88 Seymour Street method statement for the removal of the 1FF Statuary Marble Chimney-piece, its transportation, restoration, including the provision of a new moulded frieze and soffit return, and to delivery and re-installation.

1st June 2021



## **REMOVAL**

Dismantling the chimney-piece will require craftsmen experienced in the manner that the chimney-pieces were fitted originally. Both partners of Melluish & Davis have been removing, restoring and installing chimney-pieces for over thirty-five years and have handled highly important examples of some of the finest chimney-pieces made in Britain in the 18<sup>th</sup> and early 19<sup>th</sup> century (refer to melluishanddavis.com web site). Removal of the chimney-pieces will be undertaken with one partner present as part of the team responsible for the dismantling, labelling and carrying away of the chimney-piece.

Prior to commencing the dismantling process, we will need to have received confirmation that planning permission has been obtained and that we have clear and free access to both the room with no other operatives present (COVID safe precaution) and clear and free access down the stairs and through the entrance hall once the chimney-piece has been removed to enable the carrying down of the dismantled elements (COVID safe precaution).

Prior to commencing removal, the nature of the adjoining materials will be tested, as areas of sand and cement render will require reviewing and some test trials undertaken about cutting away any of this. Preliminary trials however indicated that plaster of Paris had used to form the final fix so it should be possible to effect the external removal of the retaining wall without too much difficulty. Some decisions will require taking on site, but it is important to note that from the outset that Melluish & Davis's priority is the safe removal of the historic chimney-pieces ensuring the very least amount of damage is caused to the historic elements and thereby allowing for the re-use of as much of the original as possible. Please therefore note that in consideration of this it is important to note from the outset, that our policy allows for the eventuality that it may not be actually possible to remove a chimney-piece because of the potential damage that might be caused to it during that removal process, and therefore clients may be required to construct substantial, re-enforced protective cases which are independently alarmed, in order for the chimney-piece to remain on site and be cleaned in situ. It is further important to note that such a decision is commonly not taken without discussions with the client and architect, for many of the chimney-pieces will have accumulated large quantities of coal smoke and soot behind and within various component parts (particularly the plinth blocks, jambs and soffit/frieze), and it is generally important that all such deposits are removed prior to any cleaning or consolidation work is commenced. Therefore, it is generally better to remove chimney-pieces in elemental form than to undertake work cleaning in situ.

Prior to removal, the chimney-piece will be reviewed and a discussion as to how best to approach the removal of the later raised slab undertaken. Suitable protection will be put in place and once removed the slab will be set aside for safe storage on site. The means by which these types of early 19th century chimney-pieces were installed will govern much of the removal process. Each of these individual elements would have been erected true and level, set back within the wall finishing of the room (so often set back an inch or so -25mm within the existing plaster, lath and plaster, timber etc.), and secured to the fabric of the building by metal cramps or holdfasts, but in some instances these were just secured onto blocks within the elements, rather than being set into specific cramp holes. Identifying the location of and releasing these hold fasts is key to removing each chimney-piece element safely, and when identified and removed the elements can be carefully dislodged from their fixing materials, lifted up, cleared and removed to a suitable location prior to cleaning off and dusting off of any debris, and then crating. Accessing the elements may require the gentle chopping or cutting away an area of adjacent plaster, or sections of casting plaster used to secure the elements to the wall, or the removal of later lime mortar infill/coggage inserted to form smoke seals etc. During the dismantling process Melluish & Davis will record the condition of the individual elements by photographing the process, recording any details such as fracture lines, previous repairs, weak points etc., prior to the removal, thereby providing a full record of condition, wear, damage etc. prior to restoration work starting. This provides a clear and transparent record of the condition of each chimney-piece and its associated elements together with a record of any problematical areas. Images will be provided in electronic form following the complete removal. Needless to say, it is not un-common for some of the chimney-pieces to have been adapted or altered or re-fitted in the past and

therefore from time to time we come across materials that can interrupt the dismantling process. Generally, speaking the main two causes of such interruptions are the presence of asbestos (which will terminate the process until discussions with the Project Management team have established the best way of going forward in conjunction with their asbestos removal specialists) and the use of inappropriate materials for installation such as sand and cement which is stronger than the fragile elements of marble.

