

Proposals for Urgent Repair Works to the 1830 Warehouse, the Science and Industry Museum, Manchester

Listed Building Consent MCC Ref. 124068/LO/2019

Submission for discharge of Condition 4B (MCC REF. CDN/21/0140)

vi) Hopper heads



14 July 2021

Studio Downie Architects LLP

1: Introduction

2: Appraisal of Option and Justification

3: Specification and Methodology

1: Introduction

We hereby submit an application for the partial approval of details reserved by Condition 4B attached to Listed Building Consent Ref. 124068/LO/2019, which approved the following scheme:

LISTED BUILDING CONSENT for urgent repair works to the 1830 Warehouse, required to prevent weather ingress and deterioration of the building fabric, including external facade works and internal works.

Manchester City Council granted planning permission on 18/05/2020 with the Conditions 4A and 4B attached to the Listed Building Consent:

Manchester City Council discharged Condition 4A (application ref. CDN/20/0810) 26/01/21.

This application relates to the discharge of Condition 4B:

Condition 4B
Notwithstanding the approved plans and documents as specified in condition 2, prior to the commencement of development the following shall be submitted for approval in writing by the City Council as local planning authority:

*(b) All samples and specifications shall then be submitted to and approved in writing by the City Council as local planning authority in accordance with the programme as agreed in part a of this condition.
The development shall be carried out in accordance with the approved materials and specifications.*

Reason
In the interests of visual amenity and because the proposed works affect the setting of designated heritage assets and careful attention to building work is required to protect the character and appearance of the conservation area and the surrounding listed buildings in accordance with policies SP1, CC9, EN3 and DM1 of the Adopted Core Strategy for the City of Manchester and saved policies DC18.1 and DC19.1 of the Unitary Development Plan for the City of Manchester.

In accordance with Condition 4B details are provided within the respective document attached to this application, prepared by MBC on behalf of the client.

Please note that the details which follow in the document relate to item reserved under Condition 4A and 4B as stated in the approval letter, as follows:
vi) Hopper Heads

The attached submission comprises the following, submitted via the Planning Portal:

- a) This letter.
- b) Signed application form (via planning portal).
- c) PDF report (notes and drawings).

As set out above, we therefore consider the attached material is sufficient for the Council to partial discharge of Condition 4B attached to the decision 124068/LO/2019

2: Appraisal of Option and Justification

4B (vi) – Hopper Heads

1. Notes prepared by heritage consultant, Jody O'Reilly of HCUK Group

Heritage input

- 2. Condition 4b relates to the provision of samples relating to the series of de-tailed works to the fabric of the building approved under 124068/LO/2019. It is split into 7 sub sections.
- 3. Sub section 4B.vi relates to the proposed sample of rainwater drainage hopper heads.

Significance

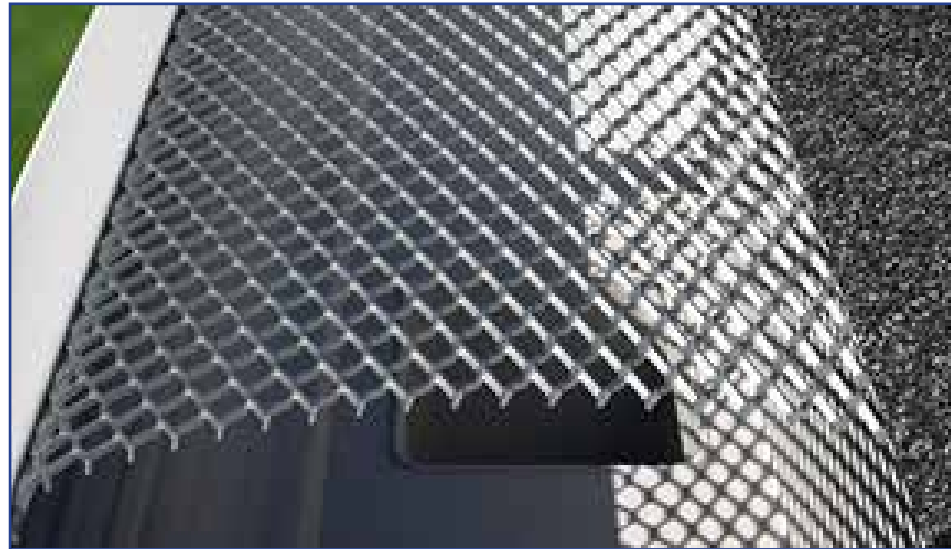
- 4. The hopper heads on the building at present are mixed and none are 'historic'. It is believed that the current fittings relate to the work of the 1980s/1990s, not all are cast iron with several being a plastic type material. They are comparatively small and fail in periods of heavy rain leading to uncontrolled water spill down the historic facades. The hopper heads are a necessary and functional aspect of the building but as later additions do not innately contribute to illustrative or evidential historic values. They relate in placement to the valley gutters on the roof and to a small degree the down pipes and hoppers reinforce the regular architectural bay rhythm of the building's facades.

