



OLD SCHOOL COURT
TOTTENHAM, NI7 6LY

REPORT INTO INVESTIGATION OF DEFECTS CAUSED BY DAMP AT
FLATS 1, 2, 24 AND 25 OLD SCHOOL COURT

441301

March 2022

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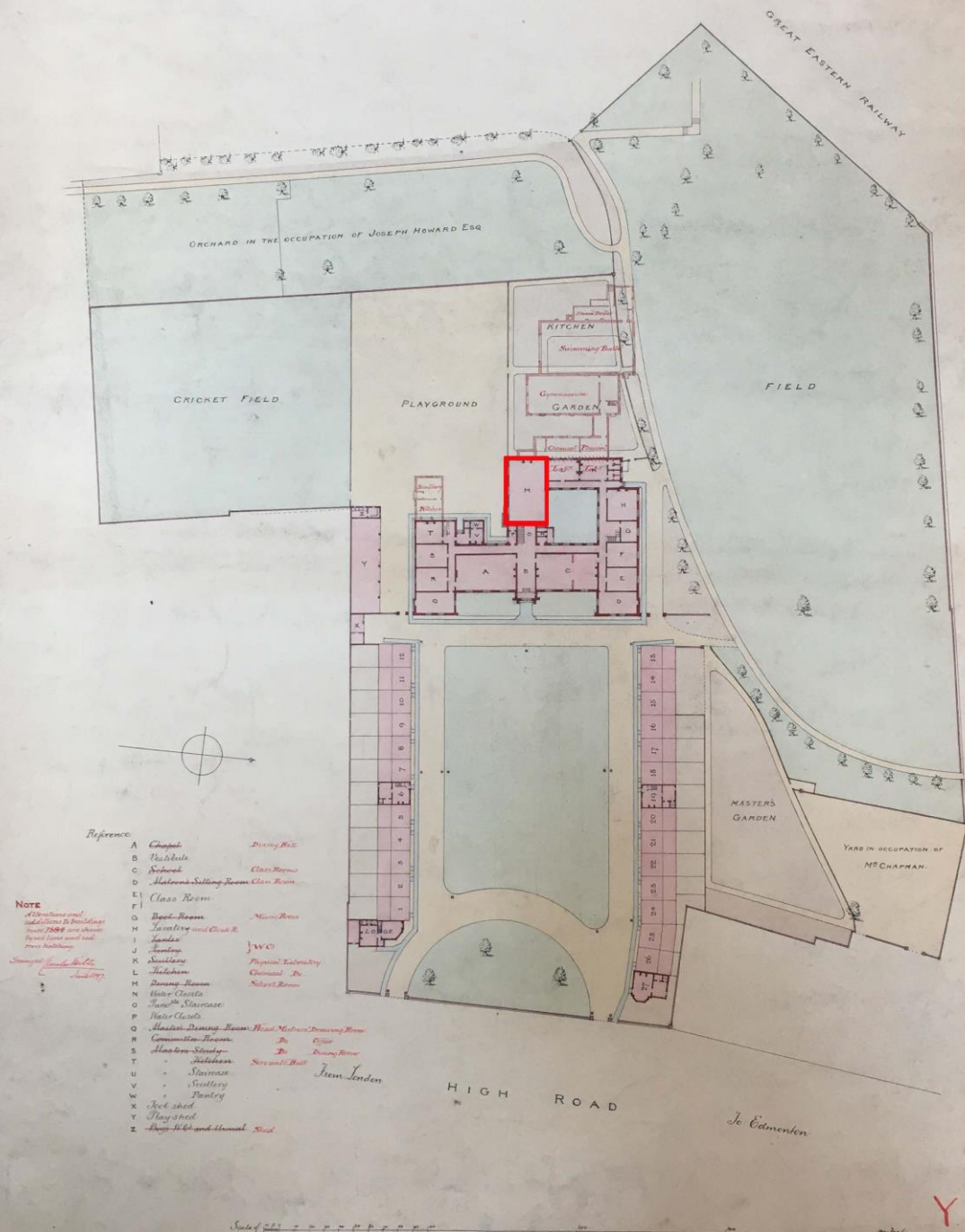
I. INTRODUCTION

- I.1 Thomas Ford & Partners was commissioned by Faithorn Farrell Timms (Damien Apparicio) to investigate the causes of defects at Old School Court, in relation to Flats 1, 2, 24 and 25. This commission relates to the need to address condition imposed by Haringey Borough Council Planning Department in relation to a Listed Building Consent for the repair of defects at Flat 24 and 25, and to report on the particular seemingly smaller defects in Flat 1 and 2.

This report is primarily to present information gained from visual investigations and research of historic drawings, to analyse what has happened to the building so as to cause serious decay problems and suggest approaches to repairs for the long term. The focus of the report is on the construction of the building, because the fundamental causes all relate back to poor construction detailing, and the behaviour of the materials not being sufficiently understood in the implementation of alterations.

