

The Royal Borough of Kensington and Chelsea Tenant Management Organisation Ltd

A Meeting of the TMO Board will be held on **Thursday 5th of September 2012, 6.30pm – 8.30pm**
in the **3rd Floor Boardroom at 346 Kensington High Street, London W14 8NS**

Apologies (phone XXXXXXXXXX)
Refreshments available from 6pm

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Date of next meeting: 21st November 2013

Agenda Item 2

THE ROYAL BOROUGH OF KENSINGTON & CHELSEA TENANT MANAGEMENT ORGANISATION

TMO Board

Meeting held on 25th July 2013

- Present: Ms Fay Edwards, Resident Board Member (Chair)
Mr Tony Annis, Resident Board Member
Ms Mary Benjamin, Resident Board Member
Ms Anne Duru, Resident Board Member
Mr Kush Kanodia, Resident Board Member
Ms Deborah Price, Resident Board Member
Mr Iain Smith, Resident Board Member
Mr Brendan Tracey, Resident Board Member
Mr Peter Molyneux, Council appointed Board Member
Mr Jeff Zitron, Council appointed Board Member
Mr Simon Brissenden, Appointed Board Member
Mr Peter Chapman, Appointed Board Member
Mr Anthony Preiskel, Appointed Board Member
- In attendance: Mr Robert Black, Chief Executive
Ms Yvonne Birch, Executive Director of People and Performance
Mrs Angela Bosnjak-Szekeres, Head of Governance and Company Secretary
Mrs Rupa Bhola, Assistant Director of Financial Services
Mr Peter Dunne, Interim ISP Managing Director
Ms Sacha Jevans, Executive Director of Operations
Mr Peter Maddison, Director of Assets and Regeneration
Mr Anthony Parkes, Executive Director of Financial Services and ICT
Ms Jane Clifton, Executive Office Manager
- Apologies: Councillor Judith Blakeman, Council appointed Board Member
Councillor Maighread Condon-Simmonds, Council appointed Board Member

1. Introduction by the Chief Executive

The Chief Executive opened the meeting, and welcomed the newly elected Resident Board Members, and also Simon Brissenden, Appointed Board Member, to their first Board meeting, and introductions were made.

2. Appointment of newly elected Resident Board members

Following the Resident Board Member elections, the Company Secretary confirmed that the following Board Members had been elected:

Anne Duru
Kush Kanodia
Deborah Price
Brendan Tracey

Fay Edwards was also re-elected to serve for a further three years. They were congratulated on their success in the elections.

3. Appointment of Council Board Members

The Company Secretary confirmed that the Council had notified the TMO that their appointees would continue as:

Councillor Judith Blakeman
Councillor Maighread Condon-Simmonds
Peter Molyneux
Jeff Zitron

4. Appointment of Independent Board Member

The Board approved the appointment of Simon Brissenden, Independent Board Member, as recommended by the Appointments Panel.

5. Election of the Board Chair, Vice Chairs, and Committee and Panel Chairs

The Company Secretary explained the constitutional process for carrying out the elections, which allowed Board members who could not be present to cast their votes. The elections were then carried out:

Board Chair

The nominations were:

Tony Annis
Anne Duru
Fay Edwards

Fay Edwards was elected as the Board Chair with 12 votes.

Vice Chairs

The nominations were:

Mary Benjamin
Anne Duru
Kush Kanodia
Deborah Price
Iain Smith

Mary Benjamin and Kush Kanodia were elected as the two Vice Chairs with 11 and 8 votes respectively.

Chair of the Operations Committee

The nominations were:

Tony Annis
Anne Duru
Kush Kanodia

Tony Annis was elected as Chair of the Operations Committee with 8 votes.

Chair of the Finance, Audit and Risk Committee

The nominations were:

Mary Benjamin
Anne Duru

Mary Benjamin was elected as Chair of the Finance, Audit and Risk Committee with 11 votes.

Chair of the Appointments Panel

The nominations were:

Anne Duru
Fay Edwards
Deborah Price

Fay Edwards was elected as Chair of the Appointments Panel with 8 votes.

The other members of the Appointments Panel were agreed by the Board as Councillor Maighread Condon-Simmonds and Peter Chapman.

The Vice Chairs for the two committees would be elected at their first meetings following the Board meeting, and Board members were invited to put themselves forward for membership of the committees if they had not already done so.

The Chief Executive congratulated all the Board members who had just been elected. There had been the highest number of TMO members voting in the Resident Board Member elections, which had gone up from 32% last year to 40%. He thanked the new Resident Board Members for putting themselves forward for election.

6. Minutes of the meeting held on 16th May

The minutes of the meeting held on 16th May were agreed and signed as a correct record.

There were no matters arising.

7. TMO Performance 2012/13 and TMO Performance Agreement 2013/14

Amanda Johnson, RBKC, presented this report from RBKC, and welcomed the new Board Members. She attended Board meetings in a regulatory capacity on behalf of RBKC to present the annual and mid year performance reports. In addition, a successful five year review had just been carried out by RBKC. The annual report gave an overview of 2012/13, and also key issues for 2013/14.

In 2012/13, the trend had been for continuing improvement in performance with the majority of the Performance Indicators (PIs) being achieved, and a successful audit programme with mainly medium and substantial assurances. The health and safety fire risk assessment had been given a limited assurance, but the recommended action was being implemented. A successful area

of collaboration was the project to develop Hidden Homes, and in addition to the new units at Holmefield House and Greaves Tower, more units were being planned. Resident engagement had been another particularly successful area.

The challenges for 2013/14 included the introduction of Welfare Reform, but we were also developing an asset management strategy, which would give recommendations for going forward, so we could take advantage of the new financial regime. In summary, the TMO had had a very successful year, and the five year report had also demonstrated the TMO's success.

Board members made the following points:

1. Para 5.5 concerning the succession procedure on the death of a tenant was raised, and it was confirmed that the procedure was currently with the Legal section, and there would be a report back on it.
2. Para 9.1 concerning the Tri-Borough project on digital inclusion for social housing tenants was raised, and what the opportunities were. It was confirmed that Roger Keane was leading on this project for the Council, and RBKC was waiting for the outcome of a pilot study in Westminster. Any recommendations could be brought back to the Board in the autumn. At the National Federation of ALMOs' annual conference earlier that month, Board members had been made aware that local authorities were making efforts to move forward in this area. An incentive was that Universal Credit would be administered on-line. AJ
3. It was commented that there had also been concern at the National Federation of ALMOs' conference about benefits being paid direct to claimants in connection with the introduction of Universal Credit. Confirmation was given that help would be provided, and a framework was being considered to enable people to have their rent paid direct. If tenants were 8 weeks in arrears, they would go on to direct rent payments. AJ

The Chief Executive confirmed that the annual report was the main regulatory report from RBKC, and over the last four years, the annual report had shown continuous improvement in the TMO's performance. The Chair said that the report showed very good performance by the TMO.

The Board noted the report on TMO performance for 2012/13 and the TMO performance agreement for 2013/14.

8. Chief Executive's Report

The Chief Executive presented his report on current projects and initiatives within the organisation. The Hidden Homes' developments at Holmefield House and Greaves Tower due to be completed later this year would provide the first new social housing units since the 1980s.

Thanks were also given to Anthony Parkes for his work on the Credit Union which had now made three loans to TMO tenants.

Board members asked the following questions:

1. It was queried what the petition from Grenfell Tower residents had been about. An explanation was given that there were several issues, as residents were concerned about the delay to the regeneration of the tower, and had also experienced a series of power surges. We were currently working on some compensation for those affected by the power surges. Peter Maddison had recently met Councillor Feilding-Mellen, the new Cabinet Member for Housing and Property, at Grenfell Tower to brief him on these issues, and we had also carried out door knocking to see if anyone else had been affected.
2. The partnering arrangements on the Grenfell Tower regeneration project were raised. Confirmation was given that we had been planning to use the contract framework for the new academy, but there had been problems with costs, so we were going out to the market.
- 3.

The Board noted the Chief Executive's report.

9. Report and Financial Statements for the year ended 31 March 2013

Anthony Parkes presented the Financial Statements for 2012/13 which would also be going to the AGM on 21st September. The main points were as follows:

- On the Profit and Loss Account, a loss of £493k was shown but this included other financial charges such as interest payments, and we had no loans and debts. This figure reflected FRS17.
- On gains and losses, we had made a profit which was again driven by FRS17.
- On page 67, the Profit and Loss Account was shown without the pension liability.
- The total income included the management fee, CAS, recharges and commission. Administration costs included

the cash cost of the pension, and the pension adjustment was the difference between this cash cost and FRS17 costs.

- On the pension fund, the actuaries had confirmed that over a 10 year period, the pension fund would be fully funded, which gave a different picture.
- The profit before the pension adjustment was £48k. We paid tax on CAS income, and non-MMA items.
- The Profit and Loss Account showed that income was down by £320k, which had been offered as a saving on the management fee the previous year.
- We received additional income from the travellers' site which was outside the HRA
- CAS income had been increased by £26k
- Administrative and salary costs had been reduced due to a reduction in agency staff although the accounts showed that we had three additional full time staff. However, the reduction in agency staff had included some expensive senior posts.
- Legal costs for anti-social behaviour and rent collection had been reduced by more work being done in-house
- ICT costs had been reduced by tightening up contracts, and some systems were no longer being depreciated which increased profit.
- On FRS17, an explanation was given on page 49 of the report showing that there had been a change in the assumption concerning the increase in salaries over the longer term. It had been unrealistic to give 1% as the only increase over four years. We had moved to a salary assumption based on RPI (Retail Price Index). The actuaries had initially been concerned that this was not a standard, but had now confirmed that it was a reasonable assumption for the purposes of this report, and RBKC were happy with this. However, it was important to note that the swings on the pension fund were greater than the TMO's turnover.
- On the balance sheet, there had been a £158k increase in assets. The auditors had not required Repairs Direct to be consolidated into the accounts this year as it was not yet trading so it had been treated as a fixed asset. It would be consolidated next year. Cash in bank had decreased by £78k because of the loan to Repairs Direct.
- There had been an increase in debtors of £11k. The cash reserves had varied between £720k and £1m.

On assurances:

- The accounts were prepared in accordance with accepted

- accounting principles and conventions
- The TMO was a going concern with reserves in excess of £2m, £941k in cash, and a letter of support from RBKC.
 - Internal Audit reports had given just one limited assurance in the area of health and safety which did not affect the financial position
 - The statements had been presented to the Finance, Audit and Risk Committee on 10th July, and there had been a closed session between committee members and the auditors without staff present.
 - All Executive Directors had signed a letter of representation in addition to the letter of support from RBKC.

The Finance, Audit and Risk Committee had agreed the following recommendations for Board:

- The letter of representation be approved and signed
- The financial statements for the year ended 31 March 2013 be approved and signed subject to the letter of representation being signed by the Executive Team, the letter of support from RBKC, the letter from Board Members on Statement of Disclosures, and the editing of the Directors Report.
- The letter of representation would be signed by Fay Edwards as Chair, and Mary Benjamin as a member of the Finance, Audit and Risk Committee since the former chair of the committee was no longer a Board member. The financial statements had been changed in order to take the election results into account.

Board members asked the following questions:

1. It was queried whether it would be a problem in the future if the Resident Board Member elections were moved nearer the AGM. Confirmation was given that the signing procedures would be adjusted to take this into account as the AGM had to be held within a fixed timeframe.
2. The reference to the employer's contribution to the pension fund being reduced by 1% to 22.5% was raised as this was still very generous. Confirmation was given that the employer's contribution would be reduced in future years, and as we moved to CPI (Consumer Price Index), the balance between the employer/employee contributions would change in the local government pension fund which applied to the TMO.
3. It was asked whether the assumptions would impact on the business plan for the next few years. It was explained that the actual contribution costs differed from the figures shown

in the accounts, but were very close to the actual costs. The organisation was also receiving an increased management fee, which was a change from four years' ago when our financial position was much worse. We had demonstrated what we could do as an organisation with an increase in capacity. The message to staff was that we also had to show better value.

4. Although the results were good, it was pointed out that we only had a £48k surplus on our turnover, and there was a reduction in our reserves. It was agreed that at the next Board away day, a session would be held on how we could build up our financial position. The new financial freedoms regime also meant we did not have to receive a settlement for one year at a time, but for five years.
5. It was queried whether it was usual to have no loans. An explanation was given that as a management company, the majority of TMO costs were for salaries, and our income was paid at the beginning of the month which gave us a good cash flow position. As a result of this we had been able to fund the setting up of Repairs Direct from our cash flows without taking out a loan.
6. It was asked whether there was a mandatory retirement age in the TMO. Confirmation was given that it was not compulsory to retire at 65, but the pension assumptions were based on a retirement age of 65. The assumptions were reviewed every year, so the evaluation could be revised.

AP

The Board agreed the following recommendations from the Finance, Risk and Audit Committee:

- **The Letter of Representation was approved and signed**
- **The Financial Statements for the year ended 31 March 2013 were approved and signed subject to the receipt of the following letters:**
 - **Letter of Representation signed by the Executive Team**
 - **Letter of Support from RBKC**
 - **Letters from Board Members on Statement of Disclosures**

The Company Secretary confirmed that she had received all the letters.

10 Repairs Direct progress report and repairs contract award

Confirmation was given that the mobilisation for Repairs Direct was progressing well for the launch on 2nd September. Peter Dunne, Interim Managing Director, made a presentation giving an

overview of the repairs' contract, and representatives from Devonshires and Keegans were also present to respond to questions. The recommendation to the Board was to approve the contract subject to the schedules which were still being finalised, and would come to the Board on 5th September. The presentation covered the following areas:

- The contract was a JCT measured term contract, which was a standard form of contract used in the housing sector and catered for variations in volume of work
- The aim was to deliver a repairs service with repairs being carried out quickly to a high standard, and giving value for money.
- The contract would be for 10 years with an option of 10 additional years.

KPIs

- We would be measuring satisfaction through the number of call backs rather than right first time, plus the post inspection failure rate, and the percentage of orders completed on time
- There would be separate PIs for voids
- Penalties which could be considered were assignment of work to other contractors, termination of the contract, and payment deductions (up to 2.5%). A question had already been raised about how these penalties compared with those in previous contracts, and confirmation was given that they were quite onerous.

Quality

- Full building regulation compliance required
- A rigorous programme of post inspections (surveyors would continue to be employed by the TMO)
- Feedback invited from residents
- Any rectification to be carried out at Repairs Direct's expense

Price

- Would be based on the latest schedule, 6.1, of the National Housing Federation Schedule of Rates
- There would be a schedule of rates' price against each item, and a core number of items
- There would be a minimum order value of £50 - £75, and reviews of this would be made throughout the first year.

Board members asked the following questions:

1. At TCC on 8th July, concerns had been raised about the TUPE of repairs' staff. Confirmation was given that 1 – 1s had been carried out, and the majority of the management and administrative staff were keen to join the TMO, and any problems would be managed.
2. The recommendations concerning the starting point for the pricing in the contract was queried on page 115, and whether it was under-valued. Consideration had also been given to the Minimum Order Value, page 207, and the average value for each category in London was £43. Payment levels and methodologies would be reviewed on a quarterly basis during the first year in order to ensure best value for money.
3. It was queried whether the pricing might be too high. However, it depended on the contract, and the location of the service, and any necessary adjustments would be made during the first year.
4. Confirmation was given that there would regular management meetings to ensure that the contract ran smoothly, and the ISP Managing Director would be reporting to the Executive Team.
5. With reference to page 191, schedule 8 on the Key Performance Indicator (KPI) framework, clarification was sought on the distinction between KPIs and benchmarking, as up to January 2014, performance would be measured against KPI benchmarking, and then targets would be set. It was felt that this arrangement lacked clarity. In addition, the situation on financial penalties not being applied for the first six months was queried. This position had applied to Willmott Dixon for the first three months only. Confirmation was given that the KPIs were a hybrid of those which had applied to Morrison's and Willmott Dixon, and we wanted to work towards a more simple system. Progress would be reviewed over a 3 – 6 month period in order to put benchmarking in place that was achievable. However, it was thought that the officers already had extensive experience of dealing with these contracts, and should be able to set clear targets. It was pointed out that we were starting our own repairs company, and the initial challenges would be to sort out the staffing side. Confirmation was also given that the KPIs would be monitored vigorously.
6. The possibility of Repairs Direct getting into a dispute with a sub-contractor was raised, and whether this could lead to the TMO being sued. Confirmation was given by Devonshires that the sub-contractors would have no contractual relationship with the TMO so this type of

situation could not arise.

7. Further clarification was sought on the potential risks facing the TMO from establishing Repairs Direct, and it was queried whether the business could be sold. Confirmation was given that Repairs Direct would have public liability insurance covering any damage, accident or death, and the ISP board and officers would have insurance cover. There would also be appropriate procedures to deal with this type of situation. The organisation had invested in disaster planning, and the ISP would also have its own health and safety officer. It was also explained that the situation would be no different to the present if there was a death due to negligence as we would be liable in that situation.
8. An apology was given for the heading for Appendix 4 not being included on page 208, which gave the outlines for schedules 5 and 7.
9. Confirmation was given that the Finance, Audit and Risk Committee would monitor the Repairs Direct risk log, and it would come to the November Board meeting.

JS/AB-S

The Board approved the contract between the TMO and Repairs Direct with the provision that further work is carried out on schedules 5 and 7, and also schedule 8 which would be presented to the Board at the September meeting for approval.

11 Performance Indicators and Business Plan update: quarter 1 2013/14

The Board was advised that Willmott Dixon had some unmet targets, but on rent collection, a major area of risk, there were no major concerns when it was usual to have a dip in performance during the first quarter. Performance had been improving year on year for income collection, and so far we had not seen any impact from the Bedroom Tax. A separate report could be brought to the Board on the impact.

YB

It was queried why the capital programme was in Part B of the agenda, and clarification was given that because the item included commercially sensitive contractual matters, it had been decided to have one report in Part B. The Chief Executive confirmed that only confidential or commercially sensitive matters were reported in Part B. The Board received very few confidential reports, and the directors had a duty to respect this confidentiality.

The Board noted the TMO's performance for the period April to June 2013, and progress on the Business Plan strategic priorities.

12 Internal Audit report on TMO Health and Safety

This Internal Audit report on Health and Safety had been given limited assurance, and had been presented to the Finance, Audit and Risk Committee by the RBKC auditor together with other audit reports. The committee felt that the Board should have a report on health and safety as the TMO received very few limited assurance audits. The action plan on the recommendations was also included.

The background to this report had been that Internal Audit had been unhappy with the management of the contract for the maintenance of fire equipment, and the situation was being rectified by changes to staffing, and contract management. There was a new team in place in Assets and Regeneration with a more professional approach who had already achieved an improvement in RGE's performance.

The auditors had also been concerned about the TMO keeping contract information in different places including spread sheets, Academy and portals. The arrangements had been considered sufficient at the time of the previous audit two years' ago, but we now had Keystone in place which could hold information centrally. However, we had only had the system for two years, and there had been a timetable for ancillary work to be put on the system. Internal Audit felt that it should have been given higher priority.

Confirmation was given that all the action had been addressed and would be completed by the September deadline. The health and safety information was now on Keystone. A check had also been carried out to ensure that all gas inspections had taken place, and this information was now on Keystone. Some of the electrical information was ten years' old, and there was now a programme in place to complete electrical checks by April 2014.

The following questions were asked by Board members:

1. It was thought that using Keystone for all information on safety checks was good practice
2. It was queried why gas checks were still carried out if the supply was cut off to a property as we could save money. Confirmation was given that the gas carcasses still had to be checked, so checks were still necessary.
3. The Finance, Audit and Risk Committee had also been concerned about the failures on the inspection of fire equipment, and although most of the outstanding action would be completed by September, a short report was

AP

requested confirming that this had happened. It was also noted that Internal Audit would carry out a follow up report by December 2013.

The Board noted this report on the Internal Audit report on TMO Health and Safety.

13 Feedback from Committees

Since the last Board meeting, there had been one meeting only of the Finance, Audit and Risk Committee. The agenda had covered the financial statements for 2012/13, and reports from Internal Audit. The auditors for the accounts had confirmed that the audit had gone well, and the only issues had been reported.

The terms of reference for the committee had been revised as the ISP subsidiary company was being set up, and were attached for reference. The revised terms of reference took account of the committee's monitoring role regarding the ISP. It was queried whether there was an alternative to the term 'group', but it was confirmed that this was the standard terminology, and referred to both the TMO and Repairs Direct.

The Board noted matters discussed by the Finance, Audit and Risk Committee at its meeting on 10th July, and agreed the revised terms of reference for the committee.

14 Date of next meeting

The next Board meeting would be held on Thursday, 5th September 2013.

CEO/JDC
1.8.13

**THE ROYAL BOROUGH OF KENSINGTON & CHELSEA
TENANT MANAGEMENT ORGANISATION**

TMO Board

Meeting held on 25th July 2013 - Part B

Present: Ms Fay Edwards, Resident Board Member (Chair)
 Mr Tony Annis, Resident Board Member
 Ms Mary Benjamin, Resident Board Member
 Ms Anne Duru, Resident Board Member
 Mr Kush Kanodia, Resident Board Member
 Ms Deborah Price, Resident Board Member
 Mr Iain Smith, Resident Board Member
 Mr Brendan Tracey, Resident Board Member
 Mr Peter Molyneux, Council appointed Board Member
 Mr Jeff Zitron, Council appointed Board Member
 Mr Simon Brissenden, Appointed Board Member
 Mr Peter Chapman, Appointed Board Member
 Mr Anthony Preiskel, Appointed Board Member

In attendance: Mr Robert Black, Chief Executive
 Ms Yvonne Birch, Executive Director of People and Performance
 Mrs Angela Bosnjak-Szekeres, Head of Governance and Company Secretary
 Ms Sacha Jevans, Executive Director of Operations
 Mr Peter Maddison, Director of Assets and Regeneration
 Mr Anthony Parkes, Executive Director of Financial Services and ICT
 Ms Jane Clifton, Executive Office Manager

Apologies: Councillor Judith Blakeman, Council appointed Board Member
 Councillor Maighread Condon-Simmonds, Council appointed Board Member

1. Capital Programme update and Contracts award

Peter Maddison presented this report which gave an overview of the capital programme for 2013/14. The programme was on target to spend the budget but the majority of spending would be towards the end of the financial year. Two contract awards were presented to the Board for approval, one to Apollo Property Services Ltd for kitchen and bathroom renewals, and a contract for rewiring of domestic electrics to R&MA Stewart.

**Action
by**

There had been a slight adjustment to previously approved commitments which were listed in Appendix 1 as the fire risk contract was slightly higher, and the T. Brown contract was to be extended for 18 months with improved performance before a new OJEU contract was procured.

There was also a report on the cyclical decorations' final account which had been let to Architectural Decorations (AD) Ltd. There had been a contractual dispute during the past year, and AD Ltd were going to adjudication. We had taken advice from Trowers, and an independent QS (quantity surveyor), and it was recommended that we settle at £2.7m.

On the Grenfell Tower regeneration project, we were now going back to the market. On the procurement framework, Savills were working with the TMO on our strategy with the aim of having a framework in place by 2014/15. We needed to start leaseholder consultation in the coming months, and it was proposed that the Board nominate two representatives, one tenant and one leaseholder, to work with the officers on the selection of a contractor.

On the asset management strategy, workshops would be arranged for September on the standard for our stock, and how we would finance any programme, which would be facilitated by Savills. A date would also be agreed for a tour of the housing stock for new Board members.

Board members asked the following questions:

1. Section 6, page 278, on resident consultation was raised, in particular the reference to regular updates for leaseholders. There was some concern about the plans for consultation, and it was suggested that Apollo be asked to provide a sample kitchen and bathroom for residents to see. However, tenants due for renewals would receive individual consultation on the design of their new kitchens. It was also pointed out that the majority of tenants would not receive new kitchens and bathrooms, as the programme was targeted towards those tenants whose kitchens and bathrooms did not reach the required standard, and we did not want to raise expectations which could not be realised. A reminder was also given that there had previously been a show flat at Silchester which Board members had been invited to see. Tony Annis commended the consultation which had been carried out at his sheltered scheme where there had recently been a kitchen and bathroom renewal

- programme.
2. On the procurement of the capital programme for 2014 and beyond, para 6.5 was raised concerning the establishment of frameworks for the delivery of works and consultancy services. It was queried whether the consultants who had advised the TMO on the Morrison repairs' contract were still being used. Confirmation was given that Keegans, the consultants concerned, had only been used for the technical specification.
 3. It was commented that it was difficult for the Board to take a view on the settlement with AD Ltd, and it was queried whether we were settling in order to avoid the matter going to adjudication. Confirmation was given that lessons had been learnt on the management of a long term contract, as the contract with AD had not been managed very well, and the dispute had concerned the pricing of window repairs. The TMO's view was that adjudication was a risk to the organisation, and it was thought that we would be able to settle at £2.7m. The staff who had managed the contract at the time had now left the TMO. These assurances were accepted, and a report would come back to the Board when the dispute was settled.
 4. It had been queried whether double glazing would now be carried out. Confirmation was given that this issue would be considered at the workshop in September on the investment standard which would include energy efficiency. In developing an energy efficiency standard, we would look at what others were doing in this area. However, more basic requirements such as insulation had to be considered in the first instance.

PM

The Board agreed the following recommendations:

1. **The current position on the delivery of the 2013/14 capital programme was noted including the proposed adjustments to approved commitments outlined in Appendix 1.**
2. **The contract award for kitchen and bathroom renewals for 2013/14 to Apollo Property Services Ltd in the sum of £3.1m (inclusive of fees) was agreed.**
3. **The contract award for rewiring domestic electrics for 2013/14 to R&MA Stewart Ltd in the sum of £1.2m (inclusive of fees) was agreed.**
4. **The extension of the domestic gas servicing and maintenance contract with T Brown Group Ltd for a further 18 months was agreed.**
5. **It was agreed to settle the final account for the 2011/12 cyclical redecoration programme with Architectural**

Decorations Ltd in the sum of £2,760,000 (exclusive of fees).

- 6. The position on the Grenfell Tower regeneration programme was noted including the decision to procure the works through an OJEU tender process.**
- 7. Progress was noted on the procurement of a contractor framework, and Board members would be invited by e-mail to participate in the evaluation of the tenders.**
- 8. Progress on the development of the Asset Management Strategy was noted, including the proposed Board workshop in September 2013.**

CEO/JDC
1.8.13

Agenda item 2

Appendix 1 BOARD ACTION RECORD / MATTERS ARISING

NO.	MEETING DATE	MINUTE NUMBER	ACTION	BY WHOM	BY WHEN	UPDATE
1	25/07/13	7	TMO Performance 2012/13 and Performance Agreement 2013/14: an update would be given to the Board on the succession procedure, and also digital inclusion.	YB/AJ	For meeting on 5/9/13	An update will be given at the meeting
2	25/07/13	10	Repairs contract award: further work would be carried out on schedules 5, 7, and 8, and brought back to the Board	PD/AB-S	For meeting on 5/9/13	On the agenda
3	25/07/13	12	Internal Audit report on TMO Health and Safety: an update to be brought back on completion of outstanding action from this audit.	AP	For meeting on 5/9/13	On the agenda (Chief Executive's report)
4	25/07/13	1 (Part B)	Capital programme and contracts award: Board members to be invited to work with officers on procurement framework. Workshop to be arranged on asset management strategy in September which would be preceded by a tour of the estates.	PM PM/JC	As soon as possible	Board members have been asked about their availability during the weeks commencing 30 September, and 7 October.
5	25/07/13	1 (Part B)	Contractual dispute: settlement of this dispute to be reported back to the Board.	PM	For meeting on 5/9/13	This dispute has now been settled. An update will be provided before the Board meeting.

Agenda Item 3

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION LIMITED

Open

For information

TMO Board
5th September 2013

Report title:	Chief Executive's update report
Authority for decision:	The Board has ultimate responsibility for monitoring the performance of the organisation.
Recommendations:	For information
Regulatory/legal requirements:	None
Business Plan link:	Keeping abreast of performance initiatives within the organisation, and external developments affecting social housing.
Equality Impact Assessment/comment:	Equality and diversity issues are taken into consideration.
Resident consultation:	Ongoing
Resource implications/VFM statement:	Keeping up to date on the latest developments in social housing is important for shaping the business. Improved performance within the organisation will help the TMO to achieve its VFM objectives.
Risk:	Failure to engage with the external housing sector could have an adverse

	effect on the TMO in keeping abreast of developments within the sector. There is also reputational risk if performance fails to improve across the TMO.
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Appendices:	0
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Total number of pages including appendices:	5
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Name, position and contact details of author:	Robert Black, Chief Executive [REDACTED]
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Chief Executive's Report

1.0 Maximising usage of HRA car parking assets

On 4 September, Housing and Property Scrutiny Committee had a report on the TMO project to maximise usage of estate car parking assets, which outlined a pipeline of proposals to change the use of derelict areas, and risks posed by difficulties in enforcing parking restrictions. Scrutiny Committee was given information on the three strands of the project, including the potential for commercial opportunities at various sites which are at different stages of development. These are:

- Lease basement car park at Holmefield House for self-storage facilities
- Lease basement car park at Walnut Tree House for self-storage facilities
- Lease basement car park at Acklam Road for storage or small business units
- Re-develop ground and first floor car park at Lowerwood Court into commercial units, and lease for retail/restaurant/nursery use
- Lease package of bays at multiple sites to a new electric vehicle private-hire service
- Rent vacant bays at World's End to residents of surrounding streets on equivalent terms to estate residents as permitted within the existing planning consent.

The other strands include looking at options for parking enforcement, and increasing resident use.

2.0 Residents Conference and AGM - Saturday, 21 September

We are holding our combined Residents Conference and Annual General Meeting on Saturday, 21 September 2013. Following the success of last year's event, and the positive feedback received from residents, the conference and AGM will once again be held at the Holiday Inn Kensington Forum Hotel. The 2012 conference saw an increase of 82% (182) in the number of residents attending against a target of 150, and we are aiming to attract over 200 residents to this year's event.

The format of the conference will be similar to that of last year, with speakers and formal workshops in the morning, and more informal and fun workshops taking place in the afternoon. The conference is an opportunity for all residents to speak to staff about services, sign up for free training, and give us their views. The event will feature children's entertainment, and the workshops include a session with senior managers, and getting on-line skills. Councillor Victoria Berwick will also be attending to meet with residents.

This year's conference will see the official launch of the Repairs Direct Service which commences on 2 September 2013, and there will be a cake cutting ceremony to mark this occasion.

After the close of the residents' conference, the Annual General Meeting will take place at 3.30 pm.

3.0 Modular Management Agreement (MMA) update

We have been in consultation with the Council about the revision of the MMA. Minor changes have been agreed by the Council and the TMO in order to bring this document up to date, and it is now with the Council's legal department for approval. It is planned to present the revised MMA to the Board meeting on 21st November.

4.0 Health & Safety

The Health and Safety consultant, Matt Hodgson, has completed an initial report on Health & Safety (H & S) within the organisation using an industry standard HSG65 format. An action plan is being prepared and will be incorporated in the final report. This will be brought to the next Board meeting.

Mr Hodgson has also been advising on health and safety for Repairs Direct. In the last few days, the person recruited to take up the role of Health & Safety Manager in Repairs Direct has decided to remain with his present employer. Mr Hodgson has agreed to take on the role as a temporary measure until permanent recruitment is completed. This will ensure that the health and safety requirements of Repairs Direct are covered.

Work has been continuing on the Action Plan items arising from the Internal Audit report. The actions to be implemented by June were all completed on time, and the W2 workflow introduced a month early on the 1st August. The remaining two action points to be completed in September are on track.

The Key Performance Indicator (KPI) for mid August showed 100% LGSR compliancy.

5.0 Credit Union

The Credit Union is continuing to grow and now has in excess of 150 members, and funds of £330k.

The payroll saving scheme is now under way with the following organisations involved to date:

K&CTMO
Octavia Housing
Octavia Foundation
RBKC
Women's Pioneer Housing

Further organisations, including the NHS, will join over the next few months.

The Credit Union has commenced making loans to members with 10 new loans in the last month.

6.0 Board workshop on the Asset Management Strategy

The Board workshop on the Asset Management Strategy will be held on Tuesday, 8th October, at 6.00 pm. A date is now being arranged for a tour of the estates which will take place before the workshop.

7.0 Property Services

Property Services are preparing a report on the HRA commercial properties for the half year to September. This will be presented at the November Board.

RBKC Housing Department is currently drawing up a strategy/policy for the management of the HRA commercial property portfolio, as required under the terms of the MMA. This will be presented at the November Board for consideration. It is the duty of the TMO to manage the portfolio in accordance with this strategy.

The TMO is currently involved in a project to synchronise the commercial property database with RBKC Housing and Property Services to ensure the maximisation of utilisation and income.

Agenda Item 4

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION LIMITED

Open	
For information	
TMO Board – 5 th September 2013	
Report title:	Budget monitoring April – July 2013
Authority for decision:	The Board has overall responsibility of monitoring the outturns against the annual budget.
Recommendations:	The Board is requested to note the report.
Regulatory/legal requirements:	The Board have legal responsibility of ensuring the organisations resources are used in accordance with the budget and business plan.
Business Plan link:	Being competitive and increasing our income.
Equality Impact Assessment/comment:	None required.
Resident consultation:	None required.
Resource implications/VFM statement:	This is the subject of the report.
Risk:	
Appendices:	1
Total number of pages including appendices:	16
Name, position and contact details of author:	Rupa Bhola Assistant Director of Financial Services

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
TENANT MANAGEMENT ORGANISATION LIMITED

TMO BOARD MEETING – 5th September 2013

REPORT BY THE ASSISTANT DIRECTOR OF FINANCIAL SERVICES

BUDGET MONITORING 2013/14

(PERIOD 4 – July 2013)

1. Purpose of the Report

1.1 The purpose of this report is to advise the TMO Board of the financial position of the TMO Company Budgets and the HRA Managed Budgets for 2013/14 based on the budget monitoring for July 2013.

FOR INFORMATION

2. Introduction

The TMO Company budgets reported in this paper are based on the 2013/14 company budgets. This report includes the financial position of the Lancaster West Estate.

This report covers the first four months of the new financial year. The forecast projects a £6k positive variance from the overall budget of £30k surplus.

3. TMO Company Budgets

3.1 Lancaster West – Break-even forecast and budget.

The Lancaster West out-turn is expected to be break-even, this is in line with the budget set for the year.

3.2 CEO – £(20k) adverse variance to budget

This is a small adverse variance to budget and will continued to be monitored to ensure that steps are put in place to control any further significant changes.

3.3 Operations – £(12k) adverse variance to budget.

This is again a very small variance to budget of less than 1% and is due to legal costs being higher than expected. The controls and checks have are in place to recover legal costs where possible.

3.4 People and Performance – £37k favourable variance to budget.

The People costs are expected to be £35k under budget. This is due to a combination of a vacant part time post and savings being achieved through the use of interim cover for a post.

3.5 Financial Services (Includes Home Ownership) – £1k positive variance to budget

People costs are forecast to be £(39k) above budget. The variance is mainly attributed to the interim cover required due to a recent retirement of a senior member of staff. There have been some small changes in existing roles to accommodate this and the recruitment to fill the posts is scheduled to start in September with a view to have the staff in their new roles by December.

Depreciation is expected to be £47k below budget. This reflects the ICT expenditure on hardware expected to take place in the last quarter of this financial year. The delay is due to the heavy involvement of the IT team in the mobilisation of Repairs Direct.

4 **Balance Sheet on 31st July 2013**

4.1 Trade debtors – Decrease of £13k. This reflects the increase in collections with a number of recharges and continued collection of CAS annual billing.

4.2 Cash at bank and in hand – Decrease of £368k. Cash has fallen further as the investment in Repairs Direct takes place and the reduction in trade creditors. The current investment in Repairs Direct stands at £421k.

4.3 Trade creditors – A decrease of £151k. This is due to all the invoices received at year end having been paid in the new financial year. These invoices were accrued for in the last year's financial statements.

4.4 Defined benefit pension scheme liability – The value is based on the FRS17 report dated 31st March 2013.

5. **HRA Managed Budgets (Revenue)**

Introduction

The original budget for 2013/14 is a net income of £34.360m, split between budgeted expenditure of £21.476m and budgeted income of £55.836m. The overall forecast for 2013/14 is a net income of £34.090m resulting in a adverse variance of £(270k).

As in previous years the Council do not undertake accrual accounting except at year end. The year-end accruals have therefore been reversed in April/May causing large credits in the actual spend to date. In a few cases these are yet to be replaced by matching costs.

The variances in the forecast are explained in more detail below:

5.1 Total Income

Leasehold service Charges – there is a decrease in forecast income of £(1,361k) This variance comprises of £(1,276k) decrease to the forecast for Leasehold Major Works income, £(200k) for Leaseholder Service Charge income and an increase of £115k in the budgeted insurance charge income.

Leasehold Major Works income has been forecast down by £(1,276k). This is primarily due to the majority of the planned capital programme being non-communal and thus non chargeable as part of Leasehold Major Works. The charges for the EPG final account have been made in the first quarter of 2013-14. The proportion of the planned works that are chargeable to leaseholders are scheduled to be on site in the final quarter of the year. The charges will therefore form part of the income for 2014-15.

The forecast income is reduced by £(200k) for Leasehold Service Charges due to a significant piece of work where British Gas was challenged by the TMO in respect of the meter readings for a specific estate. The result of this was a credit of circa £400k thus reducing the overall final account debit. It should be noted that the meters in question have now been replaced and accurate readings are now in place. However the additional charges for the final account will offset some of the credit received.

At the time the 2013/14 budget was set the contract for leasehold insurance was out to tender. The budget assumed an increase in costs of 50%, based on informal discussions with the previous insurer. The tender has come in higher than that assumed in the budget reflecting the increase in claims and the specialist nature of the insurance. An experienced broker was engaged to undertake the tender and Leaseholders were consulted appropriately as part of the process. This has resulted in a £115k increase in the forecast income.

5.2 Total Expenditure

The forecast is £20.38 million against the budget of £21.48 million which is a positive variance of £1,091k.

Planned Maintenance – a positive variance of £1,046k.

There is a £1,689k decrease in External Decorations forecast expenditure. The External Decorations programme is now expected to start on site in

February 2013. £1m will be spent in the current financial year and £1.69m will be spent in 2014-15. The reason for the delay is in relation to the long term framework for external decorations being moved to 2014-15 to align it with the Savills Strategic Asset Management work being undertaken.

A £(1,125k) increase in expenditure for Rewiring Works. It has been identified that the original budget for 2013-14 of £250,000 is not sufficient to meet the cost of required periodic testing. To meet the TMO's statutory duty of carrying out a domestic electrical test every 10 years a program has been agreed for 5500 properties including necessary remedial works, the total cost of the program is forecast at £1.16m. This will be funded from the additional capacity from External Decorations.

There is a £150k decrease in the forecast for Individual Heating Works. The planned domestic boiler renewals are capital in nature and will form part of the main capital programme.

A decrease in the forecast of £94k for Fire Alarms. The revised forecast includes the cost of revised planned maintenance contract and the spend for renewals works planned for 2013-14.

Improved contract management to resolve longstanding issues, achieving first time fixes and capital renewals where appropriate are forecasted to achieve a saving of £75k in District Heating.

There is a decrease in the forecast expenditure of £56k for Planned Lifts maintenance. This has been achieved with the mobilisation of a new lift maintenance contractor with improved contract management to ensure responsibility for defect liability on new lifts.

A £53k decrease in the forecast for Door Entry & CCTV Works. Replacement of a number of door entry systems is being planned for as part of the 2014-15 capital programme. The forecast reflects the cost of the current planned maintenance required as part of the contract for the existing systems.

The repairs contractor Willmott Dixon Partnership's interim role in providing responsive repairs will end in August 2013. The new arrangement is for TMO Repairs Direct a subsidiary of the TMO to take over the responsive repairs function from September 2013.

6. **HRA Managed Budgets (Capital Programme)**

The approved budget for 2013/14 is £7.37 million, with the current forecast for the year standing at £7.39 million.

The programme is currently being procured. The majority of the work will start on site in the autumn and spend will be concentrated in the latter part of the financial year.

7. HRA Debt

- 7.1 Tenant Debt – There is an increase in the tenant debt balance of £254k during the first four months of the new financial year. An increase was expected and is in line with the previous July in light of the uplift in the rent charges from the 1st of April 2013 and the introduction of The Under-Occupancy Housing Benefit reduction commonly known as “The Bedroom Tax”. 472 tenancies were identified by the housing benefit section to be impacted by this change. It is expected that tenants will meet the shortfall from other resources or seek to move to alternative accommodation.

The Rent Income team are now able to take payments from tenants via telephone this is anticipated to help to further reduce the debt level in the future. In addition to this two welfare officers have been employed to mitigate the potential risk of any adverse impact of the benefit reforms by working with tenants affected by the changes to educate them on the range of options available to find longer term solutions.

The Rent Income team will continue to offer support where necessary to the tenants whilst at the same time pursuing legal action where required.

- 7.2 Leaseholder Service Charges and Major Works – The overall debt has decreased by £162k (Service Charges a decrease of £468k, Major Works an increase of £306k) .It is expected that both the service charge and major work debt will continue to fall in the foreseeable future as more payment plans are agreed and set up.

8. Conclusion

- 8.1 The TMO Board is asked to note the contents of the above report.

Rupa Bhola
Assistant Director of Financial Services

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

BALANCE SHEET

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

BALANCE SHEET		31st July 2013	31st Mar 2013
	FIXED ASSETS		
	Tangible assets	1,436	1,504
	CURRENT ASSETS: amounts falling due within one year		
	Trade debtors	72	85
	Less: provision for bad debts	<u>(1)</u>	<u>(1)</u>
		71	84
	Other debtors	202	226
	Prepayments and accrued income	<u>738</u>	<u>650</u>
	Debtors	1,010	960
	Investment in Repairs Direct	421	285
	Cash at bank and in hand	<u>573</u>	<u>941</u>
		2,004	2,186
	CREDITORS: amounts falling due within one year		
	Trade creditors	341	491
	Corporation tax	49	49
	Other taxes and social security	149	307
	Other creditors	15	14
	Accruals and deferred income	<u>619</u>	<u>620</u>
		1,173	1,483
	NET CURRENT ASSETS	<u>831</u>	<u>703</u>
	TOTAL ASSETS LESS CURRENT LIABILITIES	<u>2,267</u>	<u>2,208</u>
	NET ASSETS BEFORE DEFINED BENEFIT PENSION SCHEME LIABILITY	2,267	2,208
	Defined benefit pension scheme liability	<u>(6,412)</u>	<u>(6,412)</u>
	TOTAL NET LIABILITIES, INCLUDING DEFINED BENEFIT PENSION SCHEME DEFICIT	<u>(4,145)</u>	<u>(4,205)</u>
	CAPITAL AND RESERVES		
	Profit and loss account excluding pension scheme deficit	2,267	2,208
	Defined benefit pension scheme liability	<u>(6,412)</u>	<u>(6,412)</u>
	Members' funds	<u>(4,145)</u>	<u>(4,205)</u>

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

TMO BOARD REPORT

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2013-14)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Management Fees	10,110	10,110	0	0%	3,370	3,370	0	0%
Capital Programme Fee	502	502	0	0%	167	157	(11)	-6%
CAS Income	473	477	4	1%	158	167	9	6%
Legal Costs Recovered	265	280	15	6%	88	87	(1)	-1%
Other Income	646	640	(6)	-1%	215	214	(1)	-0%
Digital TV Income	480	480	0	0%	160	160	0	0%
TOTAL INCOME	12,475	12,489	13	0%	4,158	4,155	(3)	-0%
Staff Salaries	(8,096)	(7,061)	1,035	13%	(2,699)	(2,245)	453	17%
Agency costs	0	(1,051)	(1,051)	-100%	0	(411)	(411)	-100%
Staff Related Costs	(222)	(226)	(4)	-2%	(74)	(74)	0	1%
TOTAL PEOPLE COSTS	(8,318)	(8,339)	(21)	-0%	(2,773)	(2,730)	43	2%
Accommodation	(774)	(774)	0	0%	(258)	(264)	(6)	-2%
CAS Service Costs	(94)	(94)	0	0%	(31)	(35)	(3)	-11%
Communication & Publication	(160)	(160)	0	0%	(53)	(48)	5	10%
Consultants	(250)	(250)	0	0%	(83)	(36)	47	57%
Depreciation	(416)	(369)	47	11%	(139)	(119)	20	14%
Digital TV	(480)	(480)	0	0%	(160)	(160)	(0)	-0%
Facilities Costs	(120)	(124)	(4)	-3%	(40)	(65)	(26)	-64%
ICT Service Costs	(523)	(536)	(13)	-3%	(174)	(185)	(11)	-6%
Legal Costs (Non SLA)	(310)	(325)	(15)	-5%	(103)	(123)	(19)	-19%
Legal Costs (SLA)	(360)	(360)	0	0%	(120)	(123)	(3)	-2%
Service Delivery	(362)	(363)	(2)	-0%	(121)	(109)	12	10%
SLA Costs (excluding Legal)	(279)	(279)	0	0%	(93)	(104)	(10)	-11%
TOTAL OTHER COSTS	(4,127)	(4,114)	13	0%	(1,376)	(1,370)	6	0%
Surplus/(Deficit) before Tax ex Lanc West	30	36	6	21%	10	55	46	455%
Lanc West	(0)	0	0	0%	(0)	5	5	100%
Trasfer From Reserves	0	0	0	0%	0	0	0	0%
Surplus/(Deficit) before Tax inc Lanc West	30	36	6	21%	10	59	50	455%

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

LANCASTER WEST DIVISION

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2013-14)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Management Fees	363	363	0	0%	121	121	0	0%
Other Income	0	0	0	0%	0	1	1	0%
TOTAL INCOME	363	363	0	0%	121	122	1	1%
Staff Salaries	(266)	(243)	23	9%	(89)	(78)	11	12%
Agency costs	(1)	(24)	(23)	-100%	(0)	(13)	(12)	-100%
Staff Related Costs	(5)	(5)	0	0%	(2)	(0)	1	89%
TOTAL PEOPLE COSTS	(272)	(272)	(0)	-0%	(91)	(91)	0	0%
Communication & Publication	(1)	(1)	0	0%	(0)	0	0	0%
Consultants	(1)	(1)	0	0%	(0)	0	0	0%
Facilities Costs	(40)	(40)	0	0%	(13)	(19)	(5)	-41%
ICT Service Costs	(11)	(11)	0	0%	(4)	(1)	2	66%
Legal Costs (Non SLA)	(1)	(1)	0	0%	(0)	0	0	100%
Service Delivery	(37)	(37)	0	0%	(12)	(7)	6	46%
TOTAL OTHER COSTS	(91)	(91)	0	0%	(30)	(27)	4	-12%
Surplus/(Deficit) before Tax	(0)	0	0	0%	(0)	5	5	100%

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

CEO DIVISION

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2013-14)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Management Fees	10,038	10,038	0	0%	3,346	3,346	0	0%
Other Income	0	0	0	0%	0	0	0	0%
TOTAL INCOME	10,038	10,038	0	0%	3,346	3,346	0	0%
Staff Salaries	(791)	(804)	(13)	-2%	(264)	(250)	13	5%
Agency costs	0	0	0	0%	0	(10)	(10)	-100%
Staff Related Costs	(17)	(19)	(1)	-9%	(6)	(17)	(12)	-207%
TOTAL PEOPLE COSTS	(808)	(823)	(15)	-2%	(269)	(278)	(8)	-3%
Consultants	(140)	(140)	0	0%	(47)	(30)	16	35%
Facilities Costs	(41)	(45)	(4)	-10%	(14)	(45)	(31)	-227%
Legal Costs (Non SLA)	(15)	(15)	0	0%	(5)	(2)	3	57%
Service Delivery	(63)	(64)	(1)	-2%	(21)	(12)	9	45%
TOTAL OTHER COSTS	(259)	(264)	(5)	-2%	(86)	(89)	(2)	-3%
Surplus/(Deficit) before Tax	8,971	8,951	(20)	-0%	2,990	2,980	(10)	-0%

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

OPERATIONS DIVISION

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2013-14)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Capital Programme Fee	502	502	0	0%	167	157	(11)	-6%
CAS Income	473	477	4	1%	158	167	9	6%
Legal Costs Recovered	50	65	15	30%	17	24	7	44%
Management Fees	72	72	0	0%	24	24	0	0%
Other Income	382	368	(14)	-4%	127	114	(13)	-10%
TOTAL INCOME	1,479	1,483	5	0%	493	485	(8)	-2%
Staff Salaries	(4,925)	(4,145)	780	16%	(1,642)	(1,302)	340	21%
Agency costs	0	(782)	(782)	-100%	0	(323)	(323)	-100%
Staff Related Costs	(6)	(6)	0	0%	(2)	(1)	1	60%
TOTAL PEOPLE COSTS	(4,931)	(4,933)	(2)	-0%	(1,644)	(1,626)	18	1%
Accommodation	(45)	(45)	0	0%	(15)	(15)	0	0%
CAS Service Costs	(94)	(94)	0	0%	(31)	(35)	(3)	-11%
Communication & Publication	(29)	(29)	0	0%	(10)	(14)	(5)	-50%
Consultants	(110)	(110)	0	0%	(37)	(6)	31	84%
Depreciation	(35)	(35)	0	0%	(12)	(17)	(6)	-48%
Facilities Costs	(5)	(5)	0	0%	(2)	(3)	(1)	-66%
ICT Service Costs	(2)	(2)	0	5%	(1)	0	1	100%
Legal Costs (Non SLA)	(145)	(160)	(15)	-10%	(48)	(87)	(39)	-80%
Legal Costs (SLA)	(300)	(300)	0	0%	(100)	(93)	7	7%
Service Delivery	(185)	(185)	0	0%	(62)	(57)	5	7%
SLA Costs (excluding Legal)	(207)	(207)	0	0%	(69)	(74)	(4)	-6%
TOTAL OTHER COSTS	(1,157)	(1,172)	(15)	-1%	(386)	(400)	(15)	-4%
Surplus/(Deficit) before Tax	(4,610)	(4,621)	(12)	-0%	(1,537)	(1,541)	(4)	-0%

