REPLACEMENT OF EXISTING ENTRANCE DOORS
THE ENGINE HOUSE
CHORLTON MILL
3 CAMBRIDGE STREET
MANCHESTER

DESIGN & ACCESS STATEMENT



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P102/D&A Statement
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THE ENGINE HOUSE, CHORLTON MILL. MANCHESTER

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THE ENGINE HOUSE, CHORLTON MILL. MANCHESTER

DESIGN & ACCESS STATEMENT

1.0 INTRODUCTION

1.1 This Design Statement has been prepared by Mike Macpherson Architects on behalf of the International Anthony Burgess Foundation to accompany a Planning Application for the replacement of the existing entrance doors to the Engine House at Chorlton Mill which is a Grade II listed building located on the corner of Cambridge Street & Hulme Street, Manchester.

1.2 This Statement considers the design issues connected with the proposed replacement doors to the Engine House and a list of all the drawings & information submitted with the Planning Application is shown in Appendix 7.2. A separate Heritage Statement has also been prepared as part of the Listed Building Application.

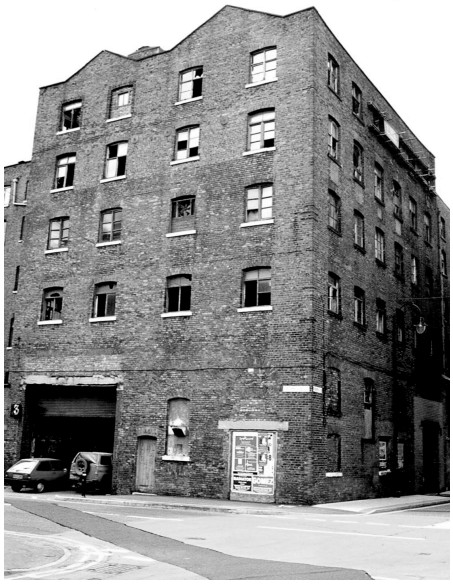
1.3 The Application is for the replacement of the existing glass entrance doors on the Cambridge Street frontage of the Engine House with new double glazed doors in a slimline aluminium frame. The existing double entrance doors are part of a large planar glazing type glazed screen installed 12 years ago. The applicant has experienced numerous problems with the existing doors (refer to Appendix 7.3) and is seeking to provide suitable replacement entrance doors for the International Anthony Burgess Foundation. The Design Statement gives a description of the site context; building history; planning history and the impact of the proposals for replacement entrance doors on the listed building status of Chorlton Mill.

2.0 LOCATION AND CONTEXT

2.1 The application site is on the ground floor of the Engine House which is located on the corner of Chorlton Mill at the junction of Cambridge Street and Hulme Street, Manchester. Ten years ago Chorlton Mill was refurbished and converted to generally provide apartments on the upper floors and mixed uses on the ground and lower floors. Prior to its conversion the mill building had been neglected and vacant for a long period since the mid 1980's and formed part of the Dunlop factory complex. Refer to Figs. 1,2 & 3 for photos of the Engine House in 1998 prior to the mill conversion works starting.

2.2 The vicinity of the site has an interesting past with a variety of industrial, commercial and residential uses. The main industry in the area used to be the Dunlop factory which produced a variety of rubber products. A significant proportion of the former Dunlop complex consists of listed buildings. To the east of Chorlton Mill along Great Marlborough Street there are two warehouse buildings which have been converted for office use. Along Hulme Street, Lincoln House and Sally's Yard warehouse were converted to residential use in the mid-1990's, with newbuild Lockes Yard apartments at the junction with Great Marlborough Street. Directly across Hulme Street, the former Chorlton Old Mill has been converted to student accommodation, with a pub, retail units and car parking also provided. Opposite from Chorlton Mill Engine House is a car park with the Salvation Army residential centre located to the rear. At the rear of Chorlton Mill the former Dunlop Factory was demolished and both the Foundry Building and Green Buildings have been built. Further buildings were proposed as part of the Macintosh Village masterplan to form a new Southern gateway to the City but with the recent economic recession these sites remain vacant.

2.3 Chorlton Mill and its chimney are Grade II listed, located opposite is the Grade II listed former Cotton Mill and mill chimney stack at the Hulme Street / Cambridge Street junction (Refer to Appendix 7.3 for English Heritage Listing). Immediately South of Chorlton Mill is the converted Chorlton Old Mill and the former Cotton Mill which are also both Grade II listed and front onto Cambridge Street. Other buildings of architectural or historical interest in the immediate vicinity of the Engine House are the Hotspur House building on Cambridge Street and the Swinton Insurance building on Great Marlborough Street. The ordnance survey map of 1849 (refer Fig.4) shows Chorlton Mill south of the River Medlock with the infamous Little Ireland back to back housing to the North.





Figs. 1,2 & 3. 1998 photographs of Chorlton Mill Engine House prior to conversion



3.0 BUILDING HISTORY

3.1 The mill building dates back to 1813 when the first wing of Chorlton Mill building parallel to Cambridge Street was completed and functioned as a cotton mill. The six main storeys were 10ft 6in high, the ground or semi-basement floor 10ft and the top floor 8ft 6in high. The building was divided into four bays by three rows of cast iron columns 12ft 6in high apart supporting beams at intervals of 9ft. The cast iron column diameters reduced from 5 1/2 in in the basement to 4 in on the top floor. The beam engine was installed in 1814 in the north end of the building and required a head room of nearly 5 storeys. The engine was located behind the stone spiral staircase which provided the main entrance until the chimney was built nearly 40 years later. The preparation mill along Hulme Street was built five years later in 1818 with the corner plot being occupied by the manager's house up to 1845 (refer to Figs.5, 6 & 7).

