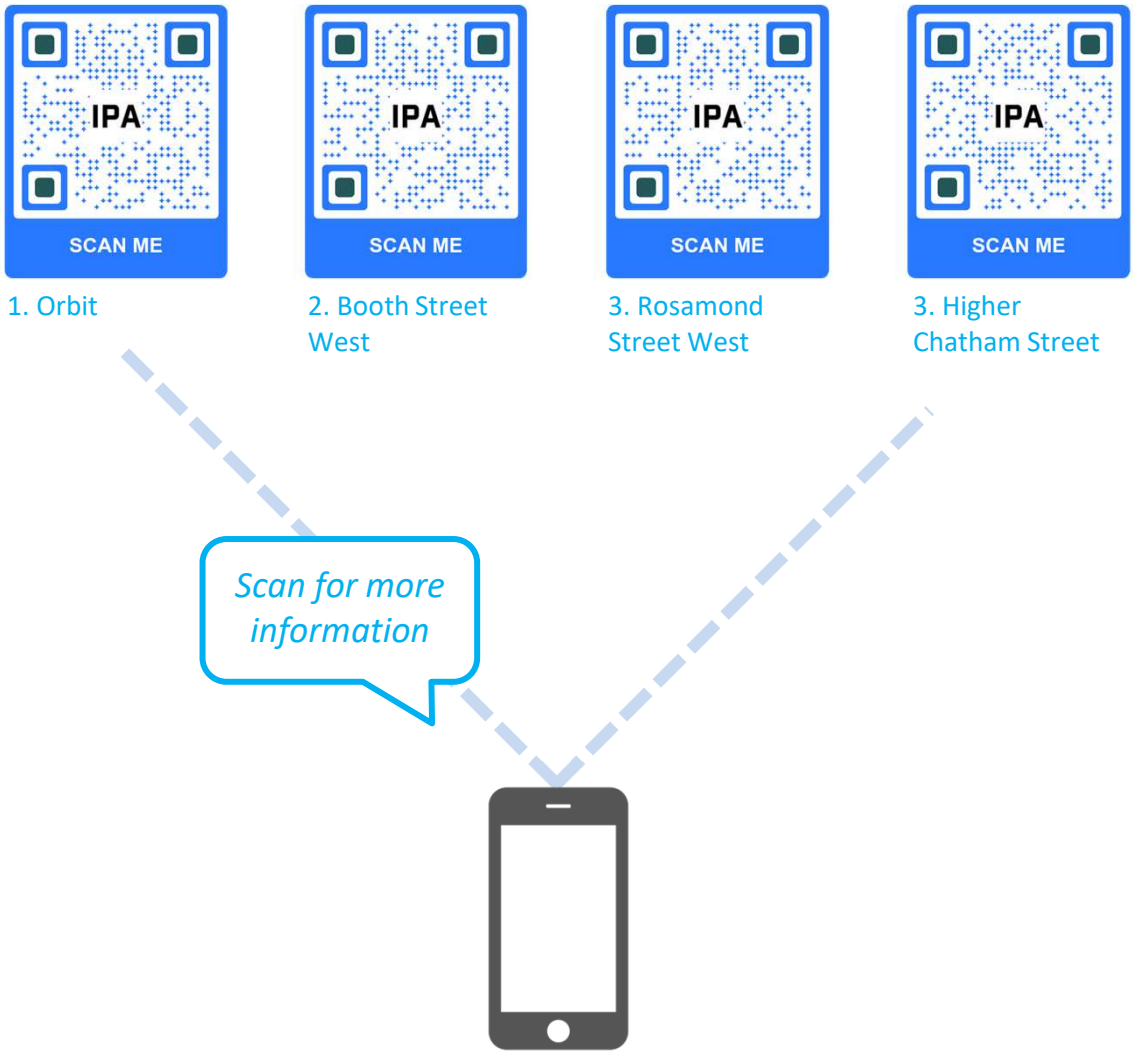

IPA
SCAN ME
1. Orbit
IPA
SCAN ME
2. Booth Street West
IPA
SCAN ME
3. Rosamond Street West
IPA
SCAN ME
3. Higher Chatham Street
Scan for more information

More General Information on De-carbonisation

Can specific details be demonstrated in a document outlining precisely how these works will contribute to de-carbonisation? In terms of justifying to benefits of the works, providing some numbers that clearly explain and outline the benefits these works will bring would be of great assistance.

The City Council do want to support de-carbonisation, but these benefits must be clearly outlined and judged against other planning considerations, which in the case of this project, will primarily be visual amenity concerns. If you would like to discuss any of the above in my absence please contact Angela on 0161 234 4651.

First phase

6.5m investment in Heat Pumps Hybrid system, insulation roof and wall (cavity wall insultation, new Building Management System and solar PV).

Second phase

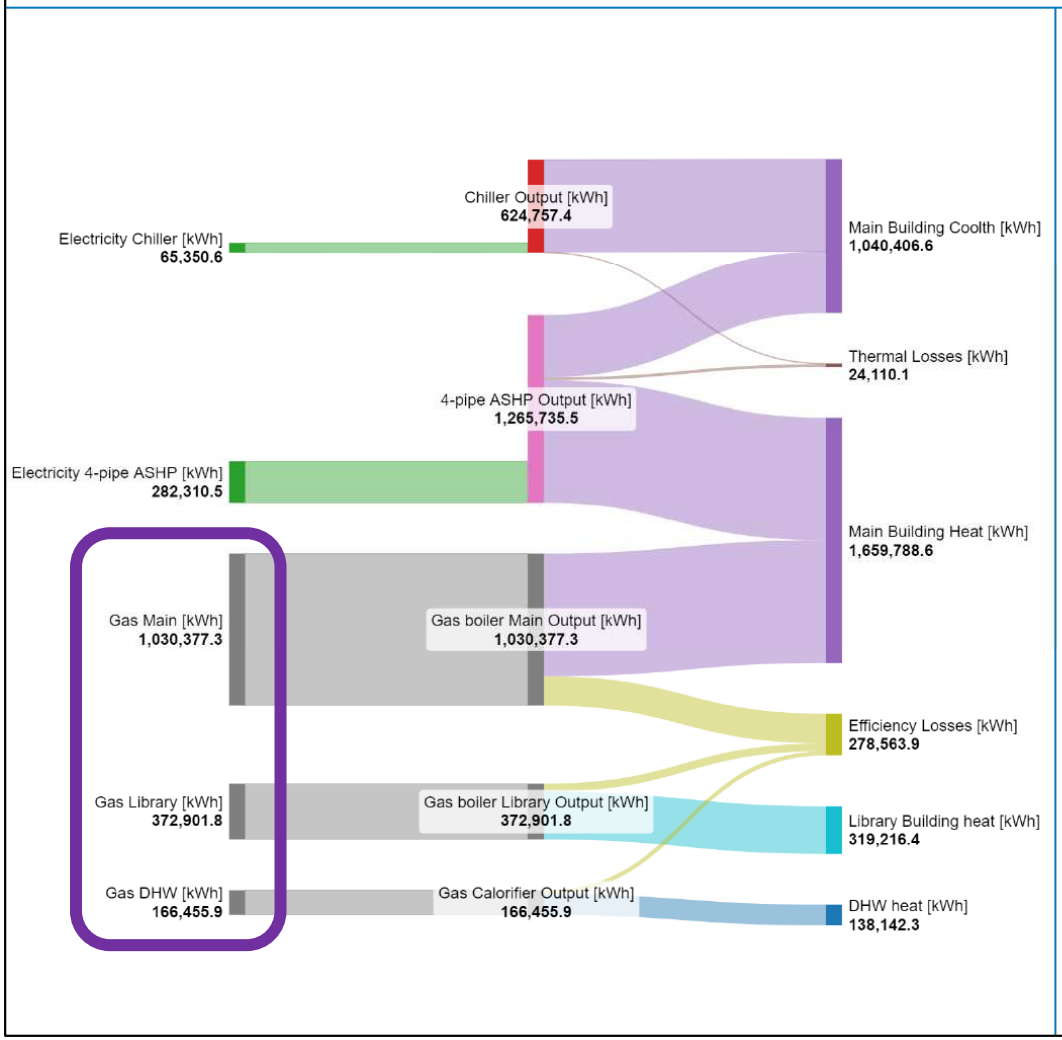
- Aiming for full decarbonisation with only gas boiler back up in the coldest of days.
- Optimisation of main building using Hydraulic, thermal and logic digital twins
- Giving 77% reduction in gas consumption from 1,569,735 kWh to 350,980 kWh