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING
PEOPLE AND PERFORMANCE DIVISION
MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013
All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2012-13)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Other Income	2	4	2	0%	1	4	3	356%
TOTAL INCOME	2	4	2	0%	1	4	3	356%
Staff Salaries	(1,049)	(877)	171	16%	(350)	(281)	68	20%
Agency costs	0	(136)	(136)	-100%	0	(46)	(46)	-100%
Staff Related Costs	(187)	(187)	0	0%	(62)	(50)	12	19%
TOTAL PEOPLE COSTS	(1,235)	(1,200)	35	3%	(412)	(378)	34	8%
Communication & Publication	(111)	(111)	0	0%	(37)	(29)	8	21%
Depreciation	(24)	(24)	0	0%	(8)	(8)	0	1%
Facilities Costs	(1)	(1)	0	0%	(0)	0	0	100%
Legal Costs (Non SLA)	(20)	(20)	0	0%	(7)	(4)	3	41%
Service Delivery	(75)	(75)	0	0%	(25)	(30)	(5)	-19%
SLA Costs (excluding Legal)	(1)	(1)	0	0%	(0)	0	0	100%
TOTAL OTHER COSTS	(232)	(232)	0	0%	(40)	(42)	(1)	-3%
Surplus/(Deficit) before Tax	(1,465)	(1,428)	37	3%	(451)	(415)	36	8%

TENANT MANAGEMENT ORGANISATION DIVISIONAL REPORTING

FINANCE DIVISION

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

All figures in £'000

DESCRIPTION	ANNUAL FORECAST				POSITION TO DATE			
	Budget (2013-14)	Forecast (Current Month)	Variance	% Variance	Budget YTD	Spend/ Income YTD	Variance from Budget to Date	% Variance
	A	C	D (C-A)	E(D/A)	I	J	K(J-I)	E(D/A)
Legal Costs Recovered	215	215	0	0%	72	63	(8)	-12%
Other Income	261	268	7	3%	87	96	9	11%
Digital TV Income	480	480	0	0%	160	160	0	0%
TOTAL INCOME	956	963	7	1%	319	320	1	0%
Staff Salaries	(1,331)	(1,235)	96	7%	(444)	(412)	32	7%
Agency costs	0	(133)	(133)	-100%	0	(32)	(32)	-100%
Staff Related Costs	(13)	(15)	(3)	-20%	(4)	(5)	(1)	-22%
TOTAL PEOPLE COSTS	(1,344)	(1,383)	(39)	-3%	(448)	(449)	(1)	-0%
Accommodation	(729)	(729)	0	0%	(243)	(249)	(6)	-2%
Communication & Publication	(20)	(20)	0	0%	(7)	(5)	2	30%
Depreciation	(357)	(310)	47	13%	(119)	(94)	25	21%
Digital TV	(480)	(480)	0	0%	(160)	(160)	(0)	-0%
Facilities costs	(72)	(72)	0	0%	(24)	(18)	6	26%
ICT Service Costs	(520)	(534)	(13)	-3%	(173)	(185)	(12)	-7%
Legal Costs (Non SLA)	(130)	(130)	0	0%	(43)	(30)	14	31%
Legal Costs (SLA)	(60)	(60)	0	0%	(20)	(30)	(10)	-50%
Service Delivery	(39)	(40)	(1)	-2%	(13)	(11)	2	19%
SLA Costs (excluding Legal)	(71)	(71)	0	0%	(24)	(30)	(6)	-27%
TOTAL OTHER COSTS	(2,479)	(2,446)	33	1%	(826)	(811)	15	2%
Surplus/(Deficit) before Tax	(2,866)	(2,867)	1	0%	(955)	(940)	15	2%

TENANT MANAGEMENT ORGANISATION REPORTING
HRA BOARD REPORT
MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013
All figures in £'000

HRA MANAGED BUDGETS	ANNUAL FORECAST				POSITION TO DATE			
	Budget (Original)	Forecast (Current Month)	Variance Forecast from Original Budget	% Variance Forecast from Original Budget	Budget YTD	Spend/Income YTD	Variance from Budget to Date	
	A	C	D (C-A)	F (D/A)	H	I	J (I-H)	K (J/H)
Dwelling Rents	39,927	39,927	0	0%	13,309	13,796	487	4%
Tenant Service Charges	4,310	4,310	0	0%	1,437	1,490	53	4%
Leaseholder Service Charges	5,267	3,906	-1,361	-26%	1,756	2,375	620	35%
Heating & Hot Water Charges	2,465	2,465	0	0%	822	763	(59)	-7%
Commercial Properties Rent Income	2,954	2,954	0	0%	985	1,096	111	11%
Garage Rent Income	850	850	0	0%	283	248	(35)	-12%
Other Charges for Services & Facilities	62	62	0	0%	21	14	(7)	-34%
Supporting People Contract Income	0	0	0	0%	0	9	9	100%
Total Income	55,836	54,475	(1,361)	-2%	18,612	19,790	1,178	6%
Rents, Rates, Taxes and Other Charges	(163)	(163)	0	0%	(54)	(164)	(110)	-201%
Planned Maintenance	(7,124)	(6,078)	1,046	15%	(2,375)	(501)	1,874	79%
Responsive Maintenance	(5,532)	(5,492)	40	1%	(1,844)	(1,212)	632	34%
Planned Response Repairs	(200)	(200)	0	0%	(67)	(8)	58	87%
Electricity, Heating & Hot Water	(3,438)	(3,438)	0	0%	(1,146)	361	1,507	132%
Provision for Bad and Doubtful Debts	(723)	(723)	0	0%	(241)	0	241	100%
Legal Costs	(204)	(204)	0	0%	(68)	0	68	100%
Contract Cleaning	(2,211)	(2,211)	0	0%	(737)	(674)	63	9%
Pest Control	(225)	(225)	0	0%	(75)	(56)	19	25%
Refuse Collection	(144)	(144)	0	0%	(48)	(41)	7	15%
General Management	(612)	(607)	6	1%	(204)	(98)	106	52%
Supporting People expenditure	(220)	(220)	0	0%	(73)	(110)	(37)	-50%
Digital TV Costs	(480)	(480)	0	0%	(160)	(364)	(204)	-127%
Area Revenue Works	(200)	(200)	0	0%	(67)	66	133	200%
Total Expenditure	(21,476)	(20,384)	1,091	5%	(7,159)	(2,800)	4,358	61%
Transfer To/From Reserves (HRA)	0	0	0	0%	0	0	0	0%
Net Income/(Expenditure)	34,360	34,090	(270)	-1%	11,453	16,989	5,536	48%

TENANT MANAGEMENT ORGANISATION REPORTING
HRA - CAPITAL PROGRAMME MONITORING
MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

PROJECT NAME	Budget 2013-14	Forecast (Current Month)
Renewal Of Distribution Of Equipment/Sub Main Cables - Chesterton & Broadwood	33,000	33,061
Trellick Tower Phase 3-7	213,000	213,759
Verity Close - Windows replacement	103,000	104,318
Wiltshire Close: Lifts	14,000	14,710
Various Boroughwide Decent Homes Works - Kitchens & Bathrooms - Phase 2 and 3	220,000	217,267
Adaptation works	200,000	200,000
Domestic Electrics - Rewiring and wiring upgrade to tenanted properties.	710,000	702,080
Communal Electrics - Testing and Upgrade of communal electrical supplies.	200,000	200,000
Door Entry System Upgrade - Waynefleet Square and Shalfleet Drive	90,000	90,000
Door Entry Upgrade - Boroughwide (Longlands Crt; Lancaster West; Holmfield Hse; Pond House, Grove House)	60,000	60,000
Domestic Heating & Energy Improvements - Planned Boiler Renewal & associated energy improvements	560,000	550,982
Environmental - Various Environmental Improvement	145,000	145,000
Cavity Wall I Insulation - Worlds End Estate	5,000	5,432
Kitchens & Bathrooms, electrics and associated works -WEE and Cremorne	2,930,000	2,932,500
Kitchens & Bathrooms, electrics and associated works - Swinbrook	470,000	470,000
Procurement of lift works to be completed in 2014-15	75,000	75,000
Communal Heating (feasibility fees) - Options Study and procurement of communal heating upgrades for 2014-15 plus essential works to Lowerwood Court	80,000	80,000
Fire Doors	50,000	50,000
Fire Safety / Fire Risk Assessments - Essential works identified through FRA's	100,000	100,000
Emergency lighting	50,000	50,000
7 Hansard Mews - Structural repairs	34,000	34,000
155 Notting Hill Gate - repairs to boundary wall and to retaining wall of the basement flat	5,000	4,699
18 Pembridge Crescent	20,000	20,196
70-80 Tavistock Road - Capitalised External Decs 2012-13	100,000	104,265
Roof renewal and associated external works to WEE & Hereford	300,000	301,605
59 Golbourne Road - Roof Renewal	16,000	16,675
PROFESSIONAL FEES	100,000	110,705
CAPITALISED REPAIRS AND MINOR REPAIRS	350,000	350,119
COMMERCIAL PROPERTIES	80,000	100,512
Review Of Disability Discrimination Act	500	483
Fire Door Replacement FRA (Boroughwide)	10,000	8,831
Communal Flooring	-	42
FRA Works-Alarms/EmergLight	1,000	958
Sundry Lifts - Curran, Keppel, Mulberry and Burgesfield	1,000	1,886
Nursery Lane - Kitchens and Bathrooms	10,000	11,207
66 Oxford Gardens - Roof Repairs, Render and Timber	500	500
Raymede and Treverton - Lifts	1,000	1,167
Replacement Water Storage Tanks	500	500
Rising Mains	8,000	7,760
Minor Capital Works - 31 Tadema Road	500	500
External Redecoration	22,000	22,243
GRAND TOTAL	7,368,000	7,392,962

TENANT MANAGEMENT ORGANISATION REPORTING

MANAGEMENT REPORTING FOR PERIOD ENDED 31st July 2013

HRA DEBT POSITION

All figures in £'000

		Last 3 Years						
		End March	End March	End March	End June	End July		
		2011	2012	2013	2013	2013		
Description		£	£	£		£	£	
Tenant		1,053,849	1,222,862	1,131,681		1,306,365	1,385,392	
Leasehold - Service Charges		1,350,147	1,193,813	1,279,928		1,351,623	812,067	
Leasehold - Major Works		3,126,213	2,236,309	1,599,319		2,130,844	1,905,277	
Total Debt		5,530,209	4,652,984	4,010,928		4,788,832	4,102,736	

Current Payment Plans At 31st July 2013

Leasehold - Service Charges	£203,629
Leasehold - Major Works	£525,767
Total	£729,396

Agenda Item 5

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
TENANT MANAGEMENT ORGANISATION

TMO BOARD
5th SEPTEMBER 2013

'REPAIRS DIRECT' PROGRESS UPDATE AND REPAIRS CONTRACT
SCHEDULES
REPORT BY EXECUTIVE DIRECTOR OF OPERATIONS

1. Purpose

- 1.1 This paper provides an update on progress in preparations for the launch of our new internal service provider business 'Repairs Direct'
- 1.2 The Board is asked to agree the proposed schedules that form part of the contract between the TMO and Repairs Direct.

DECISION

2. Repairs Direct Update

The TMO and Willmott Dixon (WDP) have completed the demobilisation plan. This has included all of the work with staff on TUPE, the final account and work in progress.

Handover arrangements are in place for the handover into the launch of the new company on 2nd September. A full day of induction for our new staff will be undertaken on 2nd September. This will include a presentation from Robert Black and various workshops focussing on customer service. Operatives will commence work on Tuesday 3rd September.

All the development and testing work on the ICT has been completed and the operatives will all be issued with their new PDAs. Training of both the new staff and our existing customer service centre staff has been completed.

The Core Group and Operational Group meetings are all scheduled and the complete suite of management reports has been agreed. This will monitor the business on a daily, weekly and monthly frequency.

3. Contract

The board approved the Contract at the last meeting subject to the completion of schedules 5 and 7 and the revision of schedule 8.

The schedules are attached to appendices 1,2 and 3 of this report. The **KPI** schedule sets out the targets against which the performance of **Repairs Direct** will be measured against.

1. **Recommendations**

The Board is recommended to approve the schedules 5 (**Appendix 1**), 7 (**Appendix 2**) and 8 (**Appendix 3**).

The **Repairs Direct** Board has also reviewed the schedules and the update with their recommendations will be presented at the meeting of the **TMO** Board.

SACHA JEVANS
EXECUTIVE DIRECTOR OF OPERATIONS

K&C TMO
REPAIRS DIRECT

Agenda Item 5

Appendix 1

Section 5.1 General Preliminaries

6013- K&C TMO Repairs Direct 5.1

19 August 2013

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A
JCT 2011 Minor Works Building Contract

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A10
PROJECT PARTICULARS**

A10 PROJECT PARTICULARS

- 110 THE PROJECT
- Name: Kensington & Chelsea Repairs Direct.
 - Nature: Responsive Repairs and Void Works.
 - Location: Boroughwide.
 - Length of contract: Refer to main contract.
- 120 EMPLOYER (CLIENT)
- Name: KC TMO Ltd.
 - Address: K&C TMO
292A Kensal Road
London
W10 5BE.
 - Contact: Andy Marshall.
 - Telephone: [REDACTED]
 - Email: andy.marshall@kctmo.org.u.
- 130 PRINCIPAL CONTRACTOR (CDM)
- Name: RBK Repairs Direct.
 - Address: K&C TMO
292A Kensal Road
London
W10 5BE.
 - Contact: Andy Marshall.
 - Telephone: [REDACTED]
 - E-mail: andy.marshall@kctmo.org.uk.
- 150 CDM COORDINATOR
- Name: TBA.
 - Address: TBA.
 - Contact: TBA.
 - Telephone: TBA.
 - E-mail: TBA.
- 160 QUANTITY SURVEYOR
- Name: TBA.
 - Address: TBA.
 - Telephone: TBA.

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A11
TENDER AND CONTRACT DOCUMENTS**

A11 TENDER AND CONTRACT DOCUMENTS

160 PRECONSTRUCTION INFORMATION

- **Format:** The Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

180 OTHER DOCUMENTS

- **Inspection:** Drawings and other documents relating to the Contract but not included in the tender documents may be seen by appointment during normal office hours at the office of K & C TMO.
- **The documents include:** Refer to Main Contract Conditions and Schedules.

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A12
THE SITE/ EXISTING BUILDINGS**

A12 THE SITE/ EXISTING BUILDINGS

110 THE SITE

- Description: Various properties managed by K&C TMO.

220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: N/A.

240 HEALTH AND SAFETY HAZARDS

- General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present:
- Refer to information provided by K&C TMO.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A13
DESCRIPTION OF THE WORK**

A13 DESCRIPTION OF THE WORK

- 120 THE WORKS
 - Description: Resposive Repairs, Out of Hours Emergency Services and Works to void Properties.

A20 JCT MINOR WORK BUILDING CONTRACT (MW)

JCT MEASURED TERM BUILDING CONTRACT

- The Contract: JCT Measured Term Building Contract 2011 Edition.
- Requirement: Allow for the obligations, liabilities and services described.

THE RECITALS

THE RE_____CITALS

- Refer to Main Contract Conditions

THE ARTICLES

THE ARTICLES

- Refer to Main Contract Conditions

CONTRACT PARTICULARS

CONTRACT PARTICULARS

- Refer to Main Contract Conditions

THE CONDITIONS

THE CONDITIONS

Refer to Main Contract Conditions

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A32
MANAGEMENT OF THE WORKS**

A32 MANAGEMENT OF THE WORKS

GENERALLY

110 SUPERVISION

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

120 INSURANCE

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

130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.
- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

140 CLIMATIC CONDITIONS

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

150 OWNERSHIP

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

PROGRAMME/ PROGRESS

250 MONITORING

- Progress: Record on a copy of the programme kept on site.
- Avoiding delays: If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.
- Key Performance Indicators:
 - Details: refer to Schedule 7.
 - Record progress against each of the KPIs. If performance against KPI falls short of target, submit proposals for remediation.

260A MEETINGS

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
- Frequency: TBA.
- Location: TBA.
- Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.

290A NOTICE OF COMPLETION

- Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
- Associated works: Ensure necessary access, services and facilities are complete

CONTROL OF COST

420 REMOVAL/ REPLACEMENT OF EXISTING WORK

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

430 PROPOSED INSTRUCTIONS

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

440 MEASUREMENT

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

450 DAYWORK VOUCHERS

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

470 PRODUCTS NOT INCORPORATED INTO THE WORKS

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

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A33
QUALITY STANDARDS/ CONTROL**

A33 QUALITY STANDARDS/ CONTROL

STANDARDS OF PRODUCTS AND EXECUTIONS

110 INCOMPLETE DOCUMENTATION

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

120 WORKMANSHIP SKILLS

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

130 QUALITY OF PRODUCTS

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

135 QUALITY OF EXECUTION

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

140 COMPLIANCE

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
 - Properties tested.
 - Pass/ fail criteria.
 - Test methods and procedures.
 - Test results.
 - Identity of testing agency.
 - Test dates and times.
 - Identities of witnesses.
 - Analysis of results.

150 INSPECTIONS

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

160 RELATED WORK

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

170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- Changes to recommendations or instructions: Submit details.
- Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
- Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.

220 APPROVAL OF PRODUCTS

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

330 APPEARANCE AND FIT

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

SERVICES GENERALLY

420 WATER REGULATIONS/ BYELAWS NOTIFICATION

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

430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE

- On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
 - The address of the premises.
 - A brief description of the new installation and/ or work carried out to an existing installation.
 - The Contractor's name and address.
 - A statement that the installation complies with the relevant Water Regulations or Byelaws.
 - The name and signature of the individual responsible for checking compliance.
 - The date on which the installation was checked.

435 ELECTRICAL INSTALLATION CERTIFICATE

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

445 SERVICE RUNS

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

450 MECHANICAL AND ELECTRICAL SERVICES

- Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
- Building Regulations notice: Copy to be lodged in the Building Manual.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

540 DEFECTS IN EXISTING WORK

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

560 TESTS AND INSPECTIONS

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

610 DEFECTIVE PRODUCTS/ EXECUTIONS

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

WORK AT OR AFTER COMPLETION

710 WORK BEFORE COMPLETION

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

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A34
SECURITY/ SAFETY/ PROTECTION**

A34 SECURITY/ SAFETY/ PROTECTION

SECURITY, HEALTH AND SAFETY

130A PRODUCT HAZARDS

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

140A CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Submission: Present to the Employer/ Client no later than 2 weeks.
- Confirmation: Do not start construction work until the Employer has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.
- Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-tender Health and Safety Plan/ Preconstruction information.

170A OCCUPIED PREMISES

- Extent: properties maybe occupied carryout works ina accordance with regard to K&C TMO policies and proccedures
- Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
- Overtime: If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be paid to the Contractor, provided that such overtime is authorized in advance.

190A K&C TMO RULES AND REGULATIONS

- Compliance: Conform to the occupier's rules and regulations affecting the site.
- Copies:
- Location: K&C TMO Office.

200 MOBILE TELEPHONES AND PORTABLE ELECTRONIC EQUIPMENT

- Restrictions on use:
- Not to be used in Residents Homes.

210 EMPLOYER'S REPRESENTATIVES SITE VISITS

- Safety: Submit details in advance, to the Employer or the person identified in clause A10/140, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
- Protective clothing and/ or equipment: Provide and maintain on site for the Employer and the person stated in clause A10/140 and other visitors to the site.

PROTECT AGAINST THE FOLLOWING

330A NOISE CONTROL

- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
- Noise levels from the Works: Maximum level: 95 dB(A) when measured from 1M.
- Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Restrictions: Do not use:
 - Pneumatic drills and other noisy appliances without consent during the hours of 08:00 - 11:00.
 - Radios or other audio equipment not to be used on site.

340 POLLUTION

- Prevention: Protect the site, the Works and the general environment including the atmosphere, land, streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

350 PESTICIDES

- Use: Not permitted.

360 NUISANCE

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

370 ASBESTOS CONTAINING MATERIALS

- Duty: Report immediately any suspected materials discovered during execution of the Works.
 - Do not disturb.
 - Agree methods for safe removal or encapsulation.

371 DANGEROUS OR HAZARDOUS SUBSTANCES

- Duty: Report immediately suspected materials discovered during execution of the Works.
 - Do not disturb.
 - Agree methods for safe removal or remediation.

380 FIRE PREVENTION

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

390 SMOKING ON SITE

- Smoking on site: Not permitted.

400 BURNING ON SITE

- Burning on site: Not permitted.

410 MOISTURE

- Wetness or dampness: Prevent, where this may cause damage to the Works.
- Drying out: Control humidity and the application of heat to prevent:
 - Blistering and failure of adhesion.
 - Damage due to trapped moisture.
 - Excessive movement.

420 INFECTED TIMBER/ CONTAMINATED MATERIALS

- Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
- Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.

430 WASTE

- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
- General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
- Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
 - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
 - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

440 ELECTROMAGNETIC INTERFERENCE

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

460 POWER ACTUATED FIXING SYSTEMS

- Use: Not permitted.

PROTECT THE FOLLOWING

510 EXISTING SERVICES

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

520 ROADS AND FOOTPATHS

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

530 EXISTING TOPSOIL/ SUBSOIL

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

540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

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

550 RETAINED TREES

- Protected area: Unless agreed otherwise do not:
 - Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
 - Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
 - Change level of ground within an area 3 m beyond branch spread.

- 570 EXISTING WORK
- Protection: Prevent damage to existing work, structures or other property during the course of the work.
 - Removal: Minimum amount necessary.
 - Replacement work: To match existing.
- 580 BUILDING INTERIORS
- Protection: Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.
- 620 ADJOINING PROPERTY
- Permission: Obtain as necessary from owners if requiring to erect scaffolding on or otherwise use adjoining property.
- 625 ADJOINING PROPERTY RESTRICTIONS
- Precautions:
 - Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
 - Pay all charges.
 - Remove and make good on completion or when directed.
 - Damage: Bear cost of repairing damage arising from execution of the Works.
- 630 EXISTING STRUCTURES
- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
 - Supports: During execution of the Works:
 - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.
 - Do not remove until new work is strong enough to support existing structure.
 - Prevent overstressing of completed work when removing supports.
 - Adjacent structures: Monitor and immediately report excessive movement.
 - Standard: Comply with BS 5975 and BS EN 12812.
- 640 MATERIALS FOR RECYCLING/ REUSE
- Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
 - Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A55
DAYWORKS**

A55 DAYWORKS

150A DAYWORK CHARGES

- General: Where an instruction is issued requiring a variation which is not of a similar character or executed under similar conditions to work included in the Contract and where work cannot properly be measured and valued, the Contractor shall be allowed payment on a daywork basis at the following rates:
 - Daywork charges for operatives £190.00 per day. Hourly charges £23.25 per hour excluding VAT
 - Management charges for supervisors or contract managers £400 per day. Hourly charge £50.00 per hour excluding VAT

**K&C TMO
REPAIRS DIRECT**

Section 5.1 General Preliminaries

**A60
SUB CONTRACTING**

A60 SUB CONTRACTING

- 10 SUB CONTRACTING AND SUPPLY
 - K&C Repairs Direct uplift in respect of of works suupplied by contractor/supplier to be 15% of net order value. Amount to be shown on invoices.

6013 - RBK TMO Repairs Direct

19 August 2013

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C
Existing site/buildings/services

C20
Demolition

C20 Demolition

To be read with Preliminaries/ General conditions

GENERAL REQUIREMENTS

110A DESK STUDY/ SURVEY

- Scope: Before starting demolition work, examine all available information, carry out a survey of the structures, site and surrounding area.
- Report and method statements: Submit describing:
 - Form, condition and details of the structures.
 - Form, location and removal methods of any flammable, toxic or hazardous materials.
 - Type and location of adjoining or surrounding premises which may be adversely affected by noise, vibration, dust or removal of structure.
 - Identification and location of services above and below ground, including those required for the Contractor's own use. Arrangements for disconnection and removal of services.
 - Type and location of any features of historical, archaeological or geological importance.
 - Sequence and method of demolition including details of any specific pre-weakening.
 - Arrangements for protection of personnel and the public including exclusion of unauthorized persons.
 - Arrangements for control of site transport and traffic.

120 EXTENT OF DEMOLITION

- General: Subject to retention requirements specified elsewhere demolish structures down to levels shown/described elsewhere.

130 GROUNDWORKS

- General:
- Old foundations, slabs and the like: Break out where and to the extent stated.
- Contaminated earth: Remove and disinfect as required by Local Authority.

140 BENCH MARKS

- Unrecorded bench marks and other survey information: Give notice when found.
 - Do not remove or destroy.

150 FEATURES TO BE RETAINED

- General: Keep in place and protect the following: As stated elsewhere.

SERVICES AFFECTED BY DEMOLITION

210 SERVICES REGULATIONS

- Work carried out to or which affects new or existing services: Carry out in accordance with the Byelaws or Regulations of the relevant Statutory Authority.

220 LOCATION OF SERVICES

- Services affected by the Works: Locate and mark positions.
- Mains services: Arrange with the appropriate authorities for location and marking of positions.

230A DISCONNECTION - ARRANGED BY CONTRACTOR

- General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment prior to starting demolition.

240 DISCONNECTION OF DRAINS

- General: Locate disconnect and seal disused drain connections.
- Sealing: Within the site and permanent.

- 250 DRAINS IN USE
- General: Protect drains, manholes, inspection chambers, gullies, vent pipes and fittings still in use and ensure that they are kept free of debris.
 - Damage: Make good any damage arising from demolition work. Leave clean and in working order at completion.
- 260 BYPASS CONNECTIONS
- General: Provide as necessary to maintain continuity of services to occupied areas of the same and adjoining properties.
 - Notice: Give a minimum 72 hours notice to occupiers if shutdown is necessary during changeover.
- 270 SERVICES WHICH ARE TO REMAIN
- Damage: Give notice and notify service authority or owner of any damage arising from the execution of the works.
 - Repairs: To the satisfaction of the CA and service authority or owner.
- DEMOLITION WORK
- 310 WORKMANSHIP
- Standard: Demolish structures in accordance with BS 6187.
 - Operatives: Appropriately skilled and experienced for the type of work and hold or be training to obtain relevant CITB Certificates of Competence.
 - Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of demolition to be used.
- 320 GAS OR VAPOUR RISKS
- Precautions: Adequate to prevent fire or explosion caused by gas or vapour..
- 330 DUST CONTROL
- Method: Reduce by periodically spraying demolition works with water.
- 340 HEALTH HAZARDS
- Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.
- 350 ADJOINING PROPERTY
- Temporary support and protection: Provide. Maintain and alter as necessary as work progresses.
 - Damage: Minimise. Promptly repair.
 - Leave no unnecessary or unstable projections.
 - Make good to ensure safety, stability, weather protection and security.
 - Support to foundations: Do not disturb.
 - Defects: Report any exposed or becoming apparent.
- 360A STRUCTURES TO BE RETAINED
- Parts which are to be kept in place: Protect.
 - Extent of work: Cut away and strip out with care to reduce the amount of making good to a minimum.
- 370A PARTLY DEMOLISHED STRUCTURE(S)
- Leave partly demolished structure(s) in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse.
 - Prevent debris from overloading scaffolding platforms.
 - Prevent access of unauthorised persons to partly demolished structure(s).
Leave safe outside working hours.
- 380 DANGEROUS OPENINGS
- General: Illuminate and protect. Keep safe outside working hours.

391 ASBESTOS BASED MATERIALS

- Discovery: Give notice immediately of any suspected asbestos based materials discovered during demolition work. Avoid disturbing such materials.
- Methods for safe removal. Submit details.

410 UNFORESEEN HAZARDS

- Unrecorded voids, tanks, chemicals, etc. discovered during demolition: Give notice.
- Methods for safe removal, filling, etc: Submit details.

440 SITE CONDITION AT COMPLETION

- Debris: Clear away and leave the site in a tidy condition.

MATERIALS ARISING

510 CONTRACTOR'S PROPERTY

- Components and materials arising from the demolition work: Property of the Contractor except where otherwise provided.
 - Remove from site as work proceeds.

520A RECYCLED MATERIALS

- Materials arising from demolition work may be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification..

C40
Cleaning masonry/ concrete

C40 Cleaning masonry/ concrete

To be read with Preliminaries/ General conditions.

GENERAL/ PREPARATION

110 SCOPE OF WORK

- Programme is to include the redecoration of internal and external finishes. Works are to include the preparation of existing decorated surfaces and subsequent redecoration to match previous surfaces including works to void properties..

120 RELATED REPAIR AND REMEDIAL WORKS

- Work to be carried out before cleaning work: Where found, repair/ remedial works are to be reported to the CA prior to issue of separate instruction for repair .

160 PROTECTION

- Surfaces not designated for cleaning: Prevent damage, including marking and staining.
- Openings: Prevent ingress of water, cleaning agents and detritus.
 - Vents and grilles: Seek instructions before sealing up.
- Temporary mechanical fastenings:
 - In masonry: Locate in joints.
 - In other surfaces: Seek instructions.
- Additional protection: Submit proposals .

175 CONTROL AND DISPOSAL OF WASH WATER AND DETRITUS

- Disposal: Safely. Obtain approvals from relevant Authority.
- Control of wash water: Collect and divert to prevent ingress and damage to building fabric and adjacent areas.
- Above and below ground drainage systems: Keep free from detritus and maintain normal operation.

180 COLD WEATHER

- Cleaning procedures using water: Do not use when air temperature is at or below 5°C. Protect damp surfaces from frost.
- Chemical cleaning agents: Do not use when surface temperatures are below those recommended by manufacturer.

190 CLEANING GENERALLY

- Operatives: Appropriately trained and experienced for each type of cleaning work.
 - Evidence of training: Submit on request.
- Control of cleaning: Confine cleaning processes and materials to designated areas. Prevent wind drift.
- Detritus: Remove regularly. Dispose of safely.
- Monitoring: Frequently check results of cleaning compared to approved trial samples. If results established by trials are not achieved, seek instructions.
- Modifications to cleaning methods and materials: Seek instructions.

PRODUCTS/ EQUIPMENT

312 SURFACE BIOCIDES

- Types: Registered by the Health and Safety Executive (HSE) and listed on the HSE website under non-agricultural pesticides.
- Compatibility with surface: Free from staining or other harmful effects.

322 ABRASIVE CLEANING EQUIPMENT

- Manufacturer/ Supplier: Submit proposals.
 - Product reference: Submit proposals.
- Nozzle types: Submit proposals.
- Abrasives: Submit proposals.

362 CHEMICAL AGENTS FOR PAINT REMOVAL

- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.

APPLICATION

412 REMOVAL OF LOOSELY ADHERED DEPOSITS

- Timing: Before commencement of other cleaning methods.
- Surfaces: Prevent damage, including abrasion.

422 BIOCIDES APPLICATION

- Preparation: Remove loose growths.
- Surfaces: Prevent damage, including abrasion.
- Biocide treatment: Appropriate solutions to kill growths and inhibit further growths.
 - Dead growths: Remove.

452 ABRASIVES CLEANING

- Surfaces: Minimize abrasion.
 - Ingrained deposits: Seek instructions.
- Equipment settings (including nozzle type and distance from surface): Adjust regularly to achieve optimum cleaning performance for each surface.
- Detritus: Remove with clean water.

500 CHEMICAL CLEANING

- Surfaces: Prevent damage, including discolouration, bleaching and efflorescence.
- Product variables (including concentrations, dwell times and number of applications): Adjust for each surface to achieve optimum cleaning performance.
- Application: To wetted surfaces.
 - Drying out: Prevent unless recommended otherwise by cleaning product manufacturer.
- Removal of chemicals and neutralization: As recommended by product manufacturer, including rinsing with clean water.
 - Additional treatment: Where water rinsing is insufficient to neutralize surface, apply compatible neutralizing agent.
 - Surfaces and joints: Minimize absorption of chemicals. Prevent damage, including abrasion.

C41

Repairing/ renovating/ conserving masonry

C41 Repairing/ renovating/ conserving masonry

To be read with Preliminaries/ General conditions

GENERALLY/ PREPARATION

110 SCOPE OF WORK

- Response Repairs and void works to TMO property. Works are to include the preparation of existing decorated surfaces and subsequent redecoration to match previous and will incorporate the redecoration of painted cladding, soffits, fascias, barge boards and masonry walls. Internal redecoration and repair to void and occupied property .

120A REVIEWING SCOPE OF THE WORK

- Inspection: Arrange before starting work. Confirm type and extent of work required.
- Identification of masonry units to be removed, replaced or repaired: Code number cross-referenced to drawings/ photographs.
- Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.

125 REDUNDANT FITTINGS/ FIXINGS

- Items to be removed: As necessary to allow for execution of work as described elsewhere .
- Removal: Minimize disturbance to surfaces.

WORKMANSHIP GENERALLY

150A POWER TOOLS FOR REMOVAL OF MORTAR OR DAMAGED BRICKWORK

- Usage: Not allowed .

160 PROTECTION

- Handling of masonry units: Prevent overstressing during transit, storage and fixing. Lift units at designed lifting points where provided.
- Storage of masonry units: On level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination by salts and other deleterious substances.
- Protection of masonry: Suitable nonstaining slats, boards, etc. Remove at completion.
 - Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces.
 - Prevent mortar/ grout splashes and other staining and marking.

165 STRUCTURAL STABILITY

- General: Maintain stability of masonry. Report defects, including signs of movement, that are exposed or become apparent during the removal of masonry units.

170 DISTURBANCE TO RETAINED MASONRY

- Retained masonry in the vicinity of repair works: Disturb as little as possible.
- Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
- Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

180 OPERATIVES

- General: Skilled and experienced with the materials and procedures required.
 - Evidence of training and previous experience: Provide on request.

185 ADVERSE WEATHER

- Frozen materials: Do not use. Do not lay masonry units on frozen surfaces.
- Air temperature: Do not bed masonry units or repoint:
 - In cement gauged mortars when at or below 3°C and falling or unless it is at least 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and the masonry is thoroughly protected).
 - In hydraulic lime:sand mortars when at or below 5°C and falling or unless it is at least 3°C and rising.
 - In nonhydraulic lime:sand mortars in cold weather without approval.
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Rain and snow: Protect masonry by covering during precipitation and at all times when work is not proceeding.
- Hot conditions and drying winds: Prevent masonry from drying out too rapidly.
- New mortar damaged by frost: Rake out and replace.

MATERIAL/ PRODUCTION/ ACCESSORIES

235 INSPECTION OF MASONRY UNITS

- General: Before despatch to site, inspect and check completed units for:
 - Match with approved samples.
 - Compliance with drawings and specification.
- Give notice: At appropriate stages in production to allow inspection of masonry units before delivery to site.

260 BRICKS

- Types: To suit existing .
- Sizes/ Special shapes: To suit existing .

265 SALVAGED/ SECOND HAND BRICKS

- Condition:
 - Free from matter such as mortar, plaster, paint, bituminous materials and organic growths.
 - Sound, clean and reasonably free from cracks and chipped arrises.

DISMANTLING/ REBUILDING

310 DISMANTLING MASONRY FOR REUSE

- Masonry units to be reused: Remove carefully and in one piece.
- Identification: Where masonry is to be removed temporarily, identify each unit clearly and indelibly on concealed faces indicating their original positions in the walling can be readily identified.
- Old mortar, dirt and organic growths: Clean off and leave masonry in a suitable condition for rebuilding.

REPLACEMENTS AND INSERTIONS

330 PREPARATION FOR REPLACEMENT MASONRY

- Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
- Existing metal fixings, frame members, etc: Report when exposed.
- Redundant metal fixings: Remove completely.
- Recesses: Thoroughly clean to remove loose material and leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather.

365 REPLACEMENT OF BRICKS to repair a section of existing boundary wall

- Bricks: match to existing as clause 260.
- Mortar: As section Z21.
 - Mix: 1:3:12 white cement:lime:sand .
 - Sand source/ type: Well graded crushed stone to approval .
- Fixings: Bonded dowels as clause 405 .
- Joints: match to existing .
- Other requirements: None .

385 LAYING REPLACEMENT MASONRY

- Exposed faces of new material: Keep to approved face lines.
- Faces, angles and features: Accurately align. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
- Joint surfaces: Dampen to control suction as necessary.
- Laying: On a full bed of mortar, all joints filled.
- Exposed faces: Keep clear of mortar and grout.

405 BONDED DOWELS to existing brickwork walls

- Dowels: 6 mm diameter austenitic stainless steel.
 - Secured into clean, dry holes with adhesive. Do not use adhesive to bond stones at joints unless agreed otherwise.
 - Adhesive: Trimol 23 Epoxy Adhesive - Two Part Resin Adhesive System

Trimol 23 is a two-component solvent free adhesive system, both components are thixotropic. The resin component is black and the hardener component is white, producing a dark grey material when mixed. Trimol 23 is formulated to produce an adhesive and primer which may be applied in cold, damp or dry conditions. The mixed product remains in place on vertical and inverted surfaces, and when cured, forms a strong bond to most structural materials e.g., wood, metal, glass, reinforced plastics and laminates.

Components:

Trimol 23 Resin. Black thixotropic paste, density: 1.6 at 25°C.

Trimol 23 Hardener. White thixotropic paste, density: 1.4 at 25°C.

Mechanical properties (after curing at 21 days at 20°C):

Tensile strength (ISO/ R527): 14.8 MPa.

Tensile modulus (E) (ISO/ R527): 7.3 Gpa.

Elongation at break (ISO/ R527): 1%

Flexural strength (ISO 178): 37 MPa.

Compressive strength (ISO 604): 8033 MPa.

Linear shrinkage during cure at 20°C for 7 days: 0.03–0.05.

Curing:

Ultimate bond strengths are achieved after 4–5 days at 20°C, material will gel within 16–18 hours. At 20°C.

Application:

Applied with trowel, very stiff brush, serrated spreader or spatula. Recommended glue-line thickness is 1–30 mm. Joints must be closed whilst the adhesive is still tacky.

More about Trimol 23 Epoxy Adhesive - Two Part Resin Adhesive System:

- Further information.

EPOXY ADHESIVE:

" Manufacturer:

Triton Systems.

- Web: www.tritonsystems.co.uk.

- Email: technical@tritonsystems.co.uk.

- Product reference: Trimol 23 Epoxy Adhesive. .

- Additional requirements: None .

- Holes:
 - Drilled in the background and the rear of the replacement/ insert to receive dowels and adhesive.
 - Aligned to allow accurate positioning of the replacement/ insert.

MORTAR REPAIRS

510 PREPARATION FOR MORTAR REPAIRS

- Repair area: Scribe straight horizontal and vertical lines with edges parallel to joints. Where repair area abuts joints, maintain existing joint widths and do not bridge joints.
- Decayed masonry: Cut back carefully to a depth of not less than 20 mm and to a sound background. Where the depth of removal exceeds 50 mm seek instructions.
- Precautions: Do not weaken the masonry by removing excessive material. Do not damage adjacent masonry.
- Top and vertical edges of repair area: Undercut.

520 MORTAR REPAIRS Generally

- Reinforcement: Not required .
- Undercoats: As section Z21.
 - Mix: As finishing coat without stone dust .
 - Sand source/ type: Sand samples as clause 195; proportion of sand to stone dust determined by site trials .
 - Building up: In layers where necessary, each layer not exceeding 12 mm.
- Finishing coat: To match approved samples.
 - Mix: 1:7-8 masonry cement:sand .
 - Sand source/ type: Sand samples as clause 195; proportion of sand to stone dust determined by site trials .
 - Finished thickness: to match existing .
 - Finish: to match existing .

540 APPLYING MORTAR

- Background: Clean thoroughly to remove all dust and debris and dampen to control suction.
- Building up: In layers to specified thickness. Apply firmly and ensure good adhesion with no voids. Form a mechanical key to undercoats by combing or scratching to produce evenly spaced lines.
- Applying coats: Allow each layer to achieve an initial set before applying subsequent coats. Prevent each layer from drying out too rapidly by covering immediately with plastics sheeting and/ or dampening intermittently with clean water.
- Finishing mortar coat: Form accurately to required planes/ profiles and flush with adjacent masonry.
- Protection: Protect completed mortar repairs from adverse weather until they have fully set.

POINTING/ REPOINTING

810 PREPARATION FOR REPOINTING

- Removing mortar:
 - Work from the top of the wall downwards.
 - Remove carefully and without damaging adjacent masonry, arrises or widening joints.
- Recess for repointing: Form a neat recess of depth not less than 30 mm When mortar beyond this depth is loose and friable and/ or cavities are found seek instructions.
- Dust and loose debris. Remove. Dampen joints to control suction as necessary.

820 POINTING to external walls to both houses and blocks of flats

- Preparation of joints: Carefully brush away loose mortar .
- Mortar: As section Z21.
 - Mix: 1:3:12 white cement:lime:sand .
 - Sand source/ type: Crushed stone fine pointing sand to approval .
- Joints: match to existing .
- Other requirements: None .

C42
Repairing/ Renovating/ Conserving concrete

C42 Repairing/ Renovating/ Conserving concrete

To be read with Preliminaries/General conditions.

GENERAL

- 150 CONCRETE REPLACEMENT REPAIRS Generally
- Location: where required.
 - Concrete removal:
 - Extent: As clause 640.
 - Limitations on removal: Submit proposals.
 - Method: Submit proposals.
 - Reinforcement replacement:
 - Extent: Obtain instructions.
 - Jointing: Submit proposals .
 - Reinforcement treatment: Active pigment coating or barrier coating.
 - Concrete replacement: Submit proposals.
 - Finish: to match existing/ previous.
 - Other requirements: Abseiling to carry out repairs not permitted.
- 155 CRACK REPAIRS to exterior surfaces
- Location: where required.
 - Crack types/ widths: As survey report.
 - Primary function: Sealing against water and other adverse agents.
 - Grouting material: submit proposals/ to match existing.
 - Application method: Submit proposals.
 - Finish: Suitable to receive protective coating.
 - Other requirements: Submit proposals for preparatory reduction of water leakage pressure.

PRODUCTS

- 305 PROPRIETARY REPAIR SYSTEMS
- Products: Compatible and supplied by the same manufacturer as part of a total repair system.
- 310 REPAIR MORTAR
- Type: Polymer modified lightweight cementitious mortar (properties compatible with existing concrete).
 - Manufacturer: Submit proposals.
 - Product reference: Submit proposals.

EXECUTION

- 605 EXECUTION GENERALLY
- Standard: To BS EN 1504-10.
 - Operatives' skill and experience: Appropriate for the types of preparation and application.
 - Evidence: Submit on request.
- 610 QUALITY CONTROL DURING APPLICATION OF REPAIR SYSTEM
- Tests/ Observations: Submit proposals.
 - Frequency: Submit proposals.
 - Criteria: Not less than that for existing concrete.

625 REMOVAL OF FITTINGS/ ATTACHMENTS

- Extent: The area of repair and any fittings/ attachments that could impede or be damaged by access.
- Removal methods: Minimize damage to concrete/ reinforcement and to fittings/ attachments that are to be retained for reuse.
- Items for disposal:
 - Isolated fasteners.;
 - Cast-in fastenings.; and
 - Electrical equipment..
- Items for refixing after completion of repair work: removed items to be reinstated on completion of works.
 - Storage: Prevent damage.
- Other requirements: None.

630 CLEANING CONCRETE SURFACES

- Extent: To reveal surface condition and aid investigation work. Minimize disruption to concrete surfaces and materials. Leave no harmful residual cleaning agents.
- Methods: Submit proposals.

660 PREPARATION OF CONCRETE SUBSTRATES

- Soundness: Remove loose or otherwise defective material and repair significant cracks and gaps.
- Preparation:
 - Roughening for key: Submit proposals.
 - Wetting of substrate: As recommendations of replacement material manufacturer.
- Condition immediately before placing replacement material:
 - Cleanliness: Free from loose material, with no debris, tying wire clippings, and other matter that could adversely affect bond.
 - Surface condition: Primed..

675 CURING CONCRETE/ MORTAR

- Requirement: Keep surface layers of concrete/ mortar moist throughout curing period, including perimeters and abutments, by either restricting evaporation or continuously wetting surfaces of concrete/ mortar.
 - Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
 - Top surfaces: If covering is removed for finishing operations, replace it immediately afterwards

COMPLETION

710 RECORD OF LOCATION/ EXTENT OF REPAIRS

- Repair record forms:
 - Content: Unique repair reference number for cross-referencing to record drawings; details of repair including dimensions and explanatory sketches; agreements and special requirements.
 - Copies: Three.
 - Source of record forms: Contractor's standard.
- Record drawings: Not required.

C51
Repairing/ Renovating/ Conserving timber

C51 Repairing/ Renovating/ Conserving timber

To be read with Preliminaries/ General conditions

GENERAL

110 INSPECTION

- Purpose: To confirm nature and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Contract administrator and Foreman carpenter.
- Timing: At least 2 days before starting each section of work.
- Instructions issued during inspection: To be confirmed by CA (CBC).

130 OPENING UP

- Purpose: To reveal previously concealed areas of structure or fabric not recorded during initial surveys.
- Extent: Submit proposals.
- Timing: Give notice before starting opening up.
 - Period of notice: At least 24 hours.
- Retained building structure/ fabric: Do not damage or destabilize.

150A TIMBER PROCUREMENT

- Timber (including timber for wood based products): Obtained from well managed forests and/ or plantations in accordance with
 - All timber is to be obtained from FSC, PEFC or equivalent sources.:
 - The laws governing forest management in the producer country or countries.
 - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
 - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
 - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

160 TIMBER SUPPLIER

- Supplier: Contractor's choice.

PRODUCTS

360 SOFTWOOD FOR JOINERY REPAIRS Generally

- Species: To match existing or similar approved by CA.
- Quality: Generally to BS EN 942; free from decay and insect attack (except pinhole borers).
 - Appearance class: Class to match existing/ submit proposals.
- Treatment: All new timber to be pressure impregnated.
- Moisture content on delivery: 13-19%.

470 NAILS For general use

- Standard: As section Z20.
- Type: Annular ringed shank.
- Material: Steel.
 - Strength (minimum): Ultimate tensile strength 600 N/mm².
- Finish as delivered: Galvanized.

- 480 SCREWS For general use
- Standard: As section Z20.
 - Material: Stainless steel.
 - Tensile strength (minimum): 550 N/mm².
 - Finish as delivered: Galvanized.
- EXECUTION
- 600 WORKMANSHIP
- Skill and experience of site operatives: Appropriate for types of work on which they are employed.
 - Documentary evidence: Submit on request.
- 610 TEMPORARY SUPPORTS/ PROPPING
- General: Provide adequate temporary support at each stage of repair work to prevent damage, overstressing or uncontrolled collapse of any part of the structure.
 - Bearings for temporary supports/ propping: Suitable to carry loads throughout repair operations.
- 620 PROTECTION OF TIMBER AND WOOD COMPONENTS BEFORE AND DURING INSTALLATION
- Storage: Keep dry, under cover, clear of the ground and with good ventilation. Support sections/ components on regularly spaced, level bearers on a dry, firm base.
 - Handling: Do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
- 650 DIMENSIONS GENERALLY
- Site dimensions: Take as necessary before starting fabrication.
 - Discrepancies with drawings: Report without delay and obtain instructions before proceeding.
- 680 WARPING OF TIMBER
- Bow, spring, twist and cup: Not greater than the limits set down in BS 4978, or BS EN 14081-1 for softwood, or BS 5756 for hardwood.
- 690A PROCESSING TREATED TIMBER
- Cutting and machining: Carry out as much as possible before treatment.
 - Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
 - Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution - Contractor to submit proposals for approval by CA.
- 700 WOOD COMPONENTS - AS DELIVERED FINISH
- Components to be painted: Natural.
 - Components to be clear finished: Natural.
- 720 TEMPORARY REMOVAL AND REINSTATEMENT OF FITTINGS/ FIXTURES
- Items to be removed, and reinstated on completion of repair work:
 - Identification: Attach labels or otherwise mark items using durable, non-permanent means, to identify location and refixing instructions, where applicable.
 - Treatment following removal: Refurbish and repair as necessary.
 - Storage: Protect against damage, and store until required.
 - Storage location: On site.
 - Reinstatement: Refit in original locations using original installation methods.
 - Items unsuitable or not required for reuse: Obtain instructions regarding disposal.
- 730 PARTIAL REMOVAL OF EXISTING DECORATIVE/ PROTECTIVE FINISH Generally
- Extent: Remove minimum necessary to expose damaged or decayed wood. Feather the edge of remaining coating around repair site.
 - Method: Careful abrasion using moistened waterproof abrasive paper.
- 740 REMOVAL OF EXISTING DECORATIVE/ PROTECTIVE FINISH Generally
- Extent: Remove completely back to bare wood.
 - Method: Submit proposals.

750A CLEANING DIRTY OR STAINED WOOD

- Generally: Scrub with neutral pH soap and clean, warm water.
- Old varnish: Remove (contractor to submit product proposals to CA)

860 MOISTURE CONTENT CHECKING

- Procedure: When instructed, check moisture content of timber sections with an approved electrical moisture meter.
- Test results: Keep records of all tests. If moisture content falls outside specified range obtain instructions.

870 MOISTURE CONTENT TESTING

- Procedure: When instructed, test timber sections with an electrical moisture meter with deep probes, that has been carefully calibrated against oven drying tests or otherwise guaranteed by an independent testing authority.
- Test sample: Test 5% but not less than 10 lengths of each cross-section in the centre of the length.
- Test results: 90% of values obtained to be within the specified range. Provide records of all tests.