3.2 The engine house on the Cambridge Street and Hulme Street corner was built in 1845 with a pair of beam-engines linked to a boiler house across Cambridge Street with a tunnel under the road to contain the steam pipes. Internally the corner engine house has larger cast iron beams on the upper floors with pulley rings cast onto them to allow for lifting items. The chimney was built on the Cambridge Street frontage in 1850. From the 1960's the Engine House acted as a fire station for the whole Dunlop factory complex and the large opening fronting onto Cambridge Street was formed with a steel beam and roller shutter (Refer to figs 1-3). The Engine House was used as a Marketing Suite before the International Anthony Burgess Foundation carried out refurbishment works and moved into the Engine House in late 2009/early 2010. The International Anthony Burgess Foundation has an extensive library and archive of books, manuscripts,correspondence and photographs relating to Anthony Burgess and his work kept at the Engine House. The IABF also has a wealth of audio and visual material, paintings, drawings, objects from his various houses at the Engine House which also provides space for readings and performances of Burgess's literary works and music, as well as offering an excellent performance space for national & international writers and musicians.

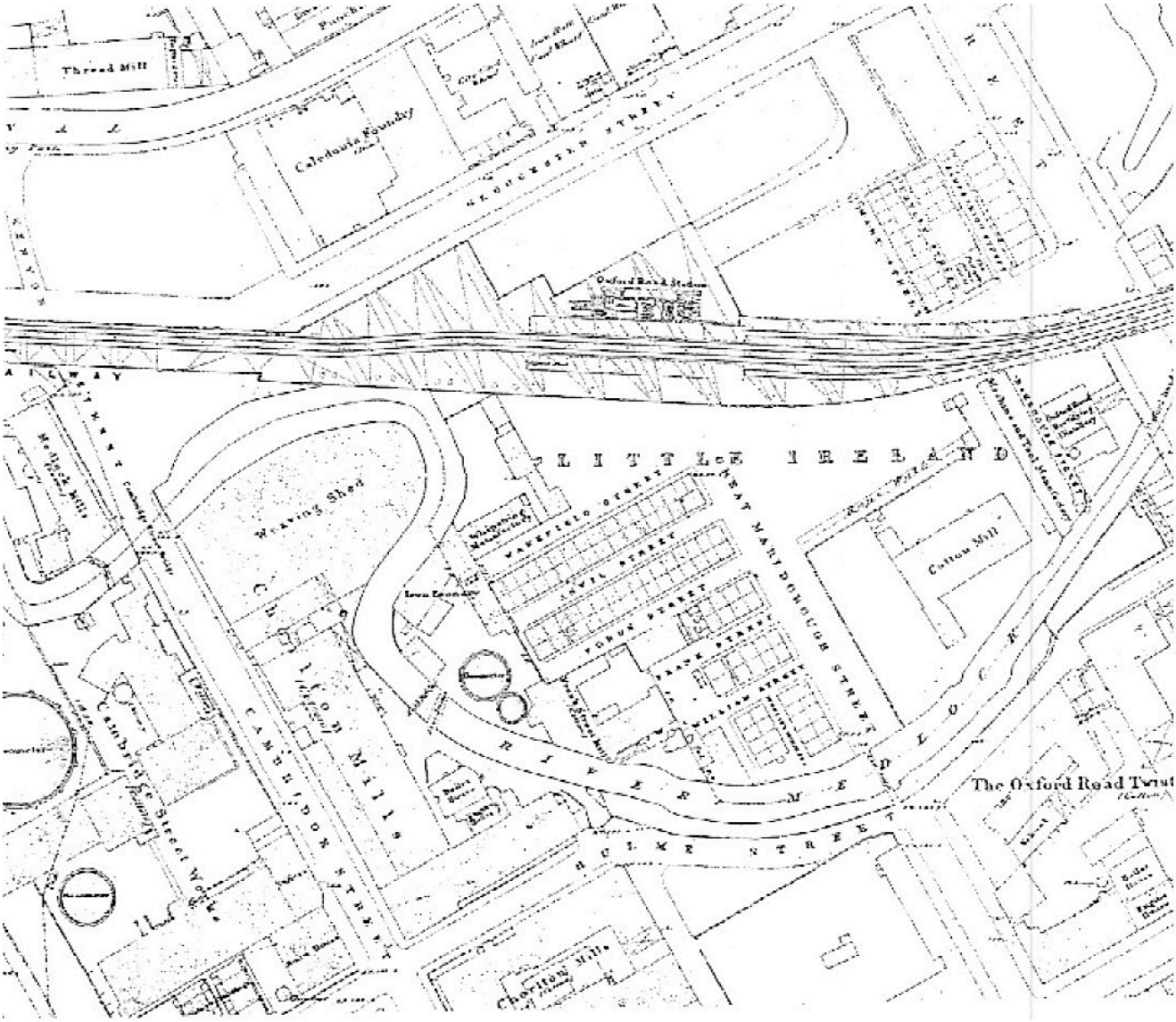


Fig.4 Ordnance Survey Map of 1849 showing Chorlton Mill & Little Ireland

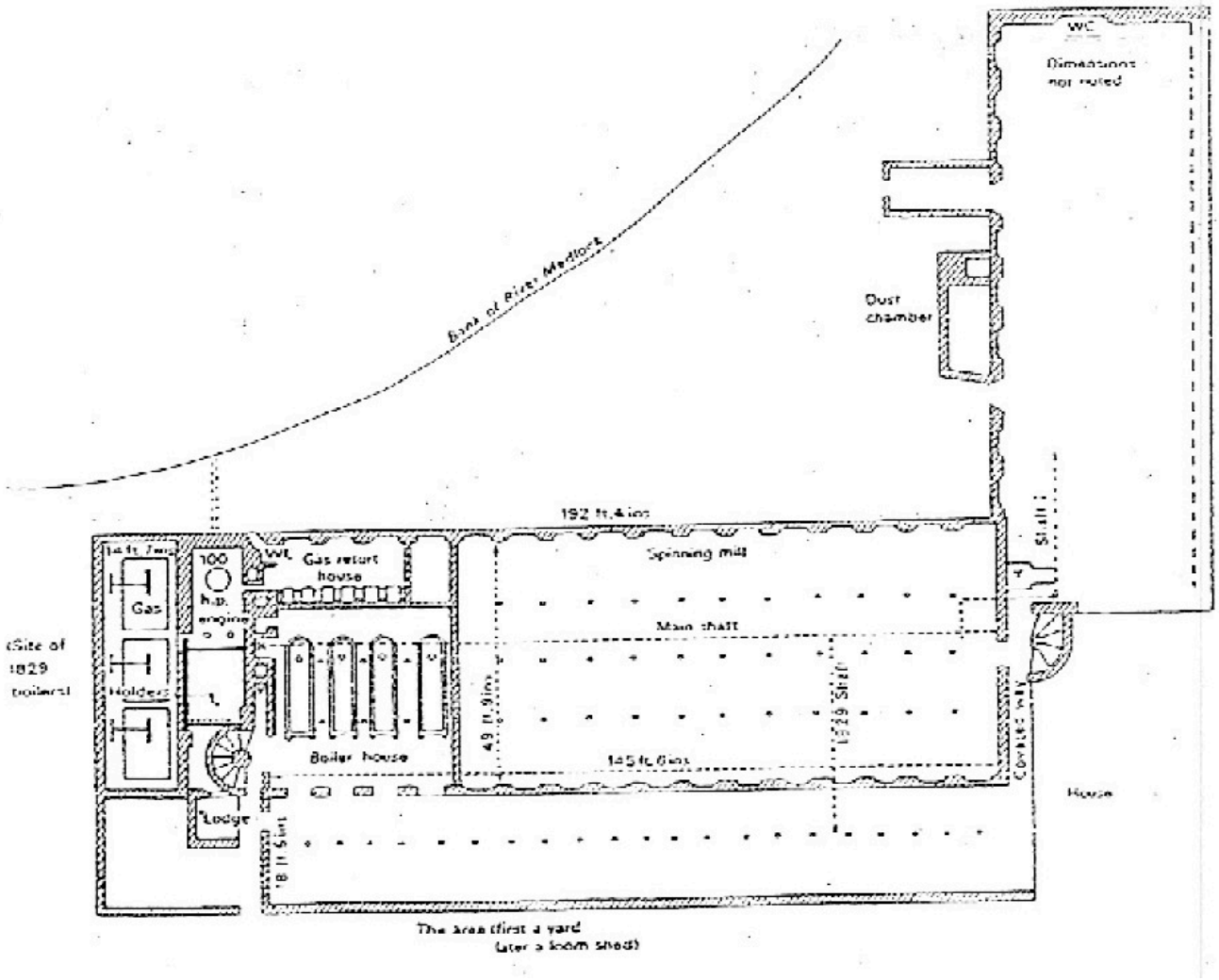


Fig.5 Plan of Chorlton Mill c1830 prior to Engine House

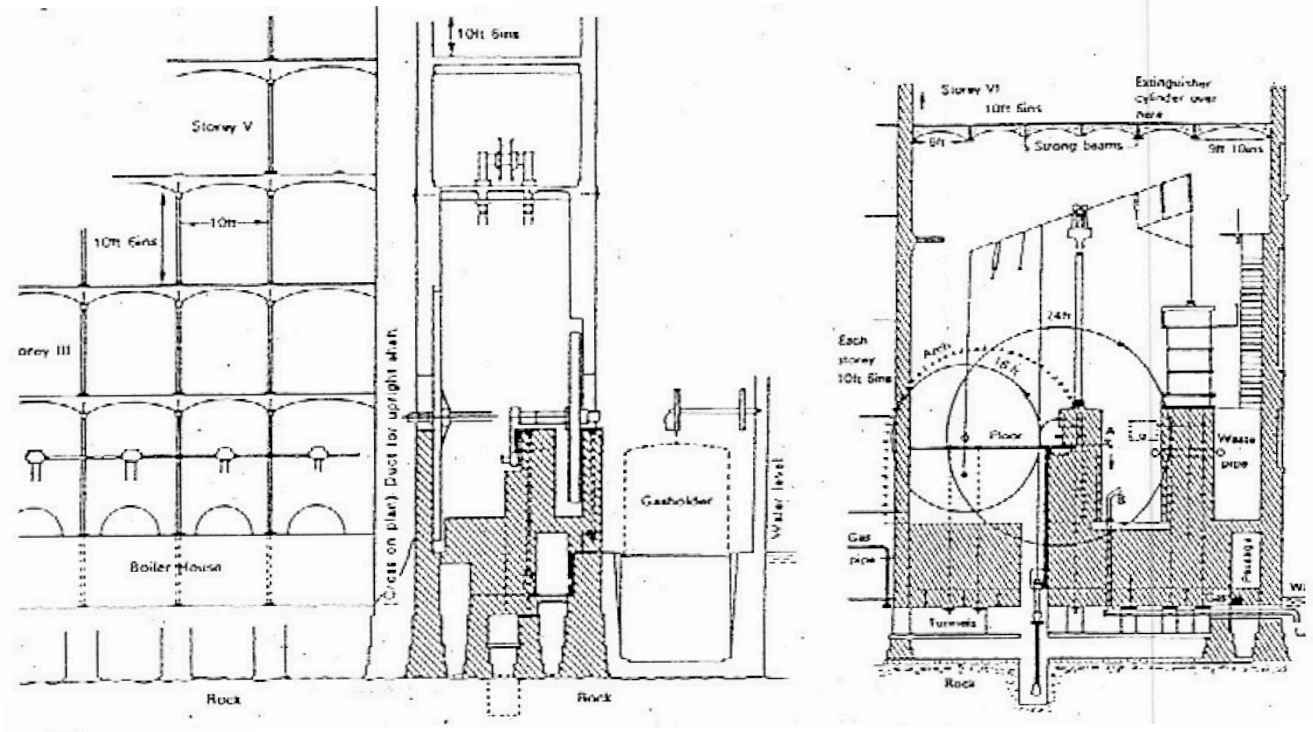
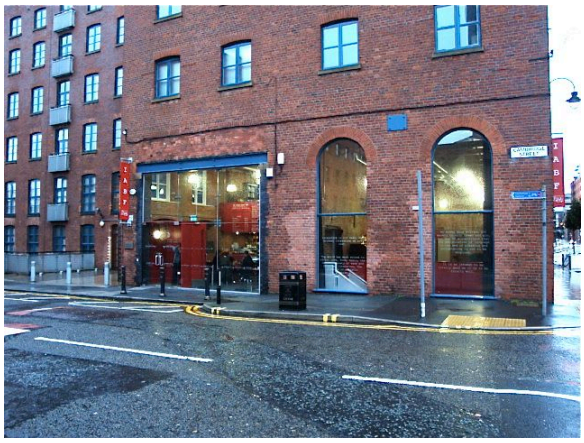


