



86 Cross Street, Manchester

15155-BKP-V1-XX-RP-S-001

Existing Building Condition Report

For
Individual Restaurants

RIBA: Stage 2
Status: S1
Revision: P01
Date: 25/05/2024



Contents

1. Project Overview 1

1.1. Overview.....1

1.2. Existing Site Description 1

1.3. Proposed Development.....3

1.4. Project Design Team 3

1.5. BKPL Condition Report 3

2. Existing Building Information..... 4

2.1. Measured Building Survey 4

2.2 Existing Services.....4

2.3 Asbestos Survey.....4

2.4 Heritage Assessment 5

2.5 Ground Investigation Works.....5

2.6 BKPL Visual Non-Intrusive Survey.....5

3. BKPL Survey Inspection..... 6

3.1 Description of Inspection.....6

3.2 Basement Observations.....6

3.3 Ground Floor Observations 11

3.4 External Building Fabric Observations 15

3.5 Further Surveys / Investigations Recommendations.....15

4. Proposed Development Alterations..... 16

4.1 Architects’ Proposals 16

4.2 Structural Overview of Proposals 16

4.3 Building Loading Assessment 16

4.4 Building Stability Assessment 16

4.5 Proposed Structural Repair Works 16

4.6 Proposed Structural Alterations Ground Floor Level.....18

4.7 Proposed Structural Alterations Basement Level 18

4.8 Structural Robustness.....18

5. Conclusions and Recommendations 19

APPENDIX A – Architectural Proposed Information 20

APPENDIX B – Architectural Existing Information 21

APPENDIX C – BKPL Inspection Record Drawings 22

APPENDIX D – BKP Structural Repair Details..... 23

Document Control

Status	Rev	Date	Prepared by	Approved by	Revision Details
S1	P01	28.05.24	Lee Kierans BEng MStructE		Draft Issue for Comment

1. Project Overview

1.1. Overview

Booth King Partnership Limited (BKPL) have been appointed by Individual Restaurants LTD to act as Civil and Structural Engineers for the redevelopment of existing commercial premises at 86 Cross Street, Manchester.

The proposed site is located on the corner of Cross Street and John Dalton Street, close to Manchester Town Hall (postcode M2 4LA, grid reference SJ 83819 98206). The existing building falls within the St. Annes’ Square Conservation Area.

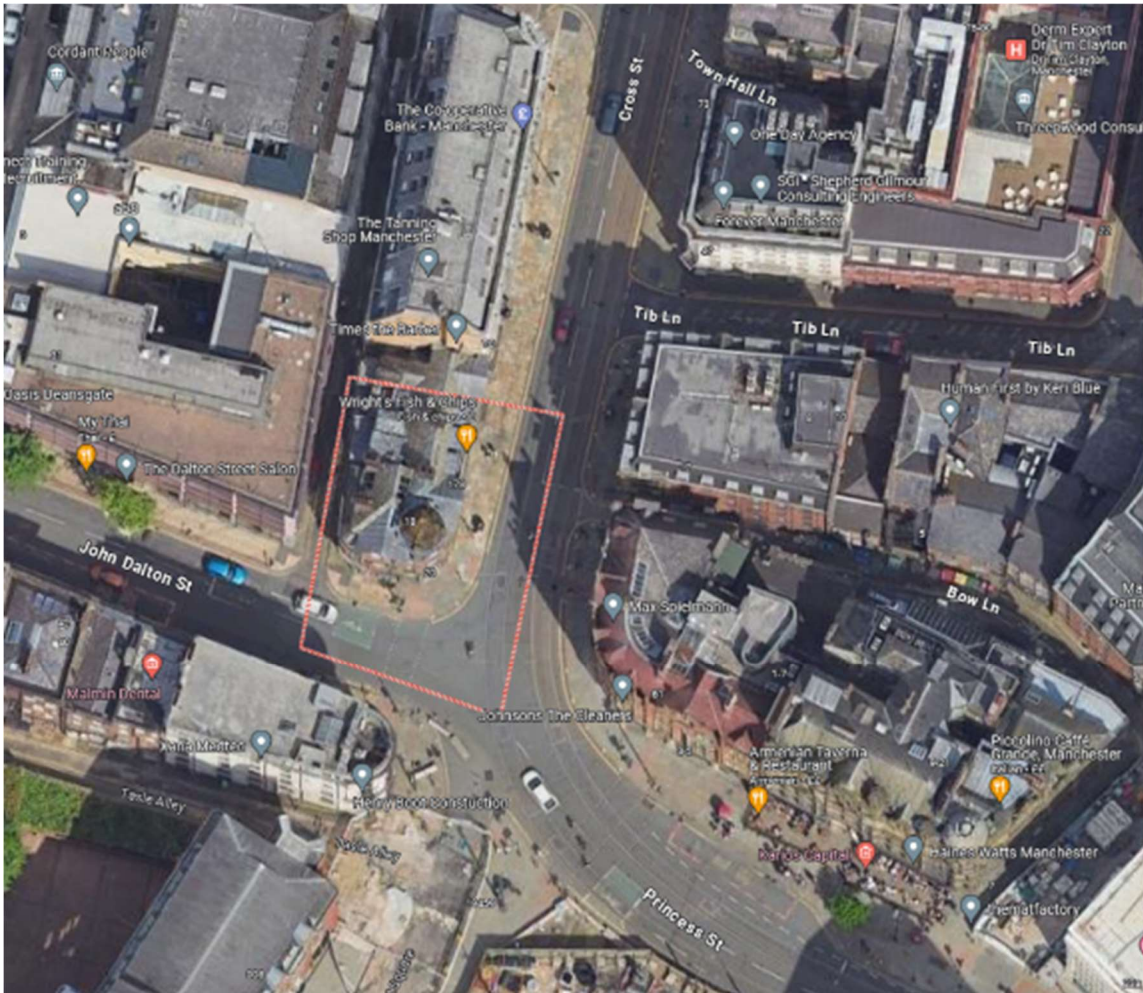


Figure 1 – Site Location

1.2. Existing Site Description

The existing development site consists of the following;