F
Masonry

F30

Accessories/ sundry items for brick/ block/ stone walling

F30 Accessories/ sundry items for brick/ block/ stone walling

- 1 SCOPE
- Installation of ventilation ducts
- 17A VENTILATION DUCTS IN EXTERNAL WALLING
- Manufacturer: Vent Axia .
Install Across cavity, sloping away from inner leaf, bedding fully in mortar to seal cavity.
- 45 SUPPORT OF EXISTING WORK
- Where new lintels are to support existing structure, completely fill top joint with semi dry mortar, hard packed and well rammed to ensure full loa transfer after removal of temporary supports.
- 82 PROPRIETARY PRECAST CONCRETE LINTELS
- Standard: To BS 5977-2
 - Manufacturer and reference: As specified on drawing or as agreed on site.
 - Bed on mortar used for adjacent work with bearing of not less than 150mm unless specified otherwise. Use slate packing pieces.
- 85A PREFABRICATED STEEL LINTELS
- Standard: To BS EN 845-2.
 - Manufacturer and reference: Catnic or similar approved as specified on drawing or agreed on site.
 - Placement: Bed on mortar used for adjacent work.
 - Bearing length (minimum): 150mm .
- 86A TILE SILLS to window sills
- Tiles: Plain clay to BS EN 1304.
 - Manufacturer: match to existing .
Product reference: match to existing .
 - Size: match to existing .
 - Placement: Two courses, broken jointed on full bed of 1:0.25:3 cement:lime:sand mortar as section Z21.
 - Joints: Full and finished flush.

G
Structural/Carcassing metal/timber

G12
Isolated structural metal members

G12 Isolated structural metal members

To be read with Preliminaries/ General conditions.

PRODUCTS

320A STEEL TO CANOPIES OVER FLATS WITH SECONDARY ROOF

- Steel: To BS EN 10210-1.
 - Grade: S275J0.
 - Section properties and dimensions: To BS EN 10210-2.
 - Surface condition: Free from heavy pitting and rust, burrs, sharp edges and flame cutting dross.

610 INSTALLATION

- Accuracy: Members positioned true to line and level using, if necessary, steel packs of sufficient area to allow full transfer of loads to bearing surfaces.
- Fixing: Use washers under bolt heads and nuts.
 - Tapered washers: Provide under bolt heads and nuts bearing on sloping surfaces. Match taper to slope angle and align correctly.

640 PREPARATION AND PRIMING

- Sequence of working: Fabricate, prepare, prime.
- Surfaces inaccessible after assembly: Apply full treatment and coating system including, if necessary, local application of site coatings.
- Galvanized/ sheradized fasteners: After steelwork erection and before applying site coatings, thoroughly degrease and clean. Etch prime.

COMPLETION

910 STEEL TO TIMBER JOINTS

- General: Inspect accessible bolted and coach screwed joints and tighten fasteners if necessary.
 - Timing: Immediately prior to installation of finishes, on Completion, and at end of Defects Rectification or Liability Period.
 - Confirmation: Give notice when inspections and adjustments have been made.

G20
Carpentry/ timber framing/ first fixing

G20 Carpentry/ timber framing/ first fixing

To be read with Preliminaries/ General conditions.

TYPES OF TIMBER

150 STRENGTH GRADING OF TIMBER

- Grader: Any company currently registered under a third party quality assurance scheme operated by a certification body approved by the UK Timber Grading Committee.
- Grading and marking of timber:
 - Timber of a target/finished thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being in excess of 24% and clearly marked as 'DRY' or 'KD' (kiln dried).
 - Timber graded undried (green) and specified for installation at higher moisture contents: Clearly marked as 'WET' or 'GRN'.
 - Structural timber members cut from large graded sections: Regraded to approval and marked accordingly.

WORKMANSHIP GENERALLY

401 CROSS SECTION DIMENSIONS OF STRUCTURAL SOFTWOOD AND HARDWOOD TIMBER

- Dimensions: Dimensions in this specification and shown on drawings are target sizes as defined in BS EN 336.
- Tolerances: The tolerance indicators (T1) and (T2) specify the maximums permitted deviations from target sizes as stated in BS EN 336, clause 5.3:
 - Tolerance class 1 (T1) for sawn surfaces.
 - Tolerance class 2 (T2) for further processed surfaces.

402 CROSS SECTION DIMENSIONS OF NONSTRUCTURAL SOFTWOOD TIMBER

- Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
- Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1:
 - Clause 6 for sawn sections.
 - Clause NA. 2 for further processed sections.

403 CROSS SECTION DIMENSIONS OF NONSTRUCTURAL HARDWOOD TIMBER

- Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
- Maximum permitted deviations from finished sizes: As stated in BS EN 1313-2:
 - Clause 6 for sawn sections.
 - Clause NA.3 for further processed sections.

430 SELECTION AND USE OF TIMBER

- Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.
- Notches and holes: Position in relation to knots or other defects such that the strength of members will not be reduced.
- Scarf joints, finger joints and splice plates: Do not use without approval.

440 PROCESSING TREATED TIMBER

- Cutting and machining: As much as possible before treatment.
- Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
- Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

450 MOISTURE CONTENT

- Moisture content of timber and wood based products at time of installation: Not more than:
 - Covered in generally unheated spaces: 24%.
 - Covered in generally heated spaces: 20%.
 - Internal in continuously heated spaces: 20%.

510 PROTECTION

- Generally: Keep timber dry and do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
- Timber and components: Store under cover, clear of the ground and with good ventilation. Support on regularly spaced, level bearers on a dry, firm base. Open pile to ensure free movement of air through the stack.
- Trussed rafters: Keep vertical during handling and storage.

JOINTING TIMBER

570 JOINTING/FIXING GENERALLY

- Generally: Where not specified precisely, select methods of jointing and fixing and types, sizes and spacings of fasteners in compliance with section Z20.

ERECTION AND INSTALLATION

760 TEMPORARY BRACING

- Provision: As necessary to maintain structural timber components in position and to ensure complete stability during construction.

770 ADDITIONAL SUPPORTS

- Provision: Where not shown on drawings, position and fix additional studs, noggings or battens for appliances, fixtures, edges of sheets, etc.
- Material properties: Additional studs, noggings and battens to be of adequate size and have the same treatment, if any, as adjacent timber supports.

950 And FASCIAS/BARGES/SOFFITS

- Manufacturer: Swish.
 - Product reference: TBC.
 - Material: Cellular PVC-U core with impact modified PVC-U skin and containing no lead or cadmium..
 - Finish: UPVC.
 - Colour: White.
 - Nominal depth: Fascias 150 mm, Soffits 225 mm..
 - Edge profile: Square.
 - Accessories: ijointing pieces, finishing trims, soffit ventilators, .
 - Other requirements: Fascia board grooved for soffit board..
- Support timber: Sawn softwood battens as clause 270; 25 x 50 mm for fascia boards; 47 x 50 mm for soffit boards..
 - Provide additional support at joints.
- Fixings: As per maufactuers instructions.
- Installer: A contractor approved by the system manufacturer.

960 SCOPE

- 12mm WBP Plywood for lining walls around shower to be tiled.
- 12mm WBP Plywood for boxing in pipework and pump.
- 6mm WBP Plywood for lining floorboards prior to laying of vinyl.
- 22mm WBP Plywood for bath Panels.
- Replacement of rotten joists as necessary.
- Replacement of joists with smaller sections to accommodate shower tray depth.

970 WBP PLYWOOD

Manufactured to an approved national standard.

Thickness: 6mm ,12mm & 22mm

Appearance class to BS EN 635: I/II

Bond quality to BS EN 314:Part 2:Class 3

Finish: Unsanded.

Preservative treatment: As section Z12 and British Wood Preserving and Damp-proofing Association Commodity Specification C8.Type and desired service life: CCA 40 years

H
Cladding/Covering

H21
Timber weatherboarding

H21 Timber weatherboarding

To be read with Preliminaries/ General conditions.

110B TIMBER CANOPY OVER EXSISTING FRONT DOOR

Primary support structure [Existing brickwork].

- Manufacturer: [Submit proposals to CA].
- Construction: [Supply fit as to manufacturers instructions and reccomendations].
- Finish: [Supply fit as to manufacturers instructions and reccomendations].
- Colour: [To match existing].

160 FIXING BOARDING

- General: Fix boards securely to give flat, true surfaces free from undulations, lipping, splits, hammer marks and protruding fasteners.
- Movement: Allow for movement of boards and fixings to prevent cupping, springing, excessive opening of joints or other defects.
- Heading joints: Position centrally over supports and at least two board widths apart on any one support.
- Nail heads: Punch below surfaces that will be seen in the completed work.

H32

Plastics profiled sheet cladding/ covering

H32 Plastics profiled sheet cladding/ covering

To be read with Preliminaries/ General conditions.

GENERAL REQUIREMENTS

191 WATER PENETRATION

- Requirement: Under site exposure conditions moisture must not penetrate onto internal surfaces, or into cavities not designed to be wetted

230 FIXING SHEETS GENERALLY

- Cut edges: Clean true lines.
- Sheet orientation: Exposed joints of side laps away from prevailing wind unless shown otherwise on drawings.
- Fastener hole location: At regular intervals in straight lines and not less than 50 mm from edges of sheets and fittings.
- Crown fixing: For sheets with a profile depth greater than 20 mm support crowns at primary fixings with profile fillers.
- Debris: No dust or foreign matter to be present within construction.
- Fasteners torque: Sufficient to correctly compress washer.
- On completion: Fixings to be watertight and sheets secure with no buckling or distortion.

320 ABUTMENTS

- Junctions with flashings: Watertight and neatly dressed.

H41 Glass fibre reinforced plastics cladding/ features

To be read with Preliminaries/ General conditions.

TYPES OF CLADDING/ FEATURES

120A FIBREGLASS CANOPY OVER ENTRANCE DOOR

- Primary support structure Existing brickwork.
 - Manufacturer: Submit proposals to CA.
 - Construction: Supply fit as to manufacturers instructions and reccomendations.
 - Finish: Supply fit as to manufacturers instructions and reccomendations.
 - Colour: To match existing.

INSTALLATION

605 PREPARATION

- Prefabrication: Complete products and attach fixings in workshop wherever possible.
- Identification: Mark or tag products. Do not mark surfaces visible in the complete installation.
- Electrolytic corrosion: Isolate dissimilar metals.

615 SUITABILITY OF STRUCTURE

- Contractor's survey:
 - Scope: Geometric survey of supporting structure, checking line, level and fixing points.
 - Coordinate: With surveys for adjacent cladding.
 - Give notice: If structure will not allow required accuracy or security of erection.
- Setting out: Establish erection datum points, lines and levels for a complete elevation at a time unless otherwise agreed.

625 INSTALLATION OF INTERFACES

- General: Locate flashings, closers etc. correctly with neat overlaps to form weathertight junctions.

640 FINAL FIXING

- Torque figures: Tighten threaded fastenings to figures recommended by manufacturer. Do not overtighten restraint fixings intended to permit lateral movement.

H60
Plain roof tiling

H60 Plain roof tiling

To be read with Preliminaries/General conditions.

TYPES OF TILING

145 CLAY VERTICAL TILING TO FIRST ELEVATION OF EXTERNAL WALLS

- Substrate: to match existing.
- Underlay: to match existing.
 - Recycled content: None permitted.
 - Fixing: Parallel to bottom edge.
 - Head-lap (minimum): to match existing.
- Battens:
 - Size: to match existing.
 - Fixing: to match existing.
- Tiles: To BS EN 1304.
 - Manufacturer: to match existing.
Product reference: to match existing.
 - Pattern: to match existing.
 - Colour: to match existing.
 - Size: to match existing.
 - Head-lap (minimum): to match existing.
 - Fixing: Two nails each tile.
- Accessories: None.

TILING GENERALLY

210 BASIC WORKMANSHIP

- General: Fix tiling and accessories to make the whole sound and weathertight at earliest opportunity.
- Setting out: To true lines and regular appearance, with neat fit at edges, junctions and features.
- Fixings for tiling accessories: As recommended by tile or accessory manufacturer.
- Gutters and pipes: Keep free of debris. Clean out at completion.

220 REMOVE EXISTING TILING

- General: Carefully remove tiles, battens, underlay, etc. with minimum disturbance of adjacent retained tiling.
- Undamaged tiles: Set aside for reuse.

240 UNDERLAY

- Laying: Maintain consistent tautness.
- Vertical laps (minimum): 100 mm wide, coinciding with supports and securely fixed.
- Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra large clout head nails.
- Eaves: Where exposed, underlay must be BS 8747 Annex B, type 5U, or equivalent UV durable type.
- Penetrations: Use proprietary underlay seals or cut underlay to give a watertight fit around pipes and components.
- Ventilation paths: Do not obstruct.

245 BATTENS/ COUNTERBATTENS - TREATED

- Timber: Sawn softwood.
 - Species: To BS 5534, clause 4.12.1.
 - Permissible characteristics and defects: Not to exceed limits in BS 5534, Annex C.
 - Grading: to match existing.
 - Moisture content at time of fixing and covering (maximum): 22%.
- Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.
 - Type: to match existing.

270 BATTENS FIXED TO MASONRY

- Setting out: In straight horizontal lines. Align on adjacent areas.
- Batten length (minimum): 3 m.
- Fixing centres (maximum): 400 mm.

275 TILE FIXING

- Setting out: Lay tiles to a half lap bond with joints slightly open. Align tails.
- Ends of courses: Use tile and a half tiles to maintain bond and to ensure that cut tiles are as large as possible.
- Top and bottom courses: Use eaves/tops tiles to maintain gauge.
- Perimeter tiles:
 - Verges, abutments and each side of valleys and hips: Twice nail end tile in every course.
 - Eaves and top edges: Twice nail two courses of tiles or clip as appropriate.
- Fixings for tiles: Nails/clips recommended by tile manufacturer.

VERTICAL TILING EDGES/JUNCTIONS

910 BOTTOM EDGES

- Tiling substrate work: Fix timber tilting fillet to support bottom course of tiles in correct vertical plane. Fix flashing to tilting fillet.
- Underlay: Dress over flashing.
- Undercourse and bottom course tiles: Fix with tails neatly aligned.

920 TOP EDGES

- Top course tiles: Fix under abutment and make weathertight with flashings dressed down not less than 150 mm.

930 SIDE ABUTMENTS

- Tiling substrate work: Chase abutment wall and insert stepped flashing.
 - Flashing: Return not less than 75 mm behind tiling, overlapping underlay and battens. Turn back to form a vertical welt.
- Abutment tiles: Cut and fix neatly.

940 ANGLES WITH ANGLE TILES

- Angle tiles (purpose made): Fix right and left hand in alternate courses to break bond.
- Adjacent tiles: Cut and fix neatly.

950 ANGLES WITH SOAKERS

- Angle tiles: Cut tile and a half tiles and fix to form a straight, close mitred junction.
- Soakers: Interleave with angle tiles. Fix by nailing to battens at top edge.

960 JUNCTIONS WITH ROOF VERGES

- Tiling substrate work: Fix additional tiling batten parallel to and below verges.
- Course end tiles: 'Winchester cut' tile and a half tiles to angle of verge rake. Fix to additional tiling batten with cut edge parallel to and below verge.

H65
Single lap roof tiling

H65 Single lap roof tiling

3A ROOF TILING CONCRETE PROFILE

- Base: Traditional at 420mm centres
- Pitch: 35°
- Insulation: Between horizontal ceiling joists
- Underlay: Spiritech 250 (9077)
 - Lay as clause 25A directly over rafters
 - Minimum horizontal lap: 100mm
- Battens: As clause 30A. size 50 x 25mm
 - Joints must not occur more than once in any group of four battens on any one support. An additional batten must be provided where an unsupported lap in the underlay occurs between battens.
- Fix each batten to each support, splay nailing at ends, using 65 x 3.35mm galvanised smooth round nails.
- Tiles: Redland Norfolk Pantile (5101)
- Colour: Tudor Brown
- Size: 227 x 381mm
- Headlap: Minimum 75mm, maximum 125mm
- A band of tiles 15 wide around all perimeters of the roof must be nailed. No further fixing is required..

15 MANUFACTURERS INFORMATION

- Check the existing supporting roof structure to be roofed upon is in a suitable state to receive roof covering. It must be free from harmful conditions such as timber rot and must be structurally sound. Lafarge Roofing cannot be held responsible for problems with roof performance caused by pre-existing conditions that are not discovered and corrected prior to any re-roofing works.
- In this section the Redland product codes are given in parentheses, e.g. (8122).
- Comply with Lafarge Roofing Profile Range Technical Guide dated January 2005 and fixing instructions for each product. Check that this is the current edition of the Technical Guide; if not consult Lafarge Technical Solutions and draw to the attention of the CA any relevant technical changes.
- The SpecMaster and drawings take precedence over the Profile Range Technical Guide details.

16 BASIC WORKMANSHIP

Set out to give true lines and regular appearance fitting neatly at all edges, junctions and features. Fix tile roofing to make the roof whole sound and weathertight at the earliest opportunity. Repair any defects as quickly as practicable to minimise damage and nuisance. Keep gutters and pipes free of debris and clean out at completion.

20A REMOVING EXISTING TILING

- General: Carefully remove tiles, battens, underlay, etc. with minimum disturbance of adjacent retained tiling.

25A UNDERLAY

- Handle carefully to prevent tears and punctures and repair with adhesive tape any which do occur.
- Lay parallel to eaves, maintaining consistent tautness.
- Vertical laps (minimum): 100 mm wide, coinciding with supports. Horizontal laps of the dimensions specified. Fix with extra large head fixings, keeping the number of perforations to a minimum.
- Where pipe and other components penetrate the underlay, use proprietary underlay seals.

- 30A BATTENS/ COUNTERBATTENS
- Sawn softwood, species to BS 5534, clause 4.12.1.
 - Grading: To BS 4978, clause 5 or 9. Moisture content at time of fixing and covering (maximum): 22%.
 - Preservative treatment: Copper or OS double vacuum as section Z12 and British Wood Preserving and Damp proofing Association Commodity Specification C8.
 - To be in straight lines aligned on adjacent areas with battens to be fully supported on no less than 3 supports
 - Batten joints to be square cut and butted centrally on supports.
- 32 BATTEN FIXING
- Batten length (minimum): Sufficient to span over three supports.
 - Joints in length: Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
 - Additional battens: Provide where unsupported laps in underlay occur between battens.
- 35A TILE FIXING
- Lay tiles straight bond in even courses with tails aligned.
 - Nail tiles using 45 x 3mm aluminium alloy clout nails.
- 36 TILING GENERALLY
- Ensure that related trades are provided with all relevant information relating to carpentry work, etc. Before starting work ensure that previous related work is complete and in accordance with the project documents.
 - Form all details using the specified and Redland recommended fittings and accessories: do not improvise without approval.
 - Fittings and accessories to be supplied by Lafarge RfG to match tile colour and finish unless specified otherwise.
 - Cut tiles only where necessary with an appropriate tool to give straight, clean edges.
 - Fix edge tiles and fittings securely to neat, true lines.
 - Ensure that all lead flashings are fixed with or immediately after the tiling and are neatly dressed down. As soon as practical, a smear coating of patination oil should be applied evenly in once direction and in dry conditions.
- 37 LOCAL AND GENERAL FIXING AREAS
- Definitions:
 - Local areas: Bands of tiling around all edges or obstructions of each plane of the roof. Calculate extent of each band in accordance with BS 5534, section 5.
 - General areas: Remaining areas of roof tiling.
- 40 MORTAR BEDDING/ POINTING
- Mortar: As section Z21, 1:3 cement: sand, with plasticizing admixtures permitted.
 - Bond strength: To BS 5534.
 - Weather: Do not use in wet or frosty conditions or when imminent.
 - Appearance: Finish neatly and remove residue.
- 42A FIRE SEPARATING WALLS
- Ensure that separating wall is cut on the rake 25-50mm below top of adjacent rafters.
 - Fill space over top of wall with layers of mineral fibre quilt so that when underlay and battens are laid it is lightly compressed. Tuck edges of quilt between edges of wall and adjoining rafters.
 - Lay 300mm wide pads of mineral fibre quilt thick enough to seal all gaps cut to fit snugly between battens.
 - Completely seal air paths in the plane of the separating wall with 50mm wire reinforced mineral fibre nailed to rafter and carefully cut to shape.

47A EAVES

- Fix continuous batten to top of wall ensuring all tiles lay in the same plane.
- Fix continuous tilting fillet to support underlay at eaves to prevent water retaining troughs
- Fix not less than 325mm width of BS747 type 5U felt underlapping first width of underlay and dress over tilting fillet into gutter.
- Fix Reform Eaves Filler Units (9207) using 25 x 2.65mm galvanised clout nails.
- Fix all tiles in the eaves course with tails projecting 50mm from front of wall.

52A BEDDED VERGES WITH BEDDED UNDERCLOAK

- Carry underlay 50 mm onto outer leaf of gable wall and bed 6mm fibre cement undercloak of approved colour on top of underlay projecting 38-50 mm beyond face of wall on mortar identical to that used in gable walling and point neatly.
- Carry tiling battens over undercloak and finish on centre of gable rafter.
- Fix standard tiles for both left hand and right hand verges.
- Bed edge of verge tiles on 75mm wide bed of mortar as clause 40. Ensure that mortar is not displaced or cracked by mechanical fixing of tiles.

70A SIDE ABUTMENTS

- Underlay: Turn up not less than 100 mm at abutments.
- Cut or fit tiles closely to abutment.
- Ensure that code 4 lead step and cover flashing is dressed closely over one complete roll and pan of tile.

71A TOP EDGE ABUTMENTS

- Underlay: Turn up not less than 100 mm at abutments.
 - Fix tiles closely to abutments.
- Ensure that code 4 lead apron flashing is dressed closely over tiles by not less than 150mm

75A DRY VENTILATED RIDGES

- Finish underlay 30mm from apex on either side of roof to allow an airgap.
- Fix 33mm wide batten to top of ridge board with fixing straps provided. Height of batten should provide a wood screw penetration of not less than 15mm.
- Ridge tiles: Half Round Ridge (8101)
 - Colour: Terracotta
- Fix using DryVent Ridge Pack (9055)
- Block Ends with wood screw for gables (7519)

86A ROOF SLOPE VENTILATORS

- Fix ThruVent Tiles (7329), with underlay seal, to ventilate roof space as follows:
 - Eaves, in lowest course clear of insulation at 450mm centres

87A ROOF SLOPE TERMINALS

- Soil Vent Pipe Terminals: Code 4 Lead Slate

H71
Lead sheet coverings/ flashings

H71 Lead sheet coverings/ flashings

45A STEP AND COVER FLASHINGS TO CHIMNEYS

- Lead:
 - Thickness: 1.75-2.00 mm (code 4).
- Dimensions:
 - Lengths: Not more than 1500 mm.
 - End to end joints: Laps not less than 100 mm.
 - Upstand: Not less than 85 mm.
 - Cover to roof: Not less than 200 mm.
- Fixing:
 - Top edge: Lead wedges at every course.
 - Bottom edge: Clips.
 Material: Copper.
 Spacing: Maximum 300mm centres.

52 CHIMNEY FLASHINGS

- Lead:
 - Thickness: 1.75-2.00 mm (code 4).
- Front apron:
 - Dimensions:
 - Length: Width of chimney plus not less than 150 mm underlap to each side flashing.
 - Upstand: Not less than 75 mm.
 - Cover to roof: Not less than 200mm.
 - Fixing: Lead wedges into bed joint.
- Back gutter:
 - Dimensions:
 - Length: Width of chimney plus not less than 100 mm overlap to each side flashing.
 - Upstand: Not less than 100 mm.
 - Gutter Sole: Not less than 150 mm.
 - Cover up roof: Not less than 225 mm.
- Back gutter cover flashing:
 - Dimensions:
 - Length: Width of chimney plus not less than 100 mm overlap to each side flashing.
 - Cover: Overlap to back gutter upstand not less than 75 mm.
 - Fixing: Lead wedges into bed joint.

53 LEAD SLATE

- Lead:
 - Thickness 1.75 - 2.00mm (Code 4)
- Dimensions:
 - Base: Not less than 450 x 450mm
 - Upstand: Not less than 150mm to fit pipe and at angle to suit roof pitch

60 MATERIALS AND WORKMANSHIP GENERALLY

- Lead production method:
 - Rolled, to BS EN 12588.
 - Machine cast: Agrément certified.
- Identification: Colour marked for thickness/ code, weight and type.
- Workmanship standard: To BS 6915 and latest editions of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Association.
- Fabrication and fixing: To provide a secure, free draining and weathertight installation.
- Marking out: Do not use scribes or other sharp instruments to mark out lead without approval.
- Solder: Use only where specified.
- Finished leadwork: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
- Patination oil: Apply smear coating to all visible lead, evenly in one direction and in dry conditions.

- 62 LEADWELDING
- In situ leadwelding: Not permitted.
- 80 CLIPS
- Material:
 - Lead clips: Cut from sheets of the same thickness/ code as sheet being secured.
 - Copper clips: Cut from 0.70 mm thick sheet to BS EN 1172, temper R220 (soft) or R240 (half hard) depending on position, dipped in solder if exposed to view.
 - Stainless steel: Cut from 0.38 mm sheet to BS EN 10088, grade 1.4301(304), terne coated if exposed to view.
 - Dimensions:
 - Width: 50 mm where not continuous.
 - Length: To suit detail.
 - Fixing clips: Secure each to substrate with either two screw or three nail fixings not more than 50 mm from edge of lead sheet. Use additional fixings where lead downstands exceed 75 mm.
 - Fixing lead sheet: Welt clips around edges and turn over 25 mm.
- 83 WEDGE FIXING INTO JOINTS/ CHASES
- Joint/ chase: Rake out to a depth of not less than 25 mm.
 - Lead: Dress into joint/ chase.
 - Fixing: Lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
 - Sealant: One part silicone lead sealant, colour: grey.
 - Application: As section Z22.
- 98 WELTED JOINTS
- Joint allowance: 50 mm overlap, 25 mm underlap.
 - Copper or stainless steel clips: Fix to substrate at 450 mm centres.
 - Overlap: Welt around underlap and clips and lightly dress down.

J
Waterproofing

J30
Liquid applied damp proofing

J30 Liquid applied damp proofing

- 1 SCOPE
 - Damp proofing over existing slab prior to installation of shower tray.
- 10A COLD APPLIED DAMP PROOFING
 - Coating: Synthaprufe
 - Manufacturer: Ruberoid .
 - Product reference: Synthaprufe .
 - Number of coats: 3 maximum .
 - Coverage overall: 10mm minimum .
 - Blinding: Clean sharp sand applied while tackey
 - Finish: Minimum 50mm sand cement screed over damp proofing if applicable .
- 50A WORKMANSHIP
 - Preparation: Make good to defects in surfaces to be coated screed to required depth to accommodate shower tray
 - Penetrations: Make junctions completely impervious.
 - Coatings:
 - Apply to clean, sound surfaces .
 - Uniform, continuous film
 - Do not allow to pool in hollows
 - Firmly adhered and free from defects likely to permit the passage of water.
 - Prevent damage.
 - Final covering: Apply as soon as possible after coating has hardened.
- 60A JUNCTIONS WITH DPCS
 - DPCs: Before applying coating, fully expose edges and removal all contaminants.
 - Coverage: Fully coat dpc and adjacent surfaces, extending beyond by 50mm .
- 70 BLINDING
 - Coatings: Blind whilst still tacky .
 - Surplus material: Remove when coatings are completely dry.

J40
Flexible sheet tanking/ damp proofing

J40 Flexible sheet tanking/ damp proofing

20A LOOSE LAID POLYETHYLENE DAMP PROOF MEMBRANE

- To PIFA Standard 6/83A or Agreement certified
- Thickness: 250 micrometres (1200 gauge)
Lay neatly and tuck well into angles to prevent bridging and creasing.
Form foled welts at corners in upstands.
Joint sheets with continuous strips of mastic between 150mm overlaps and seal with tape along the edge of the upper sheet, leaving no gaps. Ensure that sheets are clean and dry at time of jointing.
Mastic and tape to be types recommended by sheet manufacturer.
- If sheets cannot be kept dry, double welted joints may be used, tape to hold in position prior to laying scree..
- Membrane: Contractor's choice to PIFA Standard 6/83A or Agrément certified.
- Thickness/ Gauge: 300 micrometres (1200 gauge).
- Joints: Lapped minimum 150 mm.
 - Surfaces to be joined: Clean and dry.
- Sealing: Continuous mastic strip between overlaps, edge of top sheet sealed with jointing tape.

50A WORKMANSHIP GENERALLY

- Ensure that surfaces to be covered are clean, dry, smooth and free from voids, sharp protrusions and frost.
- Apply materials carefully to provide a completely impervious, continuous membrane.
- Where pipes, ducts, cables, etc., pass through sheeting, make junctions completely pervious by forming collars fully bonded/sealed to both pipes and sheeting.
- Protect finished sheeting adequately to prevent puncturing.
- Immediately prior to covering with permanent overlying construction check for damage and repairs as necessary.

65A JUNCTIONS WITH FLUSH DPCS/ CAVITY TRAYS

- Thoroughly clean away all mortar, debris and dirt from vicinity of dpcs, including any projecting portion of dpcs.
- DPC's which project from the wall: Fall lap and fully bond/seal sheeting to dpc projection using mastic tape.
- DPC's which do not project from the wall: Extend sheeting 50mm past dpc and fully bond to wall using mastic tape.

Reinforced bitumen membrane roof coverings

J41 Reinforced bitumen membrane roof coverings

To be read with Preliminaries/General conditions.

TYPES OF ROOF COVERING

110 BUILT-UP REINFORCED BITUMEN MEMBRANE WARM DECK ROOF COVERING TO ROOFS TO BLOCKS OF FLATS

- Substrate: Existing covering.
 - Preparation: Remove existing waterproof covering.
- Vapour control layer: Reinforced bitumen membrane to BS 8747, class S1P1.
- Insulation: Rigid urethane foam board.
- Overlay to insulation: Not required.
- Waterproof covering:
 - System manufacturer: Submit proposals.
 - First layer: supply and fit to manufacturers instructions. Attachment: supply and fit to manufacturers instructions.
 - Intermediate layer: supply and fit to manufacturers instructions. Attachment: supply and fit to manufacturers instructions.
 - Top layer/ Capsheet: supply and fit to manufacturers instructions. Colour: N/A. Attachment: supply and fit to manufacturers instructions.
 - Flashings and detail work: supply and fit to manufacturers instructions.
- Surface protection: supply and fit to manufacturers instructions.
- Accessories: Not required.

210 ROOF PERFORMANCE

- General: Secure, free draining and weathertight.

EXECUTION GENERALLY

515 ADVERSE WEATHER

- General: Do not lay coverings in high winds, wet or damp conditions or in extremes of temperature unless effective temporary cover is provided over working area.
- Unfinished areas of roof: Keep dry. Protect edges of laid membrane from wind action.

520 INCOMPLETE WORK

- End of working day: Provide temporary seal to prevent water infiltration.
- On resumption of work: Cut away tail of membrane from completed area and remove from roof.

SUBSTRATES/ VAPOUR CONTROL LAYERS/ WARM DECK ROOF INSULATION

610 SUITABILITY OF SUBSTRATES

- Substrates generally: Secure, clean, dry, smooth, and free from frost, contaminants, voids and protrusions.
- Preliminary work: Complete including:
 - Grading to correct falls.
 - Formation of upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints.
 - Fixing of battens, fillets and anchoring plugs/ strips.
- Moisture content and stability of substrate: Must not impair roof integrity.

620 RENEWING EXISTING COVERINGS

- Areas to be renewed: Submit proposals.
- Substrate: Do not damage.
- Timing: Remove only sufficient coverings as will be renewed and made weathertight on same day.

740 TORCH-ON BONDING OF REINFORCED BITUMEN MEMBRANE

- Bond: Full over whole surface, with no air pockets.
- Excess compound at laps of top layer/ capsheet: Leave as continuous bead.

750 LAYING MINERAL FACED REINFORCED BITUMEN MEMBRANES

- Lap positions and detailing of ridges, eaves, verges, hips, abutments, etc: Submit proposals.
- Setting out: Neat, with carefully formed junctions.
- Lap bonding: Carry out only at prefinished margins or prepared 'black to black' edges.
- Excess bonding compound at laps: Remove whilst still warm.

COMPLETION

910 INSPECTION

- Interim and final roof inspections: Submit reports.

940 COMPLETION

- Roof areas: Clean.
- Outlets: Clear.
- Work necessary to provide a weathertight finish: Complete.
- Storage of materials on finished surface: Not permitted.
- Completed membrane: Do not damage. Protect from chemicals, traffic and adjacent or high level working.

Single layer polymeric sheet roof coverings

J42 Single layer polymeric sheet roof coverings

To be read with Preliminaries/ General conditions.

TYPES OF ROOF COVERING

PRODUCTS

330 TIMBER TRIMS, ETC

- Quality: Planed. Free from wane, pitch pockets, decay and insect attack except ambrosia beetle damage.
- Moisture content at time of covering (maximum): 22%.
- Preservative treatment: CU AZ.

360 PLYWOOD OVERLAY TO METAL DECK

- Standard: To BS EN 636, section 7 (plywood for use in humid conditions).
- Quality: Naturally durable timber, free from preservatives.
- Thickness: 18mm.

380 PROTECTION LAYER

- Type: PVC faced polyester fleece, 300 g/m² upper layer and polyester fleece lower layer..
- Manufacturer: TBC.
- Product reference: TBC.
- Grade: TBC.

383 SEPARATING LAYER

- Type: TBC.
- Manufacturer: Polyester fleece..
- Product reference: TBC.
- Grade: TBC.

EXECUTION GENERALLY

510 ADVERSE WEATHER

- General: Do not lay membrane at temperatures below 5°C or in wet or damp conditions unless effective temporary cover is provided over working area.
- Unfinished areas of roof: Keep dry and protect edges of laid membrane from wind action.

SUBSTRATES/ VAPOUR CONTROL LAYERS/ WARM DECK ROOF INSULATION

610 SUITABILITY OF SUBSTRATES

- Surfaces to be covered: Secure, clean, dry, smooth, free from frost, contaminants, voids and protrusions.
- Preliminary work: Complete, including:
 - Grading to correct falls.
 - Formation of upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints.
 - Fixing of battens, fillets and anchoring plugs/ strips.
- Moisture content and stability of substrate: Must not impair integrity of roof.

620 RENEWING EXISTING COVERINGS

- Areas to be renewed Entrance canopy.
- Substrate: Do not damage.
- Timing: Remove only sufficient coverings as will be renewed and made weathertight on same day.

WATERPROOF MEMBRANES/ ACCESSORIES

910 INSPECTION

- Interim and final roof inspections: Submit reports.

940 COMPLETION

- Roof areas: Clean.
 - Outlets: Clear.
- Work necessary to provide a weathertight finish: Complete.
- Storage of materials on finished surface: Not permitted.
- Completed membrane: Do not damage. Protect from traffic and adjacent or high level working.

K
Plasterboard Dry Lining/Partitions

K10
Plasterboard Dry Lining/Partitions

K10 Plasterboard Dry Lining/Partitions

- 1 SCOPE
 - Dry lining walls in shower room as required and agreed prior to tiling.
 - Construction of new partitions as indicated on drawing or as agreed on site to accommodate new layout.
 - Replacement of ceilings damaged/affected by the works.

- 15 WALL LINING ON EXISTING TIMBER PARTIIONS
 - Frame centres: To be checked on site.
 - Lining: 12mm WBP Plywood
 - Fixing method: As clause 65

- 20 BOXING IN SERVICES
 - Frame centres: 450mm.
 - Lining: 12mm WBP Plywood.
 - Fixing method: 50 x 50mm softwood timber studwork.

- 25 BOXING IN PUMP
 - Frame centres: 450mm.
 - Lining: 12mm WBP Plywood.
 - Fixing method: 50x50mm softwood timber studwork.
 - Access Panel: Form access panel to the front of boxing for maintenance purposes. If pump is boxed in behind fold down shower seat, then access panel to be formed centrally at top of boxing, with additional side access panel as required.

- 30 CEILING LINING ON EXISTING TIMBER JOISTS
 - Frame centres: To be checked on site
 - Lining: 12.5 mm British Gypsum Duplex
 - Fixing method: As Clause 65
 - Fixing centres: 450 mm.
 - Other requirements: 3mm Gypum Thistle Board finish.

- 35 TIMBER STUD PARTITIONS
 - Manufacturer and reference: British Gypsum
 - Studs: 50x75/100(to match existing) at 450 mm centres vertically and 900mm horizontally
 - Insulation: Rockwool Mineral Insulation or Celotex Insulation
 - Lining: 12.5mm Gypsum Wallboard.
 - Other requirements: Gyproc Sealant, joint tape
 - Finish:3mm Gypum Thistle Board finish.

- 65 DRY LINING GENERALLY
 - Handle and install boards and associated framework components in accordance with manufacturers recommendations.
 - Fixing, jointing and finishing materials and accessories, where not specified otherwise, to be as recommended by the board manufacturer.
 - Plasterboard: To BS 1230 :Part 1 with exposed surface and edge profiles suitable to receive the specified finish.
 - WBP Plywood: Appearance class to BS EN 635: I/II, Bond quality to BS EN 314:Part 2 :Class 3,Finish: Unsanded.
 - Use operatives properly trained for dry lining work.
 - Cut boards neatly and accurately without damage to core or tearing of paper facing. Keep cut edges to a minimum. Do not use damaged boards.
 - Finish neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

70 ADDITIONAL SUPPORTS

- Provide or ensure provision of additional framing, accurately positioned and securely fixed:
 - To give full support to board edges and lining perimeters.
 - To support fixtures, fittings and services.
 - To provide fixing points for heads of partitions running parallel with, but offset from main structural supports.

75 NEW WET LAID BASES

- Provide or ensure provision of bituminous felt dpc or other approved material under partitions/freestanding wall linings, cut to the full width of the partition/lining.

85 MINERAL WOOL INSULTATION

- Fit securely with closely butted joints, leaving no gaps. Use fastenings where necessary to prevent slumping.
- Do not cover electrical cables (unless they have been sized accordingly).

90 FINISHING

- Fill all joints and gaps and cover with continuous lengths of tape, fully bedded. When set, cover with joint finish, feathered out to give a flush, smooth, seamless surface.
- Fill minor indents and, after joint, angle and spotting treatments have dried, seal surface to even out texture and suction.

K20
Timber Board Flooring/Sarking/Linings/Casings

K20 Timber Board Flooring/Sarking/Linings/Casings

- 1 SCOPE
 - Replacement of defective timber flooring as required and agreed with CA/COW.

- 10 TIMBER BOARD FLOORING
 - Boards: Tongued and grooved softwood to BS 1297.
 - Finished face width: To match existing.
 - Finished thickness: To match existing.
 - Moisture content: Notwithstanding BS 1297, clause 6.1, average moisture content at time of fixing not exceeding 19%.
 - Fixing: As clause 50

- 50 FIXING BOARDS
 - Keep boards dry and do not fix to timber supports which have a moisture content greater than 18%.
 - Do not fix boards internally until the building is weathertight.
 - Nail each board securely to each support to give flat, true surfaces free from undulation, lipping, splits and protrusions.
 - Allow for movement of timber when positioning boards and fastenings to prevent cupping, springing, excessive opening of joints or other defects.
 - Heading joints to be tightly butted and positioned centrally over supports, not less than two board widths apart on any one support.
 - Neatly punch all exposed nail heads below surface and plane off any proud edges.

- 60 TREATED TIMBER
 - Treat surfaces exposed by minor cutting and drilling with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

L
Windows/Doors/Stairs

L10
Windows/ rooflights/ screens/ louveres

L10 Windows/ rooflights/ screens/ louvres

To be read with Preliminaries/ General conditions.

20 SCOPE OF WORKS

- Removal of existing crittal and timber windows and doors to all properties for replacement with Upvc windows and rear doors.

30 INTRODUCTION

- This Performance Specification is for the supply and installation of windows and doors to replace existing windows and private doors, and is to include for all the fittings required to complete the installation, and to ensure the full, effective and safe operation of the windows and doors.
- Window profile is to be a hollow three chamber (across the depth) profile with a nominal 3mm wall thickness. The profile shall be uniform and free from foreign bodies, cracks or marks. Each door/window/screen shall be permanently marked or labelled in an unobstructive position, i.e not visible when the opening light is closed, with the name or trademark of the extruder/fabricator.
- Fabricator is to include for all the fittings required to complete the installation, and to ensure the full, effective and safe operation of the windows and doors.

* NOTE : The profile shall contain recycled material

40 EXTENT/LOCATION OF WORK

- The units supplied will include all items and materials for their installation, making good, and use, including:
 - Fixed and opening lights;
 - Ventilators;
 - Glazing and gasketry;
 - Ironmongery and furniture including all restrictors;
 - Weather sealing;
 - All necessary fixings, cill boards, trims, internal and external mastics, foam fillers, and other ancillary items required for an effective and neat finish to the works.

50 DIMENSIONS/TOLERANCES

- The Window Contractor is to visit each property and ascertain the correct dimensions and sizes of every existing opening in each property, and to allow, in his tender, for the replacement of all items specified.
- The Window Contractor will be responsible for ensuring that the new windows and doors are square and central in the opening. The perimeter gap shall be no more than the minimum required for thermal expansion, assumed to be 10 mm. The principal contractor shall be responsible for stating the gap required.
- The Principal Contractor is to allow for any variations and anomalies in the size of openings, and for out-of-square openings. This is to include for the manufacture of "specials", as necessary to achieve the required tolerance.
- The Principal Contractor is responsible for taking all site dimensions and new frames shall be sized in accordance with the specification to allow proper tolerance between the structure and the frame so as to permit any expansion and contraction to take place and to provide a satisfactory dimension for the formation of an effective waterproof seal all round.
- The profiles shall be straight such that the longitudinal axis of the profile as measured on the face surfaces may deviate from the straight line by no more than 1mm/metre

60 SURVEY/DIMENSIONS AND DESIGN

- The units supplied are to be manufactured to suit existing openings.
- The Contractor is expected to make a pre tender visit to site and inspect all relevant drawings and documents in order to ascertain all relevant conditions, structural details and site layout. No additional claim will be entertained for items that would be apparent during the pre tender site visit.

- The Contractor must allow in his tender for the replacement of all items specified and/or required.
- The Contractor shall allow in his price for a survey visit to site in order to take the dimensions and sizes of every opening in the property that is to be replaced.
- The Contractor is responsible for ensuring that all new windows are square and central in the opening, and that a perimeter gap shall be no more than that required for thermal expansion, assumed to be maximum 10mm; however the contractor shall be responsible for stating the gap required.
- The Contractor is to allow for any anomalies and variations in the size of the openings, and for out-of-square openings. This is to include for the manufacture of 'specials' as necessary.

70 INSTALLATION

- All windows & doors are to be installed by a FENSA (Fenestration Self-Assessment Scheme) approved/ accredited window contractor.
- All installation shall be in accordance with BS8213 Part 4 1990.
- The removal of existing windows and doors must be programmed to ensure that units are only removed if they are to be replaced within the same working day. Immediately on removal, the existing windows and doors, together with any debris associated with the removal of existing units, are to be cleared away to an approved tip or storage location. At the end of each working day, the contractor shall be responsible for the removal of any debris from the existing units and new materials from site, and shall thoroughly clean the working area in accordance with the requirements of the Schedule of Works.
- The Contractor should allow for providing temporary electric heaters during removal works carried out over the winter months. These heaters should be new and PAT (Portable Appliance Testing) after each usage.
- The Contractor is to allow to unclip all existing telephone cables, aerial cables and the like from existing window and door frames, re-clip to surround in a suitable location using new cable clips of appropriate size and colour. Any cables passing through a frame/structure joint shall be routed through a plastic sleeve, the inner end of which is to be higher than the outer to prevent water penetration along or through the sleeve. Any telephone or T.V. aerial cables or similar originally passing through timber frames to be chased into masonry reveals and made good to match the existing surface.
- Remove and re-fit existing net curtains and other soft furnishings as applicable. Curtain rods to be screw fixed to window frame head. Contractor to replace curtain rods or install new curtain battens to walls or ceilings where necessary. Inform Contract Administrator of any soft furnishings not suitable for reinstatement.
- No materials of any description to be left on any pavement areas.
- On removal of the existing windows, doors and associated frames, sub-frames, cills etc. the adjacent surfaces of the opening are to be cleaned to remove all existing frame sealant, mastic, beading mortar etc. ready for the installation of the new units.
- Concrete and brick repairs must be completed before installation of windows.
- The Contractor is to note that scratched or damaged surfaces will not be acceptable.
- The Contractor is to allow for cutting out and reinstating all rendered reveals to allow the new frames to be fitted. All render reinstatement works to be carried out by a qualified Plasterer.
- The Contractor is responsible for ensuring that minimal damage is caused to brickwork reveals during removal works. Any damage caused to the brickwork will be the Contractors responsibility to replace. All brickwork reinstatement works to be carried out by a qualified Bricklayer.
- DPC materials are to be repaired/renewed as necessary and tucked into the new framing.
- The Contractor is to make all due allowance to ensure that no damage is caused to the property internally or externally. The contractor's attention is drawn specifically to the need to protect soft landscaping and external and internal fabric and finishes. Any damage caused as a result of the replacement of windows and doors will be the contractor's liability.
- All windows with or without cills must be bedded on sealant.
- All door threshold must be bedded on sealant whilst maintaining drainage points within the threshold.
- Window framing to be securely fixed direct to the building structure, no further than 150mm from each corner and at centres not exceeding those laid down in procedures issued by the systems company. Fixings to be 'Fischer' fixings.
- All windows must have packers fitted to every 'Fischer' fixing insert.
- All windows and doors must be fully foamed as well as fixed. Where window heads abut Finlock Gutters do not drill or fix into the concrete above.
- Where fixing lugs are required to achieve a positive fixing then the contractor is responsible for notifying the Clerk of Works prior to fixing the lugs.
- Where gaps between window frames and cills exceed exceed 15mm extension pieces can be fitted (but only with approval by the CA). Extension pieces can be doubled to 30mm but where two 15mm pieces join a cover trim will be required.
- The Contractor should also allow for mortar infill/extension pieces with cover trims beneath to all 1st floor windows where vertical tiles or plastic/timber cladding is present.
- The Contractor shall allow for all necessary making good of all work disturbed.
- The Contractor is to allow for new dust sheets and any other necessary measures to protect the occupants, fittings and finishes within the rooms for the duration of the works.

- Seal all external and internal vertical joints and horizontal window cill joints between framing and structure with Sikaflex window seal or equal approved silicone sealant (low modulus sealant). Sealant to be trowelled to a smooth fillet with all excess neatly removed.
- Cover trims should be provided to all windows.
- New window boards are to be either MDF or Pine in accordance with BS 4079 and are to be fitted to all windows (including bay windows) with a 3mm thick window board capping to extend from the edge of the window frame over the whole window board and down over the front edge. Solid core window boarding capping available from Project Plastics, Tel: 0208 668 0600 or similar approved.
- All window boards must have a minimum 3mm clearance between the board and the glazing beads to allow for the glazing to be renewed if necessary.
- All window boards must have a minimum 3mm clearance between the board and the glazing beads to allow for the glazing to be renewed if necessary.
- All window boards to be made to measure, sealed underneath and level with the new window (not the existing cill). If window board is not properly measured D beads and cover trims will not be acceptable.
- The contractor is to allow for all making good work to window/door openings, both internally and externally, including masonry, plaster, cladding, and decorative finishes to reveals. No additional allowance will be made for costs associated with making good which would be visible on a site inspection.
- Trims to the window reveals to be extended as necessary to hide any replastering or damage to wallpaper or paint.
- Trims to the bottom of windows and doors must have minimum gap of 3mm from the underside of the drain cap trim.
- All trims must be bonded to both the reveal and the window frame.
- All trims are to be level with the windows/doors (not the reveals) and have a minimum 3mm gap between glazing bead and trim.
- Upon completion of the installation of each replacement window/door, all glazing, window frames, handles and all other surfaces are to be cleaned, (as recommended by the window manufacturer) and polished to a perfect finish. All components are to be checked for security of fixings, adequacy of clearances, adjustment of hinges, locks etc. as may be necessary to leave the window/door units in a perfect working order.
- Upon completion of works supply each resident with an operation manual detailing how windows and doors are to be cleaned (i.e. type of detergent, etc.) plus details of how, trickle vents, handles, locks, restrictors and hinges operate and function. All keys to be issued to the resident on completion.

80 REPLACEMENT PVC-U WINDOWS/DOORS GENREALLY

- The standard of workmanship and finish is to be in accordance with the best trade practice. All materials unless otherwise specified are to conform to the standards (where applicable) of the British Standards Institute and amendments. Where no relevant BS exists materials are to be of the best quality of their respective kinds.
- This specification sets out the material and performance requirements for windows and doors which are made from plastic materials. Windows are to PVC-u double glazed casement replacement units, internally glazed.
- All windows to first floor habitable rooms to comply with the approved document B1 (means of escape) in that there is a clear opening of at least 0.33m of which one side must be 0.45m wide.
- All window to comply with approved document L1 (2002) with a U-value of 2.0W/m²K.
- This specification is set out in 5 No. parts which may not be used in isolation.

Part 1 The requirements for the materials for construction of white high impact modified PVC-u extruded hollow profiles.

Part 2 The requirements for the performance of plastic windows and patio doors.

Part 3 The requirements for materials to be used in glazing, sealant, fixing and fastening.

Part 4 Design Criteria - sundry additional requirements.

Part 5 Installation of plastic windows and patio doors.

Certification

- Standards for materials, performance and design of PVC-u windows and patio doors are proposed by a variety of certifying authorities, and in the absence of a singly unifying comprehensive British Standard, manufacturers/suppliers are required to produce certified evidence of compliance with those standards laid down in this specification and for which their product has been tested. Extruded hollow profiles shall comply with BS 7412, windows shall comply with BS 7413. 1991 Type A
- Reference is made to the trade standards for PVC-u windows issued by the British Plastics Federation and the Glass and Glazing Federation, BS5750, and manufacturers/ suppliers have a copy of this document available when compiling their tender.

Quality Control

- Manufacturers/suppliers are to submit details of their quality control procedures designed to meet the criteria laid down in BS 5750 and ISO 9001 together with proof of performance data for open/close testing on furniture.
- All test data must relate to sashes of similar size and weight to those proposed for the Contract.
- The window contractor is to provide test data prior to the fitting of any gear on sashes.

Guarantees

- The appointed sub contractor is to guarantee materials and installations for a period of not less than 10 years against defects.
- A design warranty will be incorporated. Therefore, the Contractor is to provide a completion certificate certifying that the windows installed are FENSA approved and complies with Part L 2.3A of the current Building Regulations.
- The addition to the above the Contractor is to provide an Insurance Backed Guarantee (IBG) for the same period of time for material and workmanship/installation. The IBG and guarantee is to be issued per property.

