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PROJECT TECHNICAL MEMORANDUM

JOB TITLE : New Century Hall, NOMA

REF : HT: 26658/PTM1

DATE : 29 October 2021

FROM : Tom Bonnert

ISSUED TO : Design Team

RE: NEW CENTURY HALL, NOMA PROPOSED PLANNING CONDITION 11 – ACOUSTIC NOTE

1.0 Introduction

Hann Tucker Associates have been appointed to provide supporting evidence to assist in the omission of the proposed Planning Condition 11 suggested for the New Century Hall redevelopment. The proposed Condition 11 states the following:

“11) Before any new glazing / curtain walling in respect of stabilising the existing curtain walling is installed details to demonstrate that this will not reduce the existing acoustic performance of the buildings facades shall be submitted to and approved in writing by the City Council as local planning authority. If this is not the case details of any additional acoustic insulation measures shall also be submitted to and approved in writing by the City Council as local planning authority.

Any approved additional noise insulation shall be completed before each of the approved uses commence.

Where entertainment noise is proposed the L_{Aeq} (entertainment noise) shall be controlled to 10dB below the LA_{90} (without entertainment noise) in each octave band at the facade of the nearest noise sensitive location, and internal noise levels at structurally adjoined properties in the 63Hz and 125Hz octave frequency bands shall be controlled so as not to exceed (in habitable rooms) 47dB and 41dB, respectively.

Prior to occupation a post completion report to verify that any recommended additional mitigation measures have been installed and effectively mitigate any potential adverse noise impacts in adjacent accommodation arising directly from the proposed

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A UKAS Accredited testing laboratory No.4083 for Sound Insulation and Air Tightness Testing; ISO 9001 Accredited
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development shall be submitted and agreed in writing by the City Council as local planning authority. Prior to occupation any non-compliance shall be suitably mitigated in accordance with an agreed scheme.

Reason - To ensure no unacceptable noise outbreak from the development pursuant to policies SP1 and DM1 of the Manchester Core Strategy (2012) and saved policy DC26 of the Unitary Development Plan for the City of Manchester (1995)."

It is noted that there is a further Planning Condition (Condition 10) relating to the acoustic performance of the façade build-ups to the basement college, the ground floor bar / restaurant and the first floor venue of the redevelopment. This is however outside of the scope of this memo which is limited to the suggested Condition 11 only.

This memo provides our review of the curtain walling stabilisation works with respect to expected acoustic performance of the complete build-up.

2.0 Façade Build-up

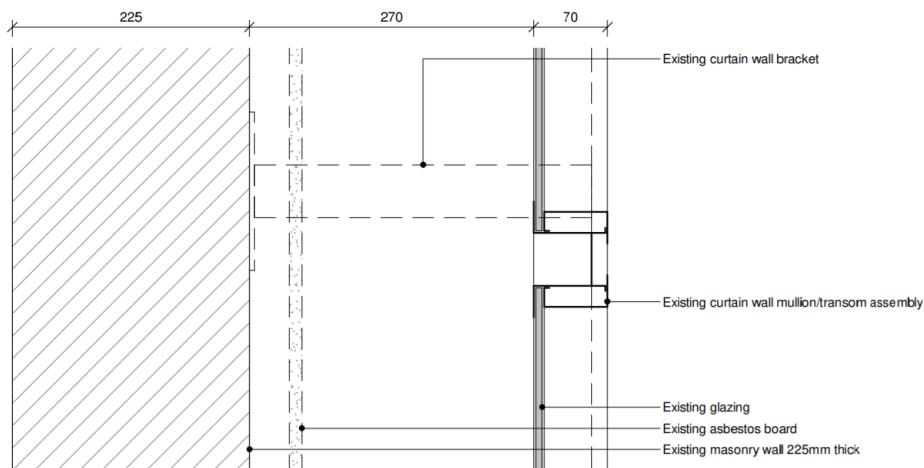
We understand that the external curtain walling covered under Planning Condition 11 is an over-cladding system to a solid concrete façade build-up. Effectively an aesthetic cladding.

The concrete build-up in which the curtain walling over-clads is understood to be 300mm concrete, and forms the side walls and roof of the building.

3.0 Acoustic Performance Predictions

The figures below illustrate the existing curtain walling fixed to the concrete façade as well as the proposed works to stabilise the glazing. Fundamentally the works do not alter the glazing build-up itself (any new glazing is installed in the same frame), how it is fixed to the concrete (whilst additional fixings are to be used these are rigid as was the case of any fixings prior to the stabilisation works), nor is the frame itself altered (this is re-used).

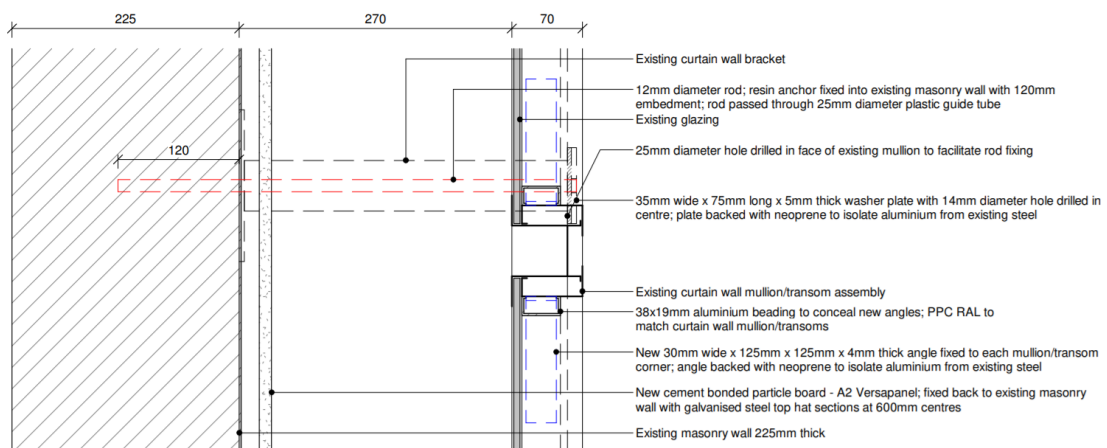
On this basis the proposed works would not be expected to degrade the acoustic performance of the building façade.



1 - Existing Detail Section

1 : 5

Existing Curtain Walling detail



2 - Proposed Detail Section

1 : 5

Proposed Curtain Walling detail

Ultimately, the sound reduction performances noted in the original planning report prepared by Hann Tucker Associates (see below table) are expected to be readily achievable through the proposed over-clad glazed concrete façade. On this basis it is not considered necessary or appropriate to include the proposed Condition 11 wording on the S.73 and S.19 decision notices.

Description	Estimated Sound Reduction Index (dB R) at Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
External walls/roof (300mm concrete)	41	45	51	59	63	67	70



Yours sincerely

Tom Bonnert
for HANN TUCKER ASSOCIATES