

**TWO FRIARGATE**  
COVENTRY

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**TENANT HANDBOOK**  
**RETAIL FIT-OUT**

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# 1 INTRODUCTION

# 1.1 PROFESSIONAL TEAM

Client

Friargate

Project Manager

Cumming

Architect

Allies and Morrison

Civil and Structural Engineer

Curtins

Building Services Engineer

Ernest Griffiths

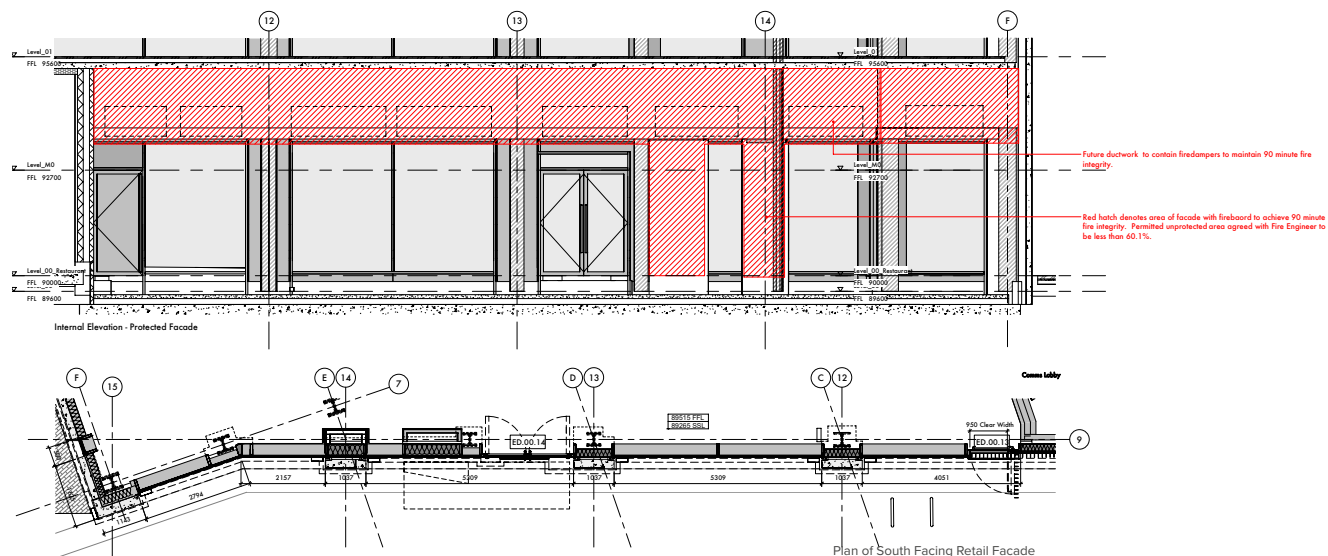
## 1.2 **TENANT CONSTRAINTS**

This document sets out criteria which tenants are to adhere to when designing and installing their fit-out works for the retail unit (Use Class A3). All systems supplied and installed by the tenant are to comply with all relevant regulations and applicable standards. All plant, equipment and services installed by the tenant are to be of an acceptable standard and quality and are to be installed within the demise. Careful consideration should be given to the Landlords services within the demise. Tenant fit-out designs are subject to the Landlords approval. No works are to proceed unless approval has been provided; any alterations by the Tenant to Landlord Works are not to be progressed until approval has been provided and a Licence to Alter issued. In particular the tenant should be aware of the following:

- Fixings through the perimeter wall build up are to be avoided in order to safeguard the fire resistivity, airtightness and acoustic performance of the building envelope.
- Guidance on fixings into the primary structure are set out in section 2.
- All fire encasement including vermiculite, gypsum board fire protection to beams and intumescent paint to the columns is to be retained without alteration.
- If partition walls are required to be fixed to metal columns or beams then the beam and the column must also be fire encased as the intumescent paint will be prevented from expanding. Similarly a clear zone of at least 50mm should be maintained around all painted beams and 25mm to painted columns to allow the intumescent paint to expand in the event of a fire.
- All fire stopping around services, to the slab edge and to core walls is to remain undisturbed.
- An Energy Performance Certificate is required from the tenant prior to occupation.
- The tenant is responsible for obtaining Building Control Approval for their fit-out, certification to be given to the Landlord before occupation.
- This document should be read in conjunction with the fire strategy for the building authored by Design Fire Consultants.
- A rainwater pipe serving the office balconies is located on the intersection of gridline F & gridline 6.
- The floor to the retail unit forms part of the building thermal envelope due to the unheated car park space beneath. It is the tenants responsibility to install adequate insulation to meet the thermal requirements and complete the thermal envelope.

- The wall to the bin store has soft spots formed allowing for sections of blockwork to be removed should ductwork need to pass through.
- Due to the proximity of a future masterplan plot to the retail unit an area of the façade requires fire protection. This has already been installed as part of the base build and should be maintained once the retail unit has been fitted out. The area of façade that is fire protected includes the ventilation louvre band which the tenant will likely need to connect services to. The services that connect to the louvre will need to have suitable fire protection to maintain the fire performance to this area.
- 3no. waste drainage connections have been provided against the demise wall. For limits on the capacity the waste can accommodate refer to O&M information.
- Sprinkler protection is provided to the retail unit and fed from the sprinkler tank in the office basement.
- Guidance for the design and fixing of signage is shown in section 3 of this handbook.
- In order to comply with the fire strategy all retail doors must be left unlocked during the hours of operation and open outwards.

- The tenant will be responsible for installing their own security system however the external elevation of the retail unit will be covered by the general building CCTV
- A panel has been created within the canopy enclosure to allow for an intercom to be installed.



**AREA OF FIRE RATED FACADE — PLAN & SECTION**

# 2 **SUBSTRUCTURE & SUPERSTRUCTURE**

## 2.1 DESCRIPTION OF BASE BUILD

### SUBSTRUCTURE

A piled solution has been adopted with 750mm diameter CFA piles provided at 900mm centres to form the perimeter basement wall. 750mm diameter piles are also provided to pile caps at column and core locations, with individual piles provided to reduce the span of the 350mm thick RC basement slab.

The substructure has been developed on the basis of a piled solution. Piles are primarily required at column and core locations in the form of pile caps to spread the superstructure loads over the required number of piles. Lone piles with thickenings are also added to reduce the span of the slab. Due to the water table, the foundations also need to be designed for uplift from hydrostatic pressure.

### PILES

All piles are assumed to be 750mm diameter, the pile loads drawing specifies the loads the piles must be designed to take (see FCDL-CUR-C10-FN-DR-S-16001). All piles are assumed to settle 10mm under serviceability loads.

For the contiguous piled wall, 750mm diameter piles are provided at 900mm centres. The perimeter wall may need propping during construction until the basement slab has been constructed and the pile drawings show the assumed extent of propping required, to be confirmed by the Piling Contractor.

In the permanent condition the contiguous pile wall is propped by the basement slab at basement level and the ground floor slab at ground level. Where a ramp is present, the ground floor propping level reduces and the pile design should allow for this because the piles will cantilever past the ramp.

Further requirements for the design are outlined on the pile loads drawing and the piling specification (FCDLCUR-C10-ZZ-SP-S-00005).

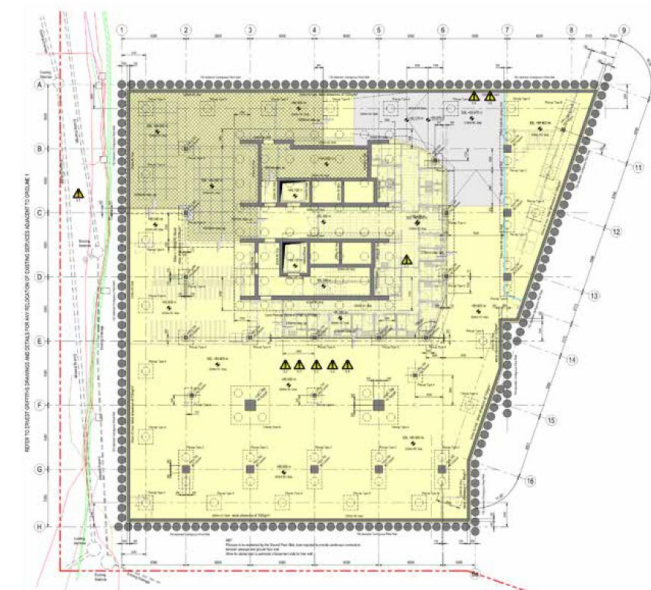


FIGURE 2.1 — PLAN OF BASEMENT



## SUPERSTRUCTURE

A long span steel framed solution has been developed, with a central reinforced concrete core providing stability against lateral loads. The long span steel frame allows open office spaces to be provided without the need for intermediate columns.

## FLOOR PLATES

The ground floor and below is constructed with in-situ concrete. A 350mm thick RC slab is used to form the ground floor slab and the basement slab is formed as part of the raft foundation.

A typical floor plate generally consists of cellular beams with a composite deck above forming long span composite beams. The floor plates are supported by steel columns at regular spacings to the façade of the building, with some columns present internally at lower levels due to the building stepping in. Internally, the steel beams are supported by the internal RC core, with wing walls provided to pick up riser trimming steelwork.

At ground floor and below, an in-situ RC podium is proposed with contiguous piles forming the perimeter basement wall line. The perimeter columns are

supported directly off the contiguous pile wall, with a capping beam provided to distribute the column load over multiple piles.

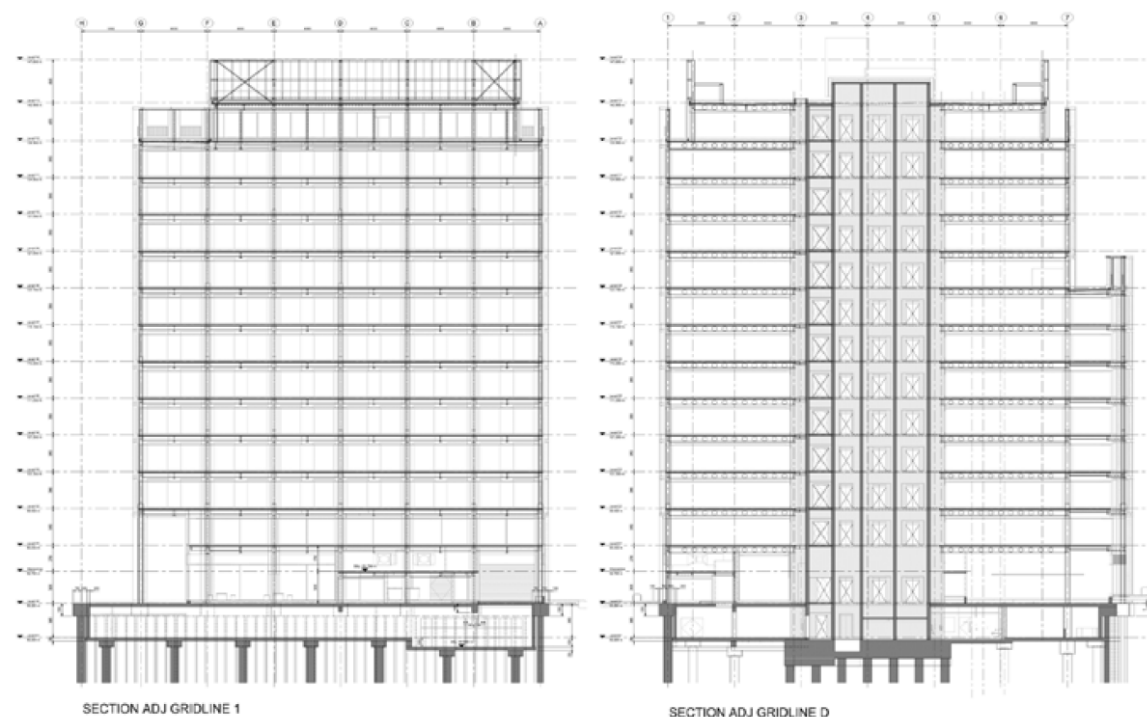


FIGURE 2.2 — TYPICAL SECTIONS THROUGH BUILDING

The ground floor slab is a 350mm thick RC flat slab, which has been achieved by the introduction of additional RC columns on a 6m x 6m grid. Where steel columns are present internally, a larger column is provided below to allow sufficient connectivity between the steel and concrete elements and also to transfer the axial forces from the floors above to the foundation.

At basement level, pile caps are provided for the primary structural columns and a piled base is provided to the central core. The basement slab is 350mm thick spanning between pile caps and additional lone piles are provided internally to reduce the span. A large step is present in the basement slab between two levels which are approximately 1m different. The water table has been measured above both levels of the slab so the slab has been designed to span between piles due to uplift, and many piles are required to resist uplift.

The in-situ reinforced concrete core provides stability to the building, with the walls varying between 250mm to 350mm thick. The core houses six lifts and two staircases, with risers provided to the exterior of the core. 350mm thick walls are provided where steel beams are incoming as this allows cast-in plates to be inserted into the core during construction for connectivity between the two.

Effective horizontal ties are required at each floor and vertical ties are required between storeys to meet the requirements for 2B disproportionate collapse.

## TYPICAL FLOORS

The concrete slab is typically 150mm thick on metal decking acting compositely with steel beams. SMDTR60+ is used for the decking, with a 0.9mm gauge deck suitable for the 3m span required. This slab also acts as a diaphragm to transfer lateral forces to the core.

The secondary beams are generally 610.UB's (rolled sections) which have a maximum span of 12m. These span between primary beams which are plated sections internally. The primary beams are plated because custom flange and web thicknesses can be specified, this allows for shallower (but heavier) sections to reduce the overall structural zone, along with increasing the stiffness of the web for cellular beam design.

Both primary and secondary beams are typically cellular beams, with 450mm diameter cells provided at 900mm centres to allow services to pass through. At riser locations elongated openings are required in some areas which require stiffening and where this is the case plate girders are provided.

The floor plates have been developed to accommodate typical office-imposed floor loadings in accordance with defined codes of practice. The maximum beam-span for a typical office floor plate is approximately 12m which means they may be sensitive to dynamic effects, which is controlled by limiting the response factor to a maximum of 8.

Each floor plate is limited to a maximum total deflection of 50mm beyond the structural zone, which in combination with the depth of the primary beam results in an overall structural zone of 1000mm excluding tolerances. Where secondary beams are supported off primary beams, cumulative deflections are present. This is covered further in section 8.5.

## STABILITY CORE

The central stability core resists lateral and longitudinal loadings arising from wind together with notional horizontal loadings generated from construction imperfections. These forces are transferred to the core via the composite floor slabs at each level acting as diaphragms. Reinforcement is provided to the core walls to resist compressive and tensile loads arising within the core, which is reduced up the building as the forces reduce.

The wall thicknesses vary between 250mm – 350mm. The larger thickness of 350mm is used where cast-in plates will be placed to allow steelwork to connect later. The narrower thickness of 250mm is used between lifts where there are no incoming cast-in plates and the walls are less heavily stressed.

Pull-out bars and couplers were required to connect incoming RC elements to the core.

The steel beams will be connected to the RC core using cast-in plates, whereby a steel plate with reinforcement and shear studs to the rear is fixed and cast as part of the core construction. The steelwork fabricator will then weld a fin plate onto the cast-in plate after the core has been constructed.

## PODIUM

In-situ concrete construction is used at ground floor level and below. This is partially to accommodate level changes at ground floor which can be accomplished by forming steps in the in-situ slab. This slab is also required to transfer shear and compressive forces from the earth from one side of the basement to the other, which is more efficient in RC flat slab construction as opposed to composite steel & concrete.

Concrete columns have been introduced between basement and ground to reduce the span of the suspended slab. The primary steel frame will be built off of the podium which will need to be sufficiently cured prior to the erection of the steel frame.

## STEEL COLUMNS

Rolled steel column sections have been utilised on a regular grid located to the perimeter of the building, this results in columns at 6m centres. On the lower floors there are 5 internal columns, 3 of which are required due to the step in the building and 2 are required to reduce the span of the primary beams.

The two internal columns on gridline F carry more load than the rest of the columns as they support a much larger floor area. As they are also not positioned on the capping beam, they require an RC stub column below which needs to be large enough to tie the two together

for disproportionate collapse. The stub is also larger than the steel column as RC has a lower allowable compressive stress in comparison to steelwork.

In general, it is assumed that the first splice occurs above level 1 and then splices occur every 2 storeys after, which is where the steel section sizes reduce.

## EXTERNAL CLADDING

The cladding will consist of a primarily of panels which combined precast concrete and glazing. A loading on elevation of 5.0 kN/m<sup>2</sup> has been allowed for this. This cladding system is assumed to be supported at column locations and does not directly load the slab. Elsewhere a primarily glazed system is used and a loading allowance of 1.5 kN/m<sup>2</sup> on elevation has been allowed for this, e.g. the inset level 12 office space. The glazing is assumed to be bottom-supported at every stack.

## ROOF AND TERRACES

At level 12 the building is inset to provide an external terrace to the perimeter of the building and a reduced office space at the same level. The inset columns are supported on transfer beams at level 12 which supports plant loading from level 13 above. A plant screen is provided at level 13.

At all locations of external terraces, the parapet is formed by extending the perimeter columns past the floor level to create a full-height external wall. Any parapets should span between external columns to avoid cantilevered parapets fixed to the composite decking.

## SERVICES DISTRIBUTION

Services have been coordinated through a series of key risers principally around the core. Early discussions with the M&E consultant have determined that large risers could be located near the perimeter of the central core, primarily to the perimeter of the WC's located just outside the core. The position of the risers impacts the internal column locations and setting out of any adjacent steelwork.

To the perimeter of the risers, cells (elongated where possible) are provided to allow services to pass through. These openings can be uniform up the building and can be pre-fabricated. As the riser positions and WC's

are just outside the core, this will reduce the number of service penetrations through the core.

## 2.2 **LOADING CRITERIA**

This section of the report outlines the key design criteria for loadings that have been adopted in developing the permanent proposals.

The design loads and material densities in this document have been specified in accordance with BS EN 1991 1-1:2002, General Actions- Densities, Self-weight, Imposed Loads for Buildings. In addition to the design loads specified, the structural design and loadings are to meet current Building Regulations and legislative requirements.

The associated structures have been developed in accordance with the Eurocodes and the most onerous combination of dead, imposed and wind loadings has been considered in the permanent ultimate condition.

### **STRUCTURAL LOADS**

Permanent/Dead loads (DL) take into consideration the self-weight of floor slabs, structural walls and columns; in effect the self-weight of the building shell before finishes are applied. Dead loads are calculated in accordance with BS EN 1991-1-1:2002, relevant trade literature and the client brief.

Superimposed dead loads (SDL) account for the finishes that are applied to the building shell, usually as part of the fit-out. Assumed superimposed dead (uniformly distributed) plan loads in the permanent case are summarised in the following table 7.1.

Variable/Imposed loads (IL) are those loads generally associated with the occupation and use of the building after fit-out. They include an allowance for people, furniture, machines and appliances, fixtures and fittings, partition walls and plant and essentially cover loads which could vary during the building life. Snow loads on the roof are considered as a variable load.

Loading plans have been produced showing the loads used for design, these are provided below

### **FILE STORAGE (ENHANCED OFFICE)**

In accordance with the BCO requirements for offices, an increased imposed load of 7.5kN/m<sup>2</sup> should be taken over 5% of the office floor areas to account for file storage.