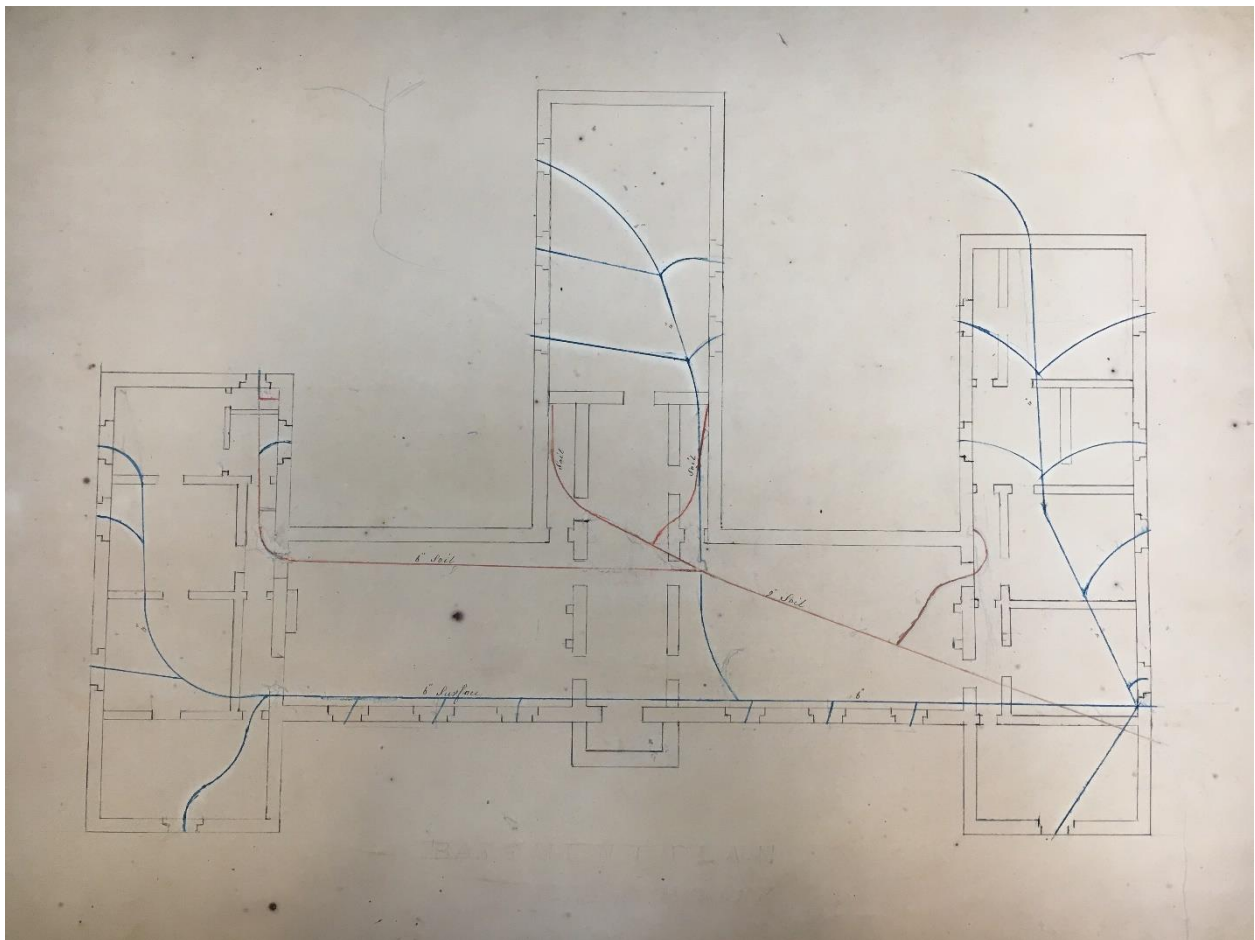
- I.2 On 24 January 2022 Colin Kerr (Thomas Ford & Partners) met Damien Apparicio and Patrick Sexton of Metropolitan Housing Association at Old School Court. DA introduced CK to the buildings and described the defects in the flats. DA outlined the long history, particularly with regard to Flats 24 and 25, of damp problems leading to structural failure of the floors in 24 and 25, caused by extensive dry rot feeding off timbers. I was told that Flat 24 had been vacant for about five years.
- I.3 Further to my introductory visit on 24 January, I visited the site to make an initial visual appraisal on 3 February, followed up by inspection visits on 9 February, 16 February and 4 March when drainage investigations were being carried out by London Drainage. The visit on 3 February was on a dry day following a period of dry wintry weather. The visits on 9 and 16 February and 3 March were following periods of heavy rain.
- I.4 From my initial appraisal of the building and the apparent defects, it seemed that the defects resulted/related for the most part due to unintended consequences of adaptations, changes and alterations to the original construction. I suspected that there had been significant raising of external ground levels, allied with elimination of original external ventilated areas, relating to basement windows and access doors, to serve the basement rooms below 24, 25 & 26. Other reports have drawn attention to the virtual sealing up of the basement spaces below Flats 24 and 25. The building of solid structural walls in the basement has completely sealed off the space creating unventilated conditions. Apart from the space used for meters the basement rooms have since 1996/7 been virtually abandoned and inaccessible.
- I.5 I enquired at the initial meeting about original drawings and those submitted for planning approval for the 1996 scheme and Building Control submissions but it seems that no original drawings had been found or researched and there were no drawings available of the 1996-7 contract works for the conversion of the building to flats.
- I.6 On 14 February I visited the Drapers Company and by permission of the archivist was given access to the Drapers' archive of original drawings. The archive contains many but not all of drawings relating to the 1860 building contract. There are also other drawings up to the disposal of the buildings to the local authority c1907. The 1860 drawings (Herbert Williams) and subsequent drawings (principally by Charles Reilly) are of particular interest for understanding the building construction – and what has gone wrong as a result of alterations. By permission of the Drapers Company I include reproductions of some relevant drawings in this report.

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1884 and 1897 drawing by Charles Riley showing the school, almshouses and lodge, and the proposals for new buildings, including a swimming bath and gymnasium, all of which were eventually executed. Flats 24, 25 and 26 are in the block outlined in red.

- 1.7 I have also had access to reports dated December 2014 and 20 March 2015 by Checkel Dalton Associates and by Preserva-C8S dated 12 October 2020. There is as yet no drainage inspection and report available. I have asked that a drainage inspection be carried out. However, I have noted any over-spilling of rainwater at gulleys around the parts of the building we are concerned with.
- 1.8 This report by Thomas Ford & Partners is based solely on visual inspections and documentary research without further opening up of the construction having been carried out. It should be noted that originally (1860) all the drainage was laid deep below the level of the basement but the existing drains are now arranged as far as possible to run outside the footprint of the building and are at relatively shallow depths. Invert levels should be carefully recorded as part of the drainage survey. Given the relative levels of drainage pipes to internal timber floors at 24, 25 in particular, it is important that drains do not cause leakage into the ground.



The original contract drainage plan of the 1860 scheme. The system was “separate”, that is rainwater and foul run separately (blue and red). Note that all the drains are at very low level – running below the basement floor level and laid to swept curves.

This report is not a design or specification for works which should be drawn up further to investigations into the physical conditions on site as recommended in this report.

2. SUMMARY OF VISITS

2.1 Visit 3 February 2022

On this visit I accessed the basement below 24, 25 & 26 and the interiors of Flat 24 and 25 and measured the floor construction timbers and noted the general construction of the building. The inspection was limited by the absence of any lighting in the basement from which approximately 50% of the floorboards have been removed. The basement to 24 is illuminated by daylight falling through the opened-up ground floor. The basement to 25 is devoid of any daylight, as is that below 26.

Weather crisp and dry after a period of dry weather. The external basement walls of 24 and 25 were tested (Protimeter) and found to be saturated to their full height, despite much of the floor to 24 being opened up and therefore providing a degree of ventilation. The decay caused by dry and wet rot in the timbers at and close to wall surfaces was noted and although there seemed to be no active dry rot, timbers up to about 1 metre from the external walls remain saturated. At floor level of the basement to 24 the floor/wall junction was visibly wet.

On this first visit I noted that there is evidence of former windows and/or door openings through the basement external walls, all of which have been built up solid in brick, precluding all air/light and access to the basement spaces. One former opening below 26 retains a crude shallow wooden cupboard, the frame of which is rotten. This cupboard is in the place of what was probably a doorway. Above it is a ventilation grille, approx. 230x230 iron grid. This is the only vent opening to be found at the basement spaces.



The blocked up opening (initially window by seemingly later made into a doorway) below 23. There is no daylight into this space. The cupboard is just discernible and the glare from the ventilator above it.

The conversion to flats entailed the construction of solid fletton brick walls to support the original fitch beams which now carry the “party” walls of the flats above. This subdivision of the originally large open basement space below 24, 25 & 26 resulted in it being subdivided into six non-ventilated compartments. The 1996/7 reconfiguration did not allow for any access into and through these compartments, precluding maintenance inspections. Rough openings have been knocked through to make passage possible, but this now means that there is now no fire separation between the flats at basement level.

At basement floor level of No. 24 two boiler bases remain in place and adjacent, in a space now covered with concrete floor beams, the lower section of the walls (approx. 800 high) is cement rendered in a manner to suggest that it may have been the bund for an oil tank enclosure. In the corner of the enclosure there is a chimney-like flue rising into the bathroom space of Flat 24 above. I shall refer below to the significance of the changes to the heating systems of the building.