Fig.6 Chorlton Mill Section to Cambridge St. gable showing beam engine

4.0 PLANNING HISTORY

4.1 Recent planning history of Chorlton Mill includes Planning Permission and Listed Building Consent (Refs: F38313 & F38316 dated 25 Jan 1991) for student accommodation and studio workspace. Planning Permission (Ref: 058159/FO/CITY3/99) and Listed Building Consent (Ref: 058160/LO/CITY3/99) were granted on 6 June 2000 for a mixed use conversion of the mill, with 71no. apartments with cafe bar / restaurant; health club and 8no. live/work studio apartments.

4.2 Further to the above Planning and Listed Building Consents, subsequent approvals for Chorlton Mill include the sixth floor Penthouse (Refs: 060414/FO/CITY3/00 & 060443/LO/CITY3/00) granted on 20 Feb 2001; 9no. ground floor apartments and 6no. basement live / work units (Refs: 060988/FO/CITY3/00 and 060989/LO/CITY3/00 granted on 20 April 2001; furniture showroom located on basement, ground and first floors in the Hulme Street wing (Refs: 061804/FO/CITY3/01 and 061805/LO/CITY3/01) granted on 27 June 2001; River Street car park amendments (Planning Ref: 063823/FO/CITY3/01) granted on 9 June 2002; and 6no. sub-basement live / work units (Refs: 064648/FO/CITY3/02 & 064617/LO/CITY3/02) granted on 4 Oct 2002 and 5no. live / work units with external landscaping (Refs: 069225/FO/2003/C3 & 069224/LO/2003/C3) granted on 17 March 2004. In 2008 Planning & Listed Building Consent was granted for the current Engine House layout with a Change of use from B1 to multi-use space (archive/research area, seminar area, exhibition space, quiet performance area) with book shop/cafe area with elevational alterations. (Ref. 088455/FO/2008/C1 & 088494/LO/2008/C1).





Figs.8 & 9 Photographs of existing Engine House frontage to Cambridge Street

5.0 DESIGN PROPOSALS

5.1 Client Requirements & Sketch Proposals

The Application is for the replacement of the existing sheet glass pivot type entrance doors on the Cambridge Street frontage of the Engine House with new double glazed doors in a slimline aluminium frame. The existing double entrance doors are part of a large planar glazing type glazed screen installed in 2000. The applicant has experienced numerous problems with the existing doors (refer to the Appendix 7.3 for a summary) and is seeking to provide suitable replacement entrance doors for the International Anthony Burgess Foundation. The existing doors have been replaced several times but cannot be fitted with additional closers, limiters or fittings as the heat soaked glass cannot be drilled or accept any new fixings. Similarly new sheet glass doors cannot be hung from the existing glazed screen and the only option to replace similar upgraded sheet glass doors would be to replace the whole glazed screen which is simply not viable in terms of costs.

Initial sketch proposals were produced for discussion with both the client and Manchester City Council Planning Department based on an independent Rectangular Hollow Section steel frame 'goal post' to support new doors and door frame set just inside the line of the existing glazed screen. The first Sketch Option A was for 2.1m high double doors with a 0.3m high logo sign covering the RHS steel support frame. The second sketch Option B was for a 2.1m high automatic sliding door and fixed glass panel supported below a RHS frame with covering 0.3m high logo/sign above the doors (refer to Appendix 7.4 & 7.5 for Initial Sketch Options A & B).

5.1 Client Requirements & Sketch Proposals (Cont'd)

After a meeting on site with both the Planning Officer and the Design & Conservation Officer the following points were agreed in respect of the proposals for new entrance doors:-

a) the preferred solution was double swing type doors rather than sliding doors;
b) the height of the double swing doors should be 2.4m to closely match the existing;
c) the visual impact of any steel frame should be reduced to a minimum;
d) the new doors should have a slimline type frame to reduce visual impact.

5.2 Detail Design Proposals

Following the feedback in response to the initial sketch proposals the IABF appointed a Structural Engineer to look at providing a minimal structural solution for a steel frame to support the new doors and resist wind loadings. Rather than a clumsy RHS with door frame bolted below a much neater solution is to have a 'C' type steel channel section with the smaller face to the outside and the door frame itself discretely fixed inside the steel 'C' section. The new independent double doors are to be positioned 10mm inside the line of the existing planar glazing and be fitted with concealed transom closers to avoid some of the problems experienced with the existing pivot hinge doors.
The new double action open-in & open-out doors are to be Comar 7P.i type double glazed doors from Comar Architectural Aluminium Systems fitted with anti finger trap stiles and Axim size 3 concealed transom closers. The slimline aluminium frame is to be finished in a polyester powder coat finish in a RAL colour to closely match stainless steel (Telegrey 4 RAL 7047).

5.3 Schedule of Works for Replace Entrance Doors

The schedule of works for the proposde replacement doors will include for the following items:-

- Remove existing glass sheet entrance door and temporary door panel;
- Remove existing floor springs & make good to threshold;
- Make good to existing pivot hinges to top of existing doors with stainless steel patch fittings/coverplates;
- Remove existing 38mm thick plywood top & side panel to existing internal lobby & save for re-use;
- Provide and fix new steel goalpost type frame with 'C' channel all in accordance with Structural Engineers details;
- Instal new Comar 7P.i double action open-in & open-out type aluminium frame double glazed swing doors;
- Provide and fix new threshold strip;
- Provide new small glazed screen to 38mm thick rear panel of existing internal entrance lobby (to allow cafe staff to view new entrance doors);
- Make good to existing internal plywood lobby and reinstate existing 38mm thick plywood top and side panels;
- Make good to internal entrance matting inside entrance lobby area.