The following locations have been proposed:

- Adjacent to the straight core wall parallel to and between gridlines D & E (52m<sup>2</sup>) chosen for its proximity to the core and to only load the end of a primary beam.
- To the rear of the core adjacent to the WC's (2 x 10m<sup>2</sup>) chosen as a result of the smaller primary beam spans. The location of file storage loads are shown on the loading plans.

### **CLADDING LOADS**

The cladding loads are provided on the loading plans.

## WIND LOADS

Wind loads have been calculated in accordance with BS EN 1991-1-4:2005 (Actions on Structures-General Actions-Wind Actions) and are considered in conjunction with permanent, superimposed dead and variable loads on the structure in accordance with the requirements of Eurocode 2 (Design of Concrete Structures) or Eurocode 3 (Design of Steel Structures) as relevant.

LOCATION	MANCHESTER
Wind Speed Velocity	$V_{b,map} = 21.7 \text{ m/s}$
Distance to shore	$L_{shore} = 150 \text{ km}$
Altitude above sea	$A_{alt} = 100.00 \text{ m (AOD)}$
Fundamental Wind Speed Velocity	$V_{b,0} = 23.9 \text{ m/s}$

TABLE 2.1 — WIND LOADING PARAMTERS

## HORIZONTAL LOADS

Any structure anticipated to be adjacent to vehicular movements is not intended to be specifically checked for vehicular impact loading. Sacrificial barriers are assumed to be provided. Any elements not protected will need to be designed as critical elements.

Pedestrian balustrades will be designed in accordance with public assembly requirements where required in accordance with the National Annex to BS EN 1991-1-1:2002 Table NA.8. The design lateral loads for handrails and impact barriers are given below:

REF	CAT	SUB-CAT	DESCRIPTION	UDL (kN/m)
B1	C33	vi	Stair and communal areas (no overcrowding)	0.74
B2	C13	vii	Balconies/Roof edges (no overcrowding)	0.74
B3	C5	ix	Footways adjacent to sunken areas (overcrowding)	1.5

TABLE 2.2 — PARAPET LOADING

## SNOW LOADS

The design snow loads at roof level have been calculated in accordance with BS EN 1991-1-3:2003 and are shown in table 7.4.

LOCATION	COVENTRY
Basic snow load	$s_k = 0.50 \text{ kN/m}^2$
Site altitude	$A_{alt} = 100 \text{ m (AOD)}$
Site snow load	$s_k = 0.50 \text{ kN/m}^2$
Shape coefficient	$\mu_1 = 0.80$

TABLE 2.3 — SNOW LOADING PARAMETERS

Where snow drift loads are considered significant to the design of the superstructure and associated cladding, these should be calculated in accordance with BS EN 1991-1-3:2003

## NOTIONAL HORIZONTAL LOADS

Notional horizontal loads are to be calculated in accordance with the following:

BS EN 1996-1-2:2005 — Code of Practice for Use of Masonry;

BS EN 1993-1-1:2005 — Structural Use of Steelwork in Buildings;

BS EN 1992-1-1:2004 — Structural Use of Concrete.

## LOADS ARISING DURING EXECUTION

The Contractor was to develop the construction methodology and make due allowance for temporary construction loads that may exceed the loading allowances.

Where snow drift loads are considered significant to the design of the superstructure and associated cladding, these should be calculated in accordance with BS EN 1991-1-3:2003

## 2.3 **FIXINGS INTO PRIMARY STRUCTURE**

All fixings to the structure should be approved for the fixing substrate.

All fixings are to be installed in line with the manufacturers guidance.

When making fixings to structural elements, the fixed element should not exceed the design load of the installed structure, illustrated within the loading plans.

If questionable, a structural engineer and or building control must be consulted prior to installation of any elements.



# 3 SIGNAGE

## 3.1 CANOPY SIGNAGE

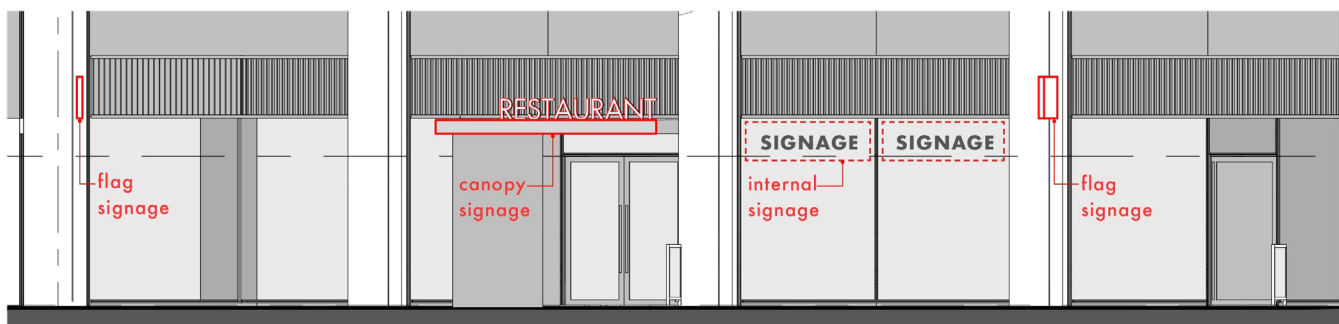
The 2no. canopies above the retail entrances have a preinstalled support rack to allow stainless steel letters to be fixed on top as signage.



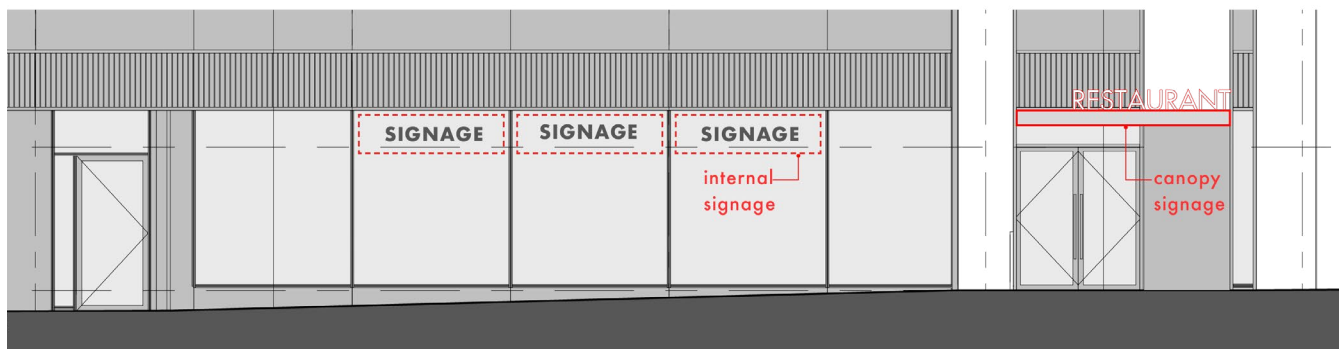
VIEW OF THE TWO RETAIL ENTRANCE CANOPIES

## 3.2 BUILDING SIGNAGE

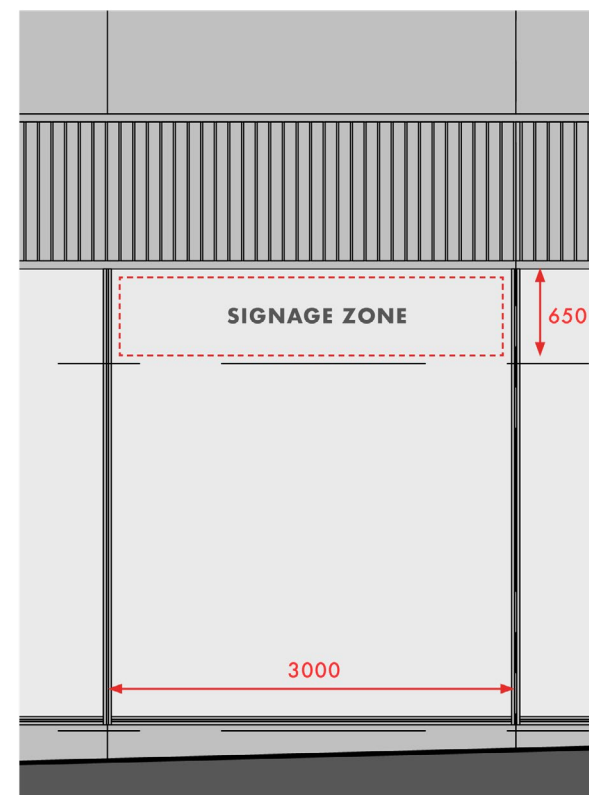
Signs can be mounted internally within the retail unit in the locations indicated below.



RETAIL SIGNAGE TO SOUTH ELEVATION



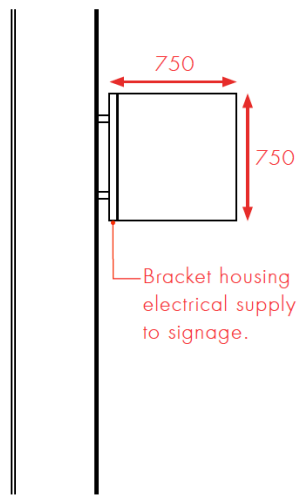
RETAIL SIGNAGE TO WEST ELEVATION



DATUM FOR INTERNAL SIGNAGE

External flag signs can be used as an alternate option and mounted in the two locations indicated on the elevation. These signs must be mounted in the centre of the smooth precast concrete band to the façade. The underside of the sign must align with the top of the glazing panel. The sign should also be spaced off the façade with pin dowels providing the only means of support back to the precast panel.

If larger signage or a combination of these signage options is referred a proposal should be presented to the Landlord for approval.



**FLAG SIGNAGE SIZE**



**VIEW OF THE TWO LOCATIONS FOR PROJECTING SIGNS**

# 4 **ACOUSTIC NOISE & VIBRATION**

# 4.1 ACOUSTIC NOISE & VIBRATION

## WALLS

The demise wall between the retail unit and office is formed from blockwork and will need to be suitably enhanced to achieve the acoustic separation performance of DnT,w48.

## NOISE EMISSION TO ADJACENT AREAS

The tenant shall be responsible for limiting noise within their demise to avoid disturbance to adjacent occupants. The tenant shall design and install any measures in their fit-out to ensure they achieve this. Any amplified music systems shall be fitted with a noise limiting device which shall be set on the completion of the fit-out to ensure that there is no disturbance to any adjacent tenancy. The noise limiter settings shall be maintained thereafter unless alterations are approved by the Landlord. Any loudspeakers shall be resiliently connected to the structure.

Tenant noise intrusion on adjacent tenants spaces must be limited to 55dBLA1.

The tenant is required to discuss and agree with the Landlord any noisy construction or fit-out activity so

that this can be timed to avoid disruption to any other neighbouring landlord and/or tenant areas.

## VIBRATION

The design shall ensure that the maximum peak acceleration in the building structure of 0.01m/s based on the Wb weighting curve as defined in clause 3.3 of BS 6472-1:20082 when the building services operate simultaneously at design duty load conditions.

## EXTERNAL NOISE

Noise from plant equipment needs to be limited to minimise disturbance to existing (and new) noise sensitive premises in the vicinity of the development, and new noise sensitive premises within the development.

The cumulative free field building services noise emission limits for all plant associated with the development are 54 dBLAr,Tr3 day time, 42 dBLAr,Tr3 night time.

The following cumulative plant noise emissions limits shall apply:

- Noise from rooftop plant shall be limited to 60dBLAr,Tr3 at 1m from the perimeter of the building at roof level.
- Noise from rooftop plant shall be limited to 48dBLAr,Tr3 on balconies and rooftop terraces.
- Noise from louvres shall be limited to 48dBLAr,Tr3 at the nearest public circulation point.

## INTERNAL NOISE

Internal noise within office areas including services and noise ingress from outside has been designed to achieve NR 38. Similar noise levels could be expected in the retail unit. Any new plant shall not increase the noise level in adjacent tenancies.

For further information refer to the Acoustics Employer's Requirements produced by Arup.

# 5

# MECHANICAL & ELECTRICAL SYSTEMS

## 5.1 **INCOMING SERVICES**

The retail unit at Ground Floor level is constructed as a shell unit that is to be fitted out by the incoming tenant. It has been furnished with the following incoming services:

- A 200 Amp TP&N power supply
- A 32 mm (MDPE) mains water supply
- Pop-up drainage connections
- Automatic sprinkler protection
- Fire Alarm Interface

### **POWER SUPPLIES**

The power supply to the retail unit originates from the building's low voltage switch board where it is metered. The supply is terminated in the retail unit switchroom with a 200 amp TP+N isolator

### **WATER SUPPLIES**

The incoming water supply is metered by Severn Trent Water independently from the remainder of the office development. The supply enters the cold water storage tank room where it is fitted with a bib tap as a

temporary provision before fitting out takes place. The tenant is to extend the water supply from the tank room to the retail unit in a location to be determined by the tenant at the fitting out stage.

The incoming tenant is to equip the water supply with a second water meter within the retail unit and allow for the meter to be connected to the building's BMS. This meter compares the consumption with the Severn Trent meter as means of checking for leakage in the incoming supply pipeline.

### **TELEPHONE**

There is a Comms room adjacent to the retail unit for the tenant to arrange connection by their preferred Internet Service Provider.

### **DRAINAGE**

Pop drainage connections are provided as indicated on the drawings. A tenant wishing to install a commercial kitchen is to install a grease trap to prevent any grease laden discharge from entering into the Landlord's drainage system.

### **AUTOMATIC SPRINKLERS**

The development is sprinkler protected to an Ordinary III Hazard classification as defined by BS 12845.

The retail unit is served from the sprinkler water supplies in the basement where it is connected to the 'Low Rise' element of that system. The sprinkler connection to the retail unit is inclusive of a zone check valve to allow for local isolation whenever the sprinkler installation is to be modified and/or extended to suit fitting out.

The shell of the retail unit is inclusive of an array sprinklers close to the underside of the ceiling to provide initial protection in accordance with the sprinkler British Standard. This arrangement is to be modified as necessary by the tenant with all works carried out by a reputable registered sprinkler sub-contractor

### **FIRE ALARMS**

The retail unit is equipped with a fire alarm interface unit to relay status/alarm conditions to the Landlord's fire alarm system for the remainder of the office development.



## 5.2 HEATING AND COOLING

It is anticipated that the retail unit will be heated and cooled by a refrigerant-based VRF or by split system air-conditioning/heat pump units. This equipment is to be designed and installed by the tenant. Condensers for this equipment are to be installed at roof level with pipework installed in the riser connecting the retail unit with the roof.

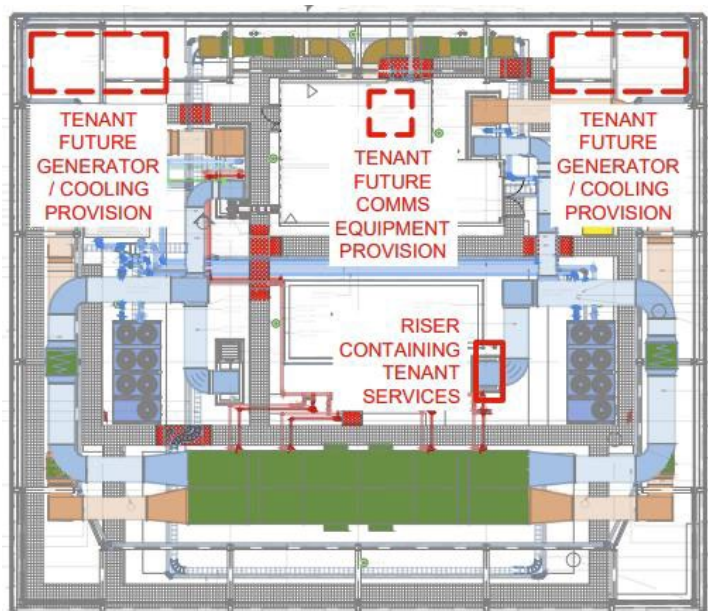


FIGURE 5.1 - TENANT SPACE ALLOCATION AT ROOF LEVEL

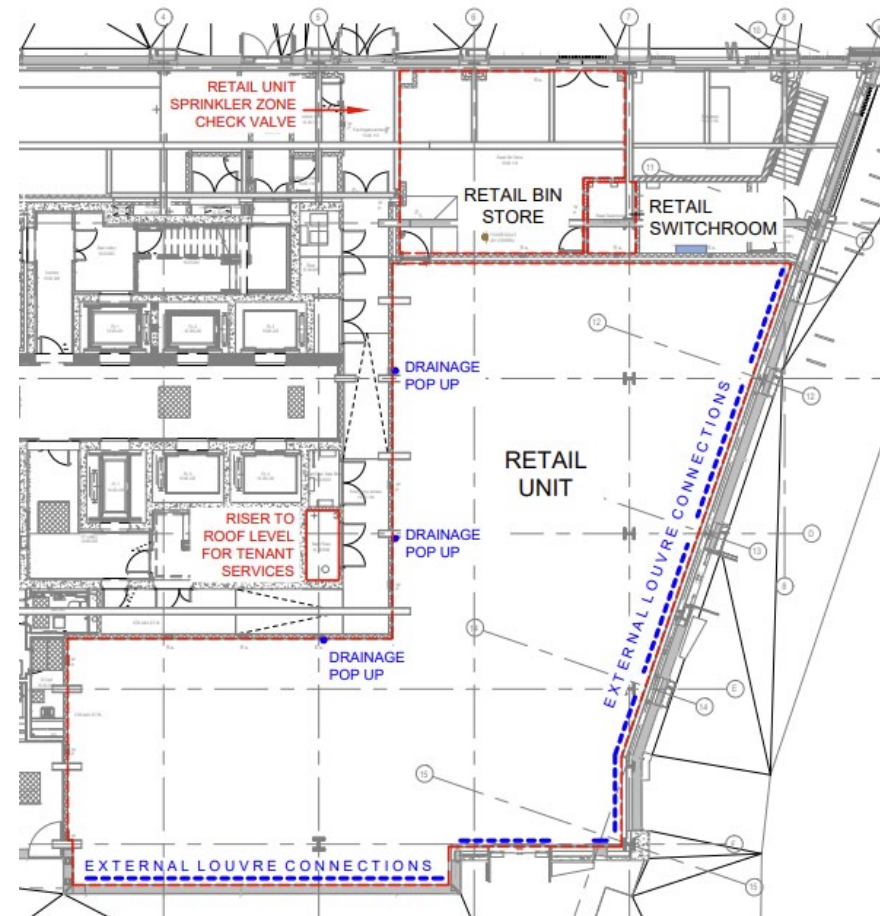


FIGURE 5.2 - RETAIL UNIT SERVICES CONNECTIONS

# 5.3 EXTERNAL LOUVRES AND VENTILATION

## General Supply and Extract Ventilation

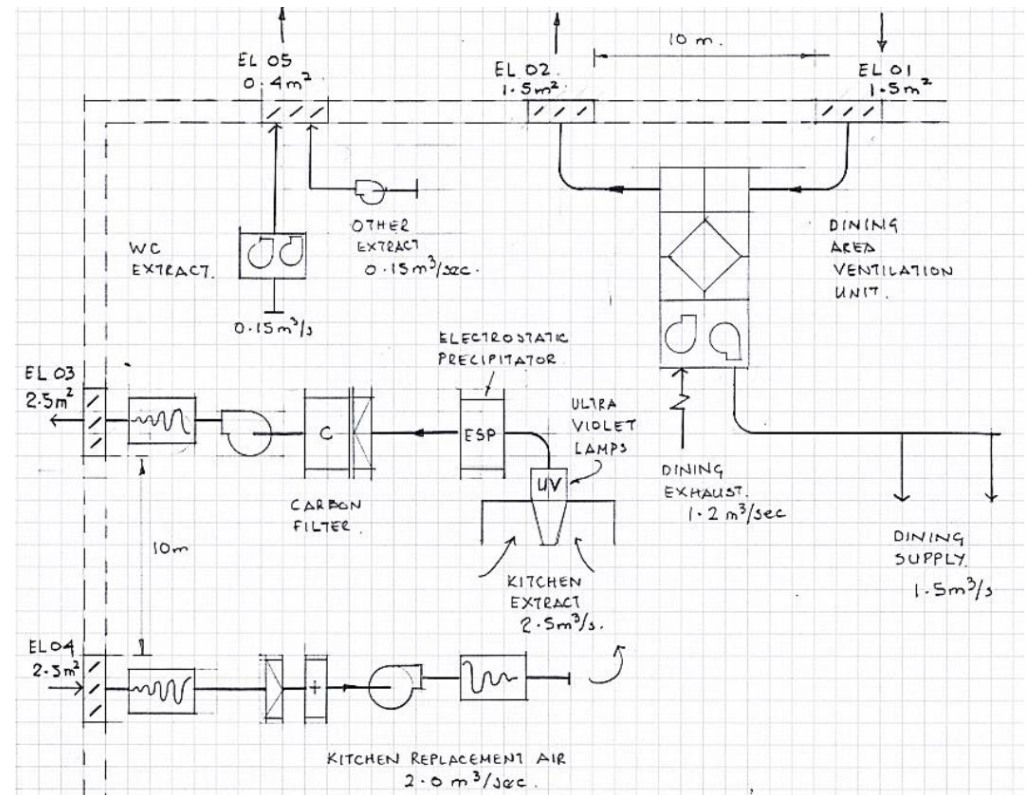
All supply and extract ventilation serving the retail unit is to be introduced and discharged through louvres located in the external envelope of the unit. Figure 5.2 shows the location of the external louvres. The ventilation systems may need to incorporate sound attenuators to ensure that noise levels external to the unit satisfy the requirements of Coventry City Council. All ventilation equipment is to be designed and installed by the tenant and to be approved by the Landlord.