On this first visit I also gained access to Flat 2. The issue here is different to 24 and 25. The defect is well inboard of external walls but has resulted in severe dry rot in the main fitch beam that supports the floor.

No access to Flat 1 was available on this visit.

I also carried out an initial inspection of the above ground external walls to the 24, 25 flats. All the walls are brick faced and seemingly solid brick throughout save for the Portland stone bands etc. By observation I noted that all the external walls to No. 24 and to a lesser extent those to 25 exhibit change of colour caused by presence of dampness, that there is wear-out of brick joints (principally to the courtyard side) caused by salt action and salt disruption of the “painted” surface to the walls to the courtyard side up to nearly six feet above ground level. All this indicates serious rising damp in these walls. The disruption looks not to have been of very long standing and probably relates to alterations in relatively recent times. I also noted plants growing into the walls well above the external ground level; another indication of wetness.



Door to Flat 25 on the right and 26 on the left. Note a) the high level stone corbel that originally supported the roof of a passage, b) the stone head of a former window opening, c) the darkened brickwork (approx. bottom 12 courses) indicating very wet brickwork. Bathrooms are on the opposite side of the wall.



Wall to 24. The entrance door is set within brickwork that forms a recess from the principal wall face. The wall could be thin, 9 inches, because it originally was internal. All the brickwork has been painted with a grey colour-wash. The header arch to the right hand side is where there was a former door. Observe the plants at the raised brick upstand and the Acco drain at wall base. To the right and left of the door salt damage is causing disruption of the surfaces – a sign of bad rising damp.



Corner of 24. (The wall that supports the downpipe is the bathroom end wall. The saturation of the wall is marked by the colour change. Also note plant growth. There is no problem with the downpipe.

2.2 Visit 9 February 2022

This visit was to continue the appraisal of the existing basement construction. As a torch was the sole lighting in the basement the view of the interior remained limited.

I commenced the basement inspection – at No. 24. Looking into the assumed former oil tank space that with rendered lower section, I observed overhead concrete beams supported on a rusty iron frame and posts. This space is only visible through a roughly broken hole in a recent (probably 1996/7) fletton wall.

When inspecting the bathroom space in the flat above, a gap between the top of the concrete and the wooden floor joists of the bathroom was noted, therefore it seems that the concrete has no supporting function whatsoever but probably relates to the use of the space below for an oil storage tank. However, if the concrete beams were intended to present a fireproof floor they would not have performed as the gaps between the beams are not filled. Relevant to present concerns, there seems to have been no insulation under the bathroom floor so there would be high heat loss through the bathroom floor encouraging conditions leading to condensation; a difficult space to warm. The concrete beams seem to serve no purpose now, but their presence precludes the installation of below floor insulation in the bathroom.

I could see blocked basement windows/doorways at the external walls. Brick arches that formed the heads of windows are clearly visible. These are directly below and of similar width to the window openings at ground floor.



Blocked window below 26 central courtyard side. The arched brick head and the brick on edge cill of the original window are visible. All the basement windows below 24, 25 and 26 were blocked.

I also noted slate DPC's incorporated into the original brick walls including horizontal DPC's well below the level of ground floor timbers. This is clear evidence that the original building was thoughtfully constructed so as to preclude the harmful influence of moisture on the construction. However, wherever timbers come into contact with the wet external walls or are built into them, severe decay has occurred, because the wall construction is wet.



The red line shows the level of DPC.

This arched recess was not a window but the structure below a fireplace that served the ground floor room above, originally the dining room of the school. This is where I first noted the position of a traditional double slate damp proof course.

In the basement area below 25 & 26 fibreglass insulation and its supporting netting has been pulled down from between the wooden floor joists above. Some insulation remains in place well away from rot affected areas of the construction. Presumably the insulation was placed to prevent heat loss from the flats above and it has been taken down to allow inspection.

At the modern wall which separates the basement below 24 & 25 the wooden flitch beam retains, in a damaged state, a casing of plaster on a steel mesh, presumably to enhance the fire performance of the wooden flitch beam. Such protection is not elsewhere and probably relates to the basement use as a boiler room.

The single vent grid into the 26 basement is a later insertion, but prior to the conversion to flats, possibly also related to the boiler house. It is noteworthy that the basement ceiling beams, rafters and underside of floor boards retain layers of “white” paint. This is another indication of the basement rooms having all been arranged for use and ceiling heights throughout are of appropriate height.

On 9 February I examined in more detail the external brickwork relating to 24 & 25. The following points were noted:

- Below the ground floor window of Flat 26 there is an inclined scar of a former structure that could relate to covered over external steps down to the basement level. (This is the position of the cupboard in the basement). This would have given ready access to the boiler room.



Window to 26. Note the scar indicating a former covering to protect an external access stair/steps down to an opening into the basement. The brick arch head is visible immediately above the pavement level. Cut into it is the sole ventilator into the entire basement.

- The original stone vents set just above the stone plinth band below the windows have all been blocked. These vents did not relate to the basement spaces but served to ventilate the ground floor space. They are not significant in relation to current concerns.

- There is a continuous Portland stone off-set plinth which runs around the entire building. The plinth is “level” all around the building, that is, it is set to a consistent level.



Note that the Portland stone plinth runs “level” around the building and gives an easy way of assessing how high the external level is in relation to the internal floor level – see further detail below. Ground very high to left hand side (No.24).

