communal	None		0.00
External Buildings	445	Store Roof finish main	M2	Communal	Artificial Slates	40	52.74
External Buildings	445	Store Roof finish main	M2	Communal	Clay Tiles	60	59.18
External Buildings	445	Store Roof finish main	M2	Communal	Concrete Tiles	55	52.75
External Buildings	445	Store Roof finish main	M2	Communal	Felt	20	44.49
External Buildings	445	Store Roof finish main	M2	Communal	Glass	40	0.00
External Buildings	445	Store Roof finish main	M2	Communal	Metal	50	78.97
External Buildings	445	Store Roof finish main	M2	Communal	Natural Slate	95	96.61
External Buildings	446	Store Roof Structure main	M2	Communal	None		0.00
External Buildings	446	Store Roof Structure main	M2	Communal	Flat		0.00
External Buildings	446	Store Roof Structure main	M2	Communal	Lean-To		0.00
External Buildings	446	Store Roof Structure main	M2	Communal	Duo Pitched		0.00
External Buildings	447	Store Roof Structure main	Ans	House	None		0.00
External Buildings	447	Store Roof Structure main	Ans	House	Flat		0.00
External Buildings	447	Store Roof Structure main	Ans	House	Lean-To		0.00
External Buildings	447	Store Roof Structure main	Ans	House	Duo Pitched		0.00
External Buildings	448	Store Wall Finish main	M2	House	None		0.00
External Buildings	448	Store Wall Finish main	M2	House	Pointed	60	43.78
External Buildings	448	Store Wall Finish main	M2	House	Render - Chipped	50	65.53
External Buildings	448	Store Wall Finish main	M2	House	Render - Plain	45	53.30
External Buildings	448	Store Wall Finish main	M2	House	Tile Hung	60	84.48
External Buildings	448	Store Wall Finish main	M2	House	Timber Clad	35	147.60
External Buildings	449	Store Wall Finish main	M2	Communal	None		0.00
External Buildings	449	Store Wall Finish main	M2	Communal	Pointed	75	43.78
External Buildings	449	Store Wall Finish main	M2	Communal	Render - Chipped	50	65.53
External Buildings	449	Store Wall Finish main	M2	Communal	Render - Plain	45	53.30
External Buildings	449	Store Wall Finish main	M2	Communal	Tile Hung	60	84.48
External Buildings	449	Store Wall Finish main	M2	Communal	Timber Clad	35	147.60
External Buildings	450	Store Wall Structure main	M2	Communal	None		0.00
External Buildings	450	Store Wall Structure main	M2	Communal	Cavity brickwork	100	224.42
External Buildings	450	Store Wall Structure main	M2	Communal	Concrete	80	318.60
External Buildings	450	Store Wall Structure main	M2	Communal	Solid Brick	80	318.60
External Buildings	450	Store Wall Structure main	M2	Communal	Solid Stone	100	318.60
External Buildings	450	Store Wall Structure main	M2	Communal	Timber Frame	80	224.42
External Buildings	451	Store Wall Structure main	M2	House	None		0.00
External Buildings	451	Store Wall Structure main	M2	House	Cavity brickwork	100	224.42
External Buildings	451	Store Wall Structure main	M2	House	Concrete	80	318.60
External Buildings	451	Store Wall Structure main	M2	House	Solid Brick	80	318.60
External Buildings	451	Store Wall Structure main	M2	House	Solid Stone	100	318.60
External Buildings	451	Store Wall Structure main	M2	House	Timber Frame	80	224.42
External Buildings	452	Store Door	Num	Communal	None		0.00
External Buildings	452	Store Door	Num	Communal	Aluminium Double Glazed	25	357.21
External Buildings	452	Store Door	Num	Communal	Aluminium Single Glazed	20	445.77
External Buildings	452	Store Door	Num	Communal	Composite Double Glazed	20	295.00
External Buildings	452	Store Door	Num	Communal	Composite Single Glazed	20	295.00
External Buildings	452	Store Door	Num	Communal	Composite Unglazed	20	295.00
External Buildings	452	Store Door	Num	Communal	Hardwood Double Glazed	20	398.01
External Buildings	452	Store Door	Num	Communal	Hardwood Single Glazed	20	398.01
External Buildings	452	Store Door	Num	Communal	Hardwood Unglazed	20	398.01
External Buildings	452	Store Door	Num	Communal	PVC-u Double Glazed	20	557.22
External Buildings	452	Store Door	Num	Communal	PVC-u Single Glazed	20	557.22
External Buildings	452	Store Door	Num	Communal	PVC-u Unglazed	20	318.41
External Buildings	452	Store Door	Num	Communal	Softwood Double Glazed	20	0.00
External Buildings	452	Store Door	Num	Communal	Softwood Single Glazed	20	48.92
External Buildings	452	Store Door	Num	Communal	Softwood Unglazed	20	53.30

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Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
External Buildings	453	Store Windows	Num	Communal	None		0.00
External Buildings	453	Store Windows	Num	Communal	DG Metal framed	30	362.48
External Buildings	453	Store Windows	Num	Communal	DG PVCu	30	48.92
External Buildings	453	Store Windows	Num	Communal	DG Timber	30	53.30
External Buildings	453	Store Windows	Num	Communal	SG Timber	30	48.91
External Buildings	453	Store Windows	Num	Communal	SG Metal	30	0.00
External Buildings	453	Store Windows	Num	Communal	SG PVCu	30	69.88
External Buildings	454	Store Windows	Num	House	None		0.00
External Buildings	454	Store Windows	Num	House	DG Metal framed	30	362.48
External Buildings	454	Store Windows	Num	House	DG PVCu	30	41.93
External Buildings	454	Store Windows	Num	House	DG Timber	30	41.93
External Buildings	454	Store Windows	Num	House	SG Timber	30	41.93
External Buildings	454	Store Windows	Num	House	SG Metal	30	0.00
External Buildings	454	Store Windows	Num	House	SG PVCu	30	69.88
External Buildings	455	Store Fascia Soffits & Barge	LM	Communal	None		0.00
External Buildings	455	Store Fascia Soffits & Barge	LM	Communal	Other	30	41.93
External Buildings	455	Store Fascia Soffits & Barge	LM	Communal	PVCu	30	41.93
External Buildings	455	Store Fascia Soffits & Barge	LM	Communal	Timber	45	41.93
External Buildings	456	Store Fascia Soffits & Barge	LM	House	None		0.00
External Buildings	456	Store Fascia Soffits & Barge	LM	House	Other	30	41.93
External Buildings	456	Store Fascia Soffits & Barge	LM	House	PVCu	30	41.93
External Buildings	456	Store Fascia Soffits & Barge	LM	House	Timber	30	41.93
External Buildings	457	Store RWG	LM	Communal	None		0.00
External Buildings	457	Store RWG	LM	Communal	Aluminium	30	534.60
External Buildings	457	Store RWG	LM	Communal	Cast iron/metal	30	55.90
External Buildings	457	Store RWG	LM	Communal	Finlock	20	233.92
External Buildings	457	Store RWG	LM	Communal	Lead	30	0.00
External Buildings	457	Store RWG	LM	Communal	PVCu	30	1,080.00
External Buildings	457	Store RWG	LM	Communal	Other	30	1,080.00
External Buildings	458	Store RWG	LM	House	None		0.00
External Buildings	458	Store RWG	LM	House	Aluminium	35	52.74
External Buildings	458	Store RWG	LM	House	Cast iron/metal	30	55.90
External Buildings	458	Store RWG	LM	House	Finlock	60	233.92
External Buildings	458	Store RWG	LM	House	Lead	30	1,512.00
External Buildings	458	Store RWG	LM	House	PVCu	20	116.10
External Buildings	458	Store RWG	LM	House	Other	30	45.90
External Buildings	459	Cycle Store	Ans	Communal	Not Applicable		0.00
External Buildings	459	Cycle Store	Ans	Communal	No		0.00
External Buildings	459	Cycle Store	Ans	Communal	Yes		0.00
External Buildings	460	Store Door	Num	House	None		0.00
External Buildings	460	Store Door	Num	House	Timber	30	139.75
External Buildings	460	Store Door	Num	House	Metal	30	139.75
External Buildings	460	Store Door	Num	House	PVCu	30	295.00
Refuse	461	Refuse Disposal	Num	House	None Seen		0.00
Refuse	461	Refuse Disposal	Num	House	Bin	15	1,296.00
Refuse	461	Refuse Disposal	Num	House	Bin in enclosure	15	307.26
Refuse	462	Refuse Disposal	Storeys	Communal	None		0.00
Refuse	462	Refuse Disposal	Storeys	Communal	Chute	40	1,850.00
Refuse	462	Refuse Disposal	Storeys	Communal	External Enclosure Only	20	102.50
Electrical Installations	465	Security Cameras	Num	Communal	Not Applicable		0.00
Electrical Installations	465	Security Cameras	Num	Communal	Present - Number of Cameras	15	1,600.00
Hard Surfaces	467	Roads	M2	Communal	Brick Paviour	60	68.31
Hard Surfaces	467	Roads	M2	Communal	Concrete	60	84.65
Hard Surfaces	467	Roads	M2	Communal	Gravel	30	59.40
Hard Surfaces	467	Roads	M2	Communal	Paving Slabs	40	55.90
Hard Surfaces	467	Roads	M2	Communal	Tarmac	30	54.37
Hard Surfaces	467	Roads	M2	Communal	Not Applicable		0.00
Electrical Installations	471	Aerials	Flats	Communal	Individual	20	350.00
Electrical Installations	471	Aerials	Flats	Communal	Communal System	20	550.00
Electrical Installations	472	External & Street Lighting	Num	Communal	None		0.00
Electrical Installations	472	External & Street Lighting	Num	Communal	Column - Street Light	30	48.60
Electrical Installations	472	External & Street Lighting	Num	Communal	Column Mounted - Security Light	30	68.47
Electrical Installations	472	External & Street Lighting	Num	Communal	Wall Mounted - Security Light	30	97.83
Electrical Installations	472	External & Street Lighting	Num	Communal	Wall Mounted - Street Light	30	95.74
Wall Structure	478	Penetrating Walls damp	Ans	Dwelling Internal	No		0.00
Wall Structure	478	Penetrating Walls damp	Ans	Dwelling Internal	Yes		0.00
Wall Structure	480	Penetrating Roof damp	Ans	Dwelling Internal	No		0.00
Wall Structure	480	Penetrating Roof damp	Ans	Dwelling Internal	Yes		0.00
Wall Structure	481	Penetrating Rainwater goods	Ans	Dwelling Internal	No		0.00
Wall Structure	481	Penetrating Rainwater goods	Ans	Dwelling Internal	Yes		0.00
Wall Structure	482	Penetrating Wdw or door openings	Ans	Dwelling Internal	No		0.00
Wall Structure	486	Penetrating Wdw or door openings	Ans	Dwelling Internal	Yes		0.00
Building Services	503	Water Booster Pumps	Num	Communal	None		0.00
Building Services	503	Water Booster Pumps	Num	Communal	Yes	30	0.00
Signage	506	Means of Escape Signage	Ans	Communal	No		0.00
Signage	506	Means of Escape Signage	Ans	Communal	Yes	20	107.42
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Vinyl	15	28.60
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Carpet	15	35.99
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Quarry Tile	60	64.56
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Laminate	15	39.32
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Timber Boarded	15	22.77
Bathrooms	508	Bathroom Floor Covering	M2	Communal	Screeed/Concrete	80	41.04
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Vinyl	15	28.60
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Carpet	15	28.60
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Quarry Tile	30	64.56
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Laminate	15	39.32
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Timber Boarded	15	22.77
Bathrooms	509	Bathroom Floor Covering	M2	Dwelling Internal	Screeed/Concrete	15	22.77
Stairs & Balconies	510	Stair Structure	Num	Dwelling Internal	None		0.00
Stairs & Balconies	510	Stair Structure	Num	Dwelling Internal	Concrete Staircase	100	2,600.00
Stairs & Balconies	510	Stair Structure	Num	Dwelling Internal	Steel Staircase	75	1,850.00
Stairs & Balconies	510	Stair Structure	Num	Dwelling Internal	Timber Staircase	90	1,720.00
Stairs & Balconies	511	Stair Balustrade	LM	Dwelling Internal	Missing	90	99.46
Stairs & Balconies	511	Stair Balustrade	LM	Dwelling Internal	Timber	80	20.96
Stairs & Balconies	511	Stair Balustrade	LM	Dwelling Internal	Steel	75	144.85
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Vinyl	15	28.60
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Carpet	15	28.60

Tustin Estate
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Group Reporting	Question Ref	Question Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Quarry Tile	30	64.56
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Laminate	15	39.32
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Timber Boarded	15	20.96
Kitchens	512	Kitchen Floor	M2	Dwelling Internal	Screeed/Concrete	15	174.09
Building Services	513	Fire Alarm	Flats	Communal	Not Applicable		0.00
Building Services	513	Fire Alarm	Flats	Communal	No		0.00
Building Services	513	Fire Alarm	Flats	Communal	Yes	20	1,850.00
Stairs & Balconies	515	Balconies Finish	M2	House	Self Finish Painted	15	39.32
Stairs & Balconies	515	Balconies Finish	M2	House	Asphalt	30	65.80
Stairs & Balconies	515	Balconies Finish	M2	House	Specialist Finish	15	14.15
Stairs & Balconies	515	Balconies Finish	M2	House	Quarry Tile	50	64.56
Stairs & Balconies	515	Balconies Finish	M2	House	Timber Boards	20	55.90
Stairs & Balconies	515	Balconies Finish	M2	House	Vinyl	15	35.99
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Self Finish Painted	15	97.34
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Asphalt	30	65.80
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Specialist Finish	15	14.15
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Quarry Tile	50	64.56
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Timber Boards	30	55.90
Stairs & Balconies	516	Balcony Finish - Comm	M2	Communal	Vinyl	15	35.99
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Self Finish Painted	15	97.34
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Asphalt	20	65.80
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Specialist Finish	15	145.43
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Quarry Tile	30	64.56
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Timber Boards	15	55.90
Stairs & Balconies	517	Balconies Finish - Private	M2	Communal	Vinyl	15	35.99
Hard Surfaces	518	Roads 2	M2	Communal	None		0.00
Hard Surfaces	518	Roads 2	M2	Communal	Brick & Block Paving	30	68.31
Hard Surfaces	518	Roads 2	M2	Communal	Concrete	60	84.65
Hard Surfaces	518	Roads 2	M2	Communal	Gravel	20	59.40
Hard Surfaces	518	Roads 2	M2	Communal	Tarmac	30	54.37
Hard Surfaces	518	Roads 2	M2	Communal	Paving Slabs	30	55.90
Hard Surfaces	519	Paving 1	M2	Communal	None		0.00
Hard Surfaces	519	Paving 1	M2	Communal	Brick & Block Paving	30	46.42
Hard Surfaces	519	Paving 1	M2	Communal	Concrete	40	59.40
Hard Surfaces	519	Paving 1	M2	Communal	Gravel	20	37.80
Hard Surfaces	519	Paving 1	M2	Communal	Tarmac	30	37.80
Hard Surfaces	519	Paving 1	M2	Communal	Paving Slabs	30	37.80
Hard Surfaces	520	Paving 2	M2	Communal	None		0.00
Hard Surfaces	520	Paving 2	M2	Communal	Brick & Block Paving	30	46.42
Hard Surfaces	520	Paving 2	M2	Communal	Concrete	40	59.40
Hard Surfaces	520	Paving 2	M2	Communal	Gravel	20	37.80
Hard Surfaces	520	Paving 2	M2	Communal	Tarmac	30	37.80
Hard Surfaces	520	Paving 2	M2	Communal	Paving Slabs	30	37.80
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Plaster	100	41.58
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Artex	80	43.20
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Mixed	75	69.28
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Remove Polystyrene Tiles	100	27.55
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Boarded	50	43.20
Internal Structure & Finishes	521	Ceiling Finishes	M2	Dwelling Internal	Part Suspended Mixed	40	43.20
Internal Structure & Finishes	522	Wall Finishes	M2	Dwelling Internal	Plaster	100	41.58
Internal Structure & Finishes	522	Wall Finishes	M2	Dwelling Internal	Artex	80	43.20
Internal Structure & Finishes	522	Wall Finishes	M2	Dwelling Internal	Mixed	75	69.28
Internal Structure & Finishes	522	Wall Finishes	M2	Dwelling Internal	Other	75	69.28
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Plaster	75	41.58
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Artex	80	43.20
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Mixed	75	69.28
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Remove Polystyrene Tiles	100	27.55
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Boarded	50	43.20
Internal Structure & Finishes	523	Ceiling Finishes	M2	Communal	Part Suspended Mixed	40	43.20
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Plaster	75	41.58
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Artex	80	43.20
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Mixed	75	69.28
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Ceramic Wall Tiles	40	45.99
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Rendered	60	53.30
Internal Structure & Finishes	524	Wall Finishes	M2	Communal	Other	60	0.00
Windows	526	AOVs Commercial Windows	Num	Communal	Not Applicable		0.00
Windows	526	AOVs Commercial Windows	Num	Communal	Present	25	869.28
Building Services	527	Dry or Wet Risers	Storeys	Communal	Not Applicable		0.00
Building Services	527	Dry or Wet Risers	Storeys	Communal	Dry	60	285.98
Building Services	527	Dry or Wet Risers	Storeys	Communal	Wet	50	387.41
Electrical Installations	528	Lightning Protection System	Storeys	Communal	Not Applicable		0.00
Electrical Installations	528	Lightning Protection System	Storeys	Communal	No		0.00
Electrical Installations	528	Lightning Protection System	Storeys	Communal	Yes	30	9,180.00
Roofs	529	Roof Accessibility	Storeys	Communal	Not Applicable		0.00
Roofs	529	Roof Accessibility	Storeys	Communal	Fixed ladder	35	750.00
Roofs	529	Roof Accessibility	Storeys	Communal	Ladder Required	35	1,750.00
Roofs	529	Roof Accessibility	Storeys	Communal	Walk Out Access	40	443.30
Floor Coverings	530	Floor Covering stairs Other	Num	Communal	None		0.00
Floor Coverings	530	Floor Covering stairs Other	Num	Communal	carpet	15	39.80
Floor Coverings	530	Floor Covering stairs Other	Num	Communal	Vinyl sheet or tile	15	35.99
Floor Coverings	530	Floor Covering stairs Other	Num	Communal	Other	15	45.00
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	None		0.00
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	Carpet	15	39.80
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	Ceramic Tile	40	64.15
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	Vinyl sheet or tile	15	35.99
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	Non-slip vinyl sheet	15	33.32
Floor Coverings	531	Floor finish Corridors 2ndry	M2	Communal	Laminate	20	39.32
Estate	600	Roads 1	M2	Communal	Tarmac	30	54.37
Estate	601	Roads 2	M2	Communal	Tarmac	30	54.37
Estate	602	Paths 1	M2	Communal	Paving Slabs	40	37.80
Estate	603	Paths 2	M2	Communal	Tarmac	30	37.80
Estate	604	Paths 3	M2	Communal	Tarmac	30	37.80
Estate	605	Paths 4	M2	Communal	Paving Slabs	40	28.20
Estate	606	Bollards & Posts 1	Num	Communal	Metal	30	165.00
Estate	607	Bollards & Posts 2	Num	Communal	Concrete	25	160.00
Estate	608	Gates 1	Num	Communal	Automatic ramp	15	11,500.00
Estate	609	Gates 2	Num	Communal	gallows	25	1,950.00

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Group_Reporting	Question_Ref	Question_Heading	Unit	Category	Answer	Typical Life Cycle	Unit Cost
Estate	610	Gates 3	Num	Communal	Vehicular	25	1,950.00
Estate	612	Barriers	Num	Communal	Electric Gates	20	8,200.00
Estate	613	Fencing 1	Num	Communal	Bike Hoops	25	350.00
Estate	614	Fencing 2	M2	Communal	Hooped Railings	25	124.00
Estate	617	Road Gulleys 1	LM	Communal	Metal CI Channels	20	87.00
Estate	618	Road Gulleys 2	Num	Communal	Cast Iron Small	45	375.00
Estate	619	Road Gulleys 3	Num	Communal	Cast Iron Standard	45	465.00
Estate	621	Road/ Parking Bay Markings	LM	Communal	Paint	15	8.72
Estate	622	Seating	Num	Communal	Concrete_Timber	25	2,450.00

Appendix E

Martech Technical Services Limited

Concrete Repairs Report



test

report

Title:

Date:

Job No:

MARTECH

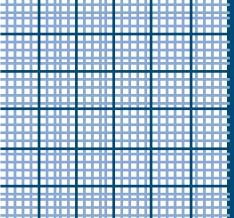


project
summation
introduction
test results
interpretation
repair advice
images
lab results
summary table
background
glossary
company details
contact us
web links

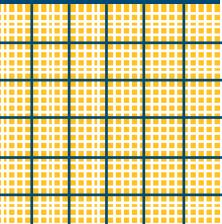
t e s t

report

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project



report

signature

address

client

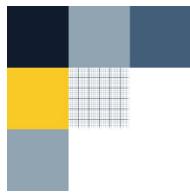
structure

copyright

test

report

to select the section you require,
please click on the relevant heading



project

M report

This entire document, as detailed on the home or front page, comprises Martech Report reference 19130, dated 14th January 2020. This interpretative report is on a concrete condition survey.

M signature

The document has been put together for you by:

Jerry Nichols
BA(Hons), MSc

Operations Director

The document was approved by:

Roel van Es
BSc(Hons), MCS, MICorr

Managing Director

M address

The Tustin Estate
Ilderton Road
Peckham
London
SE15 1EJ



The blocks inspected were:

*Manor Grove (Terraced House)
Kentmere House
Heversham House
Bowness House
Ullswater House
Hillbeck House*

M client

The Mayor and Burgesses of The London Borough of Southwark
160 Tooley Street
London
SE1 2QH

Instructed on behalf of the above by

Mr Robert Forrest

Hunters and Partners Limited
Space One
Beadon Road
London
W6 0EA

Phone no. 020 8237 8200

M structure

The various structures are basically built of a combination of reinforced concrete elements, brickwork and glazing, typically with flat roofs.

The following photographs illustrate each of the structure types:



Photograph 1: General view of one of the Manor Grove terraced houses, at an end.



Photograph 2: General view of Kentmere House (font elevation).



Photograph 3: General view of part of Heversham House (rear).



Photograph 4: General view of part of Bowness House (rear).



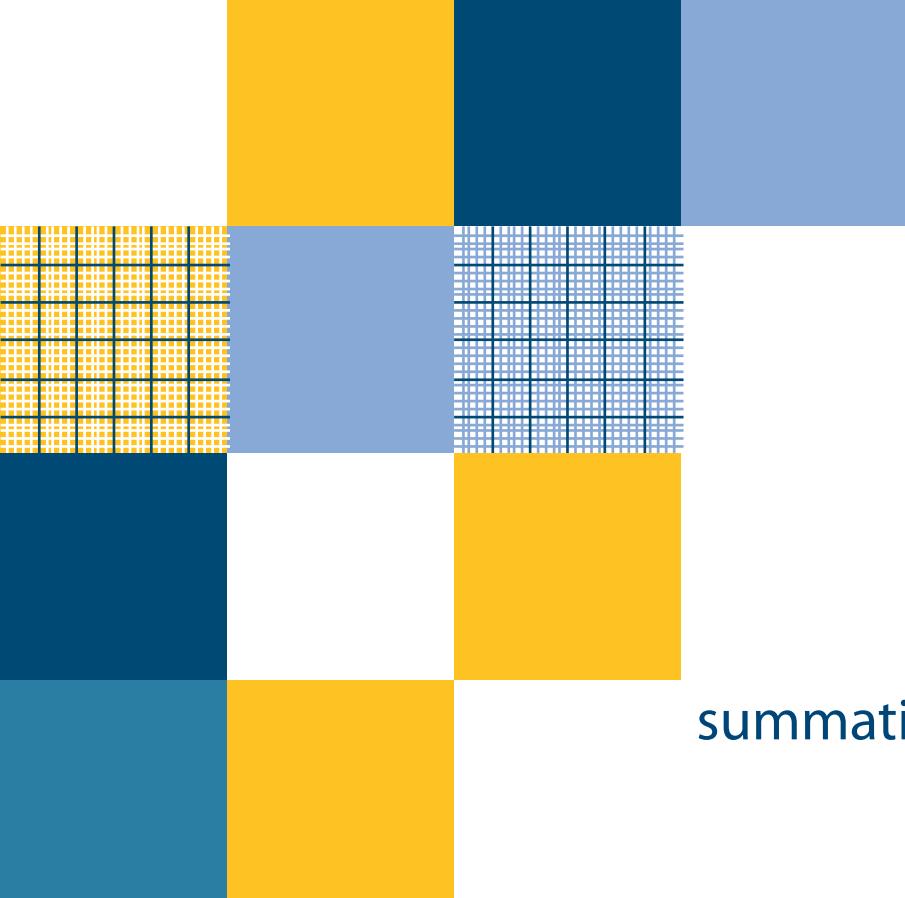
Photograph 5: General view of part of Ullswater House.



Photograph 6: General view of part of Hill Beck House.

M copyright

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summation

t e s t

report

to select the section you require,
please click on the relevant heading



summation

Key words:	concrete, reinforcement corrosion, assessment, testing, cover, carbonation, chlorides, samples, laboratory testing, alkalinity, cracking, spalling, previous repairs, European Standard EN 1504, concrete repair, corrosion control.
Objectives:	Tustin Estate blocks (Manor Grove, Kentmere House, Heversham House, Bowness House, Ullswater House & Hill Beck House) were assessed and tested in order to gain knowledge on the exact cause and true extent of concrete deterioration and reinforcement corrosion present.
Findings:	The structures were found to be suffering from low cover in areas with the advancing carbonation having reached the reinforcement in places, and hence a reinforcement corrosion problem. In addition in a few locations there are sufficient chloride to exacerbate corrosion. The chloride levels found generally presented a <i>low</i> risk of chloride attack on the reinforcement. There were a couple of higher results indicative of <i>moderate and high</i> risk chloride.
Repairs:	Proper concrete remedial works and effective corrosion control measures must be designed, in accordance with EN 1504, European standard for concrete repair, to deal with visible and latent damage, together with consideration of specific client requirements and expectations. Procurement of remediation services should, in our opinion, be in accordance with the Egan Report. We have recommended that the structures be fully surveyed (as part of the repair works), visible defects be traditionally patch repaired (using proprietary repair materials), latent damage treated with corrosion inhibitors and suitable protective skim and coatings be applied.
Dateline:	It is clear that the concrete deterioration observed has been caused by a combination of factors. This has resulted in the readily visible effects of the reinforcement corrosion seen on the structures, plus the latent, or hidden, damage identified. The information contained within the report is only valid as presented in its entirety. The advice and interpretation given are representative of the state of the concrete as found at the time of survey. As deterioration is clearly ongoing in the structures, the advice and contents of the report are only valid for a period of 12 months from the date of issue.



introduction

test report

to select the section you require,
please click on the relevant heading



introduction

M the works

Martech Technical Services Ltd were requested by Mr Robert Forrest of Hunters to carry out a concrete condition assessment of various blocks on the Tustin Estate, LB of Southwark, in accordance with their email of instruction dated 26th November 2019.

The works were carried out in accordance with our proposals in our quotation QR20619/B/RvE/ajr dated 5th November 2019.

It was required to assess the nature and extent of concrete deterioration, to define the reinforcement corrosion condition, and to offer appropriate remediation and corrosion control proposals.

Our Engineers carried out the site work in the weeks commencing 2nd and 9th December 2019 and their findings are the subject of this interpretative report.



test results

general

visual

covermeter

carbonation

dust samples

breakout

to select the section you require,
please click on the relevant heading



test results

M general

Although an overall visual assessment was made, detailed testing work was only carried out in selected test areas.

The test area positions were selected on the basis of the visual assessment, in such a manner as to endeavour to sample the full range of concrete and reinforcement conditions present, and thus to maximise the information obtainable.

The following Test Results sub-sections of the report contain photographs illustrating various parts of the text. It is recommended that these be studied, with their explanatory captions, in conjunction with the accompanying text.

The test results are summarised, in a logical tabular form, in the Summary Tables section of this report.

The findings are recorded on survey sheets, to be found in the Images section of this report.

The Background section of this report contains more information on the test procedures under Testing.

Assessment and testing was carried out employing the following techniques:

M visual

Please note that our visual observations are based upon one of our Engineers carrying out a brief walk around survey of accessible areas, perhaps supplemented by areas accessed during the course of the detailed testing.

It was noted that there are numerous concrete defects spread across the structures, often indicative of areas of low cover. As an estimation the following were logged on a walk around of each structure:

Manor Grove - ~25 No (on Council owned dwellings).

Kentmere House - ~37 No.

Heversham House - ~57 No.

Bowness House - ~54 No.

Ullswater House - 2 No.

Hill Beck House - 6 No.

The following photographs illustrate some of the defects noted:



Photograph 7: Example of spalling and visible reinforcement on Manor Grove, to a link section.



Photograph 8: Another example of a spall to Manor Grove.



Photograph 9: Another example of spalling and low cover at drip detail, Manor Grove.



Photograph 10: Spalling to a corner, Manor Grove.



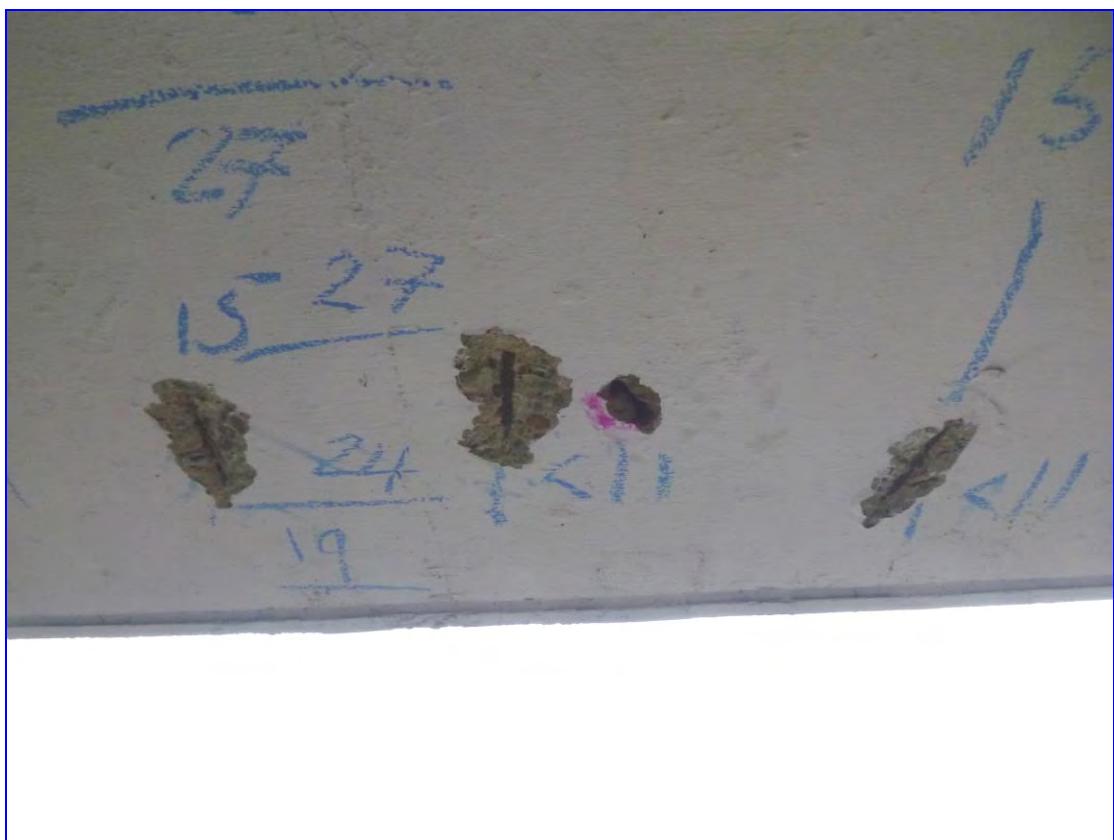
Photograph 11: Spalling to roof beam on Kentmere House.



Photograph 12: As photo 11, after spalling material removed revealing corroded rebar.



Photograph 13: Spalling to soffit, Kentmere House, at TA52.



Photograph 14: As photo 13 after spalling material removed at the test area.



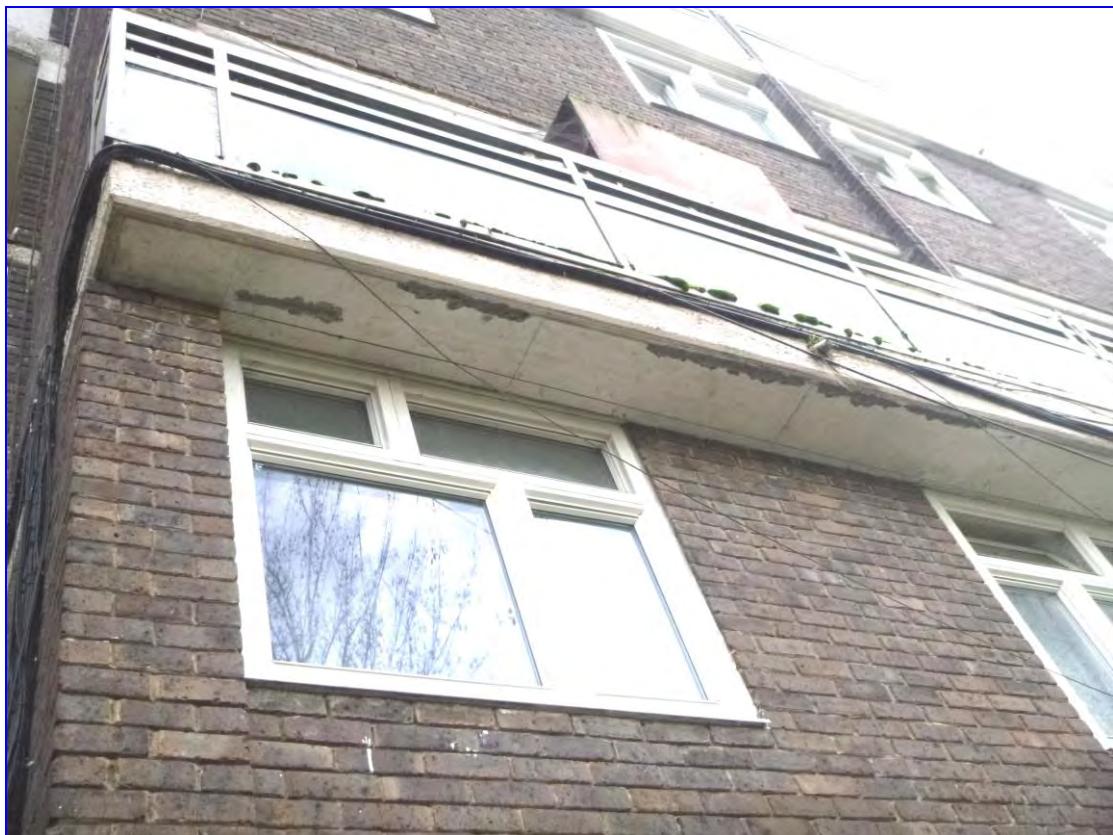
Photograph 15: Another example of spalling on Kentmere House. Also note deteriorated paint coatings to soffit.



Photograph 16: Further example of deterioration on Kentmere House.



Photograph 17: Example of spalls to Heversham House, here to window head and column above.



Photograph 18: Spalls noted to slab soffit on Heversham House.



Photograph 19: Further spalling to Heversham House, with exposed rebars at spalls covered with a grey primer.



Photograph 20: Another example of spalling to Heversham House.



Photograph 21: Spalling to stair tower roof at TA42, on Bowness House.



Photograph 22: Example of various spalls and previous repairs along floor beam, Bowness House.



Photograph 23: A spall to a beam over a window, Bowness House.



Photograph 24: Spalling and visible rebar on Bowness House.



Photograph 25: Another example of spalling, here to a column on Bowness House, at TA38.



Photograph 26: Cracking to floor beam on Ullswater House.



Photograph 27: A spall to a corner, pc panel, Ullswater House.



Photograph 28: Spalling to a pc panel at a joint, Hill Beck House.



Photograph 29: Spalling along a pc panel bottom edge, Hill Beck House.



The covermeter results obtained at the Tustin Estate have been corrected wherever possible in line with observations at breakout locations. True concrete cover is stated excluding render etc if present.

The cover results are summarised in the following tables:

Manor Grove

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
Headers	20	63	45
Link Bridge Soffit	20	50	36
Link Bridge Slab Edge	15	70	42

Kentmere House

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
Roof Beam	9	35	26
Soffit	6	42	22
Downstand Beam	11	20	14
Parapet	5	56	28

Heversham House

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
Lift Tower Wall	20	43	33
Soffit	11	41	23
Walkway Upstand	33	55	43
Column	29	67	46
Slab Edge	13	31	23

Bowness House

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
Soffit	15	37	25
Column	10	70	40
Edge Beam	<12	25	18
Slab Edge	13	61	28
Stair Soffit	13	42	28
Stair Wall	18	50	35

Ullswater House

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
PC Panels	20	62	38

Hill Beck House

Element	Depth of Cover (mm)		
	Minimum	Maximum	Mean
PC Panels	16	68	38

M carbonation

Please note that it is our policy to record carbonation results from in-situ tests to the nearest 5mm only. We do this in recognition of the fact that, in our opinion, the results across any concrete structure can vary significantly, as the concrete is frequently far from homogeneous across that structure. It is also true that the so-called carbonation front is not a parallel plane to the surface of the concrete, rather it is locally seen to be a very irregular plane roughly parallel to the surface. Readings across a single break out can vary by more than 5mm, which would be reflected in the results.

In accordance with BRE Digest 444: Part 2:2000 the progress of carbonation obeys an empirical formula:

$$\text{Simplified } CB_{\text{mm}} = k \cdot \sqrt{t}$$

Where CB_{mm} = carbonation depth in mm
 k = a constant reflecting
 concrete quality
 t = time, in years

The results obtained at the Tustin Estate are summarised in the following tables:

Manor Grove

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
Headers	<5	15	7
Link Bridge Soffit	5	25	15
Link Bridge Slab Edge	5	10	7

Kentmere House

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
Roof Beam	<5	15	8
Soffit	10	30	18
Downstand Beam	35	40	38
Parapet	15	70	30

Heversham House

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
Lift Tower Wall	<5	25	13
Soffit	10	30	18
Walkway Upstand	10	>50	21
Column	10	25	17
Slab Edge	5	10	8

Bowness House

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
Soffit	<5	5	<5
Column	<5	30	12
Edge Beam	<5	5	<5
Slab Edge	<5	15	10
Stair Soffit	5	15	10
Stair Wall	20	40	30

Ullswater House

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
PC Panels	<5	10	6

Hill Beck House

Element	Depth of Carbonation (mm)		
	Minimum	Maximum	Mean
PC Panels	<5	10	6

M dust samples

Details of the laboratory test findings are to be found in the Lab Results section of this report.

In accordance with BRE Digest 444: Part 2:2000 the risks associated with chloride contamination of concrete are variable with source and age of structure. This has long been our opinion as the critical factor in chloride contamination is in fact the total amount of free chloride ion available to take part in chloride attack on reinforcement.

In simple terms cast-in chlorides tend to combine with the hydration products of the cement, and are therefore considered to be substantially bound. It is known that the carbonation process releases this chemical bond, which results in an accumulation of free chloride ion just ahead of the carbonation front.

Conversely, chlorides that have entered the concrete subsequent to hardening, referred to as ingressed chlorides, must be considered to be substantially free, and available to take part in chloride attack. Ingressed chloride will accumulate with the passage of time, being present in ever-greater concentrations, at ever-greater depth. It follows that this form of chloride contamination is the more aggressive in the normal run of events.