## Commercial Kitchen Ventilation

The following approach will be necessary in the event of a tenant wishing to equip the retail unit with a commercial kitchen.

The kitchen exhaust air is to be discharged through the louvres in the external envelope as previously described. The exhaust air is to be treated by way of the following components within the exhaust airstream:

- Grease filters within the kitchen extract canopy
- Ultra-violet lamps within the kitchen extract canopy
- An electro-static precipitation (ESP) filter
- An activated carbon filter



TYPICAL FIGURE 5.3 - TYPICAL SCHEMATIC OF A SUITABLE AIR SYSTEM

Plus any other pre-filters required to protect components that might otherwise be sensitive to the grease-laden kitchen exhaust airstream.

The air treatment system is to ensure that the outgoing kitchen exhaust air is to be free of particulate matter and odours. The tenant may need to consult Coventry City Council's Environmental Health Officer when discharging kitchen exhaust air to outside.

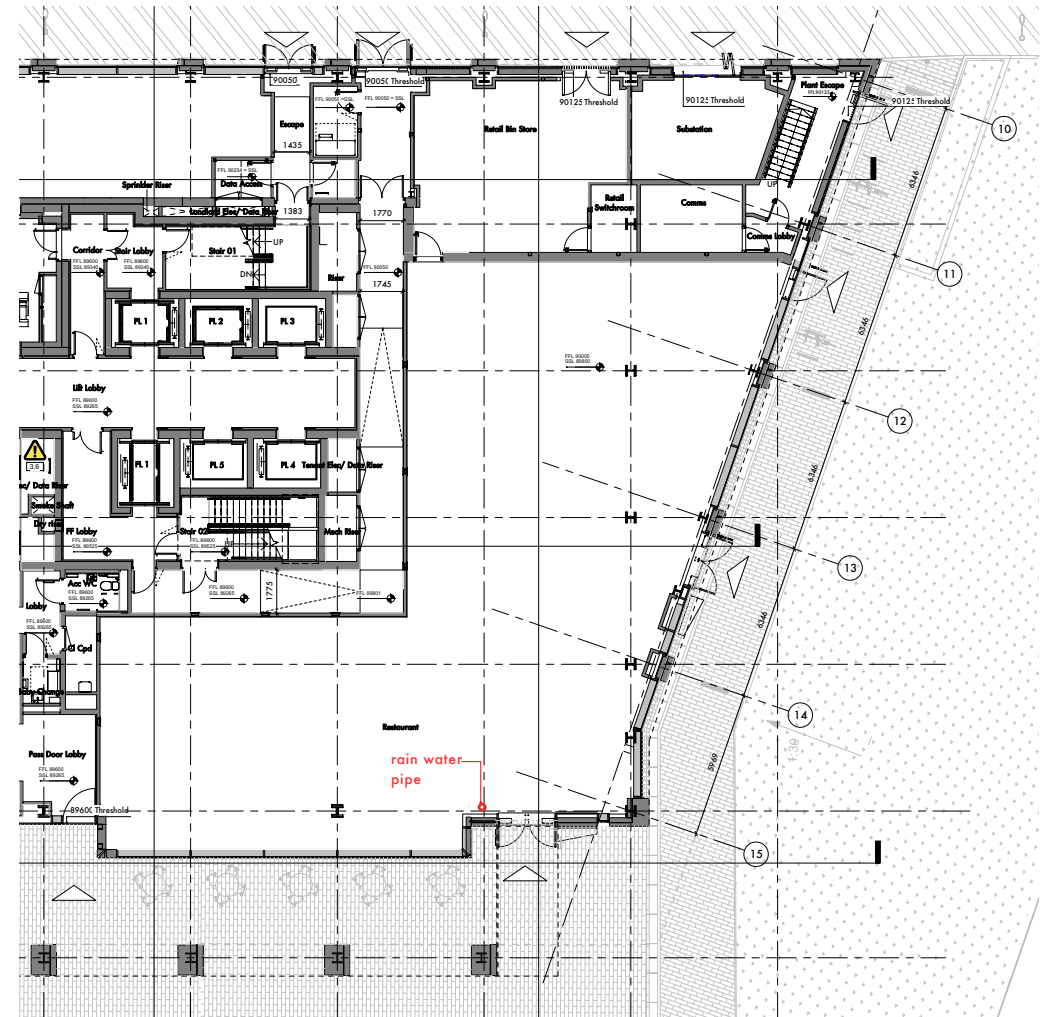
Figure 5.3 indicates a typical schematic arrangement a suitable air treatment system.

Outdoor air, to replace the kitchen exhaust air, is to be introduced through the louvres in the normal way.

# 6 ACCESS FOR MAINTENANCE & WASTE MANAGEMENT

# 6.1 ACCESS REQUIREMENTS

The rainwater pipe adjacent the entrance door may need to be accessed by the landlord should there be a problem with the drainage. Therefore the layout of the retail unit should accommodate this providing clear space in front and an access panel for rodding.



## 6.2 **WASTE MANAGEMENT**

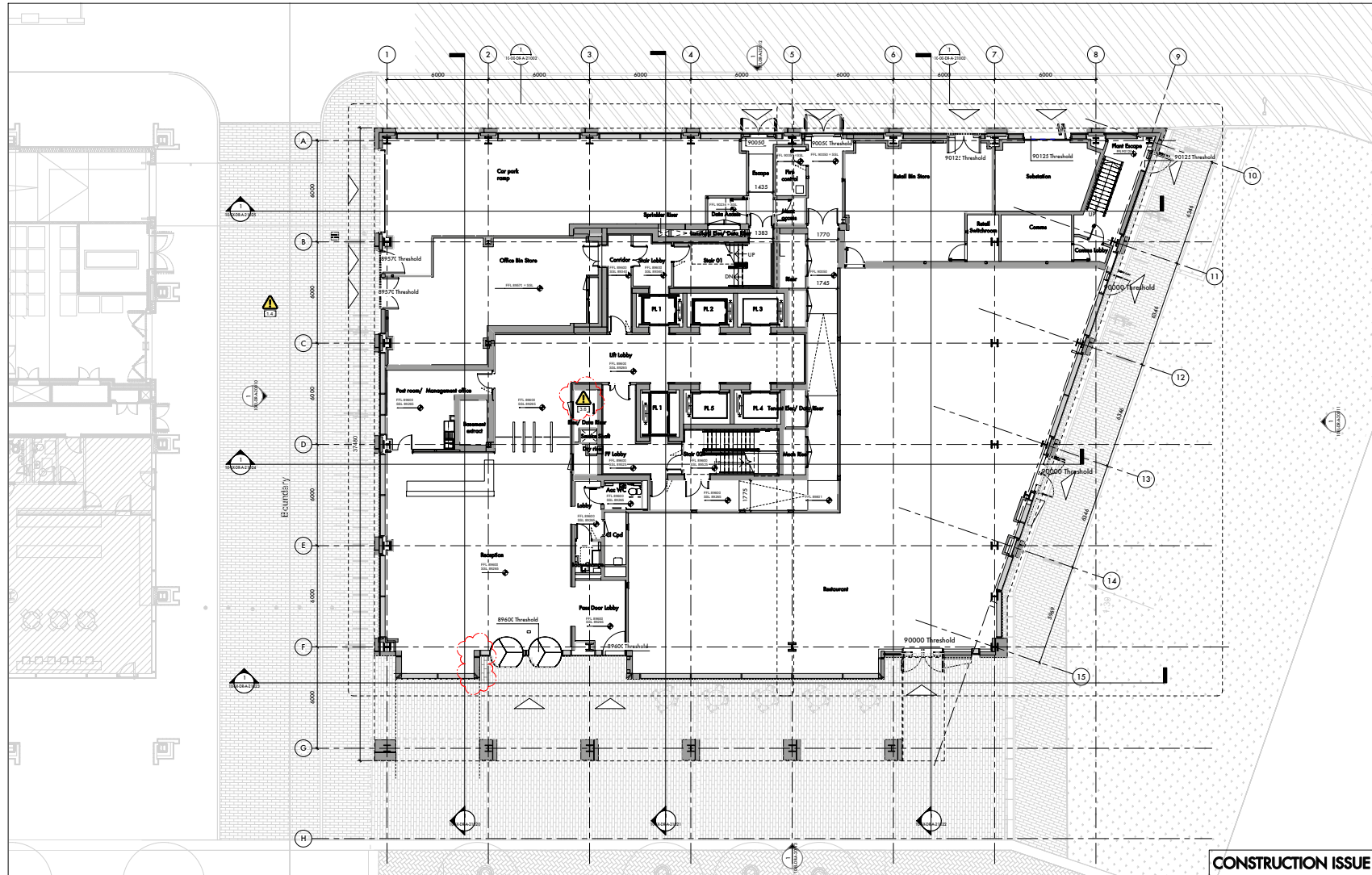
There is a dedicated retail bin store to the rear of the retail unit and the Tenant will be required to provide its own bins and waste collection service. Tenants will be required to ensure that their refuse is properly emptied into the bins, and that any spillage is cleaned up immediately, to keep the area clean and tidy.

No waste is to be stored outside the building or on the external footpath, under any circumstances.

# 7 APPENDICES

# ARCHITECTURAL **DRAWINGS**





CONSTRUCTION ISSUE



Do not scale from this drawing. Use figures dimensions only. Figures dimensions are in millimeters unless stated otherwise. All dimensions are shown and shall not be scaled or otherwise modified. The Architect shall be held responsible for any discrepancies. Dimensions are indicated only and are to be verified by others. Where building components are indicated in the specification or Drawings Schedule, Contractor Design elements. Where building components are indicated in the specification or Drawings Schedule, Contractor Design elements. Where building components are indicated in the specification or Drawings Schedule, Contractor Design elements. Where building components are indicated in the specification or Drawings Schedule, Contractor Design elements.

REV	DATE	DESCRIPTION	BY
010	05/08/20	Stage 4 - Addendum	AM
011	07/08/20	Stage 4 - Addendum	AM
012	08/08/20	Stage 4 - Addendum	AM
013	10/08/20	Stage 4 - Addendum	AM
014	11/12/20	Final Information	AM
015	02/03/21	Final Information	AM
016	02/03/21	Final Information	AM
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020	02/03/21	Final Information	AM

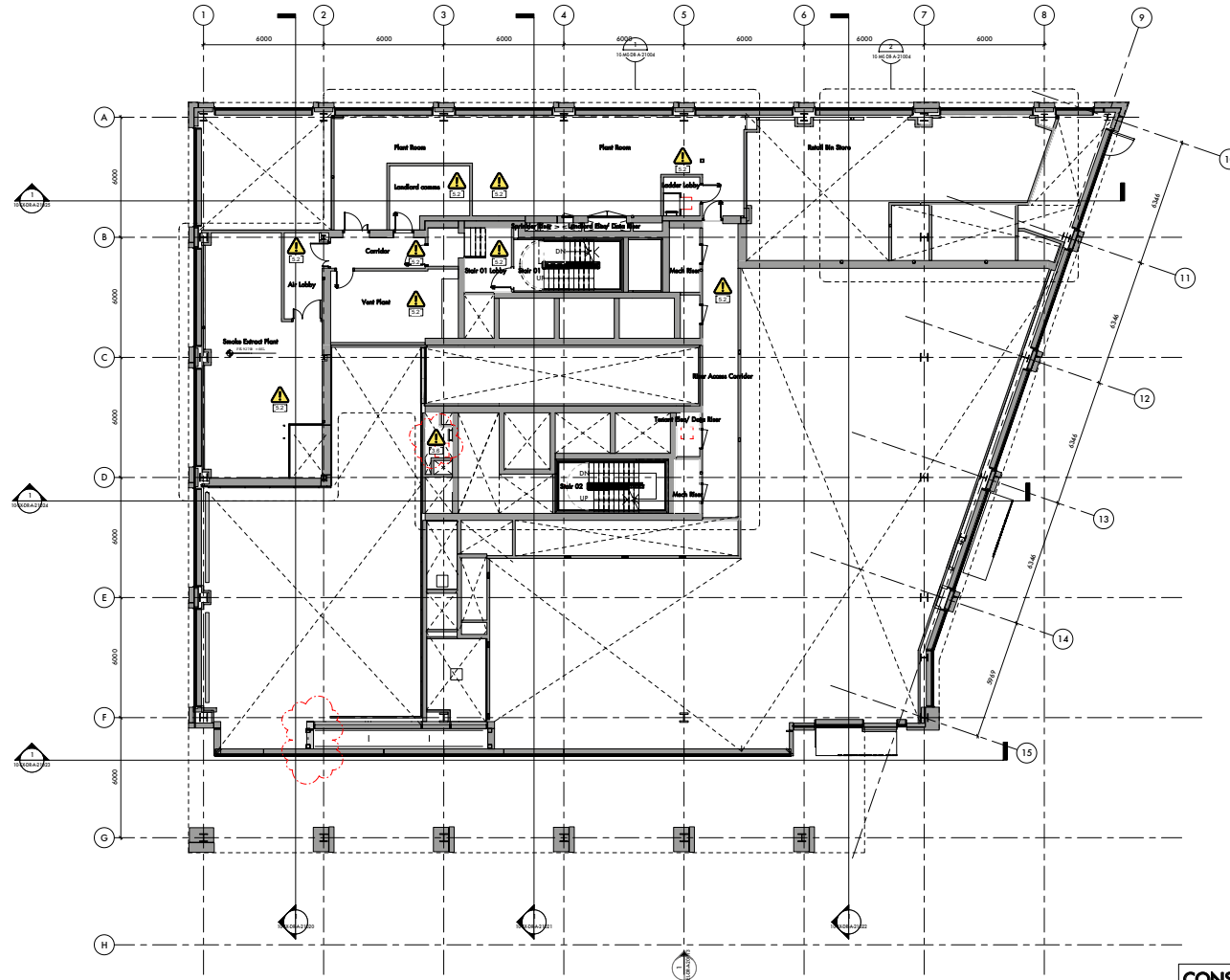
- Change notes:
  - Provide list of additional notes required for the working drawings
  - CDM Hierarchy updated 2.5 added
  - Landings updated to reflect Area proposed

Construction Design and Management Regulations 2015  
 Refer to A&M CDM Hazard Management Sheet

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 Facsimile 020 7921 5101  
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 A&M JOB No: 785\_01

PROJECT DIPPER : 2 FRIARGATE  
 GROUND FLOOR PLAN  
 GENERAL ARRANGEMENT  
**FDLI-AM-10-00-DB-A-20000**  
 Legacy No: 785\_04\_100  
 SCALE 1 : 100 BA1 1 : 200 BA3

A	Status
C3	Revision



**CONSTRUCTION ISSUE**

REV	DATE	DESCRIPTION	ISS
01	17.04.20	For coordination	A1
02	17.05.20	Issued for Building Control Review	A1
03	22.05.20	Stage 4 Draw finalisation	A1
04	03.06.20	Issued for Stage 4	A1
05	05.06.20	Stage 4 - Advertisement	A1
06	18.06.20	For advertisement	A1
07	18.07.20	For advertisement	A1
08	19.07.20	Construction Issue - Update	A1
09	17.08.20	Construction Issue	A1



In accordance with the drawing, the signed dimensions only. Signed dimensions are in millimeters unless noted otherwise. All dimensions must have their location on the drawing, including the start and end points. Dimensions are to be used for the construction of the building. The Architect does not warrant the accuracy of the dimensions. Dimensions are subject to change without notice. The Architect is not responsible for the construction of the building. The Architect is not responsible for the construction of the building. The Architect is not responsible for the construction of the building.