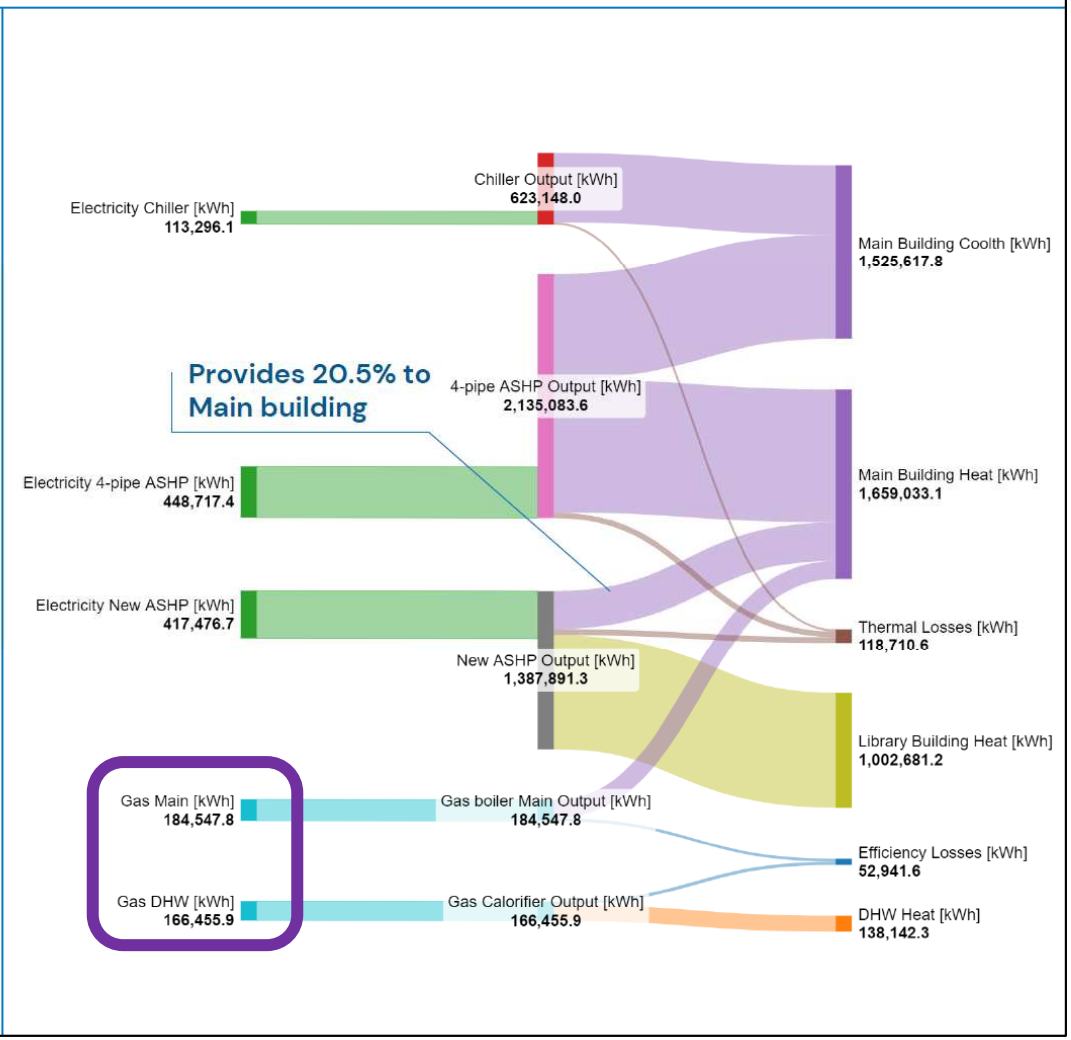
Library building

- Removal of end-of-life boilers (1995).
- Removal of inefficient chiller units and AHUs (1996) being replaced as beyond end of life.
- New heating and cooling network installed coming from main building.
- New 292 kW Air Source Heat Pump located on library will feed heat back to the main building and the net effect of that is that RNCM will be net zero for a huge majority of the year.
- AHU's located to new plant deck with ASHP as most efficient area to put them.
- 23% reduction in Carbon footprint over base case. (This saving will increase further as the grid further decarbonises as there is an increase in electricity consumption through the displacement of gas for the Heat Pumps).
- Fabric improvements to modern standards will improve the Peak Heat Loss by ~328kW, reducing the heat load.
- Internally new fan coil units will improve the student experience to all the practice rooms with improvements to the controls through additions to the Ecostruxure BMS.
- Further solar can be fitted to further reduce demand in the grid.

The project achievements…

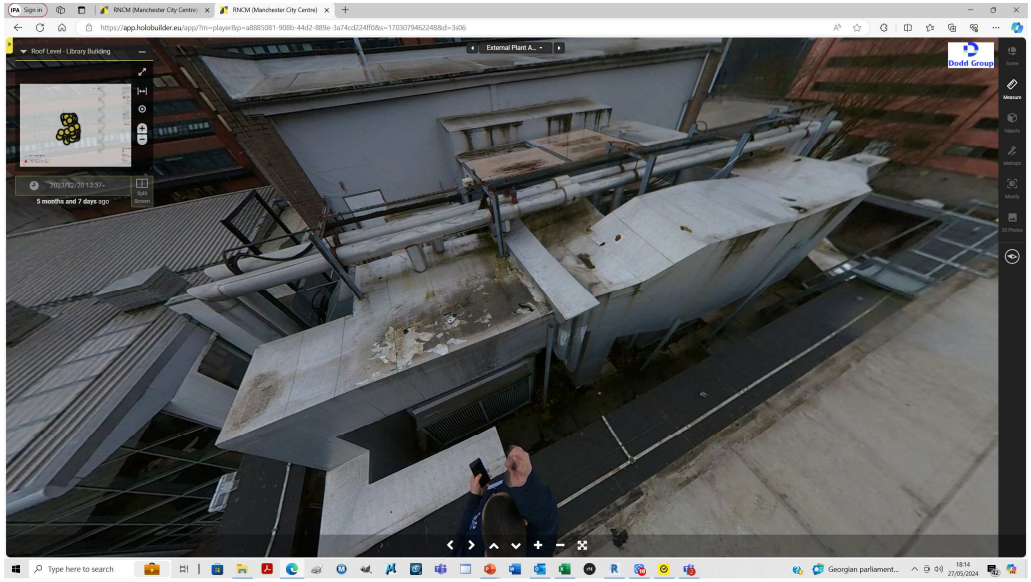
Sankey diagram – Reference vs. Option B.4.

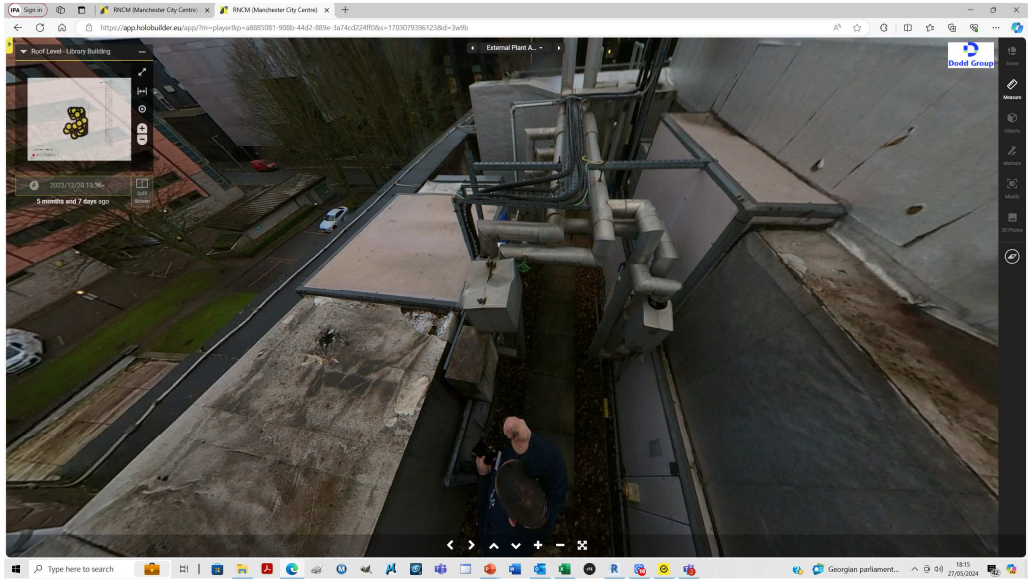


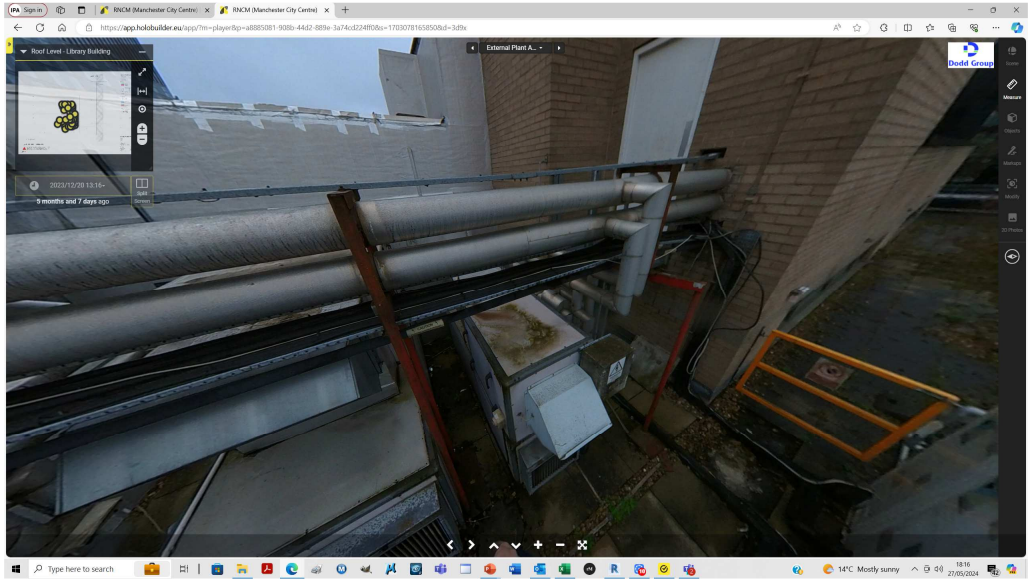


Today ***Proposed***

Real terms savings of 77% reduction in gas consumption from 1,569,735 kWh to 350,980 kWh









- Not maintainable
- No means of escape
- End of life
- Roof leaks under equipment – not accessible
- Gases used in DX units banned

Works must avoid building closure

Existing services

Plant Screen and Edge Protection Below Plant Screen

The plant screen will be clearly visible from Rosamond Street West and Higher Chatham Street, as will the edge protection that is located just below.