Classification of risk in accordance with BRE Digest 444: Part 2:2000 is a complex procedure that we follow in general terms. The categories of risk are defined as follows: *negligible*, *low*, *moderate*, *high*, *very high*, and *extremely high*. Categorisation varies with source of chloride, age of structure, extent of carbonation and environmental exposure condition.

The results obtained for the Tustin Estate are expressed as chloride ion by mass of cement, using an assumed cement content of 14% in the concrete and are summarised in the following table:

Manor Grove

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
Headers	0.13	0.35	0.24
Link Bridge Soffit	0.33	0.80	0.57
Link Bridge Slab Edge	0.22	0.23	0.23

Kentmere House

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
Roof Beam	0.18	0.27	0.23
Soffit	0.06	0.33	0.22
Downstand Beam	0.04	0.22	0.13
Parapet	0.09	0.34	0.24

Heversham House

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
Lift Tower Wall	0.11	0.13	0.12
Soffit	0.11	0.21	0.15
Walkway Upstand	0.12	0.17	0.14
Column	0.12	0.37	0.25
Slab Edge	0.19	0.19	0.19

Bowness House

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
Soffit	<0.01	0.08	0.05
Column	0.17	0.29	0.21
Edge Beam	0.13	0.23	0.18
Slab Edge	0.08	0.12	0.10
Stair Soffit	0.04	0.04	0.04
Stair Wall	0.10	0.20	0.15

Ullswater House

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
PC Panels	0.18	0.66	0.31

Hill Beck House

Element	Chloride Content (%)		
	Minimum	Maximum	Mean
PC Panels	0.08	0.34	0.21

The tables have been colour coded to show the risk of reinforcement corrosion occurring in uncarbonated concrete due to the presence of cast in chlorides in accordance with BRE Digest 444 Part 2: 2000, assuming that the structures are approximately 40 years old, as follows: -

Chlorides (%)	Risk of Corrosion
<0.45	LOW
0.46 – 0.70	MODERATE
0.71 – 1.00	HIGH
1.01 – 1.50	VERY HIGH
>1.50	EXTREMELY HIGH

The chloride results at the Tustin Estate were found to generally be of low risk although there was one moderate (at TA9, a pc panel on Ullswater) and one high (at TA14, link bridge soffit on Manor Grove) risk results indicative of localised contamination. Having said that the low risk results did appear to indicate a possible low level of background/cast-in chlorides probably from the mix water or the aggregate.

M breakout

Details of the exploratory break out findings are to be found on the relevant detailed test area survey sheets, in the Images Section to this report.

At 6 no. of the exploratory breakouts reinforcement with either slight or surface corrosion was found in carbonated concrete. At 4 no. clean and passive reinforcement in alkaline concrete was revealed. At one location there was a loss of passivity where carbonation had just reached the rebar inspected.

The following photographs illustrate some of the breakouts:



Photograph 30: The breakout at TA1, pc panel, Hill Beck House, revealing clean and passive reinforcement in alkaline concrete.



Photograph 31: The breakout at TA7, pc panel, Ullswater House, revealing a bar with slight surface corrosion where carbonation had reached the bar down a crack (central to this photo).



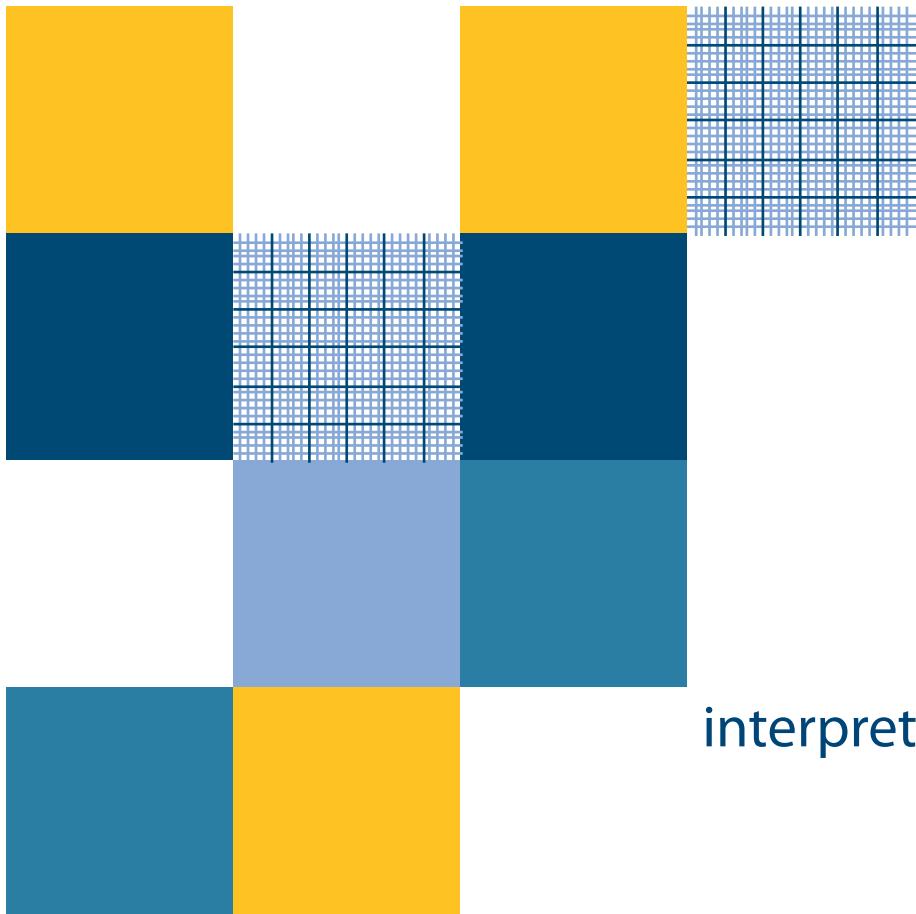
Photograph 32: The breakout at TA24, soffit, Heversham House, revealing one bar in carbonated concrete with slight surface corrosion and a bar at deeper depth in alkaline concrete and clean and passive condition.



Photograph 33: The breakout at TA37, soffit, Bowness House, revealing clean and passive rebar in alkaline concrete.



Photograph 34: The breakout at TA54, soffit, Kentmere House, revealing a bar with surface corrosion/loss of section in carbonated concrete.



MARTECH

t e s t

report

to select the section you require,
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interpretation

M test report

The test results obtained at the Tustin Estate indicate that there is significant concrete deterioration spread across the estate building (surveyed) predominantly due to a combination of areas of low cover and carbonation as well as occasional chlorides.

The visual inspection noted defects across the structures where inspected and an approximate log of defects was noted and a contractor has supplied a budget costings for traditional concrete patch repairs, corrosion inhibitors and coatings for each block.

The minimum covers recorded and maximum carbonation results indicated that there are areas of reinforcement within or near to carbonated concrete (except to the pc panels on Ullswater and Hill Beck – but there is only a small amount of deterioration to these ones, associated with joints and/or edges).

Overall the minimum covers recorded ranged from 5mm to 33mm whilst the maximum carbonation results ranged from 5mm to 70mm.

The vast majority of the chloride results were of low risk, although still sufficient in places to indicate a generally low level of cast-in chlorides (from mix water or aggregates for example). There was one moderate risk result (0.66%) and one high risk result (0.80%).

The exploratory breakouts often (more than 50%) revealed rebars with slight or surface corrosion in carbonated concrete indicated there is also a notable level of latent damage.



repair advice

general

works required

t e s t

report

to select the section you require,
please click on the relevant heading



repair advice

M general

There are a number of options to be considered in dealing with a structure suffering concrete distress as a result of reinforcement corrosion. These may be outlined as follows:

- Do nothing
- Do something temporary
- Effect a proper repair

For the purposes of this report it is assumed that the sensible long-term option of effecting a proper repair methodology will be adopted.

In effective long-term refurbishment one needs to deal with all the latent, or hidden, as well as visible damage. Passivation of the steel must in our opinion be achieved for long-term durability. The repair advice given below constitutes our best advice and opinion.

Please take the time to read our background information to this repair advice, to be found variously under Concrete and Concrete Repair in the Background section to this report.

M works required

The following concrete repair and corrosion control advice for the Tustin Estate blocks surveyed also assumes that all top surfaces of treated concrete slabs are or will be made fully waterproof, e.g. roofs, balcony slabs and so forth.

We have carried out a walk around visual appraisal of the external concrete surfaces on this structure. It should however be noted that this merely gives the approximate number of the visible defects; concrete repair quantities will be greater to the extent determined by the eventual specialist concrete repair contractor. As the deterioration is ongoing it should also be noted that further defects will become apparent with the passage of time from the date of survey.

In any event all instances of low cover must be attended to and all latent and visible corrosion damage repaired, such that any untreated reinforcement is in a sound alkaline condition. For concrete repair purposes any reinforcement found to be within 5 mm of the average carbonation front depth, must always be considered to be immediately at risk of corrosion.

Traditional concrete repair methods are considered appropriate for dealing with the visible defects – spalling and any failed previous repairs and so on.

This will involve identifying all carbonated or contaminated concrete at the time of repair, which is in contact with reinforcement, which will of course include an element of latent damage on top of the readily visible problem areas. All defective concrete will be removed and replaced with a proprietary concrete repair product, forming part of the full repair system in use. All cutting out for patch repairs will go well beyond the corroded length and behind the bar to ensure effective remediation. A levelling mortar or porefller will be applied to the repaired and unrepairs concrete surfaces in readiness for the protective decorative coatings.

The use of corrosion inhibitors is considered appropriate for dealing with latent damage where carbonation has reached or is near to the reinforcement but external visible deterioration (e.g. spalling) has not yet manifested. The corrosion inhibitor deals with the latent damage via migration through the pore structure of the concrete, and adsorption to steel surfaces. A monomolecular layer coats the steel preventing moisture and oxygen reaching it, and hence corrosion.

It is important that a proprietary concrete repair system with a good track record be used, in conjunction with a recognised specialist contractor. Particular attention should be paid to the selection of decorative and protective coatings. These must be vapour permeable and preferably elastomeric with all of these properties confirmed by independent test certificates.



JB Specialist Refurbishments Limited

The Old Village Hall, Church Street, Sawtry, PE28 5SZ

Telephone: 01487 834017 Fax: 01487 832126 Email: info@jbsrltd.com Website: www.jbsrltd.com

Tustin Estate - Cost Plan Submission

20th December 2019

Ullswater House

	Qty	Unit	Rate	Total	
		1 Item	£	£	£
Project Preliminaries				12,435.12	12,435.12
Provisional sum for temporary access provisions		1 Item			
Surface preparation by means of high pressure water jetting only.	1023	m2	£ 5.00	£ 5,115.00	
visual and hammertap defects identification survey.	1023	m2	£ 2.00	£ 2,046.00	
Concrete repairs as per Martech Survey.	2	Nr	£ 100.00	£ 200.00	
Application of pore fillers/fairing coats	1023	m2	£ 20.00	£ 20,460.00	
Application of corrosion inhibitors.	1023	m2	£ 20.00	£ 20,460.00	
Application of Anti-carbonation coatings.	1023	m2	£ 15.00	£ 15,345.00	
				<u>£ 76,061.12</u>	

Bowness House

Project Preliminaries	1 Item	£ 11,651.32	
Provisional sum for temporary access provisions	1 Item		
Surface preparation by means of high pressure water jetting only.	795	m2	£ 5.00 £ 3,975.35
visual and hammertap defects identification survey.	795	m2	£ 2.00 £ 1,590.14
Concrete repairs as per Martech Survey.	54	Nr	£ 100.00 £ 5,400.00
Application of pore fillers/fairing coats	795	m2	£ 20.00 £ 15,901.40
Saplication of corrosion inhibitors.	795	m2	£ 20.00 £ 15,901.40
Application of Anti-carbonation coatings.	795	m2	£ 15.00 £ 11,926.05
			<u>£ 66,345.66</u>

Haversham House

Project Preliminaries	1 Item	£ 23,337.99	
Provisional sum for temporary access provisions	1 Item		
Surface preparation by means of high pressure water jetting only.	1838	m2	£ 5.00 £ 9,192.20
visual and hammertap defects identification survey.	1838	m2	£ 2.00 £ 3,676.88
Concrete repairs as per Martech Survey.	57	Nr	£ 100.00 £ 5,700.00
Application of pore fillers/fairing coats	1838	m2	£ 20.00 £ 36,768.80
Saplication of corrosion inhibitors.	1838	m2	£ 20.00 £ 36,768.80
Application of Anti-carbonation coatings.	1838	m2	£ 15.00 £ 27,576.60
			<u>£ 143,021.27</u>





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The Old Village Hall, Church Street, Sawtry, PE28 5SZ

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Manor Grove

Project Preliminaries	1 Item	£	4,110.51	£	4,110.51
Provisional sum for temporary access provisions	1 Item				
Surface preparation by means of high pressure water jetting only.	222 m2	£	5.00	£	1,109.22
visual and hammertap defects identification survey.	222 m2	£	2.00	£	443.69
Concrete repairs as per Martech Survey.	25 Nr	£	100.00	£	2,500.00
Application of pore fillers/fairing coats	222 m2	£	20.00	£	4,436.86
Saplication of corrosion inhibitors.	222 m2	£	20.00	£	4,436.86
Application of Anti-carbonation coatings.	222 m2	£	15.00	£	3,327.65
		£	<u>20,364.78</u>		

Kentmere

Project Preliminaries	1 Item	£	12,550.76	£	12,550.76
Provisional sum for temporary access provisions	1 Item				
Surface preparation by means of high pressure water jetting only.	1122 m2	£	5.00	£	5,610.46
visual and hammertap defects identification survey.	1122 m2	£	2.00	£	2,244.18
Concrete repairs as per Martech Survey.	37 Nr	£	100.00	£	3,700.00
Application of pore fillers/fairing coats	1122 m2	£	20.00	£	22,441.84
Saplication of corrosion inhibitors.	1122 m2	£	20.00	£	22,441.84
Application of Anti-carbonation coatings.	1122 m2	£	15.00	£	16,831.38
		£	<u>85,820.47</u>		

Hillbeck

Project Preliminaries	1 Item	£	7,049.66	£	7,049.66
Provisional sum for temporary access provisions	1 Item				
Surface preparation by means of high pressure water jetting only.	856 m2	£	5.00	£	4,278.00
visual and hammertap defects identification survey.	856 m2	£	2.00	£	1,711.20
Concrete repairs as per Martech Survey.	6 Nr	£	100.00	£	600.00
Application of pore fillers/fairing coats	856 m2	£	20.00	£	17,112.00
Saplication of corrosion inhibitors.	856 m2	£	20.00	£	17,112.00
Application of Anti-carbonation coatings.	856 m2	£	15.00	£	12,834.00
		£	<u>60,696.86</u>		

When considering our submission please note the following:





JB Specialist Refurbishments Limited

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Telephone: 01487 834017 Fax: 01487 832126 Email: info@jbsrltd.com Website: www.jbsrltd.com

This cost plan proposal has been formulated utilising Martech measurements and concrete repair quantities and an assumed specification.

This will be subject to change following confirmation of the project specification and associated site visits.

No allowance has been made for the provision of temporary access to facilitate the works.

These rates are subject to site inspections and agreement of minimum order quantities.

Quotation strictly Nett and exclusive of VAT

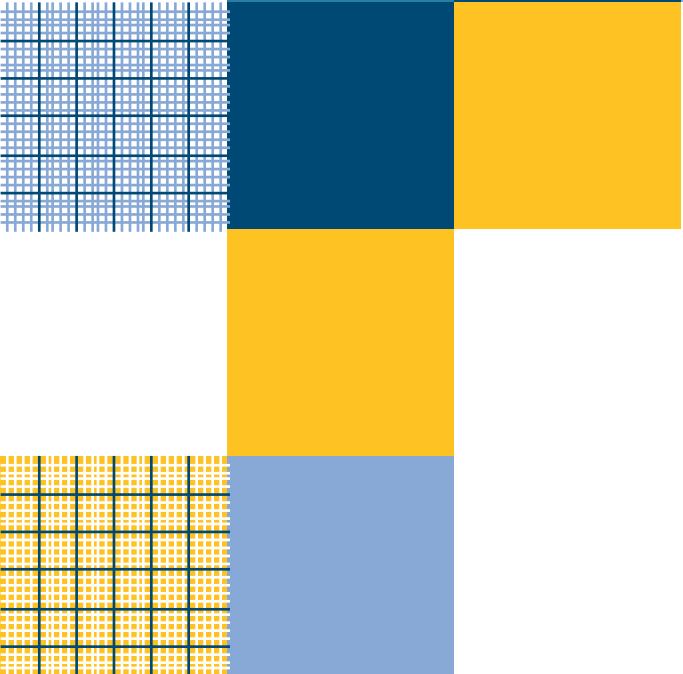
We assume free use of the sites water, electricity and parking as required to complete the works, to be provided by others.

Works to be carried out during our normal working hours and in a single continuous visit.

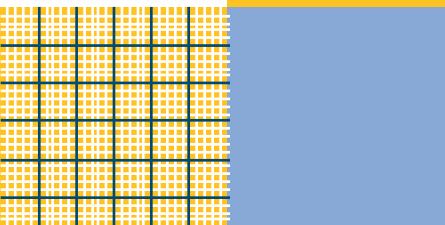
Unless specifically stated otherwise no allowance has been made for the issuing of any manufacturers guarantees/warranties.

We have excluded all works associated with asbestos





images



legend

test area locations plan

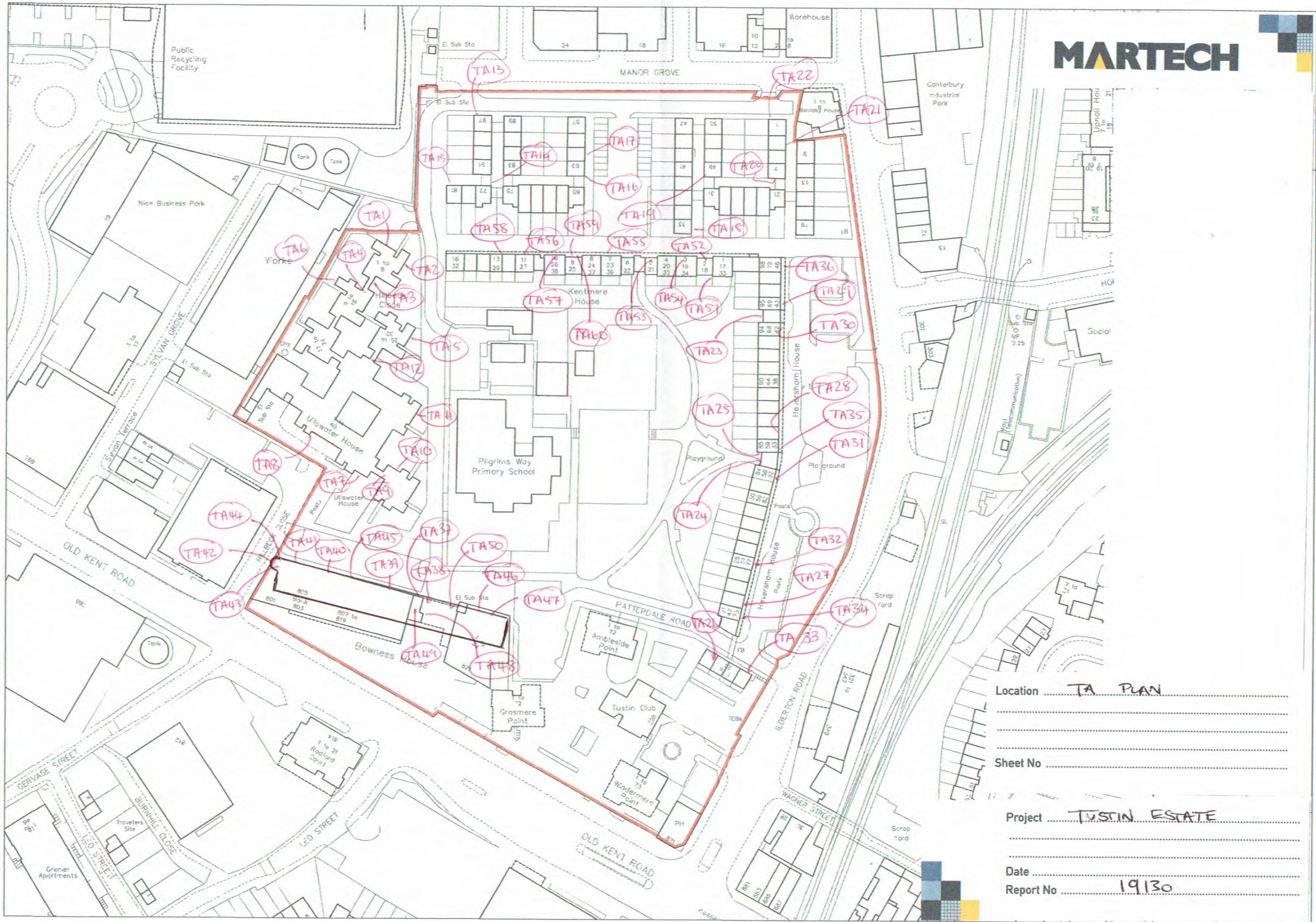
test area survey sheets

test report

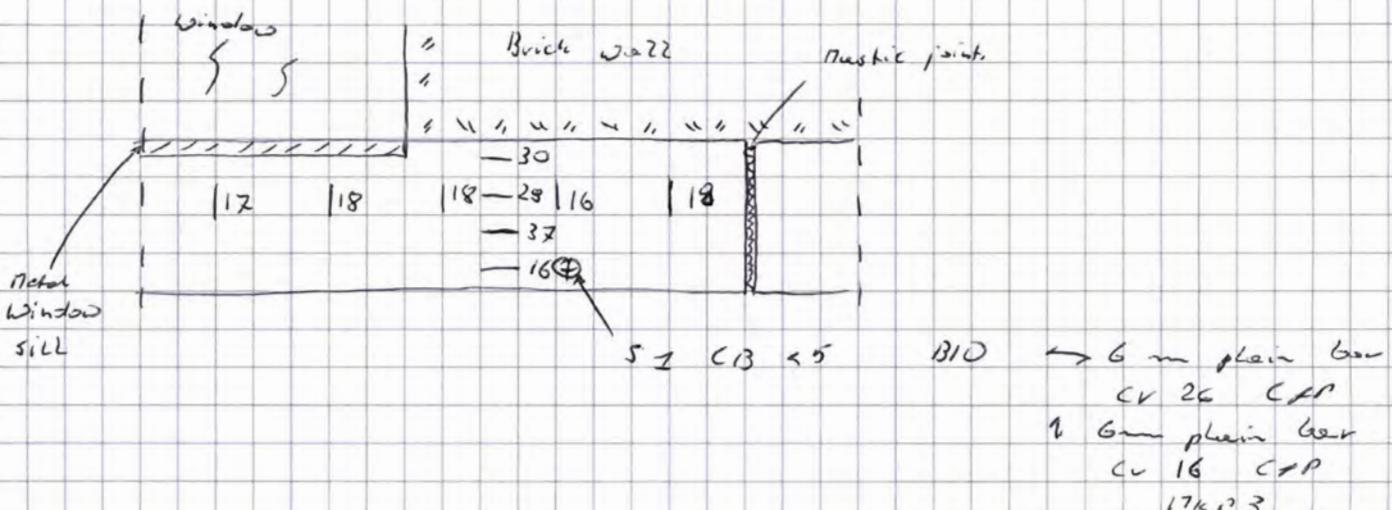
to select the section you require,
please click on the relevant heading

LEGEND

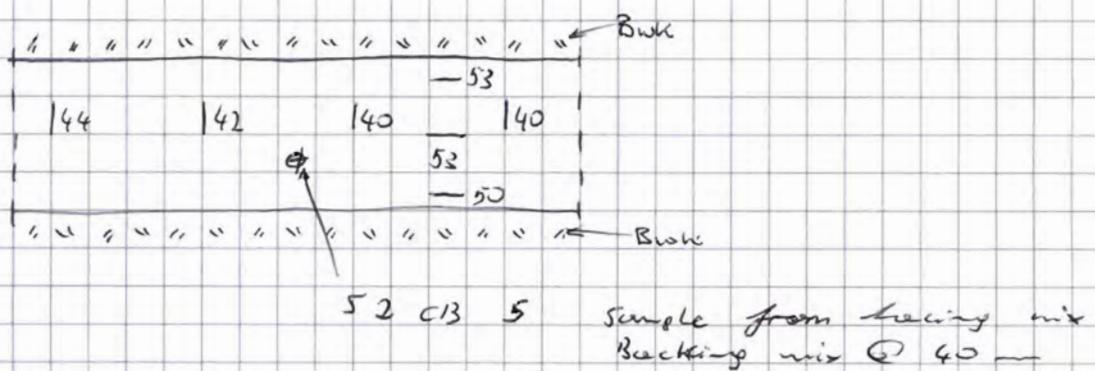
45	Rebar Location and Depth of Cover (mm)
⊕ S	Sample Location and Reference
CV	Depth of Cover (mm)
BWK	Brickwork
CB	Depth of Carbonation (mm)
C+P	Clean and Passive Steel
LOP	Loss of passivity
SP	Spall
PR	Previous Repair
FPR	Failed Previous Repair
TW	Tie Wire
RS	Rust Spot/Stain
PY	Pyrite
B/O	Breakout to Expose Reinforcement
FM	Facing Mix
BM	Backing Mix
{ c	Crack
VS	Visible Steel
BE	Bar end
⊕ C1	Core Sample Location and Reference
SSC	Slight Surface Corrosion
SC	Surface Corrosion
H	Hollow



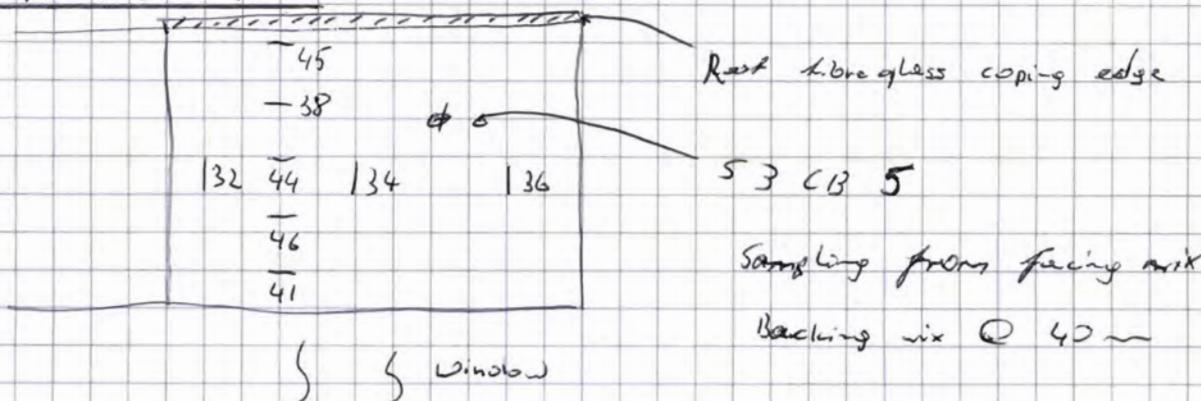
TA 1 PC Panel End fl.



TA 2 PC Panel 1st fl



TA 3 PC Panel Roof



Project Justin Estate
London

Location TA 1, TA 2, TA 3

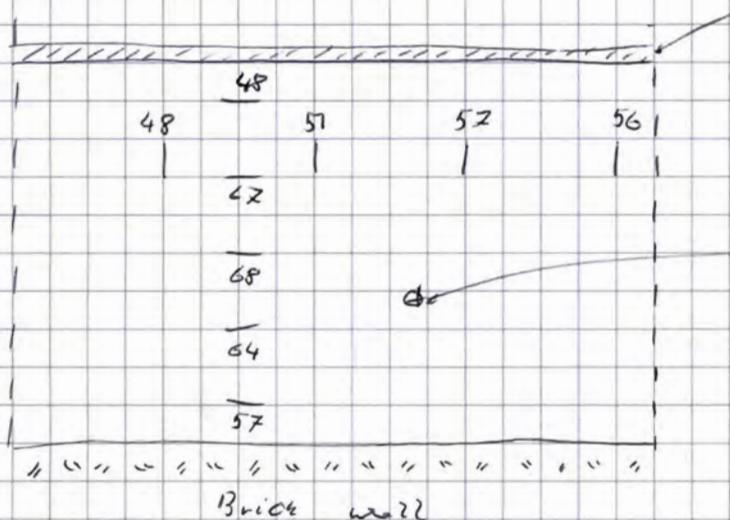
Date 15/13/0

Hill Back House

Report No.

Sheet No.

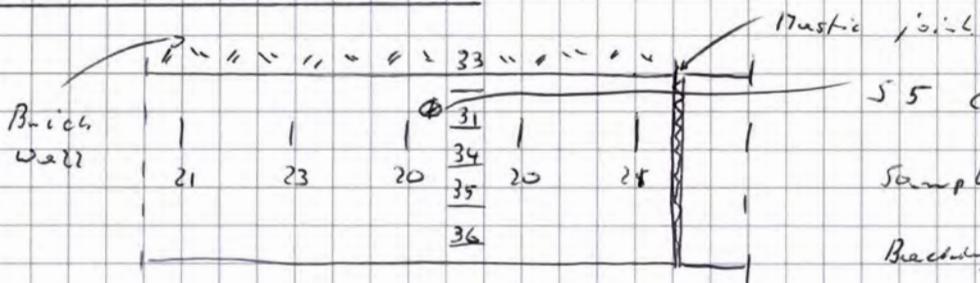
TAG PC Panel Roof



Fibreglass capping edge

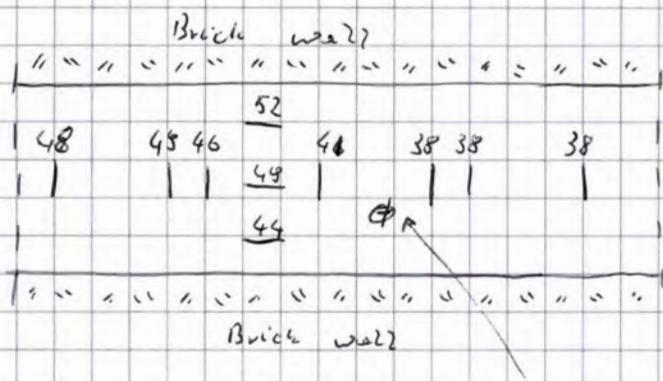
54 CB 5-10 patchy
Sampling from facing mix
Backing mix short than 45mm
(C)

TAG PC Panel Gnd fl



Sampling from facing mix
Backing mix 35-40 mm
(short)

TAG PC Panel 1st fl



56 CB 5-10

Sampling from facing mix
Backing mix @ 40 mm

Project Tastin Estate
London

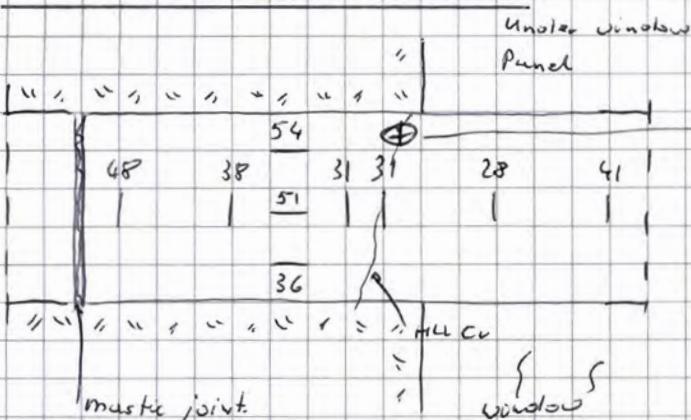
Location TAG, TAG, TAG

Date 55
Report No. 19130

Hill Bank House

Sheet No.

TA 7 PC Panel 1st Fl



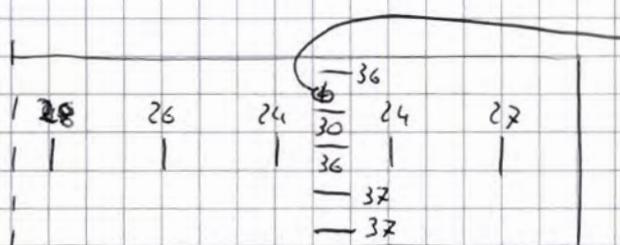
5 Z CB 30-35 @ each 5-10 mm
Sampling for facing mix

Backing mix @ 30 mm

B10

1 26 m Plain bear Cw 38 55C
17 K P Z

TA 8 PC Panel Gv Fl

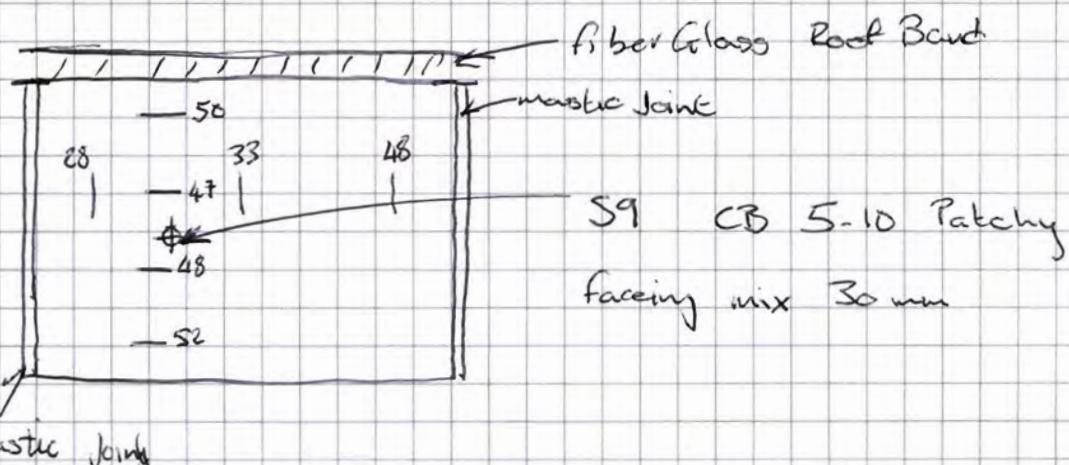


58 CB 5-10

Sampling for Facing mix

Backing mix @ 30 mm

TA 9 PC Panel Roof



Project TASTIN STATE
LONDON

Location TA 7, TA 8, TA 9

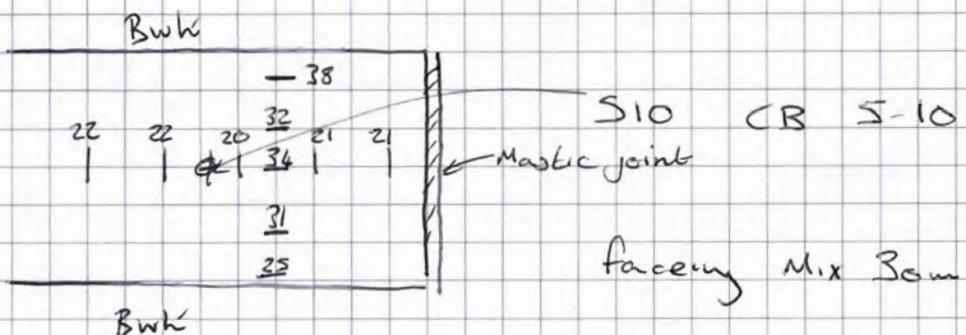
Date 56

ULLSWATER HOUSE

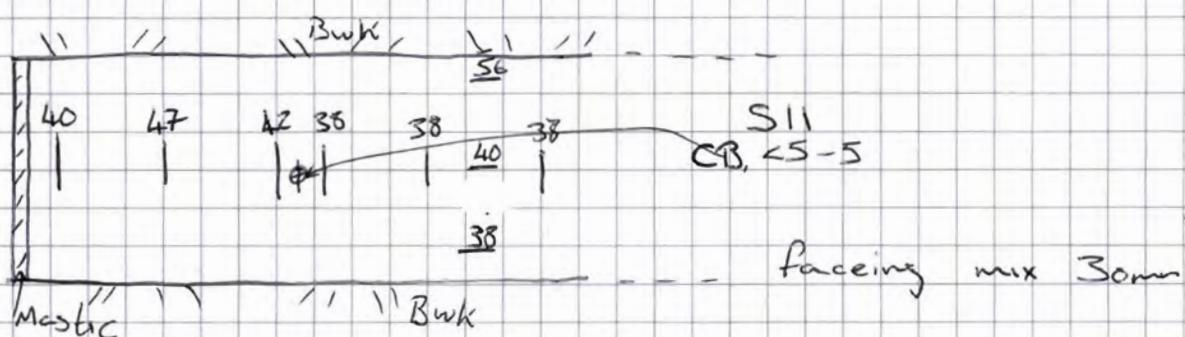
Report No. 18130

Sheet No.