- Existing Grade II Listed 4-storey stone built building with basement. Exterior of the building is considered to be of special architectural interest, consisting of brown polished granite ground floor clad construction and local red sandstone ashlar construction to upper storeys of the main building façade, with prominent sandstone detailing / motifs and lead roofing
- The building, formerly known as Anglia House, was designed by prominent local architect Charles Heathcote and is located within close proximity of a number of other Heathcote designed buildings (including other properties on Cross Street and nearby Spring Gardens). The building falls within St. Annes’ Square Conservation Area
- Further historical importance is attached to the site related to occupation by the former Princes Tavern building and recorded birth place of local author Thomas de Quincy in 1785. Princes Tavern was demolished in 1903.
- Anglia House was commissioned in 1906 and was originally to act as insurance office premises. Changes of usage during the building lifetime have included use as bank premises in the 1950s / 1960s. More recent usage have included a betting shop premises at ground and basement floor levels, with upper floors sub-divided into apartments (works appear to have been carried out in circa 2018, under planning application reference 117966/FO/2017). Ground floor of the original building has also been sub-divided to form a small commercial unit to the north of the building (current operating at Wrights Fish and Chips Shop).
- At present the ground floor and basement areas of the building are unoccupied (with the exception of sub-divided area to the north, operating at Wrights Fish and Chips Shop). Upper floors are currently occupied residential apartments.



Figure 2 – Former Princes Tavern (on corner of John Dalton Street and Cross Street)



Figure 3 – Recent View on Building from Opposite Side of Cross Street

The site is located on the corner of John Dalton Street and Cross Street adopted highways. It is noted that an existing Metrolink route runs directly adjacent to the property along Cross Street.



Figure 4 – Recent View Looking South on Cross Street
(Showing Sub-Divided Ground Floor Commercial Units and Metrolink Infrastructure)

1.3. Proposed Development

Proposed development of the existing ground floor and basement premises at 86 Cross Street, Manchester is to include the following;

- Conversion of existing unoccupied ground floor space to form new restaurant premises, including dining space, waiting areas, open-plan pizza kitchen area / related servery and assisted toilet space
- Conversion of existing unoccupied basement space to form kitchen preparation space, chiller area, back-of-house / staff areas, toilets and additional dining space
- Related structural works to introduce new basement access stair
- Structural assessment of existing ground floor structure to accommodate new bespoke pizza oven at ground floor level
- Minor structural alterations to existing basement walls to food preparation area
- Minor internal structural repairs as outlined in this report
- External signage alterations as detailed on relevant architectural information

Architectural information for the proposed development is contained in Appendix A of this report.

1.4. Project Design Team

Client	Individual Restaurants LTD
Principal Designer	TBC
Principal Contractor	TBC
Project Manager	Holden and Lee
Architect	Anthony Hughes Architectural
Civil & Structural Engineer	Booth King Partnership Ltd (BKPL)
MEP Consultant	TBC
Fire Engineer	TBC
Planning Consultant	Depol

1.5. BKPL Condition Report

BKPL condition report for 86 Cross Street, Manchester is intended to provide review and summary of the structural condition of the existing ground floor and basement levels of the building, provide recommendations for any required repairs to the existing building structure, review suitability for proposed refurbishment and development of the building.

BKPL report is provided based on assessment of available existing building information at the time of production of this report, along with non-intrusive visual inspection of the existing structure as carried out by BKPL on 17.04.24.

BKPL report also includes recommendations for additional surveys required to further inform potential repair works and development of proposed structural designs.

2. Existing Building Information

2.1. Measured Building Survey

Measured building survey for the existing ground floor and basement premises at 85 Cross Street, Manchester have been provided and included in Anthony Hughes Architectural drawing information (drawing reference PFC01-05, included in Appendix B of this report).

2.2 Existing Services

No existing services information has been provided for the existing building and surrounding areas at this stage.

BKPL non-intrusive visual site inspection carried out on 17.04.24 noted the following existing services within the building;

- Existing electrical fuse box witnessed fixed to ground floor column, with related exposed cabling suspended from ground floor ceiling over (assumed to be live and feeding current lighting system)
- Further historical electrical sockets, data points, etc, witness to low level walls at ground floor level (included fixed to recently removed skirting boards (unclear if these are live at present)
- Existing fire alarm system witnessed at ground floor level, including smoke / heat detectors to underside of ground floor ceiling
- Existing above ground foul drainage witnessed at both ground floor and basement level serving residential units above (generally located at steel column locations)
- Exposed cabling, water / heating pipework and potentially gas piping witnessed at basement level fixed to underside of basement ceilings.
- Significant electrical distribution board and related incoming electric feed / outgoing wiring witnessed within basement area
- Below ground drainage manholes witnessed in 3No. locations within basement area (recorded on BKPL Existing Basement Plan drawing, included in Appendix C of this report).
- Existing manhole covers witnessed within rear street (Four Yards), possible related to internal basement drainage system
- Some external loose cabling witnessed fixed to to rear elevation of the building (unconfirmed if these cables are live)



Figure 5 – View in Existing Basement (Electrical Distribution Board and Ceiling Level Services Visible)

Detailed internal services survey to the building is recommended prior to commencement of any works on site. For details of proposed internal building services alterations, refer to M+E consultant information.

2.3 Asbestos Survey

At the time of production of this report, no asbestos survey information has been provided for the existing ground floor and basement premises. It is understood that this is to be procured and surveyed is to be carried out by suitably qualified asbestos specialist prior to commencement of any works on site.

2.4 Heritage Assessment

At the time of production of this report, no formal heritage assessment report has been provided for the proposed works. This is to be produced as part of the project planning application.

2.5 Ground Investigation Works

At the time of production of this report, no ground investigation information has been provided. Given limited scope of structural works involved in the proposed works, ground investigation information is not considered necessary.

2.6 BKPL Visual Non-Intrusive Survey

BKPL attended site on 17.04.24 and were provided with access to external areas and internal areas of the existing building at ground floor and basement levels, to carry out visual non-intrusive structural inspection.