We have concerns about the height and the overall appearance of the plant screen. Based upon the overhead CGI, it appears that the plant screen is quite a bit taller than the plant which it is screening. Is there any scope to reduce the height of this plant screen to reduce the impact on the visual amenity of the building and surrounding street scene. We also feel that that in order to better read and the 'top' element of the building as referenced in the D&A that this also needs to be set in from the building edge and that architecturally there needs to be a better quality enclosure than standard louvres and you should consider for example the use of a patterned perforated panel. This applies also to the edge protection.

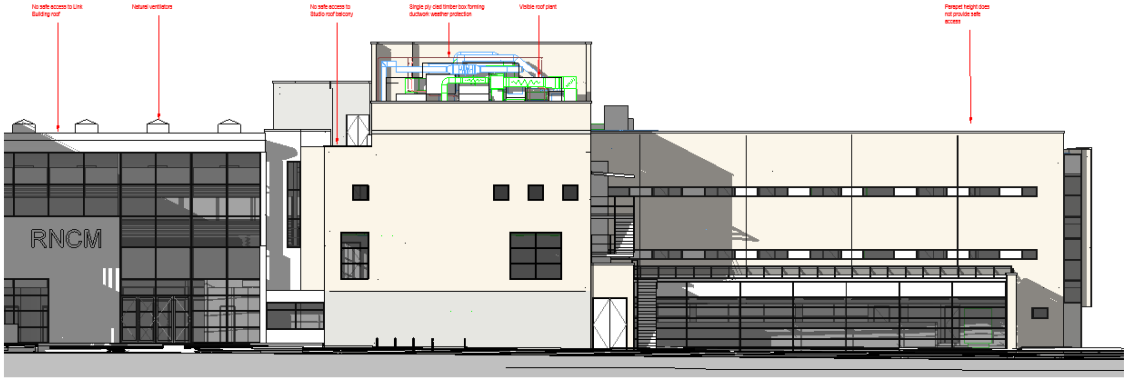


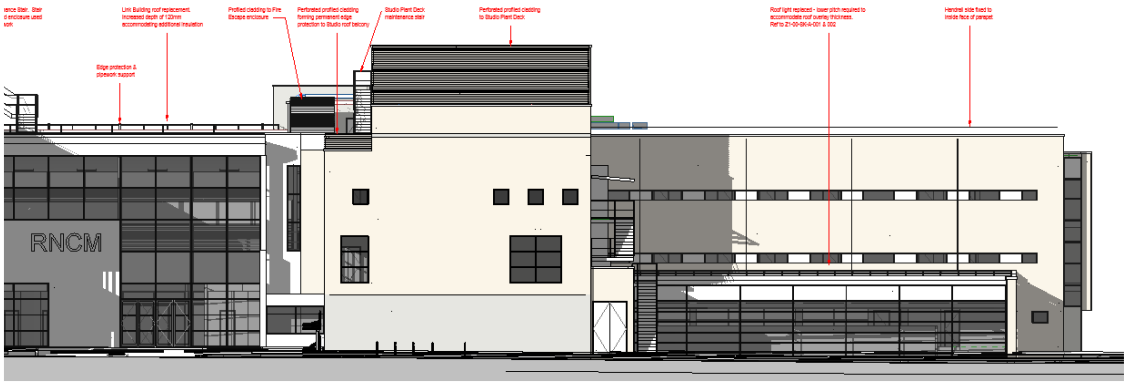
Can it please be confirmed why is the edge protection required in this specific area? What purposes will this area be used for that will necessitate the need for edge protection?

Roof top plant
- The existing Plant is exposed, high and visible
- The proposed AHU's are screened to prevent falls from height and provide an enhanced aspect

Height:
- The screen is set to align with the adjacent masonry pier making a cohesive statement
- The plant screen needs to be braced which sets a working height above the AHU's
- Bird netting is required to protected staff from seagulls