Definitions

- The definitions given in BS 6100 Pt 1 Sect 1.0 1984 and BS 4643 apply generally but, in addition, for the purpose of this specification the following definitions apply:

Casement - A window, or part of a window, which opens on hinges or pivots.

Glazing Basket - Plastics or synthetic rubber members used between the glass and the frame and/or the glass and the bead.

Hardware - Fittings attached to the window or balcony door which are used to operate and/or secure it.

Rail - A horizontal member of the sash or frame of the window.

Sash - A movable frame of a horizontal or vertical window.

Stile - A vertical member of the sash or frame of the window.

Weather Stripping - Material to reduce air infiltration on closure.

PART1 - REQUIREMENTS FOR THE MATERIALS FOR CONSTRUCTION OF WHITE OR NEAR WHITE HIGH IMPACT MODIFIED UPVC EXTRUDED HOLLOW PROFILES

Raw Materials

Composition

- The material from which the profiles are made shall consist substantially of white or near white Hydro Polymer high impact polyvinyl chloride. Only those additives and pigments may be used that are needed for the manufacture of the compound and its subsequent conversion into sound, durable extrusions of good surface finish and mechanical strength, as assessed by the requirements of this specification.
- Samples of PVC-u materials to be used shall be submitted to the CA for approval.

Physical Properties

- The PVC materials from which the profiles are made shall conform to the specification given in Table 1. The tests shall be carried out, with the exception of the impact test which is carried out on samples cut from the face sides of extruded profile, on pressed plaques prepared from filled sheet, under standard conditions as specified in ISO 1163/2 or as follows:-

The testing of materials to show compliance with the standards set out hereafter may, where applicable, be carried out in accordance with the procedures detailed in appendices D, E, F, G, H, I, J, and K of the trade standard for uPVC windows issued by the British Plastics Federation and the Glass and Glazing Federation, November 1986 Issue 1. As shown in Table 1.

Table 1

Test	Unit	D in	Standard	BS	Value
Density	g/cm ³	53479		±0.2	min 1.42 g/cm
Vicat Softening Temp	°C	53460	2782:120B	1983	Min 72°C
Tensile Strength	N/mm ²	53455			
Elongation at Fracture	%	53455	2782:320C	1983	
Strength of weld corner			50014		
Apparent modulus			BS2782 Method 335A Rate 5mm/min		2250 Mpa min
Notch Impact Strength	KJ/m KJ/m ²	53453	2782:359 Appk Trade Std. AppE		12 km min
Modules Elasticity	N/mm ²	53457	2782:335A	1983	300N/mm
Fire Resistance	Item		2782/470pt.7 C1		
Colour Fastness (artificial ageing)	Item		Trade standard appendix K	BS 1006 A036	3/4 Shade on grey scale
Heat Stability	Item		2782:130A	1983	Not less than 85 minutes
Weld factor	Item		Trade Std. App L		Not less than 0.7
Resistance to impact at low temperature			Trade Std. App J (1kg falling weight from 1 metre on profile at -10C)		No cracking
Retention to impact at low temperature			Trade Std. App F		70% of original value
Heat reversion			Trade Std. App H (200m of profile at 100C for 1 Hr)		Max 2% Bead 3%
Heat stability			2782: Pt 1 Method 130A		Not less than 85 mins

Conditioning of Test Samples

- All samples shall be stored at 20+ -5°C and shall not be tested sooner than 16 hours after production. Samples shall be conditioned and tested in accordance with requirements of the relevant appendix.

Appearance and Finish

- The colour of the profile shall be uniform and the colour of the profiles in a system shall be uniform. The profile shall be free from foreign bodies, cracks or sink marks when viewed by normal corrected vision at 90° to the surface and at a distance of 1 metre in normal diffused north light.

Dimensions and Weights

- The profiles shall be straight such that the longitudinal axis of the profile as measured on the face surfaces may deviate from the straight line by no more than 1mm/metre.
- The cross section of the profile must conform in shape and dimension to the manufacturer's drawing. Outer surface dimensions may deviate by no more than ± 0.3mm glazing channels and seal grooves may deviate by no more than = - 0.3mm. The weight of the profile per metre must not be more than 5% below the nominal value.

Heat Reversion

- When tested in accordance with BS 6375 pt 1 (1989) the mean maximum reversion shall not be

greater than 2%. There shall also not be more than a 0.4% variation between individual face sides of the same sample.

- The mean maximum reversion for glazing beads shall not be greater than 3% and there shall not be more than 0.6% variation between individual face sides of the same sample.

Fire Testing

- The construction of the windows and doors shall strictly adhere to the requirements for Class 1 surface spread of flame in accordance with BS476: Pt.7. 1971.

PART 2 - REQUIREMENTS FOR THE PERFORMANCE OF PVCU WINDOWS FABRICATED FROM HIGH IMPACT EXTRUDED HOLLOW PROFILES.

- All classes of windows shall be tested to meet with the requirements of the following standards - tests to be conducted in accordance with BS 6375 Part 1 (1989) and the Royal Borough of Kingston requirements.

Weathertightness	BS6375: 1989	Part 1 All to severe rating
Air Permeability	BS6375: 1989	600 PA
Watertightness	BS6375: 1989	600 PA
Wind Resistance	BS6375: 1989	Min 2000 PA
Thermal Insulation	2.0W/m ² K	

Work Sizes and Manufacturing Tolerances

- The overall size of an assembled frame shall be maintained within a permissible deviation of ± 2 mm. For outer frames with two or more reverse butt welds, the tolerances on that frame member will be ± 2 mm.
- Frame assemblies shall be such that they can be installed square within a maximum difference in the diagonals of 2mm.
- The successful tenderer will be required to submit a full set of shop drawings of all the scheduled windows, junction and ancillary details to the CA for approval, before commencing manufacture.
- The cost of this is to be included in the tender price. The Contractor is advised that the production of shop and drawings will be critical to the programming of the contract and he should allow accordingly.
- Profile to be of triple chamber construction to enable any reinforcement to be isolated from the drainage channels, except the vent profile which is to have four chambers enabling all gearing to be fitted without breaking into the glazing of reinforcement chambers. Nominal external wall thickness of 2.5mm -0.00 + 0.30. Internal wall thickness to be of a nominal 1.2mm.

PVC-U Windows

- Standard: Manufactured to BS 7412 from white PVC-U extruded profiles to BS 7413.
- Manufacturer: A firm currently registered under a quality assurance scheme operated by a certification and inspection body accredited by the United Kingdom Accreditation Services (UKAS). Manufacturers as below or similar approved by the CA.

Sheerframe 600
LB Plastics Ltd
Nether Heage
Derby
DE5 2JJ
Tel: [REDACTED]

Spectus Systems Ltd
Charter Way
Macclesfield
Cheshire
SK10 2NG
Tel: [REDACTED]

Veka Pic Farrington Road

Rossendale Road
Burnley
Lancashire
BB11 5DA
Tel: [REDACTED]

Rehau Ltd
Unit 1
Perth Trading Estate
Perth Avenue
Slough
Berkshire
SL1 4XZ
Tel: [REDACTED]

- Exposure category to BS 6375-1/Design wind pressure: 2400 (Pa)
- Operation and strength characteristics: To BS 6375-2
- Reinforcement: As per manufactureres specification
- Glazing details: Factory Double Glazed, internally beaded
- Ironmongery/Accessories: As per manufacturers specification
- Fixing: To masonry all windows to be Secure-by-Design criteria compliant

PART 3 - THE REQUIREMENTS FOR THE MATERIALS TO BE USED IN GLAZING FIXINGS AND FASTENINGS IN CONNECTION WITH UPVC WINDOWS FABRICATED FROM IMPACT EXTRUDED HOLLOW PROFILES.

Glass (internally glazed)

- Glass shall be specified for type, quality and substances according to BS 952 1978 Part 1 and 2.
- All glazing to conform to part N of the Building Regulations.
- Glazing below 800mm to comply with Part N: Glazing - safety in relation to impact, opening and cleaning.
- Glass shall be at least 4mm minimum thickness and to wind load requirements of BS 6206.
- Where windows are to be fitted with hermetically sealed flat double glazing units in accordance with BS5713 and BS6206 Class A providing a minimum 16mm air space between panes.
- All obscure glass to be positioned on the external pane of the double glazed unit with the rough part of the obscure glass turned in.

Glazing Beads

- Glazing beads are required to meet the performance standards laid down in BS 6375:1989.
- Glazing beads are to be fitted to the inside of the vent profiles. All mitre joints to beads must be flush.

Weather Stripping & Glazing Gaskets

- Weather stripping and glazing gasket E.P.D.M materials shall not have a detrimental effect on the plastics profile, shall meet the requirements of BS 4255 and shall be renewable without disturbing the glazing system and without removing the outer frame from the structure, three weather seals are required, two outer frame one on opening light allowed at top of frame and opening light.

Sealants

- Sealants are to be Low Modulus one part silicone rubber mastic, Sika Ltd. or similar approved, colour as selected by the Employer and in accordance with BS 5889.

Glazing - Security of Glass

- Windows are to be glazed so that it cannot be removed by access solely from the exterior of the building. System suppliers are to indicate in their Tenders the means by which this is achieved, i.e. by internally beading or provision of security tapes or silicone glazing or other.

Reinforcements

- All windows to be fullyreinforced strictly in accordance with the recommendations laid down in the system suppliers glaze in 70mm manual.
- Reinforcement to be either extruded aluminium specification 6063 TF (HE9 TF) to BS 1474 OR galvanised steel to G275N BS2989. Where galvanised steel reinforcements used, care must be

- taken to protect bright steel areas exposed through cutting with a suitable protective coating.
- Reinforcement shall be close fitting within the cavities of the profile into which it is to be inserted and secured in place with the appropriate non-corrosive screws at a maximum of 400mm centres.
- Reinforcement shall be taken within 10mm of welded sections.

Fastenings and Fixings

- All screws, nuts, bolts, rivets and other fastenings shall be of austenitic stainless steel.

Window Hinges and Variable Geometry Stays

- All top hung sashes will have Saracen SXL hinges, supplied by Laird Security Hardware, Tel. 01376 – 507507.
- All top hung sashes over 450mm will have Saracen SXL with built in restrictor.
- All side hung sashes to upper floors will have a Valiant E3 (non-key locking with green button for 'ID') high security hinge with easy clean and egress facility, as well as built in restrictor.
- All side hung sashes to ground floor will have Saracen SX hinges with built in restrictor.

Fittings

- Fittings, including its fixings shall be of materials resistant to or protected against atmospheric corrosion - aluminium, pressure cast zinc or chrome steel to BS 5466, Part 1.
- Hardware shall be replaceable without removing the outer frame from the structure.
- Screws shall be of compatible material to reinforcement, where used, and to hardware.

Location and Setting Blocks

- Location and setting blocks shall be of a material and installation, to meet the requirements of BS 6262: 1982.

PART 4 - DESIGN CRITERIA AND OTHER REQUIREMENTS RELATING TO uPVC WINDOWS FABRICATED FROM HIGH IMPACT EXTRUDED HOLLOW PROFILES.

Construction

- Profiles are to be min. 3 No. multi-chamber design out of 3mm (0.25mm + or -) white uPVC with full separation of the reinforcing chamber, inner chambers design to 2mm min, 0.25mm + or -.
- Corners are to be mitre cut and heat welded throughout with excess weld bead material removed with groove on face.
- Transoms in multi-lights units, where required, will, be heat welded joined.
- The finished window shall be free from all sharp edges, distortions, burrs and the like that might be a hazard to the user.
- Condensation channels are required for all units, plus outlets.
- In all outer frames and opening lights adequate drainage should be provided to permit the escape of water from the platforms or horizontal members beneath each sealed unit and on the frame members beneath opening lights pressure equalisation holes are to be provided to ensure efficient drainage under severe conditions, allowance should be made for secret drainage, to the external surface of the frame or light.

Security

- All window hardware fitted should be capable of achieving BS 7950.
- Reference shall be made to all relevant guidelines relating to the security of windows.
- Fasteners shall be designed so that they cannot be released from the outside by the insertion of thin blade or other simple tool.
- No opening light shall be openable or removable from the outside when it is fastened in the closed position, except by the use of special tools or by breaking a part of the window.
- All opening lights shall be fitted with White key locking Ultima Handle Driving a Valiant HS Shoot-Bolt mechanism (including balcony access on upper levels) supplied by Laird Security Hardware, Silver End, Essex or equal and approved by the CA.
- Keys are required to be 'setted' per property.

Safety

- Reference shall be made to the guidance on the safety of openable windows which is contained in CP 153: Part 1. It shall not be possible for any opening light to become accidentally disengaged from the outer frame.
- If opening lights extent below 800mm from cill to floor level provide safety glazing to comply with Part N and a guard rail.

- Safety fittings shall be provided to meet the following requirements.

Limit Catches

- Limit catches shall check the opening of any opening light at an aperture of not more than 100mm. To permit the windows to be opened more widely the catches shall be capable of being unfastened only by a deliberate action and shall re-engage automatically when the windows are closed.

Attachment of Hardware

- With the exception of cover plates and fixings used for location purposes only, all hardware shall be fixed directly into the reinforcement with countersunk screws into threaded cams, not self tapped direct into the sash profile, and capable of resisting a pull out force min. 1000N. applied a 90° to the profile surface.

Window Markings.

- Each window shall be permanently marked or labelled in an unobtrusive position (not visible where the opening light is closed) with the name or trademark of the fabricator.

Profile Marking

- The main frame, casement sill and sash profiles shall be permanently marked at approximately 1 metre intervals with an identifying mark which enable the manufacturer's name and dated of manufacture of the extrusions to be traced without removal of the window.

Protection

- All main profiles are to be protected by protective tape to both internal and external faces, to be removed on completion of all works.

Ventilators

- Ventilators are required to be fitted to all windows. Greenwood Air Vac, these are to be HD over frame fitted cord operation Ref: RWOV HDVents, Tel: [REDACTED] (Colour: White), to comply with Approved Document F of the Building Regulations.
- Trickle Ventilation shall also comply with Approved Document J and B.S 5440, Part 2:2000 with respect to ventilation of gas burning appliances. This requirement shall take precedence over the requirements of Approved Document F.
- Where gas ventilation is required supply and install RWOVGB.

PART 5 - REQUIREMENTS TO BE OBSERVED IN THE INSTALLATION OF PVCU WINDOWS FABRICATED FROM HIGH IMPACT EXTRUDED HOLLOW PROFILES.

Dimensions

- The Contractor is responsible for taking all site dimensions and new frames shall be sized in accordance with the specification to allow proper tolerance between the structure and the frame so as to permit any expansion and contraction to take place and to provide a satisfactory dimension for the formation of an effective waterproof seal all round.
- The Contractor shall allow for providing adequate means of masking discrepancies in the existing structure by one of the following methods to the satisfaction of the CA.

- a) Trim and sealant bead.
- b) 'Hockey Stick' trim.
- c) Trim and architrave.
- d) Handing of windows to suit requirements.

Instruction to Users

- Allow for operating instructions (pictorial) of the newly installed units and provide 2 No. keys to each safety lock fitted all of which are to 'pass' each of the locks provided.

90 DOORS TO COMBINATION FRAMES TO GARDENS AND BALCONIES

- Doors to be outward or inward opening and are to incorporate a mid rail. Doors to be glazed above and below mid rail with safety glass.
- Below mid rail the main specification clauses may allow for a choice of the lower panel to the door and frame to be glazed or an insulated panel. The glazed panels are to be in safety glass. The solid panels are to be of which plastic coated inside and out with a rigid insulant, to comply with Building Regulations, bonded between.
- Provide and fit one and a half pairs of heavy-duty flag type hinges with steel pin and nylon bushes, incorporating a security holding screw, to a white finish.
- Provide and fit a Fuhr high security five point locking hooklock and espagnolette incorporating a key operated 5 lever mortice dead lock. Three keys to be provided all locks to each block to differ.
- White Hoppe powder coated handles to suit hook locks and espagnolette gear and lock internally and externally.
- Where concrete/stone cills incorporate a steel weather bar (generally cast into the cill and standing 20mm above the cill surface) an allowance in the PVC-U frame height shall be made if the weather bar is to remain.
- Where no adequate fixing can be achieved at the head or cill, due to type of lintel, cavity trays, quarry tiled cills etc, provision should be made for fixing window back to the internal leaf(this may involve additional builder's work e.g. plastering to internal reveals, re-lining of reveals or the removal and re-fixing of window boards)

100 COMPOSITE DOORS

- Refer to L20

110A PATIO DOORS

- Material used compliant with requirements of BSEN12608:2003.
- Profiles extruded in accordance with requirements of BSEN12608:2003.
- All main frame profiles min 3 chamber design for strength and U-Value.
- Meets the Thermal Requirements of ADL1.
- Aluminium Threshold for integral strength.
- Outer Jambs, Head and Sill profile Walls in accordance with Class A of BSEN12608:2003.
- Outer Frame Mechanical Jointed for Max strength and security.
- 2,3 and 4 Panel versions all fully weather tested at BSI.
- 24 or 28mm Glazing options.
- Ventilation Options.
- 140mm Multi-chamber Head/Jamb Profile for enhanced U-Value.
- Aluminium Interlocks for enhanced security.
- Stainless/Steel Track for performance and reliability.
- Fully Reinforced where required with Aluminium and Steel.
- High Quality brush weather pile seals and TPE Glazing seals used throughout.
- High Security Multi-point locking and Anti-Lift Stops utilised.
- Various Patented features incorporated for security and integrity.
- Fixing and making good as per specification above.
- Doors supplied by - Senital / Thurma-Tru as described above.

120A ARCHED HEAD WINDOW TO BUNGALOW

- Fixed Window
- Double Glazed unit to be direct glazed into stone/concrete window reveal.
- Sealed unit guarantee to be stated by contractor.
- Making good to concrete surround to be undertaken by a suitably qualified and skilled operative.
- Unit to be fixed into place with suitable sealant, uPVC or aluminium frame or carrier. Contractor to supply all technical details on installation method and product sample for approval.
- Contractor to verify all site conditions with survey.

210A WOOD WINDOWS TO REPLACE EXSISTING COMMUNAL TIMBER WINDOWS

- Manufacturer: match to existing.
 - Product reference: match to existing.
- Species: match to existing.
- Finish as delivered: Prepared and primed as section M60.
- Glazing details: match to existing.
- Ironmongery/ Accessories: match to existing.
- Fixing: match to existing.

350A PVC-U WINDOWS TO REPLACE EXSISTING PVC-U COMMUNAL WINDOWS

- Manufacturer: match to existing.
 - Product reference: match to existing.
 - Colour/ Texture: match to existing.
- Glazing details: match to existing.
- Ironmongery/ Accessories: match to existing.
- Fixing: match to existing.

360A PVC-U WINDOWS

- Standard: Manufactured to BS 7412 from white PVC-U extruded profiles to BS 7413.
- Manufacturer: A firm currently registered under a quality assurance scheme operated by a certification and inspection body accredited by the United Kingdom Accreditation Service (UKAS). Manufacturers as below or similar approved by the CA.

Sheerframe 600
LB Plastics Ltd
Nether Heage
Derby
DE5 2JJ
Tel: [REDACTED]

Spectus Systems Ltd
Charter Way
Macclesfield
Cheshire
SK10 2NG
Tel: [REDACTED]

Veka Pic Farrington Road
Rossendale Road
Burnley
Lancashire
BB11 5DA
Tel: [REDACTED]

Rehau Ltd
Unit 1
Perth Trading Estate
Perth Avenue
Slough
Berkshire
SL1 4XZ
Tel: [REDACTED]

- Exposure category to BS 6375-1/ Design wind pressure: 2400 (Pa)
Operation and strength characteristics: To BS 6375-2.
- Reinforcement: As per manufacturers specification.
- Glazing details: Factory Double Glazed, internally beaded.
- Ironmongery/ Accessories: As per manufacturers specification.
- Fixing: To masonry all windows to be Secure-by-Design criteria compliant.

L20
Doors/ shutters/ hatches

L20 Doors/ shutters/ hatches

To be read with Preliminaries/ General conditions.

PRELIMINARY INFORMATION/ REQUIREMENTS

110 EVIDENCE OF PERFORMANCE

- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

115 FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES

- Evidence of fire performance: Provide certified evidence, in the form of a product conformity certificate, directly relevant fire test report or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements for fire resistance if tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.

150 SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items:
communal entrance doors and screens .

150A SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.

170 CONTROL SAMPLES

- Procedure:
 - Finalize component details.
 - Fabricate one of each of the following designated items as part of the quantity required for the project.
 - Obtain approval of appearance and quality before proceeding with manufacture of the remaining quantity.
- Designated items:
Front entrance door.

COMPONENTS

215 EXTERNAL MATCHBOARDED DOORS Ledged and Braced only where composite doors unsuitable

- Standard: Generally to BS 459.
- Wood species: Softwood.
- Preservative treatment: Required.
- Moisture content on delivery: 13-19%.
- Finish as delivered: Full paint system, as section M60.

250 WOOD PANELLED DOORS COMMUNAL ENTRANCE DOORS AND FRAMES

- Manufacturer: Purpose made.
 - Product reference: N/A.
- Wood species: European whitewood.
- Preservative treatment: Required.
- Finish as delivered: Full paint system, as section M60.
- Glazing/ Panel details: Site glazed as section L40.
- Other requirements: SAA Kick Plates, Door Closer Britton 2004, SAA D handles 1.5 100mm roller hinges.

- 250A WOOD PANELLED DOORS FIRE DOORS FD30S Flat entrance doors enclosed
- Manufacturer: Purpose made.
 - Product reference: N/A.
 - Wood species: European whitewood.
 - Preservative treatment: Required.
 - Finish as delivered: Full paint system, as section M60.
 - Glazing/ Panel details: Site glazed as section L40 if glazed.
 - Other requirements: 5 lever mortice lock, door vicer, 1.5 pairs 100mm security hinges, SAA letterplate, SAA lever handles, SAA door numerals (screwed).
- 270 WOOD DOORS Block Entrance Doors and Screens Communal Areas
- Materials: Generally to BS EN 942.
 - Species: Softwood as Table N1 .
 - Appearance class: BS EN 942.
 - Panels: 6mm Birch faced to support door frames.
 - Assembly:
 - Adhesive: PVAC to BS EN 204, Class D4.
 - Joinery workmanship: As section Z10.
 - Accuracy: To BS 4787-1.
 - Preservative treatment: Organic solvent as section Z12 and BWPDA Commodity Specification C5;
Desired service life: 30 years.
 - Moisture content on delivery: 9-13%.
 - Finish as delivered: Basecoat stain and first topcoat, as section M60.
 - Other requirements: Purpose made measured on site.

- 415 EXTERNAL COMPOSITE DOORSETS Front Entrance Doors Houses and Flats (non enclosed)
 Manufacturer: Door-Stop International
 General Description: Door sets are to be supplied pre-finished for installation and are required to comply with the following:
- i) PAS 21/23-1:1999 'General performance requirements for door assemblies Part 1 : Single leaf, external door assemblies to dwellings'.
 - a) Exposure category 800
 - b) Minimum required watertightness 300 Pa
 - c) Minimum wind resistance 1000 Pa
 - ii) PAS 024-1:1999 'Enhanced security performance requirements for door assemblies Part 1 : Single leaf, external door assemblies to dwellings'.
 - iii) The doors are to comply with the Secured by Design requirements and to be produced by a currently licensed fabricator.
 - iv) The company supplying the product and installing it are to be appointed under the LHC programme C4 for Composite Doors.
 - v) Copies of the relevant certification mentioned above shall be presented to the authority prior to commencement of the contract.
 - vi) The doors are to be covered by an insurance underwritten guarantee for a period of ten years.

Product Description:

- i) PVCu Frames - White PVCu hollow section, fully reinforced frames complying with BS7413 : 1991 of suitable size to accommodate side hung inward opening composite door leaves. The frame is to be fitted with adjustable keeps and adjustable hinges which are to be white in colour and the fixings shall penetrate the reinforcement by at least 2mm. A minimum of three hinges per door shall be fitted. A Stormguard mobility threshold with two seals shall be provided at the sill. (Allow thresholds to allow for wheel chair access).
- ii) Door Leaves - The external face of the door leaves is to be reinforced glass fibre thermosetting resin, compression moulded and indented with a grain effect with accurately reproduce high definition panel detailing. The internal face will be produced from acrylic capped ABS, white in finish with a similar grain finish to the external face. All skin materials shall be 'through colour' to minimise the effect of surface scratches. Stiles and rails are to be manufactured from extruded cellular polystyrene and are to be totally impervious to water. Please note that no timber or timber by-product is to be used in the construction. The core will be a rigid polyurethane injected foam achieving a standard U-value for a solid door leaf of 0.5w/m²K.
- iii) Glazing - Glazing shall be achieved through the use of mechanically fixed, impact resistant glazing frames secured from the inside face and sealed to the glass unit and external door face with low modulus silicone. The glass unit will consist of one pane of 6.4mm laminated glass and the internal unit of 4mm toughened clear/obscure glass to the residents' choice.
- iv) Locks - A ROTO MVD340 V3 One Piece, multi-point lock with lever/pad handles shall be provided and will meet with the Secured by Design standards. Each lock will be provided with 3 keys. Accessories. Front doors shall be fitted with gold finished draught proofed letter plates to BS2911, brass numerals, 180° viewer um/scroll knocker and security chain.

Door Range:

- i) Door style - Front doors shall be subject to resident choice and shall be selected from the range supplied by CBC
- ii) Colour - The doors are to be supplied pre-finished in the following range of colours:
 White, Dark Blue, Dark Green and Burgundy.

Surveying: The door manufacturer will provide suitable Resident Selection sheets (RSS). The main contractor will distribute the RSS and collect the completed forms. The completed forms are to be copied to the Principal Contractor, Consultant, Resident and the door manufacturer. The door manufacturer will undertake all site surveys. This will include all the necessary sidelights and fanlights.

FENSA certificates will be required upon installation.

Making Good: Refer to M20/551

- 430 EXTERNAL COMPOSITE DOORSETS : Rear Entrance Doors, Doors to Store Areas leading to Kitchens, Store Doors. Half height bin store doors
 Manufacturer: Door-Stop International
 General Description: Door sets are to be supplied pre-finished for installation and are required to comply with the following:
- i) PAS 21/23-1:1999 'General performance requirements for door assemblies Part 1 : Single leaf, external door assemblies to dwellings'.
 - a) Exposure category 800
 - b) Minimum required watertightness 300 Pa
 - c) Minimum wind resistance 1000 Pa
 - ii) PAS 024-1:1999 'Enhanced security performance requirements for door assemblies Part 1 : Single leaf, external door assemblies to dwellings'.
 - iii) The doors are to comply with the Secured by Design requirements and to be produced by a currently licensed fabricator.
 - iv) The company supplying the product and installing it are to be appointed under the LHC programme C4 for Composite Doors.
 - v) Copies of the relevant certification mentioned above shall be presented to the authority prior to commencement of the contract.
 - vi) The doors are to be covered by an insurance underwritten guarantee for a period of ten years.

Product Description:

- i) PVCu Frames - White PVCu hollow section, fully reinforced frames complying with BS7413 : 1991 of suitable size to accommodate side hung inward opening composite door leaves. The frame is to be fitted with adjustable keeps and adjustable hinges which are to be white in colour and the fixings shall penetrate the reinforcement by at least 2mm. A minimum of three hinges per door shall be fitted. A Stormguard mobility threshold with two seals shall be provided at the cill. (Allow thresholds to allow for wheel chair access).
- ii) Door Leaves - The external face of the door leaves is to be reinforced glass fibre thermosetting resin, compression moulded and indented with a grain effect with accurately reproduce high definition panel detailing. The internal face will be produced from acrylic capped ABS, white in finish with a similar grain finish to the external face. All skin materials shall be 'through colour' to minimise the effect of surface scratches. Stiles and rails are to be manufactured from extruded cellular polystyrene and are to be totally impervious to water. Please note that no timber or timber by-product is to be used in the construction. The core will be a rigid polyurethane injected foam achieving a standard U-value for a solid door leaf of 0.5w/m²K.
- iii) Glazing - Glazing shall be achieved through the use of mechanically fixed, impact resistant glazing frames secured from the inside face and sealed to the glass unit and external door face with low modulus silicone. The glass unit will consist of one pane of 6.4mm laminated glass and the internal unit of 4mm toughened clear/obscure glass to the residents' choice.
- iv) Locks - A ROTO MVD340 V3 One Piece, multi-point lock with lever/pad handles shall be provided and will meet with the Secured by Design standards. Each lock will be provided with 3 keys. Accessories.

Door Range:

- i) Door style - Front doors- Shall be subject to resident choice and shall be selected from the range supplied by CBC refer to style sheet
 - Rear doors- Shall be glazed upper panel and solid lower panel
 - no residents choice on type or colour
 - Store doors leading to Kitchen's - As rear doors.
 - Store Doors- Solid panel door no style or colour choice
 - Half height bin stores- Solid Panel door no style choice
- ii) Colour - The doors are to be supplied pre-finished form the selected range of colours:

FENSA certificates will be required upon installation.

Making Good: Refer to M20/551

INSTALLATION

710 PROTECTION OF COMPONENTS

- General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry, floored and covered storage.
- Stored components: Stacked on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

730 PRIMING/ SEALING

- Wood surfaces inaccessible after installation: Primed or sealed as specified before fixing components.

740 CORROSION PROTECTION

- Surfaces to be protected: Metal surfaces inaccessible after installation .
- Protective coating: Two coats of bitumen solution to BS 6949 or an approved mastic impregnated tape.
 - Timing of application: Before fixing components.

750 FIXING DOORSETS

- Timing: After associated rooms have been made weathertight and the work of wet trades is finished and dried out.

760 BUILDING IN

- General: Not permitted unless indicated on drawings.

770 DAMP PROOF COURSES ASSOCIATED WITH BUILT IN WOOD FRAMES

- Method of fixing: To backs of frames using galvanized clout nails.

780 DAMP PROOF COURSES IN PREPARED OPENINGS

- Location: Correctly positioned in relation to door frames. Do not displace during fixing operations.

800 FIXING OF LOOSE THRESHOLDS

- Spacing of fixings: Maximum 150 mm from each end and at 600 mm maximum centres.

810 FIRE RESISTING AND/ OR SMOKE CONTROL DOORS/ DOORSETS

- Gaps between frames and supporting construction: Filled as necessary in accordance with requirements for certification and/ or door/ doorset manufacturer's instructions.

820 SEALANT JOINTS

- Sealant:
 - Manufacturer: Silkaflex/Dow Corning .
 - Product reference: Window Seal/797 .
 - Colour: White .
 - Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

830 FIXING IRONMONGERY GENERALLY

- Fasteners: Supplied by ironmongery manufacturer.
 - Finish/ Corrosion resistance: To match ironmongery.
- Holes for components: No larger than required for satisfactory fit/ operation.
- Adjacent surfaces: Undamaged.
- Moving parts: Adjusted, lubricated and functioning correctly at completion.

850 LOCATION OF HINGES

- Primary hinges: Where not specified otherwise, positioned with centre lines 250 mm from top and bottom of door leaf.
- Third hinge: Where specified, positioned mid section of door .
- Hinges for fire resisting doors: Positioned in accordance with door leaf manufacturer's recommendations.

860 INSTALLATION OF EMERGENCY EXIT DEVICES

- Standard: Unless specified otherwise, install panic bolts/latches in accordance with BS EN 1125.

870 ASSOCIATED WORKS

All works associated with capping of heating supplies, removal and re installation of radiators to facilitate the installations of windows is to be allowed for by the Principal Contractor. These works must be carried out by qualified heating and plumbing engineers, any heating supplied affected must be test to CA's satisfactory upon completion of window works.

L40
General glazing

L40 General glazing

To be read with Preliminaries/ General conditions.

GENERAL REQUIREMENTS

110 PREGLAZING

- Preglazing of components: Not permitted.

111 PREGLAZING

- Preglazing of components: Permitted.
- Prevention of displacement: Submit details of precautions to be taken to protect glazing and compound/seals during delivery and installation.
- Defective/displaced glazing/compound/seals: Reglazed components in situ.

150 WORKMANSHIP GENERALLY

- Glazing generally: To BS 6262.
- Integrity: Glazing must be wind and watertight under all conditions with full allowance made for deflections and other movements.
- Dimensional tolerances: Panes/ sheets to be within ± 2 mm of specified dimensions.
- Materials:
 - Compatibility: Glass/ plastics, surround materials, sealers, primers and paints/ clear finishes to be used together to be compatible. Avoid contact between glazing panes/ units and alkaline materials such as cement and lime.
 - Protection: Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

151 PREPARATION

- Surrounds, rebates, grooves and beads: Cleaned and prepared by others.

152 PREPARATION

- Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.

155 GLASS GENERALLY

- Standards: To BS 952 and relevant parts of:
 - BS EN 572 for basic soda lime silicate glass.
 - BS EN 1096 for coated glass.
 - BS EN 1748-1 for borosilicate glass.
 - BS EN 1748-2 for ceramic glass.
 - BS EN 1863 for heat strengthened soda lime silicate glass.
 - BS EN 12150 for thermally toughened soda lime silicate safety glass
 - BS EN 12337 for chemically strengthened soda lime silicate glass.
 - BS EN 13024 for thermally toughened borosilicate safety glass.
 - BS EN ISO 12543 for laminated glass and laminated safety glass.
- Panes/ sheets: Clean and free from obvious scratches, bubbles, cracks, rippling, dimples and other defects.
 - Edges: Generally undamaged. Shells and chips not more than 2 mm deep and extending not more than 5 mm across the surface are acceptable if ground out.

160 LINEAR PATTERNED / WIRED GLASS

- Alignment: Vertical/Horizontal as appropriate, and pattern matched accross adjacent panes in close proximity.

165A HEAT SOAKING OF THERMALLY TOUGHENED GLASS

- Heat soaking regime: Glass to be fixed in designated locations must be subjected to a heat soaking regime designed to reduce the incidence of failure due to nickel sulfide inclusions.
 - Mean glass temperature: $290^{\circ} \pm 10^{\circ}\text{C}$.
- Certified evidence of treatment: Submit.
- Designated locations: To areas below 800mm above the finished floor level.

M
Surface finishes

M10

Cement based levelling/wearing screeds

M10 Cement based levelling/wearing screeds

To be read with Preliminaries/General conditions.

TYPES OF SCREED

120A FINE CONCRETE LEVELLING SCREEDS TO KITCHENS AND BATHROOMS

- Base: Existing .
- Screed type: Latex self levelling .
 - Reinforcement for crack control: As per manufacturers requirements .
- Nominal thickness: As per manufacturers requirements .
 - Thickness (minimum): As per manufacturers requirements .
- Mix:
 - Aggregates: Standards as clause 305.
 - Coarse aggregate single size: 10 mm.
 - Proportions (cement: total aggregate): 1:4-5.
Sand to coarse aggregate: Between 75:25 and 60:40, adjusted to facilitate trowelling.
 - Admixture: As clause 307.
- Flatness/ Surface regularity: Maximum permissible deviation when measured as clause 355: C .
- Finish:
 - Method: Smooth trowelled .
 - To receive: Floor coverings as per M50/150 .

GENERALLY/PREPARATION

210 SUITABILITY OF BASES

- General:
 - Suitable for specified levels and flatness/regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
 - Sound and free from significant cracks and gaps.
- Cleanliness: Remove plaster, debris and dirt.
- Moisture content: To suit screed type. New concrete slabs to receive fully or partially bonded construction must be dried out by exposure to the air for minimum six weeks.

215 SURFACE HARDNESS OF BASES TO RECEIVE POLYMER MODIFIED WEARING SCREEDS

- General: Bases must restrain stresses that occur during setting and hardening of wearing screeds.
- Test for surface hardness: To BS EN 12504-2 using a rebound hammer with compliance values selected from the following:

Screed thickness	Rebound hammer value
15 mm or less	Greater than 25
Greater than 15 mm	Greater than 30

- Report: Submit details of areas where base surface hardness does not comply with these values.

220 PROPRIETARY LEVELLING/WEARING SCREEDS

- General: Materials, mix proportions, mixing methods, minimum/maximum thicknesses and workmanship must be in accordance with recommendations of screed manufacturer.

250 CONDUITS UNDER FLOATING SCREEDS

- Haunching: Before laying insulation for floating screeds, haunch up in 1:4 cement:sand on both sides of conduits.

251 CONDUITS CAST INTO OR UNDER SCREEDS

- Reinforcement: Overlay with reinforcement selected from:
 - 500 mm wide strip of steel fabric to BS 4483, reference D49, or
 - Welded mesh manufactured in rolls from mild steel wire minimum 1.5 mm diameter to BS 1052, mesh size 50 x 50 mm.
- Placing reinforcement: Mid depth between top of conduit and the screed surface.
- Screed cover over conduit (minimum): 25 mm.

BATCHING/MIXING

305 AGGREGATE STANDARDS

- Cement: Portland to BS EN 197-1, class 42.5 or Portland blast furnace to BS 146, class 42.5.
- Sand: To BS EN 12620.
 - Grading limit: To BS 8204-1, table 1.
- Coarse aggregate: To BS EN 12620.

307 ADMIXTURE STANDARD

- Type: Water reducing to BS EN 934-2.
- Calcium chloride: Do not use in admixtures.

310 BATCHING WITH DENSE AGGREGATES

- Mix proportions: Specified by weight.
- Batching: Select from:
 - Batch by weight.
 - Batch by volume: Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.

330 MIXING

- Water content: Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction.
- Mixing: Mix materials thoroughly to uniform consistence. Mixes other than no-fines must be mixed in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
- Consistency: Use while sufficiently plastic for full compaction.
- Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

335 IN SITU CRUSHING RESISTANCE (ISCR)

- Standards and category: To BS 8204-1 table 5.
 - For testing of bonded screeds refer to Annex C.
 - For testing of floating screeds refer to Annex D.

Class	Service conditions	Indentation depth
A	Heavy use	3 mm
B	Normal use	4 mm
C	Light use	5 mm

340A ADVERSE WEATHER

- Screeds surface temperature: Maintain above 5°C for a minimum of four days after laying.
- Hot weather: Prevent premature setting or drying out.

LAYING

345 LEVEL OF SCREED SURFACES

- Permissible deviation: ± 10 mm from datum (allowing for thickness of coverings).

355 FLATNESS/SURFACE REGULARITY OF FLOOR SCREEDS

- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 3 m straightedge (between points of contact), placed anywhere on surface using a slip gauge to BS 8204-1 or -2 (or equivalent).
- Surface regularity standards:
 - SR1: 3 mm high standard.
 - SR2: 5 mm normal standard.
 - SR3: 10 mm utility standard.

375 COMPACTION OF SCREEDS

- General: Compact thoroughly over entire area.
- Screeds over 50 mm thick: Lay in two layers of approximately equal thickness. Roughen surface of compacted lower layer then immediately lay upper layer.

405 JOINTS IN LEVELLING SCREEDS GENERALLY

- Laying screeds: Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.
- Daywork joints: Form with vertical edge.

FINISHING/CURING

510 FINISHING GENERALLY

- Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
- Prohibited treatments to screed surfaces:
 - Wetting to assist surface working.
 - Sprinkling cement.

540 TROWELLED FINISH TO LEVELLING SCREEDS

- Floating: To an even texture with no ridges or steps.
- Trowelling: To a uniform, smooth but not polished surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

650A CURING

- General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
- Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

M20

Plastered/ rendered/ roughcast coatings

M20 Plastered/ rendered/ roughcast coatings

To be read with Preliminaries/ General conditions.

TYPES OF COATING

- 30 LIGHTWEIGHT GYPSUM PLASTER
- Background: Existing blockwork or brickwork.
 - Preparation: As clause 71.
 - Undercoats(s): 1 coat
 - Premixed lightweight cement:lime:sand(1:1:6)plaster to BS 1191: Part 2
 - Thickness (excluding dubbing out): 10mm.
 - Final coat: Thistle multi-finish
 - Finish plaster to BS 1191:Part 1, Class B.
 - Thickness: 3 mm.
 - Finish: Smooth.
- 50 BOARD FINISH PLATER ON NEW PLASTERBOARD
- Plasterboard backing: Timber studs
 - Skim coat(s): Board finish plaster to BS 1191 : Part 1, Class B
 - Proprietary referecen: British Gypsum Thistle board finish
 - Thickness 3mm applied in 2 coats
 - Finish: Smooth
 - Accessories: Gyproc joint tape
- 200 GYPSUM PLASTER ON CEMENT GAUGED RENDER UNDERCOATS
- Background: To all existing keyed wall surfaces as necessary .
 - Preparation: Bonding agent .
 - Undercoats:
 - Sand: To BS 1199, type A.
 - Mix: 1:4; masonry cement:sand .
 - Other requirements: None .
 - Thickness (excluding dubbing out): 12mm or to suit existing surfaces .
 - Final coat: Gypsum plaster to BS 1191-1, class B.
 - Manufacturer: Contractors choice .
 - Product reference: To be advised .
 - Thickness: 3mm .
 - Finish: Smooth .
 - Accessories: Beads and stops as Clause 630 .

GENERAL

- 438 CEMENTS FOR RENDER MORTARS
- Cement:
 - Standard: To BS EN 197-1.
 - Types: Portland cement, CEM I.
 - Portland slag cement, CEM II/ B-S.
 - Portland fly ash cement, CEM II/ B-V.
 - Strength class: 42.5 or 52.5.
 - Sulfate resisting cement:
 - Standard: To BS 4027.
 - Strength class: 42.5 or 52.5.
 - Masonry cement:
 - Standard: To BS 5224.
 - Class: MC 12.5 (with air entraining agent).
 - Certification for all cements: BSI Kitemark scheme.

449 ADMIXTURES FOR CEMENT GAUGED RENDER MORTARS

- Suitable admixtures: Select from:
 - Air entraining (plasticizing) admixtures: To BS 4887-1 and compatible with other mortar constituents.
 - Other admixtures: Submit proposals.
- Prohibited admixtures: Calcium chloride and any admixture containing calcium chloride.

453 MIXING

- Render mortars (site prepared):
 - Batching: By volume. Use clean and accurate gauge boxes or buckets.
 - Mix proportions: Based on damp sand. Adjust for dry sand.
- Mixes: Of uniform consistence and free from lumps. Do not retemper or reconstitute mixes.
- Contamination: Prevent. Keep plant and banker boards clean.

474 COLD WEATHER

- General: Do not use frozen materials or apply coatings to frozen or frost bound backgrounds.
- External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising. Maintain temperature of work above freezing until coatings have fully hardened.
- Internal work: Take all necessary precautions to enable internal coating work to proceed without damage when air temperature is below 3°C.

PREPARING BACKGROUNDS

510 SUITABILITY OF BACKGROUNDS

- General: Suitable to receive coatings/ backings.
 - Soundness: Free from loose areas and significant cracks and gaps.
 - Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
 - Tolerances: Permitting specified flatness/ regularity of finished coatings.
- Cleanliness: Remove dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

538 STIPPLE KEYING MIX

- Materials:
 - Cement: Portland.
 - Sand: Clean coarse
 - Admixture: SBR Bonding agent, Agreement certified .
- Mix proportions (cement:sand): 1:1.5-2.
- Consistency: Thick slurry kept well stirred.
- Application: Vigorously brushed on and stippled to form deep close textured key.
- Curing: Controlled to achieve a firm bond to background.

556 REMOVING DEFECTIVE EXISTING RENDER

- Render for removal: Loose, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
- Patches: Cut out rectangular areas with straight edges.
 - Horizontal and vertical edges: Square cut or slightly undercut.
 - Bottom edges to external render: Do not undercut.
 - Render with imitation joints: Cut back to joint lines.
- Cracks (other than hairline cracks): Cut out to a width of 75 mm (minimum).
- Dust and loose material: Remove from exposed backgrounds and edges.

566 REMOVING DEFECTIVE EXISTING PLASTER

- Plaster for removal: Loose, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
 - Hollow, detached areas: Seek instructions .
- Stained plaster: Seek instructions.
- Removing defective plaster. Cut back to a square, sound edge.
- Faults in background (structural deficiencies, damp, etc.): Seek instructions.
- Dust and loose material: Remove from exposed backgrounds and edges.

568 EXISTING DAMP AFFECTED PLASTER/ RENDER

- Plaster affected by rising damp: Remove to a height of 300 mm above highest point reached by damp or 1 m above dpc, whichever is higher.
- Perished and salt contaminated masonry:
 - Mortar joints: Rake out.
 - Masonry units: Seek instructions.
- Faults in background (structural deficiencies, additional sources of damp, etc.): Seek instructions.
- Drying out backgrounds: Established drying conditions. Leave walls to dry for as long as possible before plastering.
- Dust and loose material: Remove from exposed backgrounds and edges.

580 PLASTERBOARD BACKINGS

- Plasterboard: To BS 1230:Part 1.
Fixings: Galvanized plasterboard nails of length not less than 3 times the thickness of board being fixed.
- Ensure that noggings, bearers, etc. to support fixtures, fittings and services are accurately and securely fixed.
- Ensure that perimeter and unbound or cut edges of boards are supported by additional noggings in accordance with board manufacturer's recommendations.
- Stagger end joints between rows. Gap between boards to be not more than 3 mm. Do not use damaged boards.
- Fill and tape (scrim) all joints and angles between boards (except where coincident with a metal bead) using tape recommended by board manufacturer.

BACKINGS/ BEADS/ JOINTS

630 BEADS/ STOPS FOR INTERNAL USE

- Material: Galvanized steel to BS 6452-1.

640 BEADS/ STOPS GENERALLY

- Location: External angles and stop ends except where specified otherwise.
- Corners: Neat mitres at return angles.
- Fixing: Secure, using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with background.
 - External render: Fix mechanically.
- Finishing: After coatings have been applied, remove surplus material while still wet, from surfaces of beads/ stops which are exposed to view.

646 CRACK CONTROL AT JUNCTIONS BETWEEN DISSIMILAR SOLID BACKGROUNDS

- Locations: Where defined movement joints are not required. Where dissimilar solid background materials are in same plane and rigidly bonded or tied together.
- Crack control materials:
 - Isolating layer: Building paper to BS 1521.
 - Metal lathing: EML to suit .
- Installation: Fix lathing over isolating layer at staggered centres along both edges.
- Width of installation over single junctions:
 - Isolating layer: 150 mm.
 - Lathing: 300 mm.
- Width of installation across face of dissimilar background material (column, beam, etc. with face width not greater than 450 mm):
 - Isolating layer: Not less than 25 mm beyond junctions with adjacent background.
 - Lathing: Not less than 100 mm beyond edges of isolating layer.

659 PLASTERBOARD JOINTS

- Joint reinforcement: Applied to joints and angles except where coincident with metal beads.
- Installation: Continuous lengths of tape pressed well into filled joints, flat and smooth.

PLASTERING

710 APPLICATION GENERALLY

- General: Apply coatings firmly and in one continuous operation between angles and joints. Achieve good adhesion.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
 - Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- Drying out: Prevent excessively rapid or localised drying out.

715 FLATNESS/ SURFACE REGULARITY

- Sudden irregularities: Not permitted.
- Deviation of plaster surface: Measure from underside of a straight edge placed anywhere on surface.
 - Permissible deviation (maximum) for plaster not less than 13 mm thick: 3 mm in any consecutive length of 1800 mm.

720 DUBBING OUT

- General: To correct background inaccuracies.
 - Smooth dense concrete and similar surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.
- Thickness of any one coat (maximum): 10 mm.
- Mix: As undercoat.
- Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

725 UNDERCOATS GENERALLY

- General: Rule to an even surface. Cross scratch to provide a key for the next coat.
- Undercoats on metal lathing: Work well into interstices to obtain maximum key.
- Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

777 SMOOTH FINISH

- Appearance: A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. Avoid water brush, excessive trowelling and over polishing.

778 WOOD FLOAT FINISH

- Appearance: An even overall texture. Finish with a dry wood float as soon as wet sheen has disappeared.

RENDERING

810 APPLICATION GENERALLY

- General: Apply coatings firmly and in one continuous operation between angles and joints. Achieve good adhesion.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
 - Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- Drying: Prevent excessively rapid or localized drying out.

815 FLATNESS/ SURFACE REGULARITY OF RENDERING TO RECEIVE CERAMIC TILES

- Sudden irregularities: Not permitted.
- Deviation of render surface: Measure from underside of a 2 m straight edge placed anywhere on surface.
 - Permissible deviation (maximum): 3 mm.

820 DUBBING OUT FOR RENDERING

- General: To correct background inaccuracies.
- Thickness of any one coat (maximum): 16 mm.
 - Total thickness (maximum): 20 mm. Seek instructions where this will be exceeded.
- Mix: As undercoat.
- Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Comb surface of each coat.

840 UNDERCOATS GENERALLY

- General: Rule to an even surface. Comb to provide a key for the next coat. Do not penetrate the coat.
- Undercoats on metal lathing: Work well into interstices to obtain maximum key.

856 FINAL COAT - PLAIN FLOATED FINISH

- Finish: An even, open texture free from laitance.

861 FINAL COAT - SCRAPED FINISH

- Finish: Scraped to expose aggregate and achieve an even texture.

866 FINAL COAT - ROUGHCAST (HARLING) FINISH

- Finish: Left as cast with an even thickness and texture.

880A CURING AND DRYING

- General: Prevent premature setting and uneven drying of each coat.
- Curing coatings: Keep each coat damp by covering with polyethylene sheet and/ or spraying with water.
 - Final coat: Hang sheeting clear of the final coat.
- Drying: Allow each coat to dry thoroughly, with drying shrinkage substantially complete before applying next coat.
- Protection: Protect from frost and rain.

WATERPROOF RENDERING**905 BACKGROUNDS FOR WATERPROOF RENDERS**

- Preparation: In accordance with render/ waterproofing compound manufacturer's recommendations.
- Leaks: Prevent leaks from cracks, porous patches and other defective areas subject to water pressure and liable to admit water.
- Holes for fasteners: Minimize. Form and seal before coatings applied. Do not make any holes after coatings have been applied.

