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TRILOGY

Great Northern Warehouse



Site wide Demolition Phasing

Internal Review / Issue Process			File details	
Stage	Initials	Date		
Originator	MBC	03 Aug 22	Status	For Planning
Review	-	-	Revision	Rev 2
-	-	-		
-	-	-		

Distribution - to be further distributed	Distribution
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Description

Site wide demolition Phasing pack for Great Northern Warehouse

Content:-

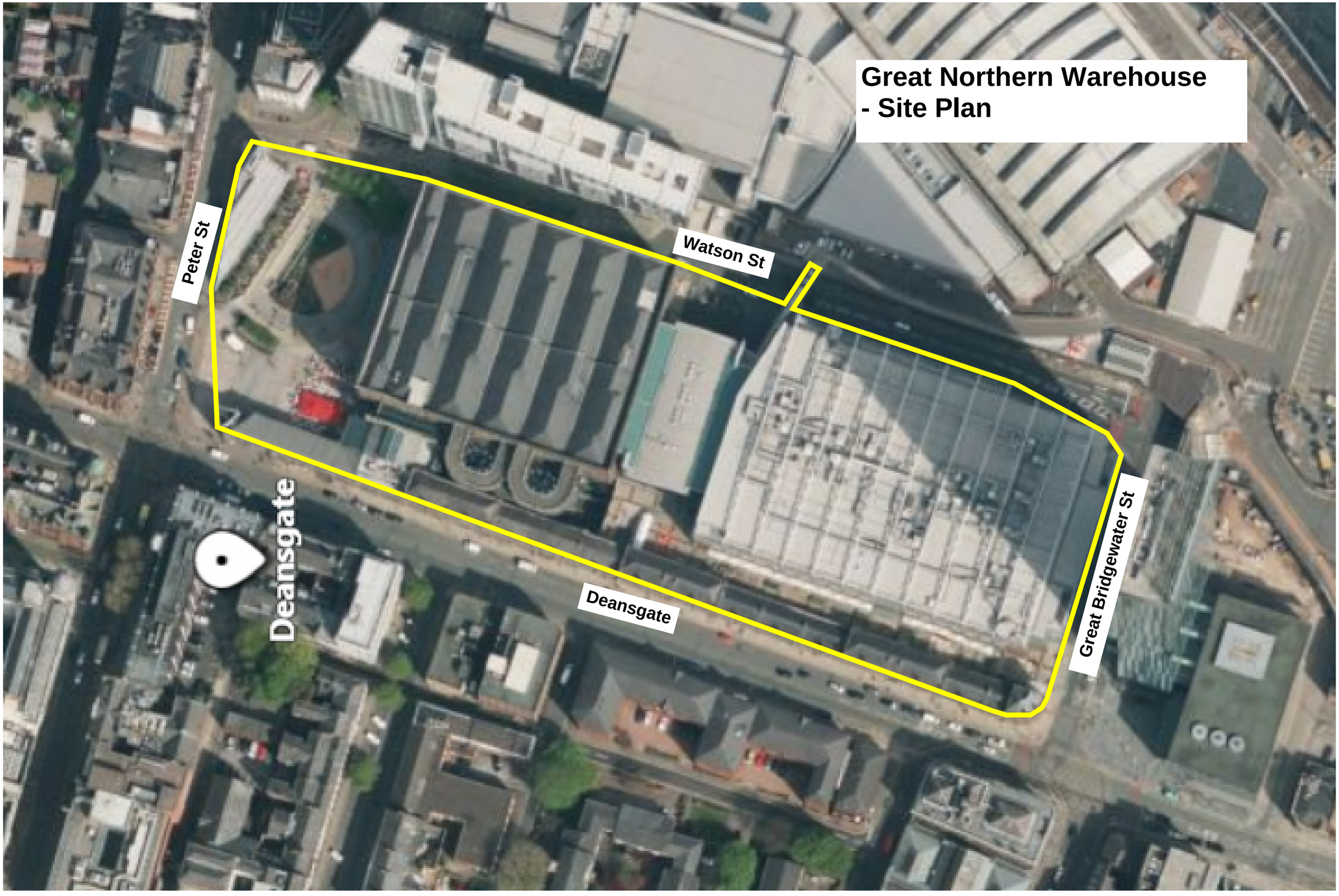
Section 01 Existing Site images / Demolition scope

Section 02 Proposed De-Construction works to Leisure Box Structure

Section 03 Proposed structural alteration works to Warehouse structure

Notes:-

See individual slides for notes.



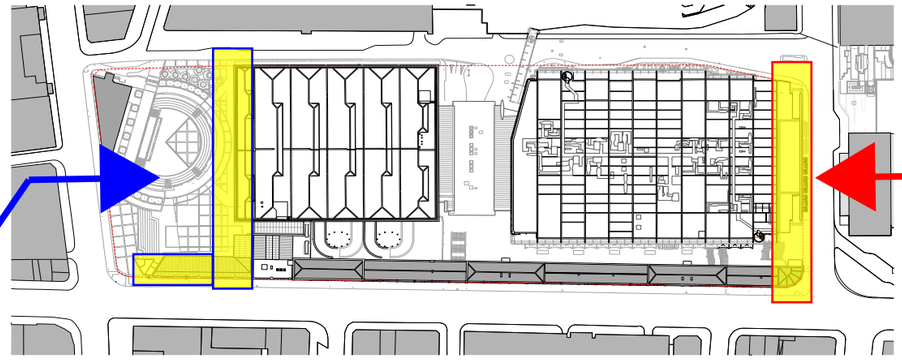
R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-01	