As each chimney-piece is removed the separate elements/component parts are carefully laid out adjacent to the works area, so sections of carpet tiles and foam sheeting and flooring protection is laid out to accommodate the elements as they are dismantled. Where it is anticipated that there will be further separation of carved or veneered elements, additional boxes and packing materials as well as envelopes will be required to ensure that even the smallest of fragments can be labelled, packed and secured and re-fitted when the restoration and conservation process commences. Generally speaking, the most complicated aspect of removal is the lifting of the Cornice and frieze and soffit elements. The depth that the Cornice has been set back behind the face of the chimney-breast/paneling needs to be determined and access to these areas gained with the least possible damage to both historic surface and the historic marble. Once the plaster has been cut away the Cornice will be carefully lifted and secured onto a blanket wrapped supporting board for onward transportation. Once cleared access to the blockings and frieze can be gained and with the holdfasts removed these can be lifted clear and set aside. A similar process will be required when removing soffits, but more so, because of the substantial deterioration of the frieze and soffit of this chimney-piece (these elements are no longer adequately supported, have bowed and 'sagged' and bent both downwards and to the centre). The moulded frieze is likely to break, but the sections to the sides are still in good order and the best of these will require saving in order to re-carve a replacement.

Once the soffit and frieze have been removed access to the stove grate and the means it has been secured will become apparent. Historically these tend to be secured via holdfasts and either lime rich mortar or plaster of Paris, but as this appears to be a modern introduction it is unlikely that a large degree of fixing will have been introduced. Once this has been determined the jambs which are generally retained by hold fasts, set into the brickwork of the building with dog ends set into cramp holes within the re-enforcing blocks to the tops of the jambs, can be reviewed. With the cramps detached the jambs can be lifted free. With the jambs removed the plinth blocks will be accessible. These are sometimes secured with hold fasts/cramps, but not always as these tended to be held in place by the historic slab being profiled around their projections. Securing plaster will require cutting away to the back of these and the plinth blocks removing either as single units or more likely in elemental form. Any separation of elements will be detailed in pencil in order to ensure correct re-assembly within the workshop. With the plinth blocks removed the presence of the original historic slab or later replacement will become visible. Where the original slab remains, in good condition, un-fractured and un-broken it can be possible to lift the slab and carry this away for restoration, but such works have not been allowed for within the quotation as the slab was not accessible being covered with a modern black raised slab and later overlaid timber flooring.

## **TRANSPORTATION**

Upon completion of the dismantling process, the chimney-piece elements will be then carried down to the entrance hall, a process in which we are aided by John Paterson Fine Art, with whom we have worked for over thirty years, removing, moving, packing, crating, and transporting chimney-pieces throughout Britain. Once safely packed within blankets, on edge, the chimney-piece will be transported to our premises in Datchet where work on restoration will commence.

## **RESTORATION PROCESS**

Our restoration process commences with a thorough cleaning of all the elements, starting with the removal of as much of the soot deposits to the interior of all elements. Once removed this will allow for soot discolouration to the surfaces to be removed by the application of poultices, following test trials, and the use of non-abrasive cleaning agents in solution. Efforts to minimalize the quantity of de-ionised water required for cleaning will be kept to a minimum in order to reduce the possibility of coal smoke residue, present within the marble, moving into the face of the marble. Additional removal of areas of paint to the extremities will also be required, again following test trials. Some consolidation of the surface of the marble of both chimney-pieces may be required, which will be effected by hand following test trials using a variety of differing materials including amongst others non abrasive cleaning agents, putty powder and a variety of grades of emery and pumice powders. Once the most effective process has been identified, each of the elements will be carefully cleaned and consolidated by hand. Our restoration process is focused on the retention of as much of the original surface as possible with the intention to retain all existing minor areas of historic damage, such as wear and tear from the use of fire tools, coal buckets and the such like. These abrasions, smaller chips, knocks and losses will be carefully cleaned, but where larger sections of mechanical damage require repair, these areas will be identified (as detailed above) and following agreement to proceed, we will splice in of new sections of marble to match the original as best possible to the areas detailed below. These new sections will be secured in place with plaster of Paris or resin glue, subject to test trials and then worked, moulded or carved in and polished to match the original finish as best possible. Once the consolidation and repair work has been completed to all elements, any pieces which have become detached (during removal for example) will be re-joined so that the chimney-piece is re-formed in its original component parts. Once completed all the joints between the elements comprising the chimney-piece will be re-grouted with white plaster and the chimney-piece will then be left to dry. We have allowed for the replacement of the original moulded frieze and soffit and its return as these have deteriorated beyond repair. In order to produce a copy we need to source as close a pure white marble as possible to that of the historic circa 1810 original white. A section of the original frieze will be cut and sent to our statuary in Carrara who will identify a section of new white statuary marble that matches as close as possible (the quality of the marble available now is radically different in nature, colour and quality to that available two hundred years ago) the original and contains as little veins as possible. This will then be moulded to the exact profile and then returned for hand finishing by us. The frieze and return will be attached to the original liner used within the chimney-piece, assuming that this is in good structural order and not too coal smoke and soot impregnated. The new frieze will be set in place upon the jambs and the marble then coloured as best possible to match the condition and colour of the historic jambs, plinths

Having been allowed to dry the chimney-piece will be waxed (one coat of Renaissance wax) and set up temporarily to confirm all is correct and determine the measurements and requirements for re-installation of the chimney-piece. Following provision of images and the necessary detail required for installation, the chimney-pieces will be dismantled and set aside.