5.4 Accessibility

Level access is to the maintained to the front entrance doors with a clear level landing area of at least 1.5m x1.5m provided in front of the entrance doors and a DDA compliant accessible threshold is also provided; the door handle will be provided in a contrasting colour to comply with Approved Document M of the Building Regulations and black handles will provide the required contrast.
For further details of the proposed new doors refer to drawing no. P102/05 submitted with the application.

6.0 SUMMARY

6.1 The Design Statement demonstrates that the proposed replacement of the Engine House doors is an appropriate design solution that will satisfy the clients requirements with no significant impact on the main historic features of Chorlton Mill which will remain as a 'fine example of early large-scale mill building'.
The proposals for new replacement doors within the glazed screen will have a low impact on the architectural scale and character of Chorlton Mill and it is worth noting that in terms of the buildings longevity as a heritage asset, all the proposed new work is reversible, so that any changes can be undone at a future date without any harm to the historic fabric of the Grade II listed building.

7.0 APPENDICES

7.1 Appendix 1 - List of Illustrations

Fig 1 - 1998 Photograph of Chorlton Mill Engine House
Fig 2 - 1998 Photograph of Chorlton Mill Engine House
Fig 3 - 1998 Photograph of Chorlton Mill Engine House
Fig 4 - Ordnance Survey Map of 1849 showing Chorlton Mill & Little Ireland
Fig 5 - Plan of Chorlton Mill c1830 prior to Engine House
Fig 6 - Chorlton Mill Section to Cambridge St. gable showing beam engine
Fig 7 - Chorlton Mill Neighbourhood c1851
Fig 8 - Photograph of existing Engine House frontage to Cambridge Street
Fig 9 - Photograph of existing Engine House frontage to Cambridge Street

7.2 Appendix 2 - List of Planning & Listed Building Consent Drawings/Information submitted by Mike Macpherson Architects

P102 / SP1 Existing Site Photographs
P102 / 01 Site Location
P102 / 02 Site Layout
P102 / 03 Existing Ground Floor Plan & Elevation
P102 / 04 Proposed Ground Floor Plan & Elevation
P102/ 05 Proposed Entrance Door Details
P102 / D&AS Design and Access Statement
P102 / HS Heritage Statement
P102 / FRS Flood Risk Statement
MB-1622(1-15) Structural Design Calculations and Details for Door Support Frame

Appendix 7.3 - IABF email Summary of incidents with existing entrance doors

From: Andrew Biswell <director@anthonyburgess.org>
Date: 19 April 2012 16:22:57 GMT+01:00
To: Mike Macpherson <mail@mikemacpherson-architects.co.uk>
Subject: Log of incidents with front doors at Engine House, Chorlton Mill

Here is a log of incidents with the existing glass doors at the Engine House, for inclusion in our planning application as part of the justification for the new aluminium installation.
I note that all of these problems have been caused by the excessive weight of the glass doors, combined with the flimsiness of the patch fittings and hinges, and exacerbated by the wind-corridor effect which is typically experienced on Cambridge Street.

It is clear to us that like-for-like replacement, as proposed by the Conservation Officer, will not be a satisfactory solution. I have grave concerns about public safety with the heavy glass doors; (1) because we are a public building, licensed to entertain up to 100 people; and (2) because there is a busy street immediately outside our main doors, which is also a designated bus route.

The inadequate door installation causes an additional risk to the security of the building itself, which houses a large archive of literary manuscripts with a very high insurance value. Given the status of the Burgess Foundation as one of the foremost modern literary archives in the United Kingdom, with a mission to preserve the world-class items of cultural significance in our care, it isessential that the security of the building should not be compromised in any way.

Please let me know if you will need any further information.
Dr Andrew Biswell
Director
International Anthony Burgess Foundation
The Engine House
Chorlton Mill
3 Cambridge Street
Manchester
M1 5BY
Telephone: (0)161 235 0776
director@anthonyburgess.org

11/11/2010 – Solaglass invoices 753159a & 749408a
Fix to patch fitting on front doors – cost £667.40
Weight of doors and strength of wind caused the patch fitting to fail, the door dropped and as such the door was unsafe. The waiting time for the replacement patch fitting has (in our experience) resulted in the door being out of use for 6 weeks.
Replace glass fin within the windows due to high winds - £1768.67
This insurance claim also included cost of a replacement floor in café at a cost of £2424.74