Great Northern Warehouse
- Peter St & Great Bridgewater St Elevations

Peter St

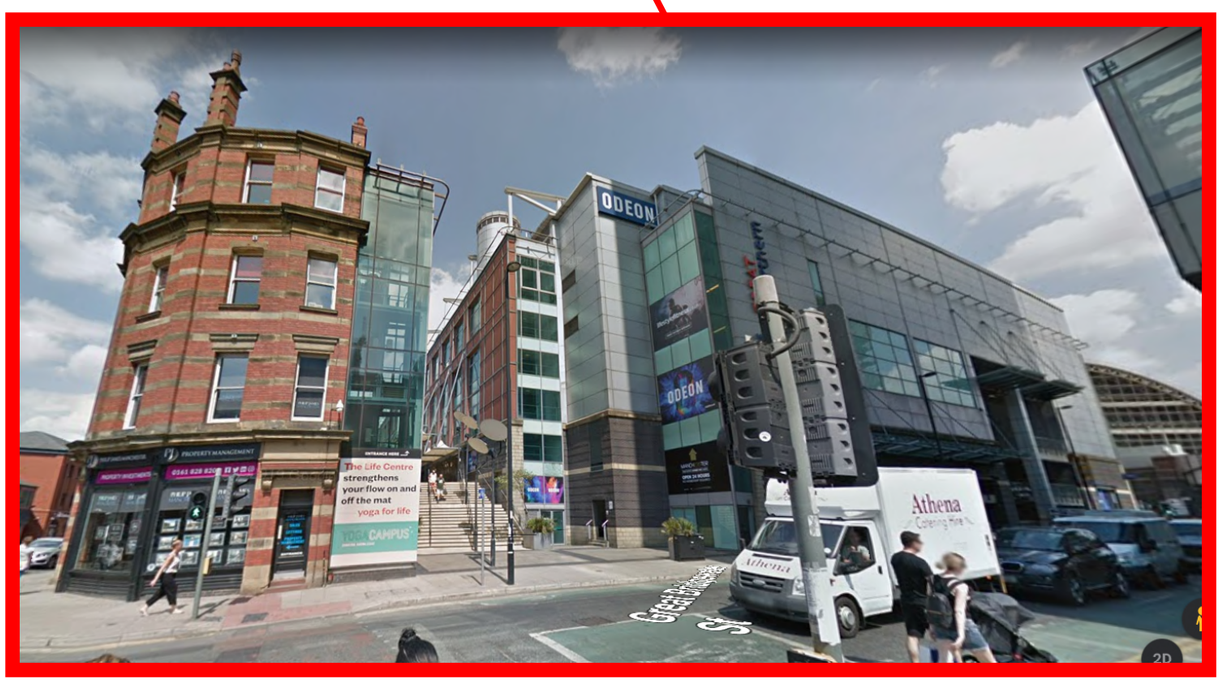
Peter St

Peter St





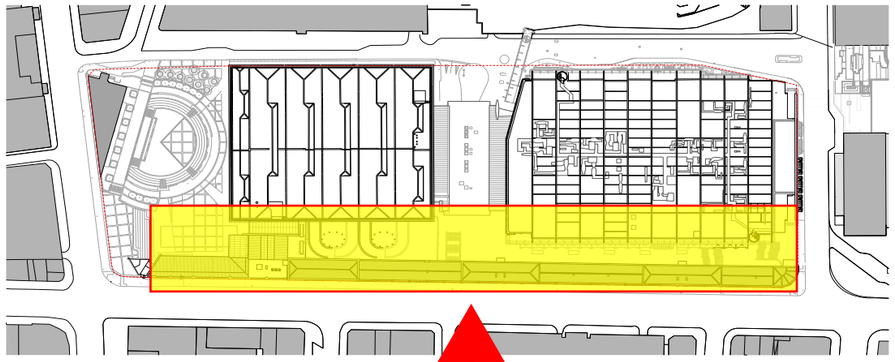
Peter St Elevation



Great Bridgewater St Elevation

R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-02

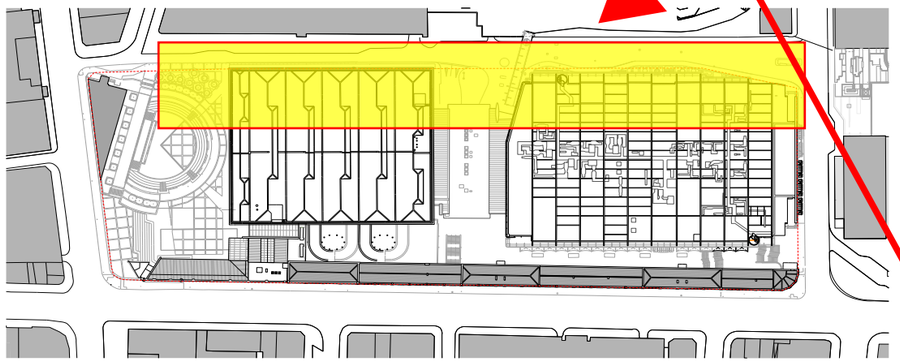
Great Northern Warehouse
- Deansgate Elevation