High & visible exposed plant

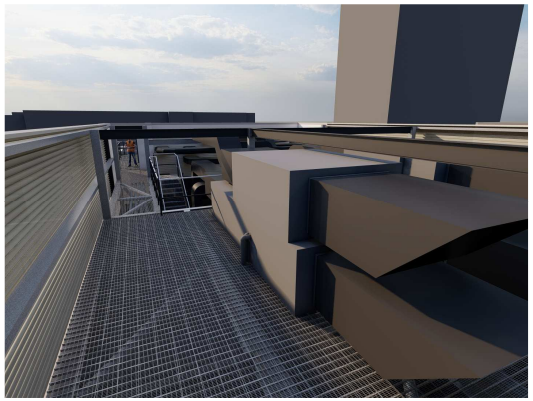


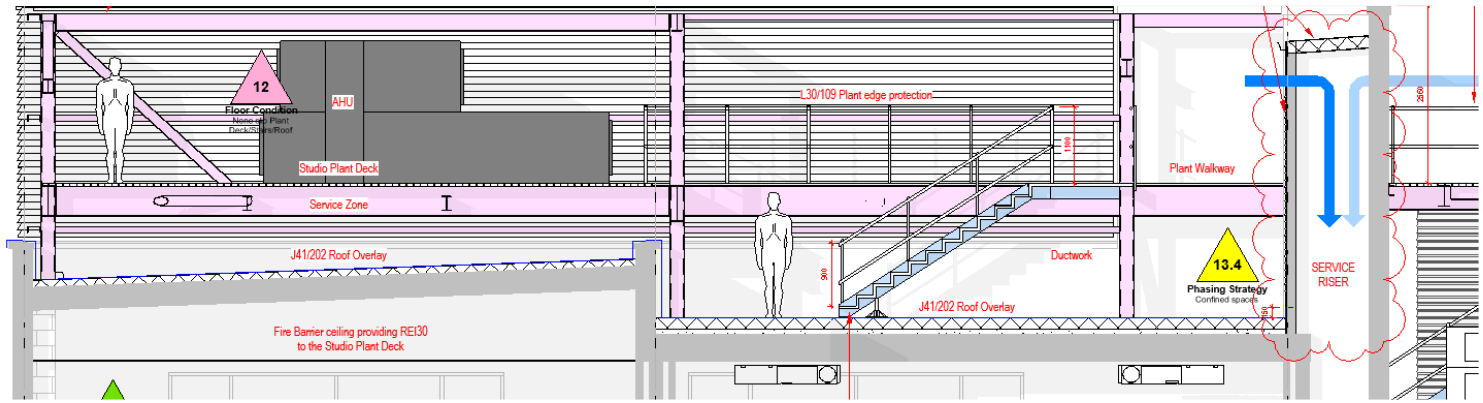


Screen aligned with brick pier



AHU under bracing



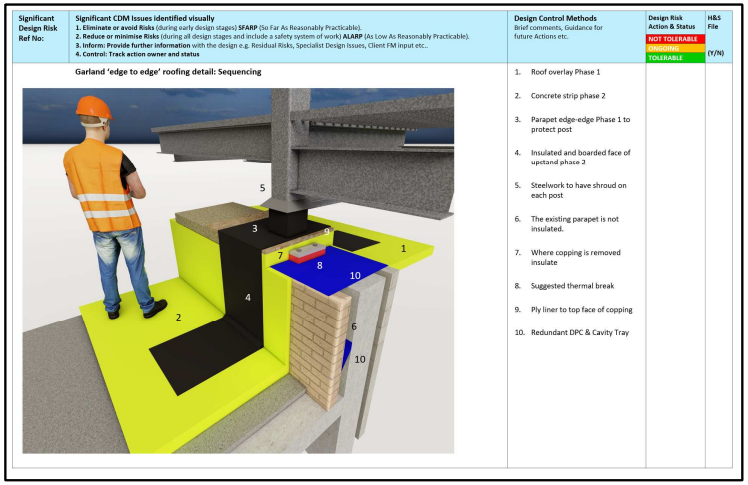


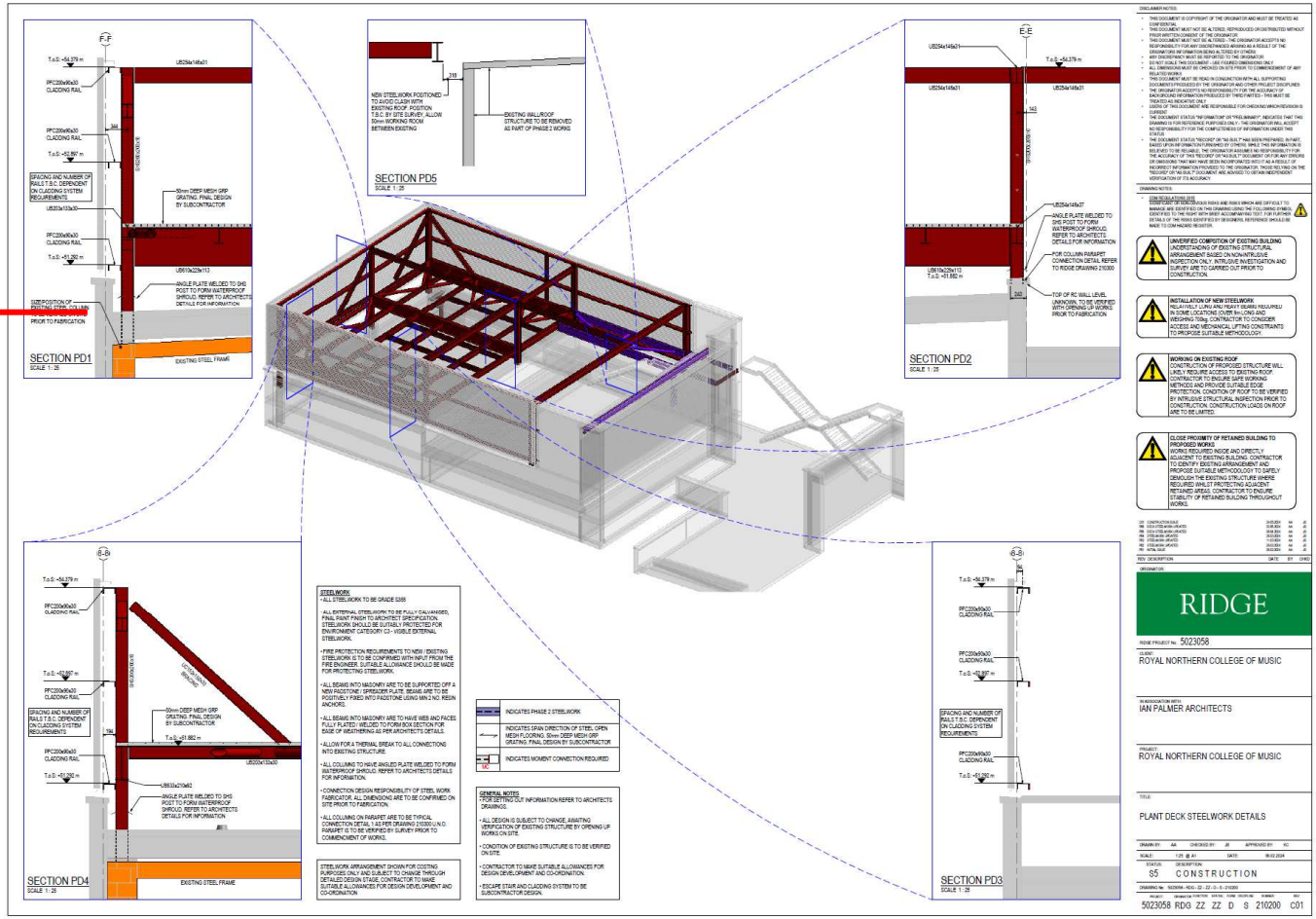
Set-back

The proximity of the screen to the masonry face is determined by the structure.

The plant structure needs to be aligned with the existing columns and concrete frame to transmit the plant loading.

Plant deck supported from line of existing structure





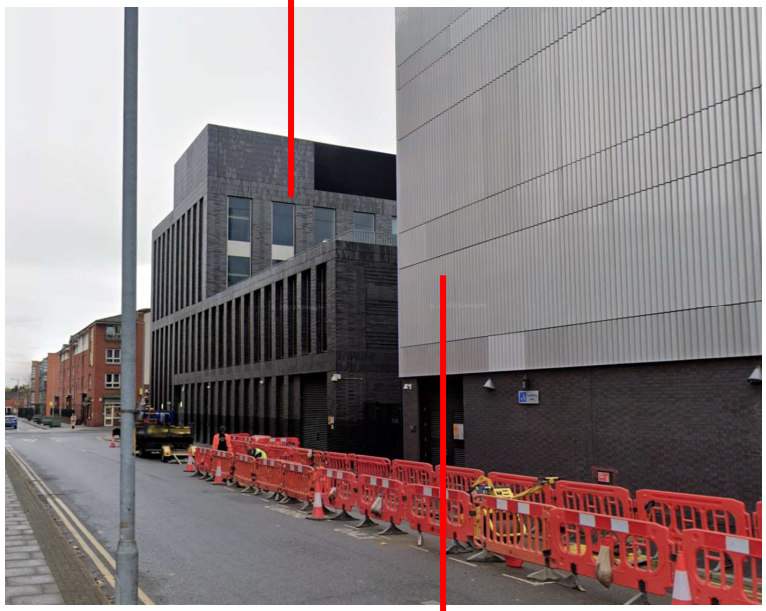
Aesthetics
The plant screen is a background component. Its appearance has been deliberately neutralised in its architectural expression. The cladding is perforated as an enhancement. Its form mimics other contemporary buildings adjacent.

Edge protection
Under the Workplace Act buildings should protect those that use or maintain them. The edge protection provides safe, and unassisted access to clean windows, maintain the roof and RWP's. Compositionally it integrates the new components.



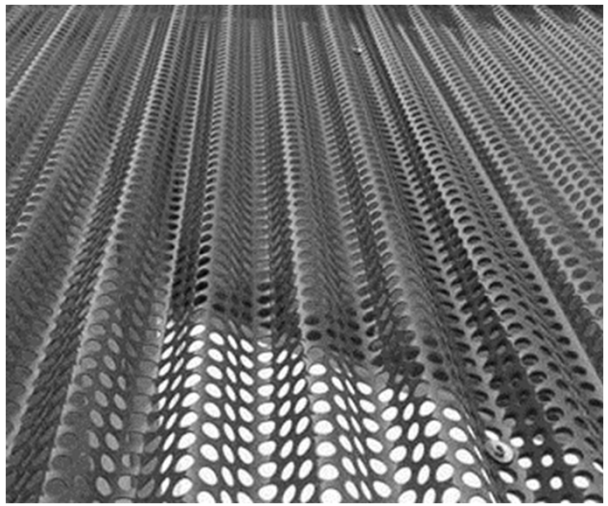
Similar contemporary expression to buildings opposite

Singular extruded massing – plant screen



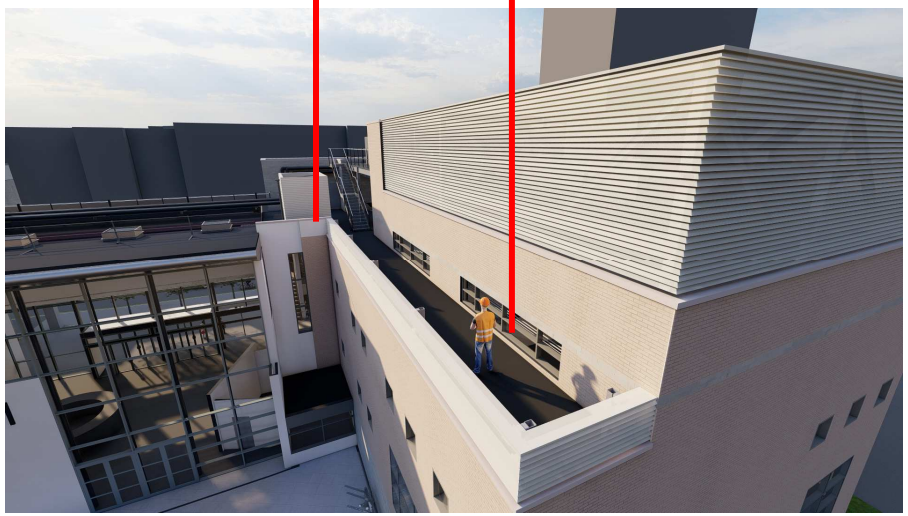
HE building vernacular: louvred screens & metal sheet cladding