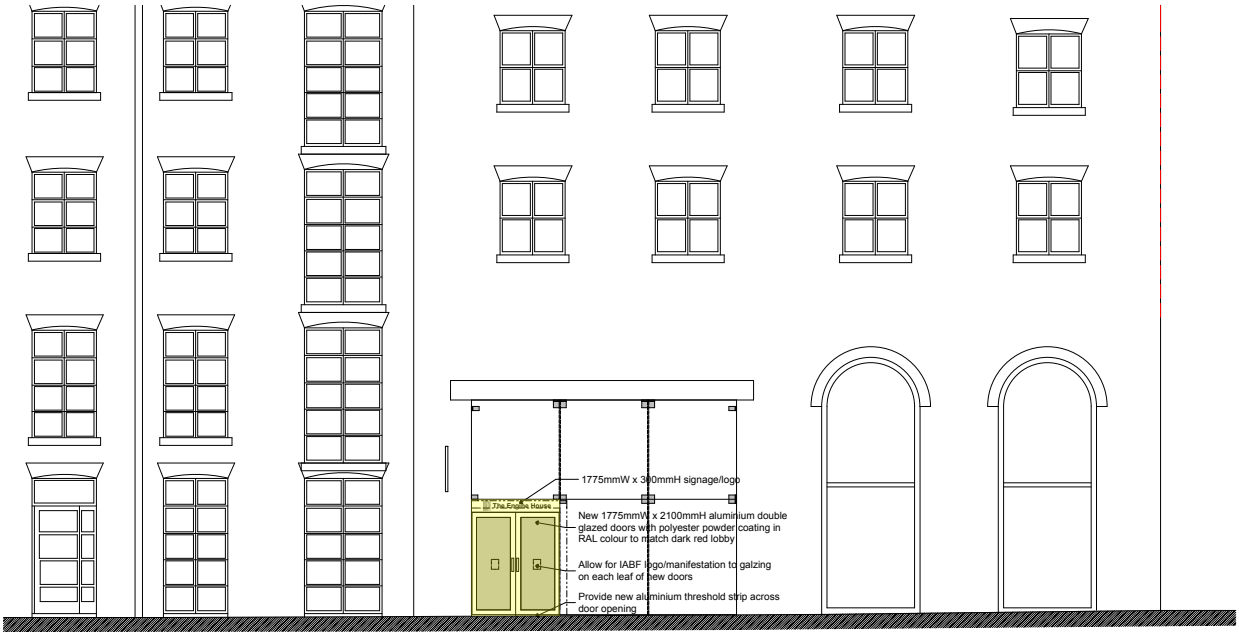
30/03/2011 – Left hand door (from exterior of building) shattered – Invoice 76447a
The weight of the doors coupled with high winds caused the left hand door (viewed from outside) to slam violently outwards and shatter. The breakage spread out to the middle of a fairly busy road across the pavement – fortunately there were no traffic or pedestrians passing at the time. – cost £1810.75

15/10/2011 – Door (right hand) dropped and required emergency callout to secure – invoice 784318a Cost of £120.00
Repair to front doors – replace patch fittings – invoice 790512a -Cost £772.80
This occurred as a result of the door catching the wind and snapping the patch fitting which required replacement. As on previous occasions, the door was unusable for approximately 6 weeks.

07/12/2011 – During a very windy spell, a visitor to the Foundation was knocked from her feet when the wind caught the door causing it to slam outwards. The lady was unhurt although shaken in this instance. We were, at the time, staffing the doors to try to ensure visitor safety but when she exited through the door the wind caught the door so quickly we were unable to stop it flying outwards.

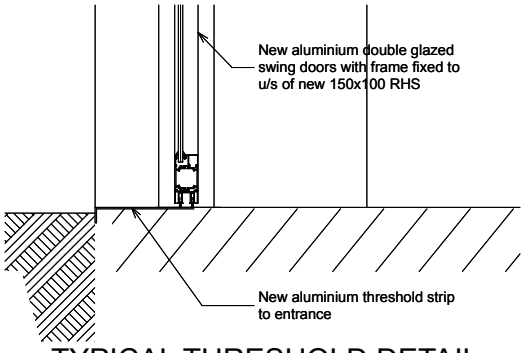
25/01/2012 – Door (left hand) shattered – invoice 799810a
Only had door secured at this stage – initial cost only £276.00
As a result of high winds catching the door, it shattered, as on previous occasion. Once again, the broken glass spread across the road and along the pavement. Fortunately a vehicle parked in the designated parking bay outside the building was undamaged.