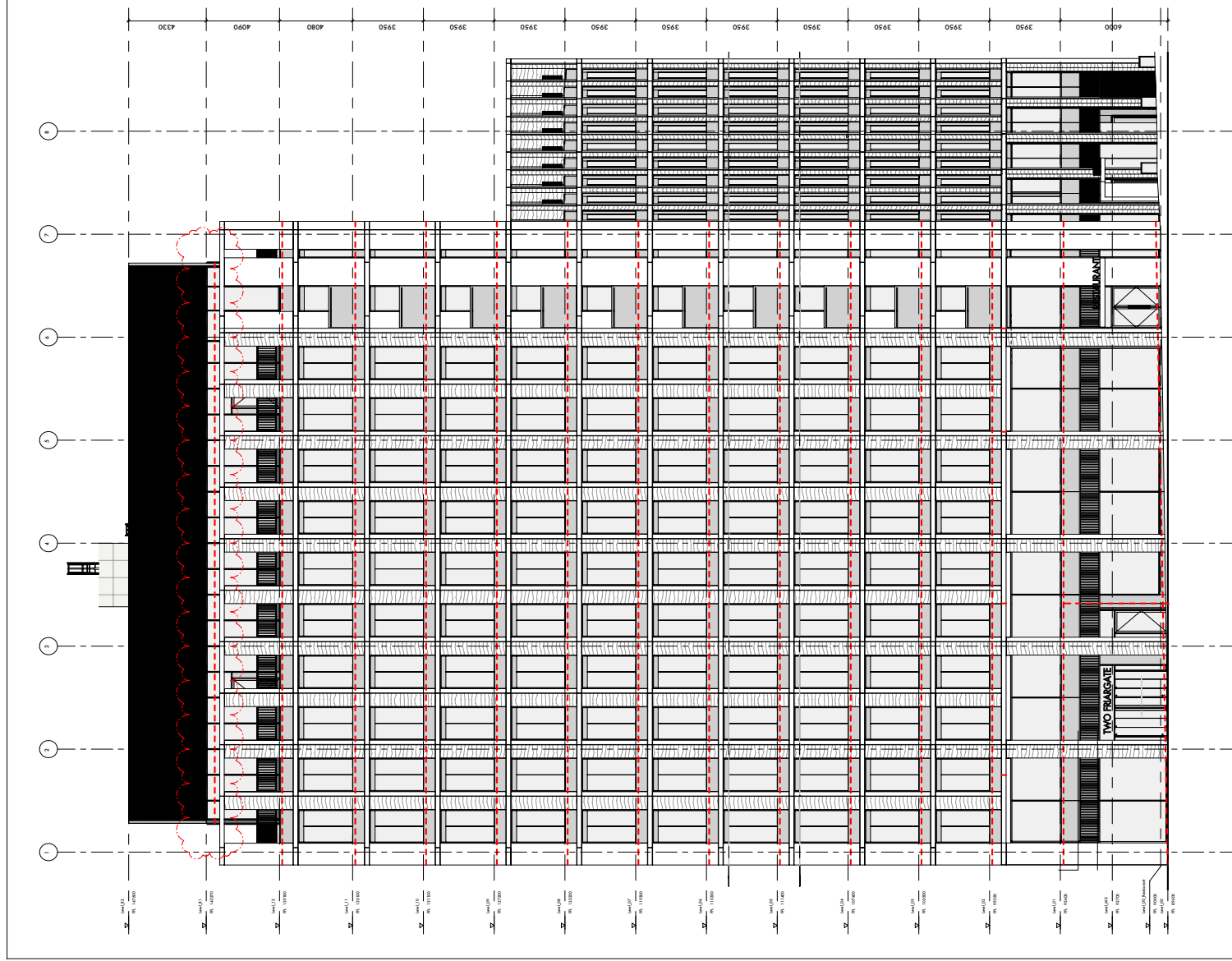
Construction Design and Management Regulations 2015  
 Refer to A&M CDM Hazard Management Sheet

<p><b>Allen and Morrison LP</b></p> <p>85 Southbank Street                  London SE1 0AB                  Telephone 020 7921 0100                  Facsimile 020 7921 0101                  email <a href="mailto:studio@allenandmorrison.com">studio@allenandmorrison.com</a>                  A&amp;M JOB No: 785_01</p>	<p>PROJECT DIPPER : 2 FRIARGATE</p>	<p><b>A</b> Status</p> <p><b>C2</b> Revision</p>
	<p>GROUND FLOOR MEZZANINE PLAN</p>	
	<p>GENERAL ARRANGEMENT</p>	
	<p><b>FCDI-AAM-10-M0-DR-A-20000</b></p>	
	<p>Legacy No:785_04_120                  SCALE 1 : 100 BA1 1 : 200 BA3</p>	









**Cavity barriers in Cladding**  
 For complete fire performance, refer to fire strategy report  
 --- Cavity barrier / fire stop

CONSTRUCTION ISSUE

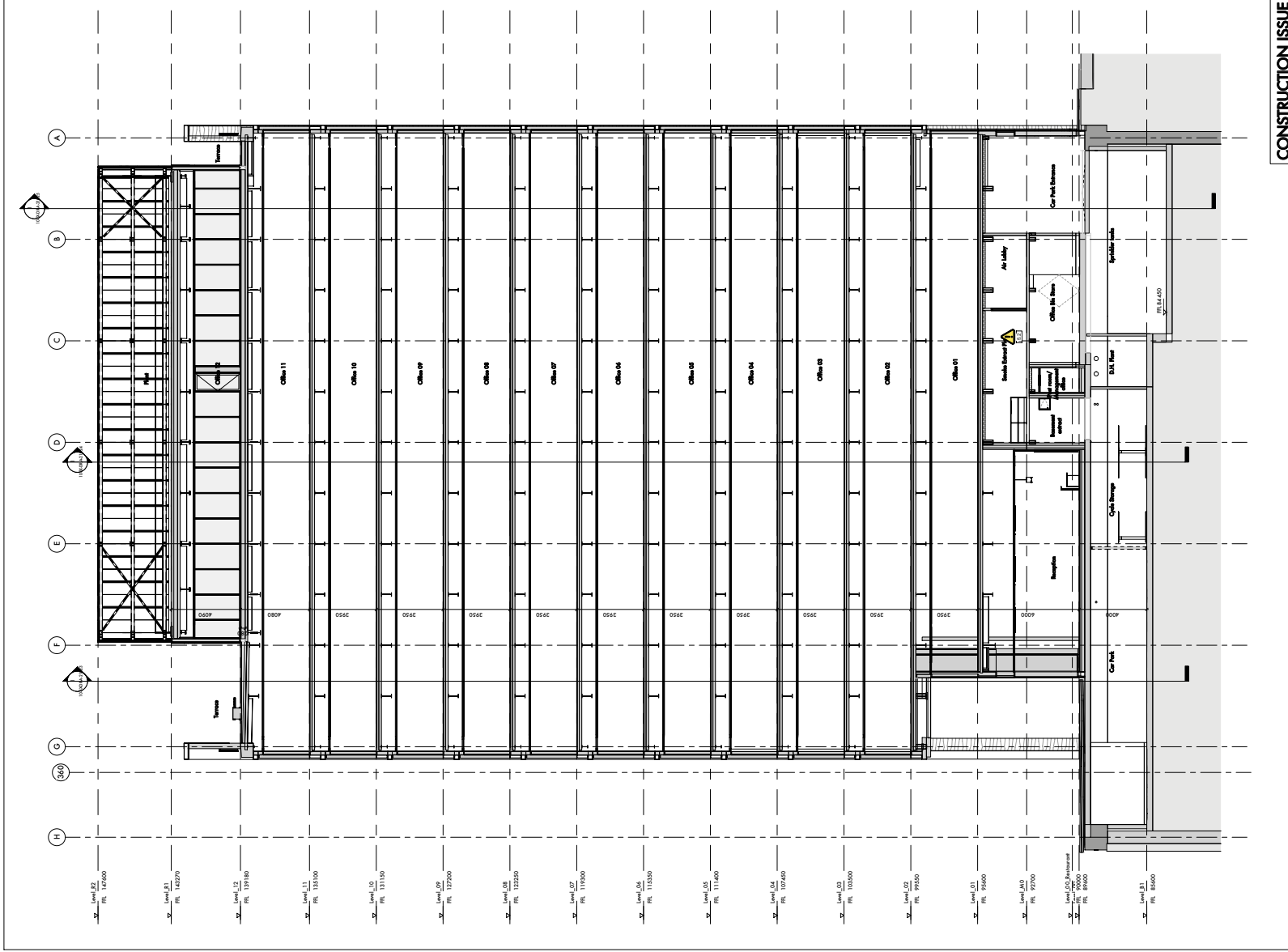
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CI	Cladding

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 Rev: 04 - 20/10/2024  
 BOM ARRANGEMENT 1: 00/00/00

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 Material: 03-AM-03-BK-A-0013  
 Area Code: 03-AM-03-BK-A-0013  
 Area Name: 03-AM-03-BK-A-0013

REV	DATE	DESCRIPTION
01	20/10/2024	ISSUED FOR PERMIT SUBMISSION
02	20/10/2024	ISSUED FOR PERMIT SUBMISSION
03	20/10/2024	ISSUED FOR PERMIT SUBMISSION
04	20/10/2024	ISSUED FOR PERMIT SUBMISSION

1. This drawing is the property of the Architect and is to be used only for the project and site specified. It is not to be used for any other project or site without the written consent of the Architect.  
 2. The Architect is not responsible for the construction of the building or for the safety of the building or its occupants.  
 3. The Architect is not responsible for the fire performance of the building or for the fire safety of the building or its occupants.  
 4. The Architect is not responsible for the fire performance of the cladding or for the fire safety of the cladding or its occupants.  
 5. The Architect is not responsible for the fire performance of the cavity barriers or for the fire safety of the cavity barriers or its occupants.  
 6. The Architect is not responsible for the fire performance of the fire stops or for the fire safety of the fire stops or its occupants.  
 7. The Architect is not responsible for the fire performance of the fire doors or for the fire safety of the fire doors or its occupants.  
 8. The Architect is not responsible for the fire performance of the fire escapes or for the fire safety of the fire escapes or its occupants.  
 9. The Architect is not responsible for the fire performance of the fire alarm system or for the fire safety of the fire alarm system or its occupants.  
 10. The Architect is not responsible for the fire performance of the fire extinguishers or for the fire safety of the fire extinguishers or its occupants.



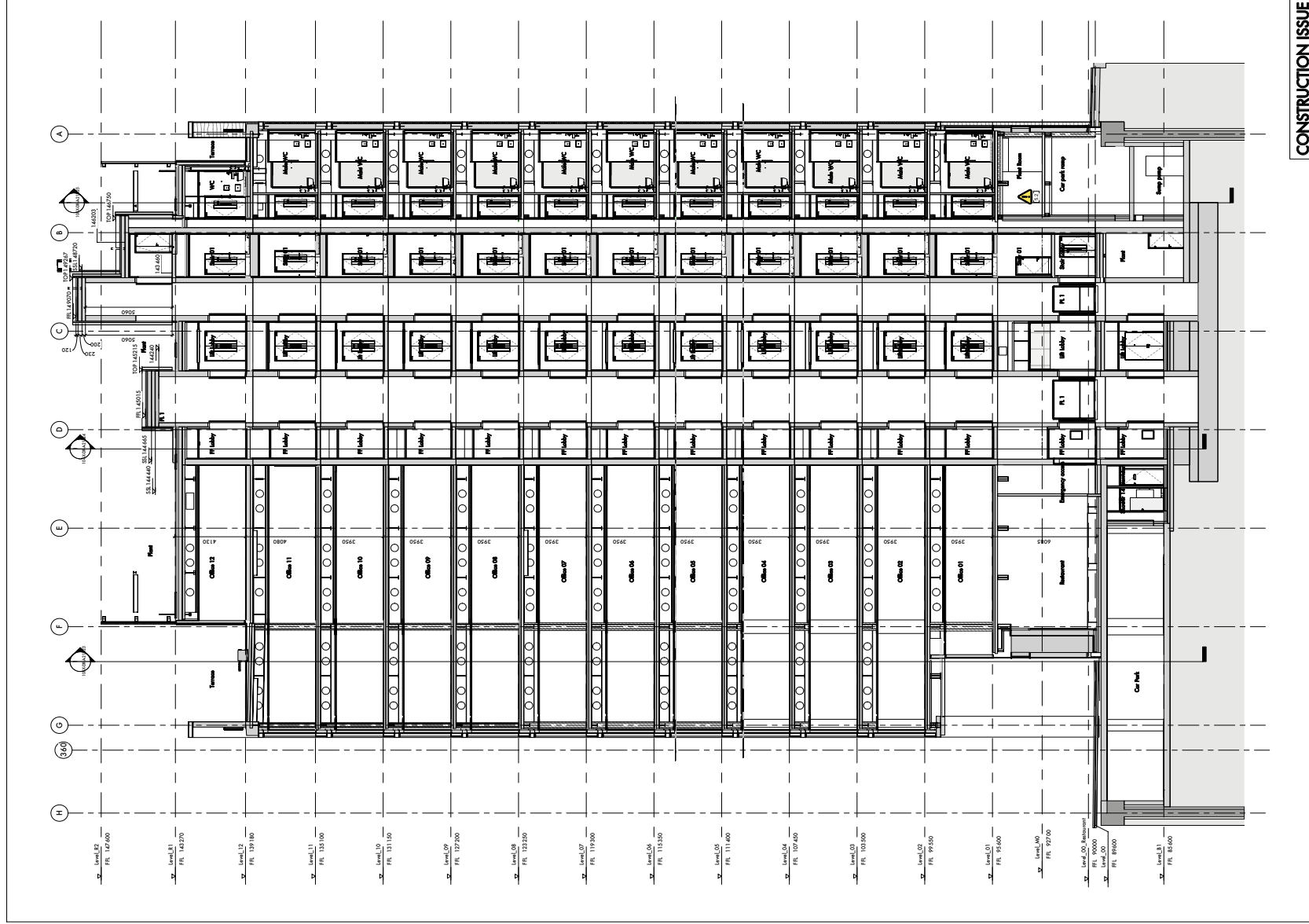
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<b>B</b>	Issue
<b>C1</b>	Revised

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 PCN-AM-10-08-09-A-21000  
 Layer No/ PLS: 001/000  
 SCALE : 1/100 (A1) : 1 : 200 (A4)

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 Singapore 059297 0100  
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 AAM JOB No: 781.01

NO.	DATE	DESCRIPTION
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002	05/08/2024	Issue for Construction
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**CONSTRUCTION ISSUE**

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C1	Revision

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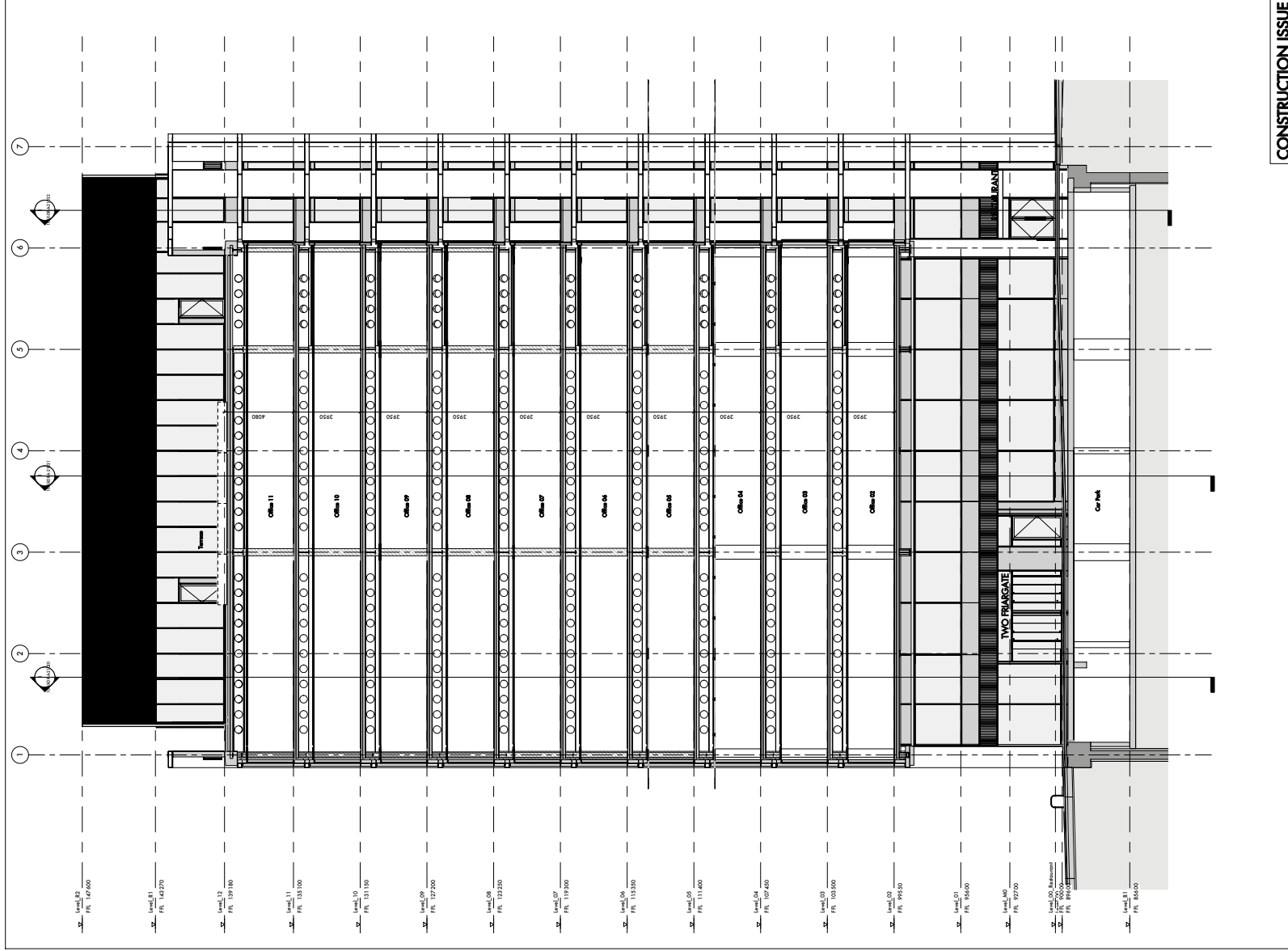
Allen and Morrison LP  
 85 St-Patrick Street  
 Montreal, QC H2Y 1G9  
 Telephone: 514 392-2200  
 Fax: 514 392-2201  
 Email: amm@amm.com  
 AMM IDN No. 785.01

Construction Party and Management Register 2015  
 See AMM Construction Management Sheet

Rev.	Date	Description
001	12.11.15	Issued for 2D printing
002	12.11.15	Issued for 2D printing
003	12.11.15	Issued for 2D printing
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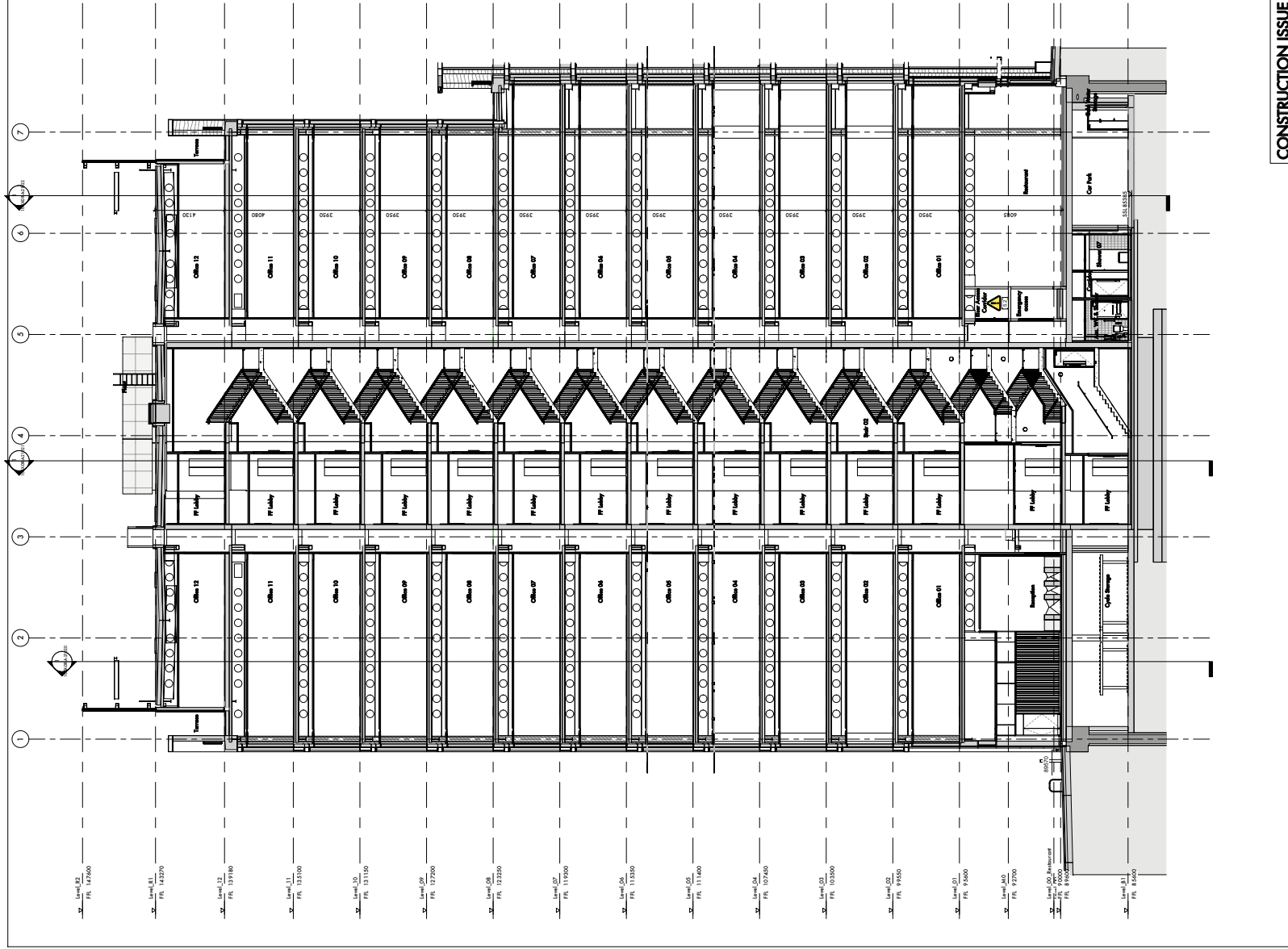
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**GENERAL ARRANGEMENT**  
**FCM/AAH-10-01/09-A-21023**  
 Layout for PLS, 06\_2023  
 SCALE : 1 : 100 (M) 1 : 200 (M)