Screen materiality: Perforated cladding



Guarding aligns with render

Unassisted maintenance



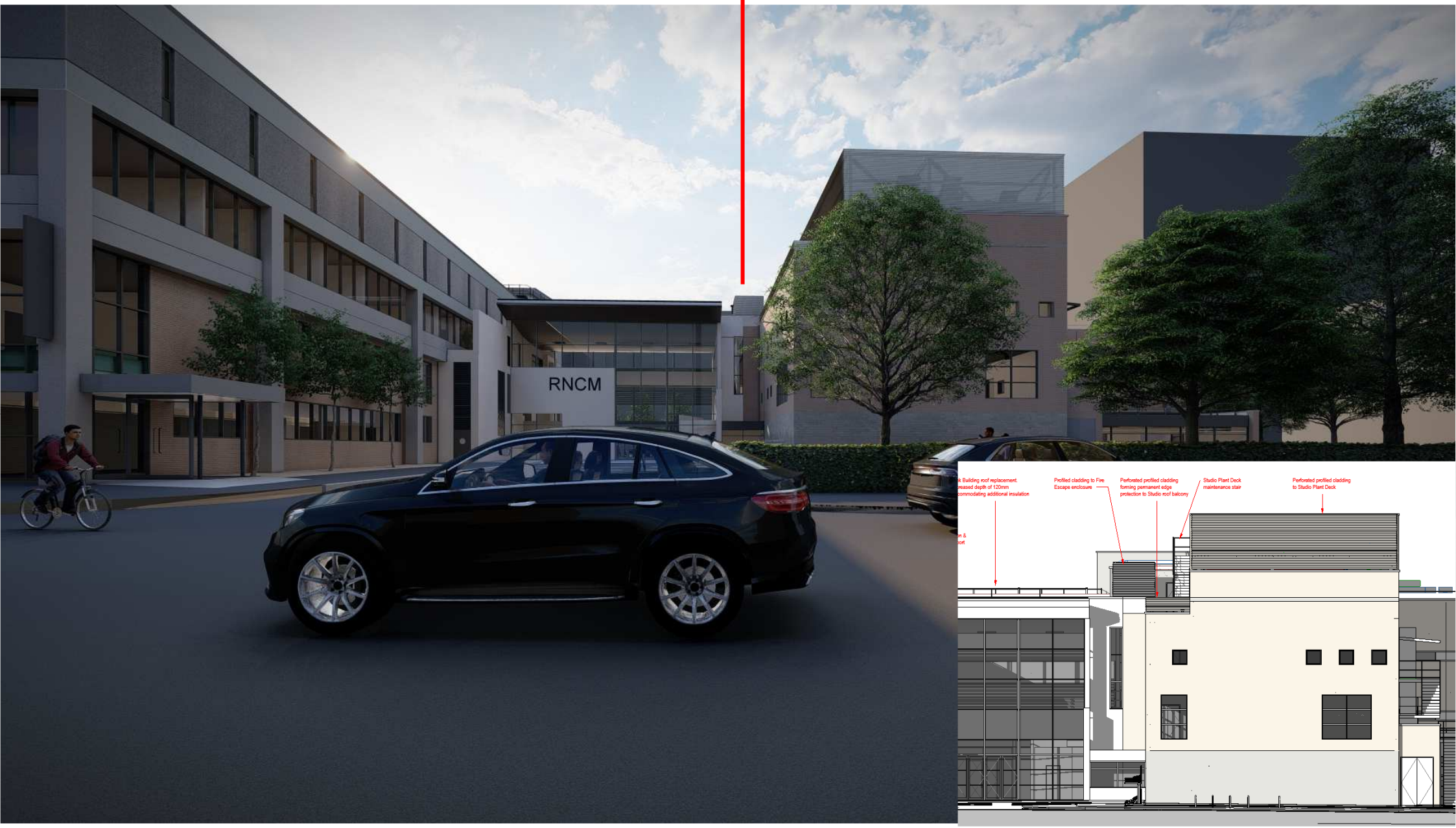
Fire Escape Enclosure

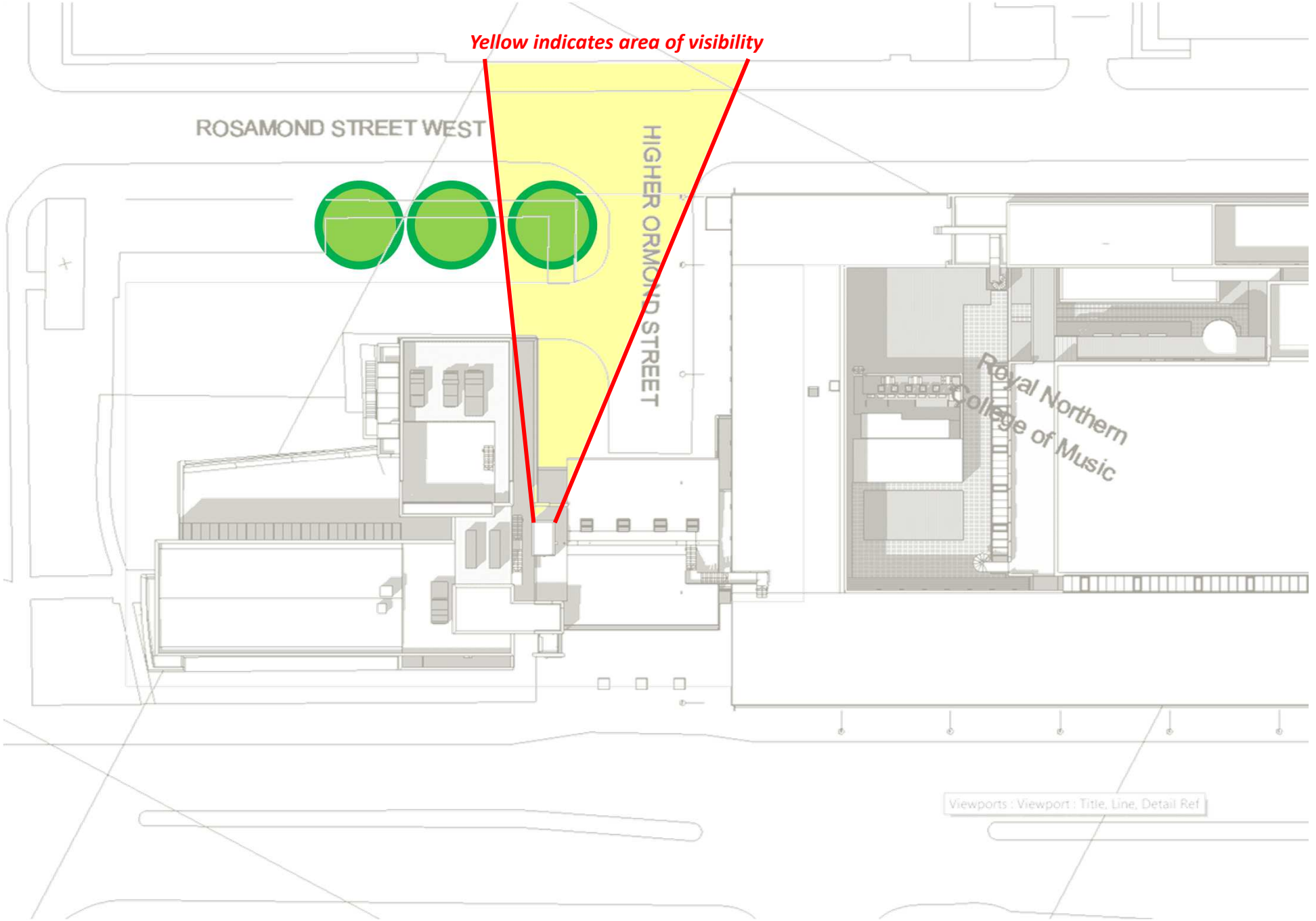
Can a proposed CGI view be created that shows what the fire escape enclosure would look like straight on from Rosamond Street West at street level view?

The CGI in the D&A statement (see below), shows this view from slightly off centre, and the enclosure is somewhat shielded from view by the entrance area on this elevation, but the City Council still has concerns as to the visual amenity impact of this and would like to see a more straight on view to better understand the impact.



Escape stair from straight on





Visibility Figure Ground

Escape Stair

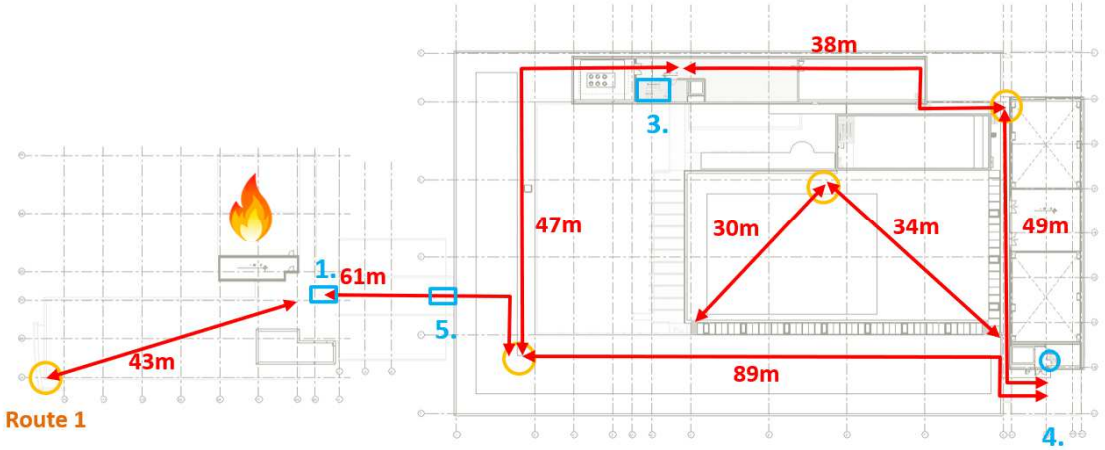
There are concerns about the design and high level of visibility of this element which reads as a rather crude add on with no consideration as to how it could be less visible or be better read as an integral architectural feature of the building. The escape stair will be clearly visible from Booth Street West. There is nothing in the D&A which justifies the design approach in terms of materials or location.