Appendix 7.4 - MM Architects Initial Sketch Option A Drawing

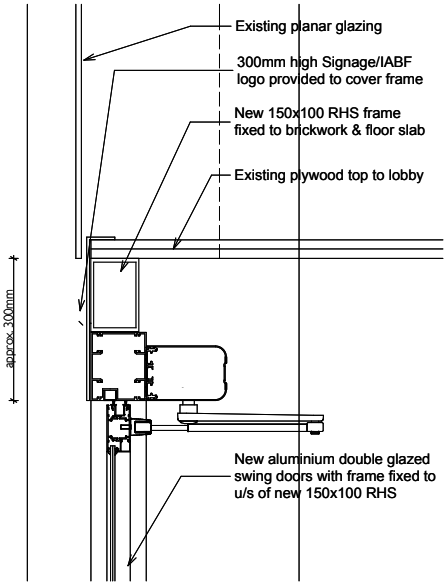


OPTION A - PROPOSED ELEVATION 1:100@A3

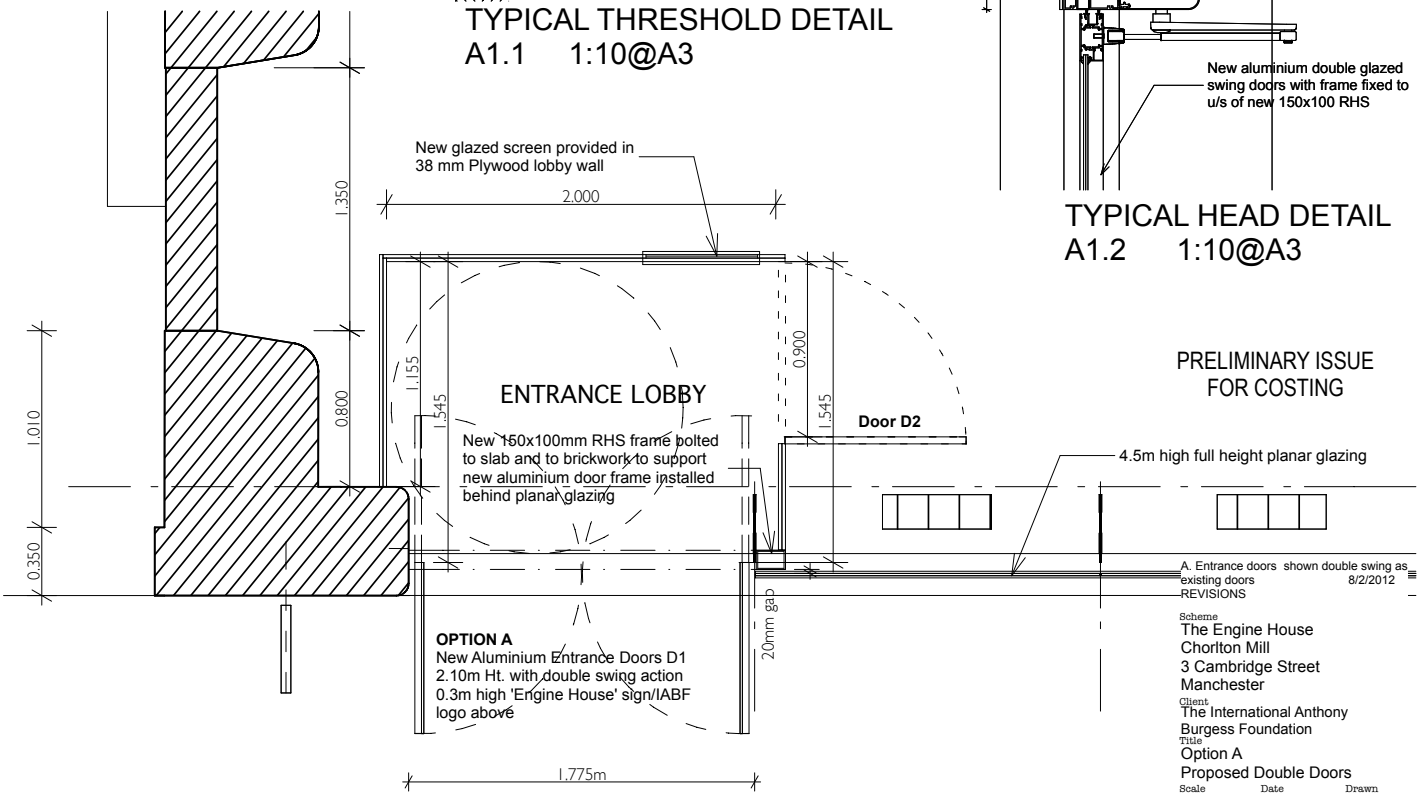
OPTION A SCOPE OF WORKS:-
- Removal of existing doors & floor springs;
- Installation of new double glazed swing doors;
- RHS steel frame to support new doors;
- New threshold strip;
- 300mm Signage/logo cover strip above doors;
- Alterations/making good to existing lobby;
- Glazed screen to existing lobby



TYPICAL THRESHOLD DETAIL
A1.1 1:10@A3



TYPICAL HEAD DETAIL
A1.2 1:10@A3



PRELIMINARY ISSUE
FOR COSTING

OPTION A - PROPOSED PLAN 1:25@A3

A. Entrance doors shown double swing as existing doors 8/2/2012
REVISIONS

Scheme
The Engine House
Chorlton Mill
3 Cambridge Street
Manchester

Client
The International Anthony Burgess Foundation

Title
Option A
Proposed Double Doors

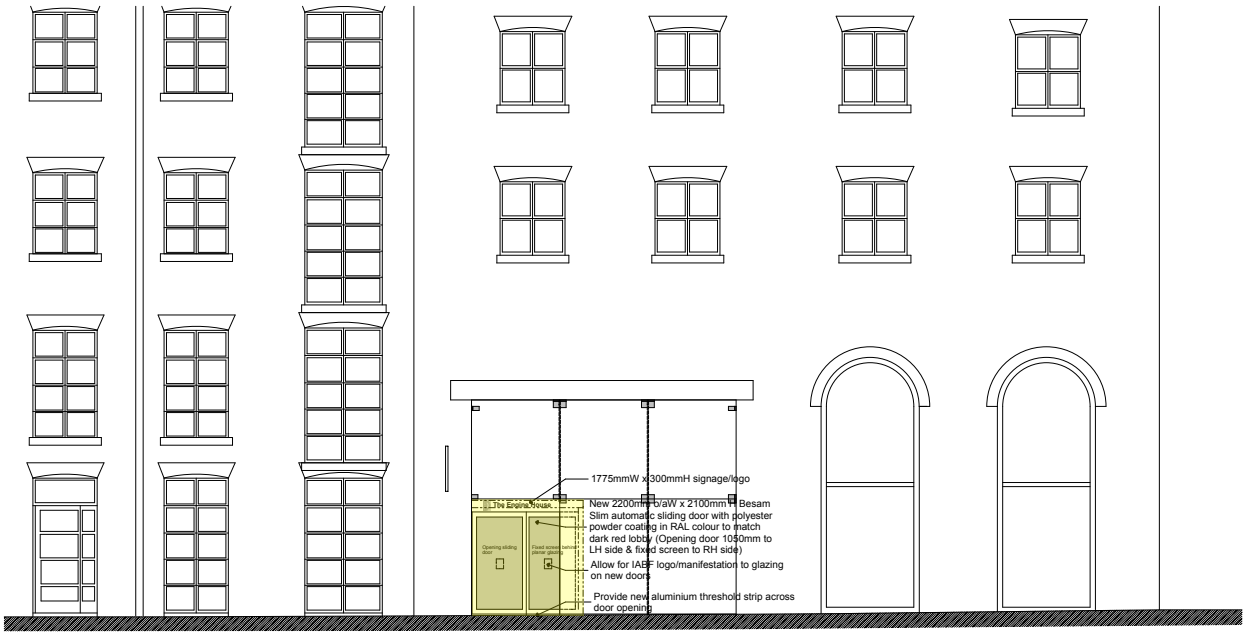
Scale	Date	Drawn
var	31.1.12	MM

Job No	Dwg No	Rev
P102	SK3	A

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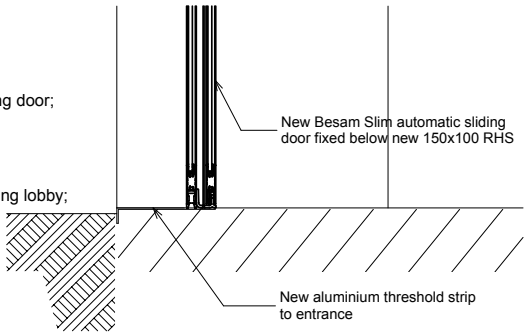
OPTION A - PROPOSED DOUBLE ENTRANCE DOORS 1:25@A3