930 APPLICATION OF WATERPROOF RENDERS

- General: Achieve good adhesion and effective waterproofing.
- Joints: Minimize.
 - Joints in successive coatings: Stagger by at least 100 mm and splay edges. Do not locate joints at angles.
- Internal angles: Form fillets after applying first coat. Form smooth round coves after applying final coat.
- Cross scratching/ combing coatings: Prohibited.

M40

Stone/ concrete/ quarry/ ceramic tiling/ mosaic

M40 Stone/ concrete/ quarry/ ceramic tiling/ mosaic

To be read with Preliminaries/ General conditions.

TYPES OF TILING/ MOSAIC

110A TILING TO BATHROOMS, WINDOW REVEALS WHERE NECESSARY

- Tiles: Ceramic
 - Manufacturer/ Supplier: Nichols and Clarke Colours:
 - China blue TC752
 - White TC700
 - Grey TC707
 - Coffee TC758

Or:

Price Group 1 PRG1 White
 Price Group 2 PRV2 Victorian Cream
 PRG24 Storm Grey
 PRG33 Bluebell
 PRG37 Peach Melba
 PR3 73 Willow Satin

- Finish: Glazed
- Size: 148 x 148mm
- Thickness: 5.5mm
- Background/ Base: Existing plaster
- - Preparation: As recommended by manufacturer
- Bedding: BAL Adhesives Ltd.
- - Reinforcement: None
- - Adhesive: As per manufactureres recommendations (BAL Adhesives Ltd.)
- Joint width: 2mm
- Grout: BAL Adhesives Ltd
- - Type/ classification: White
- Movement joints: As necessary
- Accessories: All angle, corner and end beading as necessary

115 TILING TO KITCHENS

- Tiles: Ceramic
 - Manufacturer/ Supplier: British Ceramic Tile: Candy Tile Collection
 - Colour: Contractor to submit proposals
 - Finish: Glazed
 - Size: 150 x 150mm
 - Thickness: 5.5mm
- Background/ Base: Existing plaster
 - Preparation: As recommended by manufacturer
- Bedding: in accordance with manufacturers recomendations
 - Reinforcement: None
 - Adhesive: in accordance with manufacturers recomendations
- Joint width: 2mm
- Grout: in accordance with manufacturers recomendations
 - Type/ classification: White
- Movement joints: As necessary
- Accessories: All angle, corner and end beading as necessary

120A TILED BORDERS TO LEVEL ACCESS SHOWERS

- Tiles: Ceramic
 - Manufacturer/ Supplier: Pilkington
 - Colour: Blue or Red as chosen by resident
 - Finish: Glazed
 - Size: 150 25mm
- Fixing: To manufactureres recommendation

GENERALLY

210 SUITABILITY OF BACKGROUNDS/ BASES

- Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
- New background drying times (minimum):
 - Concrete walls: 6 weeks.
 - Brick/ block walls: 6 weeks.
 - Rendering: 2 weeks.
 - Gypsum plaster: 4 weeks.
- New base drying times (minimum):
 - Concrete slabs: 6 weeks.
 - Cement:sand screeds: 3 weeks.

PREPARATION

310 EXISTING BACKGROUNDS/BASES GENERALLY

- Efflorescence, laitance, dirt and other loose material: Remove.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.

330 EXISTING PLASTER

- Plaster which is loose, soft, friable, badly cracked or affected by efflorescence: Remove. Cut back to straight horizontal and vertical edges.
- Making good: Use plaster or nonshrinking filler.

360 EXISTING PAINT

- Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.

380 NEW PLASTER

- Plaster: Dry, solidly bedded, free from dust and friable matter.
- Plaster primer: Apply if recommended by adhesive manufacturer.

390 PLASTERBOARD BACKGROUNDS

- Boards: Dry, securely fixed and rigid with no protruding fixings and face to receive decorative finish exposed.

460 SMOOTHING UNDERLAYMENT

- Type: Recommended by adhesive manufacturer.
- Condition: Allow to dry before tiling.

FIXING

510 FIXING GENERALLY

- Colour/shade: Unintended variations within tiles for use in each area/room are not permitted.
 - Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/base. Prime if recommended by adhesive manufacturer.
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints when viewed under final lighting conditions.
- Surplus bedding material: Clean from joints and face of tiles without disturbing tiles.

530A SETTING OUT

- Joints: True to line, continuous and without steps.
 - Joints on walls: Horizontal, vertical and aligned round corners.
 - Joints in floors: Parallel to the main axis of the space or specified features.
- Cut tiles: Minimise number, maximise size and locate unobtrusively.
- Joints in adjoining floors and walls: Align
- Joints in adjoining floors and skirtings: Align.
- Movement joints: If locations are not indicated, submit proposals.

550 FLATNESS/ REGULARITY OF TILING

- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 2 m straightedge placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 3 mm.

560 LEVEL OF TILING ACROSS JOINTS

- Deviation (maximum) between tile surfaces either side of any type of joint:
 - 1 mm for joints less than 6 mm wide.
 - 2 mm for joints 6 mm or greater in width.

570 MORTAR FOR BEDDING

- Bedding mix:
 - Cement: Portland to BS EN 197-1 type CEM I/42.5.
 - Sand for walls: To BS 1199, type A.
 - Sand for floors: To BS 882.
 - Grading limit: To BS 8204-1, table 1.
- Batching: Select from:
 - Batch by weight.
 - Batch by volume: Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.
- Mixing: Mix materials thoroughly to uniform consistence. Use a suitable forced action mechanical mixer. Do not use a free fall type mixer.
- Application: At normal temperatures use within two hours. Do not use after initial set. Do not retemper.

650 THIN BED ADHESIVE - RIBBED (WALLS)

- Application: Apply 3 mm floated coat of adhesive to dry background in areas of approximately 1 m². Trowel to ribbed profile.
- Tiling: Press tiles firmly onto float coat.

651 THIN BED ADHESIVE - SOLID (WALLS)

- Application: Apply floated coat of adhesive to dry background in areas of about 1 m². Comb surface.
- Tiling: Apply thin even coat of adhesive to backs of dry tiles. Press tiles firmly onto float coat.
- Finished adhesive thickness (maximum): 3 mm.

- 660 THIN BED ADHESIVE - MESH BACKED MOSAIC (WALLS)
- Application: Apply 3 mm floated coat of adhesive to dry background. Comb surface.
 - Placing mosaic sheets: Hang in horizontal rows, working downwards. Stagger vertical joints. Prevent slippage of sheets. Lightly beat mosaics into adhesive.
 - Width, plane and alignment of joints between sheets: To match joints between mosaic tiles.
- 661 THIN BED ADHESIVE - PAPER FACED MOSAIC (WALLS)
- Application: Apply 3 mm floated coat of adhesive to dry background. Comb surface.
 - Preparing mosaic sheets: Pregrout. Remove surplus before fixing.
 - Placing mosaic sheets: Hang in horizontal rows, working downwards. Stagger vertical joints.
 - Width, plane and alignment of joints between sheets: To match joints between mosaic tiles.
 - Paper face: Before adhesive hardens completely, remove paper face. Complete grouting. Wash off glue from face of mosaic.
- 670 THICK BED ADHESIVE - SOLID (WALLS)
- Application: Apply floated coat of adhesive to dry background. Comb surface.
 - Tiling: Apply thin even coat of adhesive to backs of dry tiles. Press tiles firmly onto float coat.
 - Finished adhesive thickness: Within range recommended by manufacturer.

MOVEMENT JOINTS/ GROUTING/ COMPLETION

- 875A GROUTING
- Sequence: Grout when bed/adhesive has set sufficient to prevent disturbance of tiles.
 - Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
 - Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
 - Polishing: When grout is hard, polish tiling with a dry cloth.

M50

Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

M50 Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

To be read with Preliminaries/ General conditions.

TYPES OF COVERING

110 FLOOR TILING

- Location: Bathrooms and Kitchens to tenants/residents flats .
- Base: Existing concrete screed/timber flooring .
 - Preparation: Consult polyflor technical support .
- Fabricated underlay: Not Applicable .
- Tiles: to kitchen/bathroom .
 - Manufacturer: Polyflor Ltd, Manchester / Altro Letchworth Garden City, Hertfordshire .
 - Product reference: Polyflor Mystique PUR for kitchens and Polysafe standard for bathrooms, Altro Marine flooring for wetrooms to OT conversion .
 - BS EN 685 class: 43 .
 - Size: 300 x 300 mm.
 - Thickness: 2.0 mm.
 - Colour/ pattern: To be determined .
- Adhesive (and primer if recommended by manufacturer): As clause 640 .
- Accessories: Skirtings as Clause 77A .
- Finishing: Mop wash or lightly machine scrub with a neutral detergent cleaner in accordance with Clause 820 .
- Other requirements: None .

GENERAL REQUIREMENTS

210 WORKMANSHIP GENERALLY

- Base condition after preparation: Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.
- Finished coverings: Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

250A LAYOUT - ROLL MATERIALS

- Setting out of seams: Before placing orders agree setting out for sheeting types M50/ 150 .

330 COMMENCEMENT

- Required condition of works prior to laying materials:
 - Building is weathertight and well dried out.
 - Wet trades have finished work.
 - Paintwork is finished and dry.
 - Conflicting overhead work is complete.
 - Floor service outlets, duct covers and other fixtures around which materials are to be cut are fixed.
- Notification: Submit not less than 48 hours before commencing laying.

340 CONDITIONING

- Prior to laying: Condition materials by unpacking and separating in spaces where they are to be laid. Maintain resilient flooring rolls in an upright position. Unroll carpet and keep flat on a supporting surface.
- Conditioning time and temperature (minimum): As recommended by manufacturer with time extended by a factor of two for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

350 ENVIRONMENT

- Temperature and humidity: Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.
- Ventilation: Before during and after laying, maintain adequate provision.

PREPARING BASES

420 EXISTING BASES

- Notification: Before commencing work, confirm that existing bases will, after preparation, be suitable to receive coverings.
- Suitability of bases and conditions within any area: Commencement of laying of coverings will be taken as acceptance of suitability.

460 SMOOTHING/ LEVELLING UNDERLAYMENT COMPOUND

- Type: As approved by CA .
- Selection: As recommended by covering manufacturer.

470 EXISTING FLOOR COVERINGS REMOVED

- Substrate: Clear of covering and as much adhesive as possible. Skim with smoothing underlayment compound to give smooth, even surface.

490 PLYWOOD UNDERLAY

- Location: over timber joists.
 - To an approved national standard.
 - Bonding quality to BS EN 314:Part 2:Class 3
 - Appearance class to BS EN 635: Class I/II
- Finish: unsanded
 - Thickness: 6mm over joists
- Sheet size: 2430x1220mm or 1830x910mm (approx)
- Ensure that existing floorboards are securely fixed and acceptably level. Remove or fill any gross irregularities. Punch in any protruding fastenings.
- Lay sheets with cross joints staggered such that no joint within the base and underlay is coincident and with a 0.5-1 mm gap between sheets.
- Fix with 25 mm stainless steel countersunk wood screws commencing at the centre of one side of each sheet, set in 12 mm from edge of board at 450mm centres (maximum) to align with joists one way, 300mm centres along joists.
- Ensure that fastenings are driven well in, with heads of screws set flush with surface and do not project through underside of base.

545 SHEET UNDERLAY

- Manufacturer and reference: Polyflor - as recommended by manufacturer.
- Width: 2000mm
- Thickness: as recommended by manufacturer
- Set out in same direction as that planned for the sheet flooring, with butt joints staggered to avoid seams in floor covering. Lay loose and flat with no distorting bumps and cut into perimeter.

LAYING COVERINGS

640 ADHESIVE FIXING GENERALLY

- Adhesive: Type to be as specified, recommended by covering/ underlay manufacturer or as approved.
- Primer: Use and type as recommended by adhesive manufacturer.
- Application: As necessary to achieve good bond.
- Finished surface irregularities: Trowel ridges and high spots caused by particles on the substrate not acceptable.

720 DOORWAYS

- Joint location: On centre line of door leaf.

740A EDGINGS/ COVER STRIPS

- Manufacturer: Polyfloor
 - Product reference: As recommended by manufacturer.
- Fixing: Secure (using matching fasteners where exposed to view) with edge of covering gripped.
- Cut recess in base, bed edge strip level in epoxy mortar and securely screw to base with neatly mitred joints.
- Make good base by filling with smoothing compound to give a smooth over surface.
- Cut groove and hot weld PVC insert to Poly Safe Safety Flooring.

770A SELF-COVERED SKIRTINGS

- Cove former: As recommended by Polyflor
- Securely bond to base and background .
- Turn flooring material up wall and securely bond to cove former and background, with top edge straight
- Accurately mitre at corners
- Height: 100mm
- Top edge: as recommended by Polyflor
- Adhesive: as recommended by Polyflor .
- Hot weld joints and mitred corners with matching welding rod. Do not Chemical weld.

775 JUNCTION BETWEEN SELF-COVERED SKIRTINGS AND DOOR FRAMES/ARCHITRAVES

Trim back of cove formers in proximity to door openings, and terminate self-covered skirtings against side of architraves.

COMPLETION

820A FINISHING PLASTIC FLOORING

- Wash floor with water containing alkaline cleaner. Use deck scrubber on small or lightly soiled areas and machine with synthetic pads on large or heavily soiled areas.
- Thoroughly rinse with clean water to remove detergent, and allow floor to dry.

880 WASTE

- Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.

M52
Decorative papers/ fabrics

M52 Decorative papers/ fabrics

To be read with Preliminaries/ General conditions.

110 COVERING FOR INTERNAL WINDOW DOOR REVEALS DAMAGED BY WORKS

- Substrate: As existing.
 - Preparation: As clauses below.
 - Treatment: Size walls before wall papering.
- Adhesive: As per manufacturers specification.
- Lining: As per manufacturers specification.
- Covering: As per manufacturers specification.
 - Manufacturer: To match existing.
 - Product reference: To match existing.
 - Colour/ pattern: To match existing.
 - Roll width: 600mm .

GENERALLY

240 ENVIRONMENT

- Conditions: During hanging and drying of linings/coverings, maintain working area ambient temperature and humidity levels approximate to those proposed in service.

250 CONDITIONING

- General: Unwrap coverings and allow to acclimatise in working area as follows: As per manufacturers specification

310 PREPARATION GENERALLY

- Preparation materials: Types recommended by their manufacturers and covering manufacturer for situation and substrate being prepared.
- Substrates: Sufficiently dry in depth to suit covering to be hung.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove. Give notice if contamination of substrates has occurred.
- Substrate irregularities: Fill cracks, joints, holes and other depressions with stoppers/ fillers. Work well in and finish off flush with surface. Abrade to a smooth finish.
- Dust, particles and residues from abrasion: Remove.

330 FIXTURES AND FITTINGS

- Before commencing work: Remove the following: All fixtures and fittings obstructing works.
- On completion of work: Refix when coverings are dry.

340 COATED SUBSTRATES

- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coverings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Water soluble coatings: Completely remove.
- Significant rot, corrosion or other degradation of substrates: If revealed, give notice.
- Retained coatings:
 - Thoroughly clean to remove dirt, grease and contaminants.
 - Abrade gloss coated substrates to provide a key.
 - Carry out tests for compatibility with adhesives.

350 PAPER/ FABRIC COVERED SUBSTRATES

- Existing coverings: Remove by wet or dry stripping.
- Old adhesive and size: Remove by washing.
- Significant loose or damaged plaster or other degradation of substrates: If revealed, give notice.

- 360 VINYL COVERED SUBSTRATES
- Existing covering: Remove peelable vinyl surface.
 - Paper base to vinyl: May be retained as a lining if in good condition and firmly adhering. Stick down lifting edges and corners.
- 370 ORGANIC GROWTHS
- Loose growths and infected coatings/ decorations: Scrape off and remove.
 - Treatment biocide: Apply appropriate solution to growth areas and surrounding surfaces.
 - Dead growth: Scrape off and remove.
 - Residual effect biocide: Apply appropriate solution to inhibit re-establishment of growths.
 - Biocides: Types listed in current Health and Safety Executive (HSE) 'Pesticides', Part B, as surface biocides.
- 420 HANGING GENERALLY
- Coatings on adjacent surfaces: Complete and dry before commencement of hanging coverings.
 - Sequence of hanging coverings:
 - Apply to ceilings before walls.
 - Commence adjacent to main source of natural light.
 - From centre of feature and isolated walls.
 - Surplus adhesive: Carefully remove from face of coverings, adjacent surfaces and fittings whilst still wet.
 - Completed coverings: Securely adhered, smooth and free of air bubbles, wrinkles, gaps, tears, adhesive marks and stains. Joints truly vertical/ horizontal and straight.
- 430 SETTING OUT
- Approval of setting out: Obtain before commencement of hanging coverings.
- 480 LININGS
- Type and weight: To suit coverings and substrates.
 - Hanging lengths: Transverse to direction of coverings, with neat butt joints; do not overlap.
 - Drying period: Leave for 24 hours before hanging coverings.
- 490 COVERINGS
- Selvedged coverings: Trim to a true straight edge before hanging, unless overlap joints are recommended by manufacturer.
 - Hanging lengths:
 - Wall coverings: Vertical.
 - Ceiling coverings: Parallel to main window wall.
 - Metallic foil/ fabric coverings: Isolate from electrical contact.
- 500 JOINTS IN COVERINGS
- Butt joints: Hang lengths with neat butt joints generally.
 - Overlap joints: Hang lengths with neat overlap joints only where recommended by covering manufacturer. Cut through joints when stable to a true straight edge, without damaging substrate, and bond joints.
 - Cross joints: Hang lengths in one piece generally. Cross joints are only permitted where single lengths are impractical.
- 520 SHADING
- Matching: Ensure colour consistency of adjacent lengths.
 - Hanging lengths: Use in sequence as cut from roll.
 - Alternate lengths: Do not reverse unless recommended by covering manufacturer.
 - Shade variation: Check after hanging first three lengths. If variation occurs, give notice before proceeding.
- 530 PATTERN
- Pattern coverings: Accurately align and match.
 - Mis matches: Anticipate and obtain approval for locations.

M60
Painting/ clear finishing

M60 Painting/ clear finishing

To be read with Preliminaries/ General conditions.

SHOULD ANY DISPUTE ARISE AS A RESULT OF ANY DISCREPANCY BETWEEN THIS SPECIFICATION AND THE ICI-AKZONOBEL DETAILED SPECIFICATION, THEN THE ICI-AKZONOBEL DETAILED SPECIFICATION WILL TAKE PRECEDENT OVER THIS SPECIFICATION.

COATING SYSTEMS

110A EMULSION PAINT

- Manufacturer: ICI Dulux or similar approved by CA.
- Surfaces: New and existing .
 - Preparation: As per manufacturers specification .
- Initial coats:
 - Type: Fungicided and stabilising solution .
 - Number of coats 1 .
- Finishing coats:
 - Type: Primer .
 - Type: Finishing paint
 - Number of coats: 1 coat primer and 2 coats emulsion paint .

130B GLOSS PAINT TO EXTERNAL SOFTWOOD

- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Weathershield Exterior High Gloss .
- Surfaces: Previously decorated .
 - Preparation: As clauses 400, 440 .
- Initial coats:
 - Type: Spot prime any bare metal with 1 coat Dulux Trade Metal Primer
2Dulux Trade Weathershield Preservative Primer .
 - Number of coats: 2 .
- Finishing coats:
 - Type: Dulux Trade Weathershield Exterior Flexible Undercoat - shade tp match existing/ previous .
 - Number of coats: 2 .

130C GLOSS PAINT TO EXTERNAL SOFTWOOD

- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Weathershield Exterior High Gloss .
- Surfaces: Uncoated .
 - Preparation:
 - As clauses 400, 440;
 - Degrease and abrade to provide key; and
 - Remove existing gloss paint .
- Initial coats:
 - Type: Spot prime any bare metal with 1 coat Dulux Trade Metal Primer. 2 No. coatsDulux Trade Weathershield Preservative Primer .
 - Number of coats: 2 .
- Finishing coats:
 - Type: Dulux Trade Weathershield Exterior Flexible Undercoat - shade to match existing/ previous.
1 No. coat of Dulux Trade Weathershield Exterior Flexible Undercoat of selected shade .
 - Number of coats: 1 .

- 150 EGG SHELL/ SATIN PAINT Above Heat Emitters in Sheltered and Hostel Properties
- Manufacturer: ICI Dulux .
 - Product reference: ICI Dulux or similar approved by CA .
 - Surfaces: Above all Heat Emitters/previosuly decorated in Matt Paint .
 - Preparation: . .
 - Initial coats:
 - Type: As recommended by manufacturer .
 - Number of coats: 2 .
 - Finishing coats:
 - Type: As above .
 - Number of coats: 1 .
- 160 DECORATIVE WOODSTAIN VARNISH PRESERVATIVE Generally
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Weathershield Ultimate Opaque Woodstain .
 - Surfaces: As existing .
 - Preparation: As clauses 400, 440 .
 - Initial coats:
 - Type: Dulux Trade Weathershield Aquatech Preservative Basecoat + .
 - Number of coats: 2 .
 - Finishing coats:
 - Type: Dulux Trade Weathershield Ultimate Opaque Woodstain .
 - Number of coats: 2 .
- 160A EXTERNAL PREVIOUSLY STAINED FENCING, GATES ETC Generally
- Manufacturer: ICI Dulux .
 - Product reference: Cuprinol Trade Decorative Preserver (BP) .
 - Surfaces: As existing .
 - Preparation: As clauses 400, 440 .
 - Initial coats:
 - Type: N/a .
 - Number of coats: N/a .
 - Finishing coats:
 - Type: Cuprinol Trade Decorative Preserver (BP) of selected shade .
 - Number of coats: 2 .
- 170A MASONRY COATING Generally (e.g. painted face brick work/ render) .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Weathershield Smooth Masonry Paint .
 - Surfaces: As existing .
 - Preparation:
 - As clauses 400, 440;
 - Brush down to remove surface contaminants; and
 - Remove loose and spalled material and wash down .
 - Initial coats:
 - Type: (If surfaces remain powdery and friable after thorough preparation, they must be sealed with 1 No. coat of Dulux Trade Weathershield Stabalising Primer) - Dulux Trade Weathershield Smooth Masonry Paint .
 - Number of coats: 1 .
 - Finishing coats:
 - Type: Dulux Trade Westhershield Smooth Masonry Paint of selected shade .
 - Number of coats: 2

- 170B MASONRY COATING Generally (e.g. painted face brick work/ render) .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Weathershield Smooth Masonry Paint .
 - Surfaces: Bare substrate .
 - Preparation:
 - As clauses 400, 440; .
 - Initial coats:
 - Type: Bring forward: (Bring forward all areas which, during preparation, were either taken back to substrate or disfigured/ exposed by the removal of the previous coating with - Dulux Trade Weathershield Smooth Masonry Paint
 - Number of coats: 1 .
 - Finishing coats:
 - Type: Dulux Trade Weathershield Smooth Masonry Paint of selected shade .
 - Number of coats: 2
- 180 FLOOR COATING & PREVIOUSLY PAINTED RED TILES/ STEPS
- Manufacturer: Glidden .
 - Product reference: Glidden Trade Anti-Slip Floor Paint .
 - Surfaces: As existing .
 - Preparation: As clauses 400, 440 and Dustproofed and sealed .
 - Initial coats:
 - Type: Glidden Trade Primecoat Metal Primer Zinc Phosphate .
 - Number of coats: 1 .
 - Finishing coats:
 - Type: Glidden Trade Anti-slip Floor Paint shade to match existing .
 - Number of coats: 2 .
- 190 SPECIAL COATING ABOVE HEAT EMITTERS TO COMMON AREAS IN SHELTERED AND HOSTEL ACCOMODATION .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade, Eggshell or similar approved (TBA by Client representative) .
 - Surfaces: As existing .
 - Preparation: As Clauses 400, 440 and wash down and degrease
 - Initial coats:
 - Type: TBA by Client Representative and ICI .
 - Number of coats: as manufacturers recommendations .
 - Finishing coats:
 - Type: Dulux trade eggshell or similar approved of selected shade. .
 - Number of coats: As manufacturers recommendations .
- 190A PREVIOUSLY PAINTED METAL COATING Generally .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Metalshield Gloss Finish .
 - Surfaces: As existing .
 - Preparation: As clauses 400, 440 and Wash down and degrease
 - Initial coats:
 - Finishing coats:
 - Type: Dulux Trade Metalshield Gloss Finish - to match existing .
 - Number of coats: 2 .

- 190B BARE METAL COATING Generally .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade Metalshield Gloss Finish .
 - Surfaces: As existing (Bare) .
 - Preparation: As clauses 400, 440 and Wash down and degrease
 - Initial coats:
 - Type: (If areas show concern from poor adhesion, pre-treat the cleaned surface with : Dulux Trade Mordant Solution whcih must be throughly washed off and allowed to dry befor painting) Dulux Trade Metalshield Zinc Phosphate Primer .
 - Number of coats: 1 .
 - Finishing coats:
 - Type: Dulux Trade Metalshield Gloss Finish - shade to match existing .
 - Number of coats: 2 .
- 190C EXTERNAL STOVE ENAMELLED PIPE COATING Gutters & Downpipes .
- Manufacturer: ICI Dulux .
 - Product reference: Dulux Trade, Dulux Trade High Gloss .
 - Surfaces: As existing .
 - Preparation: As clauses 400, 440 and Wash down and degrease
 - Initial coats:
 - Type: (Spot prime any bare metal with one coat of Dulux Trade Metalshield Zinc Phosphate Primer). Prime all clean, dry, prepared surfaces which have gone back to the original enamelled coating with: One coat of Dulux Trade Ultra Grip Primer .
 - Number of coats: 1 .
 - Initial coats:
 - Type: Dulux Trade Undercoat of existing shade followed by Dulux Trade High Gloss - shade to match existing .
 - Number of coats: [1] .
 - Finishing coats:
 - Type: Dulux Trade High Gloss of selected shade .
 - Number of coats: 1 .

GENERALLY

- 215 HANDLING AND STORAGE
- Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
 - Materials from more than one batch: Store separately.
- 240 SURFACES NOT TO BE COATED
New and existing emulsion and gloss surfaces to kitchens and bathrooms .
- 240A SURFACES NOT TO BE COATED
Existing external PVCu surfaces .
- 250A SURFACES TO BE WASHED DOWN BUT NOT COATED
PVCu fascia's following gutter clearance .
- 280 PROTECTION
- 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

PREPARATION

400 PREPARATION GENERALLY

- Standard: To BS 6150, Section 4.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove.
 - Give notice if contamination of surfaces/ substrates has occurred.
- Joints, cracks, holes and other depressions:
 - Fill with stoppers/ fillers. Work well in and finish off flush with surface.
 - Abrade to a smooth finish.
- Water based stoppers and fillers:
 - Apply before priming unless recommended otherwise by manufacturer.
 - If applied after priming: Patch prime.
- Oil based stoppers and fillers: Apply after priming.
- Surface irregularities: Abrade to a smooth finish.
- Dust, particles and residues from abrasion: Remove.
- Doors, opening windows and other moving parts:
 - Ease before coating.
 - Prime resulting bare areas.

401A WORKING WITH ASBESTOS

- Before commencing work to any asbestos identified during the works, the Contractor shall consult the TMO's Asbestos management plan and register. Thereafter the Contractor shall prepare and issue a Method Statement for the proposed work which will be reviewed and approved by the Client Officer prior to work commencing.

420 FIXTURES AND FITTINGS

- Before commencing work: Remove the following:
 - Grills, cover plates and other surface mounted fixtures .
- On completion of coating work: Refix.

425 IRONMONGERY

- Before commencing work: Remove ironmongery from surfaces to be coated.
- Hinges: Do not remove.
- On completion of coating work: Refix.

430 EXISTING IRONMONGERY

- General: Remove old coating marks. Clean and polish.

440 PREVIOUSLY COATED SURFACES GENERALLY

- Preparation standard: To BS 6150, Section 6.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Discovery: Give notice of:
 - Coatings suspected of containing lead.
 - Substrates suspected of containing asbestos.
 - Significant rot, corrosion or other degradation of substrates.
- Retained coatings:
 - Thoroughly clean to remove dirt, grease and contaminants.
 - Gloss coated surfaces: Abrade to provide a key.
- Partly removed coatings:
 - Additional preparatory coats: Apply to restore original coating thicknesses.
 - Junctions: Abrade to give a flush surface.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

- 461 PREVIOUSLY COATED TIMBER
- Degraded or weathered surface timber: Abrade to remove.
 - Degraded substrate timber: Repair with sound timber of same species.
 - Exposed resinous areas and knots: Apply two coats of knotting.
- 471 PREPRIMED TIMBER
- Defective primer: Abrade back to bare timber.
 - Bare areas: Reprime.
- 481 UNCOATED TIMBER
- General: Abrade to a smooth, even finish with arrises and moulding edges lightly rounded or eased.
 - Heads of fasteners: Countersink sufficient to hold stoppers/fillers.
 - Resinous areas and knots: Apply two coats of knotting.
- 490 PREVIOUSLY COATED STEEL
- Defective paintwork: Remove to leave a firm edge and clean bright metal.
 - Sound paintwork: Abrade to provide key for subsequent coats.
 - Corrosion and loose scale: Abrade back to bare metal.
 - Residual rust: Treat with a proprietary removal solution.
 - Bare metal: Apply primer as soon as possible.
 - Remaining areas: Degrease.
- 500 PREPRIMED STEEL
- Defective primer, corrosion and loose scale: Abrade back to bare metal.
 - Bare areas: Reprime as soon as possible.
- 511 GALVANIZED, SHERARDIZED AND ELECTROPLATED STEEL
- White rust: Remove.
 - Pretreatment: Apply one of the following:
 - 'T wash'/ mordant solution to blacken whole surface.
 - Etching primer recommended by coating system manufacturer.
- 521 UNCOATED STEEL - MANUAL CLEANING
- Oil and grease: Remove.
 - Corrosion, loose scale, welding slag and spatter: Abrade to remove.
 - Residual rust: Treat with a proprietary removal solution.
 - Primer: Apply as soon as possible.
- 541 UNCOATED ALUMINIUM/ COPPER/ LEAD
- Surface corrosion: Remove and lightly abrade.
 - Pretreatment: Etching primer if recommended by coating system manufacturer.
- 552 UNCOATED PVC-U
- Dirt and grease: Remove. Do not abrade.
- 570 UNCOATED MASONRY/ RENDERING
- Loose and flaking material: Remove.
- 580 UNCOATED PLASTER
- Nibs, trowel marks and plaster splashes: Scrape off.
 - Overtrowelled 'polished' areas: Abrade lightly.
- 590A UNCOATED PLASTERBOARD
- Depressions around fixings: Fill with stoppers/ fillers.

APPLICATION

- 601 UNCOATED PLASTERBOARD - TO RECEIVE TEXTURED COATING
- Joints: Fill, tape and feather out with materials recommended by textured coating manufacturer.
- 611 WALL COVERINGS
- Retained wall coverings: Check that they are in good condition and well adhered to substrate.
 - Previously covered walls: Wash down to remove paper residues, adhesive and size.
- 622 ORGANIC GROWTHS
- Loose growths and infected coatings: Scrape off and remove.
 - Treatment biocide: Apply appropriate solution to growth areas and surrounding surfaces.
 - Dead growth: Scrape off and remove.
 - Residual effect biocide: Apply appropriate solution to inhibit re-establishment of growths.
- 651 EXISTING GUTTERS
- Dirt and debris: Clean from inside of gutters.
 - Defective joints: Clean and seal with suitable jointing material.

APPLICATION

- 711 COATING GENERALLY
- Application standard: To BS 6150, Section 5.
 - Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
 - Surfaces: Clean and dry at time of application.
 - Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
 - Overpainting: Do not paint over intumescent strips or silicone mastics.
 - Priming coats:
 - Thickness: To suit surface porosity.
 - Application: As soon as possible on same day as preparation is completed.
 - Finish:
 - Even, smooth and of uniform colour.
 - Free from brush marks, sags, runs and other defects.
 - Cut in neatly.
- 730 WORKSHOP COATING OF CONCEALED JOINERY SURFACES
- General: Apply coatings to all surfaces of components.
- 751 STAINING TIMBER
- Primer: Apply if recommended by stain manufacturer.
 - Stain:
 - Apply in flowing coats.
 - Brush out excess stain before set.
 - Produce uniform depth of colour.
- 760 VARNISHING TIMBER
- First coat:
 - Thin with white spirit.
 - Brush well in and lay off avoiding aeration.
 - Subsequent coats: Rub down lightly between coats along the grain.

N
Furniture/Equipment

N10
General fixtures/furnishings/equipment

N10 General fixtures/furnishings/equipment

To be read with Preliminaries/General conditions.

Colour Matched Décor End Panels on All Exposed Gable Ends, Base and Wall Units - Must be planned in at Survey Stage
Plinth and Corner Posts to be Colour Matched

Blocking and Moving of Obstructions:

- " Serving hatches shall generally be retained. If cooker needs to be moved hatches can be blocked to facilitate new cooker position.
- " Radiators can be moved if necessary, if this will significantly improve the layout.
- " When planning the layout particular attention should be taken to look for large pipe work, the contractor will not adapt units to suit the pipes therefore plan the kitchen around this. Work around obstructions, standard units can only be supplied, Contractor will not adapt units on site with the exception of fitting over gas/electric meters.
- " Where meters are located in kitchens, they shall, wherever possible, be concealed within a wall or base unit, modified as necessary to conceal the meter but providing adequate and convenient access and ventilation to it.
- " Existing boilers shall remain in position, should they fall below 900mm and interfere with the layout this should be referred to the Client who may agree to move or replace the Boiler.
- " Gas Meters may be moved if it interferes with the layout and there is no other option, refer to Client. If a unit is used to cover a Meter, it must be accessible for Key Cards, Meter Reading and shutting off supply. If this is not possible then a worktop with a void space under and a chrome leg should be used. Where Gas Meters are set within a cupboard space, ventilation should be provided to comply with current legislation.
- " Boiler Pipework. If the service pipework to a Boiler is sited below the worktop level, the pipework must be accessible from within the base unit. If maintenance operation is required'

General:

- " No cookers under windows, or behind or next to doors
- " No cookers in corners. If this is the only option the return corner unit must be set at an additional 30mm or the required distance to ensure operation of the drawer and door on the corner base unit
- " The minimum required amount of worktop either side of the cooker is 300mm
- " The required gap between wall units and cookers is 100mm
- " Appliance spaces may be moved to make the design safer and more functional.
- " Sinks shall if possible be located in front of a window. This is providing there is no major works to move the waste position. Particular attention should be taken to avoid moving sinks which would involve any disturbance of floor screed. Sink Moves should be kept to a minimum. There should be at least 400mm of clear worktop between the sink and any internal corner or return where possible and at least 500mm between the sink and the cooker.
- " There shall be a clear space of at least 1.2m in front of all fittings and appliances, where this is not possible this should be agreed with the Client. 500 deep units should be considered if kitchen is narrow
- " Fridge/freezer spaces shall not be adjacent to the cooker space or boiler.
- " The cooker space shall be at least 300mm away from any return floor unit or worktop and shall have at least 300mm of free worktop space on each side.
- " Where residents have a tumble drier or dishwasher and wish to retain it, an appropriate space shall be provided. Allowance should be made to vent tumble dryer to an external wall if non-condensing, and this should be noted to the drawing.
- " The total work surface (including drainer) shall be minimum 2.0m.
- " Stop cocks, Electric Meters, Gas Meters are to be shown on the CAD plan by use of notes.
- " Where residents have an existing 'built in/' 'built under' oven and hob or are thinking of getting one, this will be accommodated in the design if the kitchen layout allows so. Note on plan
- " Larder units can be used to cover meters.
- " Design should take care that mechanisms for windows are accessible.
- " Layout should provide a work sequence of worktop/cooker/worktop/sink unit/worktop unbroken by a door or other traffic.
- " Wall units to be fitted 450mm (3 rows of 150mm tiles) above worktop, exception to this are only where residents require adaptations / OT input.
- " Capping / end strips to be fitted to worktop, aluminium jointing strip to be used at changes of worktop direction. Mitres are not required.

" Worktop to be set at a minimum height of 900mm.

Future Allowances:

" Extractor fans need to be noted on the plans (existing and future).

Capacity:

To meet the following standard:-

Studio Flat - Minimum Capacity 0.73m³ / Maximum 0.92m³
 One Bedroom - Minimum Capacity 1.00m³ / Maximum 1.25m³
 Two Bedroom - Minimum Capacity 1.45m³ / Maximum 1.82m³
 Three Bedroom - Minimum Capacity 1.72m³ / Maximum 2.15m³
 Four Bedroom - Minimum Capacity 1.72m³ / Maximum 2.15m³
 Five+ Bedroom - Minimum Capacity 1.99m³ / Maximum 2.48m³

EXECUTION

710 MOISTURE CONTENT

- Temperature and humidity: During delivery, storage, fixing and to handover maintain conditions to suit specified moisture contents of timber components.
- Testing: When instructed, test components with approved moisture meter to manufacturer's recommendations.

720 INSTALLATION GENERALLY

- Fixing and fasteners: As section Z20.

760 SEALANT POINTING

- Material: Silicone based to BS 5889, Type B with fungicide.
- Colour: White .
- Manufacturer: Evade .
 - Product reference: High Modules Silicone or equivalent .
- Application: As section Z22.

770 TRIMS

- Lengths: Wherever possible, unjointed between angles or ends of runs.
- Running joints: Where unavoidable, obtain approval of location and method of jointing.
- Angle joints: Mitred.

780 COMPLETION

- Doors and drawers: Accurately aligned, not binding. Adjusted to ensure smooth operation.
- Ironmongery: Checked, adjusted and lubricated to ensure correct functioning.

N13
Sanitary appliances and fittings

N13 Sanitary appliances and fittings

To be read with Preliminaries/ General conditions.

TYPES OF APPLIANCE/ FITTING

300A WCS AND CISTERNS

- Standard: To DEFRA WC suite performance specification or approved by relevant water company.
- Type: Twyfords classic HO complete with fittings and chrome plated cistern cover.
- Pan:
 - Standards: BS3402.
 - Manufacturer: Twyfords.
Product reference: Standard WC outlet to suit.
 - Material: Vitreous China.
- Seat and cover:
 - Standard: BS 1254 : 1981.
 - Manufacturer: Twyfords.
Product reference: ST1302WH and stainless steel hinges.
 - Material: Plastic.
- Pan connector:
 - Standard: To BS 5627.
 - Manufacturer: Twyfords.
Product reference: Plastic flushbend with Simpla inlet connector.
 - Colour: To match pan.
- Cistern:
 - Standard: BS 3402.
 - Manufacturer: Twyfords.
Product reference: CC2841, internal overflow.
 - Material: Vitreous China.
 - Colour and finish (exposed cisterns): To match pan.
- Flushing arrangement:
 - Manufacturer: Twyfords.
Product reference: Chrome plated lever.
 - Operating control: Lever.
 - Water supply connection: Existing to be adapted to suit.
 - Flush volume: 6 litres.
- Accessories: Panekta connectors as necessary
 - Domex screw. Cistern screwed to wall and supported on brackets
 - " Bath Panel
 - Tavistock Milton White Painted Bath Panel
 - " Milton is manufactured from 12mm MDF with quality wood veneer.
 - " Available in mahogany, antique pine, limed oak and white painted finishes.
 - " Supplied in 1700 mm and 700 mm lengths.
 - " Optional plinths available.
 - " Bath panel height 515mm including 5mm lip .

331A SINKS TO KITCHEN UNITS

- Standard: British Standard applicable.
- Manufacturer: Cora.
 - Product reference: Cora VT200 - right hand or left hand unisink as schedule or similar approved.
- Size: 1000 x 600mm.
- Material: Stainless Steel.
- Tap/ Chainstay/ Overflow holes: As supplied by unit inset.
- Taps:
 - Manufacturer: Concorde.
 - Product reference: Concorde Monoblock Chrome mixer taps with ceramic disc or similar.
- Wastes:
 - Standards: To BS 3380.
 - Manufacturer: Contractor choice to suit.
 - Product reference: N/A.
 - Size: To suit.
 - Material: To suit.
 - Tail: To suit.
- Traps:
 - Standards: To BS 4514.
 - Manufacturer: Contractors' choice to suit.
 - Product reference: N/A.
 - Size: To suit.
 - Material: To suit.
 - Depth of seal (minimum): 75 mm.
- Accessories: Additional overflow kit, bead chain and plug.

335A WASH BASINS FOR BATHROOMS

- Manufacturer: Twyford.
 - Product reference: Classic 560 CC 4212 WH complete with pedestal VC 5910 WH.
- Size: 560 x 45mm.
- Material: Vitreous China to BS 34021.
- Tap/ Chainstay/ Overflow holes: Vitreous China to BS 34021.
- Water supply fittings: Taps.
 - Manufacturer: Pegler, Bristan or similar.
 - Product reference: 1/2" pillar taps, short lever type. Peglar, Bristan or similar SF5245.
 - Operation: Quarter turn with ceramic discs.
- Wastes:
 - Standards: To BS EN 274-1, -2 and -3.
 - Manufacturer: Contractors' choice to suit.
 - Product reference: N/A.
 - Size: 1.25 inch.
 - Material: chrome plated.
 - Tail: 80mm slotted.
- Traps:
 - Standards: To BS EN 274-1, -2 and -3.
 - Manufacturer: Contractors' choice to suit.
 - Product reference: N/A.
 - Size: 1.25 inch.
 - Material: Plastic (White).
 - Depth of seal (minimum): 75 mm.
- Accessories: Bead chain with plastic plug, bolt stay.

355A BATHS

- Standard: Current British Standards.
- Manufacturer: Twyfords.
 - Product reference: Neptune or Celtic with 2 tapholes and grips.
- Size: 1700 x 700.
- Material: Enameled steel.
- Tap/ Chainstay/ Overflow holes: Combined chain waste and overflow.
- Taps:
 - Manufacturer: Pegler, Bristan or similar.
 - Product reference: $\frac{3}{4}$ " level type shower mixer taps, Pegler or similar
 $\frac{3}{4}$ " lever type pillar taps - chrome plated SF5244CP with easy quarter turn operation .
- Wastes:
 - Standards: To BS EN 274-1, -2 and -3.
 - Manufacturer: Armitage Shanks .
 - Product reference: S8840, Combi-trap, 1.5 inch plastic chain overflow and 50mm seal trap .
 - Size: DN 40.
 - Material: Stainless Steel .
 - Tail: 70mm .
- Traps:
 - Standards: To BS EN 274-1, -2 and -3.
 - Manufacturer: Contractors' choice to suit .
 - Product reference: Combi-trap, 1.5 inch plastic chain overflow and 50mm seal trap .
 - Size: DN 40.
 - Material: Plastic .
 - Depth of seal (minimum): 50 mm.
- Accessories: grip rails and white front panel .

580A SEALANT POINTING

- Type: Silicone.
 - Manufacturer: Evode.
 - Product reference: High Modulus Silicone or equivalent.
- Colour: White.

590 SPECIAL NEEDS FITTINGS

- Bath:
 - Manufacturer: Nicholls & Clarke Phlexicare.
 - Material: Deep enamelled pressed steel manufactured to BS 1390 with slip resistant surface.
 - Type A1: White, plain rim (cut away side) Ref. P6806501- Claremont range. Size: 780 x 1700mm, Front End Panel, white Ref. P6806201, End Panel (if required), white Ref. P6806301, lever action pop up waste and overflow, Chrome Ref. P6840801
 - Type A2: White, plain rim twin hand grips or rails - Ref.P6800251 – Shallow bath range. Size: 700 x 1690mm.
 - Type A3: White, plain Contessa Bath Ref. S.2003001. Size: 700 x 1500mm
- WC Pan and Cistern - Type B:
 - Arrangement: Close coupled.
 - Type: Twyfords Avalon H.O complete suite with fittings Ref. AV1158WH complete with fittings.
 - Fittings to include: valve less 6 litre cistern Ref. AV2711WH, including syphon, 1/2, bottom inlet ballvalve, 3/4, bottom overflow, bolts & connecting fitments from cistern to bowl, reversible spatulated Chrome plated cistern lever and cover clip.
 - Horizontal outlet & Trap to suit Refs. WF1240WH (p-trap) or WF1241WH (s-trap).
 - Fixing: W.C screwed to wall and floor. Cistern screwed to wall and supported on brackets.
 - Seat & Cover: Standard fix with Germ shield seat Ref. GR879WH.
- Clos-O-Mat: An automatic WC/shower toilet providing flushing, washing and warm air drying from one simple operation. The douche is operated by a 220/240V single phase quiet running electric motor driving an instantaneous non-ferrous pump.
 - Manufacturer/Ref: Nichols & Clarke - Total Hygiene.
- Wash Hand Basin - Type B : 450 x 350mm wide.
 - Type: Twyfords GALERIE450 with two tapholes and chainstay hole Ref. GR4812WH
 - Waste: Chrome plated chain waste 1 1/4, Ref. WF 4330 CP
 - Fixing: Wall bracket Ref. SR5307XX
- Wash Hand Basin - Type C: 520 x 425mm wide.
 - Type: Phlexicare with single taphole Ref. S70040.20
 - Waste: Chain and stay Ref. S.23650.01
 - Fixing: Wall bracket Ref. S.70040.33
- Wash Hand Basin - Type D: 550 x 450mm wide.
 - Type: Ideal Standard Narron Sapce 44 WHB
 - Waste: Chain and stay Ref. S.23650.01
 - Fixing: Wall bracket Ref. S.70040.33
- Tap Conversion Kits:
 - 1 pair tap heads 1/2 Ref: P63491.25
 - 1 pair tap heads 3/4 Ref: P63491.26
- Taps Wash Basins:
 - Type A: Nichols & Clarke Phlexicare Simplicity range Pillar Taps Ref: P63491.03
 - Type B: Nichols & Clarke Phlexicare Novalever range Pillar Taps Ref: P63000.33
 - Type C: Nichols & Clarke Phlexicare range Lever action spray mixer chrome plated Ref. P63473.11
- Taps Bath:
 - Type A: Twyfords Cordova 3/4 pillar taps Ref. SE5215CP, general purpose taps.
 - Type B: Twyfords 3/4 Lever action pillar taps (pair) chrome plated Ref. SF5244CP, with easy quarter turn operation.
- Level Access Shower Unit:
 - Shower unit: MIRA ADVANCE FLEX ATL 9.0kw thermostatically controled, BBA approved, complete with extended temperature control lever, anti-scald device, additional handset holder, limescale resistant 3 spray handset, phased shut down, 2m hose. White.

- Shower Unit:
 - Trays: Trays and Shower Doors from Nichols & Clarke Phlexicare
 - Tray Types/sizes:
 - Front Access:
 - Type AF: 900 x 900mm tray Ref. 'P.68214.21' with half height frosted doors Ref. P.68214.61
 - Type BF: 1300 x 720mm tray L/Hand Ref. P.68214.25 with half height frosted doors Ref. P.68214.65
 - Type CF: 1300 x 720mm tray R/Hand Ref. P.68214.26 with half height frosted doors Ref. P.68214.65
 - Type DF: 1300 x 840mm tray L/Hand Ref. P.68214.27 with half height frosted doors Ref. P.68214.65
 - Type EF: 1300 x 720mm tray R/Hand Ref. P.68214.28 with half height frosted doors Ref. P.68214.65
 - Corner Access:
 - Type AC: 900 x 900mm tray Ref. P.68214.30 with half height frosted corner doors Ref. P.68214.67
 - Type BC: 1300 x 720mm tray L/Hand Ref. P.68214.33 with half height frosted doors Ref. P.68214.70
 - Type CC: 1300 x 720mm tray R/Hand Ref. P.68214.34 with half height frosted doors Ref. P.68214.71
 - Type DC: 1300 x 840mm tray L/Hand Ref. P.68214.35 with half height frosted doors Ref. P.68214.72.
 - Type EC: 1300 x 720mm tray R/Hand Ref. P.68214.36 with half height frosted doors Ref. P.68214.73
 - Accessories:
 - Duel Fit Kit Ref. P68214.79, where obstacle exists on an adjacent wall.
 - Rising Butt Hinges as specified
- Level Dec: (For wet rooms)
 - Nichols & Clarke Phlexicare level dec Ref. P68218.98 - 910 x 910mm.
 - Waste:
 - Manufacturer: Wade Drainage Products
 - Gravity Waste Type A: 'P' Trapped Gully - 75mm seal. Connections GV52 body with 50mm socket outlet for solvent-weld connection to 50mm PVC pipework. Gully with Polished grating Ref. GV52P.
 - Gravity Waste Type B: Trapped Gully with vertical back outlet – 75mm seal. Connections GV62 body with 50mm spigot outlet for solvent-weld or ring-sealed connection to 50mm PVC pipework. Gully with Polished grating Ref. GV62P.
 - Pumped Waste system: Phlexiflow Pump Shower pump waste.
 - Pump: Wale pump complete with all necessary connections to tray, waste water pipe work and mains electricity supply.
- Grab Rails:
 - Manufacturer: Phlexicare Pressalit ABS Grabrails. Colour to be specified.
 - 300mm Long – 2 bracket fixing
 - 450mm long - 2 bracket fixing Ref. P.68525.21
 - 600mm long - 2 bracket fixing Ref. P.68525.31
 - 1000mm long - Self assembly - 2 bracket fixing. Allow for all necessary elbows, T-pieces, wall rosettes etc.
 - 1400mm long - Self assembly - 2 bracket fixing. Allow for all necessary elbows, T-pieces, wall rosettes etc.
 - 750mm projection Drop down rail twin arm Ref. P.68517.51

595 ACCESSORIES

- Manufacturer: Nicholls & Clarke Phlexicare
 - Toilet Roll Holder 220 x 75mm Ref. P.68574.50
 - Acrylic Mirrors 600 x 450mm Ref. P.68341.21
 - Fixings: 8 holes drilled for wall fixing.
- Shower Curtain and Track

Manufacturer: Nichols & Clarke Phlexicare range;

 - Track A: length 865mm Ref. S223856.12 Tubular Shower Rail
 - Track B: length 1170mm Ref. S223856.13 Tubular Shower Rail
 - Track C: length 1830mm Ref. S223856.14 Tubular Shower Rail
 - Chromed Wall Flanges Ref. S.22385.01 for Tubular Shower Rail
 - Chrome angle bend Ref. S22385.02 for Tubular Shower Rail
 - Ceiling support stay 915mm length Ref. S22385.21 for Tubular Shower Rail
 - Ceiling support stay 455mm length Ref. S22385.22 for Tubular Shower Rail
 - Spring Shower Curtain Hooks Ref. S.22385.31 for Tubular Shower Rail
 - Track D: Length 2900mm Ref. S.22396.01 Flexible Track
 - Track D: Length 2400mm Ref. S.22396.11 Flexible Track
 - Additional hooks for Flexible Track Ref. S.22396.15
 - Shower Curtain 2135x1830mm drop Ref. S22385.40 Plain nylon curtain silicon treated with bottom hems weighted.
 - Shower Curtain 1830x1830mm drop Ref. S22385.41 Plain nylon curtain silicon treated with bottom hems weighted.
- Folding Down Shower Seat:
 - Type A: Flexicare Pressalit Rigid Shower Seat Washable rigidly mounted folding ABS seat. Ref. 'P68238.01'.
Size: 490mm wide with a 510mm projection.
 - Type B: Flexicare Ergoflex folding seat from perforated synthetic PVC material Ref. P68262.01. Size: 450mm wide with a 510mm projection and backrest height 540mm.
 - Type C: Flexicare Clinic folding seat with back & arm rests from in ABS Ref. P.68287.07. Size: 490mm wide with a 510mm projection.
- Avalon Seat and Cover from Twyfords Complete with Hinges:
 - Type A: 25mm high Ref. AV 7840 WH
 - Type B: 50mm high Ref. AV 7842 WH
 - Type C: 75mm high Ref. AV 7843 WH
 - Type D: 100mm high Ref. AV 7884 WH
- Installation Generally:
 - Fix appliances securely to structure, without taking support from pipelines, level and plumb and so that surfaces designed to fall drain as intended.
 - Unless specified otherwise, use jointing and bedding compounds recommended by the manufacturers of appliances, accessories and pipes to form watertight joints between appliances and backgrounds (except cisterns) and between appliances and discharge pipes.
- Cisterns
 - Obtain cistern operating components from cistern manufacturer. Ensure that ballvalve matches pressure of water supply.
 - Ensure that overflow pipe is fixed to falls, and located to give visible warning of discharge. Agree position with CA.
- Installation of Clos-O-Mats
 - Contractor to notify utility Companies before installation of Clos-O-Mat and on completion for testing and inspecting.
 - Allow for adapting existing water supply and for a 10amp fused spur electrical connection to the unit all in accordance with the manufacturers instructions and current IEE Regulations.
 - Test, commission and issue certificate to CA.
 - Provide instruction manual to tenant.
 - The douche is operated by a 220/240V single phase quiet running electric motor driving an instantaneous non-ferrous pump.
 - Manufacturer/Ref: Nichols & Clarke - Total Hygiene.