All inspections were carried out from ground level and no finishes were removed as part of this inspection. As such this visual inspection did not allow full assessment of existing structural details, condition, etc, but did allow determination of general structural form, identification of previous structural works / repairs carried out, identification of a number of minor defects and can be used to inform recommendations for further intrusive investigations.

Refer to Section 3.0 of this report for BKPL non-intrusive investigation findings and recommendations for further surveys.

3. BKPL Survey Inspection

3.1 Description of Inspection

BKPL attended site to carry out non-intrusive visual inspection of the existing property at ground floor and basement floor levels on 17.04.24. This inspection included the majority of internal spaces to the building at ground floor and basement level, along with external ground-level inspection of the external building fabric and surrounding areas.

The below describes observations made during this inspection, along with recommendations for further survey works.

3.2 Basement Observations

Access to the basement area is provided via an existing timber stair (assumed relatively recent addition). Basement area is currently unoccupied and was generally clear of any significant debris at the time of inspection.

Basement Walls and Steel Structure - consists of external brickwork basement walls (with some areas of glazed brick internal finish to the front elevation of the building), within internal generally brickwork partitions. The basement area includes a number of masonry piers (providing support to steel frame column and beam members over) and includes an historic fire place and chimney structure (albeit this appears to have been demolished and capped at ground floor level).

A number of historical metal wall panels were also observed within the basement area, with related steel guide channels fixed to existing walls. Evidence of removal of similar panels was witnessed within the basement area; notably where steel guide channels appear to have been left in place.



*Figure 6 – View on Existing Basement Walls to Front Elevation
(Metal Panel Partition Wall Shown to Right-Hand Side)*

Masonry basement walls and internal basement partition walls (including metal panel sections) appeared to be in good condition generally, however the following related observations were recorded;

- Masonry walls generally witnessed to be in good condition with no significant signs of deterioration of bricks or distortion / bulging of walls. Some minor water staining witnessed in some areas (notably in the vicinity of historically infilled pavement smoke vents – refer to notes below) and pointing of masonry walls / paint finish in some areas showing signs of minor deterioration.
- Existing basement level door witnessed to north elevation of building with access into adjacent property basement area
- Embedded steel column members were witnessed within external basement walls and some significant rusting of steelwork / spalling of steel surfacing noted



Figure 7 – Embedded Steel Column Showing Signs of Rusting

- Existing brickwork chimney structure showing signs of historic cracking above fire place (diagonal crack pattern appearing to originate from existing steel beam bearing onto wall).



Figure 8 – Masonry Cracking to Existing Chimney Structure

- A number of further steel column support members were witnessed at basement level installed in close proximity to basement walls. These column members appear to be in reasonable condition, with some surface rusting visible.



Figure 9 – Steel Support Column Showing Signs of Surface Rusting



Figure 10 – Existing Uncovered Manhole Chamber

Basement Floors - appears to consist of solid concrete basement slab and is noted to be in generally good condition, with no obvious signs of water ingress or deterioration of concrete witnessed. The following related observations were recorded;

- Basement slab contains 2No. existing steel manhole covers, assumed to provide access to building drainage system. Covers were sealed and not accessed during BKP inspection
- A third manhole access point was witnessed on site, notably with no manhole cover (temporarily covered with ply sheeting at the time of inspection). Existing drainage system was witnessed within this approximately 720mm deep chamber

Basement Ceiling and Ground Floor Structure Over - Existing ground floor structure is partially visible at basement level and was inspected from this level where possible. This consists of a number of steel beam members embedded within a traditional concrete filler joist type floor (bottom flanges of a number of primary steel beams witnessed from basement level).



Figure 11 – Primary Beam Bottom Flange with Filler Joist Floor Infill (as Witnessed from Basement Level)

Filler joist floor and supporting primary beams witnessed on site appear to be in good condition generally, with no obvious signs of distortion or deterioration of floor structures generally, however the following related observations were recorded;

- A number of existing services were witnessed fixed to underside of filler joist floor structure, including electrical cabling, possible water / heating pipework and gas pipe work. It is unknown if these existing services are currently live and full detailed survey of these is recommended prior to commencement of any works on site.
- Area of lowered ceiling soffit level was witnessed in location of proposed staff room / toilets; this includes a significant concrete slab at approximately 600mm lower than general basement ceiling level, providing support to masonry walls over. Whilst this lower section of slab was showing no signs of defects, this should be considered in proposed designs (notably where routing of services is required in this area).