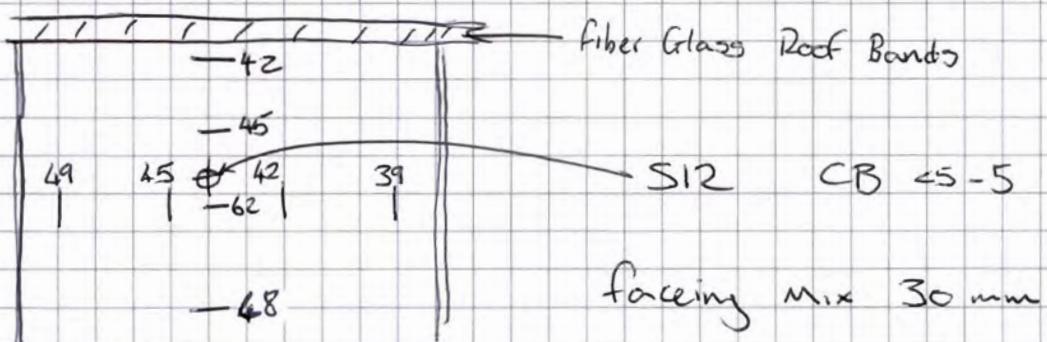
T A 10 Pre Cast Panel Grid



T A 11 Pre Cast Panel lvl 1



T A 12 Pre Cast Panel Roof



Project ... Tustin Estates

Location ... Ullswater House

TA 10 - 12

Date 57

Report No

Sheet No

Mazda 60V6

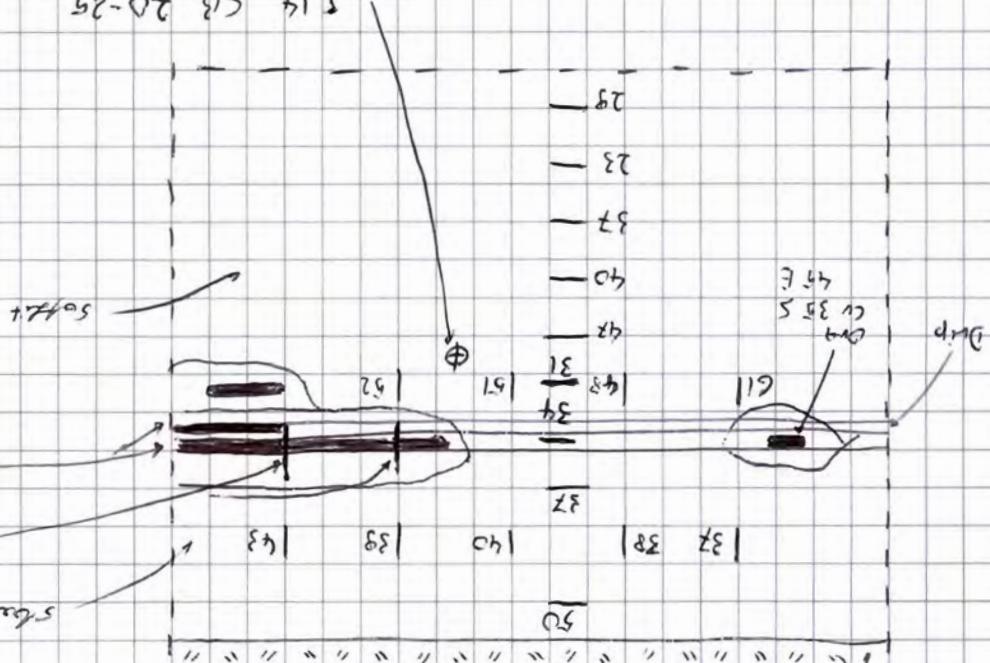
L2W1D2

Project TA13 TA14

Location TA13 TA14

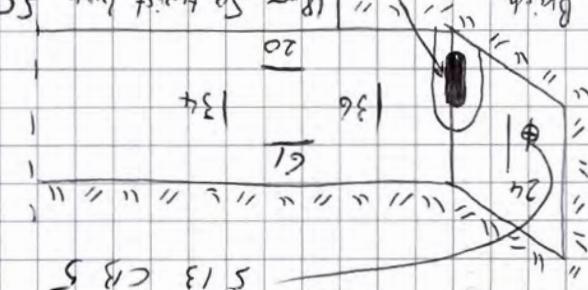
TA1C P 13

514 CR 20-25



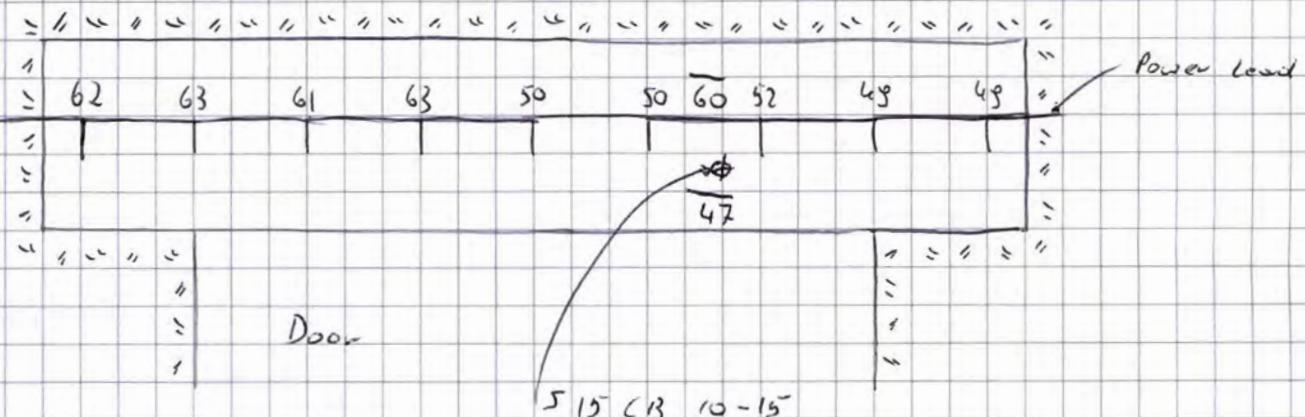
TA14 Linker Innenfutter 5L4650-A1. 1st Fl

Mittelpunkt 111

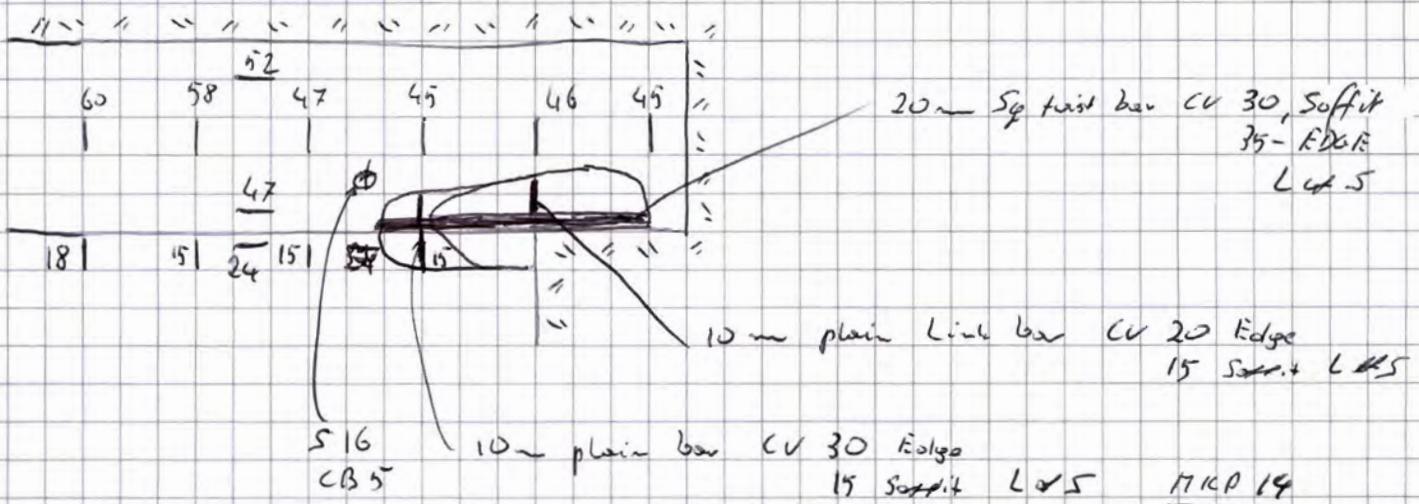
Blinker unten
Drehzahlmesser
" 18 ~ 59 Winkelheber SC

TA13 Linker Heckdach 1st Fl

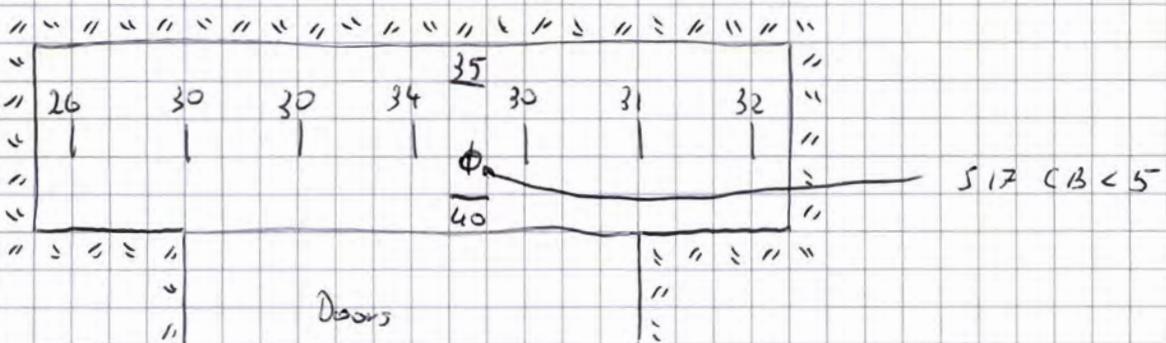
TA 15 Door Header



TA 16 Link Bridge Slab Edge



TA 17 Door Header



Project ... TA 15 U ESTATE
LONDON

Location ... TA 15, TA 16, TA 17

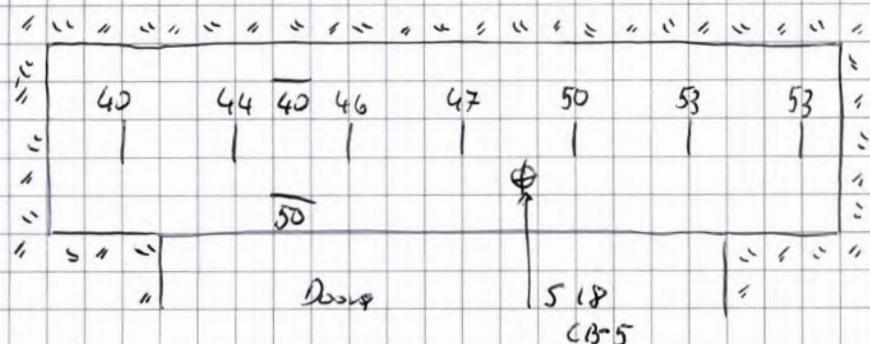
MANOR GROVE

Date 59

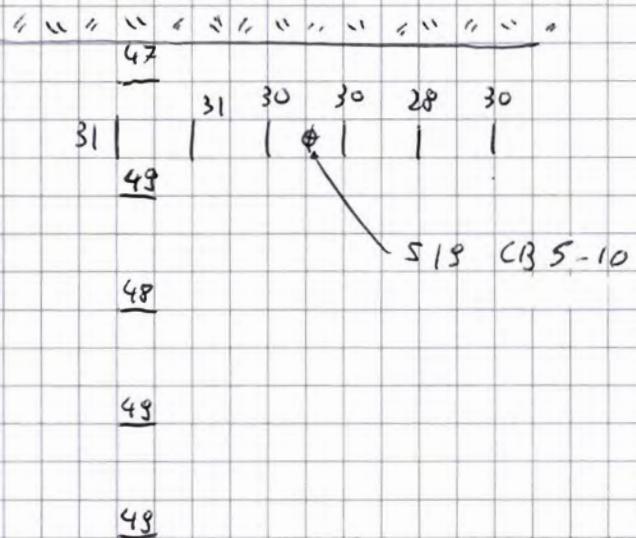
Report No ... 19130

Sheet No

TA18 Door Header



TA19 Link Bridge soffit.



TA20 Link Bridge slab edge



Project TASMIN ESTATE
LONDON

Location TA18, TA19, TA 20

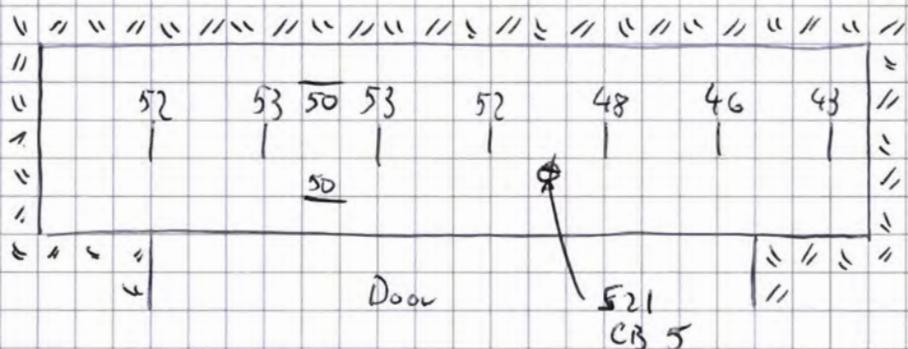
MANOR GROUP

Date 60

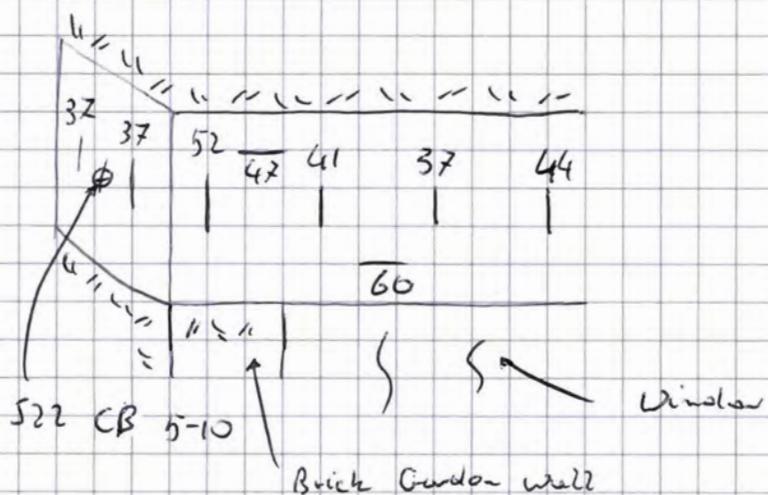
Report No 18130

Sheet No

TA 21 Door Header



TA 22 Window Header



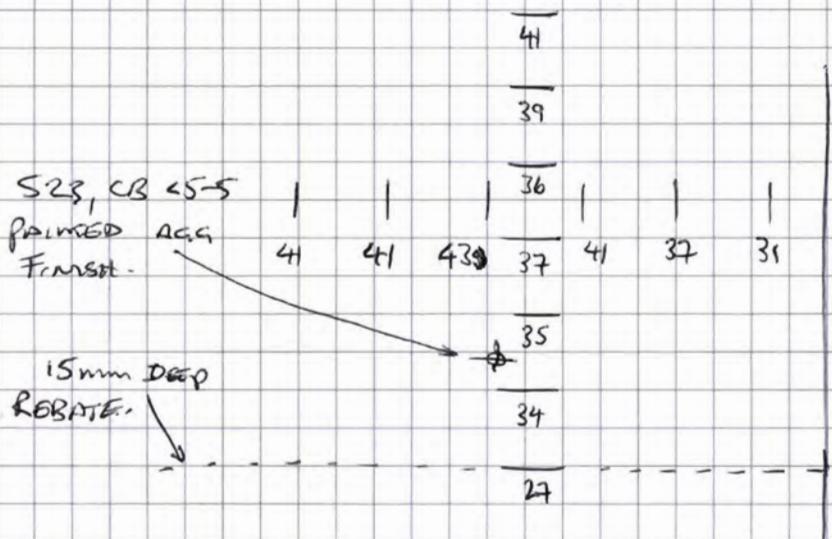
Project ... CASTLE ESTATE
LONDON

Location ... TA 21, TA 22

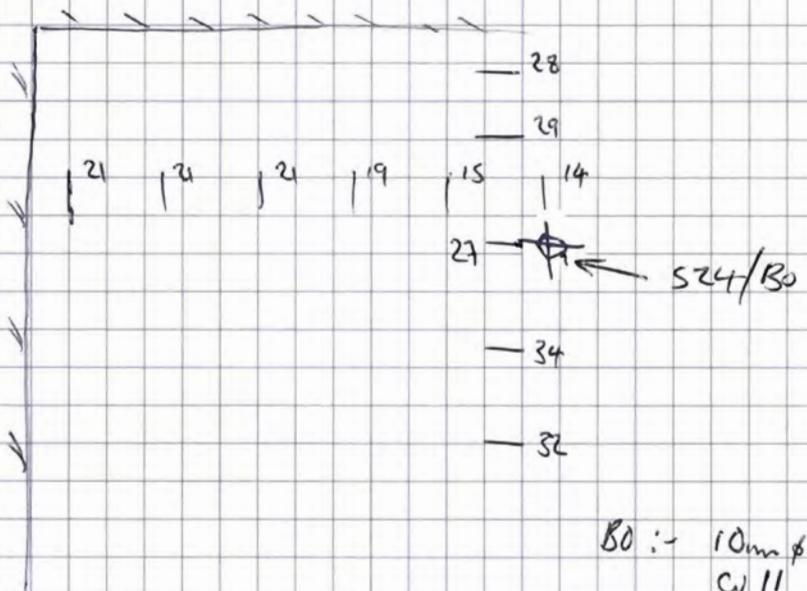
Date
Report No. 18130

MANOR GROVE
Sheet No.

TIAZ3 GND FL LIFT TOWER WALL



TIAZ4 2nd FL SOFFIT & STAIRS



B0 :- 10mm Ø Plain 1
CV 11
10mm Ø Plain 2
CV 23
CB 15-20
SSC 1, C9P 2
PRINTED CONR.

Project ... Instan Estate
London

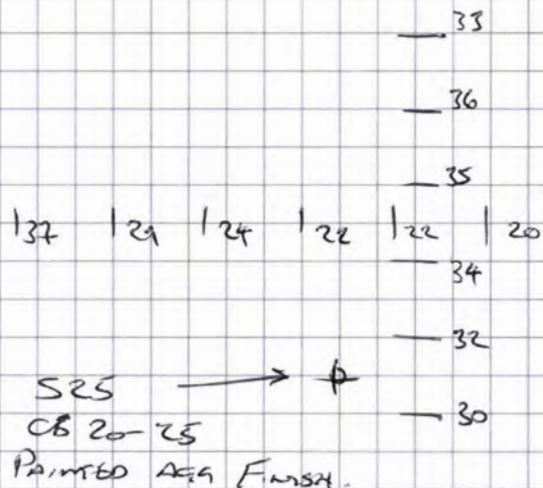
Date 62
Report No 19130

Location TIAZ3+24

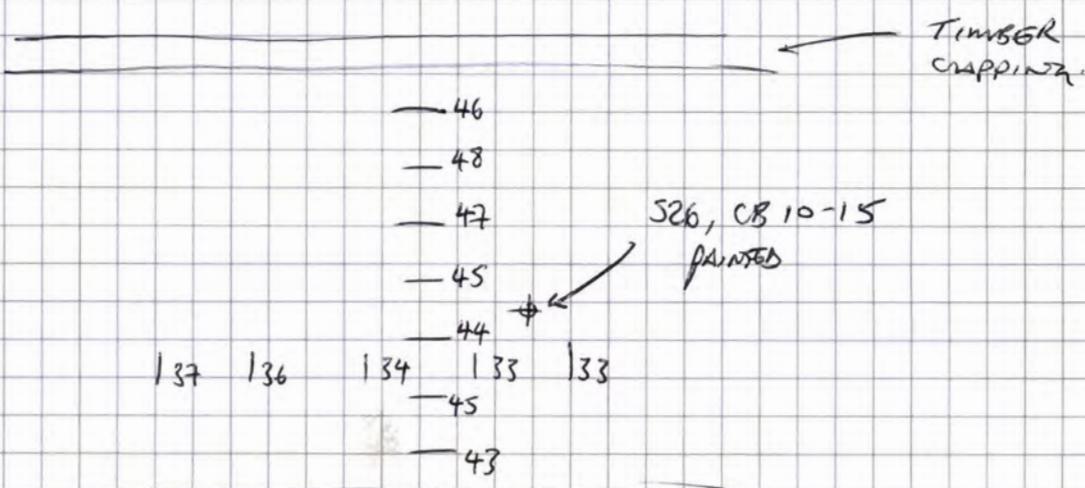
..... Heversham House

Sheet No

TA25 1st Fl Left Tower wall



TA26 4th Fl Balcony / W/wall Upstands.



Project ... Tustin Estate
London

Date 63

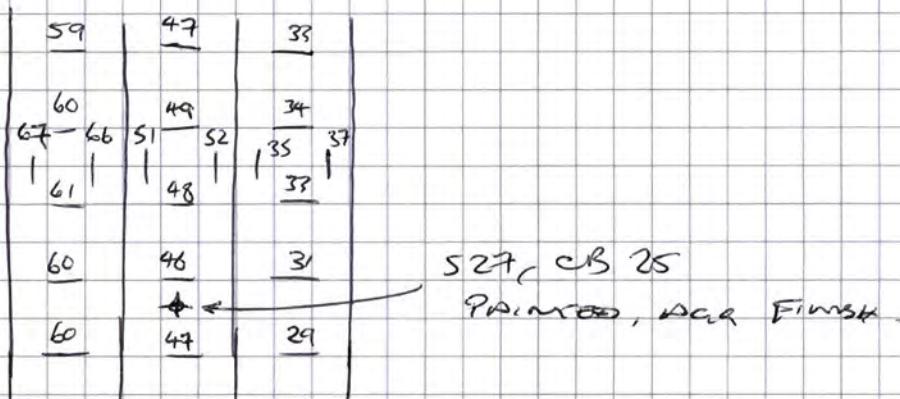
Report No 18130

Location

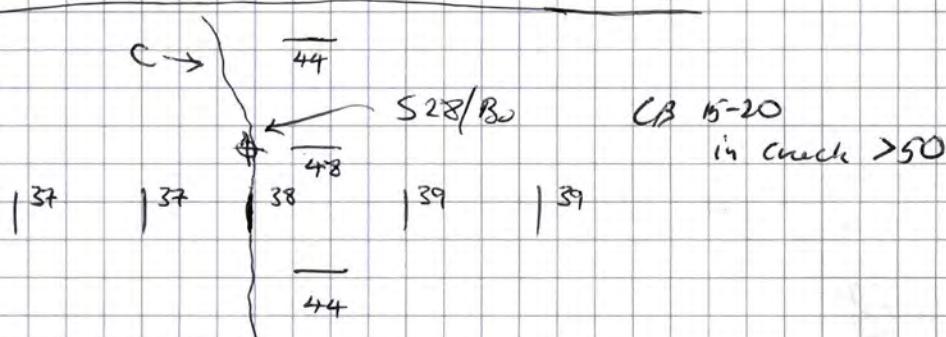
TA25 + 26
Haversham House

Sheet No

TA27 4th Floor Column



TA28 4th Floor w/way upstand



80! - 1 10 ~ plain bar CV 38 L of P

→ 10 ~ plain bar CV 48 C/P
Painted conc.

17/CP 16/

Project ... Tustin Estate
London

Location ... TA 27 + 28

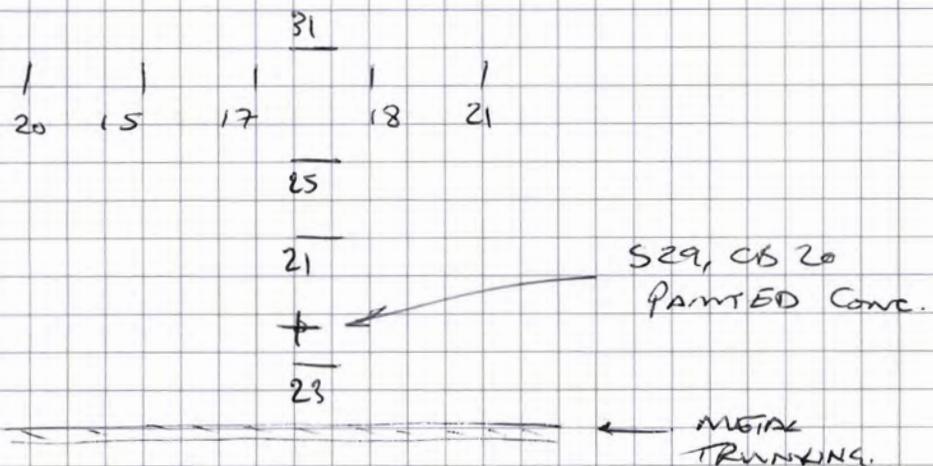
Neverhawn House

Date 64

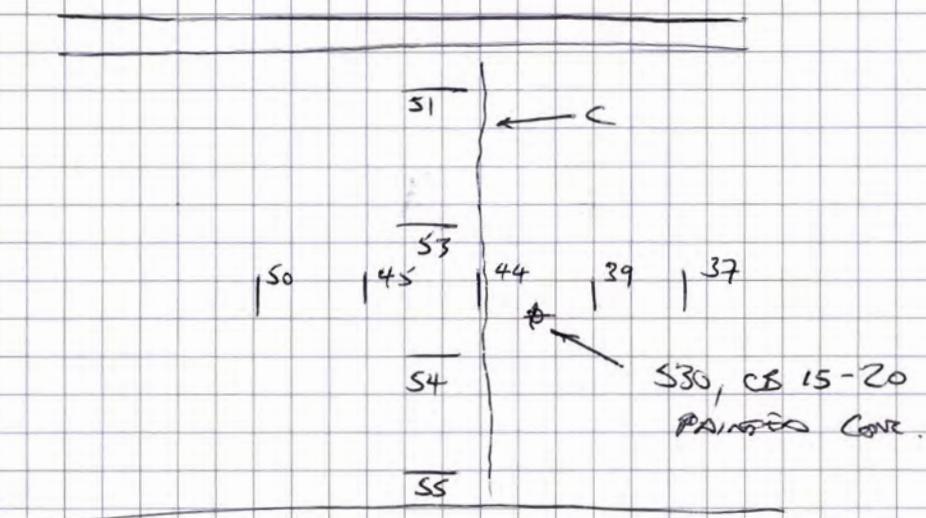
Report No 19130

Sheet No

TIA29 5th Floor Soffit



TIA30 2nd Fl. W/Way UPSTAIRS



Project Tustin Estate
London

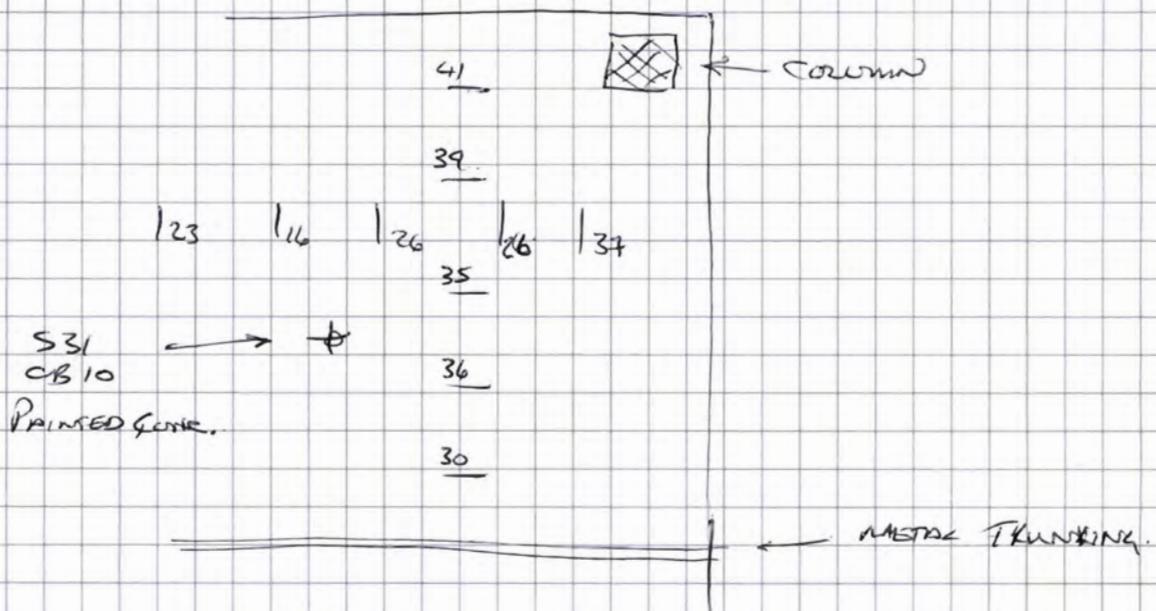
Date 19/30
Report No.

Location TIA29 + 30

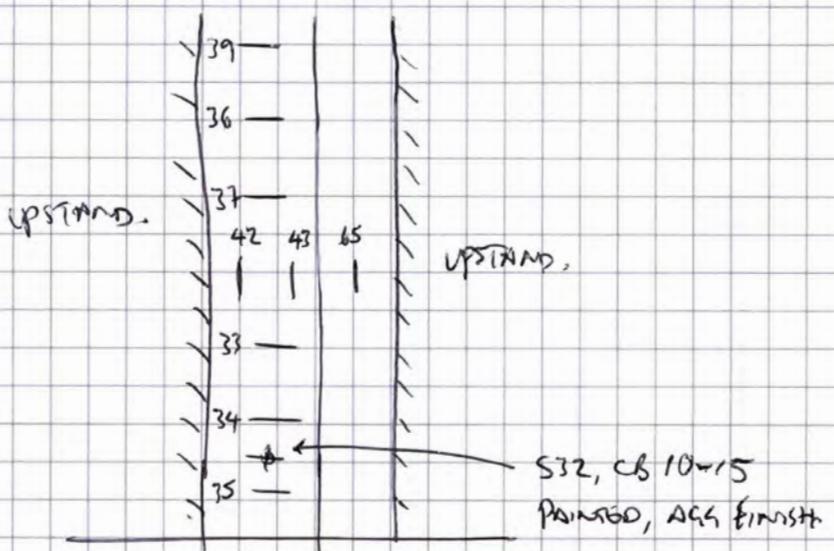
Haversham House

Sheet No.

TA 31 3rd Fl Soffit.



TA 32 2nd Fl Column



Project Tustin Estate
Laholom

Date

Report No. 18130

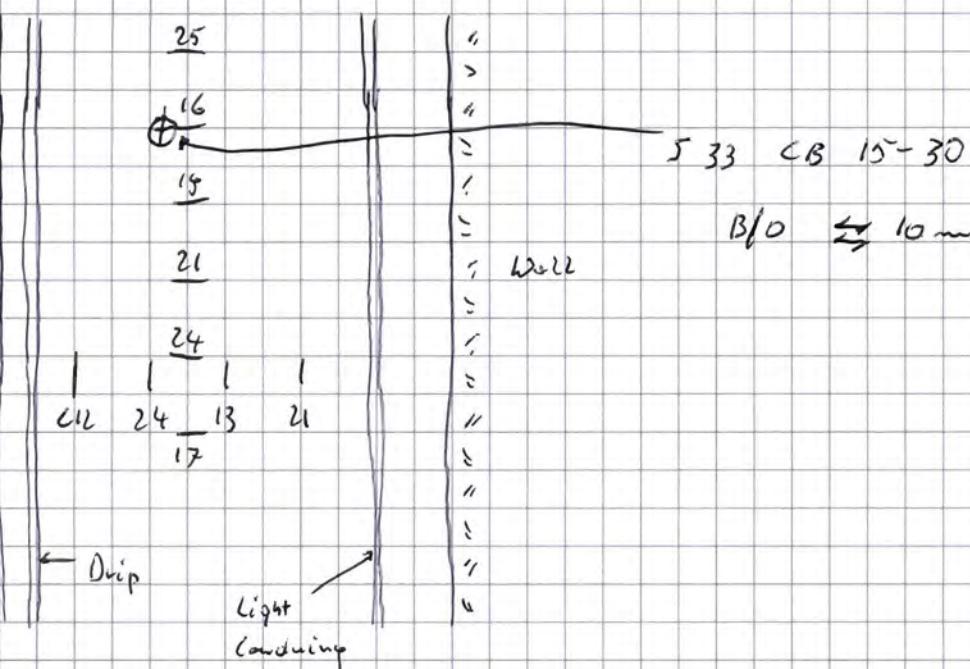
Location

TA 31 + 32

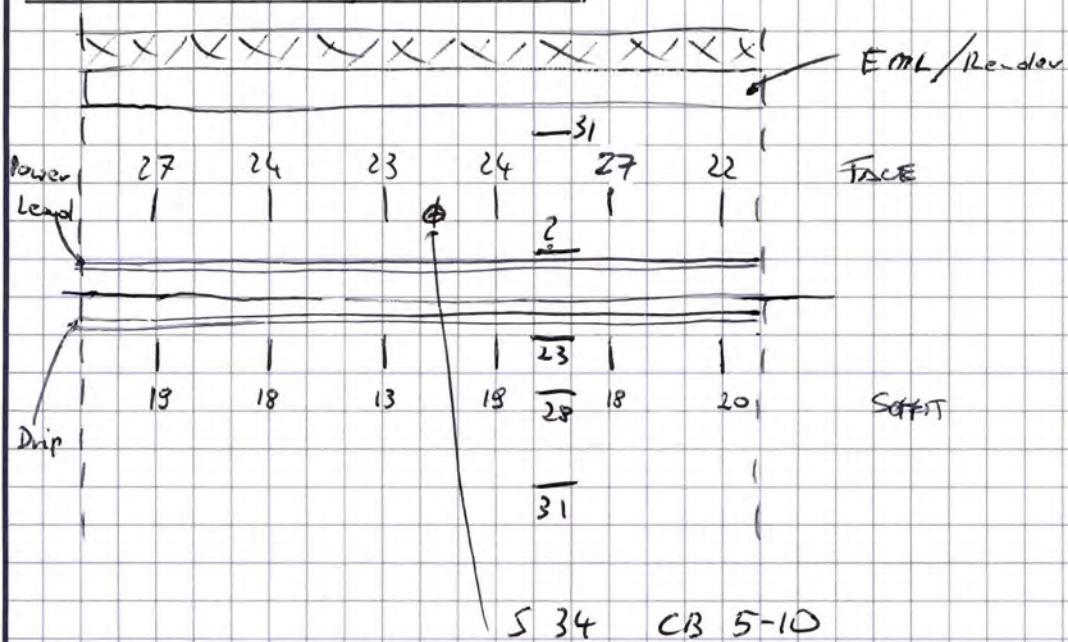
Haversham House

Sheet No.

TA 33 Soffit 3rd fl



TA 34 Slab Edge 1st fl



Project Tustin Estate
London

Location TA 33, TA 34

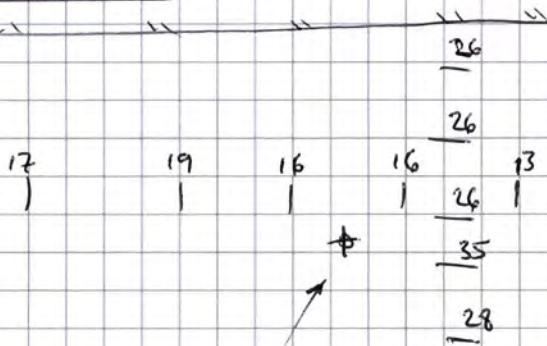
Date 67

Heversham House

Report No. 18130

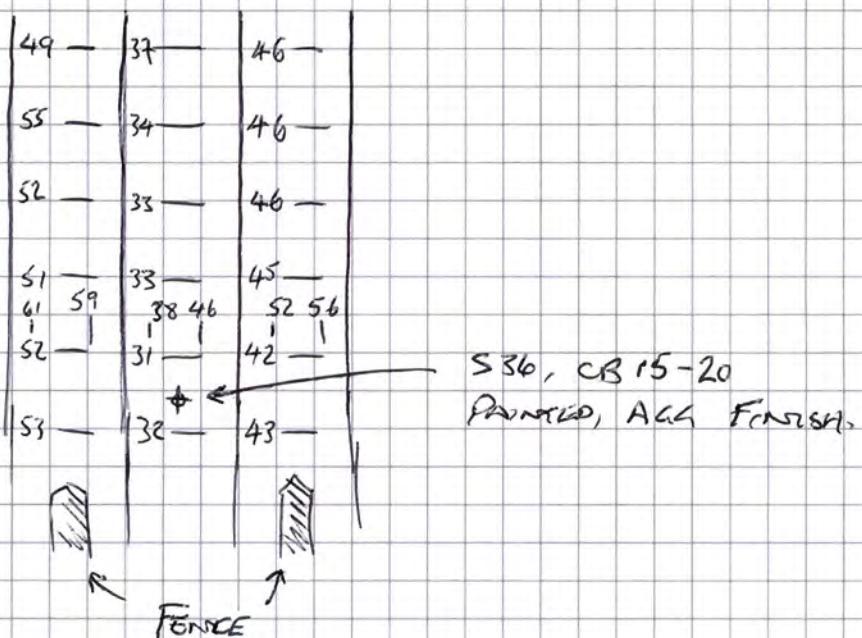
Sheet No.

TA35 185 ft Soffit.



S35, CB 15-20 30
PAINTED CONC.

TA36 Gnd Flr Column



Project Tustin Estate
London

Date 68.....

Report No. 19130

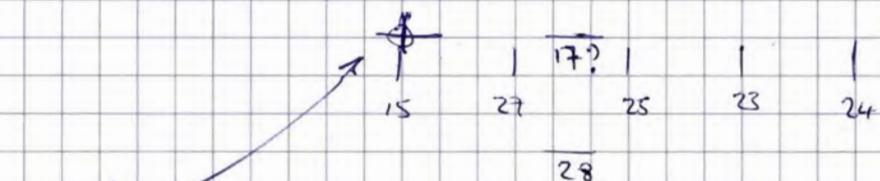
Location TA35 + 36

Haversham House

Sheet No.

TAS7 Roof / Tank Room Soffit

ACCESS
HATCH



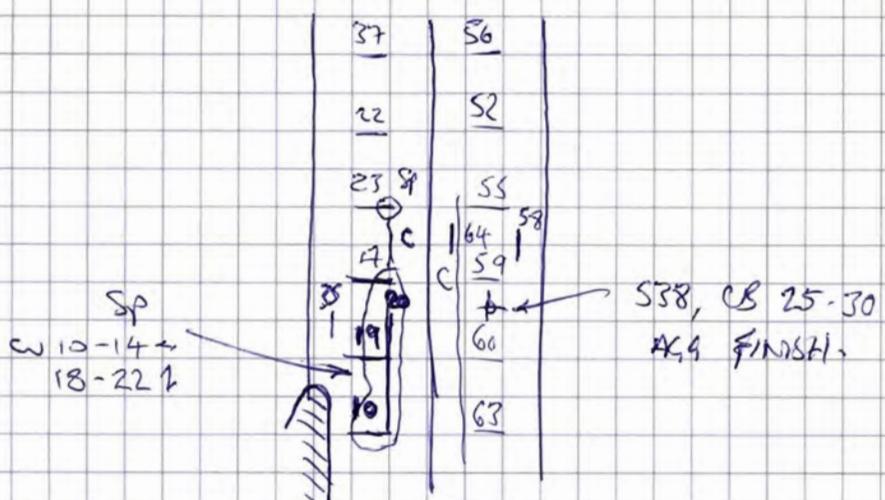
Numerous Ties

B0: 12 mm & PBA in 1
CW 18

10 mm & PBA in 1
CW 27

CBS, c+p
Banks @ 30%

TAS8 3RD Fl column (EN 24)



Project
TUSTIN ESTATE

Location

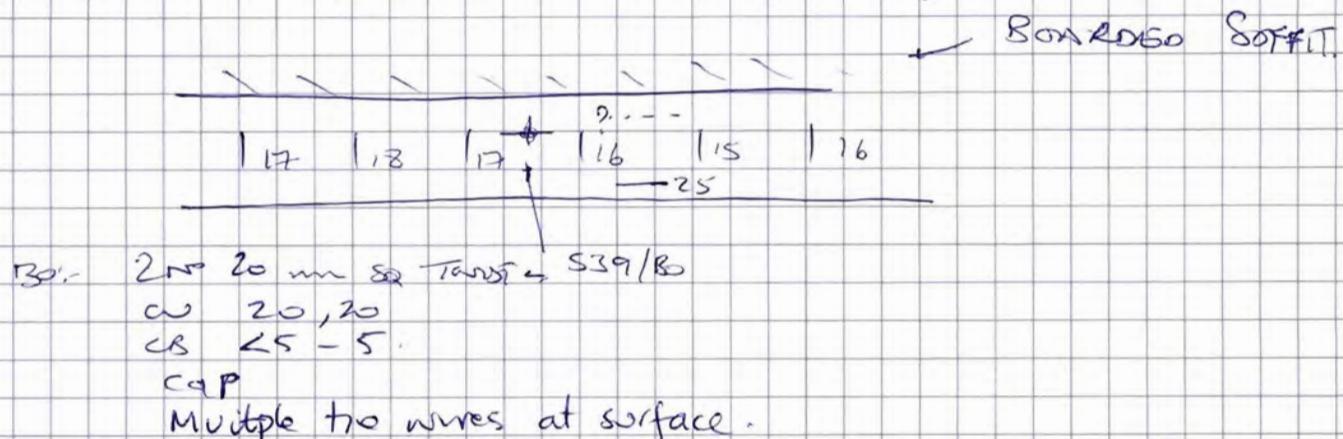
TAS7 + 38
BOWERS HOUSE

Date 69

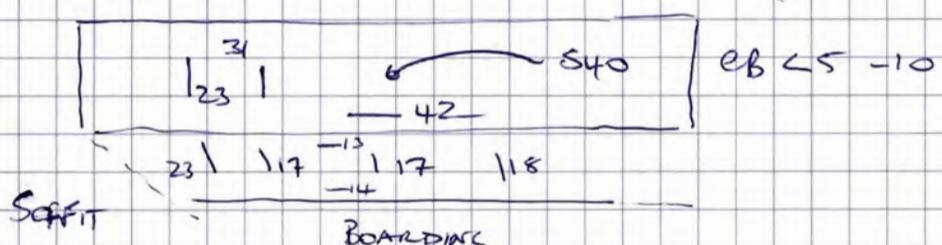
Report No 19130

Sheet No

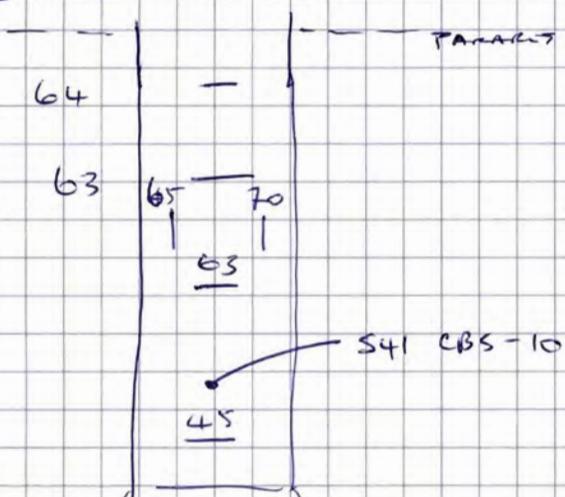
TA39 4th Flr Edge Beam (No 29).