Can a thorough justification be provided as to why this escape stair is required?

And can a justification be provided for why it is required in this location? Can it be clearly stated what other options for providing an escape stair were considered and why this option was submitted as the preferred option?

Approved Document No:	Approved Document identified visually **1. Eliminate or avoid Risks** (during early design stages) **SFARP** (So Far As Reasonably Practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (As Low As Reasonably Practicable). **3. Inform: Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc.. **4. Control: Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc.	Approved Doc Action & Status NOT TOLERABLE ONGOING TOLERABLE	Golden Thread (Y/N)
ADB2 2.1	**Proposed Roof Means of Escape**	1. Add escape stair		Y
		2. Connect escape route to the existing external escape stair used for the Studios. See over for REI 30 roof construction		Y
		3. Extend the protected escape stairs to serve the plant room.	OUT OF SCOPE	Y
		4. Existing spiral within Oxford Road Wing.		Y
		5. Means of escape with benefit of helping routine maintenance across the entire roof		N
		6. Need for emergency lighting and sounders and/or a put in place management procedures	Dodds/RNCM	Y
		*All routes are now to a clear place of safety		

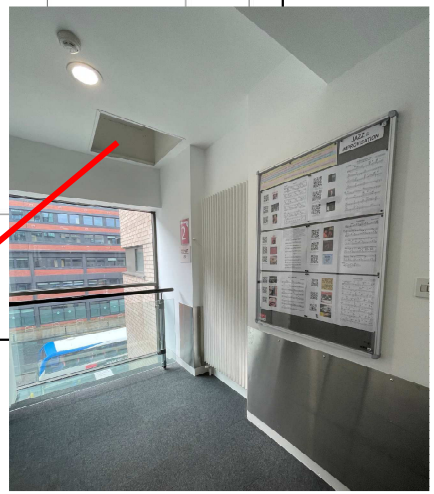


Roof Level means of escape:
- Permitted single direction 60m.
- Permitted more than one direction 100m

Table 2.1 Limitations on travel distance

Purpose group	Use of the premises or part of the premises		Maximum travel distance[1] where travel is possible in: One direction only (m)	More than one direction (m)
2(a)	Residential (institutional)		9	18
2(b)	Residential (other):			
	a. in bedrooms[2]		9	18
	b. in bedroom corridors		9	35
	c. elsewhere		18	35
3	Office		18	45
4	Shop and commercial		18	45
5	Assembly and recreation:			
	a. buildings primarily for disabled people		9	18
	b. areas with seating in rows		15	32
	c. elsewhere		18	45
6	Industrial[3]	Normal hazard	25	45
		Higher hazard	12	25
7	Storage and other non-residential[3]	Normal hazard	25	45
		Higher hazard	12	25
2–7	Place of special fire hazard[4]		9[5]	18[5]
2–7	Plant room or roof-top plant:			
	a. distance within the room		9	35
	b. escape route not in open air (overall travel distance)		18	45
	c. escape route in open air (overall travel distance)		60	100

DRM 4c: Approved Document compliance (AD)



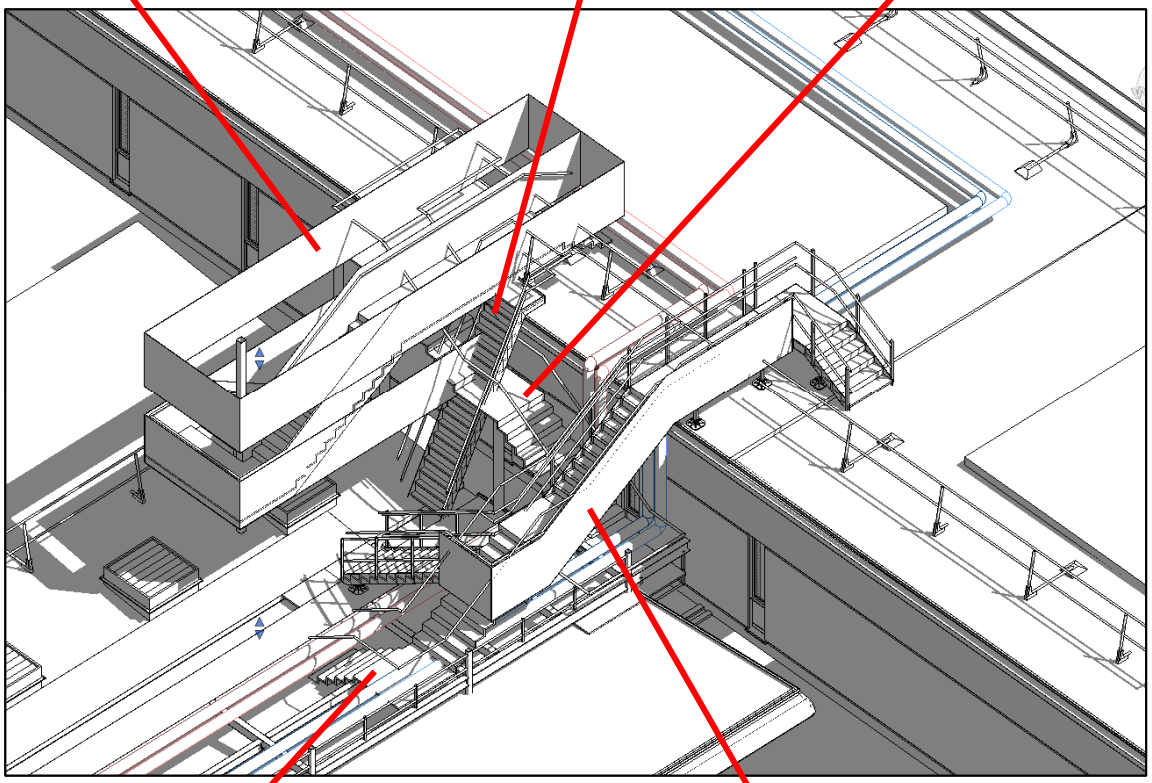
Existing dropdown ladder deemed unsafe - decommissioned

Means of escape

1. Form a 'mass' to hide stair, structure and pipes. Not viable to support in this location

2. Companion stair – not safe for Workplace Act

3. Straight flight against building – more visible as starting point higher

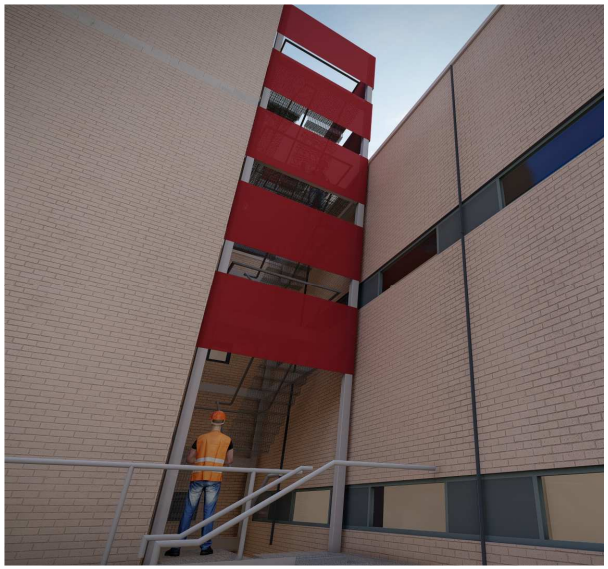


4. Dog leg stair 1 – Best result as only upper flight visible. Need more height from first flight to diminish street visibility.

5. Dog leg stair 2 – Final proposal. Clad principal elevation to create a form and make it less utilitarian

Stair options considered





Corner stair became over complicated:

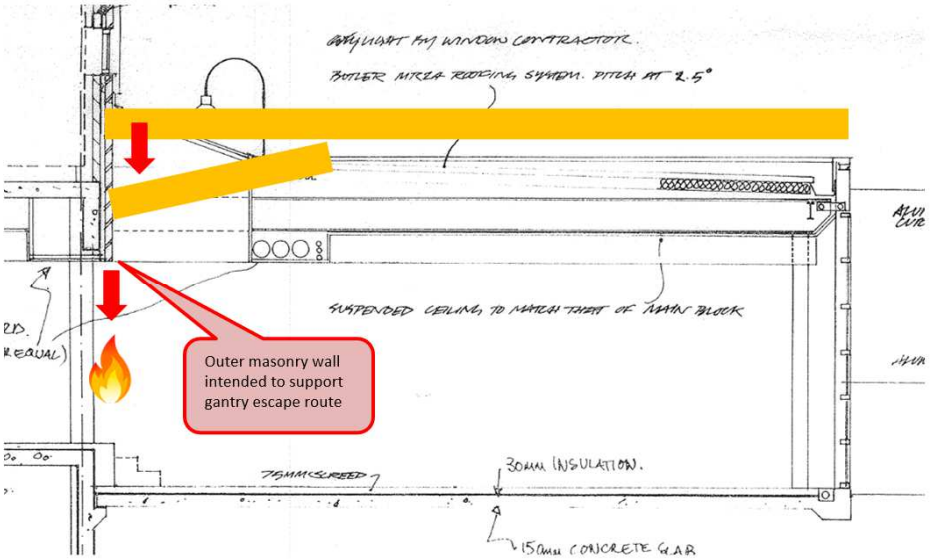
- ***failed due to Critical Elements on structural support***
- ***Extensive fire rated glazing***
- ***Could not fire protect existing roof***