Deansgate Elevation

R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-03

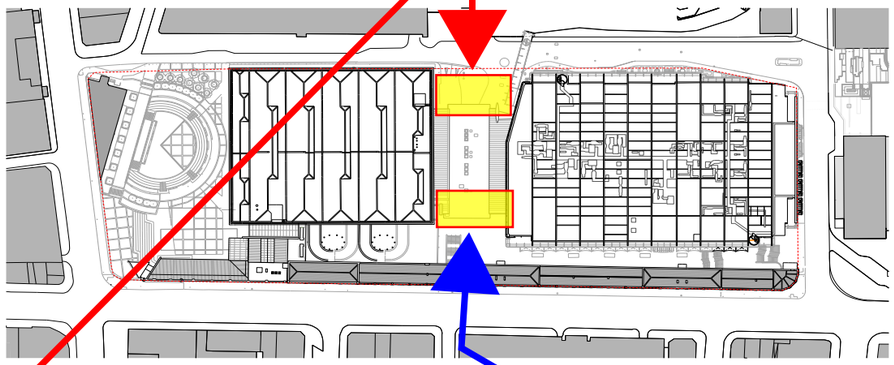


Great Northern Warehouse - Watson Street

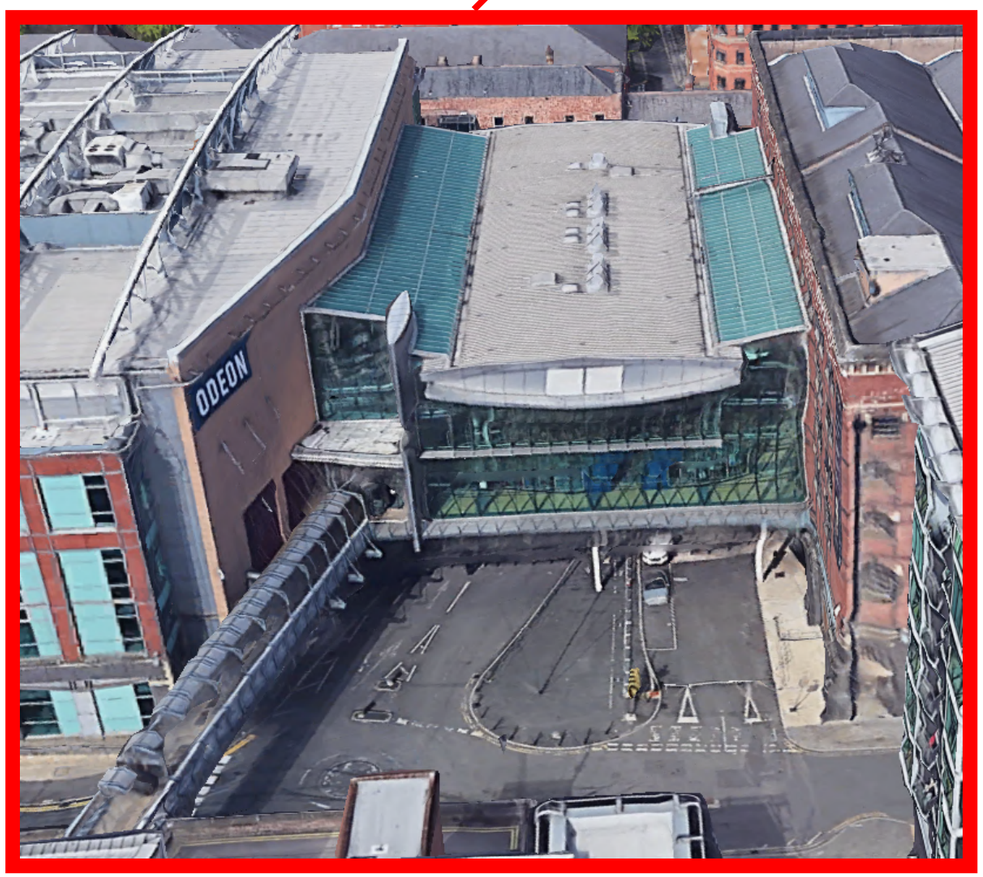


Watson Street Elevation

R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-04



Great Northern Warehouse - Existing Link Structure Elevations



Existing Link Structure - Watson St Elevation

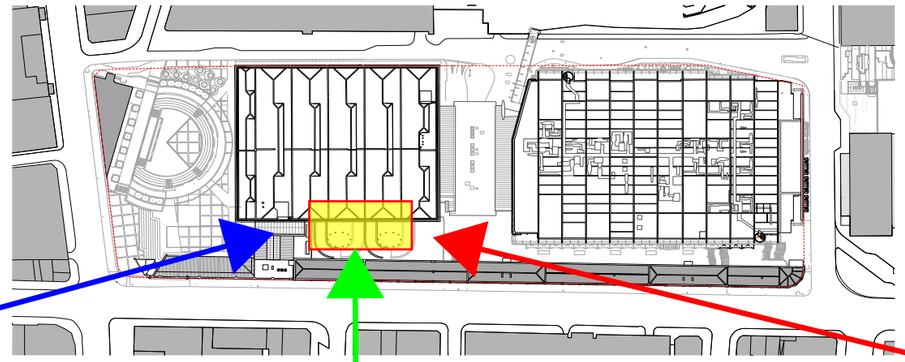


Existing Link Structure - Deansgate Elevation

R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-05

Great Northern Warehouse
- Existing Warehouse Car Park Ramp Structures



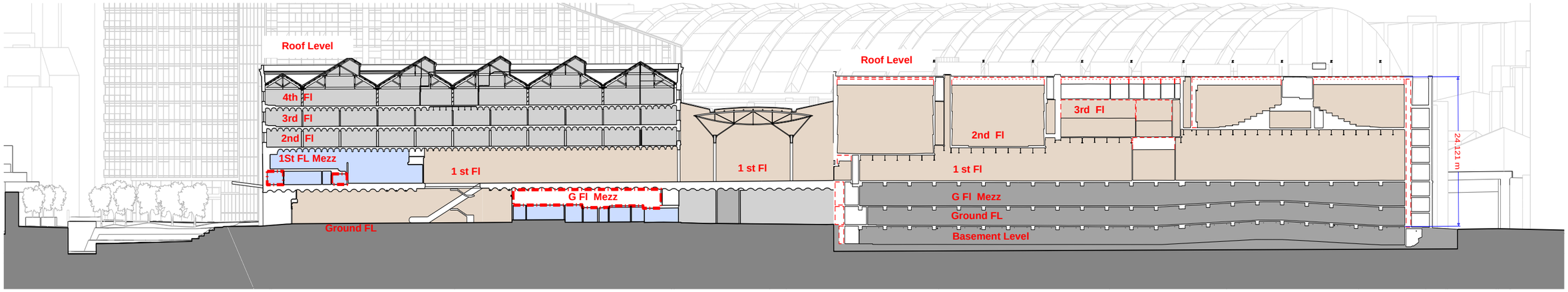






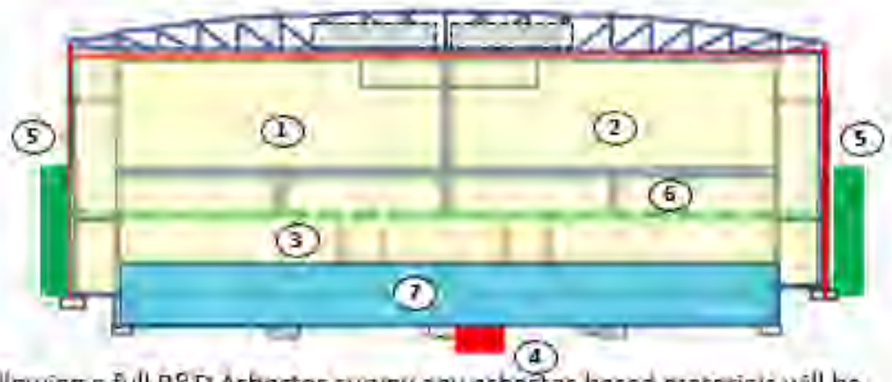
R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-06