**Allen and Horton UP**  
 83 Southbank Drive  
 Melbourne VIC 3006  
 Phone : +61 3 9593 1000  
 Email : info@allenandhorton.com.au  
 AHA/08 No. 785.01

**Control of Change and Management Register 2023**  
 Refer to MCM (Construction Management System)

Rev	Issue	Date	Description
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02	Issue for PLS	06/06/2023	Issue for PLS
03	Issue for PLS	06/06/2023	Issue for PLS
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**CONSTRUCTION ISSUE**

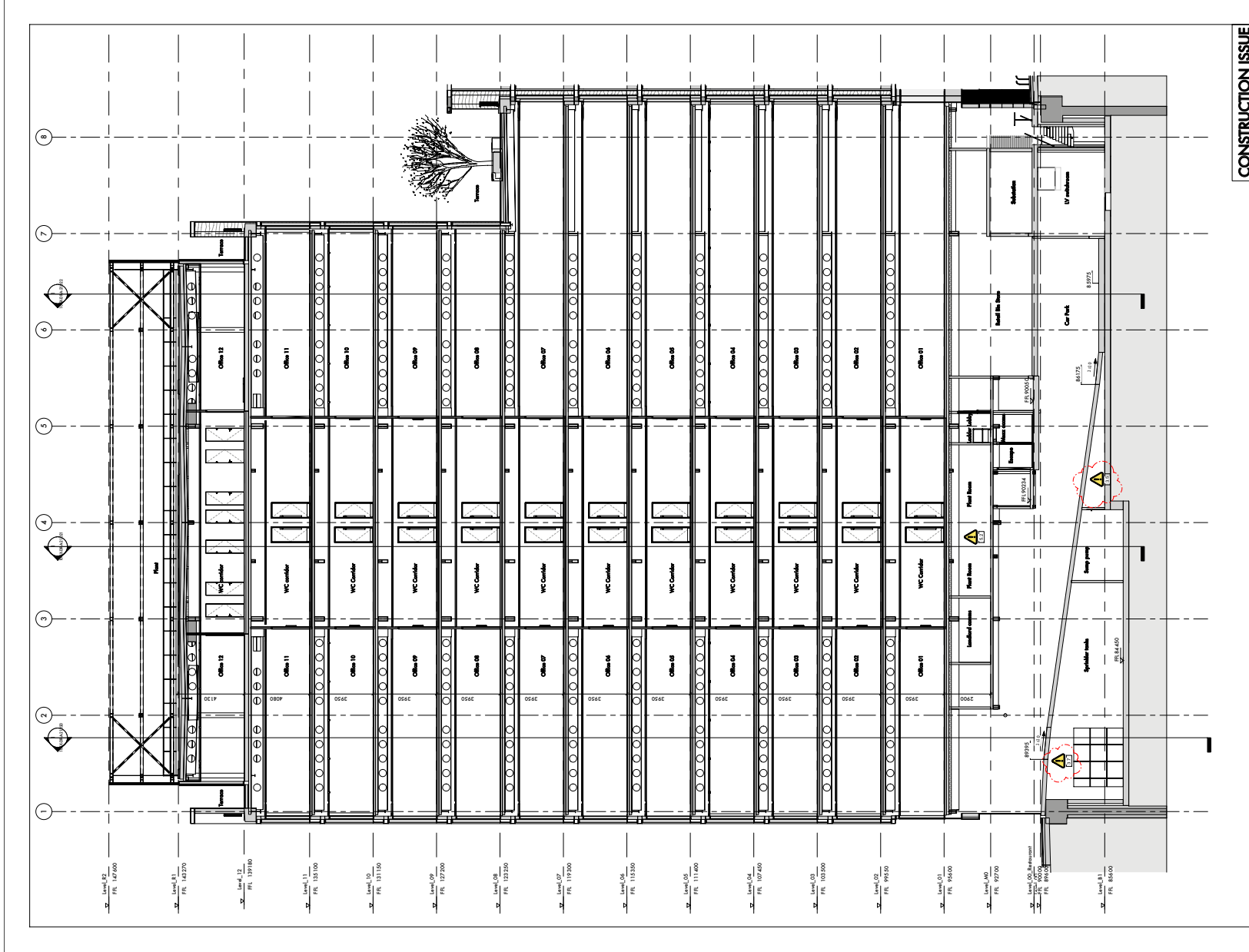
B	Issue
C1	Revised

PROJECT DIPPER, 2 FRANGAE  
 SECTION EE  
 GENERAL ARRANGEMENT  
**FCM/AMM-10-SD/09-A-21024**  
 Layout for FLS, 00\_004  
 SCALE: 1:100 (A1) 1:200 (A3)

**Allen and Horton UK**  
 83 Southbank Street  
 Winchester SO27 2PQ UK  
 Telephone: +44 (0)1962 841111  
 Fax: +44 (0)1962 841112  
 Email: info@allenandhorton.com  
 AAM/09 No: 782.01

Control of Change and Management Information 2015  
 Refer to MCM (Construction Management System)

Rev.	Date	Description
01	12/11/12	Issue for Design Development
02	12/11/12	Issue for Construction
03	12/11/12	Issue for Construction
04	12/11/12	Issue for Construction
05	12/11/12	Issue for Construction
06	12/11/12	Issue for Construction
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49	12/11/12	Issue for Construction
50	12/11/12	Issue for Construction



**CONSTRUCTION ISSUE**

**B**  
 Status  
**C2**  
 Issued

PROJECT DIFER : 2 PRAGAIE  
 SECTION FF  
 GENERAL ARRANGEMENT  
**FCM-AMM-10-04-09-A-21025**  
 Layer no./P.L. 00\_003  
 SCALE 1 : 100 (M) 1 : 200 (A)

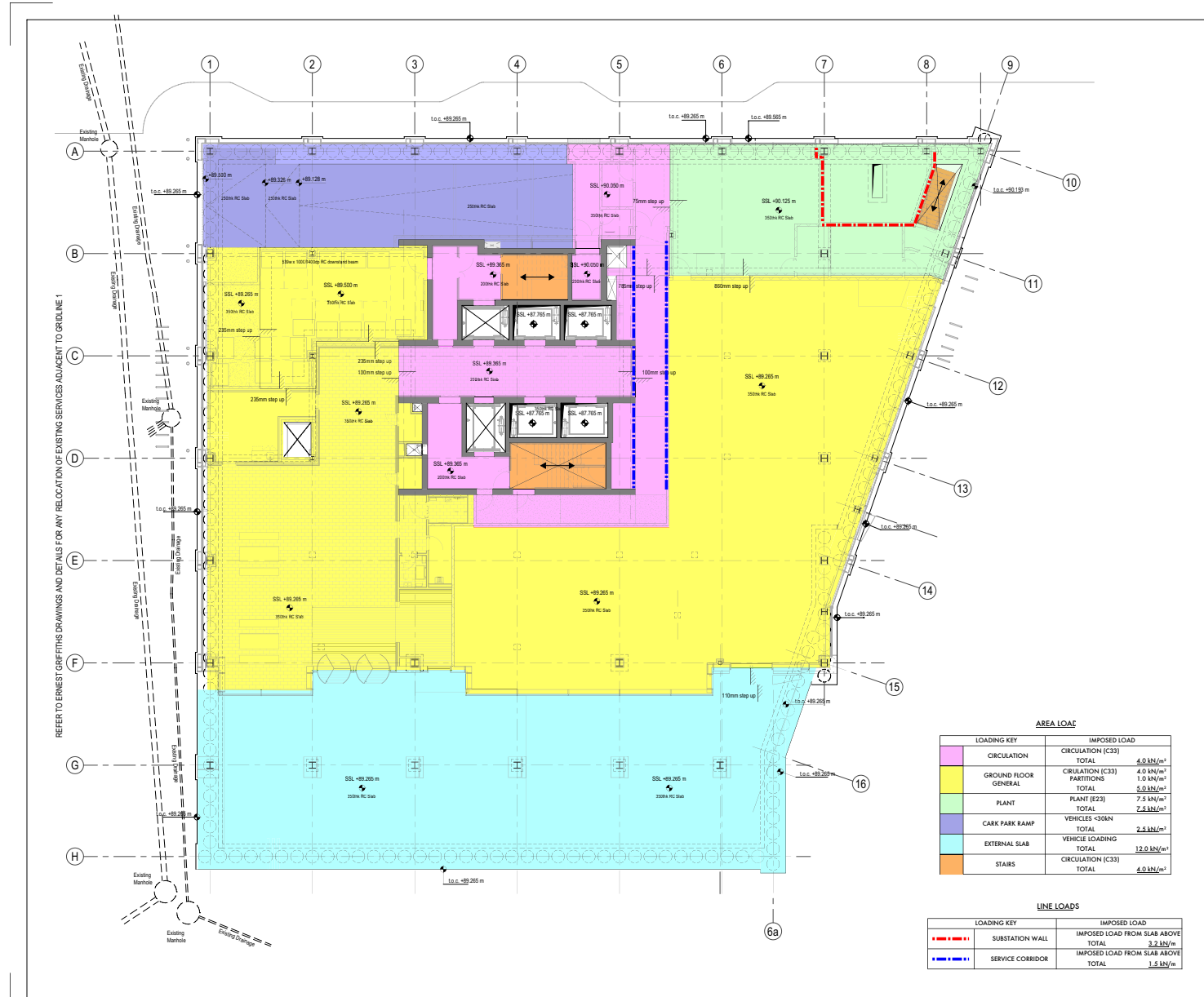
**Allen and Horton UK**  
 83 Southbank Drive  
 Melbourne VIC 3006  
 Phone +61 3 9592 7000  
 Email info@allenandhorton.com  
 AAM JOB No: 785\_01

Construction Change and Management Register 2015  
 Allen & Horton (Australia) Pty Ltd  
 Construction Change and Management Register 2015  
 Allen & Horton (Australia) Pty Ltd  
 Construction Change and Management Register 2015  
 Allen & Horton (Australia) Pty Ltd

Rev	Date	Description
001	12/11/15	Issued for Design Development
002	12/11/15	Issued for Construction
003	12/11/15	Issued for Construction
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099	12/11/15	Issued for Construction
100	12/11/15	Issued for Construction



# STRUCTURAL **DRAWINGS**



AREA LOAD

LOADING KEY	IMPOSED LOAD
CIRCULATION	CIRCULATION (C33)
	TOTAL
GROUND FLOOR GENERAL	CIRCULATION (C33)
	PARTITIONS
PLANT	PLANT (E23)
	TOTAL
CARP PARK RAMP	VEHICLES <30kN
	TOTAL
EXTERNAL SLAB	VEHICLE LOADING
	TOTAL
STAIRS	CIRCULATION (C33)
	TOTAL

LINE LOADS

LOADING KEY	IMPOSED LOAD
SUBSTANTIATION WALL	IMPOSED LOAD FROM SLAB ABOVE
	TOTAL
SERVICE CORRIDOR	IMPOSED LOAD FROM SLAB ABOVE
	TOTAL

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCUL-CUR-C10-W-GR-S-20000.

T01	STAGE 4 - TENDER ISSUE	03.07.20	PM	AED
Rev	Description	Scale	By	Check

SUITABLE FOR TENDER **D2**

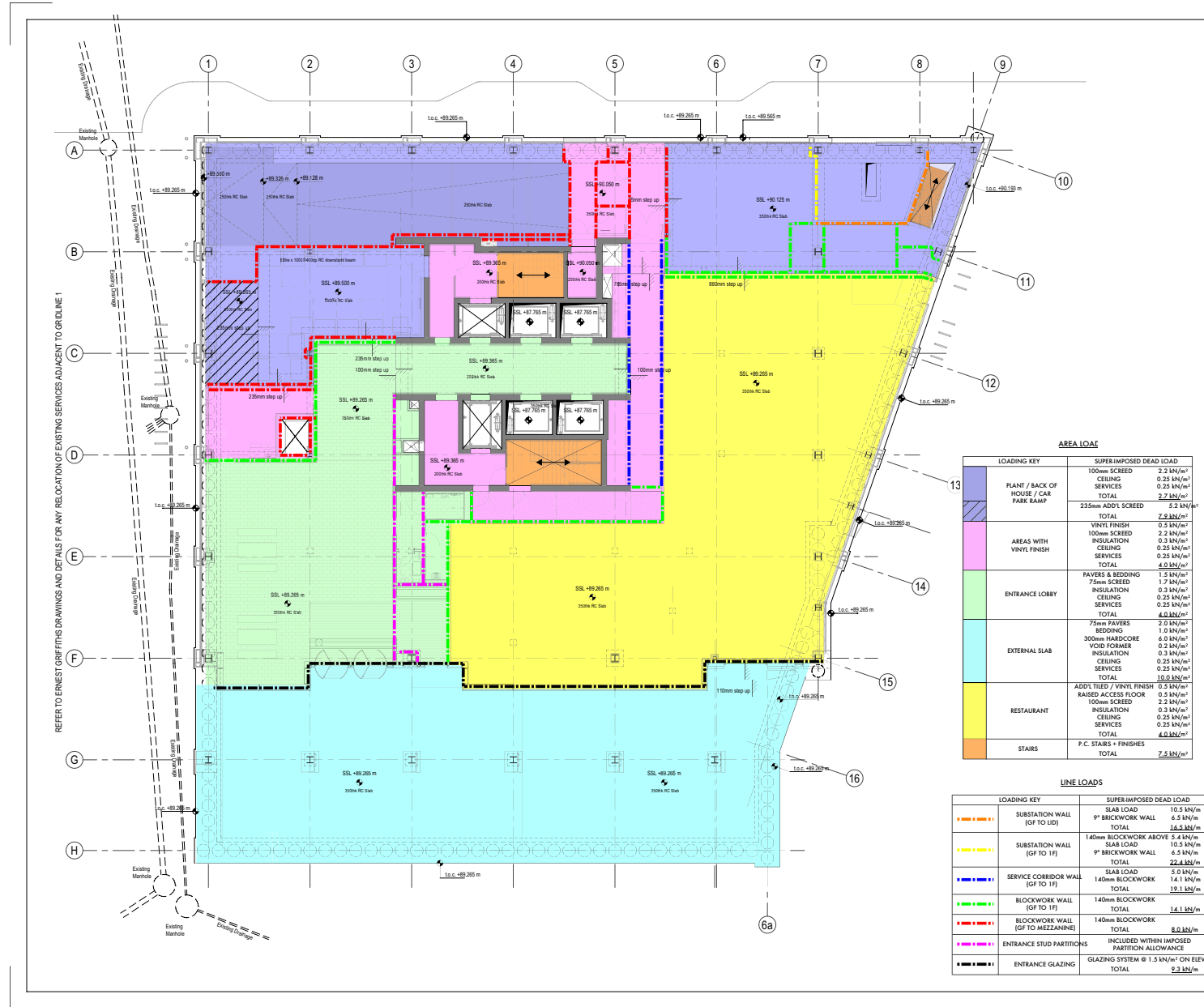
PROJECT DIPPER

Loading Plan Level 00  
Sheet 01 of 02

Project No	073385	Issue	A1	Date	June 2020	Drawn By	PMine	Designed By	AED	Checked By	AED
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Project Code	FCUL-CUR-C10-00-DR-S-30002-T01
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MAN-MAN-300002-DR-02-20/04/20/0001



AREA LOAD

LOADING KEY	SUPERIMPOSED DEAD LOAD	
PLANT / BACK OF HOUSE / CAR PARK RAMP	100mm SCREED	2.2 kN/m <sup>2</sup>
	CEILING SERVICES	0.25 kN/m <sup>2</sup>
	TOTAL	2.45 kN/m <sup>2</sup>
AREAS WITH VINYL FINISH	235mm ADD'L SCREED	5.2 kN/m <sup>2</sup>
	TOTAL	7.2 kN/m <sup>2</sup>
ENTRANCE LOBBY	VINYL FINISH	0.5 kN/m <sup>2</sup>
	100mm SCREED	2.2 kN/m <sup>2</sup>
	INSULATION	0.3 kN/m <sup>2</sup>
	CEILING SERVICES	0.25 kN/m <sup>2</sup>
EXTERNAL SLAB	TOTAL	4.0 kN/m <sup>2</sup>
	PAYERS & BEDDING	1.5 kN/m <sup>2</sup>
	75mm SCREED	1.7 kN/m <sup>2</sup>
	INSULATION	0.3 kN/m <sup>2</sup>
	CEILING SERVICES	0.25 kN/m <sup>2</sup>
RESTAURANT	TOTAL	4.0 kN/m <sup>2</sup>
	75mm PAVERS	2.0 kN/m <sup>2</sup>
	BEDDING	1.0 kN/m <sup>2</sup>
	300mm HARDCORE	6.0 kN/m <sup>2</sup>
	VOID FORMER	0.2 kN/m <sup>2</sup>
STAIRS	INSULATION	0.3 kN/m <sup>2</sup>
	CEILING SERVICES	0.25 kN/m <sup>2</sup>
	TOTAL	10.0 kN/m <sup>2</sup>
	ADD'L TILED VINYL FINISH	0.5 kN/m <sup>2</sup>

LINE LOADS

LOADING KEY	SUPERIMPOSED DEAD LOAD	
SUBSTATION WALL (GF TO LID)	SLAB LOAD	10.5 kN/m
	9" BRICKWORK WALL	6.5 kN/m
SUBSTATION WALL (GF TO 1F)	TOTAL	16.5 kN/m
	140mm BLOCKWORK ABOVE	5.4 kN/m
SERVICE CORRIDOR WALL (GF TO 1F)	SLAB LOAD	10.5 kN/m
	9" BRICKWORK WALL	6.5 kN/m
BLOCKWORK WALL (GF TO MEZZANINE)	TOTAL	22.4 kN/m
	SLAB LOAD	5.0 kN/m
ENTRANCE STUD PARTITIONS	140mm BLOCKWORK	14.1 kN/m
	TOTAL	19.1 kN/m
ENTRANCE GLAZING	140mm BLOCKWORK	14.1 kN/m
	TOTAL	8.0 kN/m
ENTRANCE GLAZING	GLAZING SYSTEM @ 1.5 kN/m <sup>2</sup> ON ELEVATION	9.3 kN/m
	TOTAL	9.3 kN/m

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  4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-C10-W-GR-S-20000.