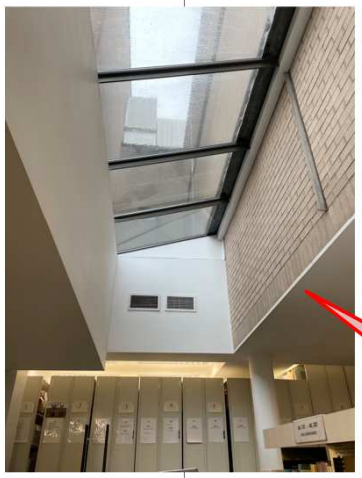


Alternative stair option 6 considered

Safety Critical Element Ref No:	Safety Critical Elements identified visually **1. Eliminate or avoid Risks** (during early design stages) **SFARP** (So Far As Reasonably Practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (As Low As Reasonably Practicable). **3. Inform: Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc.. **4. Control: Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc.	Design Risk Action & Status NOT TOLERABLE ONGOING TOLERABLE	Golden Thread (Y/N)
SCE 1	**Gantry means of escape support**	1. Risk of collapse. Intended gantry supported on external masonry could fail if the shelving bracket fails		Y

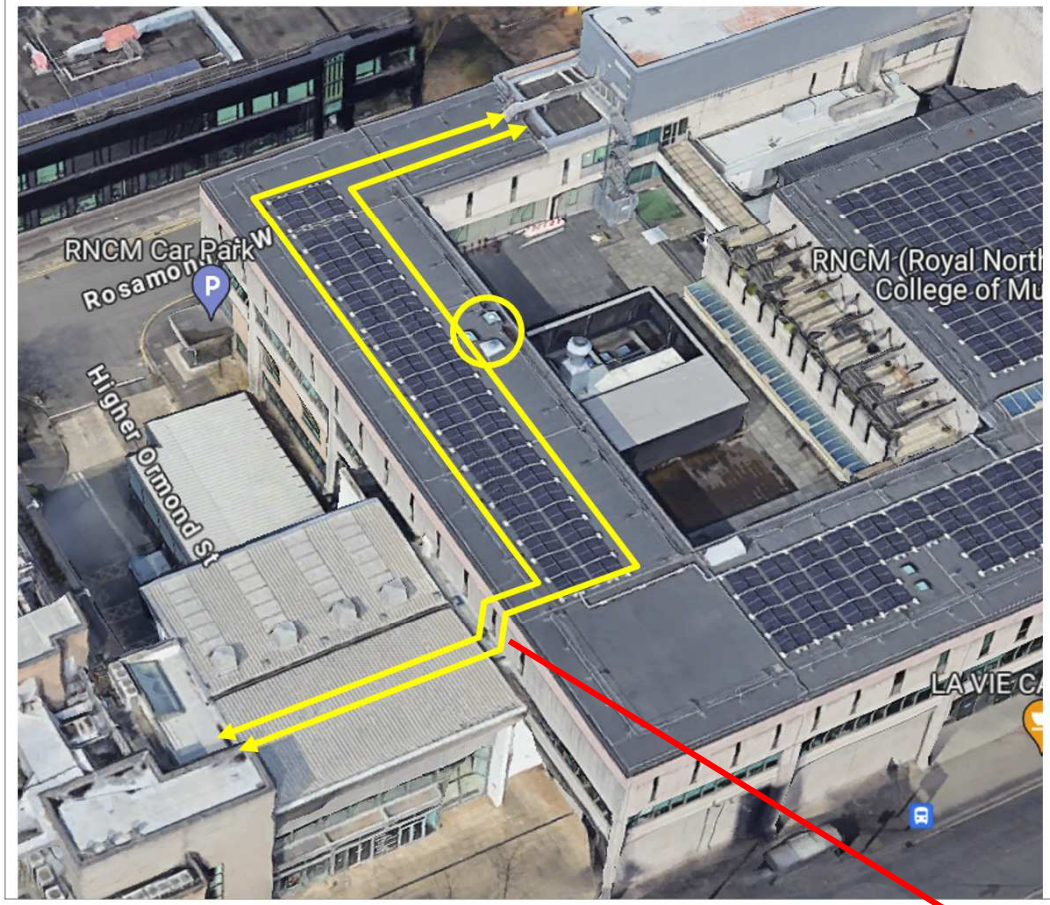






DRM 4d: Safety Critical Elements (SCE)

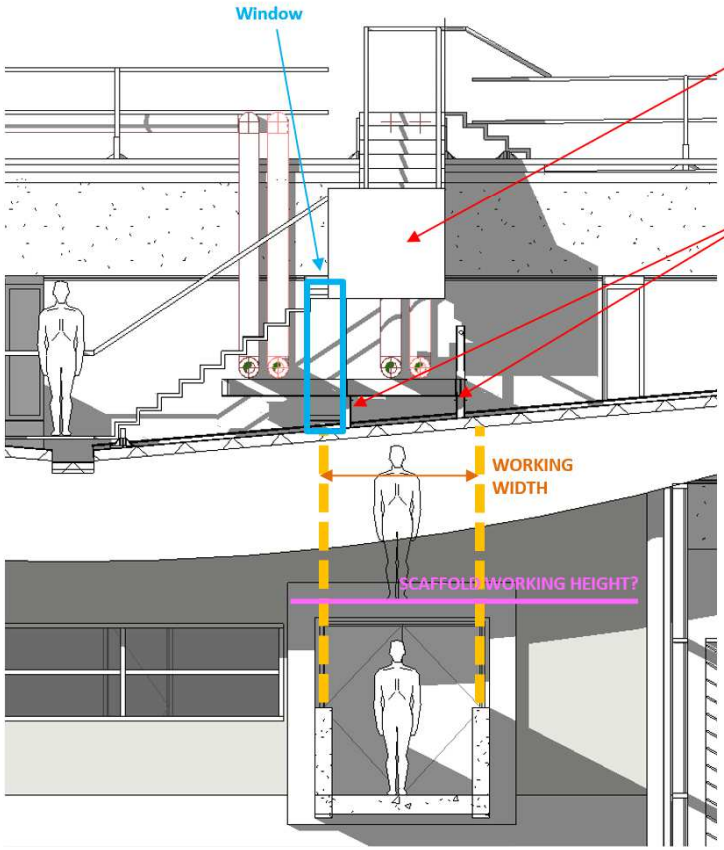
Significant Design Risk Ref No:	Significant CDM Issues identified visually **1. Eliminate or avoid Risks** (during early design stages) **SFARP** (So Far As Reasonably Practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (As Low As Reasonably Practicable). **3. Inform: Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc.. **4. Control: Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc.	Design Risk Action & Status NOT TOLERABLE ONGOING TOLERABLE	H&S File (Y/N)
SDR 9.1A	**Plant & Services: Pipework strategy – location/supports/weights**	1. Proximity to edge – installation/maintenance		N
		2. Relationship to existing skylights and service penetration		N
		3. Edge protection to Link Building	Refer xx	N
		4. Step overs / access and means of escape across the roof	Ref xx	N
		5. Relocate PV array??		
		6. Wind loading, ss pipes, weights etc		

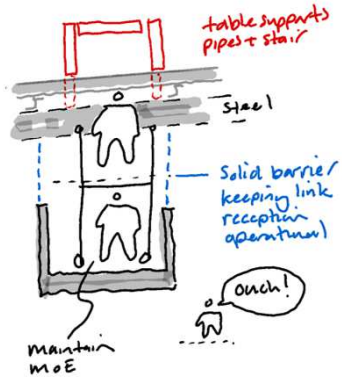


DRM 4a: Significant Design Risk (SDR)

Pipes need to drop down building face

Significant Design Risk Ref No:	Significant CDM Issues identified visually **1. Eliminate or avoid Risks** (during early design stages) **SFARP** (So Far As Reasonably Practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (As Low As Reasonably Practicable). **3. Inform: Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc.. **4. Control: Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc.	Design Risk Action & Status NOT TOLERABLE ONGOING TOLERABLE	H&S File (Y/N)
SDR 7.4B	**Working at height: Pipe & Stair location and support**			