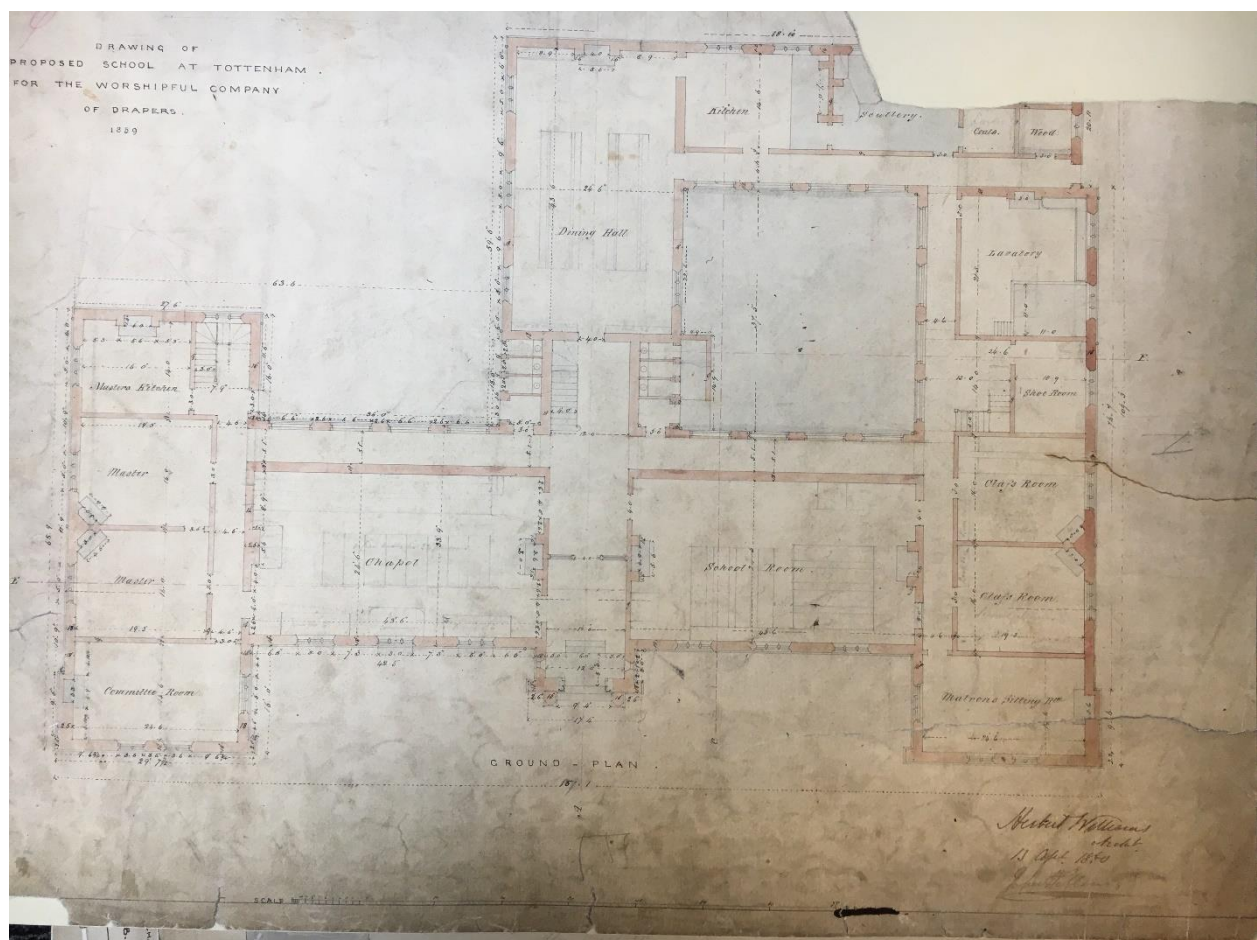
- Below the position of the ground floor window to 26 part of the arch relating to a former basement opening is visible above the external pavement level. Elsewhere the paving is higher and no arches are visible. The arch is further evidence of an opening into the basement.
- I noted that against the courtyard side of number 24 an Acco continuous drain had recently been put in place and a brick plinth between two and three bricks high built against the wall of 24. If the intent was to reduce a damp problem this intervention has resulted in the opposite, lifting dampness higher up the wall. Plants are growing freely into the walling in the vicinity.
- Recent wet days had resulted in the visible damp brickwork zone being more visible than on my first visit especially to the courtyard side of 24 & 25 and the end wall of 25.
- Inspection of brickwork adjacent to where the external pavement is low relative to the stone band reveals that there is no visible damp brick zone to be seen.
- The brick courtyard side walls of 24 & 25 have been grey colour washed (painted) to unify the appearance of the surface, presumably because there are a variety of brick types. The surface is disrupted by the effects of rising damp.

2.3 Visit to Drapers Company Archive Research

From the initial visits to site, recorded above, it was clear that the part of the building relating to 24 & 25 had been subject to many alterations since 1860. The extant construction reveals clues as to how the building has been altered. Information about the original construction would be of significance, especially to inform proposals to deal with the problems and defects, in relation to applications for Listed Building Consent.

The Drapers' archive has three folders of drawings relating to the original school dating from the late 1850's to 1907. Of particular interest are an incomplete set of what were the original contract drawings of 1860 for the building of the school. These include detailed drawings. The details in the drawings compare very closely to what was built.

Examination of the Ground Plan of 1860

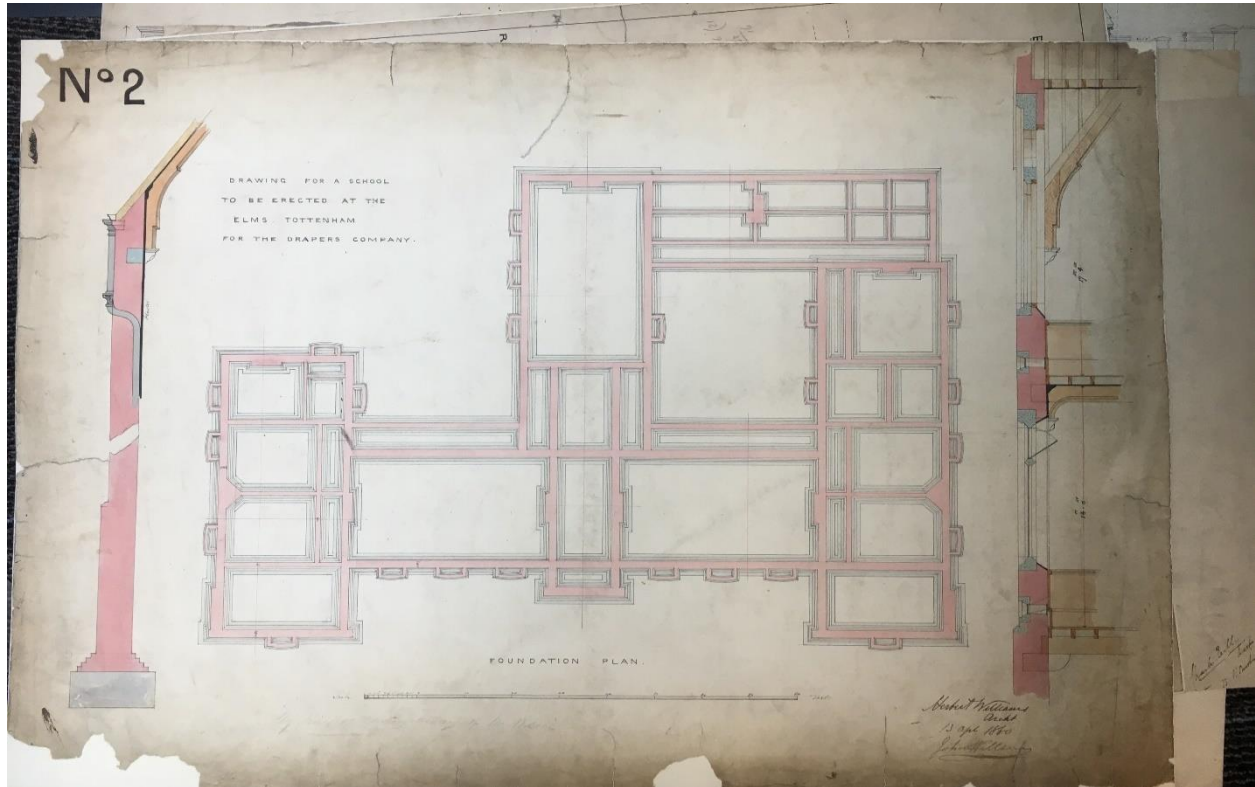


Drawing dated 13 April 1860 Contract Drawing. This beautifully drawn plan shows the original layout. The large rooms to the centre top, the Dining Hall, is now subdivided into 3 to form flats 24, 25 and 26. All walls etc are carefully dimensioned and concur with on site observations. Note the original fireplaces, to be superseded by oil fired heating with boilers located below No. 24 and storage tanks below part of 24 and 25.