TA40 4th floor SUB FLOOR (No 32)



TA41 3RD floor column (No 33)



Project JUSTIN ESTATE

Location TA39 - W

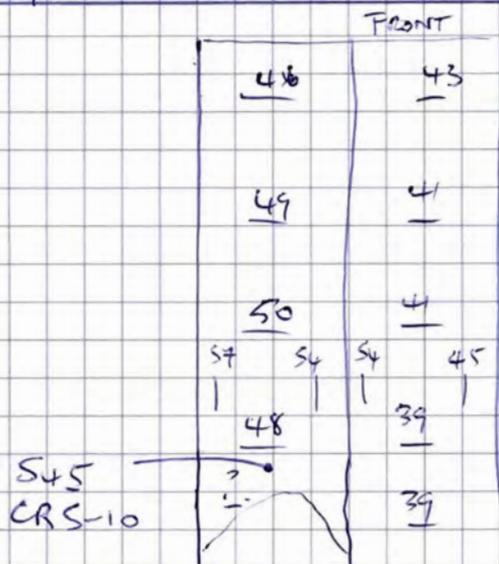
Date 70

BOWNESS HSE

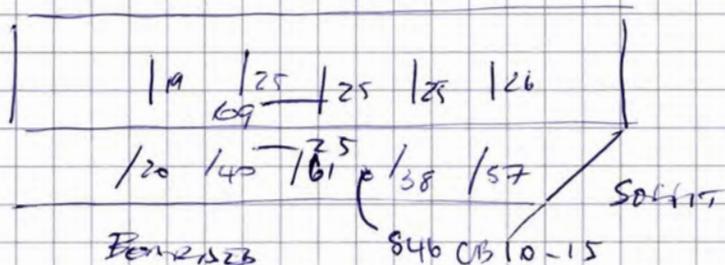
Report No. 19130

Sheet No.

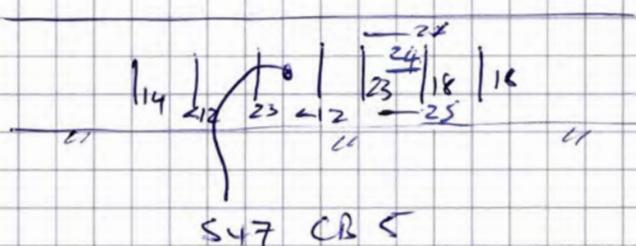
TAY5 1st Floor Column (Nº 11)



TAY6 2nd floor SLAB EDGE (Nº 4)



TAY7 2nd Floor EDGE BEAM (Nº 3)



Project TAYSTIN EST

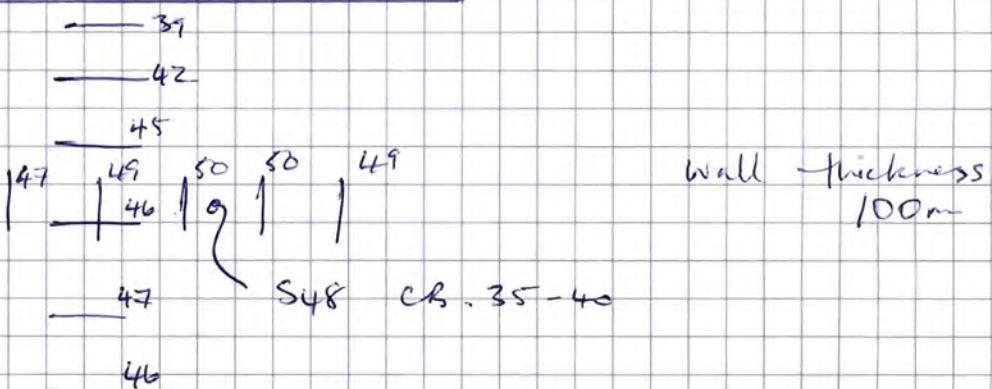
Location TAY5 - 47
BOWNESS HSE

Date 72

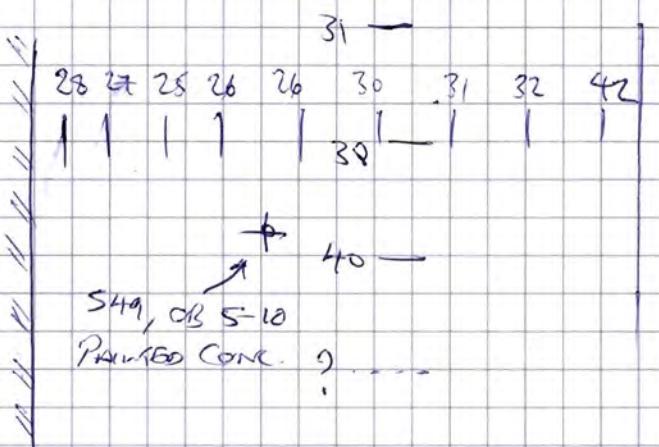
Report No. 19130

Sheet No.

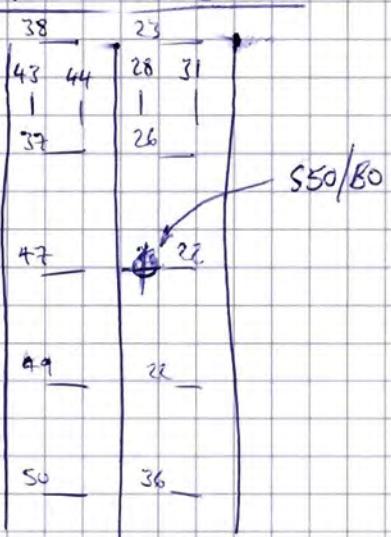
TA48 1st floor STAIR WALL.



TA49 2nd / 1st STAIR SOFFIT.



TA50 Cno Fe Column



80:- 10 mm p Plain 1 Main
cv 33
Part 6 mm p Plain ← Links
cv 21 + 22
CR <5-5
C+p.

Project TOSTIN EST

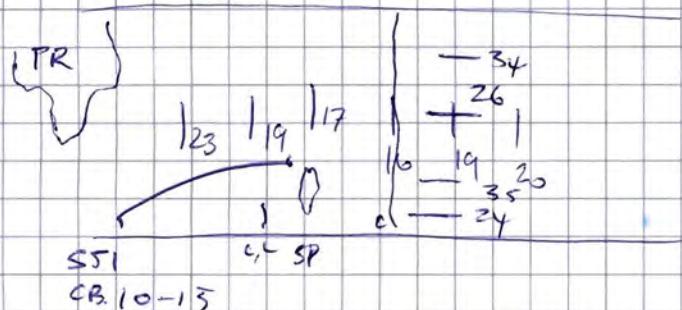
Location TA48-50
BOWNESS HOUSE

Date 73

Report No. 19130

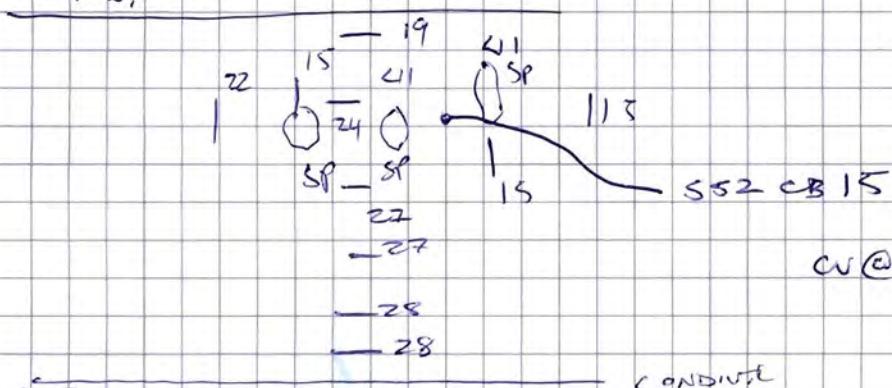
Sheet No.

TAS1 Root Beam.



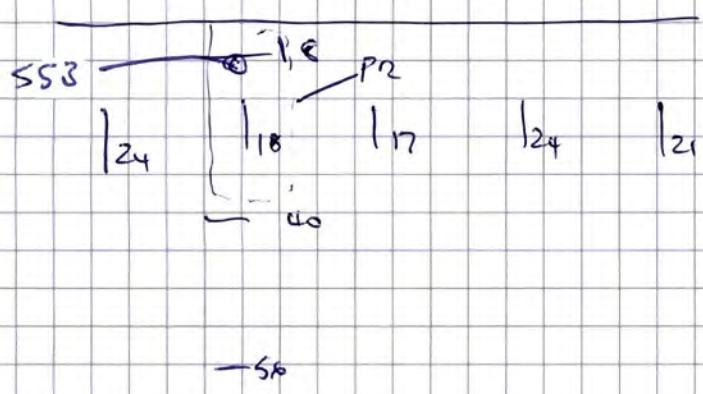
CV @ SP 9mm
Bar 10mm & plain

TAS2 Roof Softi



CV @ SP's 11, 8, 6.

TAS3 1st fl PARADOT (INT)



SS3 1x12m Ø plan vert
CV 20mm
1x10m Ø plan vert
CV 5mm
CB 570
SSC / LOS.

Rebar poorly compacted
Bars not primed,
cleaned well.

Project JUSTIN ESTATE

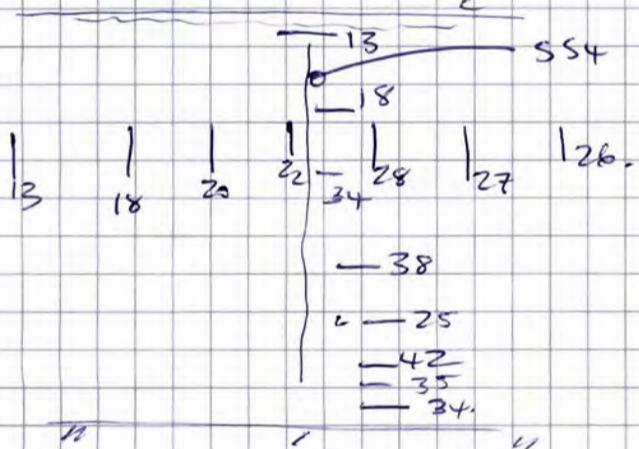
Location TAS1 - SS
KENTMERE HTS

Date 74

Report No. 19130

Sheet No.

TAS4 1ST floor Softit



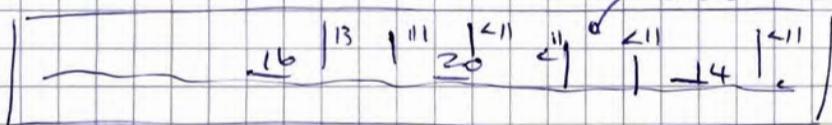
SS4 1x10m x plan bar

CV 18mm

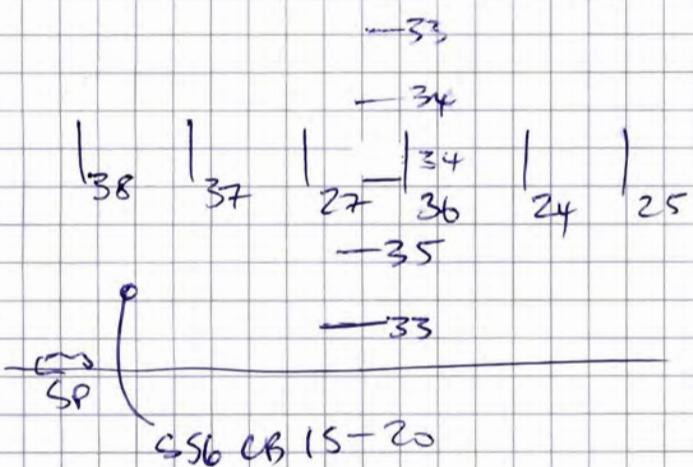
CB 30

SC 1 nos

TASS GND floor " DOWN STAND PSLAM



TAS6 1st floor PARAPET (Ex)



Project TWENTN ESTATE

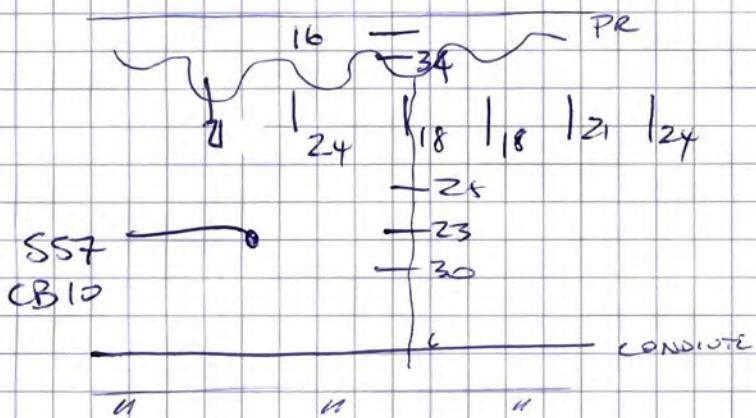
Location TAS4 - 86
KENTMERE 1tce

Date 10/12/20 75

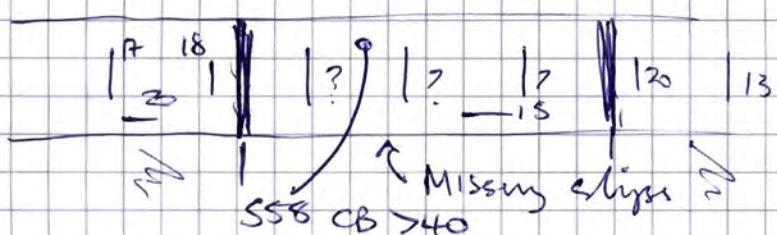
Report No.

Sheet No.

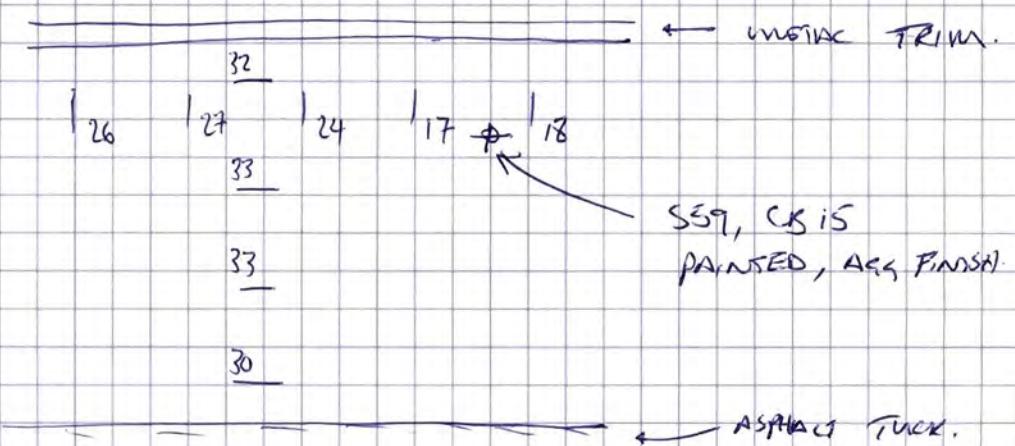
TAS7 2nd floor soffit



TAS8 1st floor Downstand beam



TAS9 2nd fl Parapet (inside face)



Project TUSTIN ESTATE

Location TAS7 - 59
KENTMERE HSC

Date 19/3/00

Report No 19130

TRAGO Roof Beam



S60
CBK5-5
Painted, ASH Finsht.

Project
..... TOASTIN ESTATE

Location

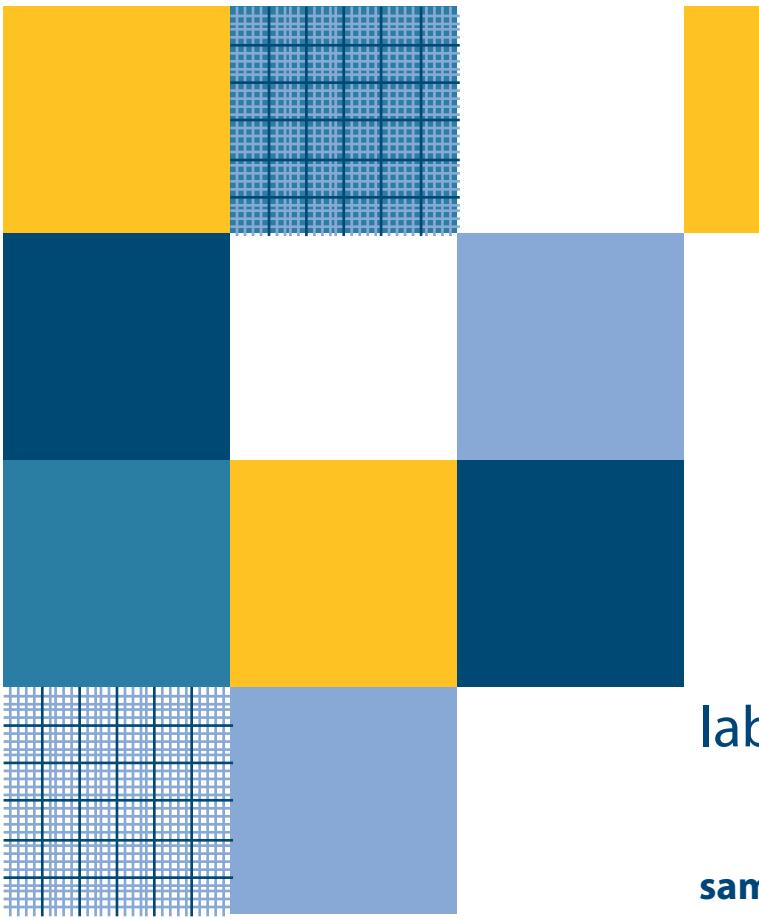
TRAGO
KEATMERS HOUSE

Date

77

Report No
..... P180

Sheet No



lab results

sample list

lab results

test

report

to select the section you require,
please click on the relevant heading

Sample List –
Tustin Estate, Southwark

Sample	Test Area	Element/Location
		Hill Beck Close
S1	1	Ground PC Panel
S2	2	1st Floor PC Panel
S3	3	Roof PC Panel
S4	4	Roof PC Panel
S5	5	Ground PC Panel
S6	6	1 st Floor PC Panel
		Ullswater House
S7	7	1 st Floor PC Panel
S8	8	Ground PC Panel
S9	9	Roof PC Panel
S10	10	Ground PC Panel
S11	11	1 st Floor PC Panel
S12	12	Roof PC Panel
		Manor Grove
S13	13	1st Floor Window Header
S14	14	Link Bridge Soffit
S15	15	Door Header
S16	16	Link Bridge Edge
S17	17	Door Header
S18	18	Door Header
S19	19	Link Bridge Soffit
S20	20	Link Bridge Edge
S21	21	Door Header
S22	22	Window Header
		1-98 Heversham House
S23	23	Ground Floor Lift Tower Wall
S24	24	2 nd Floor Soffit @ Stairs
S25	25	1 st Floor Lift Tower Wall
S26	26	4 th Floor Walkway Upstand
S27	27	4 th Floor Column
S28	28	4 th Floor Walkway Upstand
S29	29	5 th Floor Soffit
S30	30	2 nd Floor Walkway Upstand
S31	31	3 rd Floor Soffit
S32	32	2 nd Floor Column
S33	33	3 rd Floor Soffit Walkway
S34	34	1 st Floor Slab Edge
S35	35	1 st Floor Soffit
S36	36	Ground Floor Column

Sample List –
Tustin Estate, Southwark (Cont'd)

Sample	Test Area	Element/Location
		Bonness House
S37	37	Roof/Tank Room Soffit
S38	38	3 rd Floor Column
S39	39	4 th Floor Edge Beam
S40	40	4 th Floor Slab Edge
S41	41	3 rd Floor Column
S42	42	Stair Tower Roof Soffit
S43	43	3 rd → 2 nd Stair Spine Wall
S44	44	3 rd Floor Soffit
S45	45	1 st Floor Column
S46	46	2 nd Floor Slab Edge
S47	47	2 nd Floor Edge Beam
S48	48	1 st Floor Wall
S49	49	2 nd /1 st Stair Soffit
S50	50	Ground Floor Column
		Kentmere House
S51	51	Roof Beam
S52	52	Roof Soffit
S53	53	1 st Floor Parapet
S54	54	1 st Floor Soffit
S55	55	Ground Floor Downstand Beam
S56	56	1 st Floor Parapet
S57	57	2 nd Floor Parapet
S58	58	1 st Floor Downstand Beam
S59	59	2 nd Floor Parapet
S60	60	Roof Beam



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18 December 2019
 MA/16678/ns
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CERTIFICATE of ANALYSIS

Tustin Estate, Southwark
 Chloride content of concrete samples

Date received : 13 December 2019
 Mass received : 10 to 53 g
 Type of sample : concrete dust and lumps
 Date of analysis : 17 December 2019
 Method of testing : B.S.1881:Part 124:2015.

Sample ref.	Client's ref.	Chloride content	
		% by mass of	
		sample	cement
16969	S1	0.03	0.23
16970	S2	0.04	0.27
16971	S3	0.05	0.34
16972	S4	0.02	0.17
16973	S5	0.02	0.14
16974	S6	0.01	0.08
16975	S7	0.04	0.28
16976	S8	0.03	0.19
16977	S9	0.09	0.66
16978	S10	0.02	0.18
16979	S11	0.04	0.26
16980	S12	0.04	0.30
16981	S13	0.05	0.35
16982	S14	0.11	0.80
16983	S15	0.02	0.13
16984	S16	0.04	0.27
16985	S17	0.03	0.23
16986	S18	0.02	0.17
16987	S19	0.05	0.33
16988	S20	0.03	0.22
16989	S21	0.04	0.31
16990	S22	0.03	0.24

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Sample ref.	Client's ref.	Chloride content	
		% by mass of sample	cement
16991	S23	0.02	0.11
16992	S24	0.02	0.15
16993	S25	0.02	0.13
16994	S26	0.02	0.17
16995	S27	0.04	0.31
16996	S28	0.02	0.12
16997	S29	0.02	0.16
16998	S30	0.02	0.14
16999	S31	0.02	0.13
17000	S32	0.05	0.37
17001	S33	0.01	0.11
17002	S34	0.03	0.19
17003	S35	0.03	0.21
17004	S36	0.04	0.27
17005	S37	0.01	0.08
17006	S38	0.03	0.20
17007	S39	0.03	0.23
17008	S40	0.01	0.08
17009	S41	0.02	0.18
17010	S42	0.01	0.04
17011	S43	0.01	0.10
17012	S44	<0.01	<0.01
17013	S45	0.02	0.17
17014	S46	0.02	0.12
17015	S47	0.02	0.13
17016	S48	0.03	0.20
17017	S49	0.01	0.04
17018	S50	0.04	0.29
17019	S51	0.04	0.27
17020	S52	0.04	0.28
17021	S53	0.01	0.09
17022	S54	0.01	0.06
17023	S55	0.01	0.04
17024	S56	0.04	0.28
17025	S57	0.05	0.33
17026	S58	0.03	0.22
17027	S59	0.05	0.34
17028	S60	0.02	0.18

Note: 14 % cement content was assumed for the calculations. Results relate to the samples received.

End of results

Dr Ian Girling CChem MRSC
Quality Manager



summary tablee

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report

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Summary of Test Results for Manor Grove, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Headers	20	63	45	<5	15	7	0.13	0.35	0.24
Link Bridge Soffit	20	50	36	5	25	15	0.33	0.80	0.57
Link Bridge Slab Edge	15	70	42	5	10	7	0.22	0.23	0.23

*Chlorides calculated assuming a cement content of 14%.

Summary of Test Results for Kentmere House, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Roof Beam	9	35	26	<5	15	8	0.18	0.27	0.23
Soffit	6	42	22	10	30	18	0.06	0.33	0.22
Downstand Beam	11	20	14	35	40	38	0.04	0.22	0.13
Parapet	5	56	28	15	70	30	0.09	0.34	0.24

*Chlorides calculated assuming a cement content of 14%.

Summary of Test Results for Heversham House, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Lift Tower Wall	20	43	33	<5	25	13	0.11	0.13	0.12
Soffit	11	41	23	10	30	18	0.11	0.21	0.15
Walkway Upstand	33	55	43	10	>50	21	0.12	0.17	0.14
Column	29	67	46	10	25	17	0.12	0.37	0.25
Slab Edge	13	31	23	5	10	8	n/a	0.19	n/a

*Chlorides calculated assuming a cement content of 14%.

Summary of Test Results for Bownes House, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Soffit	15	37	25	<5	5	4	<0.01	0.08	0.05
Column	10	70	40	<5	30	12	0.17	0.29	0.21
Edge Beam	<12	25	18	<5	5	4	0.13	0.23	0.18
Slab Edge	13	61	28	<5	15	10	0.08	0.12	0.10
Stair Soffit	13	42	28	5	15	10	0.04	0.04	0.04
Stair Wall	18	50	35	20	40	30	0.10	0.20	0.15

*Chlorides calculated assuming a cement content of 14%.

Summary of Test Results for Ullswater House, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
PC Panels	20	62	38	<5	10	6	0.18	0.66	0.31

*Chlorides calculated assuming a cement content of 14%.

Summary of Test Results for Hill Beck Close, Tustin Estate - 19130

Element	Depth of Cover (mm)			Depth of Carbonation (mm)			Chloride Content (%) *		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
PC Panels	16	68	38	<5	10	6	0.08	0.34	0.21

*Chlorides calculated assuming a cement content of 14%.

A background image featuring a repeating grid pattern of concrete blocks in various colors (yellow, blue, white) and textures (solid, checkered).

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concrete

testing

concrete repair

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background

M concrete

Concrete is a highly alkaline substance and it is this alkalinity that protects the reinforcement from corrosion, despite the almost inevitable simultaneous presence of oxygen and moisture - the fuel of corrosion. The air around us is however relatively acidic, mainly by virtue of the carbon dioxide content, and tends to neutralise any concrete it comes into contact with gradually from the surface inwards. A chemical reaction takes place in which alkaline hydroxide compounds are converted into carbonate compounds - hence carbonation.

Were the carbonation front to reach the reinforcement, the protective passive layer around the bars maintained by alkalinity would be lost and active corrosion would ensue. This occurs in the form of microcell corrosion, or generalised surface corrosion, which leads to latent (or incipient) damage, and later to the classic symptoms of reinforcement corrosion - cracking and spalling of the cover concrete. For this reason the steel should have adequate cover (say 40 mm+) when built.

The presence of free chlorides in significant quantities can lead to localised breakdown of the passive layer on reinforcement, often in otherwise sound alkaline concrete, which results in intensive localised pitting corrosion of the steel. This is often termed macrocell corrosion, and can occur irrespective of cover. This form of reinforcement corrosion has associated with it a considerable excess of cathode over anode area, and corrosion rates can be relatively high. Care is needed in the rare situations where the oxygen supply to the steel is limited, as a non-expansive form of corrosion (black rust) can occur, which could ultimately lead to dissolution of the steel in the absence of the usual surface manifestations.



Visual Observations

Pertinent observations on the structure are generally recorded on a brief overall visual assessment, mainly on a walk around survey of accessible areas, supplemented by areas accessed during the course of the detailed testing.

Covermeter Survey

A representative portion of each detailed test area is generally subject to a covermeter survey, which measures the concrete cover, in millimetres, over the reinforcing steel. Measurements were carried out in general accordance with BS1881: Part 204.

The instrument used by us is an Elcometer 331, ProfoScope or Kolelectric Micro Electronic Covermeter. In order to obtain precise results exact bar sizes need to be known or assessed, otherwise small errors in cover readings can result. This effect is however, much more marked with shallow depths of cover concrete, where there can be evidence of correct bar sizes. Multiple, parallel or intersecting bars, give incorrect readings unless identified and avoided, or adjusted for.

Carbonation Testing

The depth of carbonation of the concrete is generally assessed and measured in situ in all detailed test areas. This is carried out in general accordance with BRE recommendations, from information paper IP 6/81. We always carry out the test on freshly broken concrete surfaces, as it is our opinion that this gives the most accurate results. The broken surface is blown clean and sprayed with phenolphthalein indicator solution. The solution gives a vivid pink coloration on sound alkaline concrete, with no colour change on carbonated surfaces, which merely look wet.

The mean depth of carbonation is measured, within 30 seconds of spraying, as the distance from the concrete surface to the boundary of the uncoloured zone.

It is important to record any slow development of colour, or creep back of coloration towards the surface of the concrete, as either condition can be indicative of partially carbonated concrete.

Concrete Dust Sampling

Concrete dust samples are generally collected in the detailed test areas for laboratory analysis in respect of chloride content, plus in some instances sulfate and cement content. The samples are drilled using a heavy duty rotary-percussive drill and 20 mm bit from at least two holes per location, with the first 5 mm of sample from each hole discarded as being non representative. Sampling is carried out in general accordance with BRE recommendations, from information paper IP 21/86.

If the location of the structure is such that any chloride present in the concrete is likely to have been cast-in at the time of construction, the samples are obtained in single increments of 5-50mm.

Conversely the location and nature of the structure could be such that chloride is likely to have ingressed the concrete, from an external source, and subsequent to construction. In this instance the samples are collected in 3no. separate depth increments of 5-25, 25-50 and 50-75mm, and suffixed A, B, and C respectively.

The nature of a car park structure is such that chloride is likely to have ingressed the deck concrete surfaces, from vehicular traffic bringing in de-icing salts. The samples on these elements are therefore collected in 3no. separate depth increments of 5-25, 25-50 and 50-75mm, and again suffixed A, B, and C respectively. The other concrete elements on car park structures are generally such that any chloride present in the concrete is likely to have been cast-in at the time of construction. The samples in these areas are therefore obtained in single increments of 5-50mm.

Dust samples for chloride, sulfate, and cement content analyses are generally collected in plastic sample bags, labelled appropriately, and submitted to a UKAS accredited laboratory for analysis, in accordance with BS1881: Part 124.

Concrete Core Sampling

Concrete core samples, when required, are generally collected in a number of test areas, for submission to the laboratory for further analyses.

A UKAS accredited laboratory can be requested to analyse the cores in respect of a description and photograph, prior to compressive strength testing in accordance with BS1881: Part 120.

In addition a specialist laboratory can be requested to analyse the cores via petrographic techniques. This involves the vacuum impregnation of core slices with fluorescent resin, which are then further prepared. Generally polished slices are prepared for observation under a relatively low powered microscope. They also prepare thin section microscopy slides, in which a small but representative sub-sample of the concrete,

often including the surface, is glued onto a glass slide. The concrete is then ground down until translucent and examined under a high-powered specialist petrological microscope.

This process enables exact detail of aggregate types, cement types, original mix, and so forth to be determined, but also details of all chemical changes, cracking and deterioration to be recorded. Photomicrographs at various magnifications are normally provided.

Corrosion Potential Measurements

Each detailed test area of 2 or 4m² or so, or a whole element such as a car park deck, can be subject to corrosion potential measurements, also referred to as half-cell testing. Essentially this technique measures the electrical potential of the reinforcement in the concrete, in millivolts (mV), via a surface applied instrument coupled to a high impedance multimeter.

The measurements are generally carried out on every node of a 0.5m or 1.0m orthogonal grid, generally employing a Copper/Copper Sulfate half-cell.

Corrosion of the reinforcement is an electrical phenomenon, with a build up of electrical potential in corroding or anodic areas, and a negative charge by convention on the affected portion of steel.

The presence of chlorides, where associated with loss of passivation, results in the development of very active corrosion cells, often with intense localised pitting of the reinforcement.

Our corrosion potential measurements are carried out in general accordance with ASTM C-876, Standard Test Method for Half-Cell Potentials of Uncoated Reinforcing Steel in Concrete. We do however recognise that the method only gives corrosion potentials, i.e. the probability of corrosion occurring, as opposed to rates; and it must be understood that the method is empirical, or qualitative.

We additionally recognise that the given parametric criteria really only apply to an external chloride contaminated concrete. Any other application will require fresh criteria to be established by visual correlation.

Exploratory Breaking Out

In selected detailed test areas exploratory breakouts are generally made in order to gain further knowledge of reinforcement condition, and other detail.

This also allows correlation of other test data, and in particular physical checks on reinforcement size, plus of course correct measured concrete cover. Surface corrosion condition of the reinforcement is always recorded.

M concrete repair

The concrete remediation and corrosion control process must generally ensure that the concrete becomes stable and the reinforcement passive. Clearly the original condition of the now deteriorated concrete was such that failures have occurred well within the designers projected life for the structure.

Successful concrete repair involves the treatment and control of all corrosion on the reinforcement, i.e. all the latent (or hidden), as well as the visible deterioration identified. It is not unusual for the latent damage element to be considerably more extensive than the visible damage.

Having identified the exact nature and the true extent of the corrosion problem, a method of concrete remediation and corrosion control must be arrived at by reference to BS DD ENV 1504:Part 9:1997, the European standard for concrete repair. This is done in accordance with the clients wishes and expectations as regards issues such as: life expectancy of the repair, life expectancy of the structure, intended use, as well as issues regarding cost and funding, in conjunction with the frequency and number of repair cycles desired. There is nowadays no reason why a durable repair should not be achieved straight away in the majority of cases.

The European Standard lists eleven repair principles, of which five are specifically related to reinforcement corrosion, as opposed to defects in concrete, and these five are as follows:

Principal 7 [RP]*Preserving or Restoring Passivity*

This involves creating conditions in which the surface of the reinforcement is maintained or is returned to a passive condition. This can be achieved via additional cover, replacing contaminated or carbonated concrete, or electrochemical remediation of concrete.

Principal 8 [IR]*Increasing Resistivity*

This involves increasing the electrical resistivity of the concrete, for instance by limiting moisture content via surface treatments, coatings or sheltering.

Principal 9 [CC]*Cathodic Control*

This involves creating conditions in which cathodic areas of reinforcement cannot drive an anodic reaction. It may be achieved by limiting oxygen content by saturation or surface coating.

Principal 10 [CP]*Cathodic Protection*

This involves corrosion control via the establishment of an external anode, and may be via an applied current (ICCP) or by galvanic means (GCP). The method is dealt with by BS EN 12696:2000, Cathodic Protection of Steel in Concrete.

Principal 11 [CA]*Control of Anodic Areas*

This involves creating conditions in which anodic areas of reinforcement are not able to take part in the corrosion reaction. It may be achieved by coating the reinforcement or applying corrosion inhibitors to the concrete.

General Note

The above is not reproduced verbatim from the standard, it is our précis. It is noted in the standard that the inclusion of methods does not imply their approval, and that the methods may make use of products or systems not covered by the EN 1504 series.

The principals are listed in full for completeness, some are rarely, if ever, used by UK concrete repair contractors.

The full range of successful concrete repair and remediation techniques that may be employed in corrosion control, are best viewed as a toolbox, and one must seek to select and apply techniques appropriate to the various parts of the structure, having given consideration to specific client requirements and expectations.

It is usual in concrete repair for a coating to be applied to the carefully repaired and prepared surface, being free of blowholes and other surface defects, which resists further carbonation, and the ingress of aggressive agents. It is often preferable for this product to be elastomeric and durable.

In our opinion the preferred route forward, in procuring the necessary repair services, is in the formation of partnerships and term contracts with a suitable contractor. It is important to seek a satisfactory outcome for all **parties, in which the client's needs and wishes are fully encompassed**. Negotiation and Construction Partnering, as advocated in the Egan Report, should really take a preference over the traditional method of competitive tendering, which in the final analysis can only serve to reduce every aspect of a job to its lowest common denominator.



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M common terms

HEALTH CHECK

It is important to treat concrete to an occasional health check or MOT like one would a vehicle. Whilst properly designed and built concrete might be considered to be maintenance free, it is in practice an extremely rare commodity.

Just like other components of a structure the concrete should be periodically examined by an expert and if necessary subjected to a program of testing.

This would often include at least a detailed visual examination, aswell as tests for cover depth, carbonation, chlorides, and could possibly also include tests for HAC, sulfates, ASR and any other tests deemed necessary.

COVER DEPTH

This is a term applied to the depth or thickness of concrete over the layers of reinforcing steel that are closest to the exposed surface. It is important that this parameter is appropriate to the concrete quality and the degree of exposure of the concrete, in order in particular to prevent carbonation from reaching the steel.

In UK construction it is historically not uncommon for inappropriate cover to result from poor standards of design and/or build. Shallow covers lead to early deterioration.

PASSIVATION

This is a term that is applied to the protection of reinforcing steel in concrete by the high alkalinity of concrete as cast. This alkaline environment supports a film of passive oxides on the steel, which, despite the almost inevitable simultaneous presence of oxygen and moisture prevents reinforcement corrosion.

CARBONATION

Concrete as cast is highly alkaline which affords the reinforcing steel corrosion protection. The atmosphere around us, mainly by virtue of the carbon dioxide content, is slightly acidic which tends to neutralize the concrete from the surface inwards. This is the natural weathering process of concrete and is termed *carbonation*.

The carbonation process in no way harms concrete, in fact in many ways it enhances the physical properties, but it does reduce the high alkalinity that results in a loss of passivation, should the process reach the steel.

This in effect means that active corrosion of the steel will ensue with the all too familiar signs of corrosion in the form of cracking, spalling, and physical distress to the concrete cover.

The process of carbonation progresses into concrete as a somewhat irregular front, as concrete is not truly homogenous, in approximate reverse exponential advance in relation to time, at a true rate dependant upon concrete quality.

CHLORIDES

Chlorides in concrete are present either because they were *cast in* at the time of construction or because they have *ingressed* the concrete after construction.

Cast in chlorides tend to be present in the UK historically in precast concrete construction where they are derived from the use of calcium chloride based accelerating **admixtures commonly used in the 1960's**. They could also of course be present due to contaminated ingredients, such as for instance marine dredged aggregates. This form of chloride contamination tends to combine with the hydration products of cement, and hence tends to exist in a substantially chemically bound condition.

Ingressed chlorides can be present from a variety of sources such as deicing salts on trafficked surfaces, spray and leakage of deicing salts, marine environments, salt laden air in coastal areas, aswell as influences such as industrial processes. This form of chloride contamination tends to be present in a free ion form. The amount of chloride present in concrete from external contamination is ever increasing with time, as is the depth of penetration.

It should be noted that it is the *free* chloride ion content of concrete that dictates the vulnerability to chloride attack. The mechanism of attack is the localized break down of the passivation of the steel, which leads to often intensive pitting corrosion. It is not possible to easily specify a limiting chloride content below which corrosion will not be initiated, as there are so many other factors to take into consideration.

CARBONATION AND CHLORIDES

The process of carbonation in a concrete containing chlorides is potentially much more serious. This occurs because the carbonation process effectively releases the chemically bound chloride leaving it free to attack the reinforcing steel. It can be seen that the carbonation can thus be a trigger for chloride attack. This form of chloride attack frequently occurs just ahead of the carbonation front.

SULFATES

The presence of sulfates in above ground concrete construction in the UK is most frequently due to external contamination such as industrial sources. In sufficient quantity sulfates break down the binding qualities of cement by chemical attack, which will ultimately result in a dangerous loss of strength.