- Sealant Pointing:
 - Sealant: silicone based to BS 5889, Type B with fungicide.
 - Manufacturer and reference: As Dow Corning or equal & approved.
 - Colour: White
 - Application: As section Z22

EXECUTION

610 INSTALLATION GENERALLY

- Assembly and fixing: Surfaces designed to falls to drain as intended.
- Fasteners: Nonferrous or stainless steel.
- Supply and discharge pipework: Fix before appliances.
- Fixing: Fix appliances securely to structure. Do not support on pipework.
- Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.
- Appliances: Do not use. Do not stand on appliances.
- On completion: Components and accessories working correctly with no leaks.
- Labels and stickers: Removed.

620 NOGGINGS AND BEARERS

- Noggings, bearers, etc. to support sanitary appliances and fittings: Position accurately. Fix securely.

630 TILED BACKGROUNDS OTHER THAN SPLASHBACKS

- Timing: Complete before fixing appliances.
- Fixing appliances: Do not overstress tiles.

670 INSTALLING CISTERNS

- Cistern operating components: Obtain from cistern manufacturer.
 - Float operated valve: Matched to pressure of water supply.
- Overflow pipe: Fixed to falls and located to give visible warning of discharge.
 - Location: Agreed, where not shown on drawings.

710 INSTALLING TAPS

- Fixing: Secure against twisting.
- Seal with appliance: Watertight.
- Positioning: Hot tap to left of cold tap as viewed by user of appliance.

720 INSTALLING WASTES AND OVERFLOWS

- Bedding: Waterproof jointing compound.
- Fixing: With resilient washer between appliance and backnut.

P31
HOLES/CHASES/COVERS/SUPPORTS FOR SERVICES

P31 HOLES/CHASES/COVERS/SUPPORTS FOR SERVICES**10 HOLES, RECESSES AND CHASES IN MASONRY**

- Locations: To maintain integrity of strength, stability and sound resistance of construction.
- Sizes: Minimum needed to accommodate services.
- Holes (maximum): 300 x 300 mm.
- Walls of hollow or cellular blocks: Do not chase.
- Walls of other materials:
- Vertical chases: No deeper than one third of single leaf thickness.
- Horizontal or raking chases: No longer than 1m. No deeper than one sixth of the single leaf thickness.
- Chases and recesses: Do not set back to back. Offset by a clear distance at least equal to the wall thickness.
- Cutting: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

20 NOTCHES AND HOLES IN STRUCTURAL TIMBER

- General: Avoid if possible.
- Sizes: Minimum needed to accommodate services.
- Position: Do not locate near knots or other defects.
- Notches and holes in same joist: Minimum 100mm apart horizontally.
- Notches in joists: Locate at top. Form by sawing down to a drilled hole.
- Depth (maximum): 0.25 x joist depth.
- Distance from supports: Between 0.07 and 0.25 x span.
- Holes in joists: Locate on neutral axis.
- Diameter (maximum): 0.25 x joist depth.
- Centres (minimum): 3 x diameter of largest hole.
- Distance from supports: Between 0.25 and 0.4 of span.
- Notches in roof rafters, struts and columns: Not permitted.
- Holes in struts and columns: Locate on neutral axis.
- Diameter (maximum): 0.25 x minimum width of member.
- Centres (minimum): 3 x diameter of largest hole.
- Distance from ends: Between 0.25 and 0.4 of span.

400A METER CABINETS

Type: PVC-U

Manufacturer: to match existing

- Product reference: to match existing

Size: to match existing

Q

Paving/Planting/Fencing/Site furniture

Q41
Barriers/ guardrails

Q41 Barriers/ guardrails

To be read with Preliminaries/ General conditions.

TYPES OF BARRIERS/ GUARDRAILS

110A PEDESTRIAN RESTRAINT SYSTEMS IN METAL TO COMMUNAL AREAS IN BLOCK OF FLATS

- Standard: To BS 7818.
- Manufacturer: match to existing.
 - Product reference: match to existing.
- Height above datum (minimum): match to existing.
- Rails and posts:
 - Material/ Protection: match to existing.
- Infill:
 - Class match to existing.
 - Type: match to existing.
 - Material/ Protection: match to existing.
- Surface finish: match to existing.
 - Colour/ Texture: match to existing.
 - Minimum film thickness: match to existing.
- Foundations: match to existing.
- Fixings: match to existing.
 - Material for fixings: Similar material or coating to the connected items, or isolating washers/ bushes provided to prevent bimetallic corrosion.
 - Resistance to vandalism: match to existing.
- Other requirements: Handrail system.
- Performance verification: Submit a certificate of the restraint system's conformity to BS 7818, issued by a United Kingdom Accreditation Service (UKAS) independent laboratory, prior to ordering materials.
- Production inspection of posts: Required.

240A TIMBER HANDRAIL SYSTEMS TO PEDESTRIAN STAIRS

- System manufacturer: match to existing.
- Material: match to existing.
 - Cross section: match to existing.
 - Finish: match to existing.
- Height above ground surface (to upper surface of handrail):
 - Upper handrail: match to existing.
 - Lower handrail: match to existing.
- Accessories: None.

INSTALLATION

420 ALIGNMENT

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

430 ERECTION GENERALLY

- Protection: Coat all internal and external surfaces of aluminium and steel posts below and up to 150 mm above ground level, with two coats of bituminous paint to BS 6949 type 2, unless other applied surface finish is specified.
- Prevention of electrolytic corrosion: Isolate dissimilar metals.
- Steel components: Do not drill, cut or weld after galvanizing.

Q50
Site/ street furniture/ equipment

Q50 Site/ street furniture/ equipment

To be read with Preliminaries/ General conditions.

GATES, BARRIERS AND PARKING CONTROLS

- 120 STEEL GATE AND GATE POSTS - to block entrances to replace existing
- Manufacturer: to match existing.
 - Product reference: to match existing.
 - Standard: To BS 4092-1.
 - Materials and workmanship: As section Z11.
 - Jointing: Welded.
 - Finish as delivered: Primed for painting see M60 for painting specificati.
 - Colour: to match existing.
 - Fittings and accessories: to match existing.
 - Method of setting posts: Concrete foundation.
- 120A STEEL GATE AND GATE POSTS - where existing gate is missing
- Manufacturer: match previous, seek CA approval.
 - Product reference: to match existing.
 - Standard: To BS 4092-1.
 - Materials and workmanship: As section Z11.
 - Jointing: Welded.
 - Finish as delivered: Primed for painting.
 - Colour: to match existing.
 - Fittings and accessories: to match existing.
 - Method of setting posts: Concrete foundation.

R10
Rainwater drainage systems

R10 Rainwater drainage systems

To be read with Preliminaries/ General conditions.

GENERAL

110 GRAVITY RAINWATER DRAINAGE SYSTEM

- Rainwater outlets: Eaves Level .
- Gutters: PVC.
- Pipework: PVC.
- Below ground drainage: N/A.
- Disposal: Existing.
- Controls: N/A.
- Accessories: None.

SYSTEM PERFORMANCE

210 DESIGN

- Design: Complete the design of the rainwater drainage system.
- Standard: To BS EN 12056-3, clauses 3-7 and National Annexes.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

221 COLLECTION AND DISTRIBUTION OF RAINWATER

- General: Complete, and without leakage or noise nuisance.

PRODUCTS

350 PVC-U GUTTERS

- Standard: To the relevant parts of BS 4576-1, BS EN 607 and BS EN 1462, Kitemark certified.
- Manufacturer: Marley.
 - Product reference: ClipMaster.
- Profile: Half Round.
- Nominal size: 112mm.
- Colour: BlackPVC-U .
- Brackets: PVC-U fascia brackets / Electroplated mild steel rafter arms.
 - Fixings: stainless steel screws.
 - Size: 38mm.
- Accessories: Half Round Gutter adaptor.
Clip-master to Flowline adaptor.
Union.
Internal Angle.
External Angle.
Premier/Ogee adaptor.
External stopend.
Running Outlet
Stopend Outlet.

360 SEALANT FOR GUTTERS

- Type: Submit proposals.

420 PVC-U PIPEWORK - EXTERNAL

- Standard: To the relevant parts of BS 4576-1 and BS EN 12200-1, Kitemark certified.
- Manufacturer: Contractor's choice.
 - Product reference: Submit proposals.
- Section: to match existing.
- Nominal size: up to and including 2 stories.
- Colour: Black.
- Brackets: PVC-U clips, black.
 - Fixings: Stainless steel screws.
 - Size: as manufacturers recommendations/ instructions.
- Accessories: Rainwater heads and Rainwater shoes.

420A PVC-U PIPEWORK - EXTERNAL

- Standard: To the relevant parts of BS 4576-1 and BS EN 12200-1, Kitemark certified.
- Manufacturer: Contractor's choice.
 - Product reference: Submit proposals.
- Section: to match existing.
- Nominal size: over two stories.
- Colour: Black.
- Brackets: PVC-U clips, black.
 - Fixings: Stainless steel screws.
 - Size: as manufacturers recommendations/ instructions.
- Accessories: Rainwater heads and Rainwater shoes.

EXECUTION**600 PREPARATION**

- Work to be completed before commencing work specified in this section:
 - Below ground drainage. Alternatively, make temporary arrangements for dispersal of rainwater without damage or disfigurement of the building fabric and surroundings.
 - Painting of surfaces which will be concealed or inaccessible.

605 INSTALLATION GENERALLY

- Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
- Plastics and galvanized steel pipes: Do not bend.
- Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Protection:
 - Fit purpose made temporary caps to prevent ingress of debris.
 - Fit access covers, cleaning eyes and blanking plates as the work proceeds.

610 FIXING AND JOINTING GUTTERS

- Joints: Watertight.
- Brackets: Securely fixed.
 - Fixings: Screwed into softwood fascia board.
 - Fixing centres: 900 mm.
 - Additional brackets: Where necessary to maintain support and stability, provide at joints in gutters and near angles and outlets.
- Roofing underlay: Dressed into gutter.

615 SETTING OUT EAVES GUTTERS - TO FALLS

- Setting out: To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
- Outlets: Align with connections to below ground drainage.

616 SETTING OUT EAVES GUTTERS - LEVEL

- Setting out: Level and as close as practical to the roof.
- Outlets: Aligned with connections to below ground drainage.

625 INSTALLING PREFORMED GUTTER LININGS

- Substrate: Finlock gutters.
- Preparation: Clean out debris .
 - Defective areas of existing substrates: Give notice.
- Outlets: welded.
- Jointing: sealant.
- Installation: Preformed aluminium.

635 FIXING PIPEWORK

- Pipework: Fix securely, plumb and/ or true to line.
- Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
- Externally socketed pipes and fittings: Fix with sockets facing upstream.
- Additional supports: Provide as necessary to support junctions and changes in direction.
- Vertical pipes:
 - Provide a loadbearing support at least at every storey level.
 - Tighten fixings as work proceeds so that every storey is self supporting.
 - Wedge joints in unsealed metal pipes to prevent rattling.
- Wall and floor penetrations: Isolate pipework from structure.
 - Pipe sleeves: As section P31.
 - Masking plates: Fix at penetrations if visible in the finished work.
- Expansion joint pipe sockets: Fix rigidly to buildings. Elsewhere, provide brackets and fixings that allow pipes to slide.

640 FIXING VERTICAL PIPEWORK

- Bracket fixings: Screwed into existing surface.
- Distance between bracket fixing centres (maximum): 1800 mm.

650 JOINTING PIPEWORK AND GUTTERS

- General: Joint with materials and fittings that will make effective and durable connections.
- Jointing differing pipework and gutter systems: Use adaptors intended for the purpose.
- Cut ends of pipes and gutters: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
- Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
- Junctions: Form with fittings intended for the purpose.
- Jointing material: Strike off flush. Do not allow it to project into bore of pipes and fittings.
- Surplus flux, solvent jointing materials and cement: Remove.

700 ACCESS FOR TESTING AND MAINTENANCE

- General: Install pipework and gutters with adequate clearance to permit testing, cleaning and maintenance, including painting where necessary.
- Access fittings and rodding eyes: Position so that they are not obstructed.

COMPLETION

900 TESTING GENERALLY

- Dates for testing: Give notice.
 - Period of notice (minimum): 5 days.
- Preparation:
 - Pipework: Complete, securely fixed, free from defects, obstruction and debris before testing.
- Testing:
 - Supply clean water, assistance and apparatus.
 - Do not use smoke to trace leaks.
- Records: Submit a record of tests.

910 GUTTER TEST

- Preparation: Temporarily block all outlets.
- Testing: Fill gutters to overflow level and after 5 minutes closely inspect for leakage.

915 MAINTENANCE INSTRUCTIONS

- General: At completion, submit printed instructions recommending procedures for maintenance of the rainwater installation, including full details of recommended inspection, cleaning and repair procedures.

920 IMMEDIATELY BEFORE HANDOVER

- Construction rubbish, debris, swarf, temporary caps and fine dust which may enter the rainwater system: Remove. Do not sweep or flush into the rainwater system.
- Access covers, rodding eyes, outlet gratings and the like: Secure complete with fixings.

R11
Foul drainage above ground

R11 Foul drainage above ground

To be read with Preliminaries/ General conditions.

TYPES OF PIPEWORK

110A PVC-U PIPEWORK FOR WC WASTES

- Pipes, fittings and accessories:
 - Standard: to BS EN 1329-1 or BS 4514, Kitemark certified.
 - Additional requirements: None.
- Manufacturer: OSMA or similar approved.
- Nominal sizes: DN 100mm diam.
- Colour: White where used internally.
- Accessories: Access points to soild and vent pipes above highest [point of intersection.
- Jointing: Solvent welding.
- Fixing: In accordance with manufacturers specification.

120A PLASTICS PIPEWORK FOR SHOWER AND HAND BASIN WASTES

- Pipes, fittings and accessories:
 - Material/ Standard: PVCU, Kitemark certified.
 - Additional requirements: None.
- Manufacturer: OSMA or similar approved.
- Nominal sizes: DN 38mm diameter.
- Colour: White where used internally.
- Accessories: Deep seal traps and access points at changes in direction and ends of branches.
- Jointing: Solvent welded.
- Fixing: Plastics clips, colour to match pipes..

120B PLASTICS PIPEWORK FOR SINK WASTES

- Pipes, fittings and accessories:
 - Material/ Standard: PVCU, Kitemark certified.
 - Additional requirements: High temperature PVCU.
- Manufacturer: OSMA or similar approved.
- Nominal sizes: DN 38mm diameter.
- Colour: White where used internally.
- Accessories: Deep seal traps and access points at changes in direction and ends of branches.
- Jointing: Solvent welded.
- Fixing: Plastics clips, colour to match pipes..

INSTALLATION

520 INSTALLATION GENERALLY

- Standard:
 - BS EN 12056-1, clauses 3 - 6.
 - BS EN 12056-2, clauses 3 - 6, National Annexes NA - NG, System III.
 - BS EN 12056-5, clauses 4 - 6, 8, 9 and 11.
- Drainage from appliances: Quick, quiet and complete, self-cleansing in normal use, without blockage, crossflow, backfall, leakage, odours, noise nuisance or risk to health.
- Pressure fluctuations in pipework (maximum): ± 38 mm water gauge.
- Water seal retained in traps (minimum): 25 mm.
- Components: From the same manufacturer for each type of pipework.
- Access: Provide access fittings in convenient locations to permit cleaning and testing of pipework.
- Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
- Plastics and galvanized steel pipes: Do not bend.
- Concealed or inaccessible surfaces: Decorate before starting work specified in this section.

540 PIPE ROUTES

- General: The shortest practical, with as few bends as possible:
 - Bends in wet portion of soil stacks: Not permitted.
 - Routes not shown on drawings: Submit proposals before commencing work.

550 FIXING PIPEWORK

- Pipework: Fix securely at specified centres plumb and/ or true to line. Fix every length of discharge stack pipe at or close below socket collar or coupling.
- Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
- Externally socketed pipes/ fittings: Fix with sockets facing upstream.
- Additional supports: Provide as necessary to support junctions and changes in direction.
- Vertical pipes: Provide a load bearing support not less than every storey level. Tighten fixings as work proceeds so that every storey is self supporting.
- Wall and floor penetrations: Isolate from structure. Sleeve pipes as in section P31.
- Thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Expansion joint sockets: Fix rigidly to the building.
- Fixings: To allow the pipe to slide.
 - Finish: Plated, sherardized, galvanized or other nonferrous.
 - Compatibility: Suitable for the purpose, material being fixed and background.

560 JOINTING PIPEWORK

- Jointing differing pipework systems: Use adaptors recommended by manufacturers.
- Cut ends of pipes: Clean and square with burrs and swarf removed. Chamfer pipe ends before inserting into ring seal sockets.
- Jointing or mating surfaces: Clean, and where necessary lubricate, immediately before assembly.
- Junctions: Form using fittings intended for the purpose.
- Jointing material: Do not allow to project into bore of pipes, fittings and appliances.
- Surplus flux/ solvent/ cement/ sealant: Remove from joints.

740 AIR ADMITTANCE VALVES

- Standard: To prEN 12380 and/ or Agrément certified.
- Minimum air flow rate: To BS EN 12056-2, clauses 5.7 and 6.5.3 (System III).
- Position: Vertical above flood level of highest appliance served, and clear of insulation materials (other than the manufacturer's insulating cover).
- Connection to discharge stack: Ring seal or so as to allow removal for rodding.
- Roof spaces and other unheated locations: Fit manufacturer's insulating cover.

820 PIPEWORK TEST

- Preparation:
 - Open ends of pipework: Temporarily seal with plugs.
 - Test apparatus: Connect a 'U' tube water gauge and air pump to pipework via a plug or through trap of an appliance.
- Testing: Pump air into pipework until gauge registers 38 mm.
- Required performance: Allow a period for temperature stabilisation, after which the pressure of 38 mm is to be maintained without loss for not less than three minutes.

850 PREHANDOVER CHECKS

- Temporary caps: Remove.
- Permanent blanking caps, access covers, rodding eyes, floor gratings and the like: Secure complete with all fixings.

S90 Hot and cold water supply systems - domestic

To be read with Preliminaries/ General conditions.

GENERAL

SYSTEM PERFORMANCE

200 WATER BYELAWS SCHEME APPROVAL

All water fittings must be approved by the Water Bylaws Scheme administered by WRAS, or otherwise tested and approved to the satisfaction of the water undertaker to whose supply they will be connected.

210 DESIGN REQUIREMENTS

- Design: Complete the design of the hot and cold water supply system.
- Standard: To BS 6700.
- Proposals: Submit drawings (showing equipment positions and pipeline routes), technical information, calculations and manufacturers' literature.

220A COLD WATER SUPPLY

- Incoming mains water supply:
 - Location: Existing.
 - Site factors: Take into account when resiting services.

PRODUCTS

310 DEZINCIFICATION

- Fittings, pipelines, equipment located below ground or in concealed or inaccessible locations: Resistant to dezincification, e.g. gunmetal.

355 LEVEL ACCESS SHOWER UNIT

Shower unit: MIRA ADVANCE FLEX ATL 9kw thermostatically controlled, BBA approved, complete with extended temperature control lever, anti-scald device, additional handset holder, limescale resistant 3 spray handset, phased shut down, 2m hose. White.

510 COPPER PIPELINES FOR GENERAL USE

- Standard: To BS EN 1057, Kitemark certified.
- Temper: Half hard R250.
- Finish: Natural to receive gloss finish where exposed to view.
 - Colour: White.
- Wall thickness (nominal):
 - OD 6, 8, 10 and 12 mm: 0.6 mm.
 - OD 15 mm: 0.7 mm.
 - OD 22 and 28 mm: 0.9 mm.
 - OD 35 and 42 mm: 1.2 mm.
- Jointing generally: Integral lead free solder ring capillary fittings to BS EN 1254-1, Kitemark certified.
- Connections to appliances and equipment: Select from:
 - Compression fittings: To BS EN 1254-2, Kitemark certified.
 - Fittings with threaded ends: To BS EN 1254-4.
- Supports: See Clause 810.

620 VALVES GENERALLY

- Types: Approved for the purpose by local water supply undertaker and of appropriate pressure and/or temperature ratings.
- Control of valves: Fit with handwheels for isolation and lockshields for isolation and regulation of circuits or equipment.

EXECUTION

710 INSTALLATION GENERALLY

- Installation: To BS 6700.
- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
- Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
- Corrosion resistance: In locations where moisture is present or may occur, provide corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.

720 INSTALLING CISTERNS

- Outlet positions: Connect lowest outlets at least 30 mm above bottom of cistern.
- Access: Fix cistern with a minimum clear space of 350 mm above, or 225 mm if the cistern does not exceed 450 mm in any dimension.

790 PIPELINES INSTALLATION

- Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements.
- Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks.
- Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces.
- Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like.
- Insulation allowance: Provide space around pipelines to fit insulation without compression.

800 PIPELINES FIXING

- Fixing: Secure and neat.
- Joints, bends and offsets: Minimize.
- Pipeline support: Prevent strain, e.g. from the operation of taps or valves.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.
- Dirt, insects or rodents: Prevent ingress.

810 SUPPORTS FOR COPPER AND STAINLESS STEEL PIPELINES

- Spacing: Fix securely and true to line at the following maximum centres:
 - 15 and 22 mm pipe OD: 1200 mm horizontal, 1800 mm vertical.
 - 28 and 35 mm pipe OD: 1800 mm horizontal, 2400 mm vertical.
 - 42 and 54 mm pipe OD: 2400 mm horizontal, 3000 mm vertical.
- Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

830 PIPELINE SPACING

- Clearance (minimum) to face of wall-fixed pipes or pipe insulation:
 - From floor: 150 mm.
 - From ceiling: 50 mm.
 - From wall: 15 mm.
 - Between pipes: 25 mm.
 - From electrical conduit, cables, etc: 150 mm.

840 JOINTS IN COPPER AND STAINLESS STEEL PIPELINES

- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
- Adaptors for connecting dissimilar materials: Purpose designed.
- Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
- Flux residue: Clean off.

841 CAPILLARY JOINTS IN PLASTICS COATED PIPELINES

- Plastics coating: Do not damage, e.g. by direct or indirect heat. Wrap completed joint (when cool) with PVC tape of matching colour, half lapped.

845 JOINTS IN THERMOPLASTICS PIPELINES

- Fittings and accessories for joints: Purpose designed.
- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Compression fittings: Do not overtighten.

860 INSTALLING INSULATION TO PIPELINES

- Cold water pipelines: Insulate in unheated spaces. Insulate potable cold water pipelines.
- Hot water pipelines: Insulate, except for short lengths in prominent positions next to appliances.
- Appearance: Fix securely and neatly. Make continuous over fittings and at supports. Leave no gaps. Locate split on 'blind' side of pipeline.
- Timing: Fit insulation after testing.

870 INSTALLING VALVES

- Isolation and regulation valves: Provide on equipment and subcircuits.
- Access: Locate where valves can be readily operated and maintained and next to equipment which is to be isolated.
- Connection to pipework: Fit with joints to suit the pipe material.

COMPLETION**910 FLUSHING AND FILLING**

- Standard: To BS 6700.

920 SYSTEM DISINFECTION

- Disinfection: To BS 6700.

930 TESTING

- Standard: To BS 6700.
 - Notice (minimum): 3 days.
- Preparation: Secure and clean pipework and equipment. Fit cistern and tank covers.
- Leak testing: Start boiler and run the system until all parts are at normal operating temperatures and then allow to cool to cold condition for a period of 3 h.
- Pressure testing: At both hot and cold conditions joints, fittings and components must be free from leaks and signs of physical distress when tested for at least 1 h as follows:
 - Systems fed directly from the mains, and systems downstream of a booster pump: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
 - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.
 - Inaccessible or buried pipelines: Carry out hydraulic pressure test to twice the working pressure.

940 COMMISSIONING

- Standard: To BS 6700.
- Equipment: Check and adjust operation of equipment, controls and safety devices.
- Outlets: Check operation of outlets for satisfactory rate of flow and temperature.

950 TESTING SERVICE PIPELINES

- Test method: Disconnect from the mains, fill with potable water, exclude air, and apply at least twice the working pressure for 1 h.
- Test criterion: No leakage.

960 DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

970 OPERATING TOOLS

- Tools: Supply tools for operation, maintenance and cleaning purposes.
- Valve keys: Supply keys for valves and vents.

980 LABELS

- Valve labels: Provide labels on isolating and regulating valves on primary circuits, stating their function.

S91
Natural gas supply systems - domestic

S91 Natural gas supply systems - domestic

To be read with Preliminaries/ General conditions.

GENERAL

SYSTEM PERFORMANCE

210 DESIGN

- Design: Complete the design of the gas supply system.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

PRODUCTS

310 SAFETY AND CONTROL DEVICES

- Standard: To BS EN 13611.

EXECUTION

610 INSTALLATION GENERALLY

- Domestic gas pipelines: To BS 6891.
- Secondary gas meters: To BS 6400.

COMPLETION

910 TESTING, COMMISSIONING AND PURGING GAS PIPELINES

- Standard: To BS 6891.

920 DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

T
Mechanical heating/Cooling/Refrigeration systems

T90 Heating systems - domestic

To be read with Preliminaries/ General conditions.

GENERAL

- The Contractor shall allow for temporary removal of furniture, fittings, carpets etc., as required for the carrying out of the works and subsequent replacement upon completion of the works to the satisfaction of the Employers Agent.
- Carry out all necessary making good in preparation for the new installation and maintenance of adequate water supplies for the duration of the works.
- Supply, delivery and erection of all components and materials necessary to carry out and complete the installation of a gas-fired hot water and central heating system.

105 WATER SYSTEMS

- Water services must conform to the requirements and recommendations of all the appropriate authorities including: Building Regulations, Equipment Manufacturers, British Standards, the Water Company and the latest CIBSE guidelines.
- The hot and cold water services shall be in light gauge copper tube complying with BS 2871, Part 1. Support the tube with copper two piece spacing clips or similar approved fixed to walls at 1200mm centres with additional clips as necessary. Provide all necessary bends, elbows, tees, union and the like complying with BS 864, Part 2, to make all connections to taps etc.
- Pipe runs in timber floors must be considered in relation to electricity supply runs and the structural integrity of joists. Where pipework is not otherwise insulated and passes through joist, pipes should be sleeved squeaking through thermal movement.
- Unless otherwise specified, all joints in copper tube shall be made with Yorkshire capillary fittings, or equally approved. Where compression fittings are specified they shall be 'Conex' or equally approved.
- The Contractor is to allow for taking up and relaying floorboards where necessary, cutting away, etc., and making good to all works distributed. To include reinstatement of concrete or asphalt if damaged.

107 STOP VALVES AND DRAIN TAPS

- Stop valves must be provided at the following points:-
Rising main – on entry to the boiler
Any others as required by the local water company
- Stop valves must be clearly labelled with metal or plastic tags and must be easily accessible and should not involve the use of a screwdriver if placed in an access duct, e.g. a hinged cover should be provided.
- Each dwelling must contain a drain tap at the lowest point in order that the system can be drained.
- Stop valves and drain valves must be brass or gunmetal compression fittings.

109 GENERALLY

- The rates for all work to Plumbing, Hot and Cold Water Installations, Heating and Ventilation Installation also include for:-
 - i) Establishing compatibility of existing installations to suit new system and identifying any anomalies within the property.
 - ii) The Contractors pricing should be on the basis that there is an existing live gas and electric supply to the properties.
 - iii) Taking off any insulation and after repair, refixing including renewing taping or refixing materials as necessary.
 - iv) Dismantling fitting to renew a defective part and re-assembling after repair.
 - v) Removing airlocks from systems and leaving in working order.
 - vi) Closing down heating systems and after renewal, igniting, resetting time clocks and leaving in working order.
 - vii) Contacting the Local Water or Electricity Authority if required.
 - viii) Testing and leaving in perfect working order.
 - ix) Where any works are undertaken to the properties Chimney at any stage a Gas Safety Check should be undertaken.

110A HEATING SYSTEMS

- Rates include where necessary for making good finishes and touching up decorations disturbed or damaged by any work all to match existing adjacent decorations.
- Any work to gas appliances, gas central heating systems and gas pipework, shall be carried out by a member of Confederation of Registered Gas Installers and shall be a qualified heating engineer in full accordance with BS 5449. Allow for the provision of a Landlords Gas Safety Certificate.

115 NEW INSTALLATIONS - CONTRACTOR DESIGNED

- Heating installations must be sized to maintain the following temperatures when the external ambient temperature is -3°C. The design calculations must take account of the degree day information pertinent to the location of each property and heat loss and radiator size calculations are to be submitted to the CA.
- The system shall be capable of maintaining the following room temperatures with a maximum water temperature of 80°C when the ambient temperature is -3°C.

	Temperature 0°C	Air Changes Hour
Living and Dining Area	21	1.5
Kitchen	18	2.0
Hall/Landing	18	2.0
Bedroom	18	1.0
Bathroom	22	2.0
Separate WC's and Other Rooms	18	2.0

- The Contractor shall submit with his tender, detailed calculations showing heat losses, pipe and radiator sizes.
- In instances of dual purpose rooms or where partitions have been removed the higher temperature shall be maintained
- The heat up period should not exceed 1 hour. Heat loss through adjacent dwellings must be recognised in the design calculations, to reflect possible unoccupied properties.
- The design of any system must provide for the independent use and time control of both space heating and hot water. These must be thermostatically controlled. On gas systems, boiler interlocks are to be provided.

TRV's to be installed on all radiators with the exception of the hall where the room thermostat will be installed, this will have 2 lockshield valves to discourage attempts to turn off. A 22mm bypass valve will be fitted to the system.

120 HEATING PIPEWORK

- Microbore systems are not acceptable.
- Pipework to be as before described.
- The system must be designed to allow draining at the lowest point of the system to the outside.
- All pipework in unheated spaces must be insulated using Armaflex or similar pipe insulation in accordance with the Building Regulations.
- Visible pipework must be clipped at not less than 600 centres and decorated on completion to match surrounding surfaces.
- All pipework for heating circuits and for gas supplies shall be copper tubing in accordance with EN 1057 (BS 2871 Part 1.) Table X with capillary fittings.
- Copper tubing shall be as manufactured by IMI Yorkshire Copper Tube Ltd or Wednesbury Tube.
- Fittings shall be either solder ring fittings BS 864 as manufactured by IMI Yorkshire Fittings Ltd and installed as recommended by the Manufacturer, or end feed, or equal and approved.
- Connections at plant items shall be made using compression fittings to allow for easy removal etc. for servicing or replacement, these shall be chosen from the ranges Manufactured by Peglar Prestex or Conex fittings.
- The system shall include Prestex 833 drain-off valves on the lowest points of the system or equal approved.
All pipe runs are to be agreed on site with the CA.
- Install drain off above Vailent 428 boiler installations only.
- Pipework to be bonded if it is within 1m of the kitchen sink.

125 CONTROLS

- Programmers shall be located in in the hallway unless otherwise agreed with CA.
- For combination boilers: Danfoss TS715si Programmer.
- For regular boiler types: Danfoss FP715si programmer
- Room thermostats: Hard wired - Honeywell roomstat
Wireless - DRANFOSS RET B-RF + RX1

130 HEATING COHEATING COMPONENTS

- The following trade names in this section are specified and must be adhered to, to allow for maintenance continuity within the Association. Where alternatives have been assumed in the pricing, the specification is to be stated in the tender qualification.
- Radiators shall be Barlow or Myson roll top steel panel convector pattern, each fitted with 15mm Honeywell TRV angled pattern chromium plated thermostatic radiator valves and 15mm Peglar Terrier angled pattern chromium plated lockshield valve with the exception of the area to which the room thermostat will be fitted which shall be a Peglar Terrier angled pattern chromium plated wheel head and lockshield valve. One air vent key shall be provided for each dwelling.
- Radiators shall be:
 - Myson or equal or approved
Front Valves shall be:
 - Honeywell or similar approved
Lockshield Valves shall be:
 - Peglar Terrier with integral draincock 367 DLS or similar approved
- Radiators shall be to BS - EN 1986, BS -EN 442-2 1996, BS -EN 442-3 1997
- Particular care should be taken regarding the fixing of radiators and other equipment. The contractor shall also pay due regard to the positioning of radiators which shall be fixed where possible, under windows but shall be adjusted to accommodate tenants' furnishings etc., if required and approved by the Contract Administrator.
- Radiators shall have a minimum clearance of 150mm above floor level.

135 GAS SUPPLY

- Supplies shall be taken from the gas meter and run in copper tubing with solder ring fittings. A gas isolation valve is to be fitted adjacent to the boiler to be sized in accordance with the manufacturer requirements. Upon completion, gas supplies shall be tested for soundness to the requirements of GAS SAFE and British Standards.

140 HEATING SYSTEMS DOSING

All systems receiving a new boiler will be power flushed in accordance with BS 7593 and dosed with Sentinel Chemicals to BS 5449.

New heating systems shall be flushed in accordance with BS 7593 and dosed with Sentinel Chemicals to BS5449.

Sentinal X800 for flushing and X100 to inhibit on boiler changes and Sentinel X300 and X100 inhibitor for new central heating

145 MATERIALS AND WORKMANSHIP (STANDARDS)

- All materials supplied and work carried out shall be the best of their respective kinds and to the approval of the CA, who shall be at liberty to order the removal and replacement of any faulty materials or inferior workmanship at no extra cost.
- The Contractor shall employ fully skilled specialist craftsmen on the works.
- All materials shall be new, and care shall be exercised to ensure that materials shall be kept in that condition, proper storage facilities being used to fulfil this condition.
- All materials or parts supplied or work carried out shall comply with the British Standards where available.
- All domestic services pipework shall be installed to the standards required by the local Water Authority.

150 ACCESSIBILITY

All pipework and equipment shall be so installed that they are fully accessible for future operation, maintenance and repair.

155 COMMISSIONING OF SYSTEMS

- Instruction manuals for each appliance must be provided at handover, together with two radiator bleed keys for each dwelling. Upon completion the installation in each dwelling shall be commissioned in accordance with the "Benchmark Code of Practice for the Installation, Commissioning and Servicing of Central Heating Systems" to give specified temperatures.
- The boilers in each dwelling shall be fully tested in accordance with the manufacturer's instructions to ensure that all components function satisfactorily and that the gas pressure is set to give optimum performance for the system
- Each installation shall be balanced with the lockshield valves to give specified temperatures.
- New heating system flushed in accordance with BS5793 and Dosed with Sentinel Chemicals to BS5449.

Sentinal X800 for flushing and X100 to inhibit on boiler changes and Sentinel X300 and X100 inhibitor for New Central Heating.

- All the commissioning work shall be carried out in the presence of the Employers Agent.

160 GAS INSTALLATION

- As previously stated the Pricing should be based upon a gas supply being live.
- The current gas safety regulations are to be complied with.
- Any gas installation must be carried out by a contractor who is a GAS SAFE member with trained operatives and/or the requirements of the Health and Safety Executive.

165 EARTHING

- The contractor shall supply and install a main equipotential conductor between the earth terminal and the central heating system using 10.0mm² PVC insulated (yellow/green) cable. The cable shall terminate in a clamp to BS 951 connected to both flow and return pipework. Where exposed the cable shall be installed in PVC mini-trunking.
- Cross bonding to be carried out to pipework within 1m of the kitchen sink.

170 EXTENDED SPECIFICATION

- All work and installations to comply with Building Regulations, the latest edition of the IEE Regulations Equipment Manufacturers recommendations. Utility suppliers regulations and the latest CIBSE guidelines.
- All work to be fully tested and commissioned, with the issue of a CP12 certificate on practical completion.
- Handover documentation should include:-
 - a) Boiler Benchmark
 - b) Landlord Gas safety certificate
 - c) Water sample certificate
 - d) Building regulation certificate
 - e) Handover certificate
- All positioning of boilers and pipe runs are to be agreed by all parties prior to work commencing on site.
- Work could involve the removal of the existing heating installations to the property including all redundant associated equipment boiler, cylinder f&e tank, flues, pipework etc. Where removal would cause extensive disruption this is to be reported to the CA.
- The removal involves making good of the structure disturbed, including internal finishes but.
tion covered.
- The work principally includes the following:-
 - a) Heating installation to dwellings; combi boiler, balanced flue pipework, fittings, feed and expansion pipework and tanks, drain cocks, stop valves, radiator control and regulating valves, wired thermostat, flow and return pipework, insulation and radiators, time clocks, pumps, and mechanical control valves including associated wiring and power installations.
 - b) Alterations to gas pipework to suit new boiler including provision of ventilation as required by Gas Safety Regulations.
 - c) Alterations to existing cold water installation to suit new boiler.
 - d) Alterations to existing hot water installation to suit new boiler.

175 REPAIRS UNDER WARRANTY

The Contractor shall be responsible for a twelve months liability defects period on each installation carried out and shall provide a twenty four-hour response time to any defect which may occur during this twelve-month period. All defects must be rectified within a 24 hour period from the Contractor being notified of the defect.

The Contractor shall allow for a full service and de-snag to be carried out on the system at the end of the twelve months defect liability period.

180 OPERATING INSTRUCTIONS TO OCCUPIERS

- The Contractor shall nominate a suitably skilled person whose particular duty it will be to provide this instruction to occupiers. The Contractor shall nominate a suitably skilled person whose particular duty it will be to provide this instruction to occupiers.
- The Contractor shall provide instruction to the occupier of each dwelling, in the operation of the heating installation. Allowance shall be made for 2 Nr. 30 minute calls to advise the resident on use of the controls and operation of the heating and hotwater installation.
- Instruction Shall Cover the Following:-
 1. Turning the installation "on" and "c"
 2. Setting or adjusting GMT.
 3. Setting operating periods.
 4. Operation of the time control override function.
 5. Adjusting settings to provide hot water only during summer.
 6. Setting room and boiler thermostats.
- Upon commissioning of the installation, the contractor shall provide to each occupier, all relevant manufacturer's instructions and literature.
- Upon completion of the instruction, the instructor shall obtain a signed note from each occupier, confirming that the occupier has received the instruction.
- Electrical Services in Conjunction with a Heating and Hot Water Installation
- The electrical installation shall be carried out in a neat competent manner fully complying with the 16th Edition of the I.E.E Wiring Regulations BS 7671: 2002
- All electrical services work shall be carried out by suitably qualified and skilled tradesmen who are members of the N.I.C.E.I.C.
- The Contractor shall ensure that:-
 - i) the installation is complete in every respect;
 - ii) operating instructions are issued to tenants;
 - iii) where appropriate, advice is given to tenants;
 - iv) arrange for the testing of each installation and shall issue a minor works certificates together with the general particulars of the installation. The test results shall be submitted on N.I.C.E.I.C. test certificates.

185 BOILERS

- Boilers shall be sized in accordance with Energy Efficiency Best Practice, Whole House Sizing Method for Houses and Flats.
- Boilers shall be complete with all standard fittings and controls shall be installed in strict accordance with the manufacturer's instructions, and to comply with all relevant statutory regulations.
- Vaillant system condensing boilers complete with all necessary flue kits and extensions. or Vailant system boiler as directed by Client Representative
- Each installation shall be fitted with an automatic bypass valve 1.5m away from boiler except when combi boilers are installed.
- Where combination boilers are installed a Liff Limefighter (metal cased) fitted to the mains supply to the boiler in accordance with the manufactures instructions.
- Each installation shall be provided with a drain-cock with hose union, fitted adjacent to the boiler.
- Boilers shall be fully tested in accordance with the manufacturers instructions to ensure that all components function satisfactorily.
- Boilers are to be located in kitchens where possible.
- Where flue terminals in dwellings are situated less than 2m from ground or access level, a suitable guard shall be fitted.

190 PIPEWORK AND FITTINGS

- Pipes between components shall be run in continuous lengths wherever possible, consistent with accessibility and function and generally shall be run within timber suspended floors wherever possible, or where floors are of solid construction, just above skirting boards and as close together as possible.
- Where it becomes necessary to run pipework within solid floors, the pipework shall be contained in a purpose-made floor duct.
- Primary pipework shall be insulated throughout its length.
- Pipework run through loft or floor spaces or through cupboards or ducts shall be insulated with "Armaflex" 13mm wall thickness pipe insulation.
- Primary pipework from the boiler to the cylinder shall be insulated with "Armaflex" 13mm wall thickness pipe insulation.
- Where pipework passes through walls the pipework shall be enclosed in "easysleeve" manufactured by "Polysleeve ltd. Groby Lodge Estate, Groby, Leicester 01530 249 719.
- Pipe clips shall be Uni-fix single and double clip-over type.
- The Contractor shall allow for decorating all exposed pipework with the appropriate primer, one undercoat and one finishing coat of brilliant white oil paint.

195 CYLINDERS

- Shall be 120 litre Gledhill CondenCyl HE copper indirect hot water cylinders with a 56mm boss for and including 686mm immersion heater connected to 13A switched, fused spur outlet, MK 1070 WHI. All pipework within 1 m of the cylinder shall be insulated as previously described.

197 GAS SAFETY INSPECTIONS

- The Contractor shall upon completion of the works, carries out a gas safety inspection in accordance with Gas Safety (Installation and Use) Regulations and issue a Gas Safety Certificate (GAS SAFE) for each dwelling following inspection of all gas appliances within the dwelling.

198 MAKING GOOD AND CLEARANCE

- The Contractor shall be responsible for forming and subsequently making good all holes through walls, floors, ceilings etc., but not for reinstating any tenants' decorations. Care shall however, be taken to minimize damage to such decorations.

198A INSULATION

- Pipes Insulation
Insulation shall be sized in accordance with current legislation and shall have a Thermal Conductivity of between 0.035-0.040 W/mK.

The thickness of the insulation shall be not less than: -

Location	Thickness
In roof spaces, under suspended ground floors and service ducts	25mm for 15mm Pipework 19mm for 22mm pipework

- Loft insulation
The Contractor shall allow for upgrading the existing loft insulation to a thickness of 270mm. Thermal conductivity 0.25 W/m²K
Unless incompatible with the existing insulation, the material used for loft insulation shall be mineral fibre insulation to BS 5803 : Part 1, Kitemark certified and installed to BS 5803 : Part 5.
Before laying, ensure that holes in the ceiling for pipes, lighting drops, etc, are sealed and all debris has been removed.
Fit tightly with closely butted points, leaving no gaps and extending over wall plates.
Ensure that eaves ventilation is unobstructed and electric cables are not covered. Do not lay insulation below water cistern platform.
Allowance shall be made for all necessary repositioning or clearing of items stored in loft spaces to enable insulation work to proceed.

200 COMBINATION BOILER INSTALLATION

- The contractor shall supply and install a 3amp fused connection unit mounted on surface moulded accessory box located adjacent to the new boiler position.
- The supply to the fused connection unit shall be taken from the local ring circuit using 2.5mm² two core PVC insulated and sheathed cable with integral circuit protective conductor installed in new PVC mini-trunking.
- Where exposed, the circuit protective conductor shall be yellow/green sheathed.
- The Contractor shall supply and install a flexible connection to the boiler using 1.5mm² 3-core 85°C heat resisting cable.
- If the colour coding of the new wiring is different to that of the existing wiring then the contractor shall supply and install a label stating that the electrical installation contains wiring with different colour coding. This label shall be attached to the existing consumer unit.

205 REGULAR BOILER, CYLINDER AND IMMERSION HEATER INSTALLATION

- The contractor shall supply and install a 13amp fused connection unit mounted on a dual accessory box. The existing immersion heater circuit shall be re-terminated into the new fused connection unit.
- A 13amp switched fused connection unit shall also be mounted on the dual accessory box. This shall supply the boiler controls and shall be spurred from the immersion heater supply. The connection unit shall be fitted with a 3amp fuse.
- The Contractor shall renew the flexible connection to the Immersion heater and boiler controls using 1.5mm² 3-core 85°C heat resisting cable

210 DESIGN REQUIREMENT

- Design: Complete the design and detailing of the heating system.
- Proposals: Submit drawings (showing equipment positions and pipeline routes), technical information, calculations and manufacturer's literature.

220 BASIC DESIGN TEMPERATURES

- Room temperatures: Design the system to provide the following temperatures for the specified air change rates and an external air temperature of -4°C:
 - Living rooms: Temperature: 21°C, for 1.5 air changes per hour.
 - Dining rooms: Temperature: 21°C, for 1.5 air changes per hour.
 - Bedsitting rooms: Temperature: 21°C, for 1.5 air changes per hour.
 - Bedrooms: Temperature: 18°C, for 1 air changes per hour.
 - Halls and landings: Temperature: 18°C, for 1.5 air changes per hour.
 - Kitchens: Temperature: 18°C, for 2 air changes per hour.
 - Bathrooms: Temperature: 22°C, for 2 air changes per hour.
 - Toilets: Temperature: 18°C, for 2 air changes per hour.
- Submittals: Submit heat loss calculations for each room using the HEVACOMP suite of programmes.

225 THERMAL INSULATION OF BUILDING FABRIC

- Heat loss calculations: Base on the following maximum U-values:
 - Pitched roof with insulation between rafters: 0.20 W/m²·K.
 - Pitched roof with insulation between joists: 0.16 W/m²·K.
 - Flat roof or roof with integral insulation: 0.25 W/m²·K.
 - Walls, including basement walls: 0.35 W/m²·K.
 - Floors, including ground floors and basement floors: 0.25 W/m²·K.
 - Windows, roof window and personnel doors, glazing in metal frames: 2.20 W/m²·K.
 - Windows, roof window and personnel doors, glazing in wood or PVC frames: 2.0 W/m²·K.
 - Roof lights: 2.20 W/m²·K.
 - Vehicle access and similar large doors: 0.70 W/m²·K.

226 THERMAL INSULATION OF BUILDING FABRIC

- Heat loss calculations: Base on U-values calculated from the fabric described elsewhere.
- Submittals: Submit U-value calculations.

250 SYSTEM CONTROL

- Temperature and time control: Fully automatic and independent.
- Controls: Compatible with each other and with central heating boiler.

PRODUCTS

305 BOILERS, GAS FIRED SYSTEM

- Standards: To BS 5258-1, BS EN 483 or BS EN 297.
- Type: As T90/185.
- Manufacturer: Vaillant.
 - Product reference: 4180/v. 612-618 System Boilers.
- Output: Submit proposals.
- Casing finish: White vitreous enamel.
- Integral controls: Submit proposals.
- Integral accessories: Submit proposals.
- Integral flues: Submit proposals.

310A BOILERS, GAS FIRED COMBINATION

- Standards: To BS 5258-15, BS 7977-2 and BS EN 625.
- Type: As T90/185.
- Manufacturer: Vaillant.
 - Product reference: Pro 28.
- Casing finish: White vitreous enamel.
- Integral controls: Is required.
- Integral accessories: Is required.
- Integral flues: Is required.

395A COPPER PIPELINES FOR GENERAL USE

- Standard: To BS EN 1057, Kitemark certified.
- Temper: Half hard R250.
- Wall thickness (nominal):
 - OD 6, 8, 10 and 12 mm: 0.6 mm.
 - OD 15 mm: 0.7 mm.
 - OD 22 and 28 mm: 0.9 mm.
 - OD 35 and 42 mm: 1.2 mm.
- Microbore temper: Soft coil R220.
- Microbore wall thickness (nominal):
 - OD 6 and 8 mm: 0.6 mm.
 - OD 10 mm: 0.7 mm.
- Jointing:
 - Integral lead-free solder ring capillary fittings: To BS EN 1254-1, Kitemark certified.
- Connections to appliances and equipment: Select from:
 - Compression fittings: To BS EN 1254-2, Kitemark certified.
 - Fittings with threaded ends: To BS EN 1254-4.
- Supports: See Clause 640 .