Conventional colours are used to denote materials; red for brick, pale yellow on plan for wooden floor, grey/blue on plan for stone floor, for example at the hearth in the dining room. Note that the corridors are marked as timber floors.

Although the kitchen and scullery wing have been demolished the courtyard wall relating to the passageway serving the spaces has been retained so that on site the courtyard can still be discerned.

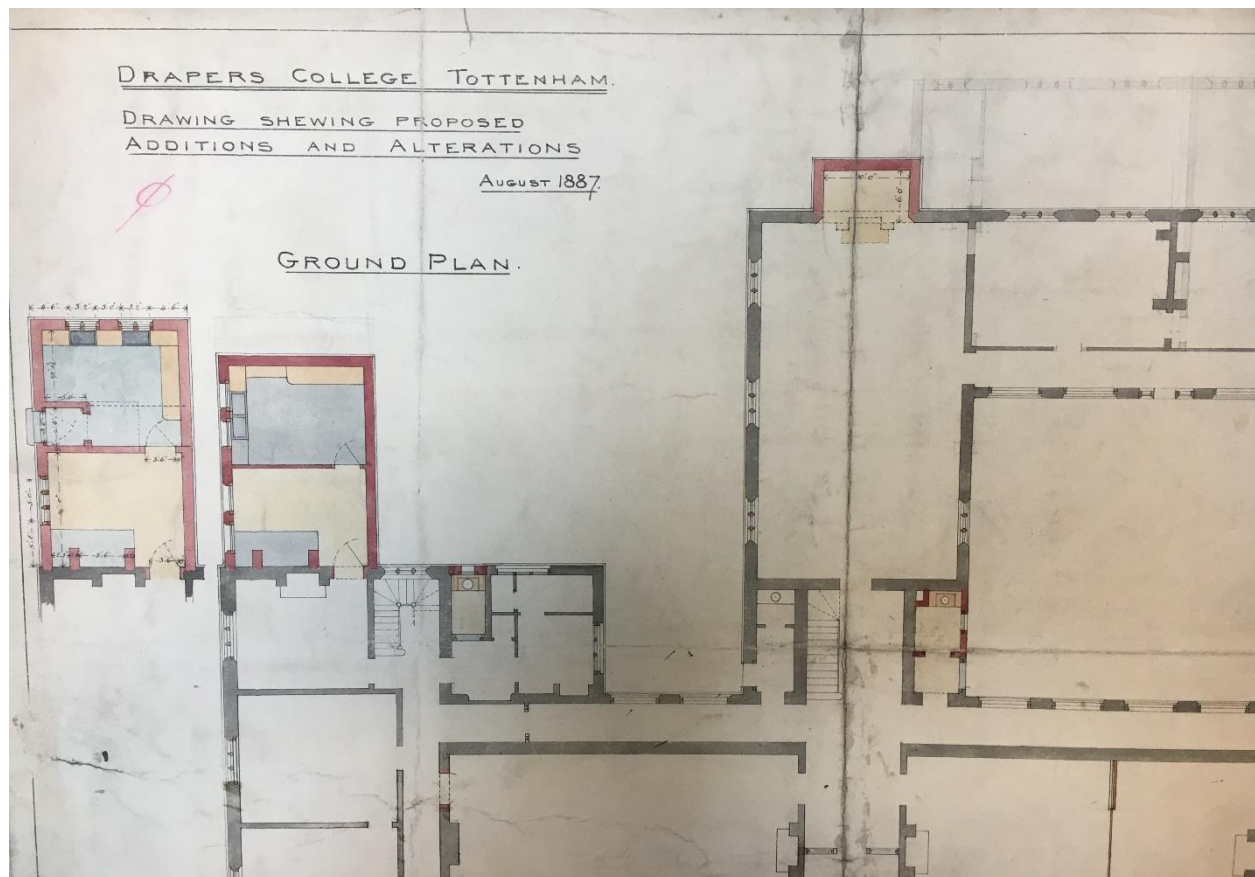
The space now occupied by 24, 25 & 26 was originally a single volume rectangular dining hall with three windows to one side (as existing) and one window to the courtyard side. Note that the existing freestanding wall to the courtyard side was the side of an enclosed courtyard, and that a kitchen abutted the dining hall (now the external wall of 24). The plan drawing shows that the rooms were provided with fireplaces, and there was a large fireplace at the end of the dining hall.



This drawing shows how every window at ground level had below it a deep area to provide ventilation to openable windows at basement level. The 24, 25, 26 block has four areas. From careful inspection of the brick footings as drawn the base of the areas seems to have been several courses above the basement floor itself.

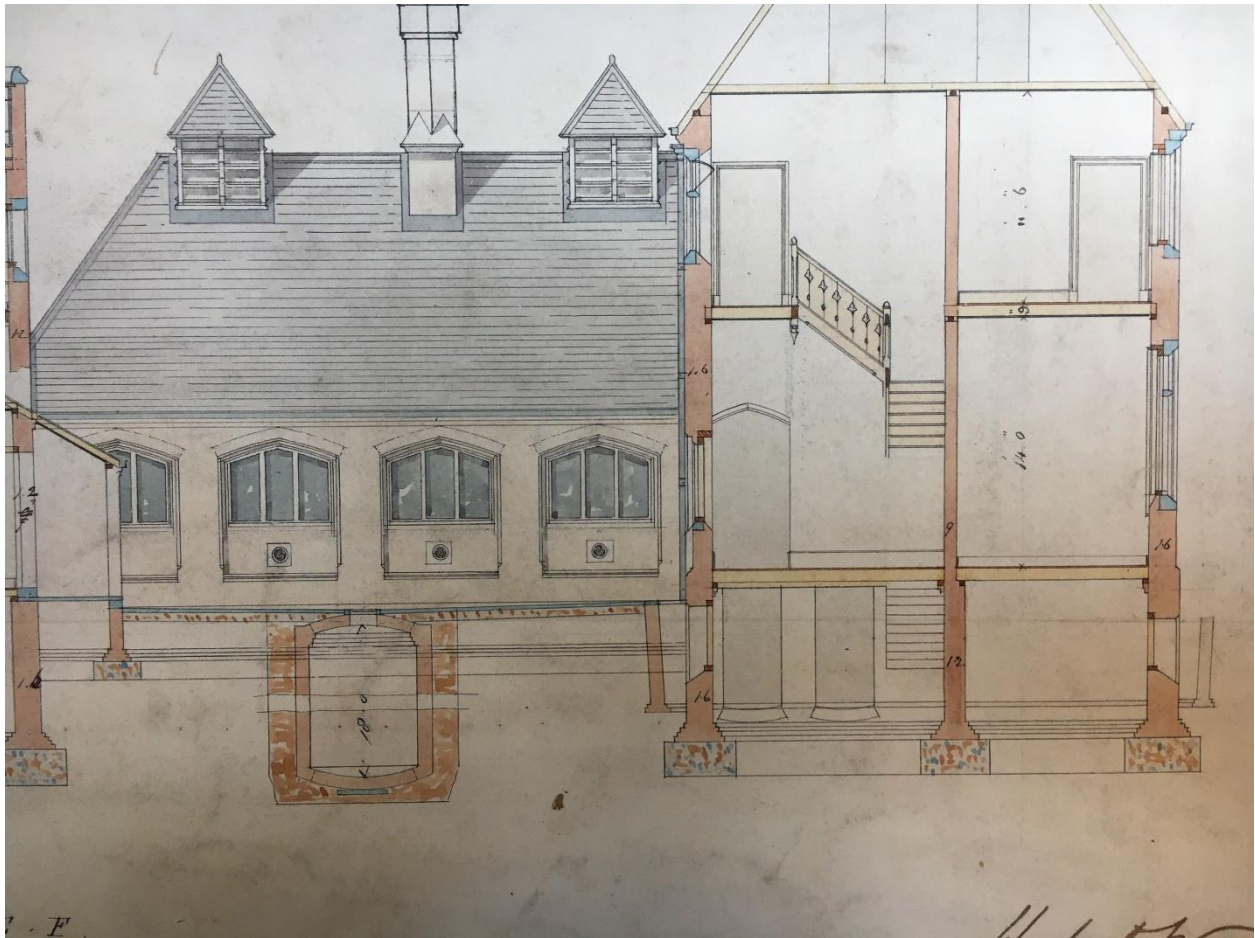
To the right of the drawing the section is as built. Note relationship of stone plinth band and floor construction.