Great Northern Warehouse
- Existing Section with New floor levels identified



R.P.M.	Project: Great Northern Warehouse	Title: Existing site images / Demolitions scope	* Drawing not to scale	GNW ESI-DS-07

Leisure Box De-Construction
Stage 01



1. Following a full R&D Asbestos survey any asbestos based materials will be removed

2. Soft strip demolition will be carried out removing all internal finishes back to structure

3. Back propping / spreader beams to the temporary tower supports may be required to the floor below the level 2 working deck, this will need to be validated by the temporary works engineer. This is allow for a reduce public use of the Basement and Ground level car. (assumes max no of 100 public use car parking spaces)

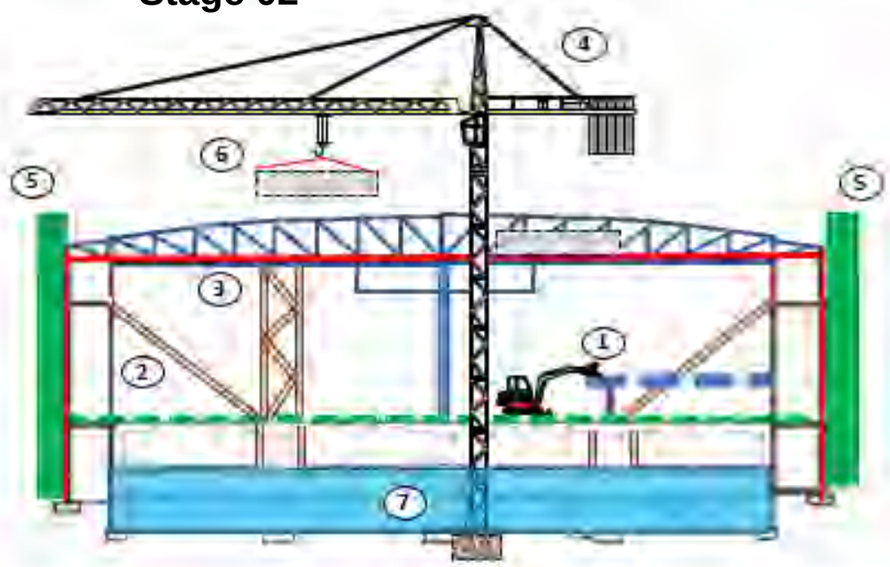
4. Enabling works to for tower crane bases and openings will be undertaken following the soft strip operation, works areas locally hoarded off in live car park areas.

5. Following on from the soft strip works the existing Level 2 retained structural slab will be protected to prevent any damage during the follow on de construction works and to make safe any existing penetrations / service openings

6. A fully Mona flex clad encapsulation scaffold will be erected to all external elevations of the existing structure

7. Public car parking in use at BM & Ground level, segregated from live site. To be sequenced with enabling works assumed max no of 100 no public parking spaces

Leisure Box De-Construction
Stage 02



1. With sufficient soft strip demolition works completed and the Level 2 slab protected the existing Level 3 slab will be progressively broken out with the supporting structural frame being removed

2. Temporary works raking props (if required) will be installed to the areas of existing perimeter structural steelwork that are to be retained, the raking props may not need to be installed at perimeter core locations

3. Temporary works support towers will be installed to the underside of the existing primary trusses to enable the existing trusses to be sectionalised for lifting down, the towers will also add support to the trusses during removal of the secondary / purlin steelwork

4. Tower cranes TC1 & TC2 will be erected, saddle back cranes are currently shown, luffing jib cranes could be an alternative option

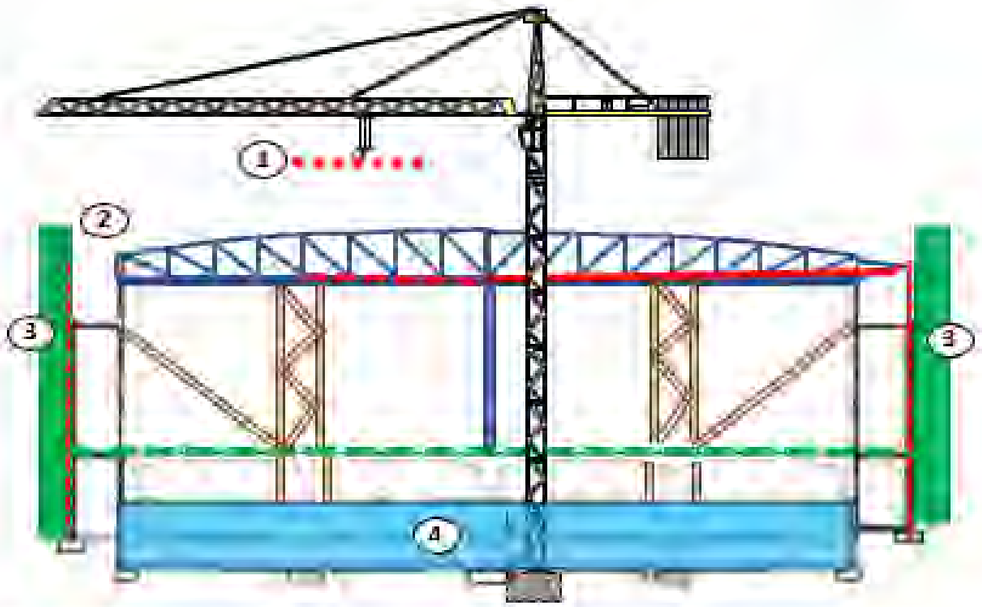
5. External encapsulation scaffold is completed to roof level

6. Roof plant & equipment is decommissioned and removed utilising the tower cranes

7. Public car parking in use at BM & Ground level, segregated from live site. To to be sequenced with enabling works assumed max no of 100 no public parking spaces