Appendix 7.5 - MM Architects Initial Sketch Option B Drawing

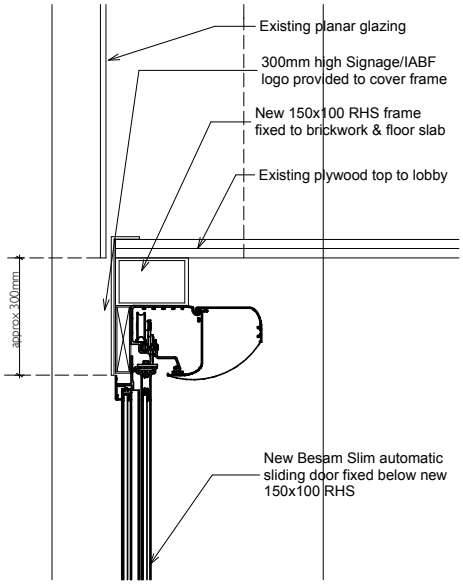


OPTION B - PROPOSED ELEVATION 1:100@A3

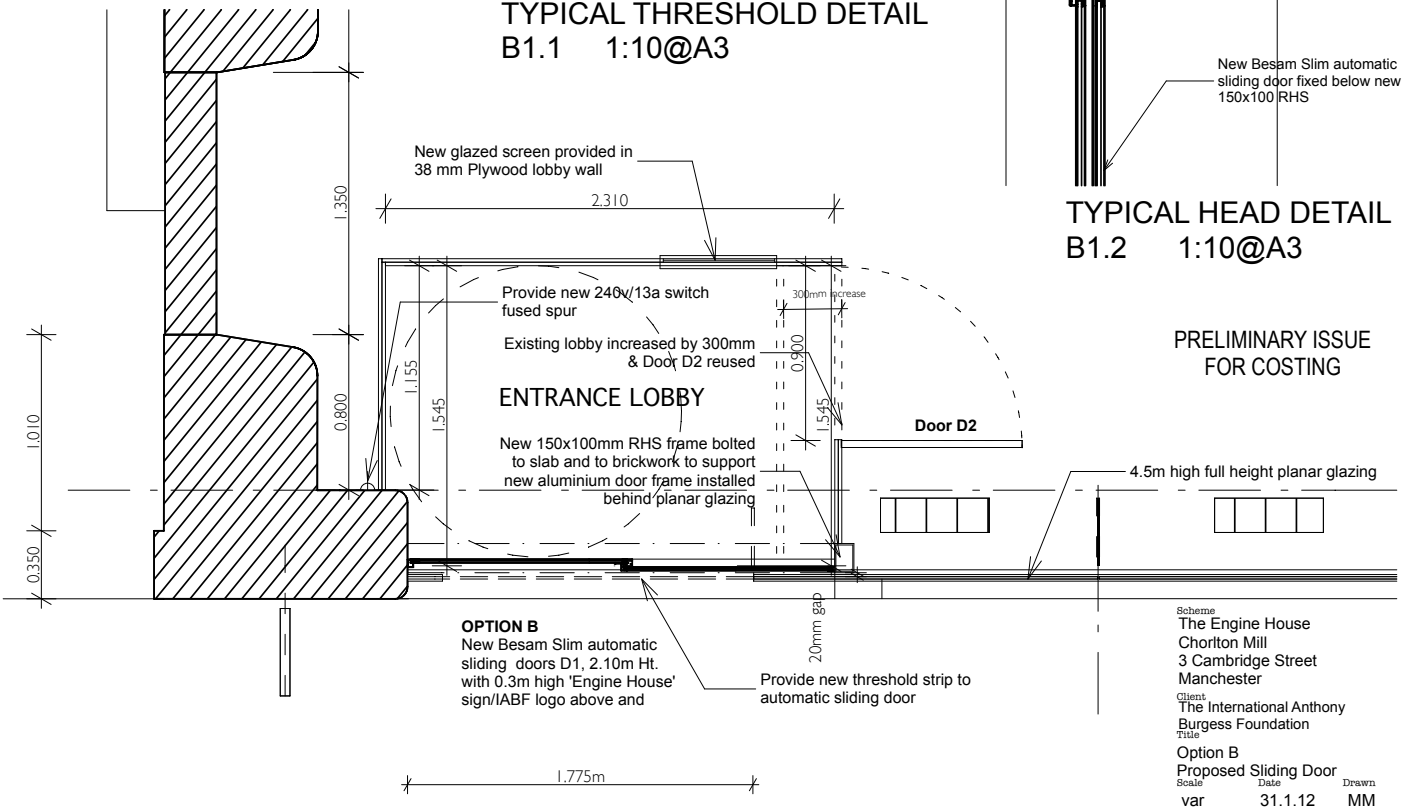
OPTION B SCOPE OF WORKS:-
- Removal of existing doors & floor springs;
- Installation of new Besam Slim automatic sliding door;
- RHS steel frame to support sliding door;
- New threshold strip;
- Electrical works (240v/13a switch fused spur);
- Fire Alarm interface;
- Increase size by 300mm & make good to existing lobby;
- Glazed screen to existing lobby;
- 300mm Signage/logo cover strip above door;



TYPICAL THRESHOLD DETAIL
B1.1 1:10@A3



TYPICAL HEAD DETAIL
B1.2 1:10@A3



PRELIMINARY ISSUE FOR COSTING

OPTION B - PROPOSED PLAN 1:25@A3

OPTION B - PROPOSED SLIDING ENTRANCE DOOR 1:25@A3

Scheme
The Engine House
Chorlton Mill
3 Cambridge Street
Manchester

Client
The International Anthony Burgess Foundation

Title
Option B
Proposed Sliding Door

Scale	Date	Drawn
var	31.1.12	MM

Job No	Dwg No	Rev
P102	SK4	

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