HIGH ALUMINA CEMENT

This HAC form of cement differs from ordinary portland cement (OPC) in that it has a higher alumina content. This results in cement that sets much more quickly, a property that was historically exploited in the manufacture of precast concrete construction in the UK.

It has more recently come to light that under certain conditions of temperature and moisture this type of cement undergoes certain chemical changes, often termed *conversion*, which results in a drastic and often unacceptable loss of strength. Some degree of, if not total conversion, tends to be the norm in UK HAC.

ALKALI SILICA REACTION

This is a form of alkali aggregate reaction, which was seized upon by the non-specialist press in the UK when it first came to prominence, and commonly termed concrete cancer by them. It is ironically only really found in limited geographical areas, most frequently in parts of the southwest and midlands.

The reaction requires a particular combination of cement and aggregate properties to coexist to trigger it, and consists essentially of a chemical attack on the aggregate leading to the formation of an expansive gel, which in sufficient quantity can disrupt the concrete matrix. The reaction is very much moisture dependant and frequently has a finite life.

Ironically there have been less than a handful of notorious cases in the UK, which have required demolition. The reaction is by no means common and can frequently be controlled by elimination of moisture. It is

sometimes found microscopically that a degree of the reaction is present in a minor way, which may need some preventative measure.

It is however fairly common in UK aggregates to find types present in concrete under petrographic examination which are said to be classified as potentially reactive with alkali. This is not normally a cause for concern unless the reaction itself is observed to any significant degree.

MECHANICAL DAMAGE

Mechanical or physical damage to concrete is commonly seen due to vehicular or industrial plant impact. It could however include abrasion. On some precast concrete one can find physical damage, particularly on corners, as a result of erection damage.

This kind of damage requires to be treated like a proper concrete repair, particularly where the reinforcement has become exposed. It is also important to ensure that any repair includes protection from renewed damage.

FROST DAMAGE

This kind of damage is seen frequently on very exposed and often saturated components of concrete construction. It manifests itself in the form of lots of pop outs on a generally friable surface, often also including lineations of calcareous deposits. It is important to deal with these situations and install preventative measures.

LEAKAGE

Signs of leakage through concrete often manifest themselves in the form of calcareous deposits and stalactites, frequently on cracks in soffits. In the long term, particularly if salts are present, this can lead to significant durability problems. The continuous saturation and passage of water through concrete can lead to undesirable chemical changes. It is therefore important to deal with these situations and install remedial measures.

FIRE DAMAGE

The effects of fire upon a concrete surface will vary greatly dependant upon the proximity of the fire, the heat, and the physical qualities of the concrete. On the one hand the effects can be limited to severe soot contamination but on the other hand to extensive and deep physical damage.

The main effect of exposure of concrete to fire is the differential expansion of the constituent parts leading to physical distress. This can range from surface pop outs over aggregate particles, to a friable surface, to spalling,

and ultimately possibly even to the permanent deformation of any exposed reinforcing steel. It is common for the surface layer of exposed concrete to exhibit a discoloration to pink, but this is dependent upon temperature reached.

Most frequent repair is in the form of removal of all loose, friable, and discolored concrete followed by reinstatement in an appropriate manner.

Bowness House

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	11,651	0	0	0	0	0	0	8,882	0	0	20,533
Access - See Hunters Scaffolding costs	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	3,975	0	0	0	0	0	0	0	0	0	3,975
Concrete Survey inc HT	1,590	0	0	0	0	0	0	0	0	0	1,590
Concrete Repairs	5,400	0	0	0	0	0	0	0	0	0	5,400
Porefiller/Fairing Coat	15,901	0	0	0	0	0	0	0	0	0	15,901
Corrosion Inhibitors	15,901	0	0	0	0	0	0	0	0	0	15,901
Anti-Carbonation Coatings	11,926	0	0	0	0	0	0	0	0	0	11,926
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	54,326	0	0	54,326
Sub Total	66,344	0	0	0	0	3,000	0	66,208	0	3,000	138,552

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

Heversham House

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	23,338	0	0	0	0	0	0	16,739	0	0	40,077
Access - See Hunters Scaffolding costs	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	9,192	0	0	0	0	0	0	0	0	0	9,192
Concrete Survey inc HT	3,677	0	0	0	0	0	0	0	0	0	3,677
Concrete Repairs	5,700	0	0	0	0	0	0	0	0	0	5,700
Porefiller/Fairing Coat	36,769	0	0	0	0	0	0	0	0	0	36,769
Corrosion Inhibitors	36,769	0	0	0	0	0	0	0	0	0	36,769
Anti-Carbonation Coatings	27,577	0	0	0	0	0	0	0	0	0	27,577
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	102,377	0	0	102,377
Sub Total	143,022	0	0	0	0	3,000	0	122,116	0	3,000	271,138

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

Kentmere Houses

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	12,551	0	0	0	0	0	0	7,873	0	0	20,424
Access - See Hunters Scaffolding costs	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	5,610	0	0	0	0	0	0	0	0	0	5,610
Concrete Survey inc HT	2,244	0	0	0	0	0	0	0	0	0	2,244
Concrete Repairs	3,700	0	0	0	0	0	0	0	0	0	3,700
Porefiller/Fairing Coat	22,442	0	0	0	0	0	0	0	0	0	22,442
Corrosion Inhibitors	22,442	0	0	0	0	0	0	0	0	0	22,442
Anti-Carbonation Coatings	16,831	0	0	0	0	0	0	0	0	0	16,831
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	48,151	0	0	48,151
Sub Total	85,820	0	0	0	0	3,000	0	59,024	0	3,000	150,844

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

Hillbeck Houses

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	7,050	0	0	0	0	0	0	5,368	0	0	12,418
Access - See Hunters Scaffolding costs	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	4,278	0	0	0	0	0	0	0	0	0	4,278
Concrete Survey inc HT	1,711	0	0	0	0	0	0	0	0	0	1,711
Concrete Repairs	600	0	0	0	0	0	0	0	0	0	600
Porefiller/Fairing Coat	17,112	0	0	0	0	0	0	0	0	0	17,112
Corrosion Inhibitors	17,112	0	0	0	0	0	0	0	0	0	17,112
Anti-Carbonation Coatings	12,834	0	0	0	0	0	0	0	0	0	12,834
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	32,834	0	0	32,834
Sub Total	60,697	0	0	0	0	3,000	0	41,202	0	3,000	107,899

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

Ullswater House

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	12,435	0	0	0	0	0	0	9,049	0	0	21,484
Access - See Hunters Scaffolding costs	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	5,115	0	0	0	0	0	0	0	0	0	5,115
Concrete Survey inc HT	2,046	0	0	0	0	0	0	0	0	0	2,046
Concrete Repairs	200	0	0	0	0	0	0	0	0	0	200
Porefiller/Fairing Coat	20,460	0	0	0	0	0	0	0	0	0	20,460
Corrosion Inhibitors	20,460	0	0	0	0	0	0	0	0	0	20,460
Anti-Carbonation Coatings	15,345	0	0	0	0	0	0	0	0	0	15,345
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	55,345	0	0	55,345
Sub Total	76,061	0	0	0	0	3,000	0	67,394	0	3,000	149,455

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

Manor Grove - Rented Houses Only

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Conc Repair Sub Contractor Prelims	4,110	0	0	0	0	0	0	3,487	0	0	7,597
Access - Covered by Main Report preliminaries	0	0	0	0	0	0	0	0	0	0	0
Water Jet Prep	1,109	0	0	0	0	0	0	0	0	0	1,109
Concrete Survey inc HT	444	0	0	0	0	0	0	0	0	0	444
Concrete Repairs	2,500	0	0	0	0	0	0	0	0	0	2,500
Porefiller/Fairing Coat	4,437	0	0	0	0	0	0	0	0	0	4,437
Corrosion Inhibitors	4,437	0	0	0	0	0	0	0	0	0	4,437
Anti-Carbonation Coatings	3,327	0	0	0	0	0	0	0	0	0	3,327
10 yearly inspection	0	0	0	0	0	3,000	0	3,000	0	3,000	9,000
20 yearly clean & re-coat	0	0	0	0	0	0	0	21,328	0	0	21,328
Sub Total	20,364	0	0	0	0	3,000	0	27,815	0	3,000	54,179

Costs exclusive of Principle Contractors prelims, Professional fees and VAT

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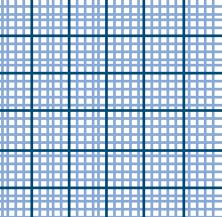
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Appendix F

MCCE Limited –

Mechanical and Electrical Reports

The following block reports were presented as part of the draft report in February 2020.

As part of the ongoing development of the options appraisal exercise, MCCE Limited have been asked to reassess their work to take account of the installation of SELCHP in 2023/24 and to reflect any changes to the costs as an addendum to the original survey.

The original report is included in this appendix. Where SELCHP influences the original costs an addendum sheet with a revised cashflow is included under each individual block report. These revised costs are also reflected in the Hunters summary and block cashflows.



hunters

mcce

Condition Report of the Building Services Installation.

Bowness House – Tustin Estate.

**Prepared by MCCE on behalf of Hunter & Partners for
Southwark Council**

31st January 2020



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Project No: 001/0135
Version No: 4

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1. Introduction

1.1 Background

Bowness House was built 1968 by Southwark Council and forms part of the Tustin Estate. The building has evidence of some refurbishment within the last 10-20 years to a number of mechanical and electrical services.

Bowness House consists of 5 storeys containing 34 maisonette type dwellings. The entrance is on the ground floor to the side of a number of retail units. There are two entrance levels; on the first and third floors.

The retail units have self-contained services and do not form part of this report.

1.2 Project Brief

The project brief from Southwark Council, relevant to MCCE's services, was to review the condition of the services and produce a works budget forecast to detail estimated costs for the future works required on the building over a 30 year period.

The building services systems condition has been estimated during the visual survey, with discussions with the incumbent engineers, the site team, Southwark Council's engineering team and using the CIBSE Indicative Economic Life Expectancy guide adjusted against our experience of services installations.

The budgets have been based on today's values for capital works only and no account has been taken for future inflation, day to day maintenance servicing or statutory inspections.

A review of the services has been made to consider the potential for extension to the buildings.

The systems reviewed are communal systems to all dwellings and the individual system within the tenanted dwellings. Individual systems within Leasehold dwellings are not reviewed within this report and have been excluded from the budgets.

Mechanical & Electrical Services covered by this report

1. Heating & Hot Water Services System.
2. Water Supply Services
3. Gas Services
4. Local Ventilation System
5. Electrical Intake and Distribution
6. Communal Lighting
7. Door Entryphone
8. Above Ground Drainage
9. Lifts/Lift Motor Room - Detailed within a separate document

1.3 Survey

Several surveys were carried out between 30th October 2019 and early December 2019. There are 19 tenant occupied dwellings within Bowness House out of the 34 dwellings within the block. The surveys were carried out within all communal plant areas and the following dwellings:

Flat Numbers 10, 24 & 33

All services surveys were visual and subject to the accessibility to inspect. At the time of writing a further more intrusive investigation behind service risers is being considered by Southwark Council.

2. Executive Summary

Many of the systems at the Bowness House have undergone refurbishment or replacement over the last 10 - 20 years.

Below is a summary of the condition of the systems reviewed by this report and the recommended works to each of them.

2.1 Heating System

The heating systems to Bowness House are individual systems served from boiler within each dwelling. Each system appears to have been installed on an as required basis as there are few similarities between system component manufacturers.

Bulk replacement of systems is not necessary as each system is independent and can be replaced or repaired as required saving both capital cost and natural resources.

It is recommended that the following works are carried out:

Heating System Works	Years	Years
Review and repair of flue systems	1	
Boilers, Radiators, HWS and dwelling pipework – Due to age.	1-10	
2 nd Replacement of Boilers – 15 years life expectancy.		16-25

2.2 Water Services

The system is formed of Galvanised Steel which appears to have been installed with the buildings construction with an anticipated life of 35 years. Sections cut for an identical building within the Tower Hamlets and in the Lambeth area show significant corrosion internally and the recommendation is that following a section slice to prove the condition that the pipework system be replaced.

Water Supply System Works	Year
Replacement of pipework & valves – Due to internal corrosion	2
Roof Storage Tanks – Due to internal corrosion	1

2.3 Gas Services

The Gas supply service is the responsibility of the gas supplier; however, the pipework distribution appears to be partially within internal risers which may not have any natural ventilation. It is recommended that the route be verified and the pipework re-routed if required. These works would be carried out by the gas supplier's team.

2.4 Ventilation System

Extract ventilation fans are fitted to the Bathroom and the Kitchen areas.

Bulk replacement of systems is not necessary as each system is independent and can be replaced or repaired as required saving both capital cost and natural resources. Our recommendation is that both fans be replaced in a dwelling when either one of the existing fans fail reducing disruption and loss of service to the resident.

Ventilation System Works	Years	Years
Fans – Replacement due to age	1-10	16-25

2.5 Electrical Supply

The incoming supply is as originally installed however the other electrical services appear to have undergone a refurbishment within the last 20 years. There are redundant services which appear to include wiring and we would recommend that these be removed.

Electrical System Works	Year
Incoming electric distribution	2
Rising mains & dwelling feeds	2
Dwelling consumer unit – Due to the non-compliant installation	2

2.6 Lighting – Communal

The communal lighting system inside the building has been replaced some 15-20 years ago. All fittings appeared operational but showing signs of aging. The external perimeter lighting are newer LED type fittings and are within 5 years old.

The recommended works have been schedule to be in-line with the electrical works as this would provide overall savings and the internal fittings have already exceeded their life expectancy. Externall the fittings still have a large proportion of their life expectancy remaining and these can be re-used but with updated wiring.

Communal Lighting System Works	Year
Wiring	2
Internal fixtures	2
External fixtures	12

2.7 Door Entryphone

The door entry phone system is an audio only system appears to have been installed in excess of 15 years ago with the wiring preceding that installation.

We have allowed for the immediate repair of the system where some residents are without an operational handset and this will be followed by the complete system replacement at an estimated end of life.

Door Entry System	Year
Repairs	1
Complete system replacement	5
Handset update	21-25

2.8 Above Ground Drainage

The main soil stacks appear to be in good condition and are unlikely to fracture as they are internally mounted. Many of the connections to the services have been altered during Kitchen and Bathroom fit-outs. However, the bathrooms and kitchens all appeared to be in need of refurbishment at which time the drain runs to the stack will be replaced.

The recommendation is for the connect to the main cast iron soil stack to be remade to all dwellings to a connection point external to the riser from which all connections can be made for future refurbishments. It has been recommended that this be carried out with the replacement of the water services as access will be required to the same rise to all dwellings.

Above Ground Drainage Works	Year
Remaking connection to stack	2

3. Mechanical Services Systems

3.1 Heating & Hot Water Services Systems

3.1.1 Description of System

The dwellings within Bowness House have individual gas fired boilers to provide heating and hot water. Surveying the external of the building identified that these systems were not installed at the same time indicated by the many types of flue systems emanating from the boilers.

The type of systems seen within the dwellings inspected were all system boilers with hot water cylinders. It is possible that there are also combination boiler systems that provide instantaneous hot water via the boiler installed.



Boiler



Hot Water Cylinder
and Header Tank

The boilers serve radiators located within each room.

The boilers surveyed were fitted with a seven day timer and there were central room thermostats and cylinder stats linked to motorised valves to control the system.

The Hot Water Service cylinder is fed by a Cold Water Feed Tank located above it. This provides the hot water system with the water pressure that flows to the taps. There is minimal distance between the cold feed tank and the hot water cylinder and all residents complained of poor water pressure.

3.1.2 System Condition

The boilers have been installed at different times but the radiator systems surveyed were all of a similar type and condition indicating that these were installed as part of a block replacement with the hot water cylinders and pipework systems. From our visual inspection we would estimate these to be approximately 25 years old.

Our survey noticed that some of the flues did not fully discharge in a safe manner and this has been budgeted as an immediate recommendation.



The Hot Water Services cylinders are fed by a Cold Water Feed Tank located above them. The system may provide poor pressure to the taps but has the advantage of providing each dwelling with some water storage and a local means for the open vented Hot water cylinder to expand to.

3.1.3 Heating System Recommendations

This section relates to main plant replacement and does not include for routine maintenance items. Below is a description of the works and how the anticipated date has been established. As with all services good maintenance is essential for extended life expectancies to be achieved. Economic life expectancy values have been taken from the CIBSE Guide M but used in conjunction with MCCE's experience and judgement following the visual survey.

Boilers

These were installed individually and are unlikely to fail together. For the purposes of the report we have allowed for the 2 systems to be replaced each year meaning that all boilers to the 19 tenanted dwellings will be replaced within the next ten years.

Replacing the heating system will also include the replacement of the associated flue system that will correct any compliance issues. However, as these may not be the systems closest to failure, we recommend the survey and repair of the flue systems in year one with a budget for four failures.

Within the budget a second replacement of boilers is listed between 16-25 years. This is for the boiler only allowing for the anticipated life expectancy of 15 year for a domestic boiler. At this stage we do not expect the rest of the system to require replacement.

Radiators, HWS Cylinders

The radiator systems and HWS cylinders appear to be of the same age across the building. System use and maintenance affects life meaning that group replacement is not necessary. We have allowed for the systems to be replaced with the boilers on the basis of two per year.

3.1.4 Budget

The budget below is an extract from main spreadsheet specific to the heating system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

<u>Heating System</u>	Years 1-9	Yrs 10	Yrs 16-25
Flue review and repair for up to 4 boilers – Year 1	£12,000		
Boilers, HWS, Radiators and Pipework	£24,000 / yr	£12,000	
2 nd Replacement of Boilers – 15 years life expectancy.			£57,000

3.1.5 Heating Systems Potential for Extension

The heating systems are individual so should the building be extended additional systems can be installed. Any future design must not obstruct the existing flue exhausts.

3.2 Water Services Installation

3.2.1 Water Services System Description

The water supply enters the building at ground floor level and rises up through the building with the telecoms cable riser located to the stairwell lobbies.

The pipework is behind secured access panels above the ground floor and was not visible to inspect.

The pipework serves each dwellings kitchen and rises to roof level where it feeds cold water storage tanks located above the stairwell area at the centre of the building.



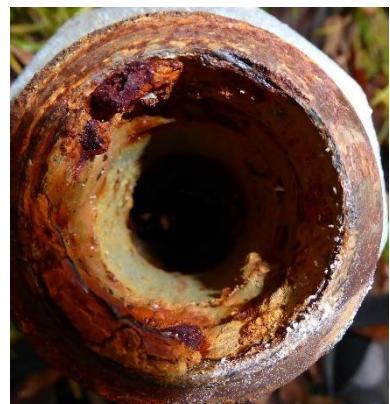
The storage tanks serve local storage tanks in each dwelling that provide the cold feed to the hot water cylinders and serve the cold water outlets within the bathrooms.

The pipework is formed in Galvanised Steel.

3.2.2 Water Services System Condition

The internal condition of the pipework cannot be confirmed without cutting a section out for examination. However, galvanised pipework does corrode over time and the pipework is in excess of 50 years old. The CIBSE Guide M states that Galvanised pipework has a life expectancy of 35 years.

It is reasonable to expect the internal surfaces to be failing and any internal corrosion will start a snowball effect and cause the pipework to contaminate the pipework and water supply at an increasing rate.



The Photo is of pipework from the building MCCE are currently working on to replace the water Services pipework. This building is within the Tower Hamlets area and is of similar age. We have witnessed similar pipework conditions within the Lambeth area.

Additional evidence of galvanised steel corrosion can be found in the storage tanks which are also formed in this material.



As the Water Services are a consumable service we consider the pipework condition critical.

3.2.3 Water Services System Condition Recommendations

Pipework & valves

This budget covers the complete renewal of the water services pipework system from ground to roof level. Before this work is carried out a sample of the pipework should be taken to confirm the expected condition of the pipework system. This can easily be carried out during a tank replacement of which there are several likely as part of the Water Management Works.

The works are extensive and disruptive expecting to take between 6-8 months.

Access is required into all dwellings to complete the installation and it may be advisable to combine the works with other items to reduce disruption to the residents.

Cold Water Down Service Tanks

The cold water storage tanks are clearly at the end of their serviceable life and should be replaced with new GRP tanks. At this time a capacity review can be carried out to determine the best size of the tanks to ensure that the recommended volume turn over can be achieved reducing the risk of legionella.

Consideration should be given to the removal of the individual storage tanks which would also improve the pressure to the water services for both hot and cold water.

3.2.4 Budget

The budget below is an extract from main spreadsheet specific to the Water Services systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Water Distribution Services	Year 1	Year 2
Pipework & valves		£204,000
Roof Storage Tanks	£35,000	

3.2.5 Water Services Potential for Extension

The incoming feed to the building will not support additional dwellings and a new water main will be required.

The main riser will also require replacement but this can be carried out as part of any system replacement works should the proposed extension be agreed beforehand.

Additional works would include the relocation of the roof storage tanks should the extension include additional floors. This will almost certainly involve the use of low level tanks and booster pumps as the height of the building already exceeds the pressure the Thames Water have to supply.

3.3 Gas Services

3.3.1 Gas Services System Description

Gas is supplied and metered within each dwelling. The meter is located within a cupboard in the kitchen and feeds the boiler and gas cooker within each dwelling.



Our survey was unable to locate all of the gas distribution pipework through the building. This is a concern as the pipework may be concealed within service risers which must be ventilated.

The Hillbeck Close end of the building has had the Gas services pipework replaced and indicates both the condition of the remaining pipe and how the service is run in a modern building.



The gas distribution pipework is not the responsibility of Southwark Council and any recommendations in relation to this distribution are for the gas supplier to carry out. However, the gas services within the dwellings, is the responsibility of the Council or Leaseholder and if ventilation to a riser is required Southwark have the responsibility to ensure it is fitted.

3.3.2 Gas Services System Condition Recommendations and Budget

The gas pipework should be traced and its condition and routing identified to remove any possible sealed areas of pipework. The pipework may be identified by the further intrusive investigation into the sealed risers being considered by Southwark Council.

3.3.3 Gas Services Potential for Extension

Any extension to the building would involve the increase to the incoming gas main and main riser similar to the Water Services. An application to the gas suppliers would be required to see if this was feasible and the cost for the works.

3.4 Ventilation System – Description & Condition

Ventilation is provided to the Kitchens and Bathrooms by individual through the wall/window extractor fans linked to the light switches.

No fans are fitted to the separate WC rooms.

The fans are varied in age, condition and type.

3.4.1 Ventilation Systems Recommendations

As the age and condition of the fans vary so vastly our recommendation is to replace both the fans in each dwelling as one fails keeping the cost and resource use down to a minimum whilst causing the least amount of disruption to the tenant.

3.4.2 Budget

The budget below is an extract from main spreadsheet specific to the Ventilation systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Ventilation	Years 1-9	Yrs 10	Yrs 16-25
Replacement Fans	£1,000 / yr	£500	£9,500

3.4.3 Ventilation Systems Potential for Extension

Similar to the heating systems these are individual and can be added to any additional dwellings. Any future design must not obstruct the existing vents.

4. Electrical Services

4.1 Electrical Supply

4.1.1 General Electrical System Description

The incoming supply enters the building at the ground floor intake room accessed from the cleaner's cupboard adjacent to the stairwell.

The single intake service head appears to be as originally installed.

From the service head the supply feed a main distribution boards which feeds landlord and tenant supplies.

4.1.2 Landlords Services

The main intake room contains the landlord meters and supplies to the lifts and main plant and landlord areas including the roof.

The switchgear in the main intake cupboard has been substantially modified from the original installation.

The system has been modified at differing times throughout the life of the building with some redundant services left exposed.



4.1.3 Communal Lateral Mains

It is unclear how the cables rise from the intake cupboard to the dwellings as these are within sealed risers. No Ryefield boards were located during the surveys although there are sealed service areas above the electrical intake which is the likely location for these.

4.1.4 Dwelling Electrical Services

The electrical supplies enter each dwelling and is metered within a meter enclosure.

The meter and consumer units to all dwellings inspected had been replaced from the originally installed equipment.



4.1.5 Electrical Installation Condition

The condition of the electrical system cannot be globally summarised as there are many facets of the system that require attention.

The main electrical intake has services that may have reduced or deteriorating insulation and should be replaced. Some of the services may be redundant but this is unclear. The new sections of the installation appear to be installed to a high standard and in good operational condition.

The lateral mains were not visible for inspection.

The consumer units within the dwellings have been modified to fit a space. This does not comply with the IET regulations and removes any conformity that the consumer unit had.



The board has been cut away at both ends and further cut away to the rear to fit the contours of the space. The two faces are held together by metal screws.

The internal wiring within the dwelling appears to be as originally installed dating to 1968. This has exceeded its economic life expectancy.

4.1.6 Electrical System Recommendations

Incoming electric distribution

The main intake distribution board appear to be as originally installed and therefore in excess of 50 years old.

This board was installed by the original developers but adopted by the electricity suppliers as an unmetered device. Therefore any works will require liaison with the suppliers and must be carried out to their standards.

The disconnection of the mains intake board will shut-down all electrical services to the building and carefully consideration to the installation co-ordination is required.

Rising mains & dwelling feed

The budget allows for the replacement of the rising mains system and the feeds to each dwelling making allowance for the condition of the service.

Landlords Services

The budget allows for the replacement of some of the main switchgear / distribution panels and excludes small scale replacement of isolators etc. which may be carried out individually due to replacement of plant or equipment.

Dwelling consumer unit and internal wiring

The budget allows for the replacement of the consumer unit to all dwellings relocating new units to a suitable location without the need for modification. This should include the rewire of each dwelling as the wiring appears to be original.

4.1.7 Budget

The budget below is an extract from main spreadsheet specific to the Electrical system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Wiring	Year 2
Incoming electric distribution	34,000
Rising mains & dwelling feed	170,000
Dwelling consumer unit	95,000

4.1.8 Electrical Systems Potential for Extension

Any extension to the building would involve the increase to the incoming electrical main. The main distribution panel will require either replacing with a larger panel or the installation of a second panel to feed the dwellings within the extended section.

An application to the electrical suppliers would be required to see if an increased supply was feasible and the cost for the works.

4.2 Lighting – Communal

The lighting to the main communal areas has been replaced with fluorescent lighting an estimated 15-20 years ago.

Coverage through all communal areas is adequate although it was noticed that the half landing on the stairwells did not have any lighting.



4.2.1 Communal Lighting System Recommendations and Budget

The main fittings are estimated to be approximately 15-20 years old with an anticipated life of 15 years. It was unclear from the survey if the wiring had been replaced with the fittings and so the budget below allows for a complete system replacement together with the electrical system as this would make savings to the overall cost of the project.

4.2.2 Budget

The budget below is an extract from main spreadsheet specific to the Communal Lighting system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Lighting	Year 2	Year 11-15	Year 26-30
Wiring	23,400		
Internal fixtures	17,000	17,000	17,000
External fixtures		5,000	5,000

4.2.3 Lighting System Potential for Extension

The lighting system can be readily extended to accommodate additional areas.

4.3 Door Entryphone

The door entry phone is an audio only entry phone system. We were unable to ascertain the age of the system as many of the internal handsets had been replaced and the main system was inaccessible. Based on our survey we estimate the system to be in excess of 15 years.

However the wiring does not appear to have been replaced in the life of the door entry systems and one of the residents does not have an operational service.

4.3.1 Budget

The budget below is an extract from main spreadsheet specific to the Door Entry systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Door Entry System	Year 1	Year 5	Year 21- 25
Repairs to system	1,500		
Full system replacement		17,000	
Handset replacement			8,500

4.3.2 Door Entry System Potential for Extension

The door entry system can be readily extended to accommodate additional areas.

5. Public Health Services

5.1 Above Ground Drainage

5.1.1 Above Ground Drainage Description and Condition

Several 100mm Cast Iron soil and vent stacks serve the buildings' above ground drainage system. The soil pipes are routed within the kitchens and WC's in a service riser that also contains the water services and possibly the gas service.

The drainage soil pipework is formed of LCC Cast Iron located in sealed service risers adjacent to the WC dropping to a riser adjacent to the kitchen sink within each dwelling. The system is a combined soil and vent system.

The local drains to the appliances within each dwelling are formed in uPVC pipe but due to the location of the riser we were unable to determine if these were originally copper as normal for this type and age of installation.



Riser in corner next to windows

Life expectancy of Cast Iron soil pipes is listed within CIBSE Guide M at 35 years although many manufacturers quote life expectancies of up to 100 Years. PVC has a life of 20 years. Much of the modified local PVC drains age cannot be determined although some of the fittings have "yellowed" and appear over 20 years old.

As the main soil stack does not provide consumable services, internal corrosion is not a consideration in its replacement and we consider the pipework usable until it leaks. Furthermore, the system is internally mounted and not subject to weather extremes which would extend its life expectancy.

5.1.2 Above Ground Drainage Recommendations and Budget

Replacement of the uPVC drainage would be carried out as part of any kitchen and Bathroom refurbishment. The condition of the Kitchens and bathrooms were such that this replacement is anticipated before any failure of the uPVC drainage pipe.

The main soil pipes serve just two dwellings vertically and are unlikely to require any works for the foreseeable future.

The connections to the main stacks have been modified and experience from other locations has found that the connections are often poor causing leakage to the dwellings below.

Our recommendation is that all connections from the main soil vent stack are remade to a point external to the riser that the resident can then connect to for all future connections.

5.1.3 **Above Ground Drainage System Potential for Extension**

The above ground drainage system can be readily extended to accommodate additional areas particularly if the extension is vertical. Any side extension would require additional soil stacks.

Appendix A – Typical Budget Costs

Below is the budget cost spreadsheet for Bowness House.

These are for capital works and no allowance has been made for day to day maintenance, statutory inspections or for specialist intervention i.e. asbestos removal.

Budget costs are based on today's rates and determined by recent projects of a similar type many of which are within London Borough Councils with reference to specialist manufacturers for some items. Works are based on similar system replacement.

Some systems will require replacement more than once during the 30-year plan i.e. extract fans have a life expectancy of 15 years and so are shown more than once on the programme.

Bowness House = CHP Scheme Budget Modifications:

Bowness House has individual boilers presently.

Using the district SELCHP (CHP) scheme will involve the following:

1. The creation of a plant room for the CHP mains to enter and have installed two plate heat exchangers. Our budget includes for the services to the building side of the plate heat exchangers. The plate and all pipework to the CHP system are costed by others.
2. The creation of plant space budget allows for the provision of the incoming services supply for water and electricity and the M&E fit out of the plantroom space. The allowance is for a ground floor installation.
3. Within the plant room the building side includes the installation of pumps, a pressurisation unit, expansion vessels and controls for the distribution to the dwellings.
4. The plantroom services have a life expectancy of 20 years and so an allowance for a second replacement has been made in years 21-25.
5. The pipework distribution to the entrance of each dwelling including isolation valves, pressure sensors and flushing bypasses – This has been costed as if carried out with the water services as the routes are likely to be identical.
6. Within the dwellings an allowance has been made for the installation of an Heat Interface Unit (HIU) feeding radiators including all the pipework.
7. The HIU has a life expectancy of 20 years and an allowance have been included for the replacement of these in years 21-25.
8. HIUs use mains water pressure and so the water pipework replacement has been moved to match the heating installation and modified to allow for conversion works within the dwellings to a mains installation.
9. The roof tanks are redundant under this system and the budget is for the removal of the tanks and making the space safe.

Rainwater pipework has not been inspected. No works are anticipated outside of normal pipe clearance due to external blockages etc. over the 30 year budget period. However, internal damage may have occurred due to historic or future poor maintenance issues which may require some remedial works.

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
1-34 Bowness House - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
Heating System												
Creation of Plant Space for Central Plant - Excluding buildersworks	0	0	25000	0	0	0	0	0	0	0	25,000	Incl Leaseholders
Central Plant from CHP Plates	0	0	60000	0	0	0	0	0	60000	0	120,000	Incl Leaseholders
Pipework Distribution up to dwellings	0	0	272,000	0	0	0	0	0	0	0	272,000	Incl Leaseholders
Internal heating systems fit-out HIU, Radiators and Pipework	0	0	306,000	0	0	0	0	0	0	0	306,000	Incl Leaseholders
Internal heating systems replacement HIU	0	0	0	0	0	0	0	102,000	0	102,000	Incl Leaseholders	
Water Distribution Services												
Pipework & valves	0	0	238,000	0	0	0	0	0	0	0	238,000	Incl Leaseholders
Removal of Roof Storage Tanks	0	0	3,000	0	0	0	0	0	0	0	3,000	Incl Leaseholders
Gas Services												
Statutory Authority	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders
Ventilation												
Fans	1,000	1,000	1,000	1,000	1,000	4,500	0	5,000	4,500	0	19,000	Rented Properties Only
Communal Wiring												
Incoming electric distribution	0	34,000	0	0	0	0	0	0	0	0	34,000	Incl Leaseholders
Rising mains & dwelling feed	0	170,000	0	0	0	0	0	0	0	0	170,000	Incl Leaseholders
Internal Wiring												
Dwelling consumer unit & internal wiring	0	95,000	0	0	0	0	0	0	0	0	95,000	Rented Properties Only
Communal Lighting												
Wiring	0	23,400	0	0	0	0	0	0	0	0	23,400	Incl Leaseholders
Internal fixtures	0	17,000	0	0	0	0	17,000	0	0	0	17,000	Incl Leaseholders
External fixtures	0	0	0	0	0	0	5,000	0	0	0	5,000	Incl Leaseholders
Door Entry												
	1,500	0	0	0	17,000	0	0	0	8,500	0	27,000	Incl Leaseholders
Soil & Waste Services												
Above Ground (Dwelling drainage)	0	81,600	0	0	0	0	0	0	0	0	81,600	Incl Leaseholders
Rain Water System												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders
Total Excludes Preliminaries	2,500	422,000	905,000	1,000	18,000	4,500	22,000	5,000	175,000	22,000	1,577,000	
Tenure Split												
Block - All Tenures	1,500	326,000	904,000	0	17,000	0	22,000	0	170,500	22,000	1,463,000	
SC Rented	19	838	182,176	505,176	0	9,500	0	12,294	0	95,279	12,294	817,559
Leasehold	15	662	143,824	398,824	0	7,500	0	9,706	0	75,221	9,706	645,441
	34	1,500	326,000	904,000	0	17,000	0	22,000	0	170,500	22,000	1,463,000
Internal Dwellings												
SC Rented	19	1,000	96,000	1,000	1,000	1,000	4,500	0	5,000	4,500	0	114,000
												SC Rented

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hunters

mcce

Condition Report of the Building Services Installation.

Heversham House & Kentmere House – Tustin Estate.

**Prepared by MCCE on behalf of Hunter & Partners for
Southwark Council**

31st January 2020



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1. Introduction

1.1 Background

This report covers both Heversham House and Kentmere House as they share the heating system.

Both buildings were built in 1968 by Southwark Council and forms part of the Tustin Estate. The building has evidence of some refurbished within the last 10-20 years to a number of mechanical and electrical services.

Heversham House is split into two blocks. The main building is a six storey block from ground to 5th Floor with three maisonette levels. The smaller block is five storeys from first to 5th Floor and has five levels of single storey dwellings.



Kentmere House is a single block split part three storey part two storey. All dwellings are single level.



1.2 Project Brief

The project brief from Southwark Council, relevant to MCCE's services, was to review the condition of the services and produce a works budget forecast to detail estimated costs for the future capital works required on the buildings over a 30-year period.

The building services systems condition has been estimated during the visual survey, with discussions with the incumbent engineers, the site team, Southwark Councils engineering team and using the CIBSE Indicative Economic Life Expectancy guide adjusted against our experience of services installations.

The budgets have been based on today's values for capital works only and no account has been taken for future inflation, day to day maintenance servicing or statutory inspections.

A review of the services has been made to consider the potential for extension to the buildings.

The systems reviewed are communal systems to all dwellings and the individual systems within the rented dwellings. Individual systems within Leasehold dwellings are not reviewed within this report and have been excluded from the budgets.

Mechanical & Electrical Services covered by this report

The survey has been split into two sections:

1. Communal Services which includes
 - a. Central Boiler House.
 - b. Gas Services
 - c. Electrical Intake and Distribution
 - d. Communal Lighting
 - e. Door Entryphone
2. In Dwelling Services
 - a. Heating and HWS systems
 - b. Water Supply Services
 - c. Local Ventilation System
 - d. Dwelling Electrical Services
 - e. Above Ground Drainage

1.3 Survey

Several surveys were carried out between 30th October 2019 and early December 2019.

Within Heversham House there are 71 tenant occupied dwellings within out of the 98 dwellings.

Within Kentmere House there are 36 tenant occupied dwellings within out of the 38 dwellings.

The surveys were carried out within all communal plant areas and the following dwellings:

Heversham House Numbers 6, 21 & 56

Kentmere House Numbers 11 & 22

All services surveys were visual and subject to the accessibility to inspect. At the time of writing a further more intrusive investigation behind service risers is being considered by Southwark Council.

2. Executive Summary

Many of the systems at Heversham House and Kentmere House have undergone refurbishment or replacement over the last 10 - 20 years.

Below is a summary of the condition of the systems reviewed by this report and the recommended works to each of them.

2.1 Communal Systems

2.1.1 Central Boiler House

The heating Heversham House and Kentmere House are served from a central Boiler House. The boiler house was refurbished in 1989 and since then had component changes on failure.

The system is larger as originally installed in 1968 and has exceeded its economic life expectancy by over 15 years. However following a failure mid-2019 essential repairs were carried out to the boilers which may provide the system with an additional 5 years. Our recommendation is to carry out the system and boiler house replacement at this stage.

Combining the replacement of the boiler house with the distribution pipework and internal dwelling pipework and system will reduce the overall cost.

It is recommended that the following works are carried out:

Heating System Works	Years
Boiler House Refurbishment – Due to age.	5
Heating distribution pipework – Due to age.	5
Cyclical replacement of some Boiler House components	21-25

2.1.2 Gas Services

The Gas service is provided to the boiler house and both Heversham and Kentmere Houses. Heversham House has had the pipework re-routed externally.

Kentmere House appears to have the originally installed internally mounted pipework and we recommend further investigation to ensure any gas pipe is ventilated within risers.

2.1.3 Water Services

The original system is formed of galvanised steel which appears to have been installed with the buildings construction with an anticipated life of 35 years.

There is evidence of external corrosion to the main risers and CWDS Tanks. The recommendation is for service pipework to be replaced with a repair to the leaking incomer at Kentmere to be carried out immediately.

Water Supply System Works	Year
Kentmere House incoming main repair	1
Kentmere House tanks rooms refurbishment	5
Replacement of pipework & valves – Due to internal corrosion	5

2.1.4 Electrical Supply

The incoming supply is located a number of intake rooms located within the stairwell lobbies to both Heversham and Kentmere Houses

Heversham House has had the landlords electrical distribution boards replaced an estimated 10-15 years ago.

Kentmere House has had the Landlord Services

The wiring does not appear to have been replaced as so we recommend that the buildings be rewired with new distribution boards where the older models are installed.

Electrical System Works	Year
Replacement Landlords distribution boards and wiring to sockets and switches	2
Replacement of Landlord services to communal areas.	2
Replacement of Lateral Mains to dwellings	2

2.1.5 Communal Lighting

The lighting system has been modified with LED upgrades plates fitted to the existing fittings. It is suspected that the wiring was not replaced and is as originally installed. All fittings appeared operational and should have a life of some 10 years.

The recommended works have been schedule to be in-line with the electrical works as this would provide overall savings and the fittings have already exceeded their life expectancy.

Communal Lighting System Works	Year
Wiring	5
Internal fixtures	5 & 21-25
External fixtures	5 & 21-25

2.1.6 Door Entryphone

The door entry phone system is an audio only system appears to have been installed an estimated 12-15 years ago.