## **DELIVERY AND RE-INSTALLATION**

Melluish & Davis Associates Directors have a combined experience of over 80 years installing historic marble chimney-pieces. This is focused on ensuring that every possible action effected by us reduces the risk of damage to the chimney-pieces whilst being installed. This process take priority over all aspects of our work and accordingly it is important to note that all preparatory work required on site needs to have been completed before any installation work commences. Experience has taught us that when this is not the case, there is a greatly increased risk to the chimney-pieces if they have to be returned to the workshop or more seriously if they are left on site whilst alterations are made.

Prior to installation M&D Ltd will provide details of the depth width and thickness required for the slab and any hearth support to be set in place. Slab supports may need checking by the structural engineer and need to be set to follow the historic fall of the existing flooring or be set true and level if the flooring is being levelled. Slab supports, for 30mm new slabs, should be set 36mm below the FFL to allow for the slab and a 6mm adhesive bed and formed from non-combustible materials in order to comply with building regulations. These should extend the width of the slab being re-fitted together with plus 50mm to either side and 50mm to the front edge to enable us to wedge the slab correct in relation to the flooring, thereby allowing work to progress at pace. All supports will need to have been set in place at the correct depth and distance prior to our scheduled installation dates and any flanking skirting boards or chair rails removed and set aside for re-installation after the chimney-pieces have been fitted. Please note existing lintel height (brick arches) may require adjusting if it is in poor condition, or an incorrect height as a result of flooring level changes, in order to enable the chimney-pieces to be re-fitted. Therefore, new fireplace openings, whose dimensions accord with the requirements for each of the chimney-pieces, may need forming/adjusting. Details of the lintel heights and fireplace openings will be provided as the restoration work on each chimney-piece is completed and the items then temporarily erected for review and confirmation of the internal treatment of the fireplace openings. Details will then be forwarded to the design team and thence to the contractor. We are not specialist gas safe engineers, but as we understand that the chimney-piece is to be used as an operational gas fire, we recommend that the flue is swept before any liner is introduced and checked for integrity on the off chance that the flue may still be safe to use. If not the flue will require lining and a new cowling introduced at a height above the lintel in order not to interfere with the installation of the stove grate. The gas supply pipe (fully protected with denso tape) will need to be located within voids within the slab and hearth support the upper face of which should not be lower than 37mm below the FFL in order not to interfere with the slab and hearth installation. We generally suggest that the gas supply pipe emerges centre of the fireplace opening, set back from the back edge of the slab by say 6", 150mm, but such decision will be governed by site conditions and the gas safe engineers' requirements. Some consideration to ventilation will probably also be required for the safe operation of the gas fire. Given the narrow width of the chimney-breast we would recommend that an on/off cock for the supply is introduced into the return of the chimney-breast's skirting in order for the

hatch to be less conspicuous. We have not allowed costs for the full installation of the stove grate as this would require the supply of a Portland stone hearth which will require a channel cutting to allow the gas supply pipe to protrude. Additionally, a quantity of lime rich mortar @ 1 bag washed sand to ¼ bag hydrated lime plus *coggage* will be needed for securing the lower back of the stove grate plus perhaps 2 bags vermiculite for infilling the voids plus a further 2 bags washed sand to 1/2 bag hydrated lime plus a quantity of white cement to form a throating to the top of the stove grate. Main contractor to supply materials to be delivered to site in advance of installation date.

Once the installation date has been confirmed, the chimney-piece will be loaded as individual elements onto the specialist carriers' vehicle operated by John Paterson with the loading aided by M&D Ltd. To reduce risk of damage to the various elements and in order to reduce the risk of damage prior to installation the contractor will need to ensure that the most direct and easiest access to the various rooms has been cleared prior to delivery and that a suitably large area directly in-front and to one side of the location that the chimney-pieces, tiles, hearths, linings and any grates to be fitted has been cleared. We appreciate that other trades may need to be operating within rooms to suit the project's completion schedule, but due to Covid Safe Precautions we expect no other trades to be operating during re-installation. Delivery will be scheduled so as to comply with the contractors' program as best possible given our other commitments but please note that the Directors and John Paterson, do not have any CIS documentation, but would be required to aid our installers in getting the valuable fragile elements into the various rooms and safely stacked and fitted.