Solutions and options appraisal

- 5. Functioning rain water goods are an essential feature of the building to secure its historic fabric and minimise and remove risk from water damage. The proposed hopper heads are larger than the existing to accommodate differing patterns of rainfall and substantially larger and heavier falls at times. An option to retain the existing sizes would not address this problem to the building, the existing hopper heads cannot be adapted to take a spout (DAS, section 4.3.1) and as they are mismatched in aesthetic and not historic replicating them will not be sympathetic to the heritage values of the building.
- 6. The proposed hopper head material is traditional cast iron and the format is rectangular with mouldings at lip and base and a spout set close to the top to allow for additional overflow to be directed well away from the building during particularly heavy rainfall. Early discussion of options for a different format of hopper head with an octagonal shape was considered not in keeping with the photographic evidence that appears to show square or rectangular hoppers in the past (see DAS).
- 7. The hopper heads will sit on the existing six inch downpipes minimising the extent of change to materials where they are functioning correctly.
- 8. The primary aspiration for this aspect of works is to
 - Minimise risk to the historic fabric of the buildings through inappropriate water discharge and providing greater capacity for rainwater runoff;
 - Provide overflow spouts to all hoppers in order to improve the flow and function of rainwater from the roof in times of heavy downpour.
- 9. The material specification and manufacturing is covered within this document and provided by MBC Building Contractors. The approach will in all incidences begin with a specific and detailed survey of the area to be worked on.

Impact on Significance

- 10. Overall the proposed hopper heads will preserve heritage values, the existing hoppers are not historic and are of mixed quality and poor functionality, there will be no erosion or loss of historic fabric. The extant position of downpipes will be maintained across the façade preserving the current aesthetic and legibility of the bays, which the down pipes currently make some contribution to. The appearance of the proposed hoppers are traditional and in keeping with the building's robust aesthetic. The restoration of a coherent set of matched features will be more appropriate than the current mixed collection of hoppers.



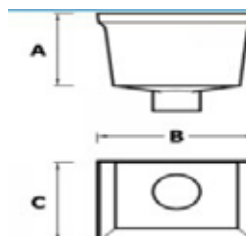
Typical metal mesh to prevent debris getting in from top
Product ref: E-Z Gutter Guard (finish to be black)



Note colour will match
existing downpipe

Product ref: Hargreaves premier cast iron ornamental head H82

Hopper dimensions
A= 200mm
B= 355mm
C= 235mm



Example of hopper head
fitted with spout (above)
and in fabrication (right)



3: Specification and Methodology

4B (vi) – Hopper Heads

Specification;