The Drapers drawings include a basement plan which shows that deep external areas were designed to correspond with every ground floor window all around the building including at 24 & 25. This concurs with observation of onsite evidence. Detailed section drawings to a large scale clearly show the intended relationship of walls, floors, stone details and ventilation openings.



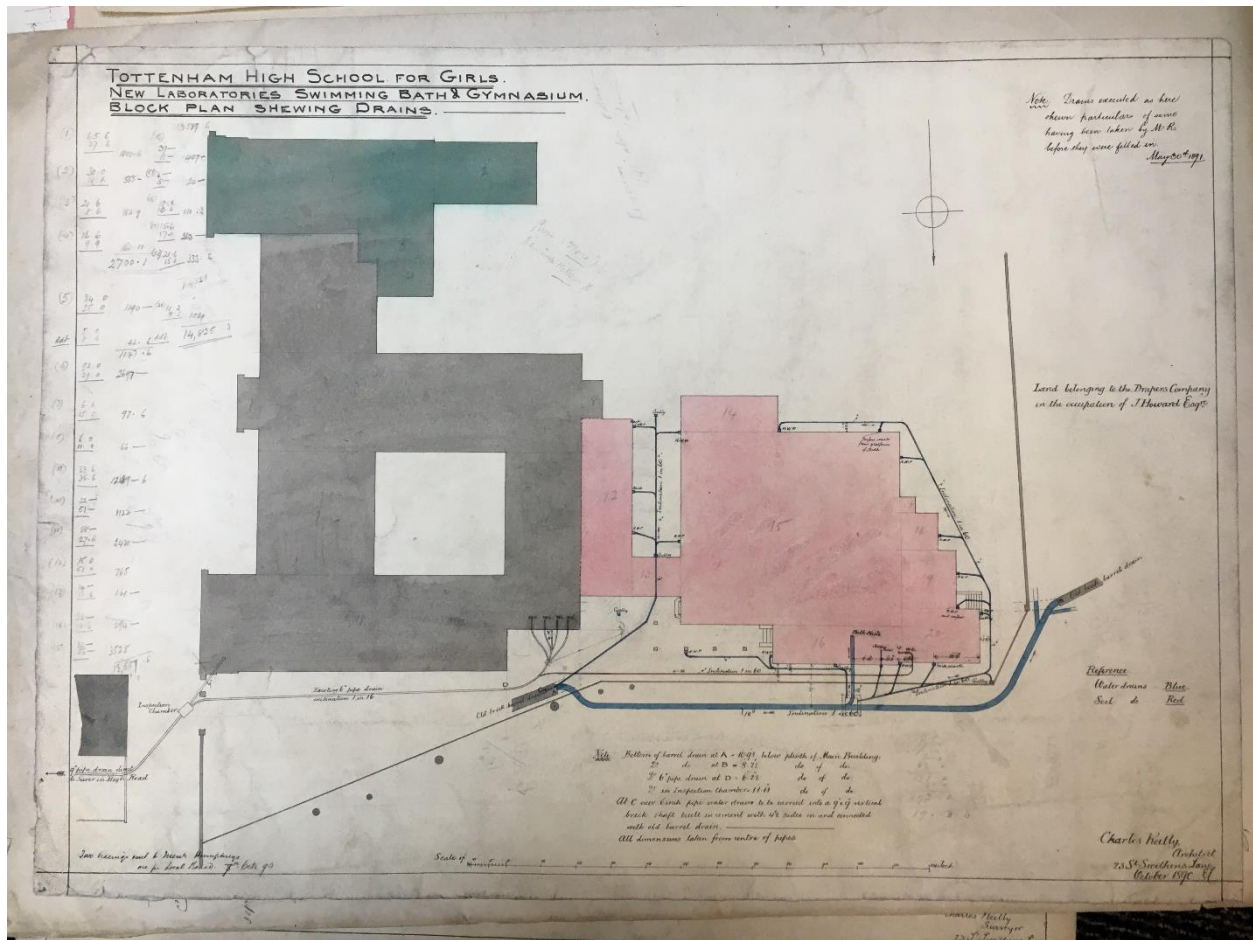
Dated 1887 this drawing shows proposals for alterations that were executed. The dining hall is extended with a wooden floored recess at the “high end”. This space is incorporated into Flat 24.

In 1887 various alterations and additions were drawn up and from the evidence on site we can see that they were executed. Some alterations related to the 24, 25 part of the building. The large fireplace in the dining hall (now 24) was removed and an out-shoot extension made in its place, and this is what we now see on site. Perhaps heating arrangements were revised at this time, moving from coal to oil, because there is no fireplace shown to serve the dining hall. The kitchen at 1887 still adjoins and the window into the enclosed courtyard remains in place at this stage. Amendments made in 1887 to the 1862 basement plan indicate that an external stair down to the basement (Flat 25, position as described above) was proposed. The two outer wings of the building (basement level) have designated uses, variously for coals, scullery (master’s house), larder, and 2 beer cellars! The spaces below 24 & 25 are not marked for any designated use in the 1887 drawing, but the basement plan clearly shows that all the basement open areas were fitted with wooden window frames, whereas the upper storey windows are all in Portland stone. (The drawings are coloured in the traditional convention, pink for brick, blue for stone and brown/yellow for wood). The width of all the walls is marked on plan and in sections.