R.P.M.	Project: Great Northern Warehouse	Title: Proposed De-Construction works to Leisure Box Structure Stages 1 - 2	* Drawing not to scale	GNW - LBDS 1-2

Leisure Box De-Construction
Stage 03



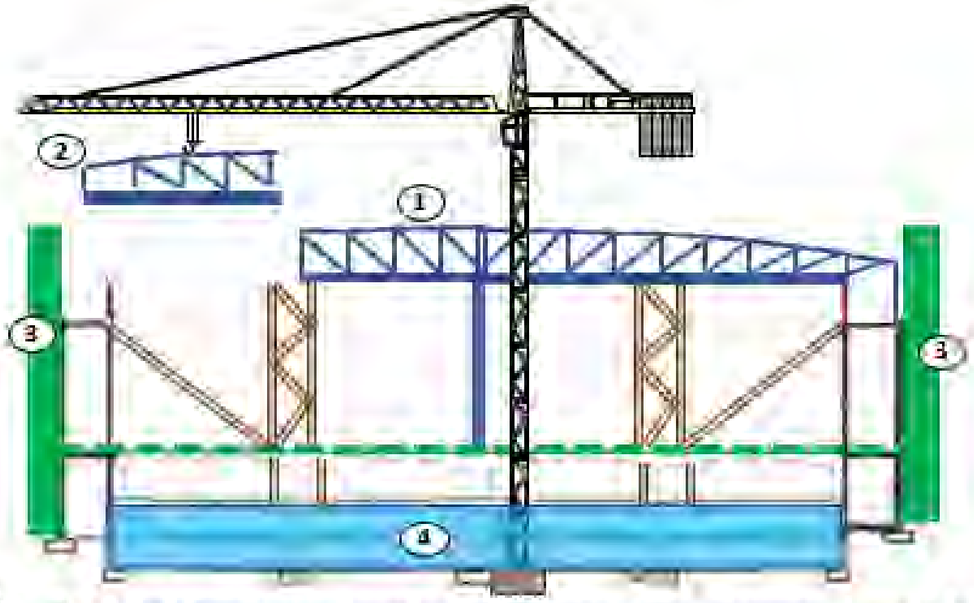
1. With sufficient roof plant removal completed the existing roof cladding panels will be sequentially removed utilising the perimeter scaffold and MEWPS for access. This operation will be assisted by the tower cranes with two work faces running concurrently

2. The eaves interface at the end of the primary truss and perimeter structural steelwork / cladding will be progressively removed, this will then allow for the removal of the existing vertical cladding and primary truss removal

3. Removal of the existing vertical cladding will progress to all elevations working from the perimeter scaffolding this operation will be undertaken in two stages – Roof to Level 2 and Level 2 to Ground level

4. Public car parking in use at BM & Ground level, segregated from live site. To be sequenced with enabling works assumed max no of 100 no public parking spaces

Leisure Box De-Construction
Stage 04



1. Roof cladding removal works will be ongoing, once removal works have progressed sufficiently to provide a safety zone of two truss bays works will commence on the primary truss removal

2. Due to the large span of the existing primary trusses the proposal will be to reduce the truss into four sections which will allow assist with ease f lifting and processing for removal from site. The earlier installation of two temporary works support towers per truss will allow the existing truss to be cut into four sections for removal with the tower crane whilst maintaining structural stability of the roof structure

   These works will follow progressively the removal of the by roof cladding

3. Works on the removal of the external vertical cladding will continue to progress to all elevations

4. Public car parking in use at BM & Ground level, segregated from live site. To be sequenced with enabling works assumed max no of 100 no public parking spaces

R.P.M.	Project: Great Northern Warehouse	Title: Proposed De-Construction works to Leisure Box Structure Stages 3 - 4	* Drawing not to scale	GNW - LBDS 3-4

Leisure Box De-Construction
Stage 05



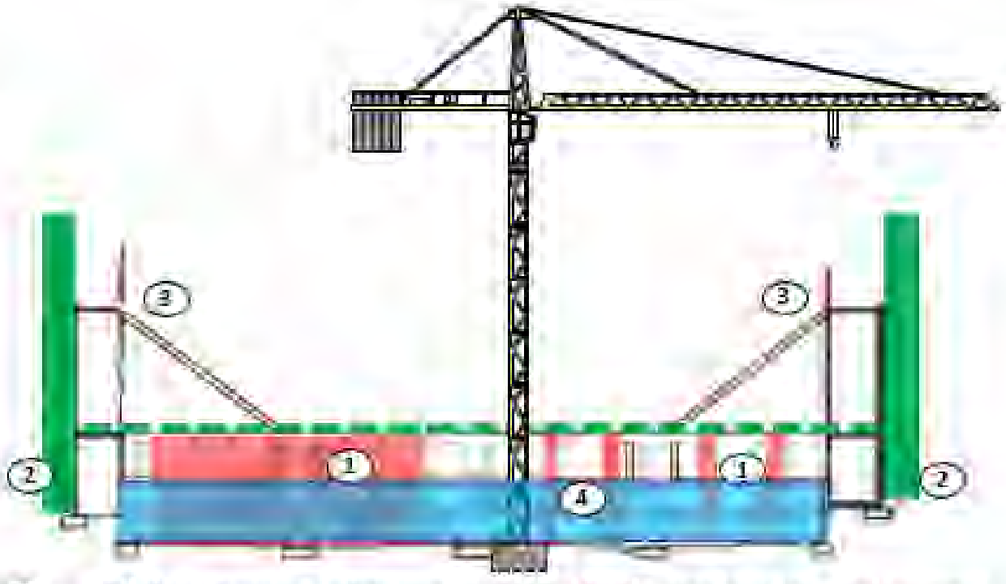
1. The sectionalised removal of the primary truss sections will continue working along the length of the existing truss, the temporary works support towers will be progressively removed following truss removal

2. The existing central steelwork support column will be the last section of the roof / truss section to be removed

3. Works on the removal of the external vertical cladding will continue to progress to all elevations

4. Public car parking in use at BM & Ground level, segregated from live site. To be sequenced with enabling works assumed max no of 100 no public parking spaces