The recommendation is to replace at its anticipated end of life.

Door Entry System	Year
Complete system replacement	5
System component update – no wiring	21-25

2.2 In Dwelling Services Systems

2.2.1 Heating and HWS Systems

The heating and hot water service within the dwellings appear to have been installed with the boiler house refurbishment in 1989. These systems do not have TRVs fitted to the radiators and has exceeded its economic life expectancy by some time.

We recommend that the systems be replaced with the boiler house and distribution system.

Heating System Works	Years
In dwelling Heating and HWS.	5

2.2.2 Water Services

Internal pipe to the taps are formed in copper and appear to be sound.

We have no recommendations for the internal pipework to each dwelling.

2.2.3 Ventilation System – Kentmere House Only

Extract ventilation fans are fitted to the Kitchen areas in Kentmere House only.

Bulk replacement of systems is not necessary as each system is independent and can be replaced or repaired as required saving both capital cost and natural resources.

Our recommendation is that the fans be replaced in a dwelling the existing fan fails reducing disruption and loss of service to the resident. For budgeting purposes we have shown a rolling programme over 10 years.

Ventilation System Works	Years	Years
Fans – Replacement due to age	1-10	16-25

2.2.4 Electrical Services

The consumer units within the dwellings surveyed have been modified to fit a space. This does not comply with the IET regulations and removes any conformity that the consumer unit had. The internal wiring within the dwellings appears to be as originally installed and the replacement and rewire of the dwellings are recommended.

Electrical System Works	Year
Dwelling consumer unit and internal wiring – Due to the non-compliant installation	3

2.3 Above Ground Drainage

The main soil stacks appear to be in good condition and are unlikely to fracture as they are internally mounted. Many of the connections to the services have been altered during Kitchen and Bathroom fit-outs. However, the bathrooms and kitchens all appeared to be in need of refurbishment at which time the drain runs to the stack will be replaced.

The recommendation is for the connect to the main cast iron soil stack to be remade to all dwellings to a connection point external to the riser from which all connections can be made for future refurbishments. It has been recommended that this be carried out with the replacement of the water services as access will be required to the same rise to all dwellings.

Above Ground Drainage Works	Year
Remaking connection to stack	2

3. Communal Services Systems

3.1 Central Boiler House

3.1.1 Description of System

The dwellings within Heversham House and Kentmere have the heating service provided from a central Boiler House facility located in between the two buildings.

The Boiler House systems comprise of the boilers, primary pump-set for the boiler house plant, secondary pump-set serving the radiators and the HWS cylinders within the dwellings. The system is not pressurised and an F&E tank is located on the roof of Heversham House in the north water storage tank plant room

The original system was installed in 1968 with the buildings construction and replaced in 1989. Components of this system within the boiler house have since been replaced or had major repair work carried out.

Two gas fired cast iron sectional pressure jet boilers provide the heating to the dwellings. These boilers are formed with 11 sections and produce 738kW each



From the high level within the Boiler House the pipework exits the building and runs externally to Heversham House along the first floor balcony. It is unclear how it rises to the upper levels.

The connection to Kentmere House is not visible.

With the pipework distribution not visible it is possible that the pipework exiting the boiler house connects to the existing connections which were installed in 1968.

The system serves steel panel radiators located within each room and a HWS cylinder to each dwelling.



The Boiler House has a central control panel for the plant with separate BMS system panel. There are two sets of run & standby pumps serving the system. They provide 100% backup should a pump fail and are designed with different flow rates to allow a summer / winter use option selected on the control panel.



3.1.2 System Condition

The boiler sections (main body) are as installed in 1989 but most of the ancillary components have been replaced. The boilers failed in 2019 just before our survey due to the pressure jet burners and these have now been replaced.

The boilers own control panels failed and these have also been replaced.



New Burner



New Boiler Controller

All pump-sets have been replaced and some of these have had further motor replacements.



Primary Pump-Set



Secondary Pump-Sets

The control panel is from the 1989 system but the BMS panel is estimated to be from about 2010.

It is unclear if the pipework distribution to the dwellings has been replaced but there is no evidence other than the boxed in section on Heversham House that the pipework has been replaced. This suggests that the bulk of the system is in excess of 50 years.

3.1.3 Heating Service Recommendations

This section relates to main plant replacement and does not include for routine maintenance items. Below is a description of the works and how the anticipated date has been established. As with all services good maintenance is essential for extended life expectancies to be achieved. Economic life expectancy values have been taken from the CIBSE Guide M but used in conjunction with MCCE's experience and judgement following the visual survey.

Boiler House Services

The boilers were installed in 1989 and have exceeded their economic life cycle by some considerable time. Should the sections start to leak a new section will be available to replace it. However, the new section will perform differently due to its difference in age and failures will than start to occur more frequently. The boilers at this stage will become uneconomic to operate and unreliable.

The other main plant items within the boiler house are all at the end of their life cycle.

We recommend that the boiler house services be replaced but due to the recent repairs this can be delayed for up to five years subject to the boiler sections remaining intact.

Heating Pipework Distribution

With the exception of the initial pipe run along Heversham House, the system has been in service for in excess of 50 years with an economic life expectancy of 35 years. Systems do last longer than the expected CIBSE estimates and with good historic water treatment this system could still be in reasonable condition with many years left. However, we are unable to confirm the water treatment regime over the last 50 years.

Our recommendation is for a system review of the pipework condition. This will entail cutting a section of pipeline out for inspection which can be carried out during any radiator change on the system.

For the budget we have allowed for the system to be fully replaced as it has exceeded its life expectancy by some 15 years. However, as the boilers have had major works to maintain them carried out we have recommended the works in year 5.

Should quality boilers heavyweight boilers be installed in this refurbishment then the boilers will not require replacement for the remaining years of this programme.

3.1.4 Budget

The budget below is an extract from main spreadsheet specific to the heating system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Heating System	Year 5	Yrs 21-25
Boiler House Refurbishment	£448,800	
Pipework Distribution both Heating Pipework	£1,088,000	
Cyclical replacement of some Boiler House components, Pumps, pressurisation unit etc.		£48,960

3.1.5 Heating System Potential for Extension

The heating system will not support the extension of the building as the distribution mains could not handle any significant additional load i.e. for another block or floor.

However, as our recommendations are for the replacement of the system, any new system could be designed with capacity increase planned and this would cost very little additional capital.

3.2 Gas Services

3.2.1 Gas Services System Description

Gas is supplied and metered within each dwelling and a separate supply to feed the central boiler house.

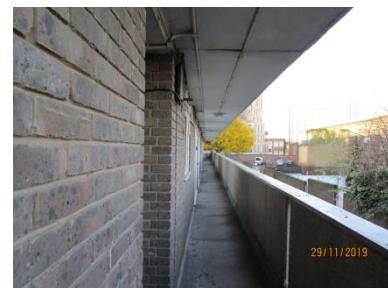
Within the dwellings the meter is located within a cupboard in the kitchen and feeds the boiler and gas cooker within each dwelling.

On Heversham House the gas distribution pipework appears to have been replaced and was surface run to the external of the building.



Within Kentmere House our survey was unable to locate the gas distribution pipework route through the building. This is a concern as the pipework may be concealed within service risers which must be ventilated.

The opening up of communal risers may be carried out to append to this report following Southwark's Council's review.



The gas distribution services are not the responsibility of Southwark Council and any recommendations in relation to this distribution are for the gas supplier to carry out. However, the gas services within the dwellings, is the responsibility of the Council or Leaseholder.

3.2.2 Gas Services System Condition Recommendations

The gas pipework on Kentmere House should be traced and its condition and routing identified to remove any possible sealed areas of pipework. The pipework may be identified by the further intrusive investigation into the sealed risers being considered by Southwark Council.

No Budget has been included at this stage.

3.2.3 Gas Services Potential for Extension

Any extension to the building would involve the increase to the incoming gas main and main riser. An application to the gas suppliers would be required to see if this was feasible and the cost for the works.

3.3 Water Services Installation

3.3.1 Water Services System Description

At Heversham House the water supply appears to enter the building at ground floor level in a single riser at the South end of the building and rises up through the building within a concealed duct to roof level.

At roof level the mains feeds six cold water storage tanks located in three tank rooms. The mains water pipe is routed along the roof level within a duct and drops at each dwelling footprint serving the 3 apartments vertically. The mains water feeds the kitchens to all dwellings.



The cold water tanks are piped with the mains water along the roof and drop to serve the individual dwellings internal storage tank.



The third pipe within the duct is possibly a redundant heating feed and expansion pipe and runs to a separate tank in the north plant room nearest the boiler room.

At Kentmere House the water supply appears to enter the building at ground floor level in a number of locations. This is to be confirmed as the pipe route is concealed and could not be confirmed.



There are two risers within the stairwell bin stores rising up through the building within a concealed duct to roof level to serve the cold water storage tanks.

It appears that there are risers from the mains in the pathway serving routed along the block serving each ground floor dwelling and rising to the upper floors. The mains water feeds the kitchens to all dwellings.

The cold water tanks pipework is concealed. This is routed to serve each dwelling cold water storage tank.

The pipework is behind secured access panels was not visible to inspect.

The pipework is formed in galvanised steel with any modified pipe formed in copper.

3.3.2 Water Services System Condition

The internal condition of the pipework cannot be confirmed without cutting a section out for examination. However, galvanised pipework does corrode over time and the pipework is in excess of 50 years old. Externally the pipe can clearly be seen in the photos above to be corroding to both Heversham and Kentmere Houses.

The CIBSE Guide M states that Galvanised pipework has a life expectancy of 35 years.

It is reasonable to expect the internal surfaces to be failing and any internal corrosion will start a snowball effect and cause the pipework to contaminate the pipework and water supply at an increasing rate.

The Photo is of pipework from the building MCCE are currently working on to replace the water Services pipework. This building is within the Tower Hamlets area and is of similar age. We have witnessed similar pipework conditions within the Lambeth area.



Additional evidence of galvanised steel corrosion can be found in the storage tanks from Kentmere House which are also formed in this material.



The cold water storage tanks in Heversham House have been replaced within the last 5 years and are formed in GRP which will not corrode.

The mains incoming pipework for Kentmere House is leaking and should be repaired immediately. This is likely to involve replacing some of the underground pipework.

As the Water Services are a consumable service we consider the pipework condition critical.

3.3.3 Water Services System Condition Recommendations

Pipework & valves

This budget covers the complete renewal of the water services pipework system to all dwellings and water outlets.

The works are extensive and disruptive expecting to take between 12-18 months.

Access is required into all dwellings to complete the installation and it may be advisable to combine the works with other items i.e. heating to reduce disruption to the residents.

3.3.4 Budget

The budget below is an extract from main spreadsheet specific to the Water Services systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Water Distribution Services	Year 1	Year 5
Kentmere House Pipework & valves	£5,000	£266,000
Kentmere House Tank Room Refurbishment		£60,000
Heversham House Pipework & valves		£686,000

3.3.5 Water Services Potential for Extension

The incoming feed to the building will not support additional dwellings and a new water main will be required.

3.4 Electrical Supply

3.4.1 General Electrical System Description

Heversham House has intake rooms located at each of the three stairwell/lift lobbies on the ground floor. These contain the service head, landlords meters and landlord's services distribution boards including the lift supplies. Feeds to the Ryefield Boards The supplies for the dwellings are fed from the bus-bar section within the intake room. The Ryefield boards that feed the dwellings are located on the stairwells.



Incoming Service Head



Landlord's Meters



Ryefield Board

Kentmere House has intake rooms located at each of the two stairwell lobbies on the ground floor. These contain the service head, landlord's meters, landlord's services distribution boards and the dwelling feed Ryefield boards.



Incoming Service Head



Landlord's Meter



Ryefield Board

3.4.2 Landlords Services

The Intake rooms contain the landlord meters and supplies to the communal services i.e. lighting, door entry etc.

3.4.2.1. Heversham House

The landlords electrical distribution has been replaced an estimated 10-15 years with modern switchgear.



3.4.2.2. Kentmere House

The landlord's electrical distribution has been replaced from the original installation but even these are now dated.



The wiring found within the system was PVC but using the older red and black coding dating it to before 2004. The new distribution boards are between 10-15 years old and appear to have installed to existing circuits.

The limited locations where wiring was exposed indicated that existing wiring had been used although in Heversham House the feeds to the Ryefield boards may have been replaced.

3.4.3 Communal Lateral Mains

It is unclear how the cables rise from the intake building to the dwellings. From the Ryefield Boards there will be a single supply cable feeding each dwelling. These cables are not visible from the Ryefield boards suggesting the original cabling has been re-used and is within conduits that are cast into the structure.

3.4.4 Electrical Installation Condition

Heversham House has had some replacement of electrical services to the Landlord's systems. Any SWA cabling appears to be clipped to the wall using part metal clipping and the newly installed equipment appears to have been carried out to a good standard. However, the majority of the wiring appears to be as installed with the buildings construction in 1968 and has exceeded its life expectancy.

Kentmere House has had a number of services replaced but from the "yellowing" of the plastic on the consumer units appears to be in excess of 20 years old and is in itself past its life expectancy. The Ryefield Boards and lateral mains are as installed in 1968.

3.4.5 Electrical System Recommendations

Incoming Electric Distribution and Landlords Services

Heversham House services should be opened up for investigation to establish if the wiring has been replaced since 1968. We have allowed for the systems replacement for budgetary purposes.

Kentmere House is as original and is overdue for replacement.

The budget allows for the replacement Landlords system to both Heversham House and Kentmere House.

Lateral Mains Installation

It is suspected that both Heversham House and Kentmere House are both using original cabling to feed the dwellings from the Ryefield Boards.

These are recommended to be replaced.

3.4.6 Budget

The budget below is an extract from main spreadsheet specific to the Electrical system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Wiring	Year 3
The replacement of Landlords distribution boards and wiring to sockets and switches to communal and plant areas.	£245,000
The replacement of the Lateral Mains feeding the Dwellings	£884,000

3.4.7 Electrical Systems Potential for Extension

Any extension to the building would involve the increase to the incoming electrical main.

An application to the electrical suppliers would be required to see if an increased supply was feasible and the cost for the works.

3.5 Communal Lighting

The lighting to the main communal areas to both Heversham House and Kentmere House has been replaced with LED fitting upgrades probably within the last 5 years. The existing cases and lenses are re-used with the control gear and lamp replaced with an LED plate.



It is unclear if the wiring had been replaced at this time.

Coverage through all communal landings and the external to Heversham House is good. The stairwells could be improved by additional lighting.

Coverage through all communal areas to Kentmere is poor as the spacing between fittings is less frequent than at Heversham House

Kentmere House has a single perimeter flood light mounted to the wall facing the Car Park.

Heversham House has specific car parking lighting which forms part of the Estate Lighting Report.

3.5.1 Communal Lighting System Recommendations and Budget

The main fitting bodies are estimated to be in excess of 20 years old. The LED refurbishment has been carried out within the last 5 years and the LED “lamps” should have another 10 years before they fail. The budget below allows for a complete system replacement at the lamp failure estimate of 10 years. During this replacement improve light levels can be ensured where required.

3.5.2 Budget

The budget below is an extract from main spreadsheet specific to the Communal Lighting system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Lighting	Year 3	Year 26-30
Wiring	£103,000	
Internal fixtures	£103,000	£103,000
External fixtures	£21,000	£21,000

3.5.3 Lighting System Potential for Extension

The lighting system can be readily extended to accommodate additional areas.

3.6 Door Entryphone

The door entry phone is an audio only entry phone system.

The Heversham House controllers were mounted within intake rooms.

The handsets within the dwellings vary and appear to have been replaced at on failure.



The Kentmere House system was not located during the surveys.

We were unable to ascertain the age of the system. Based on our visual survey we estimate the system to be in between 12-15 years.

3.6.1 Budget

The budget below is an extract from main spreadsheet specific to the Door Entry systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Door Entry System	Year 5	Year 21- 25
Repairs to system		
Full system replacement	£102,000	
Handset and controller replacement		£34,000

3.6.2 Door Entry System Potential for Extension

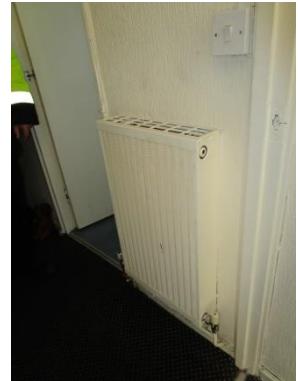
The door entry system can be readily extended to accommodate additional areas.

4. In Dwelling Services

4.1 Heating Systems

Both Heversham House and Kentmere House have copper pipework around the dwelling feeding steel panel radiators mostly fitted with manual radiator valve and controlled using a room thermostat. The hot water is provided via a HWS cylinder controlled by a two port valve.

The Hot Water Services cylinders are fed by a Cold Water Feed Tank located above them. The system may provide poor pressure to the taps but has the advantage of providing each dwelling with some water storage and a local means for the open vented Hot water cylinder to expand to.



Within Kentmere House access to the HWS was behind a sealed panel which is a concern as the valves are located within this space. One of the surveyed dwellings Flat 22 did not have any heating for some time.

The radiators, HWS cylinder and pipework installation within the dwellings appears to have been installed at the same time as the boiler house was refurbished in 1989.

4.1.1 Heating System Recommendations

The heating systems should be fully replaced with the Boiler House and distribution recommended in the Communal Heating section 3.1.3 above.

4.1.2 Budget

The budget below is an extract from main spreadsheet specific to the heating system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Heating System	Year 5
Dwelling pipework radiators and HWS Cylinders	£876,000

4.2 Ventilation System – Kentmere House Only

Ventilation is only provided to Kentmere House to the Kitchens areas. The fans are individual through the wall/window extractor fans linked to the light switches.



The fans are varied in age, condition and type.

Heversham House has openable windows to their Kitchens and Bathrooms.

4.2.1 Ventilation Systems Recommendations

As the age and condition of the fans vary so vastly our recommendation is to replace the fans as they fail.

4.2.2 Budget

The budget below is an extract from main spreadsheet specific to the Ventilation systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

<u>Ventilation</u>	Years 1-8	Yrs 16-25
Replacement Fans	£1,000 / yr	£8,000

4.2.3 Ventilation Systems Potential for Extension

These are individual and can be added to any additional areas. Any future design must not obstruct the existing vents.

5. Electrical Services

5.1.1 Dwelling Electrical Services

The electrical supplies enter each dwelling and is metered within a meter enclosure.

The meter and consumer units to all dwellings inspected had been replaced from the originally installed equipment. From our inspection we believe the internal wiring to the dwellings are as originally installed in 1968.



5.1.2 Electrical Installation Condition

The consumer units within most of the dwellings have been modified to fit a space. This does not comply with the IET regulations and removes any conformity that the consumer unit had.

The internal wiring appears original and is now in excess of 50 years old.

The board has been cut away at both ends and further cut away to the rear to fit the contours of the space. The two faces are held together by metal screws.

5.1.3 Electrical System Recommendations

Dwelling consumer unit

The budget allows for the replacement of the consumer unit to all dwellings relocating new units to a suitable location without the need for modification.

Internal Wiring

The services within the dwellings appear to require replacement works and this should be carried out with the replacement of the consumer units.

5.1.4 Budget

The budget below is an extract from main spreadsheet specific to the Electrical system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Internal Electrical	Year 3
Internal Wiring & Consumer Unit	£463,000

6. Public Health Services

6.1 Above Ground Drainage

6.1.1 Above Ground Drainage Description and Condition

Heversham House – Each dwelling has a single Soil Vent Pipe within the kitchen rising up through the WC and serving the 3 dwellings vertically.

It is believed that the main SVP pipe is formed of LCC Cast Iron and the original local drains within the dwellings were copper. However much of the original installation in the dwellings has been altered with new PVC fittings installed.

The upper connection shown here is a typical PVC to copper connection. This fitting will leak as the joint is not square!



Kentmere House appears to have two SVP's to each dwelling one to the Bathroom one to the kitchen.

The soil pipes are routed within service risers that also contains the water services and possibly the gas service.



Life expectancy of Cast Iron soil pipes is listed within CIBSE Guide M at 35 years although many manufacturers quote life expectancies of up to 100 Years. PVC has a life of 20 years.

Much of the modified local PVC drains age cannot be determined although some of the fittings have “yellowed” and appear over 20 years old.

As the main soil stack does not provide consumable services, internal corrosion is not a consideration in its replacement and we consider the pipework usable until it leaks. Furthermore, the system is internally mounted and not subject to weather extremes which would extend its life expectancy.

6.1.2 Above Ground Drainage Recommendations and Budget

Replacement of the uPVC drainage would be carried out as part of any kitchen and Bathroom refurbishment. The condition of the Kitchens and bathrooms were such that this replacement is anticipated before any failure of the uPVC drainage pipe.

The main soil pipes serve up to a maximum of three dwellings vertically and are unlikely to require any works for the foreseeable future.

The connections to the main stacks have been modified and as seen above the connections are often poor and could cause causing leakage within the dwelling and to the dwellings below.

Our recommendation is that all connections from the main soil vent stack are remade to a point external to the riser that the resident can then connect to for all future connections.

Above Ground Drainage System Potential for Extension

The above ground drainage system can be readily extended to accommodate additional areas particularly if the extension is vertical. Any side extension would require additional soil stacks.

<u>Above Ground Drainage</u>	Year 2
Heversham House - Connections to Soil Stack	£235,200
Kentmere House 1-5 - Connections to Soil Stack	£15,600
Kentmere House 6-16 - Connections to Soil Stack	£30,000

Appendix A – Typical Budget Costs

Attached is the budget cost spreadsheet for Heversham House and Kentmere House. These are for capital works and no allowance has been made for day to day maintenance, statutory inspections or for specialist intervention i.e. asbestos removal.

Budget costs are based on today's rates and determined by recent projects of a similar type many of which are within London Borough Councils with reference to specialist manufacturers for some items. Works are based on similar system replacement.

Some systems will require replacement more than once during the 30-year plan i.e. extract fans have a life expectancy of 15 years and so are shown more than once on the programme.

Heversham and Kentmere House = CHP Scheme Budget Modifications:

Heversham House and Kentmere House are currently served by a central boiler house located between the two blocks.

Using the district SELCHP (CHP) scheme will involve the following:

1. The refurbishment of the existing boiler house for the CHP mains to enter and have installed two plate heat exchangers. Our budget includes for the services to the building side of the plate heat exchangers. The plate and all pipework to the CHP system are costed by others.
2. Within the plant room the building side includes the installation of pumps, a pressurisation unit, expansion vessels and controls for the distribution to the dwellings.
3. The plantroom services have a life expectancy of 20 years and so an allowance for a second replacement has been made in years 21-25.
4. The pipework distribution to the entrance of each dwelling including isolation valves, pressure sensors and flushing bypasses – This has been costed as if carried out with the water services as the routes are likely to be identical.
5. Within the dwellings an allowance has been made for the installation of a Heat Interface Unit (HIU) feeding radiators including all the pipework.
6. The HIU has a life expectancy of 20 years and an allowance have been included for the replacement of these in years 21-25.
7. HIUs use mains water pressure and so the water pipework replacement has been moved to match the heating installation and modified to allow for conversion works within the dwellings to a mains installation.
8. The roof tanks are redundant under this system and the budget is for the removal of the tanks and making the space safe.

Rainwater pipework has not been inspected. No works are anticipated outside of normal pipe clearance due to external blockages etc. over the 30 year budget period. However, internal damage may have occurred due to historic or future poor maintenance issues which may require some remedial works.

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
1-98 Heversham House - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
<u>Heating System</u>												
Refurbishment of Central Plantroom (Apportioned)	0	0	9,800	0	0	0	0	0	0	0	9,800	Incl Leaseholders
Central Plant from CHP Plates (Apportioned)	0	0	49,000	0	0	0	0	0	49,000	0	98,000	Incl Leaseholders
Pipework Distribution up to dwellings	0	0	784,000	0	0	0	0	0	0	0	784,000	Incl Leaseholders
Internal heating systems fit-out HIU, Radiators and Pipework	0	0	882,000	0	0	0	0	0	0	0	882,000	Incl Leaseholders
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	294,000	0	294,000	Incl Leaseholders
<u>Communal Wiring</u>												
Replacement Landlords distribution boards and wiring to sockets and switches to communal and plant areas	0	0	150,000	0	0	0	0	0	0	0	150,000	Incl Leaseholders
<u>Communal Lighting</u>												
Wiring	0	0	74,000	0	0	0	0	0	0	0	74,000	Incl Leaseholders
Internal fixtures	0	0	74,000	0	0	0	0	0	74,000	0	148,000	Incl Leaseholders
External fixtures	0	0	14,000	0	0	0	0	0	10,500	0	24,500	Incl Leaseholders
<u>Door Entry</u>												
	0	0	0	0	73,500	0	0	0	24,500	0	98,000	Incl Leaseholders
<u>Water Distribution Services</u>												
Pipework & valves	0	0	686,000	0	0	0	0	0	0	0	686,000	Incl Leaseholders
Roof Tanks refurbishment	0	0	9,000	0	0	0	0	0	0	0	9,000	Incl Leaseholders
<u>In Dwelling Electrical</u>												
Lateral mains feeds to dwellings	0	0	637,000	0	0	0	0	0	0	0	637,000	Incl Leaseholders
Internal Wiring	0	0	355,000	0	0	0	0	0	0	0	355,000	Rented Properties Only
<u>Ventilation - Kentmere Only</u>												
Fans	0	0	0	0	0	0	0	0	0	0	0	N/A
<u>Soil & Waste Services</u>												
Above Ground (Dwelling drainage)	0	235,200	0	0	0	0	0	0	0	0	235,200	Incl Leaseholders
<u>Rain Water System</u>												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders
Sub-Total Excludes Preliminaries												
	0	235,200	3,723,800	0	73,500	0	0	0	452,000	0	4,484,500	
Tenure Split												
Block - All Tenures												
	0	235,200	3,368,800	0	73,500	0	0	0	452,000	0	4,129,500	
SC Rented	71	0	170,400	2,440,661	0	53,250	0	0	327,469	0	2,991,781	
Leasehold	27	0	64,800	928,139	0	20,250	0	0	124,531	0	1,137,719	
	98	0	235,200	3,368,800	0	73,500	0	0	452,000	0	4,129,500	
Internal Dwellings												
SC Rented	71	0	0	355,000	0	0	0	0	0	0	355,000	

Tustin Estate Stock Condition Survey - Southwark Council

Summary of Maintenance

1-5,17-21 & 33-35 Kentmere House - Mechanical & Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
<u>Heating System</u>												
Refurbishment of Central Plantroom (Apportioned)	0	0	1,300	0	0	0	0	0	0	0	1,300	Incl Leaseholders
Central Plant from CHP Plates (Apportioned)	0	0	6,500	0	0	0	0	0	6,500	0	13,000	Incl Leaseholders
Pipework Distribution up to dwellings	0	0	104,000	0	0	0	0	0	0	0	104,000	Incl Leaseholders
Internal heating systems fit-out HIU, Radiators and Pipework	0	0	91,000	0	0	0	0	0	0	0	91,000	Incl Leaseholders
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	39,000	0	39,000	Incl Leaseholders
<u>Communal Wiring</u>												
Replacement Landlords distribution boards and wiring to sockets and switches to communal and plant areas	0	0	32,500	0	0	0	0	0	0	0	32,500	Incl Leaseholders
<u>Communal Lighting</u>												
Wiring	0	0	11,500	0	0	0	0	0	0	0	11,500	Incl Leaseholders
Internal fixtures	0	0	11,500	0	0	0	0	0	0	11,500	23,000	Incl Leaseholders
External fixtures	0	0	3,500	0	0	0	0	0	0	3,500	7,000	Incl Leaseholders
<u>Door Entry</u>	0	0	0	0	9,750	0	0	0	3,250	0	13,000	Incl Leaseholders
<u>Water Distribution Services</u>												
Pipework & valves	0	0	91,000	0	0	0	0	0	0	0	91,000	Incl Leaseholders
Roof Tanks refurbishment	0	0	3,000	0	0	0	0	0	0	0	3,000	Incl Leaseholders
<u>In Dwelling Electrical</u>												
Lateral mains feeds to dwellings	0	0	84,500	0	0	0	0	0	0	0	84,500	Incl Leaseholders
Internal Wiring	0	0	39,000	0	0	0	0	0	0	0	39,000	Rented Properties Only
<u>Ventilation - Kentmere Only</u>												
Fans	500	500	500	500	500	750	0	2,500	750	0	6,500	Rented Properties Only
<u>Soil & Waste Services</u>												
Above Ground (Dwelling drainage)	0	15,600	0	0	0	0	0	0	0	0	15,600	Incl Leaseholders
<u>Rain Water System</u>												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders
Sub-Total Excludes Preliminaries	500	16,100	479,800	500	10,250	750	0	2,500	49,500	15,000	574,900	
Tenure Split												
Block - All Tenures	0	15,600	440,300	0	9,750	0	0	0	48,750	15,000	529,400	
SC Rented	13	0	15,600	440,300	0	9,750	0	0	48,750	15,000	529,400	
Leasehold	0	0	0	0	0	0	0	0	0	0	0	
	13	0	15,600	440,300	0	9,750	0	0	48,750	15,000	529,400	
Internal Dwellings												
SC Rented	13	500	500	39,500	500	500	750	0	2,500	750	0	45,500

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
6-16,22-32 & 36-38 Kentmere House - Mechanical & Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
<u>Heating System</u>												
Refurbishment of Central Plantroom (Apportioned)	0	0	2,500	0	0	0	0	0	0	0	2,500	Incl Leaseholders
Central Plant from CHP Plates (Apportioned)	0	0	12,500	0	0	0	0	0	12,500	0	25,000	Incl Leaseholders
Pipework Distribution up to dwellings	0	0	200,000	0	0	0	0	0	0	0	200,000	Incl Leaseholders
Internal heating systems fit-out HIU, Radiators and Pipework	0	0	175,000	0	0	0	0	0	0	0	175,000	Incl Leaseholders
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	75,000	0	75,000	Incl Leaseholders
<u>Communal Wiring</u>												
Replacement Landlords distribution boards and wiring to sockets and switches to communal and plant areas	0	0	62,500	0	0	0	0	0	0	0	62,500	Incl Leaseholders
<u>Communal Lighting</u>												
Wiring	0	0	17,500	0	0	0	0	0	0	0	17,500	Incl Leaseholders
Internal fixtures	0	0	17,500	0	0	0	0	0	0	11,500	29,000	Incl Leaseholders
External fixtures	0	0	3,500	0	0	0	0	0	0	3,500	7,000	Incl Leaseholders
<u>Door Entry</u>	0	0	0	0	18,750	0	0	0	6,250	0	25,000	Incl Leaseholders
<u>Water Distribution Services</u>												
Pipework & valves	0	0	175,000	0	0	0	0	0	0	0	175,000	Incl Leaseholders
Roof Tanks refurbishment	0	0	3,000	0	0	0	0	0	0	0	3,000	Incl Leaseholders
<u>In Dwelling Electrical</u>												
Lateral mains feeds to dwellings	0	0	162,500	0	0	0	0	0	0	0	162,500	Incl Leaseholders
Internal Wiring	0	0	69,000	0	0	0	0	0	0	0	69,000	Rented Properties Only
<u>Ventilation - Kentmere Only</u>												
Fans	1,000	1,000	1,000	1,000	1,000	1,250	0	5,000	1,250	0	12,500	Rented Properties Only
<u>Soil & Waste Services</u>												
Above Ground (Dwelling drainage)	0	30,000	0	0	0	0	0	0	0	0	30,000	Incl Leaseholders
<u>Rain Water System</u>												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders
Sub-Total Excludes Preliminaries	1,000	31,000	901,500	1,000	19,750	1,250	0	5,000	95,000	15,000	1,070,500	
Tenure Split												
Block - All Tenures	0	30,000	831,500	0	18,750	0	0	0	93,750	15,000	989,000	
SC Rented	23	0	27,600	764,980	0	17,250	0	0	86,250	13,800	909,880	
Leasehold	2	0	2,400	66,520	0	1,500	0	0	7,500	1,200	79,120	
	25	0	30,000	831,500	0	18,750	0	0	93,750	15,000	989,000	
Internal Dwellings												
SC Rented	23	1,000	1,000	70,000	1,000	1,000	1,250	0	5,000	1,250	0	81,500

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hunters

mcce

Condition Report of the Building Services Installation.

Ullswater House & Hillbeck Close – Tustin Estate.

**Prepared by MCCE on behalf of Hunter & Partners for
Southwark Council**

31st January 2020



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1. Introduction

1.1 Background

This report covers both Ullswater House and Hillbeck Close as they share a number of services.

Both buildings were built in 1968 by Southwark Council and forms part of the Tustin Estate. The building has evidence of some refurbished within the last 10-20 years to a number of mechanical and electrical services.

The buildings are 2 storeys with single level dwellings in each.

Ullswater House is used as a temporary housing facility by Southwark Council with 47 bedroom units. The rooms are not full dwellings with the block containing communal bathrooms and toilets. This building has a single main entrance with an alternative fire escape route exit door.

Hillbeck Close is split into four blocks of eight, one bedroom bedsit type apartments. The original internal links between the blocks have been sealed off.

1.2 Project Brief

The project brief from Southwark Council, relevant to MCCE's services, was to review the condition of the services and produce a works budget forecast to detail estimated costs for the future capital works required on the building over a 30-year period.

The building services systems condition has been estimated during the visual survey, with discussions with the incumbent engineers, the site team, Southwark Councils engineering team and using the CIBSE Indicative Economic Life Expectancy guide adjusted against our experience of services installations.

The budgets have been based on today's values for capital works only and no account has been taken for future inflation, day to day maintenance servicing or statutory inspections.

A review of the services has been made to consider the potential for extension to the buildings.

The systems reviewed are communal systems to all dwellings and the individual systems within the rented dwellings. Individual systems within Leasehold dwellings are not reviewed within this report and have been excluded from the budgets.

Mechanical & Electrical Services covered by this report

The survey has been split into two sections:

1. Communal Services which includes
 - a. Central Boiler House & Hot Water Services System.
 - b. Gas Services
 - c. Electrical Intake and Distribution
 - d. Communal Lighting
 - e. Fire Alarm System – Ullswater House only
 - f. Residential Sprinkler System – Ullswater House only
 - g. Door Entryphone
2. In Dwelling Services
 - a. Heating systems
 - b. Water Supply Services
 - c. Local Ventilation System
 - d. Dwelling Electrical Services – Hillbeck House Only
 - e. Above Ground Drainage

1.3 Survey

Several surveys were carried out between 30th October 2019 and early December 2019.

We were escorted around the Ullswater House facility and surveyed a number of units as well as the communal bathrooms and toilet facilities.

Within Hillbeck Close there are 27 tenant occupied dwellings within out of the 32 dwellings.

The surveys were carried out within all communal plant areas and the following dwellings:

Flat Numbers 3, 18 & 29

All services surveys were visual and subject to the accessibility to inspect. At the time of writing a further more intrusive investigation behind service risers is being considered by Southwark Council.

2. Executive Summary

Many of the systems at Ullswater House and Hillbeck Close have undergone refurbishment or replacement over the last 10 - 20 years.

Below is a summary of the condition of the systems reviewed by this report and the recommended works to each of them.

2.1 Communal Systems

2.1.1 Central Boiler House and Hot Water Service Systems

The heating and Hot Water services to Ullswater House and Hillbeck Close are served from a central Boiler House. The boiler house was refurbished in 1992 and since then had component changes on failure.

The system has exceeded its economic life expectancy by over 15 years and replacement should be scheduled for when the boilers are expected to fail i.e. in years 6-10.

The HWS pipework is formed in galvanised steel which will be corroding internally.

Combining the replacement of the boiler house with the distribution pipework and HWS pipework will reduce the overall cost.

It is recommended that the following works are carried out:

Heating System Works	Years
Boiler House Refurbishment – Due to age.	6-10
HWS pipework and heating distribution pipework – Due to age.	6-10
Cyclical replacement of some Boiler House components	26-30

2.1.2 Gas Services

The Gas service are only provided to the boiler house and is good visual condition.

No works have been recommended.

2.1.3 Electrical Supply

The incoming supply is located in the intake building adjacent to the boiler house.

About 50% of the electrical distribution boards have been replaced and the rest are in good condition. The wiring does not appear to have been replaced as so we recommend that the buildings be rewired with new distribution boards where the older models are installed.

Electrical System Works	Year
Replacement Landlords distribution boards and wiring to sockets and switches	3
Replacement of Landlord services to communal areas.	3

2.1.4 Lighting – Communal

The lighting system has been replaced in excess of 20 years ago. All fittings appeared operational but showing signs of aging. The recommended works have been scheduled to be in-line with the electrical works as this would provide overall savings and the fittings have already exceeded their life expectancy.

Communal Lighting System Works	Year
Wiring	3
Internal fixtures	3 & 21-25
External fixtures	3 & 21-25

2.1.5 Door Entryphone

The door entry phone system is an audio only system appears to have been installed in excess of 15 years ago with the wiring preceding that installation.

Door Entry System	Year
Complete system replacement	5
System component update – no wiring	21-25

2.1.6 Fire Alarm System to Ullswater House

The existing system is between 8-10 years old and fully operational. Replacement will only be required at the systems economic life expectancy.

Door Entry System	Year
System component update – no wiring	7 & 21-25
Main Panel Replacement	11-15

2.1.7 Sprinkler System to Ullswater House

The existing system is between 8-10 years old and fully operational. Replacement will only be required at the systems economic life expectancy.

Door Entry System	Year
Sprinkler Heads	21-25
Main Panel Replacement	11-15

2.2 In Dwelling Services Systems

2.2.1 Water Services

The original system is formed of galvanised steel which appears to have been installed with the buildings construction with an anticipated life of 35 years. Internal pipe to the taps are formed in copper.

There is evidence of internal corrosion to the system and the recommendation is for it to be replaced.

Water Supply System Works	Year
Replacement of pipework & valves – Due to internal corrosion	2

2.3 Ventilation System

Extract ventilation fans are fitted to the Bathroom and the Kitchen areas.

Bulk replacement of systems is not necessary as each system is independent and can be replaced or repaired as required saving both capital cost and natural resources. Our recommendation is that both fans be replaced in a dwelling when either one of the existing fans fail reducing disruption and loss of service to the resident.

Ventilation System Works	Years	Years
Fans – Replacement due to age	1-10	16-25

2.4 Electrical Services – Hillbeck Close Only

The incoming supply is as originally installed however the other electrical services appear to have undergone a refurbishment within the last 20 years. There are redundant services which appear to include wiring and we would recommend that these be removed.

Electrical System Works	Year
Lateral mains feeds to dwellings	3
Dwelling consumer unit and internal wiring – Due to the non-compliant installation	3

2.5 Above Ground Drainage

The main soil stacks appear to be in good condition and are unlikely to fracture as they are internally mounted. Many of the connections to the services have been altered during Kitchen and Bathroom fit-outs. However, the bathrooms and kitchens all appeared to be in need of refurbishment at which time the drain runs to the stack will be replaced.

The recommendation is for the connect to the main cast iron soil stack to be remade to all dwellings to a connection point external to the riser from which all connections can be made for future refurbishments. It has been recommended that this be carried out with the replacement of the water services as access will be required to the same rise to all dwellings.

Above Ground Drainage Works	Year
Remaking connection to stack	2

3. Communal Services Systems

3.1 Central Boiler House & Hot Water Services Systems

3.1.1 Description of System

The dwellings within Ullswater House and Hillbeck Close have the heating and hot water service provided from a central Boiler House facility located to the rear of the building.



The Boiler House systems comprise of the boilers, HWS calorifiers, primary pump-set for the boiler house plant, secondary pump-set serving the radiators within Ullswater House and Hillbeck Close, the HWS circulating pump and a pressurisation unit.

The original system was installed in 1968 with the buildings construction and replaced in 1992. Major components of this system within the boiler house have since been replaced.