Y01 STAGE 4 - TENDER ISSUE		03.07.2020	AED
Rev	Description	Scale	By / Check
Market Exchange, 17-19 Whitehall Street, Manchester, M1 5WG 0161 231 2344 manchester@curtins.com www.curtins.com			
2018 Building - Project Permit - Development Information - Construction - Contract - Building - Design 2018 Building - Project Permit - Development Information - Construction - Contract - Building - Design 2018 Building - Project Permit - Development Information - Construction - Contract - Building - Design			
SUITABLE FOR TENDER		D2	
PROJECT DIPPER			
Loading Plan Level 00 Sheet 02 of 02			
Project No	073385	Date	June 2020
Drawn By	PMine	Designed By	AED
Checked By	AED	Category / Number	
FCDL - CUR - C10 - 00 - DR - S - 30003 - T01			







**AREA LOAD**

LOADING KEY	IMPOSED LOAD	SUPER-IMPOSED DEAD LOAD
OFFICE PARTITIONS	OFFICE PARTITIONS	2.5 kN/m <sup>2</sup>
	TOTAL	2.5 kN/m <sup>2</sup>
FILE STORAGE	BCO REQUIREMENTS	7.5 kN/m <sup>2</sup>
	TOTAL	7.5 kN/m <sup>2</sup>
CIRCULATION (FP)	CIRCULATION (C3)	4.0 kN/m <sup>2</sup>
	TOTAL	5.0 kN/m <sup>2</sup>
CIRCULATION (CORE)	CIRCULATION (C3)	4.0 kN/m <sup>2</sup>
	TOTAL	4.0 kN/m <sup>2</sup>
TOILET AREAS	TOILET AREAS (A3)	1.0 kN/m <sup>2</sup>
	TOTAL	2.0 kN/m <sup>2</sup>
STAIRS	CIRCULATION (C3)	4.0 kN/m <sup>2</sup>
	TOTAL	4.0 kN/m <sup>2</sup>
		RAISED ACCESS FLOOR
		CEILING SERVICES
		TILED FINISH
		75mm SCREED
		VOID FORMER
		CEILING SERVICES
		TOTAL
		P.C. STAIRS + FINISHES
		TOTAL

**LINE LOADS**


LOADING KEY	IMPOSED LOAD	SUPER-IMPOSED DEAD LOAD
P.C. CLADDING GENERAL	P.C. CLADDING GENERAL	5.0 kN/m <sup>2</sup> ON ELEVATION
	TOTAL	20.0 kN/m
P.C. CLADDING ENHANCED	P.C. CLADDING ENHANCED	7.5 kN/m <sup>2</sup> ON ELEVATION
	TOTAL	30.0 kN/m
GLAZING	GLAZING	1.5 kN/m <sup>2</sup> ON ELEVATION
	TOTAL	6.0 kN/m

NOTE: PRECAST CLADDING LOAD APPLIED DIRECTLY TO COLUMNS AND DOES NOT LOAD PERIMETER  
SOFT SPOT LINE LOADS APPLIED AT HEADER AND FOOTER OF STAIRCASE, LINE LOADS APPLIED TO DIFFERENT FLOORS

**GENERAL NOTES:**

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4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-C10-W-GR-S-20000.

T01 STAGE 4 - TENDER ISSUE				03.07.2021	PM	AED
Rev	Description	Date	By	Checked		



Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG  
0161 201 2204  
www.curtins.com  
www.curtins.co.uk

Architect: Curtins | Project: Project Dipper | Location: Manchester | Client: [Redacted] | Date: 03.07.2021

**SUITABLE FOR TENDER** D2

PROJECT DIPPER

Loading Plan Level 01

Project No.	Scale	Date	Drawn By	Designed By	Checked By
073385	A1	June 2021	PMine	AED	AED

FCDL - CUR - C10 - 01 - DR - S - 30005 - T01













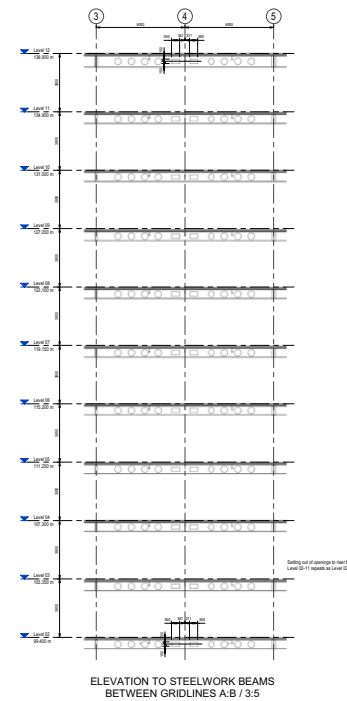
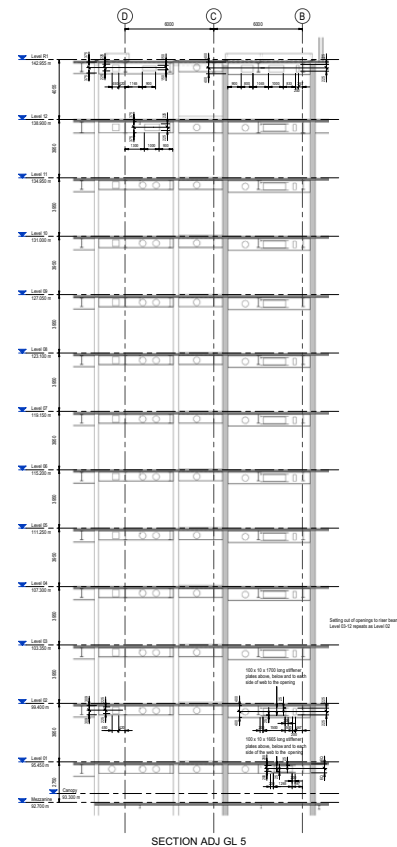
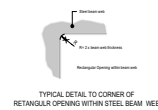
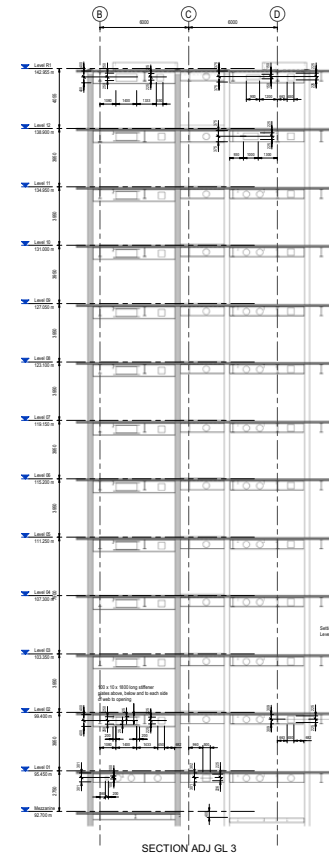




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4. FOR GENERAL NOTES REFER TO DRAWING FCDL-DR-02-DR-0-0000 FOR GENERAL AND REQUIREMENTS TO THIS FCDL-DR-0-0000.

Level 00	Level 01	Level 02	Level 03	Level 04	Level 05	Level 06	Level 07	Level 08	Level 09	Level 10	Level 11	Level 12	Level 13	Level 14
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76200	76300	76400	76500	76600	76700	76800	76900	77000	77100	77200	77300	77400	77500	77600
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88200	88300	88400	88500	88600	88700	88800	88900	89000	89100	89200	89300	89400	89500	89600
89700	89800	89900	90000	90100	90200	90300	90400	90500	90600	90700	90800	90900	91000	91100
91200	91300	91400	91500	91600	91700	91800	91900	92000	92100	92200	92300	92400	92500	92600
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116700	116800	116900												



- GENERAL NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
  2. CHECK LOCAL TIME ZONE, NEW HORIZONS, OVERSEAS AND HOURS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED. REFER TO THE.
  3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-ZZ-DR-0000 FOR GENERAL AND REQUIREMENTS TO SPEC FOR CUR-10-ZZ-DR-0001.

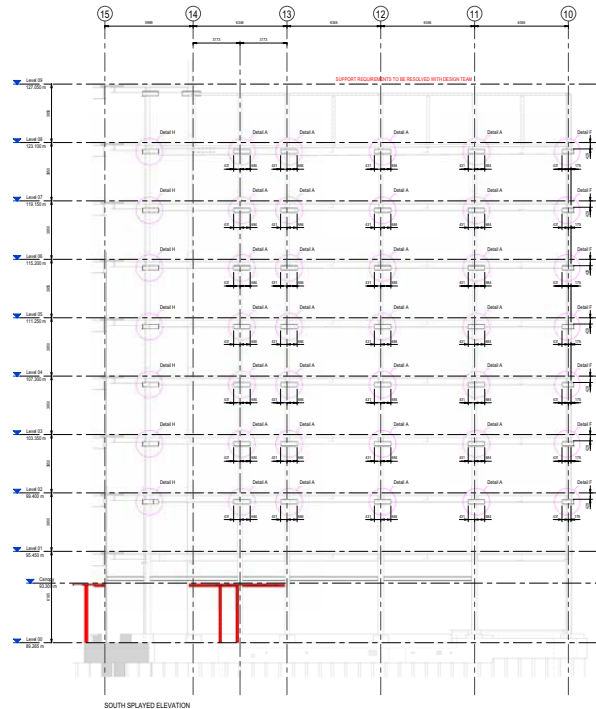
When complete work space preparation is EC Compliant please refer to EC 13.000 support structure.  
For Loading Plan, refer to the current design when to Code 2000 series drawings.  
For Connection Details, refer to Current Connection Formwork drawings.  
For Building Information and existing support conditions refer to Design Note FCDL-CUR-10-ZZ-DR-0010.

NO.	DESCRIPTION	DATE	BY	CHK
001	FINAL CONSTRUCTION DRAWING	21/11/22	JK	JK
002	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
003	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
004	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
005	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
006	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
007	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
008	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
009	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK
010	ISSUED FOR CONSTRUCTION	21/11/22	JK	JK

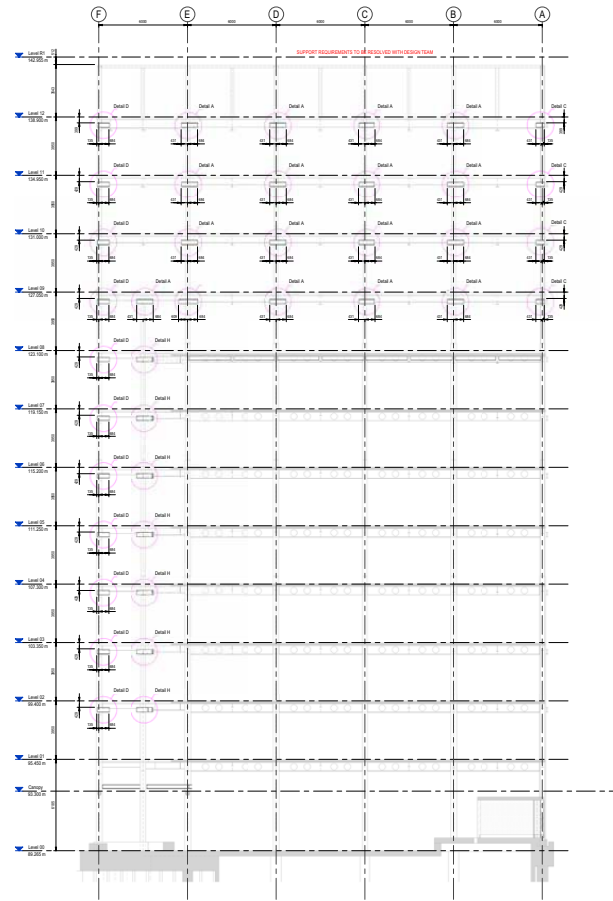


FINAL CONSTRUCTION	
PROJECT DIPPER	
Elevations to Rise and Floor Steelwork	
073385	Rev 200
073385	Rev 200
FCDL-CUR-10-ZZ-DR-S-24022-006	





SOUTH SPAYLED ELEVATION



GENERAL NOTES:

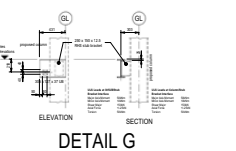
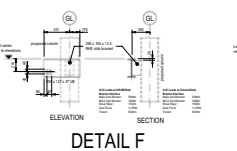
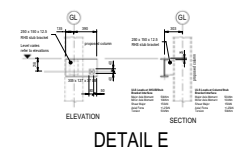
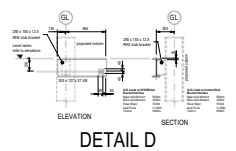
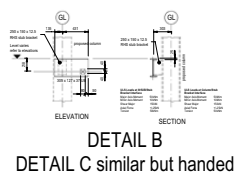
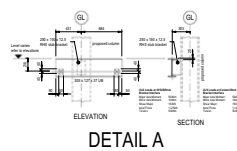
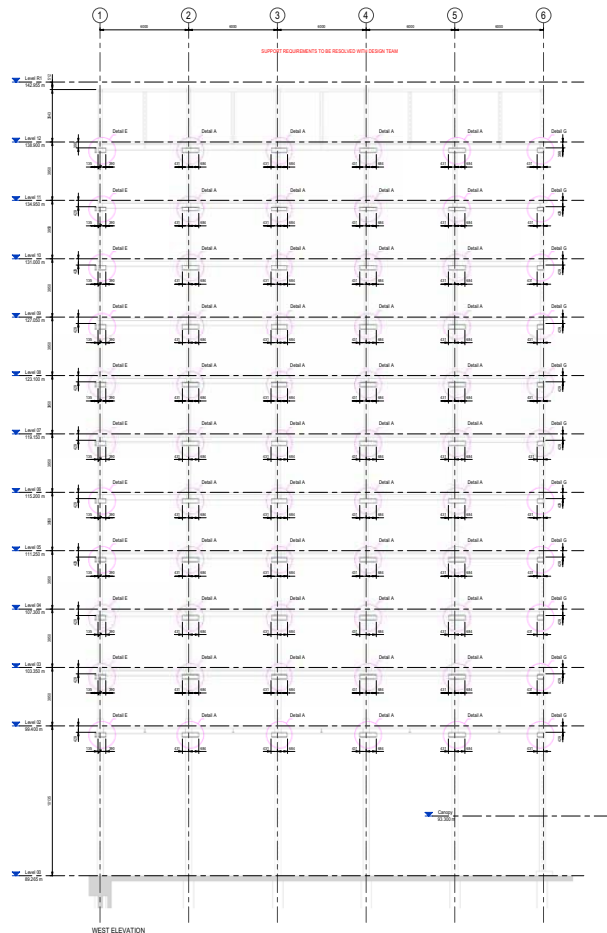
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. CHECK LOCAL BUILDING CODES, NEW REGULATIONS, ORDINANCES AND STANDARDS. DIMENSIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED. VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FOLD CUR-10-ZZ-04-0.0000 FOR GENERAL AND REQUIREMENTS TO SUPPORT CUR-10-ZZ-04-0.0001

001	FINAL CONSTRUCTION DRAWING	01/11/23	01	001
002	CONSTRUCTION PROVISIONS & DIMENSIONAL ARRANGEMENTS	01/11/23	001	002
003	CONSTRUCTION PROVISIONS & DIMENSIONAL ARRANGEMENTS	01/11/23	001	003
004	CONSTRUCTION ARRANGEMENTS	01/11/23	001	004
005				



Head Office: Level 17, 10 Wilton Road, Macquarie, NSW 2109  
 Tel: +61 (0)2 9550 6000  
 Email: info@curtins.com.au  
 www.curtins.com.au

FINAL CONSTRUCTION	
PROJECT DIGGER	
To: Mr	
General Arrangement to Secondary Steelwork to support PCC Facade sheet 2	
073385	Rev 2023
073385	Rev 100
FCDL- CUR- 10- ZZ- DR- S- 24552- 004	



- GENERAL NOTES:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
  2. CHECK LOCAL TIME ZONE, NEW HANOVER TIME ZONE AND THROUGH DIMENSIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED. VERIFIED ON SITE.
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  4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-ZZ-04-S-0000. FOR GENERAL AND REQUIREMENTS REFER TO FCDL-CUR-10-ZZ-04-S-0001.

01	FINAL CONSTRUCTION DRAWING	1/1/20	01
02	CONSTRUCTION MODELS & BIM BRACKET ASSET	21/11/20	02
03	CONSTRUCTION MODEL	21/11/20	03

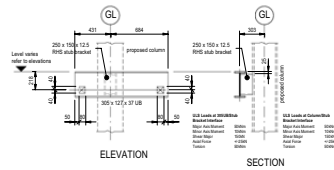


**FINAL CONSTRUCTION**

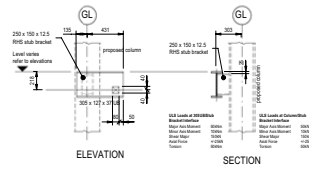
**PROJECT DIPPER**

To the  
General Arrangement to Secondary Steelwork  
to PCC Facade support sheet 3

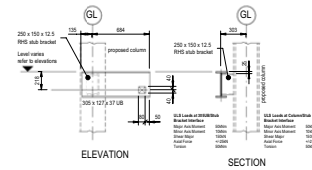
073385	AT	04/2021	01/21	01/21	01/21
FCDL-CUR-10-ZZ-DR-S-24653-030					



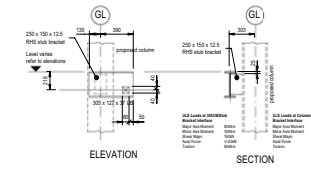
DETAIL A



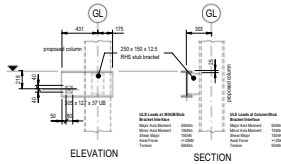
DETAIL B  
DETAIL C similar but handed



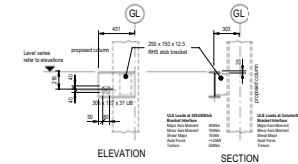
DETAIL D



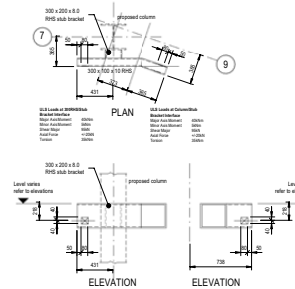
DETAIL E



DETAIL F



DETAIL G



DETAIL H

GENERAL NOTES:

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3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-XX-DR-S-2000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-2010

Level varies refer to elevations

C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C01	CONSTRUCTION ISSUE	16.09.21	PM	NJ
Rev	Description	Drawn	By	Check