Leisure Box De-Construction
Stage 06



1. With the structural steelwork removal to the roof and central support columns nearing completion works will progress on structural demolition for new structure through the existing car park deck structure, this will be assisted by the two tower cranes. Localised opening up of the existing structure will be undertaken at new column locations

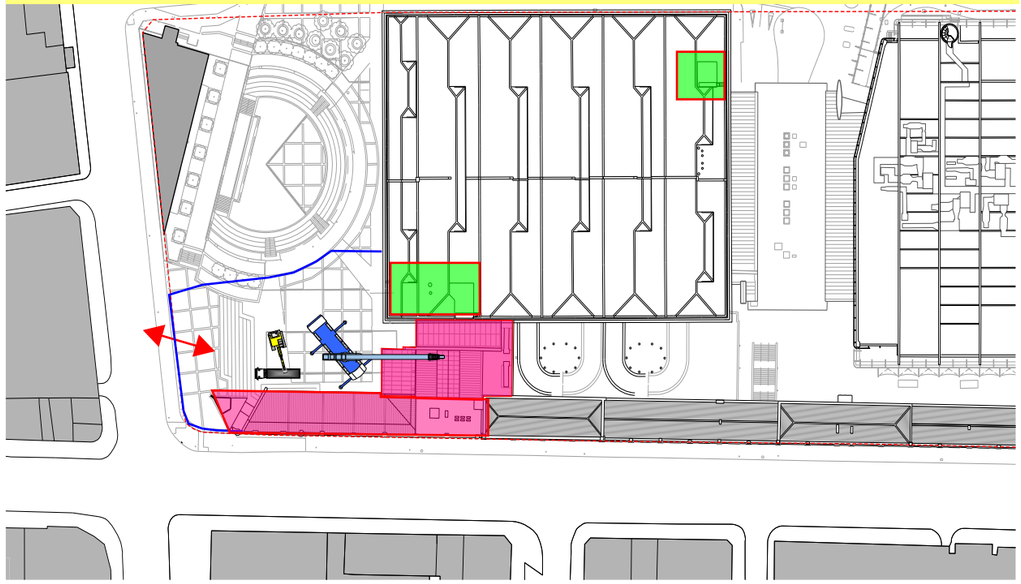
2. Works on the removal of the external vertical cladding will continue to progress to all elevations at low level

3. Temporary raking props to the perimeter retained steel frame will be left in position until the new superstructure has progressed sufficiently to structurally tie these in at which point the raking props will be removed

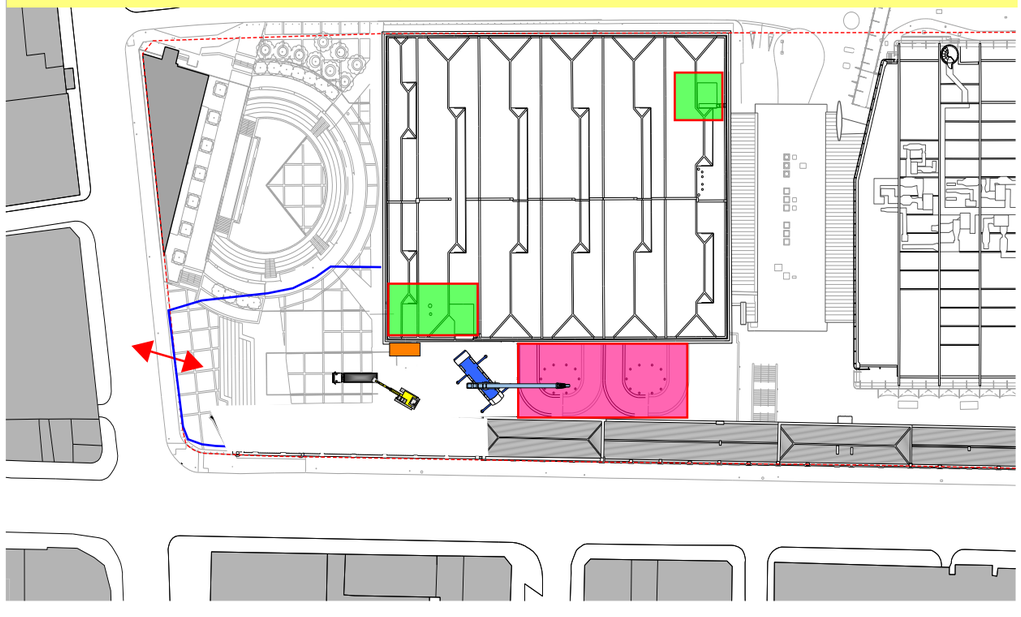
4. Public car parking in use at BM & Ground level, segregated from live site. At this stage parking will be reconfigured a number of times (possibly between levels) so as to allow for the interventions for new columns and the new main cores and their construction back to level 2. Assumed max no of 100 no public parking spaces

R.P.M.	Project: Great Northern Warehouse	Title: Proposed De-Construction works to Leisure Box Structure Stages 5 - 6	* Drawing not to scale	GNW - LBDS 5-6	

Stage 01
De construction of existing link structure and rear section to the North of Deansgate structures progressed
Temporary roof erected at roof level over SW & NW existing Cores structure Link structure and