Two gas fired modular boilers to provide heating and two HWS calorifiers provide the hot water.



Boilers



HWS Calorifiers

From the Boiler House the pipework is ducted to Ullswater House where it rises to high level and is distributed to all dwellings.



The system serves steel panel radiators located within each room.

The Boiler House has a central control panel for the plant. There did not appear to be a BMS system within the panel and it appears that the controls are analogue.



The Hot Water Service calorifiers are mains water fed. From the two cylinders water is piped to all dwellings. A return pipe from all dwellings is fitted with a Bronze pump to ensure hot water runs out of the taps within 1 minute.

The mains water provides the hot water system with the water pressure that flows to the taps. The system has a return pump to ensure that hot water reaches the taps within a reasonable time anywhere on the system.

3.1.2 System Condition

The boilers are a replacement to the 1992 installation and appear to have been installed between 8-10 years ago. One of the boilers appears to have suffered an historic leak but at the time of the survey both boilers were operational.

The HWS calorifiers are relatively new possibly 1-2 years and replaced the previous gas fire hot water heaters.

The primary pump-set appears to have been replaced recently. This could be due to the addition of the HWS calorifiers to the heating system rather than any failure as the flow rates would change.

The distribution pumps are from the 1992 installation albeit with replacement motors since originally installed.



The control panel is from the 1992 system and there are many control switches that are now dis-used.

It is unclear if the pipework distribution to the dwellings has been replaced but there is no evidence either within the boiler house or the buildings that the pipework has been replaced. This suggests that the system is in excess of 50 years.

The HWS pipework is formed in Galvanised Steel. This pipework would have internally corroded and scaled causing the water to be contaminated and the system flow rate to be reduced.



The Photo is of pipework from the building MCCE are currently working on to replace the water Services pipework. This building is within the Lambeth area and is of similar age. The pipe was from a hot water service and was completely dry when removed from a live system.

3.1.3 Heating and Hot Water Service Recommendations

This section relates to main plant replacement and does not include for routine maintenance items. Below is a description of the works and how the anticipated date has

been established. As with all services good maintenance is essential for extended life expectancies to be achieved. Economic life expectancy values have been taken from the CIBSE Guide M but used in conjunction with MCCE's experience and judgement following the visual survey.

Boilers

These were installed 8-10 years ago. Modular Boilers have very tight meshed stainless steel heat exchangers that need careful servicing if they are to have the normal life expectancy of 15 years. However, modular boilers like the Wessex are readily available and easily replaced. This means that a failed module will leave the system operating at 50% whilst a new module is purchased and fitted.

Our recommendations are discussed with the distribution.

Heating Pipework Distribution

The system has been in service for in excess of 50 years with an economic life expectancy of 35 years. Systems do last longer than the expected values and with good historic water treatment this system could still be in reasonable condition with many years left. However, we are unable to confirm the water treatment regime over the last 50 years.

Our recommendation is for a system review of the pipework condition. This will entail cutting a section of pipeline out for inspection which can be carried out during any radiator change on the system.

For the budget we have allowed for the system to be fully replaced as it has exceeded its life expectancy by some 15 years. Should quality boilers heavyweight boilers be installed in this refurbishment then the boilers will not require replacement for the remaining years of this programme.

HWS Distribution

The HWS Pipework is formed in galvanised steel and has internally corroded. During our survey we entered an dwelling that resident had not lived in for some time. On running the taps there was significant discolouration from internal corrosion. This may not be noticeable to services that are regularly used.

The HWS pipework in its entirety should be replaced. We have scheduled this with the Boiler House refurbishment works in year 5.

3.1.4 Budget

The budget below is an extract from main spreadsheet specific to the heating system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

<u>Heating System</u>	Year 5	Yrs 21-25
Boiler House Refurbishment	£350,000	
Pipework Distribution both HWS and Heating Pipework	£448,000	
Cyclical replacement of some Boiler House components		£40,000

3.1.5 Heating and HWS Systems Potential for Extension

The heating system will not support the extension of the building as the distribution mains could not handle any significant additional load i.e. for another block or floor.

However, as our recommendations are for the replacement of the system any new system could be designed with capacity increase planned and this would cost very little additional capital.

3.2 Gas Services

3.2.1 Gas Services System Description

Gas is supplied and metered to the Boiler House only and there are no gas services within either Ullswater House or the dwellings within Hillbeck Close.

The pipework within the boiler house appeared to have been installed when the boilers were replaced 8-10 years ago and is in good condition.

3.2.2 Gas Services System Condition Recommendations and Budget

We have no recommendations for the Gas Services

3.2.3 Gas Services Potential for Extension

Any extension to the building would involve the increase to the incoming gas main. An application to the gas suppliers would be required to see if this was feasible and the cost for the works.

3.3 Electrical Supply

3.3.1 General Electrical System Description

The incoming supply enters a building adjacent to the boiler room near the fire escape route for Ullswater House. Access to this room was not available during the survey.

From the intake head SWA cables feed local distribution boards located within the communal corridors. These distribution boards feed all the services within Ullswater House and the Landlord Services within the four Hillbeck Close blocks.

Location Of Distribution Boards					
At Supplied From Main Intake Room Details From Through Dates					
G/F	G/F Electrical Cupboard Adj To Unit 37				
G/F1	G/F Outside Unit 10 1/2 Door				
G/F2	G/F Electrical Cuboard Below Of Stairs Main Entrance				
G/F3	G/F Electrical Cupboard Between Units 5 & 6				
G/F4	G/F Electrical Cupboard By Unit 2				
G/F5	G/F Intake Cupboard Adj To Unit 35 In Toilet / Washroom.				
G/F6	1st Floor Electrical Cupboard By Unit 29				

No Ryefield boards, that would provide the feeds to the individual meters within Hillbeck Close, were found during the survey and these may be located within the intake room.

3.3.2 Landlords Services

The distribution cupboards contains the landlord meters and supplies to the communal services i.e. lighting, door entry etc. to both Ullswater House and Hillbeck Close.

DB 1 24 Hr Hillbeck Close 4 Way DB Electric Cupboard By Unit 2 Supplied From G/F4.Crt 12.3					
Circuit No	Destination	Min Size	Device Bs	Lmmes2	Cpcmes2 Points
1	Main Switch Bs 5419	100amp		15	160Cm
1	Contactor R/T	10 Type 2	3871/2	4	6
2	Spare	0 Type 2	3871/2		
3	SPDT For R/T	10 Type 2	3871/2		
4	Spare	10 Type 2	3871/2	1.5	Conduit -1

DB 2 Controlled Lighting 12 Way DB Electric Cupboard By Unit 2 Supplied From Time Clock Via DB 1 Cct 1					
Circuit No	Destination	Min Size	Device Bs	Lmmes2	Cpcmes2 Points
1	Main Switch Bs 5419	100amp		4	4
1	Unable to Locate	10 Type 2	3871/2		Link
2	Light G/F 1-6 9-16 & 17-24 Hill Beck Close	10 Type 2	3871/2	1.5	Conduit -13
3	Spare				
4	Light on the stairs case	10 Type 2	3871/2	1.5	Conduit -1
5	Light G/F 1-6 9-16 & 17-24 Hill Beck Close	10 Type 2	3871/2	1.5	Conduit -1
6	Light G/F 17-24 Hill Beck Close High	10 Type 2	3871/2	1.5	Conduit -1
7	Light Induction 10-32 Hill Beck Close	10 Type 2	3871/2	1.5	Conduit -3
8	Light G/F 17-24 Hill Beck Close	10 Type 2	3871/2	1.5	Conduit -4
9	Light Up 1-6 9-16 & 17-24 Hill Beck Close + Lights On Stairs	10 Type 2	3871/2	1.5	Conduit -10
11	Spare				
12	Light High Level 1-6 Around 9-16 & Difference to 17-24	010	00000	2.5	Conduit -10

The switchgear in some of the distribution cupboards have been recently replaced with modern switchgear. The switchgear that has not been replaced appears to be in good condition.



Older Distribution Board



Newer Distribution Board

The system has been modified at differing times throughout the life of the building with some redundant services left exposed.

The wiring found within the system was PVC but using the older red and black coding dating it to before 2004. The new distribution boards are less than 10 years old so appear to have installed to existing circuits.

3.3.3 Communal Lateral Mains

It is unclear how the cables rise from the intake building to the dwellings.

No Ryefield boards were located during the surveys and it possible that the supplies come from the main intake building

3.3.4 Electrical Installation Condition

The condition of the electrical system cannot be globally summarised as there are many facets of the system that require attention.

There are some of the services that are redundant. The distribution board is being used as a bit of trunking!

The new sections of the installation appear to be installed to a high standard and in good operational condition but to existing wiring. This wiring may date back to the building construction however we think it is more likely to date to the creation of Ullswater House in 1992.



The lateral mains were not visible for inspection.

3.3.5 Electrical System Recommendations

Incoming electric distribution

All the supplies to the distribution boards appear to have been replaced with modern SWA cable.

This would suggest that the main panel has been upgraded also.

Landlords Services

We recommend the removal of the redundant switchgear and wiring and the replacement of the older distribution boards. The CIBSE guide suggests these have a life expectancy of 20 years but MK boards installed are already 28 years and appear fully functional.

However, if the wiring dates back to 1992 it is approaching the end of its economic life expectancy. It would be prudent to carry out a full rewire with the replacement of the distribution boards.

The budget allows for the replacement Landlords system to both Ullswater House and Hillbeck Close

3.3.6 Budget

The budget below is an extract from main spreadsheet specific to the Electrical system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Wiring	Year 2
Replacement of Landlords distribution boards and wiring to sockets and switches	£160,000
Replacement of Landlord services to communal areas.	£96,000

3.3.7 Electrical Systems Potential for Extension

Any extension to the building would involve the increase to the incoming electrical main. The main distribution panel will require either replacing with a larger panel or the installation of a second panel to feed the dwellings within the extended section.

An application to the electrical suppliers would be required to see if an increased supply was feasible and the cost for the works.

3.4 Communal Lighting

The lighting to the main communal areas for both Ullswater and Hillbeck Close has been replaced with fluorescent lighting in excess of 20 years ago but could easily date back to 1992 making the fittings 28 years old. Some of these fittings have also failed and been replaced as can be seen with the differing levels of “whiteness”

The fittings did not have emergency lighting and so separate bulkheads have been installed to provide the required cover.

Coverage through all communal areas to Ullswater House is good.



Coverage through all communal areas to Hillbeck Close is poor as the level of illuminance is low.

Both buildings have external perimeter flood lighting mounted to the walls. These have started to fail and a number have already been replaced with modern LED fittings. Residents of Hillbeck have complained about areas of low light which would suggest that some additional fittings may be required

3.4.1 Communal Lighting System Recommendations and Budget

The main fittings are estimated to be in excess of 20 years old with an anticipated life of 15 years. The budget below allows for a complete system replacement together with the electrical system as this would make savings to the overall cost of the project. During this replacement improved light levels can be ensured where required.

3.4.2 Budget

The budget below is an extract from main spreadsheet specific to the Communal Lighting system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Lighting	Year 3	Year 26-30
Wiring	£110,000	
Internal fixtures	£80,000	£80,000
External fixtures	£77,000	£77,000

3.4.3 Lighting System Potential for Extension

The lighting system can be readily extended to accommodate additional areas.

3.5 Door Entryphone

The door entry phone is an audio only entry phone system. The main controller is mounted within a service area of Ullswater House. We were unable to ascertain the age of the system. Based on our visual survey we estimate the system to be in excess of 15 years.



3.5.1 Budget

The budget below is an extract from main spreadsheet specific to the Door Entry systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Door Entry System	Year 5	Year 21- 25
Repairs to system		
Full system replacement	£56,250	
Handset and controller replacement		19,750

3.5.2 Door Entry System Potential for Extension

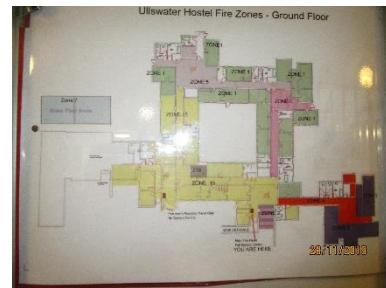
The door entry system can be readily extended to accommodate additional areas.

3.6 Fire Alarm System – Ullswater House

3.6.1 Fire Alarm System Description

Ullswater House has a fire system covering all areas. The main panel is located in the main entrance corridor area next to the sprinkler control panel.

The system appears to be fully operational and installed within the last 10 years.



3.6.2 Fire Alarm System Recommendations

The smoke detectors are recommended to be replaced every 15 years and so are shown in year 7 and again in year 21-25.

The systems wiring appears to have been installed with the new panel and should not require replacement.



The main control panel we have shown in year 12 allowing for it to last 20 years. At this time all call points should be validated and replaced if required.

3.6.3 Budget

The budget below is an extract from main spreadsheet specific to the Fire Alarm system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Fire Alarm System	Yrs 6-10	Yrs 11-15	Yrs 26-30
All Smoke/Heat detectors	£15,000		£15,000
Replacement Fire Alarm System		£25,000	

3.6.4 Fire Alarm Potential for Extension

The panel should be able to accommodate additional zones in order to extend the fire alarm system.

3.7 Sprinkler System – Ullswater House

3.7.1 Sprinkler System Description

Ullswater House has a sprinkler system covering all areas. The main panel is located in the main entrance corridor area within a vandal proof enclosure.

The system is a residential system piped in CPVC pipework surface mounted, boxed in, with concealed sidewall sprinkler heads.

The tanks and pumps are located next to the Boiler room but access was not available at the time of the survey.



The system appears to be fully operational and installed with the fire alarm system some 8 - 10 years ago.



3.7.2 Sprinkler System Recommendations

Sprinkler heads have a life expectancy of 30 years and so are shown in years 21-25. CPVC pipework has a life expectancy of 50 years and should not require replacement.

The main control panel we have shown in year 12 allowing for it to last 20 years.

3.7.3 Budget

The budget below is an extract from main spreadsheet specific to the Sprinkler system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

<u>Sprinkler System</u>	Yrs 11-15	Yrs 16-20
Replacement main panel	£15,000	
Replacement Sprinkler Head		£20,000

3.7.4 Sprinkler System Potential for Extension

The sprinkler system should be able to accommodate additional heads as a residential system is designed to provide up to four heads with water in the event of a fire. The pump system may require some works to accommodate the additional resistance.

4. In Dwelling Services

4.1 Heating Systems

Both Ullswater House and Hillbeck House have steel pipework feed steel panel radiators mostly fitted with TRV's.



The Ullswater radiators have been replaced from the original radiator types found in Hillbeck Close and this appears to have been in 1992 when the building was converted.

The radiators inspected in the dwellings of Hillbeck Close are likely to be as originally installed making them in excess of 50 years old.



4.1.1 Heating System Recommendations

The heating systems should be fully replaced with the Boiler House and distribution recommended in the Communal Heating section 3.1.3 above.

4.1.2 Budget

The budget below is an extract from main spreadsheet specific to the heating system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Heating System	Year 5
Dwelling pipework and radiators	£320,000

4.2 Water Services Installation

4.2.1 Water Services System Description

At Hillbeck Close the water supply appears to enter the building at ground floor level and rises up through the building within a concealed duct between the kitchen and bathrooms.

Ullswater House has the same points but these have been routed to serve the communal layout of the building.

The pipework is behind secured access panels was not visible to inspect.

There are no roof mounted storage tank and all serves are mains fed.

The pipework is formed in galvanised steel with any modified pipe formed in copper.

4.2.2 Water Services System Condition

The internal condition of the pipework is identified above in section 3.1.2 for the HWS.

It is reasonable to expect the internal surfaces to be failing and any internal corrosion will start a snowball effect and cause the pipework to contaminate the pipework and water supply at an increasing rate.

This photo was taken from flat 18 Hillbeck Close which was not in regular use. The initial flow was far darker and indicates the poor internal condition of the pipework.



4.2.3 Water Services System Condition Recommendations

Pipework & valves

This budget covers the complete renewal of the water services pipework system to all dwellings and water outlets.

The works are extensive and disruptive expecting to take between 10-12 months.

Access is required into all dwellings to complete the installation and it may be advisable to combine the works with other items to reduce disruption to the residents.

4.2.4 Budget

The budget below is an extract from main spreadsheet specific to the Water Services systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Water Distribution Services	Year 1	Year 2
Pipework & valves		£384,000

4.2.5 Water Services Potential for Extension

The incoming feed to the building will not support additional dwellings and a new water main will be required.

4.3 Ventilation System – Ullswater House Only

Ventilation is only provided to Ullswater House to the Kitchens areas and Bathrooms. The fans are individual through the wall/window extractor fans linked to the light switches.

The fans are varied in age, condition and type.

Hillbeck Close has openable windows to their Kitchens and Bathrooms.



4.3.1 Ventilation Systems Recommendations

As the age and condition of the fans vary so vastly our recommendation is to replace the fans as they fail.

4.3.2 Budget

The budget below is an extract from main spreadsheet specific to the Ventilation systems and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Ventilation	Years 1-10	Yrs 16-25
Replacement Fans	£500 / yr	£5,000

4.3.3 Ventilation Systems Potential for Extension

These are individual and can be added to any additional areas. Any future design must not obstruct the existing vents.

5. Electrical Services - Hillbeck House Only

5.1.1 Dwelling Electrical Services

The electrical supplies enter each dwelling and is metered within a meter enclosure.

The meter and consumer units to all dwellings inspected were in different conditions:

Flat 3 – This dwelling was in the final stages of being refurbished at the time of survey. A new consumer unit had been fitted into the existing space of the old rewirable unit.



Below the consumer unit the connection to the meter has been replaced but the lateral mains going into the cut-out are clearly significantly older and very likely to be the original installation from 1968.

This dwelling appears to have been rewired with all wiring carried out in surface mounted PVC mini-trunking



Flat 29 – This dwelling has an original rewirable fuse board that has been modified to accept MCBs. There are some new sockets in the rooms but it is unclear if it has had a rewire or just the existing circuit extended.



Flat 18 – This dwelling has had a similar installation to other buildings on the estate where a new consumer unit has been butchered to fit into the existing space causing it to be non-compliant.



5.1.2 Electrical Installation Condition

The lateral mains appear to be as originally installed in 1968.

The consumer units within most of the dwellings have been modified to fit a space. This does not comply with the IET regulations and removes any conformity that the consumer unit had.

The board has been cut away at both ends and further cut away to the rear to fit the contours of the space. The two faces are held together by metal screws.

Only the work in Flat 3 appeared to have the internal wiring back to a consumer unit that fits in the space with new meter tails.

5.1.3 Electrical System Recommendations

Dwelling feeds

The budget allows for the replacement of the feeds to each dwelling making allowance for the condition of the service.

Dwelling consumer unit

The budget allows for the replacement of the consumer unit to all dwellings relocating new units to a suitable location without the need for modification. As this is essential work, we have shown this for all dwellings including leaseholders.

Internal Wiring

The services within the dwellings appear to require replacement works and this should be carried out with the replacement of the consumer units.

5.1.4 Budget

The budget below is an extract from main spreadsheet specific to the Electrical system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

Communal Wiring	Year 3
Lateral mains feeds to dwellings	£208,000
Internal Wiring	£81,000

5.1.5 Electrical Systems Potential for Extension

Any extension to the building would involve the increase to the incoming electrical main. The main distribution panel will require either replacing with a larger panel or the installation of a second panel to feed the dwellings within the extended section.

An application to the electrical suppliers would be required to see if an increased supply was feasible and the cost for the works.

6. Public Health Services

6.1 Above Ground Drainage

6.1.1 Above Ground Drainage Description and Condition

Ullswater House

It appears that during the conversion several additional 100mm PVC soil and vent stacks were installed to serve the buildings' above ground drainage system. The soil pipes are routed both externally and internally to the provide drainage to the kitchens and WC's. The internal runs are in service risers that also contains the water services. These were not accessible during the survey but are believed to be Cast Iron soil vent pipes.



Internally all above ground drainage is formed in PVC.

Hillbeck Close

The drainage soil pipework is formed of LCC Cast Iron located in sealed service risers between the kitchen and the WC's of each dwelling. The system is a combined soil and vent system.

The local drains to the appliances within each dwelling are formed in uPVC pipe but due to the location of the riser we were unable to determine if these were originally copper.

Life expectancy of Cast Iron soil pipes is listed within CIBSE Guide M at 35 years although many manufacturers quote life expectancies of up to 100 Years. PVC has a life of 20 years. Much of the modified local PVC drains age cannot be determined although some of the fittings have "yellowed" and appear over 20 years old.

As the main soil stack does not provide consumable services, internal corrosion is not a consideration in its replacement and we consider the pipework usable until it leaks. Furthermore, the system is internally mounted and not subject to weather extremes which would extend its life expectancy.

6.1.2 Above Ground Drainage Recommendations and Budget

Replacement of the uPVC drainage would be carried out as part of any kitchen and Bathroom refurbishment. The condition of the Kitchens and bathrooms were such that this replacement is anticipated before any failure of the uPVC drainage pipe.

The main soil pipes serve just two dwellings vertically and are unlikely to require any works for the foreseeable future.

The connections to the main stacks have been modified and experience from other locations has found that the connections are often poor causing leakage to the dwellings below.

Our recommendation is that all connections from the main soil vent stack are remade to a point external to the riser that the resident can then connect to for all future connections.

Above Ground Drainage	Year 2
Kentmere House remaking connection to stack	£38,400
Hillbeck Close remaking connection to stack	£38,400

6.1.3 **Above Ground Drainage System Potential for Extension**

The above ground drainage system can be readily extended to accommodate additional areas particularly if the extension is vertical. Any side extension would require additional soil stacks.

Appendix A – Typical Budget Costs

Attached is the budget cost spreadsheet for Ullswater House and Hillbeck Close. These are for capital works and no allowance has been made for day to day maintenance or statutory inspections.

Budget costs are based on today's rates and determined by recent projects of a similar type many of which are within London Borough Councils with reference to specialist manufacturers for some items. Works are based on similar system replacement.

Some systems will require replacement more than once during the 30-year plan i.e. extract fans have a life expectancy of 15 years and so are shown more than once on the programme.

Ullswater House and Hillbeck Close = CHP Scheme Budget Modifications:

Ullswater House and the blocks forming Hillbeck Close are currently served by a central boiler house located between to the rear of Ullswater House.

Using the district SELCHP (CHP) scheme will involve the following:

1. The refurbishment of the existing boiler house for the CHP mains to enter and have installed four plate heat exchangers (two for Ullswater and two for Hillbeck Close). Our budget includes for the services to the building side of the plate heat exchangers. The plates and all pipework to the CHP system are costed by others.
2. Within the plant room the building side includes the installation of pumps, pressurisation units, expansion vessels and controls for the distribution to the dwellings. We have allow separate circuits to serve Ullswater House as this building will not require HIU's.
3. The plantroom services have a life expectancy of 20 years and so an allowance for a second replacement has been made in years 21-25.
4. The pipework distribution to the entrance of each dwelling including isolation valves, pressure sensors and flushing bypasses – This has been costed as if carried out with the water services as the routes are likely to be identical.
5. Within the Hillbeck Close dwellings an allowance has been made for the installation of a Heat Interface Unit (HIU) feeding radiators including all the pipework.
6. The HIU has a life expectancy of 20 years and an allowance have been included for the replacement of these in years 21-25.
7. HIUs use mains water pressure and so the water pipework replacement has been moved to match the heating installation.

Rainwater pipework has not been inspected. No works are anticipated outside of normal pipe clearance due to external blockages etc. over the 30 year budget period. However, internal damage may have occurred due to historic or future poor maintenance issues which may require some remedial works.

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
2-40 Ullswater House - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
Heating System												
Refurbishment of Central Plantroom (Apportioned)	0	0	3,200	0	0	0	0	0	0	0	3,200	Rented Communal
Central Plant from CHP Plates (Apportioned)	0	0	48,000	0	0	0	0	0	48,000	0	96,000	Rented Communal
Pipework Distribution up to dwellings	0	0	256,000	0	0	0	0	0			256,000	Rented Communal
Internal heating systems fit-out Radiators and Pipework - No HIU as dwellings two small	0	0	160,000	0	0	0	0	0	0	0	160,000	Rented Internal
Communal Wiring												
Replacement Landlords distribution boards and wiring to sockets and switches	0	0	80,000	0	0	0	0	0	0	0	80,000	Rented Communal
Replacement of Landlord services to communal areas.	0	0	80,000	0	0	0	0	0	0	0	80,000	Rented Communal
Communal Lighting												
Wiring	0		50,000	0	0	0	0	0	0	0	50,000	Rented Communal
Internal fixtures	0		40,000	0	0	0		0	40,000	0	80,000	Rented Communal
External fixtures	0		21,000	0	0	0		0	21,000	0	42,000	Rented Communal
Door Entry												
	0	0	0	0	35,250	0	0	0	11,750	0	47,000	Rented Communal
Fire Alarm System												
Smoke Detectors	0	0	0	0	0	15,000	0	0	0	15,000	30,000	Rented Communal
Main Panel	0	0	0	0	0	0	10,000	0	0	0	10,000	Rented Communal
Sprinkler System												
Sprinkler Heads	0	0	0	0	0	0	0	20,000	0	0	20,000	Rented Communal
Main Panel	0	0	0	0	0	0	15,000	0	0	0	15,000	Rented Communal
Water Distribution Services												
Pipework & valves	0	0	192,000	0	0	0	0	0	0	0	192,000	Rented Communal
Ventilation - Ullswater Only												
Fans	500	500	500	500	500	2,500	0	2,500	2,500	0	10,000	Rented Internal
In Dwelling Electrical												
Internal Wiring	0	0	98,000	0	0	0	0	0	0	0	98,000	Rented Internal
Soil & Waste Services												
Above Ground (Dwelling drainage)	0	38,400	0	0	0	0	0	0	0	0	38,400	Rented Communal
Rain Water System												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Rented Communal
Total Excludes Preliminaries	500	38,900	1,028,700	500	35,750	112,500	25,000	22,500	123,250	15,000	1,307,600	
Tenure Split												
Block - All Tenures	0	38,400	770,200	0	35,250	15,000	25,000	20,000	120,750	15,000	1,039,600	
SC Rented	49	0	38,400	770,200	0	35,250	15,000	25,000	20,000	120,750	15,000	1,039,600
Leasehold	0	0	0	0	0	0	0	0	0	0	0	SC Rented Leasehold
	49	0	38,400	770,200	0	35,250	0	25,000	20,000	120,750	15,000	1,039,600
Internal Dwellings	SC Rented	49	500	500	258,500	500	500	2,500	0	2,500	2,500	0
												SC Rented

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
1-8 Hillbeck Close - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation		
<u>Heating System</u>														
Refurbishment of Central Plantroom (Apportioned)	0	0	800	0	0	0	0	0	0	0	800	Incl Leaseholders		
Central Plant from CHP Plates (Apportioned)	0	0	12000	0	0	0	0	0	12000	0	24,000	Incl Leaseholders		
Pipework Distribution up to dwellings	0	0	64000	0	0	0	0	0	0	0	64,000	Incl Leaseholders		
Internal heating systems fit-out Radiators and Pipework - No HIU as dwellings two small	0	64,000	0	0	0	0	0	0	0	0	64,000	Incl Leaseholders		
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	24,000	0	24,000	Incl Leaseholders		
<u>Communal Wiring</u>														
Replacement Landlords distribution boards and wiring to sockets and switches	0	0	20,000	0	0	0	0	0	0	0	20,000	Incl Leaseholders		
Replacement of Landlord services to communal areas.	0	0	4,000	0	0	0	0	0	0	0	4,000	Incl Leaseholders		
<u>Communal Lighting</u>														
Wiring	0	0	15,000	0	0	0	0	0	0	0	15,000	Incl Leaseholders		
Internal fixtures	0	0	10,000	0	0	0	0	0	0	10,000	20,000	Incl Leaseholders		
External fixtures	0	0	7,000	0	0	0	0	0	0	7,000	14,000	Incl Leaseholders		
<u>Door Entry</u>														
	0	0	0	0	6,000	0	0	0	2,000	0	8,000	Incl Leaseholders		
<u>Water Distribution Services</u>														
Pipework & valves	0	0	48,000	0	0	0	0	0	0	0	48,000	Incl Leaseholders		
<u>In Dwelling Electrical</u>														
Lateral mains feeds to dwellings	0	0	52,000	0	0	0	0	0	0	0	52,000	Incl Leaseholders		
Internal Wiring	0	0	24,000	0	0	0	0	0	0	0	24,000	Rented Properties Only		
<u>Soil & Waste Services</u>														
Above Ground (Dwelling drainage)	0	9,600	0	0	0	0	0	0	0	0	9,600	Incl Leaseholders		
<u>Rain Water System</u>														
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders		
Total Excludes Preliminaries				0	9,600	320,800	0	6,000	0	0	38,000	17,000	391,400	
Tenure Split														
Block - All Tenures				0	9,600	296,800	0	6,000	0	0	38,000	17,000	367,400	
SC Rented				8	0	9,600	296,800	0	6,000	0	0	38,000	17,000	367,400
Leasehold				0	0	0	0	0	0	0	0	0	0	
				8	0	9,600	296,800	0	6,000	0	0	38,000	17,000	367,400
Internal Dwellings				SC Rented	8	0	0	24,000	0	0	0	0	24,000	

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
9-16 Hillbeck Close - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation
<u>Heating System</u>												
Refurbishment of Central Plantroom (Apportioned)	0	0	800	0	0	0	0	0	0	0	800	Incl Leaseholders 800
Central Plant from CHP Plates (Apportioned)	0	0	12000	0	0	0	0	0	12000	0	24,000	Incl Leaseholders 24000
Pipework Distribution up to dwellings	0	0	64000	0	0	0	0	0	0	0	64,000	Incl Leaseholders 69000
Internal heating systems fit-out Radiators and Pipework - No HIU as dwellings two small	0	0	64,000	0	0	0	0	0	0	0	64,000	Incl Leaseholders 64000
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	24,000	0	24,000	Incl Leaseholders 24000
<u>Communal Wiring</u>												
Replacement Landlords distribution boards and wiring to sockets and switches	0	0	20,000	0	0	0	0	0	0	0	20,000	Incl Leaseholders 20000
Replacement of Landlord services to communal areas.	0	0	4,000	0	0	0	0	0	0	0	4,000	Incl Leaseholders 4000
<u>Communal Lighting</u>												
Wiring	0	0	15,000	0	0	0	0	0	0	0	15,000	Incl Leaseholders 15000
Internal fixtures	0	0	10,000	0	0	0	0	0	0	0	10,000	Incl Leaseholders 20000
External fixtures	0	0	7,000	0	0	0	0	0	0	0	7,000	Incl Leaseholders 14000
<u>Door Entry</u>												
	0	0	0	0	6,000	0	0	0	2,000	0	8,000	Incl Leaseholders 8000
<u>Water Distribution Services</u>												
Pipework & valves	0	0	48,000	0	0	0	0	0	0	0	48,000	Incl Leaseholders 48000
<u>In Dwelling Electrical</u>												
Lateral mains feeds to dwellings	0	0	52,000	0	0	0	0	0	0	0	52,000	Incl Leaseholders 52000
Internal Wiring	0	0	24,000	0	0	0	0	0	0	0	24,000	Rented Properties Only 24000
<u>Soil & Waste Services</u>												
Above Ground (Dwelling drainage)	0	9,600	0	0	0	0	0	0	0	0	9,600	Incl Leaseholders 9600
<u>Rain Water System</u>												
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders 0
Total Excludes Preliminaries												
	0	9,600	320,800	0	6,000	0	0	0	38,000	17,000	391,400	
Tenure Split												
Block - All Tenures												
	0	9,600	296,800	0	6,000	0	0	0	38,000	17,000	367,400	
SC Rented 5 0 6,000 185,500 0 3,750 0 0 0 23,750 10,625 229,625												
Leasehold 3 0 3,600 111,300 0 2,250 0 0 0 14,250 6,375 137,775												
8 0 9,600 296,800 0 6,000 0 0 0 38,000 17,000 367,400												
Internal Dwellings												
SC Rented 5 0 0 24,000 0 0 0 0 0 0 0 24,000												

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
17-24 Hillbeck Close - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation	
<u>Heating System</u>													
Refurbishment of Central Plantroom (Apportioned)	0	0	800	0	0	0	0	0	0	0	800	Incl Leaseholders	
Central Plant from CHP Plates (Apportioned)	0	0	12000	0	0	0	0	0	12000	0	24,000	Incl Leaseholders	
Pipework Distribution up to dwellings	0	0	64000	0	0	0	0	0	0	0	64,000	Incl Leaseholders	
Internal heating systems fit-out Radiators and Pipework - No HIU as dwellings two small	0	0	64,000	0	0	0	0	0	0	0	64,000	Incl Leaseholders	
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	24,000	0	24,000	Incl Leaseholders	
<u>Communal Wiring</u>													
Replacement Landlords distribution boards and wiring to sockets and switches	0	0	20,000	0	0	0	0	0	0	0	20,000	Incl Leaseholders	
Replacement of Landlord services to communal areas.	0	0	4,000	0	0	0	0	0	0	0	4,000	Incl Leaseholders	
<u>Communal Lighting</u>													
Wiring	0	0	15,000	0	0	0	0	0	0	0	15,000	Incl Leaseholders	
Internal fixtures	0	0	10,000	0	0	0	0	0	0	0	10,000	Incl Leaseholders	
External fixtures	0	0	7,000	0	0	0	0	0	0	0	7,000	Incl Leaseholders	
<u>Door Entry</u>													
	0	0	0	0	6,000	0	0	0	2,000	0	8,000	Incl Leaseholders	
<u>Water Distribution Services</u>													
Pipework & valves	0	0	48,000	0	0	0	0	0	0	0	48,000	Incl Leaseholders	
<u>In Dwelling Electrical</u>													
Lateral mains feeds to dwellings	0	0	52,000	0	0	0	0	0	0	0	52,000	Incl Leaseholders	
Internal Wiring	0	0	24,000	0	0	0	0	0	0	0	24,000	Rented Properties Only	
<u>Soil & Waste Services</u>													
Above Ground (Dwelling drainage)	0	9,600	0	0	0	0	0	0	0	0	9,600	Incl Leaseholders	
<u>Rain Water System</u>													
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders	
Total Excludes Preliminaries		0	9,600	320,800	0	6,000	112,500	0	0	38,000	17,000	391,400	
Tenure Split													
Block - All Tenures		0	9,600	296,800	0	6,000	0	0	0	38,000	17,000	367,400	
SC Rented	7	0	8,400	259,700	0	5,250	0	0	0	33,250	14,875	321,475	
		1	0	1,200	37,100	0	750	0	0	0	4,750	2,125	
Internal Dwellings		8	0	9,600	296,800	0	6,000	0	0	0	38,000	17,000	
SC Rented		7	0	0	24,000	0	0	0	0	0	0	24,000	

Tustin Estate Stock Condition Survey - Southwark Council
Summary of Maintenance
25-32 Hillbeck Close - Mechanical Electrical Only - Exclusive of Preliminaries, Professional Fees & VAT

Component of Work	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30	Tenure Allocation	
<u>Heating System</u>													
Refurbishment of Central Plantroom (Apportioned)	0	0	800	0	0	0	0	0	0	0	800	Incl Leaseholders	
Central Plant from CHP Plates (Apportioned)	0	0	12000	0	0	0	0	0	12000	0	24,000	Incl Leaseholders	
Pipework Distribution up to dwellings	0	0	64000	0	0	0	0	0	0	0	64,000	Incl Leaseholders	
Internal heating systems fit-out Radiators and Pipework - No HIU as dwellings two small	0	0	64,000	0	0	0	0	0	0	0	64,000	Incl Leaseholders	
Internal heating systems replacement HIU	0	0	0	0	0	0	0	0	24,000	0	24,000	Incl Leaseholders	
<u>Communal Wiring</u>													
Replacement Landlords distribution boards and wiring to sockets and switches	0	0	20,000	0	0	0	0	0	0	0	20,000	Incl Leaseholders	
Replacement of Landlord services to communal areas.	0	0	4,000	0	0	0	0	0	0	0	4,000	Incl Leaseholders	
<u>Communal Lighting</u>													
Wiring	0	0	15,000	0	0	0	0	0	0	0	15,000	Incl Leaseholders	
Internal fixtures	0	0	10,000	0	0	0	0	0	0	0	10,000	Incl Leaseholders	
External fixtures	0	0	7,000	0	0	0	0	0	0	0	7,000	Incl Leaseholders	
<u>Door Entry</u>													
	0	0	0	0	6,000	0	0	0	2,000	0	8,000	Incl Leaseholders	
<u>Water Distribution Services</u>													
Pipework & valves	0	0	48,000	0	0	0	0	0	0	0	48,000	Incl Leaseholders	
<u>In Dwelling Electrical</u>													
Lateral mains feeds to dwellings	0	0	52,000	0	0	0	0	0	0	0	52,000	Incl Leaseholders	
Internal Wiring	0	0	24,000	0	0	0	0	0	0	0	24,000	Rented Properties Only	
<u>Soil & Waste Services</u>													
Above Ground (Dwelling drainage)	0	9,600	0	0	0	0	0	0	0	0	9,600	Incl Leaseholders	
<u>Rain Water System</u>													
See comment in addendum	0	0	0	0	0	0	0	0	0	0	0	Incl Leaseholders	
Total Excludes Preliminaries		0	9,600	320,800	0	6,000	112,500	0	0	38,000	17,000	391,400	
Tenure Split													
Block - All Tenures		0	9,600	296,800	0	6,000	0	0	0	38,000	17,000	367,400	
SC Rented	7	0	8,400	259,700	0	5,250	0	0	0	33,250	14,875	321,475	
		1	0	1,200	37,100	0	750	0	0	4,750	2,125	45,925	
Internal Dwellings		8	0	9,600	296,800	0	6,000	0	0	38,000	17,000	367,400	
SC Rented		7	0	0	24,000	0	0	0	0	0	0	24,000	

End of Document



hunters

mcce

Condition Report of the Building Services Installation.

Estate Lighting on the Tustin Estate.

**Prepared by MCCE on behalf of Hunter & Partners for
Southwark Council**

23rd January 2020



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1. Introduction

1.1 Background

The buildings forming the Tustin Estate were built 1968 by Southwark Council. The has Estate a large amount of pedestrian only access between the buildings.

These are illuminated by lamp posts and lighting off the nearest buildings.

This report reviews the condition of the Estate lighting. The report specifically reviews the condition of the post lighting as the light fittings off the buildings are reviewed and costed within the individual buildings forming the Estate.



1.2 Project Brief

The project brief from Southwark Council, relevant to MCCE's services, was to review the condition of the services and produce a works budget forecast to detail estimated costs for the future capital works required on the building over a 30-year period.

The building services systems condition has been estimated during the visual survey, with discussions with the incumbent engineers, the site team, Southwark Council's engineering team and using the CIBSE Indicative Economic Life Expectancy guide adjusted against our experience of services installations.

The budgets have been based on today's values for capital works only and no account has been taken for future inflation, day to day maintenance servicing or statutory inspections.

1.3 Survey

Several surveys were carried out between 30th October 2019 and early January 2020.

The surveys were visual and subject to the accessibility to inspect.

2. Lighting – Communal

The Estate lighting to the main communal footpaths has been modified several times since the Estate was constructed.

There is now a mixture of fittings providing light to the estate including fittings with:

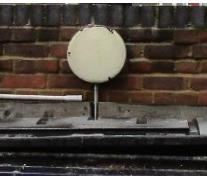
- High Pressure Sodium Lamps
- Fluorescent Lamps
- LED

A number of the fittings to the external walls have severely degraded and “yellowed”

Coverage through all communal areas is below ideal.