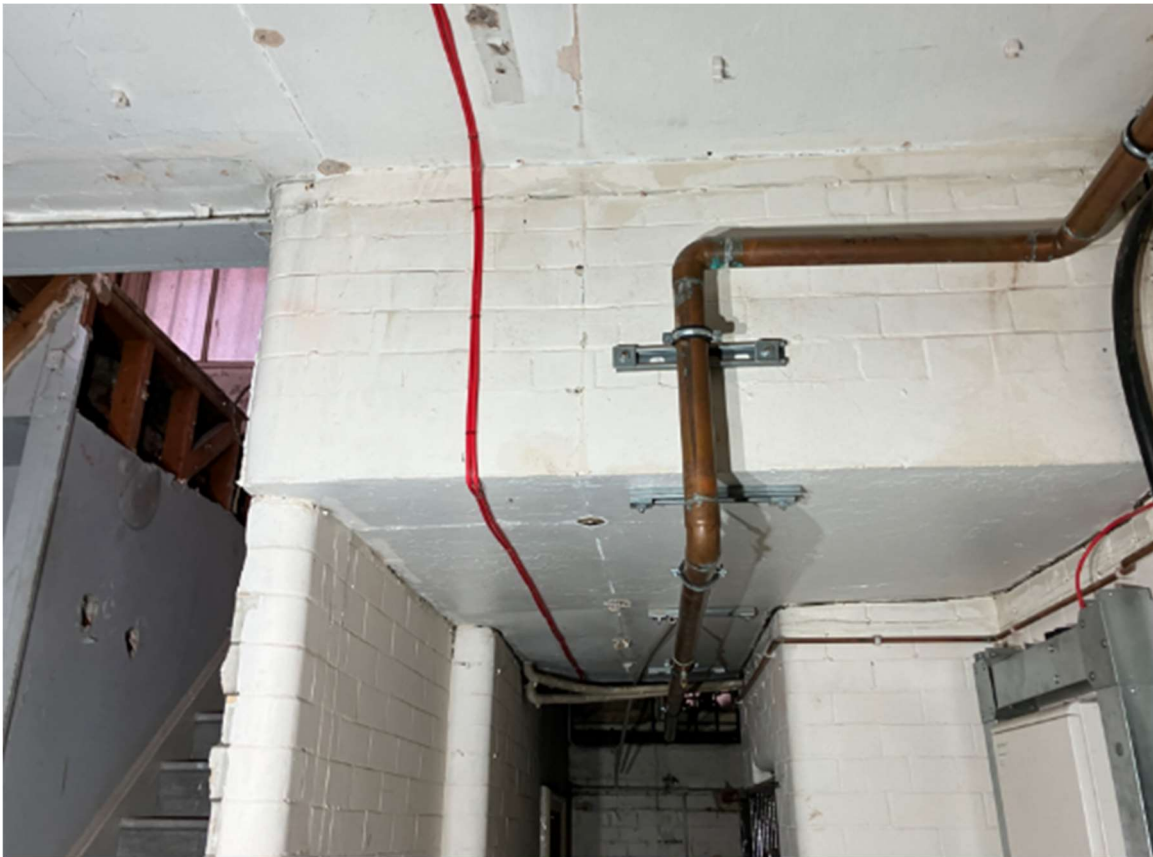


Figure 12 – Reduced Level Concrete Slab to Proposed Staff Room / Toilets Area

- Historical pavement level smoke vents appear to have been present within the basement in 3No. locations (1No. location onto Cross Street and 2No. locations onto John Dalton Street, with related basement wall recesses taken out under pavements). Original smoke vent covers have been removed and replaced with concrete slabs (assumed to be nominally reinforced and cast into webs of steelwork support members in these locations, with pavement finishes installed over). It is noted that steelwork supports in these 3No. areas are all showing signs of significant deterioration and rusting / spalling of visible surfaces was noted. It is assumed that there is no waterproofing measures currently present above vent infill slabs and surface water is able to infiltrate through pavement finishes, resulting in significant corrosion of steel supports in these areas.



Figure 13 – View on Former Pavement Smoke Vent Showing Slab Infill and Corroded Steel Support Member



Figure 14 – View on Filler Joist Floor Slab Edge at Basement Access Stair

Basement Access Star - Existing basement access stair consists of a timber stair supported on basement walls and slab. It is assumed that this stair was not included in the original building layout; original basement stair access appears to be via stone stair located within sub-divided section of the building to the north (current Wrights Fish and Chips premises). It is noted that no stair handrailing is present at either ground floor or basement floor at the time of production of this report.

Basement access stair appear to be in good condition, with no obvious signs of distortion or deterioration, however the following related observations were recorded;

- Later addition of the basement access stair appears to be been coordinated with original primary steelwork beam members (to minimise requirements for additional supports to the filler joist floor).
- It is noted that where slab opening has been formed to the side of the stair, no structural support to the filler joist floor was witnessed on site (possible this is nominally embedded within filler joist floor and no visible without intrusive investigation works).

3.3 Ground Floor Observations

Access to ground floor was provided as part of BKPL inspection. Ground floor area is currently unoccupied and was generally clear of any significant debris at the time of inspection.

Walls and Steel Structure – ground floor consists of a generally open plan space following relatively recent removal of studwork partitioning (some small sections of studwork witnessed in place during BKPL inspection). Building frontage to Cross Street and John Dalton Street generally consists of large timber frame window panels, with nominally 500mm high masonry cills and intermediate masonry piers with inset steel columns. Rear elevation of the building onto Four Yards consists of generally glazed panels, however a number of these have been covered with plasterboard infill.

Internal structure of the building was generally visible in the form of composite steel columns with rivetted connections (generally exposed, however some columns still included previous usage plasterboard surrounds). Existing ceiling over includes a number of significant downstands (with feature coving arrangements) containing assumed steel support members to the 1st floor apartment structure over. External steel columns were also witnessed within masonry piers, generally with decorative timber surrounds (timber works noted as slightly damaged in some areas).



Figure 15 – General Ground Floor View Looking onto John Dalton Street

Ground floor walls and steel structural members were recorded as being in good condition, with no obvious signs of distortion or deterioration, however the following related observations were recorded;

- Decorative ceiling generally witnessed in good condition, with the exception of some minor cracking of ceiling / coving witnessed to ceiling adjacent to John Dalton Street elevation. Cracking appears to be superficial only



Figure 16 – Superficial Cracking Witnessed to Existing Ceiling / Coving

- A number of above ground vertical drainage runs were witnessed within the ground floor area (located within existing internal column surrounds generally); understood to serve residential bathroom / kitchen areas above. A number of further historic vertical pipes were witnessed, however it is unknown whether these are in use
- Steel column members witnessed on site appeared to be in good condition (where visible). Some signs of minor surface rusting / discolouration was noted, however this was superficial only

- Masonry cills to Cross Street elevation were noted include slight deteriorated of internal masonry leaf in some locations; including some cracking of brickwork joints, local loose bricks, etc.



Figure 17 – Loose Masonry / Cracking to Brickwork Cills to Cross Street Elevation

- Plaster board panels have been included to interface face of rear elevation (covering low-level window openings to rear elevation onto Four Yards). Panels were noted as loose in some locations and showing signs of some minor cracking



Figure 18 – Loose Plasterboard Panelling to Rear Elevation

- Curved masonry wall noted in close proximity to existing basement access stair; it is noted that this curved section of masonry appears to have been constructed off the ground floor filler joist floor



Figure 19 – Curved Masonry Wall Adjacent to Basement Access Stair



Figure 20 – Damaged Floor Board Finishes to Top of Basement Access Stair

Ground Floor Structure – existing ground floor was witnessed to consist of concrete filler joist type floor supported onto steelwork members (see further description below). Floor finishes consist of historic tiled finishes generally to shop frontage areas (noting some tiles appear to have recently been removed and stacked within the building, assumed for reuse) and areas of timber boarded finish to the rear of the property.