425 VALVES GENERALLY

- Types: Approved for the purpose by local water supply undertaker and of appropriate pressure and temperature ratings.
- Control of valves: Fit with handwheels for isolation and lockshields for isolation and regulation of circuits or equipment.

440A THERMOSTATIC RADIATOR VALVES TO ALL RADIATORS

- Standard: To BS EN 215-1 and capable of providing isolation.
- Manufacturer: Honeywell.
 - Product reference: Radplan 120.
- Lockshield valves: To BS 2767 with matching finish fitted to return side of radiator.

450A INSULATION TO PIPELINES

- Material: Preformed flexible closed cell or mineral fibre split tube.
- Thermal conductivity (maximum): 0.04 W/m²·K.
- Thicknesses (minimum):
 - Heating and primary pipelines: Equal to the outside diameter of the pipe up to a maximum of 40 mm.
 - Internal cold water pipelines: 25 mm.
 - Roof space cold water pipelines: 32 mm.
 - External cold water pipelines: 38 mm
- Fire performance: Class 0 spread of flame when tested to BS 476-7.

465A RADIATORS TO VARIOUS ROOMS

- Standard: To BS EN 442-1, -2 and -3.
- Type: Compact.
- Manufacturer: Myson or similar approved.
- Finish: White.
- Sizes: To suit.

480 PROGRAMMERS 1 Per property

- Standards: To BS 3955, BS EN 60730-1, -2-1, -2-7, -2-10 and BS EN 61058-1, -2-5. BEAB approved.
- Manufacturer: Danfoss.
 - Product reference: As agreed with CA.
- Features: As agreed with CA.

485 THERMOSTATS 1 per property

- Standards: To BS 3955, BS EN 60730-1, -2-7, -2-8, -2-9, -2-14 and BS EN 61058-1, -2-5. BEAB approved.
- Manufacturer: Danfoss/Honeywell.
 - Product reference: RTS2.

EXECUTION**610 INSTALLATION GENERALLY**

- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
- Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
- Corrosion resistance: In locations where moisture is present or may occur, use corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.

630 PIPELINE INSTALLATION

- Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements.
- Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks.
- Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces.
- Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like.
- Insulation allowance: Provide space around pipelines to fit insulation without compression.

640 PIPELINE FIXING

- Fixing: Secure and neat.
- Joints, bends and offsets: Minimize.
- Pipeline support: Prevent strain, e.g. from the operation of taps or valves.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.
- Dirt, insects or rodents: Prevent ingress.

650 JOINTS IN COPPER PIPELINES

- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
- Adaptors for connecting dissimilar materials: Purpose designed.
- Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
- Flux residue: Clean off.

660 JOINTS IN THERMOPLASTICS PIPELINES

- Fittings and accessories for joints: Purpose designed.
- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Compression fittings: Do not overtighten.

COMPLETION**910 TESTING**

- Notice (minimum): 3 days.
- Preparation: Secure and clean pipework and equipment. Fit cistern/ tank covers.
- Leak testing: Start boiler and run the system until parts are at normal operating temperatures and then allow to cool to cold condition for a period of 3 h.
- Pressure testing: At both hot and cold conditions joints, fittings and components must be free from leaks and signs of physical distress when tested for at least 1 h as follows:
 - Systems fed directly from the mains and systems downstream of a booster pump: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
 - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.
 - Inaccessible or buried pipelines: Carry out hydraulic pressure test to twice the working pressure.

920 SETTING TO WORK AND COMMISSIONING

- Equipment: Check and adjust operation of equipment, controls and safety devices.
- Outlets: Check operation of outlets for satisfactory rate of flow and temperature.

930 TESTING GAS PIPELINES

- Testing and purging: To BS 6891.

940 DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

V90
General lighting and power

V90 General lighting and power

To be read with Preliminaries/General conditions.

GENERAL

PERFORMANCE

210 GENERAL DESIGN

- Standards: To BS 7671 and the requirements of the electricity distributor.
- Design: Complete the design and detailing of the electrical installation.
- Design information: Submit calculations, manufacturer's literature and drawings showing equipment positions and routes.
- Installation: Provide a safe, well insulated, earth protected system capable of serving the building.

270 SMALL POWER DESIGN

- Purpose: Re-wiring of units as described elsewhere .
- Small power outlets: Install to serve the building and its equipment.
- Room: As described elsewhere .
 - Outlets: As described elsewhere .
- Fixed equipment: Install supplies.

280 EARTHING AND BONDING DESIGN

- Earthing, main bonding, supplementary bonding and protective conductors: In accordance with BS 7430.

ELECTRICAL INSTALLATIONS

GENERALLY

- The whole of the electrical works shall comply with the following regulations and requirements including all revisions and amendments applicable at the time.
 - i) Building Regulations
 - ii) Local Electricity Board Regulations
 - iii) British Standards where applicable wholly or in part as per BS 7671:2008 and current amendments.
 - iv) British Standard Codes of Practise
 - v) The current edition of Regulations for Electrical Installations issued by the Institution of Electrical Engineers.
 - vi) The Health & Safety at Work Act
 - vii) The Health & Safety Executive Requirements, 1994
 - viii) Electrical Equipment (Safety) Regulations
- The Contractor must be a member of the National Inspection Council for Electrical Installation Contracting, or the Electrical Contractors Association.
- Only new materials shall be used.
- Substitutes for specified materials shall not be permitted without the written agreement of the CA.
- The whole of the repairs shall be executed in a proper and workmanlike manner.
- The Contractor shall rectify, free of charge to the contract, any work which in the opinion of the CA has not been properly executed and shall replace free of charge to the contract any materials or goods which do not comply with the Specification.
- The Contractor shall confirm the voltage and frequency of the supply before ordering any equipment. This will normally be 240v a.c. 50Hz single phase.
- The rates are deemed to include the isolation and reconnection of supplies for the provision of all fittings, the making good of all damage to walls, ceilings and decorations etc., and testing upon completion.
- New wiring in connection with the repairs shall be carried out using PVC insulated and sheathed 300/500 volt grade cables to BS 6004, tables 4 and 5 reference 6242Y and 6243Y flat twin with bare earth continuity conductor or three-core as appropriate. Minimum cable sized shall be as follows:-

Lighting Circuit	-	1.50mm ² with earth conductor (1/.044
Cooker Circuit	-	6.0mm ² with earth conductor (7/.044)
Immersion Heater Circuit	-	2.5mm ² with earth conductor
Smoke Alarm Circuit	-	1.50mm ² with earth conductor
Ring Circuit	-	2.5mm ² with earth conductor (7/.029)
Shower Circuit	-	10.0mm ² with earth conductor
- Cables shall be concealed where possible within the roof void or cavity floor to be clipped neatly to the surface of the existing walls within white PVC mini-trunking.
- Where cables cross flooring joints they shall be passed through small holes drilled through the centre of the joists. These holes shall not exceed 25mm diameter. Cables shall be clipped to the sides of joists by means of plastic cable clips. All cables shall be positioned to avoid damage and shall be adequately secured.
- The wiring to lighting circuits shall be carried out using three plate ceiling rose system., no junction boxes being permitted, all connections being made at the ceiling rose or lighting switch.
- Switches, sockets outlets, ceiling roses, ceiling switches, lamp holders and cooker control units shall be from an approved manufacturer. The cooker control unit shall be the type with 13A switch socket outlet unless specified otherwise.
- Lighting pendants shall be 0.75mm² PVC insulated and sheathed twin circular white cable to BS 6500.
- The method of primary earthing shall be as required by the local Electricity Board.
- The Contractor shall allow for temporary removal of furniture, fittings, carpets, etc as required for the carrying out of the works and subsequent replacement to the satisfaction of the CA.
- The Contractor shall ensure that the works are programmed to ensure that residents are always left with full electrical services when the property is left for the evening.
- Temporary supplies shall be made available for fridges/freezers during the works
- The contractor shall provide residents with operating instructions and advice on the smoke alarms MCBs and RCD, in both written and verbal format.

EARTH BONDING

- The earth conductor between the consumer unit and the main earthing terminal in the metal box shall be in accordance with IEE Regulations 542.03.
- The equipotential bonding conductor between the main earthing terminal, the incoming water main and the consumer's side of the gas meter shall be in accordance with IEE Regulations 547.02.
- The Contractor shall comply fully with Regulations 547.03 regarding the protective bonding of exposed conductive parts and ensure that supplementary bonding of hot and cold water pipes, metalwork and steel sinks is carried out.
- In all installations power circuits shall be protected by a 30mA Residual Current Circuit Breaker which shall form an integral part of a split load MCB Consumer Unit.
- An earth block shall be located adjacent to the consumer unit.
- Main earth cable shall be 16.0mm²
- Main equipotential conductors shall be 10.0mm²
- Supplementary conductors to be 4.0mm²
- Earth rods shall be protected by concrete inspection pits set neatly and firmly in the ground.
- The earth wire shall be enclosed in HGS galvanised conduit taken directly into the inspection pit.
- The conduit shall be secured to the external wall of the building with galvanised heavy duty 2-hole saddles up to a maximum height of 1800mm above ground level.
- The saddles shall be fixed with zinc plated round head screws.
- The consumer unit shall be a dual split load unit manufactured either Crabtree or Wylex.
- The consumer unit shall be of the insulated type when surface mounted. Unless it is a Skeltum Unite fitted into a Mantel Unit.
- The consumer unit shall be mounted on an appropriate board.
- The contractor shall ensure that the consumer unit is effectively labelled.
- Connection between the metering and the consumer unit shall be made using 25.0mm² double insulated single core PVC cables.
- The assembled unit shall comprise:

1Nr. 100amp switch disconnecter – controlling all ways

1Nr. 80 amp 30mA RCD controlling;

Appropriate number of ring circuits on 32 amp MCB's 61/B32

Appropriate number of blank plates

1Nr. 63 amp 100mA RCD controlling;

1 Nr. Cooker circuit on 32amp MCB - 61/B32

1 Nr. Immersion heater/boiler circuit on 16amp MCB – 61/B16

1 Nr. smoke alarm circuit on 6 amp MCB – 61/B06

Appropriate number of lighting circuits on 6 amp MCB – 61/B06

Appropriate number of blank plates

NEW INSTALLATIONS - CONTRACTOR DESIGNED**ELECTRICAL SUPPLY AND DISTRIBUTION**

- The whole of the electrical installation should comply in every respect with the 17th Edition (or latest revision applicable at the time of installation) of the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers and should be carried out in accordance with modern installation techniques applicable to the material and equipment being used, and the Contractor must be a member of the National Inspection Council for Electrical Equipment of Buildings (NICEEB).
- Special attention is to be given to the Health and Safety Executive Requirements, 1994, CDM Regulations.

DISTRIBUTION ARRANGEMENTS

- Each house/flat dwelling unit should have its own consumer unit with the following number of ways:-
Flats and Houses
 - 1 Nr. 6 ampere way - lighting per floor
 - 1 Nr. 16 ampere way - immersion
 - 1 Nr. 32 ampere way - socket ring main per floor
 - 1 Nr. 32 ampere way - cooker
 - 1 Nr. 32 ampere way - kitchen (where new Kitchen installation has been undertaken)
 - 1 Nr. 6 ampere way - smoke detector
 - 1 Nr. 32 ampere way - shower (where existing only)
 - 1 Nr. 16 ampere way - spare
 - 1 Nr. 6 ampere way - smoke expect where smoke is on a separate circuit in the current installation
- A separate consumer unit will be required for any electrical storage heating system.
- Cable products which are in accordance with BS 7671, 1992 are considered to comply if they carry a BASEC certificate of assessed design
- The consumer unit should be located within the dwelling in each case and shall be either Crabtree or Wylex. To be fitted with 30MA Residual Current Device for the other circuits. Where conceded cables enter the consumer unit these shall be suitably protected.

LIGHTING

- All lighting points must be provided with a suitable light fitting as listed below, and in all other cases a pendant drop and lamp holder. Lux levels at floor level must achieve 300 lux.
- Suitable, low energy light fittings (i.e. PL, SL or 2D type) must be provided to the following:-
 - i) Bathrooms and toilets to all dwellings to a minimum Ingress Protection Factor 23.
 - ii) Adjacent to front doors to all dwellings, where applicable, to a minimum Ingress Protection Factor 44.
- All low energy light fittings specified above must be complete with low energy bulb. To other lighting points (where pendant drops only are fitted) bulbs need not be provided.
- Residents existing light fittings subject to the fitting complying with the latest IEE Regulations, these will be refitted at the clients request, cost to be agreed at negotiation stage.
- Lighting switches should be a 6 ampere rating. Accessory boxes should be steel and of the type with earth terminal fitted. Entries into boxes should be gromitted in every case.
- Double switching is required in hallways, staircases, large rooms with dual access or other design criteria that warrant this provision.
- Pendant set shall be as Crabtree 5855.
- Batten holder shall be as Crabtree 5851.
- In the kitchen the Contractor shall supply and install a 1500mm fluorescent luminaire as Thorn PP158/PPC5.

POWER

- The whole of the electrical power installation should comply in every respect with the 17th Edition (or latest revision applicable at the time of installation) of the Regulations for the Electrical Equipment of Buildings issued by the Institute of Electrical Engineers and should be carried out in accordance with modern installation techniques applicable to the material and equipment being used, and the Contractor must be a member of the National Inspection Council for Electrical Installation Contracting (NICEIC). (NOTE: see clause 5.610 in Part B for Service Provision).
- Wiring should be carried out using 600/1000 volt grade PVC insulated twin and earth cable with copper conductors, suitably sized.
- All cables must comply with the full requirements of the British Standard. Each cable reel should bear the manufacturers name and date of manufacture. At the time of installation, cables should be not more than 12 months old.
- The ring circuit system of wiring should be employed throughout, commencing and returning to a 32amp MCB. Joints or junction boxes in any part of the installation should NOT be permitted.
- Switch socket outlets should be provided in all dwellings not less than as follows:-

Living Room	: 3 double sockets (1 adjacent to telephone point)
Dining Room	: 2 double sockets
Bedrooms	: 4 double sockets
Hallway	: 1 double socket
Landing	: 1 double socket
Kitchens	: 3 double sockets (in total)
	: 1 single socket below worktop with fused spurs above worktop for fridge/freezer, washing machine and drier/dishwasher
	: 1 cookerpoint and switched spur above worktop
Bedsit'	- require 8 double sockets within the bedroom/living area

- All outlets shall be 13AMP twin switched socket outlets as Crabtree .DP switched outlets white mounted don 25mm moulded surface boxes.
- Socket outlets should be wired on the ring main principle and under no circumstances should a socket outlet be spurred from the ring main.
- In timber floors cables serving lighting to the floor below should be in the floor zone, dropping to light points. With concrete floors, cables are to be run below the floor in a battened out ceiling.
- Generally, cables serving socket outlets should be located in the floor zone rising up to the socket positions, as required. Cable serving lighting points at first or top floor level should run in the roof/attic spaces and drop to lighting points and switches.
- Cables within timber floor voids, batten/plasterboard or suspended ceiling voids etc., should surface fixed within the space provided.
- Flush mounted cables are to run vertically down walls etc., to accessory outlet boxes which should be mechanically protected using PVC conduit or galvanised steel cover channels.
- Cables installed in floor screeds should be enclosed throughout their length in PVC conduit , high Impact heavy gauge pattern and rewirable.
- Cables throughout the installation should be fully recessed/hidden into the building fabric where possible. Surface runs should be run in PVC mini trunking suitable screw fixed (not self adhesive or glued) to the fabric.

ACCESSORIES

- The preference is for accessories to be selected from the following ranges:-
 - Caradon M.K. Electrics Ltd.
 - Crabtree Electrical Industries Ltd.
 - Thorn EMI Lighting Ltd.
 - Marshall Tufflex
 - Alco Ltd.
 - Wylex
 - Ashley
 - Fermhouuand Bulkhead Fitting

- Accessories inside dwellings should be mounted at the following heights:-

Consumer Control Unit		- 2100mm
Lampholders	-	2100mm to bottom of holder
Lighting Switches	-	1050mm
Immersion Heater Control Switch (E7)	-	1200mm
Cooker Control Unit	-	1050mm
Kitchen Socket Outlets (above worktops)		- 1050mm
Socket Outlets	-	450mm
Room Thermostats	-	1050mm
Television Reception Outlet	-	450mm

COOKER CONTROL UNIT

- A cooker control unit should be fitted to all dwellings even though a gas supply is also available.
- The cooker control unit should be of the all insulated flush mounted type, without an integral socket outlets, fitted below the level of high level cupboards.
- A minimum sized 6.0mm PVC twin and earth cable should drop to low level from the cooker control unit to a flush mounted cooker connector unit.
- Cooker switch to be located within 2.0m of cooker. It shall not be located directly over the cooker or where it will be concealed or where the cooker or other kitchen fitments restrict access.
- Cooker switch as Crabtree plus 45 amp DP
- Cooker connection unit as Crabtree

IMMERSION HEATER CIRCUIT (WHERE NECESSARY)

- A separate circuit should be installed in all dwellings. A 20 ampere combined double pole switch with indicator light labelled "Water Heater" and a double pole changeover switch labelled "Small" and "Large" switching to the alternative connection from the consumer unit, this should be located in a visible position in the kitchen or outside the linen cupboard.
- Final connection on to immersion heaters should be carried out in heat resisting three core cables from the 20 ampere DP switch or outlet position.
- The immersion heater should have a short 2kw element and be equipped with thermostats set to 160°F connected to the domestic tariff.
- The type of element of the immersion heater should be compatible with the mineral content of the water in the area.
- Connection units as Crabtree DP flexoutlet
- Please ensure that the immersion heater thermostat is set to 60°C.
- Shower Circuit:
 - Circuit cable: shall be 10.mm²CSA PVC insulated, twin & earth, switched via 45amp double pole ceiling switch for isolation and maintenance purposes. Ceiling switch shall be Crabtree.
 - Circuit Protection: Circuit shall be fed via 40amp MCB BS3871. A 30milli amp 63amp RCD protection shall be provided for this circuit only via modular enclosures of Crabtree manufacture.
 - Earth Bonding: An earth bond cable with CSA of 10mm² PVC insulated, shall be strapped direct to the showers water supply pipe and connected to either the earth block at the intake position of the earth termination block within the consumer unit. The existing earth bonding, main cross and supplementary shall be upgraded to current standards as laid out in BS7671:2001.
 - Mains connection: The Contractor shall install a double pole block and tails for final connection to the electricity meter. Tails shall be 25.0mm² double insulated.
 - Completion: On completion of the works an NIC/EIC Domestic Completion Certificate shall be issued to the CA. The certificate shall be in the form set out in Appendix 6 of BS 7671:2001.
- Where existing wiring in bathroom is reused protection to be by a RCD fused spur fixed outside bathroom. The contractor is to allow for altering the wiring.

OPTIONAL**HEATING AND VENTILATION SUPPLY AND CONTROLS**

- Extract ventilation must be provided in all kitchens and bathrooms in accordance with Building Regulations requirements.
- Mechanical extraction to internal bathrooms and WC's must have permanent, slow-speed operation through the room lighting circuit to give a boost when the light is switched on.
- Mechanical extract fans must be Nuair Genie x12.

ELECTRICAL PROTECTIVE INSTALLATION**EARTHING**

- The type of earthing requirement needed must be verified with the Electricity Company before specification commences.
- An earth block shall be located adjacent to the consumer unit
- Main earth cable shall be 16.0mm²
- Main equipotential conductors shall be 10.0mm²
- Supplementary conductors to be 4.0mm²

SMOKE DETECTORS

- Smoke detection installations must comply with the following criteria:-

And shall be either Alco E166RC Optical Detector with radio linked base.
or Alco E22110 Multi sensor with Radio Linked base.

- BS 5546, Part 1 1990
- Smoke detectors as to bedrooms to be of the ionisation type; smoke detectors to kitchen to be of the optical type. (If access to the kitchen is from the lounge an additional smoke alarm is required in the lounge)
- All detectors in any one dwelling to be inter-linked so that activation of one unit triggers all others.
- In all cases, detectors shall be off the lighting circuit.
- Detectors to be installed with back-up lithium batteries for minimum 5 year life or rechargeable batteries on constant trickle-charge.
- Detectors to incorporate mains indicator light.
- Detectors to incorporate manual test button to ascertain correct functioning.
- Detectors to incorporate low-power warning light activated when the mains are disconnected and the battery power is almost deplete.
- Detectors to incorporate override button to suppress nuisance alarm for false activation with automatic reset facility.
- Detectors to be in sealed-construction casings to obviate tampering.
- The installation of the detectors will not take place until all works to the flat have been completed, and the property has been fully cleaned.
- Upon completion the operation of the detectors shall be tested using an approved synthetic smoke alarm tester.
- The Contractor shall issues a completion certificate stating compliance with BS 5839 : Part 6.
- All manufacturers instructions for each detector shall be collected and handed to the CA upon completion of the works.

CARBON MONOXIDE DETECTORS

- Carbon monoxide detectors shall be to BS 7860 : 1996 installed in accordance with manufacturers instructions.

The preference is Model SF 330 KM obtained from SF Detection, Hatch Pond House, 4 Stinsford Road, Nuffield Industrial Estate, Poole, Dorset BH17 0RZ (Telephone: [REDACTED]).

EXTRACTOR FANS

- Within the bathroom the Contractor shall supply and install the following:

Silavent SDF100HTBLV 100mm SELV Axial Timer Humidistat Fan

The Silavent SDF100HTBLV is a 100mm SELV Axial extractor fan with timer and humidistat, ideal for use in bathrooms and WCs.

Features and Benefits

- Maintenance free fan
- Integral timer
- SELV (Safety Extra Low Voltage)
- Supplied complete with transformer
- Integral humidistat
- Window fitting option is available

Technical Data

Description	SELV (230V/12V)
Maximum Extract Volume (cu.mts/hr)	80
Maximum Extract Volume (l/s)	22
Maximum Pressure (Pa)	16
Supply Frequency (Hz)	50
Maximum Power (W)	20
Maximum Sound dB(A) at 3 metres	36.8
Weight	1.5 inc. transformer
IP Rating	X4
Maximum Temperature (deg. C)	40
Wall-fit hole diameter (mm)	110
Window-fit hole diameter (mm)	127-140
Suitable glass thickness (mm)	4 - 25
Warranty	2 years

COMMUNICATIONS

- Provision of telephone service should be made in all dwellings, a flush fitting wired outlet is to be provided in the entrance hall or living room
- Television requirement for a single family house or bungalow is a conduit with co-axial cable between TV outlet in living room and roof space to be provided for tenant to fix their own aerial.

ELECTRICAL TEST

- On completion of the works undertake a test and provide a Periodic Inspection Report for the Electrical Installation.
- All testing to be carried out in accordance with BS 7671:2001.
- The results of all tests shall be submitted on N.I.C.E.I.C completion certificates.
- The smoke alarms shall be tested in accordance with BS 5839 Part 6 and a certificate issued to confirm compliance.
- The Contractor shall also ensure the Councils Building Control Department are notified in accordance with Part P of the Building Regulations.
Where the Electricity Supplier require a certificate of tests as condition of accepting an installation or part thereof for connection to supply, the Contractor shall also furnish such certificate direct to the Supplier without involvement of the Council.

PRODUCTS

310 PRODUCTS GENERALLY

- Standard: To BS 7671.
- CE Marking: Required.
- Proposals: Submit drawings, technical information and manufacturer's literature.

340 CONDUIT, TRUNKING AND DUCTING

- Standard: To BS 50086-1.
- Type: Suitable for location and use.

410 CABLES

- Standard: BASEC certified.

420 PROTECTIVE CONDUCTORS

- Type: Cable conductors with yellow/ green sheath.

515 LUMINAIRE SUPPORTING COUPLERS

- Standard: To BS 6972.

580 EARTHING AND BONDING

- Earth electrodes: In accordance with BS 7430.
- Earth clamps: To BS 951.

585 EARTH BARS

- Separate earth bar: Required.
- Size: Determine.
- Material: Copper.

EXECUTION

610 EXECUTION GENERALLY

- Standard: To BS 7671.

630 CONNECTION TO INCOMING SUPPLY

- Main switchboard/ distribution board: Connect to main incoming metering equipment.

650 SWITCHGEAR INSTALLATION

- Clearance in front of switchgear (minimum): 1 m.
- Labelling: Permanently label each way, identifying circuit function, rating and cable size.

740 CONDUIT AND FITTINGS

- Fixing: Fix securely. Fix boxes independently of conduit.
- Location: Position vertically and horizontally in line with equipment served and parallel with building lines. Locate where accessible.
- Jointing:
 - Number of joints: Minimize.
 - Lengths of conduit: Maximize.
 - Cut ends: Remove burrs and plug during building works.
 - Movement joints in structure: Manufactured expansion coupling.
 - Threaded steel conduits: Tightly screw to ensure electrical continuity, with no thread showing.
 - Conduit connections to boxes and items of equipment, other than those with threaded entries: Earthing coupling/ male brass bush and protective conductor.
- Changes of direction: Site machine-formed bends, junction boxes and proprietary components. Do not use elbows or tees. Alternatively, use conduit boxes.
- Connections to boxes, trunking, equipment and accessories: Screwed couplings, adaptors, connectors and glands, with rubber bushes at open ends.
- Mounting and support: As per manufacturers recommendations .

748 DRAINAGE OF CONDUIT

- Drainage outlets: Locate at lowest points in conduit installed externally, and where condensation may occur.

750 INSTALLING TRUNKING/ DUCTING/ CABLE MANAGEMENT SYSTEMS

- Positioning: Accurate with respect to equipment served and parallel with other services, and where relevant, floor level and other building lines.
- Access: Provide space encompassing cable trunking to permit access for installing and maintaining cables.
- Jointing:
 - Number of joints: Minimize.
 - Lengths of conduit: Maximize.
 - Steel systems: Mechanical couplings. Do not weld. Fit a copper link at each joint to ensure electrical continuity.
- Movement: Fix securely. Restrain floor mounted systems during screeding.
- Junctions and changes of direction: Proprietary jointing units.
- Cable entries: Fit grommets, bushes or liners.
- Protection: Fit temporary blanking plates. Prevent ingress of screed and other extraneous materials.
- Service outlet units: Fit when cables are installed.

800 CABLE ROUTES

- Cables generally: Conceal wherever possible.
 - Concealed cable runs to wall switches and outlets: Align vertically with the accessory.
- Exposed cable runs: Submit proposals.
 - Orientation: Straight, vertical and/ or horizontal and parallel to walls.
- Distance from other services running parallel: 150 mm minimum.
 - Heating pipes: Position cables below.

810 INSTALLING CABLES

- General: Install cables neatly and securely. Protect against accidental damage, adverse environmental conditions, mechanical stress and deleterious substances.
- Timing: Do not start internal cabling until building enclosure provides permanently dry conditions.
- Jointing: At equipment and terminal fittings only.
- Cables passing through walls: Sleeve with conduit bushed at both ends.
- Cables surrounded or covered by insulation: Derate.

811 CABLES IN PLASTER

- Protection: Cover with galvanized steel channel nailed to substrate.

- 812 CABLES IN VERTICAL TRUNKING/ DUCTS
- Support: Pin racks or cleats at each floor level or at 5 m vertical centres, whichever is less.
 - Heat barrier centres (maximum): 5 m.
 - Heat barriers: Required except where fire resisting barriers are not provided.
- 813 CABLES IN ACCESSIBLE ROOF SPACES
- Cables running across ceiling joists: Fix to timber battens which are nailed to joists.
- 820 ARMOURED CABLE
- Temperature: Do not start installation if cable or ambient temperature is below 0°C, or has been below 0°C during the previous 24 h.
 - Galvanized steel guards: Fit where cables are vulnerable to mechanical damage.
 - Earthing: Bond armour to equipment and main earthing system.
 - Connections to apparatus: Moisture proof, sealed glands and PVC shrouds.
- 825 PVC SHEATHED CABLE
- Temperature: Do not install cables if ambient temperature is below 5°C.
- 830 MICC CABLE
- Bending: Do not corrugate sheath.
 - Connection to equipment and boxes: Fit PVC shrouded glands.
 - Testing: Test each length immediately after fixing. Repeat test 24-48 h later.
- 845 FINAL CONNECTIONS
- Size: Determine.
 - Cable: Heat resisting white flex.
 - Length: Allow for equipment removal and maintenance.
- 850 MULTIGANG SWITCHES
- General: Connect switches so that there is a logical relationship with luminaire positions. Fit blanks to unused switch spaces.
 - Segregation: Internally segregate each phase with phase barriers and warning plates.
- 860 INSTALLING LUMINAIRES
- Supports: Adequate for weight of luminaire.
 - Locations: Submit proposals.
- 890 LABELLING
- Identification and notices:
 - Standards: To BS 5499-5 and BS 5378-2.
 - Equipment: Label when a voltage exceeding 230 V is present.
 - Distribution boards and consumer units: Card circuit chart within a reusable clear plastic cover. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart.
 - Sub-main cables: Label at both ends with proprietary cable marker sleeves.
- 895 ENGRAVING
- Metal and plastic accessories: Engrave, indicating their purpose.
 - Emergency lighting test key switches: Describe their function.
 - Multigang light switches: Describe the luminaire arrangement.
- COMPLETION
- 910 FINAL FIX
- Accessory faceplates, luminaires and other equipment: Fit after completion of building painting.

915 CLEANING

- Electrical equipment: Clean immediately before handover.
- Equipment not supplied but installed and electrically connected: Clean immediately before handover.

920 INSPECTION AND TESTING

- Standard: To BS 7671.
- Notice before commencing tests (minimum): 24 hours.
- Labels and signs: Fix securely before system is tested.
- Inspection and completion certificates: Submit.
 - Number of copies: 2 Copies .

990 DOCUMENTATION

- Timing: Submit at practical completion.
- Contents:
 - Full technical description of each system installed.
 - Manufacturer's operating and maintenance instructions for fittings and apparatus.
 - Manufacturer's guarantees and warranties.
 - As-installed drawings showing circuits and their ratings and locations of fittings and apparatus.
 - List of normal consumable items.

Z10
Purpose made joinery

Z10 Purpose made joinery

To be read with Preliminaries/ General conditions.

110 FABRICATION

- Standard: To BS 1186-2.
- Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
 - Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects.
- Joints: Tight and close fitting.
- Assembled components: Rigid. Free from distortion.
- Screws: Provide pilot holes.
 - Screws of 8 gauge or more and screws into hardwood: Provide clearance holes.
 - Countersink screws: Heads sunk at least 2 mm below surfaces visible in completed work.

120 CROSS SECTION DIMENSIONS OF TIMBER

- General: Dimensions on drawings are finished sizes.
- Maximum permitted deviations from finished sizes:
 - Softwood sections: To BS EN 1313-1:-
 - Clause 6 for sawn sections.
 - Clause NA.2 for further processed sections.
 - Hardwood sections: To BS EN 1313-2:-
 - Clause 6 for sawn sections.
 - Clause NA.3 for further processed sections.

130 PRESERVATIVE TREATED WOOD

- Cutting and machining: Completed as far as possible before treatment.
- Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
- Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

140 MOISTURE CONTENT

- Wood and wood based products: Maintained within range specified for the component during manufacture and storage.

250 FINISHING

- Joinery surfaces: Smooth, even and suitable to receive finishes.
 - Arrises: Eased unless shown otherwise on drawings.
- End grain in external components: Sealed with primer or sealer as section M60 and allowed to dry before assembly.

Z11
Purpose made metalwork

Z11 Purpose made metalwork

To be read with Preliminaries/ General conditions.

110 MATERIALS GENERALLY

- Grades of metals, section dimensions and properties: To the appropriate British Standard and suitable for the purpose.
- Prefinished metal: May be used if methods of fabrication do not damage or alter appearance of finish, and finish is adequately protected.
- Fasteners: To appropriate British Standard and, unless specified otherwise, of same metal as component, with matching coating or finish.

120 FABRICATION GENERALLY

- Contact between dissimilar metals in components that are to be fixed where moisture may be present or occur: Avoid.
- Finished components: Rigid and free from distortion, cracks, burrs and sharp arrises.
 - Moving parts: Free moving without binding.
- Corner junctions of identical sections: Mitred unless specified otherwise.

130 COLD FORMED WORK

- Profiles: Accurate, with straight arrises.

170 WELDING/BRAZING GENERALLY

- Surfaces to be joined: Thoroughly cleaned.
- Tack welds: Use only for temporary attachment.
- Joints: Made with parent and filler metal fully bonded throughout with no inclusions, holes, porosity or cracks.
- Surfaces of materials that will be self-finished and visible in completed work: Protect from weld spatter.
- Traces of flux residue, slag and weld spatter: Removed.

180 WELDING OF STEEL

- Preferred method: Metal arc welding to BS EN 1011-1 and -2.
 - Alternative methods: Submit proposals.

250 FINISHING WELDED/BRAZED JOINTS

- Butt joints: Smooth, and flush with adjacent surfaces.
- Fillet joints: Neatly executed and ground smooth where specified.

310 PREPARATION FOR APPLICATION OF COATINGS

- General: Fabrication complete, and fixing holes drilled before applying coatings.
- Paint, grease, flux, rust, burrs and sharp arrises: Removed.

360 GALVANIZING

- Standard: To BS EN ISO 1461.
- Vent and drain holes: Provide in approved locations and seal to approval after galvanizing.

380 ANODIZING

- Standards:
 - Internal applications: To BS EN 12373-1.
 - External applications: To BS 3987 or BS EN 12373-1.
- Certificate of compliance: Submit.

Z12
Preservative/ fire retardant treatment

Z12 Preservative/ fire retardant treatment

To be read with Preliminaries/ General conditions.

110 TREATMENT APPLICATION

- Timing: After cutting and machining timber, and before assembling components.
- Processor: Licensed by manufacturer of specified treatment solution.
- Certification: For each batch of timber provide a certificate of assurance that treatment has been carried out as specified.

120 COMMODITY SPECIFICATIONS

- Standard: Current edition of the British Wood Preserving and Damp-proofing Association (BWPDA) Manual.

130 PRESERVATIVE TREATMENT SOLUTION STRENGTHS/ TREATMENT CYCLES

- General: Select to achieve specified service life and to suit timber treatability.

150 CCA PRESERVATIVE TREATMENT

- Solution: Based on oxides of copper, chromium and arsenic.
 - Manufacturer: As approved by CA .
 - Product reference: As approved by CA .
 - Application: High pressure impregnation.
- Moisture content of timber at time of treatment: Not more than 28%. After treatment, allow timber to dry for at least 14 days before using.

160 ORGANIC SOLVENT PRESERVATIVE TREATMENT

- Solution:
 - Manufacturer: Sikkens or similar approved by CA .
 - Product reference: Sikkens or similar approved by CA .
 - Application: Double vacuum + low pressure impregnation.
- Moisture content of timber at time of treatment: As specified for the timber/ component at time of fixing. After treatment, timber to be surface dry before use.

170 CREOSOTE PRESERVATIVE TREATMENT

- Solution:
 - Manufacturer: Sikkens or similar approved by CA .
 - Product reference: Sikkens or similar approved by CA .
 - Application: High pressure impregnation, or immersion.
- Moisture content of timber at time of treatment: Not more than 28%. After treatment, allow timber to dry before using.

Z20
Fixings/ adhesives

Z20 Fixings/ adhesives

To be read with Preliminaries/ General conditions.

110 FIXINGS GENERALLY

- Integrity of supported components: Types, sizes and quantities of fasteners/ packings and spacings of fixings selected to retain supported components without distortion or loss of support.
- Components/ substrates/ fasteners of dissimilar metals: Fixed with isolating washers/ sleeves to avoid bimetallic corrosion.
- General usage: To recommendations of fastener manufacturers and/ or manufacturers of components, products or materials fixed and fixed to.
- Appearance: As approved samples.

130 FASTENER DURABILITY

- Fasteners in external construction:
 - Fasteners not directly exposed to weather: Of corrosion resistant material or with a corrosion resistant finish.
 - Fasteners directly exposed to weather: Of corrosion resistant material.

140 FIXINGS THROUGH FINISHES

- Penetration of fasteners/ plugs into substrate: To achieve a secure fixing.

150 PACKINGS

- Function: To take up tolerances and prevent distortion of materials/ components.
- Materials: Noncompressible, noncorrodible, rot proof.
- Locations: Not within zones to be filled with sealant.

160 CRAMP FIXINGS

- Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
- Fasteners: Cramps fixed to frames with screws of same material as cramps.
- Cramp fixings in masonry work: Fully bedded in mortar.

230 PELLETTED COUNTERSUNK FIXINGS

- Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
- Pellets: Cut from matching timber, grain matched and glued in to full depth of hole.
- Finished level of pellets: Flush with surface.

250 POWDER ACTUATED FIXING SYSTEMS

- Powder actuated fixing tools: To BS 4078-2 and Kitemark certified. Operatives trained and certified as competent by tool manufacturer.
- Types of fastener, accessories and consumables: As recommended by tool manufacturer.
- Protective coating to exposed fasteners used externally or in other locations subject to dampness: Zinc rich primer to fastener heads.

510 ADHESIVES

- Storage/ Usage: In accordance with manufacturer's and statutory requirements.
- Surfaces: Clean. Regularity and texture adjusted to suit bonding and gap filling characteristics of adhesive.
- Finished adhesive joints: Fully bonded. Free of surplus adhesive.

Z21
Mortars

Z21 Mortars

To be read with Preliminaries/ General conditions.

CEMENT GAUGED MORTARS

- 110 CEMENT GAUGED MORTAR MIXES
- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.
- 120 SAND FOR SITE MADE CEMENT GAUGED MASONRY MORTARS
- Standard: To BS EN 13139.
 - Grading: 0/2 (FP or MP).
 - Fines content where the proportion of sand in a mortar mix is specified as a range (e.g. 1:1: 5-6):
Lower proportion of sand: Use category 3 fines.
Higher proportion of sand: Use category 2 fines.
 - Sand for facework mortar: Maintain consistent colour and texture. Obtain from one source.
- 131 READY-MIXED LIME/ SAND FOR CEMENT GAUGED MASONRY MORTARS
- Standard: To BS 4721 or BS EN 998-2.
 - Lime: Nonhydraulic to BS EN 459-1.
 - Type: CL 90S.
 - Pigments for coloured mortars: To BS EN 12878.
- 135 SITE MADE LIME/ SAND FOR CEMENT GAUGED MASONRY MORTARS
- Permitted use: Where a special colour is not required and in lieu of factory made ready-mixed material.
 - Lime: Nonhydraulic to BS EN 459-1.
 - Type: CL 90S.
 - Mixing: Thoroughly mix lime with sand, in the dry state. Add water and mix again. Allow to stand, without drying out, for at least 16 hours before using.
- 160 CEMENTS FOR MORTARS
- Cement: To BS EN 197-1 and CE marked.
 - Types: Portland cement, CEM I.
Portland slag cement, CEM II-S.
Portland fly ash cement, CEM II-V or W.
 - Strength class: 32.5, 42.5 or 52.5.
 - White cement: To BS EN 197-1 and CE marked.
 - Type: Portland cement, CEM I.
 - Strength class: 52.5.
 - Sulfate resisting cement: To BS 4027 and Kitemarked.
 - Strength class: 42.5.
 - Masonry cement: To BS 5224 and Kitemarked.
 - Class: MC 12.5 (with air entraining agent).
- 180 ADMIXTURES FOR SITE MADE CEMENT GAUGED MORTARS
- Air entraining (plasticizing) admixtures: To BS 4887-1 and compatible with other mortar constituents.
 - Other admixtures: Submit proposals.
 - Prohibited admixtures: Calcium chloride and any admixture containing calcium chloride.
- 190 RETARDED READY TO USE CEMENT GAUGED MASONRY MORTARS
- Standard: To BS 4721 or BS EN 998-2.
 - Lime for cement:lime:sand mortars: Nonhydraulic to BS EN 459-1.
 - Type: CL 90S.
 - Pigments for coloured mortars: To BS EN 12878.
 - Time and temperature limitations: Use within limits prescribed by mortar manufacturer.
 - Retempering: Restore workability with water only within prescribed time limits.

210 MAKING CEMENT GAUGED MORTARS

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

Z22
Sealants

Z22 Sealants

To be read with Preliminaries/General conditions.

120 SUITABILITY OF JOINTS

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

130 PREPARING JOINTS

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

160 APPLYING SEALANTS

- Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
- Environmental conditions: Mix and apply primers and sealants within temperature and humidity ranges recommended by manufacturers. Do not dry or raise temperature of joints by heating.
- Sealant application: Unless specified otherwise, fill joints completely and neatly, ensuring firm adhesion to substrates.
- Sealant profiles:
 - Butt and lap joints: Slightly concave.
 - Fillet joints: Flat or slightly convex.
- Protection: Protect finished joints from contamination or damage until sealant has cured.

Z31
Powder coatings

Z31 Powder coatings

To be read with Preliminaries/ General conditions.

120 POWDER COATING MATERIALS

- Manufacturer: Obtain from one only of the following:
As approved by CA .
- Selected manufacturer: Submit details before commencement of powder coating.

210 WORKING PROCEDURES

- Requirement: Comply with:
 - BS 6496 for aluminium alloy backgrounds.
 - BS 6497 for galvanized steel backgrounds.
 - British Coatings Federation: Code of safe practice - Application of thermosetting powder coatings by electrostatic spraying.
 - Powder coating manufacturer's guarantee.

220 POWDER COATING APPLICATORS

- Applicator requirements:
 - Approved by powder coating manufacturer.
 - Currently certified to BS EN ISO 9001.
 - Comply with quality procedures, guarantee conditions, standards and tests required by powder coating manufacturer.
 - Each applicator to use only one plant.
- Selected applicator: Submit details before commencement of powder coating.

225 GUARANTEES

- Powder coating manufacturer and applicator guarantees:
 - Submit sample copies before commencement of powder coating.
 - Submit signed project specific copies on completion of work.

310 PRETREATMENT

- Condition of components to be powder coated:
 - Free from corrosion and damage.
 - Suitable for and compatible with the pretreatment and powder coating process.
- Process: Clean, conversion coat, condition, rinse in demineralised water, drain and dry components in accordance with the powder coating manufacturer's requirements and the pretreatment supplier's recommendations.

430 EXTENT OF POWDER COATINGS

- Application: To visible component surfaces, and concealed surfaces requiring protection. Coated surfaces will be deemed 'significant surfaces' for relevant BS 6496/ BS 6497 performance requirements.

435A APPLICATION OF POWDER COATINGS

- Surfaces to receive powder coatings: Free from dust or powder deposits.
- Completion of powder coatings: Within 48 hours of pre-treatment of components.
- Jig points: Not visible on coated components.
- Curing: Controlled to attain metal temperatures and hold periods recommended by powder coating manufacturer.
- Stripping and recoating of components: Only acceptable by prior agreement of powder coating manufacturer. Stripping, pretreatment and powder coating are to be in accordance with manufacturer's requirements and must be carried out at applicator's plant.
- Overcoating of components: Not acceptable.

440 PERFORMANCE AND APPEARANCE OF POWDER COATINGS

- Standard: To BS 6496/ BS 6497.

450 ALUMINIUM ALLOY FABRICATIONS

- Units may be assembled:
 - Before powder coating.
 - From components powder coated after cutting to size.
 - Where approved, from components powder coated before cutting to size.
- Exposure of uncoated background metal: Not acceptable.
- Assembly sealants: Compatible with powder coatings. Obtain approval of colour if sealants are visible after fabrication.

460 STEEL FABRICATIONS

- Unit assembly: Wherever practical, before powder coating.
- Exposure of uncoated background metal: Not acceptable.
- Assembly sealants: Compatible with powder coatings. Obtain approval of colour if sealants are visible after fabrication.

470 FIXINGS

- Exposed metal fixings: Powder coat together with components, or coat with matching repair paint system applied in accordance with the powder coating manufacturer's recommendations.

480 FABRICATION DAMAGE REPAIR/ REPLACEMENT

- Inspection: Check all components before delivery to site for damage to powder coatings. Submit proposals for repair or replacement.

510 PROTECTION

- Powder coated surfaces of components: Protect from damage during handling and installation, or by subsequent site operations.
- Protective coverings: Must be:
 - Resistant to weather conditions.
 - Partially removable to suit building in and access to fixing points.
- Protective tapes in contact with powder coatings: Must be:
 - Low tack, self adhesive and light in colour.
 - Applied and removed in accordance with tape and powder coating manufacturers' recommendations. Do not use solvents to remove residues.
- Inspection of protection: Carry out monthly. Promptly repair any deterioration or deficiency.

530 SITE DAMAGE REPAIR/ REPLACEMENT

- Damage to powder coatings: Rectify immediately damage caused during handling and installation, or by subsequent site operations. Submit proposals for extensive repair or replacement.

540 COMPLETION

- Cleaning and maintenance of powder coatings: Carry out in accordance with procedures detailed in powder coating manufacturer and applicator guarantees.
 - Duration: From removal of protection until Practical Completion.

SCHEDULE - 5

- 5.3 VOID LETTING STANDARD**
- 5.4 QUALITY STANDARDS**
- 5.5 SUPPLY CHAIN MANAGEMENT**
- 5.6 VALUE & RISK MANAGEMENT**
- 5.7 HEALTH & SAFETY**
- 5.8 ENVIRONMENTAL**

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5.3 VOID LETTING STANDARD

5.3.1 Pricing

There will be three categories of voids;

- a) Minor Works – small to medium sized property (up to 2 bed rooms) - **Schedule of Rates**
- b) Minor Works – medium-large sized property (3 or more bed rooms) - **Schedule of Rates**
- c) Major Voids – **Quotations**

5.3.2 Priorities

The following void priorities can be applied to any of the above void categories;

Priority V5 – Minor void;

All work necessary to bring property to lettable standard fully completed within 5 working days.

Priority V10 – Minor void;

All work necessary to bring property to lettable standard fully completed within 10 working days.

Priority V20 – Major void;

All work necessary to bring property to lettable standard fully completed within 20 working days.

5.3.3 Progression

In order to steam line the process, the Contractor will be responsible for:

- Collecting the keys for all voids as soon after they have been received;
- Initial inspection of the property;
- Clearance of any rubbish or furnishings;
- Specification of the work, unless identified as a Major Void;
- Completion of the work within agreed timescales with the clear intention that the duration is kept to a minimum and reduces year on year;
- Referral to the client for joint inspection if identified as a Major Void;
- Co-ordinating the activity of the gas contractor;
- Making the void available for viewing;
- Returning the keys to the clients office upon completion;

5.3.4 Photos

Before and after photos should be undertaken for all void properties (both routine and major). The purpose of photos is to ensure the TMO have records to show the condition the property at vacation, and property condition on letting, and any specific areas e.g. any alterations undertaken by a previous tenant.

5.3.5 Previous Tenants' fittings or alterations

Where previous tenants' fittings or alterations are agreed improvements they shall be left in the flat. Other items may be left provided they enhance the dwelling, do not alter the bedroom category (i.e. partitions) and represent no health and safety risk. It should be noted that any item left within the property becomes the responsibility of the TMO and that the TMO could be held liable should there be a claim made in the future.

Remove and replace former tenants fitted kitchens where they have electrical fittings installed (such as fitted hobs etc). If works carried out enhances the new tenancy, then with agreement from the VMO & Voids officer a vesting document is offered to the new resident which gives the option returning the property to the normal void standard or keep it at its new enhanced condition.

5.3.6 Lettable Standard

The following identifies the standard required for a void property to be considered ready for letting. All works to achieve this standard are included in the Flat Rate Pricing Schedules with the exception of the stated exclusions and Major Voids.

5.3.7 Carpentry repairs

Front and back doors. Repair front entrance door to ensure security. It should be secured with a cylinder lock or 5-lever lockset. Renew door only if incapable of being repaired or adequately secured. Repair any damage by previous forced entries etc. In all, there should be 3 full sets of keys to the property. No keys should be left in the property. Check that the back doors/balcony doors open close correctly, that they are secure and that there are operational keys for them.

Internal doors. Ensure all door openings have operational doors and that latches, hinges and handles work. Supply and fit barrel bolt to internal bathroom and WC door if not already fitted. Kitchen door must be self-closing ½-hour fire check door. Renew door closers if defective.

Windows. All ground floor windows should be secured with secure window locks. All upper floor windows over two floors should have childproof locks or window restrictors fitted that will enable them to be secured on the inside. All broken windows should be reglazed. Ensure that all windows open and close properly and that any safety catches are operational.

Kitchen units. Repair/replace kitchen units if they are damaged or unhygienic (beyond cleaning). The basic provision of kitchen units, when these have to be provided new, is a sink unit with double base, at least one more double base unit and one double and single wall unit. However, consideration needs to be taken into account of the size of the kitchen and also the size of the family likely to move into the property (i.e. a larger kitchen in a larger flat may need additional units). Note that repair rather than renewal is preferable.

If possible, all wall units and all floor units should match. SOR contract supervisor/VMO should make a decision when replacing the majority of units in a void, whether it would be possible to get a reasonable match with the remaining. If not, funding is available, and the remaining is likely to need repair, in advance of any 'decency' standard work, these should also be replaced.

The contractor should be encouraged to store salvageable unit doors etc... for future use.

It may be possible to reuse handles, etc. from units to be replaced and use them to repair other units and if possible, replacing doors, drawer fronts and handles to match.

Renew the worktop if it is damaged or unhygienic.

General Carpentry. All damaged missing sections of skirting/architrave to be replaced and painted to match existing. Repair all loose treads, handrails, balustrade and soffits to all staircases. Don't replace tenant's fittings e.g. shelves, curtain rails, mirrors, dado rails.

Fix/renew damaged or loose floorboards as necessary.

5.3.8 Plumbing

Bathroom/WC. Renew bath, bath panel, WC pan, cistern, toilet seat and cover, wash-hand basin and taps only if damaged beyond economical repair and or unhygienic. Do not change layout without Contract Manager's authorisation.

Unless in good working order with necessary protection remove showers when fitted by former tenants, cap off piping and ensure that tiling is made good.

General. All pipework, storage cisterns and fittings should be free from damage, blockage, leaks and overflows. Stopcocks and valves must operate efficiently. All sanitary fittings should be free from damage.