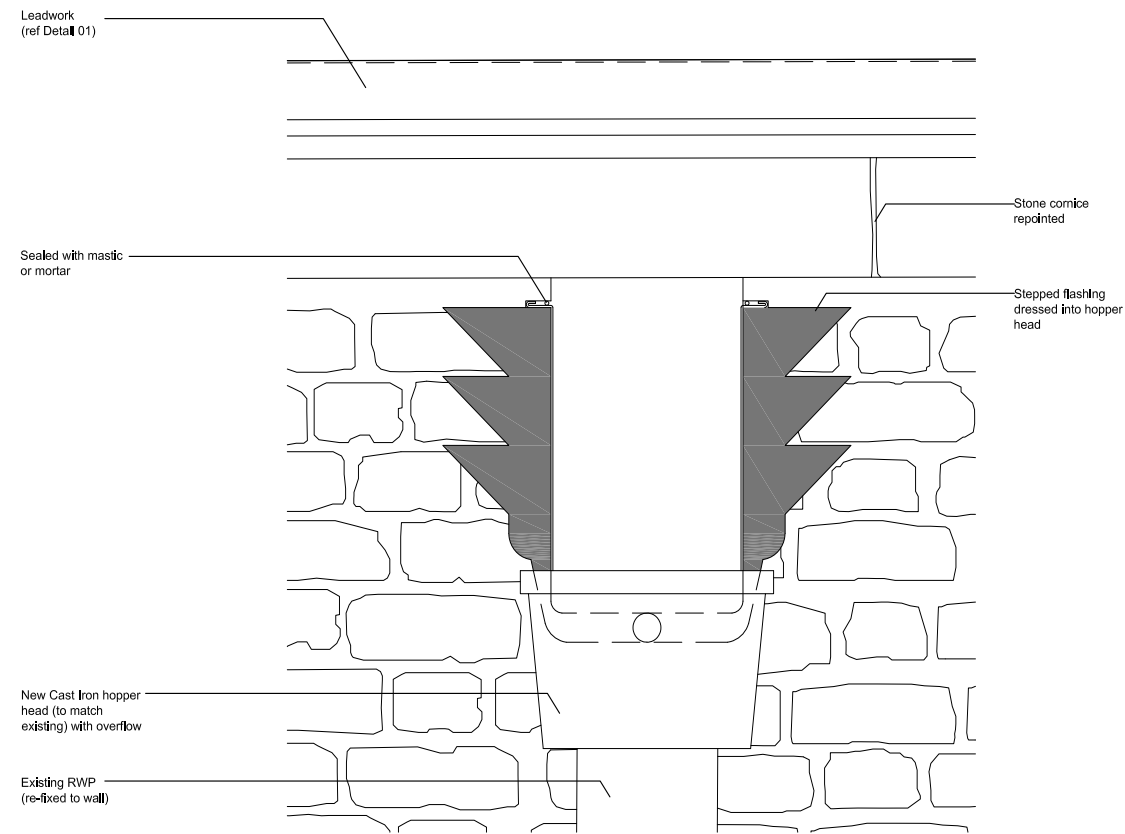
- Cast Iron with integrated overflow spout.

Methodology for installation;