Below is a tabular review of the fittings both block mounted and pole mounted

2.1 Bowness House

Location	Type	Condition / Comment
Front elevation over shops	 High Pressure Sodium Fitting	Over 20 years old and at end of life. Wiring to rear faded.
Front elevation over motorcycle park	 Crompton Darksky High Pressure Sodium Fitting	Over 15 years old and at end of life.
Under building bridge section / main entrance lobby and to rear car park side of building	 Fittings are modern LED type fittings	Recently installed using existing conduit but unclear if the wiring was replaced at the same time.
Bin enclosure	 Fluorescent fitting	This fitting has broken lens and is unlikely to be working.

2.2 Ullswater House and Hillbeck Close

Location	Type	Condition / Comment
Ullswater House Entrance side	  	Mixture of Crompton Darksky High Pressure Sodium Fitting and modern LED floodlighting It appears a number of the high pressure sodium (SON) fittings have failed and been replaced with LED Flood Lighting. This suggests that these type of fittings are approaching their end of economic life and will continue to fail.
Hillbeck Close / Pilgrims Way School Side		Crompton Darksky High Pressure Sodium Fitting Over 15 years old and at end of life.
Hillbeck Close entrance lighting and to the rear of Hillbeck Close to boiler room entrance.		High Pressure Sodium Fitting Over 15 years old and at end of life.

2.3 Manor Grove

Location	Type	Condition / Comment
Manor Grove Road side		High Pressure Sodium Fitting and LED square fitting It is unclear if the floodlight still operates. The new LED lighting is fitted to all blocks. This light throws outward and does not illuminate the pavement effectively.
Pedestrian walkways between blocks		LED square fitting These fittings are less than five years old but appear to be connected to existing wiring. The wall mounted fitted throws its light outwards and does not effectively illuminate the path.
Car Park side		Crompton Darksky High Pressure Sodium Fitting Over 15 years old, damaged and at end of life.

2.4 Kentmere House

Location	Type	Condition / Comment
Entrance side	 <p>The only external estate light is over the car park area. This is a high pressure sodium fitting.</p>	<p>Over 15 years old, at end of life.</p> <p>The pedestrian walkway relies on the balcony lighting for illumination.</p>

2.5 Heversham House

Location	Type	Condition / Comment
Car Park and block entrances	 	Over 15 years old, at end of life. The pedestrian walkway relies on the balcony lighting for illumination. Modern LED lighting on poles to the car park area.
Ground floor flat entrances		LED square fitting These fittings are less than five years old and illuminate the paving along the footpath in front of the block

2.6 General Estate Lighting

The Estate Lighting costed in this report relates to the light fittings on Poles as the building mounted fittings described above are costed with the buildings they are mounted on.

There are 23 pole mounted fittings and these are a mixture of LED and SON - High Pressure Sodium fittings.

All the SON lamps is approaching the end of its economic life and many of the equivalent building mounted fitted have already been replaced.



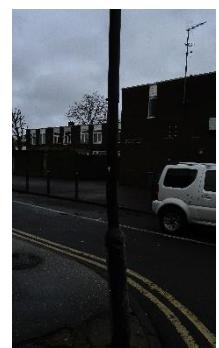
With these fittings are the typical type use on the estate. They are High Pressure Sodium lamps and are complete with daylight sensors.

The exception to the is a new column to the rear entrance of Heversham House and the Heversham Car Park where modern LED fitting have been installed.



There are 23 fittings with a combination of single head or double head fittings. 8 of the are LED leaving 15 that are SON lamps.

There is one pole that was clearly damaged.



2.7 Communal Lighting System Recommendations

The SON, High Pressure Sodium, fittings are estimated to be approximately 15-20 years old with an anticipated life of 15 years. Some of the fittings have already failed and been replaced.

We recommend the SON lamps fitting be replaced with new LED fittings. These will provide up to 20 years' service without having to change the lamp and at a reduced energy consumption.

It is unclear if the wiring to the poles has been replaced and so for budgetary purposes we have included for new ducted cable.

2.8 Budget Costs

The budget below is specific to the Estate Lighting system and excludes the preliminaries which were shown as a global addition to the works shown in each year.

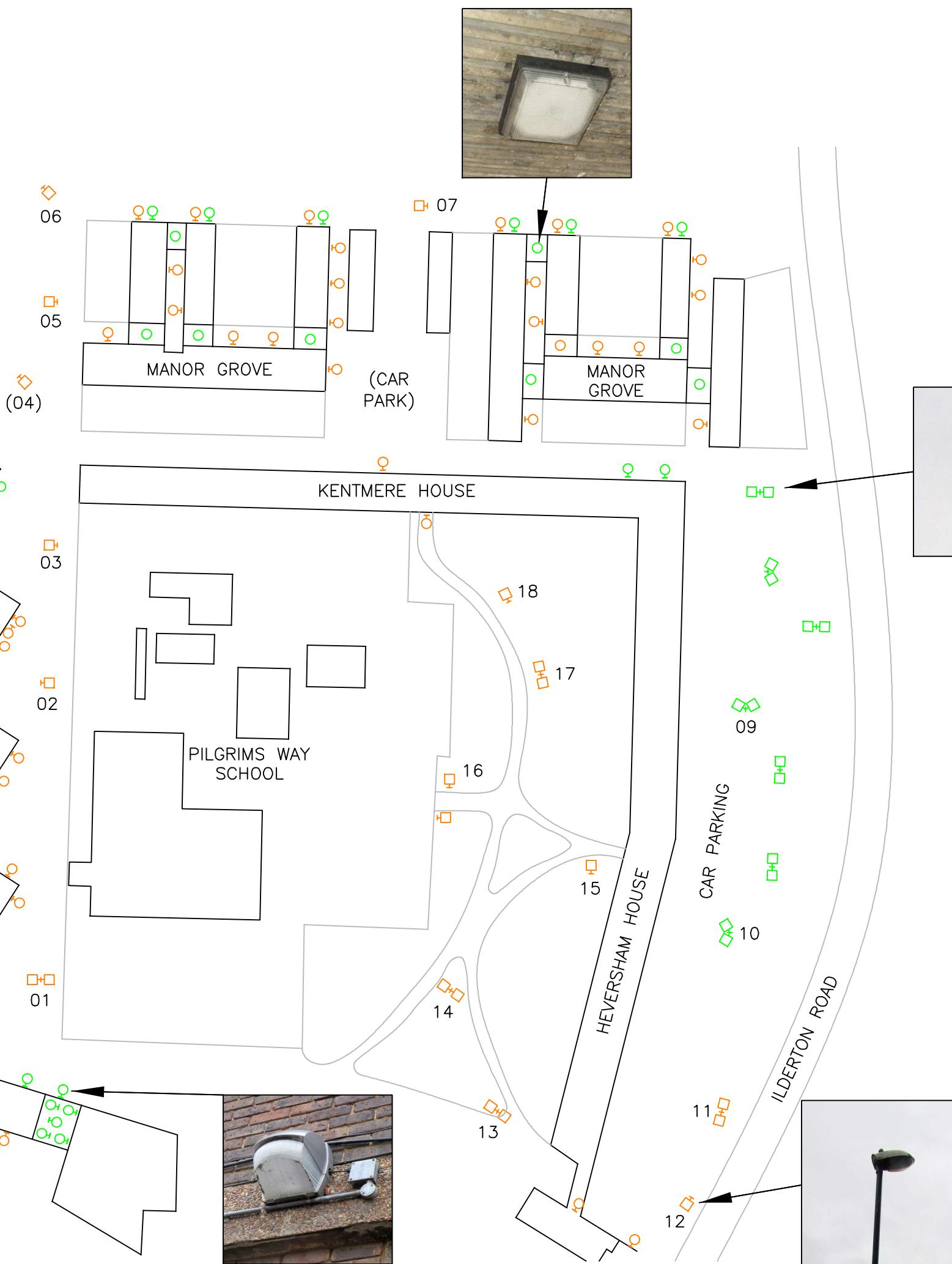
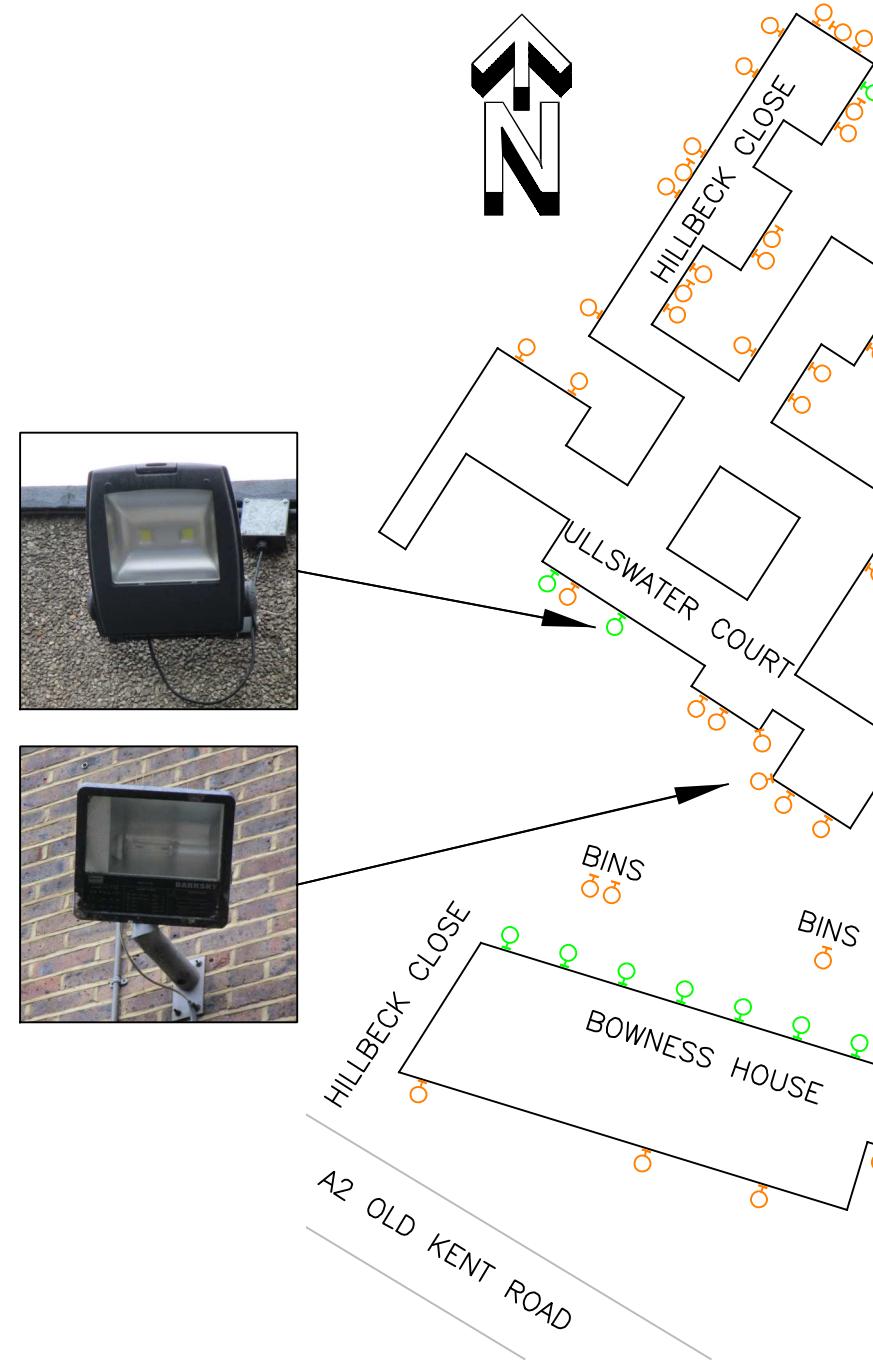
Budget costs are based on today's rates and determined by recent projects of a similar type many of which are within London Borough Councils with reference to specialist manufacturers for some items. Works are based on similar system replacement.

Communal Lighting	Year 3	Yrs 21-25	Yrs 26-30
Wiring to all fittings	£92,000		
External Light fixtures x 15	15,000		15,000
Replacement LEDs for Heversham House		£8,000	

Notes
DO NOT SCALE THIS DRAWING.
IF IN DOUBT, ASK

LUMINAIRE KEY

LED	NON-LED	
○	○	CEILING MOUNTED LUMINAIRE
○	○	WALL MOUNTED LUMINAIRE
□	□	POLE MOUNTED LUMINAIRE – SINGLE
□	□	POLE MOUNTED LUMINAIRE – DOUBLE



Rev.	Description	By	Date
	Status		
	Title	REPORT	
		EXISTING ESTATE LIGHTING	
	Project	TUSTIN ESTATE LONDON SE15	
	Client	SOUTHWARK COUNCIL LONDON	 southwark.gov.uk
	Drawing No.	Scale(s) At A3	Rev.
	0135/100	N/A	.
	Date	Drawn	Checked
	JAN 2020	J.B.	M.C.
	Unit 33 St Olav's Court City Business Centre Lower Road London SE16 2XB T 020 7237 4865 E info@mcce-ltd.co.uk		

End of Document

TONY WARREN LIMITED

LIFT CONSULTANTS



REPORT

on

ONE LIFT

at

**BOWNESS HOUSE
HILLBECK CLOSE
LONDON E14**

Report on: The condition of the lift, asset register, compliance with current standards, suitability, life expectancy, recommended works

Commissioned by: MCCE Limited
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Date: November 2019
Issue No: 1
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Asset Register **Appendix 1**

Health & Safety Items **Appendix 2**

Operational Items **Appendix 3**

Disabled Use Compliance **Appendix 4**

Current Health and Safety Standards **Appendix 5**

Current Disabled Access Standards **Appendix 6**

1 Introduction

1.1 Scope

This report has been prepared by Tony Warren Ltd to cover a study into the vertical transportation systems at Bowness House, Hillbeck Close, London SE15.

Tony Warren Ltd was appointed by MCCE Limited on behalf of its client to undertake a survey of the vertical transportation systems, the scope of the appointment requiring:

- a detailed description of areas of non-compliance with reference to the relevant legislation and standards for each item
- an assessment of risk for each identified breach in compliance
- recommendations for works to address the areas of non-compliance
- a costed assessment of the anticipated remaining of the lifts
- advice on whether issues can be deferred
- an assessment of whether the existing lifts are fit for purpose

The survey was undertaken on 25th November 2019 and constituted a visual inspection of the vertical transportation systems within the building, observed under normal operating conditions wherever possible.

No dismantling of components was undertaken and access panels were only removed where safe to do so and where no interruption of services would occur. This type of visual survey may not fully establish the true condition of the equipment, as it is common to find plant, which from an external view appears satisfactory, to have a history of operational problems.

It should be noted that no design checks were carried out within the scope of this survey.

The survey did not include any examination of deleterious materials within the property and the findings summarised within this report do not allow for the treatment of such materials to affect any recommendations.

Comments made within this report are not intended to satisfy the statutory biannual ‘Through Examination and Inspection’ reports required under the Lifting Operations and Lifting Equipment Regulations or the ‘Guidelines on the Supplementary Tests of In-Service Lifts’ issued by the Safety Advisory Federation (SAFed).

The above statements are to set the parameters of the study and do not imply any deep-seated problems.

Observations made in this report on the condition of the existing equipment do not take into account the provisions of any maintenance contract, which may cover some of the recommended works.

1.2 Philosophy

The relevant legislation and standards in respect of health and safety, and disabled use, and the interpretations of these that have been used in the compilation of this report, are detailed in Appendices 5 and 6 respectively.

2 Findings

2.1 General

There is a single passenger lift in this residential building, outline details of which are shown in the Asset Register in Appendix 1.

2.2 Quality and Condition

The lift is thought to have been installed new at the time of the building's construction approximately 50 years ago and have been modernised at least once since, most recently in 2008, the scope of works at that time thought to have been complete replacement other than the guides and counterweight.

It is in reasonable visual condition considering its environment.

There is no maintenance log card evident on site, so no comment can be made on the lift's reliability.

The quality of the lift is high, with good quality components from reputable suppliers, and with a robust design suited to its environment and use.

The lift appears to have no major faults, however there are a few minor ones, eg the car's position indicator is not working.

2.3 Health and Safety Issues

The lift is almost fully compliant with current health and safety standards (see Appendix 5), however some works are necessary for full compliance and a schedule of these is given in Appendix 2.

These are relatively minor deviations from relevant standards and the risk is low.

2.4 Operational Issues

There are a few minor additional items of an operational nature and a schedule of these is given in Appendix 3.

2.5 Disabled Access

There are a few items on the lifts of non-compliance with current disabled access standards (see Appendix 6) and a schedule of these is given in Appendix 4.

Again these are relatively minor deviations and easily resolved.

2.6 Suitability for Use

The lifts are in good condition, designed, manufactured and installed to a high standard, using components ideally suited to local authority general housing, being of resilient construction with ant-vandal features.

Asset Register**Appendix 1***Lift 3187*

Number and Type of Lift	One passenger
Location	Main Core
Contract Load	8 person 630kg
Floors Served	3 (G, 1, 5)
Contract Speed	0.67m/s
Control System	Down collective
Drive System	Variable frequency geared traction
Machine Room Position	Directly above at roof level
Car Entrance	Power operated single panel side opening door
Landing Entrances	Power operated single panel side opening doors
Entrance Protection	Non-contact safety edge
Contractor and Installation Date	Unknown in 1960s/70s approximately Modernised by Apex in 2008

Health & Safety Items**Appendix 2**

1. The 'lift machine room', which should not be accessible to others than 'authorised persons' for safety reasons, provides access to the external roof, therefore the lift equipment, ie the machine and controller, should be 'fenced off' by the provision of full height mesh screens to separate it from the access route area, with an access door fitted with a lock/snib and a "Danger" notice.
2. A suitable notice warning of the falling hazard of an open trapdoor should be mounted on the wall of the machine room adjacent to the trap door.
3. A barrier with a hinged bar for access should be provided around the trapdoor used to access the machine room to guard against the falling hazard when the trapdoor is open.
4. Handrails are fitted to the car top to guard against the falling hazard, however there are no toeguards and these should be fitted in line with current standards.
5. There are no inspection controls in the pit, similar to those on the car top, to allow a person in the pit to move the car without relying on others, as required by current British Standards, and these should be provided.
6. There is no means of opening the lowest landing entrance when in the pit, as required by current British Standards, and suitable means should be provided.
7. The operation of the electronic safety edge on the car doors is too insensitive, as it allows the doors to close on a person's arm without reversing, and the edge should be adjusted to operate without striking obstructions.

Operational Items

Appendix 3

1. The car floor push legends are worn and are difficult to read, and the pressels should be changed.
2. All of the car position indicator signals are out of service and should be reinstated.

Disabled Use Compliance**Appendix 4**

Current disabled access standards (see Appendix 6) are not met by the lift due to the following:

the lack of handrails on the controls side wall of the car

the lack of visual and audible indication to passengers waiting on the landing of the arrival of the lift and its proposed direction of travel

Modifying the lift to comply with current standards is relatively simple:

a handrail on a side wall is simply provided

'hall lantern' arrows to indicate the proposed direction of the car can be provided on the rear wall or door jamb of the car, visible to persons waiting on the landing

Current Health and Safety Standards**Appendix 5**

There is a multitude of British Standards, statutory instruments and Health and Safety Executive 'Guidance Notes' that relate to lifts, in addition to the expectations of insurance companies and accepted good trade practice.

Other than BS EN 81, British Standards are generally accepted as a minimum standard under health and safety requirements and non-compliance without good reason may lead to legal difficulties as the courts approve compliance with British Standards' recommendations, and insurance companies expect installations which they cover to comply.

Additionally, British Standards are not intended to be retrospective in most cases, ie a newly published requirement would apply to all new lifts and major refurbishment of current installations, however it would not necessarily be expected to be applied to existing lifts otherwise. For example, mechanics' car top control units should include a 'common' button in addition to the 'up' and 'down' buttons to meet current requirements, but it is not expected that existing non-compliant units be replaced except as part of other refurbishment works.

Lifts need to comply with the Health and Safety at Work etc Act 1974 which is not specific, other than to require the installation and environment to be safe for passengers, maintenance operatives and others alike.

The recommendations within in this report include the following requirements:

- a. safe access and escape to/from machine room, lift well and pit
- b. safe working and operational environments in normal and emergency situations
- c. compliance with current BS requirements on safety (rather than design) matters
- d. precautions against fire

Current Disabled Access Standards**Appendix 6**

It is necessary to provide access for disabled users in new buildings in accordance with Part M of Building Regulations and the requirements of this standard have been used for the purpose of assessing the minimum suitability of a lift for disabled passengers.

These Regulations, while allowing ramps, effectively specify a lift for multi-storey buildings, with certain characteristics. These features are listed below and comments in this report indicate where the lift does not meet these requirements:

- e. a ‘standard’ 8 person car, 1100mm wide x 1400mm deep
- f. landing in front of entrance at least 1500mm wide x 1500mm deep
- g. a clear entrance width of 800mm
- h. car controls between 850mm and 1200mm above floor level
- i. car controls at least 400mm from the front wall
- j. landing controls between 850mm and 1100mm above floor level
- k. tactile indication on or adjacent to the car buttons to identify the floor selected
- l. tactile indication on the landing adjacent to the call button to identify the floor level
- m. visual indication (position indicator) of the floor reached, if more than three floors
- n. audible indication (voice synthesizer) of the floor reached, if more than three floors
- o. a signalling system to advise that a lift is answering a landing call
- p. a ‘door open’ period of five seconds, or three seconds if provided with electronic safety edges or light rays

The Disability Discrimination Act 1995 (the DDA, replaced by the Equality Act in 2010), imposes responsibilities upon ‘service providers’, ie those providing a service to the public – for example, restaurants, hotels, cinema, shops. From October 2004, it has been necessary for service providers to make ‘reasonable...physical alterations’ to existing building facilities if necessary to comply with this statutory instrument, however the requirements are not clearly defined as:

- a. the Act does not specifically refer to lifts in any way
- b. the Act refers to Building Regulations Part M, however this does not include all the provisions of Part 70 of BS EN 81 ‘Accessibility to lifts for persons including persons with disability’, which applies to new lifts under the Lift Regulations

It is good practice to comply with Part 70 and the following requirements will be applicable:

- a. power operated horizontally sliding doors
- b. adjustable door dwell (“door open”) time to be adjustable (normally 2-20 seconds) with ‘quick close’ override in car, e.g. ‘door close’ button
- c. full height (25-1800 mm) non-contact door protection device (safety edge)
- d. handrail on at least one side wall, with gripping part 30-45 mm wide with minimum radius of 10 mm, 35 mm minimum gap to wall, 900 mm ±25 mm from floor level to top of handrail, and handrail closed to wall
- e. mirror to allow wheelchair users to observe obstacles when backing out of car where the car is not large enough to allow the user to turn before exiting

- f. means to avoid substantially mirrored walls to be taken to avoid creating optical confusion for passengers with impaired vision, e.g. decorated mirror or starting mirror 300 mm above car floor
- g. car to stop at floor level ± 10 mm and be maintained at floor level ± 20 mm during loading/unloading operations
- h. ‘alarm’ button to be yellow with bell shaped symbol
- i. alarm and door buttons at least 900 mm to centreline from car floor, floor buttons above reading from left to right, bottom to top
- j. car control panel to be on right hand wall (looking from landing) for centre opening doors, on the closing side for side opening doors
- k. minimum area and dimensions for control buttons which should be identifiable visually and by touch from faceplate or surrounds, faceplate to contrast in colour from its surround, 2.5-5.0 n force to operate buttons
- l. operating feedback required to inform user that button, once pushed, has operated, with visual and audible registration feedback on every operation of button even if call is already registered
- m. exit floor button, eg Ground, to protrude 5mm ± 1 mm more than other buttons and be preferably green
- n. button symbols to be in relief (minimum 0.8mm), 15-40mm high, on or within 10-15mm to left of button, at least 10mm gap between call buttons, double this gap between call buttons and other buttons
- o. landing controls to be 900-1100mm above floor level and at least 500mm to any corner of adjacent walls, car controls to be between 900-1200mm above floor level (preferably 1100mm maximum) and at least 400mm to any corner of adjacent walls
- p. audible signal on landing to indicate when doors start opening (not required if door noise level is 45 (dB(a) or above)
- q. collective control systems to have visual pre-announcing direction of travel indicators (hall lanterns) on landings, at least 40mm high, between 1800mm and 2500mm above floor level, and with an angle of view of at least 140°, also audible indication to differentiate for direction of future travel (may be in car for a single lift)
- r. destination selection control systems (floor calls registered on landings) have specific landing audible and visual confirmations and signals.
- s. position indicator in the car between 1600mm and 1800mm above floor level, with legends 30-60mm high, and voice synthesizer to advise floor level.
- t. alarm device to operate audible signal and voice link, with illuminated pictogram in car to indicate operation of each
- u. induction loop in car

Part 70 refers to ‘negotiations...between the customer and the supplier/installer’ about the use and features of the lift, and the following provisions are felt to be optional:

- a. tip-up seat in car

Tustin Estate - Southwark Council
Summary of Lift Maintenance - Bowness House Lift (Exclusive of Professional Fees & VAT)

Item	Component	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Lift	Health & Safety/ Operational	9,000	0	0	0	0	0	0	0	0	0	9,000
	Disabled Access	3,000	0	0	0	0	0	0	0	0	0	3,000
	Modernisation Replacement	0	0	0	0	0	0	110,000	0	0	0	110,000
	Total	12,000	0	0	0	0	0	110,000	0	0	0	122,000

Excludes

Cyclical, Responsive & Void Maintenance

Statutory Inspections

Intrusive Surveys - Potential double count removals from above costs

All Fire Works

Asbestos removal

Environmental Improvements

Energy Efficiency Measures

TONY WARREN LIMITED
LIFT CONSULTANTS



REPORT

on

THREE LIFTS

at

**HEVERSHAM HOUSE
ILDERTON ROAD
LONDON SE15**

Report on: The condition of the lifts, asset register, compliance with current standards, suitability, life expectancy, recommended works

Commissioned by: MCCE Limited
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Date: November 2019
Issue No: 1
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Asset Register **Appendix 1**

Health & Safety Items **Appendix 2**

Operational Items **Appendix 3**

Disabled Use Compliance **Appendix 4**

Current Health and Safety Standards **Appendix 5**

Current Disabled Access Standards **Appendix 6**

1 Introduction

1.1 Scope

This report has been prepared by Tony Warren Ltd to cover a study into the vertical transportation systems at Heversham House, Ilderton Road, London SE15.

Tony Warren Ltd was appointed by MCCE Limited on behalf of its client to undertake a survey of the vertical transportation systems, the scope of the appointment requiring:

- a detailed description of areas of non-compliance with reference to the relevant legislation and standards for each item
- an assessment of risk for each identified breach in compliance
- recommendations for works to address the areas of non-compliance
- a costed assessment of the anticipated remaining life of the lifts
- advice on whether issues can be deferred
- an assessment of whether the existing lifts are fit for purpose

The survey was undertaken on 25th November 2019 and constituted a visual inspection of the vertical transportation systems within the building, observed under normal operating conditions wherever possible.

No dismantling of components was undertaken and access panels were only removed where safe to do so and where no interruption of services would occur. This type of visual survey may not fully establish the true condition of the equipment, as it is common to find plant, which from an external view appears satisfactory, to have a history of operational problems.

It should be noted that no design checks were carried out within the scope of this survey.

The survey did not include any examination of deleterious materials within the property and the findings summarised within this report do not allow for the treatment of such materials to affect any recommendations.

Comments made within this report are not intended to satisfy the statutory biannual ‘Through Examination and Inspection’ reports required under the Lifting Operations and Lifting Equipment Regulations or the ‘Guidelines on the Supplementary Tests of In-Service Lifts’ issued by the Safety Advisory Federation (SAFed).

The above statements are to set the parameters of the study and do not imply any deep-seated problems.

Observations made in this report on the condition of the existing equipment do not take into account the provisions of any maintenance contract, which may cover some of the recommended works.

1.2 Philosophy

The relevant legislation and standards in respect of health and safety, and disabled use, and the interpretations of these that have been used in the compilation of this report, are detailed in Appendices 5 and 6 respectively.

2 Findings

2.1 General

There is a total of three passenger lifts in this residential building, one in each of the South, Middle and North Cores, outline details of which are shown in the Asset Register in Appendix 1.

2.2 Quality and Condition

The lifts are thought to have been installed new at the time of the building's construction approximately 50 years ago and have been modernised at least once since, most recently in 2002, the scope of works at that time thought to have been complete replacement other than the guides and counterweights.

They are in reasonable visual condition considering their environment.

There are no maintenance log cards evident on site for the South and North Lifts, so no comment can be made on the reliability of those lifts. From the Apex maintenance log card in the machine room of the Middle Lift, that lift appears to be extremely reliable with no recorded callouts in the past six months, however this may not be a complete record of reliability.

The quality of the lifts is high, with good quality components from reputable suppliers, and with a robust design suited to their environment and use.

The lifts appear to have no major faults, however there are a couple of minor ones, eg the heater in the machine room not working.

2.3 Health and Safety Issues

The lifts are almost fully compliant with current health and safety standards (see Appendix 5), however some works are necessary for full compliance and a schedule of these is given in Appendix 2.

These are relatively minor deviations from relevant standards and the risk is low.

2.4 Operational Issues

There are a few minor additional items of an operational nature and a schedule of these is given in Appendix 3.

2.5 Disabled Access

There are a few items on the lifts of non-compliance with current disabled access standards (see Appendix 6) and a schedule of these is given in Appendix 4.

Again these are relatively minor deviations and easily resolved.

2.6 Suitability for Use

The lifts are in good condition, designed, manufactured and installed to a high standard, using components ideally suited to local authority general housing, being of resilient construction with ant-vandal features.

Asset Register**Appendix 1***Lift 3187*

Number and Type of Lift	One passenger
Location	South Core
Contract Load	12 person 900kg
Floors Served	5 (G, 2, 3, 4, 5)
Contract Speed	0.75m/s (estimated)
Control System	Down collective
Drive System	Variable frequency geared traction
Machine Room Position	Directly above at roof level
Car Entrance	Power operated single panel side opening door
Landing Entrances	Power operated single panel side opening doors
Entrance Protection	Non-contact safety edge
Contractor and Installation Date	Unknown in 1960s/70s approximately Modernised by Apex in 2002

Lift 3188

Number and Type of Lift	One passenger
Location	South Core
Contract Load	12 person 900kg
Floors Served	3 (G, 2, 4)
Contract Speed	0.75m/s (estimated)
Control System	Down collective
Drive System	Variable frequency geared traction
Machine Room Position	Directly above at roof level
Car Entrance	Power operated single panel side opening door
Landing Entrances	Power operated single panel side opening doors
Entrance Protection	Non-contact safety edge
Contractor and Installation Date	Unknown in 1960s/70s approximately Modernised by Apex in 2002

Lift 3189

Number and Type of Lift	One passenger
Location	South Core
Contract Load	12 person 900kg
Floors Served	3 (G, 2, 4)
Contract Speed	0.75m/s (estimated)
Control System	Down collective
Drive System	Variable frequency geared traction
Machine Room Position	Directly above at roof level
Car Entrance	Power operated single panel side opening door
Landing Entrances	Power operated single panel side opening doors
Entrance Protection	Non-contact safety edge
Contractor and Installation Date	Unknown in 1960/70s approximately Modernised by Apex in 2002

Health & Safety Items**Appendix 2**

NB The items exclude comments on machine room of Lift 3187 due to unavailability of access.

The items apply to all three lifts unless stated otherwise.

1. The machine room access door lock should be modified to allow escape from the locked room without a key.
2. One of the fluorescent lighting tubes and both diffusers to the luminaires in the machine room of Lift 3189 are missing and should be replaced.
3. The falling hazards from the car top are guarded by handrails, however 100mm high toe boards should also be provided.
4. There are no inspection controls in the pit, similar to those on the car top, to allow a person in the pit to move the car without relying on others, as required by current British Standards, and these should be provided.
5. There is no means of opening the lowest landing entrance when in the pit and suitable means should be provided.

Operational Items

Appendix 3

1. The thermostat of the tubular heater in the machine room of Lift 3188 is not functioning, or the heater is out of service, and this provision should be reinstated.

Disabled Use Compliance**Appendix 4**

NB The items apply to all three lifts unless stated otherwise.

Current disabled access standards (see Appendix 6) are not met by the lifts due to the following:

- the location of the landing controls
- the lack of handrails on the controls side wall of the car
- the lack of a ‘hands free’ emergency communication system in the car
- the ‘Alarm’ button is not the lowest control
- the lack of audible car and landing call registration (assumed)
- the lack of visual and audible indication to passengers waiting on the landing of the arrival of the lift and its proposed direction of travel
- the lack of induction loops in the cars

Modifying the lifts to comply with current standards is relatively simple:

- the landing controls are located higher than 1100mm above the floor level and more than 500mm from the nearest wall, however these can be relocated to a lower height on the opposite side of the entrances to comply
- a handrail on a side wall is simply provided, however the reduction in usable car width may not be acceptable
- to relocate the ‘Alarm’ button requires a new car control station, however this is felt to be more than the ‘reasonable’ requirement of the DDA for a marginal benefit
- audible call registration can easily be incorporated in the car and landing control stations as visual registration is provided
- ‘hall lantern’ arrows to indicate the proposed direction of the car can be provided on the rear wall or door jamb of the car, visible to persons waiting on the landing
- induction loops are easily incorporated around the cars

Current Health and Safety Standards**Appendix 5**

There is a multitude of British Standards, statutory instruments and Health and Safety Executive 'Guidance Notes' that relate to lifts, in addition to the expectations of insurance companies and accepted good trade practice.

Other than BS EN 81, British Standards are generally accepted as a minimum standard under health and safety requirements and non-compliance without good reason may lead to legal difficulties as the courts approve compliance with British Standards' recommendations, and insurance companies expect installations which they cover to comply.

Additionally, British Standards are not intended to be retrospective in most cases, ie a newly published requirement would apply to all new lifts and major refurbishment of current installations, however it would not necessarily be expected to be applied to existing lifts otherwise. For example, mechanics' car top control units should include a 'common' button in addition to the 'up' and 'down' buttons to meet current requirements, but it is not expected that existing non-compliant units be replaced except as part of other refurbishment works.

Lifts need to comply with the Health and Safety at Work etc Act 1974 which is not specific, other than to require the installation and environment to be safe for passengers, maintenance operatives and others alike.

The recommendations within in this report include the following requirements:

- a. safe access and escape to/from machine room, lift well and pit
- b. safe working and operational environments in normal and emergency situations
- c. compliance with current BS requirements on safety (rather than design) matters
- d. precautions against fire

Current Disabled Access Standards**Appendix 6**

It is necessary to provide access for disabled users in new buildings in accordance with Part M of Building Regulations and the requirements of this standard have been used for the purpose of assessing the minimum suitability of a lift for disabled passengers.

These Regulations, while allowing ramps, effectively specify a lift for multi-storey buildings, with certain characteristics. These features are listed below and comments in this report indicate where the lift does not meet these requirements:

- e. a 'standard' 8 person car, 1100mm wide x 1400mm deep
- f. landing in front of entrance at least 1500mm wide x 1500mm deep
- g. a clear entrance width of 800mm
- h. car controls between 850mm and 1200mm above floor level
- i. car controls at least 400mm from the front wall
- j. landing controls between 850mm and 1100mm above floor level
- k. tactile indication on or adjacent to the car buttons to identify the floor selected
- l. tactile indication on the landing adjacent to the call button to identify the floor level
- m. visual indication (position indicator) of the floor reached, if more than three floors
- n. audible indication (voice synthesizer) of the floor reached, if more than three floors
- o. a signalling system to advise that a lift is answering a landing call
- p. a 'door open' period of five seconds, or three seconds if provided with electronic safety edges or light rays

The Disability Discrimination Act 1995 (the DDA, replaced by the Equality Act in 2010), imposes responsibilities upon 'service providers', ie those providing a service to the public – for example, restaurants, hotels, cinema, shops. From October 2004, it has been necessary for service providers to make 'reasonable...physical alterations' to existing building facilities if necessary to comply with this statutory instrument, however the requirements are not clearly defined as:

- a. the Act does not specifically refer to lifts in any way
- b. the Act refers to Building Regulations Part M, however this does not include all the provisions of Part 70 of BS EN 81 'Accessibility to lifts for persons including persons with disability', which applies to new lifts under the Lift Regulations

It is good practice to comply with Part 70 and the following requirements will be applicable:

- a. power operated horizontally sliding doors
- b. adjustable door dwell ('door open') time to be adjustable (normally 2-20 seconds) with 'quick close' override in car, e.g. 'door close' button
- c. full height (25-1800 mm) non-contact door protection device (safety edge)
- d. handrail on at least one side wall, with gripping part 30-45 mm wide with minimum radius of 10 mm, 35 mm minimum gap to wall, 900 mm ±25 mm from floor level to top of handrail, and handrail closed to wall
- e. mirror to allow wheelchair users to observe obstacles when backing out of car where the car is not large enough to allow the user to turn before exiting

- f. means to avoid substantially mirrored walls to be taken to avoid creating optical confusion for passengers with impaired vision, e.g. decorated mirror or starting mirror 300 mm above car floor
- g. car to stop at floor level ± 10 mm and be maintained at floor level ± 20 mm during loading/unloading operations
- h. ‘alarm’ button to be yellow with bell shaped symbol
- i. alarm and door buttons at least 900 mm to centreline from car floor, floor buttons above reading from left to right, bottom to top
- j. car control panel to be on right hand wall (looking from landing) for centre opening doors, on the closing side for side opening doors
- k. minimum area and dimensions for control buttons which should be identifiable visually and by touch from faceplate or surrounds, faceplate to contrast in colour from its surround, 2.5-5.0 n force to operate buttons
- l. operating feedback required to inform user that button, once pushed, has operated, with visual and audible registration feedback on every operation of button even if call is already registered
- m. exit floor button, eg Ground, to protrude 5mm ± 1 mm more than other buttons and be preferably green
- n. button symbols to be in relief (minimum 0.8mm), 15-40mm high, on or within 10-15mm to left of button, at least 10mm gap between call buttons, double this gap between call buttons and other buttons
- o. landing controls to be 900-1100mm above floor level and at least 500mm to any corner of adjacent walls, car controls to be between 900-1200mm above floor level (preferably 1100mm maximum) and at least 400mm to any corner of adjacent walls
- p. audible signal on landing to indicate when doors start opening (not required if door noise level is 45 (dB(a) or above)
- q. collective control systems to have visual pre-announcing direction of travel indicators (hall lanterns) on landings, at least 40mm high, between 1800mm and 2500mm above floor level, and with an angle of view of at least 140°, also audible indication to differentiate for direction of future travel (may be in car for a single lift)
- r. destination selection control systems (floor calls registered on landings) have specific landing audible and visual confirmations and signals.
- s. position indicator in the car between 1600mm and 1800mm above floor level, with legends 30-60mm high, and voice synthesizer to advise floor level.
- t. alarm device to operate audible signal and voice link, with illuminated pictogram in car to indicate operation of each
- u. induction loop in car

Part 70 refers to ‘negotiations...between the customer and the supplier/installer’ about the use and features of the lift, and the following provisions are felt to be optional:

- a. tip-up seat in car

Tustin Estate - Southwark Council
Summary of Lift Maintenance - Heversham House Lifts (Exclusive of Professional Fees & VAT)

Item	Component	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Lift	Health & Safety/ Operational	12,000	0	0	0	0	0	0	0	0	0	12,000
	Disabled Access	27,000	0	0	0	0	0	0	0	0	0	27,000
	Modernisation Replacement	0	0	0	0	0	0	370,000	0	0	0	370,000
	Total	39,000	0	0	0	0	0	370,000	0	0	0	409,000

Excludes

Cyclical, Responsive & Void Maintenance

Statutory Inspections

Intrusive Surveys - Potential double count removals from above costs

All Fire Works

Asbestos removal

Environmental Improvements

Energy Efficiency Measures