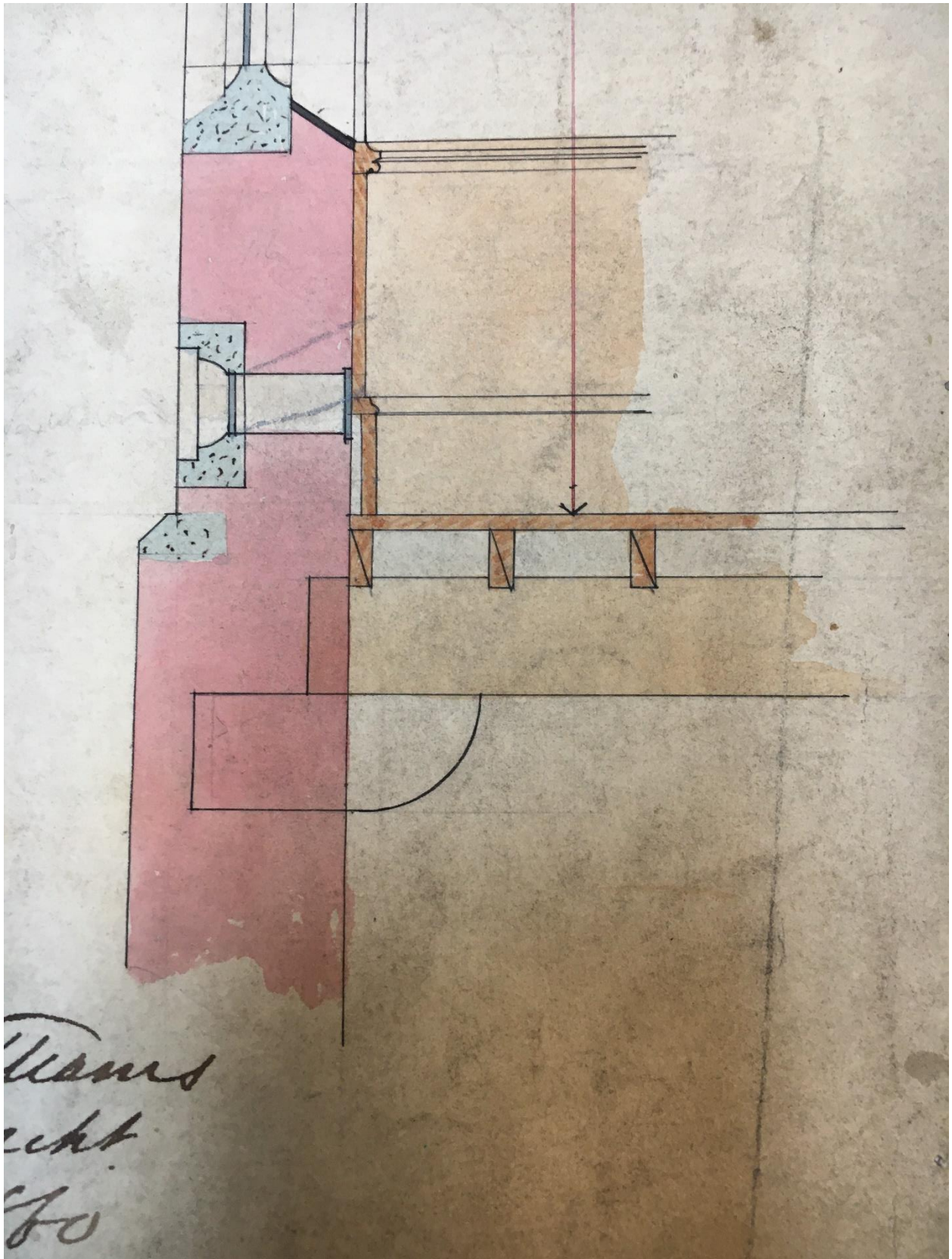
Section through courtyard (1860) looking towards the kitchen and scullery (hence large roof ventilators, all now demolished) and section through the north wing. The courtyard surface, shown as stone surface drains into a large silt catch pit. In particular note the brick retaining walls to the basement window areas. The basement windows are shown as wood set to the inner face of the wall, which is 2.5 bricks thick at the basement. Floor wall plates are shown seated on two courses of corbelled brickwork – as observed on site.

With regard to the basement/ground floor construction the section drawings (Section Lines A-B and E-F on the ground plan) are particularly informative. The section A-B clearly shows basement windows to the 24, 25 basement space and the section E-F shows the construction of the areas outside basement windows. The section E-F also shows what appears to be a drainage silt tank in the centre of what was then an enclosed courtyard.



Development of the school continued and in 1890 there was a major development to provide laboratories, a gymnasium and a 50' x 25' swimming pool all drawn up by Charles Reilly (to become Head of Liverpool School of Architecture and Knighted). These buildings were built to adjoin the existing building at the kitchen and scullery wing at the back of the site. These large buildings have since been completely cleared away which brooks the question of where the demolition materials went? Was material spread across the cleared land to the rear of the school and did this result in levels being raised?

A drawing of June 1873 prepared for the extension of the master's house gives a section that shows the designed relationship and levels of ground floor, stone plinth band, which is consistent all around the building, and the external ground level. It should be noted that the internal finished floor level is at the level of the top of the external stone plinth.



Detail showing designed relationship between corbel, flitch beam, floor joists and floorboards. Note that the finished floor level is level with the top of the stone plinth band. The flitch beam and stone corbel are shown built into the brickwork and we observe this on site. The damp proof course is not shown on this 1860's drawing but it is located immediately below the stone corbel.

This gives us an easy way of assessing the location of wooden floor members in relation to the external levels all around the building. From observation of the construction found insitu, including the stone corbel that supports floor beams, is all as designed in the 1860's. By observation on site one can readily see that the internal floor level of 24 and the external construction (pavement and raised brick plinth behind the Acco drain) are at the same level. Therefore, all the wood, wall plates, joints etc. related to floor construction of 24 is situated within saturated walls. None of this is as the building was designed to perform.

2.4 Visit 16 February 2022

The particular purpose of this visit was to inspect the interiors at ground floor of 24, 25 and 1 Old School Court to which I was able to arrange brief access by arrangement with the occupant, and also to photograph the exterior of the building for this report.

Defects to Flat 2 seem to have arisen due to through wall dampness at corbel/beam level and possibly internal leakage associated with the boiler/plumbing installations, now cut off, which are sited directly above the defects in the timber floor members in Flat 2.

At Flat 1, I observed that the stone corbel in question displays minor surface rupturing of paint finish but also some salt damage to the surface of the stone itself has occurred. The stone is wet and has clearly been consistently so because it is soft and a pointed instrument can be pushed into the stone quite easily. Damp has migrated from the corbel across into the adjoining plasterboard surface. From the related reports by Checkel Dalton (2014 & 2015) I can see that quite extensive investigation was carried out. From reviewing the Checkel Dalton 2015 report I suspect that what was a clear void of some depth, below the corridor, (the floor of which was completely reconstructed, it seems, in 1996/7) may have become filled up with construction debris so that the slate DPC referred to by Chickel Dalton was breached. Given that the corbel damage is limited it is unlikely that this damp situation would have persisted since 1861. I think the damage is recent, and since 1996.

The same situation is likely to apply in relation to the Flat 2 decay at the beam end. In Flat 2 the beam end that sits in a wet wall zone could be decaying out of sight and this should be investigated. If it is the case that the original voids below corridors at ground floor have been back-filled, then all principal beams on corbels may be at risk of rot.

2.5 Visit 4 March 2022

I visited site while the drainage inspections were in course by London Drainage Ltd. London Drainage confirmed that generally separate systems were installed. (The drainage report is awaited at the time of writing). Both soil and rainwater systems are generally in plastic. The rainwater system is shallow and especially so in the vicinity of 24 & 25. The soil system runs deeper. (Exact invert levels being recorded by London Drainage and information awaited).