Ground floor structure appeared to be in good condition, with no obvious signs of distortion or deterioration, however the following related observations were recorded;

- Various floor finishes witnessed as noted above; insitu tiles appear to be in good condition and removed / stored tiles appear to have been carefully removed for possible future use.
- Timber board finishes to rear areas of the ground floor area have been installed onto timber spacer members directly onto top of filler joist floor. Timber boards noted as in poor condition / damaged in some areas, with some areas replaced with modern MDF / ply panel flooring

- A number of minor openings were witnessed within the ground floor filler joist floor, notably to front of building Cross Street elevation (assumed to be former service penetrations to basement level). These are not considered a structural issue, but possible issue from health and safety perspective
- 2No. localised intrusive investigation locations were witnessed on site close to elevation to John Dalton Street (not carried out as part of BKPL inspection, but likely present from previous investigation works). These indicated location of primary steelwork support member to the filler joist floor, along with smaller secondary support member and allowed for measurement of main structural floor members (refer to below Figure 22). Steel members witnessed were in good condition and unreinforced concrete infill slab was noted as being in good condition, formed generally in broken brick / stone (as opposed to containing significant clinker material)



Figure 21 – Previous Intrusive Investigation Location (Top Flange of Primary Steelwork Member Visible)

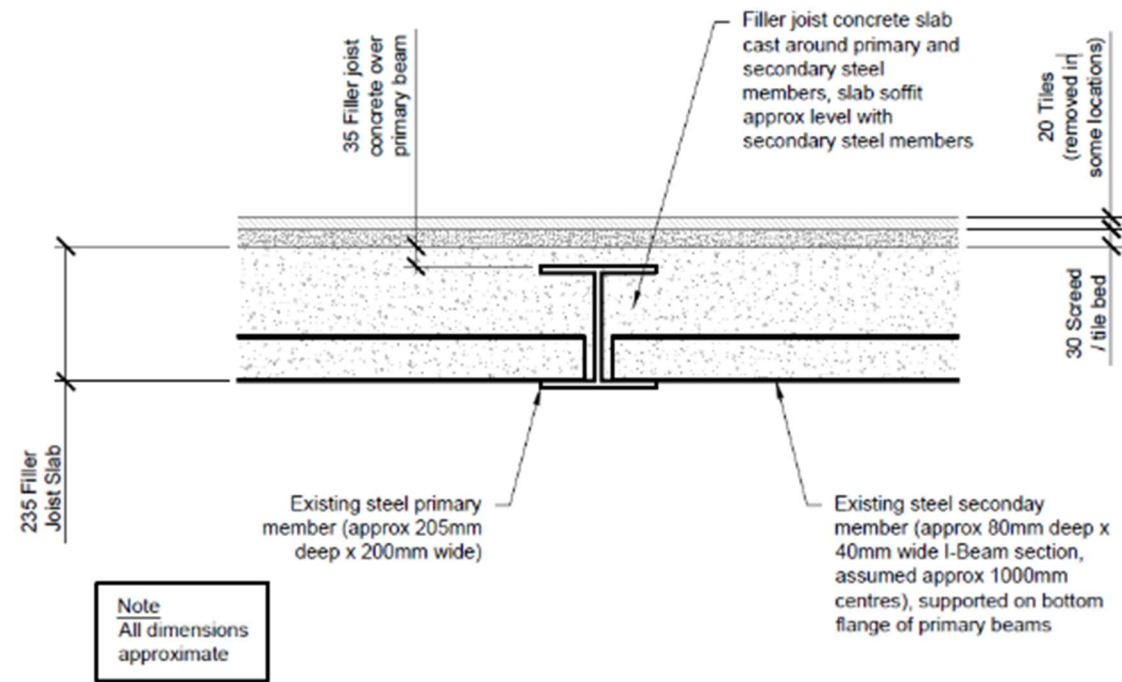


Figure 22 – Indicative Typical Filler Joist Floor Arrangement (Tiled Areas)

BKPL record of existing structural arrangements are included in Appendix C of this report.

3.4 External Building Fabric Observations

Ground level visual external inspection of the building has been carried out; consisting ground floor level polished granite panel / pier cladding, with red ashlar sandstone above ground floor level.

External building fabric appeared to be in good condition, with no obvious signs of distortion or deterioration, however the following related observations were recorded;

- Original cast iron rainwater downpipe noted to John Dalton Street elevation, set within ground floor polished marble cladding. Rainwater goods witnessed appear to be in good working order
- Minor moss staining witnessed to existing sandstone corbelling and feature motifs above ground floor windows. No obvious signs of water ingress to the building ground floor areas noted during inspection



Figure 23 – Minor Moss Staining to Stonework

- Some loose electrical cabling noted to rear elevation of the building (onto Four Yards); it is unknown if cables are currently live
- Minor graffiti noted to rear elevation stonework and windows
- 2No. possible manhole chambers noted to rear of building in Four Yards



Figure 24 – Rear Elevation of Building (Four Yards)

3.5 Further Surveys / Investigations Recommendations

Based on the above, the following additional surveys / investigation works are recommended to further inform structural design for the proposed building alterations and allow formal schedule of repair works to be developed;