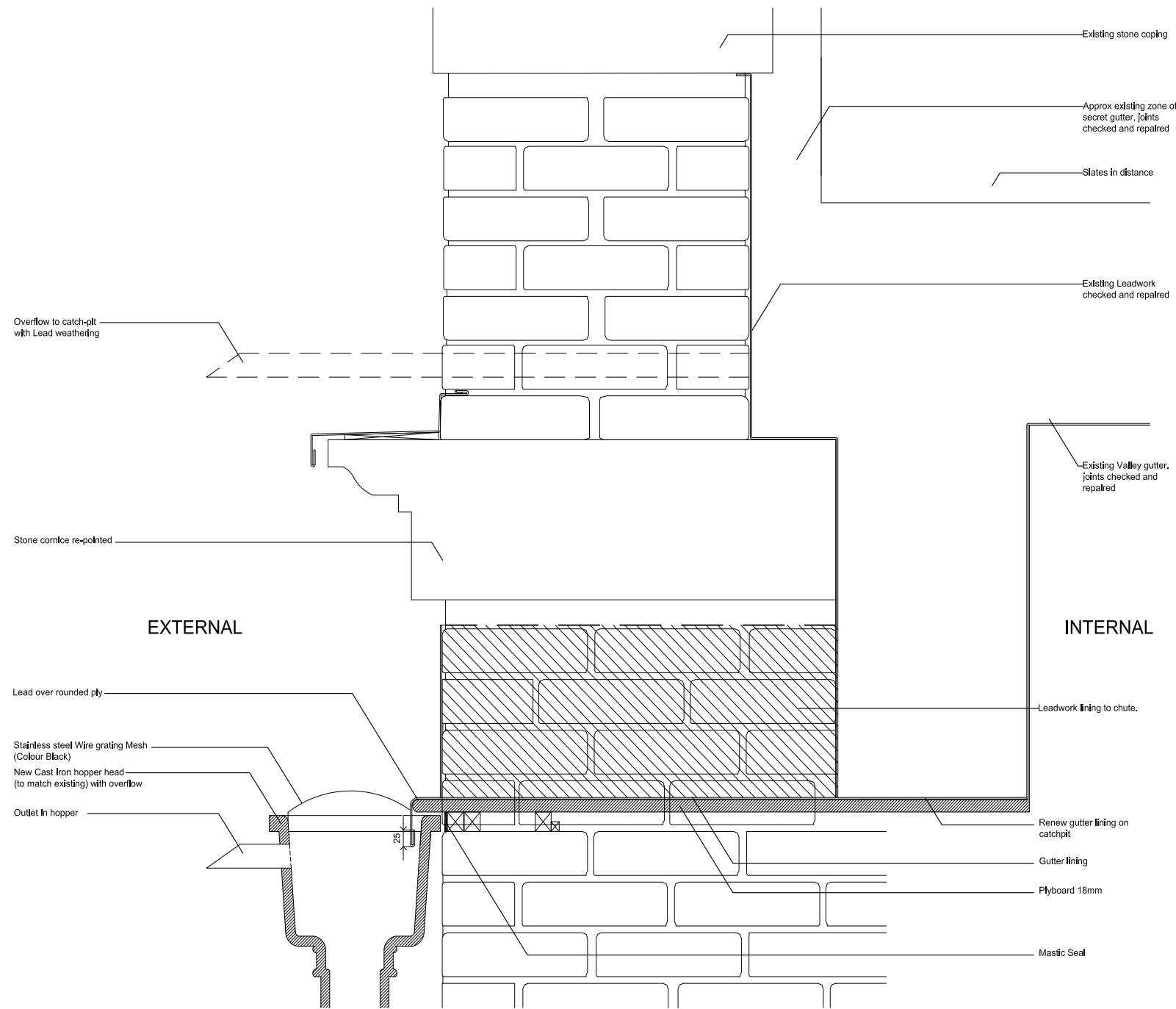
- Existing hopperhead will be carefully disconnected and removed. Care will be taken to ensure surrounding building fabric is unaffected by this action.
- New hopperheads will be offered up into location and checked for orientation to surrounding drainage system.
- Once offered up they will be connected to surrounding drainage to ensure a good tight fit.
- The hopperhead will then be fixed into the wall. Care will be taken and considered with regards to fixing location to minimise any disruption to the building fabric.
- Any repair required will be carried out in line with methodologies previously approved.
- The installation will be sealed using a low modulus silicone to joints prior to final fixing ensuring a good seal to the system is provided.
- Existing RWP will be refixed as part of the hopperhead install.
- Ensure the lead chute has sufficient overhang and clearance in line with Detail 04 of SDA drawing 261/WD/301 Rev B.

Quality Control;

- The specification and drawings will be adhered to fully. Any potential deviation or requirement to deviate will be fully discussed with design team taking on all comments regarding suitable solutions.
- Prior to the works being carried out in the particular location it will be photographed extensively to form part of the repair/remedial report and form part of the final records submitted upon project completion.
- All stages of the methodology will be followed and adhered to.
- Particular care will be taken when removing the existing hopperheads.
- All joints will be checked for quality and sufficient seal.
- All fixing centres will be checked to ensure they meet specification.
- The install will be fully checked to ensure it will function and not encounter fault through installation.
- Upon completion of the repair work the area will then be photographed to form the final part of the repair/remedial report and will be submitted upon project completion.
- All evidence of the sample repair will be submitted to the design team electronically and also offered for physical inspection on site.



Detail 03
CHUTE / MESH EXTERIOR ELEVATION



Detail 04
OVERFLOW / MESH