Avoid the use of DIY quick fix fittings for example 'flexi connections' as these often result in further repairs being needed.

5.3.9 Plasterwork

Walls and Ceilings. Surfaces should be in a suitable condition for redecoration, hack off and replaster where necessary. Consider stripping off wallpaper in poor condition. If there is mould growth, the walls should be treated with a fungicidal wash, leaving the surface ready for decoration (see section below on redecorations). Ensure we know what the cause of the mould is that the cause has been resolved.

Polystyrene tiles must be removed with any resulting damage to walls and ceilings made good.

Renew wall tiling if it is damaged, or when likely to become damaged by works e.g. fitting new units. Ensure that there are three courses behind sink (where practical), draining board, bath and two behind the wash hand basin. Ensure there is a sealant along back of draining board, bath and wash hand basin. If a previous tenant's tiling is being removed and not

replaced, ensure the wall is plastered and made good afterwards and that limited redecorating is also ordered.

Floors. Renew kitchen, WC and bathroom floor tiles if in poor condition. In other rooms, if vinyl flooring/tiles are in a very poor state and likely to put someone off accepting, have these and the adhesive, all removed ready to receive new covering. Ensure the sub-base is sound and ready to receive the tenant's own covering.

5.3.10 Electrical

- Checks shall be undertaken for all voids, and an IEE Electrical Certificate obtained before occupation. Note that only actual work carried out by the contractor needs to be brought up in line with IEE Regulations 16th edition.
- Any existing electrics not in line with the 16th edition need to be reported by the contractor to the TMO.
- Ensure that there is adequate provision of sockets (one double per room). There should be at least 2 double socket outlets at worktop level in the kitchen plus a suitable position for either a gas or electric cooker. Fit a cooker point including a junction connection unit for an electric cooker and a gas bayonet fitting for a gas cooker. Any unavoidable upgrading to be undertaken when tenant moves in.
- Repair/renew/clean ventilation as necessary.
- Liase with engineering services if the property is located within a block that has had entry phones fitted to other flats and where the void flat was omitted.

5.3.11 Gas safety certificate

- Gas Checks. The gas system must be tested. A valid CP12 certificate will be held by K & C TMO. Boiler, radiators, thermostat and timer in working order.
- Ensure there is a gas bayonet fitting for a gas cooker.

5.3.12 External site works

External repairs to keeping the envelope of the building wind and watertight.

- Do not carry out any work that forms part of an imminent decency/capital scheme, unless it is essential for weather tightness or is a health and safety priority. If necessary, advise the contract manager/property services manager that the property should be updated as capital repair priority.
- Ensure that the garden is cleared and that any dangerous items are ordered (such as a broken manhole cover etc). Unblock balcony drains, gullies and repair any overflows.
- Remember that the outside of the property will be viewed by the potential tenant before the interior. So how this looks should also be a key consideration. Carry out repairs to the exterior and communal parts (bearing in mind any future decency/capital schemes) as necessary. Redecorate the front door and frame if in poor condition.

5.3.13 Redecoration of voids

Excellent decorative standard – Rooms decorated recently, few areas with holes/marks etc... where previous fittings were removed i.e. mirrors, shelving etc. **Action - No additional work required.**

Good condition – some areas need decoration repair, e.g. some loose paper needs re-sticking, small amount of making good prior to repainting.

Action – Minor works required.

Fair – most walls and ceiling within a room are in good decorative order.

Action – Touch up any damaged areas.

Poor – property is in poor decorative condition, bare walls, and recent water damage and/or significantly discoloured, for example, by nicotine.

Action – Offer allowance or decoration.

Racist or offensive graffiti **must** always be removed prior to any viewings.

Do not apply wallpaper in kitchen and bathrooms, use only lining/woodchip paper, or if the wall surface is of a good standard, directly apply 2 coats of emulsion paint.

5.3.14 Exclusions

- Any capital improvements, must be full replacement, i.e kitchen replacement, wholesale bathroom replacement
- Asbestos associated works.
- Full electrical rewire.

5.4 Quality Standards

5.4.1 Quality Generally

5.4.1.1 Schedule 2.2 provides sample specifications relating to the materials and workmanship required under the contract. These clauses are to be considered as a guide only of the minimum requirements for the standards of works to be met.

5.4.1.2 It is the Employers expectation that these minimum standards will be developed by the Employer and Contractor is expected to be proactive in identifying areas of improvement both in terms of materials specified and procedures adopted for undertaking the works.

5.4.1.3 The Contractor is required to establish and implement a robust and well defined Quality Management System for all elements of the service. These systems will require the implementation of standard forms and procedures that the Contractor shall, on a fully open book basis, allow audit and inspection by the Employer.

5.4.1.4 In addition to complying with the above, the Contractor will also be required to provide a consistently high quality of service through the use of high quality standards for its management processes including accreditation to recognised Quality Management Systems and Investors in People, etc.

5.4.2 Experience and Qualification of Employees

- 5.4.2.1 The Contractor will be required to provide a core team of highly qualified professional staff to undertake the works required for the term of the contract.
- 5.4.2.2 Each employee is expected to hold the requisite experience and expertise to undertake the tasks allocated to them and the Contractor will be required to ensure that the Quality Management System it operates will be sufficiently robust to identify any deficiencies in this regard.
- 5.4.2.3 Where deficiencies are identified, the Contractor will be required to ensure processes and procedures are established to deal effectively with the identified problems and demonstrate to the Employer that appropriate rectification will be implemented.
- 5.4.2.4 The Contractor shall notify the employer of any significant changes with the management structure and its internal reporting systems. Where staff are to be replaced at a senior level supervisor and above the contractor shall invite the employer to take part in the appointment process.

5.5 SUPPLY CHAIN MANAGEMENT

5.5.1 General

5.5.1.1 It is the expectation of the Employer that the Contractor will work with them to fully develop the supply chain and ensure that the procedures it implements with respect to the minimum requirements for the standards of works as set out in Schedule 2.2 and agreed management processes are fully integrated by the whole supply chain.

5.5.1.2 The Employer places important emphasis on effective supply chain management as a means of delivering customer focused services that are first class, together with sustaining continuous improvement and the drive for innovation. The Contractor is to undertake market testing of the supply chain as set out in schedule 7.0 of the contract.

5.6 VALUE AND RISK MANAGEMENT

5.6.1 General

5.6.1.1 The Employer intends to adopt a proactive and structured approach to the management of value and risk issues throughout the contract and requires the Contractor to participate in a similar manner.

5.6.1.2 The Employer is proposing a value engineering workshop to assist in the development and monitoring of risk.

5.6.2 Value Management

5.6.2.1 The Contractor will undertake value management exercises for each of the areas identified by the employer following the open book audits. The Contractor will be required to provide documentary evidence of the reviews carried out and report these to the employer.

5.6.3 Risk Management

5.6.3.1 The Employer requires a risk register to be maintained throughout the contract. The contractor will take ownership of the identified contract risks relating to the delivery of the works. The contractor will be required to contribute to the development and management of the risk management matrix.

5.6.3.2 The contractor may also be required to attend risk management workshops as and when requested by the employer.

5.6.3.3 The Contractor will be required to provide a proactive approach in identifying risk in conjunction with the Employer for each element of the works to be undertaken as part of the contract



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- 5.6.3.4 The purpose Risk Management strategy is to identify the significant risks for contract delivery and in conjunction with the Employer establish mechanisms to mitigate share and assign risks to those best placed to manage the risk.

5.7 HEALTH & SAFETY

5.7.1 General

- 5.7.1.1 The Contractor shall be responsible for its operatives and specialists/subcontractors for all health and safety precautions/compliance that maybe (whether required by Legislation or not). The Contractor shall ensure that all such persons are aware of, and at all times comply with, the TMO's Policies and Procedures in relation to health and safety.
- 5.7.1.2 The Contractor shall also be responsible for requirements of statutory and regulatory authorities concerning construction works and fire prevention. Accidents to Personnel which ordinarily require reporting in accordance with the Health and Safety at Work Act, etc. 1974 shall also be reported to the Employer, as soon as practicable.
- 5.7.1.3 The contractor shall ensure that all operatives engaged on the contract are suitably trained and provided with the correct PPE to undertake the tasks required. The contractor shall provide upon request by the TMO operatives and managers training records. The Employer can instruct the contractor to remove operatives from site who are not in the Employers opinion competent.
- 5.7.1.4 The contractor shall prepare method statements and risk assessments for all activities and provide copies to the TMO.
- 5.7.1.5 The contractor shall carry out their own Health & Safety Audits and at no less frequently than monthly intervals and provide copies of findings to the TMO.

5.7.2 Construction (Design and Management) Regulations 2007

- 5.7.2.1 The Contractor is obligated to provide a Construction Phase Plan for each order being undertaken where CDM applies. If the Contractor believes that any Task falls within the scope of CDM it should inform the Employer without delay.
- 5.7.2.2 Where the regulations apply the contractor will be required to act as Principal Contractor as defined by the regulations.
- 5.7.2.3 The Contractor should note that completion of an order will not be agreed until the obligations to provide all relevant information requested by the CDM Coordinator for the Health and Safety File have been provided.
- 5.7.2.4 On completion of the order, it is the responsibility of the CDM Coordinator to check/verify that all parties have complied with CDM before passing the Health and Safety File to the Employer.

5.8 ENVIRONMENTAL

5.8.1 Environmental Management

5.8.1.1 The contractor must demonstrate that it considers the environmental impacts of its operations and service delivery develop an environmental policy and plan that works towards improving its own environmental performance and Carbon reduction.

5.8.2 Environmental Data

5.8.2.1 The contractor shall provide the Employer with data relating to the consumption of energy through its operations and asset and agree targets to reduce environmental Impact both in service delivery and the materials and methods of construction adopted.



SCHEDULE - 7

7.0 - 7.13 SCHEDULE OF RATES & PRICE FRAMEWORK

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7.1 SCHEDULE OF RATES

- 7.1.1 The price framework is based upon M3 NHF schedule of rates version 6. This schedule shall be used for all routine repairs and voids. The schedule items are not subject to a + or – variation. A minimum order value applies see appropriate section.
- 7.1.2 The rates are deemed to include the contractors overhead and management charges no additional charges will be accepted.

7.2 DEFINITIONS

- 7.2.1 **Schedule of Rates:** Refers to the M3 NHF version 6.1
- Day work Rates:** Refers to works not covered by the schedule of rates and, are charged either on a daily or hourly basis.
- Void fixed price:** Refers to a fixed lump sum charge for carrying out void works at a set rate for each property.
- Supply Chain**
- Business Case:** Refers to the process for obtain written quotes or tenders for non-schedule of rate item works.

7.3 VOID FIXED RATE CHARGES

- 7.3.1 The Employer may require the contractor to move towards a flat rate payment for voids. It is anticipated that this will be developed if required with the first 12 months of the contract. In the interim voids will scheduled using the schedule of rates.

7.4 MINIMUM ORDER VALUE- NORMAL WORKING HOURS

7.4.1 A minimum order value will apply to all orders raised and issued to the contractor by the employer. The minimum order value shall be **£50.00** excluding VAT.

7.4.2 The minimum order value will be reviewed by the employer at 6 monthly and 12 monthly intervals. The minimum order value maybe increased or decreased by the employer. The employer shall give a minimum of 14 days' notice to the contractor in writing of any such adjustment. The date of adjustment shall be the first operating day of the following quarterly reporting period.

7.5 MINIMUM ORDER VALUE- OUT OF HOURS WORKING

7.5.1 A minimum order value will apply to all orders raised and issued to the contractor by the employer. The minimum order value shall be **£68.00** excluding VAT.

7.5.2 The minimum order value will be reviewed by the employer at 6 monthly and 12 monthly intervals. The minimum order value maybe increased or decreased by the employer. The employer shall give a minimum of 14 days' notice to the contractor in writing of any such adjustment. The date of adjustment shall be the first operating day of the following quarterly reporting period.

7.6 SUPPLY CHAIN BUSINESS CASE

- 7.6.1 Where works are required that fall outside the schedule of rates the contractor shall obtain written quotations/tenders for the works ordered by the employer. The Contractor shall follow the TMO's agreed standing orders in respect of obtaining tenders and quotations.
- 7.6.2 On the completion of the quotation/tender exercise the contractor shall make recommendation to the employer in respect of appointment.
- 7.6.3 The Contractor shall be in entitled to add 15% to the cost of the net value of quotation/tender to cover management costs associated with managing the works and tender process.

7.7 ADDITIONAL SCHEDULE OF RATE ITEMS MINOR WORKS

- 7.7.1 The Contractor when building up his prices shall be consistent with the prices contained within his Schedules of Rates. Any items of work required under the Works for which a schedule of rates item is not included in the defined Schedule of Rates will be defined as a 'new' rate that will be agreed by negotiation/business case. Throughout the course of the contract all costs will be benchmarked against the original schedules of rates.

7.8 MATERIAL/PLANT SUPPLY CHAIN

- 7.8.1 The Contractor shall provide business case information when entering into agreements with the supply chain to purchase materials. The contractor shall demonstrate that the agreement provides best value to the employer in respect of the supply of materials and plant used.
- 7.8.2 The details of all supply chain agreements to be made available to the employer upon request before the placement of an order, or entering into a



contract by the contractor. The contractor shall benchmark the costs for the material supply with other national chains to demonstrate best value at 6 monthly intervals.

7.9 DAY WORKS

7.9.1 Where the contractor is instructed to attend site and the works cannot be identified or clearly instructed day works charges will apply. The contractor shall notify in writing that day work charges will apply and obtain agreement from the employer in advance of attendance. The contractor shall keep a record of the following information for each and every occasion that day work charges are applied

- Order number applicable to charges
- Name of employers representative authorising works
- Name of operatives
- Date and time of attendance
- Length of attendance
- Details of works carried out
- Details of any materials used
- Copies of timesheets and supplier invoices

7.9.2 Day works (rates shown exclude VAT) will be charged at the following rates:-

Level	Day Rate	Hourly Rate
Manager or Supervisor	£400.00	£50.00
Trade Operative	£190.00	£23.25

7.9.3 The rates will be reviewed on the 1st anniversary of the contract and subsequently each year. The contractor shall demonstrate and satisfy the Employer that additional costs have been incurred in order to justify the increase in rates.

7.10 COST RECONCILIATION AND TERM REVIEW

- 7.10.1 After the Contract has been underway for 6 and every 12 months, reconciliations of actual costs incurred will be carried out by the Employer or their representative. Inspections will be conducted to assess the actual cost of providing the service to the TMO.
- 7.10.2 The review will be used to reset the minimum order value and also to make changes to individual SOR items where costs vary significantly from the published M3 NHF 6.1 published rates. Any changes to the rates or minimum order value must be agreed by the employer in writing.
- 7.10.3 The contractor will co-operate and provide the information requested.
- 7.10.4 The employer will undertake a term review at the end of the first year and at the end of each 12 month period. The term review will include a full reconciliation of costs and review of performance achieved. It will set out a plan for continual performance improvement for the forthcoming year. The Employer is not responsible for any losses or claims incurred by the Contractor.

7.11 NON-PAYMENT OF CONTRACTORS COSTS

- 7.11.1 If the contractor fails for whatever reason to undertake or complete the works no payment will be made.
- 7.11.2 The employer does not warrant or agree to pay the contractor for any losses either directly or indirectly incurred as a result of carrying out works for the TMO.

7.12 INVOICING & PAYMENT

- 7.12:1 The contractor shall invoice for each completed order upon completion subject to the deduction of any KPI penalties as set out in the Schedule 8 KPI Framework. The Contractor will be required to assist with the development of invoicing and ordering processes.
- 7.12.2 Invoices to be presented in a format agreed by the Employer, and payment will be made in accordance with the terms of the contract.

7.13 PENALTIES

- 7.13.1 The Contractor is required to provide a minimum acceptable level of performance. Performance will be measured by the use of KPI's as defined in Schedule 8.
- 7.13.2 The Employer will charge the Contractor a penalty for failing to meet the required level of performance the penalties are as defined in Schedule 8. Penalties will be deducted at the rates detailed in Schedule 8.
- 7.13.2 Penalties will apply for a 3 month period and will commence at the start of the next reporting quarter following notification from the Employer that penalties will be deducted. The penalties will be deducted at the same rate for a 3 month period regardless of any change of performance. There will be not repayment of any monies deducted from the contractor.

Agenda Item 5

Appendix 3

Schedule 8.0 Contractor KPI Framework

The following table sets out the headline KPI requirements. The KPI's will be used for the initial six-month period of the contract and both parties will review the targets at three-month intervals and the target benchmarks and adjusted as required.

KPI Nr	KPI Description	KPI Objective	KPI Method of Data Collection	KPI Validation	KPI Bench Mark
1	Customer Satisfaction	Measure the overall satisfaction of service achieved by the Contractor	Defined questions to be filled out by customers and returned to Employer on prepaid cards. Employer Help desk to carry out telephone surveys.	Employer to analyze and collate results of returned surveys and telephone surveys. Data should contain an overall satisfaction score and agreed minimum satisfaction score.	95% of the returned satisfaction scores must exceed the agreed minimum level of satisfaction.
2	% Call Backs	Measure Quality of repairs undertaken	The Employer will measure the number of call backs to return to a property to deal with the same initial repair.	Employer to run reports from the management system to show volume of return appointments made with residents to deal with the same repair.	Maximum number of recalls should be less than 5% of the orders completed for that period.
3	Post Inspection Failure rate	Measures quality of repairs	Surveys to be carried out by the employer	Employer to run reports from the management system to show the number of failed inspections	90 % of all post inspections should be passed.
4	% of Orders completed by Order Completion Date, excluding voids	To ensure that the Contractor is meeting the defined priorities for each type of repair.	The Employer will measure the completion dates against target dates for each repair completed.	Employer to run reports from the management system to establish the number of orders that have met the required completion date.	90% of all orders except emergencies to meet target date. 100% of emergency orders to meet target date.
5	% of voids	To ensure that the	The Employer will measure	Employer to run reports from	90% of all routine major

Agenda Item 5
Appendix 3

	Orders completed by Order Completion Date	Contractor is meeting the defined priorities for voids.	the key to key date for void properties thus maximizing rental income.	the management system to establish the number of voids that have met the required completion date.	and minor voids to meet target date.
--	---	---	--	--	--------------------------------------

The KPI's will be linked to performance and should the Contractor not meet the agreed set targets then financial penalties will be applied as detailed below. KPI information will be collected on a monthly basis and reviewed at the completion of every 3-month period at the management meetings.

Financial penalties will not be applied to the first 6-month period to allow the Contract to bed in and allow for any initial adjustment to the KPI targets or method of data collection to be changed.

The following financial penalties will be applied at the sole discretion of the Employer if the Contractor fails to meet the KPI targets. Each KPI will carry an equal weighting. Where the Contractor fails to meet the required level of performance then each invoice raised will be subject to the % shown below for a period of 3 months until the end of that KPI reporting period. At the end of this period the % reduction will be removed. Note the reduction is not applied cumulatively; the maximum reduction to be 2.5% of net invoice value.

Number of KPI's Failed	% Reduction on invoices to be applied
1	0.5%
2	1.0%
3	1.5%
4	2.0%
5	2.5%

Agenda Item 6

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
TENANT MANAGEMENT ORGANISATION LIMITED

TMO BOARD —5th September 2013

ASSETS AND REGENERATION UPDATE (DECISION)

RECOMMENDATION TO NOTE THE CURRENT POSITION ON THE CAPITAL PROGRAMME
AND TO APPROVE AMENDED BUDGETS

1 PURPOSE

1. This report gives an update on progress on the 2013-14 capital programme. The report asks for approval to award a contract for kitchen and bathroom renewal. The report also gives an update on progress in the procurement of the framework for delivery of the programme from 2014-15 onwards.

It is recommended that the Board:

- 1.1. Notes this report
1.2. Agrees to let a contract in the sum of £1m (exclusive of fees) to Mears for the renewal of kitchens and bathrooms

FOR DECISION

2. Capital Programme 2013-14

- 2.1 The approved capital budget for 2013-14 is £7,368k. Appendix 1 of this report details the commitment sums agreed by board and gives a projection of the anticipated spend against each budget head by 31st March 2013.
- 2.2 The programme is currently being procured. The majority of the work will start on site in the autumn and spend will be concentrated in the latter part of the financial year. Full spend of the £7,368k budget is anticipated by the end of the financial year.

2.3 **Further commitment on the Renewal of kitchens and bathrooms:** On 25th July 2013, Board agreed to let a contract for the renewal of kitchens and bathrooms to Apollo in the sum of £3.1m inclusive of fees.

2.4 The outcome of this tender process was very close between Apollo Property Services and Mears Group Ltd. It is proposed to negotiate an additional Kitchen and Bathroom renewal contract with Mears based on their tender return up to a maximum contract value of £1m (exclusive of fees). This will increase the capacity to achieve capital expenditure in the 2013-14 financial year and will also give an opportunity to achieve some early expenditure in 2014-15 ahead of the procurement of the main programme which will be procured through the framework that is covered later in this report.

2.5 The following table gives a summary of the outcome of the procurement process that was reported to Board in July 2013.

	Quality		Cost	Overall
	Interview	Questionnaire		
Apollo Property Services Group Limited	4.0	36.00	40.00	80.00
Greyline Builders Limited	3.0	36.00	35.00	74.00
Mears Group plc	4.3	37.00	38.00	79.30
Cosmur Construction (London) Limited	4.0	36.00	33.00	73.00

2.6 The table in Appendix 1 of this report shows the impact of this additional commitment with spend of £3.4m projected to be spent on kitchens and bathrooms to the end of the current financial year and an estimated £798k projected to be spent in 2014-15.

3. Grenfell Tower Refurbishment

3.1 On 8th January 2013, Board agreed to proceed with the procurement of the Grenfell Tower project with an agreed budget of £9.768m.

3.2 A revised planning application was submitted in August 2013 and a decision is expected in September 2013. The revised design took into account feedback received from a resident consultation meeting held in July 2013 and the revised proposals were presented to residents at a drop-in session held on 14th August and a public meeting on 15th August 2013.

3.3 Once planning permission is received, procurement of the works will commence. The following is the current indicative timeline for the delivery of the works:

- Prepare tender documents: August 2013
- Planning Approval: September 2013
- Tenders issued: November 2013
- Tender return: December 2013
- Evaluation: January 2014
- Contract Award: February 2014
- Start on site: March 2014
- Completion of work: March 2015

4. Procurement: Capital Programme 2014 and beyond

4.1 Procurement of consultant and contractor frameworks is in progress.

4.2 Initial notices to leaseholders have been despatched and leaseholders have until the end of September to comment on the proposed procurement approach.

4.3 Subject to a review of observations from the leaseholders we anticipated being in a position to place an advert for contractors and consultants in the Official Journal of the European Union in early October 2013.

4.4 We are currently preparing a stakeholder matrix and communication plan and will undertake comprehensive consultation with residents, other Departments and existing delivery partners over the coming months.

4.5 The Board will also be asked to recommend suitable delegates to assist with this process.

5. Asset Management Strategy

5.1 A date has been set for 8th October 2013 for a Board Workshop to help develop the Asset Management Strategy. This workshop will focus on defining an investment standard for the RBKC Housing Stock.

5.2 A tour of KCTMO stock is also being arranged and proposed dates have been circulated to Board Members.

Summary of Proposed Capital Programme Commitments 2013-14

Appendix 1

Heading	Description	Commitments Agreed July 13	Forecast to 31.3.14	Forecast 2014-15
Carry Forward Commitments	Ongoing works from 2012-13	500,000	639,192	
Aids and Adaptations	Adaptation works to homes	200,000	200,000	
Domestic Electrics	Rewiring and wiring upgrade to tenanted properties.	1,500,000	702,080	
Communal Electrics	Testing and Upgrade of communal electrical supplies.	650,000	200,000	
Door Entry Upgrade	Longlands Crt; Lancaster West; Holmfield Hse; Pond House, Grove House, Waynefleet, Shellfleet	150,000	150,000	
Domestic Heating & Energy Improvements	Planned Boiler Renewal & associated energy improvements	500,000	556,579	
Environmental	Various Environmental Improvements	150,000	150,432	
Elemental Renewals (Kitchen & Bathroom)	Continuation of existing renewal programme	3,100,000	3,402,500	797,500
Lifts (fees)	Procurement of lift works to be completed in 2014-15	75,000	75,000	
Communal Heating (feasibility fees)	Options Study and procurement of communal heating upgrades for 2014-15	80,000	80,000	
Fire Safety / Fire Risk Assessments	Essential works identified through FRA's	200,000	200,000	
Roof Renewal & external elemental renewals	Roof renewal and associated external works to Worlds End, Hereford House & others	900,000	481,440	443,560
Commercial Properties		100,000	100,512	
Capitalised Salaries		525,000	incl	
Professional Fees			110,705	
Capitalised Repairs & Minor Repairs		350,000	350,119	
		8,980,000	7,398,559	1,241,060

Agenda Item 7

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION

TMO BOARD
5th September 2013

APPOINTMENT OF MANAGING DIRECTOR OF REPAIRS DIRECT TO THE REPAIRS DIRECT BOARD

REPORT BY COMPANY SECRETARY & HEAD OF GOVERNANCE

1. Purpose

The Board is asked to appoint Andy Marshall, Managing Director of Repairs Direct to the Board of the subsidiary and note the resignation of Peter Dunne, Interim Managing Director of Repairs Direct.

FOR DECISION

2. The TMO Board agreed the constitution of Kensington and Chelsea TMO Repairs Direct Ltd (Repairs Direct) at its meeting on the 8 January 2013. Under the Constitution all appointments to the Board of Repairs Direct are made by the TMO Board.
3. Peter Dunne informed the Company Secretary that he wishes to resign as a Board Director of Repairs Direct with effect from 6th September 2013, as he is handing over the running of Repairs Direct as an interim to the permanent Managing Director, Andy Marshall. The Board is asked to note the resignation.
4. The Board is asked to appoint Andy Marshall, Managing Director to the Board of Repairs Direct. The Company Secretariat will notify Companies House.

Angela Bosnjak-Szekeres
Company Secretary and Head of Governance

Agenda Item 8

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION

TMO BOARD
5th September 2013

FEEDBACK FROM THE COMMITTEES

REPORT BY COMPANY SECRETARY & HEAD OF GOVERNANCE

1. Purpose

The Board is asked to note the matters discussed by the Operations Committee at its meeting on 1st August and agree the revised terms of reference for the Committee.

FOR DECISION

2. The Operations Committee looked at the performance update and received reports from the Neighbourhood Management team and the Home Ownership Team about their performance. Members also received an update on key projects within the TMO and the annual report on complaints.
 3. The Committee also discussed the procurement process for the capital programme and it was agreed that it is important for the Committee to be able to comment on the bigger contracts before they are agreed.
 4. The Committee agreed the Vice Chair of the Committee. There were two nominees and Members agreed that Brendan Tracey and Iain Smith should serve as Vice Chairs of the Operations Committee for the next year.
- ##### **5. Term of Reference**
- 5.1. The Committee looked at the revised terms of reference (appendix 1) which have been updated to reflect the Committee's role in monitoring matters in relation to the new subsidiary, Kensington and Chelsea TMO Repairs Direct.
 - 5.2. The Committee agreed to recommend the revised terms of reference to the Board for approval at its September meeting.

Angela Bosnjak-Szekeres
Company Secretary and Head of Governance

TERMS OF REFERENCE OF THE OPERATIONS COMMITTEE

1.0 Constitution

1.1 The Operations Committee (the 'Committee') is a Committee of the Board. The Committee shall have delegated authority in respect of those matters set out below, and any other matters specifically delegated to it by the Board on an ad-hoc basis. The Members of the Committee shall at all times operate within the constitution of the KCTMO, and the Standing Orders of the organisation of which these Terms of Reference form part.

2.0 Purpose

2.1 To consider key strategic issues that affect the operational aspects of the **Group**¹, including performance management, progress against the business plan, project updates, procurement, asset management and monitoring and delivery of the Health and Safety Strategy/Policy.

3.0 Membership

3.1 Committee Members will be appointed by the Board and shall be a minimum of seven with at least one Council and one Appointed Board Member, and will be selected where possible on the basis of their expertise and experience in the areas delegated to the Committee.

3.2 The Board will review the membership of the Committee yearly after the elections for resident Board members to ensure that the most appropriate members are appointed in line with the skills required. The time of serving on the Committee shall run conterminously with the Board's membership on the Board.

4.0 Chair

4.1 The Board shall appoint the Chair, who shall be a Resident Board Member. By exception the Chair of the Committee can request that another Member chairs the meeting to cover occasional absence.

5.0 Secretary

5.1 The Company Secretary shall act as Secretary to the Committee and attend all meetings providing advice and service as required.

6.0 Quorum

¹Group – The Royal Borough of Kensington and Chelsea Tenant Management Organisation and Kensington and Chelsea TMO Repairs Direct

6.1 The quorum necessary for the transaction of business shall be five, to include one Independent or Council Appointed Board Member. If the meeting is not quorate the Chair can take the meeting through the business on the agenda however no decisions can be actioned until ratified by the Board or the next meeting of the Committee.

7.0 Meetings

7.1 Meetings of the Committee shall be summoned by the Company Secretary, giving not less than 48 hours notice, at the request of the Board, the Chair of the Board or by the Executive Team.

7.2 The Committee shall meet not less than quarterly and more often if required.

7.3 The Committees Chair shall report formally to the Board on its proceedings through minutes or other appropriate methods with recommendations where appropriate.

8.0 Duties and Powers

8.1 The Committee shall have delegated powers:

- i) To monitor the implementation and progress of the Group against key milestones of the operational aspects of each company's Business Plan and service improvement plans.
- ii) To assess value for money and the efficiency of the business Group and make recommendations to the Board.
- iii) Review and assess staffing and restructuring plans relating to operational delivery and make recommendations to the Board.
- iv) Review and approve operational non statutory policies.
- v) Monitor and review equalities and diversity aspects of service delivery.
- vi) Monitor the progress and performance of the capital works programme
- vii) Review, challenge and monitor key performance indicators and benchmarking for the Group and make recommendations to the Board.
- viii) Review the strategic delivery of leasehold services, including consultation, involvement, RTB and non statutory procedural matters, income and service charge collection and LSVT challenges.

¹Group – The Royal Borough of Kensington and Chelsea Tenant Management Organisation and Kensington and Chelsea TMO Repairs Direct

- ix) Review and monitor the Asset Management Strategy objectives and implementation plans and make recommendations to the Board for approval.
- x) Review and monitor the Procurement Strategy and implementation plans and make recommendations to the Board for approval.
- xi) Monitor the progress and performance of capital and revenue programmed works and revenue service accounts.
- xii) Scrutinise the procurement and approve **KCTMO** contracts between £500,000 and £1,000,000 in accordance with the Financial Regulations
- xiii) Scrutinise the procurement of **KCTMO** contracts over £1,000,000 and make recommendations to the Board for approval.
- xiv) Monitor the **organisations Group's** Health and Safety Policies to ensure the Board receives assurances that the **TMOs Group's** contractors, residents and public policies are robust and ensure any action required is taken quickly and the Board is made aware of risks.
- xv) Ensure any new or increasing risks profiles from the operational delivery of services is fed into the risk strategy and reported to the Finance, Audit and Risk Committee and the Board.
- xvi) Monitor the **Group's** Complaints Policy in relation to operational matters receiving reports on outcomes and lessons learnt.
- xvii) To evaluate the submissions from the ARBs, RA's and Compacts for the RBKC Housing Regeneration Programme funding, using the Councils criteria to evaluated bids and make recommendations to the Council on funding programmes and to receive updates on progress against the approved programme.

¹Group – The Royal Borough of Kensington and Chelsea Tenant Management Organisation and Kensington and Chelsea TMO Repairs Direct

Agenda Item 9

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION LIMITED

Open

For note and decision

BOARD 5TH SEPTEMBER 2013
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Authority for decision:	The Business Plan is a strategic document of the organisation and therefore it is necessary for the Board to agree it.
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Recommendations:	The Board is Recommended to agree the revised Business Plan and choose a Board Business Plan Champion.
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Regulatory/legal requirements:	The Business Plan is a strategic document of the organisation and therefore it is necessary for the Board to agree it and be involved in the process of developing it.
---------------------------------------	--

Report title:	The timetable for rewriting the Business Plan and choosing a Board Business Plan Champion
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Business Plan link:	A new version of the Business Plan
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Equality Impact Assessment/comment:	None but individual service plans will be assessed with regard to equality & diversity.
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Resident consultation:	Will be carried out
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Resource implications/VFM statement:	The Business Plan is the strategic document which drives the work of the organisation.
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Risk:	
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Appendices:	One
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Total number of pages including appendices:	
--	--

Name, position and contact details of author:	<p>Yvonne Birch Director of People & Performance</p> <p>Janet Seward Policy & Improvement Manager x 6350</p>
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**THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
TENANT MANAGEMENT ORGANISATION LIMITED**

TMO BOARD – 5th SEPTEMBER 2013

REPORT BY DIRECTOR OF PEOPLE & PERFORMANCE

**THE TIMETABLE FOR REWRITING THE BUSINESS PLAN AND CHOOSING A
BOARD BUSINESS PLAN CHAMPION**

1. PURPOSE

1.1 The purpose of this report is to present the timetable for rewriting the Business Plan to the Board and choosing a Board Business Plan Champion.

FOR DECISION

1.2 The TMO Board is **Recommended** to agree the timetable and choose a Business Plan Champion.

2. INTRODUCTION AND BACKGROUND

2.1. The Business Plan was originally written in 2009 to cover the period to 2014. Because of the many changes that took place from 2009 to 2012, both in housing legislation and within Kensington & Chelsea TMO, it was decided to revise the plan in 2011/12. This revised version was built upon the TMO's business change and successes in:

- i. Reversing the Housing Revenue Account deficit
- ii. Achieving savings of £.5m 2012/13
- iii. Improving performance of 98% of our targets (excluding repairs)
- iv. Improving customer satisfaction from 68% in 2008 to 79% in 2011
- v. Maintaining effective governance and a strong Board
- vi. Achieving better working conditions for staff with new offices at the Network Hub and the Blantyre Centre
- vii. Developing excellent reception facilities
- viii. Initiating growth by winning the management contract for Stable Way travellers site
- ix. Securing £6.2m to carry out regeneration work at Grenfell Tower.

2.2. The revised plan was agreed by Board on 29th March 2012. A copy is attached for reference.

2.3. The revised Business Plan comes to the end of its life at the end of this financial year. It is therefore necessary to put together a new plan for the period 2014/2019 based on our current achievements and in the knowledge that RBKC agreed with the TMO's Self-Assessment Five Year Review of Good with Excellent prospects.

3. THE BUSINESS PLAN PRIORITIES

3.1. Our priorities in the current Business Plan were agreed as:

- Increase resident satisfaction and put customers at the centre of everything we do;
- Raise housing service standards by delivering quality and accessible services;
- Grow our business and protect our assets;
- Maintain financial viability through the management of the KCTMO account and Housing Revenue Account (HRA);
- Improve organisational capability.

3.2. While these priorities have remained unchanged, they have now been firmed-up into strategies rather than aspirational targets. It seems likely that the TMO's priorities for the next five years will be similar. It is also likely however, that they will be weighted differently and that the 'harder' priorities will feed into the priority of resident satisfaction.

4. POSSIBLE REVISED PRIORITIES

4.1. The consultation for the new Business Plan will be an opportunity for the Board, residents and staff to put forward what they consider important and generally to hear their views. The Board Awayday discussions on 14th -15th June will also be fed into these discussions..

4.2. Since 2011/2012, there has been much emphasis on Business Growth through:
Growth Strategy

- Asset Ownership
 - Savills recommendation that the TMO should be RBKC's strategic partner

Board Awayday comments:
Set the vision and vehicle for delivery with the Council.
Have a 10 year vision and a way of getting there.
Establish the role of the TMO in regeneration
Build new homes.
Be more commercial.

- Repairs Direct which will grow the organisation by 25%

Board Awayday comments:
Bedding, delivering and growing Repairs Direct into a top class repairs service.
Repairs Direct staff should be engaged in the company vision and

link to other service areas.

Regeneration Strategy

- Asset Management
 - Hidden Homes programme is being delivered at Holmefield House and Greaves Tower
 - Grenfell Tower project
 - Rolling Capital Programme

Board Awayday comments:
The TMO should take the lead in regeneration.
Agree the improvement and environmental standard for new and existing homes.
Increase capital investment programme and energy efficiency, within the range of affordability.
Improve information to residents on the capital programme.
Work with the Council to increase funding for improvements.

- 4.3. Working with our Communities has become an increasingly important theme, especially since the introduction of Welfare Reform legislation. As a result the TMO has increasingly become involved in:

Resident Engagement Strategy

- Youth work
 - The Youth Forum
- Employment Opportunities
 - Map out your Future Road Shows

Board Awayday comments:
Give support to residents experiencing welfare benefit changes.
Initiate welfare and training opportunities.

- Keeping Residents Centre Stage
 - Raise Service Standards
 - Improve Customer Care

Board Awayday comments:
Strive for high standards resulting in exceptionally satisfied residents.
Improve the quality of standards and services.
Improve communications to keep in touch with grass roots opinion.
Integrate functions and services for better outcomes.
Evaluate social value and impact of our services.
Be more visible and accountable.
Invite residents into the planning process – change together, go forward together.

- 4.4. Underpinning the TMO's customer-facing role is the need to Improve our Organisational Capability:

Business Change

- Lead on Business Change Project with RBKC to deliver key objectives on HRA Business Plan and VFM

- Encourage and support staff to improve customer service by embedding a more commercial outlook to the business

Board Awayday comments:
Increase efficiency and elimination of waste.

- Invest in and support our staff to provide an excellent service

Board Awayday comments:
Improve capacity and skills of staff.
Achieve excellence in service delivery

- Income maximising
 - Parking review
 - Rent Income Collection
 - Service Charge Collection

Board Awayday comments:
Manage income collection.
Achieve high rent collection and low voids.
Increase income from parking and community centres.
Build on our capacity to deliver increased income.

5. BOARD BUSINESS PLAN CHAMPION

- 5.1. It is important that the Board are fully engaged in the Business Planning Process and so it is suggested that the Board choose a Business Plan Champion.
- 5.2. The champion will receive regular opportunities to review up-dates on the progress of the plan as well as an invitation to any meetings to discuss the plan.

6. TIMETABLE

6.1. In Quarter 3

- i. Consultation with residents
 - Arrange two evening meetings at 346 and two afternoon meetings at Network Hub and Blantyre
 - Produce a report for discussion for Resident Engagement Panel 10th October
 - Discuss at November Board Awayday
- ii. Consultation with staff
 - Arrange a session at Network Hub
 - Arrange a session at 346
 - Arrange a session at Blantyre

In Quarter 4

- Report findings to January Board and agree a way forward
- Report findings to Resident Engagement Panel

- Present completed BP to Board at March Board.

Yvonne Birch
Director of People & Performance

Janet Seward
Policy & Improvement Manager

██████████
jseward@kctmo.org.uk

Agenda Item 10

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
TENANT MANAGEMENT ORGANISATION LIMITED

TMO BOARD – 5th SEPTEMBER 2013

REPORT BY DIRECTOR OF PEOPLE & PERFORMANCE

WELFARE REFORM IMPACT

1. PURPOSE

The purpose of the report is to provide detailed information on the effects of the Bedroom Tax

1.2 The TMO Board is invited to comment on the information.

2. INTRODUCTION AND BACKGROUND

Bedroom Tax

1. Introduction

1.1. In April the Government's welfare reform changes began to roll out across the country, with the under-occupancy housing benefit deductions, known widely as the 'bedroom tax', the first significant change for the TMO's tenants.

1.2. This paper provides an overview of the TMO households affected by the legislative change, the impact to date on the TMO's rent collection rates, and work undertaken by our Welfare Reform Officers.

2. Number of impacted households

2.1. At the end of July there were 388 TMO households subject to the under occupancy housing benefit deductions, with an average shortfall per week of £21.95.

2.2. Of the 388 households, 83.8% (325) were under-occupying by one bedroom with an average weekly shortfall of £19.13, and 16.2% (63) were under-occupying by two or more bedrooms with an average weekly shortfall of £36.48.

2.3. It should be noted that the list of households affected by the bedroom tax is not a static list. Each month we receive an update from RBKC’s Housing Benefit department, and each month the number of tenancies alters as household circumstances change – with claimants making new Housing Benefit (HB) claims, coming off HB completely, or renewing claims as their personal circumstances change (such as the birth of a child, an older child leaving home, providing proof of overnight carers, employment hours changing, etc.)

2.3.1. The attached dashboard shows the movement each month of additions and removals from the list, with further detail shown on reasons for removals.

3. Profile of impacted households

3.1. Age of Lead Tenant

3.1.1. The table below shows the age group ranges across which the lead tenants of the affected tenancies fall into.

3.1.2. We do not hold lead tenant date of birth data in our database for **31.44%*** of the 388 tenancies; however, when cross referenced with the tenancy age (see 3.4) it would appear that the majority of this group are aged over 40, with a quarter probably over 50.

Age group of lead tenant	No.	% of group
Under 25 years	1	0.26%
25-35 years	10	2.58%
35-45 years	35	9.02%
45-55 years	116	29.90%
55-65 years	97	25.00%
65 and over	7	1.80%
Age unknown	122	31.44%
Total	388	

3.1.3. The data shows that the householders affected are predominately over the age of 45, a predictable outcome given that spare rooms are often an outcome of children moving out of the family home as they reach adulthood.

3.2. Ethnicity of Lead Tenant

3.2.1. The ethnicity of the lead tenants in the group is broadly reflective of the TMO population as a whole.

3.2.2. The percentage of tenants where the ethnicity is unknown is slightly higher than the total TMO population, reflecting the fact that almost half of the tenancies are over 20 years old. We generally are less likely to hold profile information on our older tenancies. This information is now collected at the point of tenancy sign up.

Ethnicity of lead tenant	No	% of group
Asian Bangladeshi	3	0.77%
Asian Indian	1	0.26%
Asian Other	3	0.77%
Asian Pakistani	1	0.26%
Black African	0	0.00%
Black Caribbean	21	5.41%
Black Other	19	4.90%
Chinese	1	0.26%
Filipino	1	0.26%
Latin American	3	0.77%
Mixed Other	3	0.77%
Mixed White & Asian	2	0.52%
Mixed White & Black African	2	0.52%
Mixed White & Black Caribbean	5	1.29%
Moroccan	11	2.84%
Other Arab	13	3.35%
Portuguese	3	0.77%
Prefer not to say	7	1.80%
Somalian	1	0.26%
Spanish	4	1.03%
Unknown	139	35.82%
White British	102	26.29%
White Irish	12	3.09%
White Other	31	7.99%
Total	388	

3.3. Length of tenancy

3.3.1. Reflecting the average age of the tenants in affected properties, the average length of tenancies subject to the bedroom tax is quite long, with nearly 50% over 20 years in length.

Length of tenancy	No	%
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Under 5 years	33	8.51%
5-10 years	35	9.02%
10-15 years	52	13.40%
15-20 years	77	19.85%
20-30 years	126	32.47%
30+ years	65	16.75%
Total	388	

3.4. Dependents in household

- 3.4.1. Off the 388 households, 64 (16.5%) have dependent children living in the home. The total number of dependant children in these 64 households is 90.
- 3.4.2. The majority of these households are under-occupying by one bedroom only, 89%.
- 3.4.3. The average shortfall for households with dependent children is £22.52 per week.
- 3.4.4. Twenty one of these households have applied for and are receiving discretionary housing payment.
- 3.4.5. 31.3% of these households have seen an arrears increase since April 2014, a further 25% have managed to reduce their arrears. The remaining 43.8% of accounts have remained static.

3.5. Location

- 3.5.1. The table below shows the location by ward of the households affected.

Ward	No	%
Abingdon	3	0.77%
Brompton	4	1.03%
Campden	4	1.03%
Colville	30	7.73%
Cremorne	65	16.75%
Earls Court	1	0.26%
Golborne	77	19.85%
Hans Town	26	6.70%
Holland	2	0.52%
Norland	23	5.93%
Notting Barns	77	19.85%
Parsons Green & Walham	4	1.03%
Pembridge	7	1.80%

Redcliffe	9	2.32%
Royal Hospital	7	1.80%
St Charles	37	9.54%
Stanley	12	3.09%
Total	388	

4. Impact on rent collection

- 4.1. When setting rent collection targets for the 2013-14 financial year we anticipated that we would collect at least 50% of the deducted Housing Benefit from the tenants affected. We based this estimation on reported analysis and feedback from the sector.
- 4.2. We projected a decrease in the arrears of other TMO rent accounts; however, we judged that it would be lower than in 2012-13 due to the additional workload from the bedroom tax, benefit cap and Universal Credit preparation. Therefore we set an overall rent collection target of 99.57%.
- 4.3. To date we have exceeded our year to date targets, limiting the overall arrears increase to £9,000 by July end against a predicted potential increase of over £60,000.
- 4.4. For the 388 tenancies:-
- 4.4.1. 38.92% of rent accounts have remained static (i.e. accounts that were clear at the end of 2012-13 have remained clear, or accounts in arrears have neither decreased nor increased)
 - 4.4.2. 23.71% of rent accounts have reduced arrears
 - 4.4.3. 38.92% of rent accounts have increased arrears
- 4.5. For the 38.92% (151) of tenancies with increased rent arrears the average increase by the end of July was £217 per household, with a combined arrears increase of £32,815; however, much of the increase has been offset by reductions in the arrears of 23.71% of the group.
- 4.6. Overall, the arrears of the group have increased by £9,058 since week 52.
- 4.7. By the end of July 136 households had applied for and been granted discretionary housing payment (DHP) for a limited period of time. This has assisted in minimising rent arrears whilst tenants review other options, such as moving via mutual exchange or transfer, gaining employment, etc. All households have been contacted to advise them that they can apply for DHP.
- 4.8. A number of the DHP awards issued since April are due to end over the next few months.

5. Welfare Reform Officers

- 5.1. We have recently recruited two new Welfare Reform Officers whose role is to work directly with affected households to assist and advise them in their response to the 'bedroom tax', e.g. help with making DHP applications, budgeting, encouraging membership of Homeswapper for those households interested in moving, making referrals to Pathways to Work, etc.
- 5.2. Since April the officers have had direct contact with around 330 households. For the remainder calls and visits have been attempted and they will continue to work to establish contact.
- 5.3. They have made 32 referrals to the Pathways to Work programme.
- 5.4. Around 15 additional households have confirmed that they have signed up to the mutual exchange website, Homeswapper. Other households have registered their interest in being moved via an RBKC transfer application.
- 5.5. To minimise arrears increases they have concentrated their efforts on those households identified at the highest risk, such as those with existing arrears and those with the greatest levels of HB deductions.

Author: Siobhan Bowman, Performance Manager, KCTMO
Date: August 2013

Agenda Item 11

THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA TENANT MANAGEMENT ORGANISATION LIMITED

TMO BOARD – 5th SEPTEMBER 2013

THE TIMETABLE FOR THE TEST OF OPINION PROCESS

1. PURPOSE

- 1.1 The purpose of this report is to present the timetable for the Test of Opinion process.
- 1.2 The TMO Board is **recommended** to note this report.

2. INTRODUCTION AND BACKGROUND

- 2.1. The Modular Management (MMA) sets out the way that the TMO manages the council's housing stock on behalf of the Council. It gives details of what is expected of the TMO regarding, among other things, Repairs and Maintenance, Financial Management, Tenancy Management, Rent Collection, Service Charge Collection and Performance Monitoring. The MMA with the Council is based on a template issued by the Department of Communities and Local Government.
- 2.2. At every Annual General Meeting (AGM), members are asked to consider a resolution that the TMO continues to manage the properties under the terms of the agreement. Every five years, all residents are asked by secret ballot whether this agreement should continue. This process is called the Test of Opinion.

3. THE PROCESS

- 3.1. The voting process is being organised by an independent provider of election services, UK Engage, and is timed to run during late August and early September with the whole process culminating at the Residents' Conference and Annual General Meeting (AGM) on 21st September.

3.2. There are some variations with regard to how members and non-members cast their vote:

Members will be able to vote:

- i. By post (papers will be mailed out later this month)
- ii. On line (there will be a hyperlink from the TMO website to UK Engage)
- iii. At the AGM

Non-Members will be able to vote:

- i. By post (papers will be mailed out later this month)
- ii. On line (there will be a hyperlink from the TMO website to UK Engage)
- iii. At some estate community rooms

3.3. Five community rooms will be open on the dates as listed below between 4pm and 8pm.

10 th September	Henry Dickens Court Club Room, Henry Dickens Estate, St Ann's Road London W11 4DS
12 th September	Kensal Resource Centre, Appleford Road (base of Adair Tower), W10 5EA (off Golborne Road)
17 th September	Portobello Court Club Room, (Aston House), London W11 2DH (at the entrance to the estate on Portobello Road)
11 th September	Pond House Resource Centre (John Keys), Pond Place London SW3 6QT (off Fulham Road)
18 th September	World's End Estate (Residents' Association), Blantyre Street, SW10 0EW (off Chelsea Embankment)

3.4. Each community room will have an area operated exclusively by UK Engage where the voting will take place. Additionally, and apart from the voting process, TMO staff will be available for service enquires and refreshments will be provided.

3.5. TMO staff will 'door-knock' in the locality of the each community room to encourage non-members to vote and to deal with any enquiries that they may have (both about the process and about general matters). Staff will also encourage members to vote on-line or by post, or indeed, to go to the AGM.

3.6. Non-members will also be able to vote at the receptions of the Network Hub and the Blantyre Centre.

4. THE QUESTIONS

4.1. The questions to be asked are as follows:

- i. Are you satisfied with the overall quality of your home? Yes/No
- ii. Are you satisfied with your neighbourhood as a place to live? Yes/No
- iii. Taking everything into account, are you satisfied with the service provided by the TMO? Yes /No
- iv. Do you want the TMO to continue managing your home? Yes/No

5. THE TIMETABLE

5.1. UK Engage will send packs out to residents during the first week in September and a reminder letter will be sent towards the end of the voting period. The poster campaign will commence during the first week in September. Voting will take place at various community rooms during September and at the Residents' Conference and AGM on 21st September.

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