- Specialist asbestos survey to be carried out prior to any intrusive works within the building. Intrusive investigations to be designed to avoid disturbing asbestos where possible / specialist asbestos removal to be carried out where recommended by specialist survey report
- Detailed existing services survey recommended within ground floor and basement areas, to determine status of all service prior to commencement of works on site
- Embedded basement level columns to be locally exposed where significant rusting of steelwork noted within basement area; concealed faces of embedded columns to be exposed for further inspection and possible repairs
- Embedded steelwork supports to former pavement vents to be further exposed for inspection
- Ferroskan type survey recommended to allow detailed layout of steelwork support members within filler joist floor to be determined (including determination of beam locations / centres, sizes, slab details, etc. Particular attention is drawn to existing steelwork arrangements adjacent to existing basement access stairs
- Internal drainage CCTV survey is recommended to determine details and condition of existing below ground drainage system to be determined (including survey to connection point with main sewer outside of the building)



4. Proposed Development Alterations

4.1 Architects' Proposals

Architectural proposals for the unoccupied ground floor and basement areas of 86 Cross Street, Manchester are included in Appendix A of this report, summarised as follows;

- Introduction of ground floor restaurant seating area and related waiting area, pizza preparation / cooking area and assisted toilet space
- Ground floor works to include the introduction of significant pizza over onto existing filler joist ground floor structure
- Basement level conversion to additional dining / private dining spaces, preparation space, chiller room, customer toilets and back-of-house / staff areas
- New basement access stair to replace existing stair
- Minor alterations to basement level wall, to increase doorway opening into proposed preparation area

4.2 Structural Overview of Proposals

Given the condition of the building as witnessed during non-intrusive visual inspection, it is noted that the existing structure is in generally good condition, with no signs of any significant structural defects (with the exception of historic water ingress to former pavement smoke vents). This is to be verified by further investigation works in key areas as noted above and any defects found are to be suitably and sympathetically repaired as part of the project.

Where renovation / alteration works are to be carried out to the existing building as described in above section 4.1, it is considered that the proposed alterations are feasible and that these will not be detrimental to the existing building as described below.

4.3 Building Loading Assessment

Ground floor and basement areas of the existing building are currently unoccupied, however historic usages have included former bank premises, along with more recent use as betting shop. Proposed ground floor use includes a combination of dining areas and kitchen areas, with similar usages proposed to the proposed basement.

Assessment of structural loadings applied to the existing structure by proposed usage has been carried out, based on comparison on previous building loadings against proposed usage loadings. Determination of previous / proposed loadings for comparison purposes has generally been in accordance with BS EN 1991-1-1-2002, however additional loading information has been taken from BS6399-1-1996 where relevant.

Loading assessment is summarised as follows;

Ground Floor / Basement Historic Loadings:

- Banking Hall (BS 6399-1-1996, Category B) = 3kN/m²
- General Retail Shops (BS EN 1991-1-1-2002, Category D1) = 4kN/m²

- Previous use as betting shop premises is considered relatively lightweight in terms of imposed loading applied to floors (likely relatively open premises, not susceptible to crowds and not subject to significant storage loadings). As such, applied imposed loading of 4kN/m² as specified in BS EN 1991-1-1-2002 (Category D1) is considered excessive for previous usage.
- As such, loading comparison is to be based on conservative value of 3kN/m²

Ground Floor / Basement Proposed Loadings:

- Restaurants (BS EN 1991-1-1-2002, Category C11) = 2kN/m²
- Kitchen Areas (BS6399-1-1996, Category B) = 3kN/m²

Based on the above assessment, it is noted that existing floor structures to the building are to be subject to minor decrease in imposed loadings / no changes to imposed loadings as part of the new development and as such, existing structure is considered adequate to support proposed loadings.

Where significant pizza oven is to be installed, detailed loading assessment of the existing ground floor filler joist floor is to be carried to determine suitability of the existing structure to support locally increased loadings. Assessment to be based on specific loading information to be provided by pizza oven specialist and assessed following further Ferrosan survey works to determine accurate details of existing filler joist floor (including main steelwork locations, sizes, etc). Where required, localised strengthening of floor structures is to be carried out sympathetically with minimal disturbance to the existing building fabric.

4.4 Building Stability Assessment

Current building arrangement at ground floor level includes generally glazed elevations onto Cross Street and John Dalton Street, with internal steel frame / external steel frame columns within masonry piers. Stability of the existing structure is assumed to be provided by diaphragm action of the existing upper floor structures transferring lateral wind loadings to the supporting steelwork members. Significant steelwork connections as witnessed on site at underside of 1st floor level, along with external wall masonry panels are assumed to provide sufficient stiffness to provide lateral stability of the building.

It is also noted that significant masonry partition wall is present between the proposed development building and previous sub-divided area to the north (current Wrights Fish and Chips premises). This masonry partition provides significant lateral stability to the existing building.

Architectural proposals for the ground floor and basement areas of the building do not require any alterations to the existing steel frame or masonry walls. As such, proposals have no impact on stability of the existing structure.

4.5 Proposed Structural Repair Works

Pavement Smoke Vent Repair Works

Based on BKPL non-intrusive investigation works, structural defects have been identified in the location of historic pavement smoke vents; original smoke vents appear to have been removed and infilled with relatively recent concrete slab, however significant corrosion of adjacent steelwork floor support members was identified on site.

Cause of this significant corrosion is likely due to lack of any formal waterproofing measures above the recently installed concrete slab / below pavement finishes above, resulting in water ingress during wet weather. Corrosion in this location is likely made further exacerbated by the presence of de-icing salts within surface water runoff at pavement level.