At the corner of 24 the invert of the rainwater is about 250mm below the surface ground level adjacent to the outlet. I had relevant covers lifted to inspect; the general condition at the inspection points was good, however, I noted that the rainwater outlets/gulleys had no traps installed; bends simply running into the drain. This seems to be an invitation to rodent infestation. It is questionable that this is Building Regulations compliant, although the existing installation is more than ten years old so probably beyond enforcement.

On this visit I reinspected the basement of 24, 25 to look for further evidence in particular of the impact of wet conditions at the stone corbels and the extent and location of original slate damp proof courses. Bad decay to the corbels to the courtyard side was noted. Also, there is clear evidence that the slate DPC is continuous in the original wall and set consistently just below the stone corbels. The original DPC can be followed by observation of a particularly wide brick joint. Prising off some surface mortar reveals a double slate DPC.

I also checked generally with a Protimeter for dampness. All the external walls in all accessible parts of the basement were found to be exceptionally wet. The infills at former windows do not it seems have any form of DPC. The recently built fletton walls, where inboard of the external walls were found to be “dry” (that is not damp as to cause a hazard) but had raised dampness where they adjoined the outer walls, due to migration of moisture from the outer walls.

3. DISCUSSION

From observation on site the obvious differences between the rear wing accommodating 24 & 25 and the front and main side wing is that the 24 & 25 wing does not have any basement ventilated external areas or windows. Detailed observation of the existing construction reveals evidence of former window openings and ventilated areas, and this is supported by the evidence of clear historic drawings. The basement rooms were clearly constructed to be used and as such they would have been built to be as dry as possible. Two basement rooms in the outer wings were fitted with fireplaces, however it would seem that there were no fireplaces in the basements below 24 & 25 at any date, although there may have been one below that serving the dining hall. As the chimney stack serving the fireplace(s) has been removed there is no visible evidence of the number of flues.

There is evidence of slate DPC's in the construction. Though direct evidence is often obscured such can be detected by giveaway wide mortar joints around parts of the building. Allied with good mortar and slate DPC's the design approach to safeguarding wooden floors from decay was to sufficiently raise the ground floor construction above external ground level so that timbers were above critical dampness, allowing the walls' moisture levels to be “safe”. I noted slate DPC's in the basement end wall of 25 to the sides of the central rebuilt section and in many other locations. That DPC is approximately one third down the wall from the floor joists over, indicating that an external area was either at low level or there was a vertical DPC contiguous with the horizontal DPC. Of course, all is now breached by the high external ground level. On follow-up visits my inspections found a slate DPC in other locations; the DPC seems to have originally been continuous all around the walls and set out at the same level just below the seating of the stone corbels. With the abandonment of external areas, bricking up of opening windows, back-filling of areas and infilling below corridor floors, the stone corbels and floor timbers have been sitting in a damp zone of brickwork, inviting rot, and that is what has occurred.

4. APPROACH TO REPAIR

The investigations have clearly shown that the fundamental problems relating to 24 & 25, 1 & 2, relate primarily to unintended consequences of insufficiently skilled or thoughtful adaptations over time. Flat 26 is also likely to be affected even if not as yet apparent. To secure the affected parts of the building from future decay, associated with damp construction, a construction approach to repairs needs to be adopted – there is no superficial or magic bullet approach to correcting fundamentally flawed construction. It should also be noted that as wet walls will take time to dry out after the construction has been revised to deter excessive wetting of the basement walls, the simple reproduction of original detailing will not be sufficient to ensure that the risk of the reoccurrence of rot is not minimised.

The construction approach to repair at 24, 25 is likely to entail:

- Forming a deep area around the exterior of the affected walls, the exact extent and depth of which is to be designed further to excavation investigations. Over time this will allow the walls to dry out to both sides, lowering the moisture content of the walls at low level. (NB: It would be counterproductive to attempt to seal the moisture in. On no account should hard impervious renders or “sealants” be used).
- Depending on the result of the investigation, there may be the need to incorporate a new cut through type DPC (as per Damp Proof Coursing method) in some places but it is likely that the original DPC will be sufficient, in most locations provided that adequate permanent through ventilation is provided.
- As there are gulleys set high against the walls, adjustments will have to be made to ensure that water discharges safely below the DPC level, so that there is no back-splashing.
- Protect (Health & Safety/Security) the new sunken areas by way of railings and/or grilles.
- Reinstate the basement window openings and provide permanent ventilation. If “original” windows and ventilation is reinstated the spaces may be deemed suitable for storage or other uses and become beneficial spaces.
- Reinstate floor structure supporting all timbers so that they are free of the wet walls; this will require improved detailing. The walls will not be dry for quite a time and there is the risk of rot re-emerging through the drying out phase. Careful detailing of repairs is therefore required.
- Reinstate insulation below the ground floor but do not permit any sealed voids against the outer walls or elsewhere where vulnerable to moisture/dampness.
- Make provision for permanent cross-ventilation through the basement spaces.
- Make proper doorways between the basement spaces but reinstate correct fire door separation on “party wall” lines of the flats above.
- Revision of rainwater drainage away from the walls will be necessary and as the rainwater drains are very shallow and without traps this will entail running to the deeper drains of the soil system. (Feasibility to be checked).
- Repairs below corridor void spaces to correct hazardous construction. It should be noted that defects caused by wetness could be masked by the internal plasterboard linings; decay to fitch beams could be ongoing undetected.

It should be noted that the existing deep areas of the building are run to the deep soil drainage; thus becoming combined. For this small additional flow, a waiver/relaxation of Building Control would probably be required.

A full specification for the repair and adaptation work needs to be drawn up after further detailed investigation of the external ground build-up against the walls at number 24 & 25. The positions for the investigations/digging inspection pits) need to be carefully chosen to give maximum information, for example the retaining walls of external areas may remain in place and capable of being reused.

5. DRAWINGS BY THOMAS FORD & PARTNERS FOR THIS REPORT.

The drawings for this report are as follows:

5.1 Sketch No.1 Dated 3 March 2022.

This shows a) the plan of basement below Flats 24, 25 and 26 as proposed 1860, b) the plan as now existing.

5.2 Sketch No.2. Dated 3 March 2022

This sketch indicates saturated walls, positions of stone corbels and suggested locations for trial excavations to reveal construction.

5.3 Sketch No.3. Dated 5 March 2022

Showing principal alterations at 24, 25 and 26 basement.

5.4 Sketch No.4. Dated 4 March 2022

This drawing shows the original construction at ground floor level with DPC position, and how built-up levels have caused excessive wetness in the walls leading to decay.

5.5 Sketch No.5. Dated 5 March 2022

This drawing shows the positions of rainwater downpipes at 24, 25 and 26. The plastic drains away leading from the downpipes are very shallow.

5.6 Sketch No.6. Dated 5 March 2022

This drawing indicates a solution to the wet walls. The area has to be deep enough to be at least 150 below the slate DPC. The cross section shows deeper excavation at the former windows to provide for permanent ventilation.

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24 March 2022