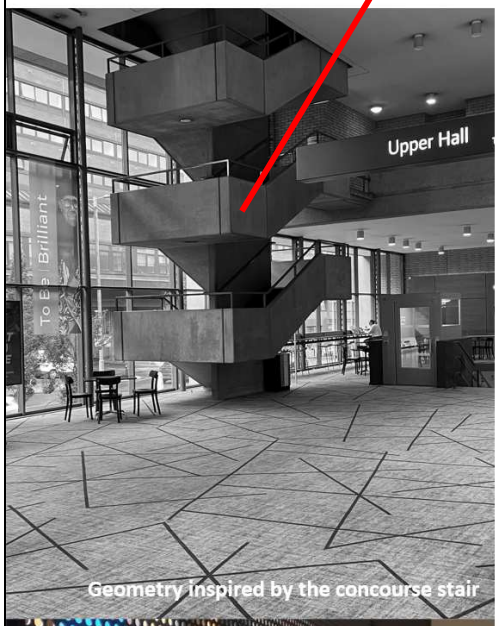
1. Define the Link Bridge working width to position the stair and pipes
2. Pipes split to avoid window
3. Steel stubs are less likely to be accidentally moved in the future
4. Steel frame provides support for stair, pipes, handrail and future services like lighting etc
5. Scaffold solid barrier/debris netting/edge protection allowing the Link reception to remain operational ie no risk of items falling below. — PC
6. Access arrangements during the works to maintain means of escape across the link bridge. — PC

IPA SCAN ME

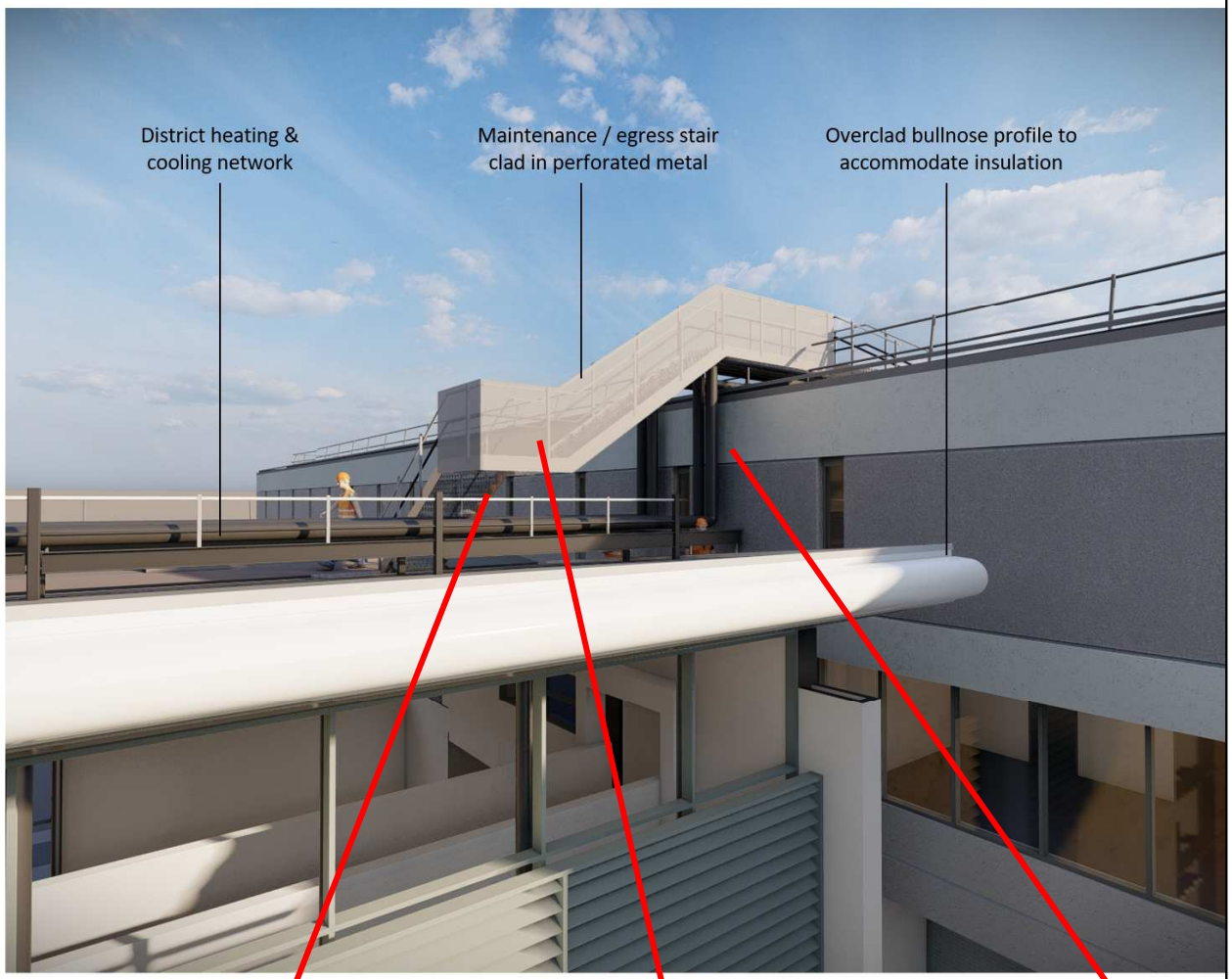
DRM 4a: Significant Design Risk (SDR)

Light weight roof requires 'Pipe & Stair' structural supports over Link Bridge

Building references





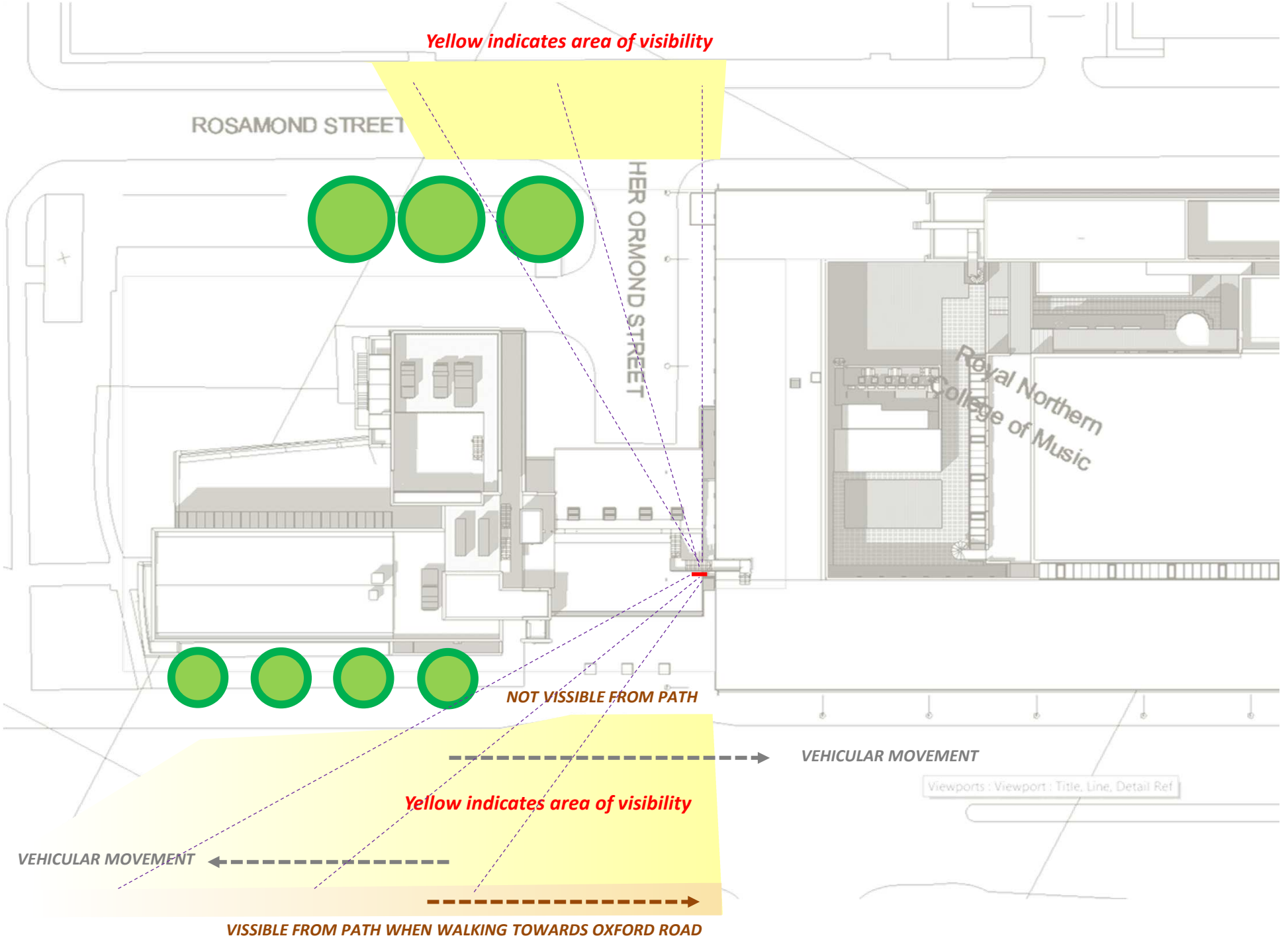


Link Building maintenance and egress stair

Make it float

Perforated cladding to principal elevation - make it less utilitarian

Pipework concealed and pushed into background



Visibility Figure Ground

Edge Protection

The City Council has concerns over the visibility of the edge protection from street level and the visual amenity impact this might have on the building and surrounding street scene.

For example, on the edge protection installed on the main building, it is visible from the junction of Oxford Road and Booth Street East/West and various other points (see below).



Is there any scope to set the proposed edge protection in this application further back to ensure that it is not visible from any view point at street level?


PP-09909248v1
RNCM
RNCM
Google