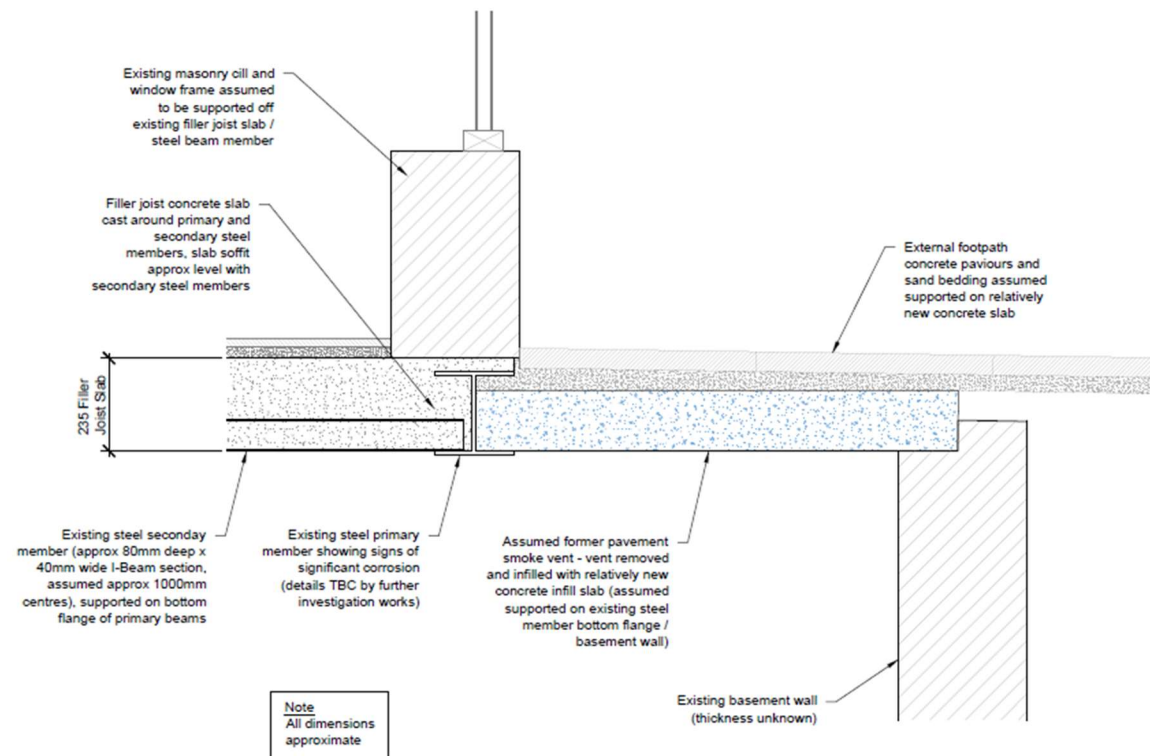


Figure 25 – Existing Former Smoke Vent Infill Detail

Given the extent of corrosion witnessed on site, existing members are to be replaced as follows;

- Temporary propping arrangements to be installed to provide support to existing filler joist floor, recent concrete infill and existing low-level masonry cill over, propped back to existing concrete basement floor
- Existing corroded steelwork member to be carefully removed, including cutting out of adjacent filler joist / concrete infill
- Exposed ends of filler joist secondary steelwork members to be cut back to allow removal of corroded beams; ends of secondary members to be further reviewed on site and any corroded beam ends to be cut back to unaffected steel
- Existing basement wall bearings to be further reviewed and any damaged masonry removed and replaced
- New steelwork support member with welded steel bottom plate to be installed, to provide support to cut edges of existing filler joist / concrete infill floors
- New beam to be encased in concrete to provide support to existing low-level masonry cill above
- Temporary propping to be removed

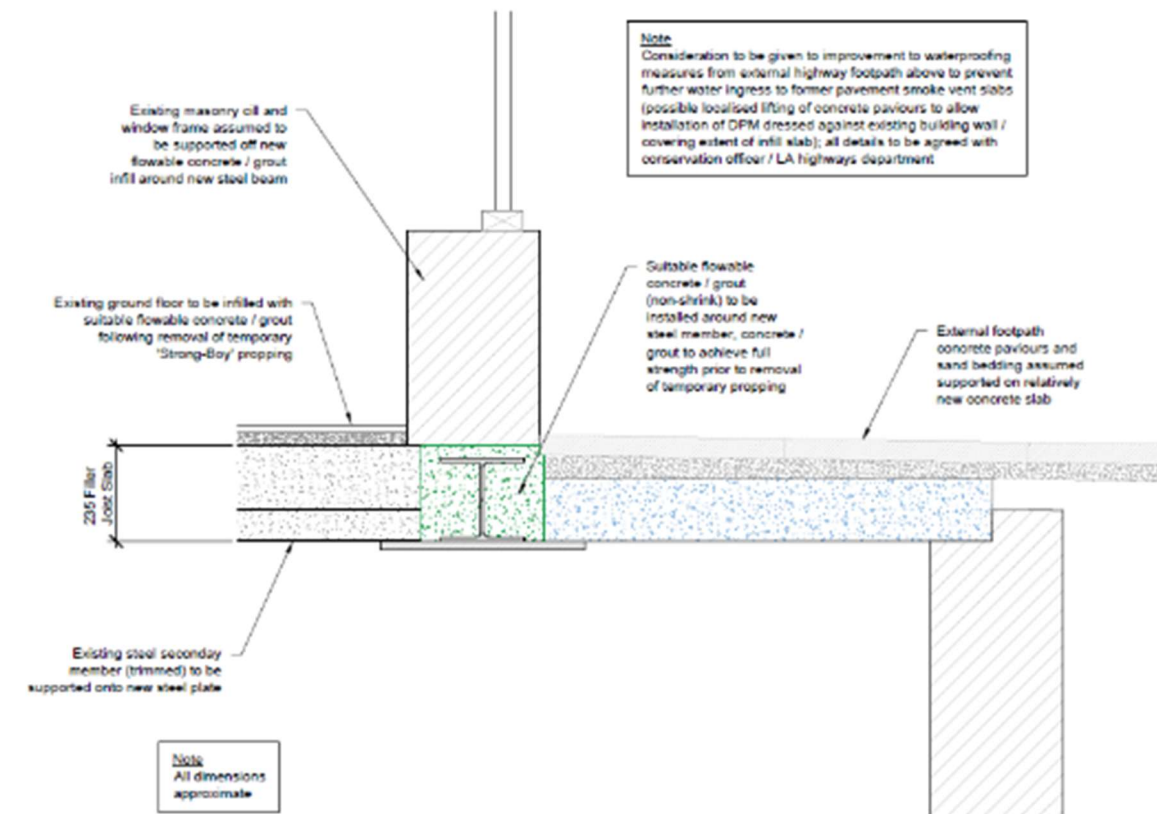


Figure 26 – Proposed Former Smoke Vent Infill Repair Detail

It is further recommended that consideration is given to improvement of waterproofing local to historical pavement smoke vents, to prevent further water ingress and potential issues in the future. It is anticipated that waterproofing details would be developed by suitable waterproofing specialist, however these may involve removal of paving slab finishes directly over former smoke vents, installation of suitable waterproofing DPM membrane (or similar) to prevent future water ingress and reinstallation of paved finishes. All works within the existing pavement area subject to consultation with Manchester City Council Highways. Details of proposed repair works to former pavement smoke vents are included in Appendix D of this report.