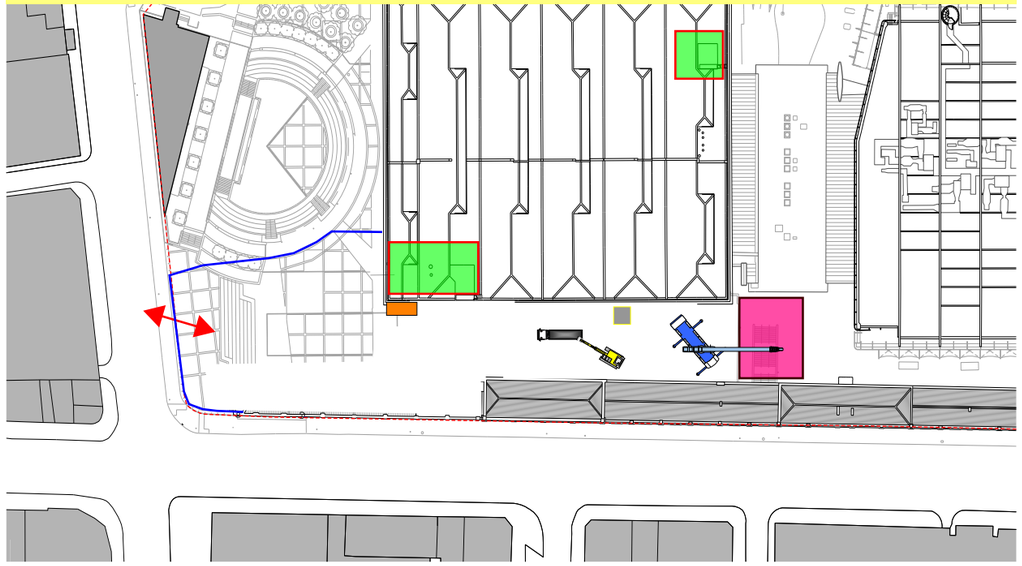


Stage 02
De construction of existing link structure will provide access for the removal of the existing car park ramp structure utilising a mobile crane
A good hoist to service the roof enabling works will be erected on the North end of the West elevation to service the early roof works



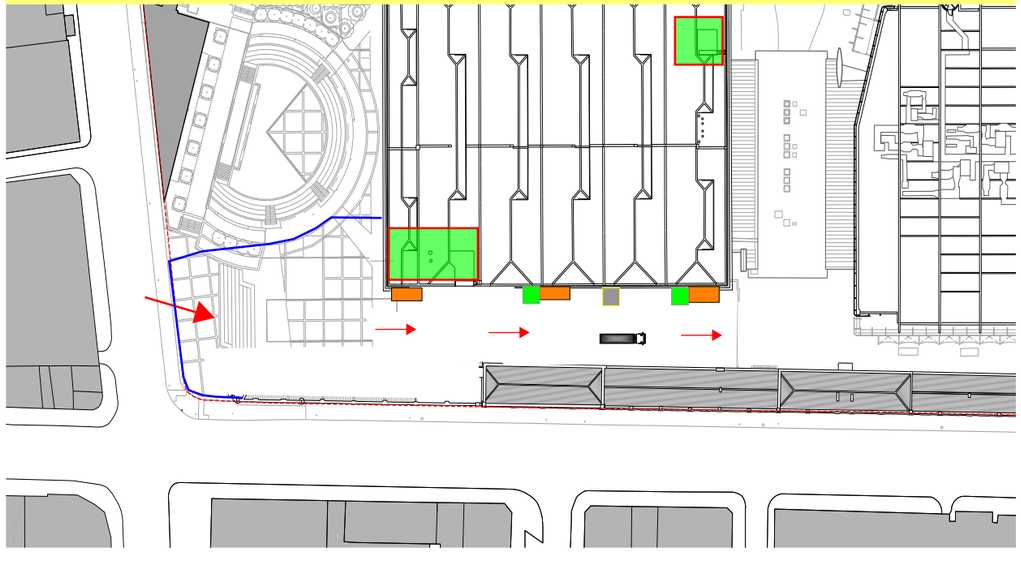
Stage 03
The Final element of de construction to the West elevation will be the removal of the terrace deck at the interface with the Atrium building / structure, it is proposed that specialist cut and lift operation will be carried out due to the requirement to retain the adjoining structures.

Tower crane base (TC06) will be formed along the west elevation



Stage 04
With the Removal of the terrace deck at the interface with the Atrium building / structure a one way traffic rout can now be opened up.

At this stage full logistics will be operational with two goods hoist operating on the West elevation along with a tower crane 06 and a further goods hoist to service the roof located on the North of the West elevation. *See logistics plans



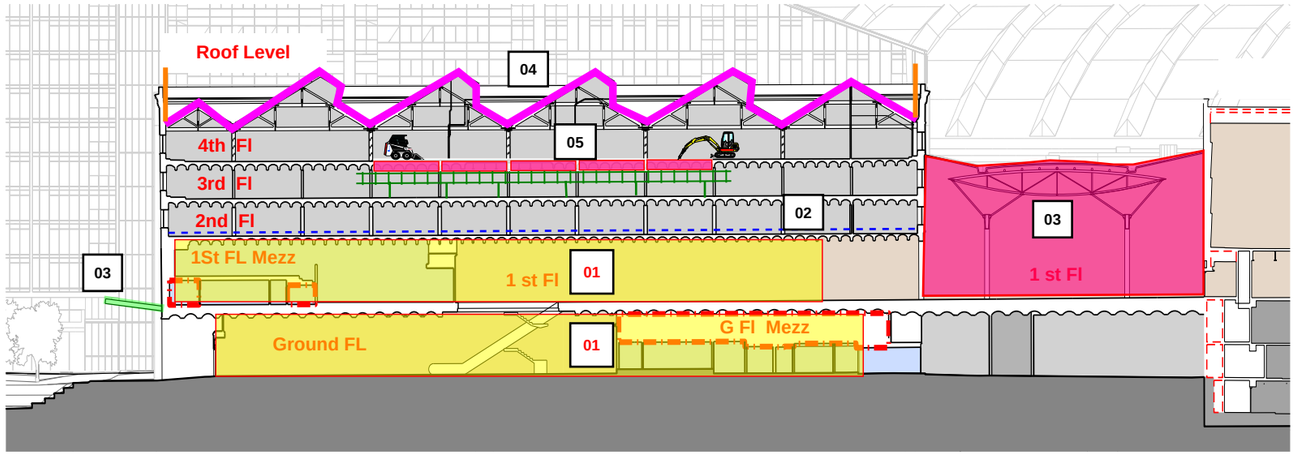
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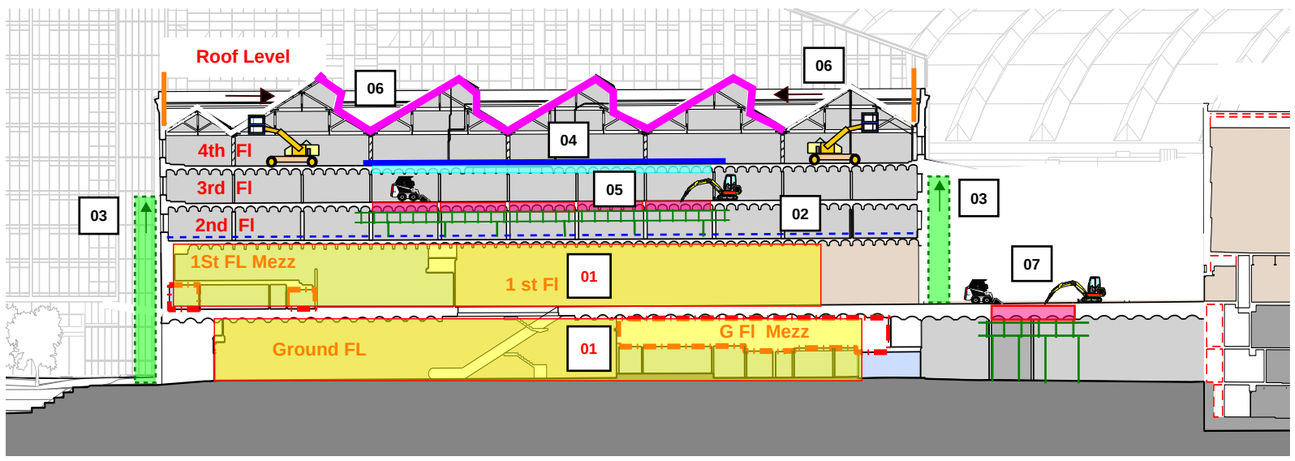
Project: Great Northern Warehouse