**Curtins**  
 Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG  
 0161 275 2244  
 www.curtins.com

STATUS: FINAL CONSTRUCTION

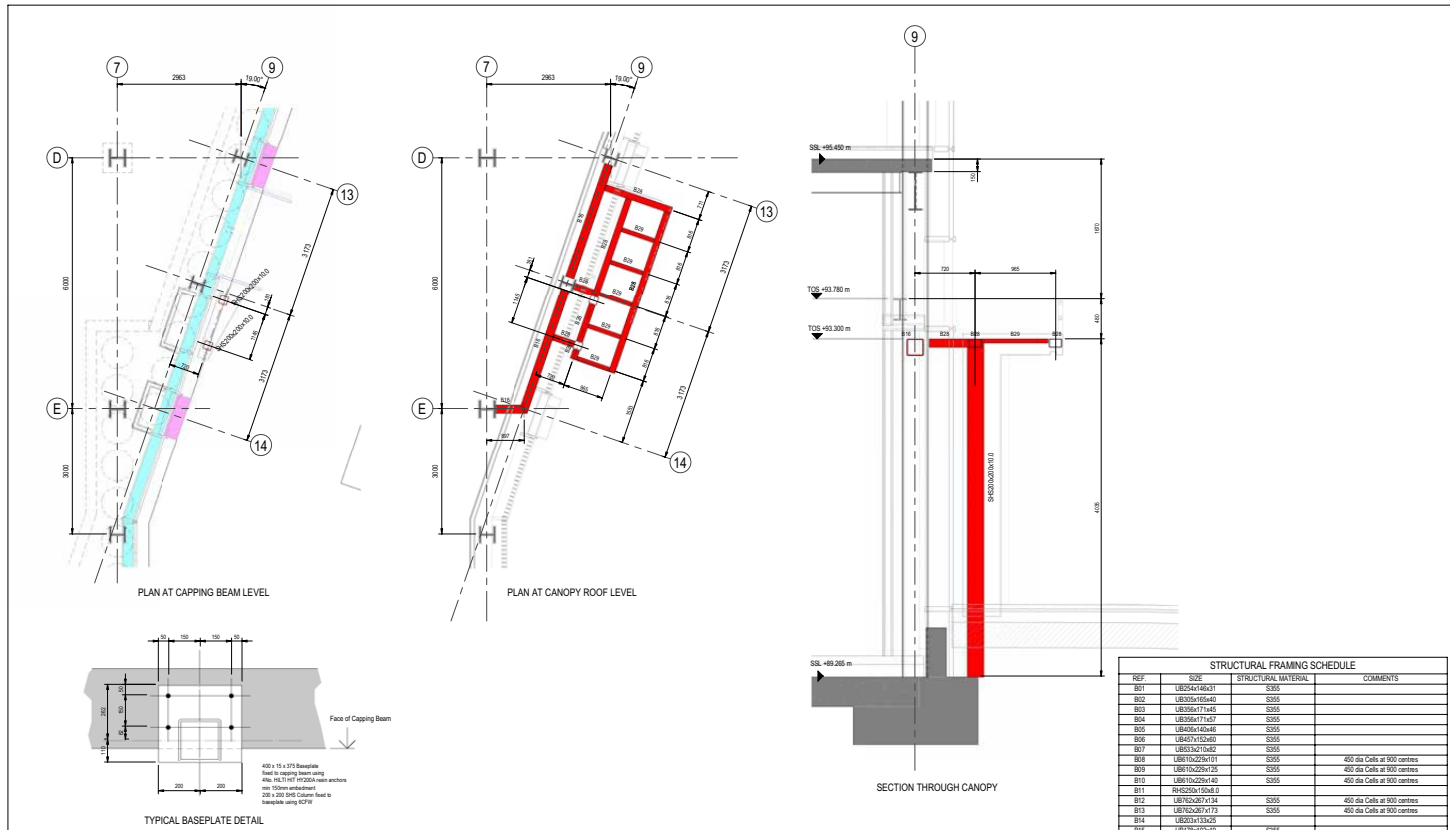
PROJECT: PROJECT DIPPER

Day Title: General Arrangement to Secondary Steelwork to PCC Facade support sheet 4

Project No.	Scale	Date	Drawn By	Designed By	Checked By
073385	A1	Sept 2021	PM/ine	NJ	DS
Revision	1	25			

Project Code	Original	Volume	Level	Type	Risk	Category / Number	Rev
FCDL-CUR-10-ZZ-DR-S-						24054-C02	C02

MAN/19/000002/FCDL-CUR-10-ZZ-DR-S-2001



REF	SIZE	STRUCTURAL MATERIAL	COMMENTS
B01	UB254x146x31	S355	
B02	UB250x146x40	S355	
B03	UB366x171x45	S355	
B04	UB254x146	S355	
B05	UB250x146x40	S355	
B06	UB457x152x40	S355	
B07	UB254x146	S355	
B08	UB170x228x101	S355	450 dia Cells at 900 centres
B09	UB170x228x125	S355	450 dia Cells at 900 centres
B10	UB170x228x148	S355	450 dia Cells at 900 centres
B11	RHS200x150x8.0	S355	
B12	UB170x228x134	S355	450 dia Cells at 900 centres
B13	UB170x228x134	S355	450 dia Cells at 900 centres
B14	UB203x138x25	S355	
B15	UB170x228x134	S355	
B16	RHS200x150x8.0	S355	
B17	UB457x152x40	S355	
B18	UC150x75x6	S355	
B19	UC150x75x6	S355	
B20	SHS180x180x8.0	S355	
B21	UB170x228x101	S355	450 dia Cells at 900 centres
B22	PHC150x60x24	S355	
B23	UC150x75x6	S355	
B24	UC150x75x6	S355	
B25	L150x150x10	S355	Fixed to RC Wall using M12 Rebar Anchors at 4500c max, min 125 embedment
B26	UB254x146x43	S355	
B28	RHS150x100x5	CLR MAT S-Genetic-Clash	
B29	RHS150x100x5	CLR MAT S-Genetic-Clash	

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)"  
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER FCCL-CUR-10-XX-DR-S-0001  
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS."

PROJECT DIPPER - RESIDUAL HAZARD REGISTER			
HAZARD REF.	ITEM FEATURE, ELEMENT OR ACTIVITY	POTENTIAL HAZARD IDENTIFIED	ACTION
<b>12 EXISTING SERVICES &amp; OVERHEAD SERVICES</b>			
3.1	Existing Buried Services	Potential to damage existing services during excavation works.	If possible, existing services to be diverted prior to commencement of ground works. Principle Contractor to manage.
3.2	Existing Substation to be Relocated	Further existing buried services and exposure to live services.	WFO to issue proposal for relocation of substation.
<b>13 EXCAVATIONS AND FOUNDATIONS</b>			
5.1	Contaminated Ground	Risk of contaminated ground	Site investigation to be undertaken to determine if any contaminants are present and advise on any precautionary measures required
5.2	Stability of Made Ground	Made ground present on site which may be weak, loose and susceptible to loss of equilibrium or large movements during excavation	Site investigation to be undertaken to determine the properties of the existing made ground and advise on any precautionary measures required
5.3	Unspaced Overhead (LVO) Threat	LVO's may be present below ground, neighbouring site (Project Heron) was identified as medium risk.	Site specific detailed LVO assessment to be carried out and findings included in Curtins site investigation
5.4	Uplift on piles from groundwater	De-watering may be required during basement construction. Hydraulic uplift forces have been provided based on measured water table of 86.82m (refer to 072885-CLR-03-RP-GSE-001). The minimum dead load at the time of dewatering shall be as dependent on the proposed construction sequence and must be considered as a design case, because it may result in the worst case combination of actions for uplift. Loading conditions must also be considered during demolition sequence and methodology.	Where pile loads have been provided, the minimum dead load is based on the self weight of the completed structure only and the beneficial effect (counteracting uplift) may only be taken if dewatering is undertaken until the above structural frame, slabs and walls are complete. Where this is not the case, temporary conditions to be considered by contractor. Curtins may provide revised minimum dead loads based on the contractor's proposed sequence.
5.5	Temporary propping of piled wall	Instability of piled wall during construction	Piling contractor to advise on propping requirements during temporary condition. Currently assumed propping is required at ground floor level until basement slab has been cast and cured to area of base level basement slab (refer to FCCL-CUR-10-PN-DR-S-19001)
5.6	Permanent propping of piled wall	Instability of piled wall during permanent condition	If permanent condition piled wall propped at both basement level and ground floor level. Where ramp present the level of the ground floor prop varies (refer to FCCL-CUR-10-PN-DR-S-19001). Permanent propping to be provided prior to application of frame loads to piled wall.
<b>73 ERECTING STRUCTURES AND PLACING COMPONENTS</b>			
7.1	Stability of Core during Construction	Instability of core during construction	If core is to be slotted, check on temporary condition of core required to determine propping requirements
7.2	Stability of core due to tower crane loading in temporary condition	Local buckling of core walls	Propps required to core prior to erection of T2 and must remain in place until core slabs and floor slates are in position, refer to design note FCCL-CUR-10-ZZ-RP-S-0001
7.3	Adequate tying of core during construction	Inadequate tying capacity of precast landings and connections into core	Precast landings and connections into core to be designed for required tension and compression force in temporary condition in addition to gravity loads, refer to design note FCCL-CUR-10-ZZ-RP-S-0001

- GENERAL NOTES:**
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  - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  - FOR GENERAL NOTES REFER TO DRAWING FCCL-CUR-10-XX-DR-S-2000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCCL-CUR-10-ZZ-DR-S-0001

C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C03	CONSTRUCTION ISSUE	31.01.22	PM	BA
Rev	Description	Issue	By	Check

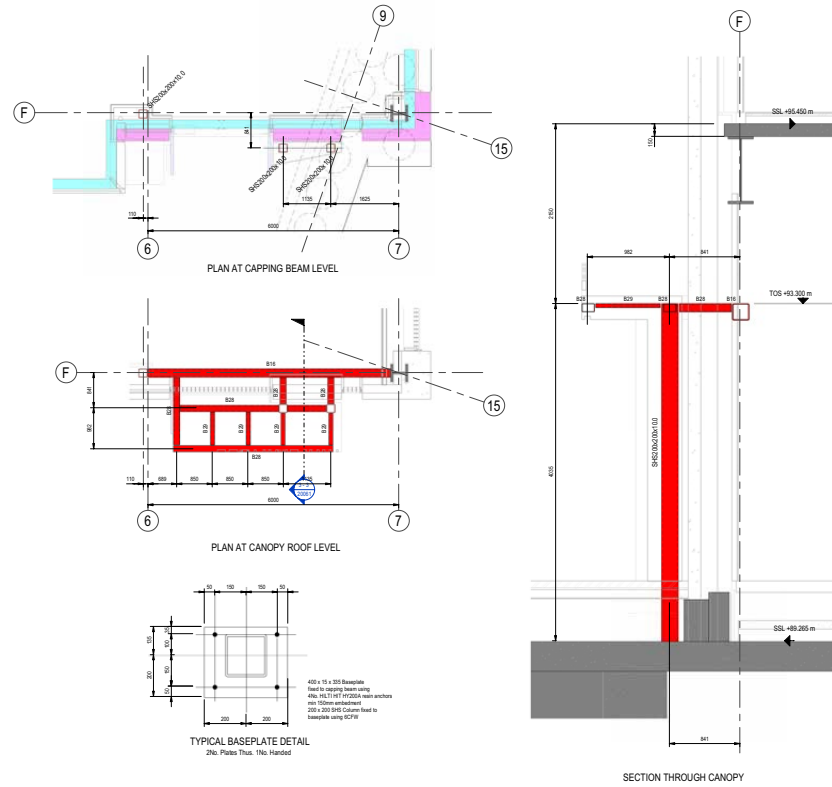
Project: **FINAL CONSTRUCTION**

Project: **PROJECT DIPPER**

Canopy Structure to Gridline 9

Project No.	Issue	Date	Drawn by	Designed by	Checked by
073385	A1	Jan 2022	PM/ine	BA	DS
Project Code	Organization	Volume	Level	Type	Rev.
FCCL - CUR - 10 - ZZ - DR - S - 20060 - C02					





REF.	SIZE	STRUCTURAL MATERIAL	COMMENTS
B01	UB254x146x21	S355	
B02	UB306x166x42	S355	
B03	UB306x177x45	S355	
B04	UB306x177x47	S355	
B05	UB306x166x48	S355	
B06	UB471x152x65	S355	
B07	UB332x136x52	S355	
B08	UB176x229x171	S355	400 dia Cais at 900 centres
B09	UB176x229x172	S355	400 dia Cais at 900 centres
B10	UB176x229x140	S355	400 dia Cais at 900 centres
B11	RHS100x100x6.0	S355	
B12	UB176x229x171	S355	400 dia Cais at 900 centres
B13	UB176x229x172	S355	400 dia Cais at 900 centres
B14	UB306x177x45	S355	
B15	UB176x229x171	S355	
B16	SHS100x100x6.0	S355	
B17	UB471x152x65	S355	
B18	UC254x248x68	S355	
B19	UC152x152x52	S355	
B20	SHS100x100x6.0	S355	
B22	UB176x229x171	S355	400 dia Cais at 900 centres
B23	PPC100x100x6.0	S355	
B24	UC152x152x52	S355	
B25	L100x100x10	S355	Fixed to MC Wall using M17 Rebar Anchors at 4500c max. min. 152 embedment
B26	UB306x177x47	S355	
B27	UB306x177x45	S355	
B28	RHS100x100x6.0	CUR MAT S-Genetic (Steel)	
B29	RHS100x100x6.0	CUR MAT S-Genetic (Steel)	

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  4. FOR GENERAL NOTES REFER TO DRAWING FCCL-CUR-10-ZZ-DR-S-2006. FOR RESIDUAL RISK REGISTER REFER TO DRG FCCL-CUR-10-ZZ-DR-S-2010.

\*RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)  
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER FCCL-CUR-10-NA-S-0001  
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS.\*

PROJECT DIPPER - RESIDUAL HAZARD REGISTER		
HAZARD REF. #	ITEM FEATURE, ELEMENT OR ACTIVITY	POTENTIAL HAZARD IDENTIFIED
<b>EXISTING SERVICES &amp; OVERHEAD SERVICES</b>		
5.1	Existing Buried Services	Potential to damage existing services during excavation works.
5.2	Existing Unplanned Services	Further existing buried services and exposure to live services.
<b>EXCAVATIONS AND FOUNDATIONS</b>		
5.1	Contaminated Ground	Risk of contaminated ground. Site investigation to be undertaken to determine if any contaminants are present and advise on any remediation measures required.
5.2	Stability of Made Ground	Made ground present on site which may be weak / loose and susceptible to loss of equilibrium or large movements during excavation. Site investigation to be undertaken to determine the properties of the existing made ground and advise on any precautionary measures required.
5.3	Unexploded Ordnance (UXO) Threat	UXO's may be present below ground, neighbouring site (Project Heron) was identified as a UXO site. Site-specific detailed UXO assessment to be carried out and findings included in Curtins site investigation.
5.4	Uplift on piles from groundwater	De-watering may be required during basement construction. Hydraulic uplift forces have been provided based on required water table of 85.82m (refer to SP3885-CUR-20-XX-RP-GE-001). The minimum dead load at the time of de-watering shall be dependent on the proposed construction sequence and must be considered as a design case because it may result in the worst case combination of actions for uplift. Loading conditions must also be considered during demolition sequence and methodology.
5.5	Temporary propping of piled wall	Instability of piled wall during construction. Piling contractor to advise on propping requirements during temporary condition. Currently assumed propping is required at ground floor level until basement slab has been cast and cured to area of lower level basement slab (refer to FCCL-CUR-C10-FN-DR-S-16001).
5.6	Permanent propping of piled wall	Instability of piled wall during permanent condition. Permanent propping to be provided prior to application of frame loads to piled wall.
<b>ERECTING STRUCTURES AND PLACING COMPONENTS</b>		
7.1	Stability of Core During Construction	Instability of core during construction. If core is to be advanced, check on temporary condition of core required to determine propping requirements.
7.2	Stability of core due to lower crane loading in temporary condition	Local buckling of core walls. Propping required to core prior to erection of TCR and must remain in place until core slabs and floor plates are in position, refer to design note FCCL-CUR-10-ZZ-RP-S-00011.
7.3	Adequate tying of core during construction	Inadequate tying capacity of precast landings and connections into core. Precast landings and connections into core to be designed for gravity tension and compression force in temporary condition in addition to gravity loads, refer to design note FCCL-CUR-10-ZZ-RP-S-00011.

**WORK IN PROGRESS (COSTING)**  
THE INFORMATION ON THIS DRAWING IS AN OPTIMISED COST SOLUTION BASED UPON EXTERNAL INFORMATION AS OF THE 31.01.22. IT MAY BE SUBJECT TO CHANGE BASED UPON EXTERNAL INFLUENCES THROUGH DESIGN DEVELOPMENT, SUCH AS CLIENT BRIEF & SCOPE CHANGES, SERVICES, B.M.V.C. SUB-CONTRACTOR REQUIREMENTS ETC. THE INFORMATION MUST THEREFORE BE USED WITH A SUITABLE CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING, COST MANAGEMENT, IN A MEASUREMENT ETC.

CO1	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
PO1	PRELIMINARY ISSUE	31.01.22	PA	BA

Revised: \_\_\_\_\_ Description: \_\_\_\_\_ Date: \_\_\_\_\_ By: \_\_\_\_\_

Market Exchange, 17-19 Winthrop Street, Manchester, M1 5WG  
0161 275 2244  
www.curtins.com

FINAL CONSTRUCTION

PROJECT: PROJECT DIPPER

Canopy Structure to Gridline F

Project No.	Issue	Date	Drawn By	Designed By	Checked By
073385	A1				

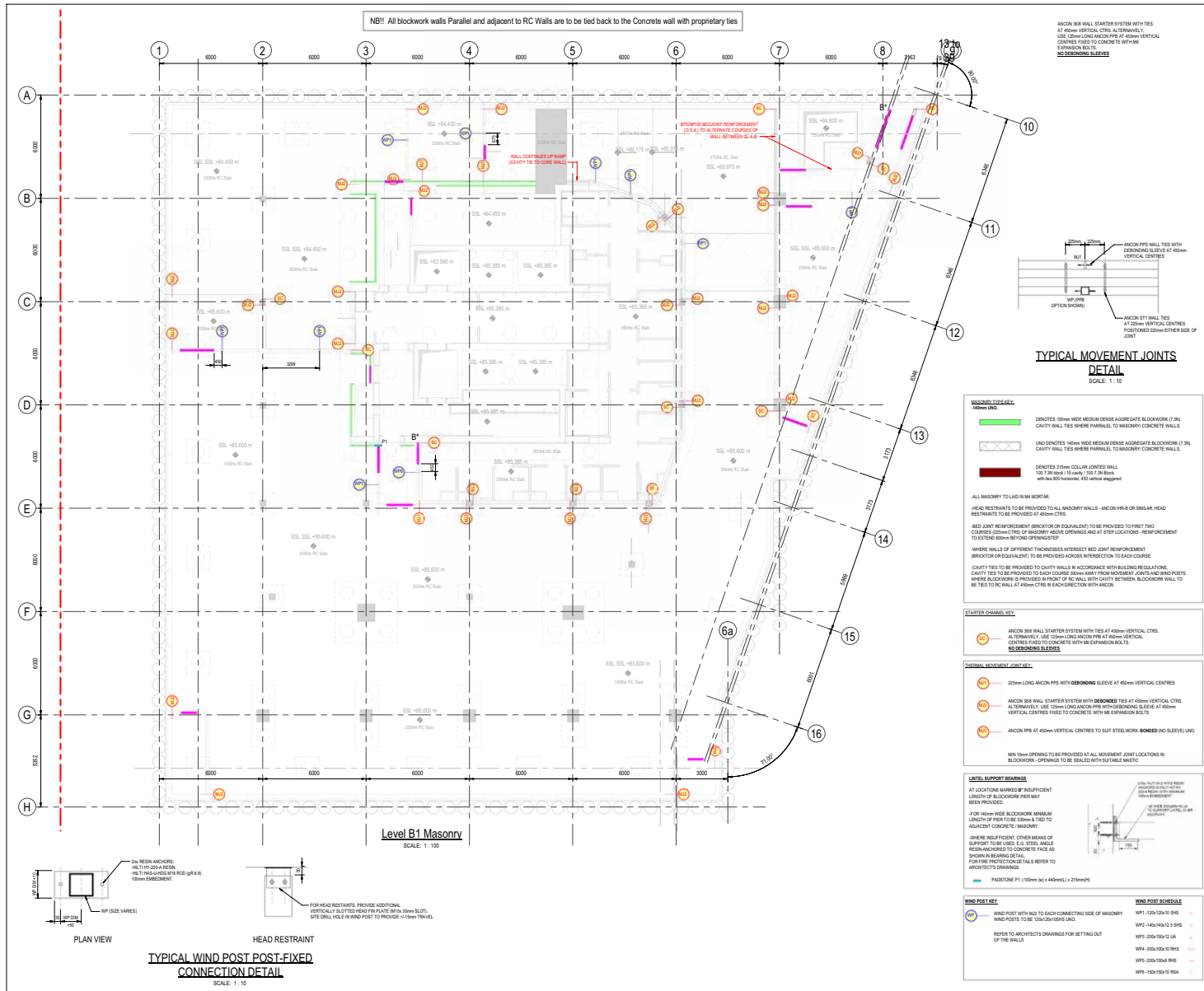
Project Code: \_\_\_\_\_ Volume: \_\_\_\_\_ Level: \_\_\_\_\_ Title: \_\_\_\_\_ Risk: \_\_\_\_\_ Category/Number: \_\_\_\_\_ Rev: \_\_\_\_\_