Specific installation detail will be governed by the depth of the external returns, which appear to be deeper than the external returns. As previously fitted, the outer edges will require setting back within the plaster face in order to provide a solid fixing and to accommodate this a larger area is required to be cut out by say 20mm to either side and 20mm above the top of the Cornice. This allows adjustment in order to align the various mouldings and elements such as fascias which require such tolerances. Once cut away, the slab supports and wall and brickwork will require sealing with a PVA solution so as to reduce suction and prevent movement of soot within the historic brickwork into the marble. Once cured work can commence on the fitting of the chimney-piece. The new or restored historic slab will require bedding and having been wedged in place in order to be flush with the finished floor level and to enable work to progress, the plinth blocks will be located on card packers to allow movement. These will be, checked for level individually and as a whole and paralleled with each other and the outer edge of the slab. With further packers to allow movement of the jambs upon the plinths, the jambs will then be levelled and the distance across the outer edge of the architrave mouldings checked to ensure that the soffit section/architrave will fit correctly. With the jamb and slip elements located correctly in relation to the historic fireplace opening, these elements will be secured to the fabric of the building with rawl plugs let into holes drilled into the brickwork and the copper wire secured with screws and fine casting plaster. Additional blockwork in the form of sections of stone/slate/thermalite may also be introduced at this point to provide additional strength to the back of the chimneypieces, again secured in place with casting plaster. The soffit and frieze will then be lifted into place, the junction of the soffit return to the lintel secured with a slate cover plate/thermalite blockwork and the frieze again cramped back to the fabric using copper wire set into pre-cut cramp holes within the chimney-pieces and screws set within rawl plugs. Once secured and the back of the frieze infilled with mortar/stone/thermalite, the cornice will be re-fitted to rest true with the exterior line of each marble jamb, checked for level and parallel as best possible across the historic chimney-breast. Where necessary existing cramp

holes will be utilised via copper write cramps and screws and rawl plugs to provide further strength to the installation. Upon completion the joints will be grouted with fine casting plaster and the surface ragged and picked off of any slurry. The outer edges will be secured with further areas of casting plaster to prevent exterior twist and the residual areas will then require some plastering/filling by the contractor prior to decoration/application of wall finishes. Once the chimney-pieces has been fitted work on installing the stove grate can commence, but subject to the form of their original installation, this work may commence as the chimney-piece is being re-fitted. A new hearth stone/slate will be required to support the stove grate, set true and level with the level of the slab. Some cutting on site is likely to be required in order for the gas supply pipe, covered with denzo tape, to be accessible through the new hearth stone. Once this has cured the stove grate can be lifted into place, checked for centre and levelled in relation to the jambs. As indicated a set of slate slips may be required if the existing stove grate is no longer adequately tall enough for the increased aperture height of the chimney-piece. The contractor will need to provide a supply of ready, dry mixed, washed sand and lime for back filling the stove grate in order to secure this to the brick opening and provide a seal and to accommodate any expansion/contraction generated by the heat of the gas fire. The ratio for this mix should be 5 sand to 2 lime and will require delivering in suitable quantities to back fill and allow a flange to be made up from the top of the linings and covings onto the side and back walls of the fireplace opening. M&D Ltd will advise which day the mix will be required and broadly how much will be required but the contractor will need to allow for provision and transportation by their labourers to the various rooms.

As specialist historic chimney-piece restorers and installers, M&D Ltd allow for the installation of the chimney-pieces and their associated elements, but where rendering or screeding works are required to finish openings and particularly rear walls of fireplace openings, such works will require completing by the contractor who should engage an experienced plasterer to effect the works, one that is used to working within confined spaces and conscious of the fragile, easily damaged/scratched surfaces of the various materials used as well as the requirement to keep the moisture levels to a minimum to reduce the possibility of oxidation to polished surfaces.

As detailed above and as a Covid Safe Precaution, clear and free access to the various rooms will be required for the installation work and the number of other trades operating within the vicinity kept to a bare minimum, as the elements are fragile and easily damaged if, for example, they are moved by in-experienced operatives.

Given the fragility of historic marble chimney-pieces, all deliveries to site will require prioritising with regard to access to through routes and the use of existing lifts. It has been our experience that the greatest risk of damage to historic chimney-pieces occurs in transit and thus we expect the contractor to provide every possible assistance in respect to immediate access to the site with clear through routes to enable the chimney-pieces and associated elements to be transported into their respective rooms for installation. It is envisaged that the loading and delivery of the chimney-pieces will take a morning and therefore the contractor will need to accommodate any site induction to suite the arrival on site (probably late morning) of M&D Ltd and John Paterson, together with immediate access to site.

Once each chimney-piece has been installed the contractor should allow for the construction of a suitable case of sturdy construction to protect the chimney-piece and its projecting tiles. This should extend by a minimum of 50mm beyond the ends of the Cornice (plus 100mm

overall), 50mm above the height and project out to also cover the slab projection. The case should be secured to the fabric of the chimney-breast/flooring, not the chimney-piece and should contain inspection holes for better security. We generally recommend that two boxes are constructed from 50mm x 50mm timber with 25mm ply sheeting- one forming a protection for the projecting tiles, with the second case protecting the chimney-piece and resting upon the lower case.