Other Minor Defect Repair Works

Based on BKPL non-intrusive investigation works, a number of other minor defects have been identified and should be repaired as follows;

- Basement level masonry staining to be cleaned (including removal of loose paint finish) and localised repointing recommended
- Basement level chimney structure showing signs of cracking to be repaired; consisting of clearing any loose debris from cracked joints and localised repointing
- Existing basement manholes to receive new double-sealed covers
- Existing steelwork showing signs of minor surface corrosion to be cleaned to remove signs of minor rusting and repainted
- Cracked / loose masonry to ground floor cills to be repaired
- Loose plasterboard panelling to rear elevation to be removed / replaced as necessary



- Former service holes in existing ground floor slab to be infilled / temporary cover to be provided to avoid potential accidents during site works
- Temporary handrailing to existing stair to be provided during site works to avoid potential accidents (stair to be replaced as part of works)

4.6 Proposed Structural Alterations Ground Floor Level

Proposed structural alterations at ground floor level include general non-structural renovations, along with installation of new basement access stair (to replace existing stair) and installation of significant new pizza oven with proposed kitchen space. Structural implications of these works are summarised below;

New Stair Installation:

- Ferroskan of existing filler joist ground floor structural arrangement in close proximity to existing timber stair to be carried out to determine accurate locations and details of main steelwork support members
- Temporary propping scheme to be developed to allow safe removal of existing timber stair (subject to determination of existing structural arrangements in close proximity to stair)
- Localised removal of section of existing filler joist flooring to accommodate new widened stair/ stair return at ground floor level – exact details to be developed, including alternations to existing steelwork support members where necessary. All structural alterations to be carried out sympathetically with the existing building fabric
- New timber stair to be installed, with support taken onto existing concrete basement slab and 1st floor filler joist floor
- New handrailing system to be installed
- Temporary propping measures to be removed on completion of structural alterations

New Pizza Oven Installation:

- Ferroskan of existing filler joist ground floor structural arrangement in location of proposed pizza oven to be carried out to determine accurate locations and details of main steelwork support members
- Detailed structural assessment of specific pizza oven loadings applied to existing filler joist floor to be carried out to determine floor suitability to support new loadings.
- Where necessary, localised strengthening of existing filler joist floors to be introduced (subject to detailed structural assessment of existing floor structure under new loadings). All structural alterations to be carried out sympathetically with the existing building fabric.
- Further review of installation method for new pizza oven to be carried out; it is understood that pizza oven is to be delivered pre-erected and installation will require removal of existing window and frame to allow oven to be placed within the building. Temporary laydown point for the oven to be subject to temporary propping at basement level, to allow oven to be temporarily supported and moved to proposed location
- Removed window and frame to be replaced and temporary propping to be removed

4.7 Proposed Structural Alterations Basement Level

Proposed structural alterations at basement level include minor widening of existing door opening into proposed basement preparation area. Structural implications of these works are summarised below;

Preparation Area Door Opening:

- New lintel members to be installed to form widened opening within basement wall

- Suitable temporary propping to be installed to support remaining masonry wall over / ground floor structure as required, supported onto existing concrete basement slab
- New lintel members to be installed and temporary propping removed

4.8 Structural Robustness

In accordance with Approved Document A, Table 11, the existing building is classified as a Building Consequence Class 2a (flats, apartments and other residential buildings not exceeding 4 storeys). Structural robustness of the existing building is currently provided by relatively regular arrangement of the existing main steel frame structure (including columns generally tied in two directions, where witnessed on site) and adequate tying of main steelwork members to floor structure (inherently formed by filler joist floor arrangement with embedded / cast-in steelwork members).

Proposed development structural alterations do not involve any changes to the existing building main structure, with the exception of localised alterations to ground floor structural to accommodate new basement access stair. As such, building robustness is not affected by the proposed works.



5. Conclusions and Recommendations

Initial non-intrusive visual survey of the ground floor and basement floor levels of 86 Cross Street, Manchester by BKPL on 17.04.24 noted that in general the building appears to be in reasonable condition, with no signs of significant structural defects, with the exception of significant corrosion witnessed to existing steelwork members to former pavement smoke vents.

Further intrusive investigation works are recommended to further inform the structural design for alterations to the ground floor area (including installation of new basement access stair and significant new pizza oven) and to further investigate area of defects as witnessed during non-intrusive visual survey. These intrusive works should be carried out prior to detailed design for proposed alterations and suggested locations / extents of intrusive works have been provided in Appendix C of this report.

Where significant corrosion of existing steelwork members local to former pavement smoke vents has been identified, suitable structural repairs are to be carried out. Details of proposed structural repairs, refer to Appendix D of this report. Other minor defect repairs are also recommended as described in section 4.5 of this report.

Based on review of existing building information available at time of production of this report and findings of non-intrusive visual inspection, proposed structural alterations to the existing building ground floor and basement areas are considered feasible as described in section 4 of this report and will have no detrimental impact on the existing building structure, providing these are designed in accordance with the recommendations of this report. All structural alterations are to be further informed by additional intrusive investigations and should be sympathetic with the existing building fabric.

APPENDIX A – Architectural Proposed Information





APPENDIX B – Architectural Existing Information



APPENDIX C – BKPL Inspection Record Drawings



APPENDIX D – BKP Structural Repair Details



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