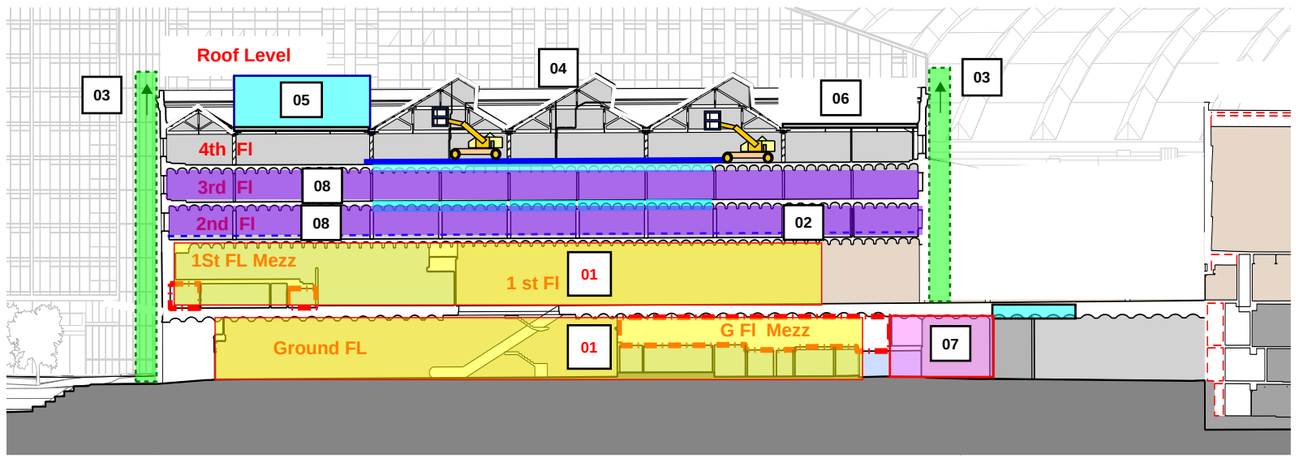
Title: Proposed structural alteration works to Warehouse structure - Plans

* Drawing not to scale

GNW -SIWH /01







Stage 1 Enabling & Demolition Works

1. Existing tenants remain in live occupation throughout the entire Project Period

2. Localised secondary level of Waterproofing protection installed above retained tenant areas

3. Advanced removal of existing perimeter structures - Atrium Building, car park ramps, canopies
4. Existing roof finishes retained as primary level of waterproofing to existing structure protection screens installed to inner parapet at roof level to allow advanced works to commence on the roof

5. Temporary works installed to underside of 4th floor new atrium area, slab progressively removed in engineered sequence

Stage 2 Enabling , Demolition and roof works

1. Existing tenants remain in live occupation throughout the entire Project Period

2. Localised secondary level of Waterproofing protection Maintained above retained tenant areas

3. Completion of the advanced removal of existing perimeter structures will allow the commencement of the scaffold erection to the external facades of the existing structure

4. Following completion of the new atrium opening at 4th floor level a fully weathered protection and access deck is installed above the new opening, This combined with localised weathering will form the primary level of waterproofing for the structure and allow removal of the existing main roof finishes

5. Formation of the new 3rd floor atrium opening progressing below the L4 protection deck

6. Removal of existing roof finishes commenced following installation of L4 Protection deck

7.With the Atrium building removed down to first floor slab level this will release formation of new full structural bay openings through the existing jack arches, this will be critical to release the area below for construction of the new Substation and switchgear / plant rooms

Stage 3 Roof works, internal Fit out and works to external elevations

1. Existing tenants remain in live occupation throughout the entire Project Period

2. Localised secondary level of Waterproofing protection Maintained above retained tenant areas

3. Scaffold erection to external facades of existing structure completed releasing remedial works to existing brickwork facade, roof parapets and window renovation

4. Protection deck above L4 New atrium void allows for full removal of existing roof finishes and strengthening, structural alteration to the existing roof trusses. this will be followed by installation of new roof lights, roof insulation panels and roof slating

5. Removal of existing roof trusses & construction of new North plant room structure & North stair core structure

6. Structural alterations to existing roof truss to form new terrace area and South plant room

7.Critical works can progress on the construction and fit out of the new Substation and switchgear / plant rooms

8. Internal fit out of new 2nd and 3rd floor office areas progressing, 4th floor fit out will commence once the main roof works are sufficiently progressed to provide a weatherproof environment

R.P.M.	Project: Great Northern Warehouse	Title: Proposed structural alteration renovation works works to Warehouse structure - Section stages 01 - 03	* Drawing not to scale	GNW -SA&R WH 01-03