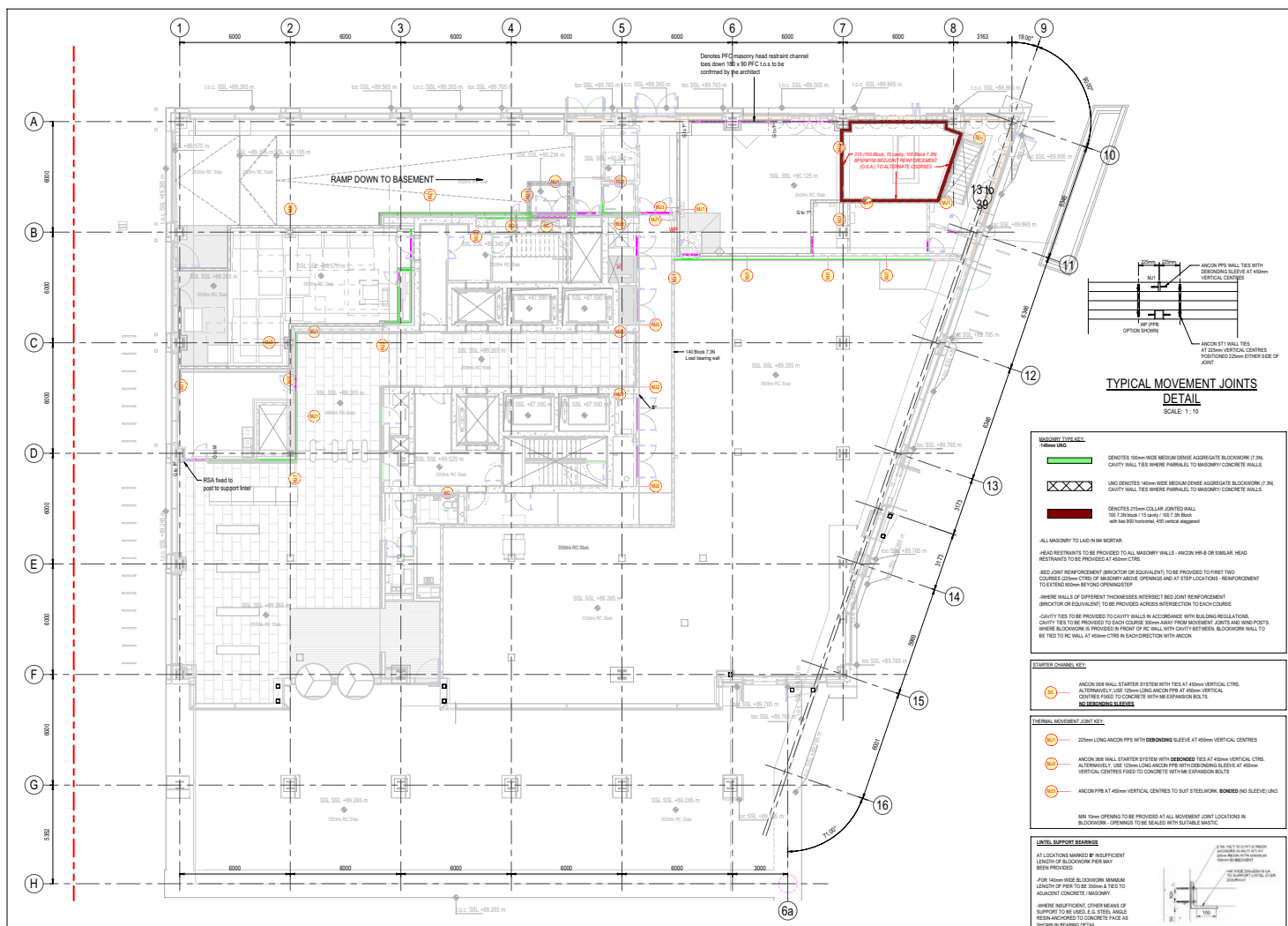
FCCL - CUR - 10 - ZZ - DR - S - 20061 - 001











FOR WINDPOST SETTING OUT AND DETAILS LEVEL 00 REFER TO DRAWING FCDL-HEX-10-00-DR-Y-2150

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-KXDR-S-2000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-1022-DR-0-2010

- WARNING NOTES:**
1. THIS DRAWING IS FOR INFORMATION ONLY AND NOT TO BE USED FOR CONSTRUCTION. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS INFORMATION.
  2. IN ADDITION TO SETTING OUT OR SPECIFICATION OF MASONRY WALLS MAY REQUIRE NUMBER OF MOVEMENT JOINTS AND/OR WIND POSTS OR USE AN ADDRESS AFFECT ON THE GROUND FLOOR SLAB ADDITIONAL STEPS IN FOUNDATION FLOOR SLAB MAY ALSO REQUIRE MOVEMENT JOINTS AT STEP LOCATIONS.
  3. MASONRY WALLS ARE DESIGNED FOR INTERNAL PRESSURE AND REARWARD LOADING ONLY. TEMPORARY WORKS MAY BE REQUIRED TO PROGRESS THROUGH MASONRY UNIT.
  4. IN GENERAL MASONRY WALLS ARE ONE FULL UNIT 'TOP' OF WALL HAS BEEN RESTRAINED WITH SUITABLE HEAD RESTRAINT DETAIL.
  5. IN CAVITY WALL LOCATIONS & PARALLEL CONCRETE WALLS CAVITY WALL TIES ARE TO BE PROVIDED IN ACCORDANCE WITH BUILDING REGULATIONS (APPROVED DOCUMENT A).
  6. ALL LOCATIONS OF WINDPOSTS AND MOVEMENT JOINTS TO BE AGREED WITH ARCHITECT.

**DENOTES LINTEL IN MASONRY WALL**

- FIRE RATING OF BLOCKWORK WALLS SHOULD BE SPECIFIED WHEN ORDERING FIRE LINTELS (SEE DR 1003).

- LINTELS TO BE NOTED TO ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- LINTELS ARE TO BE EXPRESSED IN SITUATIONS. PAIR FACED FIRE LINTELS SHOULD BE USED.

WALL CONSTRUCTION	MAX. CLEAR SPAN (mm)	LINTEL	MIN. END BEARING
Single Leaf 750-2700 100mm Blockwork	ER-7	ER-7	150mm
Single Leaf 750-3200 140mm Blockwork	FIRE RB	FIRE RB	150mm

When preparation 'Through' details are to be obtained these are to be designed and detailed by specialist Refer to architect drawings and details for locations

Rev	Description	Issue	By	Check
004	FINAL CONSTRUCTION ISSUE	22.11.22	PT	DS
003	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
002	STEELWORK ADDED TO SUIT LATEST DETAILS	19.11.21	PM	NJ
001	CONSTRUCTION ISSUE	28.10.21	PM	NJ

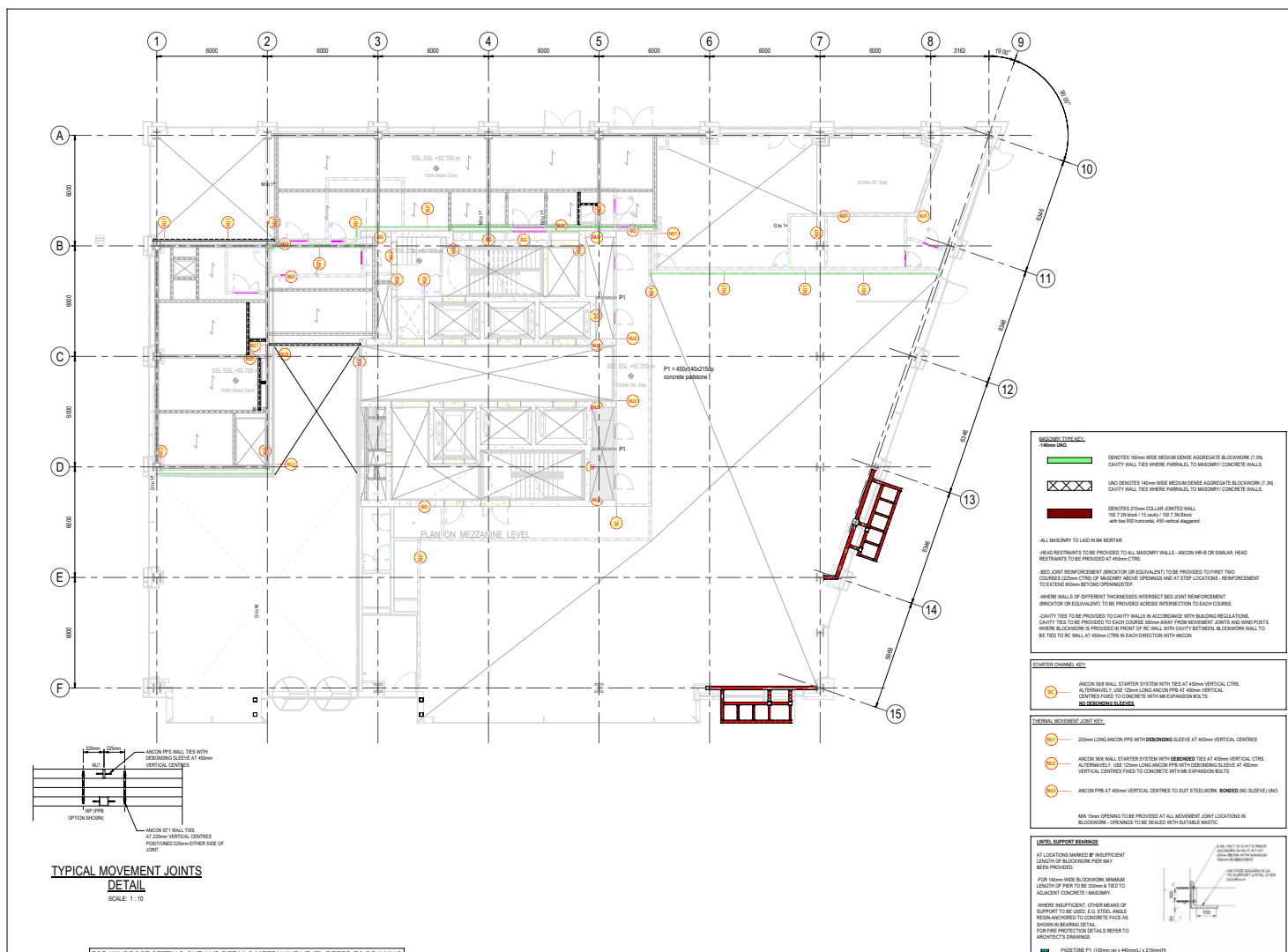
DATE: 22.11.22  
 DRAWN BY: PT  
 CHECKED BY: DS  
 PROJECT: PROJECT DIPPER

Project: PROJECT DIPPER

Level 00  
 Masonry Restraint Details

Project No.	Site	Date	Drawn By	Designed By	Checked By
073385	AT	April 2021	RL	AED	KG

FCDL - CUR - 10 - 00 - DR - S - 20052 - 004



GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-KXDR-S-2000. FOR RESidual RISK REGISTER REFER TO DRG FCDL-CUR-1022-DR-S-2000.

- WARNING NOTES:**
1. THIS DRAWING IS FOR INFORMATION ONLY AND NOT TO BE USED FOR CONSTRUCTION. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS INFORMATION.
  2. IN ATTEMPTS TO SETTING OUT OR SPECIFICATION OF MASONRY WALLS MAY INCREASE NUMBER OF MOVEMENT JOINTS AND/OR WIND POSTS OR USE AN ADDRESS AFFECT ON THE GROUND FLOOR SLAB ADDITIONAL STOPS IN GROUND FLOOR SLAB MAY ALSO REQUIRE MOVEMENT JOINTS AT STOP LOCATIONS.
  3. MASONRY WALLS ARE DESIGNED FOR INTERNAL PRESSURE AND INWARD LOADING ONLY. TEMPORARY WORKS MAY BE REQUIRED TO PROGRESS FROM MASONRY UNIT.
  4. IN GENERAL MASONRY WALLS ARE ONE HALF UNIT (1/2") OF WALL HAS BEEN RESTRAINED WITH SUITABLE HEAD RESTRAINT DETAIL.
  5. IN CAVITY WALL LOCATIONS & PARALLEL CONCRETE WALLS CAVITY WALL TIES ARE TO BE PROVIDED IN ACCORDANCE WITH LR BUILDING REGULATIONS (APPROVED DOCUMENT A).
  6. ALL LOCATIONS OF WINDPOSTS AND MOVEMENT JOINTS TO BE AGREED WITH ARCHITECT.

**DEFINETS LINTEL IN MASONRY WALL**

- FIRE RATING OF BLOCKWORK WALLS SHOULD BE SPECIFIED WHEN ORDERING FIRE LINTELS (SEE 03 DIMS).

- LINTELS TO BE NOTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

- LINTELS ARE TO BE EXPRESSED IN SITUATIONS. PAIR FACED FIRE LINTELS SHOULD BE USED.

WALL CONSTRUCTION	MAX CLEAR SPAN (mm)	LINTEL	MIN END BEARING
Single Leaf 100mm Blockwork	2700 - 2700	EB-2	150mm
Single Leaf 400mm Blockwork	2700 - 2000	FIRE RES	150mm

Where proprietary 'Tough' Lintels are to be used these are to be arranged as detailed in the manufacturer's technical manual. Refer to architect drawings and details for locations.

**MASONRY TYPE KEY:**

- 140mm WNG: DENOTES 140mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.5% CAVITY WALL TIES WHERE PARALLEL TO MASONRY CONCRETE WALLS)
- 190 DENOTES 190mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.5% CAVITY WALL TIES WHERE PARALLEL TO MASONRY CONCRETE WALLS)
- 215mm COLLAR JOINTED WALL: DENOTES 215mm COLLAR JOINTED WALL 100 x 200mm x 175 cavity / 100 x 200 Block with 100 horizontal, 400 vertical alignment

ALL MASONRY TO LAE IN M NOTION.

HEAD RESTRAINTS TO BE PROVIDED TO ALL MASONRY WALLS - ANCON PPM OR SIMILAR HEAD RESTRAINTS TO BE PROVIDED AT 400mm CRTS

SEJO JOINT REINFORCEMENT (BRICKOR OR EQUIVALENT) TO BE PROVIDED TO FIRST TWO COURSES (200mm CRTS) OF MASONRY ABOVE OPENING AND AT STOP LOCATIONS. REINFORCEMENT TO EXTEND 600mm BEYOND OPENING/STEP.

WHERE WALLS OF DIFFERENT THICKNESSES INTERSECT SEJO JOINT REINFORCEMENT (BRICKOR OR EQUIVALENT) TO BE PROVIDED ACROSS INTERSECTION TO EACH COURSE.

CAVITY TIES TO BE PROVIDED TO CAVITY WALLS IN ACCORDANCE WITH BUILDING REGULATIONS. CAVITY TIES TO BE PROVIDED TO EACH COURSE 200mm AWAY FROM MOVEMENT JOINTS AND WINDPOSTS WHERE BLOCKWORK IS PROVIDED IN FRONT OF RC WALL WITH CAVITY BETWEEN. BLOCKWORK WALLS TO BE TIED TO RC WALL AT 400mm CRTS IN EACH DIRECTION WITH ANCON.

**STARTER CHANNEL KEY:**

- ANCON 300 WALL STARTER SYSTEM WITH TIES AT 400mm VERTICAL CRTS. ALTERNATIVELY USE 120mm LONG ANCON PPM AT 400mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS.

**THERMAL MOVEMENT JOINT KEY:**

- 225mm LONG ANCON PPM WITH DEBONDING SLEEVE AT 400mm VERTICAL CENTRES
- ANCON 300 WALL STARTER SYSTEM WITH DEBONDED TIES AT 400mm VERTICAL CRTS. ALTERNATIVELY USE 120mm LONG ANCON PPM WITH DEBONDING SLEEVE AT 400mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS.
- ANCON PPM AT 400mm VERTICAL CENTRES TO SUIT STEELWORK BONDED (NO SLEEVE) WNG

MIN 10mm OPENING TO BE PROVIDED AT ALL MOVEMENT JOINT LOCATIONS IN BLOCKWORK - OPENINGS TO BE SEALED WITH SUITABLE MASTIC

**LINTEL SUPPORT BEARINGS**

AT LOCATIONS MARKED BY INSUFFICIENT LENGTH OF BLOCKWORK PER MAY BE PROVIDED.

FOR 140mm WIDE BLOCKWORK MINIMUM LENGTH OF PEE TO BE 200mm & TIES TO ADJACENT CONCRETE / MASONRY.

WHERE REINFORCEMENT OTHER THAN HEAD OF SUPPORT TO BE USED, E.G. STEEL ANGLE HELD IN CONTACT TO CONCRETE FACE AS SHOWN IN BEARING DETAIL. FOR FIRE PROTECTION DETAILS REFER TO ARCHITECT'S DRAWINGS.

PA63 STONE P1: (100mm (w) x 440mm (L) x 250mm (H))

TYPICAL MOVEMENT JOINTS DETAIL  
SCALE: 1:10

FOR WINDPOST SETTING OUT AND DETAILS MEZZANINE LEVEL REFER TO DRAWING FCDL-HEX-10-00-DR-Y-2151

C04	FINAL CONSTRUCTION ISSUE	22.11.22	PT	DS
C03	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C02	WIND POST ADDED	11.11.21	PM	NJ
C01	CONSTRUCTION ISSUE	28.10.21	PM	NJ

**Curtins**

Merchant Exchange, 17-19 Warwick Street, Manchester, M1 5WG  
0161 236 2244  
www.curtins.com

DATE: 22.11.22  
PROJECT: PROJECT DIPPER  
MEZZANINE LEVEL  
MASONRY RESTRAINT DETAILS

Project No:	073385	Site:	AT	Date:	April 2021	Drawn By:	RL	Designed By:	AED	Checked By:	KG
Project Code:	Change:	Volume:	Level:	Type:	Rev:	Category:	Number:	Rev:			
FCDL- CUR - 10 - M0 - DR - S - 20053 - C04											

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